NOTE: If door does not have a cutout for cabling inside lock stile, door must be routed. Refer to 9949 wood door template.
1 Identify Cables and Locations.

<table>
<thead>
<tr>
<th>CABLE IDENTIFICATION (STANDARD SIZES) WOOD DOORS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Door Opening Height</td>
</tr>
<tr>
<td>----------------------</td>
</tr>
<tr>
<td>6' 8”</td>
</tr>
<tr>
<td>7' 0”</td>
</tr>
<tr>
<td>8' 0”</td>
</tr>
<tr>
<td>9' 0”</td>
</tr>
<tr>
<td>10' 0”</td>
</tr>
</tbody>
</table>

² NOTE: Cables A and B are red. Cable C is white
³ NOTE: Cables B is 6” longer than Cable A.

2 Install Top Latch Cable Assembly.

a. Using Cable A, position cable end to clip on center slide, and snap it into place

b. Push cable snap against center slide to secure cable

c. Position opposite end of Cable A to the top latch in the position marked red. Pull cable into clip to snap it into place.

d. Push cable snap against latch to secure cable

³ NOTE: 98/9949WDC 2-point latch with threshold requires cable 24492399 (sold separately) for Cable C.

2-Point Latch Only

e. Snap cable link onto one end of Cable B

f. Install Cable B to the top mounting bracket

g. Install opposite end of Cable B to the remaining top latch position (marked as white)

³ IMPORTANT: Ensure cable end is fully seated in clip

3 Install Bottom Latch Cable Assembly.

For 2-Point Latch Only

One end of Cable C has an adjuster. Install this end to the bottom latch.

³ IMPORTANT: Ensure cable end is fully seated in clip

CABLE REMOVAL

A cable removal tool has been provided. Slot in tool fits over cable, holding tabs down. Pull on cable snap to loosen cable for removal.
4 Temporarily Attach Bottom Latch Cable Assembly to Center Slide.
   For 2-PointLatch Only

   a. Position Cable C to bottom mounting bracket on center slide
   b. Push cable snap against mounting bracket to secure cable
   c. Pull on cable end to attach it to the cable link

5 Determine if Bottom Latch Retraction Adjustment is Necessary.
   For 2-Point Latch Only

   a. Flex the cable into an L-shape as shown to simulate the installed condition of the latches.

   b. To determine whether an adjustment is required, actuate the top latch to the hold-open position by pressing down on the connecting rod. Bottom latch should retract to within $\frac{1}{16}$" of flush. If it does not, an adjustment is necessary.

6 Adjust Bottom Latch Retraction (if necessary).
   For 2-Point Latch Only

   a. Pull back and hold the spring-loaded sleeve.

   b. While holding the sleeve in place, rotate the barrel of the snap-fitting clockwise by hand until the bottom latch is retracted to within $\frac{1}{16}$" of flush.

   c. Slowly release the sleeve, confirming it has seated over the hex end of the snap-fitting.
7 Disconnect Bottom Latch Cable Assembly from Center Slide.
For 2-Point Latch Only

![Diagram of cable disconnection](image)

- **Disconnect cable end from cable link**
- **A cable removal tool has been provided. Slot in tool fits over cable, holding tabs down**
- **Pull on cable snap to loosen cable for removal**
- **Remove bottom latch cable assembly from center slide.**

8 With Door Laying Flat, Draw Horizontal and Vertical Device Center Lines (Q).

![Diagram of marking lines](image)

- **RHR shown (LHR opposite)**
- **NOTE: Centerlines predetermined by cutout. If no cutout exists, refer to Step 10 to determine centerlines.**

9 Align Plastic Template to Mark and Prepare Door, if Required.

![Diagram of plastic template](image)

- **NOTE: This hole is to be 1/2" diameter (disregard larger center hole of plastic template).**
- **2 1/2" Backset**
- **Plastic Template**
10 If Necessary, Prepare Door Cutouts.

11 Prepare 2 Center Slide Holes.
12 Prepare 4 Holes.

13 Prepare Access Hole for Bottom Latch Adjustment Pin.

For 2-Point Latch Only

<table>
<thead>
<tr>
<th>Surface Mount</th>
<th>Sex Bolts or 990 Trims</th>
</tr>
</thead>
<tbody>
<tr>
<td>¼&quot; Drill Pilot 1&quot; Deep</td>
<td>13/32&quot; Drill Thru</td>
</tr>
</tbody>
</table>

OR

14 If Necessary, Prepare Door for Top Strike Cutout.

15 Assemble Latch Mounting Bracket(s).

Top

1/4"

Top Door Channel

Bottom

For 2-Point Latch Only

16 Insert Center Slide Assembly Thru Top Door Pocket.

1-Point Latch (LBL)

Holes should face push side of door

2-Point Latch

Holes should face push side of door

NOTE: Confirm top latch is in correct orientation before proceeding.

NOTE: It is normal for the cable to bend inside the door, forcing the latch outward.
17 Secure Top Latch Mounting Bracket with 3 Screws.

**NOTE:** It is normal for the cable to bend inside the door, forcing the latch outward as shown here.

18 Install S-Hook.

Reach into push side face of door and hold S-hook in place

While holding onto S-hook, install finger screws through pocket in edge of door to secure S-hook

19 If Necessary, Remove NL Drive Screw.

**NL drive screw**

Factory installed on back of center case

With the NL drive screw removed, key locks and unlocks lever, knob, or thumb piece. For the trims listed below, REMOVE NL drive screw.

