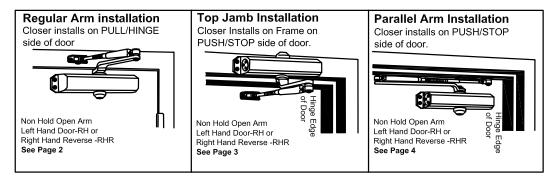
## C3000 SERIES DOOR CLOSERS INSTALLATION INSTRUCTIONS

SIZE1, SIZE2, SIZE3, SIZE 4, SIZE 5, Non-Hold Open

#### INSTALLATION APPLICATION



#### DOOR CLOSER ADJUSTMENT

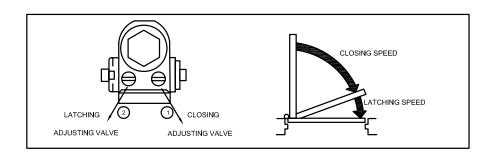
#### **CLOSING CYCLE**

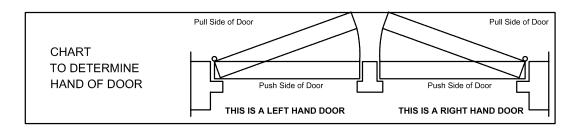
NOTE:CLOSING arcs(CLOSE and LATCH) are controlled two (2)separate speed adjusting valves adjust the CLOSING speed first, then adjust the LATCHING speed.

- 1.CLOSING speed adjustment is acomplished by full rotations of the speed adjusting valve.
  - -Turn the speed adjustment valve CLOCKWISE for a SLOWER CLOSE arc closing speed.
  - -Turn the speed adjustment valve COUNTER-CLOCKWISE for a FASTER CLOSER arc closing speed.
- 2. LATCH speed adjustments is accomplished by full rotations of the speed adjusting valve.
  - -Turn the speed adjustment screw CLOCKWISE for a SLOWER LATCHE arc closing speed.
  - -Turn the speed adjustment screw COUNTER-CLOCKWISE for a FASTER LATCH arc closing speed.

#### **CAUTIONS!**

Do not turn speed adjusting valve more than two (2) full turns counter-clockwise from its factory set position, as two speed adjusting valves could become dislodged from the door closer body. resulting in the loss of internal fluid and failure of the device.

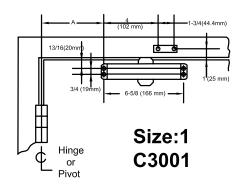


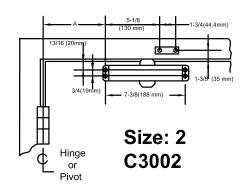




#### Installation Instructions for REGULAR ARM (PULL SIDE) Mounting

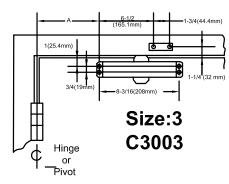
THIS TEMPLATE COVERS REGULAR ARM INSTALLATIONS TO 180° OPENING.

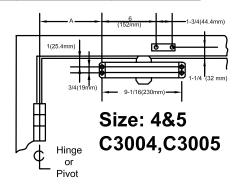




Right hand door shown Left hand in opposite Dimensions are in inches Do not scale drawing

| OPENING   | DIM.A<br>C3001,Size 1 | DIM.A<br>C3002,Size 2 |
|-----------|-----------------------|-----------------------|
| To120°    | 6-3/16 (157mm)        | 5-1/8 (130 mm)        |
| 120°-180° | 4-1/8 (105mm)         | 4(101.6 mm)           |





Right hand door shown Left hand in opposite Dimensions are in inches Do not scale drawing

| OPENING   | DIM.A<br>C3003,Size 3 | DIM.A<br>C3004&C3005,Size 4&5 |
|-----------|-----------------------|-------------------------------|
| To120°    | 6-1/2(165.1mm)        | 6 (152 mm)                    |
| 120°-180° | 4(101.6mm)            | 3-1/2 (89mm)                  |

#### **INSTALLATION INSTRUCTONS**

#### 1. Select door opening and use dimensions shown above, mark four (4) holes on frame door and two (2) holes on door of arm shoe.

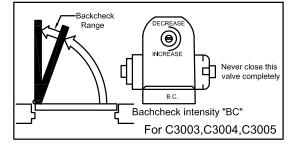
- 2.Drill pilot holes in door and frame for # 14 all-purpose screws or drill or tap for 1/4-20 machine screw.
- 3.Intall forearm/arm shoe assembly to door using screws provided. 4. Mount closer on frame using screw provided. SPEED ADJUSTING VALVE MUST BE POSITIONED TOWARD HINGE EDGE.
- 5.Install main arm to top pinion shaft, perpendicular to frame when assmebled to preload main arm (illustration below). Secure forearm to main arm with screw/washer assmebly provided.
- 6.Adjut length of forearm so that forearm is perpendicular to frame when assmebled to preload main arm (illustration below).
- Secure forearm to main arm with screw washer assembly provided. 7. Snap pinion cap over shaft at bottom of closer.
- 8. Adjust closing speed of door. following instructions as shown page 1.

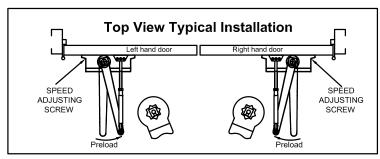
#### **OPEN CYCLE**

NOTED: These instructions apply to closers equipped with backcheck.

To increase backcheck intensity, turn valve marked "BC"clockwise.

To decrease backcheck intensity, turn valve marked BC counter-clockwise

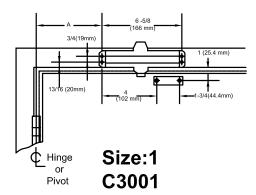




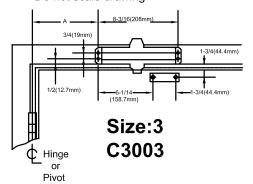


#### Installation Instructions for TOP JAMB (PUSH SIDE) Mounting

THIS TEMPLATE COVERS REGULAR ARM INSTALLATIONS TO 180° OPENING.



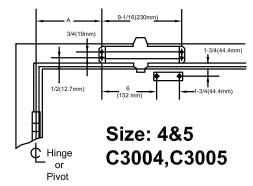
Left hand door shown Right hand in opposite Dimensions are in inches Do not scale drawing



Left hand door shown Right hand in opposite Dimensions are in inches Do not scale drawing

#### 

| OPENING   | <b>DIM.A</b><br>C3001,Size 1 | DIM.A<br>C3002,Size 2 |
|-----------|------------------------------|-----------------------|
| To120°    | 6-3/16 (157mm)               | 5-1/8(130 mm)         |
| 120°-180° | 4-1/8 (105mm)                | 4 (101.6 mm)          |



| OPENING   | DIM.A<br>C3003,Size 3 | DIM.A<br>C3004&C3005,Size 4&5 |
|-----------|-----------------------|-------------------------------|
| To120°    | 6-1/2(165.1mm)        | 6(152 mm)                     |
| 120°-180° | 4(101.6mm)            | 3-1/2 (89mm)                  |

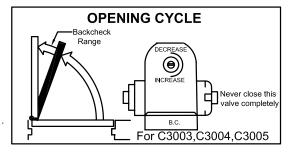
#### **INSTALLATION INSTRUCTONS**

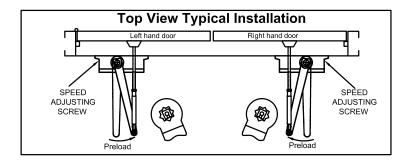
- 1.Select door opening and use dimensions shown above, mark four (4) holes on frame door and two (2) holes on door of arm shoe.
- 2.Drill pilot holes in door and frame for # 14 all-purpose screws or drill or tap for 1/4-20 machine screw.
- 3.Intall forearm/arm shoe assembly to door using screws provided.
  4.Mount closer on frame using screw provided. SPEED ADJUSTING VALVE MUST BE POSITIONED TOWARD HINGE EDGE.
- 5.Install main arm to top pinion shaft, perpendicular to frame when assmebled to preload main arm (illustration below). Secure forearm to main arm with screw/washer assmebly provided.
- 6.Adjut length of forearm so that forearm is perpendicular to frame when assmebled to preload main arm (illustration below). Secure forearm to main arm with screw /washer assembly provided.
- 7. Snap pinion cap over shaft at bottom of closer.
- 8. Adjust closing speed of door. following instructions as shown page 1.

#### **OPEN CYCLE**

NOTED:

- These instructions apply to closers equipped with backcheck.
- To increase backcheck intensity, turn valve marked "BC"clockwise. To decrease backcheck intensity, turn valve marked
- BCcounter-clockwise



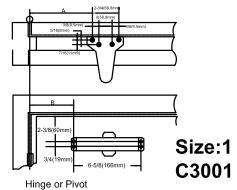




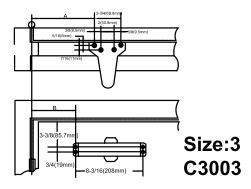
#### Installation Instructions for PARALLEL ARM (PUSH SIDE) Mounting

THIS TEMPLATE COVERS REGULAR ARM INSTALLATIONS TO 180° OPENING.

#### Parallel bracket accessory required



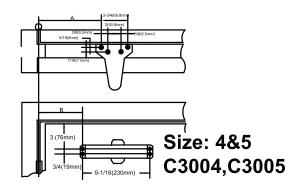
Left hand door shown Right hand in opposite Dimensions are in inches Do not scale drawing



Left hand door shown Right hand in opposite Dimensions are in inches Do not scale drawing

# 3-3/8(85.7mn) 3-3/8(85.7mn) Size: 2 C3002

| OPENING   | DIM.A        | DIM.B        | DIM.A         | DIM.B        |
|-----------|--------------|--------------|---------------|--------------|
|           | C3001,Size 1 | C3001,Size 1 | C3002,Size 2  | C3002,Size 2 |
| 120°-180° | 4-5/8(117mm) | 3-1/2(90mm)  | 7-1/16(180mm) | 4-3/4(120mm) |



| OPENING   | DIM.A<br>C3003,Size 3 | DIM.B<br>C3003,Size 3 | DIM.A<br>C3004&C3005<br>Size 4&5 | DIM.B<br>C3004&C3005<br>Size 4&5 |
|-----------|-----------------------|-----------------------|----------------------------------|----------------------------------|
| To120°    | 10-3/4(273mm)         | 7-13/16(198.4mm)      | 7-3/4(197mm)                     | 6-1/8(156mm)                     |
| 120°-180° | 8-3/4(222.2mm)        | 5-5/8(142.9mm)        | 5-3/4(146mm)                     | 4-1/8(105mm)                     |

#### INSTALLATION INSTRUCTONS

- Select door opening and use dimensions shown above, mark four
   holes on frame door and two (2) holes on door of arm shoe.
   Drill pilot holes in door and frame for # 14 all-purpose screws or drill or tap for 1/4-20 machine screw.
- 3.Intall forearm/arm shoe assembly to door using screws provided.
  4.Mount closer on frame using screw provided. SPEED ADJUSTING VALVE MUST BE POSITIONED TOWARD HINGE EDGE.
- 5.Install main arm to top pinion shaft, perpendicular to frame when assmebled to preload main arm (illustration below). Secure forearm to main arm with screw/washer assmebly provided.
- 6.Adjut length of forearm so that forearm is perpendicular to frame when assmebled to preload main arm (illustration below). Secure forearm to main arm with screw /washer assembly provided.
  7.Snap pinion cap over shaft at bottom of closer.
- 8. Adjust closing speed of door. following instructions as shown page 1.

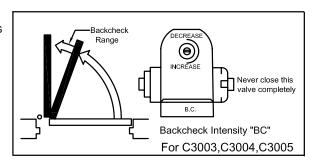
#### **OPEN CYCLE**

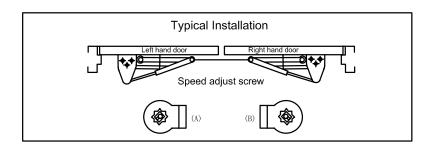
NOTED:

These instructions apply to closers equipped with backcheck.

To increase backcheck intensity. turn valve marked "BC"clockwise.

To decrease backcheck intensity, turn valve marked BC counter-clockwise



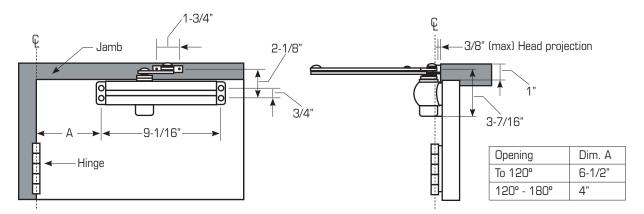




Standard and Top-Jamb Installation

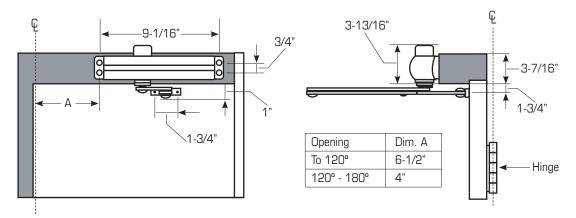
#### STANDARD INSTALLATION:

Regular arm application provides the best power efficiency. It is the only installation that installs on the hinge (pull) side of the door. Regular arm applications require at least 1-3/4" from top of door to ceiling so arm does not hit the ceiling and at least 2-1/2" behind door when door is opened to 90°, so closer body will not damage the wall.



#### **TOP-JAMB INSTALLATION:**

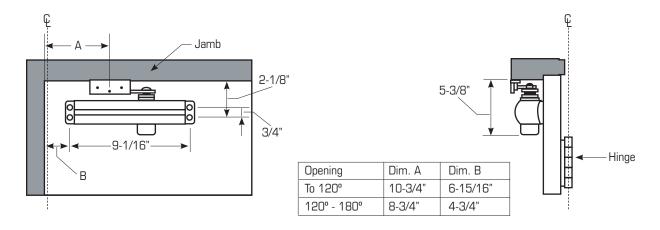
Top-jamb application is the best alternative to regular arm for power efficiency. It is installed on the frame stop (push) side of the door. It is frequently used on doors with a narrow top rail, such as exterior aluminum storefront doors. Top-jamb applications require the frame to be at least 1-3/4" in height, or else a drop plate must be used (a drop plate provides a mounting surface for the door closer).



Parallel Arm Installation and Specifications

#### **PARALLEL ARM INSTALLATION:**

Parallel arm application is the least power efficient. It provides approximately 25% less power than regular arm. It is installed on the frame stop (push) side of the door. Since it is parallel with the door, it is chosen for appearances and is least susceptible to vandalism, making it a popular choice in schools. Parallel arm applications require at least 4-1/2" from the top of the door to the bottom mounting point of the door closer, or else a drop plate must be used.



#### **SPECIFICATIONS:**

Closer for interior and exterior door shall be rack-and-pinion type with a cast aluminum body. Closer shall be non-handed to permit installation on either side of the door. Closer shall be supplied with a standard shoe and soffit plate to allow standard, top-jamb, or parallel installation. Closer shall contains hydraulic fluid that is non-gumming and non-freezing. Door closer shall have two separate, adjustable regulating valves to control sweeping and latching speeds. Closer shall come standard with backcheck feature. Closer shall fit into hole patterns 9-1/16" in width (two holes on each end) and shall be supplied with machine screw and sex nuts and bolts. Closer is ANSI 156.4 Grade 1 and UL Listed for use on labeled fire doors.



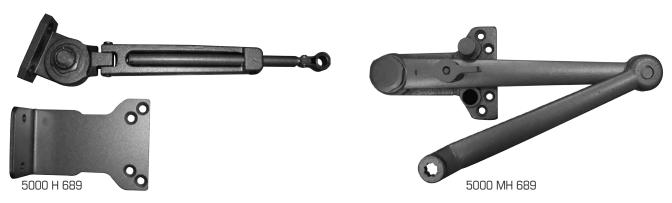
Covers, Arms, Drop Plates, and Power Adjustment Chart

#### **COVERS:**

Optional covers are available in either aluminum or duranodic finishes.

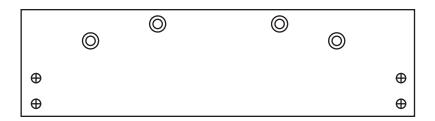
#### ARMS:

The C5000 Series offers optional mechanical hold-open arms and friction hold-open arms in aluminum and duranodic finishes.



#### **DROP PLATES:**

The C5000 Series offers an optional drop plate in aluminum and duranodic finishes. The drop plate is suitable for conditions where overhead clearance is less than 1-3/4" or to provide clearance for a surface-applied stop.

