BEST

dormakaba Group

H SERIES

SERVICE MANUAL

CREDITS/COPYRIGHT

Written and designed at
dormakaba Americas Headquarters
6161 East 75th Street
Indianapolis, IN 46250

T61964_Rev C 1823589 ER7991-6 August 2021

CONTENTS

TRIM PARTS 3–1

FIGURES

GETTING STARTED

LOCK PARTS AND FUNCTIONS

Trim Parts

Service and Maintenance

1 GETTING STARTED

INTRODUCTION

The *H Series Service Manual* contains essential information to help you maintain your H Series Lock.

CERTIFICATIONS AND STANDARDS

- The strike fits the standard door frame cutout as specified in ANSI A115.1.
- The lock case and faceplate dimensions fit the standard door preparation as specified in ANSI A115.1.
- The 34H/35H Locks meet or exceed ANSI A156.13, Series 1000, Grade 1 Operational, and Grade 2 Security standards.
- The 36H/37H Locks meet or exceed ANSI A156.13, Series 1000, Grade 1 Operational, and Grade 1 Security standards.
- The H Series Mortise Locks are certified in the Builders Hardware Manufacturers Association Directory and comply with the FF-HH-106C standard.
- The H Series Mortise Locks are listed by Underwriter's Laboratories for use on 3 Hr., A label doors. These locks also carry the C-UL mark.
- The 36H/37H Locks conform to UL437 Standard for Key locks, referencing door locks.

- The 36H/37H high security cylinder complies with ANSI Grade 1 Security and is UL listed (UL 437), in both Canada and the US. The cylinder also conforms to ANSI A156.5 mortise cylinder, Grade 1A standards.
- The 38H Lock conforms to ANSI 156.5, Grade 2 standards.
- The 39H Lock conforms to ANSI 156.5, Grade 1 standards.

34H–37H OVERVIEW

Lock characteristics

All 34H–37H Mortise Locks have the following characteristics:

Feature	Dimensions
Case size	5 7/8" x 4 1/4" x 1"
Backset	2 3/4"
Door thickness range	1 3/4" standard–up to 5"[a]

a. All mortise functions, except R and trim one-side-only functions, can be installed on 5" thick doors if the mortise is centered in the door.

Lock dimensions

The following diagram shows the dimensions for the 34H–37H mortise case and strike.

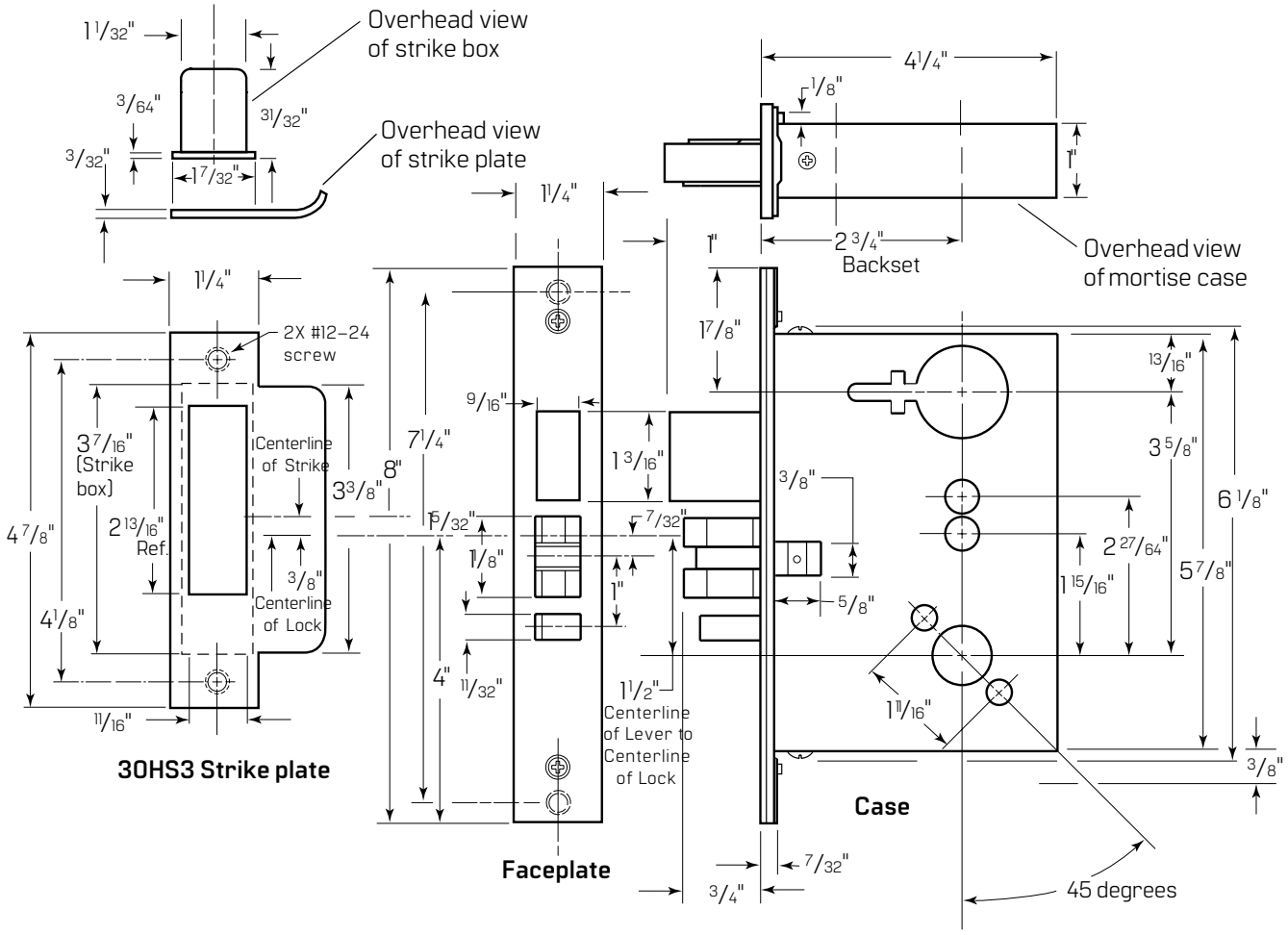


Figure 1.1 34H–37H mortise case and strike dimensions[a]

a. The 30HS1 strike hole is 3 3/16" long. The 30HS2 strike hole is 1 13/16" long.

Door prep by trim

The following chart describes what holes need to be drilled for different 34H–37H escutcheon styles. Escutcheons and lock cases are superimposed over the hole patterns.

Caution

Drill holes only on the side of the door on which they are required. Some holes shown below are drilled only on the inside or outside of the door. For more information, see the appropriate template.

