Installation Instructions

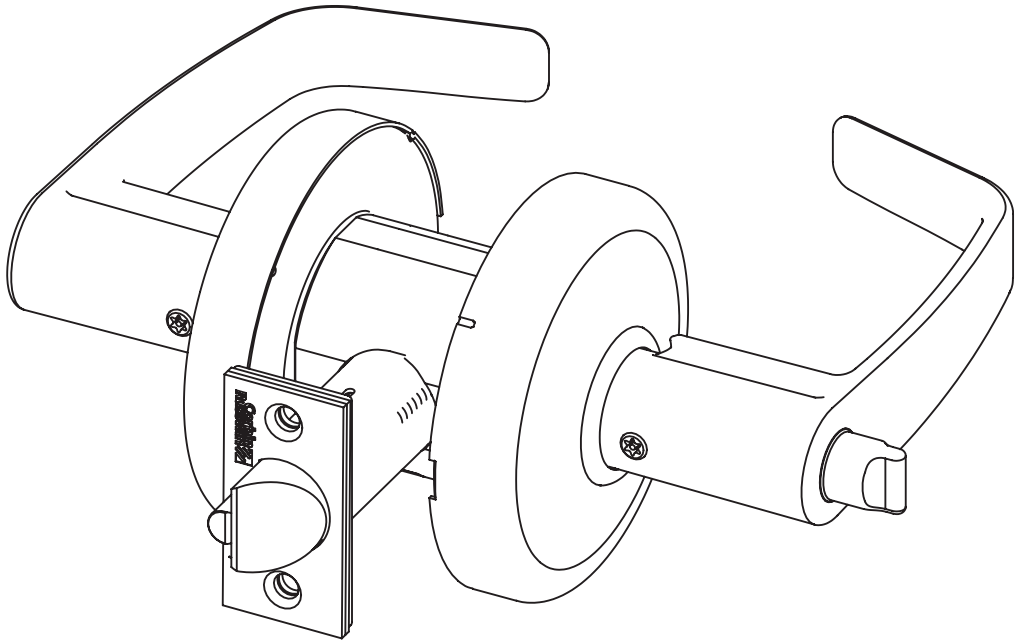
Corbin Russwin

ASSA ABLOY

CL3100 Series

Grade 1 Key-In-Lever

VR Lever Lock



⚠ WARNING

This product can expose you to lead which is known to the state of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65warnings.ca.gov.

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Grade 1 Key-In-Lever VR Lever Lock

CL3100 Series

Installation Instructions

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Attention Installer

Please read these instructions carefully to prevent missing important steps.

Notes

- Improper installation may result in damage to lock and void factory warranty.
- Other product brand names may be trademarks or registered trademarks of their respective owners and are mentioned for reference only.

To view the QR Code video clips within this document, download a free mobile app and scan the QR Code with your mobile device. The complete video can be viewed on YouTube at https://youtube/mrbX3uF49GM.

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Grade 1 Key-In-Lever VR Lever Lock

CL3100 Series

Installation Instructions

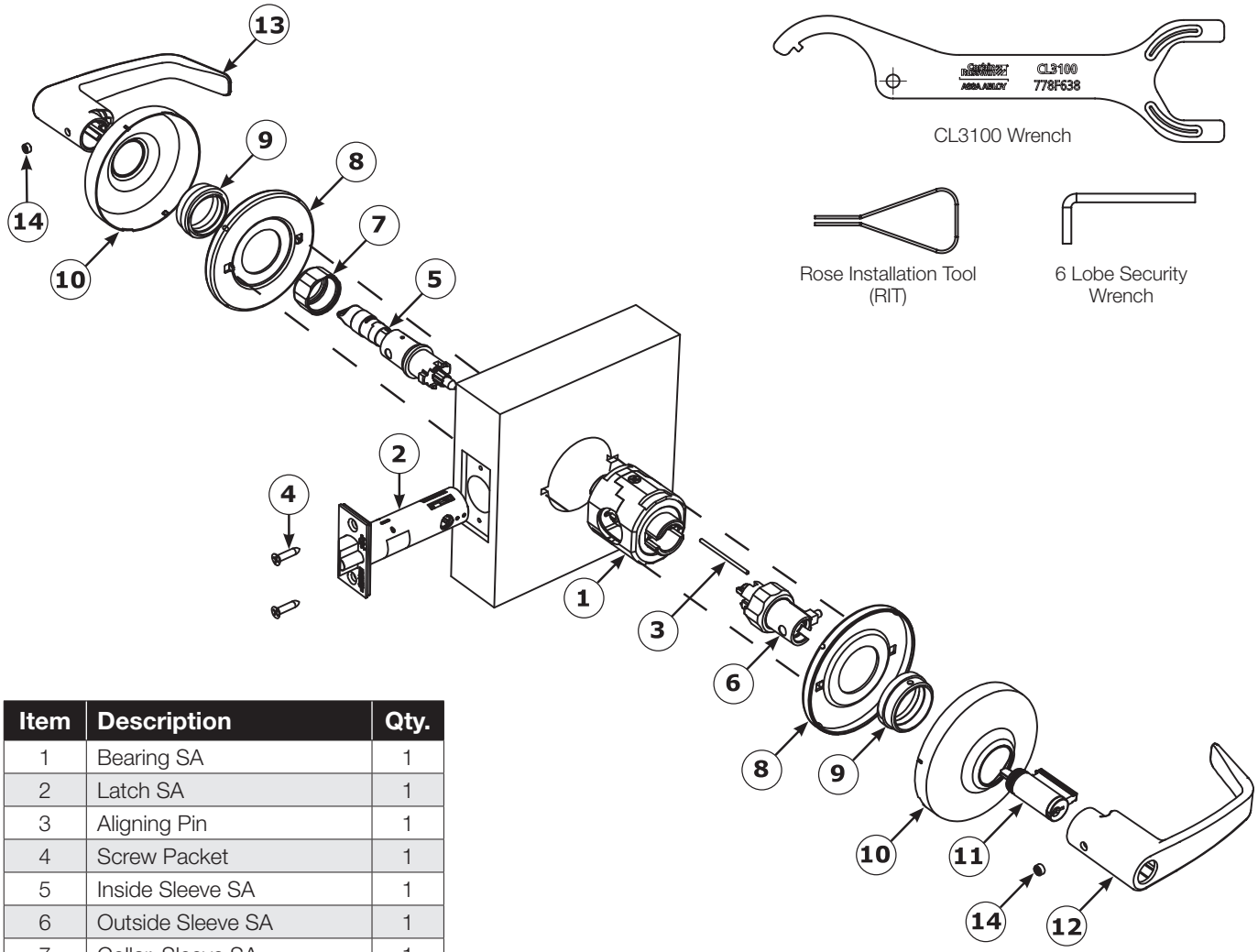
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1 Standard Installation

a Install Latchbolt, Lockbody and Inside Trim

Important

The accuracy of door preparation is critical for proper functioning and security of lever handle lock. Misalignment can cause premature wear and lessening of security.



