1) Determine Hand of Door

Face the door from the outside to determine its hand. Please note the outside is either the key side of an entrance door or the corridor side of a room door. The outside of a single communicating door is the side opposing the hinges. The outside of twin communicating doors is the space between the doors.

Left Hand Reverse:
Hinges on left, opens outward. For handed locks, specify LHR.

Right Hand Reverse:
Hinges on right, opens outward. For handed locks, specify RHR.

2) Position Template and Mark Door

a. Draw a horizontal centerline for the lock on both sides of door at desired height above finished floor line. Standard height for horizontal centerline is 39-15/16" above finished floor.
b. Select template by comparing handing of door to Fig. 4, 5 and 6.
c. Compare lock function number being installed (See Fig. 3) to determine the holes to be marked.
d. Position the installation template on the door so that the horizontal centerline lines up with the horizontal line on the door. Mark the holes to be drilled using a scribe, center punch, or nail on the inside and outside of door. To avoid shifting of the template, it may be taped to the door during this step.
e. On the edge of the door mark the holes to be drilled for the mortise cavity and armor front attaching screw holes.

3) Drill Holes in Door

Bore marked lock trim holes (steps 2d and 2e). To avoid splintering wood, bore thru holes from both sides of door. For hole sizes refer to hole chart. Note: Hole "A" diameter is different for FL, RL & SL Applications.
4) Mark Frame for Strike Mortise Cavities
   a. Mark vertical position of strike on jamb using the reference centerline on installation template (see Fig. 4, 5 or 6).
   b. Mark location of strike lip. (FIRST DETERMINE IF SILENCERS ARE TO BE USED) To locate horizontal centerline of strike, take half the door thickness PLUS the thickness of silencer (if used). Use this dimension to locate the strike centerline from the doorstop. (See Step 19, Fig. 1)

5) Drill Mortise Cavities in Door and Frame
   a. Mortise door edge for lock body. Drill pilot holes for attaching screws.
   b. Slide lock body into cavity with armor front attached. Align armor front with top mark. Use lock front as template. Mark outline.
   c. Mortise door edge for lock front (7/32") deep.
   d. Mortise jamb for strike (3/32" deep). Be sure to mortise 1" (25mm) deep to accommodate lock bolts or strike box if used. (See Step 19, Fig. 1)
   Note: Before installing lock, prepare door trim per sections 8, 9, 10, 11, 12, 13, or 14.

6) Handing Instructions

   **HANDING THE LATCHBOLT**
   a. Locate and depress spring plate mechanism in one of the rectangular holes.
   b. While depressing spring plate pull latch bolt head.
   c. Rotate head for desired handing.
   d. Push head into lock body until secured.
   e. Operate several times to insure operation.

   **HANDING THE HUBS**
   (LEVER OPERATION)
   a. Locate RED MARK on locking piece.
   b. Push Toggle Button slide away from “square spindle hole”
   c. With blade screw driver push RED MARK on side nearest “square spindle hole”
   d. RED MARK indicates Locked side!

7) Tools Necessary and Preparing Trim for Assembly

   Tools necessary:
   • Standard #2 Phillips Screw Driver
   • Standard 1/8 inch Allen Wrench
   • Wrench (flat stamping provided)

   Warning: DO NOT TIGHTEN SCREWS WITH A BATTERY POWERED SCREWDRIVER, HAND TIGHTEN ALL SCREWS.
8) Install Lock (Wood or H.M. Door)
Insert lock body into cavity in door and secure base front with two #12 combination attaching screws. Make sure lock is positioned in cutout properly. Note: Installation may require leaving #12 combination screws loose until trim and cylinder are assembled in lock body.