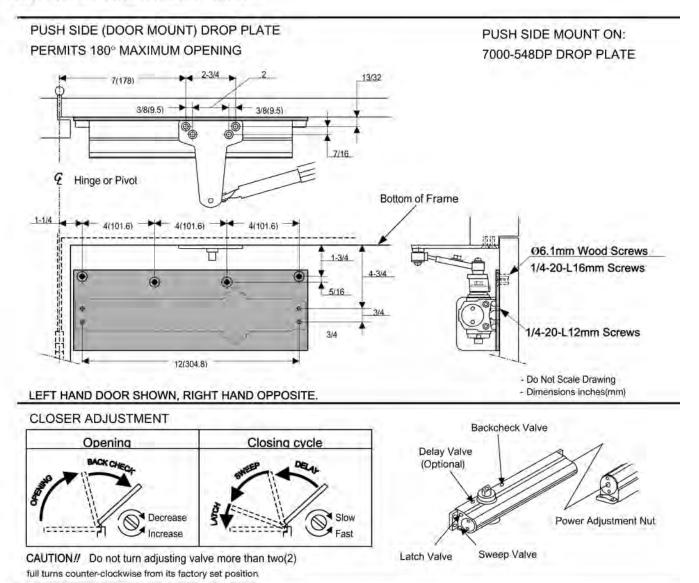


| C5000 SERIES POWER ADJUSTMENT CHART: |  |       |                  |       |                     |
|--------------------------------------|--|-------|------------------|-------|---------------------|
|                                      | Number of Turns (Adjustment) Maximum Door Size |       | or Size (inches) |       |                     |
| Power Size                           | C5025  | C5014 | C5025            | C5014 | Weight of Door (lb) |
| 1                                    | -  | 0     |                  | 36    | 66-99               |
| 2                                    | 0  | 3     | 36               | 42    | 99-143              |
| 3                                    | 4  | 8     | 42               | 48    | 143-187             |
| 4                                    | 10   | 14    | 48               | 54    | 187-264             |
| 5                                    | 16   | -     | 52               |       | 264-330             |

### Drop Plate Installation for the C7000 Series Door Closer

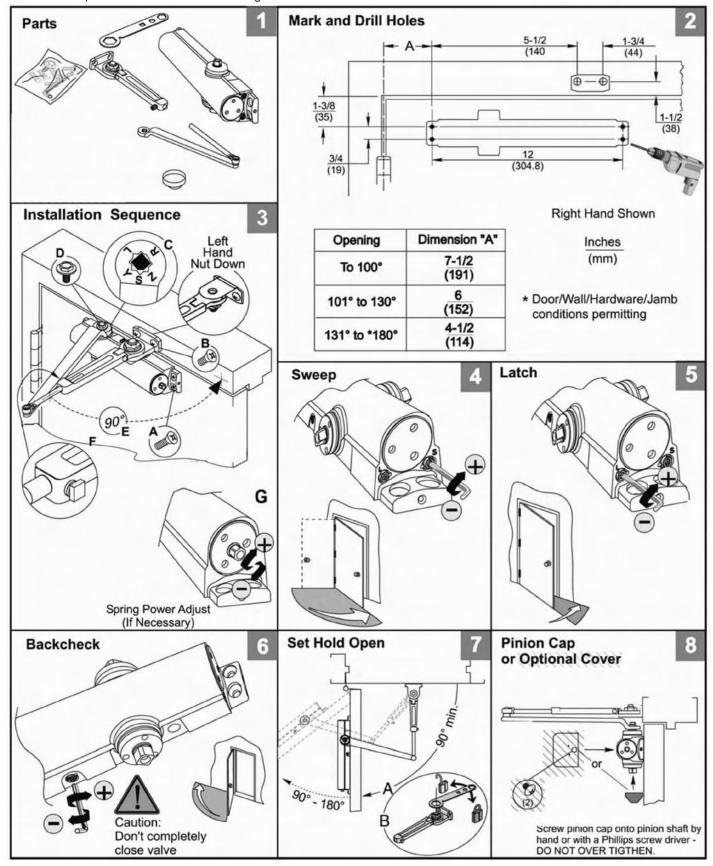
548DP Drop Plate - Installation Instructions

#### Drop Plate for C7000 Series - 548DP





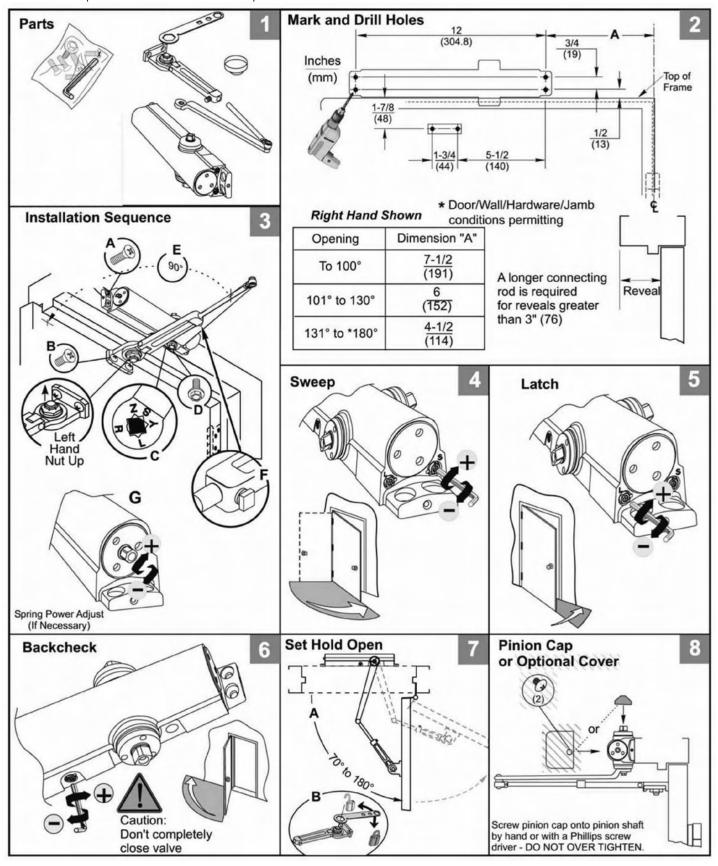
Hold Open Arm Door Closers — Regular Arm



#### **GENERAL LOCK**

Cuality & Value™

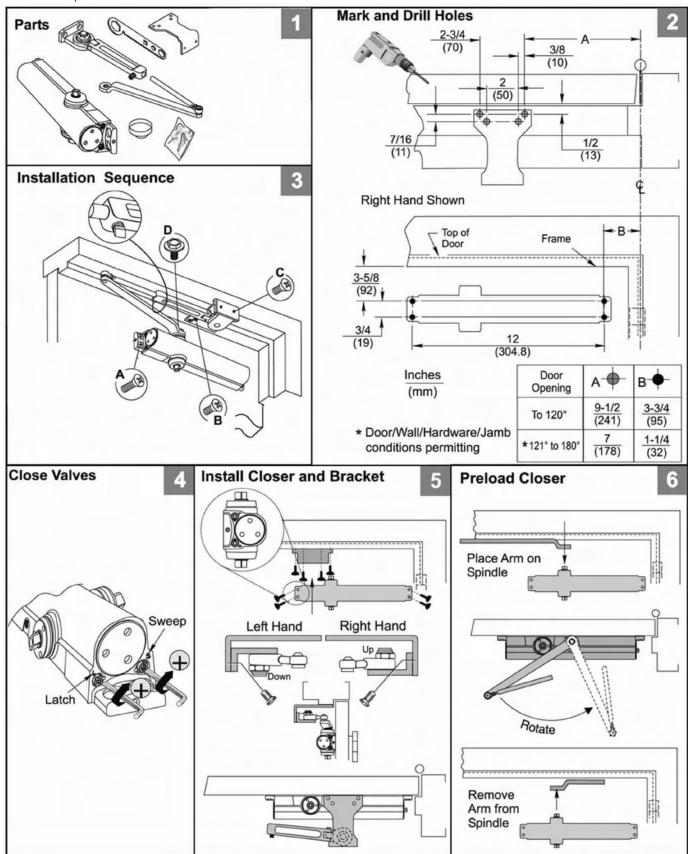
Hold Open Arm Door Closers — Top Jamb Arm



#### **GENERAL LOCK**

**Cuality & Value**™

Hold Open Arm Door Closers — Parallel Arm



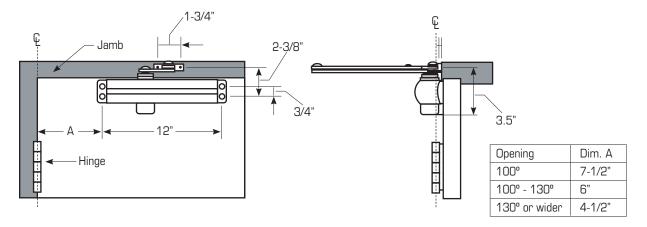
#### **GENERAL LOCK**

Cuality & Value™

Standard and Top-Jamb Installation

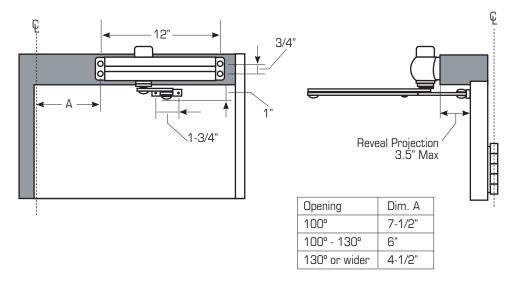
#### STANDARD INSTALLATION:

Regular arm application provides the best power efficiency. It is the only installation that installs on the hinge (pull) side of the door. Regular arm applications require at least 1-3/4" from top of door to ceiling so arm does not hit the ceiling and at least 2-1/2" behind door when door is opened to 90°, so closer body will not damage the wall.



#### **TOP-JAMB INSTALLATION:**

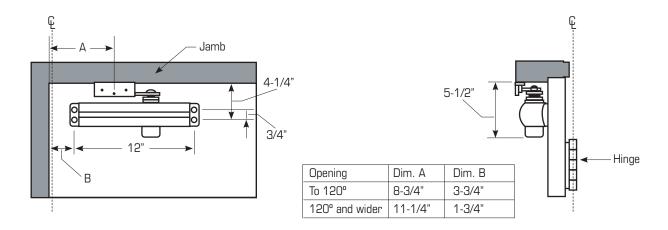
Top-jamb application is the best alternative to regular arm for power efficiency. It is installed on the frame stop (push) side of the door. It is frequently used on doors with a narrow top rail, such as exterior aluminum storefront doors. Top-jamb applications require the frame to be at least 1-3/4" in height, or else a drop plate must be used (a drop plate provides a mounting surface for the door closer).



Parallel Arm Installation and Specifications

#### **PARALLEL ARM INSTALLATION:**

Parallel arm application is the least power efficient. It provides approximately 25% less power than regular arm. It is installed on the frame stop (push) side of the door. Since it is parallel with the door, it is chosen for appearances and is least susceptible to vandalism, making it a popular choice in schools. Parallel arm applications require at least 4-1/2" from the top of the door to the bottom mounting point of the door closer, or else a drop plate must be used.



#### **SPECIFICATIONS:**

Closer for interior and exterior door shall be needle-bearing type with a cast aluminum body. Closer shall be non-handed to permit installation on either side of the door. Closer shall be supplied with a standard shoe and soffit plate to allow standard, top-jamb, or parallel installation. Closer shall contain hydraulic fluid that is non-gumming and non-freezing. Door closer shall have two separate, adjustable regulating valves to control sweeping and latching speeds. Closer shall come standard with backcheck feature. Closer shall fit into hole patterns 12" in width (two holes on each end) and be supplied with machine screw and sex nuts and bolts. Closer shall be ANSI 156.4 Grade 1 and UL Listed for use on labeled fire doors. Closer shall be available with slim or full-size covers.



Covers, Arms, Drop Plates, and Power Adjustment Chart

#### **COVERS:**

The C7000 Series comes standard with either a slim-line or full-size cover in either aluminum or duranodic. Optional full-size covers in bright brass and bright chrome come with closer cover, arm, and screws in the same finish.

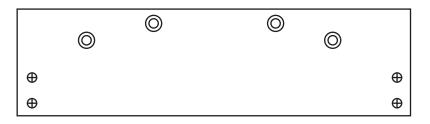
#### ARMS:

The C7000 Series offers optional mechanical hold-open arms and friction hold-open arms in aluminum and duranodic.



#### DROP PLATES:

• The C7000 Series offers an optional drop plate in aluminum and duranodic. The drop plate is suitable for conditions where overhead clearance is less than 1-3/4" or to provide clearance for a surface-applied stop.

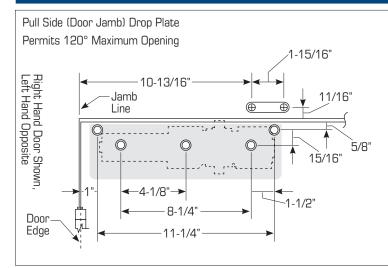


| C7000 SERIES POWER ADJUSTMENT CHART: |                              |                            |          |                     |
|--------------------------------------|------------------------------|----------------------------|----------|---------------------|
|                                      | Number of Turns (Adjustment) | Maximum Door Size (inches) |          |                     |
| Power Size                           | Exterior / Interior          | Exterior                   | Interior | Weight of Door (lb) |
| 1                                    | 0                            | 28                         | 32       | 33-66               |
| 2                                    | 2                            | 32                         | 36       | 66-99               |
| 3                                    | 4                            | 36                         | 42       | 99-143              |
| 4                                    | 8                            | 42                         | 48       | 143-187             |
| 5                                    | 12                           | 48                         | 54       | 187-264             |
| 6                                    | 16                           | 54                         | 58       | 264-330             |

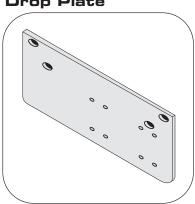


9016 DP-18, 9016 DP-18G, and 9016 DP-18TJ Drop Plate Installation

#### DROP PLATE INSTALLATION:

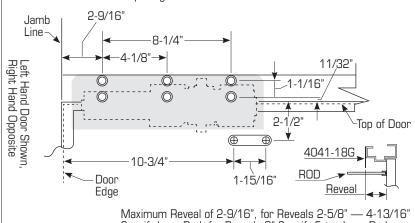


#### Push Side Mount on: 9016 DP-18 **Drop Plate**



Pull Side (Top-Jamb) Drop Plate

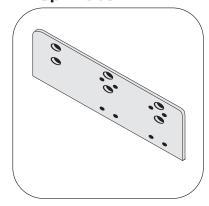
Permits 120° Maximum Opening



Specify Long Rod, for Reveals 8" Specify Extra Long Rod

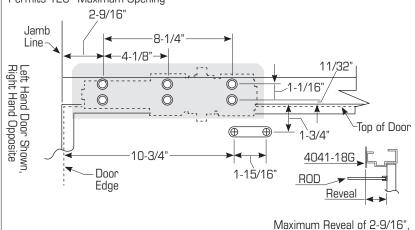
Push Side Mount on:

#### 9016 DP-18G **Drop Plate**



Pull Side (Top-Jamb) Drop Plate

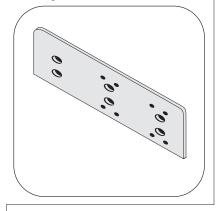
Permits 120° Maximum Opening



Maximum Reveal of 2-9/16" for Reveals 2-5/8" — 4-13/16" Specify Long Rod, for Reveals 8" Specify Extra Long Rod

Push Side Mount on:

#### 9016 DP-18TJ **Drop Plate**





#### C9000 Series Door Closer

Specifications, Arms, and Power Adjustment Chart

#### SPECIFICATIONS:

Closer for interior and exterior door shall have a cast iron body and forged. Closer shall be non-handed to permit installation on either side of the door. Closer shall be supplied with a standard shoe and soffit plate to allow standard, top-jamb, or parallel installation. Closer shall contain hydraulic fluid that is non-gumming and non-freezing. Door closer shall have two separate, adjustable regulating valves to control sweeping and latching speeds. Closer shall come standard with backcheck feature. Closer shall be supplied with machine screw and sex nuts and bolts. Closer shall be ANSI 156.4 Grade 1 and UL Listed for use on labeled fire doors. Closers shall be available with full-size covers.

#### ARMS:

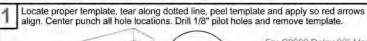
The C9000 Series offers optional mechanical hold-open arms in aluminum and duranodic finishes.

| C9000 SERIES POWER ADJUSTMENT CHART: |           |                                     |                                   |  |  |
|--------------------------------------|-----------|-------------------------------------|-----------------------------------|--|--|
| Door<br>Closer<br>Size               |           | n Door Size Wood<br>Inches (Meters) | Applicable Door<br>Weight lb (kg) | Power Adjustment<br>Full 360° Clockwise<br>Turns of Adjustment Nut |  |
|                                      | Interior  | Exterior (In Swing)                 |                                   |  |  |
| 1                                    | 32 (0.81) | 28 (0.71)                           | 33~66 (15~30)                     | -6   |  |
| 2                                    | 36 (0.91) | 32 (0.81)                           | 66~99 (30~45)                     | -3   |  |
| 3                                    | 42 (1.07) | 36 (0.91)                           | 99~143 (45~66)                    | 0  |  |
| 4                                    | 48 (1.22) | 42 (1.07)                           | 143~187 (65~85)                   | 3  |  |
| 5                                    | 54 (1.37) | 48 (1.22)                           | 187~264 (85~120)                  | 7  |  |
| 6                                    | 58 (1.47) | 52 (1.32)                           | 264~330 (120~330)                 | 12   |  |



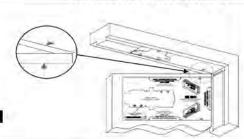
#### **C9000 Door Closer**

## 180° Template P.A. Mounting INSTRUCTION SHEET







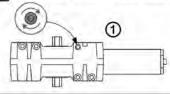


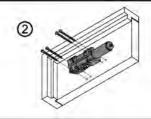
2 Determine door width, adjust spring power to match chart.

| WIDTH    | •        | (P)     |
|----------|----------|---------|
| INTERIOR | EXTERIOR | SET TO: |
| à        | -        | -6      |
| 34"      | E.S lb-f | 0       |
| 38"      | 30*      | 3       |
| 48"      | 361      | 7       |
| 54*      | 42"      | - 11    |
| 60*      | 48"      | 13      |

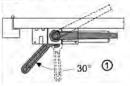


Screw in valve on back of closer.
Using screws provided, secure closer to door.





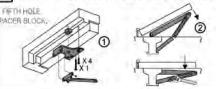
4 ① Pre-load closer to 30°, as shown.





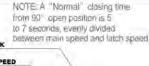
(2) Attach arm to closer.

Attach P.A. shoe to frame and fasten forearm to shoe with fasteners provided. Pre-load arm and tighten screw.

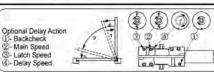


Optional Hold-open arm. Identify direction of hold-open nut according to mounting.

