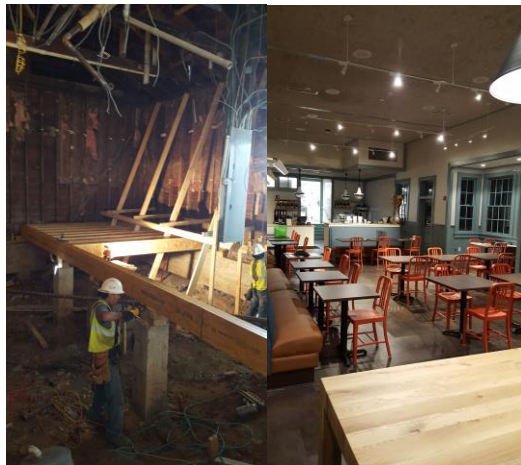




# The Depot at Emory University



**Project Address:**

**One Eagle Row**

**Atlanta, GA 30322**



# **The Depot at Emory University Project Team**



## The Depot at Emory University Project Team

Company	Contact	Company Phone	Mobile Phone	Email Address	Title	Representative
<b>Owner, Contractor &amp; Consultants</b>						
Emory University	Wayne Angel	404-712-8811	770-335-3141	<a href="mailto:wangel@emory.edu">wangel@emory.edu</a>	Emory Project Manager	Owner
Emory University	Corey Long	404-727-7783	404-550-7003	<a href="mailto:clong@emory.edu">clong@emory.edu</a>	Emory Planning, Design & Construction	Owner
Macallan Construction	Stewart Evans	404-603-8833x115	678-794-6292	<a href="mailto:s.evans@macallanconstruction.com">s.evans@macallanconstruction.com</a>	VP of Construction	General Contractor
Macallan Construction	Brian Bozarth	404-603-8833x132	404-680-4370	<a href="mailto:b.bozarth@macallanconstruction.com">b.bozarth@macallanconstruction.com</a>	Supt	General Contractor
Macallan Construction	Kerri Linscott	404-603-8833x117	404-667-8061	<a href="mailto:k.linscott@macallanconstruction.com">k.linscott@macallanconstruction.com</a>	Project Manager	General Contractor
square feet studio	Blake Burton	404-688-4990x25		<a href="mailto:blake@squarefootstudio.com">blake@squarefootstudio.com</a>	Architect	Architect



# **Certificate of Occupancy**



DeKalb County  
Department of Planning & Sustainability

**Non-Residential Certificate of Occupancy**

Installation or modification to signs at this location requires a separate Sign permit.

**Project**

Type: Non-Residential Permit Number: I043910599 Project: EMORY DEPOT  
Work Type: ALTERATIONS TO EXISTING STRUCT Construction Type: N/A  
Occupancy Type: SCHOOLS, PUBLIC OR PRIVATE  
Maximum Occupancy Load :

**Property**

Address: 1 EAGLE ROW ATLANTA, GA 30322- Parcel ID: 18 053 01 003 Lot #:  
Zoning: OI Rezoning: N/A Land Use: TC Census: 224.02 District: 02 06

**Applicant**

Owner: EMORY UNIVERSITY Address: 1599 CLIFTON RD NE ATLANTA, GA 30322  
Tenant: N/A Address: N/A


The structure has been inspected for compliance with the requirements of all codes for the occupancy and division of occupancy and the use for which the proposed occupancy is classified and the structure has been erected, to the best of the county's knowledge and belief, in compliance with all applicable county codes at the time of issuance of this certificate of occupancy. Occupancy shall be limited to the area defined by the building permit indicated above for which this certificate is issued.

In accordance with chapter 7, article ii, division 3, section 7-33(f) of the DeKalb county code, this certificate may be revoked by the director of development or his/her duly authorized representative for either one or more of the following:

- (1) changes or alterations in the type of permitted use or occupancy without approval.
- (2) changes or violations of the conditions of the certificate without approval.
- (3) alterations, additions, or improvements to the building, structure, or systems without approval.

**Special Stipulations and/or Conditions (If Applicable)**

Date: 08/23/2016

Issued By: 

Permits, Zoning & Plans Review Supervisor



# **Directory**

# **of**

# **Subcontractors**

# **& Vendors**



**Depot at Emory University  
Subcontractor (s) and Vendor (v) Directory**

<b>WORK TYPE</b>	<b>SUBCONTRACTOR</b>	<b>CONTACT</b>	<b>PHONE NUMBER</b>
Demolition(s)	Peachtree Demolition	Gavin Johnson	(678) 402-6288
Plumbing(s)	Clarkeson Plumbing	William Waldron	(706) 339-7194
Electrical(s)	Excel Electrical Technologies, Inc.	Russell Stover	(770) 970-4108
Mechanical(s)	DM Mechanical	Bob Tiller	(770) 422-6480
Structural Framing(s)	CUDA, LLC	Kevin Copp	(404) 969-9613
Hatch(v)	The Bilco Company	Ray Breedlove	(404) 631-7380
Metal Framing & Drywall(s)	Pro Interiors Unlimited Inc.	Jose Lombay	(678) 412-5355
Millwork(s)	Welborn Henson	John Henson	(404) 523-9277
Tile(s)	Spectra Contract Flooring	Nicole Sims	(770) 729-2700
Concrete Staining & Sealing(s)	Corporate SteamX	Rod Montague	(770) 888-3744
Fire Alarm(s)	Century Fire Protection LLC	Joe Konenkamp	(770) 506-2388
Insulation(s)	Arango Insulation Inc.	Juan Nichols	(770) 716-7514
Steel Angle Posts & Handrails(v)	United Hardware Direct	John Nemece	(678) 672-0708
Doors, Transoms, Glass Windows(v)	Millwork Components	David Lee	(404) 499-9505
Roofing(s)	TL Gowin & Company	Dana Erickson	(770) 974-6036
Painting(s)	Premier Painting Service	Lucius Scott, Jr.	(678) 861-9438
Doors & Hardware(v)	Classic City Door & Hardware	Patty Bell	(706) 543-8857
Toilet Accessories(v)	Georgia Accessories	Tom Schultz	(770) 934-7588
Acoustical Plaster(s)	Southeast Restoration & Fireproofing Co., Inc.	Christina Davis	(404) 297-8388



# **Macallan Construction & Subcontractors Warranties**



## WARRANTY FORM

**PROJECT:** The Depot at Emory University

**LOCATION:** One Eagle Row, Atlanta, GA 30322

We, The Macallan Group, LLC dba Macallan Construction, Contractor for The Depot at Emory University as described in the contract documents do hereby warrant that all labor and material furnished and work performed in conjunction with the above referenced project are in accordance with the Contract Documents and authorized modifications thereto, and will be free from effects due to defective materials or workmanship for a period of one (1) year from the Date of Substantial Completion.

This warranty commences at August 23, 2016 and expires at August 22, 2017. Should any defect develop during the warranty period due to improper materials, workmanship, or arrangements, the same shall, upon written notice by the owner, be made good by the undersigned at no expense to the Owner.

Nothing in the above shall be deemed to apply to work, which has been used or neglected by the Owner.

Date: 10-21-16

By: 

For: Macallan Construction

Title: Vice President



**SUBCONTRACTOR WARRANTY**

PROJECT: THE DEPOT AT EMORY UNIVERSITY

PROJECT ADDRESS: ONE EAGLE ROW, ATLANTA, GEORGIA 30322

OWNER: EMORY UNIVERSITY

GENERAL CONTRACTOR: The Macallan Group, LLC dba MACALLAN CONSTRUCTION

SUBCONTRACTOR: \_\_\_\_\_

We, Clarkeson Plumbing, as Subcontractor for Plumbing on the above named Project and as described in the Contract Documents and authorized modifications thereto, do hereby warrant that all labor and materials furnished and work performed in conjunction with the above-referenced Project are in accord with the Contract Documents and authorized modifications thereto, and will be free from defects due to defective materials or workmanship for a period of One year from Date of Substantial Completion. The estimated commencement of this Warranty is August 23, 2016 and expires on August 23, 2017.

Should any defect develop during the Warranty period due to improper materials, workmanship or arrangement, the same, including adjacent work displaced, shall be made good by the undersigned at no expense to the Contractor.

*\* manufacturers warranties apply n/w*

The Contractor will give Subcontractor written notice of defective work. Should Subcontractor fail to correct defective work within sixty (60) days after receiving written notice, the Contractor may, at his option, correct defects and charge Subcontractor costs for such correction. Subcontractor agrees to pay such charges upon demand.

Nothing in the above shall be deemed to apply to work which has been abused or neglected by the Contractor or Owner.

Clarkeson Plumbing, Subcontractor

Signed: [Signature]

Print Name: Michael Wood

Title: Project Manager

Date: 10/21/16



## SUBCONTRACTOR WARRANTY

PROJECT: THE DEPOT AT EMORY UNIVERSITY

PROJECT ADDRESS: ONE EAGLE ROW, ATLANTA, GEORGIA 30322

OWNER: EMORY UNIVERSITY

GENERAL CONTRACTOR: The Macallan Group, LLC dba MACALLAN CONSTRUCTION

SUBCONTRACTOR: Century Fire Protection, LLC.

We, Century Fire Protection, LLC., as Subcontractor for The Macallan Group LLC. on the above named Project and as described in the Contract Documents and authorized modifications thereto, do hereby warrant that all labor and materials furnished and work performed in conjunction with the above-referenced Project are in accord with the Contract Documents and authorized modifications thereto, and will be free from defects due to defective materials or workmanship for a period of One year from Date of Substantial Completion. The estimated commencement of this Warranty is 8/31/16 and expires on 8/31/17.

Should any defect develop during the Warranty period due to improper materials, workmanship or arrangement, the same, including adjacent work displaced, shall be made good by the undersigned at no expense to the Contractor.

The Contractor will give Subcontractor written notice of defective work. Should Subcontractor fail to correct defective work within sixty (60) days after receiving written notice, the Contractor may, at his option, correct defects and charge Subcontractor costs for such correction. Subcontractor agrees to pay such charges upon demand.

Nothing in the above shall be deemed to apply to work which has been abused or neglected by the Contractor or Owner.

Century Fire Protection, LLC. Subcontractor

Signed:  \_\_\_\_\_

Print Name: Joseph Konenkamp

Title: Division Manager

Date: 8/31/16



**SUBCONTRACTOR WARRANTY**

PROJECT: THE DEPOT AT EMORY UNIVERSITY  
PROJECT ADDRESS: ONE EAGLE ROW, ATLANTA, GEORGIA 30322  
OWNER: EMORY UNIVERSITY  
GENERAL CONTRACTOR: The Macallan Group, LLC dba MACALLAN CONSTRUCTION  
SUBCONTRACTOR: \_\_\_\_\_

We, CLASSIC CONCRETE & CONSTRUCTION, as Subcontractor for THE MACALLAN GROUP on the above named Project and as described in the Contract Documents and authorized modifications thereto, do hereby warrant that all labor and materials furnished and work performed in conjunction with the above-referenced Project are in accord with the Contract Documents and authorized modifications thereto, and will be free from defects due to defective materials or workmanship for a period of One year from Date of Substantial Completion. The estimated commencement of this Warranty is 8/23/2016 and expires on 8/23/2017.

Should any defect develop during the Warranty period due to improper materials, workmanship or arrangement, the same, including adjacent work displaced, shall be made good by the undersigned at no expense to the Contractor.

The Contractor will give Subcontractor written notice of defective work. Should Subcontractor fail to correct defective work within sixty (60) days after receiving written notice, the Contractor may, at his option, correct defects and charge Subcontractor costs for such correction. Subcontractor agrees to pay such charges upon demand.

Nothing in the above shall be deemed to apply to work which has been abused or neglected by the Contractor or Owner.

CLASSIC CONCRETE & CONSTRUCTION INC., Subcontractor

Signed: [Signature]  
Print Name: Corey Meyers  
Title: PRESIDENT  
Date: 8/28/2016



**SUBCONTRACTOR WARRANTY**

PROJECT: THE DEPOT AT EMORY UNIVERSITY

PROJECT ADDRESS: ONE EAGLE ROW, ATLANTA, GEORGIA 30322

OWNER: EMORY UNIVERSITY

GENERAL CONTRACTOR: The Macallan Group, LLC dba MACALLAN CONSTRUCTION

SUBCONTRACTOR: Corporate SteamX Inc

We, Corporate SteamX Inc, as Subcontractor for The Macallan Group LLC on the above named Project and as described in the Contract Documents and authorized modifications thereto, do hereby warrant that all labor and materials furnished and work performed in conjunction with the above-referenced Project are in accord with the Contract Documents and authorized modifications thereto, and will be free from defects due to defective materials or workmanship for a period of One year from Date of Substantial Completion. The estimated commencement of this Warranty is 1 and expires on \_\_\_\_\_.

Should any defect develop during the Warranty period due to improper materials, workmanship or arrangement, the same, including adjacent work displaces, shall be made good by the undersigned at no expense to the Contractor.

The Contractor will give Subcontractor written notice of defective work. Should Subcontractor fail to correct defective work within sixty (60) days after receiving written notice, the Contractor may, at his option, correct defects and charge Subcontractor costs for such correction. Subcontractor agrees to pay such charges upon demand.

Nothing in the above shall be deemed to apply to work which has been abused or neglected by the Contractor or Owner.

\_\_\_\_\_, Subcontractor

Signed: [Signature]

Print Name: Simon Montague

Title: CEO

Date: 8/19/16



# CUDA, LLC

Raising Roofs and Standards  
1735 Buford Hwy Suite 215-205  
Cumming, GA. 30041

Office: 404-969-9613  
Cell: 404-201-5256

Email: cudallc@bellsouth.net  
Fax: 706-482-0031

## SUBCONTRACTOR WARRANTY

PROJECT: THE DEPOT AT EMORY UNIVERSITY  
PROJECT ADDRESS: ONE EAGLE ROW, ATLANTA, GEORGIA 30322  
OWNER: EMORY UNIVERSITY  
GENERAL CONTRACTOR: The Macallan Group, LLC dba MACALLAN CONSTRUCTION  
SUBCONTRACTOR: CUDA, LLC

We, CUDA, LLC, as Subcontractor for \_\_\_\_\_

THE MACALLAN GROUP, LLC on the above named Project and as described in the Contract Documents and authorized modifications thereto, do hereby warrant that all labor and materials furnished and work performed in conjunction with the above-referenced Project are in accord with the Contract Documents and authorized modifications thereto, and will be free from defects due to defective materials or workmanship for a period of One year from Date of Substantial Completion. The estimated commencement of this Warranty is \_\_\_\_\_ and expires on \_\_\_\_\_.

Should any defect develop during the Warranty period due to improper materials, workmanship or arrangement, the same, including adjacent work displaces, shall be made good by the undersigned at no expense to the Contractor.

The Contractor will give Subcontractor written notice of defective work. Should Subcontractor fail to correct defective work within sixty (60) days after receiving written notice, the Contractor may, at his option, correct defects and charge Subcontractor costs for such correction. Subcontractor agrees to pay such charges upon demand.

Nothing in the above shall be deemed to apply to work which has been abused or neglected by the Contractor or Owner.

CUDA, LLC, Subcontractor

Signed: Kevin Copp  
Print Name: Kevin Copp  
Title: OWNER  
Date: 8-22-16



## SUBCONTRACTOR WARRANTY

PROJECT: THE DEPOT AT EMORY UNIVERSITY  
PROJECT ADDRESS: ONE EAGLE ROW, ATLANTA, GEORGIA 30322  
OWNER: EMORY UNIVERSITY  
GENERAL CONTRACTOR: The Macallan Group, LLC dba MACALLAN CONSTRUCTION  
SUBCONTRACTOR: Hewatt Electrical Contractors, Incorporated

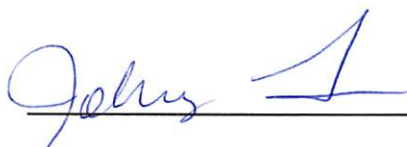
We, Hewatt Electrical Contractors, Incorporated, as Subcontractor for Electrical on the above named Project and as described in the Contract Documents and authorized modifications thereto, do hereby warrant that all labor and materials furnished and work performed in conjunction with the above-referenced Project are in accord with the Contract Documents and authorized modifications thereto, and will be free from defects due to defective materials or workmanship for a period of One year from Date of Substantial Completion. The estimated commencement of this Warranty is August 23, 2016 and expires on August 23, 2017.

Should any defect develop during the Warranty period due to improper materials, workmanship or arrangement, the same, including adjacent work displaced, shall be made good by the undersigned at no expense to the Contractor.

The Contractor will give Subcontractor written notice of defective work. Should Subcontractor fail to correct defective work within sixty (60) days after receiving written notice, the Contractor may, at his option, correct defects and charge Subcontractor costs for such correction. Subcontractor agrees to pay such charges upon demand.

Nothing in the above shall be deemed to apply to work which has been abused or neglected by the Contractor or Owner.

Hewatt Electrical Contractors, Incorporated  
Subcontractor

Signed: 

Print Name: Johnny Faulk

Title: Chief Executive Officer

Date: August 19, 2016



## SUBCONTRACTOR WARRANTY

PROJECT: THE DEPOT AT EMORY UNIVERSITY  
 PROJECT ADDRESS: ONE EAGLE ROW, ATLANTA, GEORGIA 30322  
 OWNER: EMORY UNIVERSITY  
 GENERAL CONTRACTOR: The Macallan Group, LLC dba MACALLAN CONSTRUCTION  
 SUBCONTRACTOR: Peachtree Demolition LLC

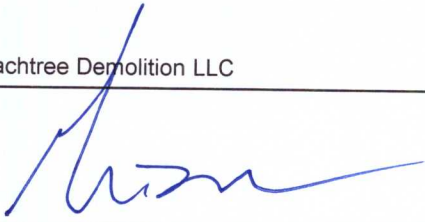
We, Peachtree Demolition LLC, as Subcontractor for Macallan Construction on the above named Project and as described in the Contract Documents and authorized modifications thereto, do hereby warrant that all labor and materials furnished and work performed in conjunction with the above-referenced Project are in accord with the Contract Documents and authorized modifications thereto, and will be free from defects due to defective materials or workmanship for a period of One year from Date of Substantial Completion. The estimated commencement of this Warranty is **August 23, 2016** and expires on **August 23, 2017**.

Should any defect develop during the Warranty period due to improper materials, workmanship or arrangement, the same, including adjacent work displaces, shall be made good by the undersigned at no expense to the Contractor.

The Contractor will give Subcontractor written notice of defective work. Should Subcontractor fail to correct defective work within sixty (60) days after receiving written notice, the Contractor may, at his option, correct defects and charge Subcontractor costs for such correction. Subcontractor agrees to pay such charges upon demand.

Nothing in the above shall be deemed to apply to work which has been abused or neglected by the Contractor or Owner.

Peachtree Demolition LLC, Subcontractor

Signed: 

Print Name: Gavin Johnson

Title: President

Date: 10/20/16



**SUBCONTRACTOR WARRANTY**

PROJECT: THE DEPOT AT EMORY UNIVERSITY

PROJECT ADDRESS: ONE EAGLE ROW, ATLANTA, GEORGIA 30322

OWNER: EMORY UNIVERSITY

GENERAL CONTRACTOR: The Macallan Group, LLC dba MACALLAN CONSTRUCTION

SUBCONTRACTOR: Premier Painting Service

We, Premier Painting Service Group, as Subcontractor for The Macallan Group on the above named Project and as described in the Contract Documents and authorized modifications thereto, do hereby warrant that all labor and materials furnished and work performed in conjunction with the above-referenced Project are in accord with the Contract Documents and authorized modifications thereto, and will be free from defects due to defective materials or workmanship for a period of One year from Date of Substantial Completion. The estimated commencement of this Warranty is 8/23/16 and expires on 8/23/17.

Should any defect develop during the Warranty period due to improper materials, workmanship or arrangement, the same, including adjacent work displaces, shall be made good by the undersigned at no expense to the Contractor.

The Contractor will give Subcontractor written notice of defective work. Should Subcontractor fail to correct defective work within sixty (60) days after receiving written notice, the Contractor may, at his option, correct defects and charge Subcontractor costs for such correction. Subcontractor agrees to pay such charges upon demand.

Nothing in the above shall be deemed to apply to work which has been abused or neglected by the Contractor or Owner.

Premier Painting Service, Subcontractor

Signed: [Signature]

Print Name: Lucius Scott Sr

Title: owner

Date: 8/28/16



## SUBCONTRACTOR WARRANTY

PROJECT: THE DEPOT AT EMORY UNIVERSITY

PROJECT ADDRESS: ONE EAGLE ROW, ATLANTA, GEORGIA 30322

OWNER: EMORY UNIVERSITY

GENERAL CONTRACTOR: The Macallan Group, LLC dba MACALLAN CONSTRUCTION

SUBCONTRACTOR: Pro Interiors Unlimited Inc.

We, Pro Interiors Unlimited Inc., as Subcontractor for Macallan Construction Group on the above named Project and as described in the Contract Documents and authorized modifications thereto, do hereby warrant that all labor and materials furnished and work performed in conjunction with the above-referenced Project are in accord with the Contract Documents and authorized modifications thereto, and will be free from defects due to defective materials or workmanship for a period of One year from Date of Substantial Completion. The estimated commencement of this Warranty is **August 23, 2016** and expires on **August 23, 2017**.

Should any defect develop during the Warranty period due to improper materials, workmanship or arrangement, the same, including adjacent work displaces, shall be made good by the undersigned at no expense to the Contractor.

The Contractor will give Subcontractor written notice of defective work. Should Subcontractor fail to correct defective work within sixty (60) days after receiving written notice, the Contractor may, at his option, correct defects and charge Subcontractor costs for such correction. Subcontractor agrees to pay such charges upon demand.

Nothing in the above shall be deemed to apply to work which has been abused or neglected by the Contractor or Owner.

Pro Interiors Unlimited Inc., Subcontractor

Signed: Jose Lombay

Print Name: Jose Lombay

Title: President/Owner

Date: 09/19/2016



## SUBCONTRACTOR WARRANTY

PROJECT: THE DEPOT AT EMORY UNIVERSITY

PROJECT ADDRESS: ONE EAGLE ROW, ATLANTA, GEORGIA 30322

OWNER: EMORY UNIVERSITY

GENERAL CONTRACTOR: The Macallan Group, LLC dba MACALLAN CONSTRUCTION

SUBCONTRACTOR: Spectra Contract Flooring

We, Spectra Contract Flooring, as Subcontractor for Flooring/Labor on the above named Project and as described in the Contract Documents and authorized modifications thereto, do hereby warrant that all labor and materials furnished and work performed in conjunction with the above-referenced Project are in accord with the Contract Documents and authorized modifications thereto, and will be free from defects due to defective materials or workmanship for a period of One year from Date of Substantial Completion. The estimated commencement of this Warranty is 8/23/2016 and expires on 8/23/2017.

Should any defect develop during the Warranty period due to improper materials, workmanship or arrangement, the same, including adjacent work displaced, shall be made good by the undersigned at no expense to the Contractor.

The Contractor will give Subcontractor written notice of defective work. Should Subcontractor fail to correct defective work within sixty (60) days after receiving written notice, the Contractor may, at his option, correct defects and charge Subcontractor costs for such correction. Subcontractor agrees to pay such charges upon demand.

Nothing in the above shall be deemed to apply to work which has been abused or neglected by the Contractor or Owner.

Spectra Contract Flooring, Subcontractor

Signed:  \_\_\_\_\_

Print Name: Erica Jean-Baptiste

Title: Credit Manager

Date: 9/14/2016





## SUBCONTRACTOR WARRANTY

PROJECT: THE DEPOT AT EMORY UNIVERSITY

PROJECT ADDRESS: ONE EAGLE ROW, ATLANTA, GEORGIA 30322

OWNER: EMORY UNIVERSITY

GENERAL CONTRACTOR: The Macallan Group, LLC dba MACALLAN CONSTRUCTION

SUBCONTRACTOR: T. L. Gowin & Company, Inc.

We, T. L. Gowin & Company, Inc., as Subcontractor for Macallan Construction on the above named Project and as described in the Contract Documents and authorized modifications thereto, do hereby warrant that all labor and materials furnished and work performed in conjunction with the above-referenced Project are in accord with the Contract Documents and authorized modifications thereto, and will be free from defects due to defective materials or workmanship for a period of One year from Date of Substantial Completion. The estimated commencement of this Warranty is August 23, 2016 and expires on August 23, 2017.

Should any defect develop during the Warranty period due to improper materials, workmanship or arrangement, the same, including adjacent work displaced, shall be made good by the undersigned at no expense to the Contractor.

The Contractor will give Subcontractor written notice of defective work. Should Subcontractor fail to correct defective work within sixty (60) days after receiving written notice, the Contractor may, at his option, correct defects and charge Subcontractor costs for such correction. Subcontractor agrees to pay such charges upon demand.

Nothing in the above shall be deemed to apply to work which has been abused or neglected by the Contractor or Owner.

T. L. Gowin & Company, Inc., Subcontractor

Signed: 

Print Name: Terry L. Gowin

Title: President/CEO

Date: August 23, 2016



## SUBCONTRACTOR WARRANTY

PROJECT: THE DEPOT AT EMORY UNIVERSITY  
PROJECT ADDRESS: ONE EAGLE ROW, ATLANTA, GEORGIA 30322  
OWNER: EMORY UNIVERSITY  
GENERAL CONTRACTOR: The Macallan Group, LLC dba MACALLAN CONSTRUCTION  
SUBCONTRACTOR: WELBORN HENSON, INC.

We, WELBORN HENSON, as Subcontractor for ARCHITECTURAL MILLWORK on the above named Project and as described in the Contract Documents and authorized modifications thereto, do hereby warrant that all labor and materials furnished and work performed in conjunction with the above-referenced Project are in accord with the Contract Documents and authorized modifications thereto, and will be free from defects due to defective materials or workmanship for a period of One year from Date of Substantial Completion. The estimated commencement of this Warranty is 8/23/2016 and expires on 8/23/2017.

Should any defect develop during the Warranty period due to improper materials, workmanship or arrangement, the same, including adjacent work displaced, shall be made good by the undersigned at no expense to the Contractor.

The Contractor will give Subcontractor written notice of defective work. Should Subcontractor fail to correct defective work within sixty (60) days after receiving written notice, the Contractor may, at his option, correct defects and charge Subcontractor costs for such correction. Subcontractor agrees to pay such charges upon demand.

Nothing in the above shall be deemed to apply to work which has been abused or neglected by the Contractor or Owner.

WELBORN HENSON, INC., Subcontractor

Signed: 

Print Name: JOHN HENSON

Title: PRESIDENT

Date: 8/22/2016



## SUBCONTRACTOR WARRANTY

PROJECT: THE DEPOT AT EMORY UNIVERSITY

PROJECT ADDRESS: ONE EAGLE ROW, ATLANTA, GEORGIA 30322

OWNER: EMORY UNIVERSITY

GENERAL CONTRACTOR: The Macallan Group, LLC dba MACALLAN CONSTRUCTION

SUBCONTRACTOR: ARANGO INSULATION INC.

We, ARANGO INSULATION, INC, as Subcontractor for INSULATION on the above named Project and as described in the Contract Documents and authorized modifications thereto, do hereby warrant that all labor and materials furnished and work performed in conjunction with the above-referenced Project are in accord with the Contract Documents and authorized modifications thereto, and will be free from defects due to defective materials or workmanship for a period of One year from Date of Substantial Completion. The estimated commencement of this Warranty is August 23, 2016 and expires on August 23, 2017.

Should any defect develop during the Warranty period due to improper materials, workmanship or arrangement, the same, including adjacent work displaced, shall be made good by the undersigned at no expense to the Contractor.

The Contractor will give Subcontractor written notice of defective work. Should Subcontractor fail to correct defective work within sixty (60) days after receiving written notice, the Contractor may, at his option, correct defects and charge Subcontractor costs for such correction. Subcontractor agrees to pay such charges upon demand.

Nothing in the above shall be deemed to apply to work which has been abused or neglected by the Contractor or Owner.

ARANGO INSULATION

, Subcontractor

Signed: \_\_\_\_\_

Print Name: Luis G. ARANGO

Title: OWNER/CEO

Date: 10/21/16

# *Your Assurance of Quality*

## **Floor, Vault, & Sidewalk Doors**

(Type J-AL, J-AL H20 only)

Every BILCO product is designed to operate to the customer's satisfaction and to provide years of trouble-free service. Should a part fail to function in normal use within a period of twenty-five (25) years from the date of purchase, a new part will be furnished at no charge. Electric motors, special finishes, and other special equipment (if applicable) shall be warranted separately by the manufacturers of those products.



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## **WARRANTY REGISTRATION**

### **Floor, Vault, & Sidewalk Doors**

(Type J-AL, J-AL H20 only)

To obtain a written warranty for a specific project, please use our on-line warranty registration system or contact the Bilco customer department. The serial number located on the product will be needed to complete warranty registration.



The Bilco Company, P.O. Box 1203, New Haven CT 06505  
Phone: (203)934-6363, E-mail: [commercial@bilco.com](mailto:commercial@bilco.com)

JOB: The Depot at Emory University  
RE: Toilet Accessories Warranty

DATE: 8/23/16

Page 1 of 1



## Washroom Accessories Warranty

Bradley Corporation warrants to commercial and institutional purchasers only each new Bradley washroom accessory unit purchased from us to be free from defects in materials and workmanship under normal use and service upon the following terms and conditions:

1. This warranty is limited to replacing or repairing, at our option, transportation charges prepaid by the purchaser, any Bradley washroom accessory unit or part thereof which our inspection shall show to have been defective within the limitations of this warranty.
2. The period during which Bradley accessory units are warranted is as follows, measured from the date of our invoices:
  - o Complete unit, excepting mirrors - one (1) year.
  - o Stainless Steel Mirror Frames - fifteen (15) years against corrosion.
  - o Plate Glass Mirrors - fifteen (15) years against silver spoilage.
  - o Hand/Hair Dryers - ten (10) years (see DRYER WARRANTY).
  - o Tempered Glass Mirrors - five (5) years against silver spoilage.
  - o Laminate Glass - five (5) years against silver spoilage.
  - o Polished #8 Architectural Grade Finish on 304 Series Stainless Steel - one (1) year against corrosion.
  - o Bright Annealed Finish on 430 Series Stainless Steel - one (1) year against corrosion.
3. This warranty does not cover installation labor charges and does not apply to any units which have been damaged by accident, abuse, improper installation, improper maintenance, or altered in any way.
4. The replacement or repair of defective Bradley washroom accessory units as stated in this warranty shall constitute the sole remedy of the purchaser and the sole liability of Bradley Corporation under this warranty. **BRADLEY CORPORATION SHALL NOT UNDER ANY CIRCUMSTANCES BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL OR INDIRECT DAMAGES CAUSED BY DEFECTS IN BRADLEY WASHROOM ACCESSORY UNITS OR ANY DELAY IN THE REPAIR OR REPLACEMENT THEREOF.**
5. This warranty extends only to commercial and institutional purchasers and does not extend to any others, including consumer customers of commercial and institutional purchasers.
6. **THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE.**

LOCAL CONTACT: GEORGIA ACCESSORIES INC.  
Tom Schultz 770-934-7588

Revised: March 12, 2004



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SALES LOCATIONS

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## PRODUCT INFORMATION

### Product Maintenance Instructions

#### Stainless Steel Maintenance Instructions

Stainless steel is a low-carbon steel that contains at least 10 percent chromium. The addition of chromium gives the steel its unique corrosion-resisting properties. Most Bradley accessories are fabricated from type 304 stainless steel, which contains 18 percent chromium and 8 percent nickel. Bradley uses it because it is extremely durable, resists corrosion, stands up to many chemicals, and is easy to fabricate.

Stainless steels are very resistant to rust, however this does not mean that they are impervious to it. Stainless steel must be kept clean and free from contaminants. Frequent cleaning with mild soap and water or glass cleaner and a cotton cloth is required. Sometimes stainless steel products will develop corrosion or discoloration due to environmental and installation conditions. The following is a list of common conditions that cause corrosion or discoloration of stainless steel and should be avoided:

- Chloride containing cleansers – this includes bleach and any bleach containing cleaners
- Muriatic acid (hydrochloric acid) – commonly used to clean up after tile/concrete installation
- Concentrated soap residue – chemical additives will cause discoloration and some dried soaps actually look like rust
- Water with high iron content – can leave a rusty residue, especially if allowed to drip continuously
- Contact with iron materials – including steel wool, machining chips, and iron residue/dust from installation or cleaning of other steel products
- Trapped moisture between the product and another object – rubber mats, metal cans of soaps or cleaners
- Salts – contain chlorides

Any discoloration or corrosion should be removed as soon as possible, or permanent discoloration and pitting of the surface could occur. Usually, the product can be restored to its original condition. Most discoloration can be removed with a mild cleanser (Ajax, Bon Ami, etc.) or stainless steel cleaner (Revere Ware Stainless Steel Cleaner, Goddard's Stainless Steel Cleaner, etc.) and a Scotchbrite pad. The surface should then be thoroughly rinsed with clear water. With proper maintenance, stainless steel will maintain its luster and appearance indefinitely.

#### Mirror Maintenance Instructions

Bradley mirrors are fabricated from type 430 stainless steel frames and plate glass or an alternative reflective surface. The frame can be cared for by following the general stainless steel maintenance instructions above (be careful not to scratch the highly polished frames). Reflective surfaces can be cleaned with any standard non-abrasive glass cleaner (Windex, Sparkle, etc.) and a soft cloth. Care must be taken to avoid allowing the cleaner to run down the surface of the mirror and collect in the frame. If allowed to continue, this could lead to silver spoilage and would void the warranty on the glass.

#### Soap Dispenser Maintenance Instructions

Quality soap dispensers require good quality soap and periodic maintenance to properly operate. Bradley soap dispensers will provide dependable, consistent operation over the long term when

<http://www.bradleycorp.com/prodinfo/warranty/maintenance.htm>

the proper soap is used and when a minimal amount of periodic maintenance is performed on the valves. Soaps satisfying these basic guidelines will provide consistent flow and reduce clogs.


Soap thickness is determined by a measurement called viscosity. Soap viscosity should be between 100 cps (centerpoise) and 2500 cps for all Bradley soap dispensers. The pH (acid) level of soaps that will perform consistently should be in the range of 6.5 to 8.5. More acidic soaps (pH levels lower than 6.5) will corrode metal parts (even stainless steel!!) and degrade rubber and plastic components. Most inexpensive soaps (typically the pink lotion type) fall into this acidic category and will eventually cause valve failure and metal corrosion. PCMX or Isopropanol based antibacterial soaps (within viscosity and pH limits) will also work with Bradley dispensers. Valves must also be maintained (cleaned) to function properly. At the very minimum, hot water should be pumped through valves periodically to clear out soap residue. Ideally, valves should occasionally be soaked for 30 minutes in hot water or a soap valve cleaning solution. With proper maintenance and soap, Bradley dispensers will provide long term, trouble free operation.

*My stainless steel is rusty? What do I do?*

The following is a guide to help you chose a cleaning method that best fits the finish and the product in question.

Cleaning method	Applicable finishes	Notes
Naval jelly – available at hardware, marine and automotive supply stores	Bright polished and satin finishes (mirrors, partitions and dispensers)	Follow directions on side of bottle. Must be rinsed well with water. Tends to brighten surface so should use on entire product. This is an acid based product and safety precautions on product must be followed. Does not work as well on rougher finishes.
Mild abrasives – Bon Ami, BarKeepers Friend – available at hardware, discount and grocery stores	Satin finishes (partitions and dispensers)	Do not use any product containing bleach or other chlorides. Put mild abrasive on soft wet cloth. Rub evenly over entire surface of affected item. Rinse well and wipe dry.
Abrasive pads – Scotch Brite or other non metallic pad – available at hardware, discount and grocery stores	Rougher finishes (peened grab bars)	Use a mild abrasive (described above) on a damp abrasive pad. Rub in the direction of the grain. Clean entire part to ensure continuity of the finish. Rinse well with water and wipe dry. Do not use this on fine finishes as it will destroy the intended finish.

Once the discoloration is removed and the environmental condition eliminated, the metal and finish should be as good as it was from the factory. If the environmental conditions cannot be removed (i.e., chlorine in the air in a pool locker room), the item should be cleaned often and rinsed with clear water to prevent permanent damage to the stainless steel. If items are not regularly cleaned, pits may develop and the item’s surface may be permanently damaged.

Stainless Steel Maintenance Instructions  (31k)

**Soap Recommendations**

Quality soap dispensers require good quality soap and periodic maintenance to properly operate. Bradley soap dispensers will provide dependable, consistent operation over the long term when soap with reasonable viscosity and pH levels are used and when a minimal amount of periodic maintenance is performed on the valves.

Soap thickness is determined by a measurement called viscosity. Soap viscosity should be between 100 cps (centerpoise) and 2500 cps for all Bradley soap dispensers. Thinner soaps are perceived by the users as being "watered down" so users tend to take more than they need, resulting in waste. Thick soaps flow slower and inhibit the "flushing" action of the valves, which allows the soap to congeal in the valve and cause clogs.

The pH (acid) level of the soap should be in the range of 6.5 to 8.5. More acidic soaps (pH levels lower than 6.5) will corrode metal parts (even stainless steel!) and degrade rubber and plastic components. They will also cause skin irritation. Most inexpensive soaps (typically the pink lotion type) fall into this acidic category and will eventually cause valve failure and metal corrosion. Base soaps (pH levels higher than 8.5) will cause swelling or degradation of rubber and plastic parts and skin irritation.

Generally, any quality soap meeting the viscosity and pH guidelines above will work well with Bradley soap dispensers. PCMX or Isopropanol based antibacterial soaps (within viscosity and pH limits) will also work with Bradley dispensers. Soaps satisfying these basic guidelines will provide consistent flow and reduce clogs. Valves must also be maintained (cleaned) to function properly (see our Soap Dispenser Maintenance section for more details).

Valves must also be maintained (cleaned) to function properly. At the very minimum, hot water should be pumped through valves periodically to clear out soap residue. Ideally, valves should occasionally be soaked for 30 minutes in hot water or a soap valve cleaning solution. The valve should be pumped at least 20 times while it is soaking to clear any clogs. The soap reservoir should also be flushed with hot water. In cases of extreme clogging, the valve should be disassembled and the parts should be soaked in hot water or cleaning solution to restore proper functioning.

Most soap dispenser problems are caused by soap that is too thick or corrosive, or by a lack of maintenance. Many soaps come in concentrate form which must be diluted with water. Often, the soap is improperly diluted or used straight out of the bottle, which causes clogging and valve failure. If proper soap is being used, valves that have never been cleaned are usually the source of dispensing problems. Bradley has entered into an agreement with Champion Brand Products (a division of Lochrie and Associates, Inc.) to provide additional customer service for purchasers of our dispensers regarding soap issues. They are very helpful and can get to the bottom of almost any soap dispenser related problem. They also sell an excellent "Bradley approved" soap. Champion Brand Products can be reached at 1-800-344-5301 and on the internet at [www.championbrandproducts.com/bradley.html](http://www.championbrandproducts.com/bradley.html).

With proper maintenance and soap, Bradley dispensers will provide long term, trouble free operation.

Soap Recommendations  (22k)

LOCAL

CONTACT: TOM SCHULTZ 770-934-7588  
GEORGIA ACCESSORIES INC.

# Warranty CONSTRUCTION WORKMANSHIP AND MATERIALS

*Clarkeeson*  
PLUMBING LLC

As part of the consideration for the Construction contract identified below, the undersigned Qualified General Contractor hereby warrants to the Owner of the premises, for a period of (1) year from 9/21/15, that the Construction work performed under said contract was performed in a workmanlike manner and that the materials purchased and Installed by the undersigned hereunder was, when installed, free of inherent manufacturing or mechanical defects, all to the extent and on the conditions herein specifically set forth, that is:

1. The undersigned Qualified General Contractor shall replace, without cost or charge to the Owner for either labor or materials, such individual parts of Construction material or apparatus installed under said contract as may become defective or unserviceable within the period of the warranty by reason of any failure of the undersigned in performing the construction work in a workmanlike manner or by reason of inherent manufacturing or mechanical defect in any construction material or apparatus purchased and installed by the undersigned; provided:
  - a. The Owner notifies the Contractor, in writing, of any failure or default within then (10) days of the date such failure or default has become apparent;
  - b. There shall be no responsibility on Contractor to replace or repair any work not included in said contract;
  - c. No person, firm or corporation other than the undersigned Qualified General Contractor has, during or since the completion of the work performed or attempted to perform any of the work that is included in said contract or repaired or attempted to repair any of the work performed by the undersigned hereunder;
  - d. The defect or failure was not caused or affected by the improper use or operation of any materials installed under said contract.
2. The undersigned Qualified General Contractor's liability shall be fixed by the terms hereof and this express Warranty excludes and super cedes all implied guarantees or warranties.
3. This warranty shall pass with the title of the premises to the new Owner or Owners thereof.

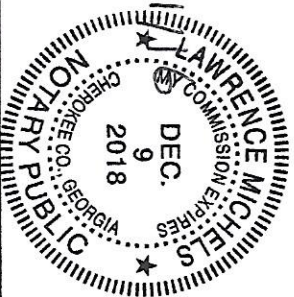
IN WITNESS WHEREOF, this warranty has been executed this 21 day of September 2016

Contract Between: Macellan Group and Clarkeeson Plumbing Dated: 5/9/16

Premises: Emory Dept  
1 Eagle Row  
Atlanta, GA 30322

BY: W. L. W. L.

Sworn and subscribed before me this 9/21/15  
Notary Public Lawrence Michels





## GENERAL INFORMATION

### ONE YEAR FINISH WARRANTY

Subject to the limitations of liability set forth below, PBB, INC., ("Manufacturer") hereby warrants to the original purchaser ("Purchaser") each product ("Products") that were purchased through a Manufacturer-authorized distributor which the Product, when applied in accordance with all Manufacturer instructions and for the purposes intended, will not chip, peel or tarnish for one year following the date of application.

This warranty excludes chips, peeling or tarnish caused by scratches or abrasions, incorrect application, misuse, abuse or deterioration of the Product due to the use of paints solvents and other chemicals.

THIS IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY THE MANUFACTURER WITH RESPECT TO THE PRODUCTS AND IS IN LIEU OF ANY AND ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, ARISING BY OPERATION OF LAW OR OTHERWISE. ALL IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, NON INFRINGEMENT AND FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY EXCLUDED,

In the event of a failure within the applicable warranty period, Purchaser should send the Manufacturer, at the address set forth below, a written notice which identifies the Product, its application and the nature of the claimed defect. Upon receipt of such notice, Manufacturer will inform Purchaser where to ship the Product, shipping charges prepaid, for examination. In the event that such examination reveals a defect covered by this warranty, Manufacturer will either replace the Product or refund the original purchase price, as determined in Manufacturer's sole discretion. This is the sole and exclusive liability of the Manufacturer under this warranty or otherwise.

MANUFACTURER SHALL NOT BE LIABLE FOR DAMAGES CAUSED BY DELAY IN PERFORMANCE AND IN NO EVENT, REGARDLESS OF THE FORM OF THE CLAIM OR CAUSE OF ACTION (WHETHER BASED ON CONTRACT, INFRINGEMENT, NEGLIGENCE, STRICT LIABILITY, OTHER TORT OR OTHERWISE), SHALL MANUFACTURER'S LIABILITY TO PURCHASER AND/OR ITS CUSTOMERS EXCEED THE PRICE PAID BY PURCHASER FOR THE SPECIFIC PRODUCT GIVING RISE TO THE CLAIM OR CAUSE OF ACTION. PURCHASER AGREES THAT IN NO EVENT SHALL MANUFACTURER'S LIABILITY TO PURCHASER AND/OR ITS CUSTOMERS EXTEND TO INCLUDE INCIDENTAL, CONSEQUENTIAL OR PUNITIVE DAMAGES RESULTING FROM USE OF THE PRODUCTS OR ARISING OUT OF ANY BREACH OF THIS WARRANTY.

The term "consequential damages" shall include, but not be limited to, loss of anticipated profits, business interruption, loss of use or revenue, cost or capital or loss of damage to property or equipment. The foregoing limitations and exclusions are intended to be effective to the maximum extent permitted by law. This warranty is governed by the laws of the State of California, without regard to its conflicts of law principles. Manufacturer and Purchaser agree that the United Nations Convention on Contracts for the International Sale of Goods and the United Nations Convention on the Limitation Period in the International Sale of Goods shall not apply to sales of the Products.

Mail all warranty claims to: **PBB, INC. 1311 E. Philadelphia St., Ontario, CA 91761**

\*Exceptions US-IOB - No warranty on Steel Architectural Hinges.

#### US10B FINISH WARRANTY STATEMENT

Note: PBB INC. only warrants US-10B finish over brass or bronze base material. If steel base material is necessary, PBB then recommends US-10A lacquer finish.

**REQUEST FOR QUOTATION/PURCHASE ORDER TERMS AND CONDITIONS**

Where applicable the term "goods" shall be replaced with "services" for the purposes of this document.

1. **ACCEPTANCE:** The Seller has read and understands this order and agrees that Seller's written acceptance or any work or service under this order shall constitute Seller's acceptance of these terms and conditions only. All terms and conditions proposed by Seller which are different from or in addition to this order are unacceptable to Buyer, are expressly rejected by Buyer and shall not become a part of this order. Any modification to this order shall be made in accordance with Paragraph 24.
2. **INSPECTION AND PAYMENT:** Seller agrees that Buyer shall have the right to enter Seller's facility at reasonable times to inspect the facility, goods, materials, and any property of Buyer covered by this order. Buyer's inspection of goods, whether during manufacture, prior to delivery or within reasonable time after delivery, shall not constitute acceptance of any work in progress or finished goods, nor shall payment of the goods or services constitute acceptance. Unless otherwise provided, all terms of payment shall be ninety (90) days from receipt of a proper invoice. Acceptance shall be defined as when Buyer's warranty expires with Buyer's customer.
3. **NON-CONFORMING GOODS:** To the extent the Buyer rejects goods as non-conforming, the quantities under this order will automatically be reduced unless Buyer otherwise notifies Seller. Seller will not replace quantities so reduced without a new order or schedule from Buyer. Non-conforming goods will be held by Buyer for disposition in accordance with Seller's instructions at Seller's risk. Seller's failure to provide written instructions within five (5) days, or such shorter periods as may be commercially reasonable under the circumstances, after receiving notification of non-conforming goods shall entitle Buyer, at Buyer's option to charge Seller for storage and handling or to dispose of the goods without liability to Buyer. Payment for non-conforming goods shall not constitute an acceptance thereof, limit or impair Buyer's right to assert any legal or equitable remedy or relieve Seller's responsibility for latent defects.
4. **DELIVERY:** The goods included in this order shall be delivered to Stanley Security Solutions, Inc., Indianapolis, Indiana unless noted differently on Purchase Order. Seller agrees to properly pack, mark, and ship goods in accordance with written instructions from the Buyer. Delivery shall be made both in quantities and at the time specified in Buyer's schedules. Buyers shall not be required to make payment for goods delivered to the Buyer which are in excess of quantities specified in Buyer's schedule. Buyer may change the rate of scheduled shipments or direct temporary suspension of scheduled shipments, neither of which shall entitle Seller to a modification of the price of goods or services covered by this order.
5. **WARRANTY:** Seller expressly warrants that all goods or services covered by this order will conform to the specifications, and descriptions furnished to us or by the Buyer, and will be merchantable, of good material and workmanship, and free from defect. In addition, the Seller acknowledges that Seller knows of Buyer's intended use and expressly warrants that all goods covered by this order which have been selected, designed, manufactured, or assembled by Seller, based upon Buyer's stated use, will be fit and sufficient for the particular purpose intended by Buyer.
6. **INSURANCE:** If this order covers the performance of labor for Buyer, Seller agrees to indemnify and protect Buyer against all liabilities, claims or demand for injuries or damages to any person or property growing out of the performance of this agreement. Seller further agrees to furnish, upon Buyer's request, proof of insurance showing that Seller has adequate Workman's Compensation, Public Liability, Property Damage and contractual liability coverage. Said Certificate must set forth the amount of coverage, policy number and date of expiration. If Seller is a self-insured, a Certificate from the Department of Labor and the state in which said labor is to be performed must be furnished by such Department directly to Buyer.
7. **TOOLS :** Unless otherwise agreed to by Buyer, Seller at its own expense shall furnish, keep in good condition, and replace when necessary tools, jigs, fixtures, gauges, and patterns necessary for the production of material ordered. The cost of changes to the "tools" necessary to make design and specification changes authorized by Buyer shall be paid for by Buyer upon proof of such cost. Seller shall insure the "tools" with full fire and extended coverage insurance for replacement value thereof. Seller grants Buyer an irrevocable option to take possession of a title to the "tools" that are special for the production of the goods. Upon termination the Buyer will pay only the present value less any amount the Buyer has previously paid to Seller for the cost of the "tools". However this option shall not apply if such "tools" are used to produce goods that are the standard stock of Seller or if a substantial quantity of the goods are being sold by Seller to others. Replacement tools shall be at the Sellers expense unless otherwise specified. The Buyer shall be notified annually of all replacement tool expenses planned.
8. **CHANGES:** Buyer reserves the right, at any time to direct changes or cause Seller to make changes to drawings and specifications of the goods or to otherwise change the scope of the work covered by this order, including work with respect to such matters as inspection, testing, or quality control, and Seller agrees to promptly make such changes. Any difference in price or time for performance resulting from such changes to this order shall be made in accordance to Paragraph 24.
9. **WORKS FOR HIRE:** All works created by Seller in the course of performing its obligations under this order will be, and remain exclusively, the property of the Buyer. Each such Work created by Seller is a "Work made for hire" under the copyright law, and Buyer may file applications to register copyright in such Works as author and copyright owner thereof. If, for any reason, a Work created by Seller excluded from the definition of a "Work for hire" under the copyright law, then Seller does hereby assign, sell and convey to Buyer the entire rights, title and interest in and to such excluded Work, including the copyright therein. Seller will execute any documents which Buyer deems necessary in connection with the assignment of such excluded Work and copyright therein. Seller will take whatever steps and do whatever acts Buyer requests, including, but not limited to, placement of Buyer's proper copyright notice on Works created by Seller to secure or aid in securing and maintaining copyright protection in such Works and will assist Buyer on it nominees in filing applications to register claims of copyright in such Works, at Buyer's expense, on Seller's time and material basis.
10. **INDEMNIFICATION:** Seller agrees to indemnify and hold Buyer harmless against any and all loss Buyer may at any time sustain, by reason of defective or alleged defective goods or services supplied under this purchase order, and Seller agrees to indemnify and protect the Buyer against all liabilities, claims and demands for injuries or damages to any person or property growing out of the Seller's performance of this contract.
11. **CANCELLATION FOR BREACH :** Buyer reserves the right to cancel all or any part of this order without liability to Buyer, if Seller (a) repudiates or breaches any of the terms of this order, including Sellers warranties; (b) fails to perform services or deliver goods as specified by Buyer; or (c) fails to make progress so as to endanger timely and proper completion of services of delivery of goods and does not correct such failure or breach within ten (10) days or shorter period of time if commercially reasonable under the circumstances after receipt of written notice from Buyer specifying such failure or breach.

12. REMEDIES: The rights and remedies reserved to Buyer in this order shall be cumulative and additional to all other remedies provided in law or equity.
13. PACKAGING AND CRATING: No charges for crating, boxing, bagging, packing, drummage, or storage will be allowed unless specified on the face of the order.
14. ADVERTISING : Seller shall not without first obtaining written consent of Buyer, in any manner advertise or publish the fact that Seller has contracted to furnish Buyer the goods or services herein ordered, or use any pictures, photos, trademarks or trade names of Buyer in Seller's advertising or promotional materials. In the event of Seller's breach of this provision, Buyer will have the right to cancel the undelivered portion of any goods or services covered by this order and shall not be required to make further payment except for conforming goods delivered or services rendered prior to cancellation.
15. TECHNICAL INFORMATION DISCLOSED TO BUYER: Seller agrees not to assert any claim (other than a claim for patent infringement) with respect to any technical information which Seller shall have disclosed or may hereafter disclose to Buyer in connection with the goods or services covered by this order.
16. NON-ASSIGNMENT: Seller may not assign or delegate its obligation under this order without Buyer's prior written consent.
17. PRICE AND QUALITY: This order must not be filled in greater quantities or at higher prices than set forth on the face of this order, or in the absence of price, at a higher price than previously quoted or charged, unless an amended Purchase Order is received from Buyer.
18. PATENTS: By accepting this order, the Seller guarantees that the articles described herein, and the sale or use of them, will not infringe any United States or Foreign Letter Patent. The Seller agrees to defend, protect, and save harmless the Buyer, its successors, assigns, customers, and users of its products against all suits, at law or equity, and expenses for actual or alleged infringement or any Patent or Trademark by reason of the fact that the sale or use of any said articles is enjoined.
19. REPAIRS: Buyer reserves the right to make repairs on defective material and to charge Seller with Buyer's actual cost of making repairs.
20. COMPLIANCE: By completion of this Purchase Order, you hereby represent that you have complied with Executive Order 11246 (Non-Segregated Facilities); 41 C.F.R. (60-1.40, et.seq. (Affirmative Action)); 41 C.F.R. (60-250.4, et.seq. (Disabled and Vietnam Veterans)); and 41 C.F.R. (741.4 et.seq. (Persons with a Handicap)). Incorporated by reference and made part of this Order, Seller and Buyer agree to abide and be in compliance with all applicable Federal, State, and Local Laws, Rules and Ordinances. Seller shall secure and pay for all licenses necessary for proper execution and completion of any work issued under this order.
21. CHOICE OF LAW AND CHOICE OF FORUM: Buyer and Seller agree that any dispute arising under the terms of this order shall be governed by the laws of the State of Indiana and any litigation or other cause of action pertaining to any claim or dispute arising from or related to the terms of this order shall be brought in the state or federal court in Marion County, Indiana.
22. CONFIDENTIALITY: Seller agrees to maintain secret all Buyer's documents and items that include or embody Buyer's confidential information for a period of three (3) years from the date of this agreement.
23. FORCE MAJEURE: Any delay or failure of either party to perform its obligations thereunder shall be excused if, and to the extent, it is caused by an event or occurrence beyond the reasonable control of the party, and without its fault or negligence, such as, but not limited to, acts of God, regulations, laws or acts of any government, destruction of production facilities or material by fire, flood, windstorm, explosions, riots, natural disasters, war, sabotage, strikes, or failure of public utilities. When requested by the Buyer, the Seller shall within five (5) days provide adequate assurance that the delay shall not exceed twenty-five (25) days, or Buyer may immediately cancel the order without liability. It is the responsibility of the Seller to have a contingency plan in place to assure that delivery of goods and services are provided to the Buyer.
24. ENTIRE AGREEMENT: This order together with the attachments, exhibits, or supplements specifically referenced in this order constitutes the entire agreement between Seller and Buyer with respect to the matter contained herein and supersedes all prior oral and written representation and agreements. This order may only be modified by a purchase order amendment issued by Buyer.

**Rockwood Manufacturing Company (“Rockwood”)** warrants to purchasers of Rockwood Products sold in the United States of America that its products when properly delivered, installed and maintained, under normal use and service conditions, will be free from defects in material and workmanship for a period of one year from the date of delivery. Because of variations in atmospheric and climatic conditions, Rockwood does not warrant that its products will maintain a “like new” appearance for any length of time, so this warranty does not extend to the appearance of Rockwood’s products. Rockwood shall have no responsibility other than the repair or replacement of defective products.

Purchasers should contact Rockwood upon receipt of any product claimed to be defective. If an in-plant inspection is necessary, purchasers should obtain a Return Goods Authorization and then send the product freight paid to Rockwood. If, upon inspection, the product is determined by Rockwood to be in violation of this warranty, Rockwood will repair or replace the defective product promptly.

There are no other express or implied warranties of Rockwood’s products.

THE FOREGOING WARRANTY IS IN LIEU OF ANY AND ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE HEREBY EXCLUDED. IN NO CIRCUMSTANCES WILL ROCKWOOD BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OR SALE OF ITS PRODUCTS OR ARISING OUT OF A BREACH OF ITS WARRANTY OF ITS PRODUCTS.

The foregoing limitations and exclusions are intended to be effective to the maximum extent of the law.

# LCN Limited Warranty

Subject to the terms and conditions of this limited warranty, Schlage Lock Company, LLC (the "Company") extends a limited warranty against defects in material and workmanship for its LCN branded product(s) identified in the Product Table below ("Products") as installed in the original location.

This limited warranty applies to Products purchased on or after **March 3, 2014**.

## Product Table

4000 Series	30 Years
1460 Series	30 Years
1260 Series	20 Years
Concealed, High Security (except 2210DPS)	15Years
Automatic Operators; SE, ME, HSA, SEH Series; SEM Magnets; 2210 DPS (includes both electronic and mechanical components)	2 Years

**Term:** The limited warranty period for Products is as stated in the Product Table above. The "Commencement Date" for a limited warranty period shall be the date of Company's delivery to the original purchaser of the Products. Proof of Product purchase may be required by Company to confirm the Commencement Date.

**What Company will do:** Company may require proof of Product purchase in order to provide coverage under this limited warranty. As Company's only responsibility and user's only remedy under this limited warranty, Company will furnish a replacement Product upon receipt and confirmation by Company, in its sole opinion, that the Product has, in fact, failed due to a manufacturing defect under normal use and maintenance. In the event a replacement Product cannot be provided, Company will either provide a suitable replacement Product or a refund in the amount of the original purchase price.

**What is not covered:** The following costs, expenses, and damages are not covered by the provisions of this limited warranty: (i) labor costs including, but not limited to, such costs as removal and installation of Product; (ii) shipping and freight expenses required to return Product to Company; (iii) failures, defects, or damage caused by any third party product or service; (iv) any other incidental, consequential, indirect, special and/or punitive damages, whether based on contract, warranty, tort (including, but not limited to, strict liability or negligence), patent infringement, or otherwise, even if advised of the possibility of such damages.

The provisions of this limited warranty do not apply to Product that is: (i) not the proper size for the application for which the Product is used; (ii) not installed in accordance with Company's published Product installation instructions; (iii) installed with improper parts and/or incorrect parts (NOTE: It is recommended that Product be installed with LCN fasteners provided with Product); (iv) improperly stored, maintained, or operated; (v) modified, repaired, or altered in Company's sole opinion, in any manner, without the express written consent of Company; (vi) used for purposes for which the Product is not designed or intended; (vii) subjected to misuse, abuse, negligence, or accident; or (viii) subjected to improper temperature, humidity, or other environmental conditions.

Note: 900/7900 Series compressors are not manufactured by Company and are excluded from coverage under this limited warranty. For more information, parts, or repairs concerning the compressors, contact the compressor manufacturer directly at (269) 926-6171.

**Additional Terms:** This limited warranty is in lieu of all other warranties, express or implied. Company does not authorize any person to create for it any obligation or liability in connection with Product. Company's maximum liability hereunder is limited to the original purchase price of the Product. No action arising out any claimed breach of this limited warranty by Company may be brought by the user more than one (1) year after the cause of action has arisen.

**How local law applies:** This limited warranty gives you specific legal rights, and you may also have other rights as permitted by law. Some local laws do not allow limitations on how long an implied warranty lasts or the exclusions or limitation of incidental or consequential damages so the limitations or exclusions provided herein may not apply to you.

**Program and Warranty Claims:** All Product claimed to be defective under this limited warranty shall be sent to: LCN, Warranty and Replacement Department, 121 West Railroad Avenue, P.O. Box 100, Princeton, Illinois USA 61356-0100. For information, contact Customer Care at (877) 671-7011.

This warranty applies only to the ABS Manufacturing doors described. Should any doors manufactured by ABS Manufacturing fail to conform to this written warranty, ABS Manufacturing will, at our option, either

1. Replace the doors to the distributor or the person making the warranty claim. The doors will only be replaced in the exact same manner in which the doors were originally sold.
2. Repair the doors.
3. Refund the original purchase price paid to ABS Manufacturing for the doors. In no claim situation will ABS Manufacturing pay for ANY labor and materials for the finishing or installation of the replacement doors, or any other costs associated to the replacement of the doors.

See claims procedure form for exact details on any claim situation.

**Warranty Periods:**

Flush Hollow Core	2 Years
Molded Panel Hollow Core	2 Years
Bifold Doors	2 Years
Flush Economy Particleboard Core	2 Years
Molded Economy Particleboard Core	2 Years
Flush Standard Particleboard Core	2 Years
Flush Heavy Duty Particleboard Core	Lifetime
Flush Extra Heavy Duty SCL Core	Lifetime
Flush Mineral Core	Lifetime
Molded Mineral Core	2 Years

**Tolerances:**

1. Size Tolerance:
  - a. Thickness + or - 1/16"
  - b. Width + or - 1/16"
  - c. Height + or - 1/16"
  - d. Hardware preparation + or - 1/32"
2. Squareness Tolerance:
  - a. Diagonal measurement will not exceed 1/8"
3. Telegraphing Tolerance:
 

Hollow Core	No Warranty
Economy	2/100th in 3" span
Standard	2/100th in 3" span
Heavy Duty	1/100th in 3" span
Extra Heavy Duty	1/100th in 3" span
Mineral Core	1/100th in 3" span
4. Warp Tolerance:
 

Warp will be measured with a straight edge along the concaved face of the door. If the measurement is 1/4" or less the door will not be considered as defective. Top doors in stacks will have a tendency to pull upward due to some moisture loss. This is a very common occurrence especially in hot dry climates. To correct this warpage re-stack the doors in the opposite direction and the doors will straighten out. Any door warped due to improper storage or handling will not be warranted.

**Storage & Handling (WDMA I.S.1-A)**

1. Store doors flat on a level surface in a dry, well ventilated building. Doors should be kept at least 3-1/2" off the floor and should have protective coverings under the bottom door and over the top. Covering should protect doors from dirt, water and abuse but allow air circulation under and around the stack. Avoid exposure to any sunlight or artificial light.
2. Certain species (e.g., Cherry, Mahogany, Walnut, Teak) are more susceptible to discoloration if exposed to either sunlight or some forms of artificial light. To protect doors from light damage after delivery, opaque plastic wrapping is recommended.

**Storage & Handling (WDMA I.S.1-A) Cont.**

3. Do not subject interior doors to extremes of heat and or humidity. Prolonged exposure may cause damage. Buildings where humidity and temperature are controlled provide the best storage facilities. (Recommended conditions 30% - 50% RH and 50 to 90 degrees F.)
4. Do not install doors in buildings that have wet plaster or cement. Do not store doors in buildings with excessive moisture content. HVAC should be in operation and balanced.
5. Doors should always be handled with clean hands or while wearing clean gloves.
6. Doors should be lifted and carried when being moved, not dragged across one another.

**Finishing Instructions: (WDMA I.S.1-A)**

1. Wood is a hygroscopic and dimensionally influenced by changes in moisture content caused by changes within its surrounding environment. To assure uniform moisture exposure and dimensional control all surfaces must be finished equally.
2. Doors may not be ready for finishing when initially received. Before finishing, remove all handling marks, raised grain, scuffs, burnishes and other un-desirable blemishes by block sanding all surfaces in a horizontal position with sandpaper. To avoid cross grain scratches, sand with the grain.
3. Certain species of wood, particularly oak, contain chemicals which react unfavorably with foreign materials in the finishing system. Eliminate the use of steel wool on bare wood, rusty containers or any other contaminate in the finishing system.
4. A thin coat of sanding sealer must be applied prior to sanding to promote a uniform appearance and avoid sharp contrasts in color or a blotchy appearance.
5. All exposed surfaces must be sealed including top and bottom rails. Cut outs for hardware in doors must be sealed prior to installation of hardware.
6. Dark colored finishes should be avoided on all surfaces if the door is exposed to direct sunlight, in order to reduce the chance of warping or veneer checking.
7. Oil based sealers or prime coats provide the best base coat for finishing. If a water-based primer is used it should be an exterior grade product. Note: Water based coatings on un-finished wood may cause veneer splits, highlight joints and raise wood grain and therefor should be avoided. If a water based primer is desired, please contact the finishing supplier regarding the correct application and use of these products.
8. Be sure that the door surface being finished is satisfactory in both smoothness and color after each coat. Allow adequate drying time between coats. Desired results are best achieved by following the finish manufacturer's recommendations. Do not finish the doors until a sample of the finish has been approved in writing.
9. On factory primed hardboard faced doors and molded faced doors a water-based all acrylic latex finish is most compatible with the primers used and is recommended. Always obtain and follow paint manufactures recommendations. Never attempt to paint hardboard or molded faced doors in moist cold conditions for water-based paints will not dry quick enough and penetrate into the door skins and cause lineal expansion or other irregularity.

**Installation: (WDMA I.S.1-A)**

1. The utility or structural strength of the doors must not be impaired in fitting to the opening, in applying hardware, in preparing for lites, louvers, plant-ons or other detailing.
2. Use two hinges for solid core doors up to 60" in height, three hinges for doors up to 90" in height and an additional hinge for every additional 30" of door height or portion thereof. Interior hollow core doors weighing less than 50 pounds and not over 7/6 in height may be hung on two hinges. Use heavy weight hinges on doors over 175 pounds. All molded panel doors are recommended to have three hinges to 7/0 in height.]
3. Clearances between door edges and door frame should be a minimum of 1/16" on hinge edge. For latch edge and top rail the clearance should be 1/8".
4. All hardware locations, preparations for hardware and methods of hardware attachment must be appropriate for the specific door construction. Templates for specific hardware preparation are available from hardware manufacturers or their distributors.

**Installation: (WDMA I.S.1-A) Cont.**

5. When lite or louver cutouts are made for exterior doors they must be protected in order to prevent water from entering the door core. Metal flashing on cut outs is recommended.
6. Pilot holes must be drilled for all screws that act as hardware attachments. Threaded to the head screws, are preferable for fastening hardware to non rated doors and are required on fire rated doors.
7. In fitting for height, do not trim top or bottom edge by more than 3/4" unless accommodated by additional blocking. Do not trim top edge of fire doors.
8. Doors and door frames must be installed plumb, square and level.
9. For installation of any rated fire door see "Fire Door Installation Requirements."

**Cleaning and touch up: (WDMA I.S.1-A)**

1. Inspect all doors prior to hanging them on the job. Repair noticeable marks or defects that may have occurred from improper storage and handling.
2. Field touchup shall include the filling of exposed nail or screw holes, re-finishing raw surfaces resulting from job fitting, repair of job inflicted scratches and mars, and final cleaning of finished surfaces. Field repairs and touch ups are the responsibility of the installing contractor.
3. When cleaning door surfaces, use a non-abrasive commercial cleaner designed for cleaning wood door or paneling surfaces, that do not leave a film residue that would build up or effect the surface gloss of the door finish.

**Adjustment and Maintenance: (WDMA I.S.1-A)**

1. Review with the owner/owners representative how to periodically inspect all doors for wear, damage and natural deterioration.
2. Review with the owner/owners representative how to periodically inspect and adjust all hardware to insure that it continues to function as it was originally intended.

**Limitations and Exclusions: \*This warranty will not cover any of the following\***

1. Exterior doors.
2. Doors stained or painted with dark colors for warpage and telegraphing
3. The performance of surface mounted hardware, or doors ordered without adequate blocking for hardware.
4. The natural variations in color, texture or grain in wood faced doors.
5. Warpage when two different types of faces are used on each side of the door.
6. The appearance of a high sheen finish on painted, stained, or plastic laminate faced doors.
7. When any lite or louver cut out is closer than 5" inches to any edge of the door or hardware prep.
8. Warpage on doors greater than 8/0 in height.
9. Doors which are over 7/0 in height, or wider than 3/0 hung with three or fewer hinges.
10. The appearance of field finished or painted doors. Once a door is finished this constitutes acceptance of the product.
11. If the door has been altered or machined in any way when a defect was present prior to machining.
12. Doors left un-finished at the job site and doors which are not sealed and painted on all six sides for more than 15 days.
13. Natural color variations in prefinished wood doors.
14. Workmanship that is not performed by ABS Manufacturing.
15. Telegraphing when internal blocking is used.
16. Unauthorized work performed on any door. Any repairs needed must be notified to ABS Manufacturing and a reasonable solution will be determined only by ABS Manufacturing.

This warranty represents the maximum liability for all doors manufactured by ABS Manufacturing. No other warranty, expressed or implied will serve the purpose of this warranty. No dealer has authority to modify this limited warranty in any way. In no situation shall ABS Manufacturing be held responsible for indirect damages.

All doors manufactured by ABS Manufacturing are warranted to be free from defects in materials and workmanship. Although our stringent quality control system and our utilization of modern packaging and shipping methods assure that virtually all doors arrive at their destination in perfect condition, occasionally a problem does occur.

To comply with the terms of our sales agreement, and to assure the most expedient resolution of any problem, the following steps must be followed.

**Transportation related damage:**

ABS Manufacturing does not guarantee safe delivery of goods. Our responsibility ceases with issuance of the bill of lading showing delivery in good order to the transportation company. **All claims for shortages, loss, delay or damage from any cause must be filed by the consignee upon the transportation company.**

**Notice Requirement:**

Since ABS Manufacturing Can not control the handling or exposure of doors following receipt, a specific duty of inspection is imposed upon the purchaser as a condition precedent to any claim. Such inspection must be made upon receipt of goods. Should a manufacturing defect be discovered, a written notice of the claim must be received by ABS Manufacturing within 15 days of receipt of the goods or, in the event of a latent defect, from the date that such defect was, or should have been discovered. It will be the responsibility of ABS Manufacturing to determine the most efficient method to remedy such defect. Any repairs authorized or performed by any party, other than ABS Manufacturing are not covered by our sales agreement and are not the financial responsibility of ABS Manufacturing. **No claim will be honored unless the proper notification, as outlined above, has been received.**

**Information Requirement:**

The written claim notice must include:

1. Invoice number
2. date of purchase
3. Purchase order number
4. All pertinent information on the original order
5. Detailed explanation of defect.

**Inspection Requirement:**

Doors that are pre-machined at our factory should be checked against the frame, in which they are to be installed, for correct hinge placement and lock location. All other hardware preparation should be checked with the physical hardware to assure that the machining is correct prior to any installation. Doors that are pre-finished should be checked against approved finish sample prior to any installation.

**Installation of any pre-machined or pre-finished door shall constitute acceptance.**

**WARNING - Field Finished or Painted Doors**

All doors that are to be field finished or painted must be checked thoroughly. It is the responsibility of the finisher to prepare the doors by either hand sanding or power sanding each door to remove all handling marks. Sand paper grit and duration of preparation time depends on the finish that is required. If problems occur the finishing process must stop and ABS Manufacturing must be contacted.

**Finishing or painting of any doors shall constitute acceptance. And at no time will finishing or painting expenses be the responsibility of ABS Manufacturing when a problem was present prior to.**

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**ATTENTION: RECEIVING AGENT**

TRANSPORTATIONRELATEDDAMAGE:

American Building Supply Mfg. does not guarantee safe delivery of goods. Our responsibility ceases with issuance of the bill of lading showing the delivery in good order to the transportation company. All claims for shortages, loss, delay or damage from any cause must be filed by the consignee upon the transportation company.

# WARRANTY

Custom Metal Products' doors and frames are unconditionally guaranteed against defects in workmanship and materials for one (1) year from invoice date.

Should any defect be discovered during the inspection process at the time of delivery, Custom Metal Products will either repair or replace their product at no charge to the customer depending on project specifications.

Should any defect be discovered, written notice must be submitted with a copy of the original invoice to:

Custom Metal Products  
150 Division Drive  
Wilmington, North Carolina 28401  
(866) 893-3338 Voice  
(866) 963-1355 Fax

This warranty does not extend to acts of vandalism or improper storage before and during installation. It does not cover material defects due to adverse jobsite conditions and all doors and frames are required to have been properly installed for use for their intended purpose.

This warranty does not cover costs of installation of replacements provided by this guarantee.

Custom Metal Products reserves the right to be the sole judge in the determination of liability and method of correction and does not warrant or accept liability of any work done without written consent.

This warranty is the only warranty provided to the purchaser. There are no additional warranties express or implied.



150 Division Drive  
Wilmington, NC 28401  
[www.CustomMetalProductsNC.com](http://www.CustomMetalProductsNC.com)

Phone: 866-893-3338  
Fax: 866-963-1355  
[Info@CustomMetalProducts.bz](mailto:Info@CustomMetalProducts.bz)

Revised 021107

## For factory-prepared doors only

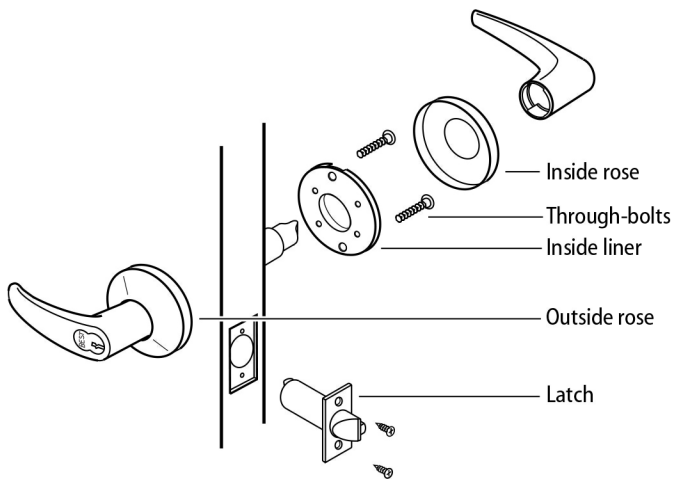


Figure 1 — Overview diagram

**Caution:** If you use hollow metal doors, determine whether the doors are reinforced enough to support the lock. If door reinforcement is not adequate, consult the door manufacturer for information on proper reinforcement.

### Simplified instructions

- 1 Install the latch so that the bevel on the latchbolt faces the strike.
- 2 Adjust the outside rose assembly so that the chassis is centered in the door. Install the chassis from the outside of the door.
- 3 Install the inside liner, through-bolts, rose, lever and strike.

For field door preparation and detailed installation instructions, see the following tasks.

## 1 Position template

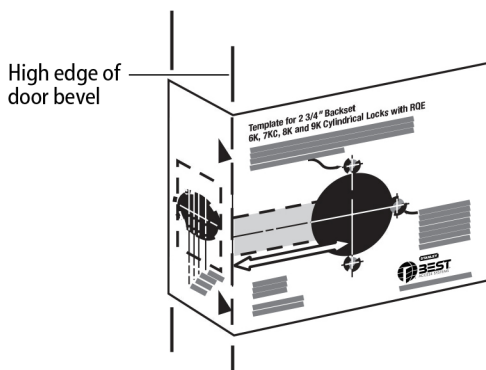


Figure 2 — Placing the template on the high side of the door bevel

- 1 Fold the template and place in position on the high edge of the door bevel as shown in Figure 2.
- 2 Mark the drill points.

**Note:** Suggested height from floor to centerline of the lock is 40 5/16". If steel frames are used, the latch centerline must be in line with the center of the strike preparation.

## 2 Bore two holes and install latch

- 1 Bore a 2 1/8" diameter hole from both sides of the door, to the center of the door.
- 2 Drill a 1" diameter hole from the edge of the door that intersects the 2 1/8" hole.
- 3 Mortise the door edge for the latch face.
- 4 Install the latch and check the door swing. Latch tabs should project into the 2 1/8" diameter hole. See figure 3 in task 3.

## 3 Install boring jig and drill two 5/16" diameter holes

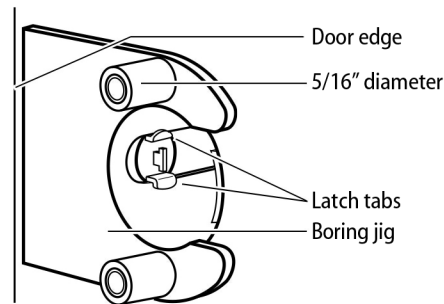


Figure 3 — Positioning the boring jig for drilling the 5/16" holes

- 1 Install the boring jig (KD303) onto the door and engage with latch tabs. Make sure the front edge of the jig is parallel with the door edge as shown in Figure 3.
- 2 Drill two 5/16" diameter holes halfway into the door.
- 3 Turn the boring jig over and repeat steps one and two from the opposite side of the door.

**Note:** Replace the boring jig after ten door preparations.

## 4 Adjust lockset to door thickness

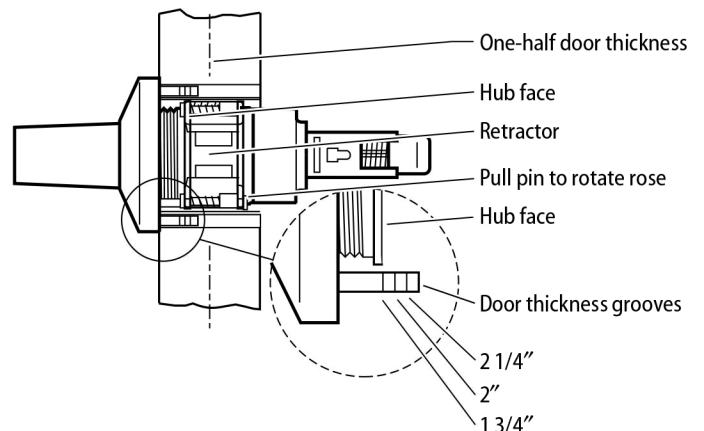


Figure 4 — Adjusting the lock chassis for door thickness

- Pull the rose locking pin and rotate the outside rose liner in or out

until the proper door thickness groove on the through bolt stud, lines up with the hub face as shown in Figure 4—enlarged.

**Note 1:** Make sure the locking pin locks into the rose liner.

**Note 2:** Locksets will fit doors 1 3/4" to 2 1/4" thick. (A spacer is available for 1 3/8" doors.) See the enlarged view for the correct rose adjustment for these thicknesses.

## 5 Engage retractor in latch

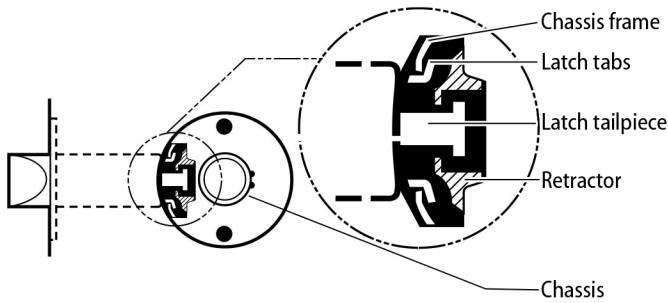


Figure 5 — Engaging the latch and retractor

- With the latch in place, install the chassis from the outside. Make sure the latch tabs engage the chassis frame and the latch tailpiece engages the retractor as shown in Figure 5.

## 6 Install liner, through-bolts, rose and lever

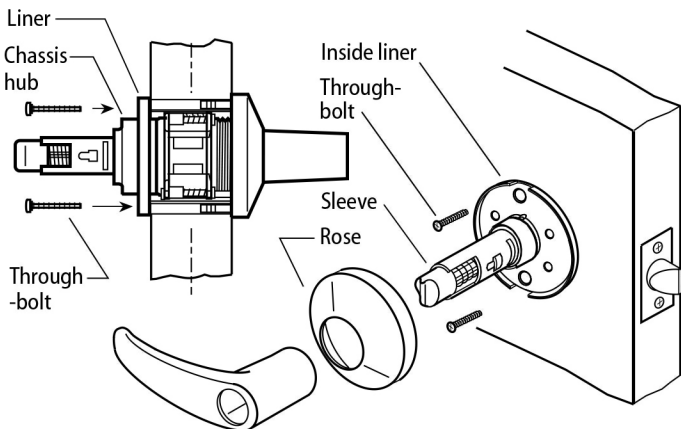


Figure 6 — Installing liner, through bolts, rose, and lever

**Note:** For lead-lined locksets, slide the lead shield (not shown) over the sleeve and into the 2 1/8" hole.

- 1 Align the holes in the liner with the holes prepared in the door.
- 2 Install through-bolts through the liner and door in the top and bottom holes as shown in Figure 6.
- 3 Tighten the liner onto the door with the through-bolts.
- 4 Slide the rose over the sleeve, then press the rose onto the liner. The rose should fit closely to the door surface.
- 5 With the lever pointing toward the hinges, push the lever on firmly until seated.

## 7 Install strike plate

- 1 In alignment with the center of the latchbolt, mortise the door jamb to fit the strike box and strike plate.

**Caution:** The deadlocking plunger of the latchbolt must not enter the strike plate opening. The plunger deadlocks the latchbolt and prevents forcing the latch when the door is closed. A gap of more than 1/8" may reduce security and/or cause improper operation of the latchbolt.

- 2 Insert the strike box and secure the strike with screws provided as shown in Figure 7.

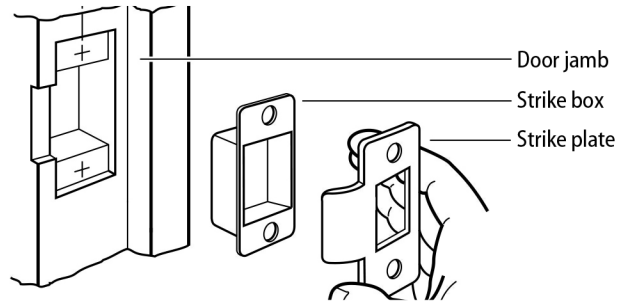


Figure 7 — Installing the strike

## 8 Assemble and install core

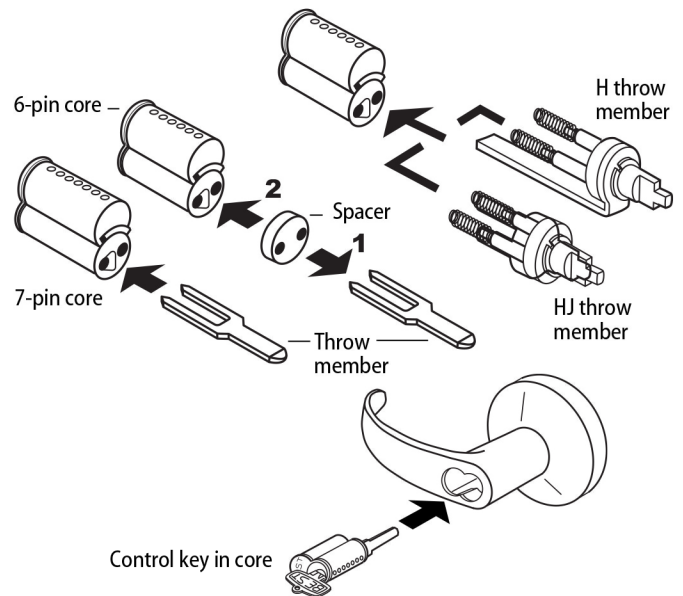


Figure 8 — Assembling and installing the core

**For 6-pin core users only:** Slide the spacer — supplied with your 6-pin cores — over the 7-pin throw member (see Figure 8, top).

**For 'H' or 'HJ' functions only:** Install the proper throw member shown in Figure 8, top right.

**Note:** If you have ordered 6-pin cores, you will get one spacer per core with your order. Spacers are not supplied with locks.

- 1 Insert the throw member (or throw member and spacer) into the back of the core as shown in Figure 8, top.
- 2 Put the control key into the core and turn the key 15 degrees clockwise.
- 3 Put the core and throw member into the lever with the control key as shown in Figure 8, bottom.
- 4 Turn the key 15 degrees counterclockwise and remove the key.

**Caution:** Since the control key is a high-security key, make sure to keep it protected.



28266

# 4040XP/4041 DA CUSH

# LCN®

## 85°- 90°- 100°- 110° Template Push Side Mounting

## Installation Instructions

**1** Locate proper template. Center punch all hole locations. For self reaming tapping screws (SRT) drill 1/8" pilot holes.

**MOUNT 100° or 110° to meet ADA.**

**SRT Screw** Reduce installation torque if using SRT screws in wood. The use of wood screws is recommended for wood.

Note: 1. When using pivot or swing clear hinge pin, locate closer and shoe from the centerline. 2. Reinforcing per ANSI/SDI-100 recommended for hollow metal doors and frames. 3. Closer size 12 1/4 x 3 1/2 x 2 5/32.

**4041: Spring Cush dead stop will occur approximately 5° beyond normal 4041 dead stop point.**

Left hand application  
Application main gauche  
Aplicación para mano izquierda.

Right hand application  
Application main droite  
Aplicación para mano derecha.

**2** Determine door width, adjust spring power to match chart.

DOOR WIDTH		LCN FAST™ Power Adjust
INTERIOR	EXTERIOR	SET TO:
34"	8.5 lb-f	2+
38"	30"	3
48"	36"	4+
54"	42"	5+
60"	48"	6+

LCN FAST™ Power Adjust for Spring Power Adjustment

**CAUTION**  
IMPROPER INSTALLATION OR REGULATION MAY RESULT IN PERSONAL INJURY OR PROPERTY DAMAGE. FOLLOW ALL INSTRUCTIONS CAREFULLY. FOR QUESTIONS, CALL LCN AT 1-877-671-7011

**3** ① Mount arm on shaft at 30° to closer, as shown.  
② Secure arm assembly to closer with pinion screw provided.

NOTE: Closer arm will provide some resistance, as shown.

**4** **SCREW IN VALVE ON BACK OF CLOSER.**  
Using screws provided, secure closer to door.

**5** ① Shoe must be "handed" to match door before mounting.  
② Open door to approx. 45°, attach arm to frame with fasteners provided.

Refer to reverse side for instructions. Instructions à l'envers. Vea al revés para las instrucciones.

Fifth hole spacer  
Espaçeur du cinquième trou  
Españador para el quinto agujero

**6** If necessary, adjust closer.

NOTE: A "Normal" closing time from 90° open position is 5 to 7 seconds, evenly divided between main speed and latch speed.

**CAUTION**  
OPENING OF REGULATION VALVES TOO FAR MAY RESULT IN LEAKAGE OF CLOSER, PERSONAL INJURY OR PROPERTY DAMAGE. FOLLOW ALL INSTRUCTIONS CAREFULLY.

NO MAINTENANCE REQUIRED

I Optional 4041 Delay  
① - Backcheck  
② - Main Speed  
③ - Latch Speed  
④ - Delay Speed

II HOLD OPEN ARM: To engage or disengage hold open feature, turn control handle one-quarter (1/4) turn.

**7** Snap on cover.

Note: Use screws for metal cover only.

4040XP Instructions Cush et gabarit de 85°-90°-100°-110° pour une installation sur le côté à pousser.

**1** Repérez le gabarit approprié. Marquez le centre de tous les trous. Percez des trous de guidage de 1/8" pour les vis tarauds.

**2** Mesurez la largeur de la porte. Réglez le ressort selon les indications du tableau.

Réglage de force LCN FAST™ pour régler la force du ressort

**3** ① Montez le bras sur la tige à 30° du ferme-porte, comme sur l'illustration.  
② Fixez l'assemblage du bras au ferme-porte à l'aide des vis fournies.

NOTE: Le bras offrira une légère résistance, comme sur l'illustration.

**4** Vissez la soupape derrière le ferme-porte. Fixez le ferme-porte sur la porte avec les attaches fournies.

**5** ① La main de la console doit être adaptée à celle de la porte avant l'installation.

**6** Au besoin, réglez  
① - frein à l'ouverture  
② - vitesse de fermeture  
③ - vitesse d'enclenchement

I 4041 Action retardée optionnelle  
① - frein à l'ouverture  
② - vitesse de fermeture  
③ - vitesse d'enclenchement  
④ - vitesse de retenue

II BRAS DE RETENUE: Pour engager ou désengager le mécanisme de retenue, tournez la manette de contrôle d'un quart (1/4) de tour.

**7** Fixez le couvercle.

NOTE: la fermeture d'une porte ouverte à 90° prend normalement de 5 à 7 secondes, ce délai est réparti entre la vitesse de fermeture et la vitesse de verrouillage.

