Devices covered by these instructions:
98/9957 Three-point Latching Exit Device
98/9957-F (Fire) Three-point Latching Exit Device
CD98/9957 (Cylinder Dogging) Three-point Latching Exit Device
EL98/9957 (Electric Latch Retraction) Three-point Latching Exit Device

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

Index:
• Screw chart ........................................... 2
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• Cut top rod ......................................... 8
• Install rod extension ........................ 8
• 499F strike installation ...................... 9
• Optional equipment .......................... 9
• Cut device ....................................... 10

Please give these instructions to building owner after device is installed
### SCREW CHART

<table>
<thead>
<tr>
<th><strong>A</strong></th>
<th>Screw Chart</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Screw Chart" /></td>
<td>#10-24 X 1”</td>
<td>Surface mount or Sex bolts (1-3/4” door)</td>
</tr>
<tr>
<td></td>
<td>#10-24 X 1-1/2”</td>
<td>Sex bolts (2-1/4” door)</td>
</tr>
<tr>
<td></td>
<td>#10 X 1-1/4” Wood screw</td>
<td>Surface mount (wood)</td>
</tr>
<tr>
<td></td>
<td>- Packaged with trim -</td>
<td></td>
</tr>
<tr>
<td></td>
<td>#10-24 X 1-3/8”</td>
<td>990 trims (1-3/4” door)</td>
</tr>
<tr>
<td></td>
<td>#10-24 X 1-7/8”</td>
<td>990 trims (2-1/4” door)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>B</strong></th>
<th>Screw Chart</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image2" alt="Screw Chart" /></td>
<td>#10-24 X 3/4”</td>
<td>Surface mount or Sex bolts (1-3/4” door)</td>
</tr>
<tr>
<td></td>
<td>#10-24 X 1-1/8”</td>
<td>Sex bolts 2-1/4” door</td>
</tr>
<tr>
<td></td>
<td>#10 X 1-1/4” Wood screw</td>
<td>Surface mount (wood)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>C</strong></th>
<th>Screw Chart</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image3" alt="Screw Chart" /></td>
<td>#10-16 X 3/8” Thread cutting</td>
<td>End cap</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>D</strong></th>
<th>Screw Chart</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image4" alt="Screw Chart" /></td>
<td>1/4-20 X 3/4”</td>
<td>1-3/4” door</td>
</tr>
<tr>
<td></td>
<td>1/4-20 X 1-1/4”</td>
<td>2-1/4” door</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>E</strong></th>
<th>Screw Chart</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image5" alt="Screw Chart" /></td>
<td>#10-24 X 3/4”</td>
<td>Metal frame</td>
</tr>
<tr>
<td></td>
<td>#10 X 1-1/2” Wood screw</td>
<td>Wood frame</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>F</strong></th>
<th>Screw Chart</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image6" alt="Screw Chart" /></td>
<td>#10-12 X 10-24 X 1-1/4” Combination</td>
<td>Metal or wood frame</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>G</strong></th>
<th>Screw Chart</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image7" alt="Screw Chart" /></td>
<td>#10-12 X 10-24 X 1-1/4” Combination</td>
<td>Variable floor surfaces</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>H</strong></th>
<th>Screw Chart</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image8" alt="Screw Chart" /></td>
<td>#8-32 X 1/4”</td>
<td>Latch covers</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>I</strong></th>
<th>Screw Chart</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image9" alt="Screw Chart" /></td>
<td>#10-12 X 10-24 X 1” Combination</td>
<td>Metal or wood door</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>J</strong></th>
<th>Screw Chart</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image10" alt="Screw Chart" /></td>
<td>#8-18 X 3/8” Thread cutting</td>
<td>Center case cover</td>
</tr>
</tbody>
</table>
**PREPARATION CHART**

Go to instructions on next page before using Preparation Chart

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**Latches**

<table>
<thead>
<tr>
<th>Material</th>
<th>Drill Sizes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metal</td>
<td>5/16&quot; Drill (device side)</td>
</tr>
<tr>
<td>Wood</td>
<td>13/32&quot; Drill thru</td>
</tr>
</tbody>
</table>

*Rod guides*

<table>
<thead>
<tr>
<th>Material</th>
<th>Drill Sizes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metal</td>
<td>#25 Drill #10-24 Tap</td>
</tr>
<tr>
<td>Wood</td>
<td>1/8&quot; Drill pilot 1&quot; deep</td>
</tr>
</tbody>
</table>

*Use rod guide as a template to mark holes*

**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)

**Center case - 4 holes**

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

**Center case - 2 support holes**

<table>
<thead>
<tr>
<th>Surface mount</th>
<th>Sex bolts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metal</td>
<td>#25 Drill #10-24 tap</td>
</tr>
<tr>
<td>Wood</td>
<td>1/8&quot; Drill pilot 1&quot; deep</td>
</tr>
</tbody>
</table>