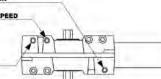
6 If necessary, adjust closer





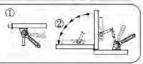




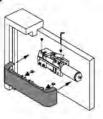




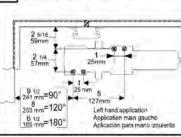
To adjust Optional Hold-open arm:
Loosen hold open out.
Open door to desired position and tighten hold open nut securely

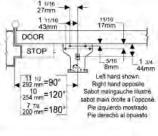


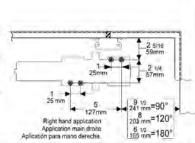
7 Attach cover with fasteners provided.



Dimensional Information for standard and delay acting mounting.







#### C9000 Instructions et gabarit autocollant de 180° pour une installation "bras parallèle".

- Repérez le gabarit approprié, détachez-le, refirez la pellicule et appliquez. Marquez le centre de tous les trous. Percez des trous de guidage de 1/8" et retirez le gabarit.
- Mesurez la largeur de la porte Réglez le ressort selon les indications du tableau.

Réglage de force Fast pour règler la force du ressort

- Vissez la soupape derrière ferme porte Fixez le ferme-porte sur la porte avec les attaches fournies.
  - Préchargez le ferme-porte à 30°. comme sur l'illustration.
  - ② Rattachez le bras au ferme-porte avec l'attache fournie.
- 5 Rattachez le sabot du b. p. au cadre et fixez lavant-bras sur le sabot avec les attaches fournies. Préchargez le bras et serrez la vis.
- Bras de retenue optionnelle. Identifiez la direction du boulon de retenue selon l'ouverture de la porte.
- Au besion, réglez

  1 résistance douverture
  2 vitesse de fermeture
  3 vitesse de verrouillage
- 7 Fixez le boîtier avec les attaches fournies
- R Dimensions

NOTE la fermeture d'une parte ouverte à 90's prend normalement de 5 à 7 secondes, ce déta est réparti entré la vitesse de fermeture et la vitesse de verrouillage.

Pour régler le bras de retenue optionnelle, desserrez la vis de retenue. Ouvrez la porte à la position désirée et resserrez la vis.

## A DANGER

A DANGER

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#### C9000 Instrucciones Pela y Pega para plantilla 180° con montaje del brazo paralelo.

- Localiza la plantilla apropiada, rompe a lo fargo de la linea de puntos, pela la plantilla y aplicala Haz agujeros en todos los sitios. Barrena agujeros pilotos de 1/8" y quita la plantilla.
- Determina la anchura de la puerta. Ajusta la fuerza del resorte según lo indicado en el gráfico.
  - Fast cuadrante de ajuste para ajustar la potencia del resorte
- 3 Alornilla la válvula al revés del cerrado Sujeta el cerrador a la puerta con los tornillos ya incluidos.
- Precarga el cerrador a 30°, tal como se muestra.
  - ② Coloca el brazo al cerrador con el sujetador ya incluido.
- Coloca el pie del brazo paralelo a la armazón y coloca el antebrazo con los sujetadores ya incluidos. Prearma el brazo y aprieta el tornillo.
- Brazo de retención opcional. Identifica la dirección de la tuerca de retención según el montale.
- Ajusta si es necesario.
  - velocidad principal
     velocidad de seguro
- 7 Coloca la tapa con los sujetadores ya incluidos
  - Datos dimensionales para montaje estándar y de acción retardada.

NOTA. El tiempo de cerrado "Nomial" de nua puerta atrierto a 90° es de 5 hasta 7 segundos, dividido gualmente entre la velocidad principal y la velocidad de seguno.

Para ajustar el brazo de retención opcional: Afloja la tuerca de retención. Abra la puerta a la posición deseada y aprieta bien la tuerca de retención.

ADVERTENCIA

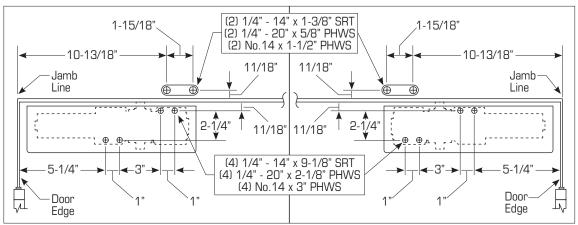
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ADVERTENCIA

Standard and Top-Jamb Installation

#### STANDARD INSTALLATION:

Regular arm application provides the best power efficiency. It is the only installation that installs on the hinge (pull) side of the door. Regular arm applications require at least 1-3/4" from top of door to ceiling so arm does not hit the ceiling and at least 2-1/2" behind door when door is opened to 90°, so closer body will not damage the wall.

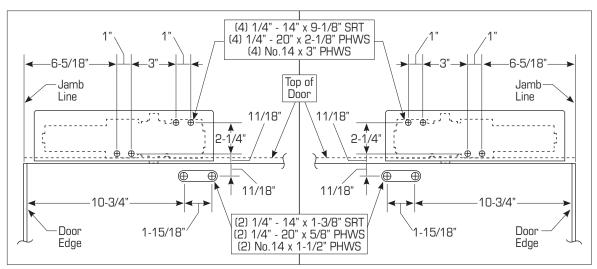


Right Hand Application Shown

Left Hand Application Shown

#### **TOP-JAMB INSTALLATION:**

Top-jamb application is the best alternative to regular arm for power efficiency. It is installed on the frame stop (push) side of the door. It is frequently used on doors with a narrow top rail, such as exterior aluminum storefront doors. Top-jamb applications require the frame to be at least 1-3/4" in height, or else a drop plate must be used (a drop plate provides a mounting surface for the door closer).



Left Hand Application Shown

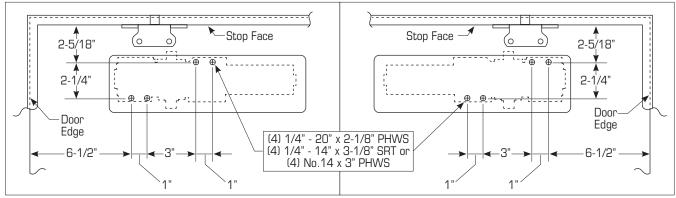
Right Hand Application Shown



Parallel Arm and 9016 DP-18PA Drop Plate Installation

#### **PARALLEL ARM INSTALLATION:**

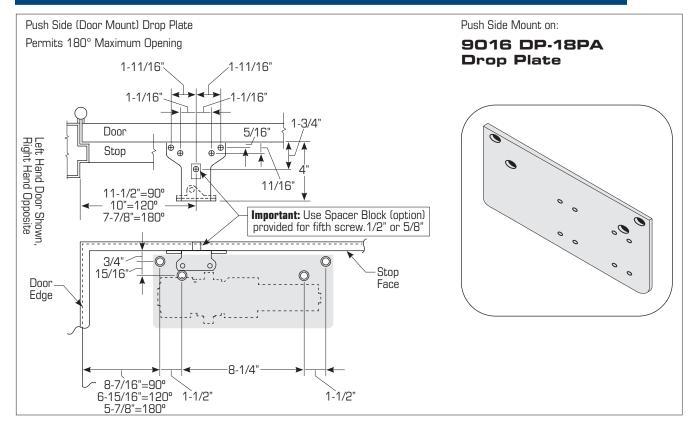
Parallel arm application is the least power efficient. It provides approximately 25% less power than regular arm. It is installed on the frame stop (push) side of the door. Since it is parallel with the door, it is chosen for appearances and is least susceptible to vandalism, making it a popular choice in schools. Parallel arm applications require at least 4-1/2" from the top of the door to the bottom mounting point of the door closer, or else a drop plate must be used.



Left Hand Application Shown

Right Hand Application Shown

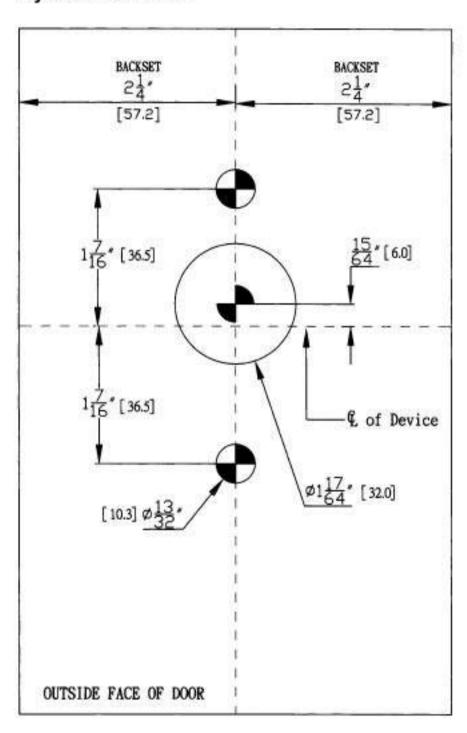
#### **DROP PLATE INSTALLATION:**





#### **TEMPLATE**

#### Cylinder Pull Plate



#### Simple Installation Instructions:

 Drill two thru holes on outside face of door for Sex Bolts use shown as the marks:

> For Metal Door Application: 9/32" Dia: Drill Inside 13/32" Dia: Drill Outside

For Wood Door Application: 13/32" Dia. Drill Thru

- Drill 117/64" Dia. on outside face of door for Rim Cylinder use.
- Fasten the supplied mounting screws into the sex bolts from inside of the door. The two screws must go through the chassis of exit device.
- Install cylinder, see Installation Instructions of Rim Exit Device.

#### Note

- For single door and double door with mullion use, the backset 2 7/16" is to face of stop.
- For double door without mullion use, the backset 2 7/16" is to edge of door.

### ROUND ROSE LEVER / KNOB TRIM INSTALLATION INSTRUCTIONS

(For Economy Exit Device use)

#### 1. DRILL HOLE

- a. Drill one ø2-1/8" (54mm) through hole as shown on the template.
- b. Drill two ø5/16" (8.1mm) on outside face of door for anti-rotation studs use.

#### 2. INSTALL TRIM

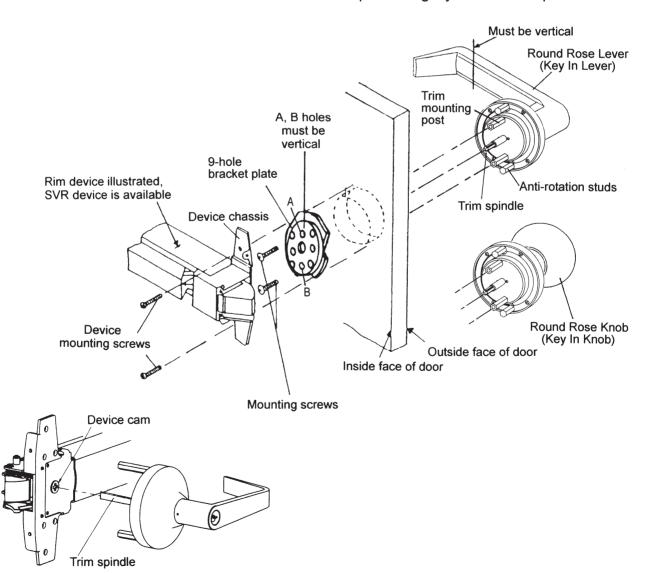
- a. Insert trim into the holes in door from outside of door.
- b. Place 9-hole bracket plate into the hole in inside face of door.

Note: Make sure the 9-hole bracket hole is seated in right angle when it is placed into the hole. The placed angle must match recessed back of exit device, and A, B two holes of 9-hole bracket plate must meet two mounting posts of the trim.

c. Insert the supplied two mounting screws through 9-hole bracket plate into the mounting posts of the trim, then tighten the screws.

#### 3. INSTALL EXIT DEVICE

- **a.** Install exit device on inside face of door using the supplied round head screws to the door. Details see exit device installation instructions.
  - Make sure " trim spindle " has mated with the cam on the back of the exit device.
- b. Check if both exit device and trim secured in the position tightly and can be operated well.



## PULL PLATE w/THUMBPIECE INSTRUCTIONS

## FOR USE WITH ANSI GRADE 1 WIDE STILE RIM OR SVR EXIT DEVICE

## STEP A: INSTALL CYLINDER (SKIP TO STEP B FOR DUMMY TRIM)

- Use template to mark cut-out location and mounting holes locations on door. If all holes have been drilled or cut, start to install cylinder first.
- Install mortise cylinder through provided cylinder collar, then insert the
- cylinder through hole in pull plate w/thumbpiece.

  3. Fasten mortise cylinder using provided cylinder holding nut as shown.

If use 1-1/8" or 1-1/4" cylinder length, the cylinder collar is unnecessary.

## Cylinder Collar For long cylinder only Mounting Screw (x2) such as 1-3/8" (35mm), Cut-Out -Must go thru device chassis or 1-1/2" (38mm) on Pull Side only 8-15/32" x 2-1/8" Mounting Post (x3) (215mmx54mm) Cylinder Holding Nut **Device Cam Device Chassis** Ø 5/8"(16mm) Trim Actuating Shaft Hole on Push Side, see Template — Ø 15/32"(8mm) Mounting Hole (x2) on Push Side, see Template Cross Actuating Shaft Mortise Cylinder 1-1/8"(28mm) or 1-1/4"(32mm) with Mounting Screw (x1) IC or standard core Mounting Hole (x1) Mechanism Housing Drill ø 5/16" (8mm) hole on Push Side Drill ø 1/2" (13mm) hole on Pull Side Thumbpiece ' -Door REV: 01, 05/2012

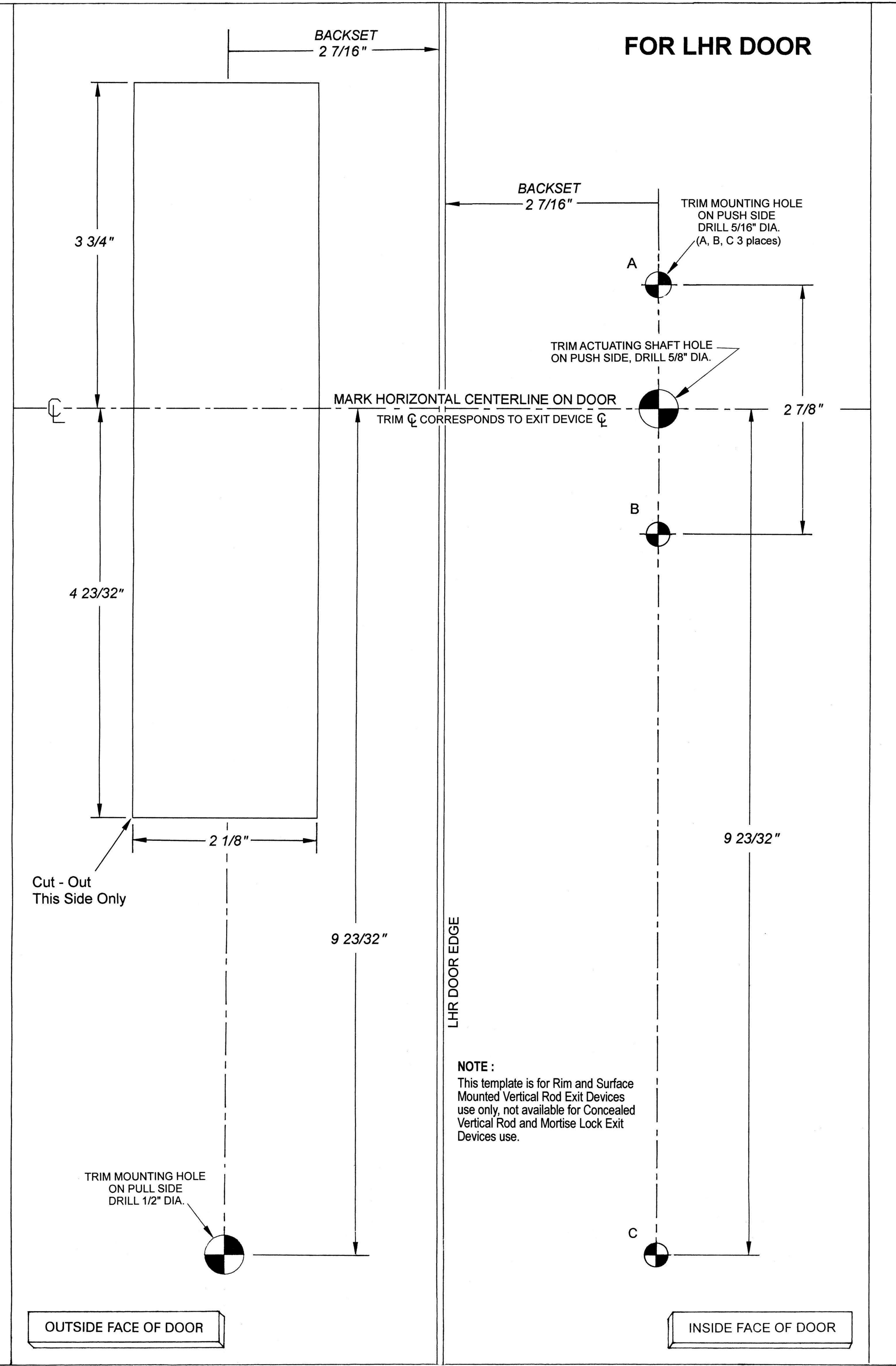
## STEP B: INSTALL PULL PLATE w/THUMBPIECE

. Insert pull plate w/thumbpiece mechanism housing with three (3) mounting posts and the mortise cylinder through door.

