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Note: One set of instructions should be left with building owner after device has been installed.
SCREW CHART

1. (2) 12-24 x 1 1/2" F.H.P.M.S. (Metal or Thru Bolts)  
   Chassis Mounting

2. (2) #12 x 1 1/4" F.H.P.T.S. (Wood Door)  
   Chassis Mounting

3. (2) 12-24 x 1" R.H.P.M.S. (Metal or Thru Bolts)  
   End Cap Bracket

4. (2) #12 x 1 1/4" R.H.P.T.S. (Wood Door)  
   End Cap Bracket

5. (1) 12-24 x 3/4" F.H.P.M.S. (Metal or Thru Bolts)  
   Latch To Door

6. (2) 12-24 x 1/2" R.H.P.M.S. (Metal or Thru Bolts)  
   Latch To Door

7. (3) #12 x 1" R.H.P.T.S. (Wood Door)  
   Latch To Door

8. (4) #8 x 1 1/2" F.H.P.T.S.  
   Rod Guide Mounting

9. (2) 8-32 x 1/2" R.H.P.M.S.  
   Rod Retaining Clip Mount

10. (2) 12-24 x 3/4" O.H.P.M.S. (Metal)  
    #426 Strike Pack

11. (2) #12 x 1" F.H.P.T.S. (Wood)  
    #426 Strike Pack

12. #439 Bottom Strike  
    (Cement or Grout In Place)

13. (10) 8-32 x 1 1/4" F.H.P.M.S.  
    Chassis Cover, End Cap & Latch Covers
Read the entire instruction sheet prior to installation.
Before Installing Hardware:

1. Verify door width, handing and product with carton label for correct exit device and length. (See Step 6)

2. For hand reversal of chassis see page 6, for outside lever trim see page (3).

3. For less bottom rod device, delete bottom latch installation steps.

Note: Less bottom rod device is not recommended where security is a primary concern.

Note: If device is to be installed over glass lite panels, shim kit may be required, order GK9200.

TYPICAL APPLICATIONS

SPECIAL TOOLS FOR INSTALLATION

12-24 Tap, 10-32 Tap
Drill bits: 1/8", 3/8", #25, #16, #21
Hole saw 1 1/4" diameter for trim (if required) or jig saw.
5/32" Allen wrench for lever trim.
All trims are free wheeling.
(Handle will rotate when locked.)

**TIGHTEN SECURELY**

**IMPORTANT**

*Note*: All lever handles except for “clutch” are shipped unattached. To install: **Place handle in desired position and attach with allen screw located in back of trim plate.** 5/32” Allen wrench required.

To change hand on “clutch” trim rotate and “break” lever around to desired hand.

**Key removed.**

For functions “09” & “12” operation a **DORMA #09** cam is required. Remove key, install cylinder as shown then cam as shown, legs of cam straddle actuator.

Conventional 1 1/8” rim cylinder #80R20SC with tail piece, keyed differently to a random combination supplied with functions “03” & “04” trim unless otherwise noted.

Conventional 1 1/8” mortise cylinder #90X13SC118 supplied with DORMA #13 cam, keyed differently to a random combination supplied with functions “08” & “11” trim unless otherwise noted.
9800/F9800
Surface Vertical Rod Exit Device
RHR Shown
LHR Opposite
Required for "03" & "04" function on device with cylinder only and no trim.
(NOT TO SCALE)

NOTE: "04" function not available on fire rate device. "Fire rated devices can not be dogged."

VERTICAL REF. LINE
(CENTERLINE OF CHASSIS)

(SEE STEP 2)

7/32" DIA. HOLE DIA. (2) PLACES

13/16"

1/4"

3/8" DIA. HOLE (DEVICE SIDE ONLY)

IMPORTANT NOTE:
Hole dimensions may vary, when using cylinder by other manufacturer's use backplate supplied with cylinder as drilling template.

INSIDE FACE OF DOOR (DEVICE SIDE)

HORIZONTAL REF. LINE

EDGE OF STOP OR MULLION

(SEE STEP 2)

VERTICAL REF. LINE
(CENTERLINE OF CHASSIS)

1 3/16" DIA. HOLE (TRIM SIDE ONLY)

1/4"

NOTE: If using 80CK cylinder adapter kit with trim; hole diameter required is 1 3/8".

OUTSIDE FACE OF DOOR (TRIM SIDE)

ADDITIONAL DOOR PREP REQUIREMENTS

IMPORTANT NOTE:
"04" function not available on fire rate device. "Fire rated devices can not be dogged."