CL3100 Wrench

Rose Installation Tool (RIT)

6 Lobe Security Wrench

Item	Description	Qty.
1	Bearing SA	1
2	Latch SA	1
3	Aligning Pin	1
4	Screw Packet	1
5	Inside Sleeve SA	1
6	Outside Sleeve SA	1
7	Collar, Sleeve SA	1
8	Plate, Rose Support	2
9	Collar, Rose Support Plate	2
10	Rose	2
11	Cylinder	1
12	Outside Lever	1
13	Inside Lever	1
14	6 Lobe Security Set Screw 1/4-28 x 11/64	2

Figure 1 CL3100 Cylinder Installation - Standard Installation



TEST OPERATION:
Rotate levers to be sure latchbolt moves freely.

DO NOT FORCE.
If lockset does not operate properly, remove lockset from door and check door preparation.

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2 Door and Frame Preparation

a Mark Door

- Fold door marker (FM347) on the door and mark the hole centers.
- Bore 2-1/8" hole.
- Bore 1" hole.

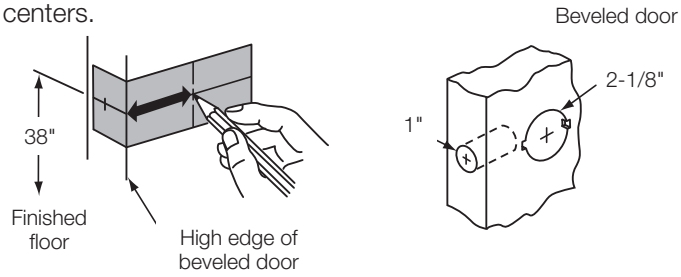


Figure 2 Mark Door

b Drill Door

- Cut rectangular front recess.

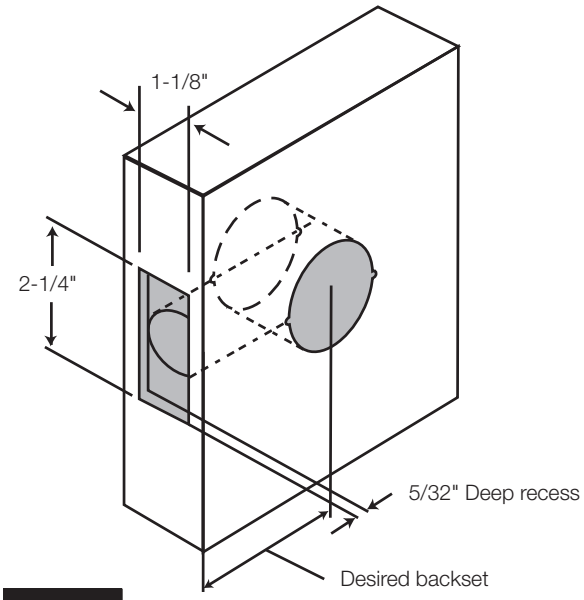


Figure 3 Drill Door

c Install Strike

- Mark recess for latch bolt.
- Mark outline of strike.

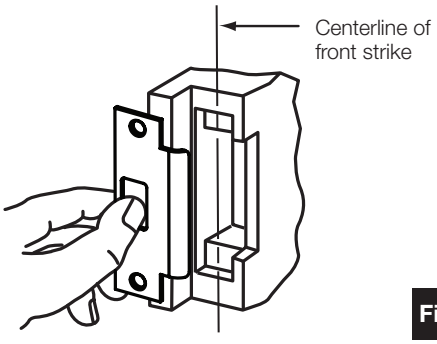
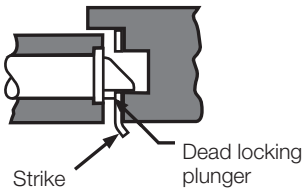


Figure 4 Install Strike

- Cut recess for latch bolt.
- Install strike; secure with two (2) screws.

IMPORTANT

Dead locking plunger stops on strike when door is closed.



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3 Lock Disassembly

1. Unthread and remove INSIDE collar and sleeve.
2. Unthread and remove OUTSIDE collar and sleeve.

Note

Push aligning pin out of the way of outside collar.

3. Remove aligning pin from bearing assembly.
4. Separate latch from bearing assembly.

Lock Disassembly

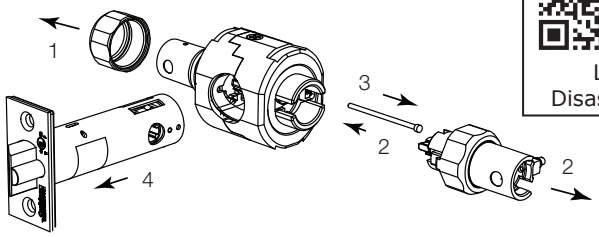


Figure 5 Lock Disassembly

4 Latch Installation

Hold door open with door stop.

1. Insert bearing assembly.
2. Insert latch assembly.
3. Insert aligning pin from secure side (outside) of door.
4. Install latch plate screws. Do not tighten completely until lock installation is finished.

