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Devices covered by these instructions:
98/9927 Surface Vertical Rod Exit Device
98/9927-F (Fire) Surface Vertical Rod Exit Device
CD98/9927 (Cylinder Dogging) Surface Vertical Rod Exit Device
EL98/9927 (Electric Latch Retraction) Surface Vertical Rod Exit Device

Special tools needed:
5/64" hex wrench
#10-24 tap
Drill bits: #25, 1/8", 1/4", 5/16", 13/32"

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- Install rod extension ............. 7
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- Cut device ......................... 8

Customer Service
1-877-671-7011 www.allegion.com/us
<table>
<thead>
<tr>
<th>SCREW CHART</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A</strong></td>
</tr>
<tr>
<td>#10-24 X 1”</td>
</tr>
<tr>
<td>#10-24 X 1-1/2”</td>
</tr>
<tr>
<td>#10 x 1-1/4” Wood screw</td>
</tr>
<tr>
<td>- Packaged with trim -</td>
</tr>
<tr>
<td>#10-24 X 1-3/8”</td>
</tr>
<tr>
<td>#10-24 X 1-7/8”</td>
</tr>
<tr>
<td><strong>B</strong></td>
</tr>
<tr>
<td>#10-24 X 3/4”</td>
</tr>
<tr>
<td>#10-24 X 1-1/8”</td>
</tr>
<tr>
<td>#10 x 1-1/4” Wood screw</td>
</tr>
<tr>
<td><strong>C</strong></td>
</tr>
<tr>
<td>#10-16 x 3/8” Thread cutting</td>
</tr>
<tr>
<td><strong>D</strong></td>
</tr>
<tr>
<td>1/4-20 X 3/4”</td>
</tr>
<tr>
<td>1/4-20 X 1-1/4”</td>
</tr>
<tr>
<td><strong>E</strong></td>
</tr>
<tr>
<td>#10-24 X 3/4”</td>
</tr>
<tr>
<td>#10 x 1-1/2” Wood screw</td>
</tr>
<tr>
<td><strong>F</strong></td>
</tr>
<tr>
<td>#10-12 x 10-24 x 1-1/4” Combination</td>
</tr>
<tr>
<td><strong>G</strong></td>
</tr>
<tr>
<td>#10-12 x 10-24 x 1-1/4” Combination</td>
</tr>
<tr>
<td><strong>H</strong></td>
</tr>
<tr>
<td>#8-32 X 1/4”</td>
</tr>
<tr>
<td><strong>I</strong></td>
</tr>
<tr>
<td>#10-12 x 10-24 x 1” Combination</td>
</tr>
<tr>
<td><strong>J</strong></td>
</tr>
<tr>
<td>#8-18 x 3/8” Thread cutting</td>
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</tbody>
</table>
PREPARATION CHART

Go to instructions on next page before using Preparation Chart

Top strike

- **#25 Drill**
- **#10-24 Tap**
- **1/8” Drill**
- **pilot 1” deep**

Rod guides

- **#25 Drill**
- **#10-24 Tap**
- **1/8” Drill**
- **pilot 1” deep**

*Use rod guide as a template to mark holes

Center case - 4 holes

<table>
<thead>
<tr>
<th>Surface mount</th>
<th>Sex bolts or 990 trims</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Metal</strong></td>
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</tr>
<tr>
<td>#25 Drill</td>
<td>1/4” Drill (device side)</td>
</tr>
<tr>
<td>#10-24 tap</td>
<td>13/32” Drill (trim side)</td>
</tr>
<tr>
<td><strong>Wood</strong></td>
<td><strong>Wood</strong></td>
</tr>
<tr>
<td>1/8” Drill</td>
<td>13/32” Drill thru</td>
</tr>
<tr>
<td>pilot 1” deep</td>
<td></td>
</tr>
</tbody>
</table>

Door cut-outs

Outside cylinder applications:
- Mark with template and cut-out:
  - **Metal door** (cut device side)
  - **Wood door** (cut thru)

For trim applications with working lever, thumbpiece, or knob:
- Mark with template and cut out:
  - (cut device side only)

If door already has this cut-out for trim, no further cutting is necessary

Bottom strike

- **#25 Drill**
- **#10-24 Tap**
- **1/8” Drill**
- **pilot 1” deep**

*End cap bracket - 2 holes

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

Latches

- **5/16” Drill** (device side)
- **13/32” Drill** (trim side)