<table>
<thead>
<tr>
<th>Trim</th>
<th>NL Drive Screw</th>
</tr>
</thead>
<tbody>
<tr>
<td>996L</td>
<td>696TP</td>
</tr>
<tr>
<td>996K</td>
<td>697TP</td>
</tr>
<tr>
<td>696TP</td>
<td>990TP</td>
</tr>
</tbody>
</table>

With the NL drive screw installed, key retracts latch bolt. **DO NOT** remove NL drive screw for the following applications:

NL, EO, DT trims and 98/99-2 double cylinder devices (i.e. TP-2, L-2, and K-2).

*996L-BE*  *E996L*  *996TP-BE*  *990TP-BE*

*If the trim being installed is "BE" (i.e. 996L-BE), the trim lock tumbler on the back of the device must be in the **UP** position before device is installed. This allows the trim to be unlocked at all times.*

20 If Necessary, Cut Device.

**NOTE:** It is normal for the cable to bend inside the door, forcing the latch outward as shown here.

**Jamb**  **Door**  **Jamb**

- 1½" (38 mm) Recommended

**Temporarily Remove Anti-Rattle Clip**

**Cover Plate**  **Flush**

Correct Orientation (RHR shown)

Incorrect Orientation

If necessary, remove drive screw and rotate cam until trim lock tumbler is in **UP** position, then reinstall drive screw 360˚.
21 Attach Center Case to Door.

Thru-bolting Trim

(1¾" door)

(2¾" door)

Surface Mount

Sex Bolts

(1¾" door)

(2¾" door)

OR

22 Install 2 Center Slide Mounting Screws.

23 Mark and Prepare 2 Holes.

Surface Mount

¹⁄₈" Drill, Pilot 1" Deep

OR

Sex Bolts

¹³⁄₃₂" Drill thru

OR
24 Install End Cap Bracket and End Cap.

25 Install Bottom Latch Mounting Bracket Assembly to Bottom of Door with 3 Screws.
   For 2-Point Latch Only

26 Slide Lower Cable / Bottom Latch Assembly Thru Bottom Latch Housing and into Bottom Door Pocket.
   For 2-Point Latch Only

27 Insert Latch Adjustment Pin to Hold Bottom Latch in Place.
   For 2-Point Latch Only

**NOTE:** Confirm bottom latch is in correct orientation before proceeding.

**NOTE:** Confirm correct orientation of assembly before proceeding. Open side of housing should face pull side of door.

Pin must go thru both sides of bracket.

- Assembly pin
- Squeeze tabs on cap, then insert pin

Bottom edge of latch housing should be flush with bottom of door (for \( \frac{3}{4} \)" standard undercut).
28 Attach Lower Cable Assembly to Center Slide.
For 2-Point Latch Only

Reach into door pocket to position cable end to bottom mounting bracket.

Push cable snap against bracket to secure cable.

Pull on cable end to attach it to cable link.

cable link

29 Hang Door on Frame.

⚠️ CAUTION: For 2-point latches, bottom latch cannot be in locked position while hanging door on frame. Latch must be retracted.

30 Prepare Door Frame for Top Strike.

Latch

Edge of stop

1/2"

Use strike to mark location of 2 holes

Metal

#25 x 1/2" Deep x2

#10-24

Wood

1/8" Drill
Pilot 1" Deep x2

OR

31 Install 2 Top Strike Screws Using the Slot Features on the Strike.

249 Top Strike

Retrofit installation

(metal)

(wood)
32 Prepare Floor for Bottom Strike.
   For 2-Point Latch Only

- Clear holes of debris, then drop in anchors (slotted end first)
- Secure the anchors using a hammer and punch

33 Install Bottom Strike.
   For 2-Point Latch Only

- Chisel out pocket ½” Deep
- ¾” Dia. x 1⅛” Deep 2 places

- Secure the anchors using a hammer and punch
- Install strike plate and secure with 2 screws

34 Install Lift Finger and Retainer Clip.

- Sliding L-shaped lift finger thru block in device center case and then into center slide
- Insert adjustment screw and rotate with screwdriver to raise lift finger until it is snug against block
- Lift finger must insert into center slide here
- Install retainer clip against lift finger, snapping it into the slot of the adjustment screw
- Secure lift finger and retainer clip with screw

35 Adjust Lift Finger.

- Loosen retainer clip screw
- Loosen adjustment screw until the lift finger drops and you feel contact with the S-Hook
- Tighten retainer clip screw

**IMPORTANT:** The lift finger installation and adjustment must be performed while the latches are in the extended (latched) position.

**IMPORTANT:** Anchors must be below flush.

**NOTE:** Lift finger adjustment must be performed while the latches are in the extended (latched) position.
36. Perform Functional Test of Door.
   a. Depress pushbar. Door should begin to open when pushbar is nearly fully depressed. If necessary, refer to Step 35 to readjust lift finger.
   b. With door closed, top latch should be secure.
   c. For 2-Point Latch Only
   d. With door closed, bottom latch should be secure.

37. Adjust Top Strike as Necessary, then Install the Third Strike Screw to Fix the Strike Position.

38. Install Center Case Cover and Door Cover Plate.

OPTIONAL EQUIPMENT

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.

CD function conversion

Doggling procedure

Figure 1

Figure 2