**End cap bracket - 2 holes**

<table>
<thead>
<tr>
<th>Material</th>
<th>Drill Sizes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metal or composite</td>
<td>3/8&quot; Drill thru</td>
</tr>
<tr>
<td>Wood or composite</td>
<td>5/8&quot; Spade drill</td>
</tr>
<tr>
<td>Wood or composite</td>
<td>1/16&quot; Deep outside</td>
</tr>
</tbody>
</table>

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

**Bottom strike**

<table>
<thead>
<tr>
<th>Material</th>
<th>Drill Sizes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metal</td>
<td>#25 Drill #10-24 Tap</td>
</tr>
<tr>
<td>Wood</td>
<td>1/8&quot; Drill pilot 1&quot; deep</td>
</tr>
</tbody>
</table>

See template for strike variations

---

*End cap bracket - 2 holes*

<table>
<thead>
<tr>
<th>Material</th>
<th>Drill Sizes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metal or composite</td>
<td>3/8&quot; Drill thru</td>
</tr>
<tr>
<td>Wood or composite</td>
<td>5/8&quot; Spade drill</td>
</tr>
<tr>
<td>Wood or composite</td>
<td>1/16&quot; Deep outside</td>
</tr>
</tbody>
</table>
1. Draw horizontal device and strike center line (C).

2. Align strike on C and mark the two slotted holes.

3. Prepare 2 holes and install a screw thru each slot.

4. Position template against strike and on C and mark door.

**299/299F Strike**

- **Metal**
  - #25 Drill
  - #10-24 tap

- **Wood**
  - 1/8" Drill
  - pilot 1" deep

See "Screw Chart" on page 2 for screw types and sizes.
5 Mark vertical C with template and use top and bottom templates to prepare door and frame.

See “Preparation Chart” on page 3 for drill, tap, and cut-out information.

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

NL drive screw

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.

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

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

Tailpiece guide

Cut tailpiece if needed

1/2”

Door surface

7 Install trim (if using) and secure device center case to door.

1-1/2” Minimum clearance (with end cap removed) if device is too long for door, see “Cut Device” on back cover.

Top template

Bottom template

8 Install mounting bracket and end cap.

Mark and prepare 2 mounting holes

See “Preparation Chart” on page 3 for preparation.

Mounting bracket flush

Level device

Secure mounting bracket and end cap
9 Install 2 support screws.

Remove protective film from pushbar.

Support screws (2)

A

For 98/9957F (fire rated) devices on wood or composite door:

#825 sex bolts required for 2 support screws

A

10 Adjust and secure strike.

299/299F Strike

3/16” Shim for 3/16” if shimming is necessary

299/299F Strike

Strike plate (299 only)

#25 Drill
#10-24 tap

1/8” Drill pilot 1” deep

Wood

Metal

#325 Sex bolts (required)

Top latch

D

Top rod (longer of the two)

If top rod is too long, see “Cut top rod” on page 8

If top rod is too short, see “Install rod extension” on page 8

299/299F Strike

3/16” Shim to 3/16” as shown

299/299F Strike

Strike plate (299 only)

E

260U Strike

F

11 Install top latch and rod.

12 Install top strike.
13 Adjust top rod (screw rod into or out of latch) until adjusted as shown.

With door closed:

Latch bolt deadlocked (will not push in)

With door open:

Latch bolt stays retracted

Release trigger extended

14 Install bottom strike, latch, and rod.

248L-4 Strike

304L Strike Grout strike into floor

Shim (as needed to engage latch)

Bottom rod

Bottom latch

Door open (top latch retracted)

#325 Sex bolts (required)

15 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 deadlocking when door is closed

Readjust rods if needed

16 Install rod guides and covers.

H Latch cover (2)

Rod guide (2)

Install at midpoint of rods

See "Preparation Chart" on page 3

Center case cover
CUT TOP ROD

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

   *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.

   Drive out roll pin

3. Drill new hole.

   1/8” dia. drill thru

4. Reinstall rod end and roll pin.

5. Connect top rod and rod extension.

INSTALL ROD EXTENSION

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

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

   *Rods are factory sized for door heights shown above. Measure actual door opening height and subtract that number from 96” (for 1’ extension) or 120” (for 3’ extension) to get amount to cut off extension.

2. Cut rod extension.

   Drive out roll pin

3. Drill new hole.

   1/8” dia. drill thru

4. Reinstall rod end and roll pin.

5. Connect top rod and rod extension.
**OPTIONAL EQUIPMENT**

**499F STRIKE INSTALLATION**

**1 Prepare and install screws through 2 strike slots.**

**2 Install strike hook and additional strike screws.**

**3 Template aligns as shown.**

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**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.

**Doggimg procedure**

Depress pushbar and turn cylinder key clockwise approx. 1/8 turn

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*Diagram of CD (Cylinder Dogging)*
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**
If 5/8” diameter wire access hole has been predrilled in door, cut device 5/16” from center of hole.
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