# INSTALLATION INSTRUCTIONS FOR ECL-230X & H-ECL-230X HURRICANE DEVICES

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</tbody>
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For device installation videos, scan code below or go to detex.com
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Item</strong></td>
</tr>
<tr>
<td>1KIT</td>
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<tr>
<td>25KIT</td>
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<tr>
<td>25KIT</td>
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<tr>
<td>25A</td>
</tr>
</tbody>
</table>
Hardware Table for BASIC device mounting. Additional hardware is provided per the device configuration in kit form and is addressed on the appropriate pages as required.

<table>
<thead>
<tr>
<th>Machine Screws</th>
<th>Fastener Part No</th>
<th>Drill Bit</th>
</tr>
</thead>
<tbody>
<tr>
<td>P/N: 100980</td>
<td>1/4-20 x 1&quot; PPH</td>
<td>#7 or 13/64&quot;</td>
</tr>
<tr>
<td>P/N: 100954</td>
<td>1/4-20 x 1-1/2&quot; PPH</td>
<td>#7 or 13/64&quot;</td>
</tr>
<tr>
<td>P/N: PP-5377-106 or P/N: 101950-505</td>
<td>8-32 x 3/8&quot; PFH or 8-32 x 5/16&quot; PFH</td>
<td>----------</td>
</tr>
</tbody>
</table>

**Self-drilling Screws / Wood Screws**

| P/N: 103276-63 | #14 x 1" PPH | 1/8 pilot hole recommended for self-drilling screws |
| P/N: 103276-65 | #14 x 1-1/2" PPH | 1/8 pilot hole recommended for self-drilling screws |
| P/N: 103993-1 | #14 x 1-1/4" SMS PPH |----------|

**Socket Head Cap Screws (High strength bolts for TDB configurations)**

Recommend using socket head cap screws with sex nuts.

**HURRICANE**: Sex nuts and socket head cap screws MUST be used with HURRICANE devices.

| P/N: 105773-7 | 1/4-20 x 1" 3/16 Socket HD | #7 or 13/64" for threaded hole or 9/32" for use with sex bolts |
| P/N: 105773-9 | 1/4-20 x 1-1/2" 3/16 Socket HD | #7 or 13/64" for threaded hole or 9/32" for use with sex bolts |
| Part No: 105209 (6 ea per kit) | 1/4-20 x 1-3/4" | 1/2 Exterior door face (With Trim) |
|                  | 3/8 Exterior door face (Without Trim) | 1/2 Exterior door face (With Trim) |
| Sex Nut: 1/4-20 SS | Catalog No: SN1-630 (2 ea per kit) | 3/8 Exterior door face (Without Trim) |
| (1/4-20 x 1-9/16") | | |

| P/N: PP-5067-25 | #14 Lockwasher |
| P/N: PP-5066-12 | #12 Lockwasher |

**Tools Required:**

- Power Drill
- Safety Glasses
- Tape Measure
- 3/16" & 5/32" Allen Wrenches
- Level
- Pencil
- Center Punch
- #2 and #3 Phillips Screw Drivers
- Combination Square
**!!!CHECK BEFORE STARTING!!!**

Wide Stile (Surface Strike)

Minimum door stile 6" (152 mm). Template drawings provide door and frame structural and dimensional specifications for door and frame preparation.

Surface strike possible. Mortise strike recommended.

Doors and frames with walls having a structural thickness (metal skin plus reinforcement, or solid wood) to engage less than (3) full screw threads, are considered unreinforced for hardware.

Unreinforced Doors: Use Sex Nuts and Bolts.
Unreinforced Frames: Use Blind Rivet Nuts (see sketch). Fasteners for unreinforced openings are not supplied by Detex.

Reinforced door or frame engages at least (3) screw threads.

**Door Must Swing Freely**  
**Door Must Not be Warped**  
**Door Must Not Bind**  
**Door Must Not Sag**

NO MODIFICATION OF ANY KIND, OTHER THAN THOSE DESCRIBED IN THESE INSTRUCTIONS ARE PERMITTED.
**STEP 1: Use template to locate backplate and strike**

<table>
<thead>
<tr>
<th>TEMPLATE KEY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Circle ○ = (6) Holes for surface installation</td>
</tr>
<tr>
<td>Square □ = (6) Holes for flush installation</td>
</tr>
<tr>
<td>Triangle △ = (3) Holes for double door installation</td>
</tr>
</tbody>
</table>

1. Use plastic template to mark/drill backplate & strike holes.
2. See text and symbols on plastic template for installation options.
3. RH/R installation shown, reverse all steps for LHR.
4. See page 9 for OKC (03) function.