Latch Installation

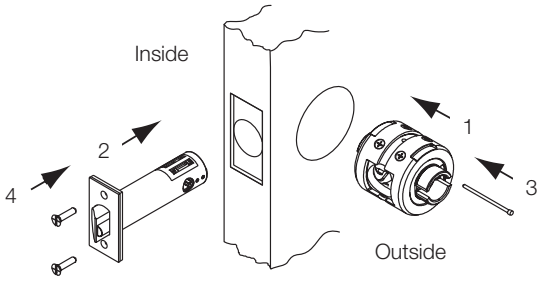


Figure 6 Latch Installation

5 Driver Tip Alignment

IMPORTANT:
Sleeves with colored driver tips require that the slotted cam be rotated, allowing the spring loaded spline adapter to move freely in and out of the outside sleeve.

Driver tips with red markings must match up before assembling lock. Test to ensure that spline adapter can move freely.

NOTE

Some driver tips have two (2) color markings for function identification. See chart on the following page.

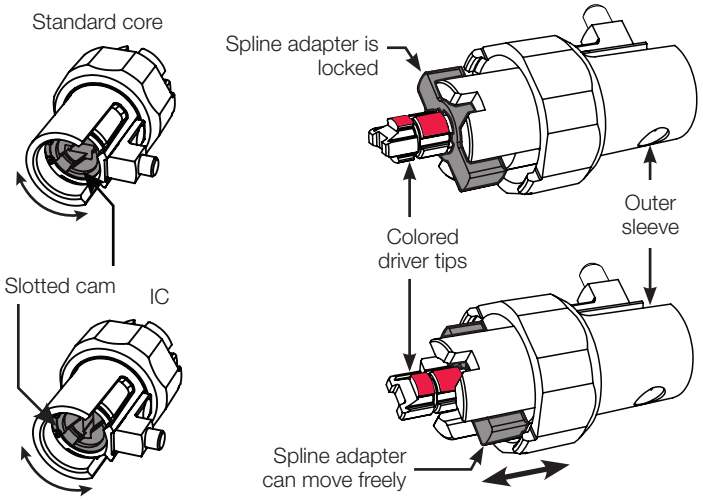


Figure 7 Driver Tip Alignment

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Function Specific Instructions - Sleeve Installation

See Specific Instructions Per Function. Identify Function On Box. (Example: CL3151)

For functions not shown, proceed to step 6, sleeve installation.

Outside Sleeve	Driver Tip Color	Function Number	Function Description	Inside Sleeve
Align driver tips and orient the cam as illustrated on page 5 step 5. Spline adapter will move freely.	NONE	CL3132	Utility/Institutional	Align driver tips matching the painted sections (page 5 step 5) and orient cam to depress lever catch button (page 7 step 7).
	RED	CL3157	Storeroom/Closet	Sleeve Installation (page 6 step 6)
	RED	CL3172	Exits/Public Toilets/ Apartment	
	RED	CL3151	Entrance/Office	
	RED	CL3161	Entrance/Office	
	RED	CL3193	Service Station	
Align driver tips (page 5 step 5). Spline adapter will move freely.	RED and BLUE	CL3120	Privacy/Bedroom/ Bathroom	
	RED and GREEN	CL3152	Classroom Intruder	
	RED and GREEN	CL3175	Corridor/Dormitory Lock	

6 Sleeve Installation

1. With driver tips aligned, insert outside sleeve first. Dimple must face door edge.
2. Thread outside collar by hand. Tighten to bearing assembly with wrench.
3. Insert inside sleeve. Dimple must face door edge.
4. Thread inside collar by hand. Tighten to bearing assembly with wrench.

CAUTION

If excessive wrench torque is required, stop and check alignment of driver tips: page 5 step 5.

Sleeve Installation

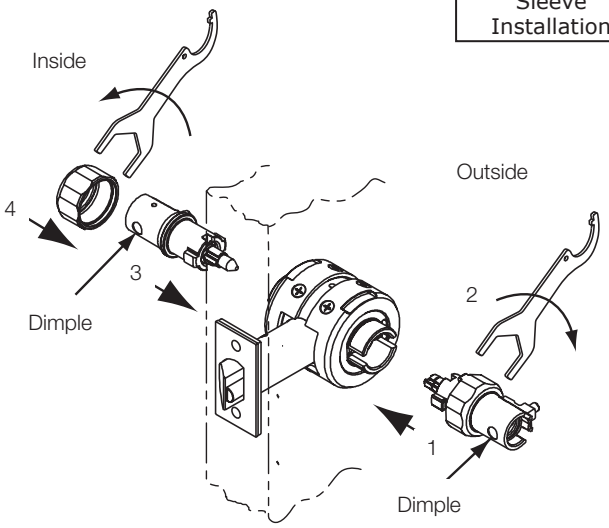


Figure 8 Sleeve Installation

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7 Cam Orientation

1. Lock lever by button, if applicable.
2. Turn slotted cam until lever catch button can be depressed.

Cam Orientation

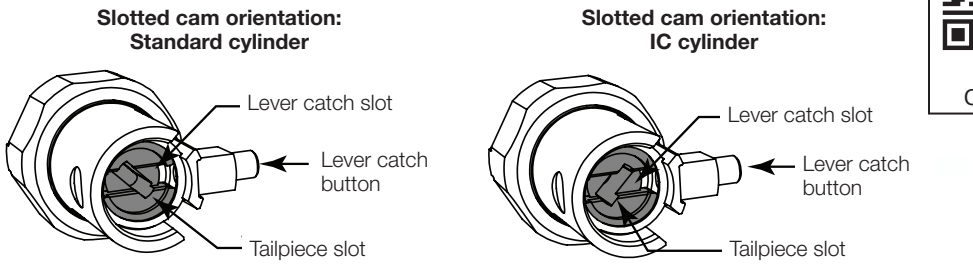


Figure 9 Cam Orientation

8 Rose Installation

D Rose

1. Orient cam and depress lever catch button (see cam orientation diagram page 7 step 7). The lever catch button will slide into the lever catch slot in the cam. Use the rose installation tool (RIT) to retain the lever catch button - see Figure 10 below for RIT instructions (for D rose installation only). Lock lever by button, if applicable.
2. Install rose support plate. Note the flange orientation and door prep.
3. Install rose support plate collar and tighten with CL3100 wrench.
4. Install rose onto support plate.

