Devices covered by these instructions:
98/9947WDC Concealed Vertical Rod Device
98/9947WDC-F (Fire) Concealed Vertical Rod Device
CD98/9947WDC (Cylinder Dogging) Concealed Vertical Rod Device
EL98/9947WDC (Electric Latch Retraction) Concealed Vertical Rod 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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Please give these instructions to building owner after device is installed
<table>
<thead>
<tr>
<th></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A</strong></td>
<td>Rod adjustment screw</td>
</tr>
<tr>
<td><strong>B</strong></td>
<td>#8-32 X 5/16&quot; Rod locking screw</td>
</tr>
<tr>
<td><strong>C</strong></td>
<td>#10 X 1-1/4&quot; Wood screw Surface mount (WDC)</td>
</tr>
<tr>
<td></td>
<td>#10-24 X 1&quot; Sexbolts (1-3/4&quot; door)</td>
</tr>
<tr>
<td></td>
<td>#10-24 X 1-1/2&quot; Sexbolts (2-1/4&quot; door)</td>
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<tr>
<td></td>
<td>- Packaged with trim -</td>
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<tr>
<td></td>
<td>#10-24 X 1-3/8&quot; 990 trims (1-3/4&quot; door)</td>
</tr>
<tr>
<td></td>
<td>#10-24 X 1-7/8&quot; 990 trims (2-1/4&quot; door)</td>
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<tr>
<td><strong>D</strong></td>
<td>#10 X 1-1/4&quot; Wood screw Surface mount (WDC)</td>
</tr>
<tr>
<td></td>
<td>#10-24 X 3/4&quot; Sexbolts (1-3/4&quot; door)</td>
</tr>
<tr>
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<td>#10-24 X 1-1/8&quot; Sexbolts (2-1/4&quot; door)</td>
</tr>
<tr>
<td><strong>E</strong></td>
<td>#10-16 X 3/8&quot; Thread cutting End cap screw</td>
</tr>
<tr>
<td><strong>F</strong></td>
<td>#10-32 X 1/4&quot; Bracket screw</td>
</tr>
<tr>
<td><strong>G</strong></td>
<td>#10 X 1&quot; Wood screw Bracket to door screw</td>
</tr>
<tr>
<td><strong>H</strong></td>
<td>#8-16 X 8-32 X 1&quot; Cover plate screw</td>
</tr>
<tr>
<td><strong>I</strong></td>
<td>#10-24 X 1/2&quot; 338 strike screw</td>
</tr>
<tr>
<td><strong>J</strong></td>
<td>#10-24 X 1-1/2&quot; Ratchet release screw</td>
</tr>
<tr>
<td><strong>K</strong></td>
<td>#8-18 X 3/8&quot; Thread cutting Center case cover screw</td>
</tr>
</tbody>
</table>
1. Draw horizontal and vertical device center lines (C).

2. Align template along center lines and mark holes and cut-outs.


   If door does not have cut-out for rods inside lock stile, door must be routed (see “Door Routing Instructions” on page 7).

   See trim instructions for pull side door preparation. Line X-X in trim instructions is same as device C.

4. Assemble rods and latches and adjust length for proper door height.

   Follow red and blue instruction cards on rods to set initial rod length.

   Fine tune the overall length by threading latch in or out of rod.
5 Secure latches and rods into door as shown and attach offset links.

Top latch & rod

Bottom latch & rod

Offset link

Lock nut

6 Install blocking and door wrap (if using door wrap).

NOTE: If not using door wrap, the blocking can be installed after device is installed.

Blocking

Blocking

See page 7 for blocking dimensions

7 If using an outside cylinder, check NL drive screw and install tailpiece guide.

NL drive screw

Note: When the NL drive screw is left in back of device, the outside cylinder will function only as a Night Latch.

When installing trim that has a functional lever, knob, or thumb piece AND an outside cylinder to lock and unlock the trim, remove NL drive screw from back of device.

DO NOT remove NL drive screw for the following trims: NL, EO, DT, TP-2, L-2, and K-2.

