* REMOVING COVER SCREWS VOIDS LOCK BODY WARRANTY

* WHEN USING REFLECTIONS® TRIMS, BE SURE LOCK DESIGNATION INDICATES THE "RL" SUFFIX.

NOTES
The following is a step by step approach to installing a mortise lock and trim to both wood and steel doors.

1) **Determine Hand of Door**
2) **Position Template and Mark Door**
3) **Drill Holes in Door**
4) **Mark Frame for Strike and Mortise Cavities**
5) **Drill Mortise Cavities in Door and Frame**
6) **8800 and YMM100 Lock Handing Instructions**
7) **Tools Necessary and Preparing Trim for Assembly**
8) **Install Lock (Wood or H.M Door)**
9) **Install Sectional Trim**

10) **Install Escutcheon Plate Trim (Thru-bolted)**
11) **Install Escutcheon Plate Trim (Surface Mounted)**
12) **Install Single Operating Trim (Sectional & Escutcheon)**
13) **Install Reflections Sectional Trim**
14) **Install Reflections Escutcheon Trim**
15) **Installing Thumb turn Assemblies**
16) **Install Visual Occupancy Indicator**
17) **Install Strike**
18) **Installation Trouble Shooting Tips**

1) Determine Hand of Door

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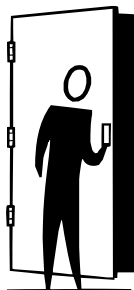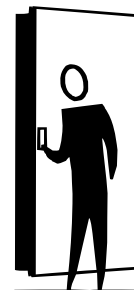
Left Hand Reverse: Hinges on left, opens outward. For handed locks, specify LHR.
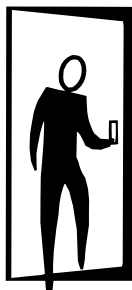
Left Hand: Hinges on left, opens inward. For handed locks, specify LH.

Right Hand: Hinges on right, opens inward. For handed locks, specify RH.

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 the lock function number being installed with (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
A. 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) . 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 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 Fig. 1)

   Note: Before installing lock, prepare door trim per sections 8,9,10 or 11.

6)

8800 Series
Handing instructions

HANDING THE LATCHBOLT

1. Locate and depress spring plate mechanism in one of the rectangular holes.
2. While depressing spring plate pull latchbolt head.
3. Rotate head for desired handing .
4. Push head into lockbody until secured.
5. Operate several times to insure operation.
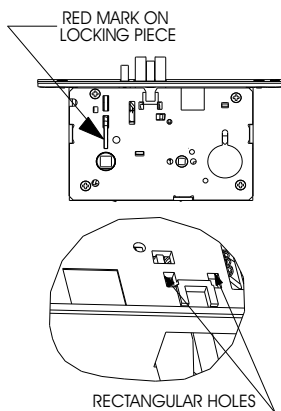
RED MARK ON LOCKING PIECE

RECTANGULAR HOLES

HANDING THE HUBS (LEVER OPERATION)

1. Locate RED MARK on locking piece.
2. Push Toggle Button slide away from " square spindle hole"
3. With blade screw driver push RED MARK on side nearest "square spindle hole"
4. RED MARK indicates Locked side!

YMM100 Series
Handing instructions

HANDING THE LATCHBOLT

1. With armor front off, depress base front and rotate latchbolt head to desired handing.

2. Operate several times to insure operation.
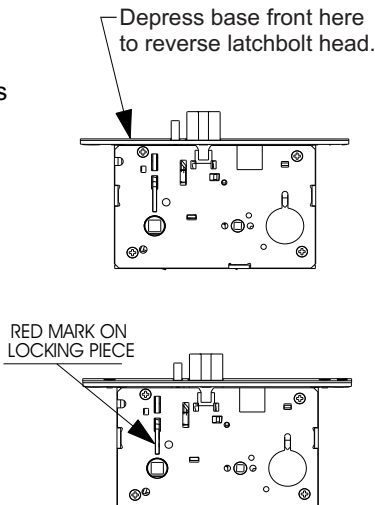
Depress base front here to reverse latchbolt head.

RED MARK ON LOCKING PIECE

HANDING THE HUBS (LEVER OPERATION)

1. Locate RED MARK on locking piece.
2. Push Toggle Button slide away from " square spindle hole"
3. With blade screw driver push RED MARK on side nearest "square spindle hole"
4. RED MARK indicates Locked side!

2

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7) Tools Necessary and Preparing Trim for Assembly

Tools necessary:
A) Standard #2 Phillips Screw Driver
B) Standard 1/8″ Allen Wrench
C) Wrench (flat stamping provided)