C, E & K Rose Installation

D Rose Installation

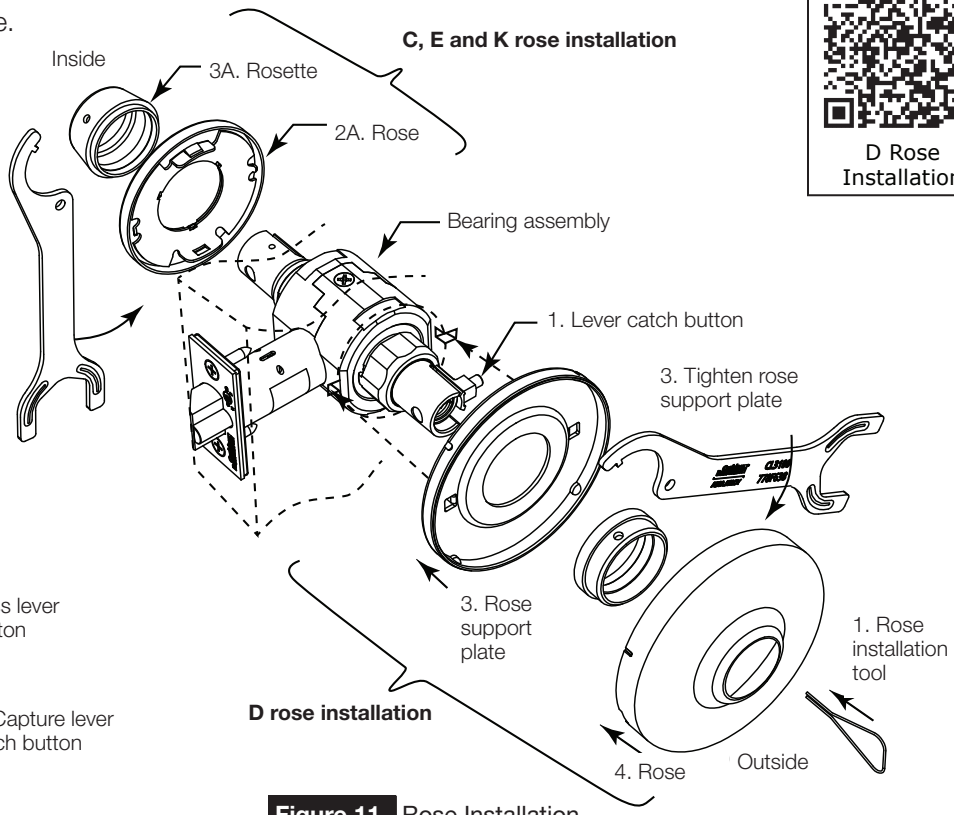
C, E and K Rose

2A. Install C, E or K rose. Note the flange and bearing operation.

3A. Install rosette and tighten with the CL3100 wrench.

CAUTION

If excessive wrench torque is required, stop and check for cross-threading.



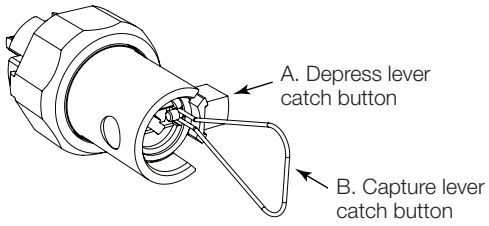


Figure 10 Rose Installation Tool

Figure 11 Rose Installation

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Grade 1 Key-In-Lever VR Lever Lock

CL3100 Series

Installation Instructions

Corbin Russwin

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Function Specific Directions - Lever Installation

For functions not shown, proceed to step 9, Lever Installation.

Inside Sleeve	Function Number	Function Description	Outside Sleeve
Lock lever by button.	CL3120	Privacy/Bedroom/ Bathroom	Rotate cam with emergency key until lever catch button can be depressed.
	CL3161	Entry/Office	Rotate cam until lever catch button can be depressed.
	CL3151	Entrance/Office	
	CL3193	Service Station	
	CL3157	Storeroom/Closet	
Align tailpiece and tailpiece slot in cam. Rotate key 45° CW until lever catch button can be depressed. Install lever.	CL3132	Utility/Institutional	Align tailpiece and tailpiece slot in cam. Rotate key 45° CW until lever catch button can be depressed. Install lever.
Rotate cam CCW until it stops.	CL3172	Exits/Public Toilets/ Apartment	Rotate cam until lever catch button can be depressed.
Rotate cam CCW until it stops. Then rotate back 45° until lever catch button can be depressed.	CL3162	Communicating	Rotate cam CCW until it stops. Then rotate back 45° until lever catch button can be depressed.
Rotate cam CCW until it stops.	CL3152	Classroom Intruder	
	CL3155	Classroom	
	CL3175	Corridor/Dormitory Lock	

9 Lever Installation

1. For conventional cylinder, place cylinder into lever. Insert key and turn 45° CLOCKWISE to align cylinder tailpiece with cylinder tailpiece slot in cam (cam orientation - page 7 step 7).

NOTE

6-pin standard cylinder requires a spacer for cylinder to seat properly in the lever. For IC cylinder/lever removal and installation, see page 10 step 13.

2. Install outside lever. Push on lever until lever engages.
3. Secure with 6 lobe security set screw until tight.
4. Install inside lever.
5. Secure with 6 lobe security set screw until tight.
6. Complete tightening of two (2) latch bolt screws.
7. Check operation of levers and latch bolt before closing door.