Hole dimensions may vary, when using cylinder by other manufacturer's use backplate supplied with cylinder as drilling template.
1. With door lying on saw horses, open box, layout all parts and verify prior to starting installation. See page (1) one for parts. **Note:** If this is a retro-fit from current 5400 see page 15 prior to proceeding.

2. **Door Preparation**

   - **Chassis template** located at rear of booklet. Cut and tape in place. Lay out horizontal and vertical reference lines.
   - **Backset or vertical reference** is measured from outer edge of door as shown. Minimum stile is less glass stop.

   - **Vert. ref.**
   - **Vert. ref.**
   - **Min. Stile**
   - **Min. Stile**

   - **Rounded edge door**
   - **Beveled edge door**

   - **Pair of vertical rods**

   - **Finished floor,** if using threshold measure from top of threshold.

   - **Chassis horizontal ref. line**
   - **Chassis vertical ref. line**

   - **Minimum Stile**
   - **Backset**

   - **B**
   - **A**

   - **Type of installation**
     - **Minimum vertical ref. of chassis**
       - **Single door 1/2" blade stop**
         - 1 3/8" 2" 2 3/16"
       - **Pairs and double egress**
         - 1 1/4" 1 5/8" 2 1/8"
       - **Paired with 9700 rim**
         - 1 5/8" 2 3/16" 2 1/2"

   - **Minimum Stile**
     - **Pull only**
     - **"Z" trim**

3. **Hang door(s) in opening, ensure they are square and plumb.**
If not done layout device on door using drilling template T9800 located at rear of booklet. For additional templates contact DORMA at 1-800-523-8483 or www.dorma-usa.com

Refer to carton label for model and trim number prior to drilling. Prepare mounting holes and cut-outs per template.

**VERTICAL REF. LINE**
(See Backsets on page 5.)

**HORIZONTAL REF. LINE**

Verify all holes prior to drilling.

Hand reversal of chassis (if required). Follow steps in alphabetical sequence.

DISASSEMBLE
RHR
(Right Hand Reverse)

REASSEMBLE
LHR
(Left Hand Reverse)

Rotate chassis 180 Degrees
d

Longer leg down.

---

1. Refer to carton label for model and trim number prior to drilling.
2. Prepare mounting holes and cut-outs per template.
3. If not done, layout device on door using drilling template T9800 located at rear of booklet.
4. For additional templates, contact DORMA at 1-800-523-8483 or www.dorma-usa.com.
5. Hand reversal of chassis (if required). Follow steps in alphabetical sequence.

---

**Notes:**
- No. 16
- No. 25
- 3/8"
6 Prepare to install touch bar and rail on door.

NOTE: All dimensions are based on 1/2" stop height; Verify strikes, stile width, any trim and stop height prior to making any cuts. If cutting is required follow instructions below.

Size AA:
Fits 48" door opening without cutting.
Can be cut to fit a 32 1/2" minimum door opening.

Size BB:
Fits 36" door opening without cutting.
Can be cut to fit a 26 1/2" minimum door opening.

Size CC:
Fits 36" door opening with out cutting.
Using a shorter touch pad then the standard "BB" size allows it to be cut to 23 1/2" door opening.

Verify device length with box label; "AA", "BB" or "CC", ie. 9800BB

Example:

![Diagram showing door opening dimensions and touch bar placement.]

Note: If door opening width is less then standard touch bar will have to be cut down. ie: door opening width 34" subtract 2" from rear of touch bar and rail, tape and cut to length as shown.

IMPORTANT
Use caution when cutting touchbar and rail to size on models with "ES", "MS", "LM" or "DWA" prefix options. These units contain internal wiring.
For models with prefix options "BPA", "BPAR" or "DE" remove filler containing electronics before cutting.

7 Secure chassis to door as shown.

Metal - (2) 12-24 x 1 1/2" F.H.P.M.S.
Wood - (2) #12 x 1 1/4" F.H.P.T.S.
(For other options; trim, thru bolts, etc. see below.)

For 3 1/2" stiles or less on aluminum doors, place shim under chassis prior to mounting on door.
(Finished side to outside face.)
**Install touch bar and rail assembly and end cap to door.**

Remove two 8-32 screws from chassis, slide touch bar and rail assembly under rear of chassis. **Note:** If device has prefix "ES" ensure that pins in lever bolt align with slots in actuator located inside nose of touch bar. See instruction sheet IES-7 packed with device. Install (2) two 8-32 x 3/8" P.H.P.M.S. to secure touchbar to chassis.