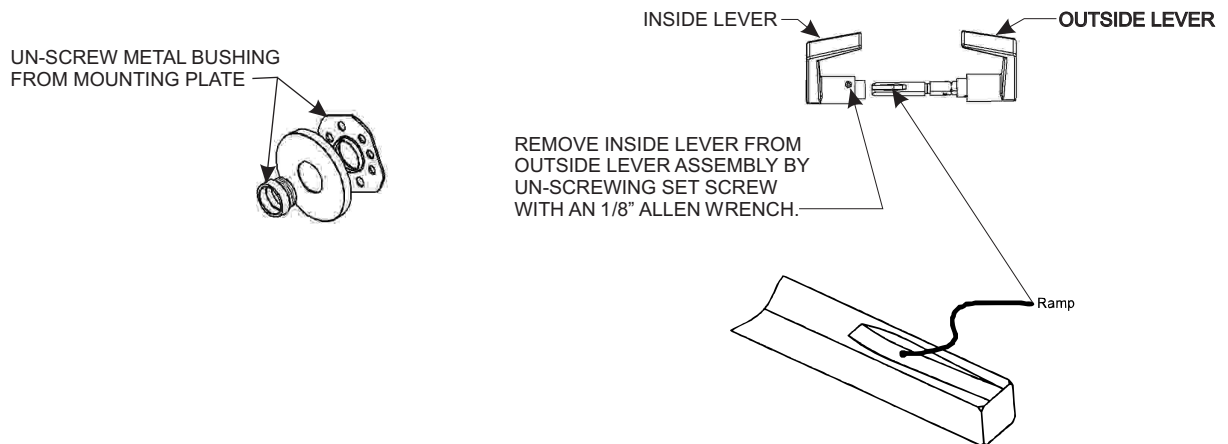Warning: DO NOT TIGHTEN SCREWS WITH A BATTERY POWERED SCREWDRIVER, HAND TIGHTEN ALL SCREWS.

UN-SCREW METAL BUSHING
FROM MOUNTING PLATE

INSIDE LEVER   **OUTSIDE LEVER**

REMOVE INSIDE LEVER FROM
OUTSIDE LEVER ASSEMBLY BY
UN-SCREWING SET SCREW
WITH AN 1/8" ALLEN WRENCH.

Ramp

8) Install Lock (Wood or H.M. Door)

a. 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. See Fig. 3 Note: Installation may require leaving #12 combination screws loose until trim and cylinder are assembled in lock body.

9) Install Sectional Trim

Screwless Shank

Inside Knob

Rose Adapter

Thumbturn

Attaching Screws

**SECURE CYLINDER
SET SCREW THRU
THIS HOLE.
(HAND TIGHTEN ONLY)**

Cylinder Locking Mechanism
(Access from Lock Front)

Cylinder Ring

Cylinder

Armor Front

Spindle Nut

Knob Sleeve

Bushing

Inside Rose

Rose Plate

Attaching Screws

Outside Rose

Outside Knob

Spindle

Bushing

Inside Lever Handle
And Inside CO and LF Knobs

Set Screw

Lever Handle

8800 series lock shown

Outside Lever Handle
And Inside CO and LF Knobs

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.

3

10) Escutcheon Plate Trim (Thru-Bolted)

Screwless Shank

Inside Escutcheon Assembly Attaching Screws (2)

Thumbturn

SECURE CYLINDER SET SCREW THRU THIS HOLE. (HAND TIGHTEN ONLY)

Cylinder Locking Mechanism (Access from Lock Front)

Outside Escutcheon Assembly

Armor Front

Inside Knob

Knob Sleeve

Cylinder

Spindle Nut

Bushing

Spindle

Outside Knob

Inside Lever Handle And Inside CO and LF Knobs

Set Screw

Bushing (WG Escutcheon Plate — No Bushing req'd)

Outside Lever Handle And Outside CO and LF Knobs

Lever Handle

8800 series lock shown
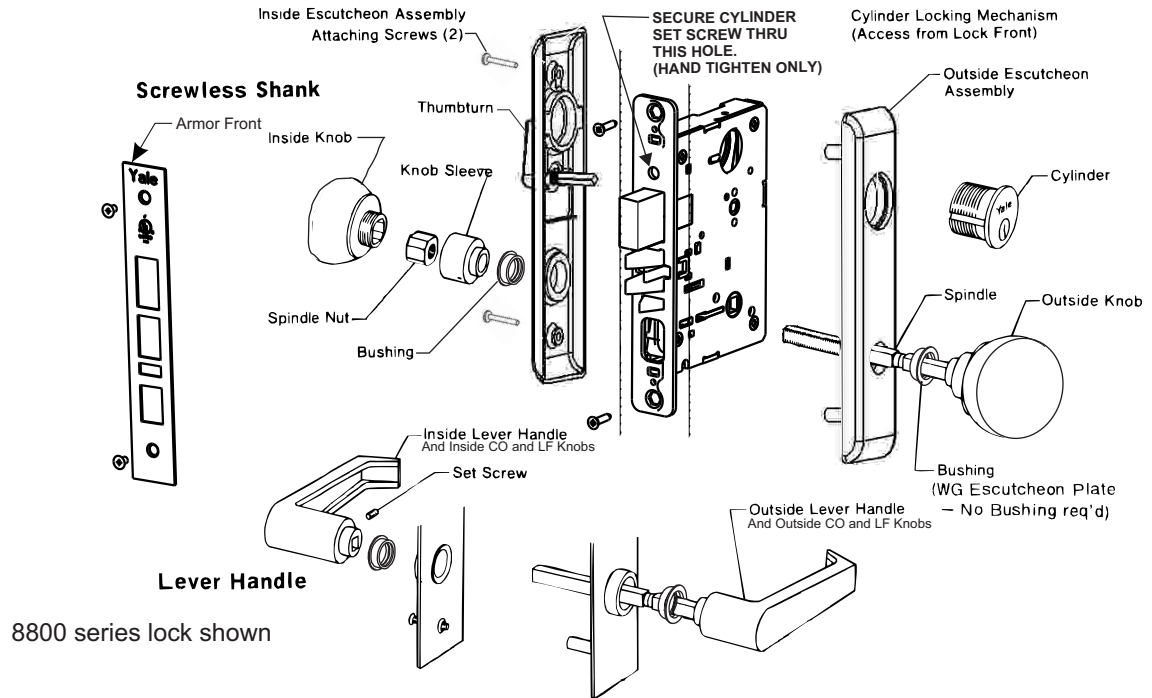
IMPORTANT NOTE:
Before mounting the Outside Lever Handle on the door back off the inside spindle (the spindle with ramp 1 turn from outside spindle). Be sure that the ramp aligns with set screw in Inside Lever Handle. This must be done to allow proper function of the lock body.