**SURFACE INSTALLATION**

Mark (6) back-plate mounting holes (Mark circles)

Mark (2) strike holes

For OKC see page 9

**FLUSH INSTALLATION**

Mark (6) back-plate mounting holes (Mark squares)

Mark (2) strike holes

Mark centerline for device 40" from finished floor

Mark (4) holes & lines for FLUSH cutout

FOR FLUSH INSTALLATION ONLY
STEP 2: Drill backplate and strike holes

SURFACE & FLUSH INSTALLATIONS

BACK-PLATE HOLES
6 places for 1/4-20 machine screws
(#7 or 13/64")
OR
#14 self-drilling screws
(1/8 pilot hole)
OR
1/4-20 machine screws used with sex bolts
(9/32")
NOTE: Sex nuts & socket head cap screws MUST be used with HURRICANE devices.

See OUTSIDE KEY CONTROL (page 9) for transferring hole locations from DEVICE side to TRIM side.
OR
See OUTSIDE KEY CONTROL INSTALLATION for TRIM option

FOR FLUSH INSTALLATION ONLY

Remove outlined area

Drill (4) 1/2" diameter holes

STRIKE HOLES
2 places for
1/4-20 machine screws
(#7 or 13/64")
OR
#14 self-drilling screws
(1/8 pilot hole)

Drill 4 marked locations & remove marked rectangular area

Finished FLUSH cutout

STEP 3: Install back-plate

See OKC steps, pg 9

Sex nuts and socket head cap screws MUST be used with HURRICANE devices

1/4-20 x 1-9/16"

STOP: IF PULL OR TRIM NOT ORDERED, CONTINUE ON TO STEP 4.

Inside PULL, OKC, PULL or TRIM PLATE must be installed before installing device.
1. Inside Pull.................pg 8 (below)
2. Outside Key Control..pg 9
3. Pull and Trim Plate.....pg 10

INSIDE PULL KIT (IP KIT) (OPTIONAL) (must be installed before installing device)

ALIGN pull with back-plate tab. MARK and DRILL holes.

INSTALL pull with (4) countersink washers & flat head screws

103132  pg 8
Outside Key Control Installation, if required

SURFACE INSTALLATION

(Mark circle) ○

Define template with device centerline and mark/drill appropriate OKC hole through door (RHR Shown)

DEVICE SIDE

FLUSH INSTALLATION

(Mark square) □

Transfer hole locations from DEVICE side to TRIM side

Draw horizontal lines from DEVICE side toward TRIM side of door

OKC hole

DEVICE side

See pg 21 for outside Trim TEMPLATE

TRIM side

Measure hole locations from DEVICE side and measure/mark same hole locations on TRIM side of door

NOTE: Hold square in this position to compensate for bevel on door edge

OKC option shown

1-3/8" diameter (inside)

3/4" tailpiece length

Door

Rim cylinder plate
P/N: 102638

1-1/4" diameter (outside)

Remove key before installing

NOTE:
1. Rim Cylinder not included
2. Collar available: P/N: ECL-1595

TRIM PLATE option shown

1/2" diameter (inside)

Device

Trim plate shown for reference only

1-3/4" diameter (outside)

Remove key before installing

Door

3/4" tailpiece length

Remove OKC lockplate on device only if OKC is being installed

REQUIRED!

Remove screw and lockplate on back of center-case for OKC

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REQUIRED!

Align timing mark on OKC cam to arrow on lockbody
1. **DRILL** (2) 3/8" holes through plate at indentations for HURRICANE INSTALLATIONS.

These holes are also recommended on Fire Rated Wood and Unreinforced Hollow Metal Doors.

2. **PRESS** sex nuts into PULL or TRIM PLATE (Pull plate shown)

3. **INSTALL** with lockwashers & screws

---

**Cylinder collars can be used where needed**

**PULL PLATE** shown with cylinder option

**TRIM PLATE** shown with cylinder option

---

**HURRICANE:**

Sex nuts and socket head cap screws MUST be used with HURRICANE devices.

---

**Sex Nut p/n:** 105209

(6 ea per kit)

**PREP door for SEX NUTS:**

DRILL 9/32" hole through INTERIOR door face.