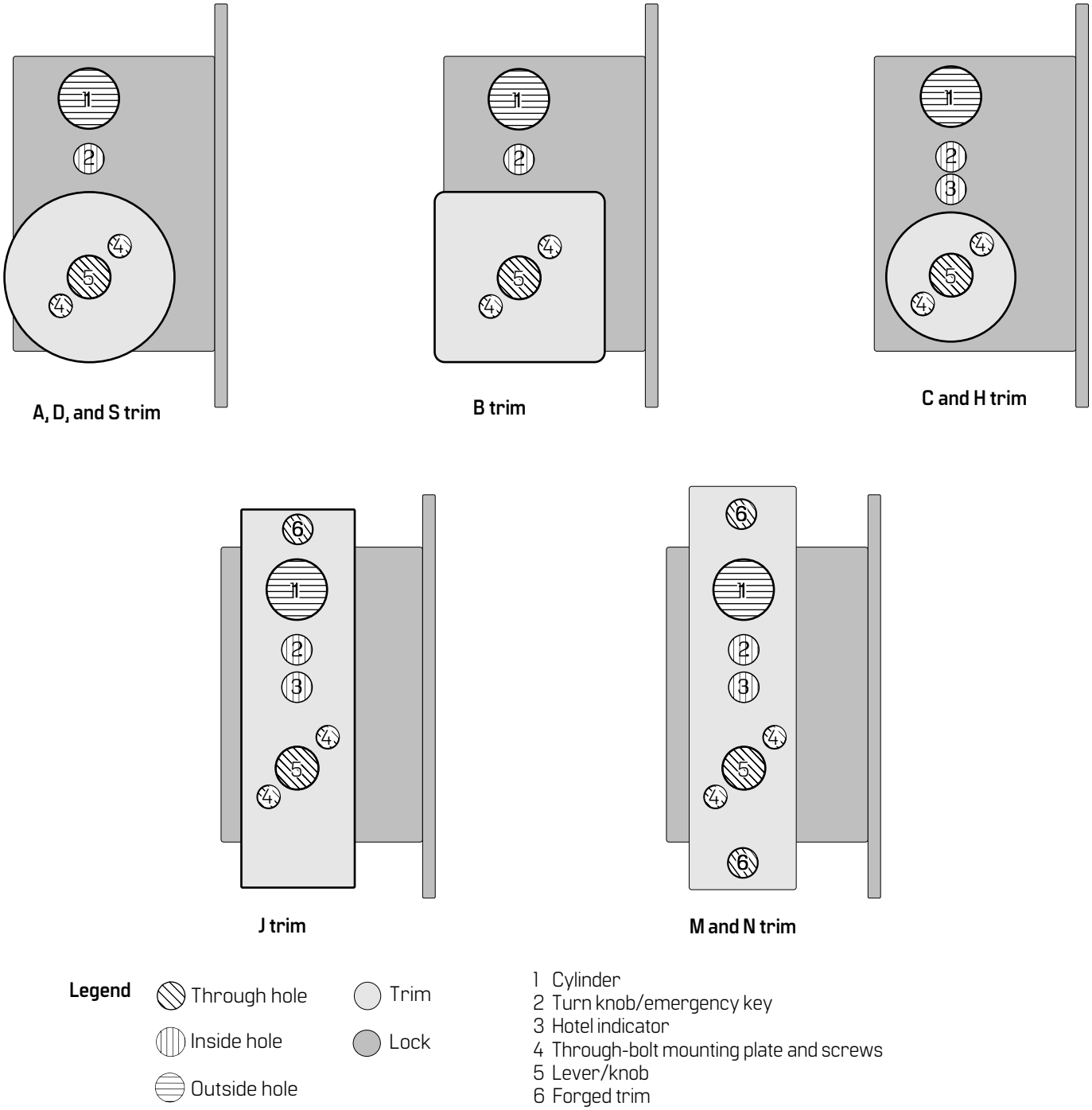


Figure 1.2 34H–37H trim hole overview

38H–39H OVERVIEW

Lock characteristics

All 38H–39H Mortise Locks have the following characteristics:

Feature	Dimensions
Case size	4 3/16" x 3 5/8" x 1"
Backset	2 3/4"
Door thickness range	1 3/4" standard-up to 5"[a]

a. All mortise functions, except R and trim one-side-only functions, can be installed on 5″ thick doors if the mortise is centered in the door.

Lock dimensions The following diagram shows the dimensions of the 38H–39H mortise case and strike.

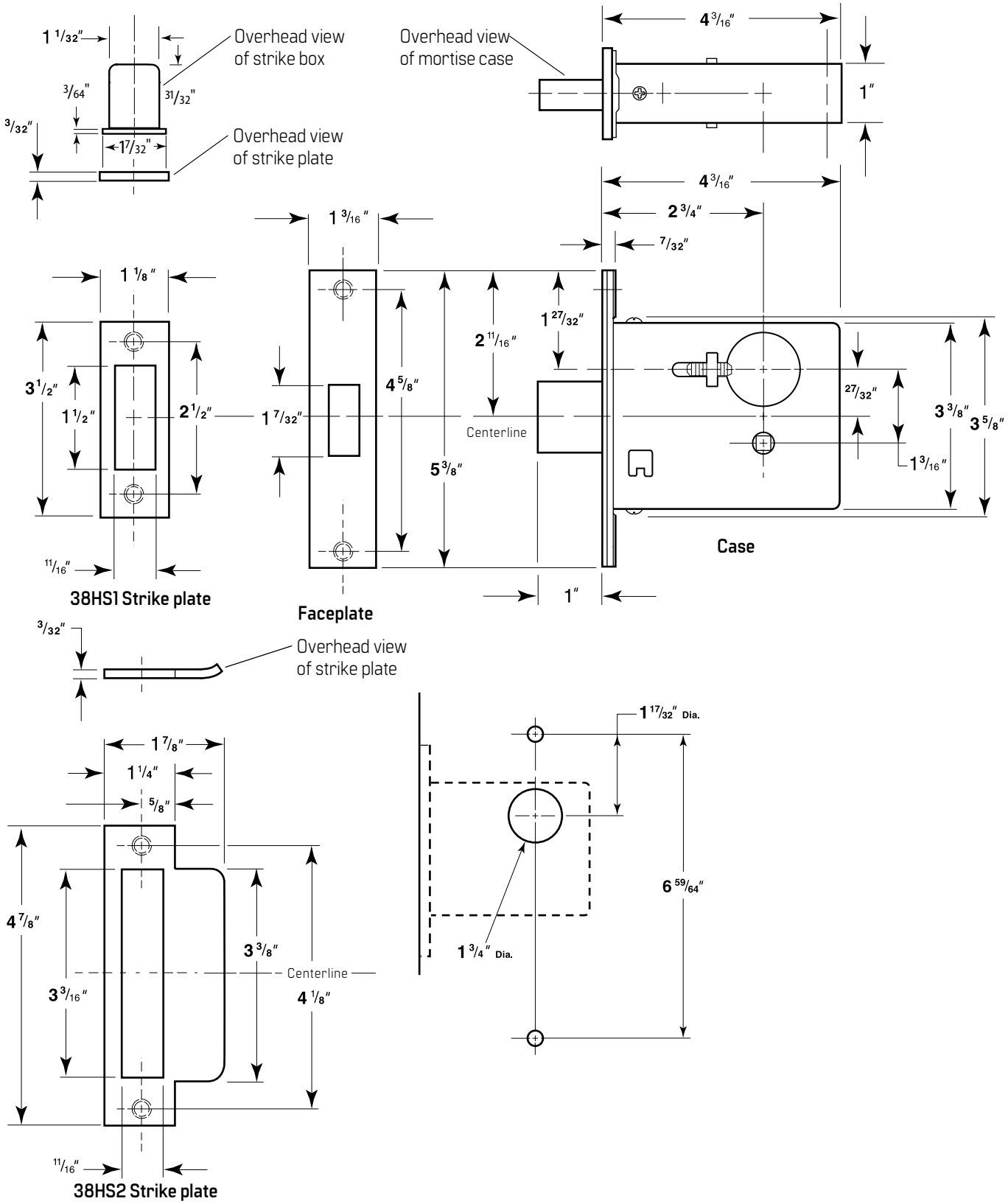


Figure 1.3 38H–39H mortise case and strike dimensions

Door prep by trim

The following chart describes what holes need to be drilled for 38H–39H M & N escutcheon styles. Escutcheons and lock cases are superimposed over the hole patterns.

Caution

Drill holes only on the side of the door on which they are required. Some holes shown below are drilled only on the inside or outside of the door. For more information, see the appropriate template.

