For Use With Metal Doors Only

Device is packed ready for any compatible trim.

Outside Trim

Dogging

Feature to hold bolts retracted and touchpad depressed, for push-pull door operation.

To Dog Device
1. Insert dogging key.
2. Hold touchbar depressed.
3. Turn key 1/4 turn clockwise.

(Not a feature of fire labeled devices.)
General Information

Maintenance

1. Periodically remove covers and coat mechanisms with AeroShell Grease 14 or equivalent. This is particularly required in corrosive environments for proper product function.

2. Check mounting fasteners periodically. Retighten if found loose. Apply screw locking compound (available at automotive part stores) or change part fasteners if screws continue to back out.

3. Periodic checks (and adjustments) of strikes are required to compensate for changes in the opening (e.g. door sagging).

To Change Hands

Remove (4) Screws and Vertical Lifter Assembly. Rotate device to opposite hand (180 degrees). Insert Lifter Assembly under Lift Block and re-install screws. Note: Lifter must fit under lift block as shown.

1/4-20 Sex Nut Option

Recommended for unreinforced metal doors.

<table>
<thead>
<tr>
<th>Device</th>
<th>Quantity</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Trim</td>
<td>4</td>
<td>1/4-20</td>
</tr>
<tr>
<td>With Trim</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

Rod Extension Options

2" (51mm)  
6" (152mm)  
12" (305mm)  
24" (610mm)  
(Specify Device Finish)
**Door Must Swing Freely**

**Door Must Not Be Warped**

**Door Must Not Bind**

**Door Must Not Sag**

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**Unreinforced Doors or Frames**

Doors and Frames with walls having a structural thickness (metal skin plus reinforcement) to engage less than (3) full screw threads are considered unreinforced.

Unreinforced Doors: Use SNB (sex nuts and bolts).

Unreinforced Frames: Use Blind Rivet Nuts.

Recommended fasteners for unreinforced openings are not necessarily supplied by Corbin Russwin.

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**1. Mark Door**

Locate and Mark Horizontal and Vertical Centerlines as shown.

LHR door shown. Preparation is typical for both door hands.

**Note:** Bottom Bolt will retract to 1/8" (3) above floor strike. Floor covering in the door path must be laid accordingly.

**Caution:** If device is mounted higher or lower than shown, rod length must change. Lengthen or cut top and bottom rods as shown on Step 4.
2. Prepare Door, Frame, & Sill

A. Locate “Device Paper Template” aligning VERTICAL REFERENCE and HORIZONTAL REFERENCE lines on door and template. Tape template to door face.

B. Extend centerline of Rod and Strikes from “Device Paper Template” to door top and bottom, on door face.

C. Locate Top Strike and Bottom Strike templates, aligned on centerline of Rods and Strikes on door. Tape templates in place and mark holes.
   **Note:** Auxiliary door marker is included to verify correct door preparation. Reinforced doors and frames, with factory made cutouts, are recommended.

D. Locate and tape Trim Template to door.
   (See instructions packed with Trim)

E. Mark and prepare holes per installation template:
   - Device and Bolt Case Plates:
     - Each (2) 1/4-20 Machine Screws for metal reinforced doors OR
     - (2) 3/8" (10) Dia. Sex Nuts & Bolts
   - Top Strike: (2) 10-24 Machine Screws
     - **Note:** Third screw MUST ONLY be used to lock strike in final position (Step 8C).
   - Bottom Strike: 5/8" (16) dia. 3/4" (19) deep hole

3. Size Device

Device must be field cut to size, unless standard opening and device are 36" (0.91m).

**LHR DOOR (DOOR OPEN)**

**Hinge Edge of Door**

**Align Mounting Holes in Door**

**With Mounting Holes in Device**

**Align Horizontal Line on Door**

**With Edge of Device**

**Minimum:** 1-3/8" (35)

**Minimum to inside edge of Hinge Stile:** 3/8" (10)

**Verify that there is no gap between end cover & touch bar, prior to marking cutoff.**

**Mark cutoff line. Cut square on line.**

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4. Rod Assembly & Preliminary Adjustment

A. Remove door from opening. Set flat, Device side up. (Do not hang door until Step 8 of device installation sheet)
B. Set length of Top Rod Assembly (see Detail 1).
C. Connect Top & Bottom Rods to Arm/Bracket Assemblies. (2 Cotter Pins each)
D. Align Rod Setup Gauge over Device Cutouts and Centerlines. Tape Gauge to door face.
E. Connect Top Latch to Rod Assembly. Latchbolt must be fully extended. (See Detail 2).
F. Set Top Latch Assembly in place on door. Maintain 1/8" (3) location from top of door as shown.
G. Align Yoke Pin holes in Arm and Bracket Assembly with Alignment hole in Rod Setup Gauge. Adjust Top Latch and Rod Assembly for proper alignment.
H. Thread Deadbolt into Bottom Rod Assembly. Set Bottom Rod Assembly in place on door. Align Yoke Pin hole in Bottom Arm and Bracket Assembly with Alignment hole in Rod Setup Gauge. Adjust Bottom Bolt for proper length. NOTE: Be certain Bottom Bolt is fully extended, (See Detail 3).