Hold rear mounting bracket tightly against door and rear of rail. Mark (2) two holes and drill per chart. Secure with proper fasteners.

**NOTE:** If carton label list prefix; "ES", "MS", "LM", "BPA", "BPAR", "DWA", "LM/MS/MP" or "CD" prefix see Options pages at rear.

**Bracket should be flush against door and tight against rear of rail.**

"Remove protective covering from the touchbar and rail assembly prior to installing on door."

**Prop door open and layout and prep top and bottom latch case locations. Templates located at rear of booklet, tear out, cut and tape to door as shown, mark and drill per chart.**

**Note:** If installing on frame with blade stop; stop must be cut and a spacer added to mount strike or a longer top rod will be required.

**Finished floor or top of threshold.**

**1/4"**

**Note:** For "LBR" less bottom rod, delete bottom latch prep.

**Optional:** Pullman bottom latch prep.
10 Install top and bottom latch case assemblies.

Inter-locking strike angle for fire rated doors over 8' and all fire rated LBR (less bottom rod) devices.

Mount behind latch assembly.

- Insert screws at angle thru cutout in side of latch.

11 Install top rod and adjust top latch.

Rods shipped cut to length for 7' door opening. Optional 8' door opening available, (must be requested at time of ordering). For doors over 8' and up to 10' request "ETR" package at time of ordering. For top rod length other than "standard" see chart below. Order 8' option and cut to length.

Depress tripping lever and ensure that top latch is fully extended and in dead locked position. **Bolt should not be able to be depressed.** Bellcrank of chassis should be completely down in home position.

Thread top rod onto adjusting bolt until hole in bottom of rod aligns with hole in rear of top portion of bellcrank. **Insert leg of retaining plate through hole in rod and hole in bellcrank, install 8-32 x 1/2" screw and tighten securely.**

**NOTE:**
If horizontal reference line is moved from the recommended mounting height, new rods may have to be ordered.

If cutting is required "Do Not Cut Threaded End". (See Chart)

Use supplied drill jig and 1/8" drill bit if new hole is required.

<table>
<thead>
<tr>
<th>DOOR HEIGHT</th>
<th>TOP ROD LENGTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>6'8&quot;</td>
<td>31 1/4&quot;</td>
</tr>
<tr>
<td>6'10&quot;</td>
<td>33 1/4&quot;</td>
</tr>
<tr>
<td>7'0&quot;</td>
<td>35 1/4&quot;</td>
</tr>
<tr>
<td>7'2&quot;</td>
<td>37 1/4&quot;</td>
</tr>
<tr>
<td>7'4&quot;</td>
<td>39 1/4&quot;</td>
</tr>
<tr>
<td>7'6&quot;</td>
<td>41 1/4&quot;</td>
</tr>
<tr>
<td>7'8&quot;</td>
<td>43 1/4&quot;</td>
</tr>
<tr>
<td>7'10&quot;</td>
<td>45 1/4&quot;</td>
</tr>
<tr>
<td>8'0&quot;</td>
<td>47 1/4&quot;</td>
</tr>
</tbody>
</table>
Check for proper function of device and top latch assembly.

Depress touch bar slowly, top latch bolt should retract fully. Hold bar depressed, push in and hold top tripping lever. Latch bolt should be flush or slightly depress in top latch case.

If this is found, release touch bar and tripping lever top latch bolt should remain captured by tripping lever.

Push in on tripping lever and release top latch bolt, bellcrank should drop completely down and top latch should be fully extended and dead locked. **(You should not be able to push the bolt in.)**

If top bolt does not retract fully or can be pushed in, adjustment of top rod is required: Remove 8-32 screw and retaining plate; rotate rod left (clock-wise) to lengthen, half turns at a time. Re-install retaining plate and screw; check for dead lock after each turn.

Install top strike. See spotting templates located in rear of booklet if not already done. Check for proper alignment and operation with top latch after installation.

- #10 x 1" F.H.P.T.S. (Wood)
- 12-24 x 3/4" O.H.P.M.S. (Metal)
- #10 x 1" R.H.P.T.S. (Wood)
- 12-24 x 1" R.H.P.M.S. (Metal)
- 12-24 x 1" R.H.P.M.S. (Thrubolts)
- #426 Strike 1 1/2"
- 1/2"
- #426A Strike 5/8"
- 1 1/4"
- 1 1/16"
Installation of bottom slide bolt or latch assembly.

Remove 8/32 x 1/2" phillips head screw from retaining plate as shown.

NOTE:
If horizontal reference line is moved from the recommended mounting height, new rods may have to be ordered.