Sleeve Installation

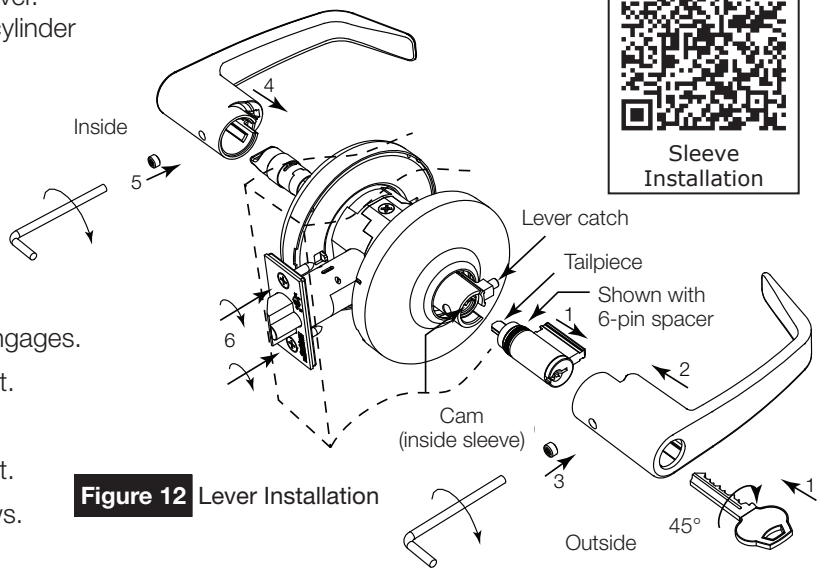


Figure 12 Lever Installation

STOP

TEST OPERATION:
Rotate levers to see that latchbolt moves freely. **DO NOT FORCE.** If lockset does not operate properly, remove lockset from door and check door preparation.

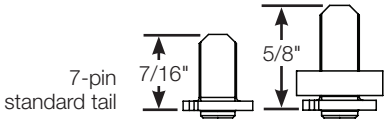


Figure 13 Lever Tails

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10 CL3152 Classroom Intruder Operation Check

Note

When inside key locks outside lever, outside key retracts the latchbolt but cannot unlock the outside lever. Outside key must be rotated back completely clockwise before removing the key.

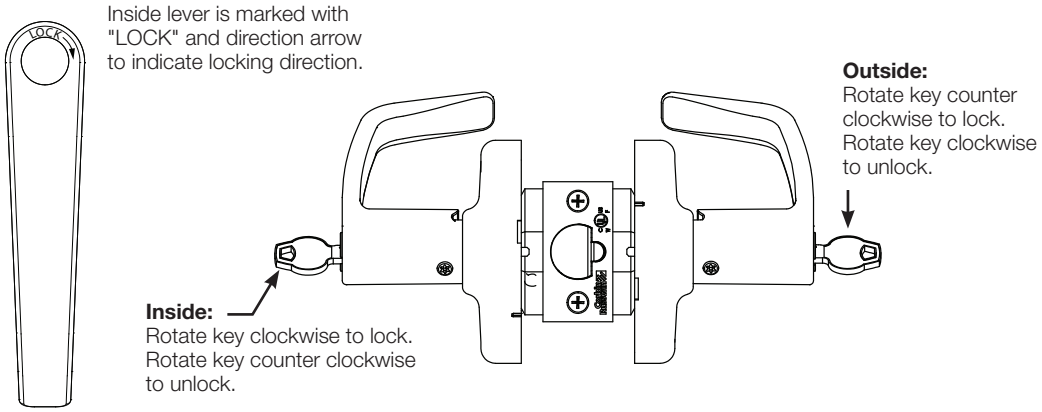


Figure 14 Classroom Intruder Operation Check

11 Cylinder Removal (Conventional)

1. Remove 6 lobe security set screw.
2. Insert key and rotate 45° clockwise to release lever catch.
3. Depress lever catch and remove lever.

Note

Interchange core cylinders do not require removing the lever to remove (page 11 step 13D).

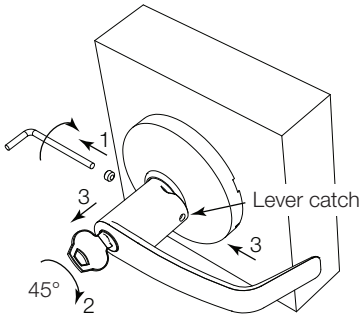


Figure 15 Cylinder Removal

12 CL3120 Outside Lever Removal

1. Remove 6 lobe security set screw.
2. Orient cam in outside sleeve with flat blade screwdriver to release lever catch button (page 7 step 7).
3. Depress lever catch and remove lever.

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13 IC Cylinder and Levers - Installation / Removal

Corbin Russwin Interchangeable Cores (C6, CL6, CT6, CTP, C7, CL7, CT7)
Small Format Interchangeable Cores SFIC (M08). Schlage LFIC (M69). Yale LFIC (YRC, YRC7)

a Remove IC Core

1. Insert control key and turn counter clockwise until stop is reached.
2. With key in this position, pull out core.
3. Remove key.

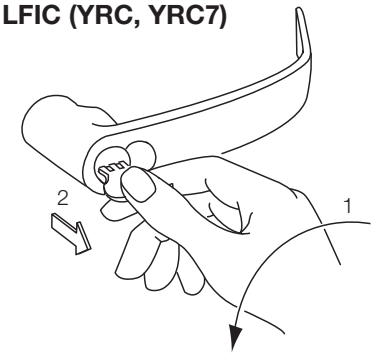


Figure 16 Core Removal

b Remove IC Core Lever

1. Remove cylinder (as above).
2. Remove 6 lobe security set screw.
3. Use a flat blade screwdriver to rotate cam within lever sleeve 45° clockwise to align lever catch slot with lever catch button. (See cam orientation page 7 step 7).
4. Depress catch and remove lever.

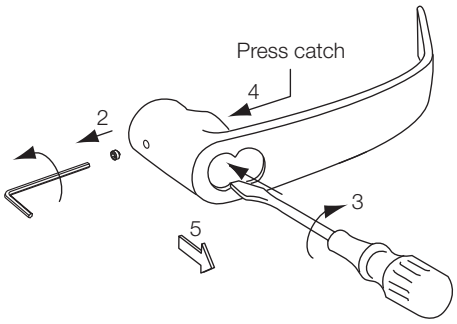


Figure 17 Core Lever Removal

c Install IC Core Lever

1. Assemble lever onto sleeve.

Note

If IC core is available, insert it into the lever first (see 13D).

2. Use a flat blade screwdriver (or, with the IC core in the lever, use the key and turn to engage the tailpiece and slot) to rotate cam within lever sleeve 45° clockwise to align wide slot with lever retainer catch.
3. Push lever until catch engages. Check engagement.
4. Secure with 6 lobe security set screw.