**DANGER**  
Une installation ou un réglage inadéquats peuvent entraîner des blessures ou des dommages. Veuillez suivre toutes les instructions avec soin. Pour plus de renseignements, composez le 800-526-2400

**DANGER**  
UNE OUVERTURE EXAGÉRÉE DES SOUPAPES DE RÉGLAGE PEUT ENTRAÎNER DES FLÛTES, DES BLESSURES OU DES DOMMAGES. VEUILLEZ SUIVRE LES INSTRUCTIONS AVEC SOIN.

4040XP Instrucciones CUSH para plantilla 85°-90°-100°-110° con montaje del lado del empuje.

**1** Localice la plantilla apropiada. Marque el centro de cada agujero. Barrena agujeros pilotos de 1/8" para los tornillos autorroscantes.

Si se usan tornillos de rosca cortante en la madera, se deberá reducir el par de apretado. Con la madera, se recomienda utilizar tornillos para madera.

**2** Determina la anchura de la puerta. Ajusta la fuerza del resorte según lo indicado en el gráfico.

LCN FAST™ Cuadrante de ajuste para ajustar la potencia del resorte

**3** ① Monte el brazo en el eje a 30° del cerrador, tal como se muestra.  
② Sujete el ensamblaje del brazo al cerrador con el tornillo ya incluido.

NOTA: El brazo del cerrador ofrecerá cierta resistencia, tal como se muestra.

**4** Atornilla la válvula al revés del cerrador. Sujeta el cerrador a la puerta con los tornillos ya incluidos.

**5** ① Debe de hacerse coincidir el lado de la zapata con la puerta antes de montarla.  
② Abra la puerta hasta aprox. 45°, sujete el brazo al bastidor con los sujetadores ya incluidos.

**6** Ajusta si es necesaria  
① - resistencia de apertura  
② - velocidad principal  
③ - velocidad de seguro

I 4041 Acción retardada opcional  
① - resistencia de apertura  
② - velocidad principal  
③ - velocidad de seguro  
④ - velocidad de retardo

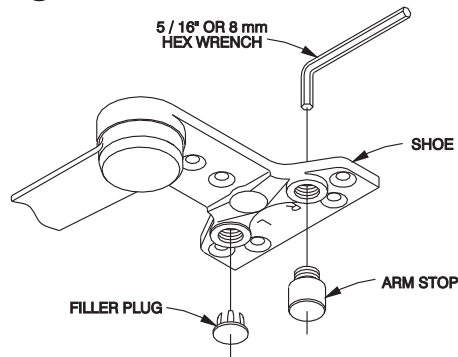
II BRAZO DE RETENCIÓN: Para embragar o desembragar la característica de retención, dar un cuarto de vuelta (1/4) al cabo.

**7** Encaje la tapa.

NOTE: El tiempo de cerrado "Normal" de una puerta abierta a 90° es de 5 hasta 7 segundos, dividido igualmente entre la velocidad principal y la velocidad de seguro.

**ADVERTENCIA**  
UNA INSTALACIÓN O UN AJUSTE INCORRECTOS PUEDEN RESULTAR EN DAÑO PERSONAL O MATERIAL. SIGA BIEN TODAS LAS INSTRUCCIONES. PARA MÁS INFORMACIONES, LLAMA A LCN AL 800-526-2400

**ADVERTENCIA**  
LA APERTURA DEMASIADO GRANDE DE LAS VÁLVULAS DE AJUSTE PUEDE OCASIONAR UN DERRAME. DANG PERSONAL O MATERIAL. SIGA BIEN TODAS LAS INSTRUCCIONES.

**Fig. 1**

Both Cush and H.O. Cush shoes must be "handed" to match door **BEFORE** mounting. See Fig. 1.

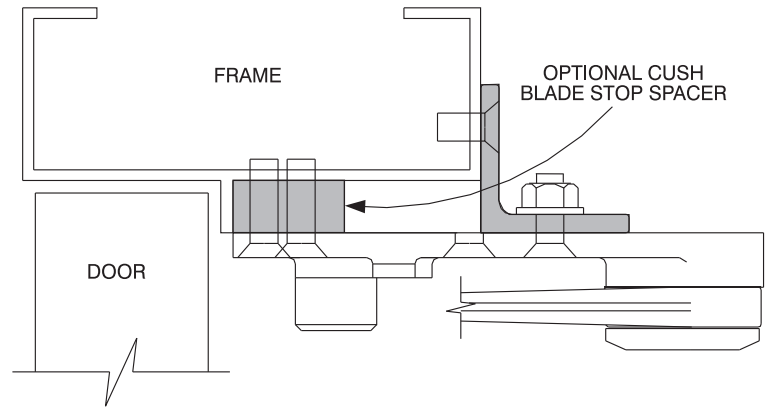
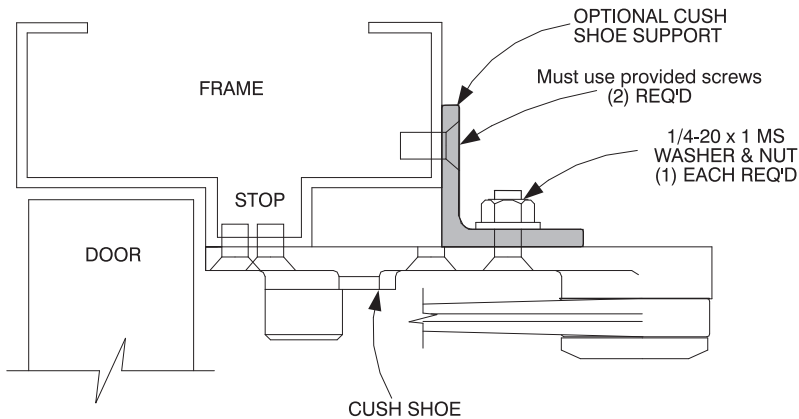
**For Left Hand doors:** All shoes are shipped assembled for left hand doors. Insert 5/16" (8mm) Hex wrench into arm stop and turn counter - clockwise to **seat stop as tightly as possible**.  
**For Right Hand doors: (see illustration)** Push filler plug out of shoe. Using a 5/16" (8mm) Hex wrench, turn arm stop clockwise to remove from shoe. Thread arm stop into hole marked "R". Turn wrench counter - clockwise, **seating stop as tightly as possible**. Insert filler plug into other hole.

La main des sabots Cush ainsi que celle des sabots Cush avec retenue doit être adaptée à cette de la porte AVANT l'installation. Voir Fig. 1.

Portes main gauche: Tous les sabots sont expédiés assemblés pour main gauche. Insérez une clé hexagonale 5/16 ou 8mm dans la butée du bras et tournez en sens inverse des aiguilles d'une montre pour assurer une assise de butée solide.  
 Portes main droite: (voir l'illustration). Sortez le bouchon du sabot. À l'aide d'une clé hexagonale 5/16 ou 8mm, tournez dans le sens des aiguilles d'une montre pour enlever le sabot. En alignant bien les filets, insérez la butée du bras dans le trou "R". Tournez la clé en sens inverse des aiguilles d'une montre, pour assurer une assise de butée solide. Insérez le bouchon dans l'autre trou.

Debe de hacerse coincidir el lado de la zapata Cush o de la zapata Cush con retenición antes de montarla. Ver Figura 1.

Puertas mano izquierda: las zapatas se entregan todas en sambladas para puertas mano izquierda. Inserte una llave hex 5/16 (8 mm.) en el tope del brazo y gire en sentido contrario a las agujas del reloj para seguramente asentar el tope. Puertas mano derecha: (ver la ilustración). Quite el tapón de llenado de la zapata. Con una llave hex 5/16 (8 mm.), gire el tope del brazo en el sentido de las agujas del reloj para quitarlo de la zapata. Coloque el tope del brazo en el agujero marcado con "R", alineando bien las roscas. Gire la llave en el sentido contrario a las agujas del reloj para asentar bien seguro el tope. Inserte el tapón de llenado en otro agujero.



## INSTRUCTIONS FOR INSTALLING CUSH SHOE SUPPORT

### AFTER CUSH - N - STOP IS INSTALLED

- 1---Set Cush Shoe Support on top of Cush Shoe and hold against frame.
- 2---Assemble screw, washer, and nut as shown and tighten securely.
- 3---Using Shoe Support as Template drill & tap two 1/4-20 holes in frame.
- 4---Insert screw & tighten securely.

If frame is not wide enough to receive fifth screw, install Cush Shoe Support (available from Dealer) as shown above.

Should frames have 1/2" Blade Stop it is necessary to use 1/2" Blade stop Spacer (available from Dealer). Use both Blade Stop Spacer and Shoe Support wherever required.

Si le cadre a une butée de 1/2" il faut utiliser un espaceur de butée de 1/2" (offert chez le concessionnaire). Utilisez espaceur et support de sabot au besoin.

Si los bastidores tienen un tope de pala de 1/2", se debe utilizar un espaciador de tope de pala de 1/2" (disponible del representante). Utilice un espaciador de tope de pala y un soporte de zapata cuando sea necesario.

## INSTRUCTIONS POUR INSTALLER LE SUPPORT DU SABOT CUSH

### APRÈS L'INSTALLATION DU CUSH - N - STOP

- 1---Mettez le support du sabot Cush sur le sabot Cush et appuyez-le contre le cadre.
- 2---Assemblez la vis, la rondelle et le boulon comme sur l'illustration et serrez fermement.
- 3---En utilisant le support du sabot comme gabarit, taraudez deux trous de 1/4-20 dans le cadre.
- 4---Insérez la vis et serrez fermement.

Si le cadre n'est pas assez large pour la cinquième vis, posez le support du sabot Cush (offert chez le concessionnaire) comme sur l'illustration.

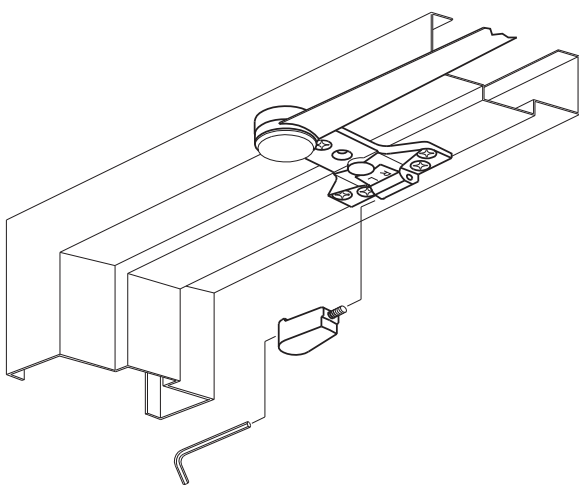
## INSTRUCCIONES DE INSTALACIÓN SOPORTE DE ZAPATA CUSH

### DESPUÉS DE HABER SIDO INSTALADO EL CUSH - N - STOP

- 1---Coloque el soporte de zapata Cush encima del zapata Cush y téngalo contra el bastidor.
- 2---Monte el tornillo, la arandela y la tuerca tal como se muestra y apriételes bien.
- 3---Usando el soporte de zapata como plantilla, taladre y rosque dos agujeros 1/4-20 en el bastidor.
- 4---Inserte el tornillo y apriétele bien.

Si el bastidor no es suficientemente ancho para recibir un quinto tornillo, instale un soporte de zapata Cush (disponible del representante) tal como se muestra abajo.

## INSTRUCTIONS FOR INSTALLING SPRING CUSH ARM



### INSTALLATION

(Left hand shown; Right hand opposite)

1. **LOCATING:** See IMPORTANT INFORMATION below. In new installations, use standard CUSH template. When replacing existing CUSH arm, use existing mounting holes.

\* See note 4 in Step 1 on front page. \*

2. **INSTALLATION:** Mount shoe on frame FIRST. After shoe is mounted, use a 5/32 or 4 mm hex wrench to install the contact block assembly as shown above. Make sure the screw is tightened securely into the shoe.

3. **COMPLETING INSTALLATION:** Complete the installation as directed for regular CUSH arms in the main instruction sheet.

### IMPORTANT INFORMATION:

**4040XP:** Spring Cush dead stop will occur approximately 5° beyond normal 4041 dead stop point.

**Backcheck:** DO NOT reduce backcheck setting of door closer. Spring Cush arm function does not replace backcheck.

## INSTRUCTIONS POUR INSTALLER UN BRAS À RESSORT CUSH

### INSTALLATION

(Main gauche illustrée; main droite à l'opposé)

1. **SITUER:** Voir RENSEIGNEMENTS IMPORTANTS. Pour une nouvelle installation, utilisez le gabarit CUSH standard. Pour remplacer un bras CUSH, utilisez les trous de montage déjà percés.

2. **INSTALLATION:** Montez le sabot sur le cadre EN PREMIER. Après avoir posé le sabot, utilisez une clé hexagonale 5/32 ou 4 mm pour installer l'assemblage comme sur l'illustration. Serrez la vis fermement dans le sabot.

3. **TERMINER L'INSTALLATION:** Terminer l'installation indiquée pour les bras CUSH sur la feuille d'instructions principale.

### RENSEIGNEMENTS IMPORTANTS:

**4040XP:** L'arrêt du Cush à ressort se produira à environ 5° après celui du 4041 normal.

**Résistance d'ouverture:** NE PAS réduire la résistance d'ouverture du ferme-porte. La fonction du bras Cush à ressort ne remplace pas cette résistance.

## INSTRUCCIONES DE INSTALACIÓN DEL BRAZO DE RESORTE CUSH

### INSTALACIÓN

(A la izquierda: como se muestra; a la derecha: al opuesto)

1. **LOCALIZACIÓN:** Vea los DATOS IMPORTANTES abajo. Utilice la plantilla CUSH estándar en las nuevas instalaciones. Utilice los agujeros de montaje existentes cuando se reemplace un brazo CUSH existente.

2. **INSTALACIÓN:** PRIMERO: Monte la zapata en el bastidor. Después de haber montado la zapata, utilice una llave de tuercas hexagonal 5/32 o 4 mm para instalar el ensamblaje de bloque de contacto como se muestra arriba. Asegúrese de apretar bien el tornillo en la zapata.

3. **PARA COMPLETAR LA INSTALACIÓN:** Complete la instalación como para los brazos CUSH regulares en la hoja de instrucciones principal.

### DATOS IMPORTANTES:

**4040XP:** El paro en seco del resorte podrá ocurrir aproximadamente 5° después del punto del paro en seco 4041 normal.

**Resistencia de apertura:** NO reduzca el ajuste de resistencia de apertura del cerrador. El funcionamiento del brazo de resorte Cush no reemplaza la resistencia de apertura.



# MILLWORK COMPONENTS

## GENERAL LIMITED WARRANTY

MILLWORK COMPONENTS ("MC") WARRANTS TO THE ORIGINAL PURCHASER THAT THE QUALITY OF MATERIALS AND WORKMANSHIP OF ALL PRODUCTS MANUFACTURED BY US SHALL BE FREE OF FACTORY CAUSED DEFECTS THAT WOULD RENDER THE PRODUCT UNSERVICEABLE DURING ONE (1) YEAR AFTER THE DATE OF MANUFACTURE.

Should a part or product be proven to be defective, Millwork Components (hereinafter "MC") may, at its option, offer a replacement part or product, or refund the original purchase price of the part or product to the original purchaser (less Shipping & Handling). **PLEASE NOTE:** Differences in opinion regarding aesthetic issues (coating, color match, grain match, etc.) **DOES NOT** constitute a defect in material or manufacture. It is up to a qualified and authorized officer of MC to make such aesthetic judgments and all findings thereafter shall be considered **FINAL**. Transportation, installation, finishing and / or maintenance of new parts / products are the sole responsibility of parties other than MC. All bare or primed wood products must be primed, sealed and / or painted with superior materials to equal or exceed industry standards in order to be deemed as "**WARRANTED**". Installation and finishing must have been performed in a manner consistent with the guidelines described by MC in order to be considered warrantable. Suggestions of finishing materials / brands / products by a representative of MC are to be considered as mere guidelines and nothing more, and it is up to the Purchaser to make all final judgments in this regard without any liability to MC whatsoever. This warranty covers only products and parts manufactured directly by MC, and lists the only responsibilities and remedies thereto. Normal aging, any incidental damages, misuse, or depreciation from use, or abuse and mishandling of products is not covered. Damages from fire, corrosive chemicals, wind & flying debris, salt, acid rain, flood, natural disaster, or other Acts of God are not covered. Should there be a Warranty Issue not caused by one of the above factors, MC will provide at its discretion replacement part(s) delivered to the original point of purchase. **INSTALLATION LABOR, JOBSITE CARTAGE, PAINTING, FINISHING, AND RELATED ACTIVITIES AND ANY DAMAGES ARISING FROM SUCH ACTIVITIES ARE NOT THE RESPONSIBILITY OF MC.** MC makes no other Warranty or Guarantee, express or implied, except as contained herein and in sole regard to products manufactured by MC only. This Warranty is made in lieu of all other Warranties, express or implied, or assumed merchantability or fitness for a particular purpose. Any implied Warranties that are not hereby excluded due to operation or law are limited in their duration to the duration of the express Warranty provided herein for the products warranted. All Warranties are rendered to the Original Purchaser only and are not transferable. Warranty is withheld for any product for which full payment has not been received and will remain withheld until full balance of account is paid.

### **EXCLUSIONS AND VARIANCES TO THE GENERAL LIMITED WARRANTY**

#### **GLASS AND OTHER GLASS UNITS**

MC warrants all units containing glass to the original purchaser to be free from seal failure for a period of **TEN (10)** years from the date of the glass unit manufacture. This warranty does not cover cracked, broken, scratched or otherwise damaged glass due to accident, abuse, mishandling, heat build-up, or faulty installation. One-Lite IG windows exceeding 35 square feet of continuous insulated glass surface are shall have **NO WARRANTY**. Warranty is further withheld from any unit subjected to pressure washing, corrosive or harsh chemicals / cleaning compounds, or the introduction of glass films or tinting by others (aftermarket) than MC during the original manufacturing process. Insulated glass units exposed to an atmospheric pressure in excess of 5,000 feet above seal level are not covered by this warranty. Minor scratches or imperfections in glass that do not impair structural integrity or significantly obscure normal vision or viewing capabilities are not considered manufacturing defects and are not covered by this warranty. Should there be a covered seal failure not caused by one of the above factors, MC will provide at its discretion either a replacement piece of insulated glass, or a sash glazed with insulated glass, delivered to the original point of purchase. **INSTALLATION LABOR, JOBSITE CARTAGE, PAINTING, FINISHING, AND RELATED ACTIVITIES AND ANY DAMAGES ARISING FROM SUCH ACTIVITIES ARE NOT THE RESPONSIBILITY OF MC.**

#### **INSULATED GLASS UNITS WITH GBG (GRILL-BETWEEN-GLASS) GRIDS**

MC warrants all of its GBG products and their field performance for a period on **ONE (1)** year from the date of manufacture. After the General Liability Warranty expires, it becomes the discretion of the officers of MC to evaluate each warranty claim independently for validity and further coverage and / or reparations. No darker colors, most specifically bronze / black / red / green / anodized shall be covered under MC Warranty due to their inherent and known tendencies to absorb heat. All products drawings not supplied by MC are not guaranteed or implied to check for accuracy by MC prior to production. It is up to the Purchaser to be sure to check all measurements and specifications for accuracy prior to submittal and subsequent manufacture. Since IG units with GBG Grills are not manufactured by MC, all warranties regarding fogging, seal failure, discoloration or other defects are left to the discretion of the supplying glass company to determine warranty validity and all warranties are simply passed through by MC to the customer. All guidelines given to MC by IG suppliers must be followed in an order acceptable to the manufacturer of the IG units in order to be enforceable, and any replacement glass and/or units may be at **FULL CHARGE** to the customer pending shipment of failed piece(s) to supplier and/or MC for further inspection. Should there be a covered failure of a grid or an IG unit that is not caused directly by one of the provisions above, MC will provide at its discretion either a replacement grid or a partial refund of the original purchase price not to exceed 100 percent of the original item price from MC. **INSTALLATION LABOR, JOBSITE DELIVERY, RE-GLAZING OR INSULATING, ANY RELATED WORK AND ANY OTHER DAMAGES ARISING FROM SUCH ARE NOT THE RESPONSIBILITY OF MC IN ANY WAY.**

#### **PRIMED & PRE-FINISHED SDL (SIMULATED DIVIDED LITE) GRIDS**

MC warrants all of its SDL products and their field performance for a period on **ONE (1)** year from the date of manufacture. After the General Liability Warranty expires, it becomes the discretion of the officers of MC to evaluate each warranty claim independently for validity and further coverage and / or reparations. No darker colors, most specifically but not limited to bronze / black / red / green / anodized shall be covered under MC Warranty due to their inherent and known tendencies to absorb heat, and these darker colors shall be **NULL AND VOID** of all warranties whether finished by MC or outside vendors. For SDL units, MC has taken the necessary steps to ensure proper adhesion between the bars and the different tapes offered (adhesion tests are available upon request) and have been shown to meet or exceed the required limits and industry standards in both dry and wet applications. For applications where the bars have been pre-finished (standard priming coat is not covered), MC warrants to the original purchaser the SDL composite bars against chalking or material discoloration (beyond reasonable levels) as a result of normal aging and exposure for a period of ten (10) years. **TAPE WARRANTY:** MC reserves all rights and warranties regarding tape longevity and will honor the standard warranties of the individual tape manufacturers for performance, as well as may supply proper guidelines for installation and glass cleaning to ensure the full warranty supplied to MC by the manufacturers (available by request). This Warranty may be voided out without exception for the use of pressure washing equipment on the glass for the purpose of cleaning. **PRESSURE WASHING IS NOT ALLOWED ON ANY OF OUR PRODUCTS AS IT MAY CAUSE TAPE, GLASS OR OTHER FAILURE, AND DOING SO WILL VOID ALL WARRANTIES.** Be sure to use proper discretion when cleaning windows and doors. Harsh and / or corrosive chemicals (ex. Windex™ brand) used in the cleaning or application process shall immediately void and all warranties offered by MC. For the "Dura-Grain" SDL products, only gel-based stains are allowed for finishing the products in order to ensure proper Warranty. MC does not warranty any wood SDL bars placed on the exterior of any units for any period of time and these products are sold with **NO WARRANTY**.

## GENERAL LIMITED WARRANTY

### ALL WOOD WINDOWS, WOOD DOORS & DOOR UNITS

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MC manufactures doors and door units to requested custom specifications and individual desires. Doors with any of the following specifications or with any of the following features will be sold with **NO WARRANTY**:

1. DOORS MORE THAN EIGHT (8) FEET TALL (96 INCHES)
2. STILES AND / OR RAILS LESS THAN FOUR (4) INCHES WIDE
3. DOORS MORE THAN THIRTY-SIX (36) INCHES WIDE
4. DOORS WITH RADIUS OR CURVED TOPS\*\* (\*\*-UP TO DISCRETION OF MC)
5. PLANK-STYLE DOORS OR SIMILAR DOORS WITHOUT AT LEAST TWO (2) HORIZONTAL RAILS
6. SOLID WOOD PANELS WIDER THAN FOURTEEN (14) INCHES (NOT COVERED AGAINST SPLITTING OR WARPING). WARRANTY FOR SPLIT OR WARPED PANELS UNDER FOURTEEN (14) INCHES SHALL BE MADE FOR ANY SPLIT THROUGH BOTH SIDES OF THE DOOR PANELS THAT ALLOWS LIGHT TO BE VISIBLE THROUGH THE SPLIT. PANEL SHRINKAGE AND EXPANSION ARE NORMAL NON-WARRANTED EVENTS.

#### PRODUCTS NOT INSTALLED OR MAINTAINED UNDER THE FOLLOWING CONDITIONS SHALL BE VOID OF WARRANTY:

1. Doors must be stored and transported flat and protected from moisture and / or excessive temperature changes prior to pre-hanging, installation and finishing.
2. Doors must be hung and installed plumb and level with hinges meeting minimum industry standards (3 hinges per door for doors under 90 inches of height and 4 hinges per door for doors over 90 inches of height), adequately weather-stripped, and with enough perimeter clearance to allow for natural swelling.
3. Exterior doors must have adequate exterior paint and / or stain with sealer and have both sides and all four edges thoroughly and adequately sealed against moisture penetration (as taken from AWI standards).
4. Doors and windows with glass lites must have the final coat of paint and / or sealer uniformly lap over onto the glass at least 1/16 of an inch.
5. Dark grained wood with clear finish or wood doors painted or stained a dark color **MUST** be kept from direct sunlight.
6. Doors must not be handled, installed or maintained so as to produce a bow or warp in the door. Warp refers to a variation in the plane or flatness of the door itself and does not refer to the relationship of the door to the frame or jamb in which it is hung. A bow or warp of one-quarter of an inch (1/4") or less in the entire plane of the door shall **NOT** be considered a factory defect. Doors over 36 inches wide and / or 96 inches tall are not warranted for warp under any circumstances. For any Warranty claim involving warp or bow, MC shall be allowed to defer action on repairing or replacement for a period of up to twelve (12) months from the date of claim and / or door installation, so as to allow the door to adjust to normal conditioning and equalization to the temperature and humidity environment in which it has been placed. This deferral period will not count against the allowable standard one-year warranty period offered by MC.

#### BUILDING CODE AND / OR LOCAL ORDINANCE COMPLIANCE

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Determination of proper building design, construction codes or ordinances, and component specifications are the combined responsibility of a building's owner, designer and construction contractors, but is in **NO WAY** the responsibility of MC or any of its employees. No prior knowledge of, or responsibility for, any applicable building codes or ordinances and / or necessary permitting or other specifications resulting there from can be ascribed to MC, except as may be noted by the Original Purchaser to MC and mutually agreed upon. MC is not a design or engineering firm, nor should it be understood or construed to be such. MC will only assume responsibility for the manufacturing of its products to customer-supplied specifications.

#### SYNTHETIC STUCCO AND E.I.F.S. SYSTEMS

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MC products that shall be installed in **ANY** structure surfaced in whole or in part with Exterior Insulation Finish Systems (also known as E.I.F.S. or synthetic stucco) or any other siding system that prevents the exchange or release of trapped water and water vapors, shall be deemed to have been sold with **NO WARRANTY** whatsoever from MC.

#### WOOD STILES & ALL OTHER PVC COMPONENTS

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MC warrants its stiles and rails to have no more than three-eighths of an inch (3/8") bow over the length of an eight (8) foot stile. Any stile that is narrower than four (4) inches shall have **NO WARRANTY**. Color variations and / or grain pattern variations from face-to-face or side-to-side of each stile and / or rail are not considered a defect and shall not be a warranted replaceable item. De-laminating stiles and / or rails shall be replaced only at their original price and will not include any repair work or replacement of door units contained therein. This replacement shall be left up to the discretion of MC and its officers and is not being stated or inferred as automatically warranted. All PVC (expanded cellular Polyvinyl Chloride) components and parts supplied by MC are warranted against wood rot and wood destroying organisms for as long as the Original Purchaser owns them.

#### STATEMENTS CONCERNING FURTHER LIMITATIONS

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MC manufactures custom, special and architectural millwork, and it is our honor and privilege to do so. It is also the nature of innovative architecture to be bold, yet functional. From time to time, customers submit designs and product descriptions for manufacture by MC, which, in the opinion of the staff, will contain aspects or features that may at some time become items of serviceable concern. Though this is merely an opinion and in no way reflects any engineering or architectural certification or expertise. *MC reserves the right to Limit Or Withhold Warranty on any specific item, part, feature or product, which it deems a serviceable concern.* Such items or products may be noted on MC's quotation, and / or acknowledgement, and / or invoice as having "**NO WARRANTY**", though no guarantee is given to this effect. Any such item or feature shall be furnished without the provisions or protections of the General Warranty. Only an officer of MC may change the provisions of this Warranty and only then in writing to be considered legal and binding. No Distributor, Retailer, Dealer, Salesperson, Agent, Employee, nor any other representative of MC may alter or change this Warranty in any way. This Warranty renders specific legal rights to the Purchaser and there may be other rights that vary from State to State. **TO FILE A CLAIM YOU WILL BE REQUIRED TO PROVIDE THE FOLLOWING INFORMATION:** Your name, address, and telephone number / fax number; a description of the product for which the claim is being made; the name of the Dealer / Distributor from which the product was purchased; original paperwork or copy thereof; proof of date of purchase; and a full description of the defect. Any legal remedies pursued involving MC must be conducted in a court that shall reside in the State of Georgia and be located in or around the metro Atlanta area to be considered enforceable.

*This Warranty is considered effective as of January 1<sup>st</sup>, 2015 and may be altered periodically without notice. Please call our office for further details and limitations.*



## TERMS AND CONDITIONS

1. **Limited Warranty; Limitation of Remedy and Damages.** Subject to the limitations of liability set forth below, NGP warrants for a period of five (5) years from date of delivery (the "Warranty Period"), that the products provided by NGP hereunder (the "Products") (i) shall conform substantially to the specifications provided to NGP, if any, so long as the Products have been properly installed; and (ii) shall conform substantially to the specifications provided by NGP, and (iii) are free from defects in workmanship and materials.

THIS IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY NGP WITH RESPECT TO THE PRODUCTS AND IS IN LIEU OF ANY AND ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, ARISING BY OPERATION OF LAW OR OTHERWISE. NGP HEREBY DISCLAIMS AND EXCLUDES ALL IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

This warranty does not cover, and NGP will not be liable for, defects or damage arising from improper installation, modification, lack of or improper maintenance, improper storage, shipping and handling, ordinary wear and tear, misuse, abuse, accident, unauthorized service, use with unauthorized products or parts, or improper product selection or specification.

The sole and exclusive liability of NGP under this warranty or otherwise shall be limited to the repair or replacement of any Product or component part which shall prove defective to the original purchaser from NGP hereunder (the "Purchaser"), and shall not extend to dismantling, installing or reinstalling (or payment for the cost of the same). NGP will not pay for the costs of repair or replacement performed other than in accordance with this warranty. NGP SHALL NOT BE LIABLE FOR DAMAGES CAUSED BY DELAY IN PERFORMANCE AND IN NO EVENT, REGARDLESS OF THE FORM OF THE CLAIM OR CAUSE OF ACTION (WHETHER BASED IN CONTRACT, INFRINGEMENT, NEGLIGENCE, STRICT LIABILITY, TORT OR OTHERWISE), SHALL NGP'S LIABILITY TO PURCHASER AND/OR ITS CUSTOMERS EXCEED THE PRICE PAID BY PURCHASER FOR THE SPECIFIC PRODUCTS GIVING RISE TO THE CLAIM OR CAUSE OF ACTION. PURCHASER AGREES THAT IN NO EVENT SHALL NGP'S LIABILITY TO PURCHASER AND/OR ITS CUSTOMERS EXTEND TO INCLUDE INCIDENTAL, CONSEQUENTIAL OR PUNITIVE DAMAGES RESULTING FROM USE OF THE PRODUCTS, OR ARISING OUT OF ANY BREACH OF THIS WARRANTY. This warranty is governed by the law of the State of Tennessee without regard to its conflicts of law principles.

2. **No Set-off.** Purchaser acknowledges that its obligations to pay NGP all sums properly invoiced to purchaser by NGP for the products are absolute and unconditional. Purchaser shall make all payments to NGP when due hereunder and shall not withhold, delay or condition payment for any reason whatsoever. Purchaser shall not set-off any amounts due NGP against any amounts already due from NGP to Purchaser and expressly waives any right or claim of set-off.

3. **Claims.** Any claim by Purchaser with reference to the Products shall be deemed waived by Purchaser unless submitted in writing in accordance with this Paragraph 3. Purchaser shall inspect the Products immediately upon receipt and prior to any installation or use of such Products. Unless Purchaser provides written notice to NGP of any claim for shortages or defects in the Products within fourteen (14) days after Purchaser's receipt of shipment, such Products shall be deemed finally inspected and accepted by Purchaser. If a defect is of such nature that reasonable inspection within the time provided herein would not disclose it, then notice of the claimed defect shall be made in writing and delivered to Purchaser within ten (10) days after Purchaser knew or should have known of the defect (but in no event later than the expiration of the Warranty Period); provided, however, that (notwithstanding any provisions hereof to the contrary) NGP shall not be liable for claimed defects in Products once such Products have been incorporated into a structure. At NGP's request, Purchaser will send any allegedly non-conforming Products to NGP. Any written notice of a claim hereunder shall be sent in writing to National Guard Products, 4985 East Raines Road, P.O. Box 753430, Memphis, Tennessee 38175.

4. **Additional Terms.** Acceptance of the Products shall be limited to the terms and conditions contained herein. Any terms and conditions contained in Purchaser's purchase order or acceptance that are in addition to, or are in conflict with, the terms and conditions contained herein shall not become a part of the agreement between NGP and Purchaser unless expressly agreed to in writing by NGP.



## GENERAL INFORMATION

### ONE YEAR FINISH WARRANTY

Subject to the limitations of liability set forth below, PBB, INC., ("Manufacturer") hereby warrants to the original purchaser ("Purchaser") each product ("Products") that were purchased through a Manufacturer-authorized distributor which the Product, when applied in accordance with all Manufacturer instructions and for the purposes intended, will not chip, peel or tarnish for one year following the date of application.

This warranty excludes chips, peeling or tarnish caused by scratches or abrasions, incorrect application, misuse, abuse or deterioration of the Product due to the use of paints solvents and other chemicals.

THIS IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY THE MANUFACTURER WITH RESPECT TO THE PRODUCTS AND IS IN LIEU OF ANY AND ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, ARISING BY OPERATION OF LAW OR OTHERWISE. ALL IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, NON INFRINGEMENT AND FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY EXCLUDED,

In the event of a failure within the applicable warranty period, Purchaser should send the Manufacturer, at the address set forth below, a written notice which identifies the Product, its application and the nature of the claimed defect. Upon receipt of such notice, Manufacturer will inform Purchaser where to ship the Product, shipping charges prepaid, for examination. In the event that such examination reveals a defect covered by this warranty, Manufacturer will either replace the Product or refund the original purchase price, as determined in Manufacturer's sole discretion. This is the sole and exclusive liability of the Manufacturer under this warranty or otherwise.

MANUFACTURER SHALL NOT BE LIABLE FOR DAMAGES CAUSED BY DELAY IN PERFORMANCE AND IN NO EVENT, REGARDLESS OF THE FORM OF THE CLAIM OR CAUSE OF ACTION (WHETHER BASED ON CONTRACT, INFRINGEMENT, NEGLIGENCE, STRICT LIABILITY, OTHER TORT OR OTHERWISE), SHALL MANUFACTURER'S LIABILITY TO PURCHASER AND/OR ITS CUSTOMERS EXCEED THE PRICE PAID BY PURCHASER FOR THE SPECIFIC PRODUCT GIVING RISE TO THE CLAIM OR CAUSE OF ACTION. PURCHASER AGREES THAT IN NO EVENT SHALL MANUFACTURER'S LIABILITY TO PURCHASER AND/OR ITS CUSTOMERS EXTEND TO INCLUDE INCIDENTAL, CONSEQUENTIAL OR PUNITIVE DAMAGES RESULTING FROM USE OF THE PRODUCTS OR ARISING OUT OF ANY BREACH OF THIS WARRANTY.

The term "consequential damages" shall include, but not be limited to, loss of anticipated profits, business interruption, loss of use or revenue, cost or capital or loss of damage to property or equipment. The foregoing limitations and exclusions are intended to be effective to the maximum extent permitted by law. This warranty is governed by the laws of the State of California, without regard to its conflicts of law principles. Manufacturer and Purchaser agree that the United Nations Convention on Contracts for the International Sale of Goods and the United Nations Convention on the Limitation Period in the International Sale of Goods shall not apply to sales of the Products.

Mail all warranty claims to: **PBB, INC. 1311 E. Philadelphia St., Ontario, CA 91761**

\*Exceptions US-IOB - No warranty on Steel Architectural Hinges.

#### US1OB FINISH WARRANTY STATEMENT

Note: PBB INC. only warrants US-1OB finish over brass or bronze base material. If steel base material is necessary, PBB then recommends US-1OA lacquer finish.

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# Warranty

## LIMITED WARRANTY

Company warrants only to Customer that Products will be free from defects in material and workmanship for a period of 12 months from the date of shipment of the Products. Company's sole obligation under this warranty is limited to repairing or replacing, at its option, the defective Products.

The provisions of this limited Product warranty do not apply to Products:

- A. Used for the purposes for which they are not designed or intended
- B. Have been repaired or altered without Company's prior written consent
- C. Have been subjected to misuse, abuse, negligence, or accident
- D. Have been improperly stored, installed, maintained, or operated
- E. Have been used in violation of written instructions provided by Company to Customer
- F. Have been subjected to improper temperature, humidity, or other environmental conditions
- G. Have been affected by normal wear and tear; or
- H. Based on Company's examination, do not disclose to Company's satisfaction nonconformance to the warranty

In the event that certain Service warranties are not attached to this Agreement or separately furnished, Company warrants only to Customer that the Services will be free from defects in material and workmanship for a period of 6 months from the date of completion of the particular Items of Service. Company's sole obligation under this warranty is limited to repairing or reperformance, at its option, of the Service; provided however, if repair or reperformance is either impractical or impossible, the Company will refund to Customer that portion of the price paid to the Company for the defective item of Service. This warranty only applies if the company is given written notice of the defect or nonconformance by the Customer within 30 days of discovery.

The provisions of this limited Service warranty does not apply to any defects or issues with the design or performance of equipment or products not manufactured by Company, nor does it apply to any code compliance or permit requirements for the assembly, installation, erection, or construction of any goods.

**NO OTHER WARRANTIES, EXPRESS OR IMPLIED, ARE MADE WITH RESPECT TO THE PRODUCTS OR SERVICES INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.**

The following costs and expenses are not covered by the provisions of these limited warranties:

- (i) Labor costs for the removal and reinstallation of Products or other manufacturer's products;
- (ii) Shipping and freight expenses required to return Products to Company;
- (iii) Normal maintenance; and
- (iv) Economic losses.

In addition, the provisions of this warranty are not applicable to anything other than defects in Company's material (products only) or workmanship.

Signature: \_\_\_\_\_ Name: \_\_\_\_\_

Job Name: \_\_\_\_\_ Date: \_\_\_\_\_

**ALLEGION** 

**STEELCRAFT**

9017 Blue Ash Road  
Cincinnati, Ohio 45242  
(513) 766-4300  
(513) 745-6657 FAX

Tested to last 60+ years  
**CONTINUOUS WARRANTY**



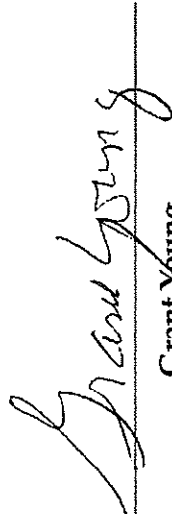
**The GREEN Hinge™**  
Meets LEED requirements

## CONTINUOUS WARRANTY

- SELECT Products Limited will replace your SELECT Geared Continuous Hinge if it ever fails under normal use, as long as it was installed in accordance with manufacturer's specifications for duty rating and the installation instructions enclosed with every new SELECT hinge.
- SELECT Products Limited warrants its Geared Continuous Hinges to be free from defect in material or workmanship.
- This warranty is continuous and has no time limit.

*The durability delivered by SELECT Hinges' Pair-Matched™ hinge leaves, lifetime lubrication and anodizing after machining has been proven in independent performance testing surpassing 25,000,000 cycles (equivalent to 60+ years).*

**The warranty that never ends  
for the hinge that never quits.™**

  
Grant Young  
President

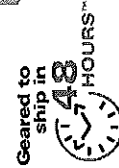
**25,000,000**

INDEPENDENT LAB TEST CYCLES





Robert Cronk  
Chief Operating Officer



SELECT Products Limited

9770 Shaver Road | Portage | MI 49024 | 800-423-1174 | [www.select-hinges.com](http://www.select-hinges.com)

# Warranty

**Warranty:** The Company warrants that the product manufactured by it and delivered hereunder will be free of defects in material and workmanship for a period as follows: (1) exit devices and trim for 36 months from the date of placing the product in operation or for 42 months from the date of shipment; (2) electric strikes for 5 years on mechanical components and 1 year on electrical components including the solenoid and wiring from the date of installation; and (3) electrified exit devices and other electrified products for 12 months from the date of placing the product in operation or 18 months from the date of shipment, whichever shall first occur. The Purchaser shall be obligated to promptly report any failure to conform to this limited warranty, in writing, to the Company within said limited warranty period, whereupon the Company shall, at its option, correct such nonconformity, by suitable repair to such product or, furnish a replacement part F.O.B. point of shipment; provided the Purchaser has stored, installed, maintained and operated such product in accordance with good industry practices and has complied with specific recommendations of the Company. Accessories or product furnished by the Company, but manufactured by others, shall carry whatever warranty the manufacturers have conveyed to the Company and which can be passed on to the Purchaser. The Company shall not be liable for any repairs, replacements, or adjustments to the product or any costs of labor performed by the Purchaser or others without the Company's prior written approval.

The effects of corrosion, erosion and normal wear and tear are specifically excluded from this limited warranty. Performance warranties are limited to those specifically stated within the Company's proposal. Unless responsibility for meeting such performance warranties are limited to specified shop or field tests, the Company's obligation shall be to correct in the manner and for the period of time provided above.

The Company makes no other warranty or representation of any kind whatsoever, expressed or implied, except that of title, and all implied warranties of merchantability and fitness for a particular purpose, are hereby disclaimed. No agent, representative, dealer, or employee of Company has the authority to increase or alter the obligations of this limited warranty.

Correction by the Company of nonconformities whether patent or latent, in the manner and for the period of time provided above, shall constitute fulfillment of all liabilities of the Company for such nonconformities, whether based on contract, warranty, negligence, indemnity, strict liability or otherwise with respect to or arising out of such Equipment.

The Purchaser shall not operate product which is considered to be defective, without first notifying the Company in writing of its intention to do so. Any such use of product will be at the Purchaser's sole risk and liability and will not be covered by this limited warranty.

Customer Care: 877-671-7011

RMA requests (Return Material Authorization) are to be directed to Von Duprin, 2720 Tobey Drive, Indianapolis, IN 46219. Attn: Customer Service.

## TERMS & CONDITIONS - Complete Locks

### Product Warranties: Commercial Applications

#### 3 Year Limited Mechanical Warranty and 1-Year Limited Electromechanical Warranty

Schlage Lock Company, LLC (the "Company") extends a three year limited mechanical warranty and one year limited electromechanical warranty to the original user of the products manufactured by the Company (the "Products") against defects in material and workmanship from the date of purchase. Certain Products contain restrictions to this limited warranty, additional warranties, or different warranty periods. Please see below for specific Product warranty information.

**What The Company Will Do:** Upon return of the defective Product to the Company or its authorized distributor for inspection, free and clear of all liens and encumbrances and accompanied by the statement of defects of proof of purchase, the Company will replace the Product.

**Original User:** These warranties only apply to the Original User of Products. These warranties are not transferable.

**What is Not Covered:** The following costs, expenses and damages are not covered by the provisions of these limited warranties: (i) labor costs including, but not limited to, such costs for the removal and reinstallation of Products; (ii) shipping and freight expenses required to return the Products to the Company; or (iii) any other incidental, consequential, indirect, special and/or punitive damages, whether based on contract, warranty, tort (including, but not limited to strict liability or negligence), patent infringement, or otherwise, even if advised of the possibility of such damages. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusion or limitation may not apply to you.

**The provisions of these limited warranties do not apply to Products: (i) used for purposes for which they are not designed or intended; (ii) which have been subjected to alteration, misuse, abuse, negligence, or accident; (iii) which have been improperly stored, installed, maintained, repaired or operated; (iv) which have been used in violation of written instructions provided by Schlage; (v) which have been subjected to improper temperature, humidity, or other environmental conditions (i.e., corrosion); or (vi) which, based on the Company's examination, do not disclose to the Company's satisfaction non-conformance to the warranties. Additionally, the Company will not warrant ANSI A156.2 Grade 2 lever Product installed in educational facilities and student housing.**

**Additional Terms:** The Company does not authorize any person to create for it any obligation or liability in connection with the Products. **The Company's maximum liability under these warranties is limited to the purchase price of the Product.** No action arising out of any claimed breach of these warranties by the Company may be brought by the Original User more than one (1) year after the cause of action has arisen.

**How State Law Applies:** These warranties give you specific legal rights, and you may also have other rights which vary from state to state.

#### SPECIFIC PRODUCT WARRANTY RESTRICTIONS/ADDITIONAL WARRANTIES:

##### ND-Series Levers 10-Year Mechanical Warranty

The limited warranty is for a period of seven (7) years for products shipped prior to January 2012, 10-year for products shipped after January 2012.

##### Small Format Interchangeable Core (SFIC) Warranty

The limited warranty also applies to Schlage locks and housings when used with another manufacturer's cores, or to Schlage cores (i.e. SFIC) when used in another manufacturer's locks and housings. *The use of unauthorized cylinder cams or other components with the Products shall void these warranties.*

##### Everest 29, Everest 29 Primus, Everest 29 Primus XP, Everest, Everest Primus, and Everest Primus XP Limited Lifetime Key Breakage Warranty

A limited lifetime warranty is provided to the original user against breakage and is subject to the restrictions of these limited warranties.

##### Portable Security Limited Lifetime Warranty

A limited lifetime warranty is provided to the original user and is subject to the restrictions of these limited warranties.

**Exclusions:** Oil Rubbed Bronze finish (613) is designed to improve over time and change in appearance, creating a living finish through daily use and thus, finish discoloration is not applicable to the above warranty.

### Product Warranties: Residential Applications

#### Lifetime Limited Mechanical & Finish Warranty and 1-Year Limited Electronics Warranty

Subject to the terms and conditions of this warranty, Schlage extends a lifetime limited mechanical and finish warranty and a one-year limited electronics warranty to the original consumer user ("Original User") of our Schlage brand product ("Product") against defects in material and workmanship, as long as the Original User occupies the residential premises upon which the Product was originally installed.

**What Schlage will do:** Upon return of the defective Product to Schlage, Schlage's sole obligation, at its option, is to either repair or replace the Product, or refund the original purchase price in exchange for the Product. **Original User:** This warranty only applies to the Original User of Products. This warranty is not transferable.

**What is not covered:** The following costs, expenses and damages are not covered by the provisions of this limited Warranty: (i) labor costs including, but not limited to, such costs as the removal and reinstallation of Product; (ii) shipping and freight expenses required to return Product to Schlage; and (iii) any other incidental, consequential, indirect, special and/or punitive damages, whether based on contract, warranty, tort (including, but not limited to, strict liability or negligence), patent infringement, or otherwise, even if advised of the possibility of such damages. Some local laws do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusion or limitation may not apply to you.

**The provisions of this warranty do not apply to Products: (i) used in commercial applications; (ii) used in common area applications; (iii) used for purposes for which they are not designed or intended; (iv) which have been subjected to alteration, abuse, misuse, negligence or accident; (v) which have been improperly stored, installed, maintained or operated; (vi) which have been used in violation of written instructions provided by Schlage; (vii) which have been subjected to improper temperature, humidity or other environmental conditions; or (viii) which, based on Schlage's examination, do not disclose to Schlage's satisfaction non-conformance to the warranty. Additionally, this warranty DOES NOT COVER scratches, abrasions, or deterioration due to the use of paints, solvents or other chemicals.**

**Exclusions:** Oil Rubbed Bronze finish (613) is designed to improve over time and change in appearance, creating a living finish through daily use and thus, finish discoloration is not applicable to the above warranty. **Additional terms:** Schlage does not authorize any person to create for it any obligation or liability in connection with the Product. Schlage's maximum liability here under is limited to the original purchase price of the Product. No action arising out of any claimed breach of this warranty by Schlage may be brought by the Original User more than one (1) year after the cause of action has arisen.

**How local law applies:** This warranty gives you specific legal rights, and you may also have other rights as otherwise permitted by law. If this Product is considered a consumer product, please be advised that some local laws do not allow limitations on incidental or consequential damages or how long an implied warranty lasts, so that the above limitations may not fully apply. Refer to your local laws for your specific rights under this warranty.

# Product Warranties and Distribution Policy - TERMS & CONDITIONS

## Product Warranties: Residential Applications (Cont.)

**Guaranteed Fit Program:** Schlage products are designed to fit standard residential door preparations and retrofit existing tubular locks. Note: Mortise locks and preparations are not considered standard and are not guaranteed under this program. During the Initial Installation, if there is a problem with the Product's performance, the Original User may simply contact Schlage Customer Service at 888-805-9837 in the U.S. and Canada or 800-506-7866 in Mexico for assistance.

**Program and warranty claims:** If you encounter a residential door preparation or fit issue under the Guaranteed Fit Program or have a claim under this warranty, please contact Schlage Customer Service for repair, replacement or refund of the original purchase price in exchange for the return of the Product to Schlage.

### **DEXTER** Lifetime Mechanical Warranty and 5-year Finish Warranty by SCHLAGE.

Subject to the terms and conditions of this warranty, Schlage Lock Company ("Schlage") extends a lifetime limited mechanical and 5-year finish warranty to the original consumer user ("Original User") of Dexter by Schlage products ("Product") against defects in material and workmanship, as long as the Original User occupies the residential premises upon which the Product was originally installed.

**What Schlage will do:** Upon return of the defective Product to Schlage, Schlage's sole obligation, at its option, is to either repair or replace the Product, or refund the original purchase price in exchange for the Product. Original User: This warranty only applies to the Original User of Products. This warranty is not transferable.

**What is not covered:** The following costs, expenses and damages are not covered by the provisions of this limited Warranty: (i) labor costs including, but not limited to, such costs as the removal and reinstallation of Product; (ii) shipping and freight expenses required to return Product to Schlage; and (iii) any other incidental, consequential, indirect, special and/or punitive damages, whether based on contract, warranty, tort (including, but not limited to, strict liability or negligence), patent infringement, or otherwise, even if advised of the possibility of such damages. Some local laws do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusion or limitation may not apply to you.

**The provisions of this warranty do not apply to Products:** (i) used in commercial applications; (ii) used in common area applications; (iii) used for purposes for which they are not designed or intended; (iv) which have been subjected to alteration, abuse, misuse, negligence or accident; (v) which have been improperly stored, installed, maintained or operated; (vi) which have been used in violation of written instructions provided by Schlage; (vii) which have been subjected to improper temperature, humidity or other environmental conditions; or (viii) which, based on Schlage's examination, do not disclose to Schlage's satisfaction non-conformance to the warranty. Additionally, this warranty DOES NOT COVER scratches, abrasions, or deterioration due to the use of paints, solvents or other chemicals.

## Product Warranties, Additional Terms & Conditions: Commercial and Residential Applications

**Additional Terms:** The Company does not authorize any person to create for it any obligation or liability in connection with the Products. The Company's maximum liability under these warranties is limited to the purchase price of the Product. No action arising out of any claimed breach of these warranties by the Company may be brought by the Original User more than one (1) year after the cause of action has arisen.

**How State Law Applies:** These warranties give you specific legal rights, and you may also have other rights which vary from state to state.

**Note:** Should the Product be considered a consumer product as may be covered by the Magnusson Moss Federal Warranty Act, please be advised that: (1) Some states do not allow limitations or incidental consequential damages or how long an implied warranty lasts so that the above limitations may not fully apply; and (2) This warranty gives specific legal rights and a user may have other rights which may vary from state to state.

For warranty service and shipping instructions contact:

### Schlage and Portable Security Commercial Customers

Schlage  
Customer Care  
3899 Hancock Expressway  
Colorado Springs, CO 80911

(877) 671-7011  
Fax (800) 452-0665

### Schlage and Portable Security Residential and Retail Customers

Schlage  
Customer Care  
2119 East Kansas City Road  
Olathe, KS 66061

(800) 847-1864 (option 1) Consumer  
Fax (800) 366-5625

The Schlage Lock Company reserves the right to make changes in designs and specifications or to make additions or improvements on its products without notice and without incurring any obligation to incorporate them on products previously manufactured. The Schlage Lock Company is not responsible for any modification, addition or alteration to our products by others.

## Distribution Function and Location Policy

The Schlage customer relationship includes the nonexclusive area of primary sales responsibility and the channel of distribution assigned by Schlage. It is vital to our success and for the effective management of the distribution of our products that the Schlage customer relationship, once it is satisfactorily established between us, should not be changed without our approval. Therefore, after selection by Schlage as a distributor of one or more of Schlage products, a customer should continue to perform that distribution function from the location of its business at the place or places utilized at the time of selection. A customer should not change its Schlage distribution function or establish a different or additional location without the prior written consent of Schlage.

Schlage reserves the right to discontinue, after appropriate notice, sale of its products to any customer which refuses to adhere to this policy. Schlage also reserves the right to change, in its sole discretion, the number and locations of the distributors authorized to distribute its products in any area. This determination will be based upon, among other considerations, the success or failure in developing the market for Schlage products.

# LCN Limited Warranty

Subject to the terms and conditions of this limited warranty, Schlage Lock Company, LLC (the "Company") extends a limited warranty against defects in material and workmanship for its LCN branded product(s) identified in the Product Table below ("Products") as installed in the original location.

This limited warranty applies to Products purchased on or after **March 3, 2014**.

## Product Table

4000 Series	30 Years
1460 Series	30 Years
1260 Series	20 Years
Concealed, High Security (except 2210DPS)	15 Years
Automatic Operators; SE, ME, HSA, SEH Series; SEM Magnets; 2210 DPS (includes both electronic and mechanical components)	2 Years

**Term:** The limited warranty period for Products is as stated in the Product Table above. The "Commencement Date" for a limited warranty period shall be the date of Company's delivery to the original purchaser of the Products. Proof of Product purchase may be required by Company to confirm the Commencement Date.

**What Company will do:** Company may require proof of Product purchase in order to provide coverage under this limited warranty. As Company's only responsibility and user's only remedy under this limited warranty, Company will furnish a replacement Product upon receipt and confirmation by Company, in its sole opinion, that the Product has, in fact, failed due to a manufacturing defect under normal use and maintenance. In the event a replacement Product cannot be provided, Company will either provide a suitable replacement Product or a refund in the amount of the original purchase price.

**What is not covered:** The following costs, expenses, and damages are not covered by the provisions of this limited warranty: (i) labor costs including, but not limited to, such costs as removal and installation of Product; (ii) shipping and freight expenses required to return Product to Company; (iii) failures, defects, or damage caused by any third party product or service; (iv) any other incidental, consequential, indirect, special and/or punitive damages, whether based on contract, warranty, tort (including, but not limited to, strict liability or negligence), patent infringement, or otherwise, even if advised of the possibility of such damages.

The provisions of this limited warranty do not apply to Product that is: (i) not the proper size for the application for which the Product is used; (ii) not installed in accordance with Company's published Product installation instructions; (iii) installed with improper parts and/or incorrect parts (NOTE: It is recommended that Product be installed with LCN fasteners provided with Product); (iv) improperly stored, maintained, or operated; (v) modified, repaired, or altered in Company's sole opinion, in any manner, without the express written consent of Company; (vi) used for purposes for which the Product is not designed or intended; (vii) subjected to misuse, abuse, negligence, or accident; or (viii) subjected to improper temperature, humidity, or other environmental conditions.

Note: 900/7900 Series compressors are not manufactured by Company and are excluded from coverage under this limited warranty. For more information, parts, or repairs concerning the compressors, contact the compressor manufacturer directly at (269) 926-6171.

**Additional Terms:** This limited warranty is in lieu of all other warranties, express or implied. Company does not authorize any person to create for it any obligation or liability in connection with Product. Company's maximum liability hereunder is limited to the original purchase price of the Product. No action arising out of any claimed breach of this limited warranty by Company may be brought by the user more than one (1) year after the cause of action has arisen.

**How local law applies:** This limited warranty gives you specific legal rights, and you may also have other rights as permitted by law. Some local laws do not allow limitations on how long an implied warranty lasts or the exclusions or limitation of incidental or consequential damages so the limitations or exclusions provided herein may not apply to you.

**Program and Warranty Claims:** All Product claimed to be defective under this limited warranty shall be sent to: LCN, Warranty and Replacement Department, 121 West Railroad Avenue, P.O. Box 100, Princeton, Illinois USA 61356-0100. For information, contact Customer Care at (877) 671-7011.

### IVES WARRANTY

Ives (the "Company") warrants only to Customer that the products will be free from defects in material and workmanship for a period of 12 months from the date of shipment of the products. The Customer shall be obligated to promptly report any failure to conform to this warranty in writing to the Company within the warranty period provided above. Company's sole obligation under this warranty is limited to repairing or replacing, at its option, the defective products.

**NO OTHER WARRANTIES, EXPRESS OR IMPLIED, ARE MADE WITH RESPECT TO THE PRODUCTS INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.**

The provisions of this limited warranty do not apply to products: (i) used for the purposes for which they are not designed or intended; (ii) which have been repaired or altered without Company's prior written consent; (iii) which have been subjected to misuse, abuse, negligence, or accident; (iv) which have been improperly stored, installed, maintained, or operated; (v) which have been used in violation of written instructions provided by Company to Customer; (vi) which have been subjected to improper temperature, humidity, or other environmental conditions; (vii) which have been affected by normal wear and tear; or (viii) which, based on Company's examination, do not disclose to Company's satisfaction nonconformance to the warranty.

The following costs and expenses are not covered by the provisions of this limited warranty: (i) labor costs for the removal and reinstallation of products; (ii) shipping and freight expenses required to return products to Company; (iii) normal maintenance; and (iv) economic losses. In addition, the provisions of this warranty are not applicable to anything other than defects in Company's material (products only) or workmanship.

**CONSUMER PRODUCTS.** With respect to "consumer products" as defined under the Magnuson-Moss Warranty Act ("MMWA"), the following statements are made. (a) Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. **IF ANY IMPLIED WARRANTY IS PROVIDED UNDER THE MMWA, IT IS LIMITED TO THE DURATION OF THE WARRANTY PROVIDED ABOVE.** (b) Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. (c) This warranty gives you specific legal rights and you may also have other rights which vary from state to state.



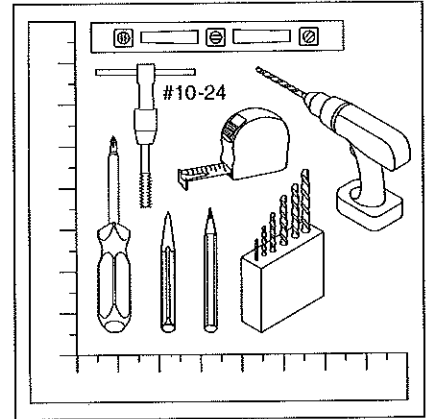
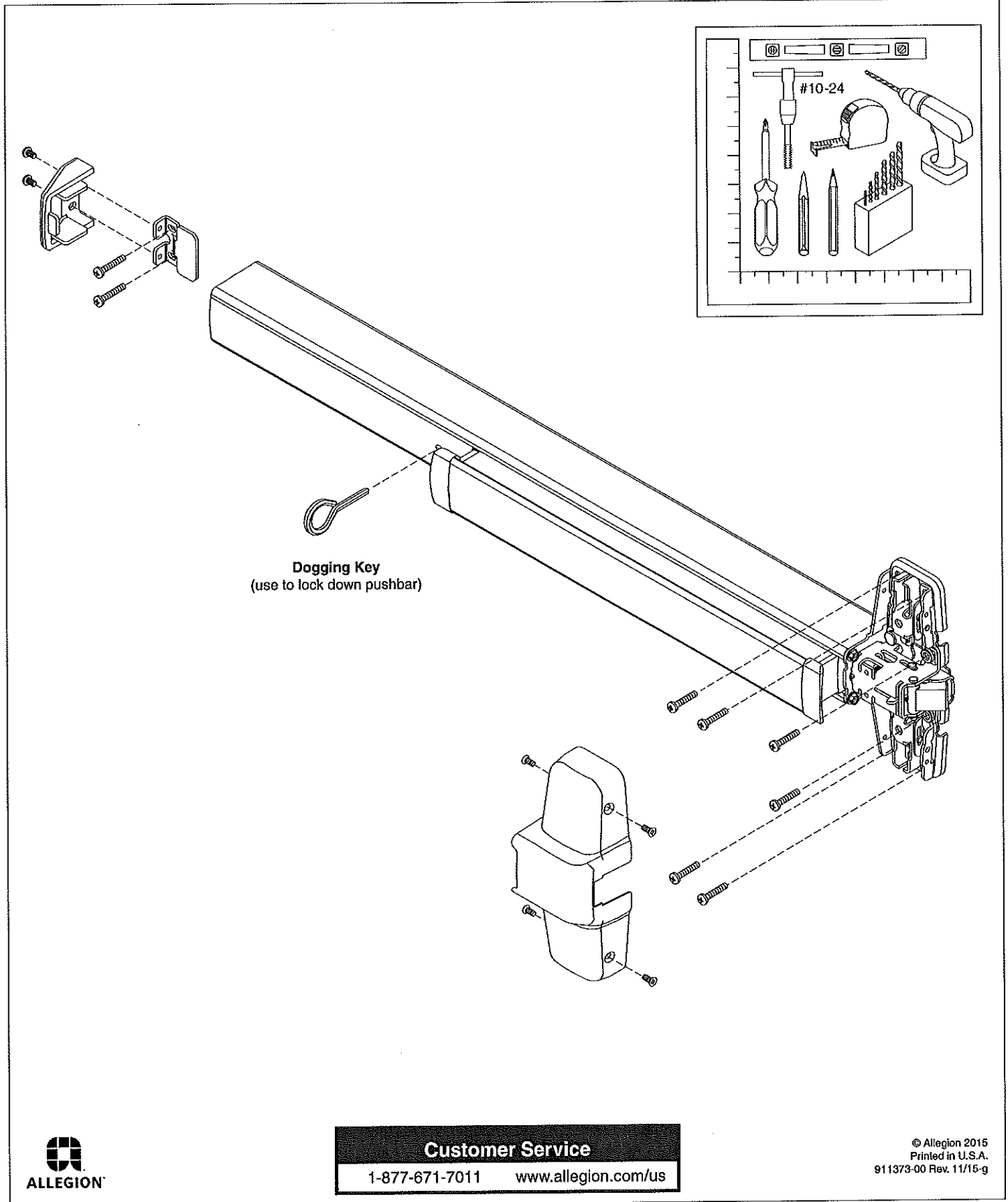
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98/99

VON DUPRIN

Rim Exit Device

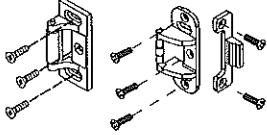
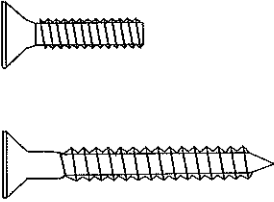
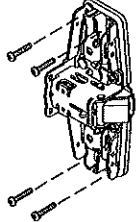
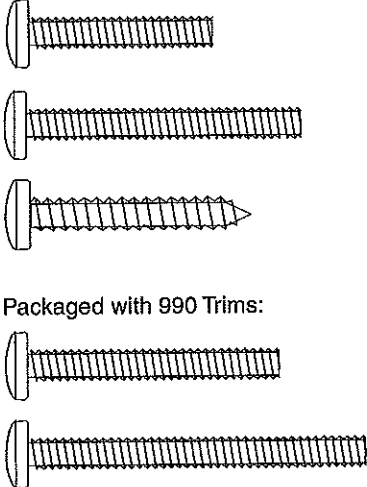
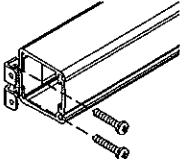
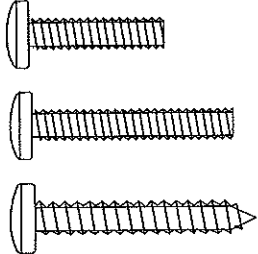
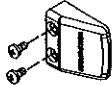
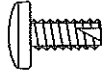
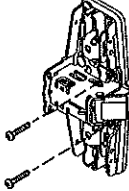
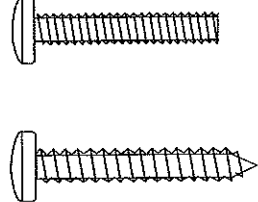
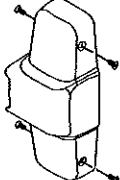

Installation Instructions



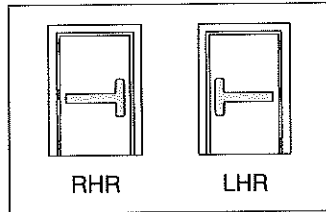
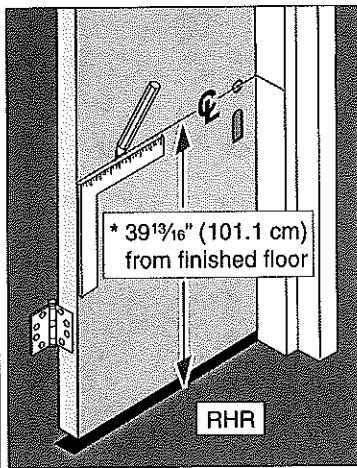
**Customer Service**  
 1-877-671-7011    www.allegion.com/us

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 911373-00 Rev. 11/15-g

## SCREW CHART

Subassembly	Screw		Application
<p><b>A</b></p>  <p>299 Strike    499F Strike</p>		<p>#10-24 x 3/4" (19 mm)</p> <p>#10 x 1 1/2" (38 mm) Wood screw</p>	<p>Metal frame</p> <p>Wood frame</p>
<p><b>B</b></p> 	 <p>Packaged with 990 Trims:</p>	<p>#10-24 x 1" (25 mm)</p> <p>#10-24 x 1 1/2" (38 mm)</p> <p>#10 x 1 1/4" (32 mm) Wood screw</p> <p>#10-24 x 1 3/8" (35 mm)</p> <p>#10-24 x 1 7/8" (48 mm)</p>	<p>Surface mount or Sex bolts 1 3/4" (44 mm) door</p> <p>Sex bolts, 2 1/4" (57 mm) door</p> <p>Surface mount (wood)</p> <p>1 3/4" (44 mm) door, 990 Trim</p> <p>2 1/4" (57 mm) door, 990 Trim</p>
<p><b>C</b></p> 		<p>#10-24 x 3/4" (19 mm)</p> <p>#10-24 x 1 1/8" (29 mm)</p> <p>#10 x 1 1/4" (32 mm) Wood screw</p>	<p>Surface mount or Sex bolts 1 3/4" (44 mm) door</p> <p>Sex bolts, 2 1/4" (57 mm) door</p> <p>Surface mount (wood)</p>
<p><b>D</b></p> 		<p>#10-16 x 3/8" (10 mm) Thread cutting</p>	<p>End cap</p>
<p><b>E</b></p> 		<p>#10-24 x 1" (25 mm)</p> <p>#10 x 1 1/4" (32 mm) Wood screw</p>	<p>Surface mount (metal)</p> <p>Surface mount (wood)</p>
<p><b>F</b></p> 		<p>#8-18 x 3/8" (10 mm) Thread cutting</p>	<p>Center case cover</p>

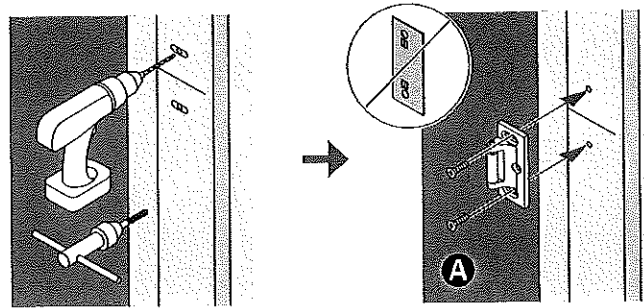
**1 Draw horizontal device and strike center lines (C).**



\* For double doors with a mullion and strike already installed, use existing strike center line.

**3 Prepare 2 holes and install 2 screws.**

① See "Screw Chart" on previous page for screw types and sizes



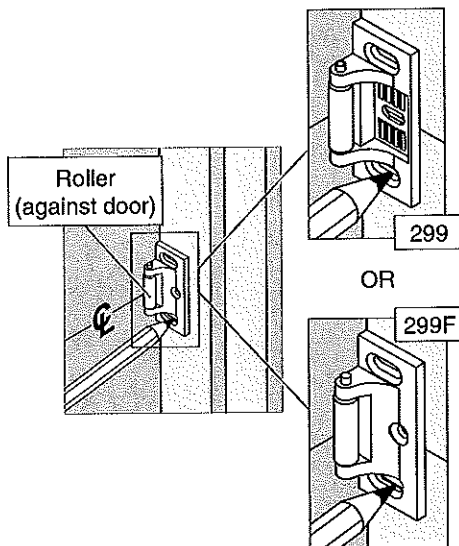
<b>Metal</b>	#25	#10-24

OR

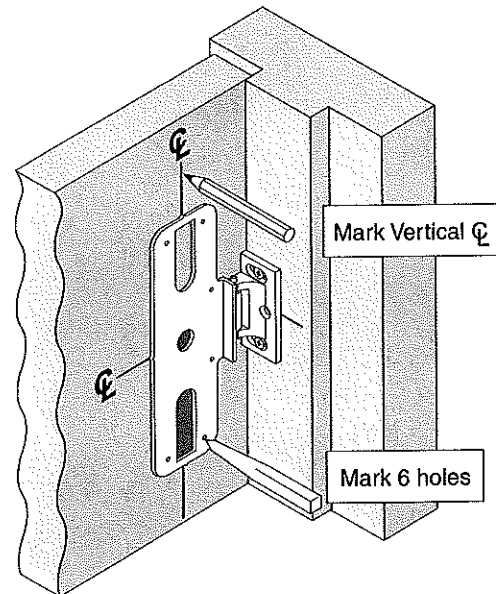
<b>Wood</b>	1/8" (3 mm) x 1" (25 mm) deep

**2 Align strike on C and mark the two slotted holes.**

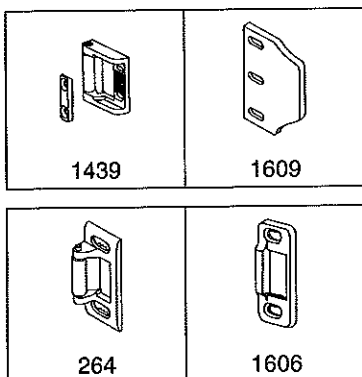
① For 499F strike installation, see page 6.



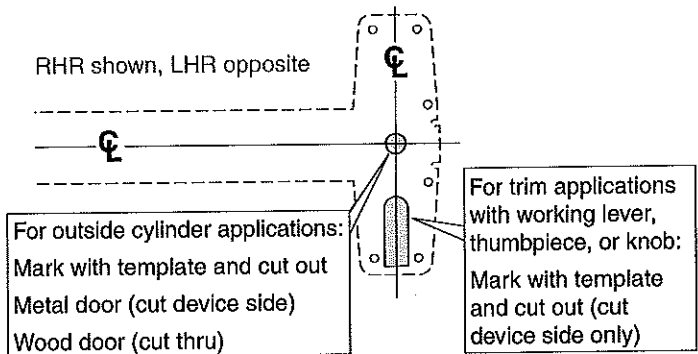
**4 Position template against strike and on C and mark door.**



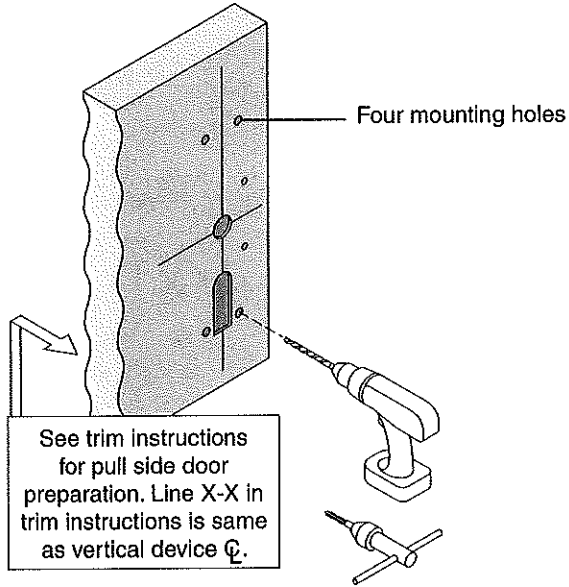
① For more information on the strikes shown below, go to <http://w3securitytechnologies.com> and look for the Support area for Von Duprin installation instructions.



**5 If necessary, prepare cutouts for cylinder and trim.**

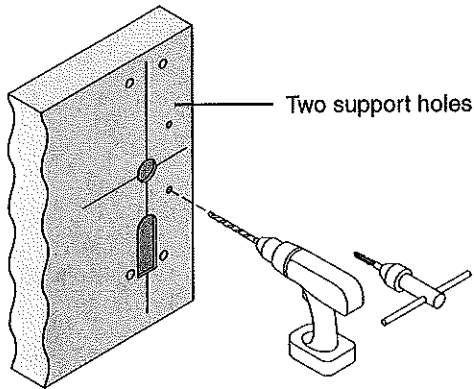


## 6 Prepare 4 center case mounting holes.



SURFACE MOUNT		OR	SEX BOLTS or 990 TRIMS	
METAL	#25	WOOD	1/4" (6 mm) Device Side	
	#10-24		1 3/32" (10 mm) Trim Side	
1/8" (3 mm) x 1" (25 mm) Deep	1 3/32" (10 mm) Drill Thru			

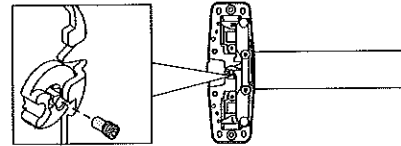
## 7 Prepare 2 center case support holes.



METAL	OR	WOOD
98/99 and 98/99-F		98/99
#25		1/8" (3 mm) x 1" (25 mm) Deep
#10-24		
		98/99-F
		#825 Sex bolts (2) required
		1/8" (2 mm) 3/8" (10 mm)
		Exterior
		1/8" (16 mm)

## 8 If necessary, remove NL drive screw

**NL drive screw**  
Factory installed on back of center case



With the NL drive screw removed, key locks and unlocks lever, knob, or thumb piece. For the trims listed below, **REMOVE** NL drive screw.

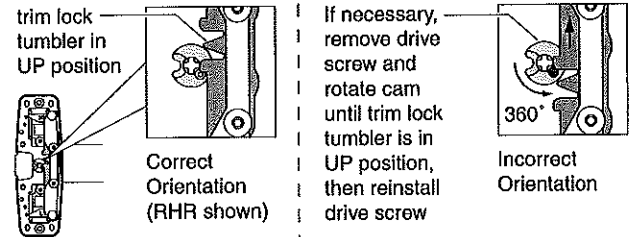
996L	696TP	990TP
996K	697TP	

With the NL drive screw installed, key retracts latch bolt. **DO NOT** remove NL drive screw for the following applications:

NL, EO, DT trims and 98/99-2 double cylinder devices (i.e. TP-2, L-2, and K-2).

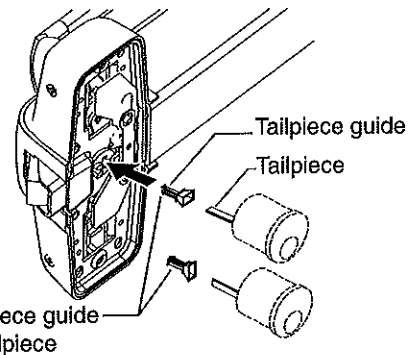
*996L-BE	*E996L	*696TP-BE	*990TP-BE
*996K-BE	*E996L-BE	*697TP-BE	

\* If the trim being installed is "BE" (i.e. 996L-BE), the trim lock tumbler on the back of the device must be in the **UP** position before device is installed. This allows the trim to be unlocked at all times.

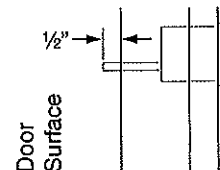


## 9 If using a cylinder with a tailpiece, prepare device and cylinder.

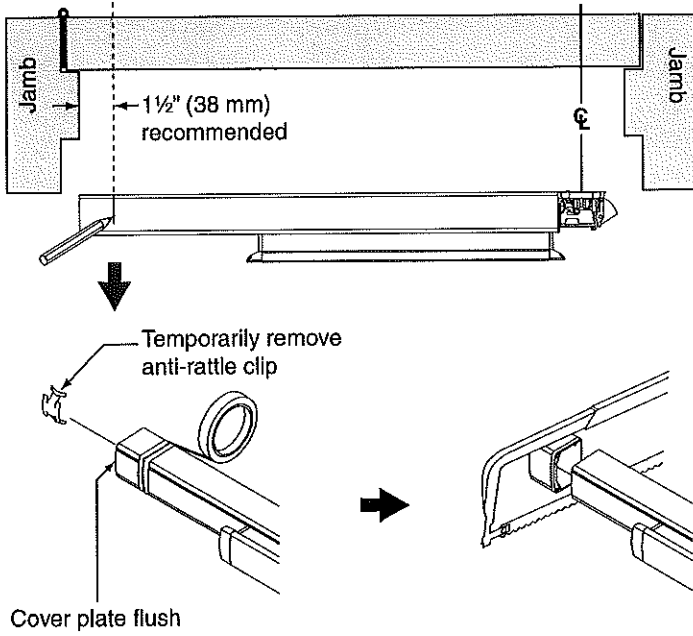
### 9a Install tailpiece guide.



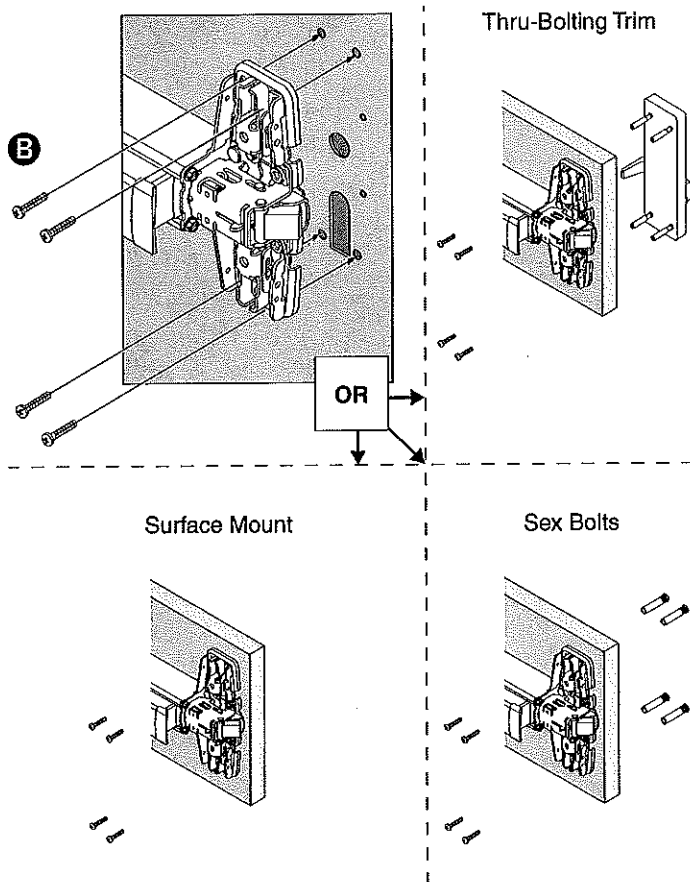
### 9b Cut tailpiece as needed.



**10** If necessary, cut device.

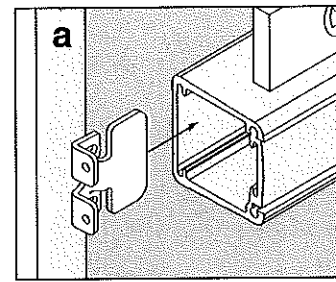


**11** Attach center case to door.



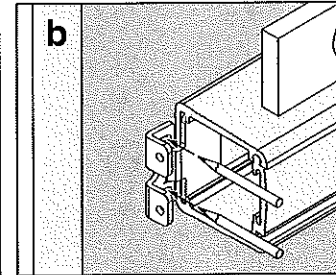
**12** Mark and prepare two (2) holes.

① Prepare holes after lock side of device is mounted and hinge side is leveled.

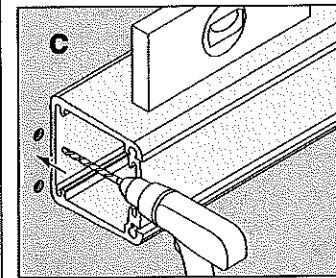


SURFACE MOUNT	
WOOD	#25
METAL	#10-24
WOOD	1/8" (3 mm) x 1" (25 mm) Deep

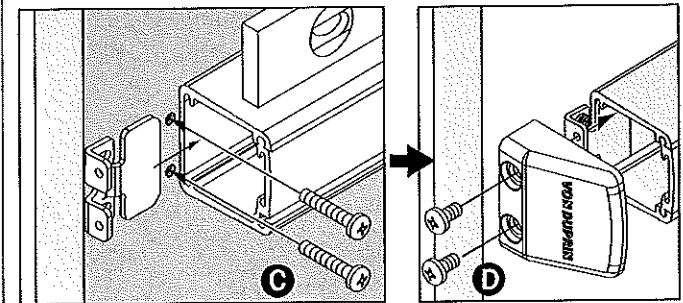
OR



SEX BOLTS	
WOOD	1/4" (6 mm) Device Side
METAL	3/32" (10 mm) Trim Side
WOOD	3/32" (10 mm) Drill Thru

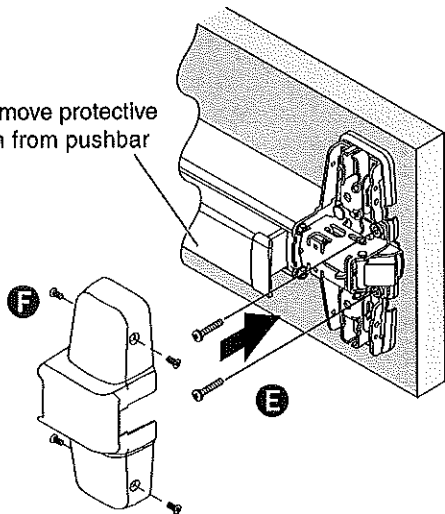


**13** Install end cap bracket and end cap.



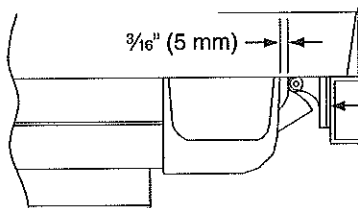
**14** Install required support screws and center case cover.

Remove protective film from pushbar

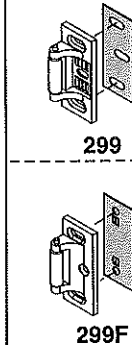


**15** Adjust strike as needed.

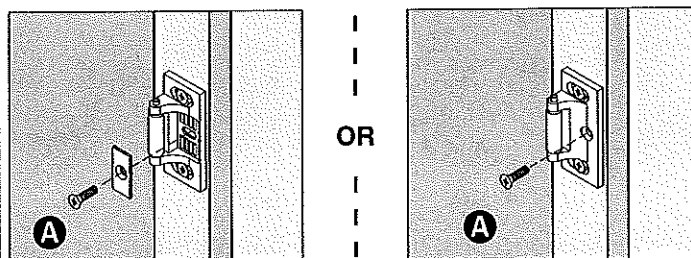
299/299F Strike



Shim as needed



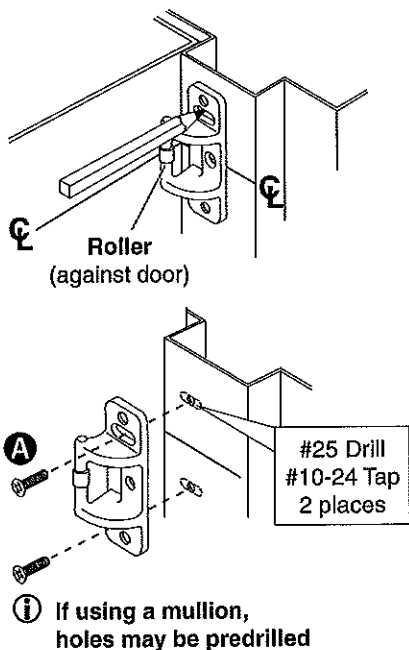
**16** Install strike support screw.



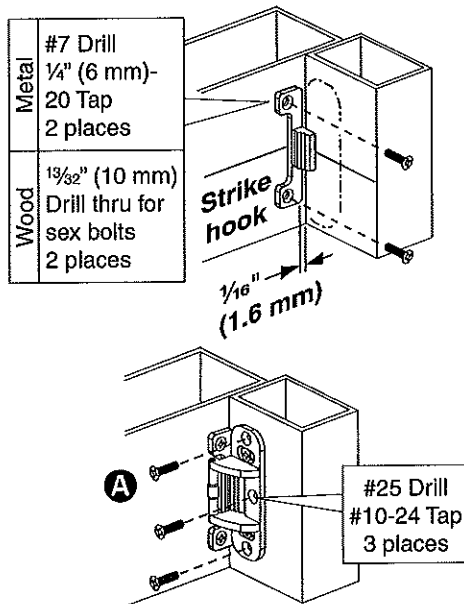
METAL	WOOD
#25	1/8" (3 mm) x 1" (25 mm) Deep
#10-24	

**499F STRIKE INSTALLATION**

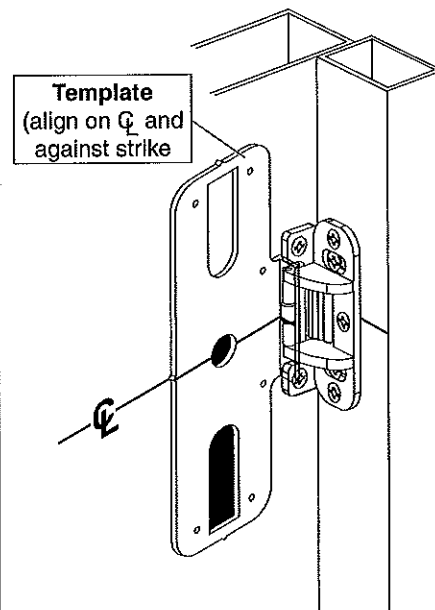
1. Prepare and install screws through two strike slots.