DRILL 1/2" hole through EXTERIOR door face.

---

**PULL PLATE** installed on exterior of door
**STEP 4: INSTALL DEVICE**

If OKC is used, align cylinder tailpiece to lockbody OKC cam slot.

**SECURE** device with (2) lockwashers & screws OR screws & sex bolts.

**REQUIRED!**

**FAILURES TO INSTALL SCREWS WILL VOID WARRANTY**

**INSERT** alignment tab into back-plate slot.

**ROTATE** device toward door.

**DRILL SIZES:**

1/2 Exterior door face (With Trim)

1/4-20 x 1-9/16"

OR

3/8 Exterior door face (Without Trim)

Sex nuts and socket head cap screws MUST be used with HURRICANE devices.

**LEVEL** device before drilling endcap bracket holes.

**STEP 5: INSTALL ENDCAP**

Sex nuts and socket head cap screws MUST be used with HURRICANE devices.

**INSTALL** endcap screws hand tight.

**INSTALL** with (2) lockwashers & screws OR screws & sex bolts.

1/4-20 x 1-9/16"

8-32 x 5/16"
**STEP 6: INSTALL RIM CYLINDER**

**NOTE:**
1. Rim cylinder NOT included.
2. REMOVE cylinder housing from device, then install rim cylinder.
3. REMOVE key before installing cylinder.

**REQUIRED!**
ALIGN arrow on bracket with timing mark on IKC cam

**DO NOT USE A COLLAR**

**STEP 7: INSTALL SIGN**

**INSERT** sign edge into bottom of push-pad and snap into top of push-pad. Slide hand along top edge of push-pad to fully seat sign.

Peel and remove tape backing BEFORE installing sign

Edge of sign should be flush with edge of push-pad endcap

**NOTE:** A screwdriver handle, pen, or other small blunt tool can be used to snap/press the sign in.
**STEP 8:** Install Deadbolt Strike - All hardware shown on this page is supplied in the strike kit p/n 103660

### SURFACE INSTALLATION

<table>
<thead>
<tr>
<th>Screw</th>
<th>Fastener Part No.</th>
<th>Drill Bit</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Screw Image" /></td>
<td>P/N: 100980 1/4-20 x 1&quot; PPH</td>
<td>#7 or 13/64&quot;</td>
</tr>
<tr>
<td><img src="image2" alt="Screw Image" /></td>
<td>P/N: 103276-65 #14 x 1-1/2&quot; PPH</td>
<td>1/8 pilot hole recommended for self-drilling screws</td>
</tr>
<tr>
<td><img src="image3" alt="Screw Image" /></td>
<td>P/N: 105773-7 1/4-20 x 1&quot; 3/16 Socket HD</td>
<td>#7 or 13/64&quot; for threaded hole or 9/32&quot; for use with sex bolts</td>
</tr>
</tbody>
</table>

Fasten strike loosely with (2) of the screws shown above.

**NOTE:** Arrows on strike indicate strike orientation

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### FLUSH INSTALLATION

<table>
<thead>
<tr>
<th>Screw</th>
<th>Fastener Part No.</th>
<th>Drill Bit</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image4" alt="Screw Image" /></td>
<td>P/N: 102271-116 1/4-20 x 1&quot; PFH</td>
<td>#7 or 13/64&quot;</td>
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<tr>
<td><img src="image5" alt="Screw Image" /></td>
<td>P/N: 103277-324 #14 x 1-1/2&quot; PFH</td>
<td>1/8 pilot hole recommended for self-drilling screws</td>
</tr>
<tr>
<td><img src="image6" alt="Screw Image" /></td>
<td>P/N: 105774-5 1/4-20 x 1&quot; 5/32 Socket HD</td>
<td>#7 or 13/64&quot;</td>
</tr>
</tbody>
</table>

Fasten strike loosely with (2) of the screws shown above.

---

Adjust strike

Adjust strike to desired fit. Tighten screws.

---

**Install two (2) inner screws**

**REQUIRED!**

Complete strike installation with (2) of the screws shown above.