11) Escutcheon Plate Trim (Surface Mounted)

Inside Escutcheon Plate Assembly

Attaching Screws (4)

Thumbturn

SECURE CYLINDER SET SCREW THRU THIS HOLE. (HAND TIGHTEN ONLY)

Cylinder Locking Mechanism (Access from Lock Front)

Outside Escutcheon Plate Assembly

Armor Front

Inside Knob

Knob Sleeve

Attaching Screws (4)

Cylinder Ring

Cylinder

Spindle Nut

Bushing

Bushing

Outside Knob

Spindle

Inside Lever Handle

Inside Lever Handle And Inside CO and LF Knobs

Set Screw

Thimble

Outside Lever Handle And Outside CO and LF Knobs

8800 series lock shown

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.
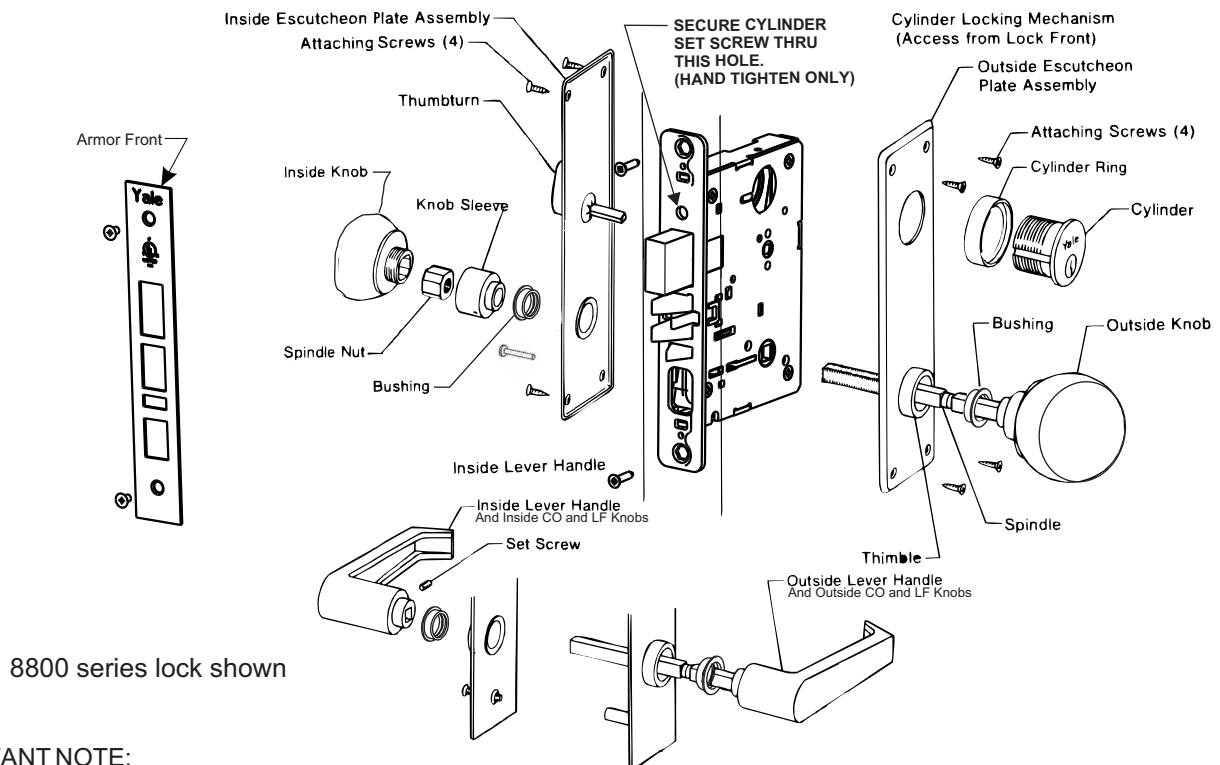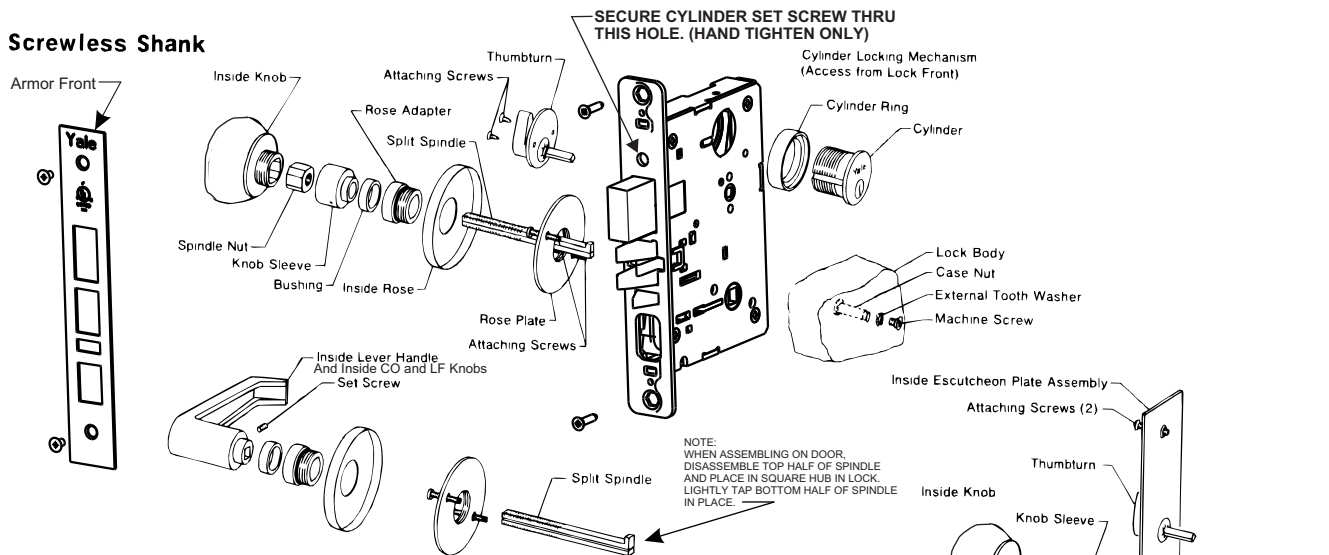
4