2. Install strike hook and additional strike screws.

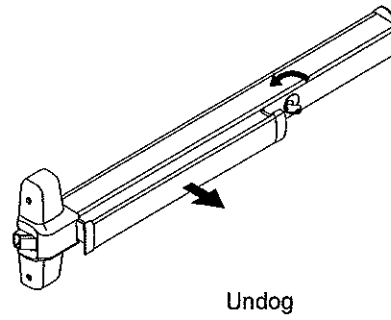
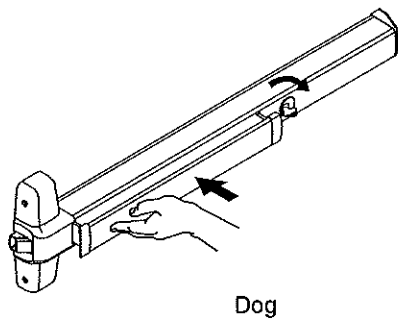
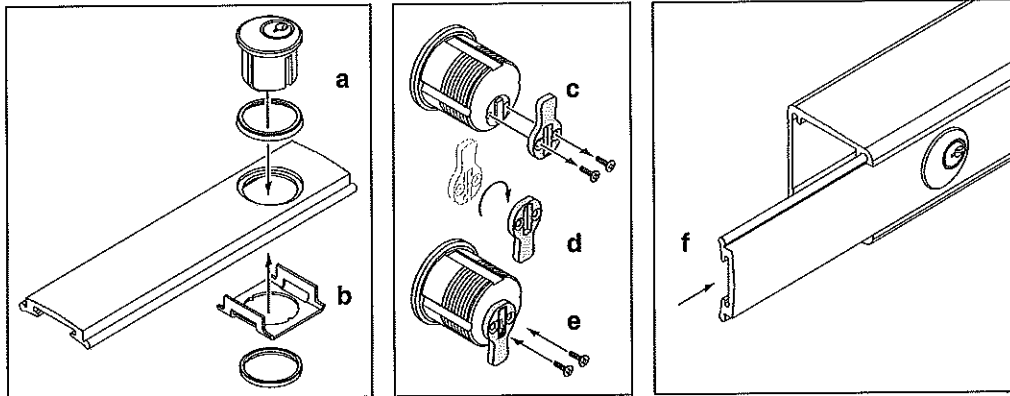


3. Template aligns as shown.



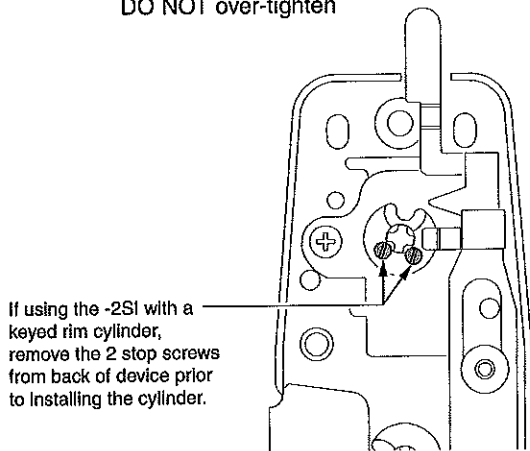
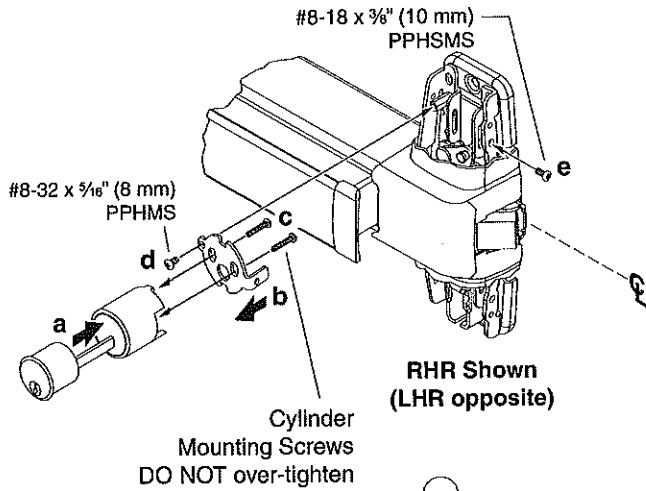
# OPTIONAL EQUIPMENT

## CD (Cylinder Dogging) Option

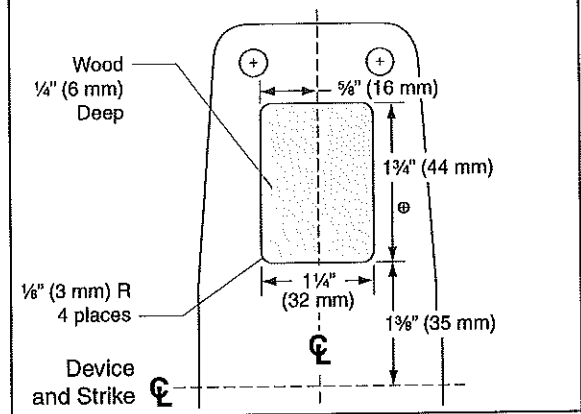


# OPTIONAL EQUIPMENT

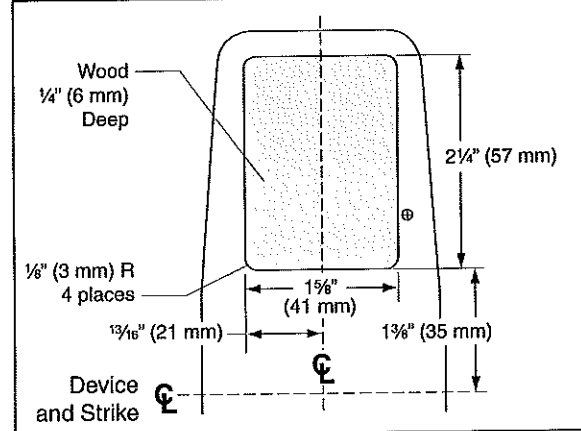
## 99-2 (Double Cylinder) Option



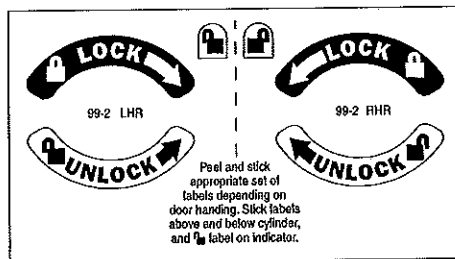
### Door Cutout for 99-2 "Double Cylinder" Option



### Door Cutout for 99-2SI "Double Cylinder" Option



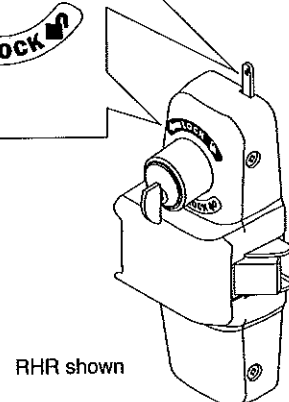
For 98/99-2SI models with Classroom Security Indicator, apply supplied labels above and below cylinder to match door handing, and label on indicator.



**Manually affix the label:**

Ensure surface is clean of dirt, dust, or oils. Clean with alcohol if necessary.

Peel the label from the paper backing and apply to the surface. Minimize handling when applying and use pressure to burnish label to surface. The adhesive will require up to 8 hours to achieve the proper bond.





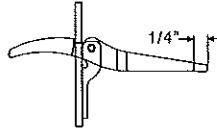
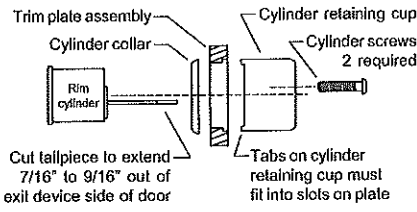
921265-00

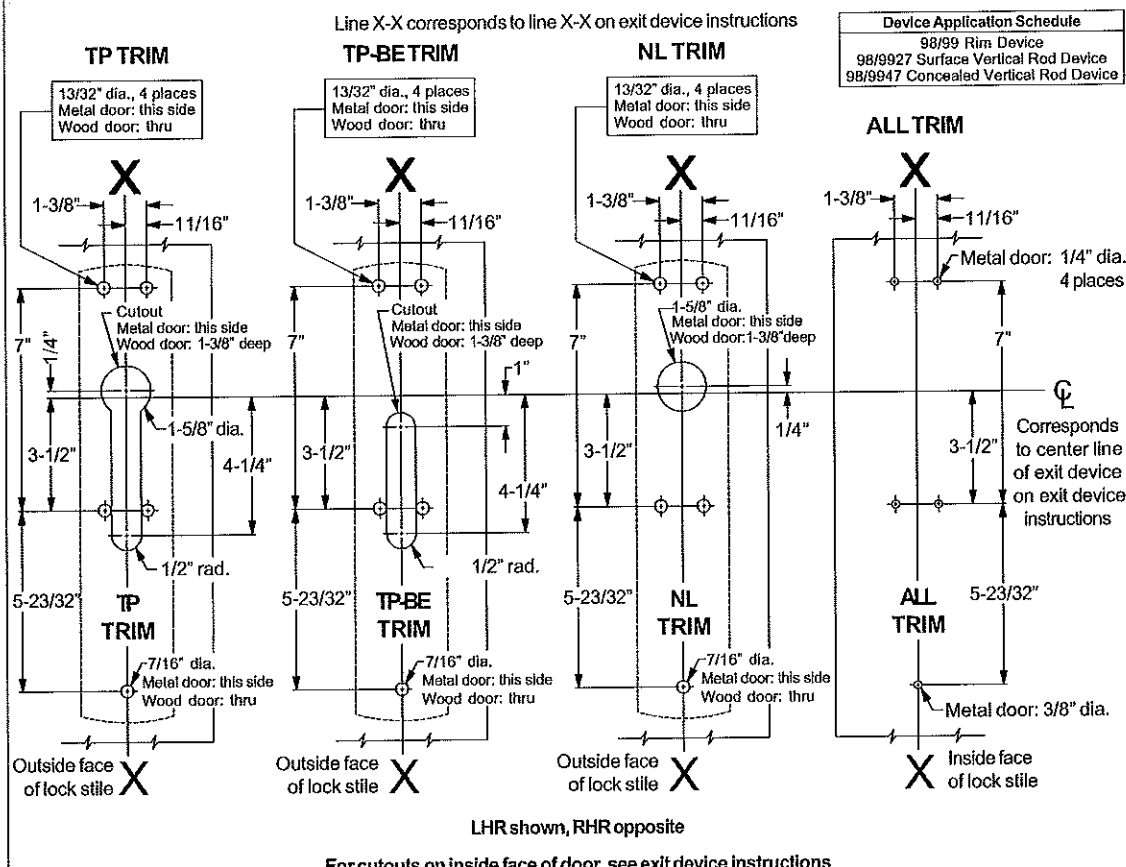
990TP/TP-BE/NL

VON DUPRIN®

Trim for Rim and Vertical Rod Devices

Installation Instructions

<b>1</b> Prepare door for exit device. See exit device instructions for holes, line X-X, and center lines.	<b>4</b> For TP and TP-BE trim on 1-3/4" thick door, cut 1/4" off hump piece.
<b>2</b> Prepare door for trim:	 1/4" cutoff required on hump piece for TP and TP-BE trim on 1-3/4" thick doors
<b>2a</b> Transfer line X-X from inside (exit device side) of door to outside (trim side) of door. Use extra care if edge of door is beveled. Be sure line X-X is parallel to edge of door.	
<b>2b</b> Locate and prepare holes as shown.	<b>5</b> Apply trim.
<b>3</b> For TP and NL trim, install rim cylinder.	<b>6</b> For TP and NL trim, cut cylinder tailpiece to extend 7/16" to 9/16" out of exit device side of door.
 Cut tailpiece to extend 7/16" to 9/16" out of exit device side of door	<b>7</b> Apply exit device, thru-bolt to trim (4 places), and use screw and #12 countersink washer for lower trim mounting stud.



Device Application Schedule
98/99 Rim Device
98/9927 Surface Vertical Rod Device
98/9947 Concealed Vertical Rod Device

**Customer Service**

1-877-671-7011      www.allegion.com



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Printed in U.S.A.  
921265-00 Rev. 01/14



# L/LV9000-Series



P515-742

Lever and Rose  
Manija y Embellecedor  
Levier et Rosette

Installation Instructions  
Instrucciones de Instalación  
Instructions d'Installation

A Lockcase and mounting screws  
Caja de cerradura y tornillos  
Caisse de serrure et les vis

B Spindle and spring  
Husillo y resorte  
Axe et ressort

C Outside lever and rose  
Manija y embellecedor exterior  
Levier et rosette extérieur

D Mounting posts  
Puntales de montaje  
Tenons de montage

E Spring cage or spacer  
Caja para resorte o espaciador  
Cage du ressort ou entretoise

F Occupancy indicator  
Cilindro de indicador  
Cylindre d'indicateur

G Inside mounting plate & screws  
Placa de montaje interior y tornillos  
Plaque de montage intérieur et vis

H Inside lever  
Manija interior  
Levier intérieur

J Inside thumbturn  
Mariposa interior  
Tourniquet intérieur

K Cylinder, compression ring and spring  
Cilindro, anillo compresor y resorte  
Cylindre, anneau de compression et ressort

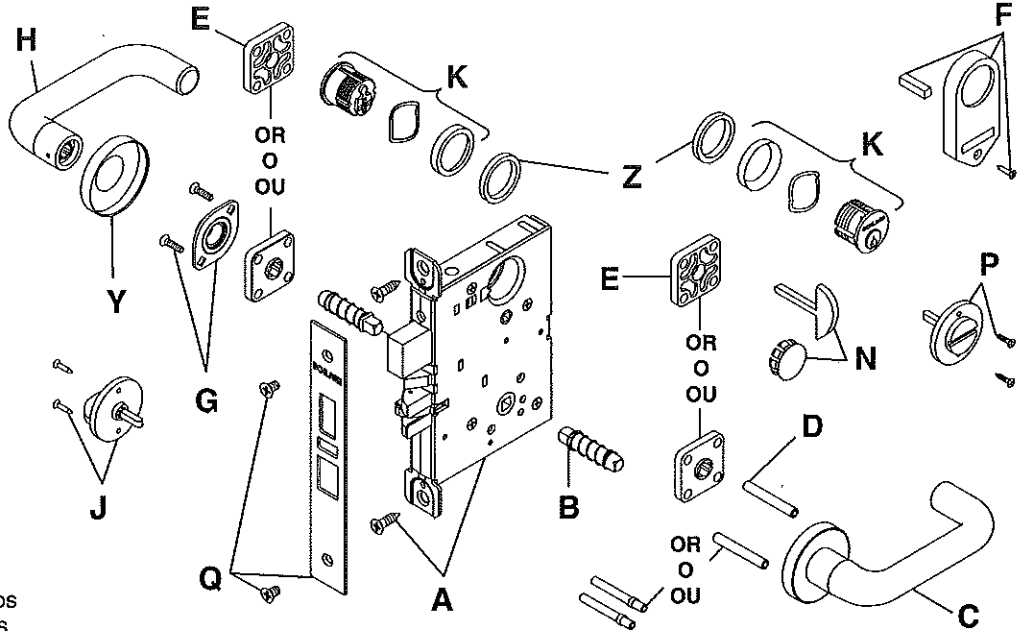
L Inside rose  
Embellecedor interior  
Rosette intérieur

N Emergency turn and button  
Mariposa y botón de emergencia  
Tourniquet et bouton d'urgence

P Coin turn  
Mecanismo de giro a moneda  
Bouton de manœuvre par pièce de monnaie

Q Armor front and screws  
Tornillos y placa frontal  
Plaque de protection avant et vis

Z Blocking ring  
Anillo de bloqueo  
Anneau de blocage



① **IMPORTANT: Before installation of any L/LV Series lock, check lock handing. (See door handing section.)**

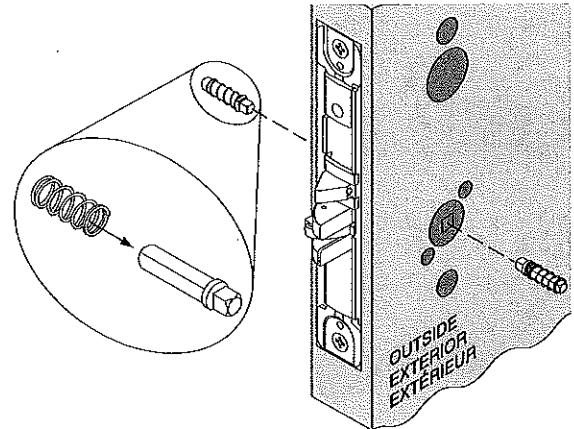
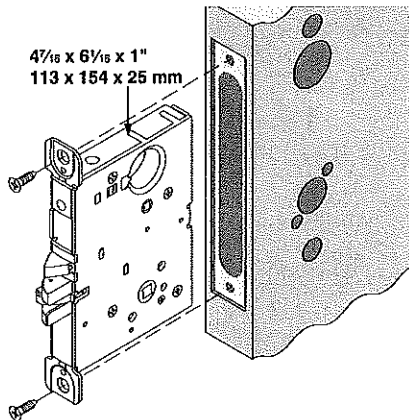
① **IMPORTANTE: Antes del instalación cualquier cerradura de L/LV, compruebe las instrucciones de orientación. (Vea la sección para orientación de la puerta.)**

① **IMPORTANT: Avant d'installer n'importe quelle serrure de L/LV, vérifiez les instructions de manipulation. (Voir la section de sens de déplacement de la porte.)**

**1** All functions Todas las funciones Toutes fonctions

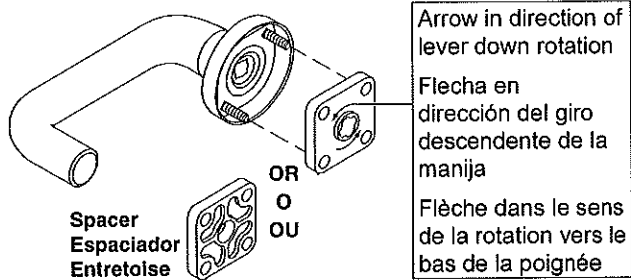
**2** All functions Todas las funciones Toutes fonctions

Fully tighten at step 9  
Apriete completamente en el paso 9  
Serrer à fond à l'étape 9



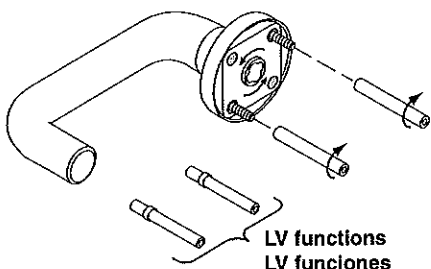
**3 All functions Todas las funciones Toutes fonctions**

- ① **IMPORTANT: If spacer is supplied, install now.**
- ① **IMPORTANTE: Si se incluye un espaciador, instálolo ahora.**
- ① **IMPORTANT: Si l'entretoise est fournie, installer maintenant.**



Spacer  
Espaciador  
Entretoise

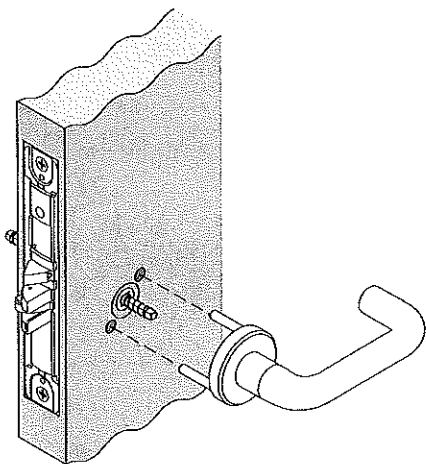
Arrow in direction of  
lever down rotation  
Flecha en  
dirección del giro  
descendente de la  
manija  
Flèche dans le sens  
de la rotation vers le  
bas de la poignée



LV functions  
LV funciones  
LV fonctions

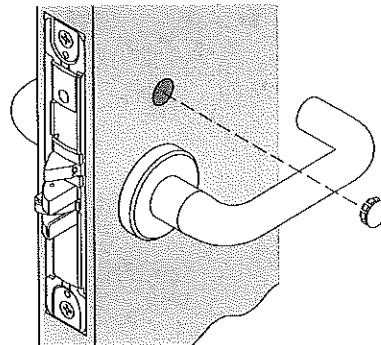
Fully tighten mounting  
posts on screws  
Apretarlos  
completamente los  
puntales de montaje  
en tornillos  
Serrer à fond les  
tenons de montage  
sur les vis

**4 All functions Todas las funciones Toutes fonctions**



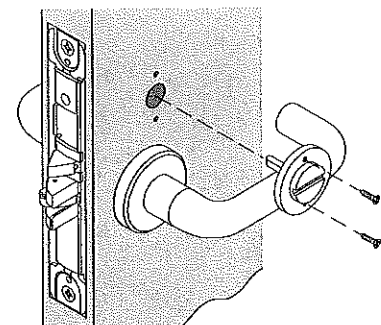
**5**

For/For/Pour:  
9040  
9440



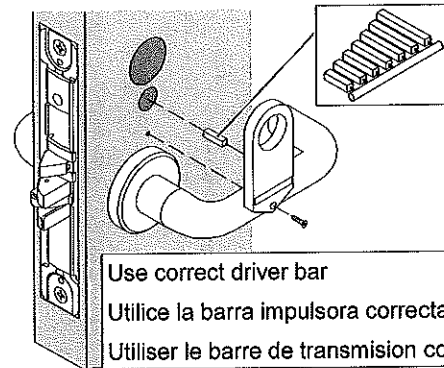
OR O OU

For/For/Pour:  
9044  
9444



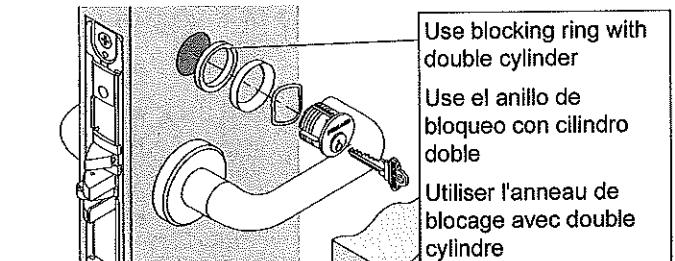
OR O OU

For/For/Pour:  
9486  
9496



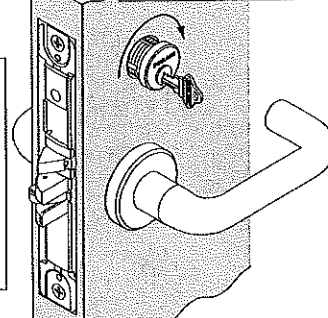
Use correct driver bar  
Utilice la barra impulsora correcta  
Utiliser le barre de transmission correcte

OR O OU



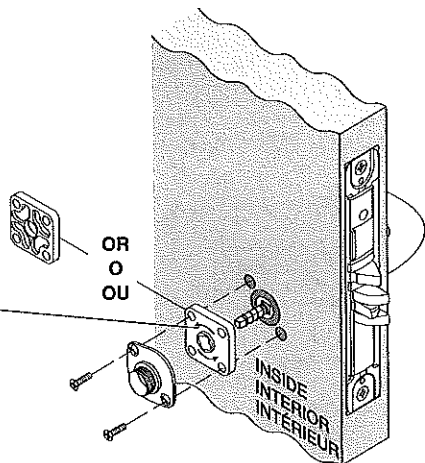
Use blocking ring with  
double cylinder  
Use el anillo de  
bloqueo con cilindro  
doble  
Utiliser l'anneau de  
blocage avec double  
cylindre

For/For/Pour:  
9050 9076 9456 9480  
9056 9077 9457 9486  
9060 9080 9465 9485  
9070 9082 9466 9496  
9071 9453 9473

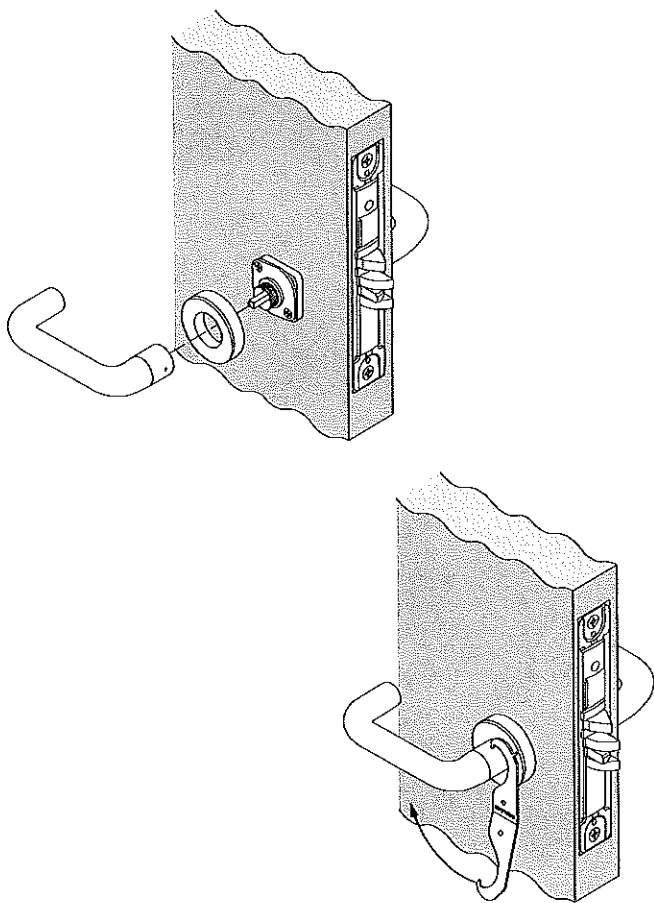


6 All functions Todas las funciones Toutes fonctions

Arrow in direction of lever down rotation  
 Flecha en dirección del giro descendente de la manija  
 Flèche dans le sens de la rotation vers le bas de la poignée



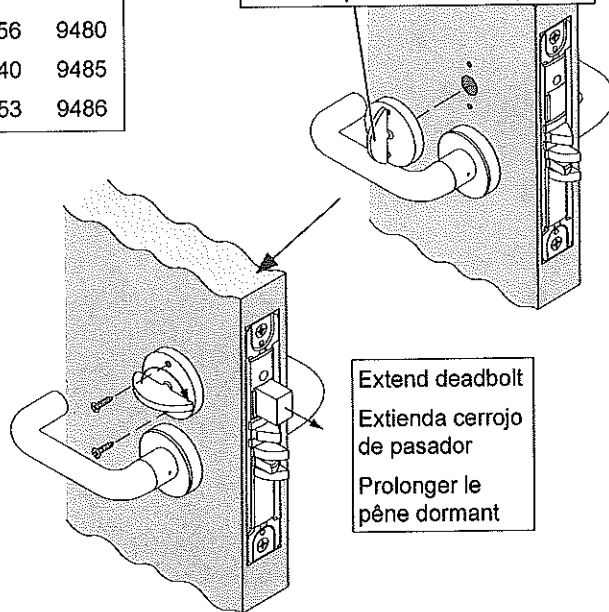
7 All functions Todas las funciones Toutes fonctions



8

For/For/Pour:  
 9040 9456  
 9050 9473  
 9056 9480  
 9440 9485  
 9453 9486

Thumbturn vertical  
 Mariposa se coloca vertical  
 Le tourniquet est verticale placée

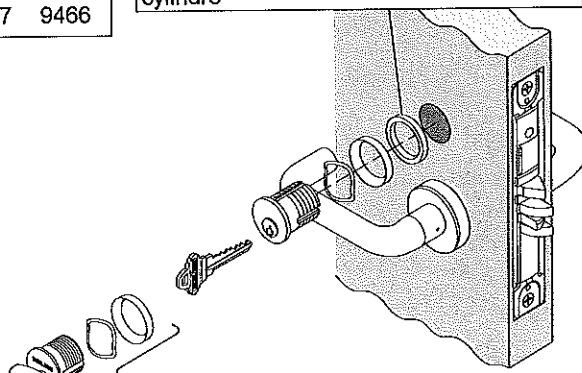


Extend deadbolt  
 Extienda cerrojo de pasador  
 Prolonger le pêne dormant

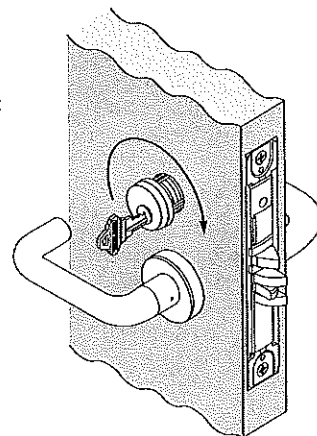
OR O OU

For/For/Pour:  
 9060 9082  
 9071 9457  
 9077 9466

Use blocking ring with double cylinder  
 Use el anillo de bloqueo con cilindro doble  
 Utiliser l'anneau de blocage avec double cylindre



Optional cylinder turn  
 Opcional mariposa por cilindro  
 En option tourniquet pour cylindre

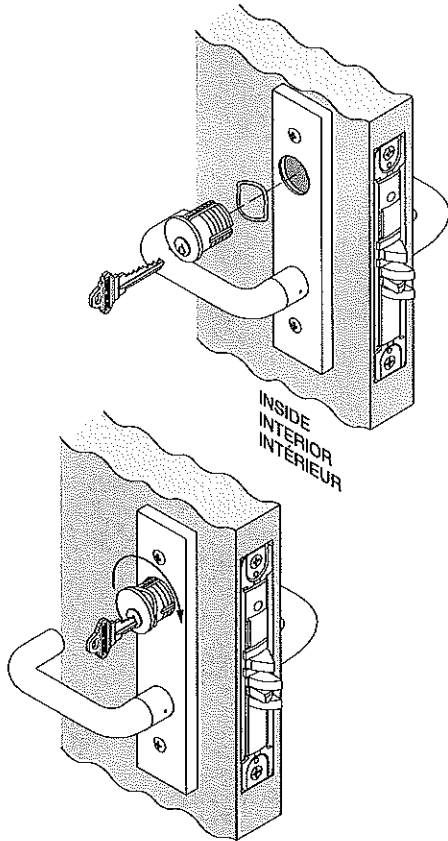


For/For/Pour:

9060 9082

9071 9457

9077 9466

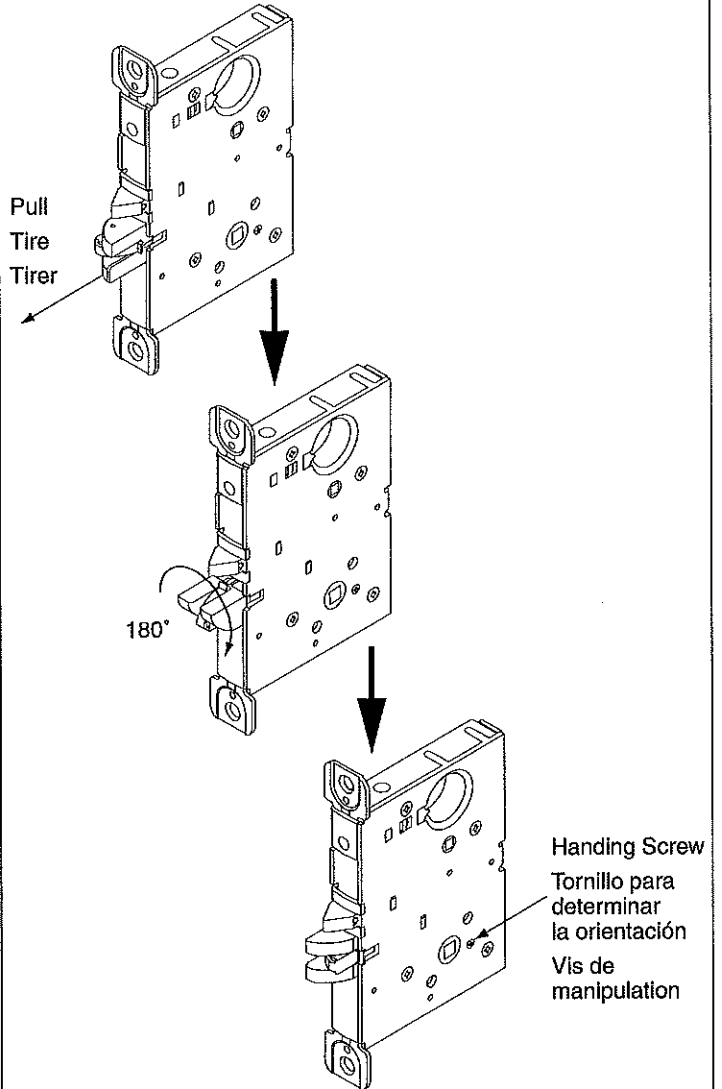


Door Handing

Orientación de la puerta

Sens de déplacement de la porte

- ① **IMPORTANT:** Move handing screw to inside of door for L locks and outside of door for LV locks.
- ① **IMPORTANTE:** Muéve el tornillo que determina la orientación hacia el interior de la puerta para cerraduras L. Muévalo hacia fuera de la puerta para cerraduras LV.
- ① **IMPORTANT:** Déplacer la vis de manipulation vers l'intérieur de la porte pour les serrures L et vers l'extérieur pour les serrures LV.

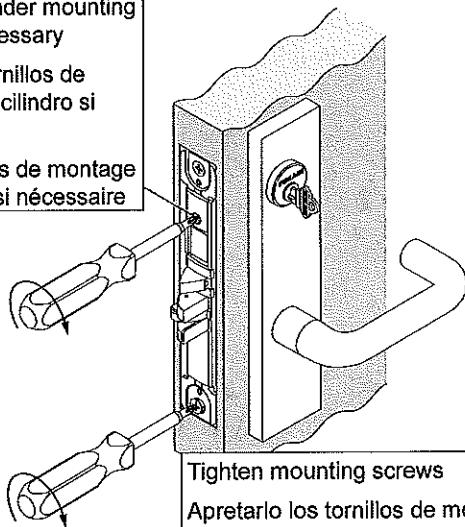


10 All functions Todas las funciones Toutes fonctions

Tighten cylinder mounting screw if necessary

Apretarlo tornillos de montaje del cilindro si necesaria

Serrer les vis de montage du cylindre si nécessaire



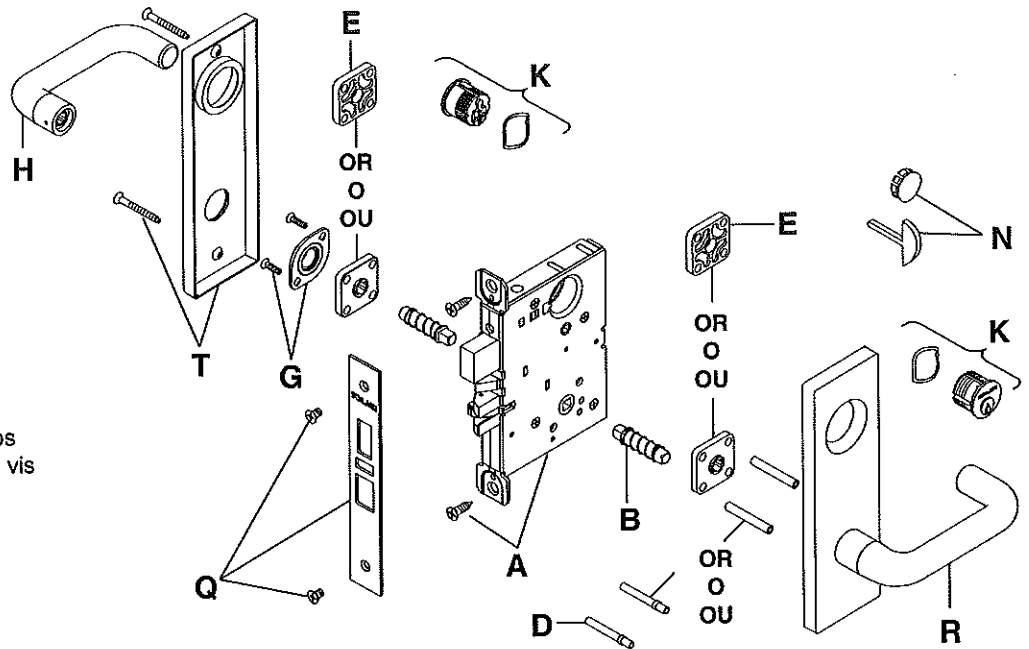
Tighten mounting screws  
Apretarlo los tornillos de montaje  
Serrer les vis de montage

# L/LV9000-Series

Lever and Escutcheon  
 Manija y Escudo  
 Levier et Entrée de Serrure

Installation Instructions  
 Instrucciones de Instalación  
 Instructions d'Installation

- A Lockcase and mounting screws  
Caja de cerradura y tornillos  
Caisse de serrure et les vis
- B Spindle and spring  
Husillo y resorte  
Axe et ressort
- D Mounting posts  
Puntales de montaje  
Tenons de montage
- E Spring cage or spacer  
Caja para resorte o espaciador  
Cage du ressort ou entretoise
- G Inside mounting plate and screws  
Placa de montaje interior y tornillos  
Plaque de montage intérieur et les vis
- H Inside lever  
Manija interior  
Levier intérieur
- K Cylinder and spring  
Cilindro y resorte  
Cylindre et ressort
- N Emergency button and turn  
Mecanismo de giro y botón de emergencia  
Tourniquet et bouton d'urgence
- Q Armor front and screws  
Tornillos y placa frontal  
Plaque de protection avant et vis



- R Outside lever and escutcheon  
Manija exterior y escudo  
Levier extérieur et entrée de serrure
- T Inside escutcheon and screws  
Escudo interior y tornillos  
Entrée de serrure et les vis

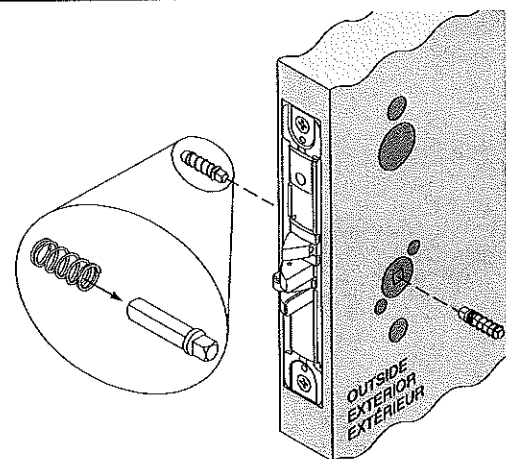
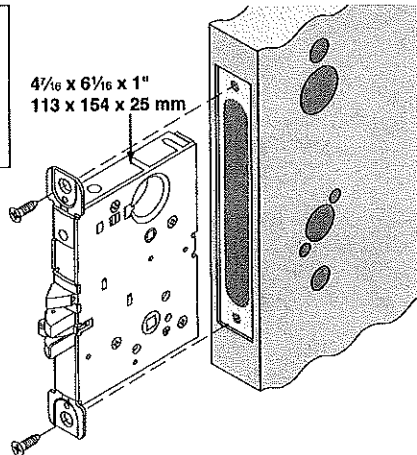
① **IMPORTANT:** Before installation of any L/LV Series lock, check lock handing. (See door handing section.)

① **IMPORTANTE:** Antes del instalación cualquier cerradura de L/LV, compruebe las instrucciones de orientación. (Vea la sección para orientación de la puerta.)

① **IMPORTANT:** Avant d'installer n'importe quelle serrure de L/LV, vérifiez les instructions de manipulation. (Voir la section de sens de déplacement de la porte.)

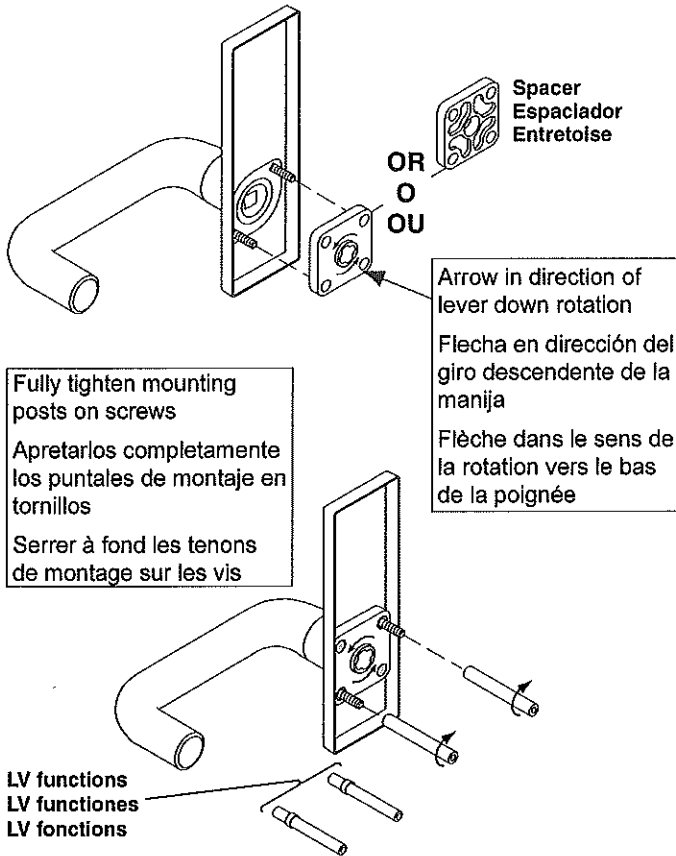
## 1 All functions Todas las funciones Toutes fonctions      2 All functions Todas las funciones Toutes fonctions

Fully tighten at step 10  
 Apriete completamente en el paso 10  
 Serrer entièrement a l'étape 10



**3** All functions Todas las funciones Toutes fonctions

- ① **IMPORTANT:** If spacer is supplied, install now.
- ① **IMPORTANTE:** Si se incluye un espaciador, instálole ahora.
- ① **IMPORTANT:** Si l'entretoise est fournie, installer maintenant.



**4** For concealed cylinder option

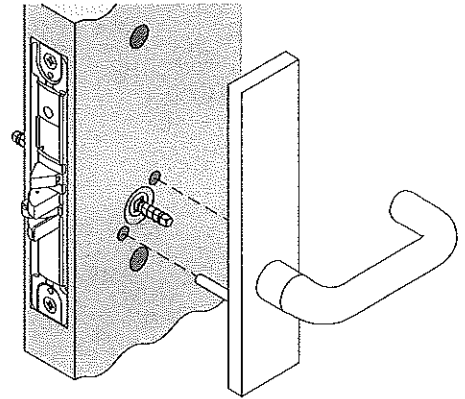
Para el cilindro oculto opcional

Pour le cylindre dissimulé en option

- ① **IMPORTANT:** Install cylinder(s) BEFORE installing escutcheon(s).
- ① **IMPORTANTE:** Instale el (los) cilindro(s) ANTES de instalar el escudo.
- ① **IMPORTANT:** Installer le(s) cylindre(s) AVANT de poser le(s) entrées de serrure

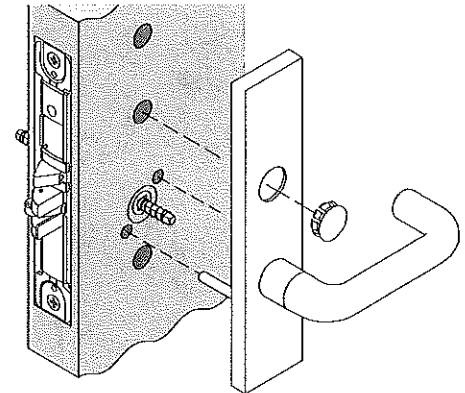
**5**

For/For/Pour:  
9010  
9176



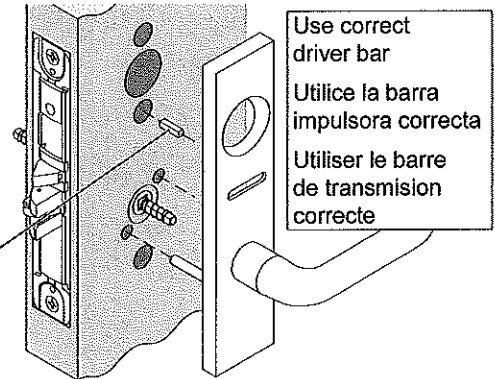
OR O OU

For/For/Pour:  
9040  
9440



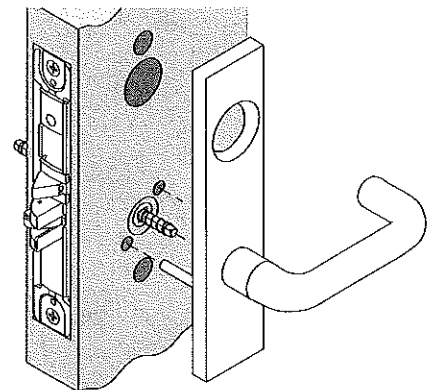
OR O OU

For/For/Pour:  
9486  
9496

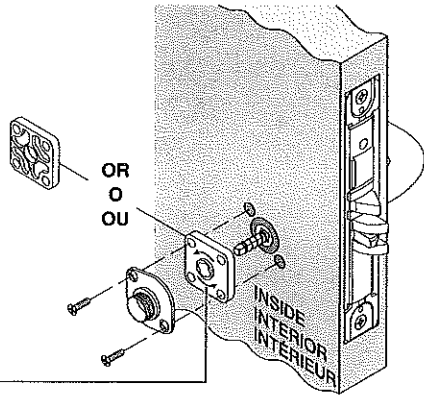


OR O OU

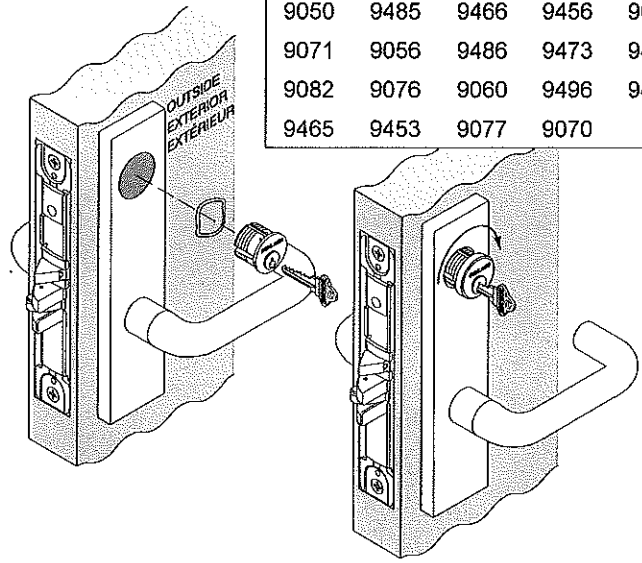
For/For/Pour:  
9050 9456  
9056 9457  
9060 9465  
9070 9466  
9071 9473  
9076 9480  
9077 9485  
9080 9486  
9082 9496  
9453



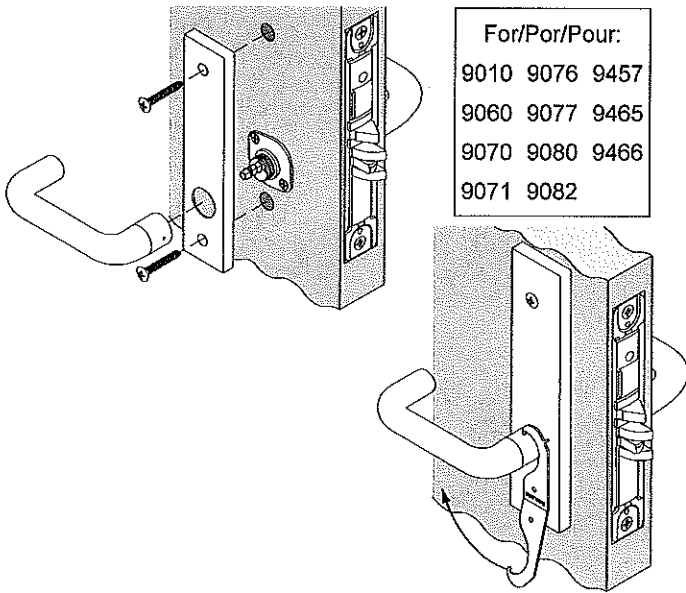
Arrow in direction of lever down rotation  
 Flecha en dirección del giro descendente de la manija  
 Flèche dans le sens de la rotation vers le bas de la poignée



For/For/Pour:				
9050	9485	9466	9456	9080
9071	9056	9486	9473	9457
9082	9076	9060	9496	9480
9465	9453	9077	9070	

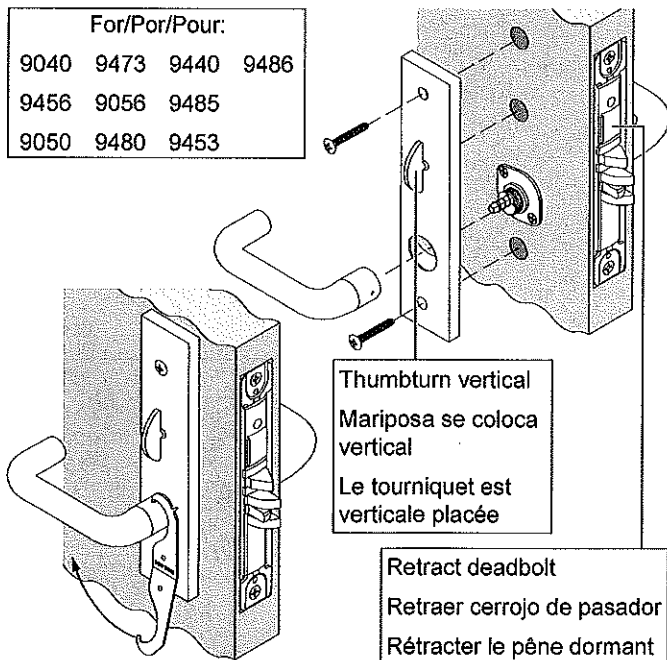


For/For/Pour:		
9010	9076	9457
9060	9077	9465
9070	9080	9466
9071	9082	



OR O OU

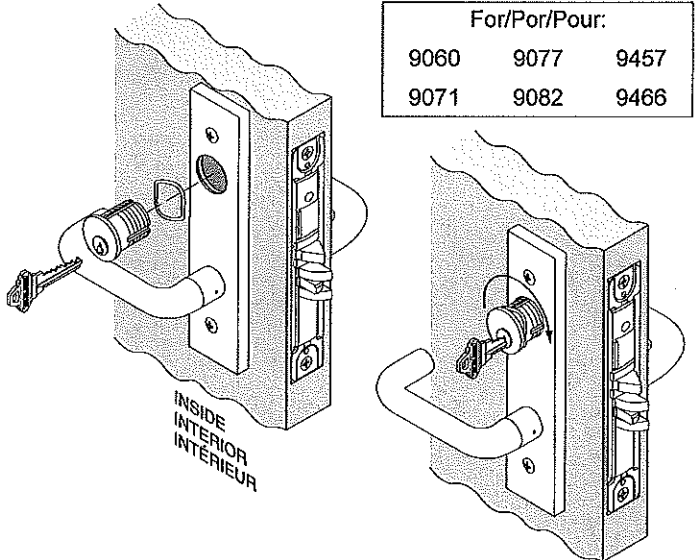
For/For/Pour:			
9040	9473	9440	9486
9456	9056	9485	
9050	9480	9453	



Thumbturn vertical  
 Mariposa se coloca vertical  
 Le tourniquet est verticale placée

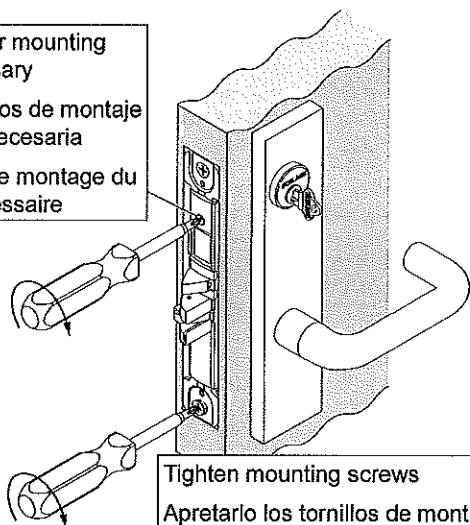
Retract deadbolt  
 Retraer cerrojo de pasador  
 Rétracter le pêne dormant

For/For/Pour:		
9060	9077	9457
9071	9082	9466



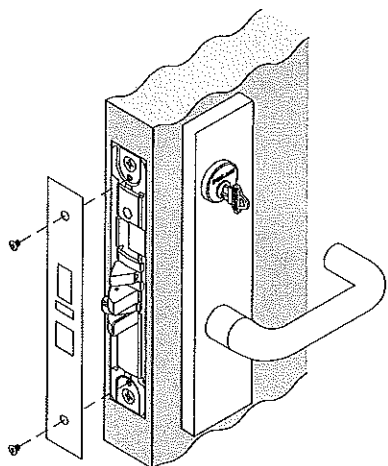
**10** All functions Todas las funciones Toutes fonctions

Tighten cylinder mounting screw if necessary  
 Apretarlo tornillos de montaje del cilindro si necesaria  
 Serrer les vis de montage du cylindre si nécessaire



Tighten mounting screws  
 Apretarlo los tornillos de montaje  
 Serrer les vis de montage

**11** All functions Todas las funciones Toutes fonctions

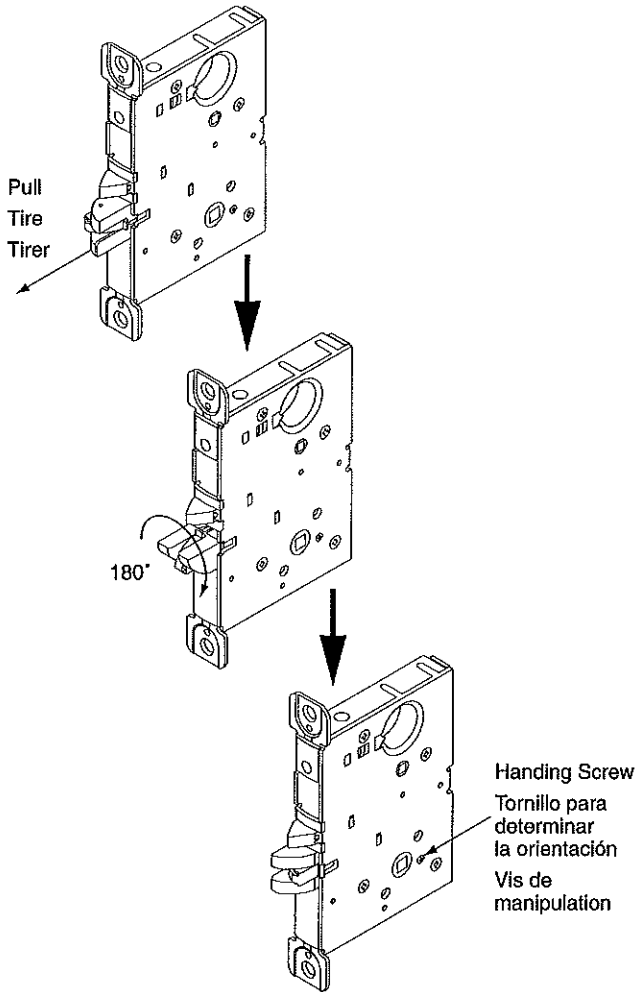


**Door Handing**

**Orientación de la puerta**

**Sens de déplacement de la porte**

- ① **IMPORTANT:** Move handing screw to inside of door for L locks and outside of door for LV locks.
- ① **IMPORTANT:** Muéve el tornillo que determina la orientación hacia el interior de la puerta para cerraduras L. Muévalo hacia fuera de la puerta para cerraduras LV.
- ① **IMPORTANT:** Déplacer la vis de manipulation vers l'intérieur de la porte pour les serrures L et vers l'extérieur pour les serrures LV.



Handing Screw  
 Tornillo para determinar la orientación  
 Vis de manipulation

---

## Limited Warranty

---

### What Products Are Covered

PennBarry Fans and Ventilators (each, a "PennBarry Product")

### One Year Limited Warranty For PennBarry Products

PennBarry warrants to the original commercial purchaser that the PennBarry Products will be free from defects in material and workmanship for a period of one (1) year from the date of shipment.

### Exclusive Remedy

PennBarry will, at its option, repair or replace (without removal or installation) the affected components of any defective PennBarry Product; repair or replace (without removal or installation) the entire defective PennBarry Product; or refund the invoice price of the PennBarry Product. In all cases, a reasonable time period must be allowed for warranty repairs to be completed.

### What You Must Do

In order to make a claim under these warranties:

1. You must be the original commercial purchaser of the PennBarry Product.
2. You must promptly notify us, within the warranty period, of any defect and provide us with any substantiation that we may reasonably request.
3. The PennBarry Product must have been installed and maintained in accordance with good industry practice and any specific PennBarry recommendations.

### Exclusions

These warranties do not cover defects caused by:

1. Improper design or operation of the system into which the PennBarry Product is incorporated.
2. Improper installation.
3. Accident, abuse or misuse.
4. Unreasonable use (including any use for non-commercial purposes, failure to provide reasonable and necessary maintenance as specified by PennBarry, misapplication and operation in excess of stated performance characteristics).
5. Components not manufactured by PennBarry.

### Limitations

1. In all cases, PennBarry reserves the right to fully satisfy its obligations under the Limited Warranties by refunding the invoice price of the defective PennBarry Product (or, if the PennBarry Product has been discontinued, of the most nearly comparable current product).
2. PennBarry reserves the right to furnish a substitute or replacement component or product in the event a PennBarry Product or any component of the product is discontinued or otherwise unavailable.
3. PennBarry's only obligation with respect to components not manufactured by PennBarry shall be to pass through the warranty made by the manufacturer of the defective component.

### General

**The foregoing warranties are exclusive and in lieu of all other warranties except that of title, whether written, oral or implied, in fact or in law (including any warranty of merchantability or fitness for a particular purpose).**

**PennBarry hereby disclaims any liability for special, punitive, indirect, incidental or consequential damages, including without limitation lost profits or revenues, loss of use of equipment, cost of capital, cost of substitute products, facilities or services, downtime, shutdown or slowdown costs.**

The remedies of the original commercial purchaser set forth herein are exclusive and the liability of PennBarry with respect to the PennBarry Products, whether in contract, tort, warranty, strict liability or other legal theory shall not exceed the invoice price charged by PennBarry to its customer for the affected PennBarry Product at the time the claim is made.

Inquiries regarding these warranties should be sent to: PennBarry, 1401 North Plano Road, Richardson, TX 75081.

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## Limited Warranty

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### General

**The foregoing warranties are exclusive and in lieu of all other warranties except that of title, whether written, oral or implied, in fact or in law (including any warranty of merchantability or fitness for a particular purpose).**

**PennBarry hereby disclaims any liability for special, punitive, indirect, incidental or consequential damages, including without limitation lost profits or revenues, loss of use of equipment, cost of capital, cost of substitute products, facilities or services, downtime, shutdown or slowdown costs.**

The remedies of the original commercial purchaser set forth herein are exclusive and the liability of PennBarry with respect to the PennBarry Products, whether in contract, tort, warranty, strict liability or other legal theory shall not exceed the invoice price charged by PennBarry to its customer for the affected PennBarry Product at the time the claim is made.

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# O & M Manuals



# **INSTALLATION & OPERATION MANUAL MEDIUM DUTY GAS GRIDDLES**

## **MODELS**

VCRG24-M  
VCRG36-M  
VCRG48-M

WCRG24-M  
WCRG36-M  
WCRG48-M



**VCRG48-M**

For additional information on Vulcan or to locate an authorized parts and service provider in your area, visit our website at [www.vulcanequipment.com](http://www.vulcanequipment.com)

## **IMPORTANT FOR YOUR SAFETY**

THIS MANUAL HAS BEEN PREPARED FOR PERSONNEL QUALIFIED TO INSTALL GAS EQUIPMENT, WHO SHOULD PERFORM THE INITIAL FIELD START-UP AND ADJUSTMENTS OF THE EQUIPMENT COVERED BY THIS MANUAL.

POST IN A PROMINENT LOCATION THE INSTRUCTIONS TO BE FOLLOWED IN THE EVENT THE SMELL OF GAS IS DETECTED. THIS INFORMATION CAN BE OBTAINED FROM THE LOCAL GAS SUPPLIER.

### **IMPORTANT**

**IN THE EVENT A GAS ODOR IS DETECTED, SHUT DOWN UNITS AT MAIN SHUTOFF VALVE AND CONTACT THE LOCAL GAS COMPANY OR GAS SUPPLIER FOR SERVICE.**

### **FOR YOUR SAFETY**

**DO NOT STORE OR USE GASOLINE OR OTHER FLAMMABLE VAPORS OR LIQUIDS IN THE VICINITY OF THIS OR ANY OTHER APPLIANCE.**

### **WARNING**

**Improper installation, adjustment, alteration, service or maintenance can cause property damage, injury, or death. Read the installation, operating and maintenance instructions thoroughly before installing or servicing this equipment.**

**IN THE EVENT OF A POWER FAILURE, DO NOT ATTEMPT TO OPERATE THIS DEVICE.**

# INSTALLATION, OPERATION AND CARE OF MEDIUM DUTY GAS GRIDDLES

## GENERAL

Medium Duty Gas Griddles are produced with quality workmanship and materials. Proper installation, usage and maintenance of your griddle will result in many years of satisfactory performance.

Thoroughly read this entire manual and carefully follow all of the instructions provided.

Model	Number Of Burners	BTU/hr Input Rating
VCRG24-M / WCRG24-M	2	50,000
VCRG36-M / WCRG36-M	3	75,000
VCRG48-M / WCRG48-M	4	100,000

## INSTALLATION

### UNPACKING

This griddle was inspected before leaving the factory. The carrier assumes full responsibility for the safe delivery upon acceptance of the shipment. Check for possible shipping damage immediately after receipt.

If the griddle is found to be damaged, complete the following steps:

1. Carrier must be notified within 5 business days of receipt.
2. Carrier's local terminal must be notified immediately upon discovery (note time, date, and who was spoken to), and follow up and confirm with written or electronic communication.
3. All original packing materials must be kept for inspection purposes.
4. The griddle cannot have been moved, installed, or modified.
5. Notify Vulcan Customer Service immediately at 800-814-2028.

Carefully unpack your griddle and make sure that no parts are discarded with packaging material. A pressure regulator designed to operate with the griddle has been supplied and must be installed before the griddle is placed into service (Refer to GAS PRESSURE REGULATOR INSTALLATION in this manual).

### LOCATION

The installation location must be kept free and clear of combustibles. When installing, never enclose the bottom of the griddle with a raised curb or other constructions that would obstruct flow of air into or out of the griddle. Adequate clearance for air openings into the combustion chamber must be provided. Make sure there is an adequate supply of air in the room to replace air taken out by the ventilation system.

Do not permit air to blow directly at the griddle. Avoid open windows next to the griddle wherever possible. Avoid wall-type fans which create air cross-currents within the room.

This griddle is Design Certified for installation on a non-combustible counter with 4" legs, or combustible floor with 24" high stand.

**INSTALLATION CLEARANCES**

	COMBUSTIBLE CONSTRUCTION	NON-COMBUSTIBLE CONSTRUCTION
Back:	6"	0"
Sides:	6"	0"

**INSTALLATION CODES AND STANDARDS**

The griddle must be installed in accordance with:

In the United States of America:

1. State and local codes.
2. National Fuel Gas Code, ANSI-Z223.1/NFPA #54 (latest edition). This shall include but not be limited to: NFPA #54 Section 10.3.5.2 for Venting. Copies may be obtained from The American Gas Association Accredited Standards Committee Z223, @ 400 N. Capital St. NW, Washington, DC 20001 or the Secretary Standards Council, NFPA, 1 Batterymarch Park Quincy, MA 02169-7471

NOTE: In the Commonwealth of Massachusetts

All gas appliances vented through a ventilation hood or exhaust system equipped with a damper or with a power means of exhaust shall comply with 248 CMR.

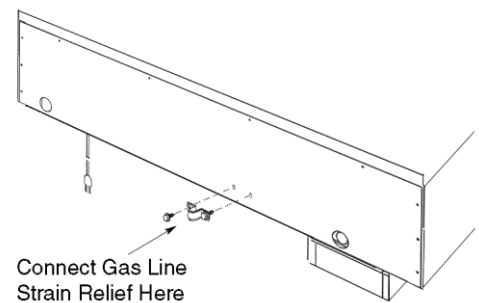
3. NFPA Standard # 96 *Vapor Removal from Cooking Equipment*, latest edition, available from the National Fire Protection Association, Batterymarch Park, Quincy, MA 02269.

In Canada:

1. Local codes.
2. CAN/CSA-B149.1 Natural Gas Installation (latest edition)
3. CAN/CSA-B149.2 Propane Installation Code (latest edition), available from the Canadian Gas Association, 178 Rexdale Blvd., Etobicoke, Ontario, Canada M9W 1R3

**GRIDDLES MOUNTED ON STANDS WITH CASTERS**

Griddles mounted on stands with casters must use a flexible connector (not supplied) that complies with the Standard for Connectors for Movable Gas Appliances ANSI Z21.69•CSA6.16, and a quick-disconnect device that complies with Gas Fuel, ANSI Z21.3•CSA6.9. In addition, adequate means must be provided to limit movement of the appliance without depending on the connector and the quick-disconnect device (or its associated piping) to limit appliance movement. Attach the restraining device at the rear of the griddle as shown in Fig. 1.



**Fig. 1**

If disconnection of the restraint is necessary, turn off the gas supply before disconnecting. Reconnect the restraint prior to turning the gas supply on and returning the griddle to its installation position.

Castors are only supplied on a griddle stand. If the griddle is moved for any reason the griddle should be re-leveled (see LEVELING in this manual).

## FLUE CONNECTIONS

Do not obstruct the flow of flue gases from the flue, located at the rear of the griddle. It is recommended that flue gases be ventilated to the outside of the building through a ventilation system installed by qualified personnel.

From the termination of the flue to the filters of the hood venting system, a minimum clearance of 18" must be maintained.

Information on the construction and installation of ventilating hoods may be obtained from the standard for "Vapor Removal from Cooking Equipment", NFPA No. 96 (latest edition), available from the National Fire Protection Association, Batterymarch Park, Quincy, MA 02269.

## GAS CONNECTIONS

**NOTICE** Gas supply connections and any pipe joint compound must be resistant to the action of propane gases.

Use a  $\frac{3}{4}$ " NPT gas supply line for the griddle inlet, located at the rear of the griddle. All of flexible and semi-rigid gas supply lines must comply with the applicable ANSI standard. To ensure maximum operating efficiency, this appliance must be connected with a gas supply line of solid pipe or a commercial type Flexible Connector with the net inside diameter (I.D.) as large as or larger than the gas pipe inlet on this appliance. Codes require that a gas shutoff valve must be installed in the gas line upstream of the griddle.

**⚠ WARNING** Prior to lighting, check all joints in the gas supply line for leaks. Use soap and water solution. Do not use an open flame.

After checking for leaks all lines receiving gas should be fully purged to remove air.

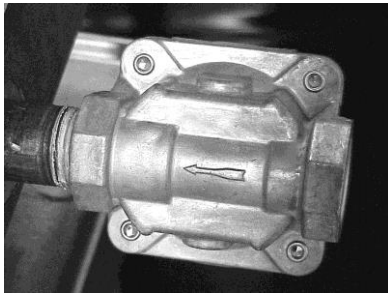
## TESTING THE GAS SUPPLY SYSTEM

When the gas supply pressure exceeds  $\frac{1}{2}$  psig (3.45 kPa), the griddle and its individual shutoff valve must be disconnected from the gas supply piping system.

When the gas supply pressure is  $\frac{1}{2}$  psig (3.45 kPa) or less, the griddle should be isolated from the gas supply system by closing its individual manual shutoff valve.

## GAS PRESSURE REGULATOR INSTALLATION

This griddle is supplied with a convertible gas pressure regulator preset at 4" Water Column (W.C.) for natural gas. No further adjustment should be required. Install the regulator as close to the griddle on the gas supply line as possible. Make sure that the arrow on the underside of the regulator is oriented in the direction of gas flow to the griddle (Fig. 2 on next page) and the regulator is positioned with the vent plug and conversion plug cover upright (Fig. 3 on next page).



**Fig. 2**



**Fig. 3**

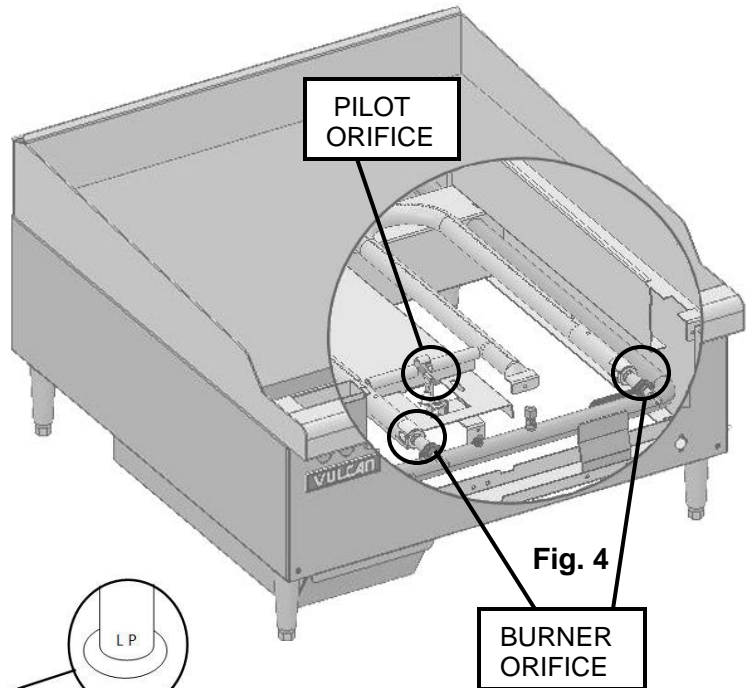
The supply pressure (upstream of the regulator) should be 7-9" W.C. for natural gas and 11-12" W.C. for propane gas. At no time should the griddle be connected to supply pressure greater than ½ psig (3.45 kPa) or 14" W.C.

### PROPANE GAS CONVERSION

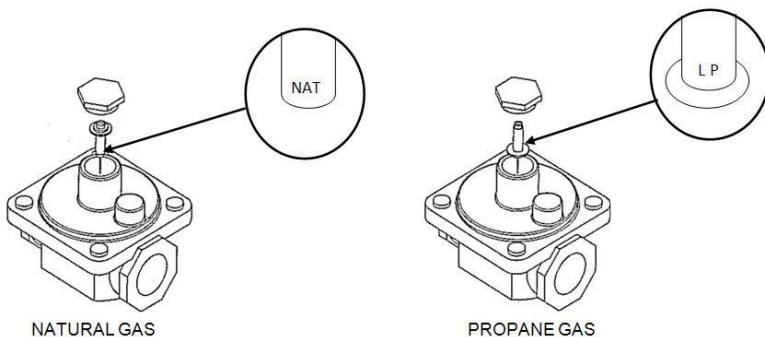
This griddle is shipped from the factory equipped with fixed burner and pilot orifices for natural gas operation. The burner and pilot orifices required to convert the griddle to propane gas are shipped with the griddle in the shipping packaging. It is recommended that a trained gas service technician with the necessary tools, instruments and skills perform the conversion.

To convert to propane, following steps must be completed:

1. Remove all natural gas burner orifices and install the provided propane burner orifices. See Fig. 4
2. Remove all pilot orifices and install the provided propane pilot orifices. See Fig 4.
3. Set the regulator to 10" W.C. by inverting the regulator spring plug. See Fig 5.



**Fig. 4**



**Fig. 5**

**⚠ WARNING** Prior to lighting, check all joints in the gas supply line for leaks. Use soap and water solution. Do not use an open flame.

# OPERATION

**⚠ WARNING** The griddle and its parts are hot. Use care when operating, cleaning or servicing the griddle.

## BEFORE FIRST USE

Remove all packing material and protective plastic from surfaces of the unit. Before leaving the factory the griddle is coated with vegetable oil as a rust inhibitor. Remove this film when the griddle plate is being cleaned prior to its first cooking use. Heat the griddle to 200-300°F to loosen and melt the coating, then clean the surface with a non-corrosive, grease dissolving commercial cleaner, following the manufacturer's directions. Rinse thoroughly and wipe dry with a soft clean cloth. Clean all accessories.

## SEASONING THE GRIDDLE

Season the griddle to avoid possible surface corrosion before first use, and after every cleaning. Heat griddle to a low temperature (300-350°F) and apply a small amount of cooking oil – about one ounce per square foot of surface. Use a soft lint-free cloth to spread the oil over the entire griddle surface to create a thin film. Wipe off any excess oil with a cloth. Repeat the procedure until the griddle has a slick, mirror-like finish. This will also help reduce the sticking of cooked food product.

## CONTROLS

There is one pilot for every two burners except on the 36" models. The 36" models have an odd number of main burners; therefore one of the pilots in these models will control only one main burner. The pilot burners are off centered about 1" to the left of pilot sight holes and inset approximately 7" from the front panel. See cutaway view on page 8.

The unit is equipped with standing, unmonitored pilots. Gas will flow from the pilots as soon as the main gas supply to the unit is turned on. The pilots are lit with the use of an outside ignition source (such as a lit taper, etc). See pilot lighting procedure on page 8.

Each 12" section of the griddle is independently controlled by an infinite heat control valve. Once the pilots are lit, turning the control knob to the ON position will light each burner. The burners will be in the full ON position when turned all the way to the left. The burners will be in the full OFF position when turned all the way to the right. See Fig. 6. The height of the burner flame and plate temperature can be adjusted by turning control knobs while viewing burners through the burner sight holes.

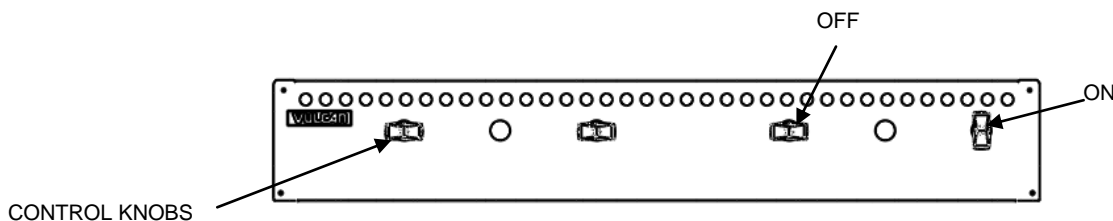
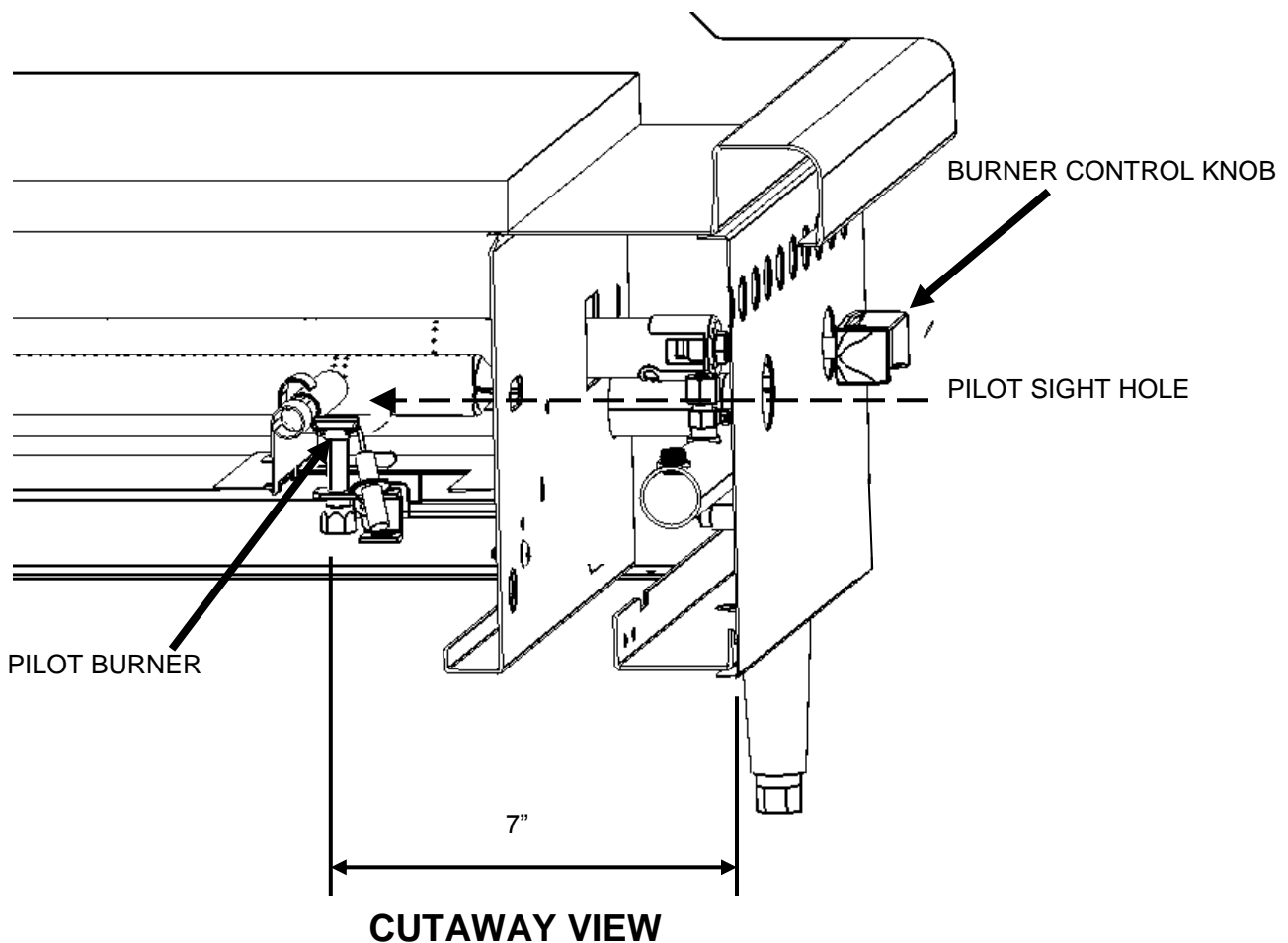


Fig. 6

## VCRG-M / WCRG-M PILOT LIGHTING PROCEDURE

1. Turn the main gas shut-off valve and all burner control knobs to the OFF position. Wait 5 minutes to allow any gas that may have accumulated in the burner compartment to escape.
2. Turn the main gas shut-off valve ON.
3. While viewing through the pilot sight hole, you will have to reach under the front of the unit and through the pilot cutout to ignite the pilots with an outside ignition source (such as a lit taper, etc.). It may be necessary to adjust the pilot valve to increase gas to the pilot. See Fig. 7 on page 11.
4. Repeat steps until all pilots are lit
5. To light main burners, turn individual burner valves to the ON position.
5. If after completing steps 1-5 main burners do not light, turn off the main gas shut-off valve and contact an authorized service contractor.



## USING THE GRIDDLE

To preheat, turn the burners on about 20-25 minutes before cooking.

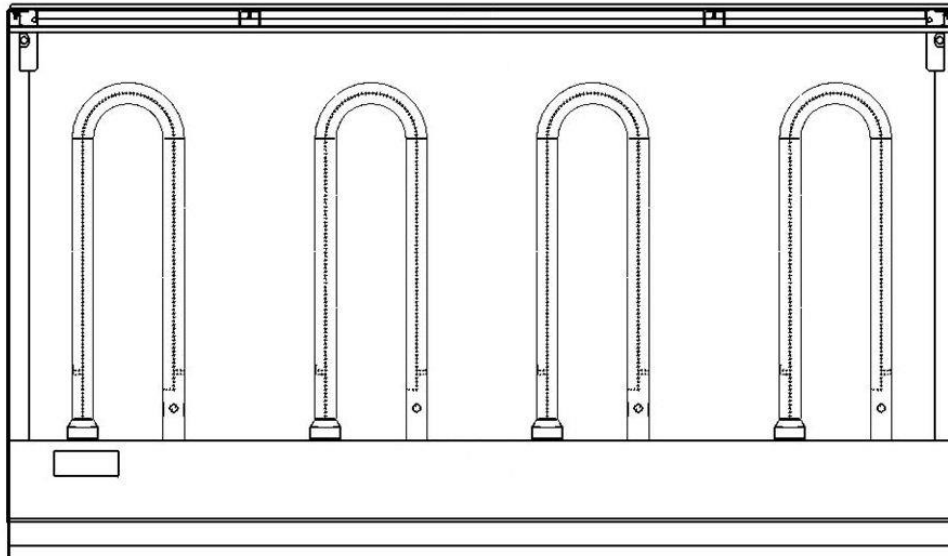
A uniform and systematic approach to loading the griddle will produce the most consistent product results.

The griddle plate is steel, but the surface is relatively soft and can be scored or dented by careless use of a spatula or scraper. Be careful not to dent, scratch, or gouge the plate surface. Do not try to knock off loose food that may be on the spatula by tapping the corner or the edge of the spatula on the griddle surface.

## ZONE COOKING

This griddle features a tubular U-shaped burner in each 12” section, each controlled by independent valves. Each 12” section is a separate cooking zone, and allows cooking a wide variety of products over a single griddle plate. The chart below is a suggested usage of zone cooking.

When zone cooking, it is suggested that you start with your lowest temperature setting at either side of the griddle, increasing the zone temperature as you move up the zone line. These zone cooking guidelines will vary depending on product temperatures, size and shape. This guide should be adjusted to suit your product and operational cooking preference.



<b>ZONE 1 (300°F)</b>	<b>ZONE 2 (350°F)</b>	<b>ZONE 3 (350°F)</b>	<b>ZONE 4 (400°F)</b>
<b>PRODUCT</b>	<b>PRODUCT</b>		<b>PRODUCT</b>
Sausage Eggs (Hard Fried) Eggs (Scrambled) Burger (Well Done) Steak (Well Done) Chicken Breast Frozen Foods Pork Chops	Pancakes French Toast Bacon Eggs (Sunny Side Up) Boiled Ham Steak (Medium Well) Fresh Burger (Medium Well) Small Frozen Burger (Medium Well)	Omelet Hash Browns Canadian Bacon	Steak (Rare) Stir Fry Vegetables Salmon Fish Cakes Lobster Scampi

## **CLEANING THE GRIDDLE**

Empty the grease drawer as needed throughout the day and regularly clean at least once daily.

Clean the griddle regularly. A clean griddle always looks better, lasts longer and performs better. To produce evenly cooked, perfectly browned griddle products keep the griddle plate clean and free of carbonized grease. Carbonized grease on the surface hinders the transfer of heat from the griddle surface to the food, resulting in spotty browning and loss of cooking efficiency. Carbonized grease tends to cling to griddle foods, giving them a highly unsatisfactory and unappetizing appearance.

To keep the griddle clean and operating at peak efficiency, follow these procedures:

### **AFTER EACH USE**

Clean the griddle with a wire brush or flexible spatula.

### **ONCE PER DAY**

Thoroughly clean the griddle back splash, sides and front. Remove, empty and wash the grease drawer in the same manner as an ordinary cooking utensil.

### **ONCE PER WEEK**

Clean the griddle surface thoroughly. Use a griddle stone, screen, or Scotch Bright pad on the surface as necessary. Rub with the grain of the metal while the griddle is still warm (not hot). A detergent may be used on the plate surface to help clean it, but be sure the detergent is thoroughly removed by flushing with clear water.

After removal of detergent the surface of the plate the griddle should be seasoned according to the instructions in this manual.

Clean stainless steel surfaces with a damp cloth and polish with a soft dry cloth. To remove discoloration, use a griddle cleaner.

If the griddle usage is very high, consider conducting this weekly cleaning procedure more than once per week.

## **LEVELING**

The griddle must be level (side-to-side and front-to-back) during operation to ensure proper performance. Improper leveling can result in uneven temperature distribution, cold spots, and possibly damaged components.

1. Place a level on the griddle.
2. Adjust legs by turning the bullet feet at the bottom of each leg. Using pliers or a crescent wrench, turn the feet counter-clockwise to increase height, and clockwise to decrease height until leveling is achieved. Do not extend the legs more than 1- $\frac{3}{4}$ ".

## PILOT ADJUSTMENT

Using a flathead screwdriver, turn the slotted hex-head pilot adjustment screw clockwise to decrease the flame, and counterclockwise to increase the flame. See Fig. 7.

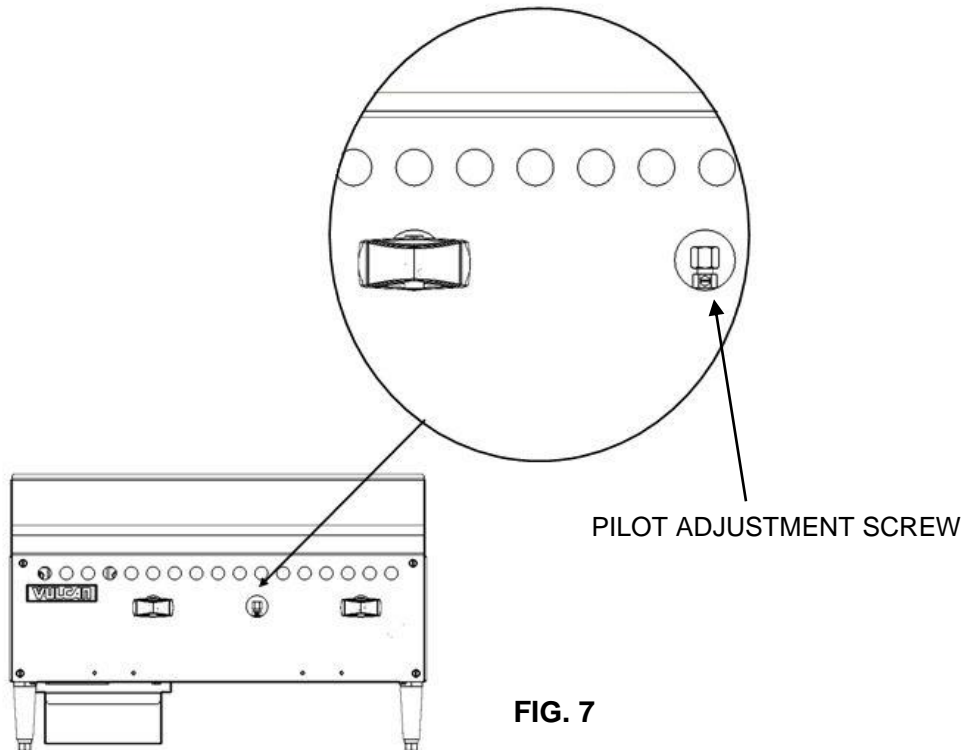


FIG. 7

## SHUTDOWN OF GRIDDLE WITH STANDING PILOT SYSTEM

1. Turn burner control knobs to the OFF position to cut off burners.
2. The pilots will remain lit as long as the main gas supply is on.

## EXTENDED SHUTDOWN

1. Shut off the main gas supply valve.
2. Apply a heavy coat of vegetable oil over the griddle plate to inhibit rust.

# MAINTENANCE

**⚠ WARNING** The griddle and its parts are hot. Use care when operating, cleaning or servicing the griddle.

## LUBRICATION

All valves must be checked and lubricated periodically. Check with your service agency for details.

## VENT

Daily, when the griddle is cool, check the flue and clear any obstructions.

## SERVICE AND PARTS INFORMATION

Contact the Service Contractor in your area to obtain service and parts information. For a complete listing of Service and Parts depots refer to or [www.vulcanequipment.com](http://www.vulcanequipment.com).

When calling for service, the following information should be available from the appliance identification plate: Model Number, Serial Number and Gas Type.

# TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSES
Burner does not come on when the control knob is turned on	<ol style="list-style-type: none"> <li>1. Problem with gas valve. (Call for service)</li> <li>2. Pilot burner not lit. (Call for service)</li> <li>3. Low gas pressure. (Call for service)</li> </ol>
Pilot burner will not light	<ol style="list-style-type: none"> <li>1. Manual gas valve not turned on.</li> <li>2. Obstructed pilot orifice. (Call for service)</li> <li>3. Pilot gas turned off at pilot. Adjust pilot to allow gas flow.</li> <li>4. Low gas pressure. (Call for service)</li> </ol>
Pilot burner will not stay lit	<ol style="list-style-type: none"> <li>1. Obstructed or wrong size pilot orifice. (Call for service)</li> <li>2. Gas supply not purged of air. Open pilot valve until air is purged.</li> <li>3. Air blowing pilot out. (Call for service)</li> <li>4. Low gas pressure. (Call for service)</li> </ol>
Fat appears to smoke excessively	<ol style="list-style-type: none"> <li>1. Temperature set too high.</li> <li>2. Moisture in food may be turning into steam</li> </ol>
Food sticks to griddle or burned around edges or contains dark specs	<ol style="list-style-type: none"> <li>1. Temperature set too high.</li> <li>2. Griddle surface requires cleaning and/or seasoning.</li> <li>3. Surface under food not covered with enough cooking oil.</li> </ol>
Food under-cooked inside	<ol style="list-style-type: none"> <li>1. Temperature set too low.</li> <li>2. Food not cooked for long enough time.</li> </ol>
Food tastes greasy or has objectionable off-flavor	<ol style="list-style-type: none"> <li>1. Food itself may have off-flavor.</li> <li>2. Food stored improperly before cooking.</li> <li>3. Too much griddle fat used.</li> <li>4. Temperature set too low.</li> </ol>
Noticeable build-up of gum on griddle	<ol style="list-style-type: none"> <li>1. Temperature set too high.</li> <li>2. Griddle surface needs cleaning and/or seasoning.</li> <li>3. Too much griddle fat used.</li> </ol>

# NOTES

**REMARQUES**

CAUSES POSSIBLES	PROBLÈME
<ol style="list-style-type: none"> <li>1. C'est un problème avec la soupape à gaz (Contactez le service à la clientèle).</li> <li>2. La veilleuse du brûleur n'est pas allumée. (Contactez le service à la clientèle).</li> <li>3. La pression du gaz est basse. (Contactez le service à la clientèle).</li> </ol>	<p>Le brûleur ne s'ouvre pas lorsque le bouton de commande est ouvert</p>
<ol style="list-style-type: none"> <li>1. La soupape manuelle du gaz n'est pas ouverte.</li> <li>2. L'orifice de la veilleuse d'allumage est obstrué. (Contactez le service à la clientèle).</li> <li>3. La veilleuse du gaz est fermée. Réglez la veilleuse d'allumage pour permettre la circulation du gaz.</li> <li>4. La pression du gaz est basse. (Contactez le service à la clientèle).</li> </ol>	<p>La veilleuse n'est pas allumée</p>
<ol style="list-style-type: none"> <li>1. L'orifice de la veilleuse d'allumage est obstrué ou n'a pas la bonne dimension. (Contactez le service à la clientèle).</li> <li>2. L'alimentation en gaz n'a pas été vidée de son air. Ouvrez la soupape de la veilleuse jusqu'à ce que l'air soit évacué.</li> <li>3. Il y a de l'air qui sort de la veilleuse. (Contactez le service à la clientèle).</li> <li>4. La pression du gaz est basse. (Contactez le service à la clientèle).</li> </ol>	<p>La veilleuse d'allumage ne reste pas allumée</p>
<ol style="list-style-type: none"> <li>1. La température est trop haute.</li> <li>2. La surface de la plaque nécessite un nettoyage ou un rodage.</li> <li>3. La surface sous la nourriture n'a pas été assez enduite d'huile végétale.</li> </ol>	<p>La nourriture colle sur la plaque ou brûle sur les bords ou a des taches foncées</p>
<ol style="list-style-type: none"> <li>1. La température est trop basse.</li> <li>2. La nourriture n'a pas été cuite assez longtemps.</li> </ol>	<p>La nourriture n'est pas assez cuite à l'intérieur</p>
<ol style="list-style-type: none"> <li>1. La nourriture elle-même a un goût altéré.</li> <li>2. La nourriture a été gardée dans de mauvaises conditions avant la cuisson.</li> <li>3. Il y a trop de gras utilisé sur la plaque</li> <li>4. La température est trop basse.</li> </ol>	<p>La nourriture goûte le gras ou a un goût altéré désagréable</p>
<ol style="list-style-type: none"> <li>1. La température est trop haute.</li> <li>2. La surface de la plaque a besoin d'un nettoyage ou d'un rodage.</li> <li>3. Il y a trop de gras utilisé sur la plaque</li> </ol>	<p>Accumulation visible de gomme sur la plaque</p>

## DÉPANNAGE

**⚠ AVERTISSEMENT** La plaque chauffante et ses pièces sont chaudes. Faites attention lorsque vous employez, nettoyez ou vous servez la plaque chauffante.

## LUBRIFICATION

On doit vérifier et lubrifier toutes les soupapes régulièrement. Contactez votre service à la clientèle pour de plus amples détails.

## VENTILATION

Quotidiennement, lorsque la plaque chauffante est refroidi, vérifiez le conduit et retirez toute obstruction.

## RENSEIGNEMENTS SUR L'ENTRETIEN ET LES PIÈCES

Contactez le service à la clientèle de votre région pour obtenir des renseignements sur l'entretien et les pièces. Pour une liste des bureaux des services et des pièces, consultez [www.vulcanequipment.com](http://www.vulcanequipment.com).

Lorsque vous appelez pour du service, les renseignements suivants devraient être disponibles sur la plaque d'identification de l'appareil : le numéro du modèle, le numéro de série et le type de gaz.

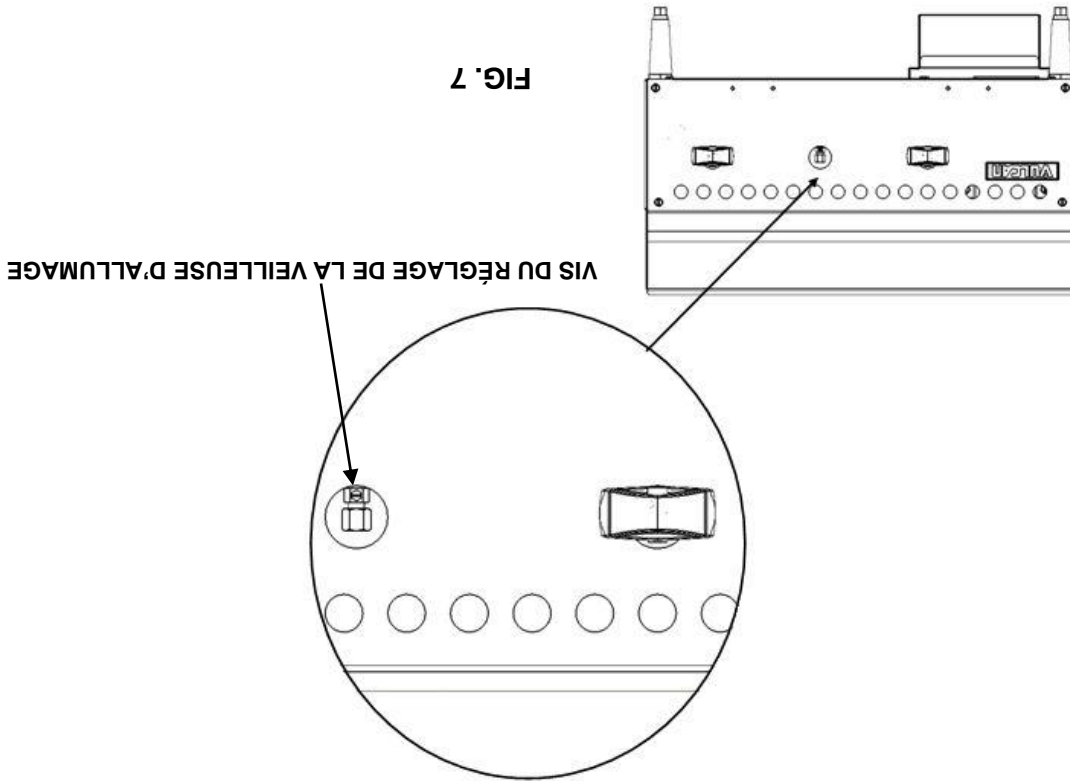
## ENTRETIEN

1. Fermez le robinet principal d'alimentation en gaz.
2. Mettez une g n reuse couche d'huile v g tale sur la plaque pour emp cher la rouille.

## FERMETURE PROLONG E

1. Fermez les boutons de commande pour  teindre les br leurs.
2. Les veilleuses d'allumage resteront allum es aussi longtemps que l'alimentation principale en gaz est ouverte.

## FERMETURE DE LA PLAQUE AVEC SYST ME DE VEILLEUSES PERMANENTES



7.   l'aide d'un tournevis   t te plate, tournez la vis   t te hexagonale fendue de r glage de la veilleuse d'allumage dans le sens des aiguilles d'une montre pour diminuer la flamme et dans le sens contraire des aiguilles d'une montre pour augmenter la flamme. Voir Fig.

## R GLAGE DE LA VEILLEUSE D'ALLUMAGE

**NETTOYAGE DE LA PLAQUE CHAUFFANTE**

Videz le tiroir à graisse au besoin tout au long de la journée et le nettoyez régulièrement au moins une fois par jour.

Nettoyez régulièrement la plaque chauffante propre à toujours un meilleur aspect, dure plus longtemps et a une meilleure performance. Pour obtenir des aliments cuits de façon uniforme et parfaitement grillés, garder la plaque propre et sans gras carbonisé. Le gras carbonisé sur la surface empêche le transfert la chaleur de la plaque à la nourriture, provoquant du brunissement par endroits et de la perte d'efficacité de cuisson. Le gras carbonisé a tendance à adhérer aux aliments cuits sur plaque, leur donnant une apparence très insatisfaisante et peu appétissante.

Pour garder la plaque chauffante propre et l'utiliser à un rendement optimum, suivez ces procédures :

### **APRÈS CHAQUE UTILISATION**

Nettoyez la plaque chauffante avec une brosse métallique d'une spatule de plastique.

### **UNE FOIS PAR JOUR**

Nettoyez à fond le dos antiéclaboussement, les côtés et le devant de la plaque chauffante. Retirez, videz et lavez le tiroir à graisse de la même façon qu'un ustensile de cuisine ordinaire.

### **UNE FOIS PAR SEMAINE**

Nettoyez à fond la surface de la plaque chauffante. Utilisez une pierre pour plaque chauffante, une toile ou un tampon Scotch Bright sur la surface au besoin. Frottez avec le grain métallique pendant la plaque est encore tiède (pas chaude). Vous pouvez utiliser un détergent sur la surface de la plaque pour vous aider à nettoyer, mais assurez-vous qu'il n'en reste plus en rinçant avec de l'eau claire.

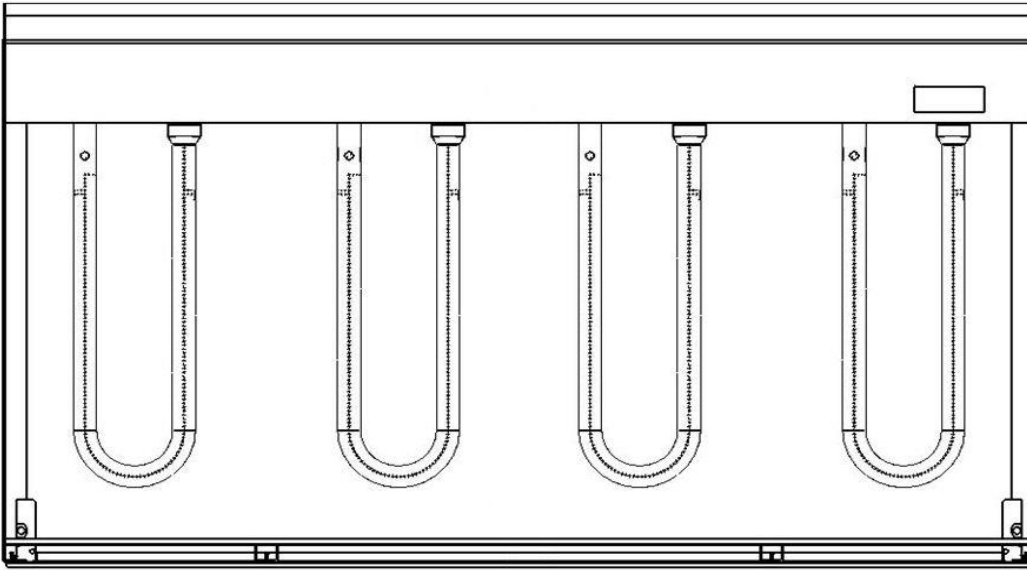
Après avoir enlevé le détergent, la surface de la plaque devrait être rodée selon les instructions de ce manuel.

Nettoyez la surface en acier inoxydable avec un linge humide et polissez avec un linge sec doux. Pour enlever la décoloration, utilisez un nettoyant pour plaque chauffante.

La plaque chauffante doit être mise à niveau (d'un côté à l'autre et du devant vers l'arrière) quand vous l'utilisez pour assurer une performance adéquate. Une mise à niveau inadéquate peut provoquer une répartition de la température inégale, des zones froides et possiblement des composants endommagés.

1. Placez un niveau sur la plaque chauffante.
2. Réglez les pattes en tournant les pieds en bas de chaque patte. À l'aide d'une pince-étai ou d'une clé à molette, tournez les pieds dans le sens contraire des aiguilles d'une montre pour augmenter la hauteur et dans le sens des aiguilles d'une montre pour diminuer la hauteur jusqu'à ce que la mise à niveau soit effectuée. Ne pas allonger les pattes plus de 4 cm.

<b>PRODUIT</b> Zone 1 (300°F) Sausse Oeufs (poelés) Oeufs (rouillés) Hamburger (bien cuit) Bifteck (bien cuit) Poitrine de poulet Aliments congelés Côtelette de porc	<b>PRODUIT</b> Zone 2 (350°F) Crêpes Pain doré Bacon Oeufs (au miroir) Jambon blanc Bifteck (médium) Hamburger (médium)	<b>PRODUIT</b> Zone 3 (350°F) Omelette Pommes de terre rissolées Bacon de dos Petit hamburger congelé (médium)	<b>PRODUIT</b> Zone 4 (400°F) Bifteck (saignant) Légumes sautés Saumon Galettes de poisson Homard Langoustine
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La plaque a un brûleur tubulaire en forme de U dans chaque section de 30 cm, chacun contrôlé par des soupapes indépendantes. Chaque section de 30 cm est une zone de cuisson séparée et permet la cuisson d'un grand nombre de produits sur une seule plaque. Le graphique ci-dessous démontre un usage suggéré des zones de cuisson.

## ZONES DE CUSSION

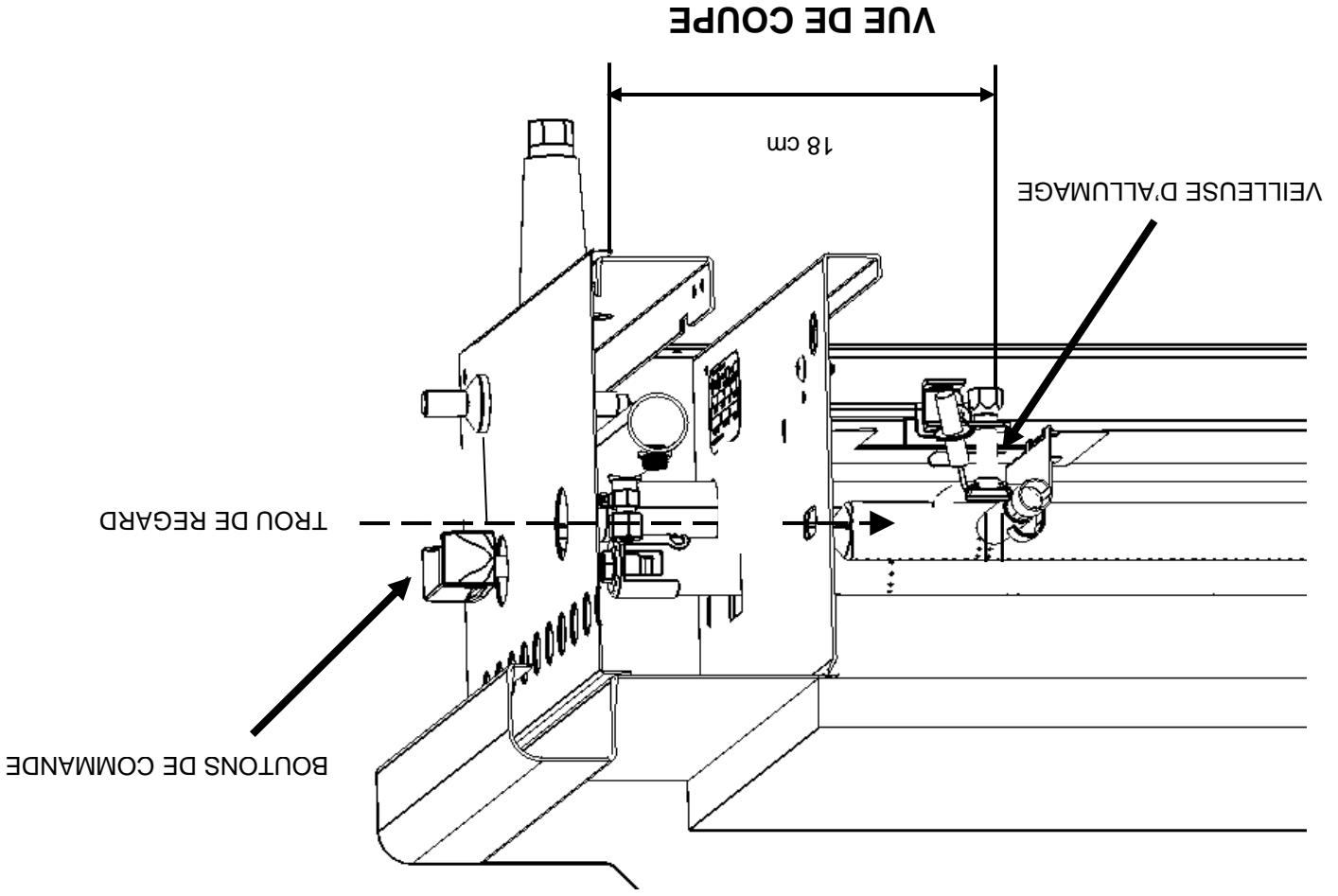
Lorsque vous utilisez les zones de cuisson, nous vous suggérons de commencer par celle qui a la plus basse température d'un côté ou l'autre de la plaque et d'augmenter la température des zones au fur et à mesure que vous déplacez tout au long de celles-ci. Ces directives pour les zones de cuisson varieront selon les températures, la taille et la forme du produit. Ce guide devrait être réglé selon votre préférence de produits et de fonctionnement lors de la cuisson.

La plaque est en acier, mais la surface est relativement douce et peut être rayée ou bossée par un mauvais usage d'une spatule ou d'un grattoir. Faites attention de ne pas bosser, égratigner ou percer la surface de la plaque. Ne pas essayer de retirer la nourriture qui se retrouve sur la spatule en tapant sur le coin ou le bout de la spatule sur la surface de la plaque.

Un approche uniforme et méthodique pour remplir la plaque chauffante produira les résultats les plus constants.

## UTILISATION LA PLAQUE CHAUFFANTE

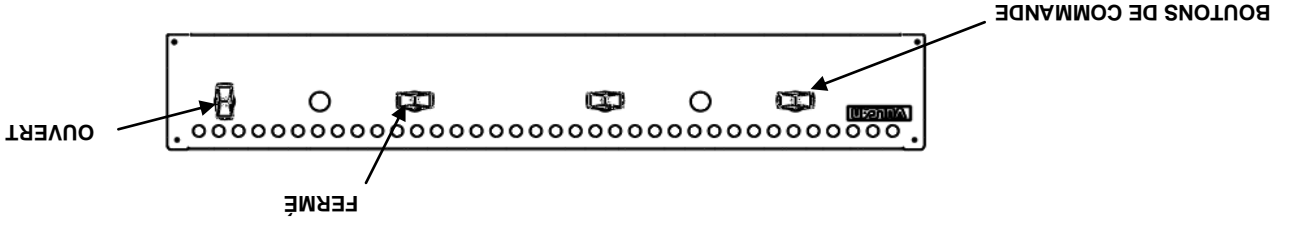
Pour préchauffer, ouvrez les brûleurs environ 20 à 25 minutes avant la cuisson.



1. Fermez le robinet d'arrêt principal du gaz et tous les boutons de commande du brûleur. Attendez 5 minutes pour permettre à tout gaz accumulé dans le compartiment des brûleurs de s'échapper.
2. Ouvrez le robinet d'arrêt principal du gaz.
3. Tout en surveillant par le trou de regard de la veilleuse, vous devez atteindre le dessous à l'avant de l'appareil et la fente de la veilleuse pour l'allumer à l'aide d'une source d'inflammation extérieure (telle qu'une tige pour allumer les bougies, etc.). Il peut être nécessaire de régler la soupape de la veilleuse pour augmenter le gaz. Voir Fig. 7 à la page 11.
4. Répéter les étapes jusqu'à ce que toutes les veilleuses soient allumées.
5. Pour allumer les brûleurs principaux, ouvrez les soupapes individuelles des brûleurs.
6. Si les brûleurs principaux ne s'allument pas après avoir complété les étapes 1 à 5, fermez le robinet d'arrêt principal du gaz et contactez le service à la clientèle autorisé.

## PROCÉDURE D'ALLUMAGE DE LA VEILLEUSE VCRG-M / WCRG-M

Fig. 6



Chaque section de 30 cm de la plaque chauffante est contrôlée indépendamment par une soupape de réglage infini de la chaleur. Une fois que les veilleuses sont allumées, tourner le bouton de commande à la position OUVERT allumera chaque brûleur. Les brûleurs seront complètement à la position OUVERT lorsqu'ils seront tournés jusqu'au bout vers la gauche. Les brûleurs seront complètement à la position FERMÉ lorsqu'ils seront tournés jusqu'au bout vers la droite. Voir Fig. 6. On peut régler la hauteur de la flamme des brûleurs et la température de la plaque en tournant les boutons de commande tout en surveillant les brûleurs par leurs trous de regard.

L'appareil est muni de veilleuses d'allumage permanentes non contrôlées. Le gaz circulera à partir des veilleuses dès que l'alimentation principale en gaz de l'appareil est ouverte. Les veilleuses sont allumées à l'aide d'une source d'inflammation extérieure (telle qu'une tige pour allumer les bougies, etc.). Voir la procédure d'allumage de la veilleuse à la page 8.

Il y a une veilleuse d'allumage pour deux brûleurs excepté sur les modèles de 91 cm. Les modèles de 91 cm ont un nombre inhabituel de brûleurs principaux; par conséquent, une des veilleuses d'allumage de ces modèles contrôlera seulement un brûleur principal. Les veilleuses d'allumage sont centrées à 8 cm à gauche des trous de regard des veilleuses et incrustées à environ 18 cm du panneau avant. Voir la vue de coupe à la page 8.

## COMMANDES

Rodez la plaque chauffante pour éviter la possible corrosion de la surface avant la première utilisation et après le nettoyage. Chauffez la plaque à basse température (149-177°C) et mettez une petite quantité d'huile de cuisson – une once par pied carré de la surface. Utilisez un chiffon doux non pelucheux pour répartir l'huile sur la totalité de la surface de la plaque chauffante afin de produire une mince pellicule. Essayez tout excès d'huile avec un linge. Répétez la procédure jusqu'à ce que la plaque chauffante ait un fini lisse, lustré. Cela vous aidera aussi à réduire les aliments cuits qui collent.

## RODAGE DE LA PLAQUE CHAUFFANTE

Retirez tout le matériel d'emballage et la protection en plastique des surfaces de l'appareil. Avant de quitter l'usine, la plaque chauffante est enduite d'huile végétale en tant qu'antirouille. Retirez cette pellicule lors du nettoyage de la plaque chauffante avant la première utilisation en cuisine. Chauffez la plaque à 93-149°C pour desserrer et faire fondre la couche, puis nettoyez la surface avec un nettoyant commercial dissolvant les graisses, selon les directives du fabricant. Rincez à fond et essuyez avec un linge doux propre. Nettoyez tous les accessoires.

## AVANT LA PREMIÈRE UTILISATION

La plaque chauffante et ses pièces sont chaudes. Faites attention lorsque vous employez, nettoyez ou vous servez la plaque chauffante.



# EMPLOI

La pression d'alimentation (en amont du régulateur) devrait être de 18 à 23 cm CE pour le gaz naturel et de 28 à 30 cm CE pour le gaz propane. La plaque chauffante ne devrait à aucun moment être connectée à une pression d'alimentation supérieure à ½ psi (3,45 kPa) ou 36 cm CE.

### CONVERSION DU GAZ PROPANE

Cette plaque chauffante est livrée de l'usine munie d'orifices fixes de combustion et de veilleuse d'allumage pour l'emploi du gaz naturel. Les orifices de combustion et de veilleuse d'allumage nécessaires pour convertir la plaque chauffante au gaz propane sont livrés avec celle-ci dans l'emballage. On recommande qu'un technicien qualifié du service de gaz avec les outils, les instruments et les compétences nécessaires effectue la conversion.

Pour convertir au propane, les étapes suivantes doivent être remplies :

1. Retirez tous les orifices de combustion pour le gaz naturel et installez les orifices de combustion pour le propane fournis. See Fig. 4

2. Retirez tous les orifices de veilleuse pour le gaz naturel et installez les orifices de veilleuse pour le propane fournis. Voir Fig. 4.

3. Placez le régulateur à 25 cm CE en retournant le tampon de ressort du régulateur. Voir Fig. 5.

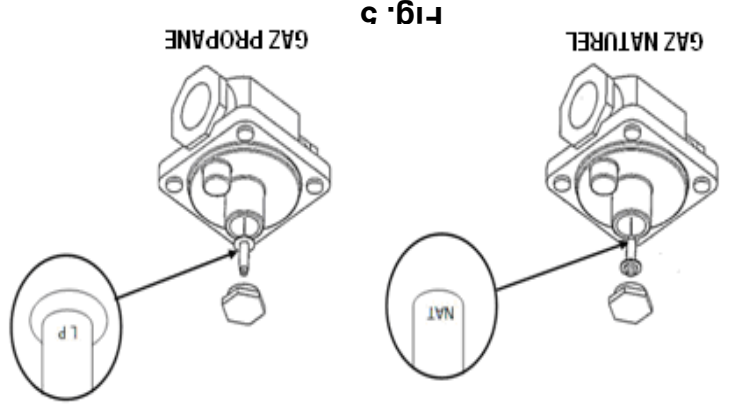
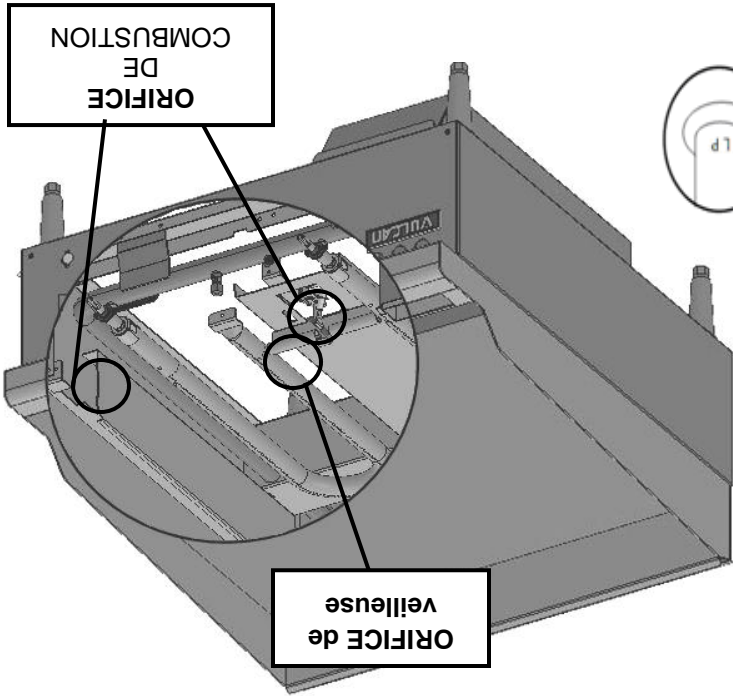


Fig. 5

**AVERTISSEMENT** Avant l'allumage, vérifiez tous les joints dans la conduite d'alimentation en gaz pour les fuites. Use soap and water solution. Do not use an open flame.



Fig. 3

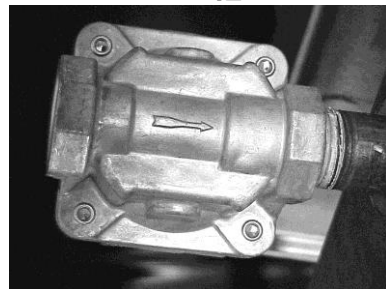


Fig. 2

## CONNEXIONS DES CONDUITS

Ne pas obstruer la circulation des gaz de combustion provenant des conduits, situés à l'arrière de la plaque chauffante. On recommande que les gaz de combustion soient aspirés à l'extérieur de l'édifice à l'aide d'un système de ventilation installé par du personnel compétent.

Un espace minimum de 46 cm doit être maintenu à partir de la fin du conduit aux filtres du système de hotte à évacuation.

Les renseignements sur la construction et l'installation des hottes à évacuation sont décrits dans la norme « Vapor Removal from Cooking Equipment », NFPA n° 96, dernière édition, disponible auprès de la National Fire Protection Association, Batterymarch Park, Quincy, MA 02269.

## CONNEXIONS DU GAZ

**AVIS**

Toutes les connexions et toute pâte à joints doivent résister à l'action du gaz propane.

Utilisez une conduite d'alimentation en gaz NPT de 2 cm pour l'entrée de la plaque chauffante, située à l'arrière de la plaque. Toutes les conduites d'alimentation en gaz flexibles et semi-rigides doivent être conformes à la norme ANSI applicable. Pour assurer l'efficacité maximum du fonctionnement, cet appareil doit être connecté à une conduite d'alimentation en gaz d'un tuyau non perforé ou un raccord flexible de type commercial ayant un diamètre intérieur (DI) net aussi large ou plus large que l'entrée du tuyau de gaz sur cet appareil. Les codes exigent que le robinet d'arrêt du gaz soit installé dans la conduite de gaz en amont de la plaque chauffante.

**AVERTISSEMENT**

Avant l'allumage, vérifiez tous les joints dans la conduite d'alimentation en gaz pour les fuites. Utilisez une solution d'eau et savon. Ne pas utiliser une flamme nue.

Après avoir vérifié s'il y a des fuites, toutes les conduites recevant du gaz devraient être entièrement vidées pour enlever l'air.

## ÉVALUATION DU SYSTÈME D'ALIMENTATION EN GAZ

Lorsque la pression de l'alimentation en gaz excède ½ psi (3,45 kPa), la plaque chauffante et son robinet d'arrêt individuel doivent être débranchés du système de tuyauterie d'alimentation en gaz.

Lorsque la pression de l'alimentation en gaz est de ½ psi (3,45 kPa) ou moins, la plaque chauffante devrait être isolée du système d'alimentation en gaz en fermant son robinet d'arrêt manuel individuel.

## INSTALLATION DU RÉGULATEUR DE PRESSION DU GAZ

Cette plaque chauffante est offerte avec un régulateur de pression du gaz convertible pré réglé à 10 cm de colonne d'eau (CE) pour le gaz naturel. Aucun réglage supplémentaire ne devrait être nécessaire. Installez le régulateur aussi près que possible de la plaque chauffante sur la conduite d'alimentation en gaz. Assurez-vous que la flèche au-dessous du régulateur est orientée dans la direction de la circulation du gaz à la plaque chauffante (Fig. 2 à la page suivante) et que le régulateur est placé avec le bouchon d'aération ainsi que le couvercle de la prise de conversion à droite (Fig. 3 à la page suivante).

ESPACES À PRÉVOIR DURANT L'INSTALLATION

CONSTRUCTION COMBUSTIBLE	15 cm	15 cm
CONSTRUCTION INCOMBUSTIBLE	0 cm	0 cm

CODES ET NORMES D'INSTALLATION

La plaque chauffante doit être installée conformément à :

Aux États-Unis d'Amérique :

1. Codes locaux et d'état.

2. National Fuel Gas Code, ANSI-Z223.1/NFPA N°54 (dernière édition). Cela doit comprendre sans être limité à : NFPA N°54 Section 10.3.5.2 pour la ventilation. Vous pouvez obtenir des copies auprès de l'American Gas Association Accredited Standards Committee Z223, à 400 N. Capital St. NW, Washington, DC 20001 ou le Secretary Standards Council, NFPA, 1 Batterymarch Park Quincy, MA 02169-7471

REMARQUE : Dans l'État du Massachusetts

Tous les appareils d'utilisation du gaz aérés grâce à une hotte de ventilation ou un système d'échappement muni d'une clef de réglage ou avec une moyenne potentielle d'échappement qui doit être conforme à 248 CMR.

3. La norme NFPA n° 96 Vapor Removal from Cooking Equipment, dernière édition, disponible auprès de la National Fire Protection Association, Batterymarch Park, Quincy, MA 02269.

Au Canada :

1. Codes locaux.

2. Code d'installation du gaz naturel CAN/CSA-B149.1 (dernière édition)
3. Code d'installation du propane CAN/CSA-B149.2 (dernière édition), disponible auprès de l'Association Canadienne du Gaz, 178 boul. Rexdale, Etobicoke, Ontario, Canada M9W 1R3

PLAQUES CHAUFFANTES MONTÉES SUR SUPPORTS AVEC ROULETTES

Les plaques chauffantes sur supports avec roulettes doivent employer un raccord flexible (non fourni) qui est conforme à la norme Connectors for Movable Gas Appliances, ANSI Z21.69 • CSA 6.16 et un dispositif de prise à démontage rapide qui est conforme à la norme Gas Fuel, ANSI Z21.3 • CSA 6.9. De plus, des mesures appropriées doivent être apportées pour limiter le mouvement l'appareil sans dépendre du connecteur et du dispositif de prise à démontage rapide ou de leurs conduites associées. Attachez le dispositif de retenue à l'arrière de la plaque chauffante tel qu'illustré dans la Fig. 1.

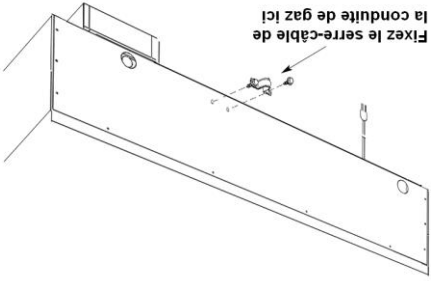


Fig. 1

Si le débranchement du dispositif est nécessaire, fermez l'alimentation en gaz avant de débrancher. Rebranchez le dispositif avant d'ouvrir l'alimentation en gaz et remplacez la plaque chauffante à l'endroit où elle doit être installée.

Les roulettes sont uniquement fournies pour les modèles avec supports. On devrait mettre la plaque chauffante à niveau une autre fois (voir MISE À NIVEAU dans ce manuel) si elle est déplacée pour quelque raison que ce soit.

# INSTALLATION, EMPLOI ET ENTRETIEN DES PLAQUES CHAUFFANTES AU GAZ À FONCTION MOYENNE GÉNÉRAL

Les plaques chauffantes à fonction moyenne sont produites avec une qualité de l'exécution et des matériaux. L'installation, l'utilisation et l'entretien adéquats de votre plaque chauffante vous apporteront de nombreuses années de performance satisfaisante.

Lisez entièrement ce manuel et suivez attentivement toutes les instructions données.

Modèle	Nombre de brûleurs	Débit calorifique BTU/h
VCRG24-M / WCRG24-M	2	50 000
VCRG36-M / WCRG36-M	3	75 000
VCRG48-M / WCRG48-M	4	100 000

## INSTALLATION

### DÉBALLAGE

Ce gril a été inspecté avant de quitter l'usine. En acceptant sa livraison, le transporteur prend l'entière responsabilité de le livrer en toute sécurité. Immédiatement après la livraison, vérifiez s'il a effectivement subi des dommages pendant le transport.

S'il s'avère que le gril a été endommagé, veuillez suivre les procédures suivantes :

1. Le transporteur doit être averti dans les 5 jours ouvrables suivant la réception.
2. Les gens du terminus local du transporteur doivent être avisés immédiatement lors de la découverte des dommages (indiquez l'heure, la date et à qui vous avez parlé) et assurez le suivi en confirmant les faits par écrit ou par communication électronique.
3. Pour fins d'inspection, tout le matériel d'emballage original doit être conservé.
4. Le gril ne doit pas avoir été déplacé, installé ou modifié.
5. Avisez le Service à la clientèle de Vulcan immédiatement en faisant le (800) 814-2028.

### EMPLACEMENT

Le lieu de l'installation doit être maintenu sans présence de combustibles. Lors de l'installation, ne jamais entourer le bas de la plaque chauffante avec une bordure en relief ou autres constructions qui pourraient obstruer la circulation de l'air à l'intérieur ou à l'extérieur de la plaque chauffante. On doit donner suffisamment d'espace pour les ouvertures d'air de la chambre de combustion. Assurez-vous qu'il y ait suffisamment d'alimentation en air dans la pièce afin de remplacer l'air sorti par le système de ventilation.

Empêchez l'air de circuler directement sur la plaque chauffante. Évitez d'ouvrir des fenêtres près de la plaque chauffante là où c'est possible. Évitez les ventilateurs de type mural qui créent des courants d'air en biais à travers la pièce.

Cette plaque chauffante est une conception homologuée pour l'installation sur un comptoir non combustible avec pattes de 10 cm ou sur un plancher combustible avec supports élevés de 61 cm.

EN CAS DE PANNE DE COURANT, NE PAS TENTER  
DE FAIRE FONCTIONNER CET APPAREIL.

**▲ AVERTISSEMENT**

Une installation, un ajustement, une modification, un service ou un entretien inapproprié peut causer du dommage matériel, une blessure ou la mort. Lire minutieusement les instructions d'installation, d'emploi et d'entretien avant d'installer ou d'entretenir cet équipement.

**POUR VOTRE SÉCURITÉ**

NE PAS ENTREPOSER OU UTILISER DE L'ESSENCE OU AUTRES VAPEURS OU LIQUIDES INFLAMMABLES À PROXIMITÉ DE CET APPAREIL OU TOUT AUTRE APPAREIL.

**IMPORTANT**

AU CAS OÙ UNE ODEUR DE GAZ SERAIT DÉTECTÉE, FERMEZ LES UNITÉS DU ROBINET D'ARRÊT PRINCIPAL ET CONTACTEZ VOTRE COMPAGNIE DE GAZ OU VOTRE FOURNISSEUR DE GAZ LOCAL AFIN D'OBTENIR DU SERVICE.

CE MANUEL A ÉTÉ CONÇU POUR LE PERSONNEL APTE À INSTALLER UN ÉQUIPEMENT AU GAZ, QUI DOIT EFFECTUER LA MISE EN MARCHE ET LES RÉGLAGES INITIAUX DE L'ÉQUIPEMENT DONT IL S'AGIT DANS CE MANUEL. PLACEZ DANS UN ENDROIT IMPORTANT LES INSTRUCTIONS QUI DOIVENT ÊTRE SUIVIES AU CAS OÙ UNE ODEUR DE GAZ SERAIT DÉTECTÉE. VOUS POUVEZ DEMANDER CES RENSEIGNEMENTS AU FOURNISSEUR DE GAZ LOCAL.

**IMPORTANT POUR VOTRE SÉCURITÉ**

**WOLF** 

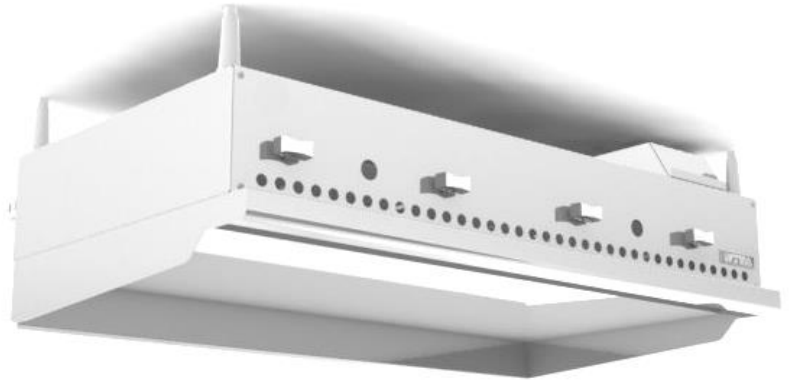
**VULCAN**

**MANUEL D'INSTALLATION ET D'EMPLOI  
PLAQUE CHAUFFANTE AU GAZ À FONCTION MOYENNE**

**MODELS**

VCRG24-M  
VCRG36-M  
VCRG48-M

VCRG24-M  
VCRG36-M  
VCRG48-M



**VCRG48-M**

Pour obtenir des renseignements supplémentaires au sujet de Vulcan-Hart ou pour trouver un fournisseur de pièces et service autorisé dans votre région, veuillez visiter notre site web à [www.vulcanequipment.com](http://www.vulcanequipment.com)

GARDER CE MANUAL POUR UNE UTILISATION FUTURE

**FORMULAIRE F-38306 (rév. 10-15)**

©ITW Food Equipment Group, LLC  
3600 North Point Blvd.  
Baltimore, MD 21222

## GRIDDLES &amp; BROILERS

**VULCAN****VCRG-M RESTAURANT SERIES  
GAS GRIDDLES**

Model VCRG48-M



- VCRG24-M** 24" w x 20½" d griddle plate
- VCRG36-M** 36" w x 20½" d griddle plate
- VCRG48-M** 48" w x 20½" d griddle plate

**STANDARD FEATURES**

- 1" thick polished steel griddle plate welded to 3¼" stainless steel back, tapered side splashes and stainless steel grease trough.
- Fully welded stainless and aluminized steel chassis frame.
- 12½" cooking height on 4" adjustable legs.
- One 25,000 BTU/hr. "U" shaped aluminized steel burner for every 12" of griddle width.
- One infinite heat control valve per burner.
- Standing pilot ignition system.
- High capacity 4½ quart capacity grease can.
- ¾" rear gas connection and convertible gas pressure regulator for LP service.
- Constructed standard for natural gas service. LP conversion kit supplied with unit.
- One year limited parts and labor warranty.

**SPECIFICATIONS**

Low profile gas griddle Vulcan Model No.\_\_\_\_\_. Stainless steel front, sides and front top ledge. Fully welded stainless and aluminized steel body frame. 12½" cooking height on 4" legs. 1" thick polished steel griddle plate welded to stainless steel back and tapered side splashes. One 25,000 BTU/hr. "U" shaped aluminized steel burner and infinite heat control for each 12" of griddle width. 4½ quart capacity grease can. ¾" rear gas connection and convertible gas pressure regulator for LP service.

**Exterior Dimensions:**

\_\_\_\_\_ " w x 27" d x 16" h on 4" legs.

CSA design certified. NSF listed.

**VULCAN**

a division of ITW Food Equipment Group LLC

P.O. Box 696 ■ Louisville, KY 40201 ■ Toll-free: 1-800-814-2028 ■ Local: 502-778-2791 ■ Quote & Order Fax: 1-800-444-0602



## VCRG-M RESTAURANT SERIES GAS GRIDDLES

### INSTALLATION INSTRUCTIONS

1. A gas pressure regulator supplied with the unit must be installed;  
Natural Gas 4.0" (102 mm) W.C.  
Propane Gas 10.0" (254 mm) W.C.
2. All models require a 6" (152 mm) clearance at both sides and rear adjacent to combustible and 0" from non-combustible constructions. All models require a 4" (102mm) bottom clearance and must be installed with minimum 4" legs.

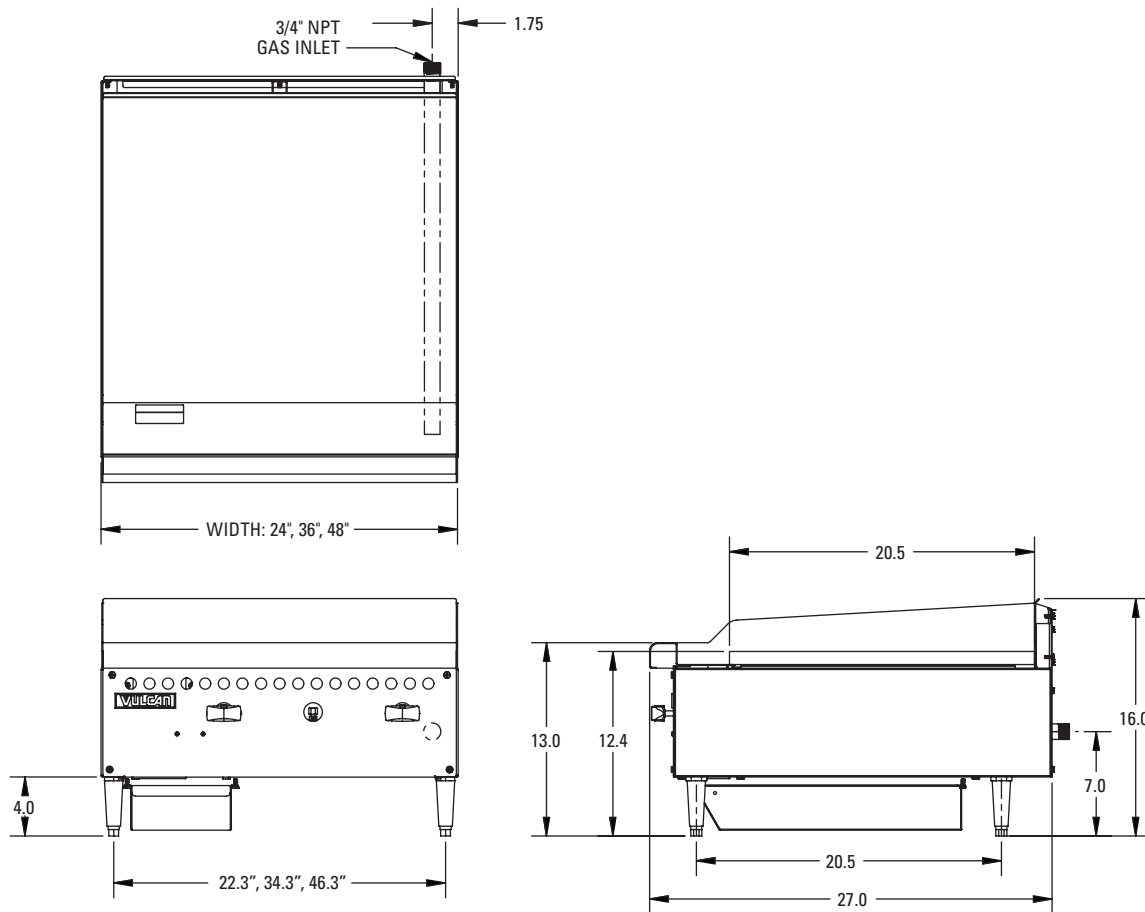
An adequate ventilation system is required for Commercial Cooking Equipment (NFPA No. 96). Information may be obtained by writing to the National Fire Protection Association, Batterymarch Park, Quincy, MA 02169.

3. These units are manufactured for installation in accordance with National Fuel Gas Code, ANSI-Z223.1/NFPA #54 (latest edition). Copies may be obtained from The American Gas Association, Accredited Standards Committee Z223 @ 400 N. Capital St. NW, Washington, DC 20001, or the Secretary Standards Council, NFPA, 1 Batterymarch Park, Quincy, MA 02169-7471.

**NOTE: In The Commonwealth of Massachusetts**

All gas appliances vented through ventilation hood or exhaust system equipped with a damper or with a power means of exhaust shall comply with 248 CMR.

4. This appliance is manufactured for commercial installation only and is not intended for home use.



MODEL	WIDTH	DEPTH	OVERALL HEIGHT*	WORKING HEIGHT*	NO. OF BURNERS	TOTAL BTU/HR	NO. OF DRAWERS	APPROX. SHIP. WT.
VCRG24-M	24"	27"	16"	12½"	2	50,000	1	243 lbs/111 kg
VCRG36-M	36"	27"	16"	12½"	3	75,000	1	340 lbs/155 kg
VCRG48-M	48"	27"	16"	12½"	4	100,000	1	408 lbs/185 kg

\*These are nominal dimensions and can vary by +1.75" with adjustable legs.



a division of ITW Food Equipment Group LLC

P.O. Box 696 ■ Louisville, KY 40201 ■ Toll-free: 1-800-814-2028 ■ Local: 502-778-2791 ■ Quote & Order Fax: 1-800-444-0602

**NOTE:** In line with its policy to continually improve its products, Vulcan reserves the right to change materials and specifications without notice.

# CATALOG OF REPLACEMENT PARTS RESTAURANT SERIES GAS MODELS

**ITW Food Equipment Group**

# VULCAN



## MODELS

VCRG24-T	WCRG24-T
VCRG36-T	WCRG36-T
VCRG48-T	WCRG48-T



VCRG48-T / WCRG48-T Griddle

VCRG24-M	WCRG24-M
VCRG36-M	WCRG36-M
VCRG48-M	WCRG48-M



VCRG48-M / WCRG48-M Griddle

VCRH12	WCRH12
VCRH24	WCRH24
VCRH36	WCRH36



VCRH24 / WCRH24 Hotplate

VCRB25	WCRB25
VCRB36	WCRB36
VCRB47	WCRB47



VCRB47 / WCRB47 Charbroiler

For additional information on Vulcan or to locate an authorized parts and service provider in your area, visit our website at [www.vulcanequipment.com](http://www.vulcanequipment.com)

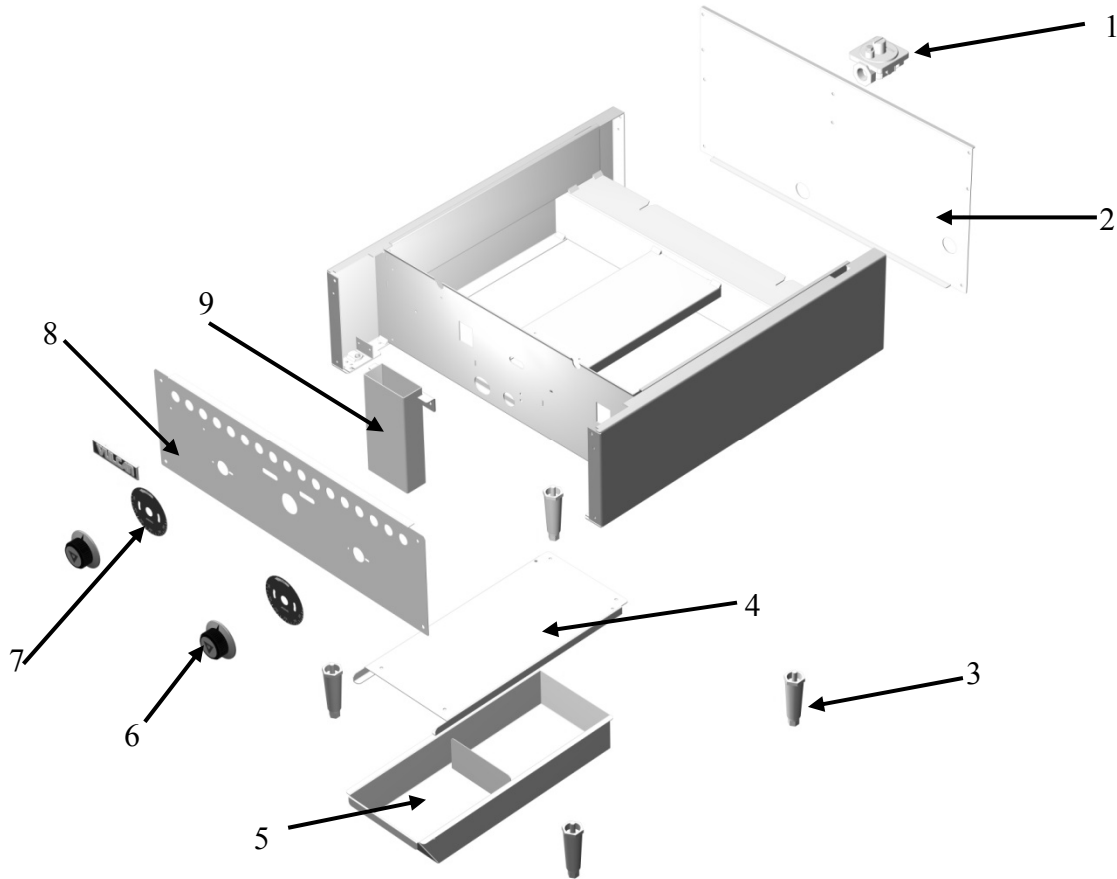
VULCAN-HART  
DIVISION OF ITW FOOD EQUIPMENT GROUP, LLC  
Baltimore, MD

FORM F-38318 (4-10)

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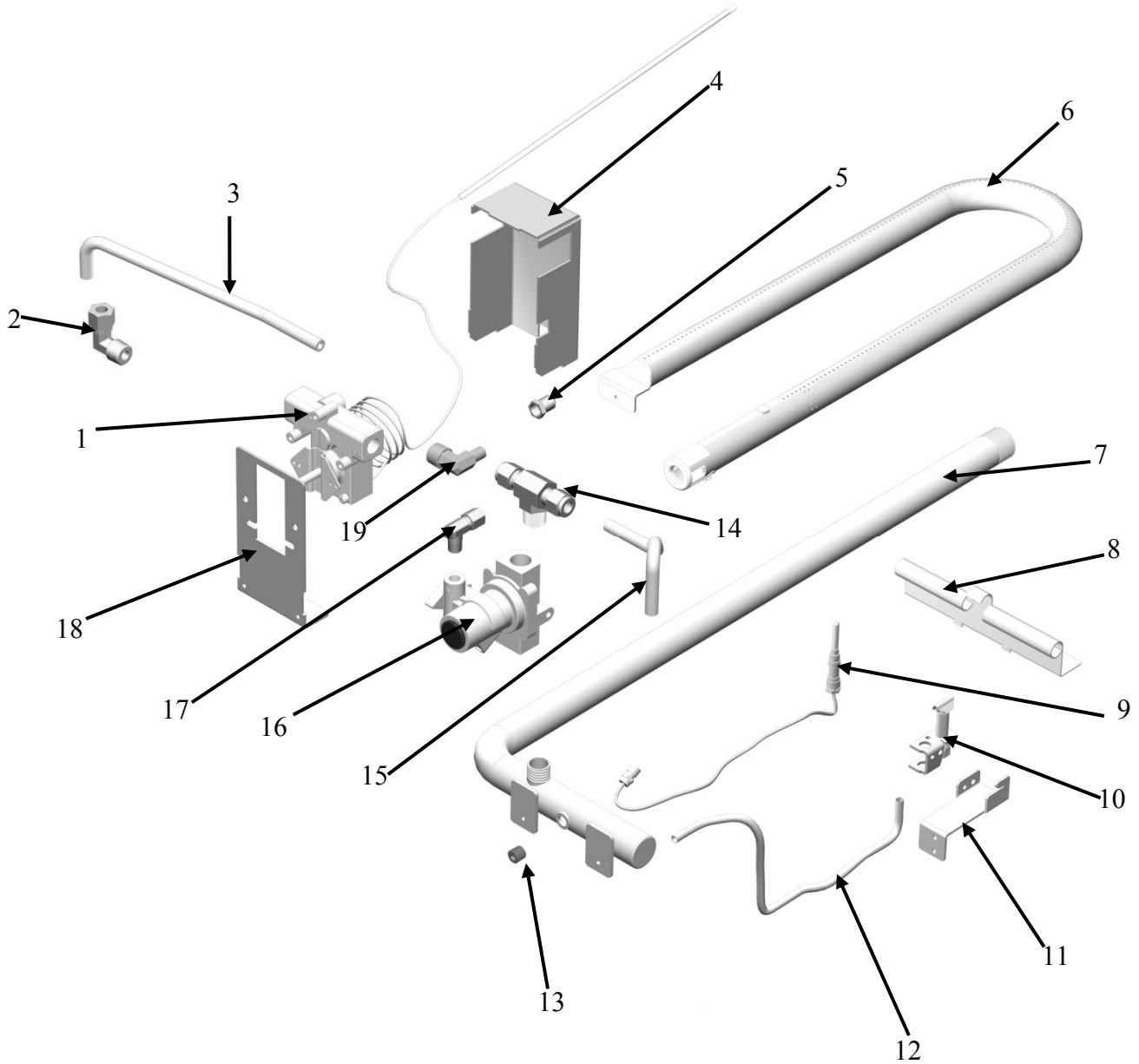
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## VCRGxx-T / WCRGxx-T Griddle External Components



ILLUS.	PART NO	NAME OF PART	24"	36"	48"
1	00-498871-00120	CONVERTIBLE PRESSURE REGULATOR....	1.....	1.....	1.....
2	00-498649-00024	24" BACK PANEL.....	1.....	N/A.....	N/A.....
	00-498649-00036	36" BACK PANEL.....	N/A.....	1.....	N/A.....
	00-498649-00048	48" BACK PANEL.....	N/A.....	N/A.....	1.....
3	00-498953	4" LEG WITH 3/8" STUD.....	4.....	4.....	4.....
4	00-498658	GREASE CAN GUIDE.....	1.....	1.....	1.....
5	00-498868-0000A	GREASE CAN .....	1.....	1.....	1.....
6	00-498041	VULCAN GRIDDLE KNOB.....	2.....	3.....	4.....
7	00-498945	200-450F GS VALVE DIAL .....	2.....	3.....	4.....
8	00-498652-00024	24" T-STAT FRONT PANEL.....	1.....	N/A.....	N/A.....
	00-498652-00036	36" T-STAT FRONT PANEL.....	N/A.....	1.....	N/A.....
	00-498652-00048	48" T-STAT FRONT PANEL.....	N/A.....	N/A.....	1.....
9	00-498931-0000A	GREASE CHUTE W/A .....	1.....	1.....	1.....

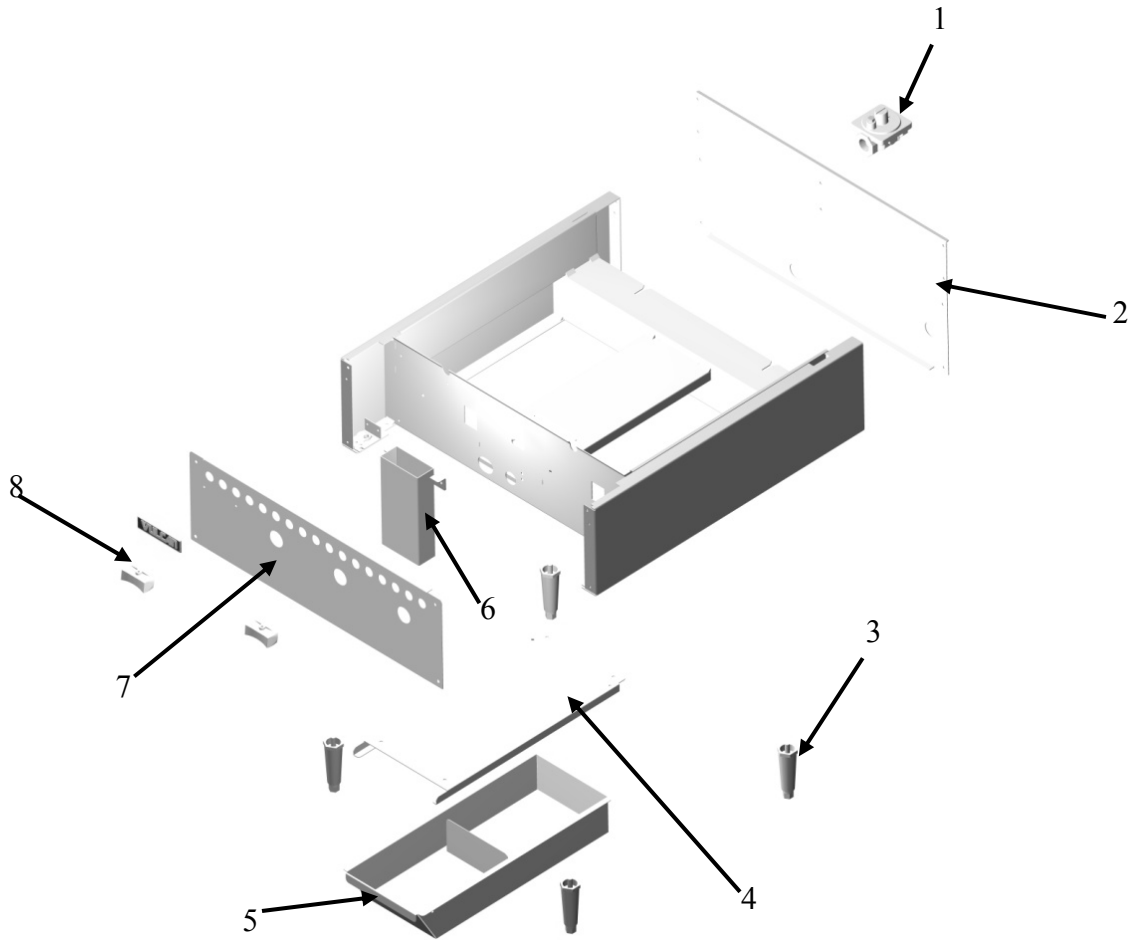
## VCRGxx-T / WCRGxx-T Griddle Internal Components



## VCRGxx-T / WCRGxx-T Griddle Internal Components

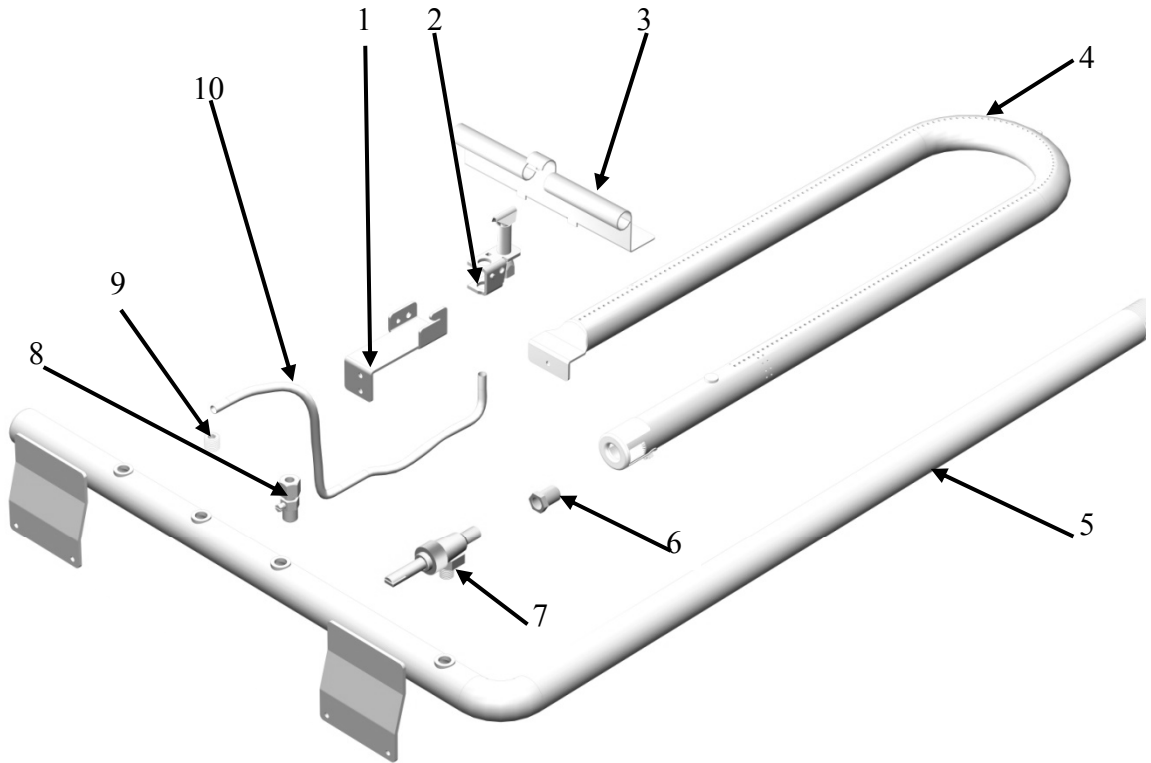
ILLUS.	PART NO	NAME OF PART	24"	36"	48"
1	00-498096-00450	450F TSTAT COMBO VALVE .....	2.....	3.....	4.....
2	00-722657	3/8MPT X 3/8CC ELBOW .....	2.....	3.....	4.....
3	00-851614-00002	3/8" x 12" FLEX TUBING.....	1.....	1.....	2.....
4	00-498757	T-STAT HEAT SHIELD.....	2.....	3.....	4.....
5	00-719951-00039	# 39, ORIFICE HOOD (NAT. GAS).....	2.....	3.....	4.....
	00-719951-00053	# 53, ORIFICE HOOD(LP. GAS).....	2.....	3.....	4.....
6	00-498651-0000A	GRIDDLE BURNER.....	2.....	3.....	4.....
7	00-498656-0024A	24" MANIFOLD W/A.....	1.....	N/A.....	N/A.....
	00-498656-0036A	36" MANIFOLD W/A.....	N/A.....	1.....	N/A.....
	00-498656-0048A	48" MANIFOLD W/A.....	N/A.....	N/A.....	1.....
8	00-498779	FLASH TUBE.....	1.....	2.....	2.....
9	00-714268	T46 18" THERMOCOUPLE.....	1.....	2.....	2.....
10	00-714269	PILOT BURNER.....	1.....	2.....	2.....
	00-712363	LP GAS PILOT ORIFICE.....	1.....	2.....	2.....
11	00-498863	PILOT BRACKET.....	1.....	2.....	2.....
12	00-722228	¼"x 12" FLEX TUBING.....	1.....	2.....	2.....
13	00-719363	1/8" NPT COUNTERSINK PLUG.....	1.....	1.....	1.....
14	00-498028	3/8" NPT x 3/8" CC TEE.....	1.....	2.....	2.....
15	00-722425	3/8" x 8" FLEX TUBING.....	1.....	1.....	2.....
16	00-498025	BASO PILOT SAFETY VALVE.....	1.....	2.....	2.....
17	00-404193-00001	1/8" NPT x ¼"CC x 90 DEG VALVE.....	1.....	2.....	2.....
18	00-498654	T-STAT MOUNTING BRACKET.....	2.....	3.....	4.....
19	00-498897	3/8" NPT x 3/8"-27 ORIFICE ELBOW.....	2.....	3.....	4.....
<b>ITEMS NOT SHOWN</b>					
	00-719566	¼" FIBERGLASS SLEEVING ( T-STAT WIRE)	2.....	3.....	4.....

## VCRGxx-M / WCRGxx-M Griddle External Components



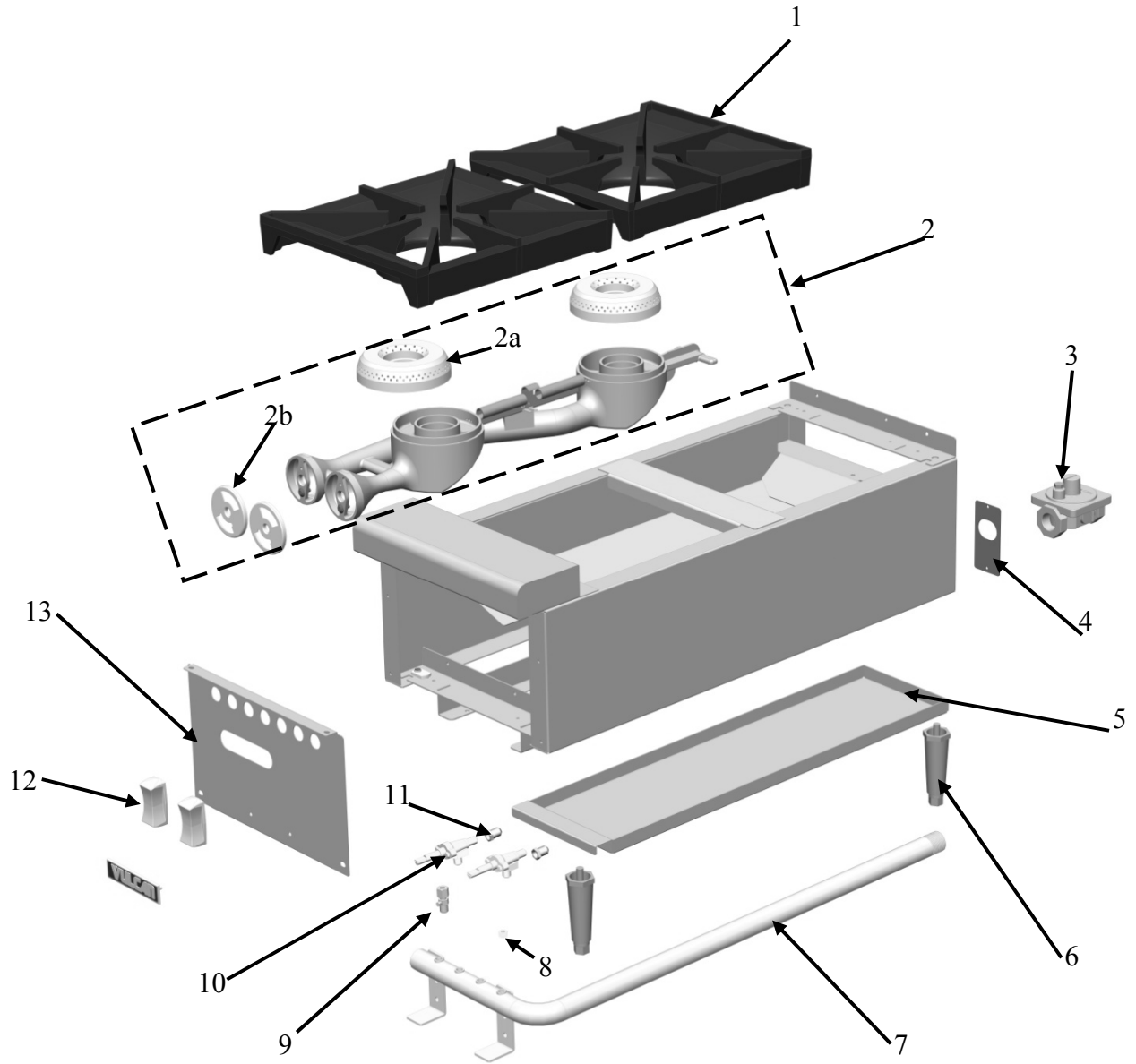
ILLUS.	PART NO	NAME OF PART	24"	36"	48"
1	00-498871-00120	CONVERTIBLE PRESSURE REGULATOR....	1.....	1.....	1.....
2	00-498649-00024	24" BACK PANEL.....	1.....	N/A.....	N/A.....
	00-498649-00036	36" BACK PANEL.....	N/A.....	1.....	N/A.....
	00-498649-00048	48" BACK PANEL.....	N/A.....	N/A.....	1.....
3	00-498953	4" LEG WITH 3/8" STUD.....	4.....	4.....	4.....
4	00-498658	GREASE CAN GUIDE.....	1.....	1.....	1.....
5	00-498868-0000A	GREASE CAN.....	1.....	1.....	1.....
6	00-498931-0000A	GREASE CHUTE W/A.....	1.....	1.....	1.....
7	00-498706-00024	24" MANUAL FRONT PANEL.....	1.....	N/A.....	N/A.....
	00-498706-00036	36" MANUAL FRONT PANEL.....	N/A.....	1.....	N/A.....
	00-498706-00048	48" MANUAL FRONT PANEL.....	N/A.....	N/A.....	1.....
8	00-413157-00001	VULCAN GRIDDLE KNOB.....	2.....	3.....	4.....

## VCRGxx-M / WCRGxx-M Griddle Internal Components



ILLUS.	PART NO	NAME OF PART	24"	36"	48"
1	00-498863	PILOT BRACKET.....	1.....	2.....	2.....
2	00-714269	PILOT BURNER.....	1.....	2.....	2.....
	00-712363	LP GAS PILOT ORIFICE.....	1.....	2.....	2.....
3	00-498779	FLASH TUBE.....	1.....	2.....	2.....
4	00-498651-0000A	GRIDDLE BURNER.....	2.....	3.....	4.....
5	00-498936-0024A	24" MANIFOLD W/A.....	1.....	N/A.....	N/A.....
	00-498936-0036A	36" MANIFOLD W/A.....	N/A.....	1.....	N/A.....
	00-498936-0048A	48" MANIFOLD W/A.....	N/A.....	N/A.....	1.....
6	00-719951-00039	# 39, ORIFICE HOOD (NAT. GAS).....	2.....	3.....	4.....
	00-719951-00053	# 53, ORIFICE HOOD (LP. GAS).....	2.....	3.....	4.....
7	00-719221	A18-318 x 1/8" NPT GAS VALVE.....	2.....	3.....	4.....
8	00-719179	1/8NPT X1/4CC SINGLE PILOT VALVE.....	1.....	2.....	2.....
9	00-719363	1/8" NPT COUNTERSINK PLUG.....	1.....	1.....	1.....
10	00-722228	¼"x 12" FLEX TUBING.....	1.....	2.....	2.....

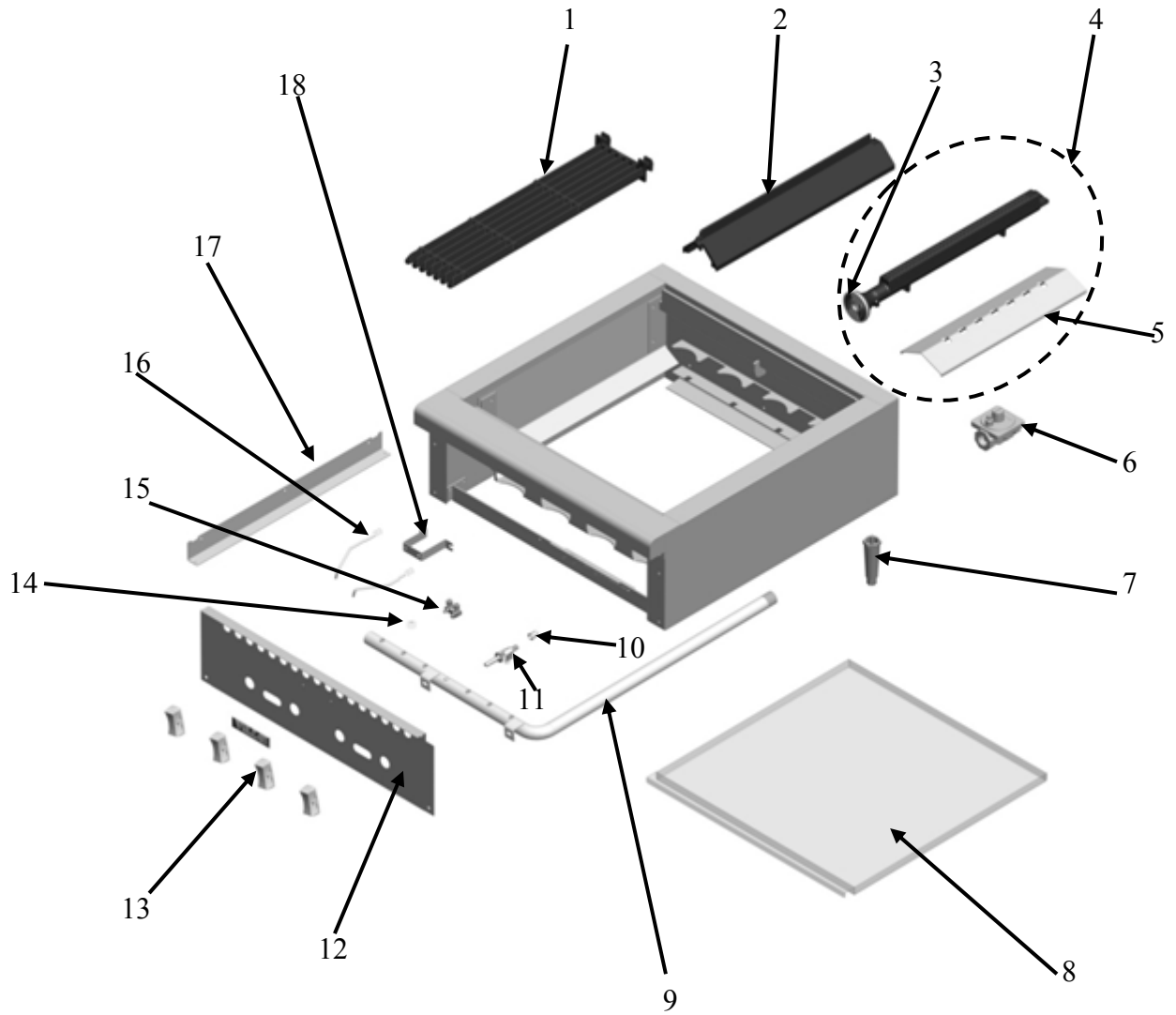
### VCRHxx / WCRHxx Hotplate Components



## VCRHxx / WCRHxx Hotplate Components

ILLUS.	PART NO	NAME OF PART	12"	24"	36"
1	00-925000	WOLF FRONT GRATE.....	2.....	4.....	6.....
2	00-763209-000A1	BURNER ASSEMBLY.....	1.....	2.....	3.....
2a	00-417608-00002	BURNER HEAD.....	2.....	4.....	6.....
2b	00-719329	AIR SHUTTER.....	2.....	4.....	6.....
3	00-498871-00120	CONVERTIBLE PRESSURE REGULATOR....	1.....	1.....	N/A.....
	00-498871-00160	CONVERTIBLE PRESSURE REGULATOR....	N/A.....	N/A.....	1.....
4	00-498908	REAR MANIFOLD BRACKET.....	1.....	1.....	1.....
5	00-498910-0006A	6" CRUMB TRAY W/A.....	1.....	N/A.....	N/A.....
	00-498910-0015A	15" CRUMB TRAY W/A.....	N/A.....	N/A.....	2.....
	00-498910-0018A	18" CRUMB TRAY W/A.....	N/A.....	1.....	N/A.....
6	00-498953	4" LEG WITH 3/8" STUD.....	4.....	4.....	4.....
7	00-498906-0012A	12" MANIFOLD W/A.....	1.....	N/A.....	N/A.....
	00-498906-0024A	24" MANIFOLD W/A.....	N/A.....	1.....	N/A.....
	00-498906-0036A	36" MANIFOLD W/A.....	N/A.....	N/A.....	1.....
8	00-719363	1/8" NPT COUNTERSINK PLUG.....	1.....	1.....	1.....
9	00-719179	1/8NPT X1/4CC SINGLE PILOT VALVE.....	1.....	2.....	3.....
10	00-719221	A18-318 x 1/8" NPT GAS VALVE.....	2.....	4.....	6.....
11	00-719951-00042	# 42, ORIFICE HOOD (NAT. GAS).....	2.....	4.....	6.....
	00-719951-00053	# 53, ORIFICE HOOD (LP. GAS).....	2.....	4.....	6.....
12	00-413157-00001	VULCAN GRIDDLE KNOB.....	2.....	4.....	6.....
13	00-498905-00012	12" FRONT PANEL.....	1.....	N/A.....	N/A.....
	00-498905-00024	24" FRONT PANEL.....	N/A.....	1.....	N/A.....
	00-498905-00036	36" FRONT PANEL.....	N/A.....	N/A.....	1.....
<b>ITEMS NOT SHOWN</b>					
	00-925017-A	PILOT TUBE ASSEMBLY.....	1.....	2.....	3.....

**VCRBxx / WCRBxx Charbroiler Components**



## VCRBxx / WCRBxx Charbroiler Components

ILLUS.	PART NO	NAME OF PART	25"	36"	47"
1	00-710424	7-RIB CAST IRON GRATE.....	4.....	6.....	8.....
2	00-498944	CAST IRON RADIANT .....	4.....	6.....	8.....
3	00-498925-00003	AIR SHUTTER.....	4.....	6.....	8.....
4	00-498924-0000A	CAST IRON BURNER ASSEMBLY (INCL. BURNER, SHUTTER, REFLECTOR AND REFLECTOR WIRE).....	4.....	6.....	8.....
5	00-498924-00001	BURNER BOTTOM REFLECTOR.....	4.....	6.....	8.....
	00-498924-00002	REFLECTOR WIRE.....	4.....	6.....	8.....
6	00-498871-00120	CONVERTIBLE PRESSURE REGULATOR....	1.....	1.....	1.....
7	00-498953	4" LEG WITH 3/8" STUD.....	4.....	4.....	4.....
8	00-498923-0024A	24" CRUMB TRAY W/A.....	1.....	N/A.....	2.....
	00-498923-0036A	36" CRUMB TRAY W/A.....	N/A.....	1.....	N/A.....
9	00-498918-0025A	25" MANIFOLD W/A.....	1.....	N/A.....	N/A.....
	00-498918-0036A	36" MANIFOLD W/A.....	N/A.....	1.....	N/A.....
	00-498918-0047A	47" MANIFOLD W/A.....	N/A.....	N/A.....	1.....
10	00-719951-00050	# 50, ORIFICE HOOD (NAT. GAS).....	4.....	6.....	8.....
	00-719951-00056	# 56, ORIFICE HOOD (LP. GAS).....	4.....	6.....	8.....
11	00-719221	A18-318 x 1/8" NPT GAS VALVE.....	4.....	6.....	8.....
12	00-498922-00025	25" FRONT PANEL.....	1.....	N/A.....	N/A.....
	00-498922-00036	36" FRONT PANEL.....	N/A.....	1.....	N/A.....
	00-498922-00047	47" FRONT PANEL.....	N/A.....	N/A.....	1.....
13	00-413157-00001	VULCAN GRIDDLE KNOB.....	4.....	6.....	8.....
14	00-719363	1/8" NPT COUNTERSINK PLUG.....	1.....	1.....	1.....
15	00-719190	1/8NPT X1/4CC DOUBLE PILOT VALVE....	2.....	3.....	4.....
16	00-498939-0001A	RIGHT PILOT TUBE ASSEMBLY.....	2.....	3.....	4.....
	00-498939-0002A	LEFT PILOT TUBE ASSEMBLY.....	2.....	3.....	4.....
17	00-498927	CRUMB TRAY GUIDE.....	2.....	2.....	2.....
	00-498930-0000A	48" CRUMB TRAY GUIDE.....	N/A.....	N/A.....	1.....
18	00-498938	PILOT BRACKET.....	2.....	3.....	4.....

## Recommended Spare Parts List

### VCRGxx-T / WCRGxx-T Griddle

PART NO	NAME OF PART	AMT.
00-498871-00120	CONVERTIBLE PRESSURE REGULATOR.....	2.....
00-498041	VULCAN GRIDDLE KNOB.....	2.....
00-498096-00450	450F TSTAT COMBO VALVE .....	2.....
00-719951-00039	# 39, ORIFICE HOOD (NAT. GAS).....	2.....
00-719951-00053	# 53, ORIFICE HOOD(LP. GAS).....	2.....
00-714268	T46 18" THERMOCOUPLE.....	2.....
00-498025	BASO PILOT SAFETY VALVE.....	2.....
00-714269	PILOT BURNER.....	2.....
00-712363	LP GAS PILOT ORIFICE.....	2.....

### VCRGxx-M / WCRGxx-M Griddle

PART NO	NAME OF PART	AMT.
00-498871-00120	CONVERTIBLE PRESSURE REGULATOR.....	2.....
00-413157-00001	VULCAN GRIDDLE KNOB.....	2.....
00-719221	A18-318 x 1/8" NPT GAS VALVE.....	2.....
00-719951-00039	# 39, ORIFICE HOOD (NAT. GAS).....	2.....
00-719951-00053	# 53, ORIFICE HOOD(LP. GAS).....	2.....
00-714269	PILOT BURNER.....	2.....
00-712363	LP GAS PILOT ORIFICE.....	2.....

### VCRHxx / WCRH Hotplate

PART NO	NAME OF PART	AMT.
00-498871-00120	CONVERTIBLE PRESSURE REGULATOR (12 AND 24 MODELS).....	2.....
00-498871-00160	CONVERTIBLE PRESSURE REGULATOR (36 MODELS).....	2.....
00-719221	A18-318 x 1/8" NPT GAS VALVE.....	2.....
00-719951-00042	# 42, ORIFICE HOOD (NAT. GAS).....	2.....
00-719951-00053	# 53, ORIFICE HOOD (LP. GAS).....	2.....
00-714269	PILOT BURNER.....	2.....
00-413157-00001	VULCAN GRIDDLE KNOB.....	2.....

**VCRBxx / WCRBxx Charbroiler**

<b>PART NO</b>	<b>NAME OF PART</b>	<b>AMT.</b>
00-498871-00120	CONVERTIBLE PRESSURE REGULATOR.....	2.....
00-413157-00001	VULCAN GRIDDLE KNOB.....	2.....
00-719221	A18-318 x 1/8" NPT GAS VALVE.....	2.....
00-719951-00050	# 50, ORIFICE HOOD (NAT. GAS).....	2.....
00-719951-00056	# 56, ORIFICE HOOD(LP. GAS).....	2.....
00-498939-0001A	RIGHT PILOT TUBE ASSEMBLY.....	2.....
00-498939-0002A	LEFT PILOT TUBE ASSEMBLY.....	2.....
00-719190	1/8NPT X1/4CC DOUBLE PILOT VALVE.....	2.....