Mark (2) remaining holes

Install (2) screws
2-POINT and 3-POINT INSTALLATION (Top)
Mark & drill top strike and top bolt holes

SURFACE INSTALLATION

FLUSH INSTALLATION

Mark and drill for top bolt bracket

Place both templates on door and align them using surface or flush indicators
ALIGN surface or flush indicator to centerline on top template

(circle for surface)
(square for flush)

Single Door Shown

Mark and drill for top strike

Drill #7 for 1/4-20 machine screws,
OR
Drill 1/8 for #14 self-drilling screws

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**2-POINT and 3-POINT INSTALLATION (Bottom)**

**Mark & drill bottom strike and bottom bolt holes**

**SURFACE INSTALLATION**

- Place both templates on door and align them using surface or flush indicators

- **ALIGN** surface or flush indicator to centerline on bottom template
  - (circle for surface)
  - (square for flush)

- **Single Door Shown**

**FLUSH INSTALLATION**

- **Mark and drill for bottom strike**
TOP STRIKE and TOP BOLT INSTALLATION

NOTE: The top bracket, top bolt and cover are shipped as a unit. Remove cover to access parts.

All hardware shown on this page except the Sex Nuts are supplied in the Top Bolt kit p/n 103693, 103693-1 or 103693-2

<table>
<thead>
<tr>
<th>Screw</th>
<th>Fastener Part No.</th>
<th>Drill Bit</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4-20 x 1&quot;</td>
<td>P/N: 103277-316 #14 x 1&quot; PFH</td>
<td>1/8 pilot hole recommended for self-drilling screws</td>
</tr>
<tr>
<td>1/4-20 x 1&quot;</td>
<td>P/N: 105774-5 1/4-20 x 1&quot; 5/32 Socket HD</td>
<td>#7 or 13/64&quot;</td>
</tr>
<tr>
<td>8-32 x 5/16&quot; PFH</td>
<td>P/N: 101950-505 8-32 x 5/16&quot; PFH</td>
<td>Used to attach cover to top bolt in later step</td>
</tr>
<tr>
<td>8-32 x 1/4&quot; PFH</td>
<td>P/N: 100156-104</td>
<td></td>
</tr>
</tbody>
</table>

STEP A: Install top strike

NOTE: SOCKET HEAD screws must be used for HURRICANE devices

Install top strike with (2) screws

STEP B: Install top bolt bracket & top rod

Countersunk Spacer
P/N: 105661

Install top strike with (2) screws & spacer as shown above

Push in Pushpad before installing top rod

SOCKET HEAD screws & sex nuts must be used for HURRICANE devices

1/4-20 x 1-9/16"

STEP C: Install top bolt

Top bolt
Pin
Top bracket
Top rod (one hole)

Place top bolt and rod into top bracket. Slide the pin through MIDDLE hole of top bolt, bracket slots and rod. Insert pin clip.

STEP D: Top bolt adjustment

See page 22 for cutting top rod

COURSE ADJUSTMENT:
Adjust strike engagement by using different holes in bolt.

FINE ADJUSTMENT:
Use thread on top rod to obtain fine adjustment.
1 thread turn = Approximate .050 inches

SEE PAGE 21 for TESTING and ADJUSTMENT

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**BOTTOM STRIKE and BOTTOM BOLT INSTALLATION**

NOTE: The bottom bracket, bottom bolt and cover are shipped as a unit. Remove cover to access parts.

**STEP E:** Install bottom strike

Can be ordered as kit p/n 103566

- 10-24 x 1 screws
  - p/n 100109
- Strike
  - p/n 103546

1" hole for strike (min depth - 3/4")

Dustproof Strike Kit
Part No: 101562-X
(Optional—ordered separately)

**STEP F:** Install bottom bolt bracket

Hardware included in Bottom Bolt kit (p/n 103693-x)

<table>
<thead>
<tr>
<th>Screw</th>
<th>Fastener Part No.</th>
<th>Drill Bit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Screw</td>
<td>P/N: 103276-65 #14 x 1-1/2&quot; PPH</td>
<td>1/8 pilot hole recommended for self-drilling screws</td>
</tr>
<tr>
<td>Screw</td>
<td>P/N: 100940 1/4-20 x 1&quot; PPH</td>
<td>#7 or 13/64&quot; for threaded hole or 9/32&quot; for use with sex bolts</td>
</tr>
<tr>
<td>Screw</td>
<td>P/N: 105773-7 1/4-20 x 1&quot; 3/16 Socket HD</td>
<td></td>
</tr>
</tbody>
</table>

Install bottom bolt bracket with (2) screws

1/4-20 x 1-9/16"

SOCKET HEAD screws & sex nuts must be used for HURRICANE devices

Sex nuts sold separately

**STEP G:** Install bottom rod

Push in Pushpad before installing bottom rod

Screw bottom rod onto threaded rod
7 full turns minimum, then adjust as needed

**CAUTION:** With bottom bolt extended, end of rod MUST NOT be visible when cover is installed (cover not shown)

**STEP H:** Install bottom bolt

Place bottom bolt and rod into bracket. Slide the pin through bracket slots, bolt, and rod hole. Insert pin clip.