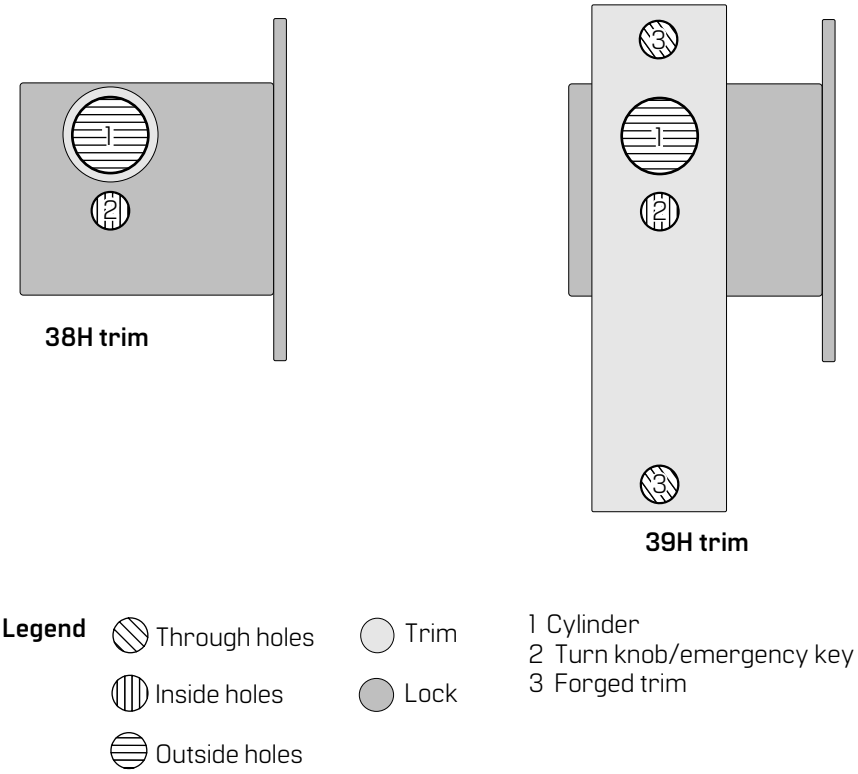


Figure 1.4 38H–39H trim hole overview

DOCUMENTATION PACKAGE

The following documentation is available to help you with the installation, start-up, and maintenance of your H Series Lock.

The installation and assembly instructions also can be ordered separately:

Document Title	Doc. No.
Installation Instructions for 34H–37H Mortise Locks	T61959
Adjustment Instructions for 30H Hotel Indicator Trim	T61960
35H/37H Latch Holdback Operating Instructions	T61961
Installation Instructions for 30H Hook Spindles	T61962
Installation Instructions for 34H/35H Dummy Trim	T61963
Door Wiring Instructions for Electrically-Operated Locks	T61926
Wiring Instructions for 34H–37H Series Electrically-Operated Mortise Locks	T61993

The templates required for lock installations also can be ordered separately:

Document Title	Doc. No.
H03 Template; Installation Specification for the 34H-37H Mortise Lock	T61950
H04 Template; Hole Pattern Chart for 34H-37H Mortise Locks	T61951
H06 Template; Installation Specifications for 38/39H Mortise Locks	T61952
H08 Template; Installation Template for 38H/39H Mortise Locks	T61953
H09 Template; Installation Template for the 34H-37H Mortise Lock (A, B, C, D, H, S trim)	T61954
H11 Template; Strike Specifications for 34H-37H Mortise Locks	T61955
H12 Template; Installation Template for the 34H-37H Mortise Lock (J trim)	T61956
H13 Template; Installation Template for the 34H-37H Mortise Lock (M & N trim)	T61957
H14 Template; Installation Specification for the 34H-37H Mortise Lock with Integrated Door Hardware (IDH) Option	T61958
E01 Template for 1E Cylinders	T61965
E02 Template for 1E_D4 Cylinders	T61966
E03 Template for 1E_E4 Cylinders	T61967
E04 Template for 3E Cylinders	T61968
E05 Template for 5E Cylinders	T61969
E06 Template for 1E7J4 and 1E7K4 Cylinders	T61970

Document Title	Doc. No.
Installation Instructions for the Rim Lock Cylinder	T61971
Installation Instructions for the Mortise Lock Cylinder	T61972
Installation Instructions for 38H–39H Mortise Locks	T61994

TECHNICAL SUPPORT

Support services

When you have a problem with an H Series Lock, your first resource for help is the *H Series Service Manual*. If you cannot find a satisfactory answer, contact your local dormakaba representative.

Telephone technical support

A factory-trained Certified Product Specialist (CPS) is available in your area whenever you need help. Before you call, however, please make sure you are where the hardware is, and that you are prepared to give the following information:

- what happened and what you were doing when the problem arose
- what you have done so far to solve the problem

dormakaba USA Inc. representatives provide telephone technical support for all 9K Series products. You may locate the representative nearest you by calling (800) 392-5209 Monday through Friday, between 8:00 a.m. and 5:00 p.m. eastern standard time; or visit the web page, https://dhwsupport.dormakaba.com/hc/en-us.

Training seminars

dormakaba holds training sessions for its customers. The seminars are specifically designed for dormakaba end-users who have a registered a dormakaba [BEST branded product] masterkeyed system and registered a dormakaba [BEST branded product] security equipment. If you are interested, you may contact your local dormakaba representative for details.

2 Lock Parts and Functions

The following pages contain function descriptions for all H Series Locks. This chapter also includes exploded diagrams that show all field serviceable mechanical parts and function conversion information.

For information about the EWEU/EL, WWEU/EL, and YEU/EL functions, see the *W Series Service Manual*.

FUNCTIONS BY ANSI DESIGNATION AND LOCK FUNCTION QUICK REFERENCE

ANSI No.	Function
F01	N
F02	L
F04	E
F05	J
F07	EW
F08	A
F09	G
F10	A
F12	F
F13	FW
F14	C
F15	HF
F16	T
F17	P
F18	S
F19	LF
F20	AW
F21	B

Function	Description page number	Diagram page number
A	2–3	2–12
AW	2–3	2–13
B	2–4	2–15
BW	2–4	2–14
B4/B5	2–10	2–28
B6/B7	2–10	2–29
C	2–6	2–15
E	2–4	2–16
EW	2–4	2–17
F	2–4	2–18
FD	2–4	2–19
FW	2–5	2–20
G	2–6	2–21
GHB	2–10	2–27
HF	2–5	2–19
HJ	2–5	2–19
IND	2–6	2–20
INL	2–6	2–21
J	2–5	2–21
JHB	2–10	2–27
K	2–11	2–34
L	2–11	2–34
LF	2–9	2–20
M	2–11	2–34
N	2–9	2–22
P	2–8	2–23
R	2–8	2–23
S	2–8	2–23
T	2–8	2–23
TR	2–11	2–25
TRK	2–11	2–26
W	2–7	2–12
WW	2–7	2–24
Y	2–9	2–17

FUNCTION DESCRIPTIONS

This section includes function descriptions grouped by the following function types:

- 34H–37H single-keyed
- 34H–37H double-keyed
- 34H–37H deadlocked
- 34H–37H non-keyed
- 34H–37H special
- 38–39H cylinder deadlocked.

Note: If the function is ANSI defined, BHMA defined, or has a federal number, the appropriate designation appears by the function name.

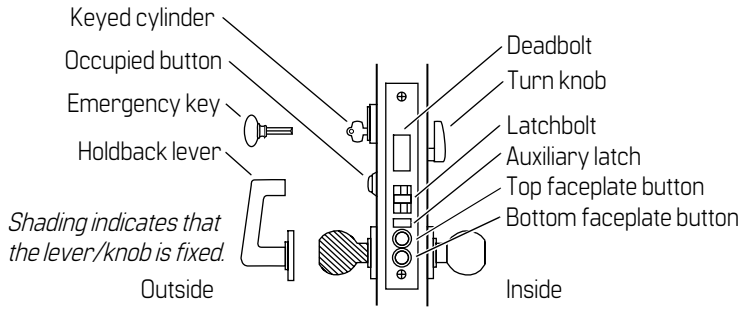
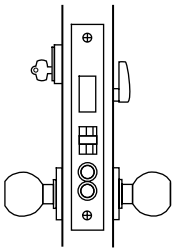


Figure 2.1 Understanding function drawings

34H–37H single-keyed functions

The following lists describe how the latchbolt, deadbolt, outside lever/knob, and inside lever/knob operate for each single-keyed 34H–37H function.