**NOTES**



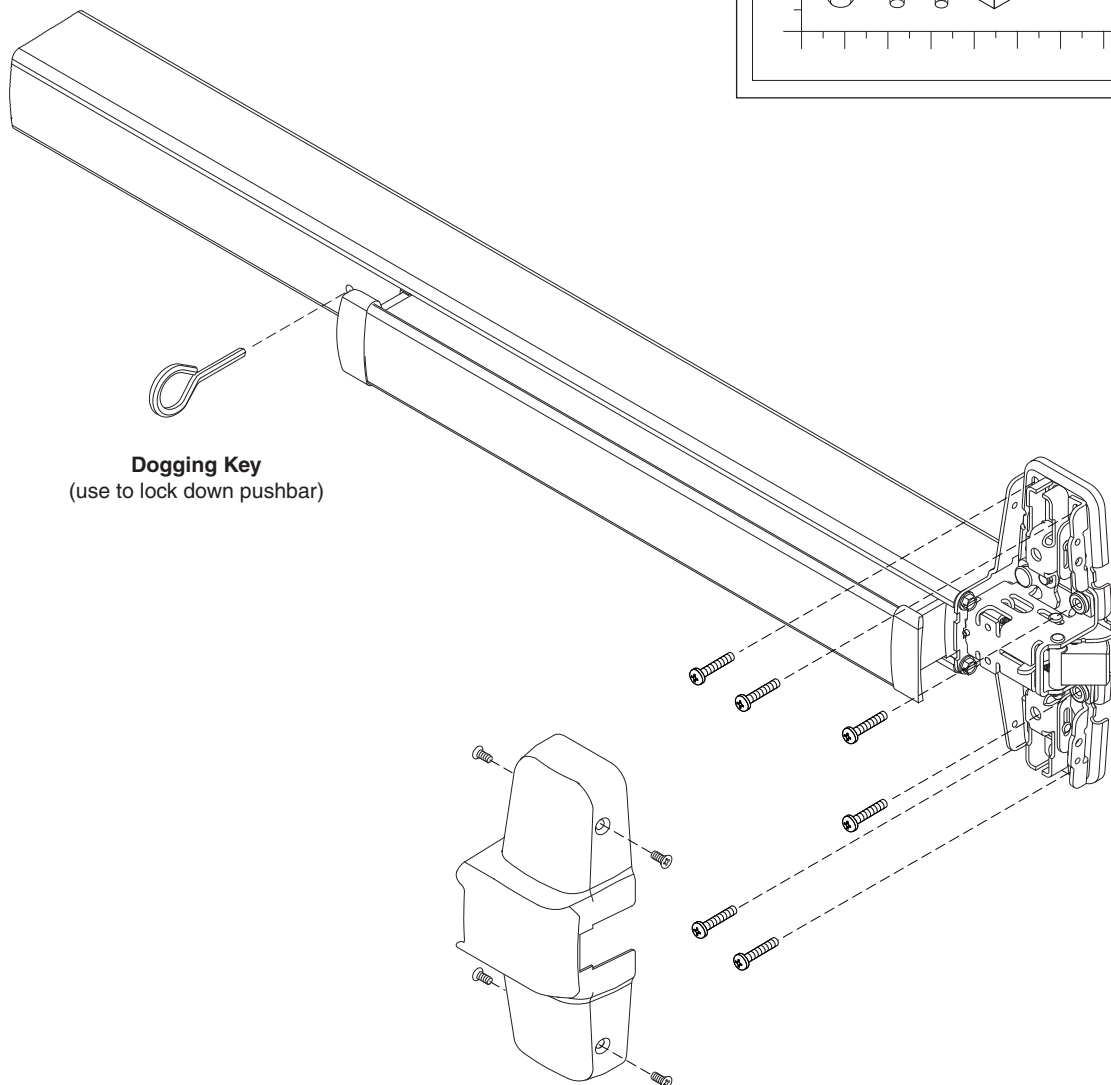
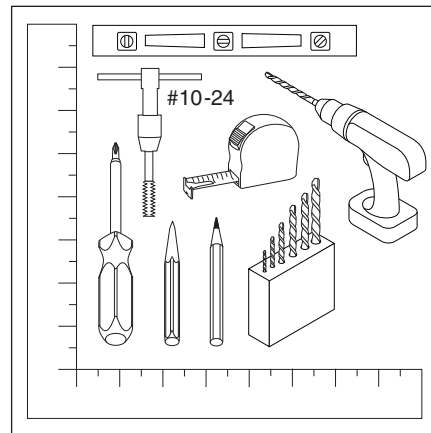
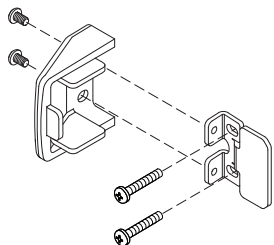
911373-00

98/99

VON DUPRIN®

Rim Exit Device

Installation Instructions



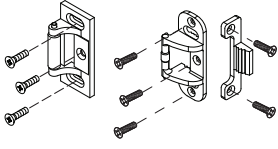
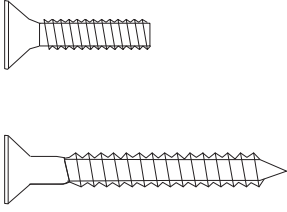
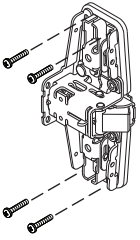
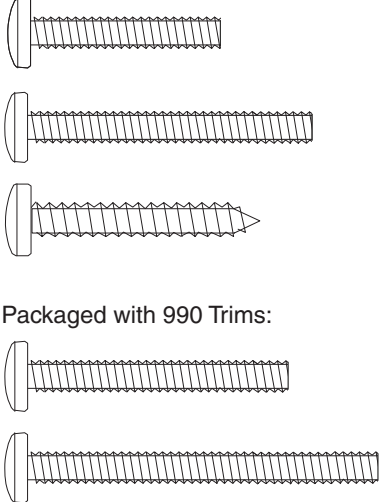
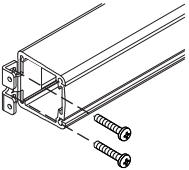
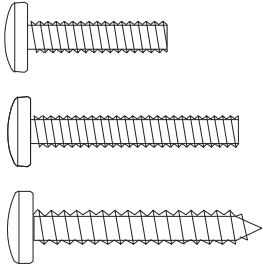
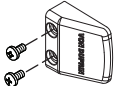
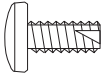
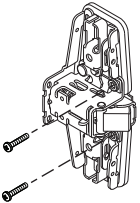
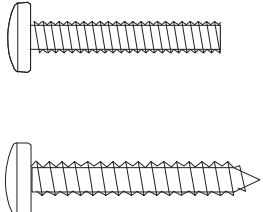
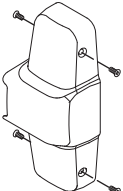

**Dogging Key**  
(use to lock down pushbar)



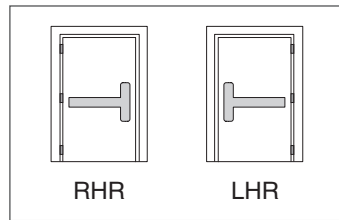
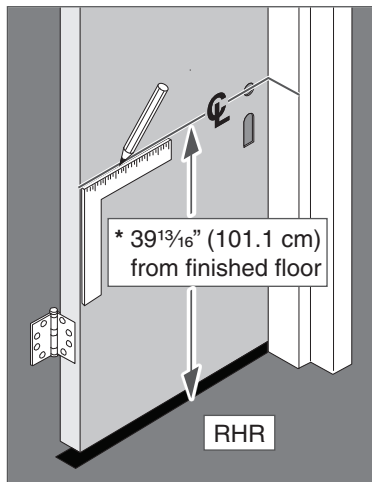
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## SCREW CHART

Subassembly	Screw		Application
<p><b>A</b></p>  <p>299 Strike    499F Strike</p>		<p>#10-24 x 3/4" (19 mm)</p> <p>#10 x 1 1/2" (38 mm) Wood screw</p>	<p>Metal frame</p> <p>Wood frame</p>
<p><b>B</b></p> 	 <p>Packaged with 990 Trims:</p>	<p>#10-24 x 1" (25 mm)</p> <p>#10-24 x 1 1/2" (38 mm)</p> <p>#10 x 1 1/4" (32 mm) Wood screw</p> <p>#10-24 x 1 3/8" (35 mm)</p> <p>#10-24 x 1 7/8" (48 mm)</p>	<p>Surface mount or Sex bolts 1 3/4" (44 mm) door</p> <p>Sex bolts, 2 1/4" (57 mm) door</p> <p>Surface mount (wood)</p> <p>1 3/4" (44 mm) door, 990 Trim</p> <p>2 1/4" (57 mm) door, 990 Trim</p>
<p><b>C</b></p> 		<p>#10-24 x 3/4" (19 mm)</p> <p>#10-24 x 1 1/8" (29 mm)</p> <p>#10 x 1 1/4" (32 mm) Wood screw</p>	<p>Surface mount or Sex bolts 1 3/4" (44 mm) door</p> <p>Sex bolts, 2 1/4" (57 mm) door</p> <p>Surface mount (wood)</p>
<p><b>D</b></p> 		<p>#10-16 x 3/8" (10 mm) Thread cutting</p>	<p>End cap</p>
<p><b>E</b></p> 		<p>#10-24 x 1" (25 mm)</p> <p>#10 x 1 1/4" (32 mm) Wood screw</p>	<p>Surface mount (metal)</p> <p>Surface mount (wood)</p>
<p><b>F</b></p> 		<p>#8-18 x 3/8" (10 mm) Thread cutting</p>	<p>Center case cover</p>

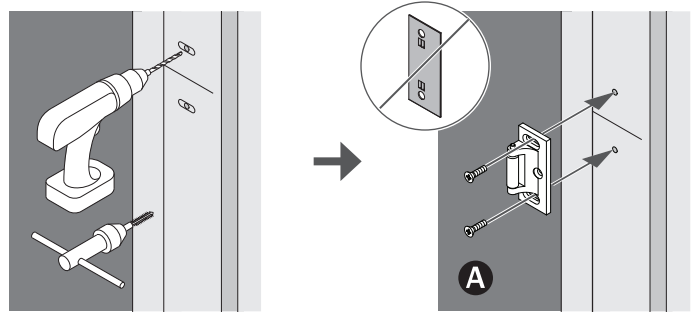
# 1 Draw horizontal device and strike center lines (☉).



\* For double doors with a mullion and strike already installed, use existing strike center line.

# 3 Prepare 2 holes and install 2 screws.

① See "Screw Chart" on previous page for screw types and sizes



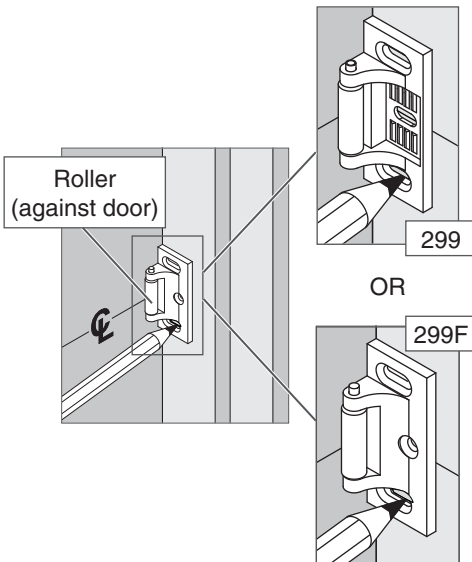
<b>Metal</b>	#25	#10-24

OR

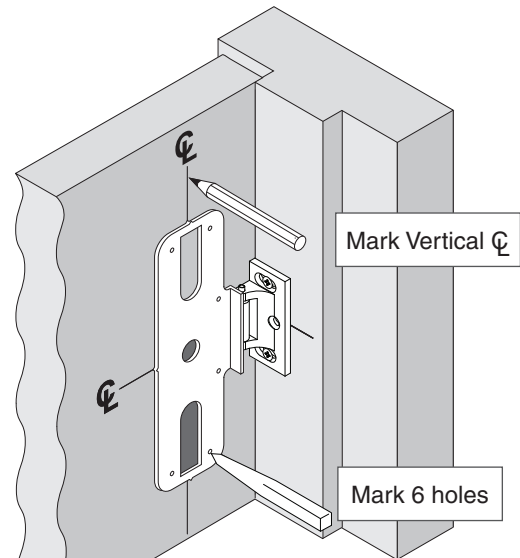
<b>Wood</b>	1/8" (3 mm) x 1" (25 mm) deep

# 2 Align strike on ☉ and mark the two slotted holes.

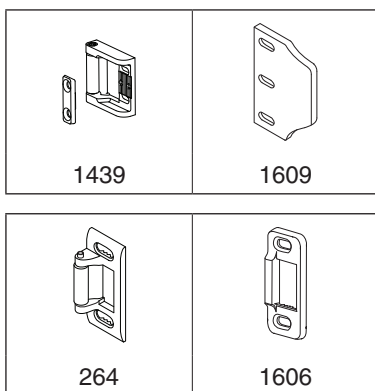
① For 499F strike installation, see page 6.



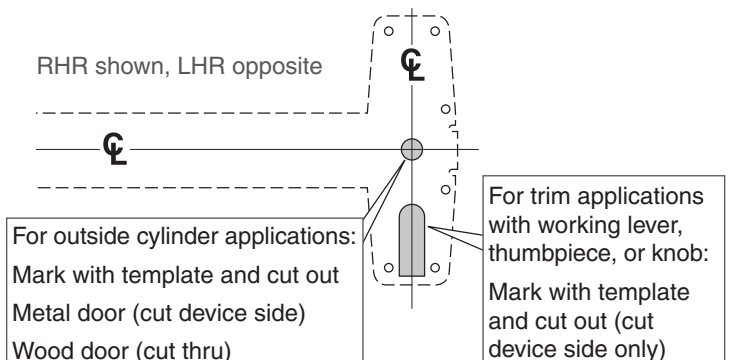
# 4 Position template against strike and on ☉ and mark door.



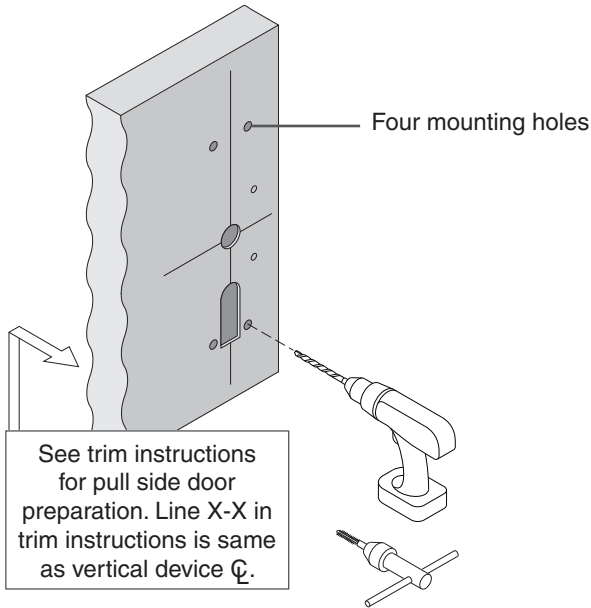
① For more information on the strikes shown below, go to <http://w3securitytechnologies.com> and look for the Support area for Von Duprin installation instructions.



# 5 If necessary, prepare cutouts for cylinder and trim.

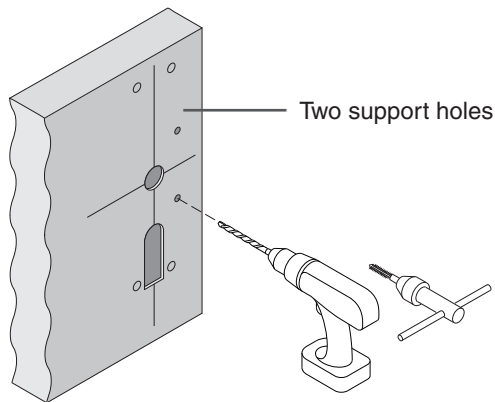


## 6 Prepare 4 center case mounting holes.



	SURFACE MOUNT	OR	SEX BOLTS or 990 TRIMS
WOOD	#25		1/4" (6 mm) Device Side
METAL	#10-24		13/32" (10 mm) Trim Side
	1/8" (3 mm) x 1" (25 mm) Deep		13/32" (10 mm) Drill Thru

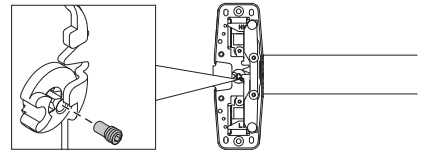
## 7 Prepare 2 center case support holes.



	METAL	OR	WOOD
	98/99 and 98/99-F		98/99
	#25		1/8" (3 mm) x 1" (25 mm) Deep
	#10-24		98/99-F
			#825 Sex bolts (2) required
			1/16" (2 mm) 3/8" (10 mm)
			Exterior
			5/16" (16 mm)

## 8 If necessary, remove NL drive screw

**NL drive screw**  
Factory installed on back of center case



With the NL drive screw removed, key locks and unlocks lever, knob, or thumb piece. For the trims listed below, **REMOVE** NL drive screw.

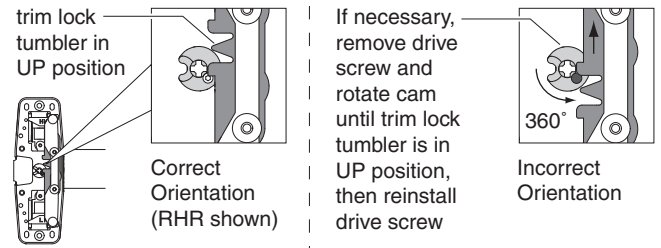
996L	696TP	990TP
996K	697TP	

With the NL drive screw installed, key retracts latch bolt. **DO NOT** remove NL drive screw for the following applications:

NL, EO, DT trims and 98/99-2 double cylinder devices (i.e. TP-2, L-2, and K-2).

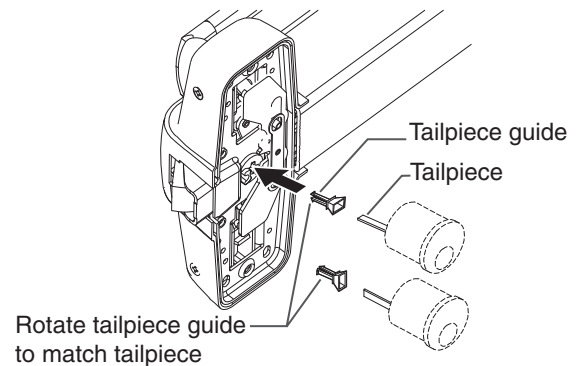
*996L-BE	*E996L	*696TP-BE	*990TP-BE
*996K-BE	*E996L-BE	*697TP-BE	

\* If the trim being installed is "BE" (i.e. 996L-BE), the trim lock tumbler on the back of the device must be in the **UP** position before device is installed. This allows the trim to be unlocked at all times.

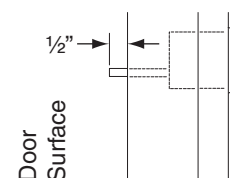


## 9 If using a cylinder with a tailpiece, prepare device and cylinder.

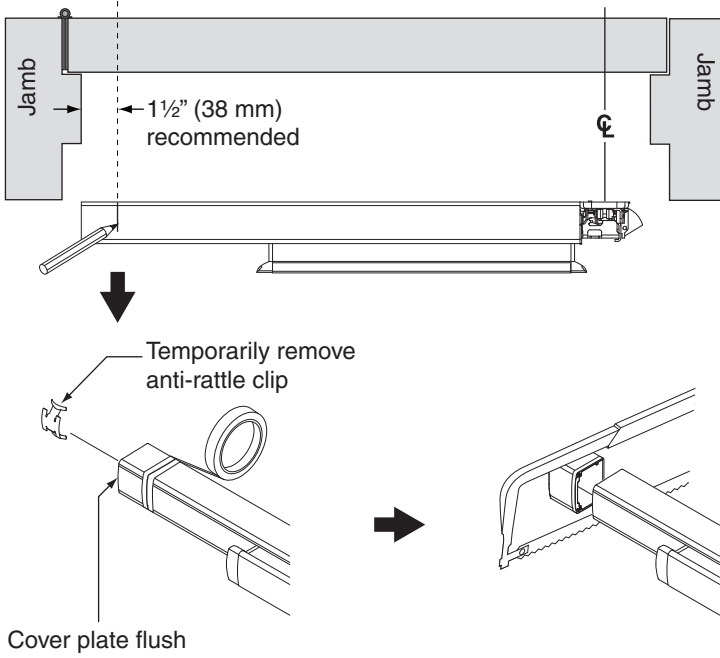
### 9a Install tailpiece guide.



### 9b Cut tailpiece as needed.

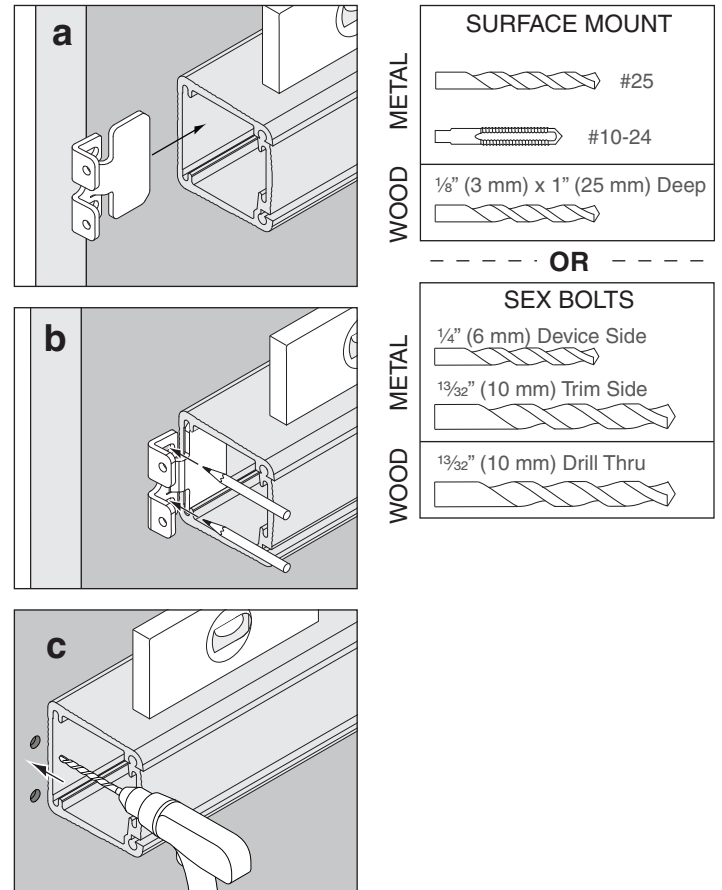


**10** If necessary, cut device.

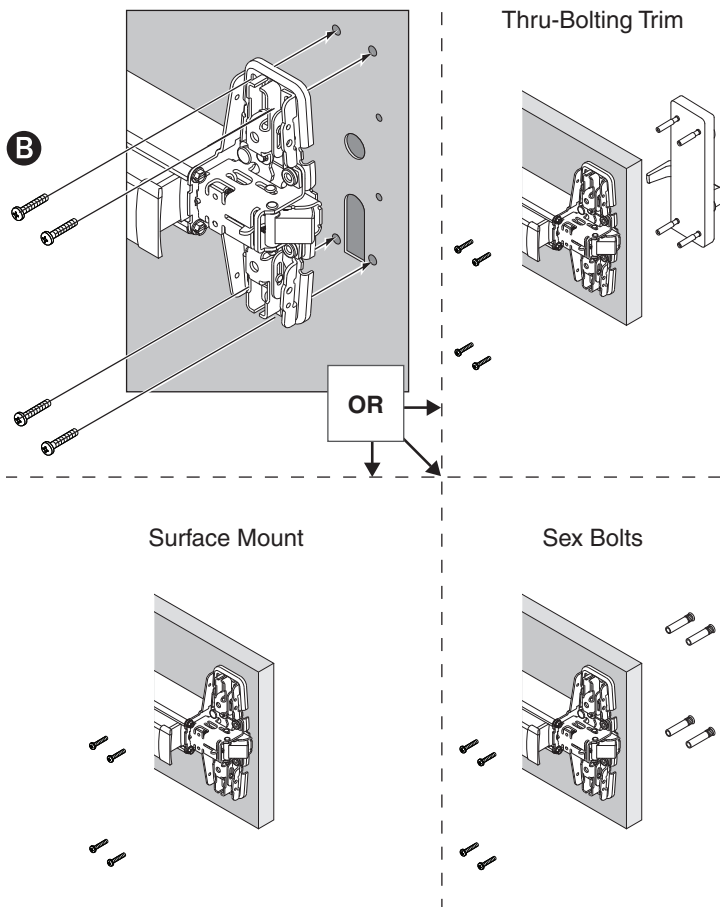


**12** Mark and prepare two (2) holes.

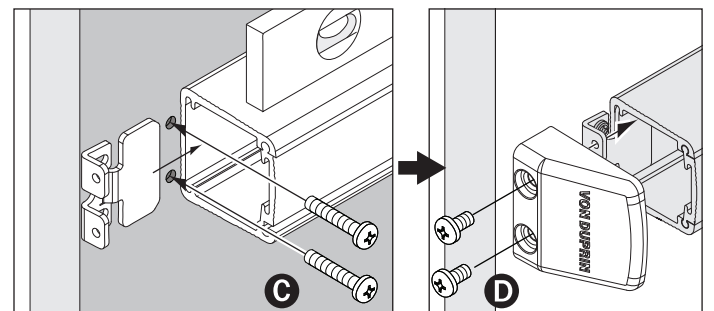
**i** Prepare holes after lock side of device is mounted and hinge side is leveled.



**11** Attach center case to door.

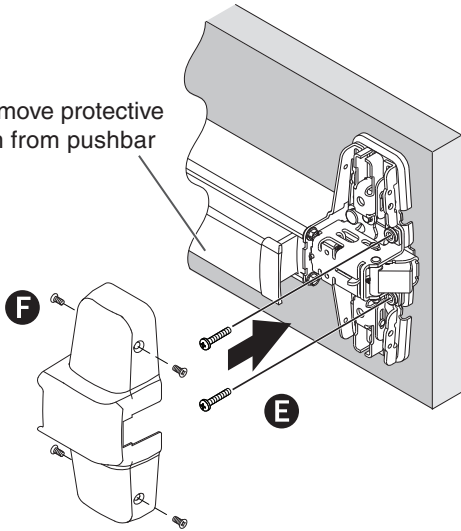


**13** Install end cap bracket and end cap.



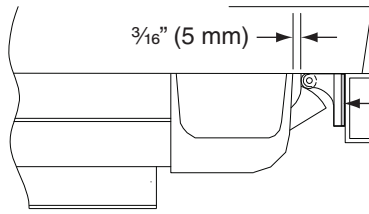
**14** Install required support screws and center case cover.

Remove protective film from pushbar

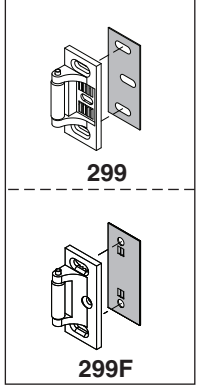


**15** Adjust strike as needed.

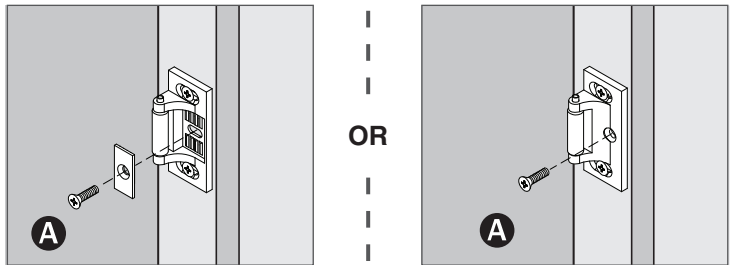
299/299F Strike



Shim as needed



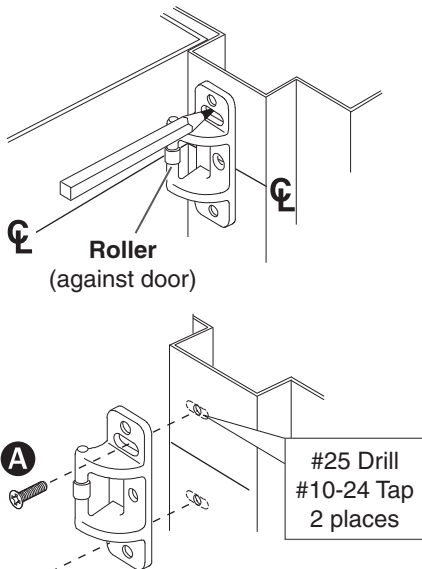
**16** Install strike support screw.



METAL	WOOD
#25	1/8" (3 mm) x 1" (25 mm) Deep
#10-24	

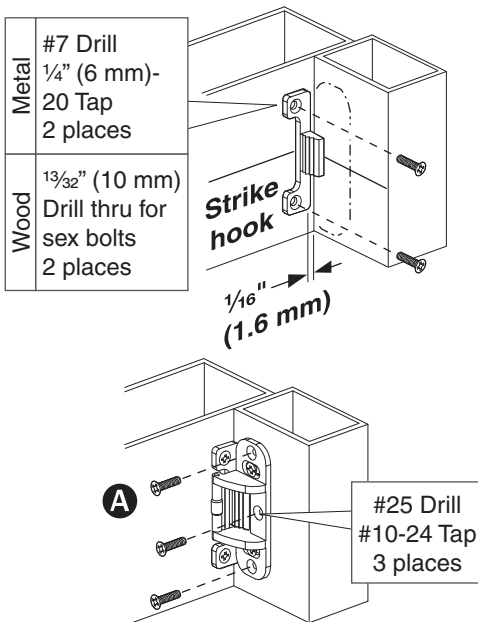
**499F STRIKE INSTALLATION**

1. Prepare and install screws through two strike slots.

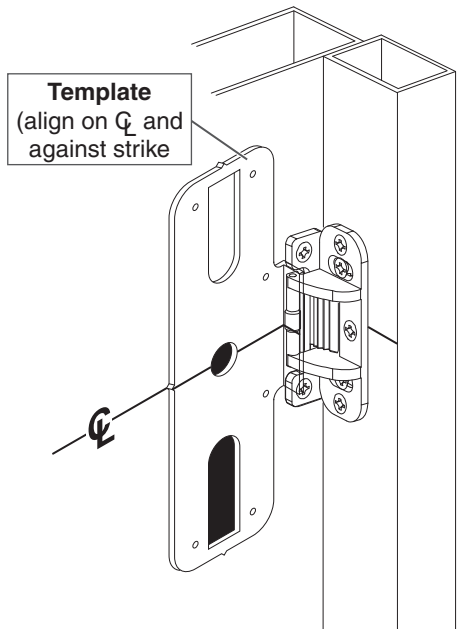


**i** If using a mullion, holes may be predrilled

2. Install strike hook and additional strike screws.

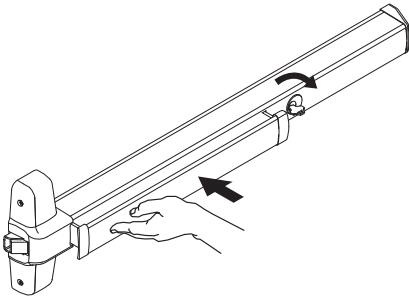
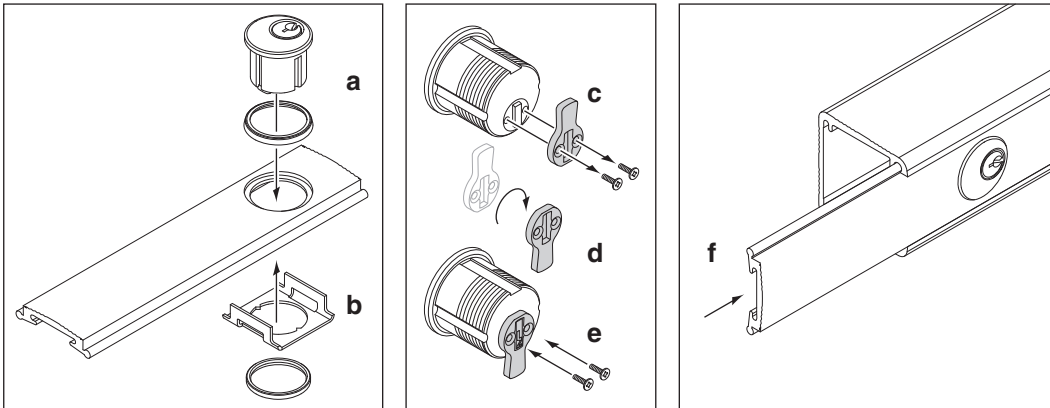


3. Template aligns as shown.

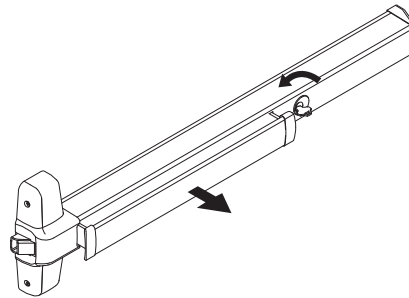


## OPTIONAL EQUIPMENT

### CD (Cylinder Dogging) Option



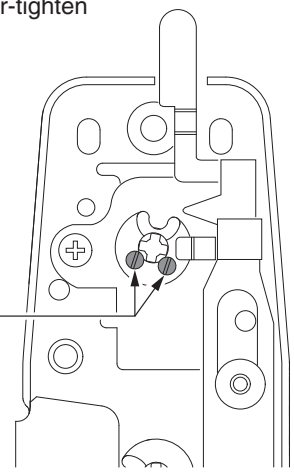
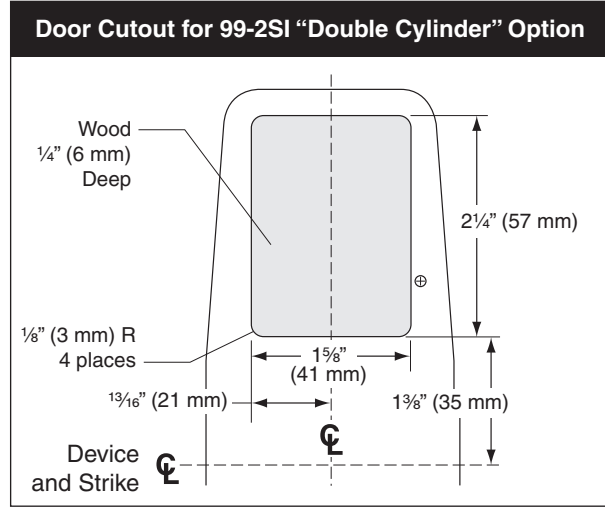
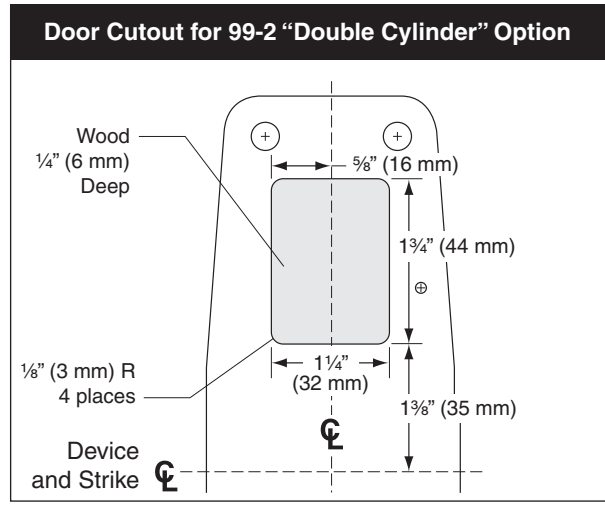
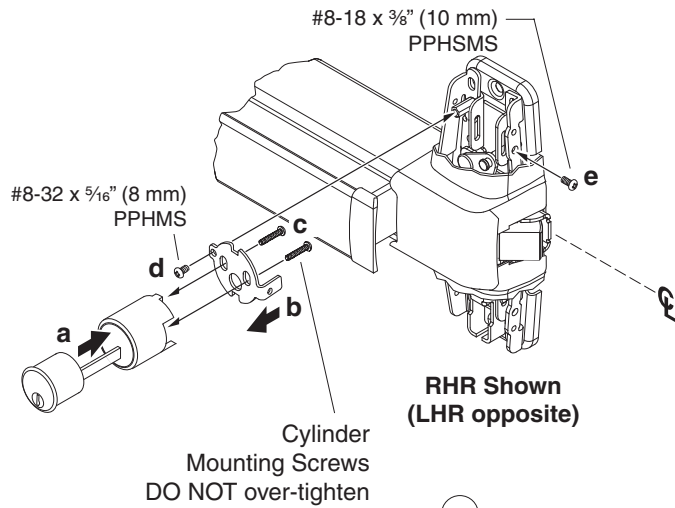
Dog



Undog

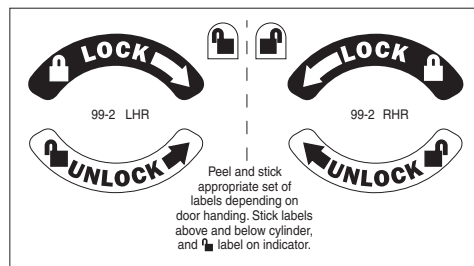
# OPTIONAL EQUIPMENT

## 99-2 (Double Cylinder) Option



If using the -2SI with a keyed rim cylinder, remove the 2 stop screws from back of device prior to installing the cylinder.

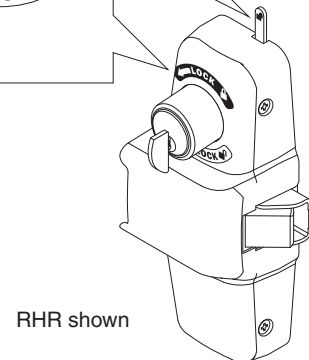
For 98/99-2SI models with Classroom Security Indicator, apply supplied labels above and below cylinder to match door handing, and  label on indicator.



**ⓘ Manually affix the label:**

Ensure surface is clean of dirt, dust, or oils. Clean with alcohol if necessary.

Peel the label from the paper backing and apply to the surface. Minimize handling when applying and use pressure to burnish label to surface. The adhesive will require up to 8 hours to achieve the proper bond.





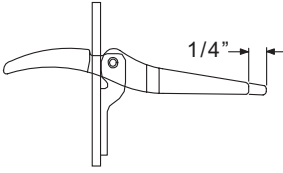
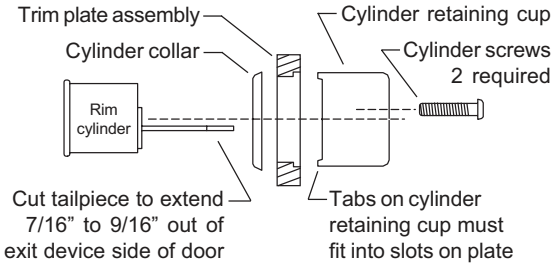
921265-00

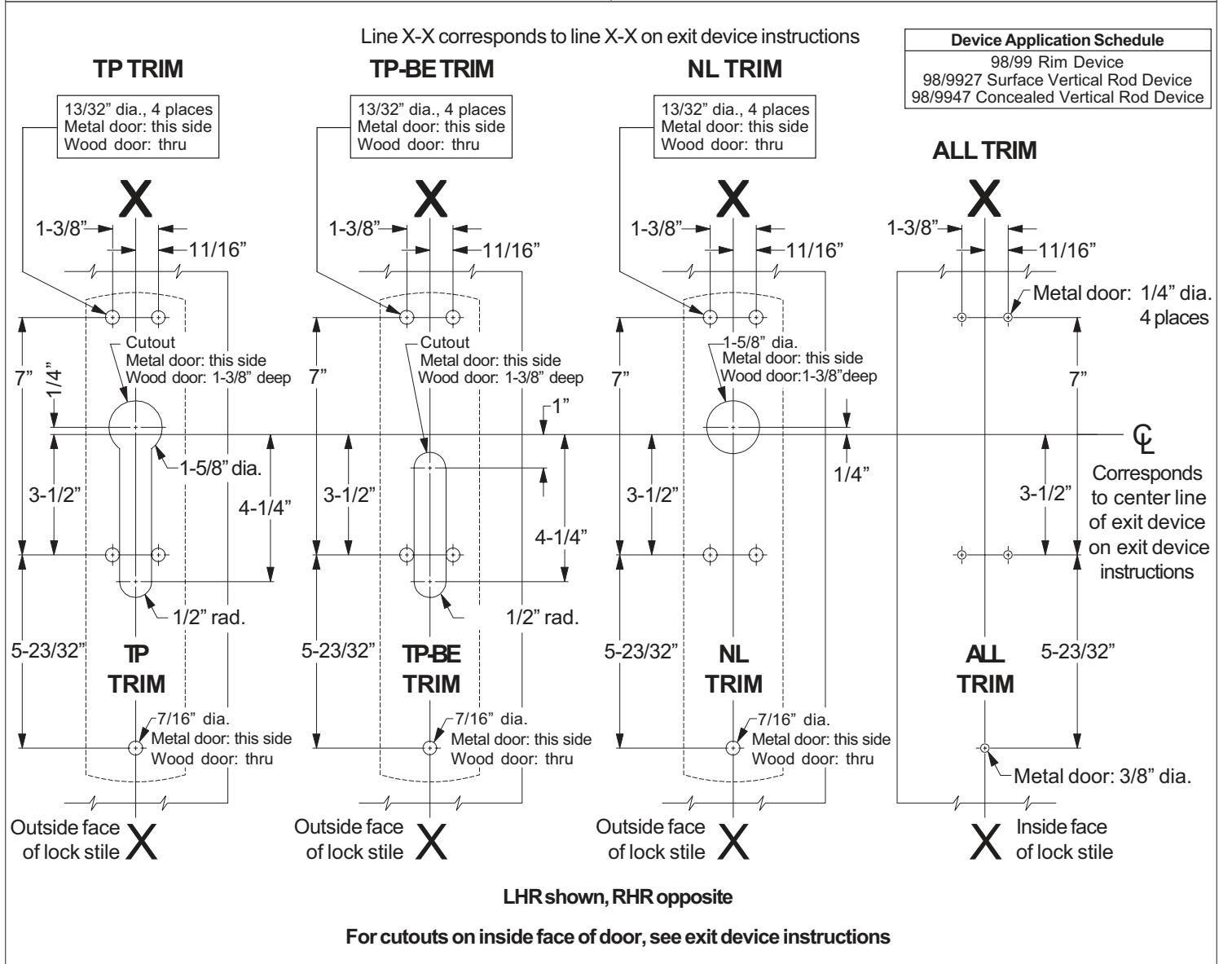
990TP/TP-BE/NL

VON DUPRIN®

Trim for Rim and Vertical Rod Devices

Installation Instructions

<b>1</b>	Prepare door for exit device. See exit device instructions for holes, line X-X, and center lines.	<b>4</b>	For TP and TP-BE trim on 1-3/4" thick door, cut 1/4" off hump piece.
<b>2</b>	Prepare door for trim:	 <p>1/4" cutoff required on thumbpiece for TP and TP-BE trim on 1-3/4" thick doors</p>	
2a	Transfer line X-X from inside (exit device side) of door to outside (trim side) of door. Use extra care if edge of door is beveled. Be sure line X-X is parallel to edge of door.		
2b	Locate and prepare holes as shown.	<b>5</b>	Apply trim.
<b>3</b>	For TP and NL trim, install rim cylinder.	<b>6</b>	For TP and NL trim, cut cylinder tailpiece to extend 7/16" to 9/16" out of exit device side of door.
		<b>7</b>	Apply exit device, thru-bolt to trim (4 places), and use screw and #12 countersink washer for lower trim mounting stud.



Device Application Schedule
98/99 Rim Device
98/9927 Surface Vertical Rod Device
98/9947 Concealed Vertical Rod Device

**Customer Service**

1-877-671-7011      www.allegion.com



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921265-00 Rev. 01/14-b



28266

# 4040XP/4041 DA CUSH

# LCN®

85°- 90°- 100°- 110° Template  
Push Side Mounting

Installation Instructions

**1** Locate proper template. Center punch all hole locations. For self reaming tapping screws (SRT) drill 1/8" pilot holes.

**MOUNT 100° or 110° to meet ADA.**

**SRT Screw** Reduce installation torque if using SRT screws in wood. The use of wood screws is recommended for wood.

Note: 1. When using pivot or swing clear hinge pin, locate closer and shoe from the centerline. 2. Reinforcing per ANSI/SDI-100 recommended for hollow metal doors and frames. 3. Closer size 12 1/4 x 3 1/2 x 2 5/32.

**4041: Spring Cush dead stop will occur approximately 5° beyond normal 4041 dead stop point.**

Left hand application  
Application main gauche  
Aplicación para mano izquierda.

Right hand application  
Application main droite  
Aplicación para mano derecha.

**2** Determine door width, adjust spring power to match chart.

DOOR WIDTH		LCN FAST™ Power Adjust
INTERIOR	EXTERIOR	SET TO:
34"	8.5 lb-f	2+
38"	30"	3
48"	36"	4+
54"	42"	5+
60"	48"	6+

LCN FAST™ Power Adjust for Spring Power Adjustment

**CAUTION**  
IMPROPER INSTALLATION OR REGULATION MAY RESULT IN PERSONAL INJURY OR PROPERTY DAMAGE. FOLLOW ALL INSTRUCTIONS CAREFULLY. FOR QUESTIONS, CALL LCN AT 1-877-671-7011

**3** ① Mount arm on shaft at 30° to closer, as shown.  
② Secure arm assembly to closer with pinion screw provided.

**NOTE:** Closer arm will provide some resistance, as shown.

**4** **SCREW IN VALVE ON BACK OF CLOSER.**  
Using screws provided, secure closer to door.

**5** ① Shoe must be "handed" to match door before mounting.  
② Open door to approx. 45°, attach arm to frame with fasteners provided.

Refer to reverse side for instructions. Instructions à l'endos. Vea al revés para las instrucciones.

Fifth hole spacer  
Espaçeur du cinquième trou  
Espaciador para el quinto agujero

**6** If necessary, adjust closer.

**NOTE:** A "Normal" closing time from 90° open position is 5 to 7 seconds, evenly divided between main speed and latch speed.

**CAUTION**  
OPENING OF REGULATION VALVES TOO FAR MAY RESULT IN LEAKAGE OF CLOSER, PERSONAL INJURY OR PROPERTY DAMAGE. FOLLOW ALL INSTRUCTIONS CAREFULLY.

**NO MAINTENANCE REQUIRED**

I Optional 4041 Delay  
① - Backcheck  
② - Main Speed  
③ - Latch Speed  
④ - Delay Speed

II **HOLD OPEN ARM:** To engage or disengage hold open feature, turn control handle one-quarter (1/4) turn.

**7** Snap on cover.

**Note:** Use screws for metal cover only.

4040XP Instructions Cush et gabarit de 85°-90°-100°-110° pour une installation sur le côté à pousser.

**1** Repérez le gabarit approprié. Marquez le centre de tous les trous. Percez des trous de guidage de 1/8" pour les vis tarauds.

**2** Mesurez la largeur de la porte. Réglez le ressort selon les indications du tableau.

Réglage de force LCN FAST™ pour régler la force du ressort

**3** ① Montez le bras sur la tige à 30° du ferme-porte, comme sur l'illustration.  
② Fixez l'assemblage du bras au ferme-porte à l'aide des vis fournies.

**4** **Vissez la soupape derrière le ferme-porte.** Fixez le ferme-porte sur la porte avec les attaches fournies.

**5** ① La main de la console doit être adaptée à celle de la porte avant l'installation.

**6** Au besoin, réglez  
① - frein à l'ouverture  
② - vitesse de fermeture  
③ - vitesse d'enclenchement

**7** Fixez le couvercle.

**NOTE:** la fermeture d'une porte ouverte à 90° prend normalement de 5 à 7 secondes, ce délai est réparti entre la vitesse de fermeture et la vitesse de verrouillage.

II **BRAS DE RETENUE:** Pour engager ou désengager le mécanisme de retenue, tournez la manette de contrôle d'un quart (1/4) de tour.

**DANGER**  
Une installation ou un réglage inadéquats peuvent entraîner des blessures ou des dommages. Veuillez suivre toutes les instructions avec soin. Pour plus de renseignements, composez le 800-526-2400

**DANGER**  
UNE OUVERTURE EXAGÉRÉE DES SOUPAPES DE RÉGLAGE PEUT ENTRAÎNER DES FLÛTES, DES BLESSURES OU DES DOMMAGES. VEUILLEZ SUIVRE LES INSTRUCTIONS AVEC SOIN.

4040XP Instrucciones CUSH para plantilla 85°-90°-100°-110° con montaje del lado del empuje.

**1** Localice la plantilla apropiada. Marque el centro de cada agujero. Barrena agujeros pilotos de 1/8" para los tornillos autorroscantes.

Si se usan tornillos de rosca cortante en la madera, se deberá reducir el par de apretado. Con la madera, se recomienda utilizar tornillos para madera.

**2** Determina la anchura de la puerta. Ajusta la fuerza del resorte según lo indicado en el gráfico.

LCN FAST™ Cuadrante de ajuste para ajustar la potencia del resorte

**3** ① Monte el brazo en el eje a 30° del cerrador, tal como se muestra.  
② Sujete el ensamblaje del brazo al cerrador con el tornillo ya incluido.

**4** **Atornilla la válvula al revés del cerrador.** Sujeta el cerrador a la puerta con los tornillos ya incluidos.

**5** ① Debe de hacerse coincidir el lado de la zapata con la puerta antes de montarla.  
② Abra la puerta hasta aprox. 45°, sujete el brazo al bastidor con los sujetadores ya incluidos.

**6** Ajusta si es necesaria  
① - resistencia de apertura  
② - velocidad principal  
③ - velocidad de seguro

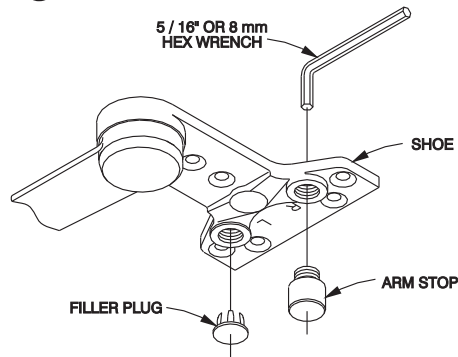
**7** Encaje la tapa.

**NOTE:** El tiempo de cerrado "Normal" de una puerta abierta a 90° es de 5 hasta 7 segundos, dividido igualmente entre la velocidad principal y la velocidad de seguro.

II **BRAZO DE RETENCIÓN:** Para embragar o desembragar la característica de retención, dar un cuarto de vuelta (1/4) al cabo.

**ADVERTENCIA**  
UNA INSTALACIÓN O UN AJUSTE INCORRECTOS PUEDEN RESULTAR EN DAÑO PERSONAL O MATERIAL. SIGA BIEN TODAS LAS INSTRUCCIONES. PARA MÁS INFORMACIONES, LLAMA A LCN AL 800-526-2400

**ADVERTENCIA**  
LA APERTURA DEMASIADO GRANDE DE LAS VÁLVULAS DE AJUSTE PUEDE OCASIONAR UN DERRAME. DANG PERSONAL O MATERIAL. SIGA BIEN TODAS LAS INSTRUCCIONES.

**Fig. 1**

Both Cush and H.O. Cush shoes must be "handed" to match door **BEFORE** mounting. See Fig. 1.

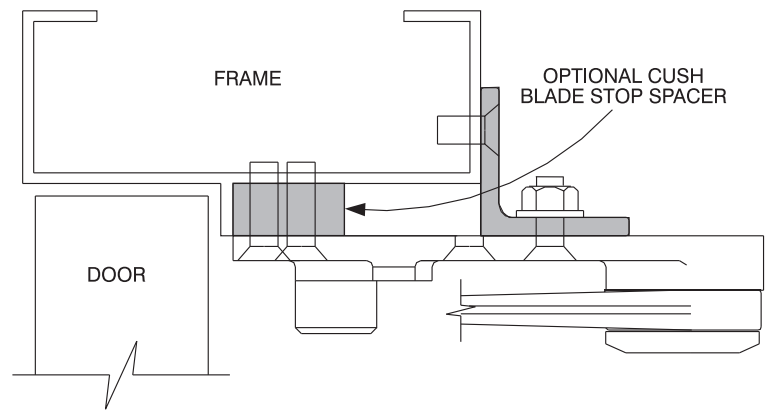
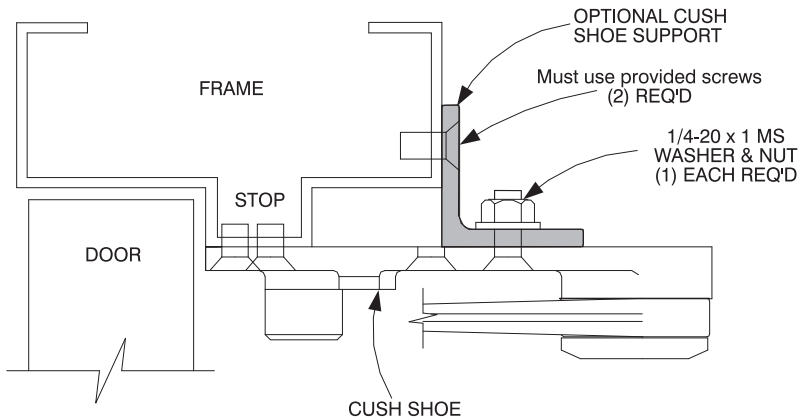
**For Left Hand doors:** All shoes are shipped assembled for left hand doors. Insert 5/16" (8mm) Hex wrench into arm stop and turn counter - clockwise to **seat stop as tightly as possible**.  
**For Right Hand doors: (see illustration)** Push filler plug out of shoe. Using a 5/16" (8mm) Hex wrench, turn arm stop clockwise to remove from shoe. Thread arm stop into hole marked "R". Turn wrench counter - clockwise, **seating stop as tightly as possible**. Insert filler plug into other hole.

La main des sabots Cush ainsi que celle des sabots Cush avec retenue doit être adaptée à cette de la porte AVANT l'installation. Voir Fig. 1.

Portes main gauche: Tous les sabots sont expédiés assemblés pour main gauche. Insérez une clé hexagonale 5/16 ou 8mm dans la butée du bras et tournez en sens inverse des aiguilles d'une montre pour assurer une assise de butée solide.  
 Portes main droite: (voir l'illustration). Sortez le bouchon du sabot. À l'aide d'une clé hexagonale 5/16 ou 8mm, tournez dans le sens des aiguilles d'une montre pour enlever le sabot. En alignant bien les filets, insérez la butée du bras dans le trou "R". Tournez la clé en sens inverse des aiguilles d'une montre, pour assurer une assise de butée solide. Insérez le bouchon dans l'autre trou.

Debe de hacerse coincidir el lado de la zapata Cush o de la zapata Cush con retenición antes de montarla. Ver Figura 1.

Puertas mano izquierda: las zapatas se entregan todas en sambladas para puertas mano izquierda. Inserte una llave hex 5/16 (8 mm.) en el tope del brazo y gire en sentido contrario a las agujas del reloj para seguramente asentar el tope. Puertas mano derecha: (ver la ilustración). Quite el tapón de llenado de la zapata. Con una llave hex 5/16 (8 mm.), gire el tope del brazo en el sentido de las agujas del reloj para quitarlo de la zapata. Coloque el tope del brazo en el agujero marcado con "R", alineando bien las roscas. Gire la llave en el sentido contrario a las agujas del reloj para asentar bien seguro el tope. Inserte el tapón de llenado en otro agujero.



## INSTRUCTIONS FOR INSTALLING CUSH SHOE SUPPORT

### AFTER CUSH - N - STOP IS INSTALLED

- 1---Set Cush Shoe Support on top of Cush Shoe and hold against frame.
- 2---Assemble screw, washer, and nut as shown and tighten securely.
- 3---Using Shoe Support as Template drill & tap two 1/4-20 holes in frame.
- 4---Insert screw & tighten securely.

If frame is not wide enough to receive fifth screw, install Cush Shoe Support (available from Dealer) as shown above.

Should frames have 1/2" Blade Stop it is necessary to use 1/2" Blade stop Spacer (available from Dealer). Use both Blade Stop Spacer and Shoe Support wherever required.

Si le cadre a une butée de 1/2" il faut utiliser un espaceur de butée de 1/2" (offert chez le concessionnaire). Utilisez espaceur et support de sabot au besoin.

Si los bastidores tienen un tope de pala de 1/2", se debe utilizar un espaciador de tope de pala de 1/2" (disponible del representante). Utilice un espaciador de tope de pala y un soporte de zapata cuando sea necesario.

## INSTRUCTIONS POUR INSTALLER LE SUPPORT DU SABOT CUSH

### APRÈS L'INSTALLATION DU CUSH - N - STOP

- 1---Mettez le support du sabot Cush sur le sabot Cush et appuyez-le contre le cadre.
- 2---Assemblez la vis, la rondelle et le boulon comme sur l'illustration et serrez fermement.
- 3---En utilisant le support du sabot comme gabarit, taraudez deux trous de 1/4-20 dans le cadre.
- 4---Insérez la vis et serrez fermement.

Si le cadre n'est pas assez large pour la cinquième vis, posez le support du sabot Cush (offert chez le concessionnaire) comme sur l'illustration.

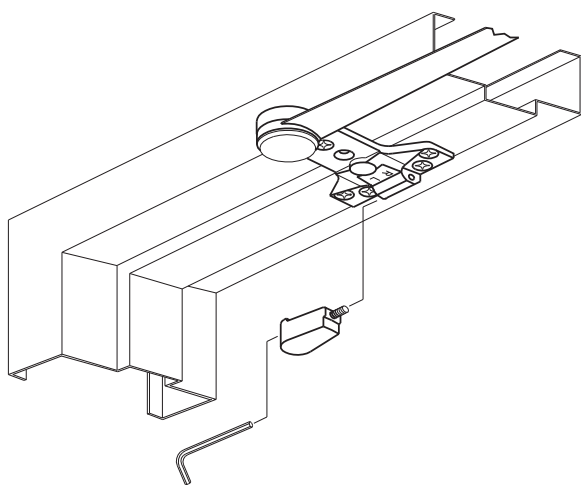
## INSTRUCCIONES DE INSTALACIÓN SOPORTE DE ZAPATA CUSH

### DESPUÉS DE HABER SIDO INSTALADO EL CUSH - N - STOP

- 1---Coloque el soporte de zapata Cush encima del zapata Cush y téngalo contra el bastidor.
- 2---Monte el tornillo, la arandela y la tuerca tal como se muestra y apriételes bien.
- 3---Usando el soporte de zapata como plantilla, taladre y rosque dos agujeros 1/4-20 en el bastidor.
- 4---Inserte el tornillo y apriétele bien.

Si el bastidor no es suficientemente ancho para recibir un quinto tornillo, instale un soporte de zapata Cush (disponible del representante) tal como se muestra abajo.

## INSTRUCTIONS FOR INSTALLING SPRING CUSH ARM



### INSTALLATION

(Left hand shown; Right hand opposite)

1. **LOCATING:** See IMPORTANT INFORMATION below. In new installations, use standard CUSH template. When replacing existing CUSH arm, use existing mounting holes.

\* See note 4 in Step 1 on front page. \*

2. **INSTALLATION:** Mount shoe on frame FIRST. After shoe is mounted, use a 5/32 or 4 mm hex wrench to install the contact block assembly as shown above. Make sure the screw is tightened securely into the shoe.

3. **COMPLETING INSTALLATION:** Complete the installation as directed for regular CUSH arms in the main instruction sheet.

### IMPORTANT INFORMATION:

**4040XP:** Spring Cush dead stop will occur approximately 5° beyond normal 4041 dead stop point.

**Backcheck:** DO NOT reduce backcheck setting of door closer. Spring Cush arm function does not replace backcheck.

## INSTRUCTIONS POUR INSTALLER UN BRAS À RESSORT CUSH

### INSTALLATION

(Main gauche illustrée; main droite à l'opposé)

1. **SITUER:** Voir RENSEIGNEMENTS IMPORTANTS. Pour une nouvelle installation, utilisez le gabarit CUSH standard. Pour remplacer un bras CUSH, utilisez les trous de montage déjà percés.

2. **INSTALLATION:** Montez le sabot sur le cadre EN PREMIER. Après avoir posé le sabot, utilisez une clé hexagonale 5/32 ou 4 mm pour installer l'assemblage comme sur l'illustration. Serrez la vis fermement dans le sabot.

3. **TERMINER L'INSTALLATION:** Terminer l'installation indiquée pour les bras CUSH sur la feuille d'instructions principale.

### RENSEIGNEMENTS IMPORTANTS:

**4040XP:** L'arrêt du Cush à ressort se produira à environ 5° après celui du 4041 normal. Résistance d'ouverture: NE PAS réduire la résistance d'ouverture du ferme-porte. La fonction du bras Cush à ressort ne remplace pas cette résistance.

## INSTRUCCIONES DE INSTALACIÓN DEL BRAZO DE RESORTE CUSH

### INSTALACIÓN

(A la izquierda: como se muestra; a la derecha: al opuesto)

1. **LOCALIZACIÓN:** Vea los DATOS IMPORTANTES abajo. Utilice la plantilla CUSH estándar en las nuevas instalaciones. Utilice los agujeros de montaje existentes cuando se reemplace un brazo CUSH existente.

2. **INSTALACIÓN:** PRIMERO: Monte la zapata en el bastidor. Después de haber montado la zapata, utilice una llave de tuercas hexagonal 5/32 o 4 mm para instalar el ensamblaje de bloque de contacto como se muestra arriba. Asegúrese de apretar bien el tornillo en la zapata.

3. **PARA COMPLETAR LA INSTALACIÓN:** Complete la instalación como para los brazos CUSH regulares en la hoja de instrucciones principal.

### DATOS IMPORTANTES:

**4040XP:** El paro en seco del resorte podrá ocurrir aproximadamente 5° después del punto del paro en seco 4041 normal.

Resistencia de apertura: NO reduzca el ajuste de resistencia de apertura del cerrador. El funcionamiento del brazo de resorte Cush no reemplaza la resistencia de apertura.



# L/LV9000-Series



**P515-742**

Lever and Rose  
Manija y Embellecedor  
Levier et Rosette

Installation Instructions  
Instrucciones de Instalación  
Instructions d'Installation

A Lockcase and mounting screws  
Caja de cerradura y tornillos  
Caisse de serrure et les vis

B Spindle and spring  
Husillo y resorte  
Axe et ressort

C Outside lever and rose  
Manija y embellecedor exterior  
Lever et rosette extérieur

D Mounting posts  
Puntales de montaje  
Tenons de montage

E Spring cage or spacer  
Caja para resorte o espaciador  
Cage du ressort ou entretoise

F Occupancy indicator  
Cilindro de indicador  
Cylindre d'indicateur

G Inside mounting plate & screws  
Placa de montaje interior y tornillos  
Plaque de montage intérieur et vis

H Inside lever  
Manija interior  
Lever intérieur

J Inside thumbturn  
Mariposa interior  
Tourniquet intérieur

K Cylinder, compression ring and spring  
Cilindro, anillo compresor y resorte  
Cylindre, anneau de compression et ressort

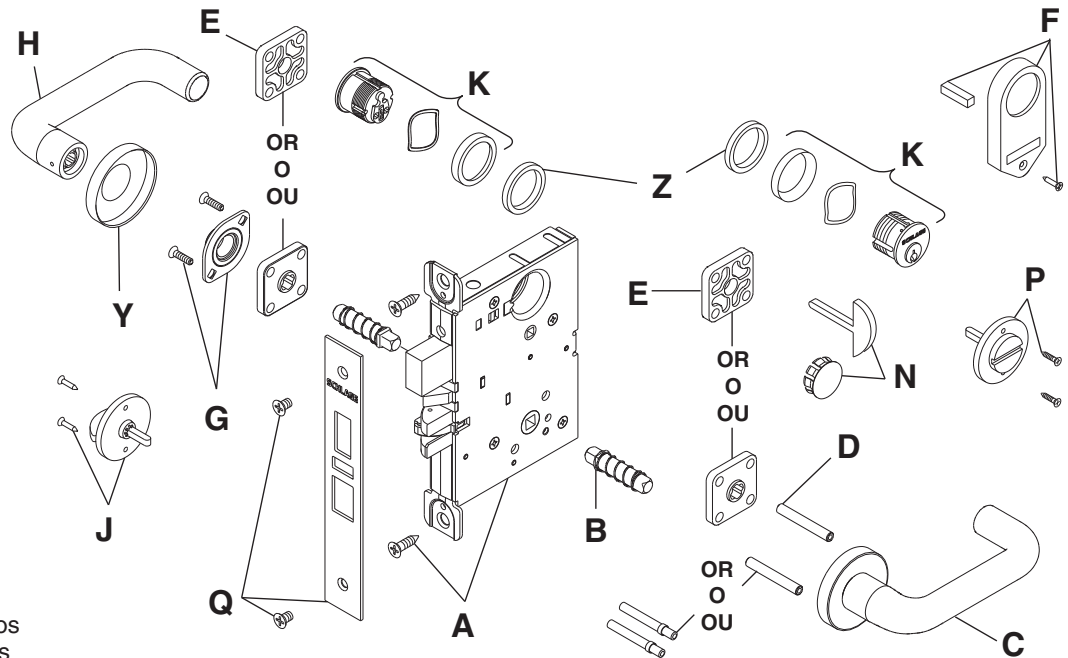
L Inside rose  
Embellecedor interior  
Rosette intérieur

N Emergency turn and button  
Mariposa y botón de emergencia  
Tourniquet et bouton d'urgence

P Coin turn  
Mecanismo de giro a moneda  
Bouton de manœuvre par pièce de monnaie

Q Armor front and screws  
Tornillos y placa frontal  
Plaque de protection avant et vis

Z Blocking ring  
Anillo de bloqueo  
Anneau de blocage



① **IMPORTANT: Before installation of any L/LV Series lock, check lock handing. (See door handing section.)**

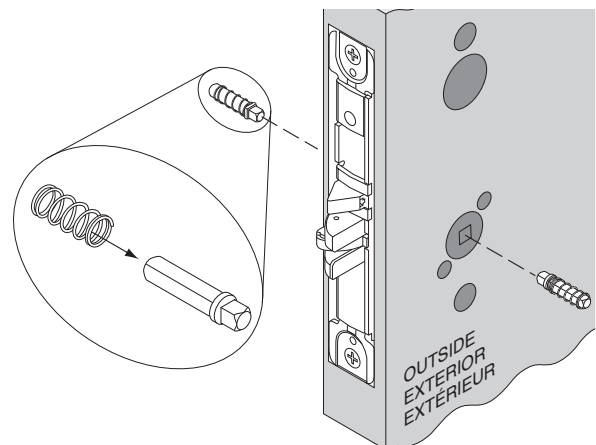
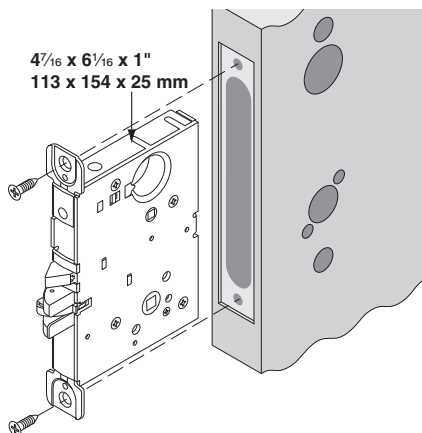
① **IMPORTANTE: Antes del instalación cualquier cerradura de L/LV, compruebe las instrucciones de orientación. (Vea la sección para orientación de la puerta.)**

① **IMPORTANT: Avant d'installer n'importe quelle serrure de L/LV, vérifier les instructions de manipulation. (Voir la section de sens de déplacement de la porte.)**

**1** All functions Todas las funciones Toutes fonctions

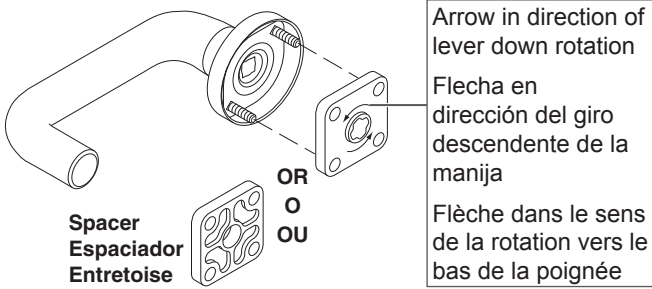
**2** All functions Todas las funciones Toutes fonctions

Fully tighten at step 9  
Apriete completamente en el paso 9  
Serrer à fond à l'étape 9



**3** All functions Todas las funciones Toutes fonctions

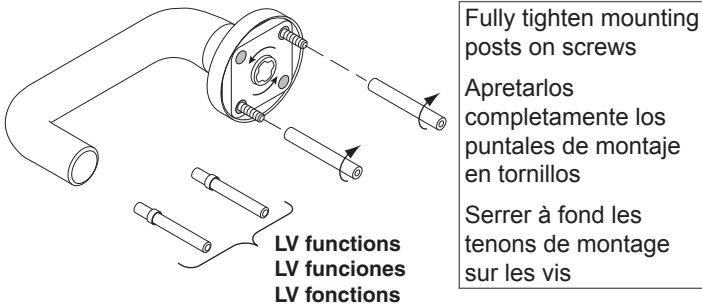
- ① **IMPORTANT:** If spacer is supplied, install now.
- ① **IMPORTANTE:** Si se incluye un espaciador, instálelo ahora.
- ① **IMPORTANT:** Si l'entretoise est fournie, installer maintenant.



Arrow in direction of lever down rotation  
 Flecha en dirección del giro descendente de la manija  
 Flèche dans le sens de la rotation vers le bas de la poignée

Spacer  
 Espaciador  
 Entretoise

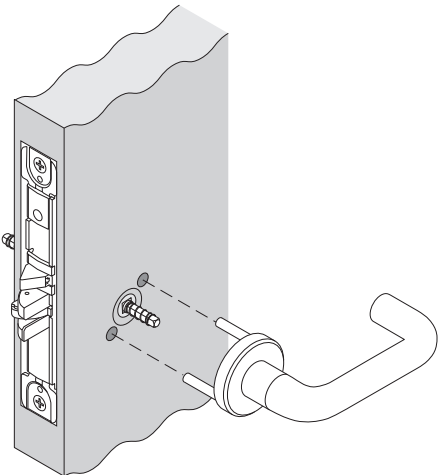
OR  
 O  
 OU



Fully tighten mounting posts on screws  
 Apretarlos completamente los puntales de montaje en tornillos  
 Serrer à fond les tenons de montage sur les vis

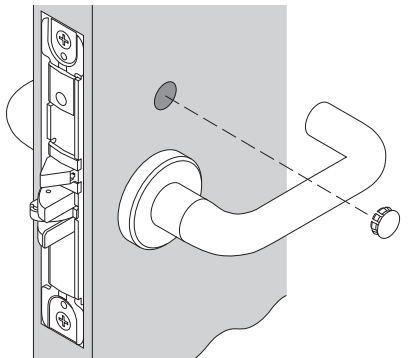
LV functions  
 LV funciones  
 LV fonctions

**4** All functions Todas las funciones Toutes fonctions



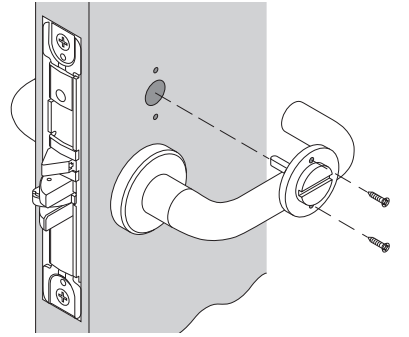
**5**

For/For/Pour:  
 9040  
 9440



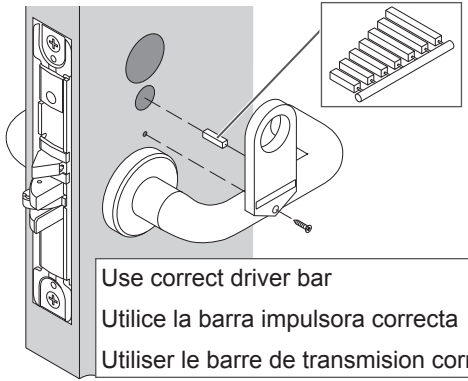
OR O OU

For/For/Pour:  
 9044  
 9444



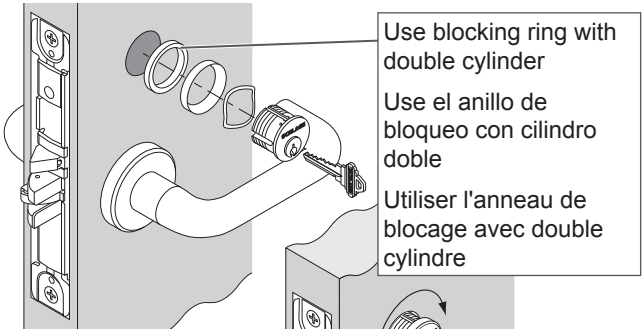
OR O OU

For/For/Pour:  
 9486  
 9496



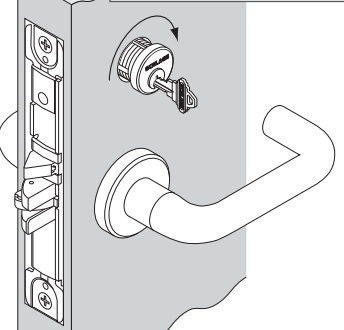
Use correct driver bar  
 Utilice la barra impulsora correcta  
 Utiliser le barre de transmission correcte

OR O OU



Use blocking ring with double cylinder  
 Use el anillo de bloqueo con cilindro doble  
 Utiliser l'anneau de blocage avec double cylindre

For/For/Pour:  
 9050 9076 9456 9480  
 9056 9077 9457 9486  
 9060 9080 9465 9485  
 9070 9082 9466 9496  
 9071 9453 9473

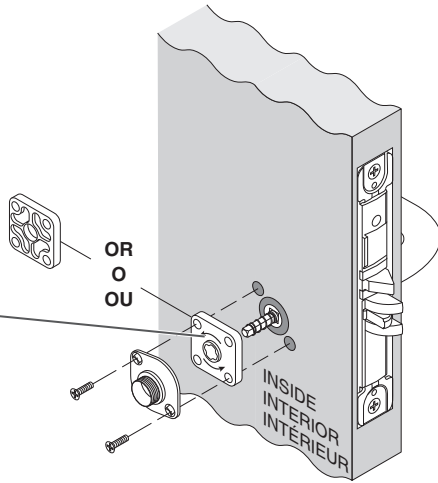


**6** All functions Todas las funciones Toutes fonctions

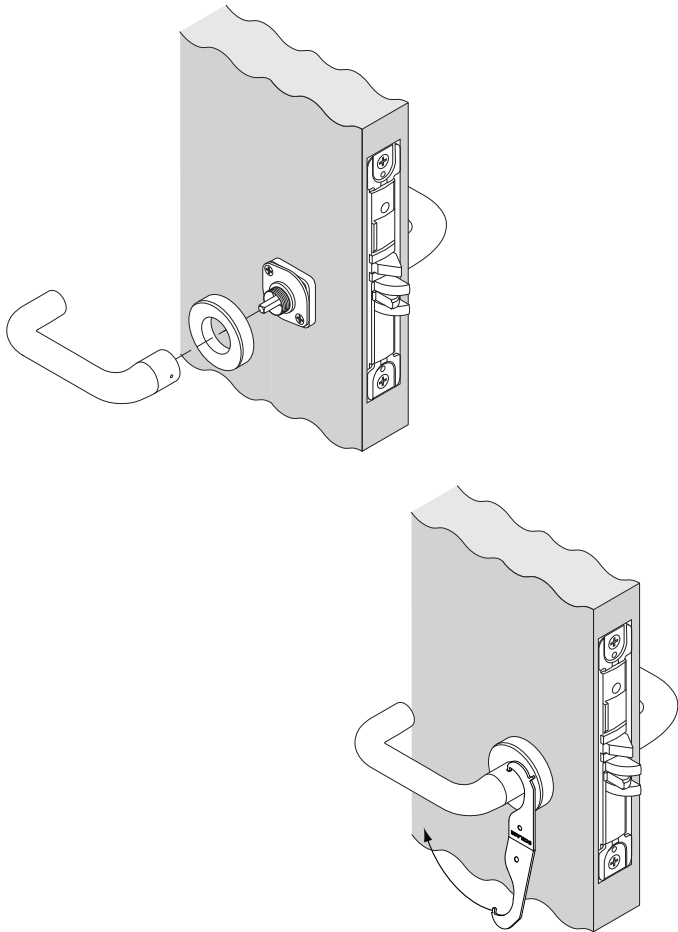
Arrow in direction of lever down rotation

Flecha en dirección del giro descendente de la manija

Flèche dans le sens de la rotation vers le bas de la poignée



**7** All functions Todas las funciones Toutes fonctions



**8**

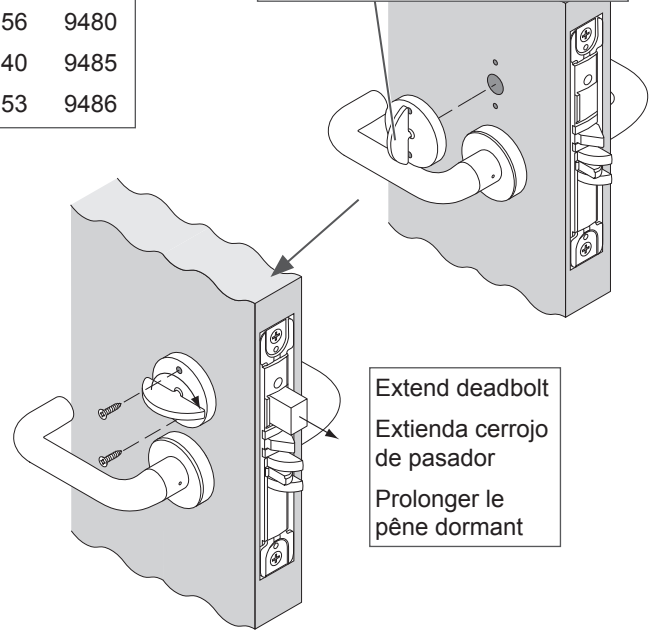
For/For/Pour:

- 9040 9456
- 9050 9473
- 9056 9480
- 9440 9485
- 9453 9486

Thumbturn vertical

Mariposa se coloca vertical

Le tourniquet est verticale placée



Extend deadbolt

Extienda cerrojo de pasador

Prolonger le pêne dormant

OR O OU

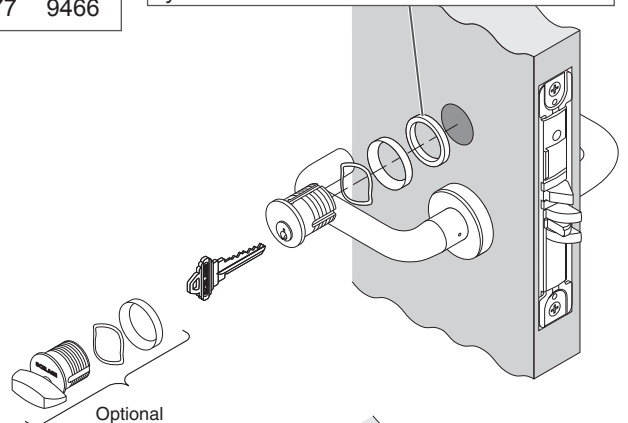
For/For/Pour:

- 9060 9082
- 9071 9457
- 9077 9466

Use blocking ring with double cylinder

Use el anillo de bloqueo con cilindro doble

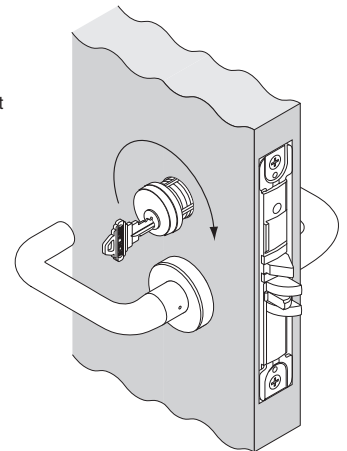
Utiliser l'anneau de blocage avec double cylindre



Optional cylinder turn

Opcional mariposa por cilindro

En option tourniquet pour cylindre



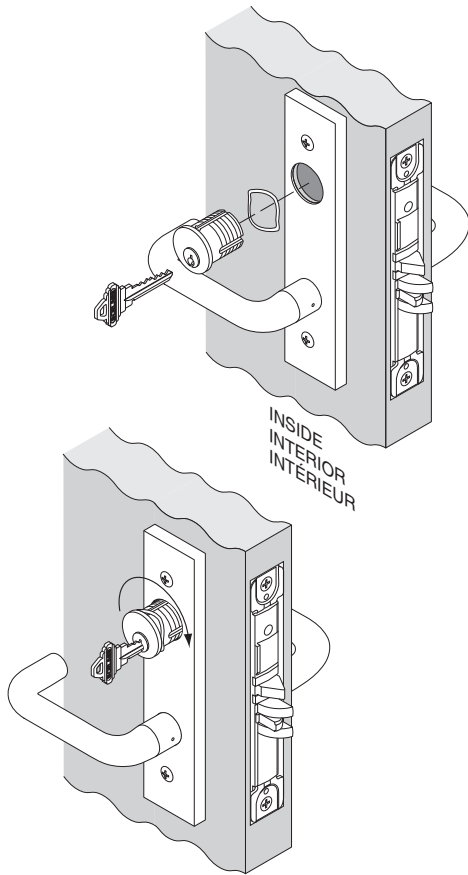
9

For/For/Pour:

9060 9082

9071 9457

9077 9466

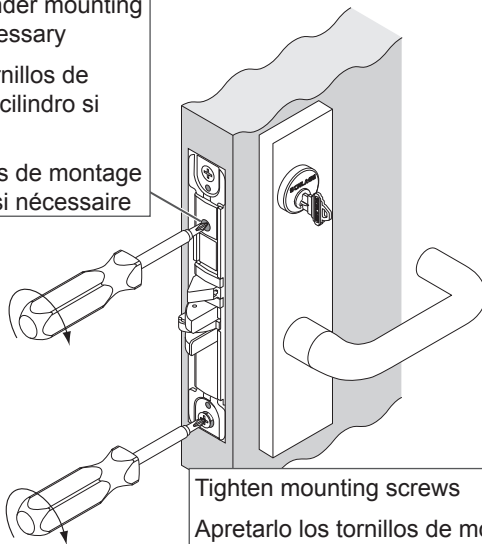


10 All functions Todas las funciones Toutes fonctions

Tighten cylinder mounting screw if necessary

Apretarlo tornillos de montaje del cilindro si necesaria

Serrer les vis de montage du cylindre si nécessaire



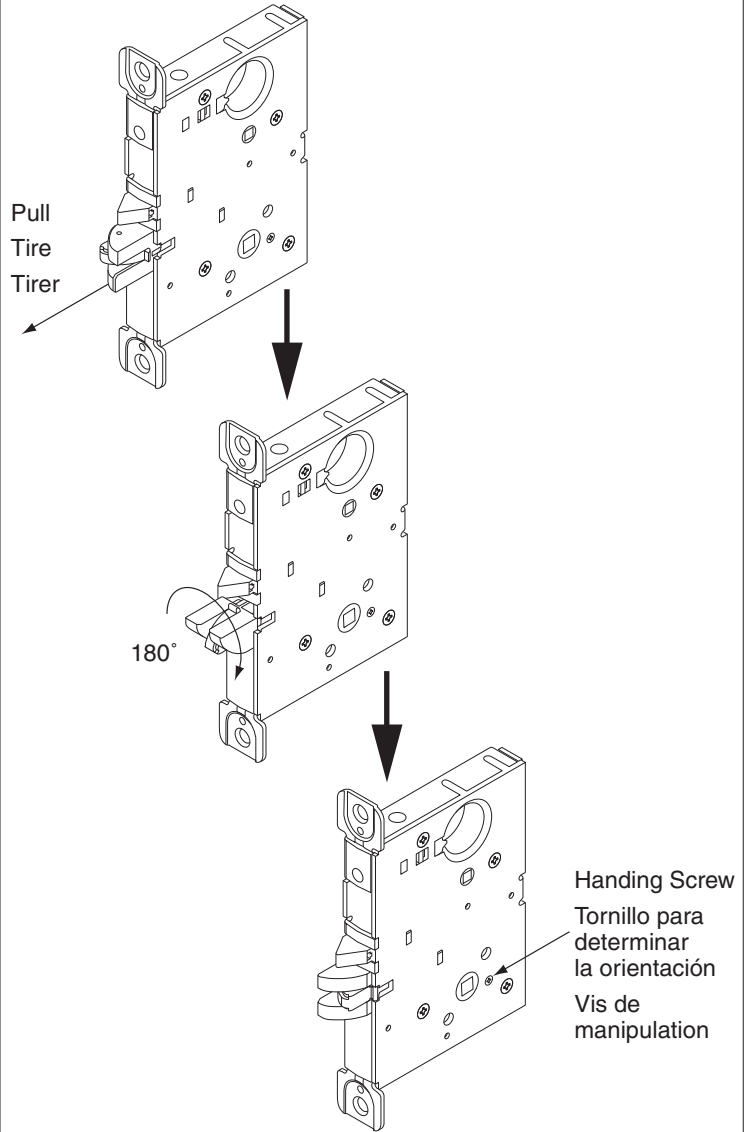
Tighten mounting screws  
Apretarlo los tornillos de montaje  
Serrer les vis de montage

Door Hanging

Orientación de la puerta

Sens de déplacement de la porte

- ❶ **IMPORTANT:** Move handing screw to inside of door for L locks and outside of door for LV locks.
- ❶ **IMPORTANT:** Muéve el tornillo que determina la orientación hacia el interior de la puerta para cerraduras L. Muévalo hacia fuera de la puerta para cerraduras LV.
- ❶ **IMPORTANT:** Déplacer la vis de manipulation vers l'intérieur de la porte pour les serrures L et vers l'extérieur pour les serrures LV.

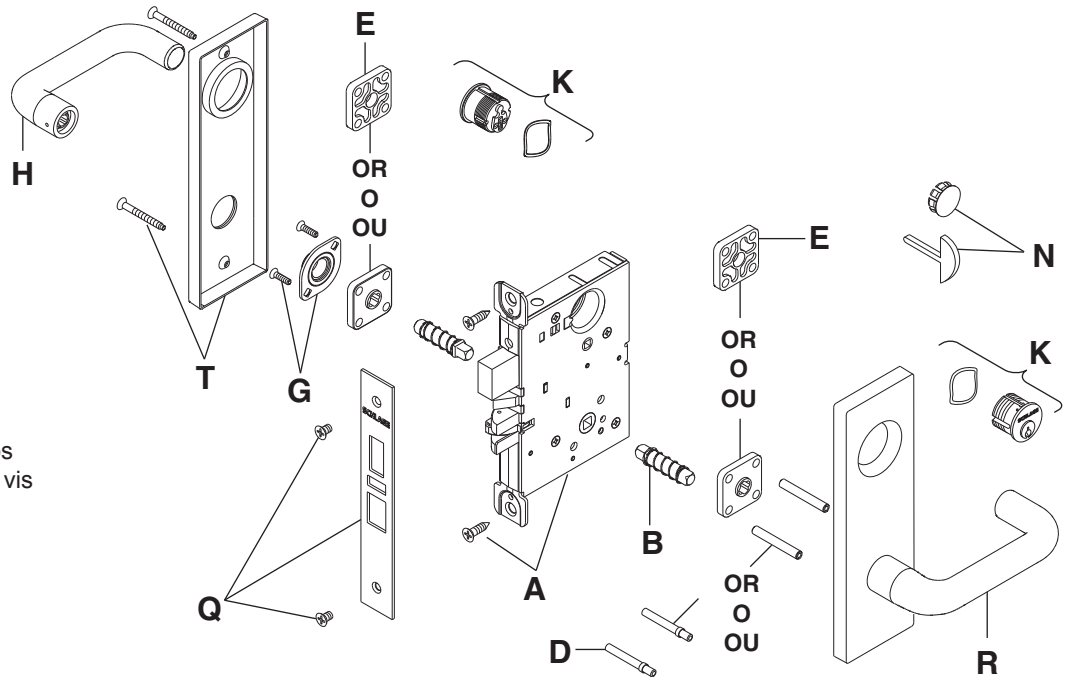


# L/LV9000-Series

Lever and Escutcheon  
 Manija y Escudo  
 Levier et Entrée de Serrure

Installation Instructions  
 Instrucciones de Instalación  
 Instructions d'Installation

- A Lockcase and mounting screws  
Caja de cerradura y tornillos  
Caisse de serrure et les vis
- B Spindle and spring  
Husillo y resorte  
Axe et ressort
- D Mounting posts  
Puntales de montaje  
Tenons de montage
- E Spring cage or spacer  
Caja para resorte o espaciador  
Cage du ressort ou entretoise
- G Inside mounting plate and screws  
Placa de montaje interior y tornillos  
Plaque de montage intérieur et les vis
- H Inside lever  
Manija interior  
Levier intérieur
- K Cylinder and spring  
Cilindro y resorte  
Cylindre et ressort
- N Emergency button and turn  
Mecanismo de giro y botón de emergencia  
Tourniquet et bouton d'urgence
- Q Armor front and screws  
Tornillos y placa frontal  
Plaque de protection avant et vis



- R Outside lever and escutcheon  
Manija exterior y escudo  
Levier extérieur et entrée de serrure
- T Inside escutcheon and screws  
Escudo interior y tornillos  
Entrée de serrure et les vis

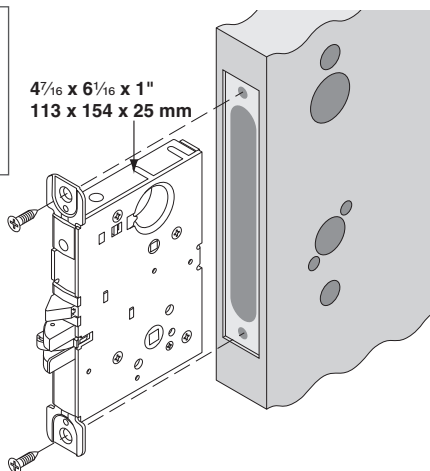
① **IMPORTANT: Before installation of any L/LV Series lock, check lock handing. (See door handing section.)**

① **IMPORTANTE: Antes del instalación cualquier cerradura de L/LV, compruebe las instrucciones de orientación. (Vea la sección para orientación de la puerta.)**

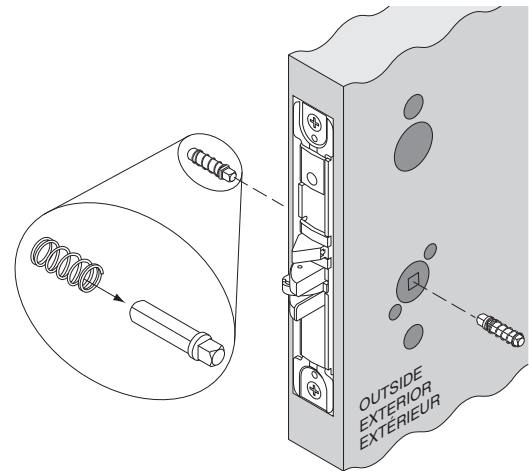
① **IMPORTANT: Avant d'installer n'importe quelle serrure de L/LV, vérifiez les instructions de manipulation. (Voir la section de sens de déplacement de la porte.)**

**1** All functions Todas las funciones Toutes fonctions

Fully tighten at step 10  
 Apriete completamente en el paso 10  
 Serrer entièrement a l'étape 10

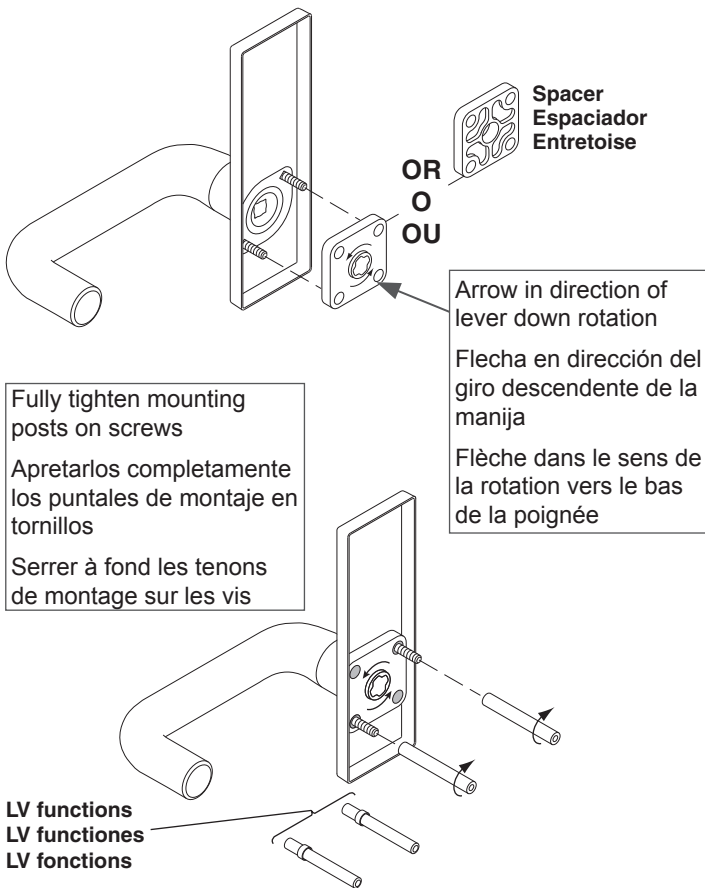


**2** All functions Todas las funciones Toutes fonctions



**3** All functions Todas las funciones Toutes fonctions

- ① **IMPORTANT:** If spacer is supplied, install now.
- ① **IMPORTANTE:** Si se incluye un espaciador, instálole ahora.
- ① **IMPORTANT:** Si l'entretoise est fournie, installer maintenant.