**STEP I:** Bottom Bolt Adjustment

FINE ADJUSTMENT: Use thread on bottom rod to obtain fine adjustment.
1 thread turn = Approximate .050 inches

COURSE ADJUSTMENT: Adjust strike engagement by using different holes in rod.

SEE PAGE 21 for TESTING and ADJUSTMENT
TOP and BOTTOM COVER INSTALLATION & ROD GUIDES

Install top cover with screws provided in Top Bolt kit

- P/N: 101950-505
  - 8-32 x 5/16" PFH
- or
- P/N: 100156-104
  - 8-32 x 1/4" PFH

Rod guide (p/n: 103534)

**V50 ROD GUIDE KIT (p/n: 104073)**

<table>
<thead>
<tr>
<th>P/N</th>
<th>Screws</th>
</tr>
</thead>
<tbody>
<tr>
<td>103276-41</td>
<td>#10 x 1&quot; PPH</td>
</tr>
<tr>
<td>PP-5183-68</td>
<td>#10 x 1&quot; SMS PPH</td>
</tr>
</tbody>
</table>

**NOTE:** 1/16 pilot hole recommended

Space 1 rod guide equal distance between centercase and bolt assemblies (7 foot and 8 foot doors). Use 2 rod guides spaced evenly on the top rod of 10 foot doors.

**NOTE:**
1. If metal bottom bolt guard is to be used, do not attach the plastic bottom bolt cover (refer to bottom bolt guard installation instructions).
2. If rod covers are to be used, do not install rod guides (refer to rod cover installation instructions).

Install bottom cover with screws provided in Bottom Bolt kit

- P/N: 101950-505
  - 8-32 x 5/16" PFH
- or
- P/N: 100156-104
  - 8-32 x 1/4" PFH
DEADBOLT AND TOP BOLT INSTALLATION (TD)

Install Battery and Cover

Before installing battery, RETRACT bolt with key
Connect 9V battery

Before installing cover, retract bolt with key

Rotate slightly over retracted bolt while installing cover

Install cover

4 cover screws if optional cover lock not ordered

OPTIONAL cover lock

2 cover screws if optional cover lock is ordered

Optional cover lock: (If ordered)
Turn cover lock key 4 to 5 turns (CW) to fasten cover

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DOUBLE DOOR INSTALLATION

**If gap is larger than 3/8, use flush holes on template (squares)**

**Active Leaf:**
Align template with door edge

Mark (6) holes with circled symbols for mounting back-plate**

**Inactive Leaf:**
Align template with door edge

Mark (3) holes with triangular symbols for mounting double door bracket

OPTIONAL:
Double door strike kit
P/N: DDSK
Bracket
p/n 103683

1/4-20 x 5/8" PH
1/4-20 x 1" PH
1/4-20 x 5/8" PH

#14 x 1-1/2" PPH
1/8 pilot hole

#14 x 1-1/4" SMS PPH
1/8 pilot hole
Operations: Turn the cylinder key 360 degrees clockwise (CW) to arm the device and lock the door. With the door locked, pushing the bar will unlock the door and sound the alarm. Turn the cylinder key 360 degrees clockwise (CW) to turn off the alarm, lock the door and arm the device.

Unlocking door with key: Turn the key 360 degrees counterclockwise (CCW) to unlock the door without setting off the siren.

Note: 360 degrees is the cylinder requirement, do not exceed. DO NOT turn past the HOME POSITION.

Troubleshooting:
1. How to remove cover
   a) Remove cover by unfastening four screws. If a cover lock is provided with cover, insert the cover lock key and turn it counter-clockwise approximately 4-5 complete turns in addition to removing 2 screws in front of cover.

2. Trouble installing cover:
   a) No cylinder collar is needed and will cause problems installing cover, remove collar.
   b) The cover needs to rotate slightly over the dead bolt.

3. Siren does not sound:
   a) Confirm the 9V battery voltage is good.
   b) Confirm the battery connector and wires are ok.
   c) Remove siren bracket assembly - Check micro-switches - With both switches open, the siren should sound.
   d) For a quick test to check siren, a 9V battery can be connected straight to the red (+) and black (-) wires on the siren.