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**Detail 1 - Top Rod Assembly**

- Adjust Rod - Tube length & assemble.
- For unusual opening heights, locate and drill 1/8" (3) dia. hole in rod.

**Detail 2 - Top Latch**

- Latchbolt Extended (Correct Assembly)
- Latchbolt Retracted (Incorrect Assembly)

**Detail 3**

- BOTTOM ROD ASSEMBLY
- BOLT FULLY EXTENDED (PIN TOWARD TOP OF DOOR)

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5. Install Rods

A. Slide Rod Assemblies into door.
B. Attach Top Latch with (6) #10-24 X 1/2" PFHMS.
C. Install Bottom Bolt Case with (6) #10-24 X 1/2" PFHMS.
D. Thread Set Screw into Yoke Pins (Insert With Hex Socket End Inside Pin). Thread #8-32 X 2" PHPMS Screws into slotted end of Yoke Pins, until seated to Hex Head Set Screw. (See Detail 1.)
E. Install (2) Yoke Pin Assemblies into Arm and Bracket Assemblies.
6. Install Device

A. Mount Trim when required. (Follow instructions packed with trim.)
B. Seat Device in place, connect Device to Arm and Bracket Assemblies using the Temporary Screws to position the Yoke Pins in Latch Head. Install E-Ring into Yoke Pin Grooves. (See Detail 1).
C. Fasten Device Latch Head (2) 1/4-20 PRHMS or 3/8" (10) dia. SNB.
D. Remove Temporary Screws. **NOTE:** Be certain to retighten Yoke Pins after removal of Temporary Screws.
E. Center end of Device on horizontal reference line of door. Using the End Clamp as a template, locate the End Clamp Mounting holes.
F. Prepare End Clamp holes and mount End Clamp using (2) 1/4-20 PRHMS or 3/8" (10) SNB.

```
    B  Detail 1
        Device Screws
        (Bolt to door reinforcement, sex nuts, or trim studs)

    C  Device
        Horizontal Ref.
        Centerline

    D  1/2
        (32)

    E  1-1/4
        (32)
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```
    F  End
        Clamp

    X  Detail X
        (Upper Strike)
        Shim
        (2 supplied)
        (Start with one)
        Strike Plate
        (Ridges face down)
        Strike
        (2) 10-24 x 3/4" PFHMS
        **Note:** Third screw must be installed after device is adjusted and working properly (Step 8C).

    Y  Detail Y
        (Bottom Strike)
        Strike
        (Press in place)

    Note: Bottom Bolt will retract to 1/8" (3mm) above Floor Strike. Floor covering in the door path must be laid out accordingly.
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7. Install Strikes
A. Rehang the door plumb and true to the opening. Set strike roller between tripping lever and bolt. **DO NOT PRELOAD THE BOLT.** Shim strike as needed.

**NOTE:** Rods should move freely inside door. Bolts extend automatically and should deadlock when door closes and top strike hits tripping lever. Top bolt should retract flat. Bottom bolt should travel 1/2" (13) and engage 3/8" (9.5) into strike in down position, without dragging on floor surface in up position.

Test device action by touchbar, by trim, and by dogging. Adjust as needed.

B. Rod Adjustment for Proper Bolt Throw

1. Use 3/32" (2.4) hex wrench to loosen set screws B1 and B2.

2. Adjust the top rod first with adjusting screw C1. With device in dogged position (panic devices) or touchbar fully depressed (fire devices) adjust top rod so that the top latchbolt is flush and the hold back feature is engaged. Lengthen top rod an additional 1/2 turn for proper latchbolt positioning.

**NOTE:** If adjusting screws bottom out before proper device operation, door and device must be removed so larger adjustments may be made by threading rod in or out, or by moving cotter pin to different hole in rod (See Installation Instructions Step 4).

3. Adjust bottom rod with adjusting screw C2. With top latch retracted in hold back position, and touchbar dogged or fully depressed, adjust bottom rod so that the deadbolt clears the strike by 1/16" (1.6). The bottom rod should be in position in the active case with the square head of the connector hanging in the Guide. (See note in Step 2 above).

4. Check device operation by opening and closing the door. An additional minor adjustment may be required for full retraction and correct strike engagement.

**NOTE:** To avoid thread damage and provide positive locking, be sure set screws engage flats on adjusting screws.

C. After acceptable device function, install third screw in top strike to lock strike in position with 10-24 x 3/4" PFHMS.

D. Install device cover and end cap with (2) 8-32 PFHMS each.
For use in conjunction with instruction sheets packed with exit device. Holes and slots are identified below by exit device series and trim. Prep door and frame for only those features required for the exit device being installed.