**4** For concealed cylinder option

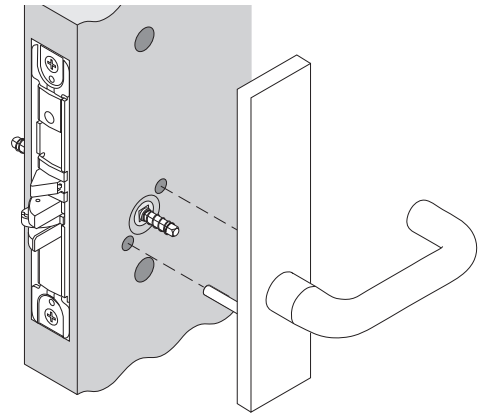
Para el cilindro oculto opcional

Pour le cylindre dissimulé en option

- ① **IMPORTANT:** Install cylinder(s) BEFORE installing escutcheon(s).
- ① **IMPORTANTE:** Instale el (los) cilindro(s) ANTES de instalar el escudo.
- ① **IMPORTANT:** Installer le(s) cylindre(s) AVANT de poser le(s) entrées de serrure

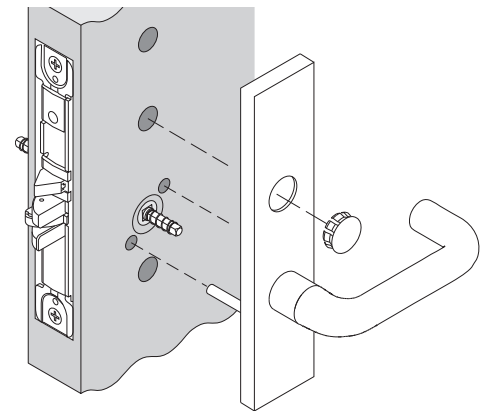
**5**

For/For/Pour:  
9010  
9176



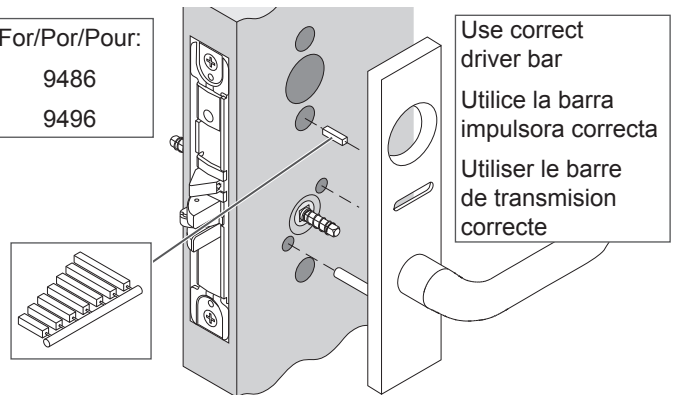
OR O OU

For/For/Pour:  
9040  
9440



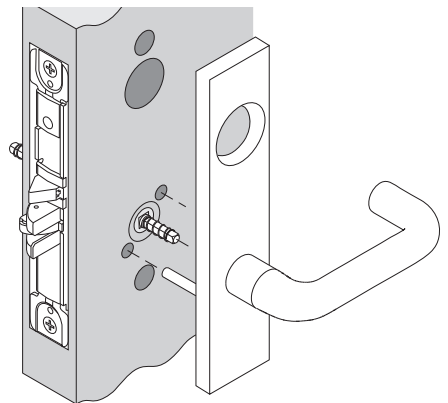
OR O OU

For/For/Pour:  
9486  
9496



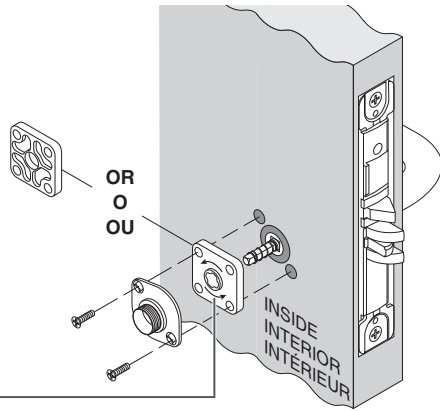
OR O OU

For/For/Pour:  
9050 9456  
9056 9457  
9060 9465  
9070 9466  
9071 9473  
9076 9480  
9077 9485  
9080 9486  
9082 9496  
9453

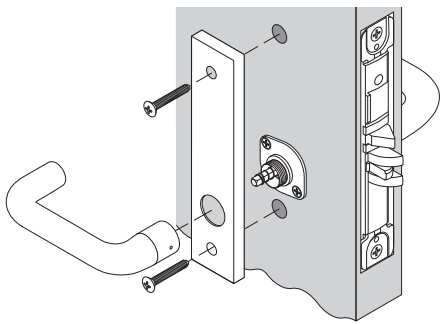


6 All functions Todas las funciones Toutes fonctions

Arrow in direction of lever down rotation  
 Flecha en dirección del giro descendente de la manija  
 Flèche dans le sens de la rotation vers le bas de la poignée

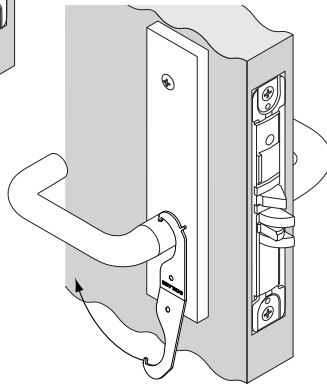


7



For/Por/Pour:

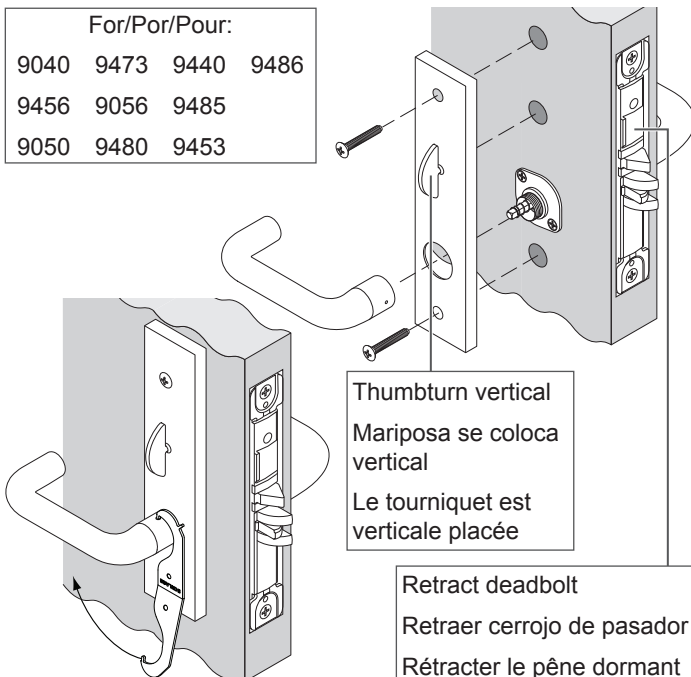
9010	9076	9457
9060	9077	9465
9070	9080	9466
9071	9082	



OR O OU

For/Por/Pour:

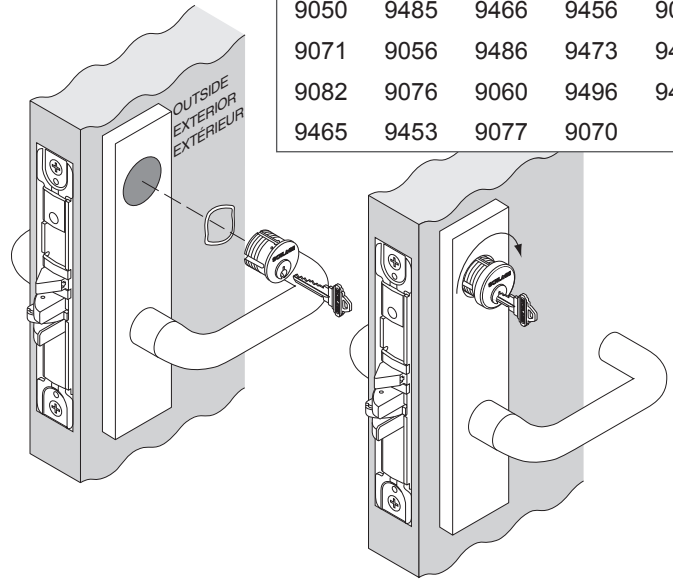
9040	9473	9440	9486
9456	9056	9485	
9050	9480	9453	



8

For/Por/Pour:

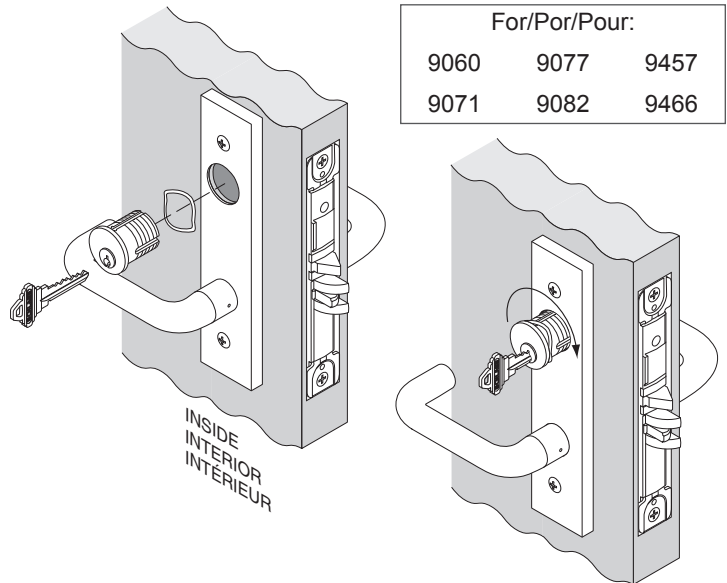
9050	9485	9466	9456	9080
9071	9056	9486	9473	9457
9082	9076	9060	9496	9480
9465	9453	9077	9070	



9

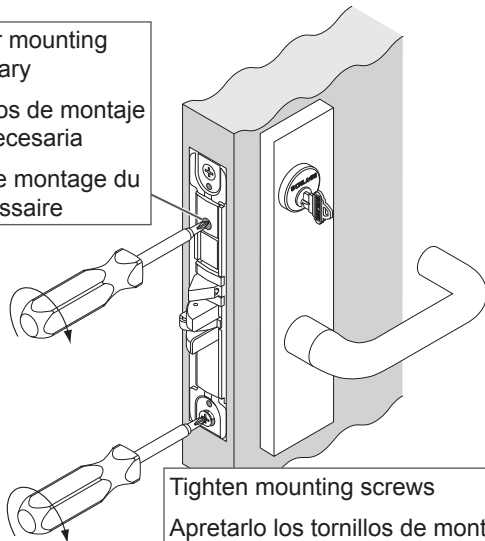
For/Por/Pour:

9060	9077	9457
9071	9082	9466



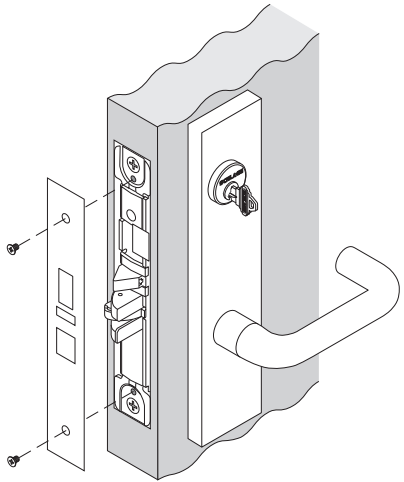
10 All functions Todas las funciones Toutes fonctions

Tighten cylinder mounting screw if necessary  
 Apretarlo tornillos de montaje del cilindro si necesaria  
 Serrer les vis de montage du cylindre si nécessaire



Tighten mounting screws  
 Apretarlo los tornillos de montaje  
 Serrer les vis de montage

11 All functions Todas las funciones Toutes fonctions

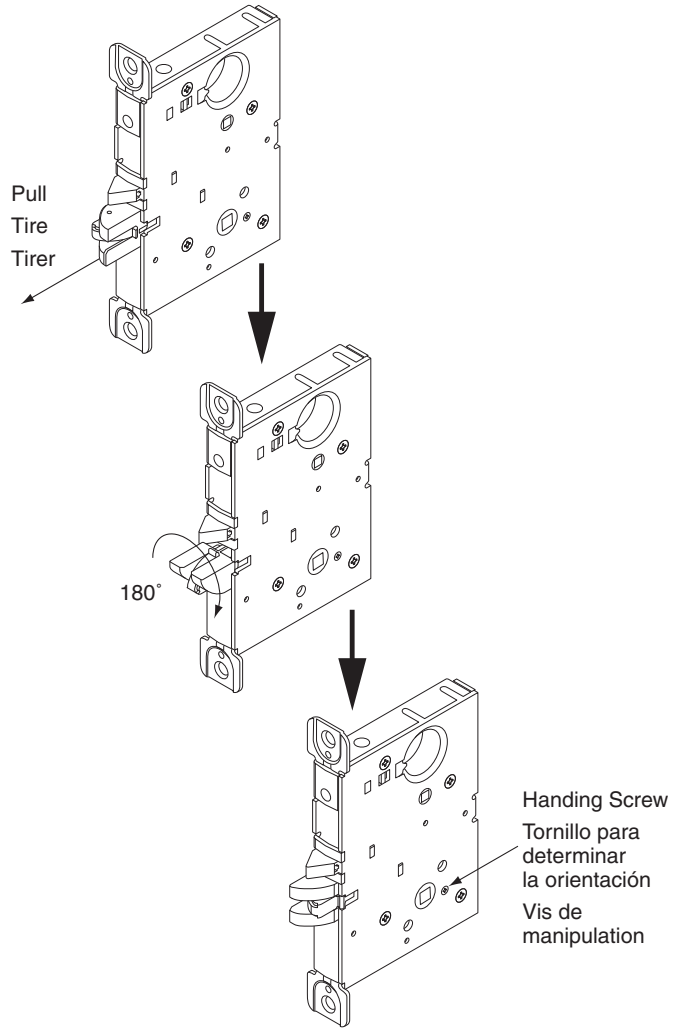


Door Handing

Orientación de la puerta

Sens de déplacement de la porte

- ❶ **IMPORTANT:** Move handing screw to inside of door for L locks and outside of door for LV locks.
- ❶ **IMPORTANTE:** Muéve el tornillo que determina la orientación hacia el interior de la puerta para cerraduras L. Muévalo hacia fuera de la puerta para cerraduras LV.
- ❶ **IMPORTANT:** Déplacer la vis de manipulation vers l'intérieur de la porte pour les serrures L et vers l'extérieur pour les serrures LV.





2001 Lowell Avenue, Erie, PA 16506

Phone: 800.519.2610 • Fax: 800.432.8767 • Website: [www.burnsmfg.com](http://www.burnsmfg.com)

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## General Warranty

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Burns Manufacturing warrants all products to be free from workmanship or material defects, when properly installed and under normal use, for a period of one year from the date of invoice. ANSI/BHMA standards for materials and finishes are met when products are shipped. However, we do not warrant the finish for brass or bronze products because environmental conditions that are beyond our control may cause a deterioration of the clear coat.

All implied warranties, including but not limited to the warranties of merchantability and fitness for a particular purpose are excluded. The sole liability of Burns Manufacturing is limited to the repair or replacement of any product or component part that proves to be defective.

In the event of a failure within the warranty period, purchaser shall request a Return Goods Authorization number from the Manufacturer and return the product freight prepaid. Upon inspection, we will repair or replace the product and return to the purchaser.

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Website: <http://www.burnsmfg.com/>

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# LCN Limited Warranty

Subject to the terms and conditions of this limited warranty, Schlage Lock Company, LLC (the "Company") extends a limited warranty against defects in material and workmanship for its LCN branded product(s) identified in the Product Table below ("Products") as installed in the original location.

This limited warranty applies to Products purchased on or after **March 3, 2014**.

## Product Table

4000 Series	30 Years
1460 Series	30 Years
1260 Series	20 Years
Concealed, High Security (except 2210DPS)	15Years
Automatic Operators; SE, ME, HSA, SEH Series; SEM Magnets; 2210 DPS (includes both electronic and mechanical components)	2 Years

**Term:** The limited warranty period for Products is as stated in the Product Table above. The "Commencement Date" for a limited warranty period shall be the date of Company's delivery to the original purchaser of the Products. Proof of Product purchase may be required by Company to confirm the Commencement Date.

**What Company will do:** Company may require proof of Product purchase in order to provide coverage under this limited warranty. As Company's only responsibility and user's only remedy under this limited warranty, Company will furnish a replacement Product upon receipt and confirmation by Company, in its sole opinion, that the Product has, in fact, failed due to a manufacturing defect under normal use and maintenance. In the event a replacement Product cannot be provided, Company will either provide a suitable replacement Product or a refund in the amount of the original purchase price.

**What is not covered:** The following costs, expenses, and damages are not covered by the provisions of this limited warranty: (i) labor costs including, but not limited to, such costs as removal and installation of Product; (ii) shipping and freight expenses required to return Product to Company; (iii) failures, defects, or damage caused by any third party product or service; (iv) any other incidental, consequential, indirect, special and/or punitive damages, whether based on contract, warranty, tort (including, but not limited to, strict liability or negligence), patent infringement, or otherwise, even if advised of the possibility of such damages.

The provisions of this limited warranty do not apply to Product that is: (i) not the proper size for the application for which the Product is used; (ii) not installed in accordance with Company's published Product installation instructions; (iii) installed with improper parts and/or incorrect parts (NOTE: It is recommended that Product be installed with LCN fasteners provided with Product); (iv) improperly stored, maintained, or operated; (v) modified, repaired, or altered in Company's sole opinion, in any manner, without the express written consent of Company; (vi) used for purposes for which the Product is not designed or intended; (vii) subjected to misuse, abuse, negligence, or accident; or (viii) subjected to improper temperature, humidity, or other environmental conditions.

Note: 900/7900 Series compressors are not manufactured by Company and are excluded from coverage under this limited warranty. For more information, parts, or repairs concerning the compressors, contact the compressor manufacturer directly at (269) 926-6171.

**Additional Terms:** This limited warranty is in lieu of all other warranties, express or implied. Company does not authorize any person to create for it any obligation or liability in connection with Product. Company's maximum liability hereunder is limited to the original purchase price of the Product. No action arising out any claimed breach of this limited warranty by Company may be brought by the user more than one (1) year after the cause of action has arisen.

**How local law applies:** This limited warranty gives you specific legal rights, and you may also have other rights as permitted by law. Some local laws do not allow limitations on how long an implied warranty lasts or the exclusions or limitation of incidental or consequential damages so the limitations or exclusions provided herein may not apply to you.

**Program and Warranty Claims:** All Product claimed to be defective under this limited warranty shall be sent to: LCN, Warranty and Replacement Department, 121 West Railroad Avenue, P.O. Box 100, Princeton, Illinois USA 61356-0100. For information, contact Customer Care at (877) 671-7011.

## TERMS AND CONDITIONS

1. Limited Warranty; Limitation of Remedy and Damages. Subject to the limitations of liability set forth below, NGP warrants for a period of five (5) years from date of delivery (the "Warranty Period"), that the products provided by NGP hereunder (the "Products") (i) shall conform substantially to the specifications provided to NGP, if any, so long as the Products have been properly installed; and (ii) shall conform substantially to the specifications provided by NGP, and (iii) are free from defects in workmanship and materials.

THIS IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY NGP WITH RESPECT TO THE PRODUCTS AND IS IN LIEU OF ANY AND ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, ARISING BY OPERATION OF LAW OR OTHERWISE. NGP HEREBY DISCLAIMS AND EXCLUDES ALL IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

This warranty does not cover, and NGP will not be liable for, defects or damage arising from improper installation, modification, lack of or improper maintenance, improper storage, shipping and handling, ordinary wear and tear, misuse, abuse, accident, unauthorized service, use with unauthorized products or parts, or improper product selection or specification.

The sole and exclusive liability of NGP under this warranty or otherwise shall be limited to the repair or replacement of any Product or component part which shall prove defective to the original purchaser from NGP hereunder (the "Purchaser"), and shall not extend to dismantling, installing or reinstalling (or payment for the cost of the same). NGP will not pay for the costs of repair or replacement performed other than in accordance with this warranty. NGP SHALL NOT BE LIABLE FOR DAMAGES CAUSED BY DELAY IN PERFORMANCE AND IN NO EVENT, REGARDLESS OF THE FORM OF THE CLAIM OR CAUSE OF ACTION (WHETHER BASED IN CONTRACT, INFRINGEMENT, NEGLIGENCE, STRICT LIABILITY, TORT OR OTHERWISE), SHALL NGP'S LIABILITY TO PURCHASER AND/OR ITS CUSTOMERS EXCEED THE PRICE PAID BY PURCHASER FOR THE SPECIFIC PRODUCTS GIVING RISE TO THE CLAIM OR CAUSE OF ACTION. PURCHASER AGREES THAT IN NO EVENT SHALL NGP'S LIABILITY TO PURCHASER AND/OR ITS CUSTOMERS EXTEND TO INCLUDE INCIDENTAL, CONSEQUENTIAL OR PUNITIVE DAMAGES RESULTING FROM USE OF THE PRODUCTS, OR ARISING OUT OF ANY BREACH OF THIS WARRANTY. This warranty is governed by the law of the State of Tennessee without regard to its conflicts of law principles.

2. No Set-off. Purchaser acknowledges that its obligations to pay NGP all sums properly invoiced to purchaser by NGP for the products are absolute and unconditional. Purchaser shall make all payments to NGP when due hereunder and shall not withhold, delay or condition payment for any reason whatsoever. Purchaser shall not set-off any amounts due NGP against any amounts already due from NGP to Purchaser and expressly waives any right or claim of set-off.

3. Claims. Any claim by Purchaser with reference to the Products shall be deemed waived by Purchaser unless submitted in writing in accordance with this Paragraph 3. Purchaser shall inspect the Products immediately upon receipt and prior to any installation or use of such Products. Unless Purchaser provides written notice to NGP of any claim for shortages or defects in the Products within fourteen (14) days after Purchaser's receipt of shipment, such Products shall be deemed finally inspected and accepted by Purchaser. If a defect is of such nature that reasonable inspection within the time provided herein would not disclose it, then notice of the claimed defect shall be made in writing and delivered to Purchaser within ten (10) days after Purchaser knew or should have known of the defect (but in no event later than the expiration of the Warranty Period); provided, however, that (notwithstanding any provisions hereof to the contrary) NGP shall not be liable for claimed defects in Products once such Products have been incorporated into a structure. At NGP's request, Purchaser will send any allegedly non-conforming Products to NGP. Any written notice of a claim hereunder shall be sent in writing to National Guard Products, 4985 East Raines Road, P.O. Box 753430, Memphis, Tennessee 38175.

4. Additional Terms. Acceptance of the Products shall be limited to the terms and conditions contained herein. Any terms and conditions contained in Purchaser's purchase order or acceptance that are in addition to, or are in conflict with, the terms and conditions contained herein shall not become a part of the agreement between NGP and Purchaser unless expressly agreed to in writing by NGP.



## GENERAL INFORMATION

### ONE YEAR FINISH WARRANTY

Subject to the limitations of liability set forth below, PBB, INC., ("Manufacturer") hereby warrants to the original purchaser ("Purchaser") each product ("Products") that were purchased through a Manufacturer-authorized distributor which the Product, when applied in accordance with all Manufacturer instructions and for the purposes intended, will not chip, peel or tarnish for one year following the date of application.

This warranty excludes chips, peeling or tarnish caused by scratches or abrasions, incorrect application, misuse, abuse or deterioration of the Product due to the use of paints solvents and other chemicals.

THIS IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY THE MANUFACTURER WITH RESPECT TO THE PRODUCTS AND IS IN LIEU OF ANY AND ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, ARISING BY OPERATION OF LAW OR OTHERWISE. ALL IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, NON INFRINGEMENT AND FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY EXCLUDED,

In the event of a failure within the applicable warranty period, Purchaser should send the Manufacturer, at the address set forth below, a written notice which identifies the Product, its application and the nature of the claimed defect. Upon receipt of such notice, Manufacturer will inform Purchaser where to ship the Product, shipping charges prepaid, for examination. In the event that such examination reveals a defect covered by this warranty, Manufacturer will either replace the Product or refund the original purchase price, as determined in Manufacturer's sole discretion. This is the sole and exclusive liability of the Manufacturer under this warranty or otherwise.

MANUFACTURER SHALL NOT BE LIABLE FOR DAMAGES CAUSED BY DELAY IN PERFORMANCE AND IN NO EVENT, REGARDLESS OF THE FORM OF THE CLAIM OR CAUSE OF ACTION (WHETHER BASED ON CONTRACT, INFRINGEMENT, NEGLIGENCE, STRICT LIABILITY, OTHER TORT OR OTHERWISE), SHALL MANUFACTURER'S LIABILITY TO PURCHASER AND/OR ITS CUSTOMERS EXCEED THE PRICE PAID BY PURCHASER FOR THE SPECIFIC PRODUCT GIVING RISE TO THE CLAIM OR CAUSE OF ACTION. PURCHASER AGREES THAT IN NO EVENT SHALL MANUFACTURER'S LIABILITY TO PURCHASER AND/OR ITS CUSTOMERS EXTEND TO INCLUDE INCIDENTAL, CONSEQUENTIAL OR PUNITIVE DAMAGES RESULTING FROM USE OF THE PRODUCTS OR ARISING OUT OF ANY BREACH OF THIS WARRANTY.

The term "consequential damages" shall include, but not be limited to, loss of anticipated profits, business interruption, loss of use or revenue, cost or capital or loss of damage to property or equipment. The foregoing limitations and exclusions are intended to be effective to the maximum extent permitted by law. This warranty is governed by the laws of the State of California, without regard to its conflicts of law principles. Manufacturer and Purchaser agree that the United Nations Convention on Contracts for the International Sale of Goods and the United Nations Convention on the Limitation Period in the International Sale of Goods shall not apply to sales of the Products.

Mail all warranty claims to: **PBB, INC. 1311 E. Philadelphia St., Ontario, CA 91761**

\*Exceptions US-IOB - No warranty on Steel Architectural Hinges.

#### US10B FINISH WARRANTY STATEMENT

Note: PBB INC. only warrants US-10B finish over brass or bronze base material. If steel base material is necessary, PBB then recommends US-10A lacquer finish.

# TERMS & CONDITIONS - Complete Locks

## Product Warranties: Commercial Applications

### 3 Year Limited Mechanical Warranty and 1-Year Limited Electromechanical Warranty

Schlage Lock Company, LLC (the "Company") extends a three year limited mechanical warranty and one year limited electromechanical warranty to the original user of the products manufactured by the Company (the "Products") against defects in material and workmanship from the date of purchase. Certain Products contain restrictions to this limited warranty, additional warranties, or different warranty periods. Please see below for specific Product warranty information.

**What The Company Will Do:** Upon return of the defective Product to the Company or its authorized distributor for inspection, free and clear of all liens and encumbrances and accompanied by the statement of defects of proof of purchase, the Company will replace the Product.

**Original User:** These warranties only apply to the Original User of Products. These warranties are not transferable.

**What Is Not Covered:** The following costs, expenses and damages are not covered by the provisions of these limited warranties: (i) labor costs including, but not limited to, such costs for the removal and reinstallation of Products; (ii) shipping and freight expenses required to return the Products to the Company; or (iii) any other incidental, consequential, indirect, special and/or punitive damages, whether based on contract, warranty, tort (including, but not limited to strict liability or negligence), patent infringement, or otherwise, even if advised of the possibility of such damages. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusion or limitation may not apply to you.

**The provisions of these limited warranties do not apply to Products: (i) used for purposes for which they are not designed or intended; (ii) which have been subjected to alteration, misuse, abuse, negligence, or accident; (iii) which have been improperly stored, installed, maintained, repaired or operated; (iv) which have been used in violation of written instructions provided by Schlage; (v) which have been subjected to improper temperature, humidity, or other environmental conditions (i.e., corrosion); or (vi) which, based on the Company's examination, do not disclose to the Company's satisfaction non-conformance to the warranties. Additionally, the Company will not warrant ANSI A156.2 Grade 2 lever Product installed in educational facilities and student housing.**

**Additional Terms:** The Company does not authorize any person to create for it any obligation or liability in connection with the Products. **The Company's maximum liability under these warranties is limited to the purchase price of the Product.** No action arising out of any claimed breach of these warranties by the Company may be brought by the Original User more than one (1) year after the cause of action has arisen.

**How State Law Applies:** These warranties give you specific legal rights, and you may also have other rights which vary from state to state.

### SPECIFIC PRODUCT WARRANTY RESTRICTIONS/ADDITIONAL WARRANTIES:

#### ND-Series Levers 10-Year Mechanical Warranty

The limited warranty is for a period of seven (7) years for products shipped prior to January 2012. 10-year for products shipped after January 2012.

#### Small Format Interchangeable Core (SFIC) Warranty

The limited warranty also applies to Schlage locks and housings when used with another manufacturer's cores, or to Schlage cores (i.e. SFIC) when used in another manufacturer's locks and housings. *The use of unauthorized cylinder cams or other components with the Products shall void these warranties.*

#### Everest 29, Everest 29 Primus, Everest 29 Primus XP, Everest, Everest Primus, and Everest Primus XP Limited Lifetime Key Breakage Warranty

A limited lifetime warranty is provided to the original user against breakage and is subject to the restrictions of these limited warranties.

#### Portable Security Limited Lifetime Warranty

A limited lifetime warranty is provided to the original user and is subject to the restrictions of these limited warranties.

**Exclusions:** Oil Rubbed Bronze finish (613) is designed to improve over time and change in appearance, creating a living finish through daily use and thus, finish discoloration is not applicable to the above warranty.

## Product Warranties: Residential Applications

### Lifetime Limited Mechanical & Finish Warranty and 1-Year Limited Electronics Warranty

Subject to the terms and conditions of this warranty, Schlage extends a lifetime limited mechanical and finish warranty and a one-year limited electronics warranty to the original consumer user ("Original User") of our Schlage brand product ("Product") against defects in material and workmanship, as long as the Original User occupies the residential premises upon which the Product was originally installed.

**What Schlage will do:** Upon return of the defective Product to Schlage, Schlage's sole obligation, at its option, is to either repair or replace the Product, or refund the original purchase price in exchange for the Product. Original User: This warranty only applies to the Original User of Products. This warranty is not transferable.

**What is not covered:** The following costs, expenses and damages are not covered by the provisions of this limited Warranty: (i) labor costs including, but not limited to, such costs as the removal and reinstallation of Product; (in) shipping and freight expenses required to return Product to Schlage; and (iii) any other incidental, consequential, indirect, special and/or punitive damages, whether based on contract, warranty, tort (including, but not limited to, strict liability or negligence), patent infringement, or otherwise, even if advised of the possibility of such damages. Some local laws do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusion or limitation may not apply to you.

**The provisions of this warranty do not apply to Products:** (i) used in commercial applications; (ii) used in common area applications; (iii) used for purposes for which they are not designed or intended; (iv) which have been subjected to alteration, abuse, misuse, negligence or accident; (v) which have been improperly stored, installed, maintained or operated; (vi) which have been used in violation of written instructions provided by Schlage; (vii) which have been subjected to improper temperature, humidity or other environmental conditions; or (viii) which, based on Schlage's examination, do not disclose to Schlage's satisfaction non-conformance to the warranty. Additionally, this warranty DOES NOT COVER scratches, abrasions, or deterioration due to the use of paints, solvents or other chemicals.

**Exclusions:** Oil Rubbed Bronze finish (613) is designed to improve over time and change in appearance, creating a living finish through daily use and thus, finish discoloration is not applicable to the above warranty. **Additional terms:** Schlage does not authorize any person to create for it any obligation or liability in connection with the Product. Schlage's maximum liability here under is limited to the original purchase price of the Product. No action arising out of any claimed breach of this warranty by Schlage may be brought by the Original User more than one (1) year after the cause of action has arisen.

**How local law applies:** This warranty gives you specific legal rights, and you may also have other rights as otherwise permitted by law. If this Product is considered a consumer product, please be advised that some local laws do not allow limitations on incidental or consequential damages or how long an implied warranty lasts, so that the above limitations may not fully apply. Refer to your local laws for your specific rights under this warranty.

# Product Warranties and Distribution Policy - TERMS & CONDITIONS

## Product Warranties: Residential Applications (Cont.)

**Guaranteed Fit Program:** Schlage products are designed to fit standard residential door preparations and retrofit existing tubular locks. Note: Mortise locks and preparations are not considered standard and are not guaranteed under this program. During the initial installation, if there is a problem with the Product's performance, the Original User may simply contact Schlage Customer Service at 888-805-9837 in the U.S. and Canada or 800-506-7866 in Mexico for assistance.

**Program and warranty claims:** If you encounter a residential door preparation or fit issue under the Guaranteed Fit Program or have a claim under this warranty, please contact Schlage Customer Service for repair, replacement or refund of the original purchase price in exchange for the return of the Product to Schlage.

### **DEXTER**<sup>®</sup> Lifetime Mechanical Warranty and 5-year Finish Warranty by **SCHLAGE**<sup>®</sup>

Subject to the terms and conditions of this warranty, Schlage Lock Company ("Schlage") extends a lifetime limited mechanical and 5-year finish warranty to the original consumer user ("Original User") of Dexter by Schlage products ("Product") against defects in material and workmanship, as long as the Original User occupies the residential premises upon which the Product was originally installed.

**What Schlage will do:** Upon return of the defective Product to Schlage, Schlage's sole obligation, at its option, is to either repair or replace the Product, or refund the original purchase price in exchange for the Product. Original User: This warranty only applies to the Original User of Products. This warranty is not transferable.

**What is not covered:** The following costs, expenses and damages are not covered by the provisions of this limited Warranty: (i) labor costs including, but not limited to, such costs as the removal and reinstallation of Product; (in) shipping and freight expenses required to return Product to Schlage; and (iii) any other incidental, consequential, indirect, special and/or punitive damages, whether based on contract, warranty, tort (including, but not limited to, strict liability or negligence), patent infringement, or otherwise, even if advised of the possibility of such damages. Some local laws do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusion or limitation may not apply to you.

**The provisions of this warranty do not apply to Products:** (i) used in commercial applications; (ii) used in common area applications; (iii) used for purposes for which they are not designed or intended; (iv) which have been subjected to alteration, abuse, misuse, negligence or accident; (v) which have been improperly stored, installed, maintained or operated; (vi) which have been used in violation of written instructions provided by Schlage; (vii) which have been subjected to improper temperature, humidity or other environmental conditions; or (viii) which, based on Schlage's examination, do not disclose to Schlage's satisfaction non-conformance to the warranty. Additionally, this warranty DOES NOT COVER scratches, abrasions, or deterioration due to the use of paints, solvents or other chemicals.

## Product Warranties, Additional Terms & Conditions: Commercial and Residential Applications

**Additional Terms:** The Company does not authorize any person to create for it any obligation or liability in connection with the Products. The Company's maximum liability under these warranties is limited to the purchase price of the Product. No action arising out of any claimed breach of these warranties by the Company may be brought by the Original User more than one (1) year after the cause of action has arisen.

**How State Law Applies:** These warranties give you specific legal rights, and you may also have other rights which vary from state to state.

**Note:** Should the Product be considered a consumer product as may be covered by the Magnusson Moss Federal Warranty Act, please be advised that: (1) Some states do not allow limitations or incidental consequential damages or how long an implied warranty lasts so that the above limitations may not fully apply; and (2) This warranty gives specific legal rights and a user may have other rights which may vary from state to state.

For warranty service and shipping instructions contact:

#### Schlage and Portable Security Commercial Customers

Schlage  
Customer Care  
3899 Hancock Expressway  
Colorado Springs, CO 80911

(877) 671-7011  
Fax (800) 452-0665

#### Schlage and Portable Security Residential and Retail Customers

Schlage  
Customer Care  
2119 East Kansas City Road  
Olathe, KS 66061

(800) 847-1864 (option 1) Consumer  
Fax (800) 366-5625

The Schlage Lock Company reserves the right to make changes in designs and specifications or to make additions or improvements on its products without notice and without incurring any obligation to incorporate them on products previously manufactured. The Schlage Lock Company is not responsible for any modification, addition or alteration to our products by others.

## Distribution Function and Location Policy

The Schlage customer relationship includes the nonexclusive area of primary sales responsibility and the channel of distribution assigned by Schlage. It is vital to our success and for the effective management of the distribution of our products that the Schlage customer relationship, once it is satisfactorily established between us, should not be changed without our approval. Therefore, after selection by Schlage as a distributor of one or more of Schlage products, a customer should continue to perform that distribution function from the location of its business at the place or places utilized at the time of selection. A customer should not change its Schlage distribution function or establish a different or additional location without the prior written consent of Schlage.

Schlage reserves the right to discontinue, after appropriate notice, sale of its products to any customer which refuses to adhere to this policy. Schlage also reserves the right to change, in its sole discretion, the number and locations of the distributors authorized to distribute its products in any area. This determination will be based upon, among other considerations, the success or failure in developing the market for Schlage products.



# CONTINUOUS WARRANTY

- SELECT Products Limited will replace your SELECT Geared Continuous Hinge if it ever fails under normal use, as long as it was installed in accordance with manufacturer's specifications for duty rating and the installation instructions enclosed with every new SELECT hinge.
- SELECT Products Limited warrants its Geared Continuous Hinges to be free from defect in material or workmanship.
- This warranty is continuous and has no time limit.

*The durability delivered by SELECT Hinges' Pair-Matched™ hinge leaves, lifetime lubrication and anodizing after machining has been proven in independent performance testing surpassing 25,000,000 cycles (equivalent to 60+ years).*

**The warranty that never ends  
for the hinge that never quits.<sup>SM</sup>**

**Grant Young**  
President



INDEPENDENT LAB TEST CYCLES

**Robert Cronk**  
Chief Operating Officer



**SELECT Products Limited**  
9770 Shaver Road | Portage | MI 49024 | 800-423-1174 | [www.select-hinges.com](http://www.select-hinges.com)



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# Warranty

## LIMITED WARRANTY

Company warrants only to Customer that Products will be free from defects in material and workmanship for a period of 12 months from the date of shipment of the Products. Company's sole obligation under this warranty is limited to repairing or replacing, at its option, the defective Products.

**The provisions of this limited Product warranty do not apply to Products:**

- A. Used for the purposes for which they are not designed or intended
- B. Have been repaired or altered without Company's prior written consent
- C. Have been subjected to misuse, abuse, negligence, or accident
- D. Have been improperly stored, installed, maintained, or operated
- E. Have been used in violation of written instructions provided by Company to Customer
- F. Have been subjected to improper temperature, humidity, or other environmental conditions
- G. Have been affected by normal wear and tear; or
- H. Based on Company's examination, do not disclose to Company's satisfaction nonconformance to the warranty

In the event that certain Service warranties are not attached to this Agreement or separately furnished, Company warrants only to Customer that the Services will be free from defects in material and workmanship for a period of 6 months from the date of completion of the particular items of Service. Company's sole obligation under this warranty is limited to repairing or reperformance, at its option, of the Service; provided however, if repair or reperformance is either impractical or impossible, the Company will refund to Customer that portion of the price paid to the Company for the defective item of Service. This warranty only applies if the company is given written notice of the defect or nonconformance by the Customer within 30 days of discovery.

The provisions of this limited Service warranty does not apply to any defects or issues with the design or performance of equipment or products not manufactured by Company, nor does it apply to any code compliance or permit requirements for the assembly, installation, erection, or construction of any goods.

**NO OTHER WARRANTIES, EXPRESS OR IMPLIED, ARE MADE WITH RESPECT TO THE PRODUCTS OR SERVICES INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.**

The following costs and expenses are not covered by the provisions of these limited warranties:

- (i) Labor costs for the removal and reinstallation of Products or other manufacturer's products;
- (ii) Shipping and freight expenses required to return Products to Company;
- (iii) Normal maintenance; and
- (iv) Economic losses.

In addition, the provisions of this warranty are not applicable to anything other than defects in Company's material (products only) or workmanship.

Signature: \_\_\_\_\_ Name: \_\_\_\_\_

Job Name: \_\_\_\_\_ Date: \_\_\_\_\_

**ALLEGION™** 

**STEELCRAFT®**

9017 Blue Ash Road  
Cincinnati, Ohio 45242  
(513) 766-4300  
(513) 745-6657 FAX

# Warranty

**Warranty:** The Company warrants that the product manufactured by it and delivered hereunder will be free of defects in material and workmanship for a period as follows: (1) exit devices and trim for 36 months from the date of placing the product in operation or for 42 months from the date of shipment; (2) electric strikes for 5 years on mechanical components and 1 year on electrical components including the solenoid and wiring from the date of installation; and (3) electrified exit devices and other electrified products for 12 months from the date of placing the product in operation or 18 months from the date of shipment, whichever shall first occur. The Purchaser shall be obligated to promptly report any failure to conform to this limited warranty, in writing, to the Company within said limited warranty period, whereupon the Company shall, at its option, correct such nonconformity, by suitable repair to such product or, furnish a replacement part F.O.B. point of shipment; provided the Purchaser has stored, installed, maintained and operated such product in accordance with good industry practices and has complied with specific recommendations of the Company. Accessories or product furnished by the Company, but manufactured by others, shall carry whatever warranty the manufacturers have conveyed to the Company and which can be passed on to the Purchaser. The Company shall not be liable for any repairs, replacements, or adjustments to the product or any costs of labor performed by the Purchaser or others without the Company's prior written approval.

The effects of corrosion, erosion and normal wear and tear are specifically excluded from this limited warranty. Performance warranties are limited to those specifically stated within the Company's proposal. Unless responsibility for meeting such performance warranties are limited to specified shop or field tests, the Company's obligation shall be to correct in the manner and for the period of time provided above.

The Company makes no other warranty or representation of any kind whatsoever, expressed or implied, except that of title, and all implied warranties of merchantability and fitness for a particular purpose, are hereby disclaimed. No agent, representative, dealer, or employee of Company has the authority to increase or alter the obligations of this limited warranty.

Correction by the Company of nonconformities whether patent or latent, in the manner and for the period of time provided above, shall constitute fulfillment of all liabilities of the Company for such nonconformities, whether based on contract, warranty, negligence, indemnity, strict liability or otherwise with respect to or arising out of such Equipment.

The Purchaser shall not operate product which is considered to be defective, without first notifying the Company in writing of its intention to do so. Any such use of product will be at the Purchaser's sole risk and liability and will not be covered by this limited warranty.

Customer Care: 877-671-7011

RMA requests (Return Material Authorization) are to be directed to Von Duprin, 2720 Tobey Drive, Indianapolis, IN 46219. Attn: Customer Service.

THE DEPOT @ EMORY COLOR SCHEDULE

CODE	MFG	COLOR	NOTES	PRODUCT
PT-01	BENJAMIN MOORE	2123-30 SEA STAR	WOOD TRIM/WAINSCOT	PRE-CAT SEMI-GLOSS
PT-02	BENJAMIN MOORE	OC-41 FRENCH CANVAS	DINING WALLS/VESTIBULE WALLS & CEILINGS	200 EG-SHEL/FLAT
PT-03	BENJAMIN MOORE	I-02 SUPER WHITE	OFFICE & RESTROOM WALLS & CEILINGS	200 EG-SHEL/FLAT
PT-04	DIASEN	OC-41 FRENCH CANVAS	DINING ROOM CEILING ONLY	LIMEPAINT



## **OPERATIONS & MAINTENANCE**

### **PROJECT:**

## **Emory Depot**

**Submitted By: Nicole Sims**

**Spectra Contract Flooring  
6684 Jimmy Carter Blvd, Suite 500  
Norcross, GA 30071  
770-729-2700**

**[nicole.sims@spectracf.com](mailto:nicole.sims@spectracf.com)**

# **Emory Depot**

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### **1. Tile: Daltile**

**a. Keystones**

**b. Liners**

**c. Quarry Textures**

**d. Rittenhouse Square**

**e. Semi-Gloss**

**f. Maintenance**

**g. Warranty**

**1.**

COLORBODY™ PORCELAIN  
KEYSTONES™



 daltile®  
DESIGN WITH CONFIDENCE™

# KEYSTONES™

## COLORBODY™ PORCELAIN



## MATTE & CHIC MOSAICS IN THE LATEST SIZES & COLORS

It's a celebration of new colors and sizes with Keystones unglazed mosaics from Daltile. As a prominent product for years, this collection proudly introduces brand-new shades and sizes for the freshest options and even more design flexibility. From floors and walls to countertops, patios and pools, create custom designs perfect for any space. Add stylized borders and corners for a finishing touch and unified look.

### ANYWHERE & ANYPLACE

Suitable for exteriors, interiors, pools, flooring, walls, countertops and beyond.

### TRENDY COLORS & SIZES

Available in multiple sizes and fresh, new colors for countless styling options.

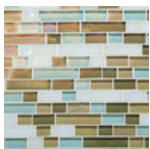
### BOLD PATTERN & BORDER DESIGN

Select from over 200 pattern and border design options or create your own unique design using our easy-to-use Mosaic Pattern Designer online at: [daltile.com/inspired/tools/mosaic-pattern-designer](http://daltile.com/inspired/tools/mosaic-pattern-designer)

## FINISH THE LOOK

Coordinate your design scheme with blends from our most complimentary lines.

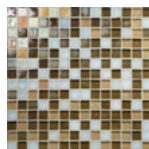
### Glass Horizons™



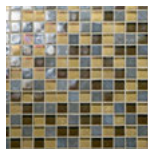
ATLANTIC  
BLEND GH11



CARIBBEAN  
BLEND GH10



MEDITERRANEAN  
BLEND GH12

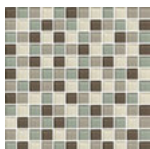


CASPIAN  
BLEND GH13

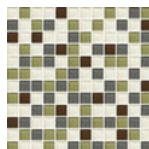
### Color Wave™



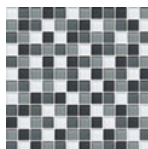
SOFT CASHMERE  
CW22



SWEET ESCAPE  
CW24

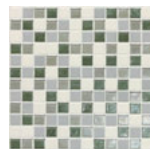


AUTUMN TRAIL  
CW26

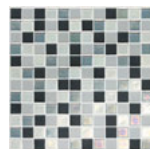


EVENING MIXER  
CW28

### Coastal Keystones™



CARIBBEAN PALM BLEND CK87  
(Biscuit D317, Desert Grey D014,  
Xanadu Iridescent Glass  
& Platinum Iridescent Glass)



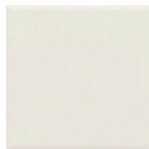










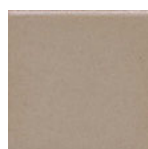
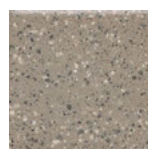
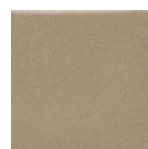



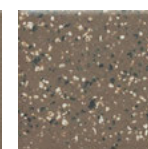


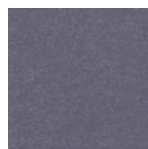
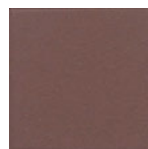
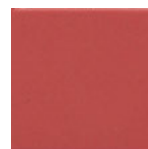


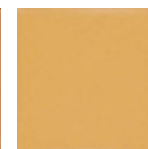


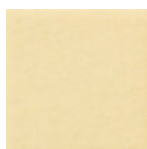
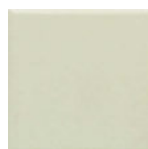

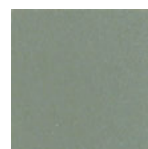



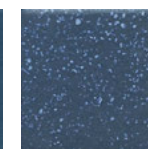

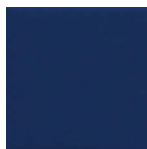
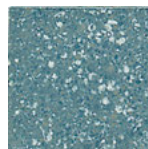
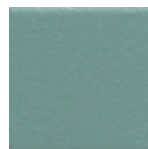
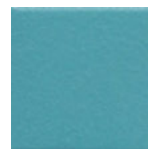





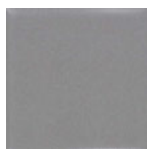



TROPICAL THUNDER BLEND CK88  
(Black D311, Desert Grey D014, Oxygen  
Iridescent Glass & Fleet Blue Iridescent Glass)

Cover photo features Moonlight 2 x 1 brick-work mosaic and Navy 1 x 1 mosaic on the wall. Above photo features Keystones Blends in Beach 1 x 1 mosaic tile.

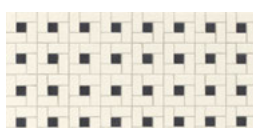
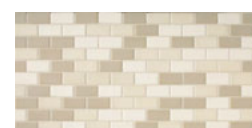
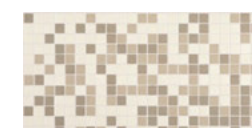
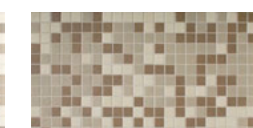



# KEYSTONES™

## COLORBODY™ PORCELAIN

### SOLIDS

								
ARCTIC WHITE (2) D617 ■●●	BISCUIT (1) D317 ■●●	PEPPER WHITE (1) D037	GOLDEN GRANITE (2) D138 ●	ALMOND (2) D335 ■●●	CRISP LINEN (1) D139 ◆●	MARBLE (2) D325	URBAN PUTTY (1) D161 ■●	URBAN PUTTY SPECKLE (1) D201 ■●
								
BUFFSTONE RANGE (1) D147 ●	ARCHITECTURAL GRAY (2) D109 ■●	UPTOWN TAUPE (2) D132 ●	UPTOWN TAUPE SPECKLE (2) D202	ELEMENTAL TAN (1) D166	ELEMENTAL TAN SPECKLE (1) D175	MOTTLED MEDIUM BROWN (1) D050 ●	ARTISAN BROWN (2) D144	ARTISAN BROWN SPECKLE (2) D204
								
CITYLINE KOHL (3) D171 ◆	CITYLINE KOHL SPECKLE (3) D207 ◆	DEEP PURPLE (4) D044 ◆●	CINNAMON RANGE (3) D007 ◆●	RED (S) D017 ★	CLEMENTINE (S) D622 ★	PUMPKIN SPICE (4) D090 ◆●	MUSTARD (4) D181 ●	LUMINARY GOLD (2) D142 ◆
								
SUNSHINE (4) D620	CORNSILK (2) D160 ◆●	MINT ICE (2) D152 ◆	LIME SHERBET (4) D619	CYPRESS (2) D452 ◆	GARDEN SPOT (2) D141 ◆	OAK MOSS (3) D195 ◆	NAVY (4) D189	NAVY SPECKLE (4) D209
								
GALAXY (4) D023 ●	NAUTICAL BLUE (4) D621	SEA SPEC (3) D372 ◆	AEGEAN (3) D192 ◆	OCEAN BLUE (4) D159 ◆	AQUA GLOW (3) D197 ◆	SPA (1) D148 ●	WATERFALL (1) D169	DESERT GRAY (1) D014 ■●●
					<ul style="list-style-type: none"> <li>◆ Made-to-order</li> <li>● Available in 1" Hexagon</li> <li>● Available in 2" Hexagon made-to-order</li> <li>■ Available in 2 x 1 &amp; 2 x 4 sizes</li> <li>★ Red D017 and Clementine D622 are made-to-order only; trim not available.</li> </ul>			
DESERT GRAY SPECKLE (1) D200 ■●●	SUEDE GRAY (2) D182 ■●●	SUEDE GRAY SPECKLE (2) D208 ■●●	CASTLEROCK (3) D618	BLACK (3) D311 ●●				

### BLENDS

			
WINDMILL DK20	BEACH DK04	MIRAGE DK11	KHAKI DK12
			
CHOCOLATE DK13	MOONLIGHT DK14	MOONLIGHT DK14	

\*2 x 1 brick-work mosaics are available in all blend colors. Mosaic Blend components available at [www.daltile.com/keystones](http://www.daltile.com/keystones).

2 x 1 Brick-work Mosaic\*

# KEYSTONES™

## COLORBODY™ PORCELAIN

### SIZES

		SQ. FT. CARTON	PIECES PER CARTON
2 x 2 Mosaic Tile (Dot-mounted on 1' x 2' sheet)	(Piece 1-15/16" x 1-15/16") (Sheet 11-7/8 x 23-7/8) (Sheet 30.23 cm x 60.71 cm)	24.00	12
1 x 1 Mosaic Tile (Dot-mounted on 1' x 2' sheet)	(Piece 15/16" x 15/16") (Sheet 11-7/8 x 23-7/8) (Sheet 30.23 cm x 60.71 cm)	24.00	12
2 x 1 Straight-joint Mosaic (Dot-mounted on 1' x 2' sheet)	(Piece 1-15/16" x 15/16") (Sheet 11-7/8 x 23-7/8) (Sheet 30.23 cm x 60.71 cm)	24.00	12
2 x 1 Brick-work Mosaic (Dot-mounted on 1' x 2' sheet)	(Piece 1-15/16" x 15/16") (Sheet 11-7/8 x 23-7/8) (Sheet 30.23 cm x 60.71 cm)	22.00	12
2" Hexagon Mosaic (Dot-mounted on 1' x 2' sheet)	(Piece 1-15/16" x 1-15/16") (Sheet 11-7/8 x 23-7/8) (Sheet 30.23 cm x 60.71 cm)	24.24	12
1" Hexagon Mosaic (Dot-mounted on 1' x 2' sheet)	(Piece 15/16" x 15/16") (Sheet 11-7/8 x 23-7/8) (Sheet 30.23 cm x 60.71 cm)	21.00	12
2 x 4 Straight-joint Mosaic (Dot-mounted on 1' x 2' sheet)	(Piece 1-15/16" x 3-15/16") (Sheet 11-7/8 x 23-7/8) (Sheet 30.23 cm x 60.71 cm)	24.00	12
2 x 4 Brick-work Mosaic (Dot-mounted on 1' x 2' sheet)	(Piece 1-15/16" x 3-15/16") (Sheet 11-7/8 x 23-7/8) (Sheet 30.23 cm x 60.71 cm)	20.04	12

### INSTALLATION

THICKNESS	GROUT JOINT RECOMMENDATION
1/4"	1/8" Approximately

### RESIDENTIAL USAGE

FLOORS	WALLS	COUNTERTOPS	EXTERIOR PATIOS	EXTERIOR POOL DECKS
<b>F</b>	<b>W</b>	<b>C</b>	<b>EP</b>	<b>ED</b>

### COMMERCIAL USAGE

	INTERIOR			EXTERIOR	
	Residential	Light Commercial	Commercial	Residential	Commercial
Floors/Patios	✓	✓	✓	✓	
Walls/Backsplashes	✓	✓	✓	✓	✓
Countertops	✓	✓	✓	✓	✓
Pool Decking	✓	✓	✓	✓	✓
Pool Linings	✓	✓	✓	✓	✓
Pool Tank/Submerged Applications**	✓	✓	✓	✓	✓

Suitable for exterior patios (including pool decks and linings) in freezing and non-freezing climates when proper installation methods are followed.

For pool installations, Keystones is available in ClearFace™ mount film. Contact your sales representative for more information.





















\*\*Keystone ClearFace™ mounted mosaics recommended for pool tanks and submerged applications.

### TEST RESULTS

	ASTM#	Result
Water Absorption	C373	< 0.5%
Breaking Strength	C648	300 lbs
Scratch Hardness	MOHS	N/A
Chemical Resistance	C650	Resistant
Dynamic C.O.F.	A137.1	(Non-abrasive) Wet: ≥ 0.42 (Abrasive) Wet: ≥ 0.60




A DCOF value of ≥ 0.42 is the new standard for tiles specified for commercial application in standard A137.1–2012, Section 9.6. It replaces the SCOF value of ≥ 0.60 referenced in ASTM C1028. For more information on the correlation between the two values and about the DCOF AcuTest™, please visit <http://daltille.com/information/DCOF>.

### TRIM

	TYPE	NUMBER	SIZE	PIECES PER CARTON	GROUPS
	Bullnose	S-862	1 x 1	196	1, 2
	Bullnose	S-886	2 x 2	108	1, 2, 3, 4
	Bullnose	S-4249	2 x 4	180	1, 2
	Bullnose Corner	SC-862 ♦	1 x 1	100	1, 2
	Bullnose Corner	SC-886	2 x 2	100	1, 2, 3, 4
	Cove Base	C-813	1 x 1	84	1, 2
	Cove Base	C-833	2 x 2	84	1, 2, 3
	Cove Base Corner	CB-813	1 x 1	100	1, 2
	Cove Base Corner	CK-813	1 x 1	100	1, 2, 3
	Cove Base Corner	SB-816	2 x 2	100	1, 2
	Cove Base Corner	SC-816	2 x 2	100	1, 2
	Outcorner	SCRL-833	2 x 1	100	1, 2, 3
	Universal Trim	S-812 ♦	1 x 1	112	1, 2
	Universal Trim	S-832	2 x 2	112	1, 2
	Universal Trim	SC-813/ SU-813	2 x 2	100	1, 2, 3
	Universal Trim	C-701 ♦	1 x 1	50	1, 2, 3, 4
	Build-up Base	MB-4C	(3) Rows 1 x 1 (1) Row C-813	26	1, 2
	Build-up Base	MB-5	(1) Row S-862 (3) Rows 1 x 1 (1) Row C-813	26	1, 2
	Build-up Base	MB-5A	(2) Rows 2 x 2 (1) Row C-833	26	1, 2, 3
	Build-up Base	MB-5B	(1) Row S-886 (1) Row 2 x 2 (1) Row C-833	26	1, 2, 3

♦ Made-to-order

### SHADE VARIATION

	<b>LOW (V1) – SOLIDS</b> Monochromatic; consistent color within each tile and from tile to tile.
	<b>HIGH (V3) – MOTTLED or SPECKLED</b> Color variation from tile to tile and within each tile.
	<b>RANDOM (V4) – BLENDS</b> Color variation from tile to tile and within each tile.

### NOTES

All colors in 1 x 1 and 2 x 2 are available with ClearFace™ mounting system on a made to order basis.



Certified by UL Environment



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THE U.S.A.



EXTERIOR  
PRODUCT



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GLAZED PORCELAIN

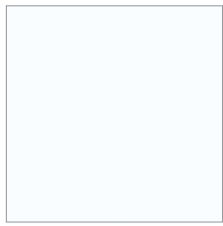
# LINERS™



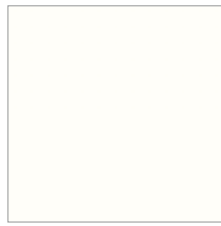
 **daltile**<sup>®</sup>  
DESIGN WITH CONFIDENCE™



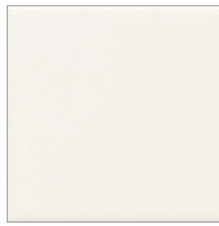
# LINERS™ GLAZED PORCELAIN



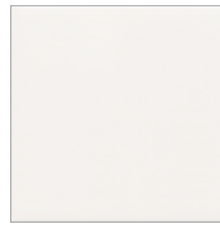
MATTE ARCTIC WHITE 0790



WHITE K101 ■



WHITE 0100 ■



ARCTIC WHITE 0190 ■



MATTE ALMOND X735



BISCUIT K175 ■



MATTE BISCUIT K775



ALMOND 0135 ■



ALMOND K165 ■



ARTISAN BROWN 0144



CITYLINE KOHL 0171



LUMINARY GOLD 0142



ORANGE BURST Q097 ▲



CORAL BEAD Q092 ▲



VERMILLION 0DMI ★



CHIANTI Q094 ▲



FIRE BRICK Q093 ▲



GARDEN SPOT 0141



OAK MOSS 0195



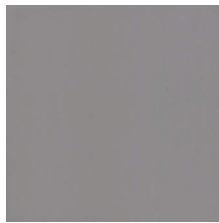
COBALT DM14



NAVY K189



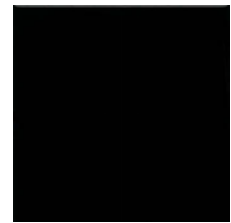
ICE GRAY K176



SUEDE GRAY 0182



BLACK K111 ■








MATTE BLACK K711

■ Chair/counter rail and corner are available in these selected colors.

▲ Q colors only available through special order.

★ Vermillion 0DMI subject to crazing. The use of black grout is not recommended and is not recommended for exterior use.

## SIZES

			NUMBER	PCS. PER CARTON
	1 x 6 Flat Top	(1" x 6") (2.5 cm x 15.2 cm)	S-4611F	20
	1 x 6 Rope	(1" x 6") (2.5 cm x 15.2 cm)	S-4612RPN	16
	1/2 x 6 Flat Top	(1/2" x 6") (1.3 cm x 15.2 cm)	S-4612F	20
	2 x 6 Chair Rail	(2" x 6") (5.2 cm x 15.2 cm)	26CR	80
	2 x 2 Chair Rail Corner	(2" x 2") (5.2 cm x 5.2 cm)	CRC	200

## RESIDENTIAL USAGE

FLOORS	WALLS	COUNTERTOPS	EXTERIOR PATIOS	EXTERIOR POOL DECKS
				

Suitable for exterior walls in non-freezing climates only when proper installation methods are followed.

\*Darker colors may show scratches.

## COMMERCIAL USAGE

	INTERIOR			EXTERIOR	
	RESIDENTIAL	LIGHT COMMERCIAL	COMMERCIAL	RESIDENTIAL	COMMERCIAL
Floors/Patios					
Walls/Backsplashes	✓	✓	✓	✓	✓
Countertops*	✓	✓	✓	✓	✓
Pool Decking					
Pool Linings	✓	✓	✓	✓	✓

Suitable for exterior walls in non-freezing climates only when proper installation methods are followed.

\*Darker colors may show scratches.

## SHADE VARIATION



LOW (VI)

Monochromatic; consistent color within each tile and from tile to tile.

## INSTALLATION

THICKNESS	GROUT JOINT RECOMMENDATION
5/16"	1/16"

## TEST RESULTS

	ASTM#	RESULT
Water Absorption	C373	< 20%
Breaking Strength	C648	100 230 lbs
Scratch Hardness	MOHS	4.0 - 6.5
Chemical Resistance	C650	Resistant

## NOTES

Water, oil, grease, etc. create slippery conditions. Floor applications with exposure to these conditions require extra caution in product selection. Not for use on ramps.

For additional information, refer to "Factors to Consider" at <http://daltile.com/factors-to-consider.cfm>.

Since there is shade variation in all natural products, the tile and trim supplied for your particular installation may not match these samples. Final selection should be made from actual tiles and trim and not from tile and trim samples or color reproductions. Manufactured in accordance with ANSI A137.1 standards.

LINERS™

GLAZED PORCELAIN



*wall • countertop*



**daltile**  
**greenworks™**  
ENVIRONMENTAL LEADERSHIP THAT WORKS

By their very design, Daltile products can help make it easier for you to earn LEED™ points and/or points towards many industry leading green home building programs. From using recycled material content to establishing manufacturing facilities within 500 miles of your project, we help ensure you don't have to compromise your design to be environmentally conscious. For detailed information, visit [daltilegreenworks.com](http://daltilegreenworks.com).



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# QUARRY TEXTURES™

The unglazed, textured surface makes these pavers naturally stain- and slip-resistant. Available in six rustic color-through choices, Quarry Textures is the perfect choice for both residential and commercial floors.

## Field tile



DIABLO RED 0T01 (1)



ASHEN GRAY 0T03 (2)



ADOBE BROWN 0T05 (2)



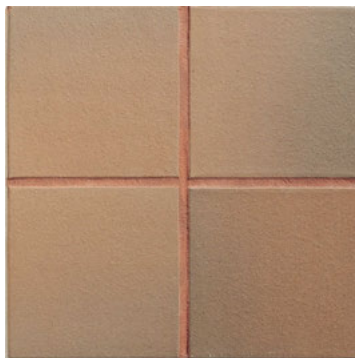
SAHARA SAND 0T08 (2)



DESERT TAN 0T09 (2)



ASHEN FLASH 0T04 (2)



ADOBE FLASH 0T06 (2)



RED FLASH 0T02 (1)

(1) and (2) indicate Price Groups, (1) being the least expensive.

Abrasive grain available in 6 x 6 and 8 x 8 sizes in 0T01, 0T03, 0T05, 0T08, 0T09 and 0T11 colors only.



**SIZES**

		SQ. FT. CARTON	PCS. PER CARTON
6 x 6 Field Tile	(6" x 6") (15.2 cm x 15.2 cm)	11.00	44
8 x 8 Field Tile	(8" x 8") (20.3 cm x 20.3 cm)	11.00	25

**RESIDENTIAL USAGE**

FLOORS	WALLS	COUNTERTOPS	EXTERIOR PATIOS	EXTERIOR POOL DECKS
F	W	C	EP	ED*

\* Abrasive grain only.

**COMMERCIAL USAGE**

	INTERIOR			EXTERIOR	
	RESIDENTIAL	LIGHT COMMERCIAL	COMMERCIAL	RESIDENTIAL	COMMERCIAL
Floors/Patios	✓	✓	✓	✓	✓
Walls/Backsplashes	✓	✓	✓	✓	✓
Countertops	✓	✓	✓	✓	✓
Pool Decking*	✓	✓	✓	✓	✓
Pool Linings	✓	✓	✓	✓	✓

Suitable for exterior floors, including pool decks, and walls in freezing and non-freezing climates when proper installation methods are followed.

Suitable for industrial installations requiring high compressive strength.

\* Abrasive grain only.

**INSTALLATION**

THICKNESS	GROUT JOINT RECOMMENDATION
1/2"	3/8"

**NOTES**

We do not recommend light colored quarry tile in commercial kitchens unless properly sealed. It is necessary to follow the proper procedures and recommendations from the grout and maintenance products manufacturers.

Special care should be taken when grouting with dark pigmented colors. A grout release is recommended to prevent finely powdered pigments from lodging in the pores of the tile surface.

Suitable for use on ramps when ordered with abrasive.

Since there is shade variation in all natural products, the tile and trim supplied for your particular installation may not match these samples. Final selection should be made from actual tiles and trim and not from tile and trim samples or color reproductions. Manufactured in accordance with ANSI A137.1 standards.

Water, oil, grease, etc. create slippery conditions. Floor applications with exposure to these conditions require extra caution in product selection.

For additional information, refer to "Factors to Consider" at <http://daltile.com/factors-to-consider.cfm>.



All or selected items within this series are made in the USA. For more information visit [www.daltile.com/QuarryTextures](http://www.daltile.com/QuarryTextures)

**TRIM**

TYPE	NUMBER	SIZE	PCS. PER CARTON
Bullnose	Q-1665*	6 x 6	44
Bullnose Corner	QCRL-1665*	6 x 6	44
Cove Base**	Q-3565^	5 x 6	44
Cove Base Outcorner	QCR-L-3565*^■	5 x 6	20
Cove Base Inside Corner	QB-3565^	1 x 5	25
Cove Base**	Q-3585^	5 x 8	24
Bullnose	Q-1885	8 x 8	25
Bullnose Corner	QCRL-1885	8 x 8	25

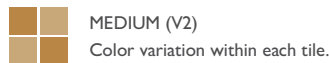
\* Available in abrasive grain

\*\* Cove Base trim is intended to coordinate with floor field tile in the standard 90-degree installation position.

^ Not available in Flash colors; use coordinating solid color.

■ Special Order

**SHADE VARIATION**



**DYNAMIC C.O.F. (WET) : 2**

The higher the rating, the higher the slip resistance.

1 < 0.42

2 ≥ 0.42

**STATIC C.O.F. (WET) : 2**

1 0.50 - 0.59

2 ≥ 0.60

**TEST RESULTS**

	ASTM#	RESULT (Non-Abrasive Grain)	RESULT (Abrasive Grain)
Water Absorption	C373	< 3.0%	< 3.0%
Breaking Strength	C648	> 400 lbs	> 400 lbs
Scratch Hardness	MOHS	7.0	7.0
Chemical Resistance	C650	Resistant	--
Dynamic C.O.F.	A137.1	≥ 0.42	≥ 0.42
Static C.O.F.	C1028	Wet: ≥ 0.60 Dry: ≥ 0.70	Wet: ≥ 0.60 Dry: ≥ 0.80

Dynamic C.O.F. (Wet) value as measured by the DCOF AcuTest™ helps to assess a product's suitability for a commercial environment. For more information, visit our website at [www.daltile.com/DCOF](http://www.daltile.com/DCOF).





WALL

**RITTENHOUSE SQUARE™**  
GLAZED CERAMIC

 **daltile®**  
IMAGINE WHAT'S POSSIBLE™



Photo features Elemental Tan 3 x 6 wall tile on the kitchen backsplash. Cover photo features Arctic White 3 x 6 wall tile on the sink backsplash.

## Classic Elegance

Fall in love with the time-honored look of Rittenhouse Square. This trendy, yet enduring collection has a color palette vast enough to fit any style.

- DESIGN VERSATILITY
  - Subway tile that works with traditional or modern design styles
  - Vast color palette works with a multitude of color schemes
  
- COORDINATING OPTIONS
  - Coordinating brick-joint mosaic and trim available
  - Colors coordinates with Modern Dimensions™ and Semi-Gloss™ and Matte™ lines, offering more design options

 PRE CONSUMER RECYCLED MATERIALS

# RITTENHOUSE SQUARE™

GLAZED CERAMIC

## SEMI-GLOSS

Arctic White 0190 (2) ■■+	White 0100 (2) ■■+	White K101 (2) ■	Biscuit K175 (2) ■+
Almond 0135 (2) ■■	Almond K165 (2) ■	Urban Putty 0161 (3)	Architectural Gray 0109 (3)
Desert Gray X114 (2) +	Elemental Tan 0166 (3)	Black K111 (3) ■	

## MATTE

Matte Arctic White 0790 (1) +	Matte Biscuit K775 (1) +	Matte Almond X735 (1)	Matte Urban Putty 0761 (3)
Matte Architectural Gray 0709 (3)	Matte Desert Gray X714 (2)	Matte Elemental Tan 0766 (3)	Matte Black K711 (3)

## MADE-TO-ORDER COLORS

Crisp Linen 0139 (4)	Matte Crisp Linen 0739 (4)	Corn Silk 0160 (4)	Luminary Gold 0142 (4)	Gold Coast 0191 (4)
Sunflower DH50 (4)	Misty Meadow 0112 (4)	Mint Ice 0152 (4)	Garden Spot 0141 (4)	Cypress 1452 (4)
Spa 0148 (4)	Aqua Glow 0197 (4)	Waterfall 0169 (4)	Ice Grey K176 (4)	Suede Grey 0182 (4)
Uptown Taupe 0132 (4)	Matte Uptown Taupe 0732 (4)	Artisan Brown 0144 (3)	Matte Artisan Brown 0744 (3)	Cityline Kohl 0171 (3)
Matte Cityline Kohl 0771 (3)	Oak Moss 0195 (4)	Galaxy 1469 (4)	Cobalt DM14 (4) ★	Navy K189 (4) ★
				Vermillion ODM1 (5) ★

## BEVEL WALL TILE

Arctic White 0190 Matte Arctic White 0790	White 0100
Biscuit K175 Matte Biscuit K775	Desert Gray X114

## DECORATIVE ACCENTS



**Classic**  
(Available in White K101, Almond K165 and Translucent Almond RT01)



**Wave**  
(Available in White K101, Almond K165 and Translucent Almond RT01)



**Shelf Rail**  
(Available in Arctic White 0190, White 0100, White K101, Biscuit K175, Almond 0135, Almond K165, and Black K111)

(1), (2), (3), (4) and (5) indicate Price Groups, (1) being the least expensive.

All colors available in 3 x 6 flat wall tile.

Made-to-order colors require 6-8 weeks for delivery from date of order.

■ 2 x 4 brick-joint size available. Other colors (including matte finish) available via special order (not available in group 4 colors).

■ Shelf Rail available








+ 3 x 6 Bevel tile available; other colors available through ColorMatch™.

★ Subject to crazing; black grout not recommended.

# RITTENHOUSE SQUARE™

GLAZED CERAMIC

## SIZES

			Thickness	Sq. Ft. per Carton	Pieces per Carton
	3 x 6 Wall Tile	(3" x 6") (7.60 cm x 15.20 cm)	5/16"	12.50	100
	3 x 6 Bevel Wall Tile	(3" x 6") (7.60 cm x 15.20 cm)	3/8"	10.40	80
	2 x 4 Brick- joint mosaic (Dot- mounted)	(12" x 12" Sheet) (30.48 cm x 30.48 cm Sheet)	1/4"	10.00	12
	3 x 6 Wave Accent	(3" x 6") (7.60 cm x 15.20 cm)	5/16"	--	18
	3 x 6 Classic Accent	(3" x 6") (7.60 cm x 15.20 cm)	5/16"	--	16
	2 x 6 Shelf Rail	(2-3/16" x 6") (5.50 cm x 15.20 cm)	--	--	8
	2 x 2 Shelf Rail Corner	(2-3/16" x 2-3/16") (5.50 cm x 5.50 cm)	--	--	12

## APPLICATIONS

	Suitable
Floors	
Walls/Backsplashes	✓
Countertops	✓*▲
Pool Linings	✓






### APPLICATION NOTES:

Suitable for exterior applications in non-freezing climates only when proper installation methods are followed.


\* Beveled and semi-gloss tile not suitable for countertops.

▲ Darker colors may show scratches

## TRIM

	Type	Number	Size	Pieces per Carton
	Wall Bullnose	S-4369 (on 6" side)	3 x 6	100
	Wall Bullnose	S-4639 (on 3" side)	3 x 6	100
	Wall Bullnose Corner	SCR/L-4369	3 x 6	100
	Cove Base	A-3361	3 x 6	36
	Cove Base Corner	SCR/L-3361	3 x 6	36

## INSTALLATION

Grout Joint Recommendation	Shade Variation
Wall Tile : 1/16" Mosaics : 1/8"	 Low (V1)

## TEST RESULTS

	ASTM#	Wall Result	Mosaic Result
Water Absorption	C373	< 20.0%	< 3.0%
Breaking Strength	C648	120 - 230 lbs.	> 250 lbs.
Scratch Hardness	MOHS	4.0 - 6.0	6.0 - 7.5
Chemical Resistance	C650	Resistant	Resistant

For additional information, visit [daltile.com/information/TestResults](http://daltile.com/information/TestResults).

## NOTES

Since there are variations in all fired ceramic products, tile and trim supplied for your particular installation may not match these samples. Final color selection should be made from actual tiles and trim and not from tile samples or color reproductions. Manufactured in accordance with ANSI A137.1 standards.

For additional information refer to "Factors to Consider" at [daltile.com/Factors](http://daltile.com/Factors).



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CREDITS. For more detailed information,  
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GLAZED WALL & COUNTER

# SEMI-GLOSS/MATTE™



 **daltile**<sup>®</sup>  
DESIGN WITH CONFIDENCE™

# SEMI-GLOSS/MATTE™

## GLAZED WALL & COUNTER



*floor • wall • countertop*

Semi Gloss and Matte glazed wall tile offers an extensive collection of colors options. This color palette offers a selection that extends from neutral and earthy to bright and trendy. With both matte and semi-gloss surfaces, this line is suitable for both residential and commercial usage including interior and exterior walls, countertops, and pool linings. From clean neutrals to bright and vibrant colors, you're sure to find the color you need to create the perfect design color scheme.

# SEMI-GLOSS™

# GLAZED WALL & COUNTER

floor • wall • countertop

## Field Tile

						
ARCTIC WHITE 0190 (1)	WHITE 0100 (1)	WHITE K101 (2)	GOLDEN GRANITE 0138 (1)	PEPPER WHITE 0147 (1)	BISCUIT K175 (2)	ALMOND 0135 (1)
						
ALMOND K165 (2)	URBAN PUTTY 0161 (1)	ARCHITECTURAL GRAY 0109 (2)	UPTOWN TAUPE 0132 (2)	ELEMENTAL TAN 0166 (1)	ARTISAN BROWN 0144 (2)	CITYLINE KOHL 0171 (3)
						
CRISP LINEN 0139 (1)	MOON BEAM Q091 (4)	CORNSILK 0160 (1)	LUMINARY GOLD 0142 (2)	GOLD COAST 0191 (3)	SUNFLOWER DH50 (3)	MUSTARD Q012 (4)
						
PUMPKIN SPICE Q090 (4)	CORAL BEAD Q092 (4)	ORANGE BURST Q097 (4)	FIRE BRICK Q093 (4)	KEY LIME Q098 (4)	MISTY MEADOW 0112 ♦ (2)	GARDEN SPOT 0141 (2)
						
MINT ICE 0152 ♦ (2)	CYPRESS I452 (1)	OAK MOSS 0195 (3)	SPA 0148 (1)	AEGEAN Q192 (4)	AQUA GLOW 0197 ♦ (3)	OCEAN BLUE Q049 (4)
						
WATERFALL 0169 (1)	COBALT DM14 ★(3)	GALAXY I469 ♦ (1)	NAVY K189 ♦ (3)	ICE GREY K176 (2)	DESERT GRAY X114 (1)	SUEDE GRAY 0182 (2)
						
BLACK K111 (2)	WOOD VIOLET Q467 (4)	CARNATION PINK Q095 (4)	CHIANTI Q094 (4)	VERMILLION ODMI ★ (5)		

(1), (2), (3), (4) and (5) indicate Price Groups, (1) being the least expensive.

"Q" colors are Special Order.

★ Subject to crazing; black grout not recommended.

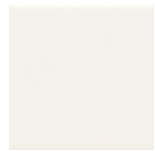
♦ Made-to-order colors.

See the Rittenhouse Square Collection for colors available in 3 x 6 sizes.

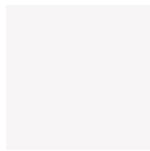
See the Modern Dimensions Collection for colors available in 4-1/4 x 8-1/2 and 4-1/4 x 12-3/4 sizes.

# MATTE™ GLAZED WALL & COUNTER

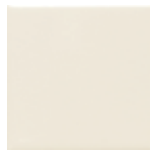
## Field Tile



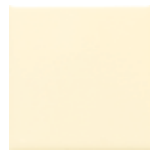
ARCTIC WHITE  
0790 (1)



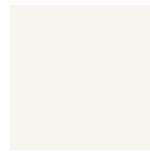
PEARL WHITE  
0799 (1)



BISCUIT  
K775 (2)



CRISP LINEN  
0739 ◆ (1)



ALMOND  
X735 (1)



URBAN PUTTY  
0761 (1)



UPTOWN TAUPE  
0732 (2)



ELEMENTAL TAN  
0766 (1)



ARTISAN BROWN  
0744 (2)



CITYLINE KOHL  
0771 (3)



DESERT GRAY  
X714 (1)



ARCHITECTURAL  
GRAY 0709 (2)



BLACK  
K711 (2)

(1), (2), (3), (4) and (5) indicate Price Groups, (1) being the least expensive.

"Q" colors are Special Order.

◆ Made-to-order color.

See the Rittenhouse Square Collection for colors available in 3 x 6 sizes.

## CREATIVE IDEAS

### Coordinating Accent Ideas

WHITE



RITTENHOUSE SQUARE  
White K101 Classic

ALMOND



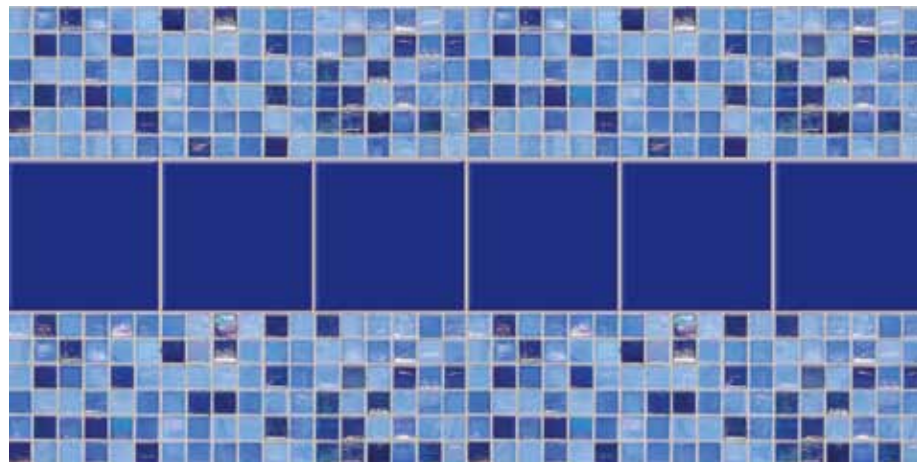
RITTENHOUSE SQUARE  
Almond K165 Wave

ALMOND



RITTENHOUSE SQUARE  
Almond 0135 Shelf Rail

### Backsplash Design Idea



Backsplash features 4-1/4 x 4-1/4 Semi-Gloss field tile in Cobalt with City Lights 1/2 x 1/2 mosaic in Capri.

## SIZES

		SQ.FT. CARTON	PIECES PER CARTON
6 x 6 Field Tile	(6" x 6") (15.2 cm x 15.2 cm)	12.50	50
4-1/4 x 4-1/4 Field Tile	(4-1/4" x 4-1/4") (10.8 cm x 10.8 cm)	12.50	100

## RESIDENTIAL USAGE

FLOORS	WALLS	COUNTERTOPS	EXTERIOR PATIOS	EXTERIOR POOL DECKS
F*	W**	C***		

\* Matte finish suitable for residential bathroom floors only, not subject to outside foot traffic.  
 \*\* Suitable for exterior walls in non-freezing climates only.  
 \*\*\* Darker colors may show scratches.

## COMMERCIAL USAGE

	INTERIOR			EXTERIOR	
	RESIDENTIAL	LIGHT COMMERCIAL	COMMERCIAL	RESIDENTIAL	COMMERCIAL
Floors/Patios	Bathrooms Only**				
Walls/Backsplashes	✓	✓	✓	✓	✓
Countertops*	✓	✓	✓	✓	✓
Pool Decking					
Pool Linings	✓	✓	✓	✓	✓

Suitable for non-freezing climates when proper installation methods are followed.

\* Darker colors on countertops may show scratches  
 \*\* Matte finish only

## SHADE VARIATION



LOW (V1)  
 Monochromatic; consistent color within each tile and from tile to tile.

## INSTALLATION

THICKNESS	GROUT JOINT RECOMMENDATION
5/16"	1/16"

## SLIP RESISTANCE (WET) : 1 & 2

The higher the rating, the higher the slip resistance.

1	< .50 (SEMI-GLOSS)
2	.50 - .59 (MATTE)
3	≥ .60

## NOTES

Since there are variations in all fired ceramic products, tile and trim supplied for your particular installation may not match these samples. Final color selection should be made from actual tiles and trim and not from tile and trim samples or color reproductions. Manufactured in accordance with ANSI A 1371.1 standards.

Water, oil, grease, etc. create slippery conditions. Floor applications with exposure to these conditions require extra caution in product selection. Not for use on ramps.

For additional information refer to "Factors to Consider" at: [www.daltile.com/CommercialFactors](http://www.daltile.com/CommercialFactors) or [www.daltile.com/ResidentialFactors](http://www.daltile.com/ResidentialFactors).

## TRIM

	TYPE	NUMBER	SIZE	SEMI-GLOSS	MATTE
	Bullnose*	A-4200	2 x 6	Group 1	Group 1
	Bullnose Corner*	AN-4200	2 x 2	◆	◆
	Bullnose**	S-4269	2 x 6	◆	◆
	Bullnose**	S-4449	4-1/4 x 4-1/4	◆	◆
	Bullnose**	S-4669	6 x 6	Groups 1, 2, 4	Groups 1, 2
	Bullnose Corner**	SN-4269	2 x 2	◆	◆
	Bullnose Corner**	SCR-L-4449	4-1/4 x 4-1/4	◆	◆
	Bullnose Corner**	SCR-L-4669	6 x 6	Groups 1, 2, 4	Groups 1, 2
	Cove*	A-3401	4-1/4 x 4-1/4	Groups 1, 2, 4	Groups 1, 2
	Cove*	A-3601	6 x 6	Groups 1, 2, 4	Groups 1, 2
	Cove*	A-3461	4-1/4 x 6	Group 1	Group 1
	Cove Corner*	SCR-L-3401	4-1/4 x 4-1/4	Groups 1, 2, 4	Groups 1, 2
	Cove Radius Corner*	ACR-L-3401	4-1/4 x 4-1/4	Groups 1, 4	Group 1
	Cove Corner*	SCR-L-3601	6 x 6	Groups 1, 2, 4	Groups 1, 2
	Sanitary Cove Base*	S-3419T	4-1/4 x 6	Groups 1, 2, 4	Groups 1, 2
	Sanitary Cove Base*	S-3619T	6 x 6	Groups 1, 4	Group 1
	Sanitary Cove Base Corner*	SCRL-3419T	4-1/4 x 6	Groups 1, 2, 4	Groups 1, 2
	Sanitary Cove Base Corner*	SCRL-3619T	6 x 6	Groups 1, 4	Group 1
	Quarter Round	A-106	3/4 x 6	Groups 1, 2, 4	Groups 1, 2
	Quarter Round Beak	AC-106	3/4 x 6	Groups 1, 2, 4	Group 1, 2
	Sink Rail/V-Cap*	WA-8262	2-1/2 x 2 x 6	Groups 1, 2†	Group 1
	Sink Rail/Outside Corner*	WAC-8262	2-1/2 x 2	Groups 1, 2†	Group 1

All colors available (except 0DM1) through Special Order.

\* For conventional mortar installation

\*\* For thinset bed installation

▲ Roundtop

■ Made-to-order

† Only available in colors K101, K111, K165 and K175.

◆ Available in all groups.