If cutting is required "Do Not Cut Threaded End".

Use supplied drill jig and 1/8" drill bit if new hole is required.

Thread bottom rod approximately 1/2 way on to slide bolt assembly.

With bell crank down and top latch fully extended and dead locked.

Insert rod and slide bolt assembly in to bottom latch bracket as shown, rotate rod until hole in rod aligns with hole in bell crank. Insert retaining clip and secure with 8-32 x 1/2" screw.

Check to see that there is approximately 5/8" of bolt hanging down and that bolt moves up and down freely in latch case.

Installation of standard bottom strike. For additional strike installations see templates in rear of booklet.

For optional pullman latch: Thread rod approximately 1/2 way on to adjusting bolt, tilt rod upward, rotate rod clock-wise to shorten, counter clock-wise lengthen until hole in rod aligns with hole in bell crank. Bolt should be dead locked when down just as top bolt. Adjust rod until dead lock is achieved.
Verification of rod adjustments.

A. Block open door, push inward on tripping lever and release top latch bolt as shown.

B. Check for dead lock by attempting to push downward on top latch bolt (it should not push in). "Only" if it can be pushed in adjust rods per step below.

C. To adjust: Remove 8-32 screw, remove retaining plate, rotate top rod right (counter clock-wise) to shorten and left (clock-wise) to lengthen. Rotate half turns at time, re-install retaining plate and screw after each turn and check for dead lock of top latch bolt.

D. Depress and hold touch bar.

E. Release tripping lever and touch bar, top latch should remain in retracted position.

F. With top latch held retracted by tripping lever, check bottom slide bolt to ensure it clears the strike, threshold, and floor by unblocking and swinging door. If adjustment is required; follow same steps as in step C above for top rod until proper clearance is achieved.

G. Close door and check that top and bottom latch bolts align and engage in top and bottom strikes.

H. After rods are fully adjusted ensure that top and bottom rod retaining plate screws are tight.

I. Check device operation by opening and closing door several times from inside. Check and operate outside trim if installed.

Repeat rod adjustment procedure if:

J. Install rod guides, end cap, center case and latch covers.

K. Standard hex key dogging, depress touch bar insert supplied hex key and rotate clock wise to dog and counter clock wise to undog.
### #416 Strike

For surface strike drill (2) 5/16" diameter x 1" deep holes for anchors.

![Diagram of #416 Strike]

### #431 Strike

Drill (2) 3/8" dia. holes x 2" deep for anchors.

Note: 1 15/16" min. to 1 5/8" max. square cutout x 1" deep.

![Diagram of #431 Strike]

### #340 Strike

For surface strike; drill (2) 5/16" dia. x 1" deep for anchors.

NOTE: Drill 5/8" dia. x 1/2" deep min. for slide bolt.

![Diagram of #340 Strike]
**ROD CUTTING**

**NOTE:** Rods shipped standard from factory for 7' seven foot door opening. Optional rod pack for 8' eight foot openings available "must be noted at time of order".

For doors under 7' seven foot subtract difference from bottom of top rod, cut per details and redrill hole for retaining plate.

For doors over 7' seven foot but under 9' nine foot a 2' two foot rod extension "ETR" is available. Thread top rod and rod extension together, deduct difference, cut from bottom of top rod and redrill hole for retaining plate. "Do not cut rod extension".

For doors over 8' eight foot but under 10' ten foot the 2' two foot rod extension "ETR" is added to the 8' eight foot rod pack. Thread top rod and rod extension together, deduct difference, cut from bottom of top rod and redrill hole for retaining plate. "Do not cut rod extension".

**NOTE:** If horizontal reference line is moved from the recommended 40 5/16" height, new rods will have to be ordered.

**INSTALLING ROD EXTENSION**

For "ETR" (Extended Top Rod) devices. *Do not cut extension piece!*

Connecting link

Thread rods together securely. "Loc-tite may be used for added security".

Standard top rod

**POPPER DETAILS**

Required for; "LBR" (less bottom rod) fire rated exit devices. See additional instructions packaged with "Popper" for details.

Cap plug

"POPPER"

Finished floor
Additional installation instructions:

New "Z" trim required if trim is being used.

New rods may be required.

Existing strikes may or may not have to be adjusted or relocated and replaced.

Install chassis assembly to door, install end cap bracket to door, hold touch bar and rail assembly in position aligning screw holes in rail with mounting screw location of chassis, mark a line on rear of rail where front edge of end cap bracket is then cut touch bar and rail assembly to length.