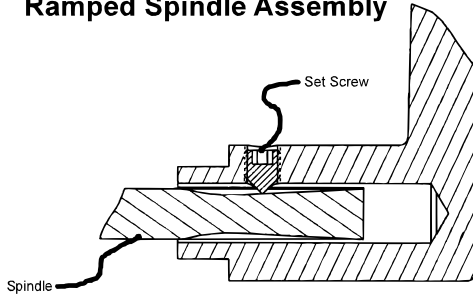**ASSA ABLOY**

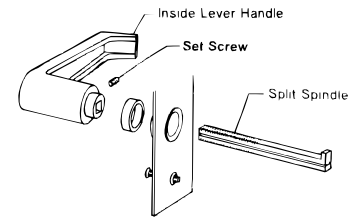# 12) Install Single Operating Trim (Sectional and Escutcheon)

Screwless Shank

Armor Front

Inside Knob

Attaching Screws

Rose Adapter

Split Spindle

Spindle Nut

Knob Sleeve

Bushing

Inside Rose

Rose Plate

Attaching Screws

Thumbturn

SECURE CYLINDER SET SCREW THRU THIS HOLE. (HAND TIGHTEN ONLY)

Cylinder Locking Mechanism (Access from Lock Front)

Cylinder Ring

Cylinder

Lock Body

Case Nut

External Tooth Washer

Machine Screw

Inside Lever Handle And Inside CO and LF Knobs

Set Screw

NOTE:
WHEN ASSEMBLING ON DOOR, DISASSEMBLE TOP HALF OF SPINDLE AND PLACE IN SQUARE HUB IN LOCK. LIGHTLY TAP BOTTOM HALF OF SPINDLE IN PLACE.

Split Spindle

Lever Handle

8800 series lock shown

Ramped Spindle Assembly

Set Screw

Spindle

Ramp

Inside Escutcheon Plate Assembly

Attaching Screws (2)

Thumbturn

Inside Knob

Knob Sleeve

Split Spindle

Spindle Nut

Bushing

(WG Escutcheon Plate — No Bushing req'd)

Thimble

Inside Lever Handle

Set Screw

Split Spindle

13) Reflections® Sectional Trim

Yale

ORIENT PLASTIC BUSHINGS ON TOP SO SLOT IN ROSE IS ON BOTTOM.

BE SURE THIS HOLE POINTS TOWARDS DOOR HINGES.