## TEST RESULTS

	ASTM#	WALL RESULT
Water Absorption	C373	< 20.0%
Breaking Strength	C648	120-230 lbs
Scratch Hardness	MOHS	4.0-6.5
Chemical Resistance	C650	Resistant
Coefficient of Friction*	C1028	Wet: < 0.50 Dry: ≥ 0.80

\*Matte finish only

*Also Available...*

# SEMI-GLOSS™ COLOR TRENDS

GLAZED WALL  
& COUNTER

Semi-Gloss Color Trends offers eight new vibrant trendsetting colors. Designers and homeowners now have more color options available to execute a contemporary design palette. Available in 6 x 6 and 4-1/4 x 4-1/4 field tile, and suitable for both residential and commercial applications, this line is perfect for creating bold, trendy designs.

Please see Semi-Gloss™ Color Trends Sales Sheet for complete product line information.

## *Field Tile*



CHAMPAGNE TOAST Q150 (4)



TOTALLY TANGERINE Q151 (4)



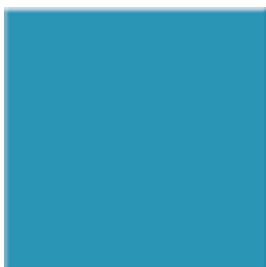
CITRIC BLOOM Q140 (4)



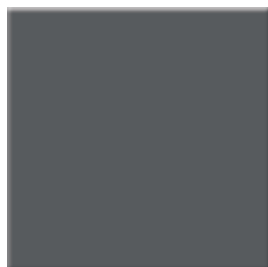
GO GREEN Q170 (4)



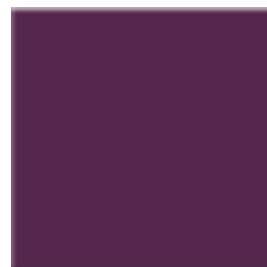
ELECTRIC BLUE Q194 (4)



SEA BREEZE Q174 (4)



CHALK BOARD Q180 (4)



PLUM CRAZY Q178 (4)

(1), (2), (3), and (4) indicate Price Groups, (1) being the least expensive.  
"Q" colors are Special Order.



Photos features Plum Crazy 4-1/4 x 4-1/4 field tile with Urban Metals 2 x 12 spiral border.

# SEMI-GLOSS/MATTE™

## GLAZED WALL & COUNTER



*floor • wall • countertop*



**daltile**  
**greenworks™**  
ENVIRONMENTAL LEADERSHIP THAT WORKS

By their very design, Daltile products can help make it easier for you to earn LEED™ points and/or points towards many industry leading green home building programs. From using recycled material content to establishing manufacturing facilities within 500 miles of your project, we help ensure you don't have to compromise your design to be environmentally conscious. For detailed information, visit [daltilegreenworks.com](http://daltilegreenworks.com).



POST CONSUMER  
RECYCLED MATERIALS



PRE CONSUMER  
RECYCLED MATERIALS



MADE IN  
THE U.S.A.

All or selected items within this series are Made in the USA.  
For more information visit [www.daltile.com/SemiGloss](http://www.daltile.com/SemiGloss) or [www.daltile.com/Matte](http://www.daltile.com/Matte).



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# CARE AND MAINTENANCE

## CERAMIC TILE

### CERAMIC TILE - ROUTINE CARE

Contaminants and spills on a glazed ceramic tile are, generally, easier to clean than other surfaces. Glazed tile products should be cleaned routinely with an all-purpose, low VOC household or commercial cleaner. The product chosen should also be grout joint cleaning compatible. The type of product may vary depending on the tile application and use. A multipurpose spray cleaner, which removes soap scum, hard water deposits, and mildew designed for every day use, can be used on wall tile areas in residential baths and showers.

The entire area should be cleaned and scrubbed with cleaner solution through the use of a cotton mop, cloth, sponge, or non-metallic brush. The entire area should be rinsed with clean water to remove any cleaning solution residue. Remember that you should sweep or vacuum floor areas prior to cleaning to remove any dust or debris. Routine cleaners should never contain hazardous or polluting products including, but not limited to acids or ammonia. Acids can damage the grout and the glazed surface of the tile, and ammonia can discolor the grout.

Unglazed tile should be cleaned routinely with concentrated tile cleaners that have a neutral pH for safe regular use. These cleaners are better suited at removing grease, oils and normal spills from unglazed products. Again these products will vary depending on the application, amount of traffic and the use. The product chosen should also be compatible with cleaning the grout joints at the same time.

### Removal of Sealers/Waxes/Floor Finishes:

If you need to remove a topical sealer or floor wax from a ceramic tile you should use a Tile Sealer & Adhesive remover. Always test a small area first. Apply a liberal amount of undiluted sealer & adhesive remover to a manageable area. Allow setting without drying until coating or residue softens. Reapply if necessary until sealer softens and can be removed. If necessary, agitate with white nylon scrub pad. Wipe up the residue with a cotton towel or sponge. Rinse thoroughly with clean water. Do not use on natural stone products.

### Glass Tiles:

For routine cleaning, use any non-abrasive cleaning compound recommended for either glass or tile

### Metal Signatures/Metal Ages/Urban Metals:

- To clean, use a liquid non-abrasive household cleaner.

- DO NOT use scouring pads, steel wool, sandpaper or other abrasive products.
- Avoid cleaners containing ammonia, bleach, abrasives, or other hazardous/polluting compounds.
- Always test in small inconspicuous area while using a new cleaner to ensure compatibility.

### CERAMIC TILE - GROUT CARE

Grout is the material used to fill the spaces between the individual tiles. Grout comes in many colors. While color is important to the final finished look of the tile installation, it has little effect on the functionality of the grout. The purpose of grout is, simply, to fill the joint between the tiles and becomes a permanent, integral component of the finished installation.

### Penetrating/Impregnating Sealer:

Most tile installations use cementitious grouts. This type of grout should be sealed after installation to prevent the color from staining. The grout should be sealed with a penetrating/impregnating sealer (often called grout sealers) which does not contain silicone, as silicone can shorten the useful life of the sealer. Epoxy grouts, conversely, are chemically cured and acid resistant and, as a result, do not require a sealer. The application of a good quality penetrating/impregnating sealer into the grout joints of a cementitious grout will not change the natural color of the grout, but will prevent the penetration of moisture, simplify maintenance, and help prevent staining or discoloration. Only the grout needs to be sealed, not glazed floor or wall tiles. Grout can be sealed seventy-two hours after installation.

There are different grades of penetrating/impregnating sealers, therefore the useful life and price will differ between a low quality and high quality sealer. You may need to reapply the sealer on an annual basis depending on the sealer quality, traffic patterns, and maintenance routine. Some sealers have multiple year warranties for useful life. Refer to the manufacturer warranty, technical & product information for specific details on product installation, useful life, and product applications (including any warnings) before use.

### Grout Maintenance:

Neither sealing the grout nor using a 100% Epoxy Grout will guarantee against surface build-up or discoloration of the grout. Grout needs to be cleaned on a periodic basis to remove any surface build-up. Routine grout cleaning can be done with a daily concentrated household or commercial cleaner depending on the application. When heavy duty grout cleaning is required, you will need to use a professional strength Tile & Grout Cleaner that is capable of removing grease, soap scum, body oil, mildew stains, algae, and synthetic or acrylic waxes from the grout joints. However, such a product should contain non-polluting chemicals and low VOC levels. This type of product can be purchased from

most Home Centers, or through your local professional Floor Covering Dealer

#### **Grout Color Restoration:**

When grout has been stained to the point that it cannot be maintained or returned to its natural color, you can return the grout back to its original color or any other color through the use of a "grout stain". Grout Stains are epoxy-based products that are specifically designed to penetrate into the grout and seal the surface with a permanent color. Once the grout has been stained there is no need to seal it any further with a penetrating/impregnating sealer. Prior to staining, the grout joint should be cleaned thoroughly to remove any dirt, oils, grease or sealers with a professional strength Tile & Grout Cleaner. This can be purchased from most Home Centers or through your local Professional Floor Covering Dealer.

#### **CERAMIC TILE - NEW INSTALLATIONS**

Immediately after tile has been properly installed and grouted, the new installation should be covered with brown paper to protect it from debris during the remaining construction process. The grout joints should be dampened daily with clear water using a clean sponge or mop during the first 7 days. This procedure facilitates the grout cure and color lock. The paper will allow for two important things: (1) to protect the newly installed tile grout and (2) to allow moisture to escape from the grout as it cures further protecting the look and utility of the floor. This is an important step in achieving color consistency. Never use plastic or non-absorbent materials to protect freshly installed tile. These types of non-absorbent products will trap moisture causing the grout to discolor during the curing period. The protective brown paper should remain until construction is complete and the floor is opened for intended (post-construction) use.

#### **Post-Grout Clean-Up:**

Grout haze is a film that has been left behind on the surface of the tile as part of the final grouting process. Usually this is buffed off the surface after the grout has achieved its initial 12 to 24 hour cure. The removal of the haze is often difficult when buffing with a clean rag or floor machine. Cementitious grout haze can be successfully removed with "Sulfamic" acid, which is a mild acid that attacks and breaks down cement smears. There are several products on the market called grout haze removers, which usually contain Sulfamic acid. Sulfamic acid can also be purchased in powder form and mixed with water to different strengths by qualified professionals. Similarly, 100% Solids Epoxy Grout haze can be removed

with an Epoxy Haze Remover. These removers are formulated to safely and quickly remove cured epoxy haze from new tile installations. Their unique formulation will soften most epoxy hazes for easy removal without damaging the grout or tile, usually in one application. Sulfamic acid or grout removers should never be used on Natural Stone products.

## **NATURAL STONE**

#### **NATURAL STONE - ROUTINE CARE**

To ensure your natural stone products will provide you with a lifetime of aesthetics and utility, a proper maintenance program is crucial. Natural Stone products are porous by nature and require a different maintenance program than traditional ceramic tile.

Natural stone requires a different maintenance routine than traditional, man-made ceramic tile. Many of the cleaners acceptable for use on ceramic tile can stain, damage or dull stone. Dirt and dust will scratch the surface of stone. Therefore, stone floors should be vacuumed or dust mopped frequently to remove abrasive agents from the stone surface. Natural stone should be cleaned with neutral cleaners. Stone cleaners should never contain acid or bleach. Acids, even a light solution of vinegar and water, will etch and eventually damage natural stone.

#### **Stone Cleaners:**

Only use cleaners specifically designed for cleaning stone. These cleaners contain no acids and are concentrated neutral pH cleaners that will not affect existing sealers or wax-type coatings. The surface of the stone should be dampened with clear water. This will keep the cleaning solution on the surface so it can be effective. A solution of the cleaner and water missed to manufacturer instructions should be applied to the stone surface with a sponge or mop. On walls, kitchen counters or vanity tops, a spray bottle can be used to apply the cleaning solution. Allow sitting for manufacturers specified amount of time (usually 3 to 5 minutes). Agitate with a sponge, synthetic mop, soft bristle brush or through the use of a floor-scrubbing machine. Mop up dirty solution and buff dry.

Once the stone has been cleaned, you can periodically apply a Spray-Buff wax-type floor finish to enhance the beauty and luster of polished stone (including countertops). Apply the finish with a spray applicator and buff immediately with a white nylon pad. Reapply as often as needed, depending on volume of surface traffic and consistency of routine maintenance program. This product is not designed to restore the original shine, but is intended to maintain and protect the original shine. This can be purchased from most Home Centers or through your local Professional Floor Covering Dealer.

### Heavy-Duty Stone Cleaning:

When some areas have been neglected, you will need to use a heavy-duty non-hazardous and non-polluting stone cleaner and degreaser to effectively remove dirt, grease, grime, waxes and floor finishes. An optimal heavy-duty cleaner should contain low percentages of volatile organic compounds. These cleaning products are concentrated and designed to deep clean the stone without damaging it. Apply the solution of the cleaner and water mixed to manufacturer instructions to the stone surface with a sponge or mop. Allow setting for manufacturer-specified amount of time. Agitate with a sponge, synthetic mop, and soft bristle brush or through the use of a floor-scrubbing machine. Mop up dirty solution and buff dry. Be sure to change out the cleaning solution every 100 square feet to avoid reintroducing dirty water during the cleaning process. Rinse thoroughly with clean water when finished. After cleaning you may apply the Spray-Buff wax-type floor finish to enhance the natural shine.

### Stain Removal:

Stone poultice will remove stains and grout haze from stone. Poultice is a fine, nonacidic, absorptive clay cleaning powder that removes deep-set oil stains, grease and light cementitious grout haze from polished and unpolished natural stone.

**CAUTION:** *Poultice may dull the shine of the polished stone. If this occurs you will need to use a marble polish to restore the natural shine.*

### Restoration:

If a marble finish has become dull, scratched or etched, you can restore the natural shine through the use of a marble polish. Some marble polishes are available in kits. The process can be enhanced with the use of floor buffing machines. The process is generally a re-crystallization process to remove fine scratches and restore the original shine and polish to the stone. This is not an application of a topical sealer or wax to cover-up damaged or worn surfaces.

### NATURAL STONE - NEW INSTALLATIONS

Sealing is strongly recommended for newly installed marble and other natural stone to provide maximum below surface stain protection. Consult your Professional Floor Covering Dealer or Home Center Store to ensure that you select a high quality sealer to protect your natural stone. Immediately after natural stone has been installed and grouted, the new installation should be covered with brown paper to protect it from debris during the remaining construction process. The protective brown

paper should remain in place until construction is completed and the area is opened to intended (post-construction) use.

### Pre-grout Sealing:

A non-sanded grout is strongly recommended for natural stone installations due to the narrow grout joints customarily preferred. This type of grout has very fine particles of cement, polymers and color pigments that can penetrate the microscopic pores of the stone surface where they become trapped and appear as a stain in the stone. Therefore, all travertine, slate, tumbled stone and honed/flamed/unpolished granite should be sealed prior to the grouting process to protect them from staining. The application of a good quality sealer should be used as a grout sealer and applied again as the final sealing process once the installation is finished.

### Sealing:

A premium natural look penetrating/impregnating sealer is the normal choice on polished or honed marble, limestone, granite, or where the natural color of a slate is desired. A stone enhancer sealer is often used on tumbled, antique stones or on slate where a darker, enriched or highlighted character is desired. When choosing either one of these types of sealers, make sure the brand you have chosen is formulated to provide maximum stain protection for stone products. Stone products should be tested periodically per manufacturer's instructions to insure that the sealer is working effectively.

**Penetrating/impregnating** stone sealers are a no-sheen, natural look sealer that can be water-based or solvent-based, good for interior and exterior applications. Most quality sealers of this type are rated to protect the stone for several years.

**Stone enhancer sealers** are also a no-sheen, penetrating/impregnating sealer that is formulated to darken, enrich and highlight the natural color and beauty of stone products. They will rejuvenate and improve the appearance of worn and weathered stone. Always test loose pieces of stone to ensure desired effect with enhancing sealers. However, they will also darken the color of grout joints. They are, generally, suitable for interior and exterior use, and rated to protect the stone for several years.

Always reference manufacturer's literature for specific information on the duration of the sealer's protection and make sure that the sealer is applied in strict accordance with the manufacturer's instructions.

### Finishing:

A stone floor finish should be applied to a polished natural stone floor only. This type of product will help enhance the shine and provide a protective coating for "soft" or polished marbles. Verify the finish is a wax-type finish designed to add luster and enhance the beauty of sealed and polished natural stone only. A topical

finish may change the appearance and performance of your stone, so always test a small area first. **Application of topical sealer or wax should never be done as an attempt to add a shine to a honed, scratched or non-polished stone product. This will only create maintenance and/or slip resistance problem.**

## SALTILLO

### SALTILLO TILE - ROUTINE CARE

Soft clay tiles are categorized as specialty use products, and as such they are generally not governed by the same requirements as glazed or unglazed ceramic tile. These products will require some type of topical sealer protection. These sealers are designed to provide stain resistance and a durable finish to protect clay tile against wear. Pre-sealing the tile prior to grouting will act as a pre-grout sealer, provided it is applied over a clean tile surface. An additional final coat over the grouted floor will complete the sealing process along with providing the final grout stain protection.

There are two common types of sealers used today for sealing specialty tiles. The first is a water-based blend of acrylic polymers. This product allows for moisture vapor transmission, and it can be reapplied over itself, without stripping or removing the old sealer when the original application has become worn. The second type is a solvent-based sealer. Solvent-based sealers are not as forgiving after they have become worn, they must be stripped and removed prior to reapplication. Both types should be UV stable, which means the ultra violet rays from the sun should not break them down. You should always follow the manufacturer's instructions for use, maintenance and precautions.

The expected wear of the topical sealer will vary depending on the hardness, surface texture, type or area, usage, and type of maintenance products used. However, the average expected use life of the sealer, when properly prepared, is a maximum of 3 years. Harsh cleaning methods, high-alkaline or solvent-based cleaners can significantly lower the expected life of the sealer. Concentrated tile cleaners are recommended for routine cleaning.

#### Maintenance Cleaning:

Highly alkaline, acidic, ammoniated, abrasive cleaners and/or bleach may break down the sealer, adversely affecting repellency and may not be good for the tile or grout. Use

neutral cleaners specially formulated for tile and grout that are low VOC, non-hazardous and non-polluting.

#### For routine cleaning:

We recommend DuPont™ StoneTech® Professional Stone & Tile Cleaner.

- Mix 2 ounces of Stone & Tile Cleaner concentrate in 1 gallon of warm or hot water. (Note: One gallon of concentrate makes 64 gallons of cleaning solution.
- Apply mixed solution with a damp mop, sponge or appropriate professional cleaning equipment.
- Clean entire area with mop, changing mop water often to ensure that soil is not re-deposited. Wipe or rinse cleaned area.
- Let area dry completely before using.

You may also use DuPont™ StoneTech® Professional Stone & Tile Cleaner in the ready-to-use spray bottle or wipes.

#### Re-Sealing and Protecting:

For interior surfaces, resealing should be performed every 3-5 years. For exterior surfaces, resealing should be performed every 1-3 years. Terrazzo surfaces must be sealed to prevent or minimize staining. Leaving terrazzo untreated may greatly hinder the complete removal of stains in the future. We recommend the use of a heavy-duty sealant that is low in VOC content and does not contain any hazardous materials.

## ONE QUARTZ SURFACES

### ONE QUARTZ SURFACES - ROUTINE CARE

- One Quartz Surfaces are virtually maintenance free and can be cleaned with extreme ease.
- Common household spills – such as, tea, coffee, lemon juice, soda, fruit, vegetable juice, olive oil or grease spills – are easily removed and the surface restored to its original appearance.
- Some One Quartz Surface colors and finishes liked honed, matt, etc., are more sensitive to grease or finger-prints and may require extra care during routine cleaning.
- Quartz is one of the hardest materials in nature, which is your assurance that your One Quartz Surfaces will not easily scratch or chip. The use of a cutting board is nevertheless recommended.
- To maintain the natural beauty of One Quartz Surfaces, do not place hot skillets or roasting pans directly onto the surface but use a trivet instead.

- For routine cleaning, use a damp cloth or paper towel and, if necessary, a small amount of mild soap. Once clean, rinse and dry surface thoroughly.
- For stubborn or dried spills, use a nonabrasive cleaning pad such as a white 3M Scotch-Brite® scrub pad combined with a small amount of mild soap or specialized stone cleaner. One Quartz Surfaces floors in high traffic areas should be cleaned daily with a clean, dry dust mop or soft bristle broom.
- One Quartz Surfaces floors in low traffic areas can be cleaned less frequently using the same method. Spills should be spot treated with the use of a damp mop or cloth towel and, if necessary, a small amount of mild soap or specialized stone cleaner.
- A floor machine such as a slow speed buffer or walk behind scrubber can be used for larger commercial environments. Be sure to rinse thoroughly to remove any haze residue that may diminish the shine and beauty of the floor.
- For Heavily soiled floors, as with any floor, it makes sense to clean up spills as soon as possible.
- Avoid exposing One Quartz Surfaces to chemicals and solvents, especially paint removers or furniture strippers containing trichlorethane or methylene chloride. Keep nail polish remover, bleach or cleansers that contain bleach, bluing, permanent markers or inks. While casual exposure to alkaline materials will not damage One Quartz Surfaces, highly alkaline (high-pH) cleansers are not recommended when cleaning One Quartz Surfaces. If any of the substances listed above come into contact with One Quartz Surfaces, rinse the exposed surface immediately and thoroughly with plenty of clean water.
- Do not use strong abrasive and/or alkaline cleaning products. Always follow the manufacturers' dilution instructions and recommendations.

## MANUFACTURED STONE

### Manufactured Stone – Routine Care

Care should be taken to avoid smearing mortar on the surface of the veneers. Accidental smears should be removed using a dry whisk broom only after mortar has dried completely. Never use a wet brush or wire brush. Do not power-wash, sandblast, use acid or acid-based products. Dirt or other materials may be removed with

a strong solution of granulated soap or detergent and water with a bristle brush. Do not use a wire brush as it will cause damage to the surface. Rinse immediately with fresh water. Regular maintenance only requires to rinse the wall with water occasionally to remove dirt.

### Sealing:

Seal with a breathable, non-film forming masonry sealer, to prevent staining from rusty downspouts, splattered mud, etc. Sealing is strongly recommended for dry-stacked applications and/or for harsh environments.

## DISCLAIMER

Dal-Tile does not manufacture installation products or tile cleaning/maintenance products. Dal-Tile provides the information contained herein to its customers as an information source only. The products identified in this website may have chemicals that cause reactions in certain individuals. Dal-Tile strongly recommends the use of safety glasses, respirators (masks) and gloves in handling any materials that contain chemicals.

Dal-Tile, in keeping with its Healthy Planet objectives, recommends the proper disposal of any scrap tile/stone, installation and/or maintenance products discussed herein.

Please contact the manufacturer directly, PRIOR to usage, to obtain proper handling instructions, application instructions and warnings concerning potential health hazards for any product contemplated for use. Dal-Tile also strongly recommends that you ALWAYS test a small area PRIOR to usage of any installation/tile/cleaning/maintenance product to determine whether the product you are about to apply serves its intended purpose.

Natural stone has its own unique qualities that not only distinguish it from man-made materials, but also should be considered in selecting it for a particular project. Stone is not manufactured; it is a product of nature. Blocks are removed from the quarry, slabs are cut from these blocks, and the slabs are further fabricated into the final stone to be installed. Each block is different; each slab is different. Skillful blending or matching of the dimension stone blocks, veneer panels, tops, etc., results in a beautiful blending of nature's variety and man's design. "Uniformity of material," when applied to natural stone, is a term of relative value that needs to be understood when making a selection.

To ensure your natural stone products will provide you with a lifetime of aesthetics and utility, proper maintenance is crucial. Natural stone products are porous by nature and require a different maintenance program than traditional ceramic tile.

# WARRANTY

## DALTILE® 1-YEAR LIMITED WARRANTY

Dal-Tile Corporation warrants that manufactured products will be free from defect for a period of one-year from date of purchase. Defect is defined as a shortfall in the product to perform to Dal-Tile specifications as disclosed in product literature, within industry allowable tolerances as set forth in standard, national industry protocols. This one-year express warranty is the sole warranty extended and replaces any statutory warranties to the maximum extent allowable by law. Customer misuse including negligence, physical, or chemical abuse is not covered by this warranty. Installation defects are not covered by this warranty. All warranty claims must be reported immediately. Failure to report any warranty claim within 30 days of defect discovery will void this warranty. All products must be inspected prior to installation. Visual defects or nonconformities apparent prior to installation voids this warranty.

Tile is subject to variation in technical specifications, including COF, due to inherent variability in the raw materials and production process. Express technical specifications are not guarantees of minimum or maximum thresholds of performance. Tile containing abrasives create a rough surface, creating cleaning challenges because dirt and other contaminants lodge in the surface. Extra attention is necessary to assure contaminants are removed promptly. Unless specifically stated otherwise, tile recommended for floor or wall applications refers to interior applications only. Dal-Tile does not recommend its products for use on ceilings or roofs. Local building codes may dictate minimum tile performance specifications. Dal-Tile does not warrant product installations that violate building codes. Photographic color images may not be an exact product match. Express color match warranties are only extended to actual product samples.

## IMPLIED WARRANTIES LIMITED IN DURATION

Any implied warranty applicable to the product sale, including the implied warranty of merchantability or the implied warranty of fitness for a particular purpose is limited in duration to the duration of this written warranty or the maximum statutory period, whichever is less. Some states do not allow limitations on implied warranty duration, so the above limitation may not apply to you.

The Federal Magnuson-Moss Warranty Act limits disclaimers of implied warranties involving consumer products. To the maximum extent allowable by federal and state law, this warranty supplements or supercedes federal and state consumer goods warranty protections.

## IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE

Dal-Tile provides detailed information in its product literature with regard to appropriate tile and stone applications. In these specified applications, Dal-Tile limits the duration of the implied warranty of fitness for a particular purpose to one-year or the maximum statutory period prescribed by law, whichever is less. Failure to comply with recommended applications voids this warranty.

Natural stone products are mined and cut from natural formations. Because these products are not subject to a manufacturing process, quality warranties are limited to the specified representations in product literature and guidelines established by the Marble Institute of America. Dal-Tile does not warrant natural stone products for shade, size, thickness, warping, cleft variations, surface finish variations, or other natural variances on stone products.

## REMEDY LIMITATION & DISCLAIMER

If a defect in materials or workmanship is discovered within the one-year period, Dal-Tile will either refund the price of the product or provide a replacement product after a reasonable number of attempts to remedy product defects. Buyer's remedy is limited to replacement or repair of the defective product. No consequential (including, but not limited to, lost profits) or incidental damages are recoverable. Dal-Tile disclaims all express warranties not contained in this limited express warranty. Any representations made in connection with the sale of this product that differs from the terms of this warranty are not valid and should be brought to the attention of Dal-Tile immediately (1-800-933-TILE).

**Legal Notice:** Warning Tile and installation products contain chemicals known to the state of California to cause cancer, birth defects, reproductive harm, respiratory harm or other health problems. For more product-specific information on chemical content, obtain an MSDS at [DalTile.com](http://DalTile.com) or contact DalTile at 800.833.TILE.

## TO MAKE A CLAIM

1. The original purchaser must notify a Dal-Tile Sales Service Center or an authorized representative in writing 60 days of the occurrence of any defect.
2. After notification, Dal-Tile or an authorized representative will inspect and/or test the product for defect and complete a Product Claim Action form. No claim will be honored without product inspection by Dal-Tile or an authorized representative.
3. Upon determination that the product defect claim is valid, Dal-Tile will notify the purchaser in writing. Dal-Tile reserves the right to repair, replace or refund the originally-purchased product.

## **Butcher Block Maintenance and Preservation Tips**

THE AVERAGE PERSON CAN LENGTHEN THE LIFE OF A BUTCHER BLOCK 5-10 YEARS THROUGH OBSERVING THE FOLLOWING RULES IN ITS CARE.

Things You will Need:

- Dish washing liquid
- Clean sponges and towels
- Howard's Butcher Block Conditioner
- Bleach (optional)
- Lemon juice (optional)

### **Regular Care**

- Wash the butcher block with mild soap and water. Regular liquid dish washing detergent works well. Use a clean sponge or dish towel. Dry the wood well with a soft cloth.
- Kill bacteria, often left behind by raw meat, with bleach. Add one tablespoon of bleach into one gallon of warm water.
- Remove tough stains from butcher block by pouring lemon juice on the surface and letting it soak for several seconds.
- Maintain unvarnished kitchen butcher blocks with non-toxic oil treatments on a weekly basis or whenever you notice the wood drying or color fading. Coat the block with oil, let sit for five minutes then wipe away the remainder with a paper towel or cotton cloth. Allow to dry before use.
- Clean varnished butcher block, on which food is not usually prepared, with water and gentle soap. Wipe dry with a soft towel. Varnished butcher blocks do not need oil treatments.

### **Additional Maintenance**

- Periodically (once every several weeks, depending upon the use and household conditions), apply an even coat of mineral oil or Butcher Block Oil to the work surface of your butcher block. Sponge on with a rag!
- DO NOT allow moisture of any type to stand on the butcher block for long periods of time. Don't let fresh, wet meats lay on the butcher block longer than necessary. Brine, water and blood contain much moisture, which soaks into the wood, causing the block to expand, the wood to soften, and affects the strength, of the glued joints.
- Use a good steel scraper or spatula several times a day, as necessary, to keep the cutting surface clean and sanitary. Do not use a steel brush on the cutting surface of your block.

- DO NOT cut fish or fowl on the work surface of your butcher block, unless you have thoroughly followed the instructions in step #1...as the moisture barrier must be intact prior to cutting any type of fish, seafood, or fowl on the work surface of your butcher block. **ALWAYS CLEAN THE BUTCHER BLOCK THOROUGHLY AFTER CUTTING FISH OR FOWL ON THE WORK SURFACE.**
- Be sure NEVER to cut continuously in the same place on the top of your butcher block. Distribute your cutting over the entire work surface so that it will wear evenly. DON'T use a razor-edged cleaver. It will chip or splinter the wood and produce soft spots. Your cleaver should have dull sharpened edge for best results.
- NEVER wash your butcher block with harsh detergents of any type. DON'T wash your butcher's tools on your block.
- At the conclusion of a day's work preparing meat or food on your butcher block, scraping the butcher block will remove 75% of the moisture. After scraping, immediately dry thoroughly with an absorbent towel. This assures an odorless, clean cutting surface for the next day, and prevents premature quick deterioration of the work surface.
- Maintain the same bevel on the edge of your butcher block, as it had when you bought it. This prevents splitting or chipping of outside boards.

***Note: Butcher Block cutting boards are not dishwasher compatible.***

### **Oiling Procedures**

*Note- It is best to keep a lint free rag lightly soaked in mineral oil in a sandwich baggy and keep it nearby for easy access. Mineral Oil can be found at just about any drug store.*

Newbie maintenance:

Oil your board once a week for the next 6 weeks. If you feel the grain start to raise slightly, then lightly sand with 220 grit sandpaper or higher till the surface becomes smooth again and re-apply mineral oil. Allow to dry 15min. Repeat procedure until your blocks do not absorb any more oil. Wipe off excess

Heavy dose method:

Pour mineral oil onto blocks and lightly spread over entire surface of your blocks with a lint free rag or similar. Allow to soak in (15-20min) then wipe off the excess.

Weekly/Usage method:

This procedure is used to keep your board fresh and ready for use at all times. After each use or once a week, whichever comes first, clean your board with a sponge and warm soapy water. Dry thoroughly with paper towels. Use your mineral oil soaked rag and give your board a quick wipe on all sides. Wipe off as needed or leave it be and it will dry by itself.

## Custom Wood Furniture Care and Cleaning Tips

The type of finish on the wood, not the type of wood, determines how the custom wood furniture care and cleaning can be done and how to repair damage, so know what kind of finish it has. Finishes may be soft (Tung oil or Danish oil), hard (lacquer, polyurethane), or painted.

Once you know the type of finish on your wood furniture, follow the appropriate procedures for furniture maintenance. Excessive dampness, dryness, heat, or cold can damage wood furniture. Sunlight can change the color. Rubber or plastic mats should not be used unless marked safe for wood, since some may soften or stain the finish. Wipe up spills at once to prevent spots that require refinishing.

Polish not more than 3-4 times a year unless it gets heavy use, and only use a polish recommended for the kind of finish. Too much polish may build up a cloudy film; wipe off polish before it dries completely.

Do not mix different types of polish. Oil causes wax to become gummy. Clean the furniture surface thoroughly before changing furniture care products.

### Wood furniture Cleaning

Vacuuming with a dusting brush attachment gently removes dust from furniture surfaces, preventing buildup. If no vacuum cleaner, use a clean soft cloth, turning it often, or soft paper towels to pick up dust. Dust furniture before vacuuming floors. If the finish is water resistant, a barely dampened towel or cloth will pick up dust.

Pads, mats and coasters on furniture, mats under vases, glasses, cups etc. protect them from spills and stains, and from heated objects. Do not use plastic or rubber on natural wood surfaces as they may soften and damage finish. Use felt under objects set on top of furniture that could scratch it.

### Guide to Lacquer Furniture Finishes

In cleaning your lacquer-finished wood furniture, remember that a lacquer piece is not just hard and glossy but also brittle and so may be dented or chipped. Avoid hard blows. Avoid use of water unless furniture label recommends it. The newer synthetic lacquers are more durable, however older lacquered pieces and many imports have finishes affected by some solvents, so test every product first on an inconspicuous area.

Dust regularly with a soft, dry cloth. Never use oiled or treated cloths on lacquered finishes. Some finishes can be wiped with a damp (not wet) cloth, followed at once by rubbing with a dry cloth, (test first in inconspicuous spot) to remove fingerprints and smudges. A solvent-based furniture cleaner may be useable on many finishes but always test first. Apply liquid wax on occasion to maintain a gloss,

For heavy cleaning, use a solvent-based furniture cleaner. Apply with soft cloth in one hand, and wipe at once with soft cloth in other hand, doing only a small area at a time. Oil soaps may be used on some finishes but test first to be sure it is OK with finish. Protect with liquid wax or polish to maintain a gloss.

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### **Regular Care**

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### **Additional Maintenance**

- Periodically (once every several weeks, depending upon the use and household conditions), apply an even coat of mineral oil or Butcher Block Oil to the work surface of your butcher block. Sponge on with a rag!
- DO NOT allow moisture of any type to stand on the butcher block for long periods of time. Don't let fresh, wet meats lay on the butcher block longer than necessary. Brine, water and blood contain much moisture, which soaks into the wood, causing the block to expand, the wood to soften, and affects the strength, of the glued joints.
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- Maintain the same bevel on the edge of your butcher block, as it had when you bought it. This prevents splitting or chipping of outside boards.

***Note: Butcher Block cutting boards are not dishwasher compatible.***

### **Oiling Procedures**

*Note- It is best to keep a lint free rag lightly soaked in mineral oil in a sandwich baggy and keep it nearby for easy access. Mineral Oil can be found at just about any drug store.*

Newbie maintenance:

Oil your board once a week for the next 6 weeks. If you feel the grain start to raise slightly, then lightly sand with 220 grit sandpaper or higher till the surface becomes smooth again and re-apply mineral oil. Allow to dry 15min. Repeat procedure until your blocks do not absorb any more oil. Wipe off excess

Heavy dose method:

Pour mineral oil onto blocks and lightly spread over entire surface of your blocks with a lint free rag or similar. Allow to soak in (15-20min) then wipe off the excess.

Weekly/Usage method:

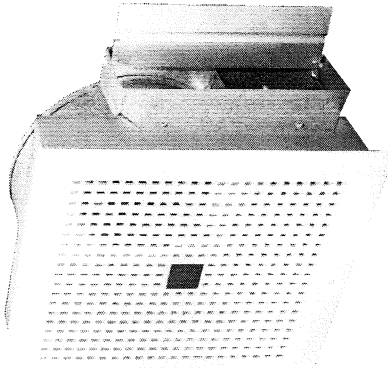
This procedure is used to keep your board fresh and ready for use at all times. After each use or once a week, whichever comes first, clean your board with a sponge and warm soapy water. Dry thoroughly with paper towels. Use your mineral oil soaked rag and give your board a quick wipe on all sides. Wipe off as needed or leave it be and it will dry by itself.



**PLEASE READ AND SAVE THESE INSTRUCTIONS.**

Read carefully before attempting to assemble, install, operate or maintain the product described. Protect yourself and others by observing all safety information. Failure to comply with instructions could result in personal injury and/or property damage! Retain instructions for future reference.

# Zephyrette & Zephyr Jr. Ceiling Exhaust Ventilators



## Description

PennBarry ceiling exhaust ventilators employ direct drive centrifugal blower wheels powered by a 1200 RPM, 115V, 60 Hz sleeve bearing shaded pole motor. See specifications for CFM and sone ratings. Air deliveries are based on AMCA test codes. Units have molded plastic grill and shatterproof backdraft damper. Motor and blower assembly can be removed from heavy gauge steel housing for cleaning. Adjustable mounting brackets and hardware included. UL and CSA listed.

## Installation

### WARNING

**CAUTION** To reduce the risk of fire, electric shock, or injury to persons - observe the following:

- A. Use this unit only in the manner intended by the manufacturer. If you have questions, contact the manufacturer.
- B. Before servicing or cleaning unit, switch power off at service panel and lock the service panel to prevent power from being switched on accidentally. When the service disconnecting means cannot be locked, securely fasten a prominent warning device, such as a tag, to the service panel.

**CAUTION** To reduce the risk of fire, electric shock, or injury to persons observe the following:

- A. Installation work and electrical wiring must be done by qualified person(s) in accordance with all applicable codes and standards, including fire rated construction.
- B. Sufficient air is needed for proper combustion and exhausting of gases through the flue (chimney) of fuel burning equipment to prevent back drafting. Follow the heating equipment manufacturer's guideline and safety standards such as those published by the National Fire Protection Association (NFPA),

the American Society for Heating, Refrigeration and Air Conditioning Engineers (ASHRAE), and the local code authorities.

- C. When cutting or drilling into wall or ceiling, do not damage electrical wiring and other hidden utilities.
- D. Duct fans must always be vented to the outdoors.
- E. If this unit is to be installed over a tub or shower it must be marked as appropriate for this application.
- F. Never place a switch where it can be reached from a tub or shower.

**CAUTION** For general ventilating use only. This product is not to be used to exhaust hazardous or explosive materials and vapors.

- 3. Follow all local electrical and safety codes, as well as the National Electrical Code (NEC) and the Occupational Safety and Health Act (OSHA).
- 4. Always disconnect the power source before working on or near a fan or motor.

## Receiving and Handling

PennBarry fans are carefully inspected before leaving the factory. When the unit is received, inspect the carton for any signs of tampering. Inspect the unit for any damage that may have occurred during transit and check for loose, missing or damaged parts. Mishandled units can void the warranty provisions. PennBarry is not responsible for damages incurred during shipment.

Avoid severe jarring and/or dropping. Handle units with care to prevent damage to components or special finishes.

## Storage

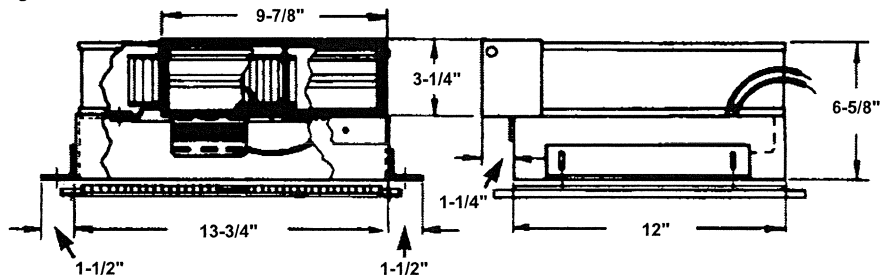
Long-term storage requires special attention. Units should be stored on a level, solid surface, preferably indoors. If outside storage is necessary, protect the units against moisture and dirt by encasing the cartons in plastic or some similar weatherproof material.

## Unpacking

Place carton in an upright position and remove staples or use a sharp (knife edge) tool to CAREFULLY cut or scribe the sealing tape on both sides at the top of the carton. Open carton flaps. Remove any cardboard and wooden filler pieces, as well as loose components or accessories shipped with the unit.

Carefully remove the unit from the carton. Inspect the unit for any damage that may have occurred during transit and check for loose, missing or damaged parts.

Figure 1: Dimensions



5. Make certain the power source conforms to the requirements shown in the performance chart.
6. Protect the power cord from coming in contact with sharp edges or other objects.
7. Do not kink the power cord or allow it to come in contact with oil, grease, hot surfaces or chemicals.

**CAUTION**

1. For general ventilating use only. Do not use to exhaust hazardous or explosive materials and vapors.
2. To avoid motor bearing damage and noisy and/or unbalanced impellers, keep drywall spray, construction dust, etc. off power unit.
3. Please read specification label on product for further information and requirements.

**ELECTRICAL CONNECTIONS**

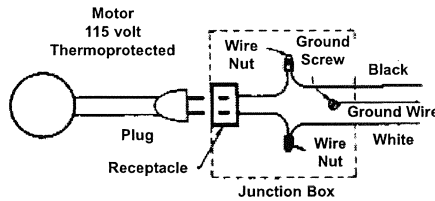
1. Connect motor per nameplate to correct power supply.
2. Install all wiring, protection and grounding in accordance with the National Electrical Code (NEC) and all local requirements.
3. Follow all local electrical and safety codes, as well as the National Electrical Code (NEC) and the Occupational Safety and Health Act (OSHA).

**CAUTION** Make the necessary connections by using two wire nuts. A separate ground wire must be connected to the grounding screw. Replace the cover of the junction box.

**CAUTION** To reduce the risk of injury of person, install fan at least seven feet above the floor, if no guard or grill is supplied.

**BEFORE A CEILING IS INSTALLED WITH ACCESS FROM BELOW**

**Figure 2: Wiring Diagram**



1. Disconnect motor cord and plug from internal terminal and receptacle before starting installation (see figure 2).
2. Assemble adjustable flanges to fan housing with four self-tapping metal screws (provided). Adjustable flanges should be located as illustrated in Figure 3.
3. Secure the adjustable flanges to each joist. Attach a properly sized duct to the duct sleeve mounted on the fan housing. Connect this duct system to the appropriate size wall cap or roof cap (see Figure 3).
4. Before wiring is attempted, Always lock out the primary and secondary power source. Utilizing the pre-punched hole found at the terminal box on the fan housing, insert a 3/8" electrical connector. All wiring should be in strict accordance with the National Electrical Code and local, state and federal standards.

6. Complete installation by cutting an 11-7/8" x 13-3/4" ceiling opening for the unit. Use care not to exceed this dimension when installing the fan.
7. The egg crate ceiling grill should be installed by screwing the grill into the fan housing using the two 2" plastic bolts supplied with each unit.
8. Automatically operated thermal protector to reduce risk of injury; disconnect power supply before servicing.

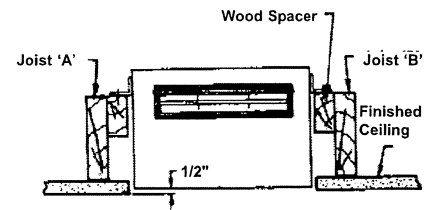
**WITH CEILING IN PLACE**

1. Disconnect motor cord and plug from internal terminal box and receptacle before starting installation.
2. Assemble adjustable flanges to fan housing with four self-tapping metal screws (provided). Adjustable flanges should be located as illustrated in Figure 5. Install the duct and electrical service in accordance with the instructions listed in the previous section.

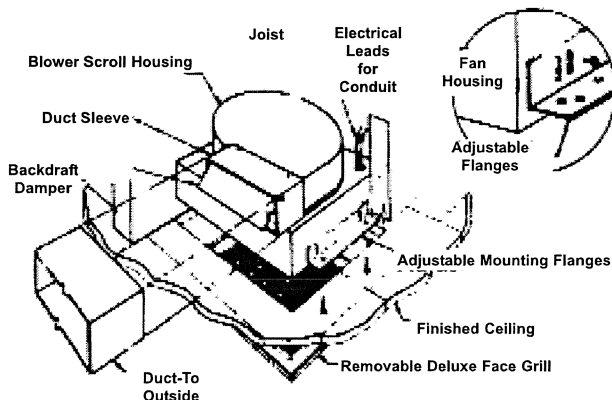
**SUSPENDED CEILING SYSTEMS**

Installation of ceiling fans in suspended ceiling systems require a minimum 10 gauge solid wire for hanging or suspending the ceiling fan. Four wires per unit should be connected to the pre-punched holes of the adjustable mounting flanges (after the flanges have been mounted to the fan housing as outlined above).

**Figure 4: Using Spacers**



**Figure 3: Typical Ceiling Installation**



**Maintenance**

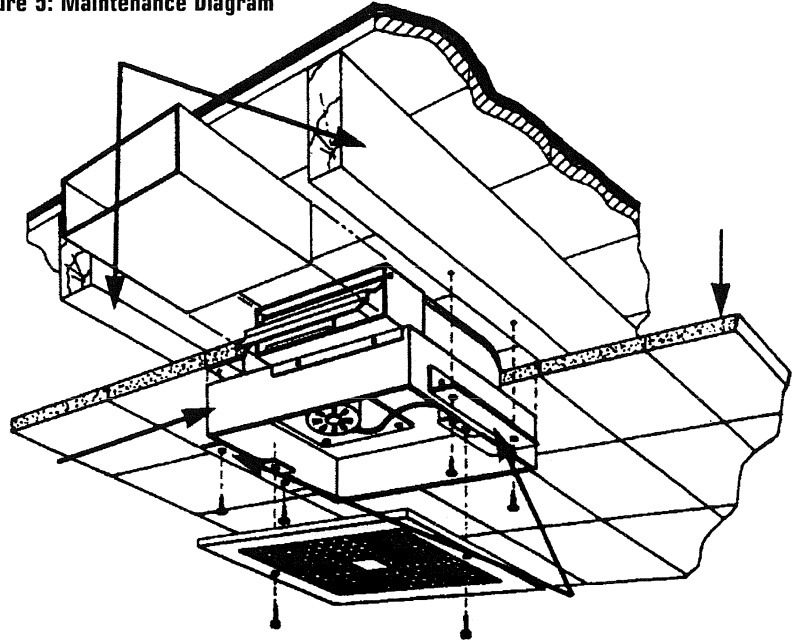
**CAUTION** Disconnect power source before working on unit. Maintenance should be done yearly or as conditions warrant.

**CLEANING BLOWER WHEEL, HOUSING & GRILL**

1. The blower wheel, housing and grill can be cleaned of dust and grease if required.
  - a. Remove the grill. Using a vacuum cleaner with appropriate attachments, vacuum dust from the grill. Wash the grill with a warm, soapy solution of water. Allow the grill to dry thoroughly before re-installing.
  - b. To clean blower wheel(s) and housing, unplug blower motor from integral terminal box. Unscrew the self-tapping screws which secure the motor and blower support plate. Carefully remove entire blower/motor assembly. Vacuum blower wheel. If necessary, the wheel can be washed. Wipe blower wheel dry with an absorbent cloth. Before replacing blower/motor assembly, wipe out interior of housing. Replace blower/motor assembly and secure with self-tapping screws. Plug in blower motor to terminal box.

**CAUTION** Do not allow water to enter motor.

**Figure 5: Maintenance Diagram**



**MOTOR LUBRICATION**

Oil every six months with 2 drops of SAE 20 oil.

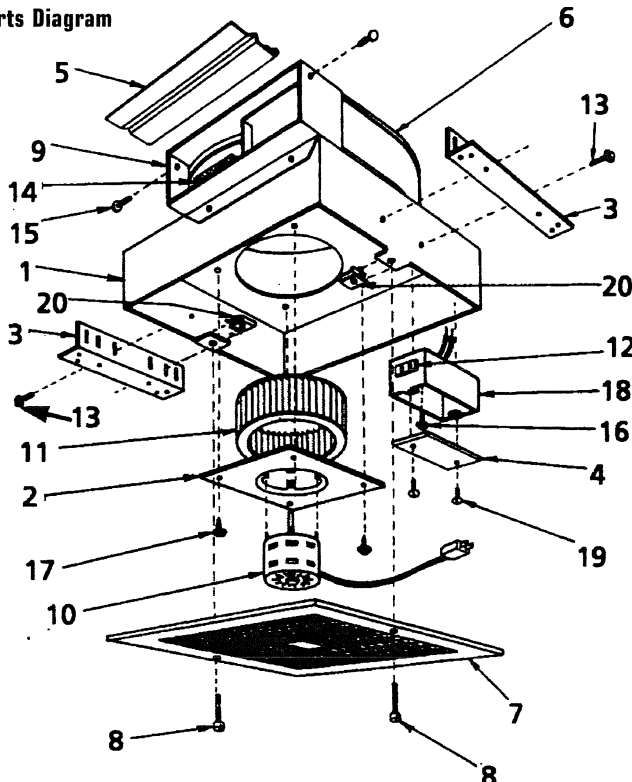
**Parts Replacement**

If replacing parts, do so with properly selected components which duplicate the original parts correctly. Incorrectly sized parts can damage the fan.

**PARTS LIST (SEE FIGURE 6)**

1. Main Housing
2. Venturi (motor support plate)
3. Housing Bracket
4. Cover Plate (junction box)
5. Damper
6. Blower Housing
7. Grill
8. 1/4" - 20 x 2" Nylon Bolt
9. Duct Sleeve
10. Motor and Plug / Disconnect
11. Wheel
12. Electric Receptacle Device
13. 1/4" x 3/4" Screw (housing bracket)
14. Polyurethane Damper Stop
15. Damper Pivot Pin
16. Electric Grounding Screw
17. #14-1/2" Screw SM
18. Junction Box
19. #8-1/4" Screw SM
20. U-Clip Speed Nut

**Figure 6: Parts Diagram**



# Troubleshooting Checklist

Symptom	Possible Cause(s)	Corrective Action
Excessive noise	<ol style="list-style-type: none"> <li>1. Defective or loose motor bearings</li> <li>2. Ventilator base not securely anchored</li> <li>3. Loose or unbalanced wheel/propeller</li> <li>4. Misaligned pulleys or shaft</li> <li>5. Loose or damaged wheel/propeller</li> <li>6. Wheel running in wrong direction</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace motor with same frame size, RPM, HP</li> <li>2. Reset properly</li> <li>3. Tighten screws, remove build-up, balance wheel/propeller</li> <li>4. correct alignment</li> <li>4. Replace wheel/propeller</li> <li>6. Reverse direction</li> </ol>
Fan inoperative	<ol style="list-style-type: none"> <li>1. Blown fuse or open circuit breaker</li> <li>2. Loose or disconnected wiring</li> <li>3. Defective motor</li> <li>4. Broken belts</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace fuses or circuit breaker</li> <li>2. Shut off power and check wiring for proper connections</li> <li>3. Repair or replace motor</li> <li>4. Replace belts</li> </ol>
Insufficient airflow	<ol style="list-style-type: none"> <li>1. Open access doors or loose sections of ducts</li> <li>2. Clogged filters</li> <li>3. Operation in wrong direction</li> <li>4. Insufficient make-up air direction</li> </ol>	<ol style="list-style-type: none"> <li>1. Check for leakage</li> <li>2. Clean filters</li> <li>3. Correct rotation of wheel/propeller</li> <li>4. Add make-up fan or louver opening</li> </ol>
Water leaking into ductwork or collection of grease under fan	<ol style="list-style-type: none"> <li>1. Fan installed with slope in the wrong direction</li> <li>2. Clogged drain spout</li> <li>3. Cooling tube or motor dome top removed</li> <li>4. Grease container full</li> </ol>	<ol style="list-style-type: none"> <li>1. Slope should be fitted in the direction of the drainage opening or grease collection box and drain spout</li> <li>2. Clean drain spout</li> <li>3. Install new cooling tube with gasket and dome top</li> <li>4. Empty grease box</li> </ol>
Motor overheating	<ol style="list-style-type: none"> <li>1. Belt slippage</li> <li>2. Overvoltage or under voltage</li> <li>3. Operation in wrong direction</li> <li>4. Fan speed too high</li> <li>5. Incorrect motor (service factor 1.0, low ambient temperature)</li> <li>6. Blocked cooling tube or leaky gasket</li> <li>7. Insufficient airflow to kitchen hood fan operating on low speed with kitchen in full operation</li> <li>8. Undersized motor</li> </ol>	<ol style="list-style-type: none"> <li>1. Adjust tension or replace bad belts</li> <li>2. Contact power supply company</li> <li>3. Reverse direction of motor</li> <li>4. Slow down fan by opening variable pitch pulley on motor shaft</li> <li>5. Replace motor with correct open, NEMA service factors (1.15 or higher) with 40 degrees ambient</li> <li>6. Remove blockage and seal cooling tube in place</li> <li>7. Check airflow under hood and adjust kitchen equipment output</li> <li>8. Check motor ratings with catalog speed and air capacity chart</li> </ol>

**Note:** Care should be taken to follow all local electrical, safety and building codes. Provisions of the National Electric Code (NEC), as well as the Occupational Safety and Health Act (OSHA) should be followed.

All motors are checked prior to shipment. If motor defects should develop, prompt service can be obtained from the nearest authorized service station of the motor manufacturer while under warranty. Exchange, repair or replacement will be provided on a no charge basis if the motor is defective within the warranty period. The PennBarry representative in your area will provide a name and address of an authorized service station if requested. **WARNING:** Motor guarantee is void unless overload protection is provided in motor wiring circuit.

**Notes:**

**Notes:**

**Notes:**

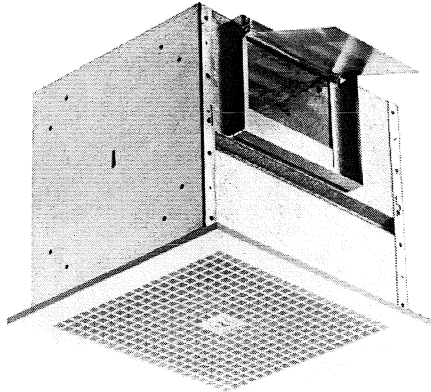


PENN BARRY

**PLEASE READ AND SAVE THESE INSTRUCTIONS.**

Read carefully before attempting to assemble, install, operate or maintain the product described. Protect yourself and others by observing all safety information. Failure to comply with instructions could result in personal injury and/or property damage! Retain instructions for future reference.

# Zephyr Ceiling & Inline Fans (Models Z3H Through Z12H)



### Storage

Long-term storage requires special attention. Units should be stored on a level, solid surface, preferably indoors. If outside storage is necessary, protect the units against moisture and dirt by encasing the cartons in plastic or some similar weatherproof material.

### Unpacking

Place carton in an upright position and remove staples or use a sharp (knife edge) tool to CAREFULLY cut or scribe the sealing tape on both sides at the top of the carton. Open carton flaps. Remove any cardboard and wooden filler pieces, as well as loose components or accessories shipped with the unit.

Carefully remove the unit from the carton. Inspect the unit for any damage that may have occurred during transit and check for loose, missing or damaged parts.

### Installation

**CAUTION** For general ventilating use only, do not use to exhaust hazardous or explosive materials and vapors.

Remove internal protective shipping trays and fillers. Check for and remove any loose hardware or particles from the inside of the fan housing. Disconnect motor cord and plug from internal terminal box and receptacle. On installations made before a final ceiling is installed, with access from below, the following procedure applies. Assemble adjustable flanges to fan housing with four self-tapping metal screws provided. The adjustable flanges should be located as illustrated in Figure 1.

PennBarry Ceiling Fans are quiet. They are designed for applications where a low noise, high reliability ceiling or cabinet fan is required. With air capacities from 30 to 1600 CFM, they're ideally suited for use in ventilating bathrooms or other low to medium CFM applications. Housings are fabricated of sturdy galvanized steel to ensure durability. Acoustic insulation, in combination with matched motor and wheel assemblies, lowers sound levels and improves air performance. Further, motors are mounted on vibration isolators to minimize noise levels. Together, these features ensure years of problem free, quiet operation.

### Receiving and Handling

PennBarry fans are carefully inspected before leaving the factory. When the unit is received, inspect the carton for any signs of tampering. Inspect the unit for any damage that may have occurred during transit and check for loose, missing or damaged parts. Mishandled units can void the warranty provisions. PennBarry is not responsible for damages incurred during shipment.

Avoid severe jarring and/or dropping. Handle units with care to prevent damage to components or special finishes.

**Note:** standard Zephyrs are set up for RA (right angle discharge). For TD (top discharge) or TDA (Inline) see conversion instructions.

**Note:** On model Z6S / H, when using a variable speed controller, wire to high (h) setting only.

Use appropriate hardware (i.e., wood screws or sheet metal screws, depending on joist construction), secure the adjustable flanges to each joist. Attach a properly sized duct to duct sleeve mounted on the fan housing. Run this duct system to an appropriate wall or roof cap. **Discharge side must be guarded, unless it is connected to duct.**

Figure 2

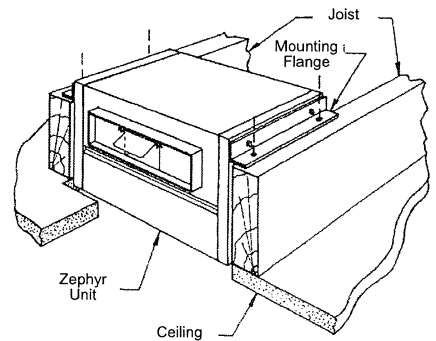


Figure 2a

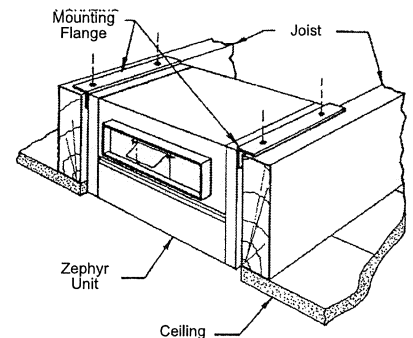
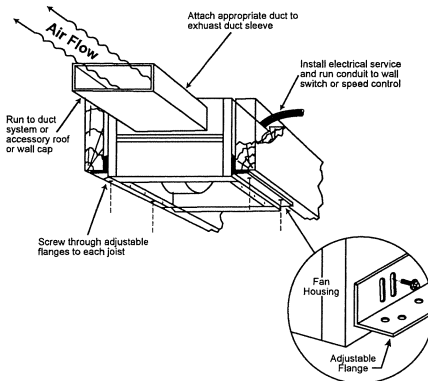


Figure 1



Normally, power is brought up from within the building through conduit lines and located at the terminal box. Before wiring is attempted, always lock out primary and secondary power source. Utilizing the pre-punched hole found at the terminal box on the fan housing, insert a 3/8" electrical connector. All wiring furnished should be in strict accordance with the National Electrical Code and local, state and federal standards. Complete the installation by cutting a 9 1/2" by 12 1/2" ceiling opening for the Z3, Z5 and Z6; 11 7/8" by 13 3/4" for the Z8 and Z81; 14 1/2" by 18" for the Z10; and 14 1/2" by 23 3/4" for Z101, Z102, Z12 and Z121 ceiling fan.

Installation of ceiling fans in suspended ceiling systems require a minimum 10 gauge solid wire for hanging or suspending the ceiling fan. Four wires per unit should be connected to the pre-punched holes of the adjustable mounting flanges (after the flanges have been mounted to the fan housing as outlined above). Note: For the Z12 and Z121, 1/4" threaded rods or perforated steel strips should be used per fan as illustrated in Figure 4.

If installation is to be made with ceiling in place, access must be from above. The following procedure should be used for installing the Zephyr Ceiling Fans. Assemble the adjustable flanges to the fan housing as illustrated in Figures 2 or 2A. Position adjustable flanges so the unit is flush with top side of ceiling surface. Tighten the adjustable flanges and secure them with the appropriate hardware (wood screws or sheet metal screws, depending on framing construction). Use the housing as a template, punch or drill a small hole through the ceiling at each corner of the housing and cut an opening in the ceiling, using these holes as a guide. Install the duct and electrical service in accordance with the instructions listed in the previous section.

Figure 5a

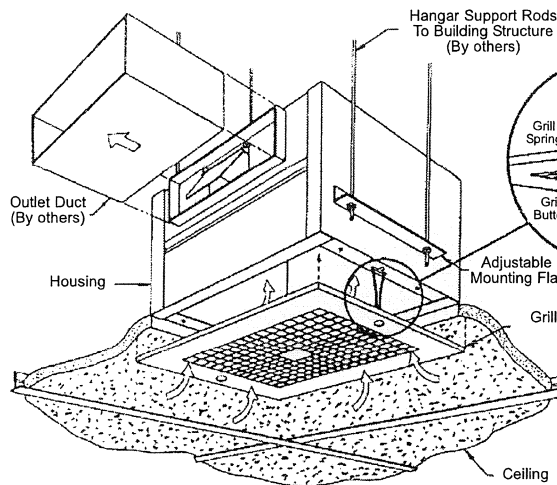
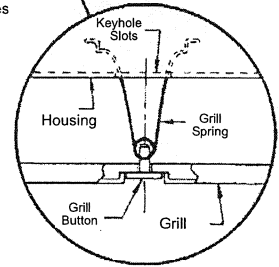


Figure 5b



In installations where the ceiling is already installed and there is no access from above, the following procedure should be followed. Before cutting ceiling opening, determine the exact location of framing or support members. Cut hole in ceiling using care not to exceed the dimensions of the ceiling grille. Note: The ceiling hole should be cut so that one edge of the hole is in line with the inside face of the joist. The hole must be large enough to permit passage of the fan housing into the ceiling space. Care should be taken not to exceed the ceiling grill dimensions when cutting.

Remove the blower assembly from the housing. For single blower units, remove two #10 sheet metal screws near the blower, slide power pack to the left to release it from the housing. (For double blower units, remove one 1/4" bolt).

Electrical service should now be brought up to the fan location. This should be done in accordance with the instructions listed in the previous section.

To secure housing in ceiling space, raise the housing into place with one edge of the housing against joist "A" (see Figure 3). Determine if it is necessary to build out from joist "B" so that the housing can be secured from both sides. If building out is necessary, an appropriate piece(s) of wood should be utilized. These wood spacers should be nailed to joist "B" to increase the thickness of the joist at the point where the fan will be installed. The fan housing should fit snugly between joist "A" and joist "B" (or the built-out-section of joist "B"). If spacers are required for joist "B", they should be sized according to the dimension of the fan housing. Using care to avoid damage to the housing, secure the housing to the joists by nailing through the pre-punched holes found at the top and bottom of housing sides. These pre-punched holes would normally be utilized as a point of attachment for the adjustable flanges; however, these flanges will not be necessary with this type of installation.

Figure 3

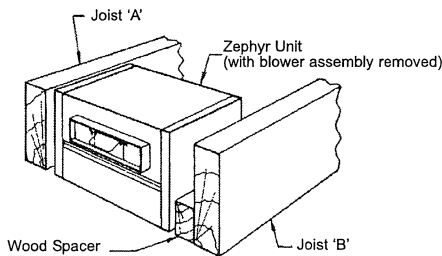
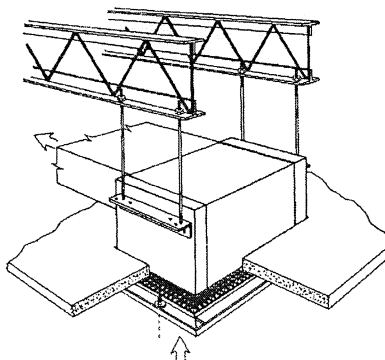


Figure 4



Before the nails are driven snug, care should be taken to assure that the housing is 1/4" above the ceiling level. Nails should now be secured. Care should be taken to assure that the nail head is large enough to prevent slipping through the pre-punched holes. A washer can be used to increase the bearing surface. Re-attach blower assembly to housing. Lock out primary and secondary power source and secure electrical lines to the terminal box. This should be done in accordance with the procedure outlined.

For all of the installation situations described above, the egg crate ceiling grill should be installed as a final step. This is done by first assembling the two torsion springs to the grill. Use the torsion springs and grill buttons from the hardware kit provided. Insert the grille buttons into the ceiling grill as shown in Figure 5a through the slot in the grill buttons. The grill is now ready for assembly to the housing. Lift the grill into position below the housing. Insert the two torsion springs into the keyhole slots located in the center of the housing as shown in Figure 5B. Push the grill towards the housing.

**Electrical Connections**

**CAUTION** Before attempting any repair or installation work, be certain that all power to the motor and electrical accessories are turned off and locked in off position.

1. Connect Motor per nameplate to correct power supply.

2. Install all wiring, protection and grounding in accordance with national electrical code and local requirements.
3. Follow all local electrical and safety codes, as well as the National Electrical Code (NEC) and the Occupational Safety and Health Act (OSHA).
4. In order to prevent motor failure when speed controller is used unit must be started on high speed before turning to low speed.

**CAUTION** \* For low speed insulate black lead as shown on Figure 7.

**CAUTION** \*\* For high speed insulate red lead and connect black to black with wire nut.

**Note:** On Model Z6S / H, when using a variable speed control, wire to the high (H) setting only.

Make all of the necessary connections by using two wire nuts. A Separate ground wire must be connected to the grounding screw. Reinstall the cover of the junction box.

**Maintenance**

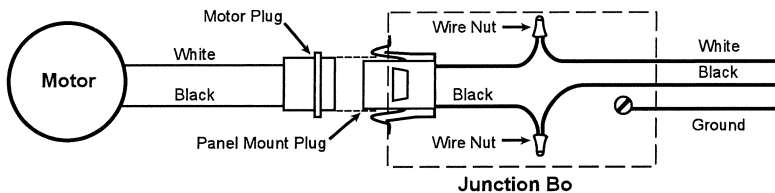
**CAUTION** To reduce the risk of injury, disconnect from power supply before servicing.

The blower wheel, housing and grille should be cleaned of dust and grease if required. Power should be disconnected before cleaning the internal parts of the ceiling fan.

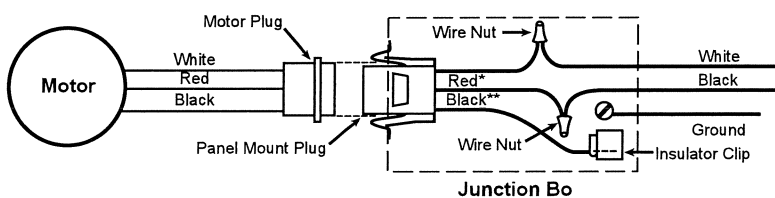
Remove the grill. Use a vacuum cleaner with the appropriate attachments and vacuum dust from the grill. Wash the grill with a warm, soapy solution of water. Allow grill to air dry thoroughly before reinstalling.

To clean blower wheel(s) and housing, unplug blower from integral terminal box. Remove the blower assembly from the housing. For single blower units, remove two #10 sheet metal screws near the blower discharge and slide to the left. For double blower units, remove one 1/4" bolt next to motor. Vacuum blower wheel, if necessary, the wheel can be washed. Use extreme caution – do not allow water to enter motor. Wipe blower wheel dry with an absorbent cloth. Before replacing blower / motor assembly, wipe out interior of housing. Replace blower/motor assembly and secure with self-tapping screws. Plug in blower motor to terminal box.

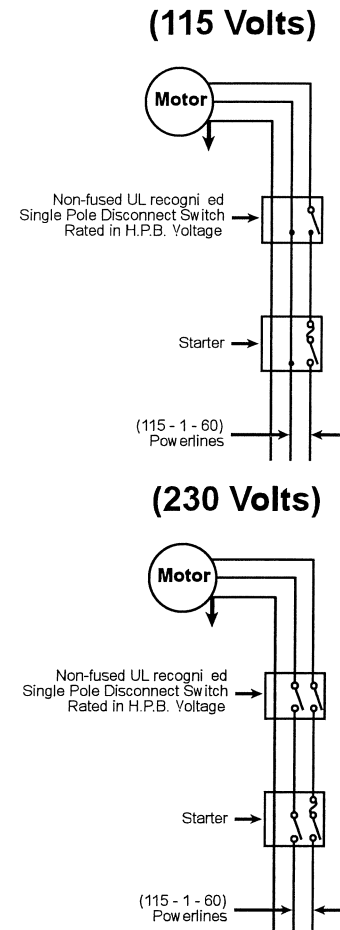
**Figure 6: Internal Electrical Connections, Single Speed Motors**



**Figure 7: Internal Electrical Connections, Two Speed Motors**



**Figure 8: External Electrical Connections**



**Note:** All motors are checked prior to shipment; however, if motor defects should develop, prompt service can be obtained from the nearest authorized service station of the motor manufacturer while under warranty. Exchange, repair or replacement will be provided on a no charge basis if the motor is defective within the warranty period. The PennBarry representative in your area will provide a name and address of an authorized service station if requested. Do not return defective motors to Pennbarry. **WARNING:** Motor guarantee is void unless overload protection is provided in motor wiring circuit.

**Hidden Danger**

In addition to the normal dangers of rotating machinery, fans present an additional hazard in their ability to suck in not only air, but loose materials as well. Solid objects can pass through the fan and be discharged by the impeller as potentially dangerous projectiles.

Intake to duct work should, whenever possible, be screened to prevent the accidental entrance of solid objects. Access doors or grill to a duct system should never be opened with the fan running.

When a fan is being started for the first time, a complete inspection of the duct work and interior of the fan should be made (with the power locked off) to make certain there is no foreign material which can be sucked into or blown through the duct work.

**Fan Guards**

All fans have moving parts which require guarding in the same way as other moving machinery. In areas which are accessible only to experienced personnel, a standard industrial type guard may be adequate. This type of guard will prevent the entry of thrown or dropped objects with a minimum restriction of air flow.

Where the fan is accessible to untrained personnel or the general public, maximum safety guards should be used, even at the cost of some loss of performance.

**CAUTION** *To reduce the risk of injury of a person, install the fan at least 7 feet above the floor if no guard is installed.*

Roof-mounted equipment will require guards when access is possible, for example, by climbing children.

Centrifugal fans may be connected directly to duct work which will prevent contact with the internal moving parts, but when the inlet or outlet is exposed, a suitable guard should be installed.

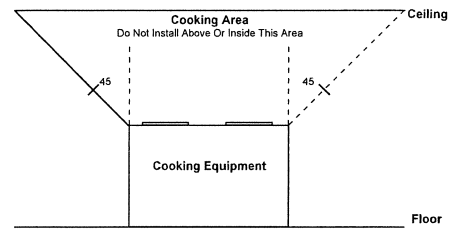
Do not install in cooking or shower stall area (see Figure 23).

**CAUTION** *Units are designed to handle clean air only. Avoid installation in corrosive and dusty environments.*

**WARNING** *To reduce the risk of fire, electric shock or injury to persons, observe the following:*

- A. Use this unit only in the manner intended by the manufacturer, if you have questions, contact the manufacturer.
- B. Before servicing or cleaning unit, switch power OFF at service panel and lock the service panel to prevent power from being switched ON accidentally. When the service disconnecting means cannot be locked, securely fasten a prominent warning device, such as a tag, to the service panel.

**Figure 23**



**WARNING** *To reduce the risk of fire, electric shock or injury to persons, observe the following:*

- A. Installation work and electrical wiring must be done by qualified person(s) in accordance with all applicable codes and standards, including fire-rated construction.
- B. Sufficient air is needed for proper combustion and exhausting of gases through the flue (chimney) of fuel burning equipment to prevent back drafting. Follow the heating equipment manufacturer's guideline and safety standards such as those published by the National Fire Protection Association (NFPA), the American Society for Heating, Refrigeration and Air Conditioning Engineers (ASHRAE) and local code authorities.
- C. When cutting or drilling into wall or ceiling, do not damage electrical wiring and other hidden utilities.
- D. Ducted fans must always be vented to the outdoors.
- E. If this unit is to be installed over a tub or shower, it must be marked as appropriate for the application.
- F. NEVER place a switch where it can be reached from a tub or shower.

**CAUTION** *For general ventilating use only. Do not use to exhaust hazardous or explosive materials and vapors.*

Use caution when handling sheet metal products. Protection should be used to avoid contact with sharp edges or injury may occur.

**Table 1: Accessories Matrix**

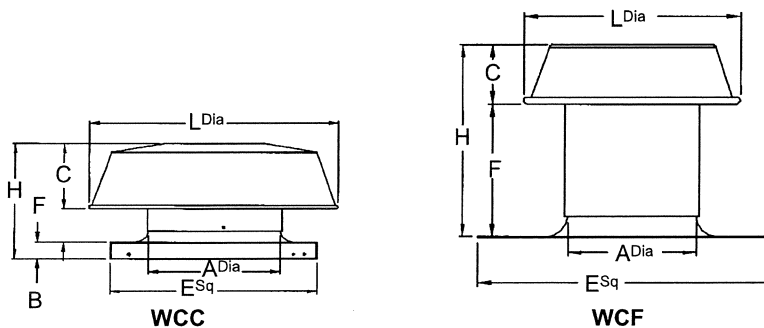
Model	Roof Caps			Wall Cap	Brick Vent	Switches		Radiation+ Damper	Metal Face Grill
	Flat	Curb Mnt.	Slope			Speed Ctrl.	Time Delay		
Z3H	WCF06	WCC06	SL20+	WC10	B68	LT30	AM12	DDA3	MFG6
Z5H	WCF06	WCC06	SL20+	WC10	B68	LT30	AM12	DDA3	MFG6
Z6S/H	WCF06	WCC06	SL20+	WC10	B68	LT30**	AM12	DDA3	MFG6
Z8S/H	WCF08	WCC08	SL20+	WC10	B68	LT30	AM12	DDA8	MFG8
Z81S	WCF08	WCC08	SL20+	WC10	B68	LT30	AM12	DDA8	MFG8
Z10S/H	WCF08	WCC08	SL20+	SL20+	B100	LT50	AM12	DDA10	MFG10
Z101S	WCF10	WCC10	WCF10†	***	B120	LT30	AM12	DDA12	MFG12
Z102S	WCF10	WCC10	WCF10†	***	B120	LT50	AM12	DDA12	MFG12
Z12S	WCF12	WCC12	WCF12†	***	B120	LT50	AM12	DDA12	MFG12
Z121S	WCF12	WCC12	WCF12†	***	B120	LT50	AM12	DDA12	MFG12
Z102H	WCF14	WCC14	WCF14†	***	B120	LT40	AM12	DDA12	MFG12
Z12H	WCF14	WCC14	WCF14†	***	B120	LT40	AM12	DDA12	MFG12
Z14	WCF20	WCC20	CF	***	B120	LT40	AM12	-	MFG14
Z15	WCF20	WCC20	CF	***	B150	LT35	-	-	MFG15

+ Manufactured of galvanized steel. All other accessories manufactured of aluminum.  
 ‡ Kit is field installed, shipped separate from fan.  
 \*\* Z6H unit only. \*\*\*Use brick vent. †4 in 12 max. pitch.

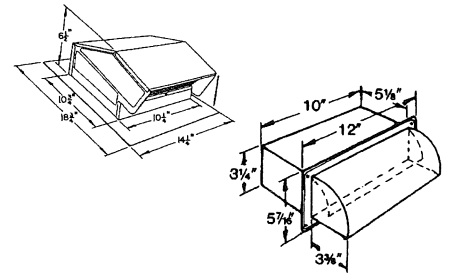
**Table 2: Roof Caps**

Model	A (Throat Dia)	B	C	E Sq	F	H	L Dia	* Damper Sq
WCF06	7	N/A	3 1/2	16 7/8	8	11 1/2	12	NA
WCF08	9	N/A	5 1/2	21 1/4	8	13 1/2	18 1/2	NA
WCF10	11	N/A	5 1/2	21 1/4	10	15 1/2	21	NA
WCF12	13	N/A	7	24	10	17	25	NA
WCF14	15	N/A	7	28	10	17	28	NA
WCF20	21	N/A	10 1/2	32	12	22 1/2	37	NA
WCC06	7	1	3 1/2	15	4	8 1/2	12	8 3/4
WCC08	9	1 1/2	5 1/2	18 1/2	4	11	18 1/2	11 1/4
WCC10	11	1 1/2	5 1/2	18 1/2	4	11	21	11 1/4
WCC12	13	2	7	20 1/2	4	13	25	15 3/4
WCC14	15	2	7	24 3/4	4	13	28	15 3/4
WCC20	21	2	10 1/2	28 1/2	5 1/2	18	37	19 3/4

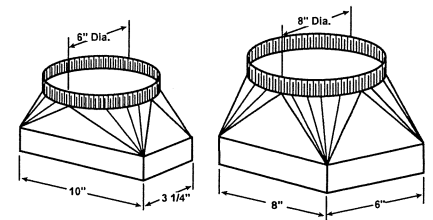
**Figure 13: Weather Caps**



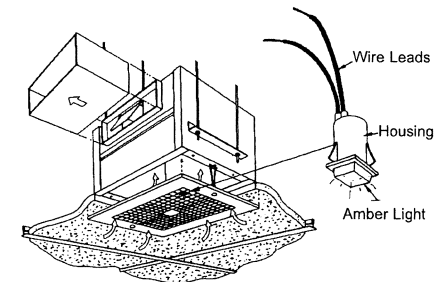
**Figure 9: Roof Caps (Models SL20 and WC10)**



**Figure 10: Duct Transitions**

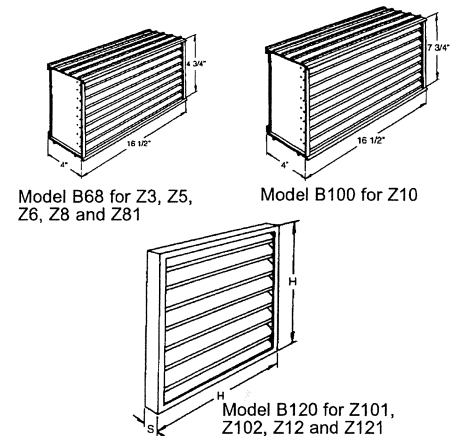


**Figure 11: Pilot Light Mounts in Grill Grid**



\* See instructions included with Pilot Light Kit for proper wiring and installation.

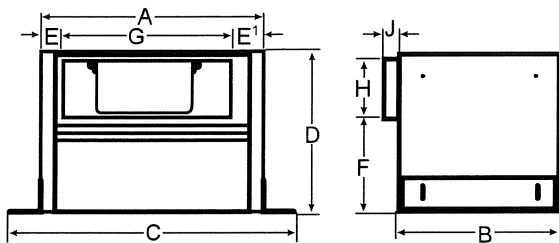
**Figure 12: Brick Vents**



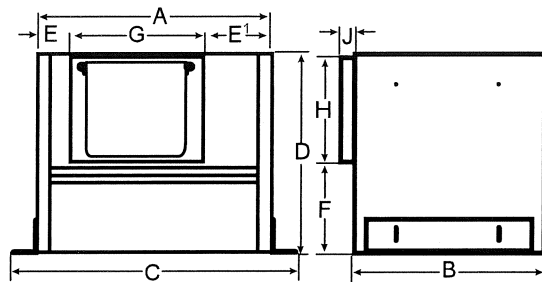
**Table 3: Dimensional Data**

Model	Housing							Outlet Duct			Grill		TDA Intake Duct		
	A	B	C	D	E	E'	F	G	H	J	K	L	X	Y	Z
Z3H,Z5H,Z6S/H	12 1/2	9 1/8	16	9 1/8	1 1/4	1 1/4	5 3/8	10	3 1/4	3/4	11	13 3/4	10	6	1 5/8
Z8S/H,Z81S	13 7/8	11 3/8	17 3/8	11 3/8	1 7/8	4	5 1/4	8	6	3/4	13 1/4	14 7/8	10	8	1 9/16
Z10S/H	18	14 1/8	21 1/2	14 1/8	3 5/8	6 3/8	8	8	6	3/4	15 1/2	19 3/8	14	10	2
Z101S,Z102S/H, Z12S/H,Z121S	24	14 1/8	27 1/2	14 1/8	1	1	8	22	6	3/4	15 1/2	25	20	10	2

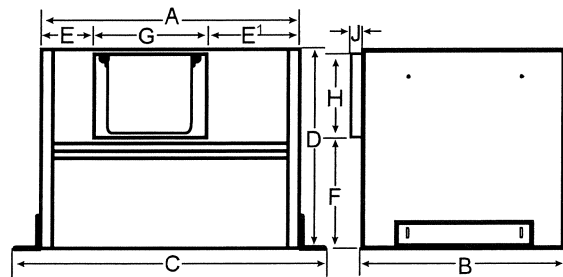
**Figure 15: Models Z3H, Z5H and Z6S/H**



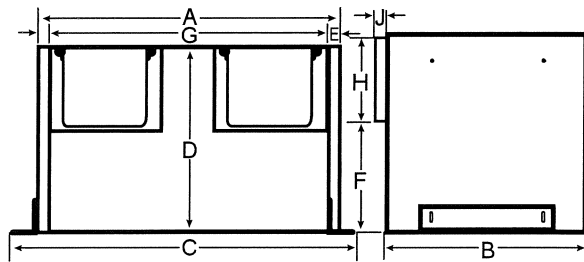
**Figure 16: Models Z8S/H AND Z81S**



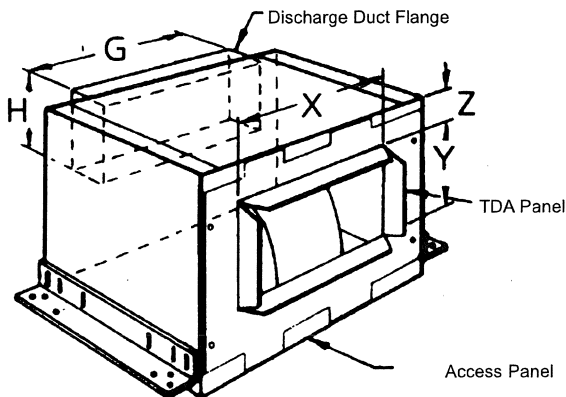
**Figure 17: Model Z10S/H**



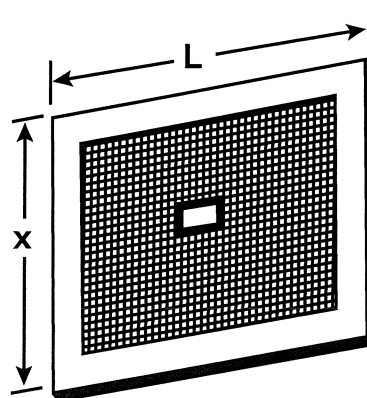
**Figure 18: Models Z101S, Z102S/H, Z12S/H AND Z121S**



**Figure 19**

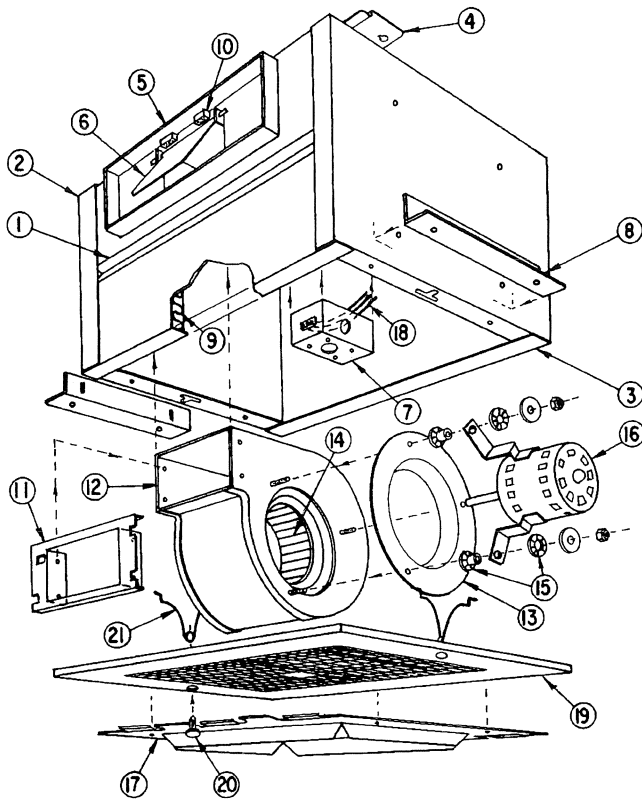


**Figure 20**

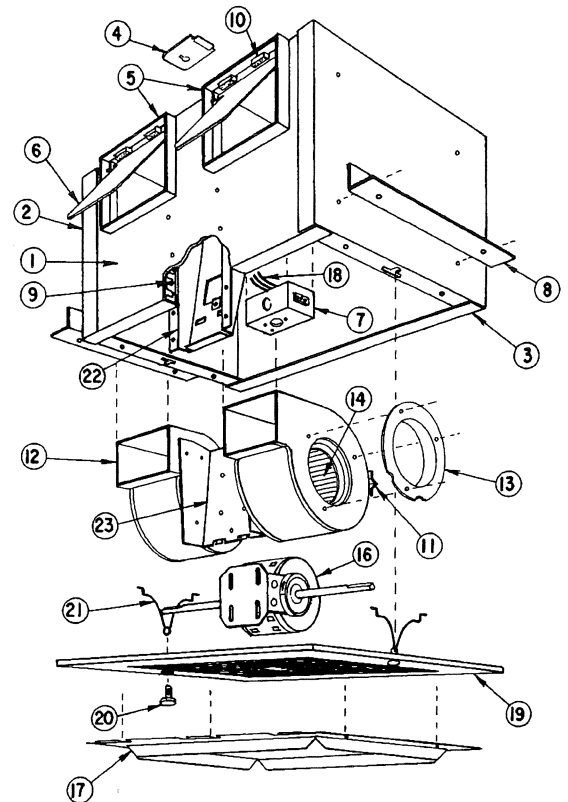


**Typical Exploded Views**

**Figure 21: Models Z3H, 5H, 6S/H, 8S/H, 81S and 10S/H**



**Figure 22: Models Z101S, 102S/H, 12S/H and 121S**



**Legend**

1. Housing

2. End

3. Access Panel

4. Wiring Box Cover Plate

5. Duct Flange

6. Damper Blade

7. Junction Box

8. Housing Bracket

9. Insulation; Parts A, B, & C

10. Damper Stop

11. Blower Bracket

12. Blower Housing Assembly

13. Inlet

14. Wheel

15. Grommets, 2 Part : Male & Female  
(single blower units only)

16. Motor (115/1/60)

17. TDA Panel (Blank Off Plate)  
(not shown)

18. Wiring Assembly (2 & 3 Lead  
Versions) 3M Connector

19. Grill

20. Grill Button

21. Grill Spring

22. Box Brace  
(double blower units only)

23. Motor Plate  
(double blower units only)

**Parts Replacement**

If replacing parts, do so with properly selected components which duplicate the original parts correctly. Incorrectly sized parts can damage the fan.

# Conversion Instructions

## Models: Z3H, Z5H, Z5S/H, Z8S/H, Z81S & Z10S/H

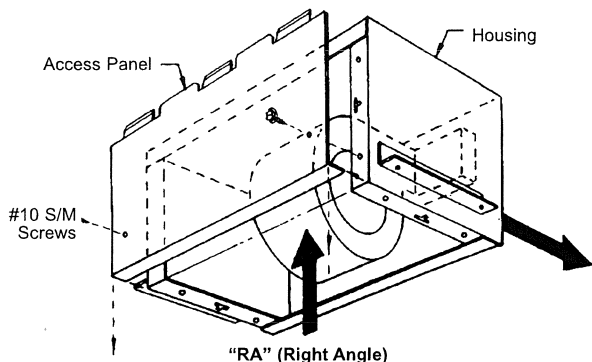
### RA / TD Ceiling Fan Conversions

#### RIGHT ANGLE (RA) TO TOP DISCHARGE (TD) CONVERSION

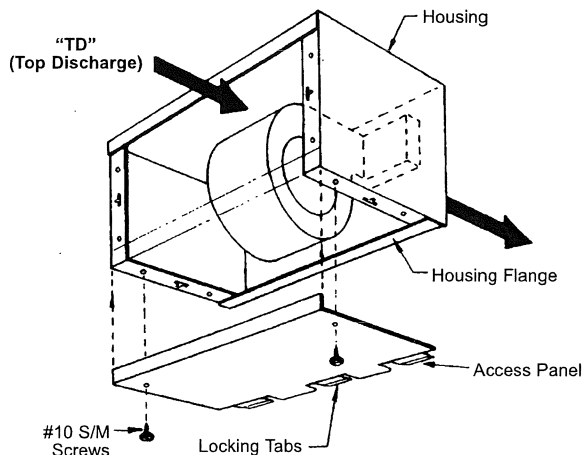
**Note:** As a standard, Zephyr RA / TD's are furnished with a Right Angle (RA) discharge as shown in Figure 24.

1. Disassemble the access panel from the housing by removing the two #10 sheet metal screws and then removing the panel by pulling it towards the housing opening as shown in figure 24.

**Figure 24: "RA" (Right Angle)**



**Figure 25: "TD" (Top Discharge)**



2. Reassemble the access panel by rotating the access panel 90° and remount it to the housing. Slide in the 3 locking tabs to the housing flange and reinstall the two #10 sheet metal screws. See figure 25.