A–Entrance lock (ANSI F08/F10, Fed. 86A)



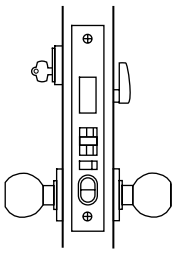
Latchbolt operated by:
- outside key
- outside lever/knob when the bottom faceplate button is pressed in
- inside lever/knob when the deadbolt is retracted

Deadbolt operated by:
- outside key
- inside turn knob

Outside lever/knob locked by:
- extending the deadbolt
- top faceplate button

Inside lever/knob locked by:
- extending the deadbolt

AW–Entrance lock (ANSI F20)



Latchbolt operated by:
- outside key
- outside lever/knob when the bottom faceplate button is depressed and the deadbolt is retracted
- inside lever/knob

Deadbolt operated by:
- outside key
- inside turn knob
- inside lever/knob retracts the deadbolt and latchbolt simultaneously

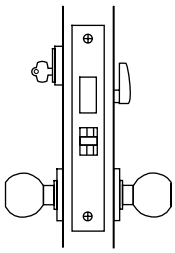
Outside lever/knob locked by:
- top faceplate button
- extending the deadbolt

Outside lever/knob unlocked by:
- bottom faceplate button

Inside lever/knob is always unlocked

Note: The latchbolt is deadlocked with an auxiliary deadlatch.

B–Entrance lock (ANSI F21, Fed. 86B)

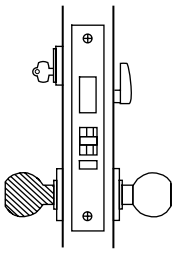


Latchbolt operated by:
- outside key
- outside lever/knob when the deadbolt is retracted
- inside lever/knob when the deadbolt is retracted

Deadbolt operated by:
- outside key
- inside turn knob

Inside and outside lever/knob locked by:
- extending the deadbolt

BW–Entrance or storeroom lock



Latchbolt operated by:
- outside key
- inside lever/knob when the deadbolt is retracted

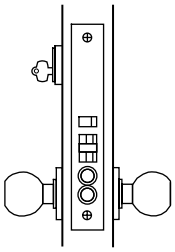
Latchbolt is deadlocked by an auxiliary latch

Deadbolt operated by:
- outside key
- inside turn knob

Outside lever/knob is always fixed

Inside lever/knob locked by:
- extending the deadbolt

E–Entrance lock (ANSI F04, Fed. 86A, 87B)



Latchbolt operated by:
- outside key
- outside lever/knob when the bottom faceplate button is depressed
- inside lever/knob

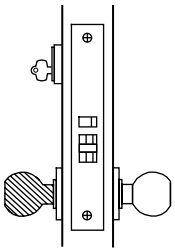
Latchbolt is deadlocked by an auxiliary latch

Outside lever/knob locked by:
- top faceplate button

Outside lever/knob unlocked by:
- bottom faceplate button

Inside lever/knob is always unlocked

EW–Storeroom lock (ANSI F07, Fed. 86EW)



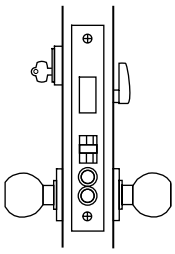
Latchbolt operated by:
- outside key
- inside lever/knob

Latchbolt is deadlocked by an auxiliary latch

Outside lever/knob is always fixed

Inside lever/knob is always unlocked

F–Dormitory or exit lock (ANSI F12, Fed. 86F)



Latchbolt operated by:
- outside key
- outside lever/knob when the bottom faceplate button is depressed and the deadbolt is retracted
- inside lever/knob

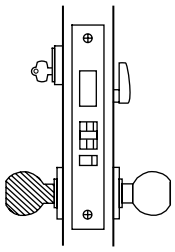
Deadbolt operated by:
- outside key
- inside turn knob
- inside lever/knob retracts the deadbolt and latchbolt simultaneously

Outside lever/knob locked by:
- top faceplate button
- extending the deadbolt

Outside lever/knob unlocked by:
- bottom faceplate button

Inside lever/knob is always unlocked

FD–Dormitory or exit lock



Latchbolt operated by:
- outside key
- inside lever/knob

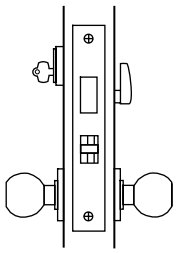
Latchbolt is deadlocked by an auxiliary latch

Deadbolt operated by:
- outside key
- inside turn knob
- inside lever/knob retracts the deadbolt and latchbolt simultaneously

Outside lever/knob is always fixed

Inside lever/knob is always unlocked

FW–Dormitory or exit lock (ANSI F13, Fed. 86FW)



Latchbolt operated by:
- outside lever/knob when deadbolt is retracted
- inside lever/knob

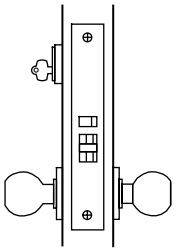
Deadbolt operated by:
- outside key
- inside turn knob
- inside lever/knob retracts the deadbolt and latchbolt simultaneously

Outside lever/knob locked by:
- extending the deadbolt

Outside lever/knob unlocked by:
- retracting the deadbolt

Inside lever/knob is always unlocked

J–Classroom lock (ANSI F05, Fed. 86J)



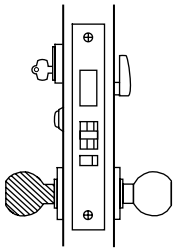
Latchbolt operated by:
- outside key
- outside lever/knob when unlocked by the outside key
- inside lever/knob

Latchbolt deadlocked by an auxiliary latch

Outside lever/knob locked and unlocked by:
- outside key

Inside lever/knob is always unlocked

HF–Hotel lock (ANSI F15, Fed. 86H)



Latchbolt operated by:
- outside key
- inside lever/knob

Latchbolt is deadlocked by an auxiliary latch

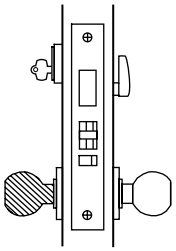
Deadbolt operated by:
- outside special master key
- inside turn knob
- inside lever/knob retracts the deadbolt and latchbolt simultaneously

Outside lever/knob is always fixed

Inside lever/knob is always unlocked

Note 1: Extending the deadbolt sets the "occupied" button and blocks all operating keys.
Note 2: Available in 34H and 35H locks only.

HJ–Hotel lock



Latchbolt operated by:
- outside key
- inside lever/knob

Latchbolt is deadlocked by an auxiliary latch

Deadbolt operated by:
- outside special master key
- inside turn knob
- inside lever/knob retracts the deadbolt and latchbolt simultaneously

Outside lever/knob is always fixed

Inside lever/knob is always unlocked

Note: Available in 34H and 35H locks only.

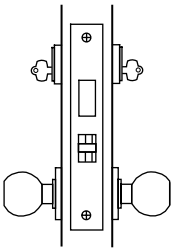
34H–37H double-keyed functions

The following lists describe how the latchbolt, deadbolt, outside lever/knob, and inside lever/knob operate for each double-keyed 34H–37H function.

Warning!

Locks that secure both sides of the door are controlled by building codes and the Life Safety Code®. In an emergency exit situation, failure to quickly unlock the door could be hazardous or even fatal.

C–Communicating lock (ANSI F14, Fed. 86C)

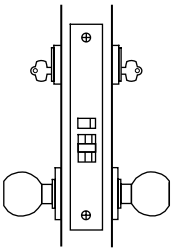


Latchbolt operated by:
- outside lever/knob when deadbolt is retracted
- inside lever/knob when deadbolt is retracted

Deadbolt operated by:
- outside key
- inside key

Outside and inside lever/knob locked and unlocked by:
- outside key
- inside key

G–Public entrance lock (ANSI F09, Fed 86G, 87G)



Latchbolt operated by:
- outside key
- outside lever/knob when unlocked by inside key
- inside lever/knob

Latchbolt is deadlocked by an auxiliary latch

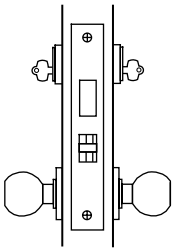
Outside lever/knob locked by:
- inside key

Outside lever/knob unlocked by:
- inside key

Inside lever/knob is always unlocked

Note: The inside cylinder may be combinated to operate by the master key only.