5

ASSA ABLOY
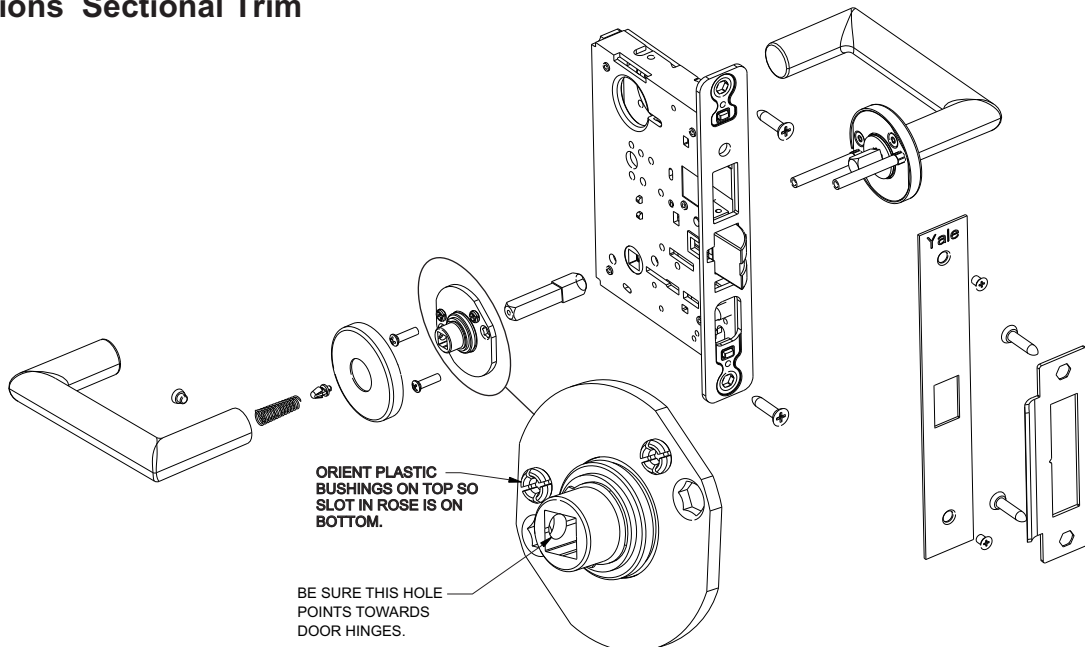
14) Reflections® Escutcheon Trim
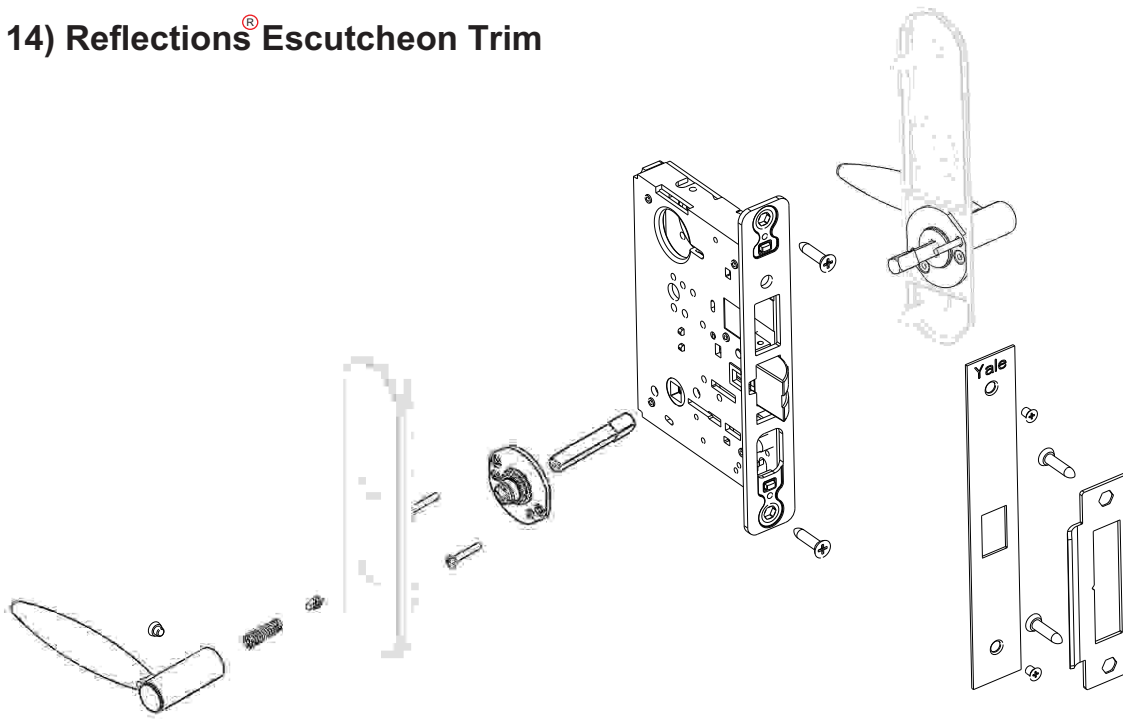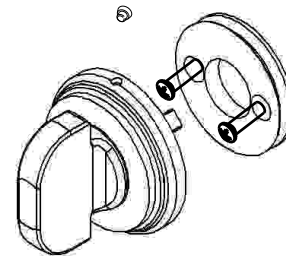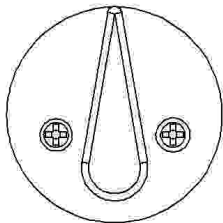

15) Installing Thumbturn Assemblies

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

Standard 8800 and YMM100 Series
Thumbturn Assembly

Reflections®
Thumbturn Assembly
and
Coin Turn Assembly
SEE TEMPLATE FOR
HOLE LOCATION

16) Visual Occupancy Indicator
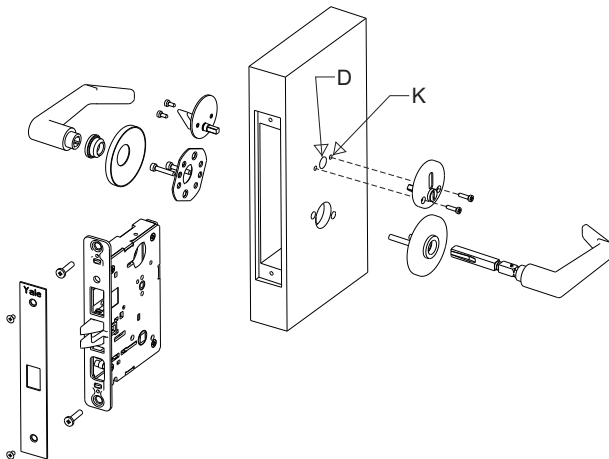
To install the Visual Occupancy Indicator on the outside of the door drill holes D and K. It is best to drill hole D first, then install lock and trim and dill the 2 (K) holes while indicator is in position.