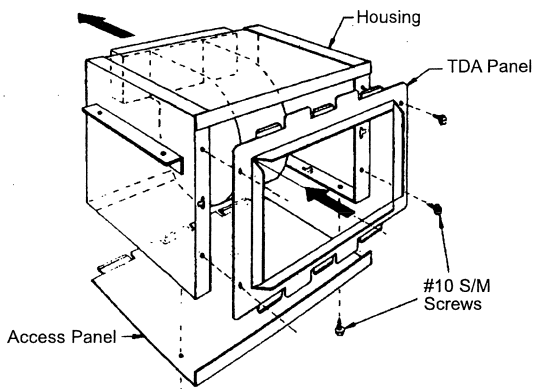
### TDA In-line Fan Conversions

#### TDA IN-LINE TO RIGHT ANGLE DISCHARGE CONVERSION

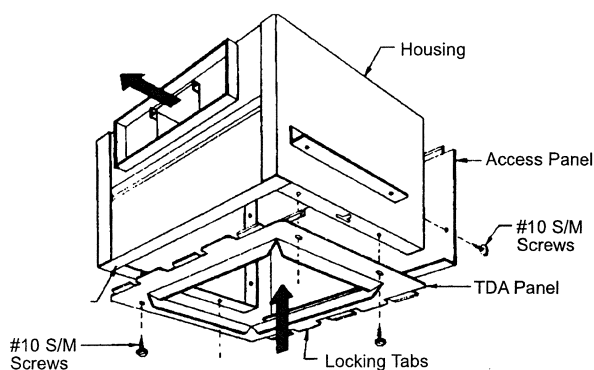
**Note:** As a standard, Zephyr TDA's are furnished with an In-line discharge as shown in Figure 26.

1. Disassemble the TDA panel from the housing by removing the four #10 sheet metal screws. Remove both panels as shown in figure 26.

**Figure 26: "TDA" (In-Line)**



**Figure 27: "TDA" (Right Angle)**



2. Reassemble both the TDA and access panels after exchanging locations. First, slide the 3 locking tabs of the TDA panel into the housing flange. Second, slide the 3 tabs of the access panel into the housing. Third, engage the access panel return flange into the 3 locking tabs on the TDA panel. Finally, reinstall the six #10 sheet metal screws. See figure 27.

# Conversion Instructions

## Models: Z101S, Z102S, Z12S, Z102H & Z12H

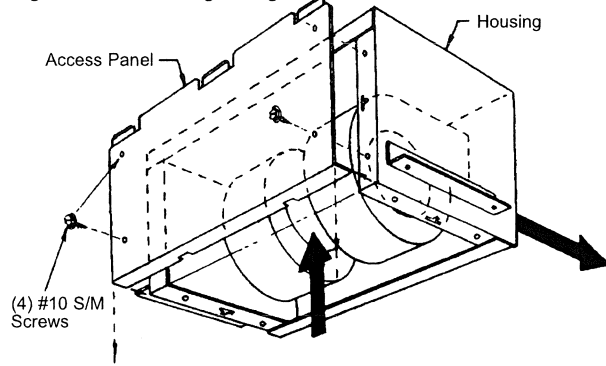
### RA / TD Ceiling Fan Conversions

#### Right Angle (RA) To Top Discharge (TD) Conversion

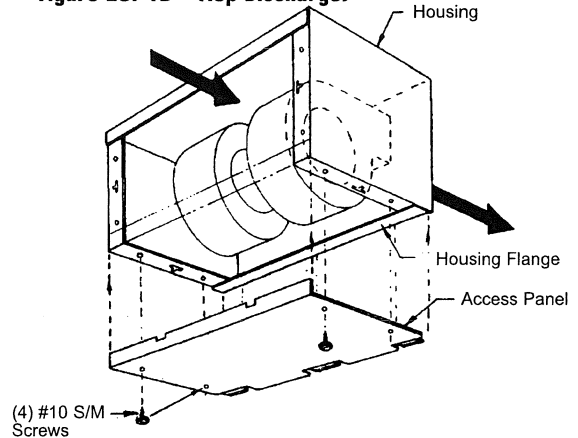
Note: As a standard, Zephyr RA / TD's are furnished with a Right Angle (RA) discharge as shown in Figure 28.

1. Disassemble the access panel from the housing by first removing the four #10 sheet metal screws and then removing the panel as shown in figure 28.

**Figure 28: "RA" (Right Angle)**



**Figure 29: "TD" (Top Discharge)**



2. Reassemble the access panel by rotating the access panel 90° and remount it to the housing. Finally, reinstall the four #10 sheet metal screws. See figure 29.

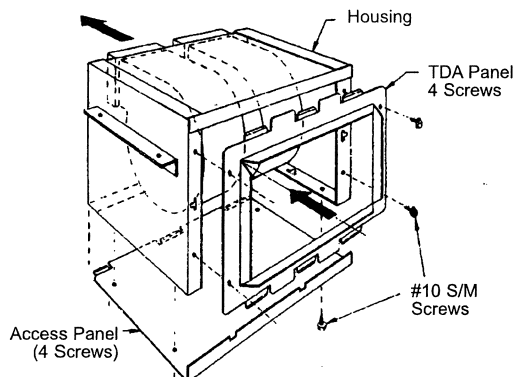
### TDA In-line Fan Conversions

#### TDA IN-LINE TO RIGHT ANGLE DISCHARGE CONVERSION

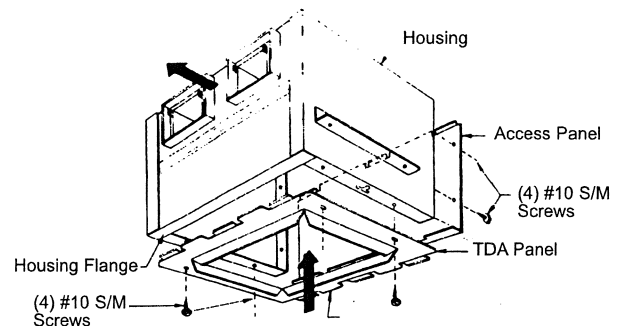
Note: As a standard, Zephyr TDA's are furnished with an In-line discharge as shown in Figure 30.

1. Disassemble the TDA panel from the housing by removing the four #10 sheet metal screws securing the TDA panel to the housing and then remove the access panel by removing the four #10 sheet metal screws. Remove both panels as shown in figure 30.

**Figure 30: "TDA" (In-Line)**



**Figure 31: "TDA" (Right Angle)**



2. Reassemble both the TDA and access panels after exchanging locations. First, slide the 3 locking tabs of the TDA panel into the housing flange. Second, engage the access panel return flange into the 3 locking tabs on the TDA panel. Finally, reinstall the eight #10 sheet metal screws. See figure 31.

# Troubleshooting Checklist

Symptom	Possible Cause(s)	Corrective Action
Excessive noise	<ol style="list-style-type: none"> <li>1. Defective or loose motor bearings</li> <li>2. Ventilator base not securely anchored</li> <li>3. Loose or unbalanced wheel/propeller</li> <li>4. Misaligned pulleys or shaft</li> <li>5. Loose or damaged wheel/propeller</li> <li>6. Wheel running in wrong direction</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace motor with same frame size, RPM, HP</li> <li>2. Reset properly</li> <li>3. Tighten screws, remove build-up, balance wheel/propeller</li> <li>4. correct alignment</li> <li>4. Replace wheel/propeller</li> <li>6. Reverse direction</li> </ol>
Fan inoperative	<ol style="list-style-type: none"> <li>1. Blown fuse or open circuit breaker</li> <li>2. Loose or disconnected wiring</li> <li>3. Defective motor</li> <li>4. Broken belts</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace fuses or circuit breaker</li> <li>2. Shut off power and check wiring for proper connections</li> <li>3. Repair or replace motor</li> <li>4. Replace belts</li> </ol>
Insufficient airflow	<ol style="list-style-type: none"> <li>1. Open access doors or loose sections of ducts</li> <li>2. Clogged filters</li> <li>3. Operation in wrong direction</li> <li>4. Insufficient make-up air direction</li> </ol>	<ol style="list-style-type: none"> <li>1. Check for leakage</li> <li>2. Clean filters</li> <li>3. Correct rotation of wheel/propeller</li> <li>4. Add make-up fan or louver opening</li> </ol>
Water leaking into ductwork or collection of grease under fan	<ol style="list-style-type: none"> <li>1. Fan installed with slope in the wrong direction</li> <li>2. Clogged drain spout</li> <li>3. Cooling tube or motor dome top removed</li> <li>4. Grease container full</li> </ol>	<ol style="list-style-type: none"> <li>1. Slope should be fitted in the direction of the drainage opening or grease collection box and drain spout</li> <li>2. Clean drain spout</li> <li>3. Install new cooling tube with gasket and dome top</li> <li>4. Empty grease box</li> </ol>
Motor overheating	<ol style="list-style-type: none"> <li>1. Belt slippage</li> <li>2. Overvoltage or under voltage</li> <li>3. Operation in wrong direction</li> <li>4. Fan speed too high</li> <li>5. Incorrect motor (service factor 1.0, low ambient temperature)</li> <li>6. Blocked cooling tube or leaky gasket</li> <li>7. Insufficient airflow to kitchen hood fan operating on low speed with kitchen in full operation</li> <li>8. Undersized motor</li> </ol>	<ol style="list-style-type: none"> <li>1. Adjust tension or replace bad belts</li> <li>2. Contact power supply company</li> <li>3. Reverse direction of motor</li> <li>4. Slow down fan by opening variable pitch pulley on motor shaft</li> <li>5. Replace motor with correct open, NEMA service factors (1.15 or higher) with 40 degrees ambient</li> <li>6. Remove blockage and seal cooling tube in place</li> <li>7. Check airflow under hood and adjust kitchen equipment output</li> <li>8. Check motor ratings with catalog speed and air capacity chart</li> </ol>

**Note:** Care should be taken to follow all local electrical, safety and building codes. Provisions of the National Electric Code (NEC), as well as the Occupational Safety and Health Act (OSHA) should be followed.

All motors are checked prior to shipment. If motor defects should develop, prompt service can be obtained from the nearest authorized service station of the motor manufacturer while under warranty. Exchange, repair or replacement will be provided on a no charge basis if the motor is defective within the warranty period. The PennBarry representative in your area will provide a name and address of an authorized service station if requested. **WARNING:** Motor guarantee is void unless overload protection is provided in motor wiring circuit.

**Notes:**



# As-Builts



# Plumbing

# As-Builts





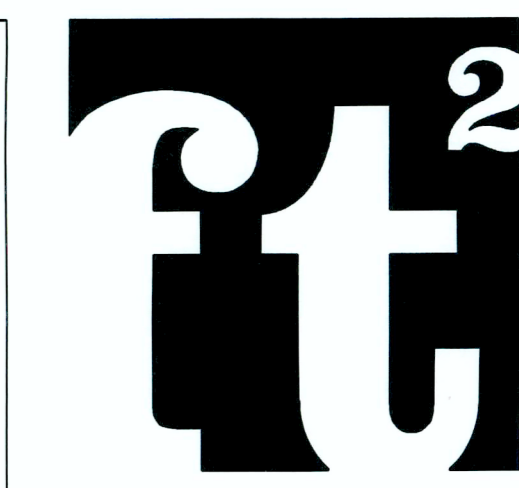






# **Electrical As-Builts**





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www.squarefeetstudio.com

CONSULTANTS



PROJECT TITLE:  
**EMORY DEPOT**

ONE EAGLE ROW  
ATLANTA, GA 30322

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PUBLISHED DRAWINGS:

ISSUE	DATE
EMORY REVIEW	12.17.2015
EMORY REVIEW	01.07.2016
REVISION 1	01.08.2016
REVISION 3	03.04.2016
PERMIT	03.07.2016
FOG COMMENTS	03.31.2016
FOR CONSTRUCTION	05.04.2016

FOR  
CONSTRUCTION

SHEET TITLE:

SCHEDULES

AS-BUILTS  
DATE: 01/14/16 INITIALS: JCS

E0.2

Panel		ROOM	VOLTS	208Y/120V 3P 4W	A/C	EXISTING	
EXISTING A		MOUNTING FLUSH	BUS AMPS	400	MAIN BKR	400	
		FED FROM UTILITY	NEUTRAL	100%	LUGS	STANDARD	
NOTE							
CKT #	CKT BKR	LOAD KVA	CIRCUIT DESCRIPTION	CKT #	CKT BKR	LOAD KVA	CIRCUIT DESCRIPTION
3	50/2	0.3	Turbochef i3 Oven	2	20/1	0.3	PACP, RECEPTACLE
5	-/1	0.0	SHUNT TRIP	4	20/1	0.4	RECEPTACLE
7	50/2	0.3	Turbochef i3 Oven	8	20/1	1.1	RECEPTACLE
9	-/1	0.0	SHUNT TRIP	10	20/1	0.7	RECEPTACLE
11	-/1	0.0	SHUNT TRIP	12	20/1	0.9	RECEPTACLE
13	20/1	0.1	Vulcan 1VK65A Fryer	14	20/1	0.9	RECEPTACLE
15	-/1	0.0	SHUNT TRIP	16	20/2	0.2	COOLER EVAPORATOR Spwr. cooler Evaporator.
17	20/1	0.3	COOLER LIGHTS, FREEZER LIGHTS	18	-	-	-
19	15/2	1.5	COOLER CONDENSER	20	20/1	0.1	EP-1
21	-	-	-	22	20/1	1.1	RECEPTACLE
23	20/1	0.5	RECEPTACLE	24	15/1	0.5	HOOD CTRL
25	20/1	1.7	Mythos Espresso Grinder	26	50/2	6.4	Strada Espresso Machine
27	20/1	1.7	Mythos Espresso Grinder	28	-	-	-
29	20/1	1.7	Mythos Espresso Grinder	30	80/3	27.5	EXISTING WATER HEATER
31	50/2	5.3	CRS-2152XS Coffee Brewer	32	-	-	-
33	-	-	Water System	34	-	-	-
35	20/1	1.8	Bunn HSX Hot Water Tower	36	225/3	61.6	Water B Calc. hnd.
37	20/1	0.9	Mahikong Tanzania Coffee Grinder	38	-	-	Basement sump pump
39	20/2	3.1	Scotsman CU3030MA-1 Prody Ice Machine	40	-	-	Basement Heat Exchanger
41	-	-	-	42	20/1	1.4	Vitamix Drink Machine Advance Blender
		CONN. KVA	CALC. KVA	CONN. KVA	CALC. KVA		
LIGHTING		3.0	3.7 (125%)	CONTINUOUS	0.0	0.0	(125%)
LARGEST MOTOR		15.0	3.6 (125%)	HEATING	42.2	42.2	(100%)
OTHER MOTORS		5.9	5.9 (100%)	NONCONTINUOUS	27.6	27.6	(100%)
RECEPTACLES		6.7	6.7 (50% > 10)	KITCHEN EQUIP	74.1	48.2	(65%)
				NONCONDIVERSE	0.0	0.0	(N/A)
				TOTAL KVA	159.4	138.0	
				BALANCED THREE PHASE AMPS	382.9		
				PHASE BALANCE PERCENT: PHASE A	109%	PHASE B	95.5%
						PHASE C	95.1%

Panel		ROOM	VOLTS	208Y/120V 3P 4W	A/C	EXISTING	
EXISTING B		MOUNTING FLUSH	BUS AMPS	225	MAIN BKR	MLO	
		FED FROM A	NEUTRAL	100%	LUGS	STANDARD	
NOTE							
CKT #	CKT BKR	LOAD KVA	CIRCUIT DESCRIPTION	CKT #	CKT BKR	LOAD KVA	CIRCUIT DESCRIPTION
1	40/3	9.9	EXISTING AC	2	100/3	2.2	PANEL C
3	-	-	-	4	-	-	-
5	-	-	-	6	-	-	-
7	60/3	12.3	EXISTING AC	8	20/1	1.2	Hobart Edge i2 Meat Slicer
9	-	-	-	10	20/1	0.8	Hanson Brass 800-RET-BCS Heat Lamps
11	-	-	-	12	20/1	0.1	Vulcan 1VK65A Fryer
13	60/3	15.0	EXISTING AC	14	20/1	0.5	True Undercounter Fridge
15	-	-	-	16	20/1	1.2	Beverage Air SPE72-18M Mega Top Sandwich / Salad Preparation Refrigerator
17	-	-	-	18	20/1	0.5	Beverage Air WTRC55-1
19	20/1	0.8	True Undercounter Fridge	20	20/1	1.4	Worktop Cookstand Refrigerator
21	20/1	0.0	SPACE	22	20/1	0.8	Vitamix Drink Machine Advance Blender
23	20/1	0.6	Robot Coupe Food Processor	24	20/3	5.0	EXISTING AC
25	80/2	15.0	MEIKO Model No. DV 120.2 Dishwasher	26	-	-	-
27	-	-	-	28	-	-	-
29	20/1	0.6	True Under Counter Freezer	30	20/1	0.2	EXISTING HVAC MAINT REF
31	20/1	1.5	Nemco 6035A-CW Triple Well Soup Warmer	32	20/1	1.4	Robot Coupe Self Service
33	20/1	0.8	Robot Coupe Food Processor	34	25/3	2.6	FREEZER CONDENSER
35	20/1	0.7	RECEPTACLE	36	-	-	-
37	20/1	5.3	RECEPTACLE	38	-	-	-
39	-	-	-	40	20/2	1.3	FREEZER EVAPORATOR
41	-	-	-	42	-	-	-
		CONN. KVA	CALC. KVA	CONN. KVA	CALC. KVA		
LIGHTING		1.8	2.2 (125%)	CONTINUOUS	0.0	0.0	(125%)
LARGEST MOTOR		15.0	3.6 (125%)	HEATING	42.2	42.2	(100%)
OTHER MOTORS		5.8	5.8 (100%)	NONCONTINUOUS	0.0	0.0	(100%)
RECEPTACLES		0.9	0.9 (50% > 10)	KITCHEN EQUIP	31.0	20.1	(65%)
				NONCONDIVERSE	0.0	0.0	(N/A)
				TOTAL KVA	81.6	75.0	
				BALANCED THREE PHASE AMPS	208.1		
				PHASE BALANCE PERCENT: PHASE A	117%	PHASE B	107%
						PHASE C	75.7%

Panel		ROOM	VOLTS	208Y/120V 3P 4W	A/C	EXISTING	
EXISTING C		MOUNTING FLUSH	BUS AMPS	100	MAIN BKR	MLO	
		FED FROM B	NEUTRAL	100%	LUGS	STANDARD	
NOTE							
CKT #	CKT BKR	LOAD KVA	CIRCUIT DESCRIPTION	CKT #	CKT BKR	LOAD KVA	CIRCUIT DESCRIPTION
1	20/1	0.9	LIGHTING	2	20/1	0.0	SPACE
3	20/1	0.7	EP-A LIGHTING	4	20/1	0.0	SPACE
5	20/1	0.7	LIGHTING	6	20/1	0.0	SPACE
7	20/1	0.0	SPACE	8	20/1	0.0	SPACE
9	20/1	0.0	SPACE	10	20/1	0.0	SPACE
11	20/1	0.0	SPACE	12	20/1	0.0	SPACE
13	20/1	0.0	SPACE	14	20/1	0.0	SPACE
15	20/1	0.0	SPACE	16	20/1	0.0	SPACE
17	20/1	0.0	SPACE	18	20/1	0.0	SPACE
19	20/1	0.0	SPACE	20	20/1	0.0	SPACE
21	20/1	0.0	SPACE	22	20/1	0.0	SPACE
23	20/1	0.0	SPACE	24	20/1	0.0	SPACE
25	20/1	0.0	SPACE	26	20/1	0.0	SPACE
27	20/1	0.0	SPACE	28	20/1	0.0	SPACE
29	20/1	0.0	SPACE	30	20/1	0.0	SPACE
		CONN. KVA	CALC. KVA	CONN. KVA	CALC. KVA		
LIGHTING		1.8	2.2 (125%)	CONTINUOUS	0.0	0.0	(125%)
LARGEST MOTOR		0.2	0.3 (125%)	HEATING	0.0	0.0	(100%)
OTHER MOTORS		0.2	0.2 (100%)	NONCONTINUOUS	0.0	0.0	(100%)
RECEPTACLES		0.0	0.0 (50% > 10)	KITCHEN EQUIP	0.0	0.0	(N/A)
				NONCONDIVERSE	0.0	0.0	(N/A)
				TOTAL KVA	2.2	2.7	
				BALANCED THREE PHASE AMPS	7.6		
				PHASE BALANCE PERCENT: PHASE A	119%	PHASE B	91.3%
						PHASE C	90.1%

LUMINAIRE SCHEDULE						
CALLOUT	QUANTITY	SYMBOL	LAMP	DESCRIPTION	MODEL	VOLTS
A	17	☐	(1) 36W LED	2x2 RECESSED TROFFER	HUBBELL LLT 22-30HLG-F55FA-EDU	120V 1P 2W
B	5	☐	(1) LED	RECESSED MULTI LAMP	FUSION FC2-LLV-N-20W-MR16-E-120 F-WH-BK	120V 1P 2W
C	23	○	(1) 10W LED	6" RECESSED DOWNLIGHT	ELITE LT4-AT-DIMTR-120-RL407 650L 27K W-WH	120V 1P 2W
D	4	⊕	(1) 10W LED	PENDANT	URBAN ELECTRIC 9G-1225 WH BL ET	120V 1P 2W
E4	11	—	(1) TRACK	CONT. TRACK WITH (5) FIXTURE HEADS PER 4'	JUNO T252L-27K-N-WH (TRACK HEADS)	120V 1P 2W
ECL	4	.	N/A	1A CURRENT LIMITER FOR TRACK LIGHTING	TO BE SELECTED	120V 1P 2W
F	2	⊕	(1) 10W LED MEDIUM BASE	24" PENDANT	REJUVENATION AO158 OIL BRONZE/MATTE WHITE SHADE	120V 1P 2W
G	4	⊕	(1) 10W LED MEDIUM BASE	18" PENDANT	REJUVENATION AO149 OIL BRONZE/MATTE WHITE SHADE	120V 1P 2W
H	1	⊕	(1) 10W LED	LED SURFACE MOUNT	REJUVENATION A6916 BRUSHED NICKEL	120V 1P 2W
K	2	○	(1) 10W LED	LED FLUSH MOUNT	REJUVENATION A6903	120V 1P 2W
L	2	○	(2) 10W LED	BATHROOM SCONCE	SCHOOLHOUSE U/2 SCONCE	120V 1P 2W
M	6	○	(1) 3.5W G25 LED	SCONCE	BRENDAN RAVENHILL PIVOT SCONCE WHITE # STAINLESS 24 X 4.5 X 8.5	120V 1P 2W
T	4	☒	(1)	EMERGENCY LIGHTING UNIT	BEGHELLI XLP-S2-9L	120V 1P 2W
XC	3	☒	(1) 5W LED	COMBINATION EXIT/EMERGENCY LIGHTING UNIT	BEGHELLI XCL-R-U-W-R	120V 1P 2W
XR	3	☒	(1) INCLUDED	REMOTE LAMP HEAD	TCP T-207R3	120V 1P 2W

GENERAL SCHEDULE						
CALLOUT	SYMBOL	VOLTS	KVA	CIRCUIT	WIRE CALLOUT	DISCONNECT DESCRIPTION
EF-1	⊕	120V 1P 2W	0.1	A-20	1/2", 1#12, #12N, #12G	SWITCHED WITH LIGHTS
EF-A	⊕	120V 1P 2W	0.24	C-3	1/2", 1#12, #12N, #12G	SWITCHED WITH LIGHTS
EF-A	⊕	120V 1P 2W	0.24	C-3	1/2", 1#12, #12N, #12G	SWITCHED WITH LIGHTS



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**PUBLISHED DRAWINGS:**

ISSUE	DATE
EMORY REVIEW	12.17.2015
EMORY REVIEW	01.07.2016
REVISION 1	01.08.2016
REVISION 3	03.04.2016
PERMIT	03.07.2016
FOG COMMENTS	03.31.2016
FOR CONSTRUCTION	05.04.2016

**FOR  
 CONSTRUCTION**

SHEET TITLE:

**FLOOR PLANS  
 POWER &  
 KITCHEN EQUIP**

**E1.1**

**FIRE ALARM NOTES**

1. FIRE ALARM ONE-LINE, SEQUENCE MATRIX AND DEVICES ON PLAN, SHOWN FOR THE PURPOSE OF REFERENCE ONLY. FIRE ALARM CONTRACTOR SHALL PRODUCE SHOP DRAWINGS DETAILING LOCATIONS, INTERCONNECTION OF DEVICES AND METHODS, BATTERY CALCULATION AND ETC. TO BE SUBMITTED FOR PERMIT REVIEW.
2. FIRE ALARM SHOP DRAWINGS SHALL BE PREPARED BY MINIMUM NICET LEVEL III OR IV CERTIFIED PERSONNEL, DEPENDING ON LOCAL JURISDICTION REQUIREMENTS.

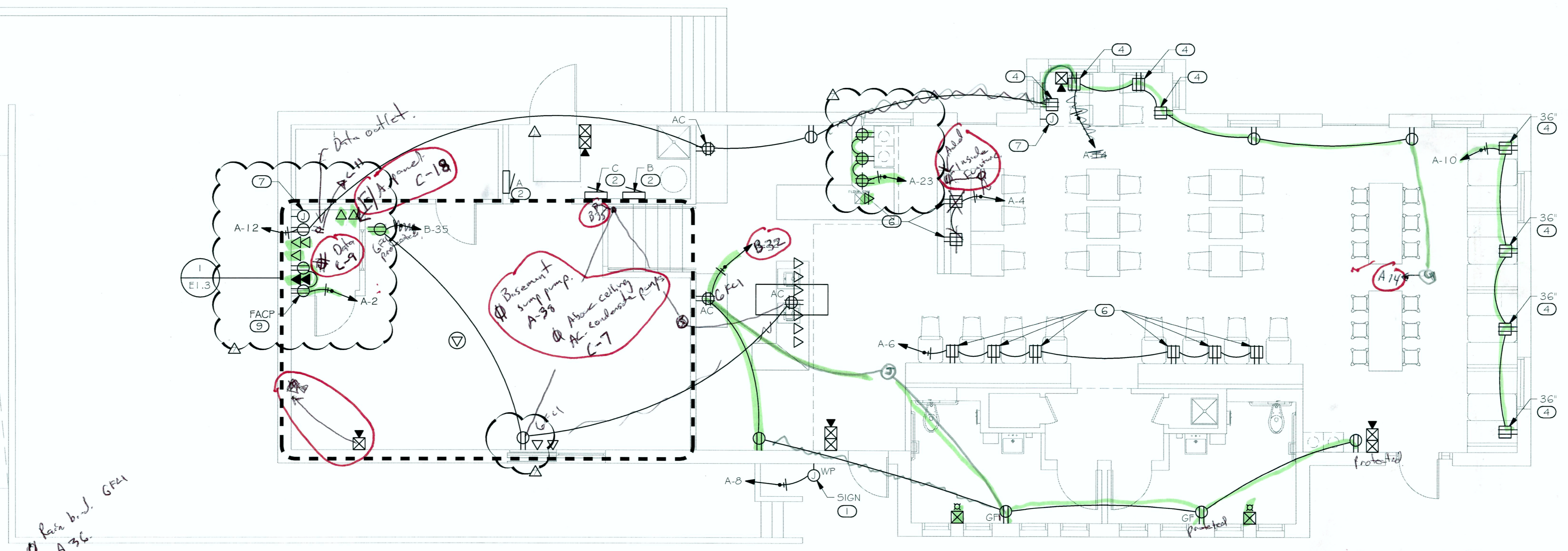
**GENERAL NOTES**

1. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATIONS OF ALL CEILING MOUNTED DEVICES.
2. ALL RECEPTACLES SHALL BE GROUNDED AS REQUIRED BY ARTICLE 250-146.
3. ALL 120V 1P RECEPTACLES IN KITCHEN SHALL BE GFCI PER NEC 210.8(B).
4. ALL EXISTING SMOKE DETECTORS SHALL BE REMOVED. ⚠

**KEYNOTES**

- ① WEATHERPROOF J-BOX FOR EXTERIOR SIGN. COORDINATE IN FIELD WITH SIGN INSTALLER FOR LOCATION AND OTHER REQUIREMENTS. EXTERIOR SIGN TO BE CONTROLLED BY LIGHTING CONTACTOR WITH PHOTOCELL AND TIMER.
- ② EXISTING ELECTRICAL SERVICE EQUIPMENT TO BE REUSED.
- ③ FIELD COORDINATE EXACT LOCATION OF EXISTING TELEPHONE UTILITY CONDUIT AND LOCATE TELEPHONE TERMINAL BOARD.
- ④ COMBINATION DUPLEX RECEPTACLE & USB OUTLET, TYPICAL.
- ⑤ WATER HEATER MOUNTED ON PLATFORM. SEE PLUMBING DRAWINGS FOR ADDITIONAL REQUIREMENTS.
- ⑥ COMBINATION DUPLEX RECEPTACLE & USB OUTLET IN FACE OF BANQUETTE. SEE ARCH DETAILS.
- ⑦ TWO-GANG JUNCTION BOX INSIDE CABINET FOR LOW VOLTAGE SPEAKER SYSTEM. COORDINATE ALL REQUIREMENTS WITH LOW VOLTAGE DRAWINGS.
- ⑧ NOT USED.
- ⑨ POWER AND VOICE OUTLETS FOR FIRE ALARM CONTROL PANEL. COORDINATE CONTROL PANEL ALERT SETTINGS WITH OWNER. HOOD FIRE SUPPRESSION SYSTEM SHALL BE MONITORED THROUGH FIRE ALARM CONTROL PANEL. ⚠

*B34, 36, 38  
 A-19, 21  
 Cooler & Freezer condensers  
 B-12*



**FLOOR PLAN - POWER**  
 3/16" = 1'-0"  
 0 1 2 4 8

**AS-BUILTS**  
 9/14/16 DATE  
 JCS INITIALS





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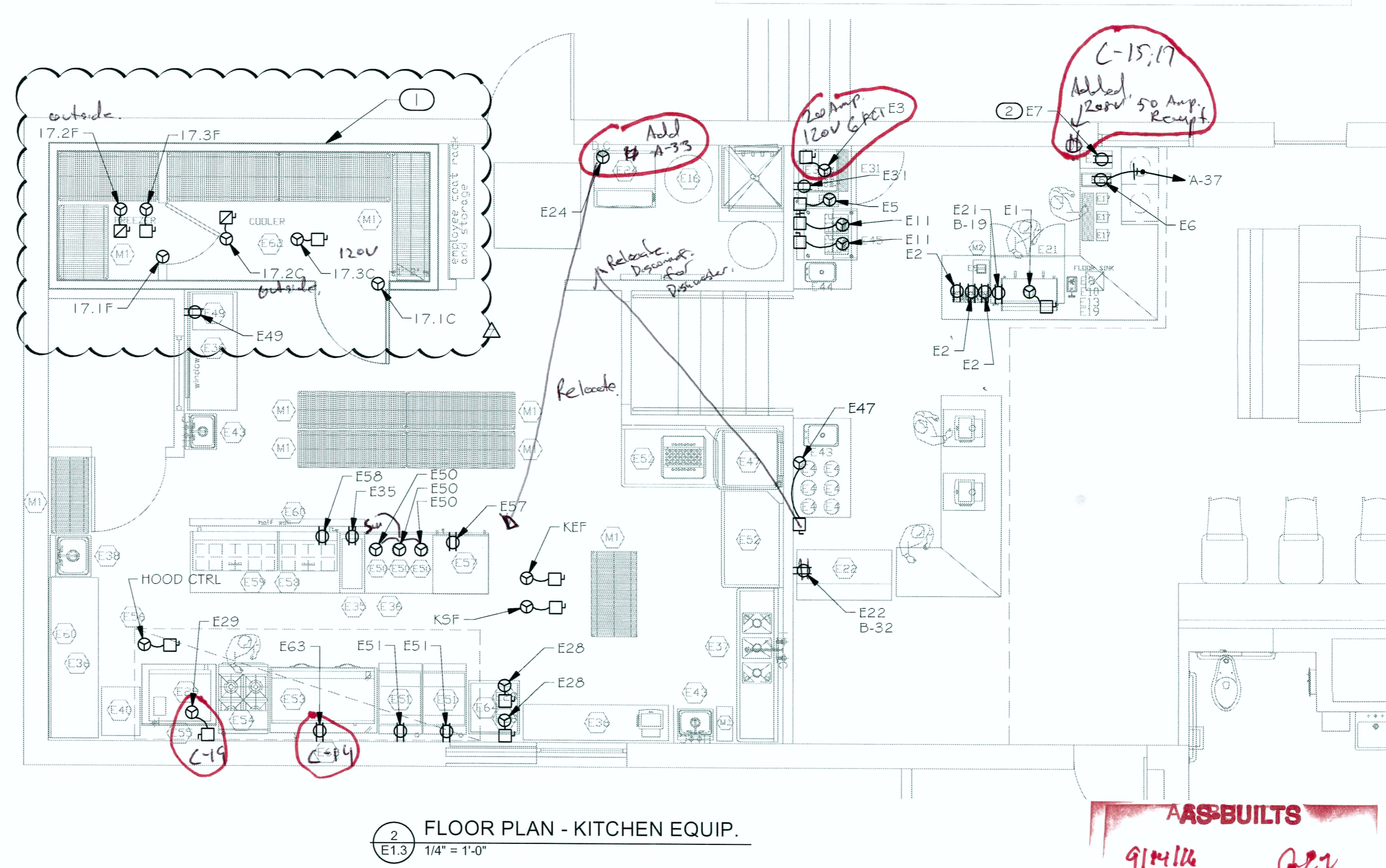
FOR CONSTRUCTION

SHEET TITLE:

ENLARGED KITCHEN PLAN & SCHEDULE

E1.3

CALLOUT	CUSTOM PANEL DESCRIPTION	SYMBOL	VOLTS	KVA	CIRCUIT	WIRE CALLOUT	DISCONNECT DESCRIPTION
17.1C	COOLER LIGHTS	⊕	120V 1P 2W	0.12	A-17	1/2"C,1#12,#12N,#12G	
17.1F	FREEZER LIGHTS	⊕	120V 1P 2W	0.18	A-17	1/2"C,1#12,#12N,#12G	
17.2C	COOLER CONDENSER	⊕	208V 120V 2P 3W	1.54	A-19,21	1/2"C,2#12,#12N,#12G	30A/2P/NEMA 3R/15AF
17.2F	FREEZER CONDENSER	⊕	208V 3P 4W	2.56	B-34,36,38	1/2"C,3#12,#12N,#12G	30A/3P/NEMA 3R/15AF
17.3C	COOLER EVAPORATOR	⊕	120V 1P 2W	0.22	A-18	1/2"C,2#12,#12N,#12G	30A/1P/NEMA 1
17.3F	FREEZER EVAPORATOR	⊕	208V 120V 2P 3W	1.31	B-40,42	1/2"C,2#12,#12N,#12G	30A/2P/NEMA 1
E1	Strada Espresso Machine	⊕	208V 2P 2W	6.4	A-26,28	3/4"C,2#6,#10G	60A/2P/NEMA 1
E2	Mythos Espresso Grinder	⊕	120V 1P 2W	1.66	A-27	1/2"C,1#12,#12N,#12G	NEMA 5-15
E2	Mythos Espresso Grinder	⊕	120V 1P 2W	1.66	A-25	1/2"C,1#12,#12N,#12G	NEMA 5-15
E2	Mythos Espresso Grinder	⊕	120V 1P 2W	1.66	A-29	1/2"C,1#12,#12N,#12G	NEMA 5-15
E3	CBS-2152XTS Coffee Brewer	⊕	120V 1P 2W	5.3	A-31	1/2"C,2#10,#10G	30A/2P/NEMA 1
E5	Mahikong G55 1 Bulk Coffee Grinder	⊕	120V 1P 2W	0.84	B-22	1/2"C,1#12,#12N,#12G	30A/1P/NEMA 1
E6	Mahikong Tanzania Coffee Grinder	⊕	120V 1P 2W	0.85	A-37	1/2"C,1#12,#12N,#12G	NEMA 5-15
E7	Bunn H5X Hot Water Tower	⊕	120V 1P 2W	1.85	B-20	1/2"C,1#12,#12N,#12G	NEMA 5-20R
E11	Vitamix Drink Machine Advance Blender	⊕	120V 1P 2W	1.38	B-20	1/2"C,1#12,#12N,#12G	NEMA 5-15R
E11	Vitamix Drink Machine Advance Blender	⊕	120V 1P 2W	1.38	A-42	1/2"C,1#12,#12N,#12G	NEMA 5-15R
E21	True Undercounter Fridge	⊕	120V 1P 2W	0.77	B-30	1/2"C,1#12,#12N,#12G	NEMA 5-15R
E22	Oasis Refrigerated Self Service Case	⊕	120V 1P 2W	1.44	B-32	1/2"C,1#12,#12N,#12G	NEMA 5-20R / LS-20R, Coordinate with equipment vendor for final connection type.
E24	Scotsman CU3030MA-1 Prodigy Ice Machine	⊕	208V 2P 2W	3.08	A-39,41	1/2"C,2#12,#12G	BREAKER IN PANEL
E28	Turbochef i3 Oven	⊕	208V 2P 2W	8.3	A-7,9	3/4"C,2#6,#10G	NEMA 6-50R
E28	Turbochef i3 Oven	⊕	208V 2P 2W	8.3	A-1,3	3/4"C,2#6,#10G	NEMA 6-50R
E29	Blodgett CTB (or CTBR) Baking Oven	⊕	120V 1P 2W	0.6	A-13	1/2"C,1#12,#12N,#12G	NEMA 5-15R
E31	True Under Counter Freezer	⊕	120V 1P 2W	0.58	B-29	1/2"C,1#12,#12N,#12G	NEMA 5-15R
E35	Nemco 6055A-CW Triple Well Soup Warmer	⊕	120V 1P 2W	1.5	B-31	1/2"C,1#12,#12N,#12G	NEMA 5-15R
E39	Robot Coupe Food Processor	⊕	120V 1P 2W	0.84	B-33	1/2"C,1#12,#12N,#12G	NEMA 5-15R
E47	MEIKO Model No. DV 120.2 Dishwasher	⊕	208V 120V 2P 3W	14.96	B-25,27	1-1/4"C,2#2,#2N,#8G	100/2/NEMA 1
E49	Hobart Edge 12 Meat Slicer	⊕	120V 1P 2W	1.18	B-8	1/2"C,1#12,#12N,#12G	NEMA 5-15R
E50	Hanson Brass 800-RET-BCS Heat Lamps	⊕	120V 1P 2W	0.25	B-10	1/2"C,1#12,#12N,#12G	TOGGLE SWITCH
E50	Hanson Brass 800-RET-BCS Heat Lamps	⊕	120V 1P 2W	0.25	B-10	1/2"C,1#12,#12N,#12G	TOGGLE SWITCH
E50	Hanson Brass 800-RET-BCS Heat Lamps	⊕	120V 1P 2W	0.25	B-10	1/2"C,1#12,#12N,#12G	TOGGLE SWITCH
E51	Vulcan 1VK65A Fryer	⊕	120V 1P 2W	0.1	A-13	1/2"C,1#12,#12N,#12G	NEMA 5-15R
E51	Vulcan 1VK65A Fryer	⊕	120V 1P 2W	0.1	A-13	1/2"C,1#12,#12N,#12G	NEMA 5-15R
E57	True Undercounter Fridge	⊕	120V 1P 2W	0.48	B-14	1/2"C,1#12,#12N,#12G	NEMA 5-15R
E58	Beverage Air SPE72-16M Mega Top Sandwich / Salad Preparation Refrigerator	⊕	120V 1P 2W	1.15	B-16	1/2"C,1#12,#12N,#12G	NEMA 5-15R
E63	Beverage Air WTRC552-1 Worktop Cookstand Refrigerator	⊕	120V 1P 2W	0.54	B-14	1/2"C,1#12,#12N,#12G	NEMA 5-15R
HOOD CTRL	HOOD CTRL	⊕	120V 1P 2W	0.5	A-24	1/2"C,1#12,#12N,#12G	30A/1P/NEMA 1
KEF	KEF	⊕	208V 3P 3W	2.83	B-37,39,41	1/2"C,3#12,#12G	30A/3P/NEMA 3R
KSF	KSF	⊕	208V 3P 3W	2.49	B-37,39,41	1/2"C,3#12,#12G	30A/3P/NEMA 3R

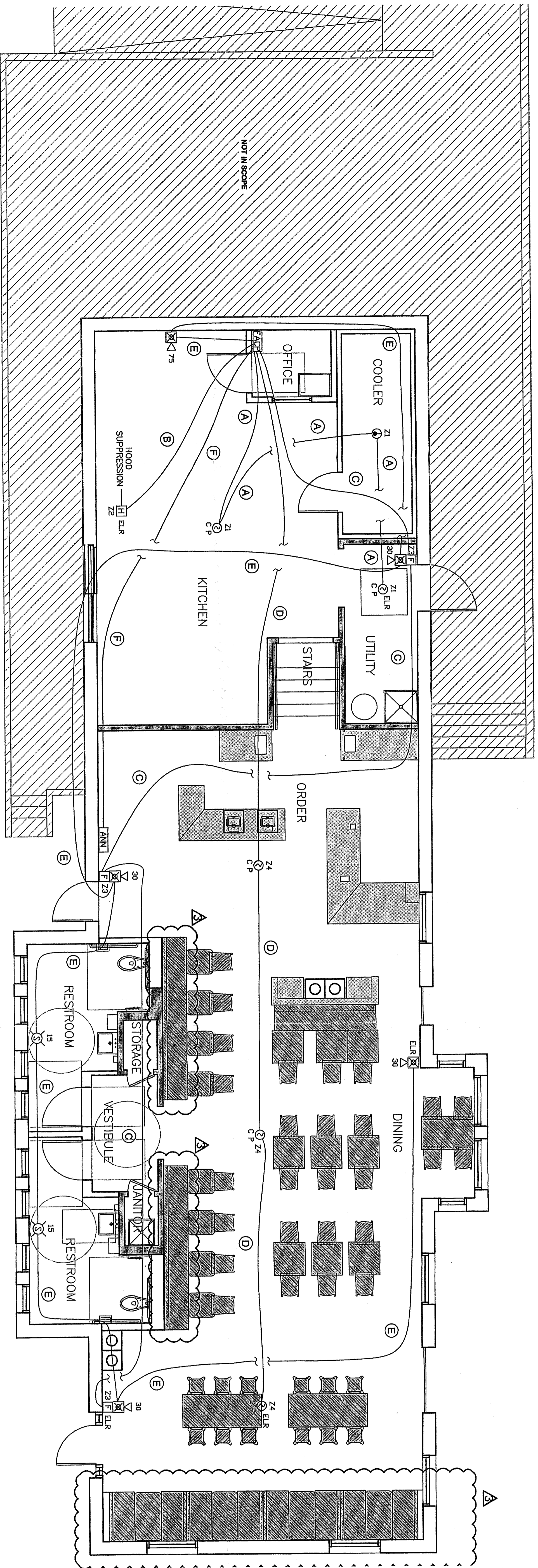


FLOOR PLAN - KITCHEN EQUIP.  
 1/4" = 1'-0"

AAS-BUILTS  
 9/14/16  
 LDATE

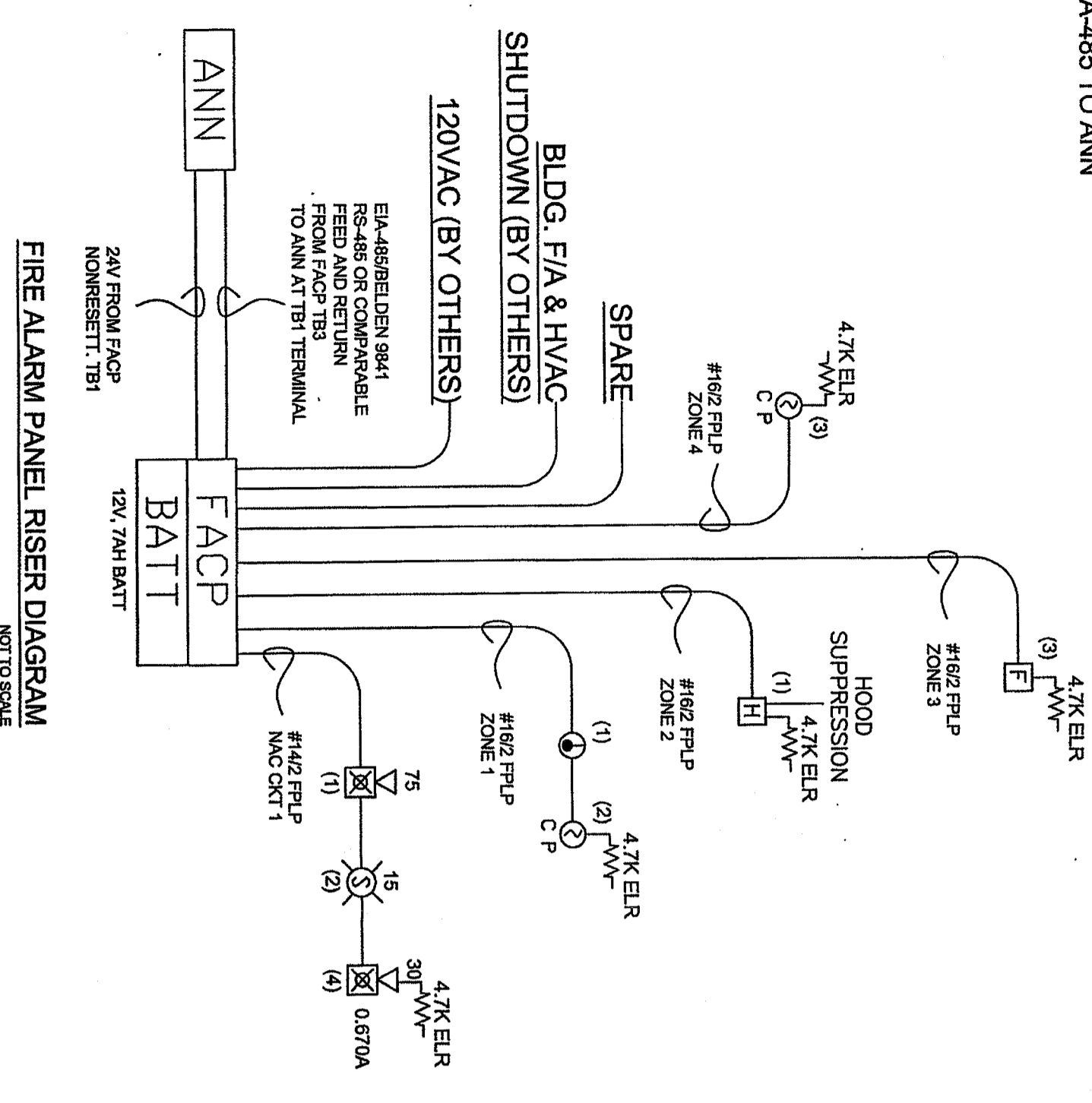


# **Fire Alarm As-Builts**

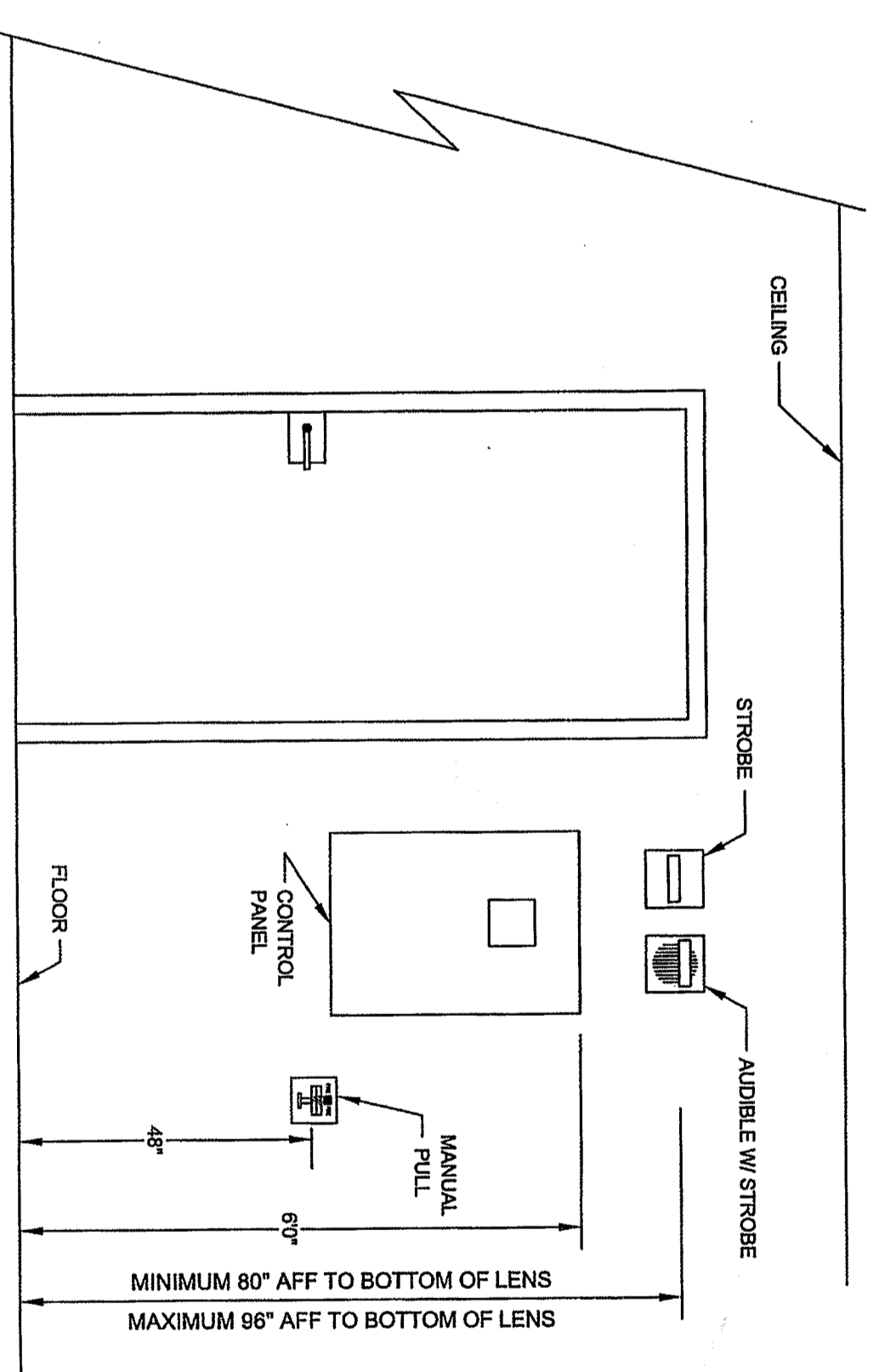


FLOOR PLAN  
SCALE: 1/8" = 1'-0"

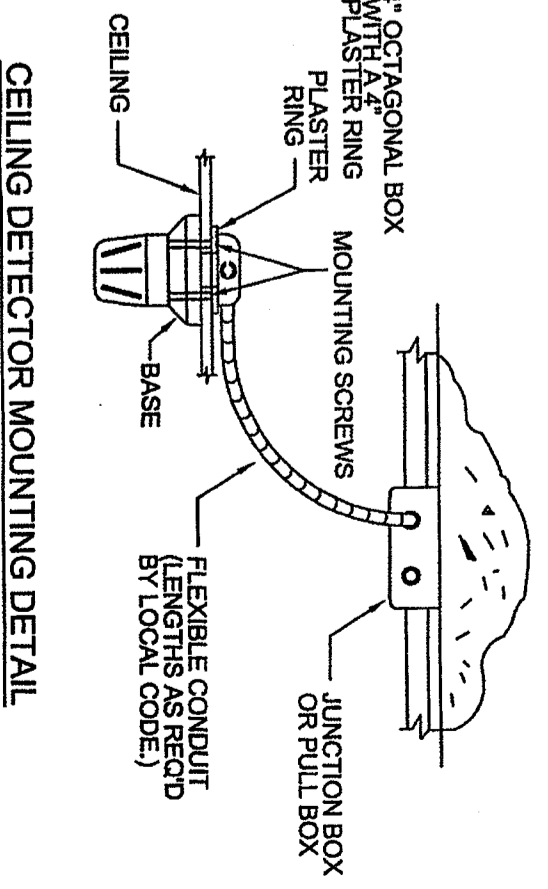
- LEGEND**
- A = FACP IDC OKT 1 #1612
  - B = FACP IDC OKT 2 #1612
  - C = FACP IDC OKT 3 #1612
  - D = FACP IDC OKT 4 #1612
  - E = FACP MAC OKT 1 #1412
  - F = AUX 24VDC & EIA-485 TO ANN



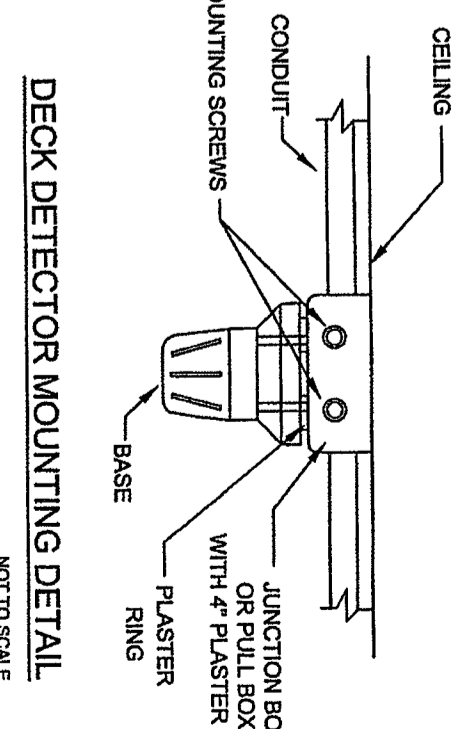
FIRE ALARM PANEL RISER DIAGRAM  
NOT TO SCALE



FIRE ALARM DEVICE HEIGHTS DETAIL  
NOT TO SCALE



CEILING DETECTOR MOUNTING DETAIL  
NOT TO SCALE

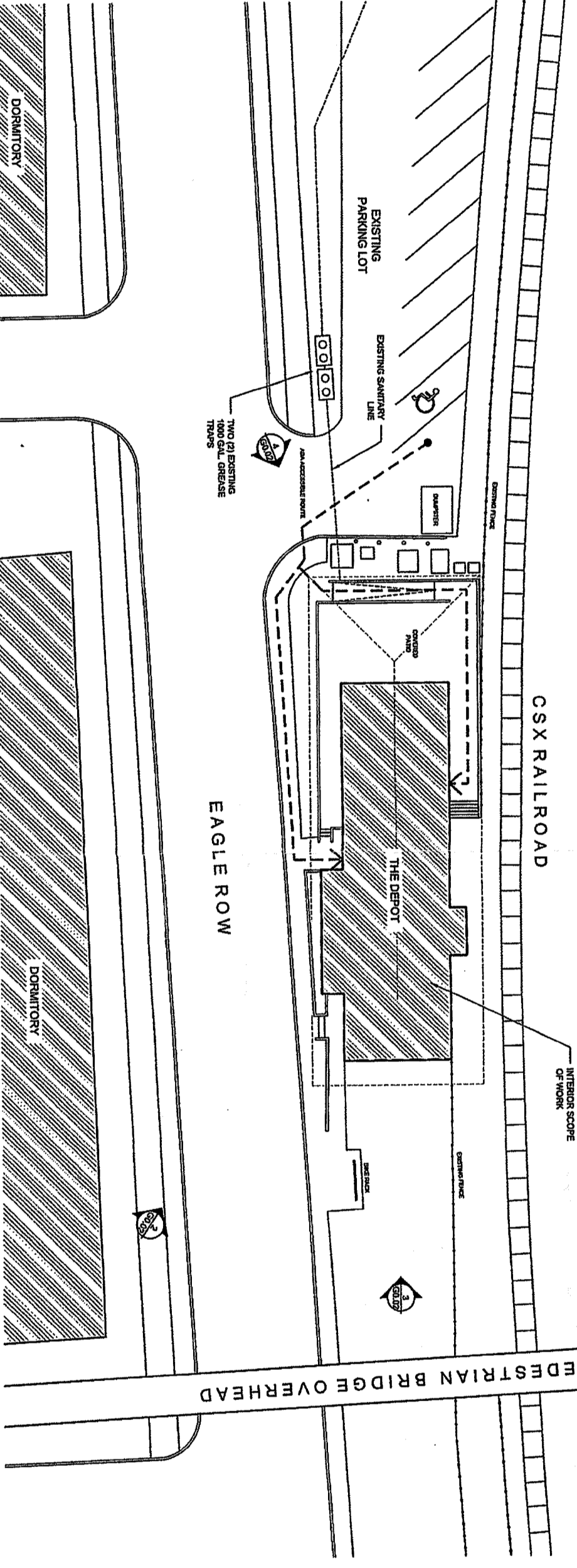


DECK DETECTOR MOUNTING DETAIL  
NOT TO SCALE

- FIRE ALARM NOTES**
- 1) FIRE ALARM SYSTEM WIRING SHALL BE INSTALLED PER NFPA 70 2011 ED. & NFPA 72 2013 ED. LOCAL CODES AND INDUSTRY STANDARDS. IN ADDITION THE FOLLOWING SHALL BE UTILIZED:  
SET SCREW FITTINGS, NEMA 1 BOXES WITH COVERS PAINTED RED.
  - 2) 120 VAC, 24VDC BATTERY STANDBY AND AUDIOVISUALS MUST BE DISCONNECTED BEFORE PERFORMING ANY TYPE OF SYSTEM MAINTENANCE.  
NOTE: WHEN RECONNECTING WIRES ALWAYS APPLY 120VAC FIRST, THEN CONNECT THE BATTERIES.
  - 3) 120VAC SHALL BE PROVIDED TO INCLUDE A DEDICATED PHASE, NEUTRAL AND GROUND CIRCUIT ON A MIN. 20 AMP CIRCUIT LOCKED ON AND LABELED PROPERLY. (NOTE THIS CIRCUIT SHOULD NOT BE CONNECTED TO ANY AUTOMATIC SHUTDOWN SERVICES.) "BY ELECTRICAL CONTRACTOR".
  - 4) WIRE SIZE FOR CONTROL TERMINALS SHALL BE NO LARGER THAN 14 AWG THHN. WIRE SIZE FOR INCOMING POWER TERMINALS IS NO LARGER THAN 12 AWG. TWO WIRES ON THE SAME TERMINAL SHALL NOT DIFFER IN SIZE.
  - 5) WIRING SHALL BE INSTALLED IN ACCORDANCE WITH THE ACTUAL PANEL WIRING SCHEMATIC. MAKE WIRE RUNS CONTINUOUS WITH TERMINATIONS AT DEVICES OR DEDICATED TERMINAL STRIP JUNCTION BOXES ONLY.
  - 6) WIRING TO DIFFERENT DEVICES SHALL BE ISOLATED AS FOLLOWS:  
A) MANUAL PULL, DETECTION AND AUDIBLE VISUAL SIGNAL CIRCUITS  
B) 120VAC POWER TO CONTROL POWER  
C) SHUTDOWN POWER (HVAC EQUIPMENT, ETC.)
  - 7) WIRE SHALL BE 600 VOLT, COLOR CODED WIRE, LABELED PROPERLY ON BOTH ENDS AND INSTALLED IN INSULATED FORKED TYPE TERMINALS WHERE REQUIRED. ALL WIRES TO BE MARKED WITH BRADY TAGS.
  - 8) SYSTEM MUST BE INSTALLED ACCORDING TO DRAWINGS. ANY DEVIATIONS FROM DRAWINGS OR SPECIFICATIONS MUST BE APPROVED.
  - 9) VISUAL NOTIFICATION APPLIANCES SHALL BE SYNCHRONIZED WHEN IN COMMON AREA.
  - 10) AUDIBLE NOTIFICATION APPLIANCES SHALL BE SET TO 15 DECIBELS ABOVE AMBIENT NOISE LEVEL.

**EQUIPMENT LIST**

SYMBOL	QTY	PART NO.#	MANUFACTURER	DESCRIPTION
[A]	1	SFP-5UD	NOTIFIER	CONVENTIONAL FIRE ALARM PANEL
[ANN]	1	N-ANN-80	NOTIFIER	ANNUNCIATOR 80 CHARACTER LCD
[CP]	5	2W-B	SYSTEM SENSOR	SMOKE DETECTOR
[D]	1	5601	SYSTEM SENSOR	HEAT DETECTOR
[E]	3	NBSG-12L	NOTIFIER	PULL STATION, RED
[F]	5	HSR	NOTIFIER	HORN STROBE WALL MOUNT, RED
[G]	2	STR	WHEELLOCK	STROBE WALL MOUNT, RED



SITE PLAN  
SCALE: 1/8" = 1'-0"

ALARM & SPECIAL HAZARD DIVISION  
CENTURY FIRE PROTECTION, LLC  
1400 W. BIRCHWOOD DRIVE, SUITE 100  
DUBLIN, GA 31009  
770.477.9388

CONTRACTOR: CENTURY FIRE PROTECTION, LLC  
ALL WORK SHALL BE IN ACCORDANCE WITH THE NATIONAL FIRE ALARM CODE (NFPA 72) AND THE NATIONAL ELECTRICAL CODE (NEC) AS AMENDED BY THE MOST RECENT EDITIONS THEREOF.  
DATE: 11/15/17

NO.	REVISIONS	DATE	BY
1	ISSUED FOR PERMITTING	11/15/17	JAM
2	REVISED FOR COMMENTS	11/15/17	JAM
3	ADJUSTED	11/15/17	JAM

PROJECT: ENJOY THE DEPT  
ATLANTA, GA 30302

CONTRACT NO.: 1442348  
DRAWN BY: JAM

SHEET TITLE: EQUIPMENT LIST, NOTES, AND ROOM PLAN

DATE: 4/20/18  
SCALE: AS SHOWN

SHEET NUMBER: 1 of 1  
**FP1**

Low Voltage License: LV4004360 Exp: 8/31/2017  
Master Electrician: Joseph Koenigsmann



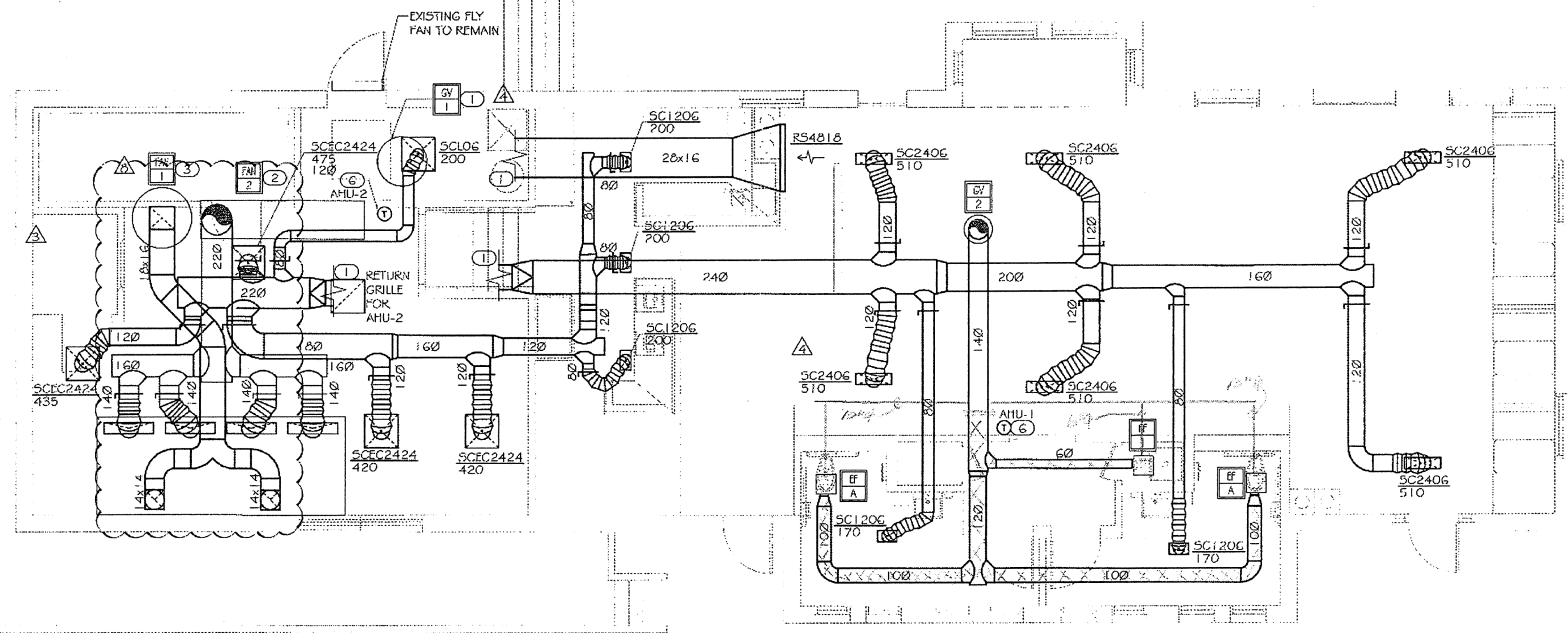
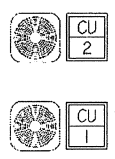
# **Mechanical As-Builts**

**GENERAL NOTES**

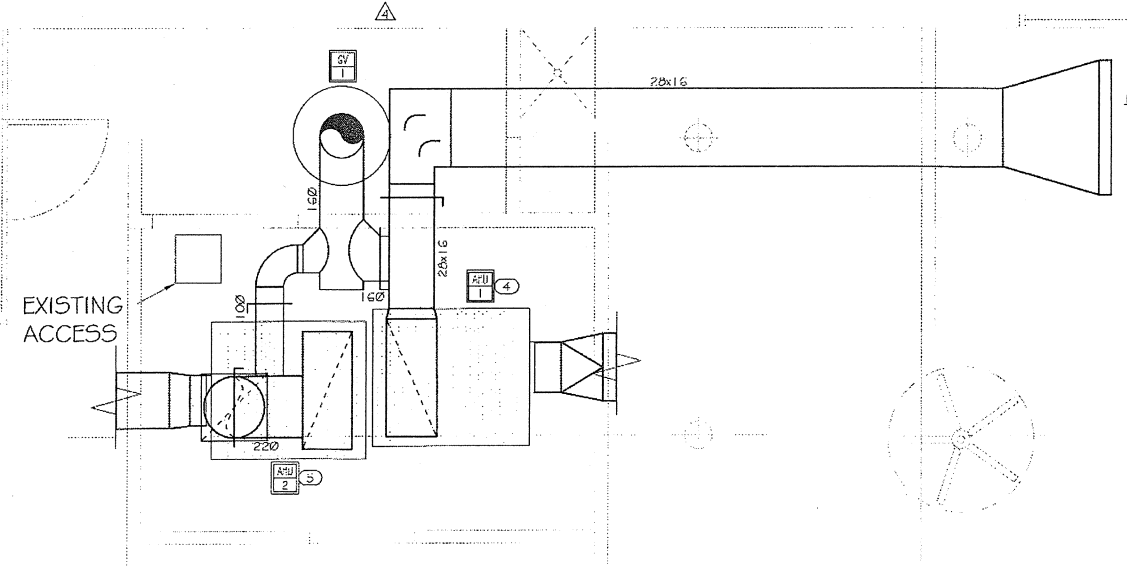
- APPLY TO THIS SHEET
- A. EACH SUPPLY DIFFUSER/REGISTER/RUNOUT SHALL BE PROVIDED WITH A VOLUME DAMPER. REFER TO THE DIFFUSER TAKE-OFF DETAIL FOR ADDITIONAL INFORMATION.
  - B. DRAWINGS ARE DIAGRAMMATIC ONLY. FINAL ROUTING OF DUCTWORK AND EQUIPMENT LOCATIONS SHALL BE DETERMINED IN THE FIELD. ADDITIONAL OFFSETS, ELBOWS, ETC. SHALL BE PROVIDED AND INSTALLED WITHOUT ADDITIONAL COST TO THE OWNER.
  - C. ALL EXISTING SUPPLY, RETURN AND OUTDOOR AIR DUCTWORK AND AIR DEVICES (I.E. DIFFUSERS, REGISTERS & GRILLES) RELATED TO THE EXISTING FAN COIL UNITS SHALL BE DEMOLISHED AND REMOVED FROM SITE.
  - D. EXISTING SPLIT SYSTEMS & THEIR ASSOCIATED ELECTRIC HEATERS ARE TO REMAIN. SYSTEMS SHALL BE CLEANED AND SERVICED UNTIL IN GOOD WORKING ORDER.
  - E. EXISTING BATH EXHAUST FANS, DUCTWORK AND TERMINATIONS SHALL BE DEMOLISHED AND REMOVED FROM THE SITE.
  - F. EXISTING KITCHEN HOOD(S), GREASE EXHAUST DUCTWORK, MAKE-UP AIR DUCTWORK, AND FANS SHALL BE DEMOLISHED AND REMOVED FROM THE SITE.
  - G. ALL DUCT INTERIORS SHALL BE PAINTED MATTIE BLACK WITHIN 2' OF AN OUTLET/AIR DEVICE.
  - H. GREASE EXHAUST DUCTWORK SHALL SLOPE BACK TOWARDS HOOD A MINIMUM OF 1/4" PER LINEAR FOOT. FIVE RATED CLEANOUTS SHALL BE PROVIDED AT EACH CHANGE IN DIRECTION AND EVERY 12'. DUCTWORK INSTALLATION SHALL BE SMOOTH AND NOT ALLOW FOR ANY POINTS OF GREASE ACCUMULATION. INSTALLATION SHALL BE PER NFPA 96. ALL ELBOWS SHALL BE RADIUS.

**KEYNOTES**

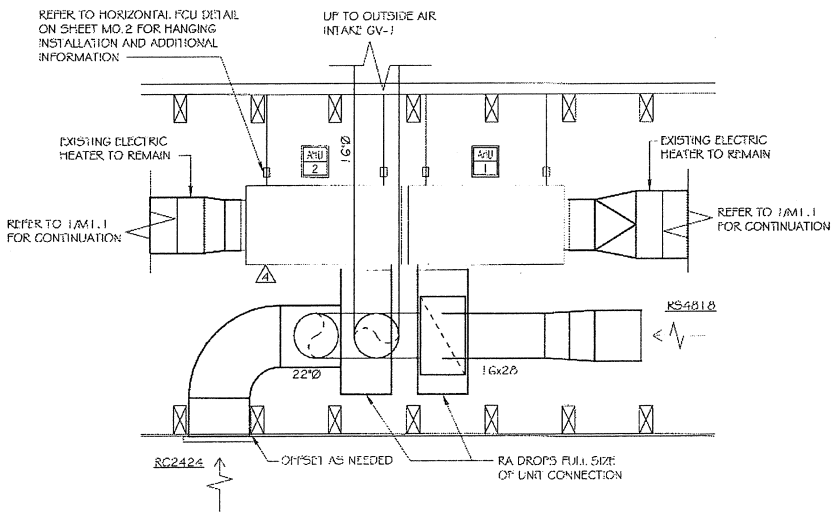
- APPLY TO THIS SHEET
- ① REFER TO DETAIL 2/M1.1 & 3/M1.1 FOR CONTINUATION & FURTHER INFORMATION ON AIR HANDLER UNITS INSTALLED IN ATTIC.
  - ② MAKE-UP AIR UNIT (FAN-2) INSTALLED IN LOCATION OF DEMOLISHED MAU. THE MECHANICAL SUBCONTRACTOR MAY USE THE EXISTING ROOF CURB IF ADEQUATE, OTHERWISE REUSE ROOF OPENING AND PROVIDE NEW ROOF CURB.
  - ③ KITCHEN EXHAUST FAN (FAN-1) INSTALLED IN LOCATION OF DEMOLISHED EXHAUST FAN. THE MECHANICAL SUBCONTRACTOR MAY USE THE EXISTING ROOF CURB IF ADEQUATE, OTHERWISE REUSE ROOF OPENING AND PROVIDE NEW ROOF CURB.
  - ④ BALANCE EXISTING AIR HANDLER (AHU-1) TO PROVIDE 3400 CFM SUPPLY AIR & 930 CFM OUTSIDE AIR. TRAP AND ROUTE 1-1/4" CONDENSATE DRAIN LINE TO EXTERIOR SPLASH BLOCK ON GRADE. CONTRACTOR SHALL INSTALL A RAWAL DEVICE, MODEL APR-2, FOR THE DX SPLIT SYSTEM TO ENABLE LOW LOAD CONTROL AND OPERATION.
  - ⑤ BALANCE EXISTING AIR HANDLER (AHU-2) TO PROVIDE 2550 CFM SUPPLY AIR & 330 CFM OUTSIDE AIR. TRAP AND ROUTE 1-1/4" CONDENSATE DRAIN LINE TO EXTERIOR SPLASH BLOCK ON GRADE. CONTRACTOR SHALL INSTALL A RAWAL DEVICE, MODEL APR-1, FOR THE DX SPLIT SYSTEM TO ENABLE LOW LOAD CONTROL AND OPERATION.
  - ⑥ PROVIDE NEW PROGRAMMABLE THERMOSTAT. THERMOSTAT SHALL INCLUDE THE FOLLOWING PROGRAMMABLE FEATURES: 7-DAY SCHEDULING FOR OCCUPIED & UNOCCUPIED TEMPERATURE SET POINTS, FAN SETTING FOR OCCUPIED & UNOCCUPIED MODES.



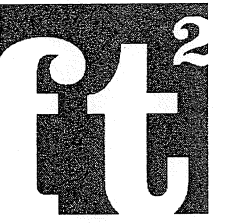
**1 FLOOR PLAN**  
3/16" = 1'-0"  
0 1 2 4 8



**2 ATTIC TOP VIEW DETAIL**  
N.T.S.



**3 ATTIC SIDE VIEW DETAIL**  
N.T.S.



154 Krog Street NE  
Suite 170  
Atlanta, Georgia 30307  
404.688.4990 voice  
404.688.4992 facsimile

www.squarefeetstudio.com

CONSULTANTS



PROJECT TITLE:  
**EMORY DEPOT**

ONE EAGLE ROW  
ATLANTA, GA 30322

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**PUBLISHED DRAWINGS:**

ISSUE	DATE
EMORY REVIEW	12.17.2015
EMORY REVIEW	01.07.2016
REVISION 1	01.08.2016
REVISION 3	03.04.2016
PERMIT	03.07.2016
FOG COMMENTS	03.31.2016
FOR CONSTRUCTION	05.04.2016
MOP SIGN REVISION	06.29.2016
REVISION 8	08.01.2016

**FOR CONSTRUCTION**

SHEET TITLE:  
**FLOOR PLAN**

RECORD DRAWING  
D.M. Mechanical, INC.  
BY: [Signature]  
DATE: 9-31-16

**M1.1**



# **Certificates of Final Completion**



August 17, 2016

DeKalb County Fire Rescue Department  
330 West Ponce De Leon Ave.  
Decatur, GA 30030  
404-371-2776

RE: Emory – The Depot  
One Eagle Row  
Atlanta, GA 30322

Please accept this letter of verification that the fire alarm system at the above referenced project was installed in accordance with applicable NFPA 72 requirements, state and local codes and manufacturer's guidelines.

My State of Georgia Fire Alarm license number is LVA004360, issued to Joseph Konenkamp. If a copy of this document is required, please notify our office and someone will have it forwarded to you.

Sincerely,

A handwritten signature in black ink, appearing to read 'Joseph Konenkamp', written over a white background.

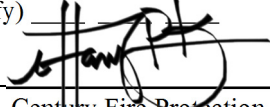
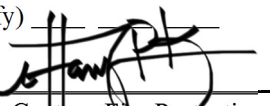
Joseph Konenkamp  
CFP Alarms & Special Hazards Division Manager

**RECORD OF COMPLETION**

Name of Protected Property: The Depot  
Address: 1 Eagle Row Atlanta, GA 30322  
Rep. of Protected Property, (name/phone): Bridget Steel / 404-727-7378  
Authority Having Jurisdiction: Dekalb County Fire Marshal  
Address/Phone Number: 1950 W. Exchange Pl. / Tucker, GA 30084 / 678-406-7739

1. Type(s) of System or Service:
- NFPA 72, Chapter 3 – Local  
If alarm is transmitted to locations(s) off premise, list where received:  
Alarms are transmitted to the Base Building Fire Alarm System
  - NFPA 72, Chapter 3 – Emergency Voice/Alarm Service:  
Quantity of voice/alarm channels: \_\_ Single: \_\_ Multiple: \_\_  
Quantity of speakers installed: \_\_ Quantity of speaker zones: \_\_  
Quantity of telephones or telephone jacks included in system: \_\_
  - NFPA 72, Chapter 4 – Auxiliary  
Indicate type of connection:  
 Local energy,  Shunt,  Parallel telephone  
Location and telephone number for receipt of signals:  
\_\_\_\_\_  
\_\_\_\_\_
  - NFPA 72, Chapter 4 – Remote Station  
Alarm: \_\_\_\_\_  
Supervisory: \_\_\_\_\_
  - NFPA 72, Chapter 4 – Proprietary  
If alarms are retransmitted to public fire service communications centers or others,  
Indicate location and telephone number of organization receiving alarm:  
\_\_\_\_\_  
Indicate how alarm is retransmitted:  
(n/a)
  - NFPA 72, Chapter 4 – Central Station  
The Prime Contractor:  
\_\_\_\_\_  
Central Station Location:  
\_\_\_\_\_  
Means of transmission of signals from the protected premise to the central station:  
 McCulloh       Multiplex       One-Way Radio  
 Digital       Two-Way Radio       Others
- Means of transmission of alarms to the public fire service communications center:  
a. \_\_\_\_\_  
b. \_\_\_\_\_  
System Location: \_\_\_\_\_

Installer	<u>Organization Name/Phone</u> <u>Century Fire Protection, LLC.</u>	<u>Representative Name/Phone</u> <u>Joe Konenkamp / 770-506-2388</u>
Supplier	_____	_____
Service Organization	<u>Century Fire Protection, LLC.</u>	<u>Joe Konenkamp / 770-506-2388</u>

1. Location of Record (As-Built) Drawings:  
Century Fire Protection, LLC. & Protected Facility  
 Location of Owners Manuals:  
Century Fire Protection, LLC. & Protected Facility  
 Location of Test Reports:  
Century Fire Protection, LLC. & Protected Facility  
 A contract dated n/a, for test and inspection in accordance with NFPA Standard(s) No.(s) n/a, dated n/a, is in effect.
2. Record of System Installation  
 (Fill out after installation is complete and wiring checked for opens, shorts, ground faults, and improper branching, but prior to conducting operational acceptance test.)  
 This system has been installed in accordance with the NFPA standards as listed below, was inspected by Cory Billings on 8/17/16 includes the devices listed below and has been in service since 8/17/16
- NFPA 72, Chapters:  1  3  4  5  6  7 (check all that apply)  
 NFPA 70, *National Electrical Code*, Article 760  
 Manufacturer's Instructions  
 Other (specify) \_\_\_\_\_
- Signed:  Date: 8/17/16  
 Organization: Century Fire Protection, LLC.
3. Record of System Operation  
 All operational features and functions of this system were tested by Cory Billings on 8/17/16 and found to be operating properly in accordance with the requirement of:
- NFPA 72, Chapters:  1  3  4  5  6  7 (check all that apply)  
 NFPA 70, *National Electrical Code*, Article 760  
 Manufacturer's Instructions  
 Other (specify) \_\_\_\_\_
- Signed:  Date: 8/17/16  
 Organization: Century Fire Protection, LLC.
4. Alarm Initiating Devices and Circuits (use blanks to indicate quantity of devices.)
- MANUAL**
- a) 3 Manual Stations 3 Non-Coded, Activating \_\_\_ Transmitters \_\_\_ Coded  
 b) \_\_\_ Combination Manual Fire Alarm and Guard's Tour Coded Stations  
 c) \_\_\_ Non Coded Activating Deadman Style Abort Switches
- AUTOMATIC**
- Coverage:  Complete: \_\_\_\_\_  Partial: \_\_\_\_\_
- a) 5 Smoke Detectors \_\_\_ Ion 5 Photo  
 b) \_\_\_ Duct Detectors \_\_\_ Ion \_\_\_ Photo  
 c) 1 Heat Detectors 135 FT \_\_\_ RR \_\_\_ FT/RR \_\_\_ RC \_\_\_ Linear Heat (\_\_\_ Feet)  
 d) \_\_\_ Sprinkler Water Flow Switches  
 e) \_\_\_ Air Sampling Detectors  
 f) \_\_\_ Others (list): \_\_\_\_\_

5. Supervisory Signal Initiating Devices and Circuits (Use blanks to indicate quantity of devices)

**GUARD'S TOUR**

- a) \_\_\_ Coded Stations
- b) \_\_\_ Non-coded Stations, Activating \_\_\_ Transmitters
- c) \_\_\_ Compulsory Guard Tour System Comprised of \_\_\_ Transmitter Stations and \_\_\_ Intermediate Stations

Note: Combination devices recorded under 4(b) and 5 (a).

**SPRINKLER SYSTEM**

- a) \_\_\_ Non-Coded Valve Supervisory Attachments
- b) \_\_\_ Non-Coded Air Pressure Switches
- c) \_\_\_ Coded Valve Supervisory Signaling Attachments  
Valve Supervisory Switches, Activating \_\_\_ Transmitters
- d) \_\_\_ Building Temperature Points
- e) \_\_\_ Site Water Temperature Points
- f) \_\_\_ Site Water Supply Level Points

Electric Fire Pump:

- g) \_\_\_ Fire Pump Power
- h) \_\_\_ Fire Pump Running
- i) \_\_\_ Phase Reversal

Engine-Driven Fire Pump:

- j) \_\_\_ Selector in Auto Position
- k) \_\_\_ Engine or Control Panel Trouble
- l) \_\_\_ Fire Pump Running

Engine-Driven Generator:

- m) \_\_\_ Selector in Auto Position
- n) \_\_\_ Control Panel Trouble
- o) \_\_\_ Transfer Switches
- p) \_\_\_ Engine Running

Other Supervisory Functions (s) (specify): \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

6. Alarm Notification Appliances and Circuits

Quantity of indicating appliance circuits connected to the system: \_\_\_

Type and quantities of alarm indicating appliances installed:

- a) \_\_\_ Bells \_\_\_ Inch
- b) \_\_\_ Speakers
- c) \_\_\_ Horns
- d) \_\_\_ Chimes
- e) \_\_\_ Other: \_\_\_\_\_
- f) 6 Visual Signals Type: ADA  
4 with audible 2 w/o audible
- g) \_\_\_ Local Annunciator

7. Signaling Line Circuits:

Quantity and Style (see NFPA 72, Table 3-6.1) of signaling line circuits connected to system:

Quantity: \_\_\_ Style: \_\_\_





# DeKalb County Department of Watershed Management

1580 Roadhaven Drive, Stone Mountain, GA 30083  
(770) 621-7200 • FAX (770) 724-1446 • TDD 621-7237

Device Serial No 403881

Test Date/Time 8/17. 2:00pm

Tester Certification Bpat02026

Device Test Result  Pass  Fail

## Backflow Prevention Device Test & Maintenance Report

(Please Print)

Contact Name: Wayne Phone# \_\_\_\_\_  
 Business Name: Emory Meter# N/A Meter Reading: N/A  
 Mailing Address: \_\_\_\_\_  
 Service Address: 301 FM Drive City: Atlanta ST: Ga Zip: 30322

Make: Watts Model: 909 m1qt Size: 1-1/2"  
 Type:  RPZ  DC  DCDA  Detector Check  
 Date Installed: N/A Location on property: Mop sink room at the depot  
 New  Existing  
 Previous Device Serial No: N/A  
 Orientation:  Vertical Up  Vertical Down  Horizontal  
 Use:  Domestic  Fire  Irrigation  
 Protection:  Containment  Isolation

	Initial Test Results		Repairs/Comments	Re-Test Results	
	Tightness	Differential		Tightness	Differential
Check Valve #1 (RPZ, DC, PVB)	<input type="checkbox"/> Leak <input checked="" type="checkbox"/> Tight	8.2		<input type="checkbox"/> Leak <input type="checkbox"/> Tight	
Check Valve #2 (RPZ, DC)	<input type="checkbox"/> Leak <input checked="" type="checkbox"/> Tight	2.4		<input type="checkbox"/> Leak <input type="checkbox"/> Tight	
Relief Valve (RPZ)		3.5			
Buffer (RPZ)					
Line Pressure					
Shutoff Valve #1	<input type="checkbox"/> Leak <input checked="" type="checkbox"/> Tight				
Shutoff Valve #2	<input type="checkbox"/> Leak <input checked="" type="checkbox"/> Tight				

Comments: Unit passed, we were asked to rebuild and add air gap fittings and run discharge to drain.

Test Procedure: Standard RP test

Alarm Company/Fire Department Notified: \_\_\_\_\_  
 Person Notified: \_\_\_\_\_ Notified By: \_\_\_\_\_  
 Turn Off Date/Time: \_\_\_\_\_ Turn On Date/Time: \_\_\_\_\_

Test Kit Make: Mid west Model: 845-5  
 Serial No: 11130193 Last Calibration Date: 1/1/16

Tester Name: John D. Coyle Certificate Expiration Date: 12/31/18  
 Tester certifies that this assembly has been tested with the above listed procedure and verifies that isolation valves were returned to pre-test orientation.  
 Signature: [Signature] Telephone No. 403-625-1836

(Submit original white copy to water purveyor)



# DeKalb County Department of Watershed Management

1580 Roadhaven Drive, Stone Mountain, GA 30083  
(770) 621-7200 • FAX (770) 724-1446 • TDD 621-7237

Device Serial No 118288  
Test Date/Time 8/17. 2:00pm

Tester Certification Bpat02026  
Device Test Result  Pass  Fail

## Backflow Prevention Device Test & Maintenance Report

(Please Print)

Contact Name: Wayne Phone# \_\_\_\_\_  
 Business Name: Emory Meter# N/A Meter Reading: N/A  
 Mailing Address: \_\_\_\_\_  
 Service Address: 301 EM Drive City: Atlanta ST: Ga Zip: 30322

Make: Watts Model: 909 Size: 2"  
 Type:  RPZ  DC  DCDA  Detector Check  
 Date Installed: N/A Location on property: Mop sink room at the depot  
 New  Existing  
 Previous Device Serial No: N/A  
 Orientation:  Vertical Up  Vertical Down  Horizontal  
 Use:  Domestic  Fire  Irrigation  
 Protection:  Containment  Isolation

	Initial Test Results		Repairs/Comments	Re-Test Results	
	Tightness	Differential		Tightness	Differential
Check Valve #1 (RPZ, DC, PVB)	<input type="checkbox"/> Leak <input checked="" type="checkbox"/> Tight	9.0		<input type="checkbox"/> Leak <input type="checkbox"/> Tight	
Check Valve #2 (RPZ, DC)	<input type="checkbox"/> Leak <input checked="" type="checkbox"/> Tight	1.6		<input type="checkbox"/> Leak <input type="checkbox"/> Tight	
Relief Valve (RPZ)		3.0			
Buffer (RPZ)					
Line Pressure					
Shutoff Valve #1	<input type="checkbox"/> Leak <input checked="" type="checkbox"/> Tight				
Shutoff Valve #2	<input type="checkbox"/> Leak <input checked="" type="checkbox"/> Tight				

Comments: Unit passed, we were asked to rebuild and add air gap fittings and run discharge to drain.

Test Procedure: Standard RP test

Alarm Company/Fire Department Notified: \_\_\_\_\_  
 Person Notified: \_\_\_\_\_ Notified By: \_\_\_\_\_  
 Turn Off Date/Time: \_\_\_\_\_ Turn On Date/Time: \_\_\_\_\_

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