2. Be sure to line up cross actuating shaft with cam located on back of device chassis, then insert it to the cam.

3. Fasten pull plate w/thumbpiece and exit device using the supplied three (3) mounting screws.

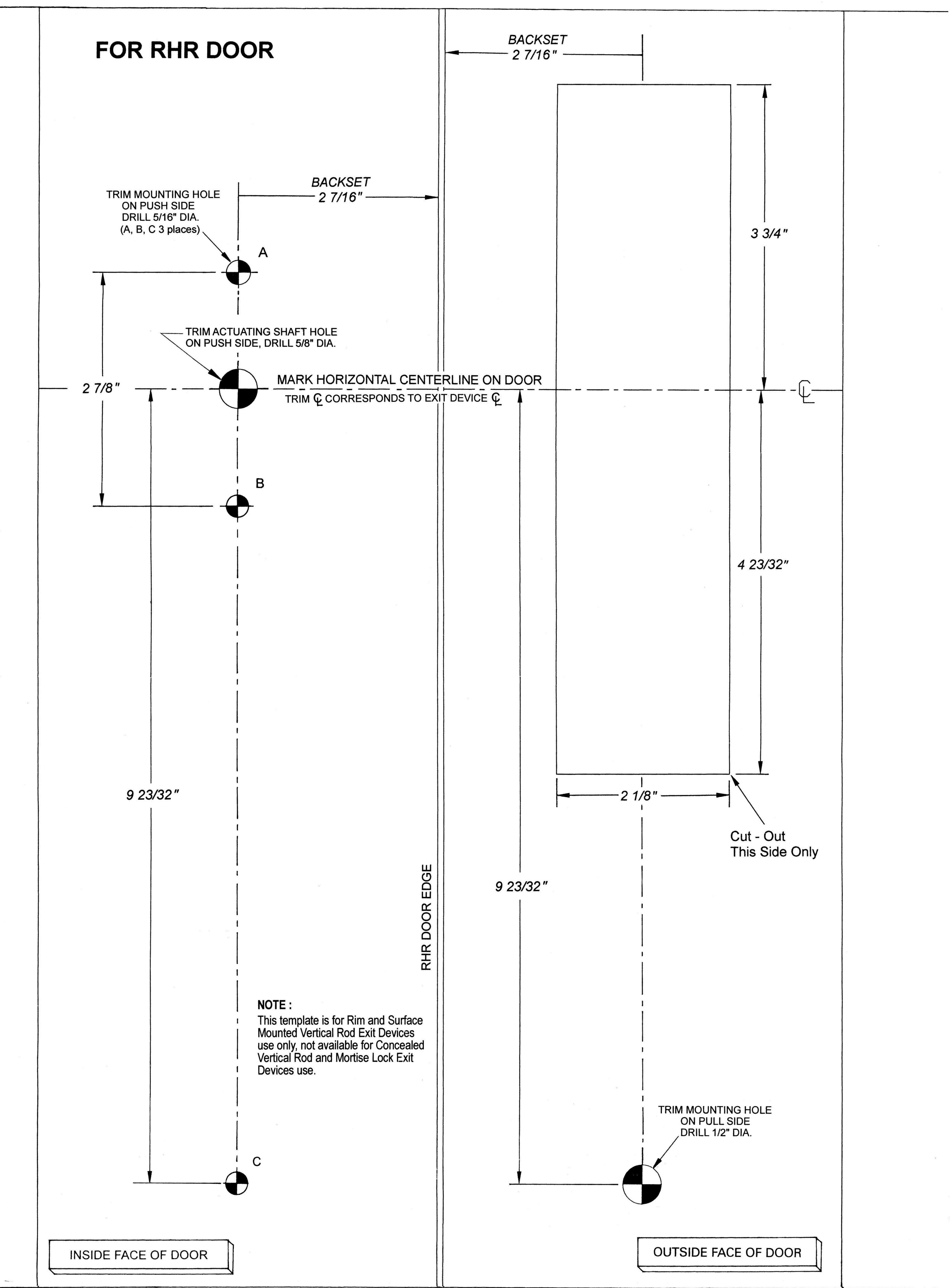
# TEMPLATE (Pull Plate with Thumbpiece)



## Simple Instructions:

- 1. Install a Mortise Cylinder with supplied Cylinder Holding Nut.
- 2. If door is already drilled and cut, insert the trim into the holes from outside of the door, then fasten by three mounting screws A, B, C from inside of the door (the upper two screws must go through the chassis of the exit device which is installed on the inside face of door.
- For single door and double door with mullion use, the backset 2 - 7/16" is to face of stop.
- For double door without mullion use, the backset
   2 7/16" is to edge of door.

# TEMPLATE (Pull Plate with Thumbpiece)



## Simple Instructions:

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- For single door and double door with mullion use, the backset 2 - 7/16" is to face of stop.
- For double door without mullion use, the backset
   2 7/16" is to edge of door.

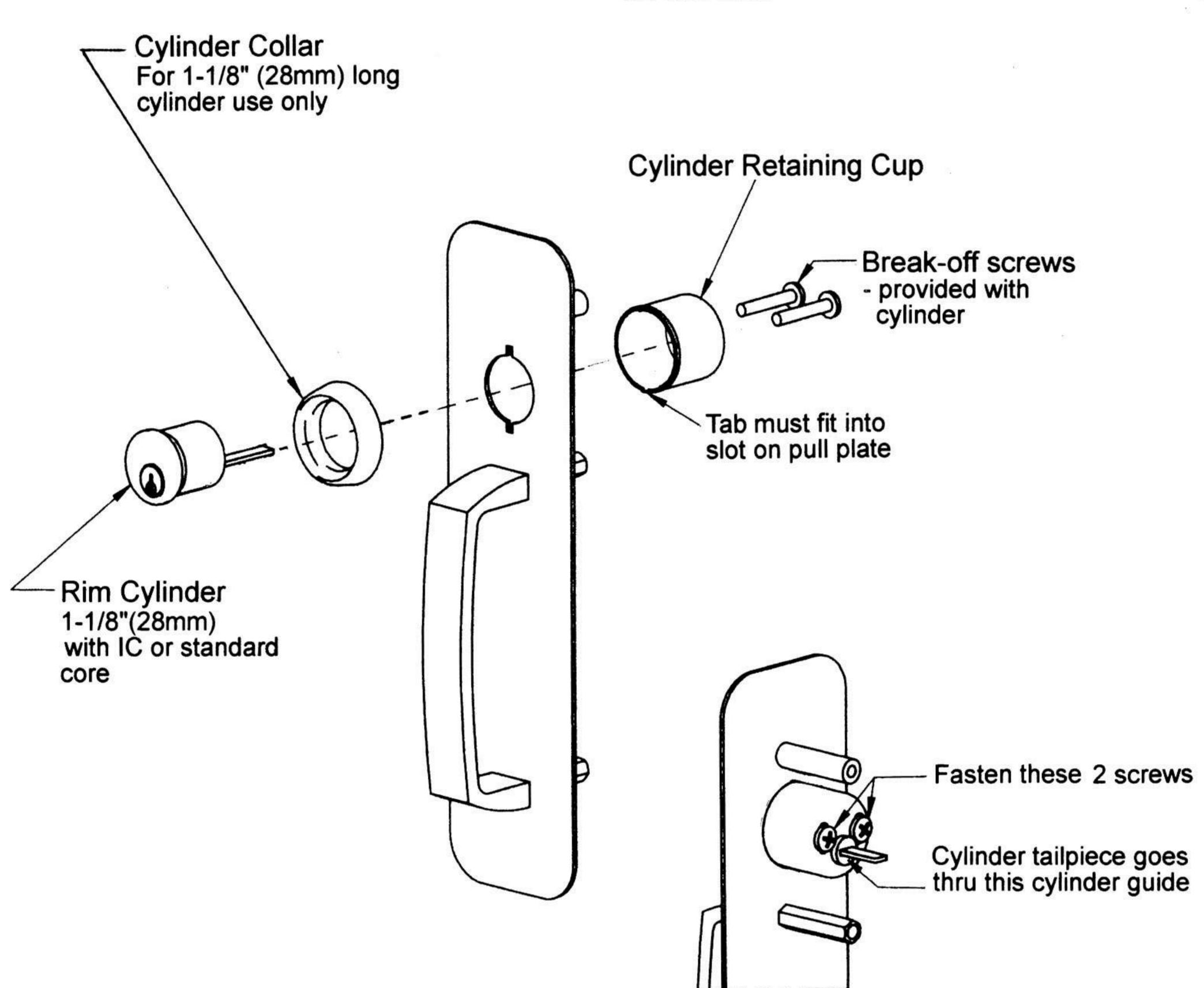
## PULL PLATE INSTRUCTIONS

## FOR USE WITH ECONOMY TYPE EXIT DEVICES

## STEP A: INSTALL CYLINDER (SKIP TO STEP B FOR DUMMY PULL PLATE)

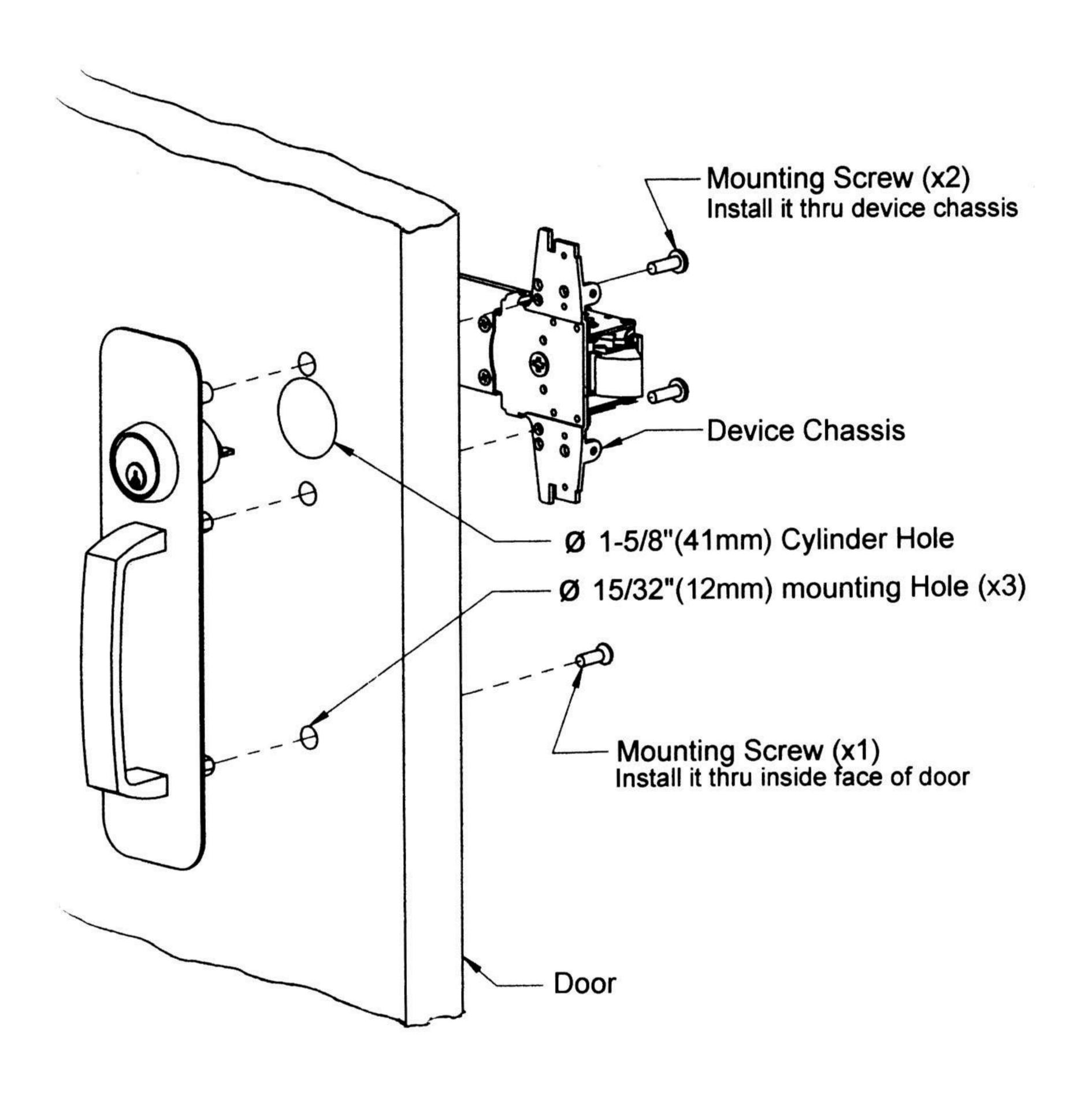
- 1. Use template to mark hole locations on door. If all holes have been drilled or cut, start to install cylinder first.
- 2. Install rim cylinder through provided cylinder collar, then insert the rim cylinder through hole in pull plate and insert cylinder retaining cup from back side of the pull plate.
- Fasten rim cylinder assembly using the two (2) break-off screws provided with the rim cylinder.

Note:
The thinner cylinder collar provided with the rim cylinder when it is bought from cylinder supplier in your market that is not available for this trim.



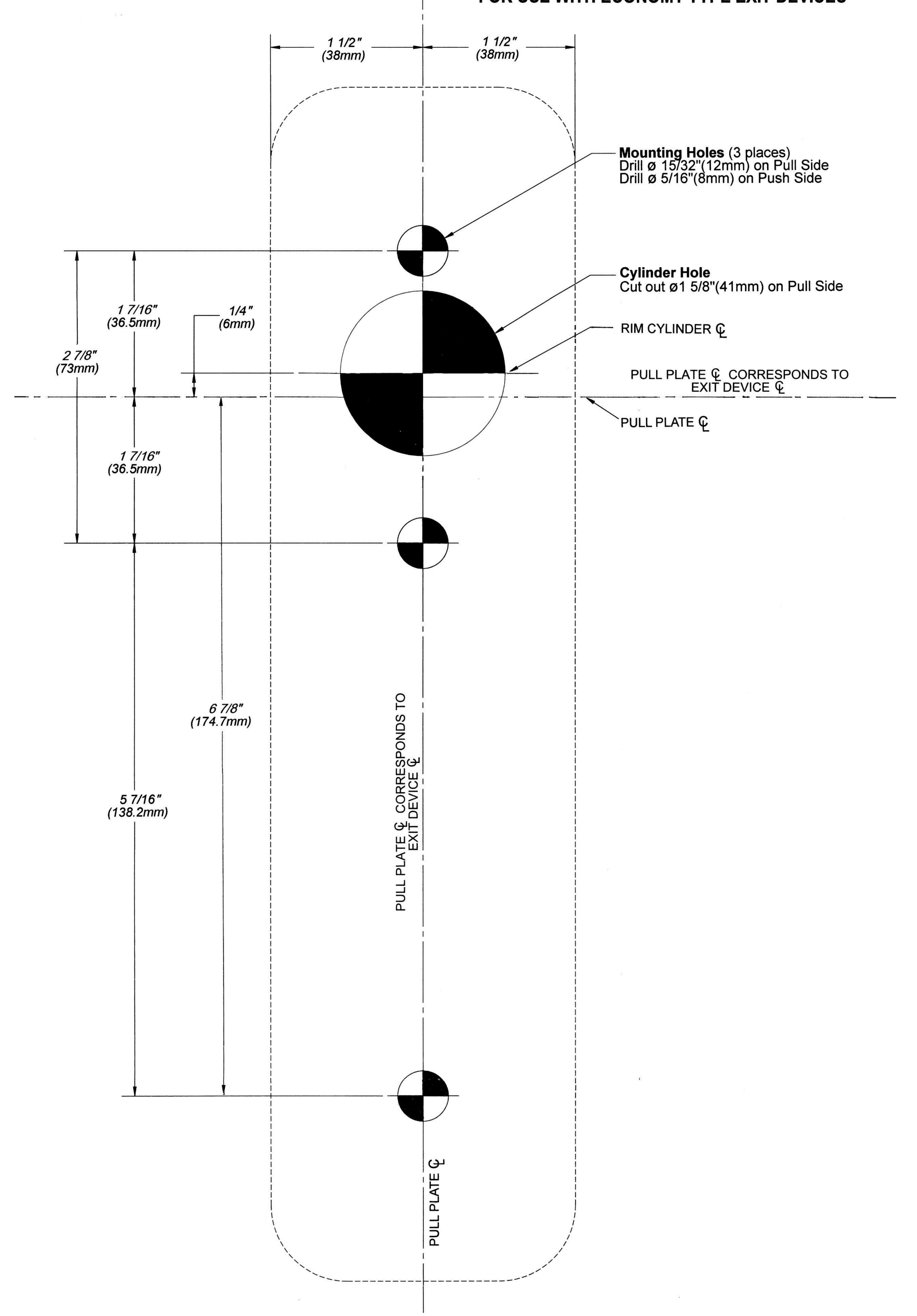
## STEP B: INSTALL PULL PLATE

- 1. Insert pull plate three (3) mounting posts and the cylinder assembly through door.
- 2. Rim cylinder tailpiece should insert into exit device cam approximately 7/16" long. If it is too long and beyond inside face of door, carefully measure and mark at the closest break-off line. Then use pliers to break off it and get appropriate length.
- 3. Fasten pull plate and exit device using the supplied three (3) mounting screws.