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17) Install Strike

a. Attach strike to jamb using two #12 combination attaching screws. (See Fig. 1)
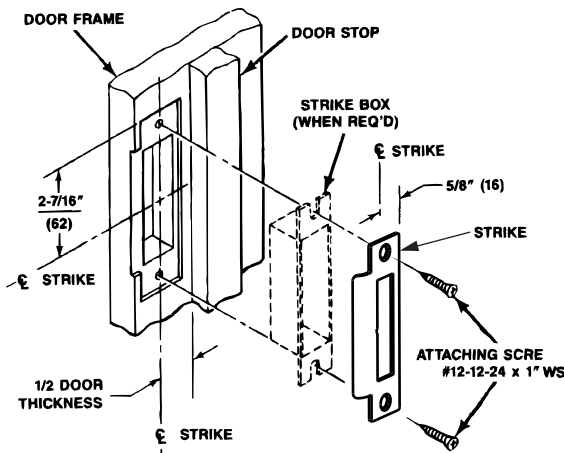
(Fig. 1) 8800 Series Strike Shown
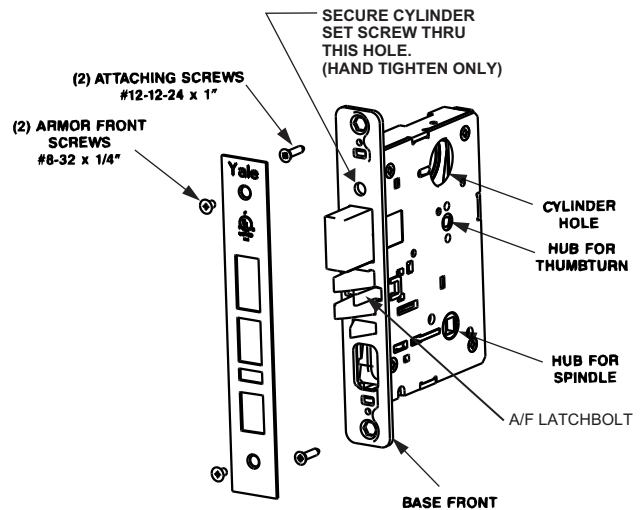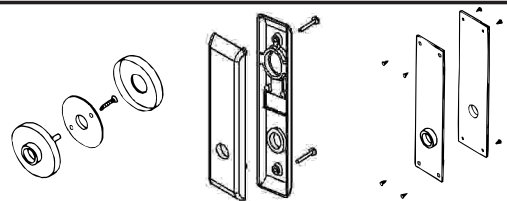

(Fig. 2) 8800 Series Lock Shown

18)	Installation Trouble Shooting Tips	
Problem	**Possible Cause**	**Solution**
Difficult to operate Lock by lever or by Key.	Loose Trim (H.M. Doors) (Vibration caused by normal operation of door opening and closing can loosen attaching screws)	Adjust and Tighten - as necessary. If screws continually loosen up use a screw locking compound (such as **Loctite**) on all attaching screws.
	Door is warped or sagging, binding up latch bolt in strike cutout.	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 susceptable to warpage when exposed to direct sunlight.) It may take a few seasonal changes to work out all binding problems.
Loose Trim (wood doors)	Wood doors after being installed will sometimes shrink slightly as the building dries out.	Tighten all screws as needed.
Latch bolt hangs up in lock body.	Foreign object in lock body (metal shavings, saw dust, wood particles, mineral core etc.)	Remove lock from door and remove foreign object from body.* Lubricate if necessary.
	Lock body lacks lubrication or lubrication has gummed up with age.	Use penetrating or solvent type lubricant as a cleaning agent to loosen frozen or sticking components. Lubricate with silicone base or Lithium Grease.
Cylinder Jams up.	Dirt or other foreign object may be in keyway affecting operation.	Lubricate cylinder with graphite or other non-oily lubricant (such as **Lock-EZE**) Do not use oil based lubricants in keyway.

* Please note: Disassembling lock body will void warranty.