4. Key control cylinder (IKC) - Hard to turn (Binding), does not turn:
   a) Verify the tailpiece is the right length and not bottoming out.
   b) Verify the cylinder cam is timed correctly, see page 12, step 6
   c) Verify the dead bolt or rod bolts are not bottoming out or rubbing on the strike.
   d) Push bar in and release, the bar should spring back out.
   e) Make sure the device back-plate and end mounting bracket are on the same level surface.
   f) Confirm two screws are installed to secure locking mechanism to door, see page 11, step 4.

Two point locking
   g) Confirm bottom rod connector was removed, see page 19.

5. The unit sounds when the dead bolt is extended:
   a) Verify the cylinder cam is timed correctly, see page 12, step 6.
   b) Verify the dead bolt or rod bolts are not bottoming out or rubbing on the strike.

6. The alarm does not reset:
   a) Turn the key 360 degrees clockwise.

7. The rod adjustments can cause malfunction of the product:
   a) If the multi-point device is malfunctioning, remove one rod at a time and recheck operations. See rod adjustment operations on page 16 and 17

Call DETEX Technical Support at 1-800-729-3839

Testing and Adjustment:
Testing: (TOP BOLT)
1. Close the door; turn key (CW) to lock door; bolt should project into the strike cavity and lock securely.
2. Push on the push-pad to open the door. The top bolt should retract from the strike and clear by 1/16” to 1/8”.
   Bolt should remain retracted.
3. Close the door; turn key (CW) to lock door. Bolt should project into strike cavity.

Adjustment: (TOP BOLT) - Adjust bolt engagement by using holes in top bolt:
1. If top bolt hits edge of strike when door is opened:
   Remove clip and pin, move bolt down and insert pin in next lower bolt hole. Insert clip and pin. Test door for bolt clearance.
2. If top bolt does not engage strike:
   Remove clip and pin, move bolt up and insert pin in next upper bolt hole. Insert clip and pin. Test door for bolt engagement.
   NOTE: Fine adjustment can be obtained by using thread on bottom rod (1 thread turn = Approx .050 inches)

Testing: (BOTTOM BOLT)
1. Close the door; turn key (CW) to lock door; bottom bolt should drop into the strike with door closed.
2. Push on the push-pad to open the door. The bottom bolt should retract from the strike and clear by 1/16” to 1/8”.
   Bolt should remain retracted.
3. Close the door; turn key (CW) to lock door. Bolt should drop into strike.

Adjustment: (BOTTOM BOLT) - Adjust bolt engagement by using holes in rod:
1. If bottom bolt drags on the floor or hits edge of strike:
   Remove clip and pin, move bolt up and insert pin in next upper rod hole. Insert clip and pin. Test door for bolt clearance.
2. If bottom bolt does not engage strike:
   Remove clip and pin, move bolt down and insert pin in next lower rod hole. Insert clip and pin. Test door for bolt engagement.
   NOTE: Fine adjustment can be obtained by using thread on bottom rod (1 thread turn = Approx .050 inches)
Cutting Top Rod (For non-standard doors)

Top rod may require cutting if centerline of device is over 40" from finished floor, or if a non-standard frame is used.

To determine top rod length: Measure the distance from the bottom edge of top bolt bracket to the top edge of backplate (XXXX). Add 2-7/8" for the rod length.

**DRILL HOLE AFTER CUTTING**

- Cut portion
- 5/16"
- Drill hole 13/64"
- Modify top rods:
  - P/N 103674: (7 ft)
  - P/N 101472-4: (8 ft)
  - P/N 101472-3: (9-10 ft)

**ACCESSORIES**

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<th>Retro-fit plate kit</th>
<th>Rim cylinder plate</th>
<th>Double door strike bracket kit</th>
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<td>7 Pin Rim IC Cylinder</td>
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<td>P/N: RC65-X</td>
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</table>

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TEMPLATE for outside Trim

TOP - RHR
Measure BACKSET on device side and transfer to TRIM side

1-7/8

1/4 RHR

TRANSFER DEVICE CENTERLINE TO TRIM SIDE

FOR HOLE DIAMETER SEE INSTRUCTIONS PG. 6

3/8 diameter 6 places

TOP - LHR

Measure BACKSET on device side and transfer to TRIM side