IND–Intruder lock



Latchbolt operated by:
- outside and inside key
- outside lever/knob when deadbolt is retracted
- inside lever/knob

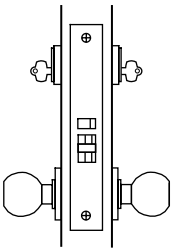
Deadbolt operated by:
- outside and inside key
- inside lever/knob retracts the deadbolt and latchbolt simultaneously

Outside lever/knob locked by:
- extending the deadbolt

Outside lever/knob unlocked by:
- retracting the deadbolt

Inside lever/knob is always unlocked

INL–Intruder lock



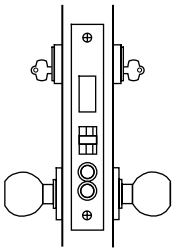
Latchbolt operated by:
- outside and inside key
- outside lever/knob when not locked by inside or outside key
- inside lever/knob

Latchbolt is deadlocked by an auxiliary latch

Outside lever/knob locked and unlocked by:
- outside key and inside key

Inside lever/knob is always unlocked

W–Storeroom lock



Latchbolt operated by:
- outside key
- outside lever/knob when the bottom faceplate button is pressed in
- inside lever/knob when the deadbolt is retracted
- inside key

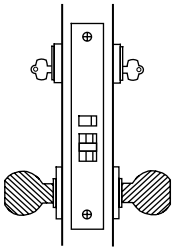
Deadbolt operated by:
- outside key
- inside key

Outside lever/knob locked by:
- top faceplate button
- extending the deadbolt

Outside lever/knob unlocked by:
- bottom faceplate button
- retracting the deadbolt Inside lever/knob locked by:
- extending the deadbolt

Inside lever/knob unlocked by:
- retracting the deadbolt

WW–Storeroom lock



Latchbolt operated by:
- outside key
- inside key

Latchbolt is deadlocked by an auxiliary latch

Outside lever/knob is always fixed

Inside lever/knob is always fixed

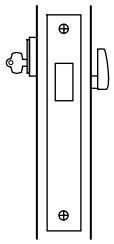
34H–36H deadlocked functions

The following lists describe how the deadbolt operates for each deadlocked 34H–36H function.

Warning!

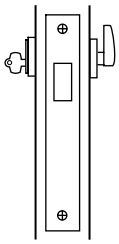
Locks that secure both sides of the door are controlled by building codes and the Life Safety Code®. In an emergency exit situation, failure to quickly unlock the door could be hazardous or even fatal.

P–Deadlock (ANSI F17, Fed. 86P)



Deadbolt operated by:
- outside key
- inside turn knob

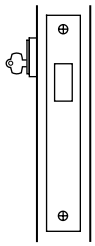
R–Classroom deadlock



Deadbolt operated by:
- outside key
- inside turn knob

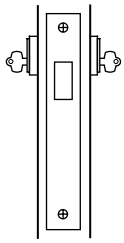
Note 1: Specify the hand of the door.
Note 2: Inside turn knob retracts the deadbolt, but will not project it.

S–Deadlock (ANSI F18, Fed. 86S)



Deadbolt operated by:
- outside key

T–Deadlock (ANSI F16, Fed. 86T)



Deadbolt operated by:
- outside key
- inside key

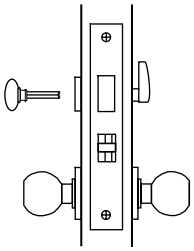
34H–35H non-keyed functions

The following lists describe how the latchbolt, deadbolt, outside lever/knob, and inside lever/knob operate for each non-keyed 34H–35H function.

Warning!

Locks that secure both sides of the door are controlled by building codes and the Life Safety Code®. In an emergency exit situation, failure to quickly unlock the door could be hazardous or even fatal.

L–Privacy lock (ANSI F02, Fed. 86L)



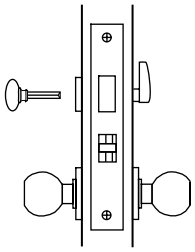
Latchbolt operated by:
- outside lever/knob when the deadbolt is retracted
- inside lever/knob when the deadbolt is retracted

Deadbolt operated by:
- outside emergency key
- inside turn knob

Inside and outside lever/knob locked by:
- extending the deadbolt Inside and outside lever/knob

unlocked by:
- retracting the deadbolt

LF–Privacy lock (ANSI F19)



Latchbolt operated by:
- outside lever/knob when the deadbolt is retracted
- inside lever/knob

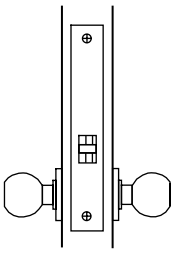
Deadbolt operated by:
- outside emergency key
- inside turn knob
- inside lever/knob retracts the deadbolt and latchbolt simultaneously

Outside lever/knob locked by:
- outside emergency key
- inside turn knob

Outside lever/knob unlocked by:
- outside emergency key
- inside turn knob
- inside lever/knob

Inside lever/knob is always unlocked

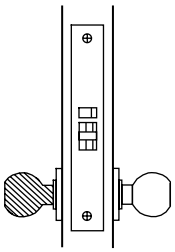
N–Passage lock (ANSI F01, Fed. 86N, 87N)



Latchbolt operated by:
- outside lever/knob
- inside lever/knob

Inside and outside levers/knobs are always unlocked

Y–Exit lock



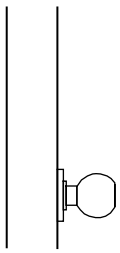
Latchbolt operated by:
- inside lever/knob

Latchbolt is deadlocked by an auxiliary latch

Outside lever/knob is always fixed

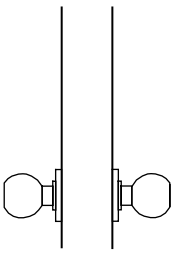
Inside lever/knob is always unlocked

1DT–Single dummy trim



This product is a single, surface mounted lever/knob for an inactive door or a non-latching door.

2DT–Double dummy trim



This product is a through-bolt mounted pair of matching levers/knobs for an inactive door or a non-latching door.

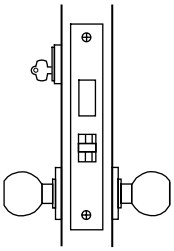
34H–37H special functions

The following lists describe how the latchbolt, deadbolt, outside lever/knob, and inside lever/knob operate for each special 34H–37H function.

Warning!

Locks that secure both sides of the door are controlled by building codes and the Life Safety Code®. In an emergency exit situation, failure to quickly unlock the door could be hazardous or even fatal.

B4/B5–Entrance lock



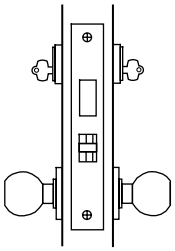
Latchbolt operated by:
- outside key
- outside lever/knob when the deadbolt is retracted
- inside lever/knob when the deadbolt is retracted

Deadbolt operated by:
- outside key

Inside and outside lever/knob locked by:
- extending the deadbolt

Note 1: Trim is removable from the outside only.
Note 2: The B4 function lock accepts a shallow grooved non-BEST cylinder. The B5 function lock accepts the standard BEST cylinder.

B6/B7–Entrance lock



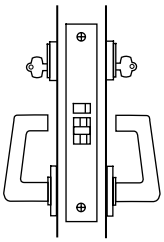
Latchbolt operated by:
- inside key
- outside key
- outside lever/knob when the deadbolt is retracted
- inside lever/knob when the deadbolt is retracted

Deadbolt operated by:
- outside key
- inside key

Inside and outside lever/knob locked by:
- extending the deadbolt

Note 1: Trim is removable from the outside only.
Note 2: The B6 function lock accepts a shallow grooved non-BEST cylinder. The B7 function lock accepts the standard BEST cylinder.