9) Install Knob or Lever Sectional Trim

10) Install Knob or Lever Escutcheion Plate Trim (Thru-Bolted)

IMPORTANT NOTE:
Before mounting the Outside Lever Handle on the door back off the inside spindle (the spindle with ramp 1 turn from outside spindle). Be sure that the ramp aligns with set screw in Inside Lever Handle. This must be done to allow proper function of the lock body.
11) Install Knob or Lever Single Operating Trim (Sectional and Escutcheon)

12) Install Reflections® Sectional Trim

13) Install Reflections® Escutcheon Trim

* Disassemble split spindles prior to installing into lock. Install the stepped spindle 1st, then install non-stepped spindle last.
14) Install Reflections® 855 Dummy Trim

a. Lever height should be at 39-15/16" from finished floor.
b. Before securing mounting plate assembly to door, place lever on mounting plate assembly (with set screw) and align on door so lever is parallel to floor. Mark screw hole locations.

15) Installing Thumbturn Assemblies

To install the Thumbturn Assembly on the door:
a. Drill holes indicated for the function to be installed.
b. Install the lockbody in the mortise pocket. Align the Thumbturn Shaft thru hole D and into the square hub in the lockbody.
c. Position the thumbturn mounting plate so the attaching screw holes are horizontal to the floor.
d. Mark the holes with a punch and remove thumbturn assembly.
e. Drill the marked holes with a 1/16" Dia. drill bit.
f. Re-install the thumbturn shaft in the square hole of lockbody.
g. Install and tighten attaching screws.

16) Visual Occupancy Indicator

To install the Visual Occupancy Indicator on the outside of the door drill holes D and K. It is best to drill hole D first, then install lock and trim and drill the 2 (K) holes while indicator is in position.
17) Install Dummy Trim for 838A and 838B

18) Install Single Dummy Trim for 838A and 838B

* Disassemble split spindles prior to installing into lock. Install the stepped spindle 1st, then install non-stepped spindle last.
19) Install Strike
Attach strike to jamb using two #12 combination attaching screws. (See Fig. 1)

20) Installation Trouble Shooting Tips

<table>
<thead>
<tr>
<th>Problem</th>
<th>Possible Cause</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Difficult to operate Lock by lever or Key.</td>
<td>Door is warped or sagging, binding up latch bolt in strike cutout.</td>
<td>Check to see where latch is hanging up in strike. If door is sagging, tightening top hinge screws may solve problem. Hole in strike plate may have to be filed to relieve bind. Doors can warp when weather changes: warm inside - cold outside cool inside - hot outside (Exterior doors painted a dark color are particularly susceptible to warpage when exposed to direct sunlight.) It may take a few seasonal changes to work out all binding problems.</td>
</tr>
<tr>
<td>Loose Trim (wood doors)</td>
<td>Wood doors after being installed will sometimes shrink slightly as the building dries out.</td>
<td>Tighten all screws as needed.</td>
</tr>
<tr>
<td>Latch bolt hangs up in lock body.</td>
<td>Foreign object in lock body (metal shavings, saw dust, wood particles, mineral core etc.)</td>
<td>Remove lock from door and remove foreign object from body. Lubricate if necessary.</td>
</tr>
<tr>
<td></td>
<td>Lock body lacks lubrication or lubrication has gummed up with age.</td>
<td>Use penetrating or solvent type lubricant as a cleaning agent to loosen frozen or sticking components. Lubricate with silicone base or Lithium Grease.</td>
</tr>
<tr>
<td>Cylinder Jams up.</td>
<td>Dirt or other foreign object may be in keyway affecting operation.</td>
<td>Lubricate cylinder with graphite or other non-oily lubricant (such as Lock-EZE) Do not use oil based lubricants in keyway.</td>
</tr>
</tbody>
</table>

* Please note: Disassembling lock body will void warranty.
HOLE CHART FOR 838A AND 838B

SECTION TRIM THRU-BOLTED ESC.
OUTSIDE INSIDE OUTSIDE INSIDE
A,E A,E A,G A,G
½ TRIM NONE A,E NONE A,J

CAUTION: Office copiers, printers and facsimile machines may change the size of a drawing and make the template inaccurate to use as a door marker. Contact Technical Product Support for original versions if required.

Note: When installing lock functions with thumbturn see step 15 for hole placement.
CAUTION: Office copiers, printers and facsimile machines may change the size of a drawing and make the template inaccurate to use as a door marker. Contact Technical Product Support for original versions if required.
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(Fig. 6) Non-Beveled Door.

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