With “BE” trim, device may need rehanded. Look for instructions on back of trim.

Tailpiece guide

Tailpiece

Rotate tailpiece guide to match tailpiece

Cut tailpiece if needed

2” Minimum clearance (with endcap removed)

If device is too long for door, see “Cut Device” on back cover

8 Check device length and attach device center case to two offset links as shown.

Center case (align with mounting holes)
9 Secure device to door.

See “Screw Chart” on page 2 for screw types and sizes.

Mark and prepare 2 mounting holes and secure screws (see page 6).

Device equal height to bottom of door on each end.

Mounting bracket flush.

10 Hang door on frame and install top strike and ratchet release.

338 top strike
Beveled side
Away from door stop

Ratchet release
See “Frame Preparation” on page 8 for cutout and holes

11 Install bottom strike or prepare threshold.

385-A Bottom strike

Threshold application

Flat threshold application

Remove material as necessary to accommodate 5/8” latch bolt throw

12 Adjust rods and install center case cover and door cover plate.

See “Adjust Rods” on page 9 for adjustment procedure.

Remove protective film from pushbar

Center case cover

Door cover plate
## DOOR PREPARATION CHART

Prepare all holes and cutouts shown if they are not already present on door

### Ratchet Release Hole
- 11/16" 1/2" Stop height
- 13/16" 5/8" Stop height
- 15/16" 3/4" Stop height

- Reinforcing required
- Drill 1/2" dia. hole (inside face of door)

### Door Cut-outs
- Outside cylinder applications:
  - Mark with template and cut-out:
    - For all 98/9947 and 98/9947-F devices:
      - Trace cut-outs from plastic template (cut device side only)

### Latch Cases
(Drill top and bottom of door)

### Center case - 4 holes

<table>
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<tr>
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<th>Sex bolts or 990 trims</th>
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<td>1/8&quot; Drill pilot 1&quot; deep</td>
<td>13/32&quot; Drill thru</td>
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*Prepare holes after lock side of device is mounted and hinge side is leveled*

### *End cap brkt. - 2 holes*

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

1/8" Drill pilot hole 1" deep 3 places
DOOR ROUTING INSTRUCTIONS

3-1/4" Minimum

Device and latch

2" Minimum

1/4"

4"

1/4" Maximum thickness blocking shown this view only. Not provided by Von Duprin.

Device

3-1/2"

1/8"

39-13/16" to finished floor

2-1/2" backset

1/2" diameter hole locate and drill (inside face only)

Device preparation shown this view for reference only.

use plastic device template to mark device cut-outs (device side only).

Inside face of lock stile

Note: required door undercut is 1/4" from finished floor (panic and fire) or 1/8" from threshold (panic only)

7/8" to C routing

11/16" reference top & bottom

1-7/16" minimum top & bottom

LHR shown (RHR opposite)
338 Top strike

Double door application

Latch case

Ratchet release

Reinforcing required

Adjust so plunger releases latch bolt when door is closed.
1. Open door and release top latch bolt as shown (Figure 1).

2. Loosen bottom locking screw (Figure 2).

3. Disconnect bottom vertical rod by removing bottom adjusting screw.

4. Loosen top locking screw.

5. Rotate top adjusting screw clockwise until top latch bolt is fully extended (Figure 1).

6. Check top latch bolt for deadlocking (latch bolt should not push in).

7. Turn top locking screw in. Do not over-tighten.

8. Depress pushbar and release.

9. Make sure top latch bolt stays retracted as shown.

10. Install bottom adjusting screw through bottom rod (Figure 2).

11. With top latch bolt still retracted, adjust bottom rod so latch bolt clears floor and bottom strike.

12. Turn bottom locking screw in. Do not over-tighten.

13. Check device operation by opening and closing door several times from the outside.

Redo adjustment procedure if:

- Top latch bolt is not held retracted
- Bottom latch bolt does not clear floor and bottom strike
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**
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.

Note: Device must be cut square for proper end cap fit.