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Hole Chart

Hole	Size H.M. Door	Size Wood Door	Used for
A	FL RL 1-1/8 Dia. (29)	1-1/8 Dia. (29)	Knobs And Lever
A	SL 1-1/2 Dia. (48)	1-7/8 Dia. (48)	Knobs And Lever
B	1-1/4 Dia. (32)	1-1/4 Dia. (32)	Cylinder
C	3/4 Dia. (19)	3/4 Dia. (19)	Thumbturn or Emergency Key
D	3/4 Dia. (19)	3/4 Dia. (19)	Hotel Indicator and Visual Occupancy Indicator
E	5/16 Dia. (8)	5/16 Dia. (8)	Rose Thru-Bolts
F	See page 6 section 15 for details.		
G	1/2 Dia. (13)	1/2 Dia. (13)	Escutcheon Plate Thru-Bolts
H	.116 Dia. (2.9) #32 Drill	1/16 Dia. (1.6)	Surface Escutcheon Plate Attaching
J	.152 Dia. (3.9) #24 Drill	11/64x1Dp. (4.4x25) C'bore 1/2x1/8 Dp. (13x3)	Surface Escutcheon Plate Attaching Screws
K	.116 Dia. (2.9) #32 Drill	1/16 Dia. (1.6)	REFLECTIONS© THUMBTURN & COIN TURN ASSEMLBIES

Note:
When installing lock functions with thumbturn see step 15 for hole placement.

HOLE CHART

YMM100 LOCK FUNCTION	8800 LOCK FUNCTION (KNOB, FL, *RL and SL)	SECTION TRIM OUTSIDE	SECTION TRIM INSIDE	THRU-BOLTED ESC. OUTSIDE	THRU-BOLTED ESC. INSIDE	SURFACE ESC. OUTSIDE	SURFACE ESC. INSIDE
YMM101FL	8801 8870DT 8871DT 8872DT 8880 8881 8884 8885 836A&B 838A&B	A,E	A,E	A,G	A,G	A,H	A,H
YMM102FL	8802 8865	A,C,E,F	A,C,E,F	A,C,G	A,C,G	A,C,H	A,C,H
YMM105FL YMM107FL YMM108FL	8805 8807 8808 8824 8831	A,B,E	A,E	A,B,G	A,G	A,B,H	A,H
	8890 8891	A,B*,E	A,B*,E	A,B*,G	A,B*,G	A,B*,H	A,B*,H
YMM108-2FL YMM112-2FL YMM117-2FL YMM160-2FL	8808-2 8811-2 8812-2 8817-2 8818-2 8830-2 8860-2 8894-2 8895-2 8896-2 8897-2 8898-2 8899-2	A,B,E	A,B,E	A,B,G	A,B,G	A,B,H	A,B,H
	8820 8827	A,B,D,E	A,C,E,F	A,B,D,G	A,C,G	A,B,D,H	A,C,H
YMM122FL YMM147FL YMM160FL	8809 8822 8832 8847 8860 8861 8867 8896 8897 8898 8899	A,B,E	A,C,E,F	A,B,G	A,C,G	A,B,H	A,C,H
	8813ST 8815	B ONLY	C,F	-	-	-	
YMM128FL	8828	NONE	A,E	NONE	A,J**	NONE	A,H
	8833	B ONLY	A,E	B ONLY	A,J**	B ONLY	A,H
	8823 8829	A,B,E	NONE	B ONLY	A,B,J,**	B ONLY	A,B,H
	8813ST-2	B ONLY	C,F,B	-	-	-	-
	8814	B ONLY		-	-	-	-
	8814-2 8833-2	B ONLY	B ONLY	-	-	-	-
YMM162FL	8835 8862	A,E,***	A,C,E,F	A,G,***	A,C,G	-	-
	8834 8834-2	B	A,B,E	B,G	A,B,G	B,H	A,B,H
	8864	A,B,C,E	A,C,E,F	A,B,C,G	A,C,G	A,B,C,H	A,C,H

(Fig. 3)