GHB–Latch hold back lock



Latchbolt operated by:
- outside key
- outside lever except when locked by the inside key
- inside lever

Latchbolt is deadlocked by an auxiliary latch

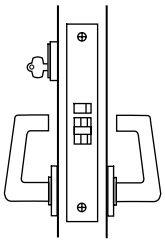
Latchbolt held retracted by:
- turning inside key while holding up the inside lever

Outside lever locked and unlocked by:
- inside key

Inside lever is always unlocked

Note: Available in 35H and 37H locks only.

JHB–Latch hold back lock



Latchbolt operated by:
- outside key
- outside lever except when locked by the outside key
- inside lever

Latchbolt is deadlocked by an auxiliary latch

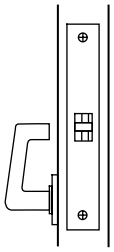
Latchbolt held retracted by:
- turning the outside key while holding up the inside lever

Outside lever locked and unlocked by:
- outside key

Inside lever is always unlocked

Note: Available in 35H and 37H locks only.

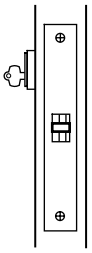
TR–Time out by lever



Latchbolt operated by:
- outside lever

Note 1: The latchbolt is extended only while holding up the lever.
Note 2: This function is used to detain a person inside a "time out room".

TRK–Time out by key



Latchbolt operated by:
- outside key

Note 1: The latchbolt is extended only while turning and holding the key.
Note 2: This function is used to detain a person inside a "time out room".
Note 3: dormakaba recommends using the large access bow key.

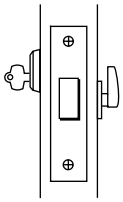
38H–39H cylinder deadlock functions

The following lists describe how the deadbolt operates for each cylinder deadlock 38H–39H function. When ordering a deadlock, specify the handing of the door.

Warning!

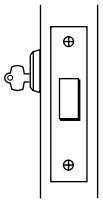
Locks that secure both sides of the door are controlled by building codes and the Life Safety Code®. In an emergency exit situation, failure to quickly unlock the door could be hazardous or even fatal.

K–Cylinder deadlock (BHMA E06071, Fed. 190K)



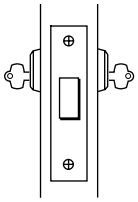
Deadbolt operated by:
- rotating the inside turn knob
- outside key

L–Cylinder deadlock (BHMA E06081, Fed. 190L)



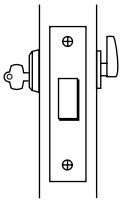
Deadbolt operated by:
- outside key

M–Cylinder deadlock (BHMA E06061, Fed. 191M)



Deadbolt operated by:
- inside or outside key

R–Cylinder deadlock (BHMA E06091, Fed. 191)



Deadbolt operated by:
- outside key
- inside turn knob

Note 1: Inside turn knob retracts the deadbolt, but does not extend it.
Note 2: Can be used only on 1 3/4" thick doors.
Note 3: Specify the hand of door when ordering the lock.

34-37H FUNCTIONS
A FUNCTION CASE—ENTRANCE LOCK
W FUNCTION CASE—STOREROOM LOCK

For part numbers, see pages 2–31, 2–32, and 3–31.

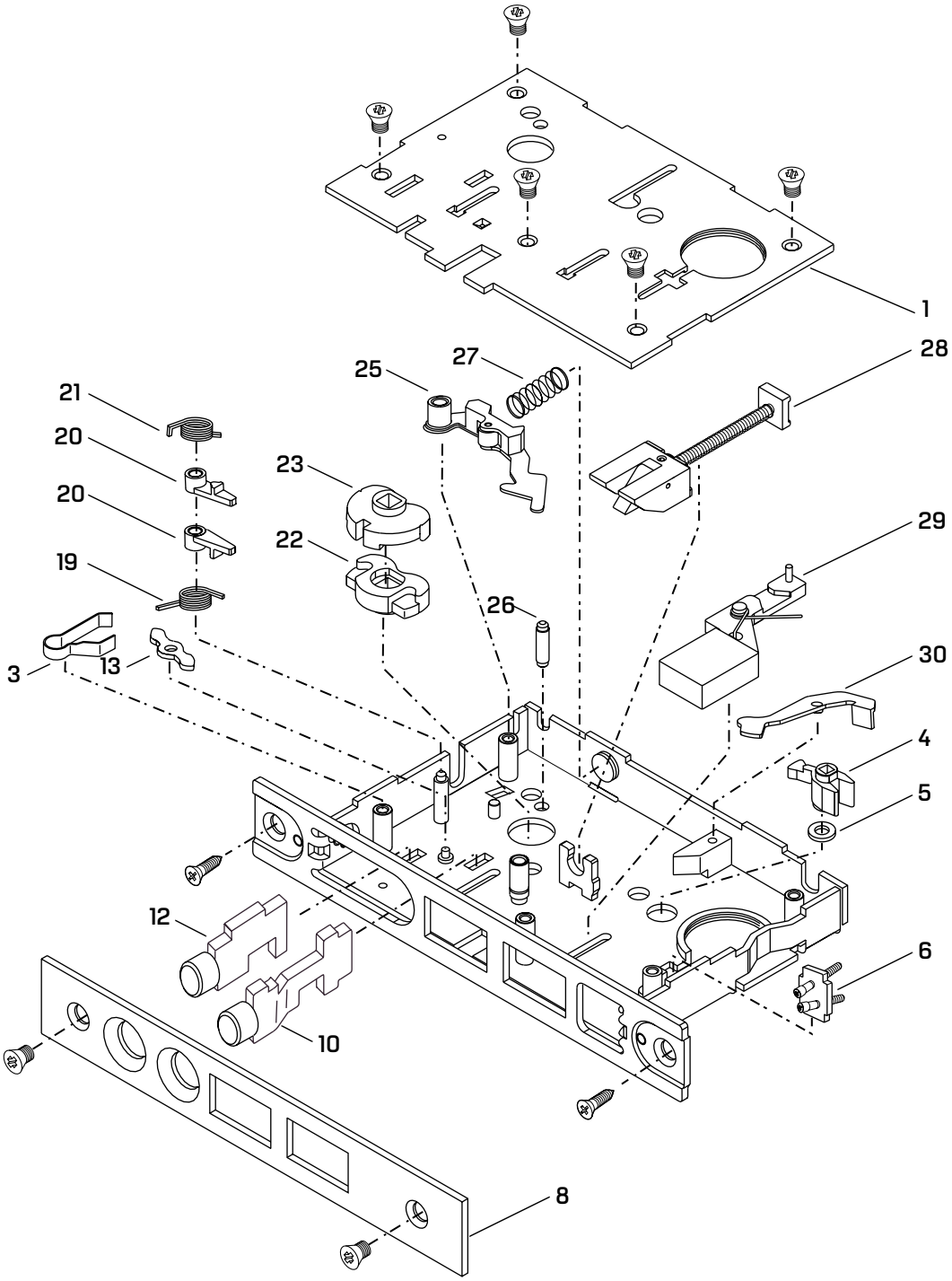


Figure 2.2 A, W function case

AW FUNCTION CASE—ENTRANCE LOCK

For part numbers, see pages 2–31, 2–32, and 3–31.