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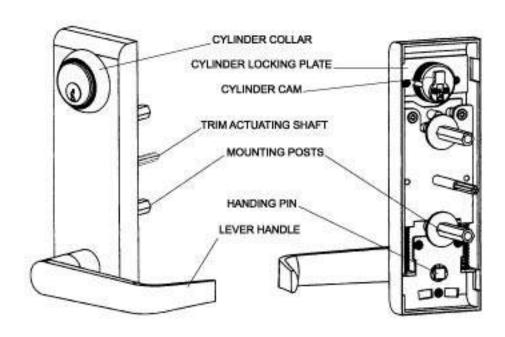
# PULL PLATE TEMPLATE FOR USE WITH ECONOMY TYPE EXIT DEVICES



## ESCUTCHEON LEVER TRIMS INSTALLATION INSTRUCTIONS

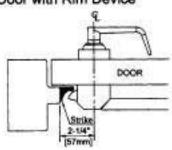
#### Trims covered by these instructions:

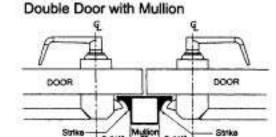
Cylinder Escutcheon (CE) – Key locks & unlocks lever Blank Escutcheon (BE) – Lever is always operable Night Latch Escutcheon (NL) – Key retracts latch bolt Dummy Escutcheon (DE) – Pull when dogged



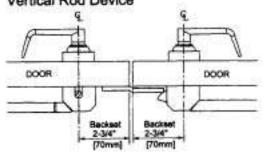
#### DOOR APPLICATIONS



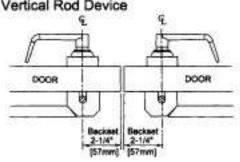




#### Double Door with Rim Device and Surface Vertical Rod Device

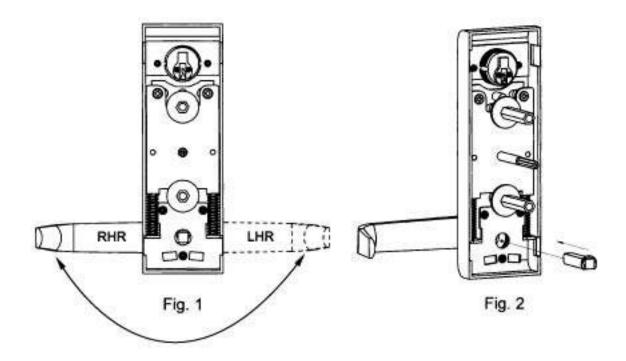


#### Double Door with Surface Vertical Rod Device



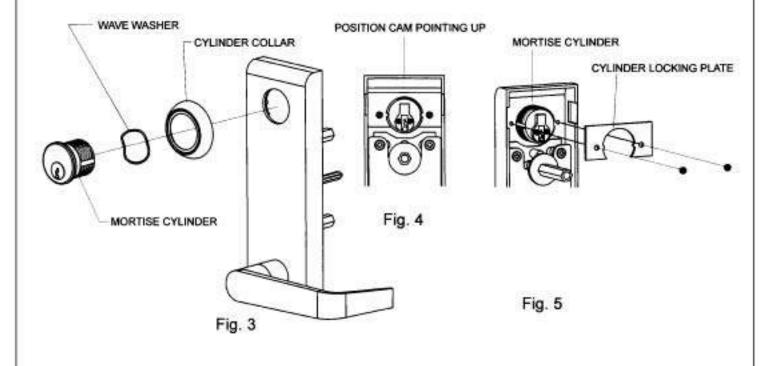
#### SET TRIM HANDING

- Rotate lever handle to right or left direction to match desired door handling. (See Fig. 1.) In case the handle is knob type, skip to Step 2.
- 2. Insert the square spindle into the hub. (See Fig. 2.)
- 3. Proceed with EXIT DEVICE INSTRUCTIONS.



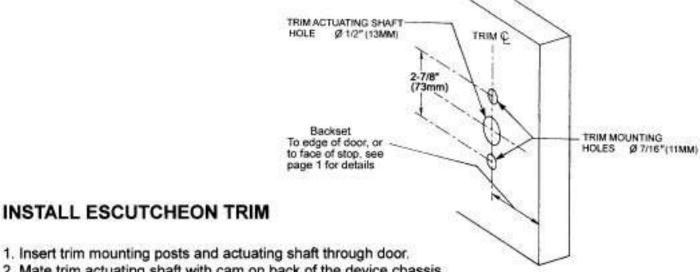
#### INSTALL MORTISE CYLINDER

- 1. Slide wave washer and cylinder collar onto mortise cylinder body. (See Fig. 3.)
- 2. Screw cylinder into escutcheon trim with cam up positioned. (See Fig. 4.)
- Install cylinder locking plate and fasten it with provided screws. (See Fig. 5.)
- 4. Blank Escutcheon (passage function) and Dummy Escutcheon skip these steps.

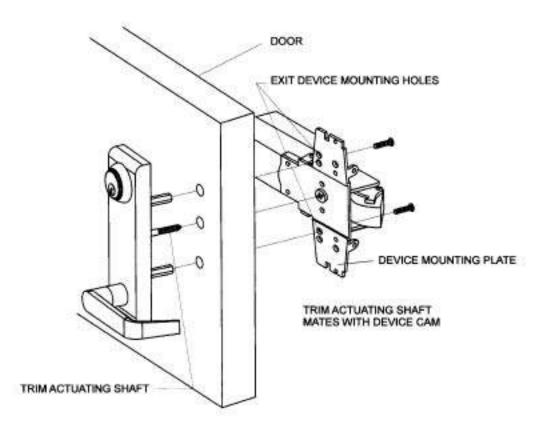


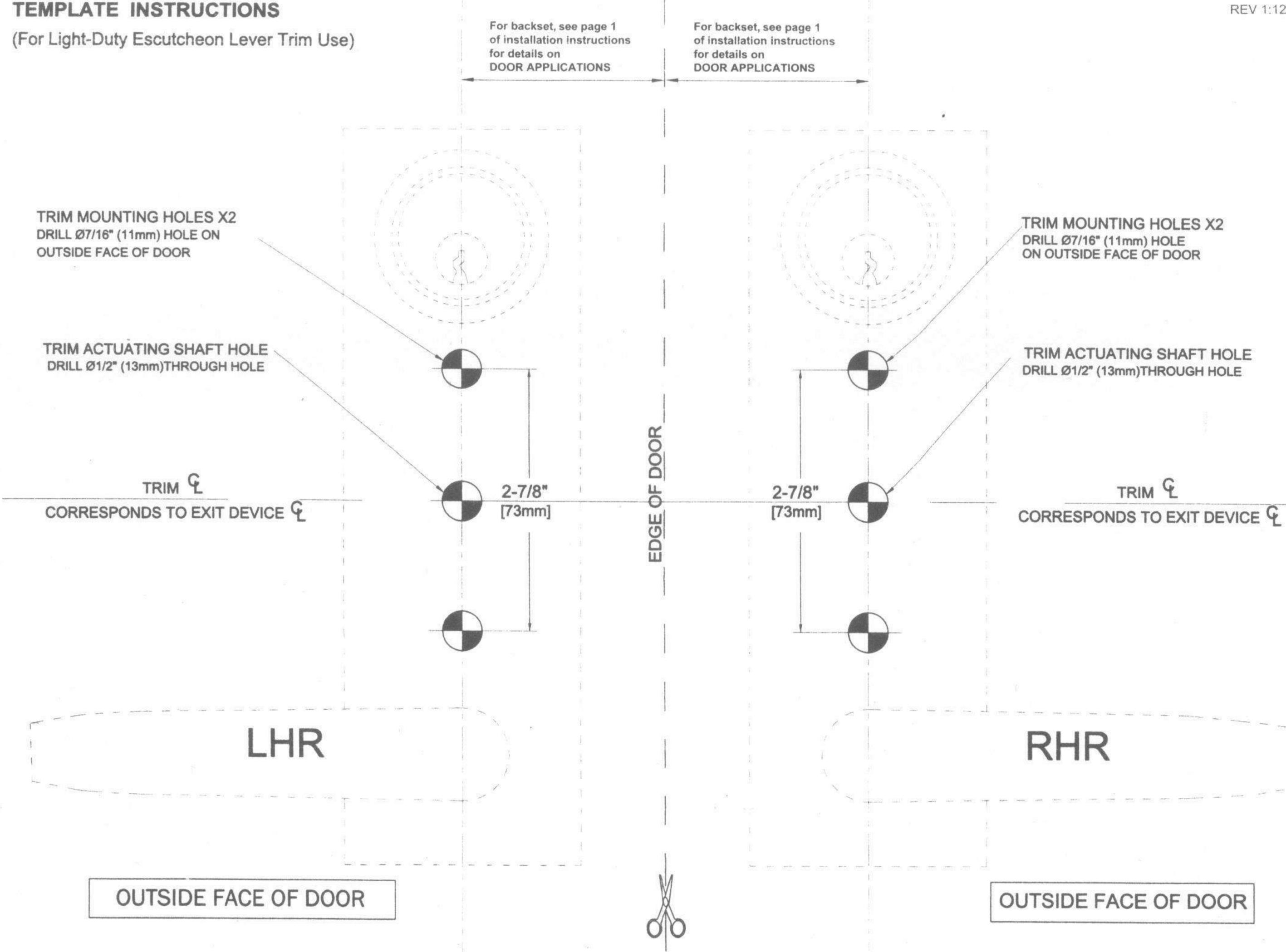
#### MARK AND DRILL MOUNTING HOLES ON DOOR

- 1. Mark horizontal centerline by matching it to the centerline of exit device, which can be found on the inside face of door.
- 2. Apply template to the door using centerline. Refer to Applications Section on page 1 to determine the location of the vertical centerline. This vertical centerline should match the centerline of exit device located on the inside face of door.
- Mark and drill 7/16" holes for mounting posts as shown on template.
- Mark and drill 1/2" holes for the trim actuating shaft, which mates with the exit device. See exit device instructions for details.



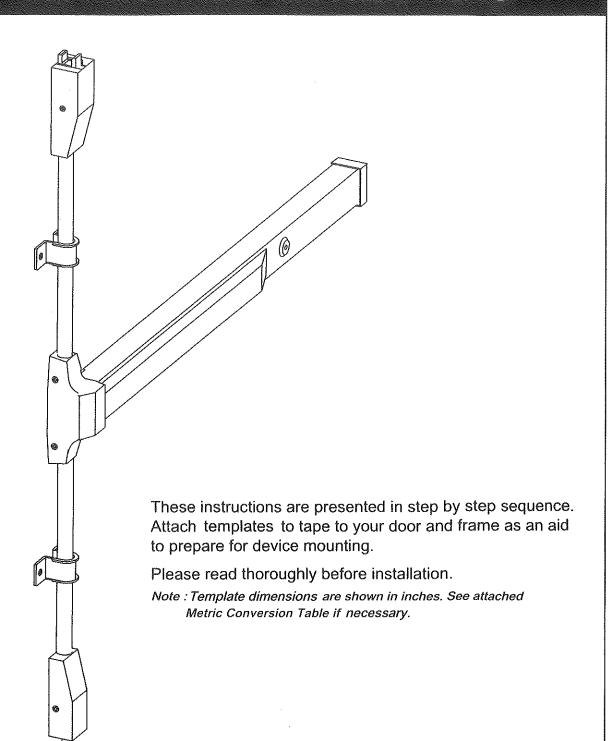
- Mate trim actuating shaft with cam on back of the device chassis.
- Fasten the trim from the device mounting plate with provided screws.
- Test installation by operating lever / knob handle or key to verify trim activates exit device.
- Note: Dummy trim is only for pulling door, handle does not rotate.



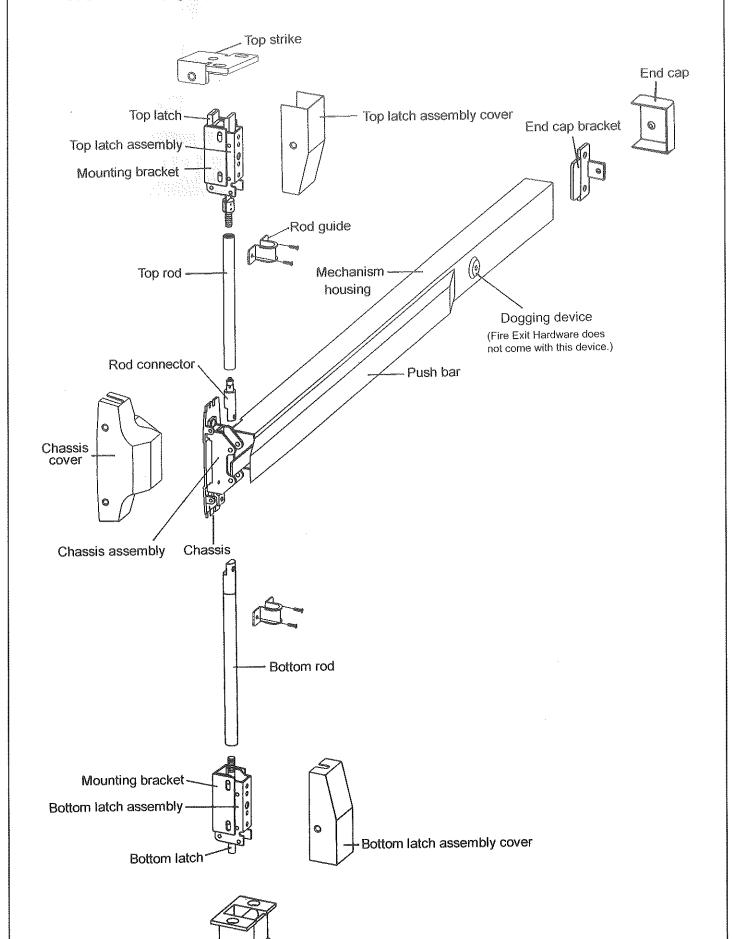


# PANIC / FIRE EXIT SURFACE MOUNTED VERTICAL ROD DEVICES

### INSTALLATION INSTRUCTIONS



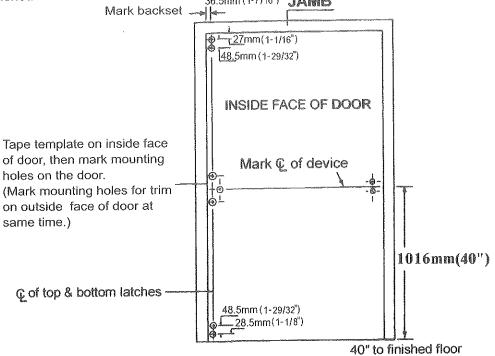
#### **DESIGNATION OF PARTS**



#### STEP 1: PREPARE DOOR

- 1. Mark position of holes on the door with templates. (See Figure 1.)
- 2. Spot and drill all holes as marked on door for device chassis, top & bottom latch mounting brackets, and end cap bracket.

  36.5mm (1-7/16") JAMB



Standard centerline height of device is 40" above the finished floor.

Figure 1

#### STEP 2: INSTALL BRACKETS, DEVICE & TRIM

- 1. Remove chassis cover from chassis assembly and end cap from end cap bracket.
- 2. Cut the length if required.

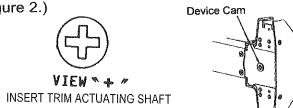
The length of devices are precut for 36" and 48" wide door use, no additional cutting is necessary. If narrow door installation is needed, cut device "A" equal to door width minus 4" to fit properly.

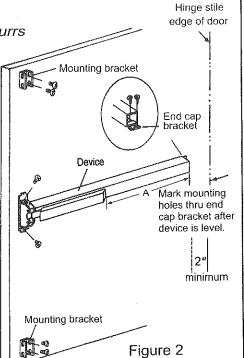
Note:

If cutting is necessary, device must be cut plain and clean all burrs for proper end cap fit.

- Mount device horizontally to the drilled position securely with supplied mounting screws, or bolt device chassis to trim with sex bolts if required. (See Trim Installation Instructions.)
- 4. Make sure trim actuating shaft can be inserted into device cam. (Ref. View \*\* for cam description.)
- 5. Install end cap bracket on device then screw to door. (Make sure device is level.)
- 6. Install two mounting brackets on top and bottom of the door. (See Figure 2.)

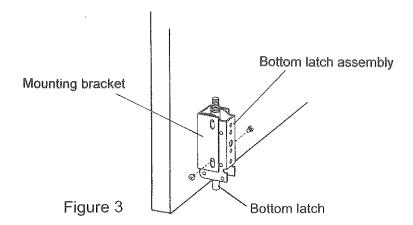
  Device Cam



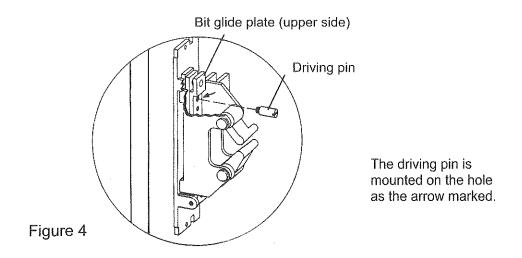


#### STEP 3: INSTALL BOTTOM ROD AND BOTTOM STRIKE

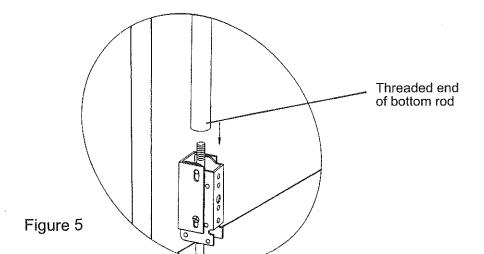
1. Mount bottom latch assembly into mounting bracket. (See Figure 3.)



2. Fasten the driving pin into upper side of bit glide plate as shown in Figure 4.



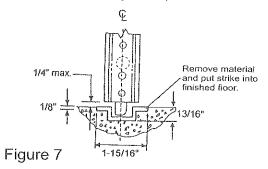
3. Screw the threaded end of bottom rod into bottom latch assembly. (See Figure 5.)



4. Tighten bottom rod with bit glide plate which should be in the down position as shown in Figure 6.

Note: If the hole on bottom rod connector does not match alignment with the mounting hole of bit glide plate, adjust the height of bottom rod as shown in Figure 5.

5. Install bottom strike into finished floor and be sure to align center line of bottom latch with center line of bottom strike. (See Figure 7.)



- 6. Depress push bar and release to check for correct installation:
  - 6-1 Make sure bottom latch can be held retracted and flush with the edge of door when push bar is depressed.
  - 6-2 Check bottom latch bolt to make sure it has (9.5mm) throw minimum when push bar is released.

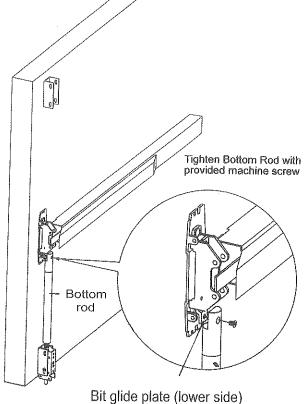


Figure 6

#### STEP4: INSTALL TOP ROD AND TOP STRIKE

1. Mount top latch assembly into mounting bracket. (See Figure 8.)

2. Screw the threaded end of top rod into top latch assembly completely.(See Figure 9.)

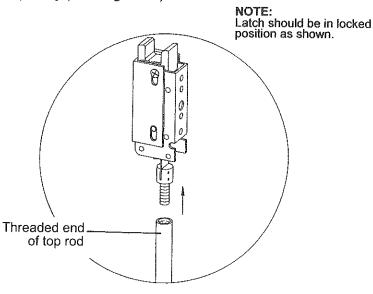


Figure 9

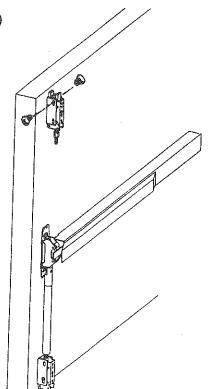
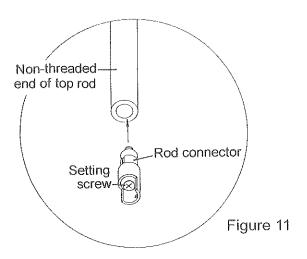


Figure 8

3. Measure and cut the length of top rod. The length of top rod is measured to the edge of rod connector which will be fastened on arrow mark position of chassis assembly in next step. Mark cutting line then cut the excess portion. (See Figure 10.)