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.
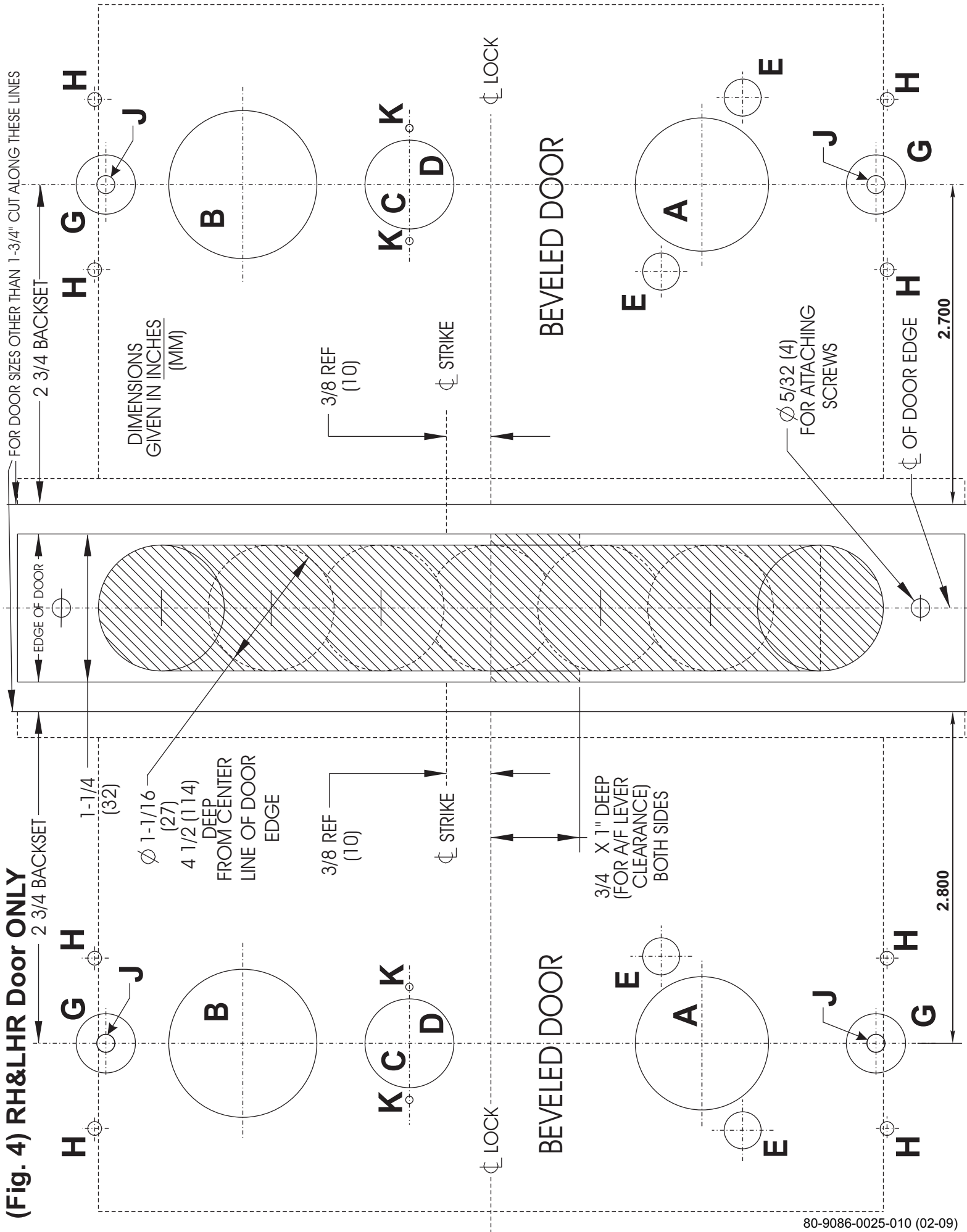
8

80-9086-0025-010 (02-09)

An ASSA ABLOY Group brand

ASSA ABLOY

(Fig. 4) RH&LHR Door ONLY

FOR DOOR SIZES OTHER THAN 1-3/4" CUT ALONG THESE LINES

2 3/4 BACKSET

DIMENSIONS GIVEN IN INCHES
(MM)

3/8 REF
(10)

₵ STRIKE

₵ LOCK

BEVELED DOOR

∅ 5/32 (4)
FOR ATTACHING SCREWS

₵ OF DOOR EDGE

2.700

H G J B K C K D E A E H J G H

2 3/4 BACKSET

1-1/4
(32)

∅ 1-1/16
(27)
4 1/2 (114)
DEEP
FROM CENTER
LINE OF DOOR
EDGE

3/8 REF
(10)

₵ STRIKE

3/4 X 1" DEEP
(FOR A/F LEVER
CLEARANCE)
BOTH SIDES

EDGE OF DOOR

BEVELED DOOR

2.800

G H J B K C K D E A E H J G H

₵ LOCK

80-9086-0025-010 (02-09)

(Fig. 5) LH&RHR Door ONLY

FOR DOOR SIZES OTHER THAN 1-3/4" CUT ALONG THESE LINES

2 3/4 BACKSET

1-1/4 (32)

DIMENSIONS GIVEN IN INCHES (MM)

H H
G
J

B

K C K
D

3/8 REF
(10)

℄ STRIKE

BEVELED DOOR

℄ LOCK

E

A

E
H
J
G

℄ OF DOOR EDGE

⌀ 5/32 (4)
FOR ATTACHING
SCREWS

2.800

EDGE OF DOOR

⌀ 1-1/16 (27)
4 1/2 (114)
DEEP
FROM CENTER
LINE OF DOOR
EDGE

2 3/4 BACKSET

G H
J

B

K C K
D

3/8 REF
(10)

℄ STRIKE

3/4 X 1" DEEP
(FOR A/F LEVER
CLEARANCE)
BOTH SIDES

BEVELED DOOR

℄ LOCK

E
A

J
G
H

E
H

2.700

80-9086-0025-010 (02-09)

(Fig. 6) Non-Beveled Door.

FOR DOOR SIZES OTHER THAN 1-3/4" CUT ALONG THESE LINES

2-3/4 BACKSET

DIMENSIONS GIVEN IN INCHES (MM)

3/8 REF (10)

℄ STRIKE

NON-BEVELED DOOR

Ø 5/32 (4) FOR ATTACHING SCREWS

℄ OF DOOR EDGE

2.750

℄ LOCK

H   J   G

B

K   C   K
    D

E

A

E

J
G   H

2-3/4 BACKSET

1-1/4 (32)

EDGE OF DOOR

Ø 1-1/16 (27)
4 1/2 (114) DEEP
FROM CENTER LINE OF DOOR EDGE

3/8 REF (10)

℄ STRIKE

3/4 X 1" DEEP
(FOR A/F LEVER CLEARANCE)
BOTH SIDES

℄ LOCK

NON-BEVELED DOOR

2.750

H   G   J

B

K   C   K
    D

E

A

E

J
G   H

80-9086-0025-010 (02-09)