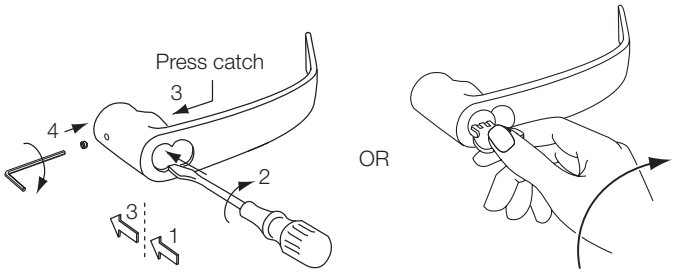


Figure 18 Core Lever Installation

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13 IC Cylinder and Levers - Installation / Removal (cont.)

d Insert IC Core

1. Insert 6- or 7-pin tailpiece, with appropriate spacer disk, into the two (2) holes on the back of the cylinder core. (See spacer type below).
2. Insert control key and turn counter clockwise.
3. Slide core into lever. If core will not fully insert, the cam may need adjustment for proper tailpiece - slot alignment.
4. Rotate control key clockwise to lock in lever.
5. Remove control key. Hold cylinder with finger and remove key.

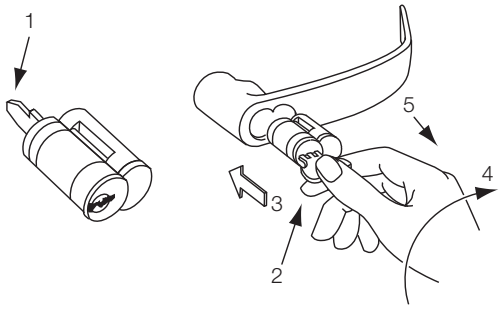


Figure 19 Core Lever Installation

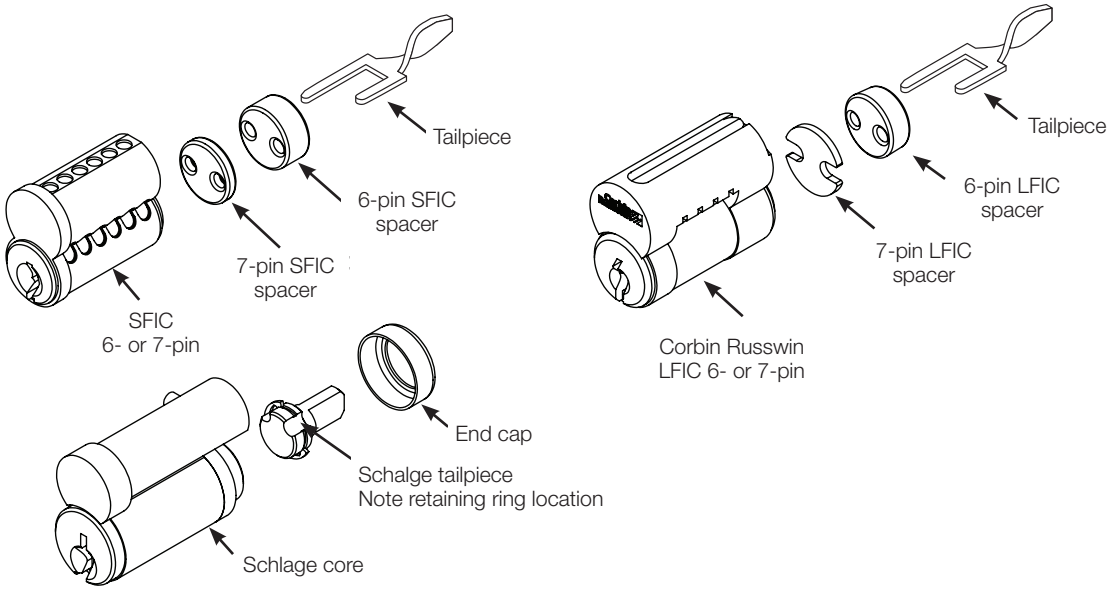


Figure 20 Tailpiece Installation

Spacer Type		
Core Type	Thickness	Color/Material
6-pin LFIC Pyramid	0.197	Blue/Delrin
7-pin LFIC	0.055	Steel-Zinc Plate
6-pin SFIC	0.234	Black/Delrin
Core Type	0.093	Black/Delrin

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14 Installation: CL3100 Lever Lock with High Security Lever (M111)

a Assemble Lock Body

1. Prep door and install lock bearing and latch according to door and frame preps that appear on page 3 step 1.
2. Complete assembly of lock with security lever attachment according to the following steps.

b Install Security Attachment Screw

1. Using screwdriver provided, unscrew the security attachment screw from lever catch on the outside sleeve.

   Important

   Keep screw for reinstallation.
2. Install outside and inside sleeves and roses according to sleeve installation instruction on page 6 step 6.

   Note

   The cam in the outside sleeve must be rotated so the large slot is horizontal. This allows the security screw to thread into the cam. See cam orientation, page 7 step 7.
3. Insert the security attachment screw into lever catch assembly and tighten until screw head is within approximately 1/8" of lever catch. Do not overtighten.

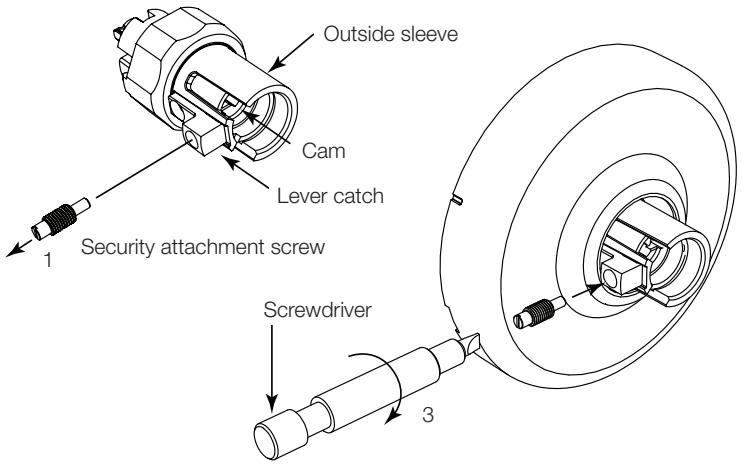


Figure 21 Security Attachment Screw

c Install Lever

Important

Before installing levers read "Specific Instruction Per Function - Before Installing Lever" on page 6.