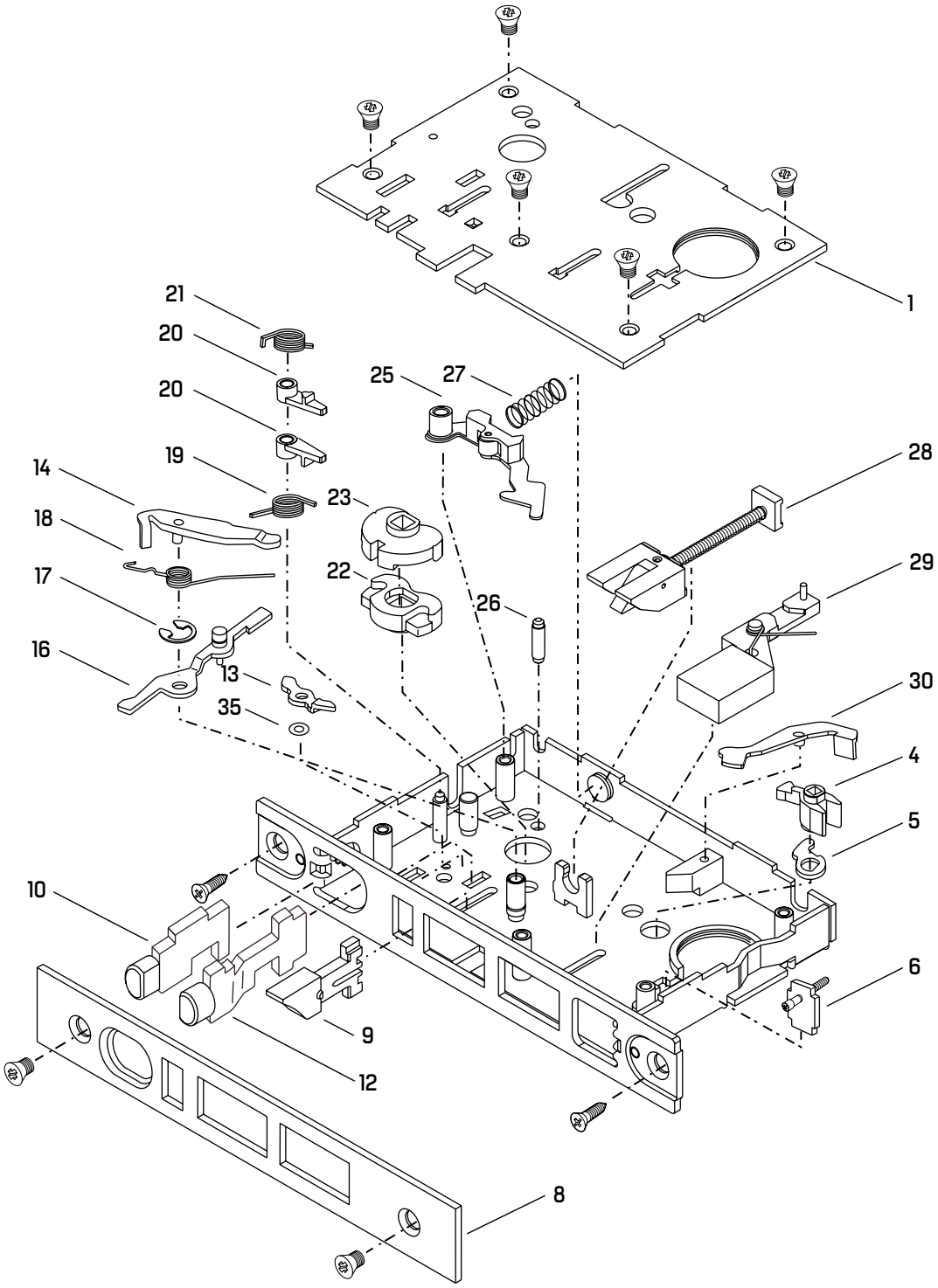


Figure 2.3 AW function case

BW FUNCTION CASE—ENTRANCE OR STOREROOM LOCK

For part numbers, see pages 2–31, 2–32, and 3–31.

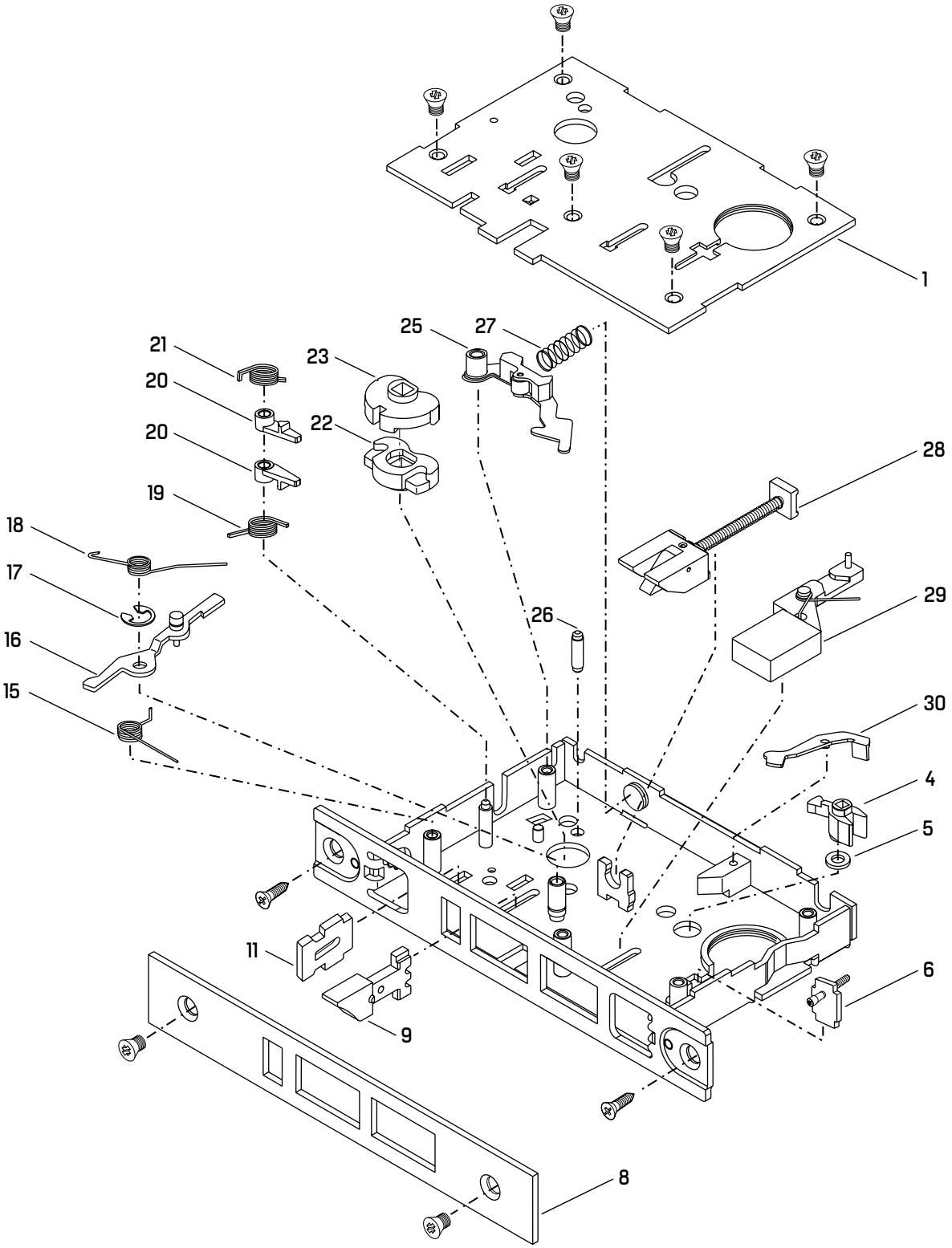


Figure 2.4 BW function case

B FUNCTION—ENTRANCE LOCK
C FUNCTION—COMMUNICATING DOOR LOCK L
FUNCTION CASE—PRIVACY LOCK

For part numbers, see pages 2–31, 2–32, and 3–31.