 Insert rod connector into the non-threaded end of top rod and fasten the setting screw securely. (See Figure 11.)



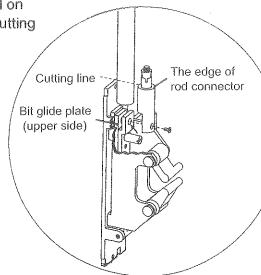


Figure 10

5. Tighten top rod with rod connector onto the bit glide plate (upper side), see Figure 12.

Note: If the hole of top rod connector does not match in alignment with the mounting hole of bit glide plate, adjust the height of top rod as shown in Figure 9 or re-cut the length.

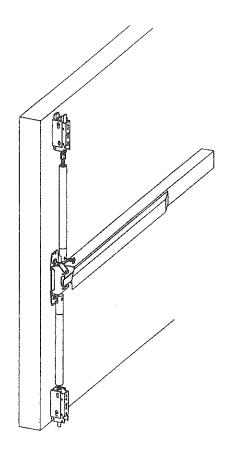


Figure 12

6. Mark mounting holes for top strike on jamb with Strike Template (see Figure 13) then fasten with supplied screws. (See Figure 14.)

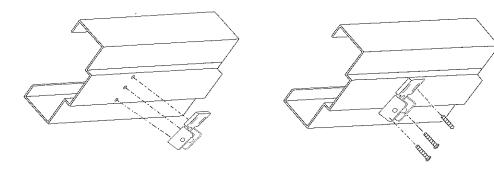


Figure 13

Figure 14

#### **STEP 5: TEST OPERATION**

- 1. Depress push bar, top latch should be held retracted. While top latch bolt is retracted, the bottom latch must clear floor and strike simultaneously to open door.
- 2. Release push bar, both top latch bolt and bottom latch bolt should be full extended.
- 3. Check device operation by depressing and releasing push bar several times to assure correct installation.
- Repeat device operation by opening and closing door several times with outside trim to make sure installation is correct.
- 5. Repeat adjustment procedure if either top latch bolt is not held retracted or bottom latch bolt does not clear floor and strike.

#### STEP 6: INSTALL COVERS

- 1. Before installing covers, make sure to secure latch bolts and adjust strikes if required.
- 2. Install chassis cover, end cap, both top and bottom latch covers. Then install two rod guides into the positions as shown. (See Figure 15.)

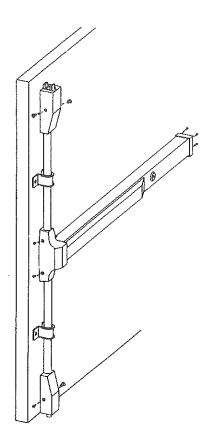
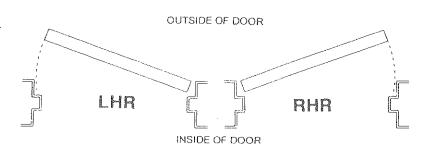


Figure 15

# Door Handing

Use the diagram to determine the hand of door.



## NOTE:

Dogging device during high traffic period of the day will greatly extend life of this device. (A dogging device is not available on fire models as fire door must remain closed and latched.)

#### Dogging:

Depress push bar, insert dogging wrench and turn clockwise 90°

Depress push bar



The push bar will remain pressed and the latches will keep retracted.

#### Release dogging:

Depress push bar, insert dogging wrench and turn counter-clockwise 90°

Depress push bar



The push bar will return to up position and the latches will project to lock the door.

Dogging wrench



# **SET DEVICE HANDING**

This Surface Vertical Rod device is pre-set for LHR door use, if the device is installed on RHR door, the following adjustment should be done before installation(see Fig. B).

#### Install on LRH door shown

The **device handing controller A** is pre-set at this direction by factory.

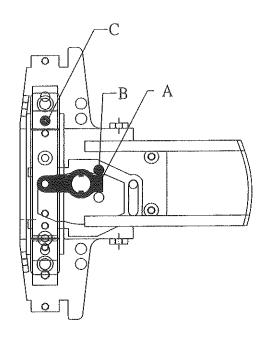
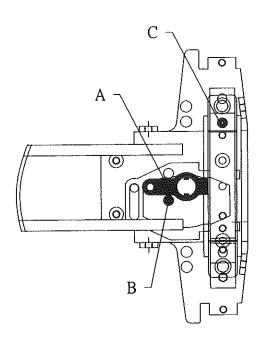


Fig. A



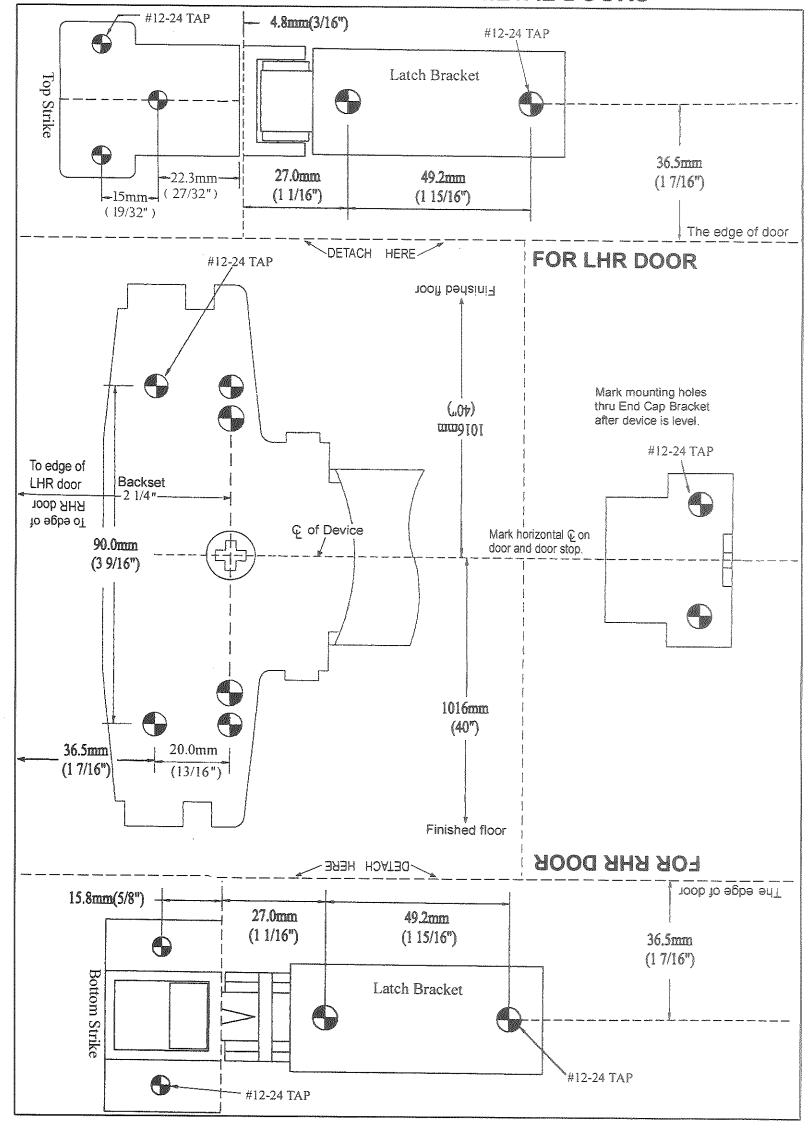
#### Install on RHR door shown

- 1. Turn the direction of the device handing controller A as shown.
- 2. The holding screw B is set on lower position.
- 3. Change setting screws C to upper site.

Fig. B

# Panic Exit Surface Mounted Vertical Rod Device

# **TEMPLATE FOR HOLLOW METAL DOORS**



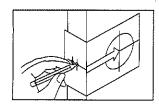
# INSTRUCTIONS FOR INSTALLATION OF SINGLE OR DOUBLE CYLINDER DEADBOLTS AND THE REPLACEMENT OF EXISTING LOCKS

# FOR USE ON DOOR THICK 1-3/8" TO 1-3/4" (35mm-45mm)

TOOLS REQUIRED FOR NEW CONSTRUCTION:

- 1 philips head screwdriver
- 1 2-1/8" (54mm) hole saw
- 1 1" (25mm) drill & 1 chisel
- TOOLS REQUIRED FOR REPLACEMENT:
- 1 philips head screwdriver

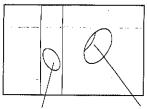
#### 1. MARK DOOR



- a. Fold and apply template on high edge of door-bevel and mark center of door edge as indicated on template at the desired height from the floor.
- b. Mark center hole on door face through guide on template for either 2-3/8" or 2-3/4" (60mm or 70mm) backset.

NOTE: BACKSET ON DOOR FACE MUST BE SAME AS BACKSET OF YOUR LOCK.

#### 2. DRILL HOLES



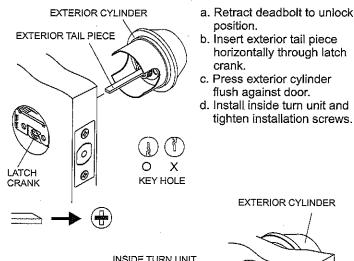
/ 1" (25mm) FOR DEADBOLT

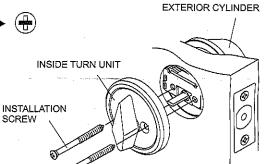
Drill holes as marked.

NOTE: DRILL 2-1/8" (54mm) HOLE FROM BOTH SIDES OF DOOR TO AVOID SPLITTING WOOD.

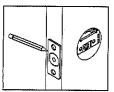
2-1/8" (54mm) HOLE FOR LOCKSET

#### 5. INSTALL SINGLE CYLINDER

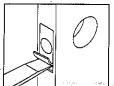




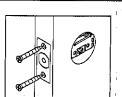
#### 3. INSTALL LATCH



Insert latch in hole. Mark outline of face plate and remove latch.

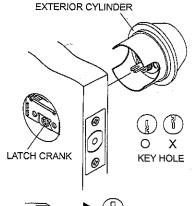


Chisel 1/8" (3mm) deep or until face plate flush with door edge.



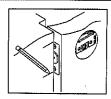
Insert latch and tighten screws.

#### 6. INSTALL DOUBLE CYLINDER

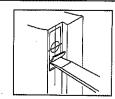


- a. Retract deadbolt to unlock position.
- b. Insert exterior tail piece horizontally through latch crank.
- c. Press exterior cylinder flush against door.
- d. Insert interior tail piece vertically through latch crank.
- e. Press interior cylinder flush against door and tighten installation screws.

#### 4. INSTALL STRIKE

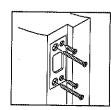


Close door to mark horizontal center line of strike.

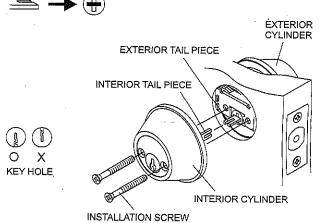


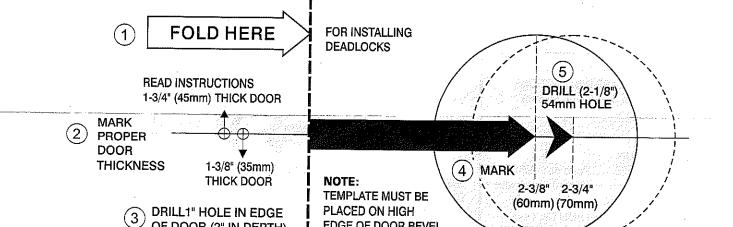
Measure one half of door thickness from door stop and mark vertical center line of strike. Drill 1" (25mm) hole 1" (25mm) deep at intersection of horizontal and vertical center line of strike. Match

screw holes on strike with center lines on jamb. Mark outline and chisel 5/64" (2mm) deep for strike.

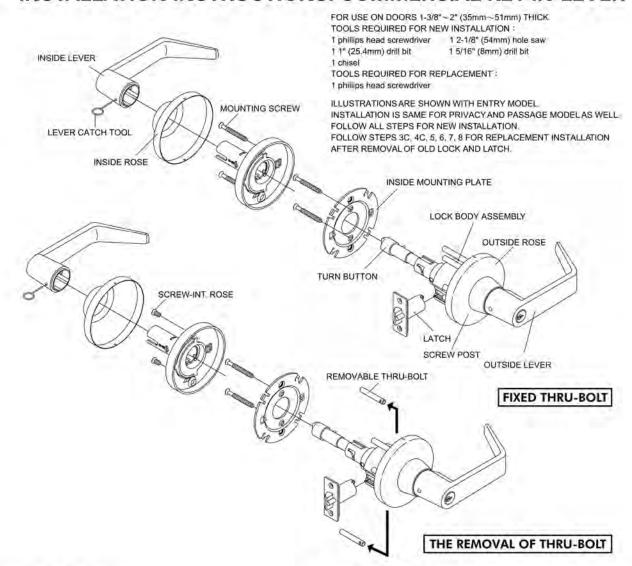


Install strike and tighten screws.





#### INSTALLATION INSTRUCTIONS: COMMERCIAL KEY-IN-LEVER





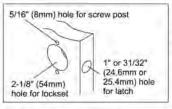


- a. Start 38" from floor and mark center of door edge.
- Select backset 2-3/8" or 2-3/4" and mark hole center on door face.

NOTE : BACKSET ON DOOR FACE MUST BE SAME AS BACKSET OF YOUR LOCK.

c. Mark two holes for screw post.

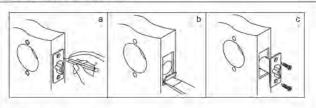
#### 2. DRILL HOLES



Drill holes as marked.

NOTE: DRILL 2-1/8" (54mm) HOLE FROM BOTH SIDES TO AVOID SPLITTING WOOD,

#### 3. INSTALL LATCH



- Insert latch in hole and keep it parallel to door face.
   Mark outline and remove latch.
- b. Chisel 11/64" (4~4.3mm) deep or until faceplate flush with door edge.
- c. Insert latch and tighten screws.

NOTE : LATCHBOLT BEVEL MUST FACE TO CLOSING DIRECTION.

#### 2. Dille Hollo

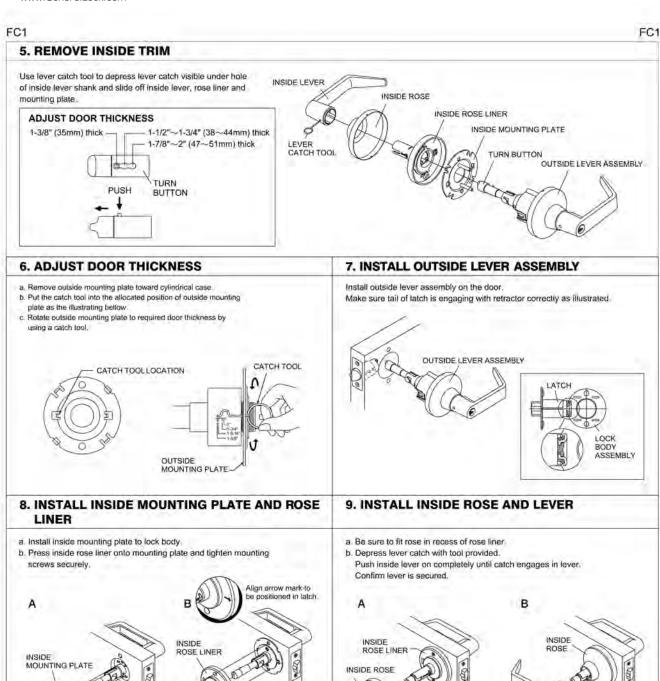
# CENTER LINE

4. INSTALL STRIKE

1" (25.4mm) hole 1/2" (12.7mm) deep



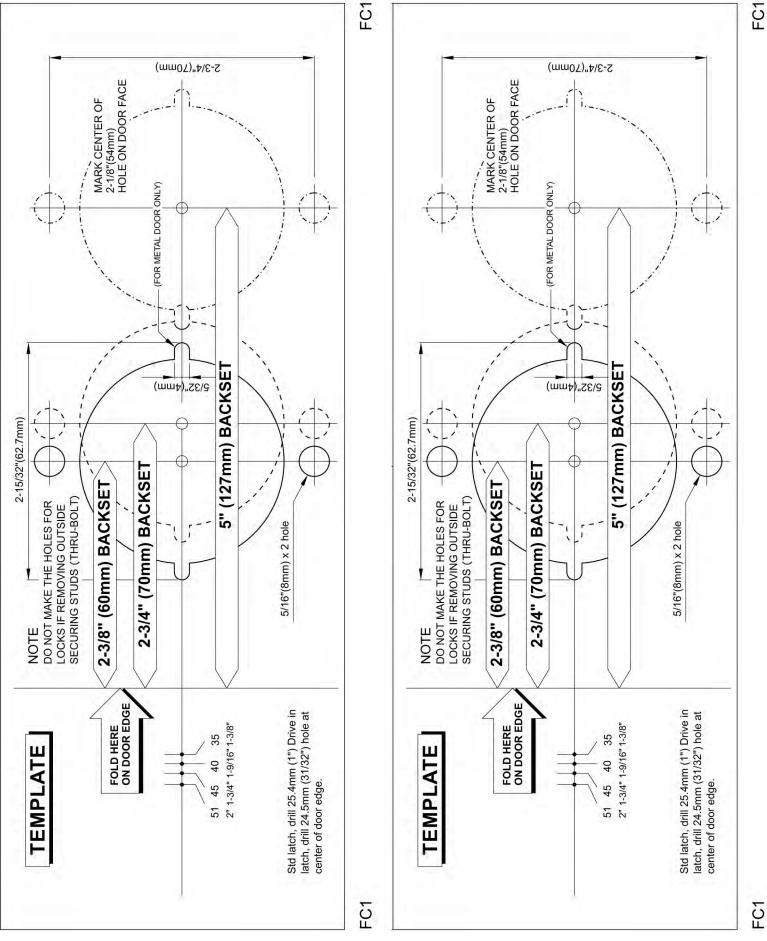
- a. Close door to mark horizontal line of strike.
- b. Measure one half of door thickness from door stop to mark vertical center line of strike. Drill 1" (25,4mm) hole, 1/2" (12,7mm) deep at intersection of horizontal and vertical center lines.
- c. Cut out jamb 3/32" (2.4mm) deep or until strike flush with jamb.
   Tighten screws securely.