1. Place cylinder in outside lever. Insert key and rotate 45° clockwise.
2. With key rotated, push lever onto sleeve until hole on inside of lever is over security attachment screw. If screw interferes with assembly, check that screw is fully threaded into lever catch.
3. Using screwdriver provided, rotate security attachment screw counter clockwise until flush with surface of lever.
4. Secure lever with 6 lobe security set screw.
5. Rotate key to horizontal and remove.

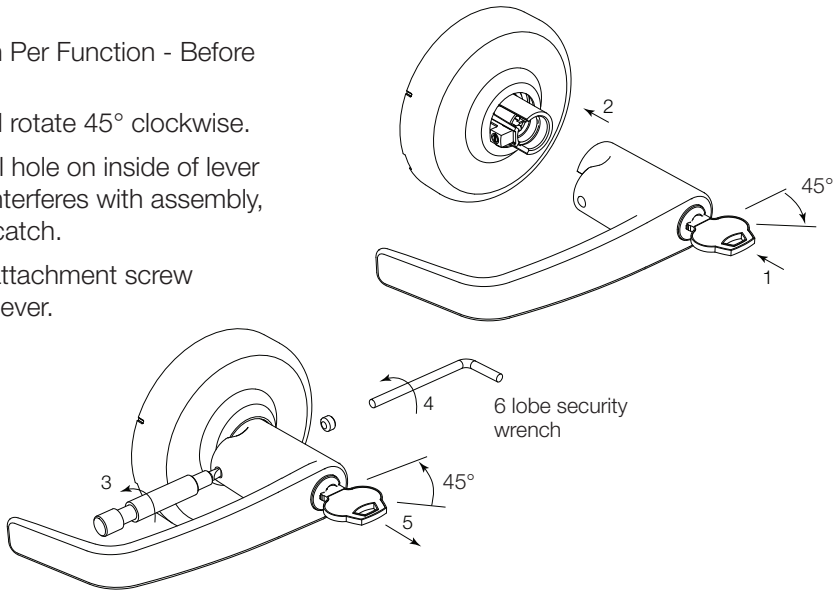


Figure 22 Install Lever

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14 Installation: CL3100 Lever Lock with High Security Lever (cont.)

d Remove Cylinder

1. Remove security screw on outside of lever with 6 lobe wrench.
2. Insert key and rotate key 45° clockwise; keep key in this position.
3. Using screwdriver, tighten the security attachment screw clockwise until it clears the lever.
4. Remove lever and remove key.
5. Remove cylinder from lever and install new cylinder.
6. Reinstall lever following steps on previous page.

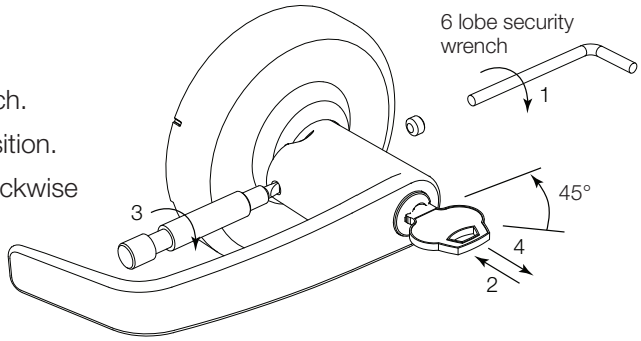


Figure 23 Cylinder Removal

15 Dummy Trim Installation

CL3150/70 Half/Full Dummy Trim C, E and K Rose

1. Align mounting plate on both sides of the door with the five (5) holes prepared in the door.

   Note
   The dimple faces the door edge.

2. Install screw from the opposite side of the door.

   Note
   Be sure to install mounting plate aligning clearance hole and threaded hole.

2A. Install washer and screw from the opposite side of the door (half dummy).

3. Install four (4) surface screws (#4 flat head Phillips screws) in the mounting plate.
4. Align and place the rose on both sides of the door.
5. Place and tighten rosette with CL3100 wrench.
6. Install lever.
7. Tighten 6 lobe security set screws.