Install touch bar and rail to door then install all covers.
OPTIONS

"CD" (CYLINDER DOGGING) OPTION:
Cylinder dogging installation instructions & cylinder specifications.

NOTE: Touch bar must be in dogged down position, to remove the rear filler panel.

Note: DORMA mortise cylinder supplied. To use other manufacture cylinders, "L" less cylinder is available.

11/16" Min
5/16" Useable Cams

Arrow 001
Assa Std. (Yale)
Best C136
Corbin A02
Falcon 12667-3
DORMA 10
Ilco/Unican SC1
Lori SC1 4200-82-2002 Std.
Sargent 13-0664 or 13-0660
Schlage 001
Yale 2160

Witress Marks
Correct
In-correct

Useable Cams

"LM" (LATCH MONITOR) OPTION:
Latch monitor: Monitors movement of bellcrank, with or without depressing of touch bar.
Can be wired normally open or normally closed.

-NOTE: Use caution when cutting touch bar and rail to length. Additional hole required see step 6.

Note: Touch bar must be in dogged down position, to remove the rear filler panel.

"BPA" & "BPAR" (ALARM) OPTION:
FOR DIRECT WIRED SEE NEXT PAGE
BPA: Battery powered alarm, sounds continuous or until disarmed.
BPAR: Battery powered alarm, sounds for 4 minutes, automatically resets.

"Alarm mode set at factory."

"BPA" & "BPAR" (ALARM) OPTION:
FOR DIRECT WIRED SEE NEXT PAGE
BPA: Battery powered alarm, sounds continuous or until disarmed.
BPAR: Battery powered alarm, sounds for 4 minutes, automatically resets.

"Alarm mode set at factory."

SIZE A:
Will fit 48" door opening without cutting.
Can be cut to fit a 371/2" minimum door opening.
SIZE B:
Will fit 36" door opening without cutting.
Can be cut to fit a 31 1/2" minimum door opening.
SIZE C:
Will fit 36" door opening without cutting.
Can be cut to fit a 28 1/2" minimum door opening.

*NOTE: Use caution when cutting touch bar and rail to length.

(DORMA mortise cylinder supplied.)

To install customer supplied cylinder, see cylinder dogging option at top of page.

To replace battery remove endcap.

Refer to additional alarm instructions packed with device for operation of alarmed exit device.
OPTIONS

"ES" ELECTRIC LATCH RETRACTION OPTION:
Electrically retracts latchbolt(s) when energized by power supply.
REQUIRES DORMA PS501 POWER SUPPLY & ES105 POWER TRANSFER.
PS501 Will operate (2) "ES" 9800 exit devices, but is capable of powering (2) additional devices by installing the optional "ES-2" card.

*NOTE: Use caution when cutting touch bar and rail to length.

"DWA" DIRECT WIRED ALARM OPTION:
Connected to outside power source.
i.e. DORMA ES100.
Contact DORMA for other power supplies available.

Refer to additional sheet I9000BPA, packaged with device for operation of alarmed exit device.

*NOTE: Use caution when cutting touch bar and rail to length.

"MS" MICRO SWITCH OPTION:
"MS" option allows monitoring of touch bar during normal operation, or can be used as a signal switch for horn, light etc. Comes standard with (2) two micro switches. Both can be wired either Normally Open or Normally Closed. Can be added to device after installation.

*NOTE: Use caution when cutting touch bar and rail to length.

OPTIONS (Non-polarized)
Green
White
Black
Red
Negative
Positive
(Polarized)

SPDT, .5 amp @ 28VDC max.

Note: Normal switch position shown, once installed normally open and closed positions are reversed.

NOTE: Touch bar must be in dogged down position, to remove the rear filler panel.
EXIT DEVICE
9800/F9800 SERIES

NOTE: FOR CYLINDER ONLY
FUNCTION SEE PAGE 4
HORIZONTAL REFERENCE LINE

OUTSIDE FACE ONLY
OUTSIDE FACE ONLY

A FOR WOOD DOOR No. 25 DRILL 1" DEEP
B FOR METAL DOOR No. 16 DRILL 12-24 TAP
C FOR SEX BOLT 3/8" DIA. HOLE THRU DOOR
D FOR USE WITH TRIM 3/8" DIA. HOLE THRU DOOR
G FOR KNOB/LEVER/THUMBTURN 1" DIA. OUTSIDE FACE
1 1/2" DIA. INSIDE FACE
H FOR KNOB/LEVER/THUMBTURN 1" DIA. OUTSIDE FACE
1 1/2" DIA. x 1 3/4" HIGH FOR CYLINDER CLEARANCE