FC1 FC1

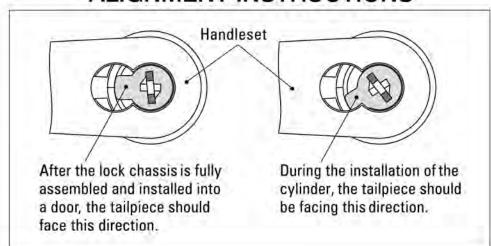
MOUNTING SCREW

INSIDE LEVER



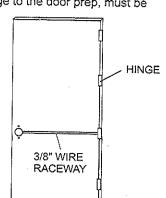
FR FR

# L1 IC TAILPIECE ALIGNMENT INSTRUCTIONS



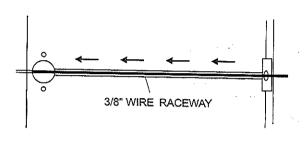
#### 7. MAKE SURE THE DOOR IS CORRECTLY PREPPED

A 3/8" wire raceway, from hinge to the door prep, must be pre-installed inside the door.



#### 8. RUN THE WIRE THROUGH THE RACEWAY

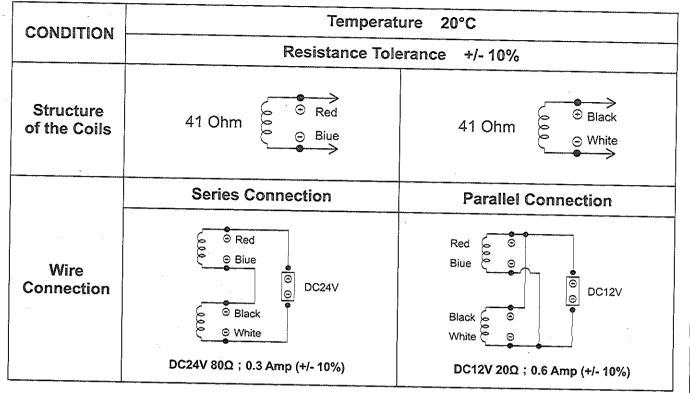
Direct the wire through the raceway, from hinge to the door prep, and pull the wire out of the door hole.



#### 9. WIRE CONNECTION

- a. Connect the wire to 4 wire harnesses exiting the cylindrical lock chassis. (shown in the illustration below)
- b. The wire and 4 wire harnesses must be joined firmly.
- c. Make sure the bare wires are covered with insulating material.

For DC24V application join Blue and Black wires, then connect Red to positive and White to negative on incoming power supply. For DC12V application join Red and Black then connect both to positive, junction White and Blue then connect both to negative on the incoming power supply.



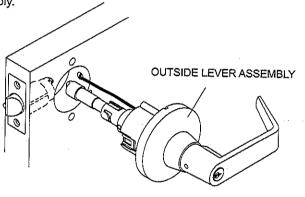
#### 10. INSTALL OUTSIDE LEVER ASSEMBLY

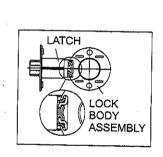
The wires must not be crimped or pinched by the door prep, or must not be exposed outside the door prep.

At the hinge end, carefully pull the wires out of the raceway and connect it to the power supply.

Install outside lever assembly on the door.

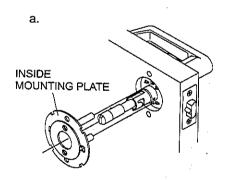
Make sure tail of latch is engaging with retractor correctly (per illustration).

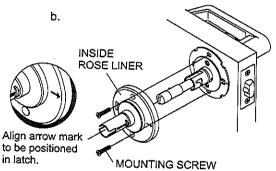




# 11. INSTALL INSIDE MOUNTING PLATE AND ROSE LINER

- a. Install inside mounting plate to lock body.
- b. Press inside rose liner onto mounting plate and tighten mounting screws securely.

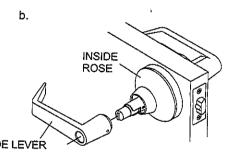


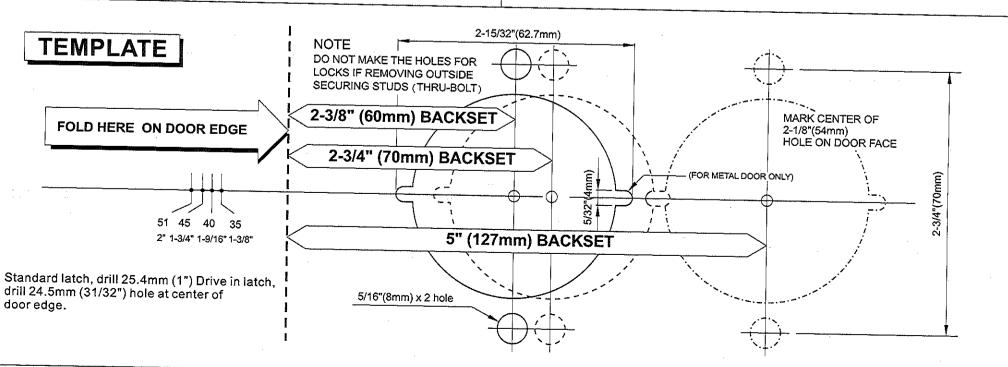


# 12. INSTALL INSIDE ROSE AND LEVER

- a. Be sure to install rose in recess of rose liner.
- b. Depress lever catch with tool provided. Push inside lever on completely until catch engages in lever. Confirm lever is secured.

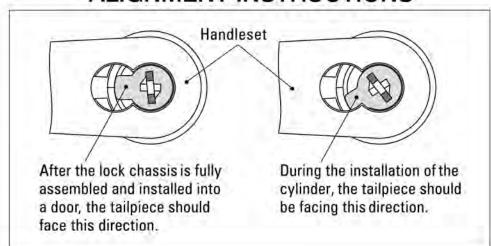
a. b. INSIDE ROSE LINER INSIDE ROSE INSIDE LEVER





FR FR

# L1 IC TAILPIECE ALIGNMENT INSTRUCTIONS



EV1 EV1

**ROSE LINER** 

# INSTALLATION INSTRUCTIONS COMMERCIAL KEY-IN-LEVER

**INSIDE ROSE** 

# FOR USE ON DOORS 1-3/8"~2" (35mm-51mm) THICK

TOOLS REQUIRED FOR NEW INSTALLATION:

1 philips head screwdriver

1 2-1/8" (54mm) hole saw

1 1" (25.4mm) drill bit

1 5/16" (8mm) drill bit 1 chisel

#### TOOLS REQUIRED FOR REPLACEMENT:

1 philips head screwdriver

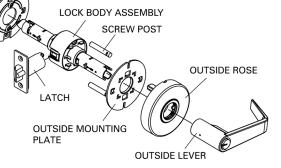
INSIDE MOUNTING PLATE

ILLUSTRATIONS ARE SHOWN WITH ENTRY MODEL.
INSTALLATION IS SAME FOR PRIVACY AND PASSAGE

FOLLOW ALL STEPS FOR NEW INSTALLATION.
FOLLOW STEPS 3C,4C,5,6,7,8,9

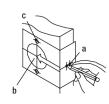
**INSIDE LEVER** 

FOR REPLACEMENT INSTALLATION AFTER REMOVAL OF OLD LOCK AND LATCH.



#### 1. MARK DOOR

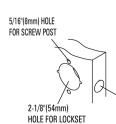
MODEL AS WELL.



- a. Start 38" from floor and mark center of door edge.
- b. Select backset 2-3/8" or 2-3/4" and mark hole center on door face.
- c. Mark two holes for screw post.

NOTE: BACKSET ON DOOR FACE MUST BE SAME AS BACKSET OF YOUR LOCK.

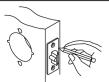
#### 2. DRILL HOLES



Drill holes as marked.
NOTE: DRILL 2-1/8" (54mm)
HOLE FROM BOTH SIDES TO
AVOID SPLITTING WOOD.

1" OR 31/32" (24.6mm OR 25.4mm) HOLE FOR LATCH

#### 3. INSTALL LATCH



 a. Insert latch in hole and keep it parallel to door face. Mark outline and remove latch.



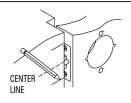
b. Chisel 1/8" (3mm) deep or until faceplate flush with door edge.



c. Insert latch and tighten screws.

NOTE: LATCHBOLT BEVEL MUST FACE
TO CLOSING DIRECTION.

#### 4. INSTALL STRIKE



a. Close door to mark horizontal center line of strike.



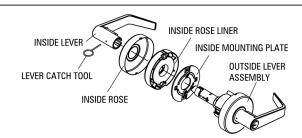
b. Measure one half of door thickness from door stop to mark vertical center line of strike. Drill 1" (25.4mm) hole, 1/2" (12.7mm) deep at intersection of horizontal and vertical center lines.



 c. Cut out jamb 3/32" (2.4mm) deep or until strike flush with jamb. Tighten screws securely.

#### **5. REMOVE INSIDE TRIM**

Use lever catch tool to depress lever catch visible under hole of inside lever shank and slide off inside lever, rose, rose liner and mounting plate.

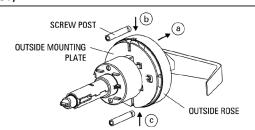


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EV1 EV1

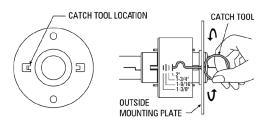
#### 6. INSTALL REMOVABLE THRU-BOLT (SCREW POST)

- a. Disassemble outside mounting plate from outside rose plate.
- b. Make clearance between outside mounting plate and insert the removable thru-bolt (screw post) into the cavities of outside mounting plate.
- c. Continuing the follow up instructions.

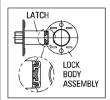


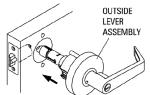
#### 7. ADJUST DOOR THICKNESS

- a. Remove outside mounting plate toward cylindrical case.
- Put the catch tool into the allocated position of outside mounting plate as the illustrating bellow.
- c. Rotate outside mounting plate to required door thickness by using a catch tool.



#### 8. INSTALL OUTSIDE LEVER ASSEMBLY

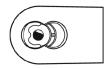




Install outside lever assembly on the door. Make sure tail of latch engaging with retractor correctly as illustration left.

## 8B. FOR CLASSROOM FUNCTION STANDARD CYLINDER & SFIC CORE PREP

Ensure the "locking cam" is positioned properly. See illustration for correct orientation.









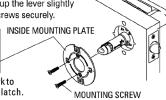




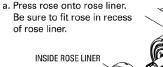
#### 9. INSTALL INSIDE MOUNTING PLATE AND ROSE LINER

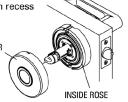
#### Place mounting plate on door face and turn up the lever slightly and tighten screws securely.

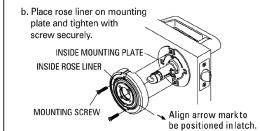




#### 10. INSTALL INSIDE ROSE AND LEVER







b. Use lever catch to press down catch in the hole and push inside lever all the way in until clicks into catch hole.

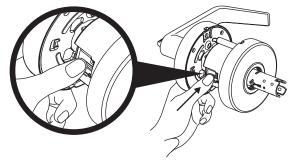


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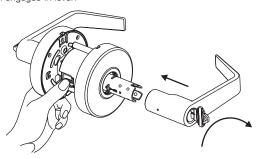


# Non-Clutch Keyed Lever Installation Instruction

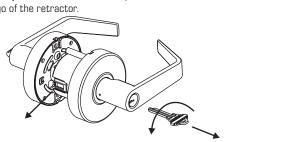
- If a turnbutton exists on the inside lever, ensure it is in the unlocked position and the lock is unlocked.
- 2.) Press the retractor as illustrated.



3.) Insert the key into the outside lever and turn it 90° degree clockwise. Push the outside lever onto the chassis until the catch engages in lever.



4.) Turn the key counterclockwise to the position it was and let go of the retractor.



#### Re-Install Instructions

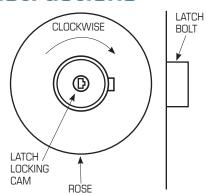
(after re-keying)

(shown without handle)

Before re-installing, check the timing of the latch-locking cam, which can be found by viewing the lockset in the orientation shown in illustration.

Then, use a screwdriver to rotate the locking cam clockwise to the right direction as shown (towards latch bolt)
Finally, push back the lever, turn

Finally, push back the lever, turn the key counter-clockwise 90°, and pull out the key.



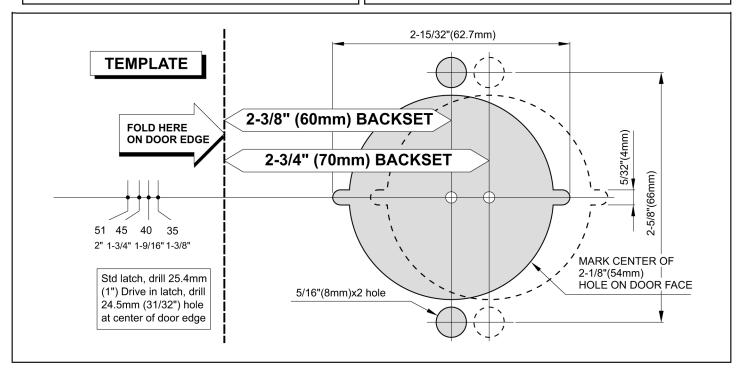
#### **User Manual**

How to lock the door:

Insert the key and rotate clockwise until it stops. Turn the key back to the position it was and pull out the key.

How to unlock the door:

Insert the key and rotate counterclockwise until it stops. Turn the key back to the position it was and pull out the key.



EV1 EV1



#### INSTRUCTIONS FOR INSTALLATION OF ENTRANCE LOCKS IN NEW DOORS OR THE REPLACEMENT OF EXISTING LOCKS

#### FOR USE ON DOORS 1-3/8" TO 1-3/4" (35mm~45mm) THICK

TOOLS REQUIRED FOR NEW INSTALLATION 1 phillips head screwdriver 1 2-1/8" (54mm) hole saw 1 1" (25.4mm) drill bit

1 chisel

FOLLOW ALL STEPS FOR REMODELING OR NEW CONSTRUCTION.

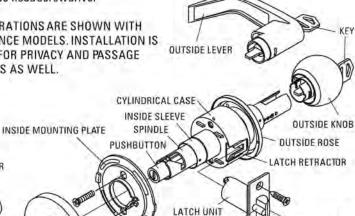
FOLLOW STEPS 3C, 4C, 5, 6, 7, 8, 9 and 10 FOR DO-IT-YOURSELF REPLACEMENT AFTER REMOVAL OF EXISTING LOCK.

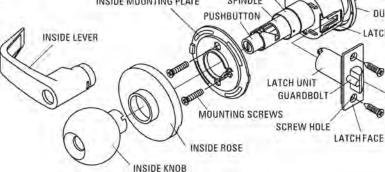
REPLACING EXISTING LOCKS: Before beginning, measure from center of lock to door edge in order to check length of backset on existing lock. The backset length of new lock is stated clearly on front of package. If backset size is the same, you'll have to replace lock with propersize backset.

TOOLS REQUIRED FOR REPLACEMENT INSTALLATION:

1 phillips head screwdriver

ILLUSTRATIONS ARE SHOWN WITH ENTRANCE MODELS. INSTALLATION IS SAME FOR PRIVACY AND PASSAGE MODELS AS WELL.





#### INSTALLATION INSTRUCTIONS



Start approximately 36" (914mm) from floor, Fold and apply template to edge of door and mark center of door edge as indicated on template. Mark centerhole on door face through guide on template.

(NOTE: Backset on door face must be same as backset of lock.)

#### 2. DRILL HOLES



Drill 2-1/8" (54mm) hole through door face as marked for lockset. It is recommended that holes be drilled from both sides to prevent splitting. Drill 1" (25.4mm) hole incenter of door edge for latch.

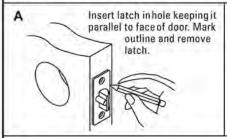
1" (25.4mm)

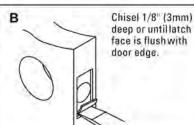
#### 3. INSTALL LATCH

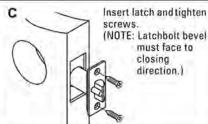
MARK FOR 2-1/8

(54mm) HOLE ON

DOOR FACE



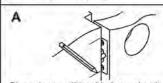




screws. (NOTE: Latchbolt bevel must face to closing direction.)

LATCHBOLT

#### 4. INSTALL STRIKE



Close door until latchbolt touches jamb to locate strike in jamb and center line of strike. Open door and extend line from mark to door stop. Measure one half of door thickness from door stop and vertically mark drill point center for strike.

Drill 1" (25.4mm) hole 1/2" (12.7mm) deep in door jamb on drill point for strike.

CAUTION: To ensure proper lockset function. Hole in jamb must be drilled a full 1/2" (12.7mm) deep.