- **13/32” Drill thru**

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

See template for strike variations

*Rod guides

See template for strike variations

*End cap bracket - 2 holes

See template for strike variations
1. Draw Horizontal Center Line (C) and Assemble Device Template

2. Position Template as Shown and Mark Vertical C

3. Align Top and Bottom Templates Along C and Prepare Door

4. If Necessary, Remove NL Drive Screw

5. If Using a Cylinder with a Tailpiece, Prepare Device and Cylinder
6. Install Trim (if using) and Secure Device Center Case to Door

- Install Trim (optional)
- Secure center case to door
- 1½” Minimum clearance (with end cap removed)
- If device is too long for door, see “Cut Device” on back cover

7. Mark and Prepare 2 Holes for End Cap Bracket

- Mark and prepare 2 mounting holes
- See “Preparation Chart” on page 3 for preparation information

8. Install End Cap Bracket and End Cap

- Secure end cap bracket and end cap
- See “Screw Chart” on page 2 for screw types and sizes

9. Install Top Latch and Rod

- Install Top Latch and Rod
- #325 sex bolts (required)
- If top rod is too long, see “Cut Top Rod” on page 7
- If top rod is too short, see “Install Rod Extension” on page 7

10. Install Top Strike

- Install Top Strike
- 299/299F strike (required)
- 260U strike (for LBR devices)
- 499F strike (for LBR devices)
- Shim to ¾” as shown

11. Adjust Top Rod (Screw Rod Into or Out of Latch) Until Adjusted as Shown

- Latch bolt deadlocked (will not push in)
- Latch bolt stays retracted
- Release trigger extended
- With door closed:
- With door open:
12 Install Bottom Strike, Latch, and Rod

248L-4 strike
Shim (as needed to engage latch)

304L strike
Grout strike into floor

13 Adjust Bottom Rod with Door Open (Top Latch Retracted)

With door open:
Latch bolt should **clear floor** and not bind on strike

With door closed:
Latch bolt should be **deadlocked** (will not push in)

Open and close door a few times and check for deadlatching when door is closed. Readjust rods if needed.

14 Install Rod Guides and Covers

*Rod guide (2)
Install at midpoint of each rod

Center case cover

*See “Preparation Chart” on page 3

Latch cover (2)

Remove blue film

#325 sexbolts (required)

Door open (top latch retracted)
**CUT TOP ROD**

1. Measure amount to cut off rod as shown below.
   Note: Rod cutting is required for doors shorter than 7’.

   ![Diagram of rod cutting](image)

   *Rods are factory sized for 7’ (84”) door. Measure actual door opening height and subtract that number from 84” to get amount to cut off top rod.*

2. Cut rod.

   ![Diagram of cutting rod](image)

   *Drive out roll pin*

3. Drill new hole.

   ![Diagram of drilling new hole](image)

   *1/8” dia. drill thru
   Use cut off piece as a template

4. Reinstall rod end and roll pin.

   ![Diagram of reinstalling rod end](image)

5. Connect top rod and rod extension.

   ![Diagram of connecting top rod and extension](image)

**INSTALL ROD EXTENSION**

1. Measure door opening to determine amount to cut off rod extension.

   ![Diagram of measuring door opening](image)

   *Standard door heights:*
   - With no extension 7’ (84”)
   - With 1’ extension 8’ (96”)
   - With 3’ extension 10’ (120”)

2. Cut rod extension.

   ![Diagram of cutting rod extension](image)

   *Drive out roll pin*

3. Drill new hole.

   ![Diagram of drilling new hole](image)

   *1/8” dia. drill thru
   Use metal template supplied with extension (on both sides of rod)*

4. Reinstall rod end and roll pin.

   ![Diagram of reinstalling rod end](image)

5. Connect top rod and rod extension.

   ![Diagram of connecting top rod and extension](image)
CD (CYLINDER DOGGING)

1. Remove mortise cylinder cam and reinstall in reverse (Figure 1).
2. Insert key and rotate cam to install the cylinder to the cover plate (Figure 2).
3. Remove key to slide cover plate in position in the mechanism case.

**Figure 1**

**Dogging procedure**

Turn cylinder key clockwise approx. 1/8 turn for standard dogging

Depress pushbar

**Figure 2**

**CUT DEVICE**

1. Measure amount to cut off device.
2. Tape and mark area being cut.
3. Cut device square.
4. Slide anti-rattle clip into device.

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**Note**

If 5/8" diameter wire access hole has been predrilled in door, cut device 5/16" from center of hole.

**Tape and mark area being cut.**

Remove anti-rattle clip