PLEASE REFERENCE TEMPLATE: T31194

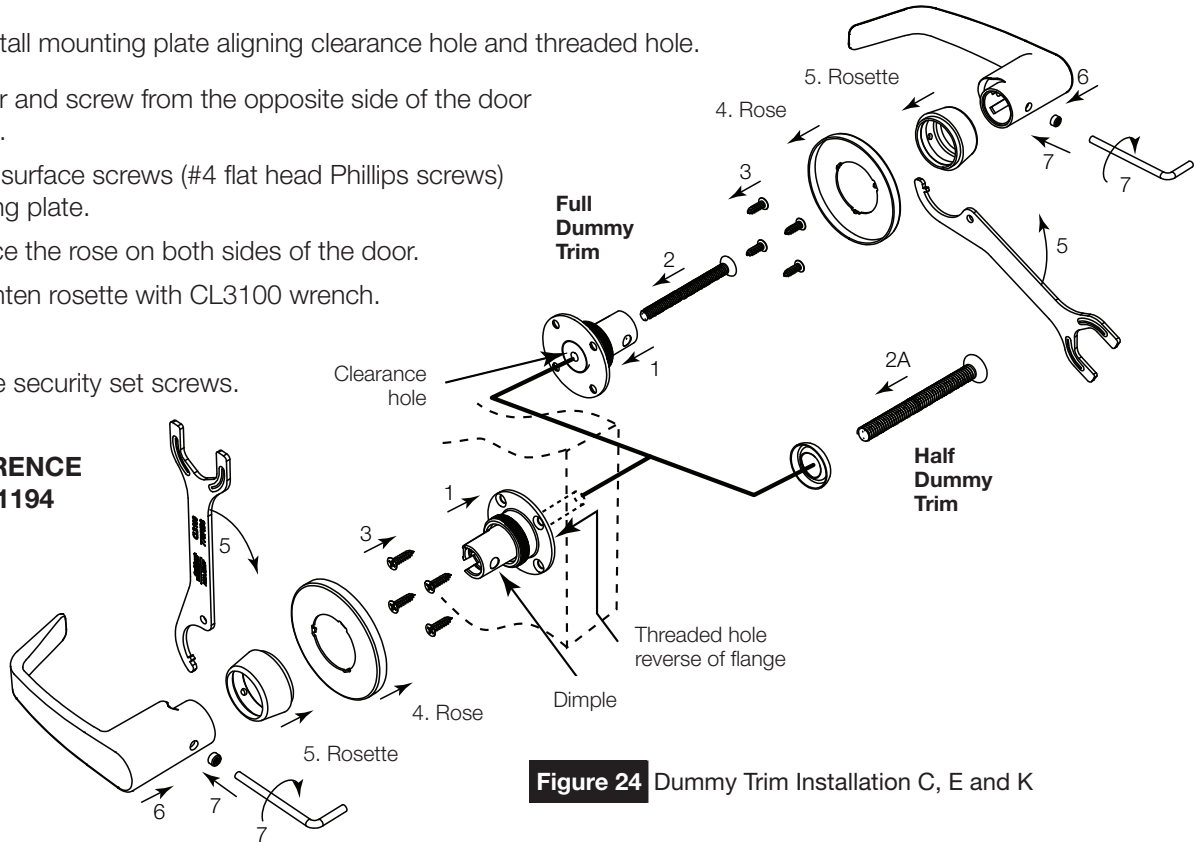


Figure 24 Dummy Trim Installation C, E and K

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15 Dummy Trim Installation (cont.)

CL3350/70 Half/Full Dummy Trim D Rose

1. Align mounting plate on both sides of the door with the five (5) holes prepared in the door.

   Note
   The dimple faces the door edge.

2. Install screw from the opposite side of the door.

   Note
   Mounting plate with clearance hole and threaded hole.

2A. Install washer and screw from the opposite side of the door (half dummy).

3. Install four (4) surface screws (#4 flat head Phillips screws) in the mounting plate.
4. Align and place the rose support plate on both sides of the door.

   Note
   The flanges are pointing away from the door.

5. Place and tighten rose support plate collar with CL3100 wrench.
6. Install rose.
7. Install lever.
8. Tighten 6 lobe security set screws.

PLEASE REFERENCE TEMPLATE: T31194

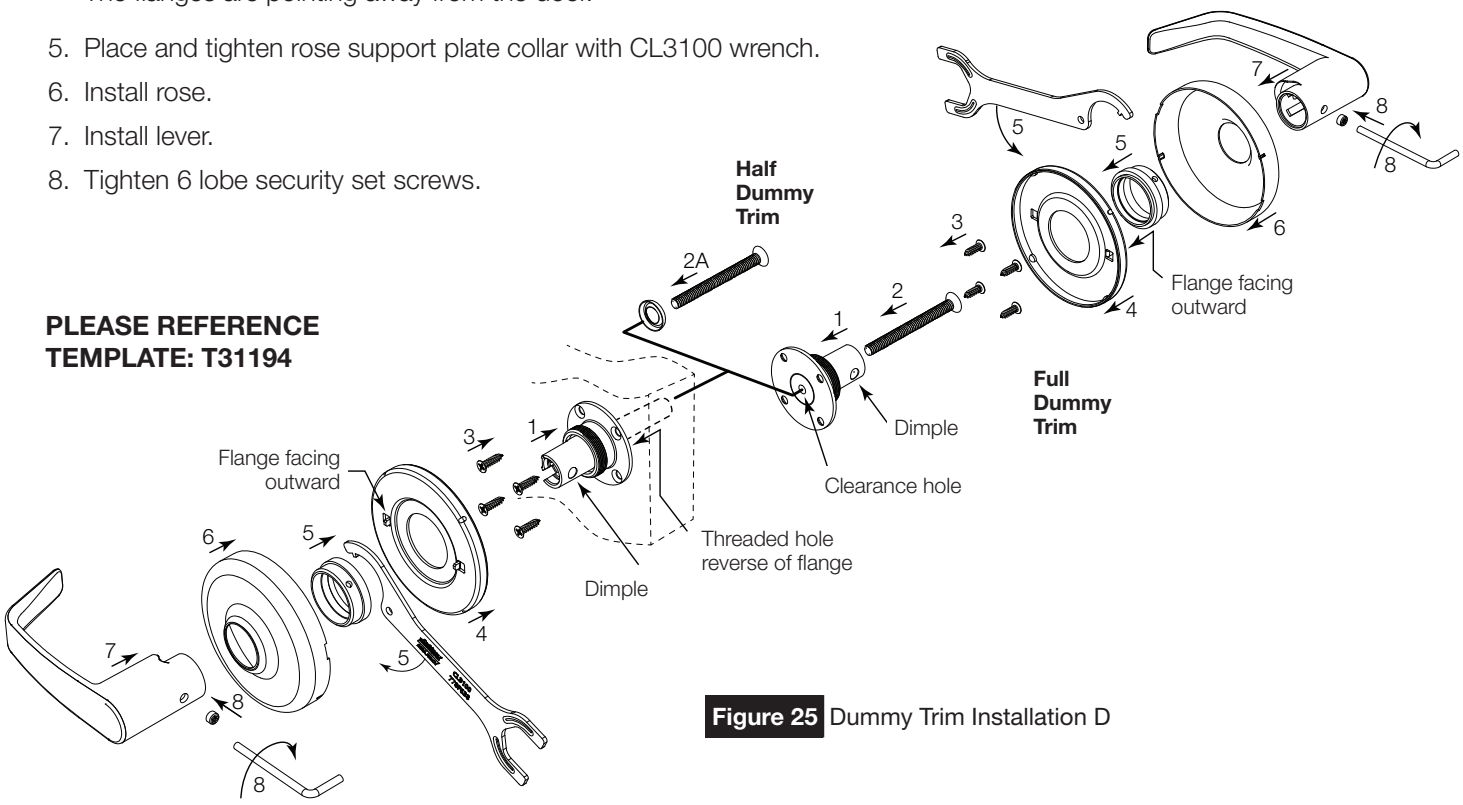


Figure 25 Dummy Trim Installation D

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