#### Cut out jamb 1/16" (1.5mm) deep for strike. Tighten screws.



Guardbolt stops against strike, as illustrated, preventing forcing when door is closed. Adjustable tang on strike permits bending in grout to

eliminate too loosefit between door and door stop.

EA1 EA1

#### 5. REMOVE INSIDETRIM

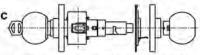
Use nail end of wrench provided to depress inside knob catchin



hole of inside sleeve collar and slideknob or in side lever off spindle.

Depress spring attached to inside rose. Insert nail. end of wrenchinto slot to remove inside rose plate.

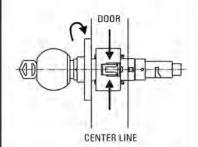




Remove inside rose and mounting plate.

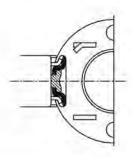
#### 6. ADJUST OUTSIDEROSE

Adjust lock to fit door thickness by rotating outside rose. Lock will fitall doors 1-3/8" to 1-3/4" (35mm-45mm) thick.



## 7. INSTALL LOCK

Latch unit must be in place before installing lock. Besure lock housing engages with latch prongs and retractor interlocks with latch tail.



#### 8. INSTALL INSIDE ROSE

#### A. FOR WOODEN DOOR

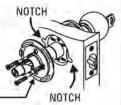
Tighten machine screws securely to install mounting plate. Press rose onto mounting plate. Be sure to fit rose in recess of mounting plate.

Tighten machine screws securely

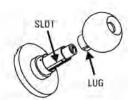
#### **B. FOR METAL DOOR**

MOTE: Make sure that mounting plate fit horizontally into slots notched in door

Tighten machine screws securely



#### 9. INSTALLATION OF INSIDE KNOBOR INSIDE LEVER

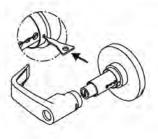


IMPORTANT-

Align lug on knob with narrow slot on side of spindle and push knob all the way in until knob catch clicks into slot on knob.

Otherwise knob will jamb on shaft:

To install inside lever, press downthe lever catch in the hole with wrench and push inside lever all the way in until catch clicks into catch



#### 10. RIGHT KEYHOLE POSITION

Upon installation of the lock, it may happen that key hole faces upward or downward as shown in the following drawing. It is advisable to correct all key hole to be facing downward.



DOWNWARD CORRECT



UPWARD INCORRECT 11. IN ORDER TO ADJUST THE ABNORMAL STATE OF THE KEY HOLE FACING UPWARD, THE KNOB MUST BE PULLED OUT AND INSTALLED AGAIN. THE METHOD OF INSTALLATION IS DESCRIBED AS BELOW D.

First turn the knob clockwise until the knob catch appears in the small hole.



With the other hand, turn the key counterclockwise within the limit of \$30° ~90°



C

Using a small nail to press the knob catch and pull the knob out.



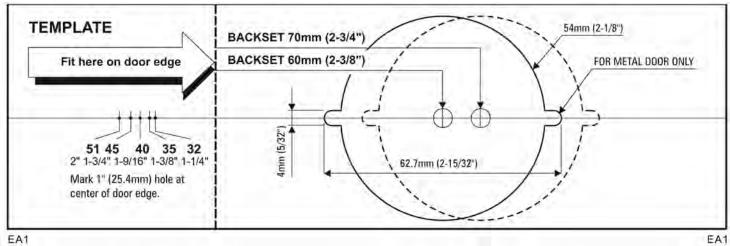
Install again according to the correct direction.

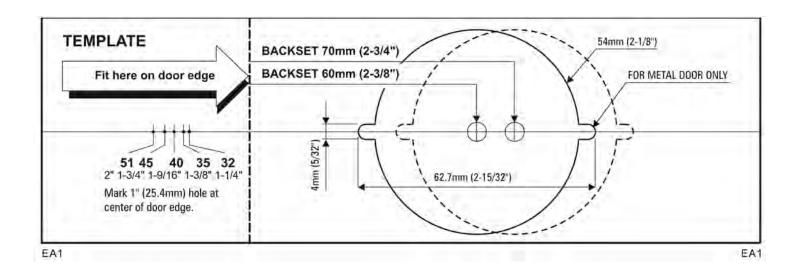


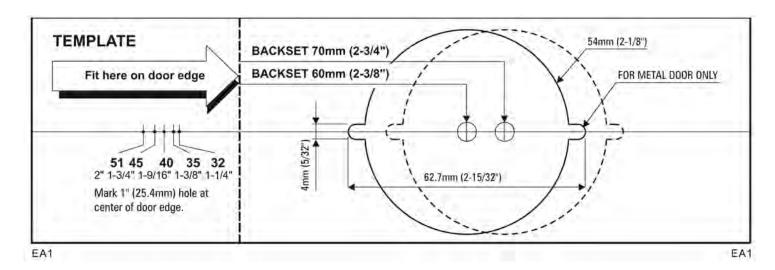
EA1

EA1









— Product Guide 103.1 — I Ab:9 I

#### INSTRUCTIONS FOR INSTALLATION OF ENTRANCE LOCKS IN NEW DOORS OR THE REPLACEMENT OF EXISTING LOCKS

FOR USE ON DOORS 1-3/8" TO 1-3/4" (35mm -45mm) THICK

TOOLS REQUIRED FOR NEW INSTALLATION

1 phillips head screwdriver 1 2-1/8" (54 mm) hole saw

1 1" (25.4mm) drill bit

FOLLOW ALLSTEPS FOR REPLACEMENT OR NEW CONSTRUCTION.

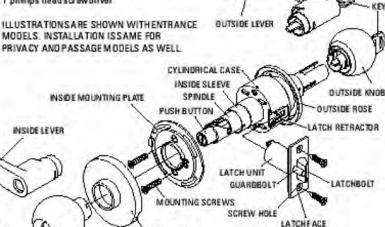
FOLLOW STEPS 3C, 4C, 5, 6, 7,8,9 and 10 FOR DO-IT-YOURSELF REPLACEMENT AFTER REMOVAL OF EXISTING LOCK.

REPLACING EXISTING LOCKS: Before beginning, measurefrom centre oflock to dooredge in order to check length of backset on existing lock. The backset length of new lock is stated clearly onfront of package. If backset size is the same. continue; otherwise,

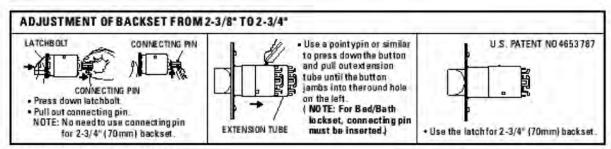
you'll have to replace lock with proper size backset. Some model sere supplied with adjustable latch which can fit 2-3/8" (60mm) or 2-3/4" (70mm) backset. Theadjustable latch was preset to 2-3/8" (60mm) atfactory. If 2-3/4" (70mm) is required, please follow the steps shown below.

TOOLS REQUIRED FOR REPLACEMENT INSTALLATION: 1 phillips head screwdriver

ILLUSTRATIONS ARE SHOWN WITH ENTRANCE MODELS. INSTALLATION ISSAME FOR

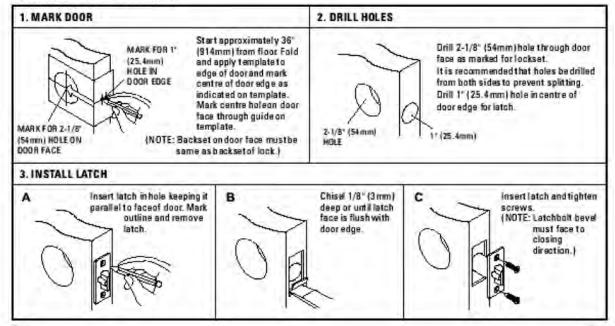


INSIDE ROSE



INSIDE KNOB

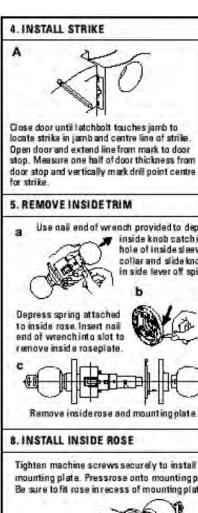
#### INSTALLATION INSTRUCTIONS

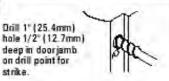












CAUTION: To ensure proper lockset function. Hole in jamb must be drilled a full 1/2 (12.7mm) deep.





Guardbolt stops against strike, as illustrated, preventing forcing when door is closed. Adjustable tang on strike permits bending in or out to

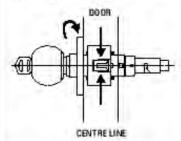
**GUARD BOLT** 

3/4

eliminate too loose fit between doorand door stop.

#### 6. ADJUST OUTSIDE ROSE

Adjust lock to fit door thickness by rotating outside rose. Lock will fit all doors 1-3/8" to 1-3/4" (35mm~45mm) thick.



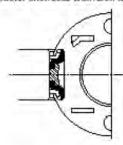
#### 7. INSTALL LOCK

Cut out jamb 1/16"

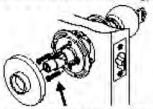
strike. Tighten screws.

(1.5mm) deep for

Latch unit must be in placebefore installing lock. Besure lock housing engages with latch prongs and retractor interlocks with latch tail.

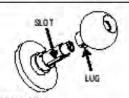


mounting plate. Pressrose onto mounting plate. Be sure to fit rose in recess of mounting plate.



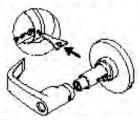
TIGHTEN MACHINE SCREWSSECURELY

#### 9. INSTALLATION OF INSIDE KNOB OR INSIDE LEVER



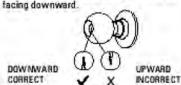
IMPORTANT-Align lug on knob with narrow slot on side of spindle and push knob all the way in until knob catch clicks into slot on knob. Otherwise knob will jamb on shaft.

To install inside lever, press down the lever catch in the hole with wrench and push inside lever all the way in until catch clicks into catch hole



#### 10. RIGHT KEY HOLE POSITION

Upon installation of the lock, it may happen that key hole faces upward or downward as shown in the following drawing. It is advisable to correct allkey hole to be



DOW/MVARD CORRECT

UPWARD

#### 11. IN ORDER TO ADJUST THE ABNORMAL STATE OF THE KEY HOLE FACING UPWARD, THE KNOB MUST BE PULLED OUT AND INSTALLED AGAIN. THE METHOD OF INSTALLATION IS DESCRIBED AS BELOW D.

First turn the knob clockwise until the knob catch appears in the small hole.



With the otherhand, turn the key counterclockwise within the limit of



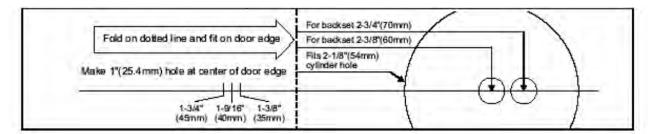
C

Using a smallnail to press the knob catch and pull the knob out



Install again according to the correct direction.





### GENERAL LOCK

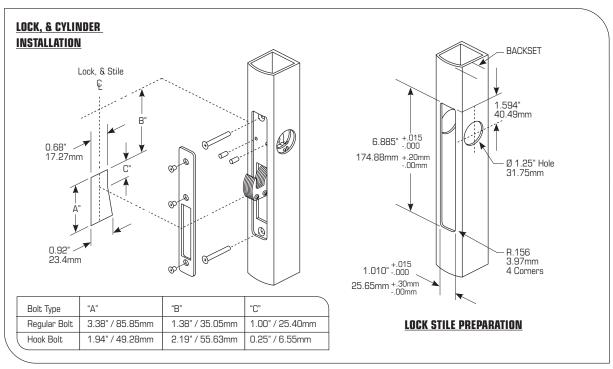
# Installation Instructions ADB and AHB Series Mortise Locks

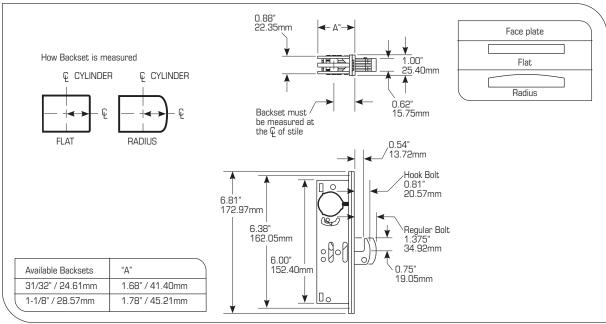
Lock and Cylinder Installation Instructions

#### **INSTALLATION INSTRUCTIONS:**

Individually boxed with machine screws for mounting, supplied standard with four face plates, Flat-2 ea. aluminum / duranodic finish, Radius-2 ea. aluminum / duranodic finish.

More installation instructions may be available on the Internet at www.GeneralLock.com.







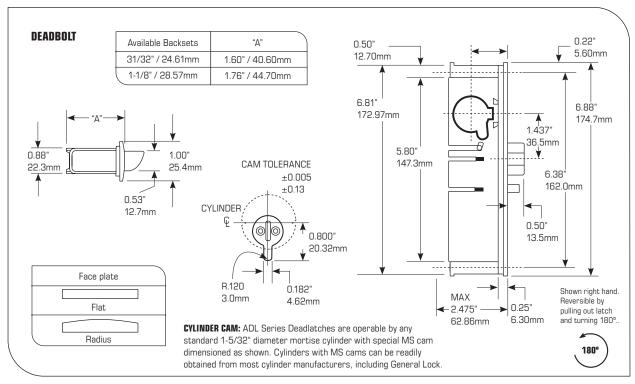
#### **ADL Series Mortise Deadlatch**

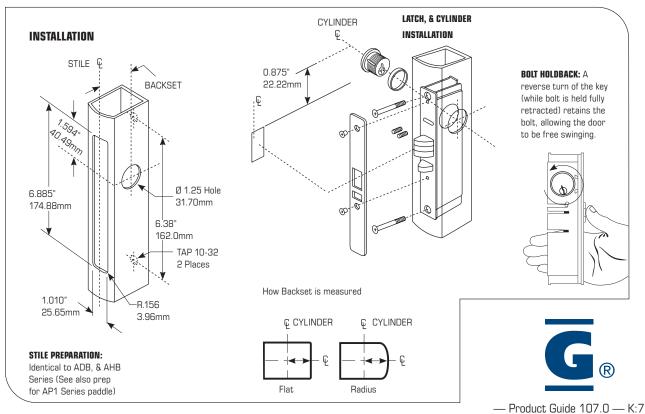
Lock and Cylinder Installation Instructions

#### **INSTALLATION INSTRUCTIONS:**

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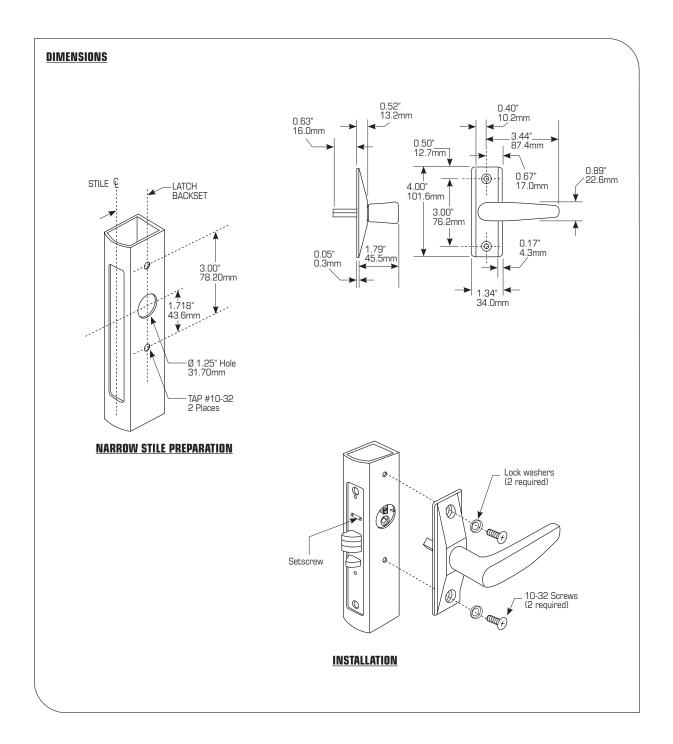
# Installation Instructions AL1 Series Lever Handle for Deadlatch

Installation Instructions

#### **INSTALLATION INSTRUCTIONS:**

Individually boxed with machine screws for mounting, non-handed, field reversible. Available finishes aluminum / duranodic .

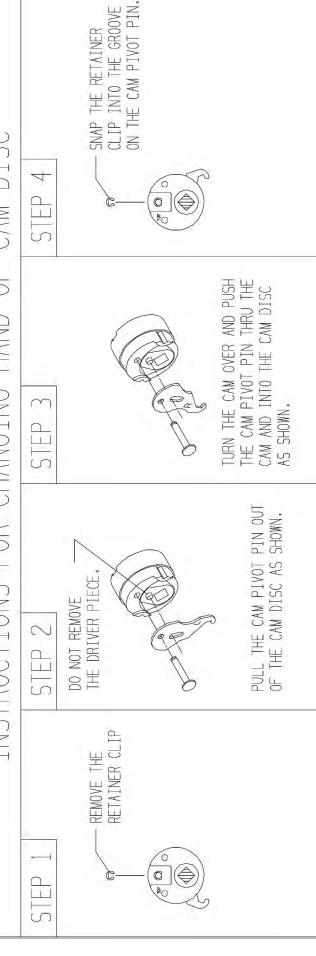
More installation instructions may be available on the Internet at www.GeneralLock.com.





# THE CAM DISC MUST BE HANDED AS SHOWN BELOW. ON THIS SIDE SIDE THE HANDLE, OR OTHER OPERATOR IS TO BE INSTALLED. LOOKING AT THE EDGE OF THE DOOR DETERMINE ON WHICH CAM DISC HANDING THE CAM DISC MUST BE HANDED AS SHOWN BELOW. ON THIS SIDE





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