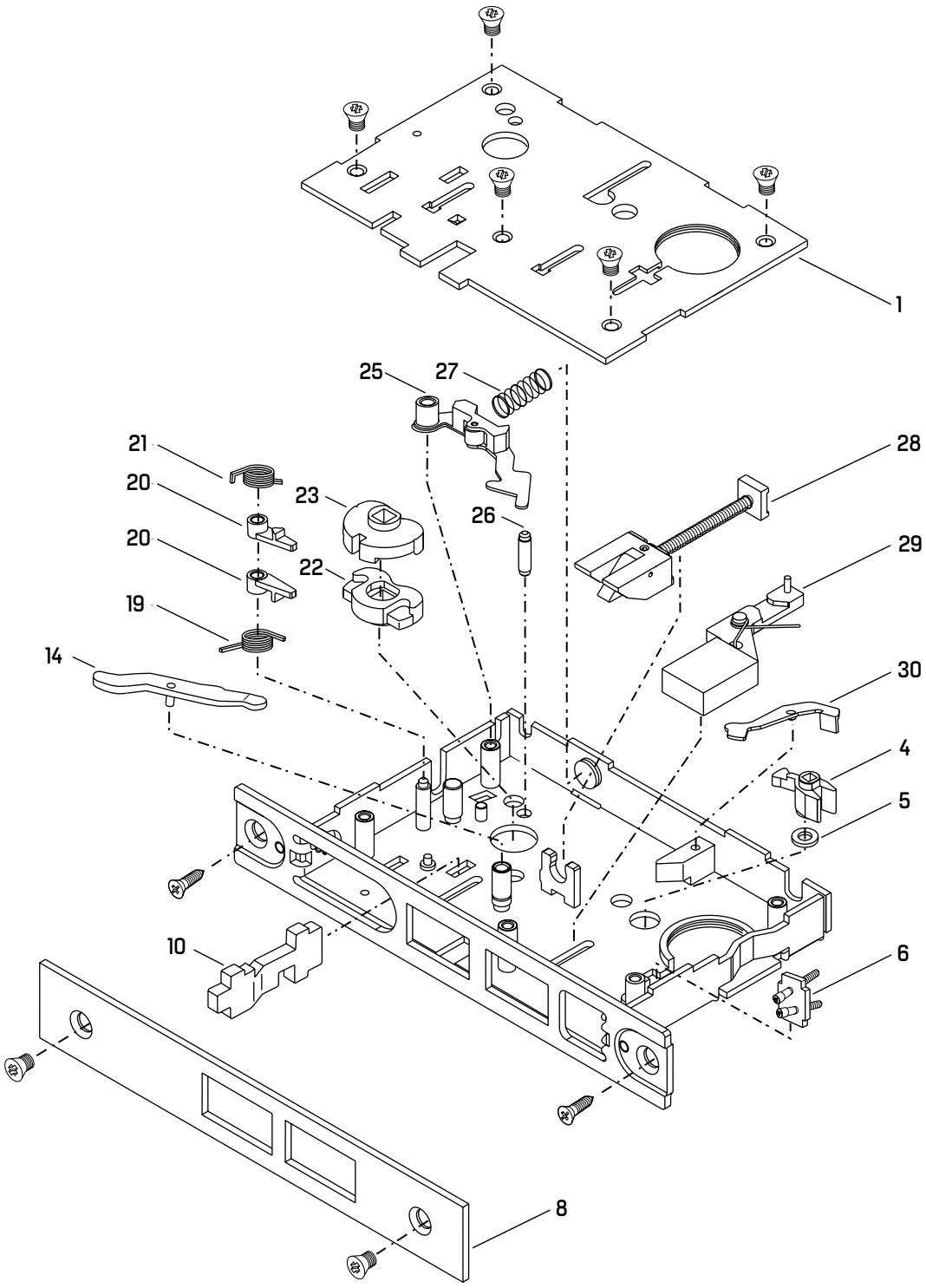


Figure 2.5 B, C, L function case

E FUNCTION CASE—ENTRANCE LOCK

For part numbers, see pages 2–31, 2–32, and 3–31.

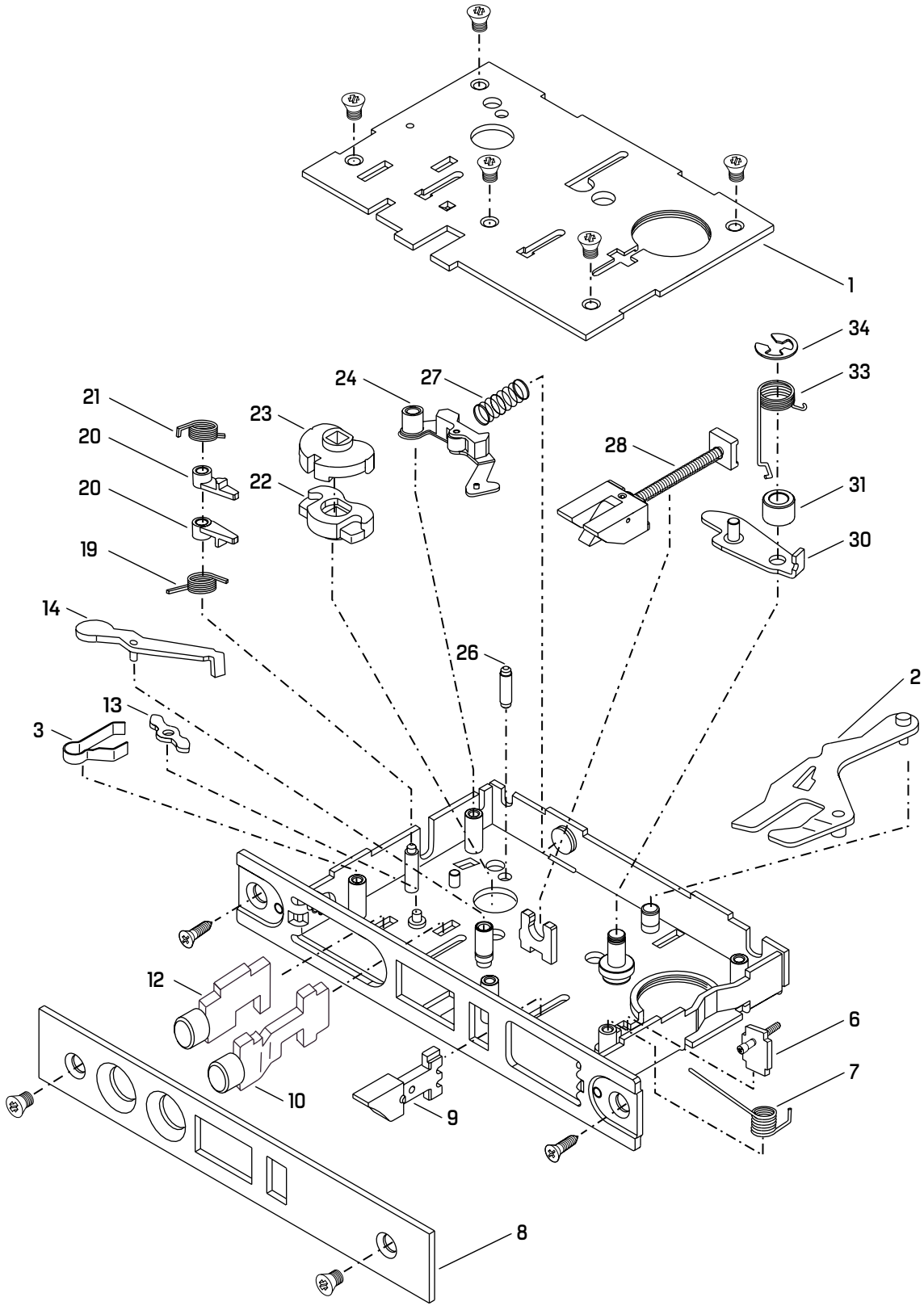


Figure 2.6 E function case

EW FUNCTION—STOREROOM LOCK
Y FUNCTION CASE—EXIT LOCK

For part numbers, see pages 2–31, 2–32, and 3–31.

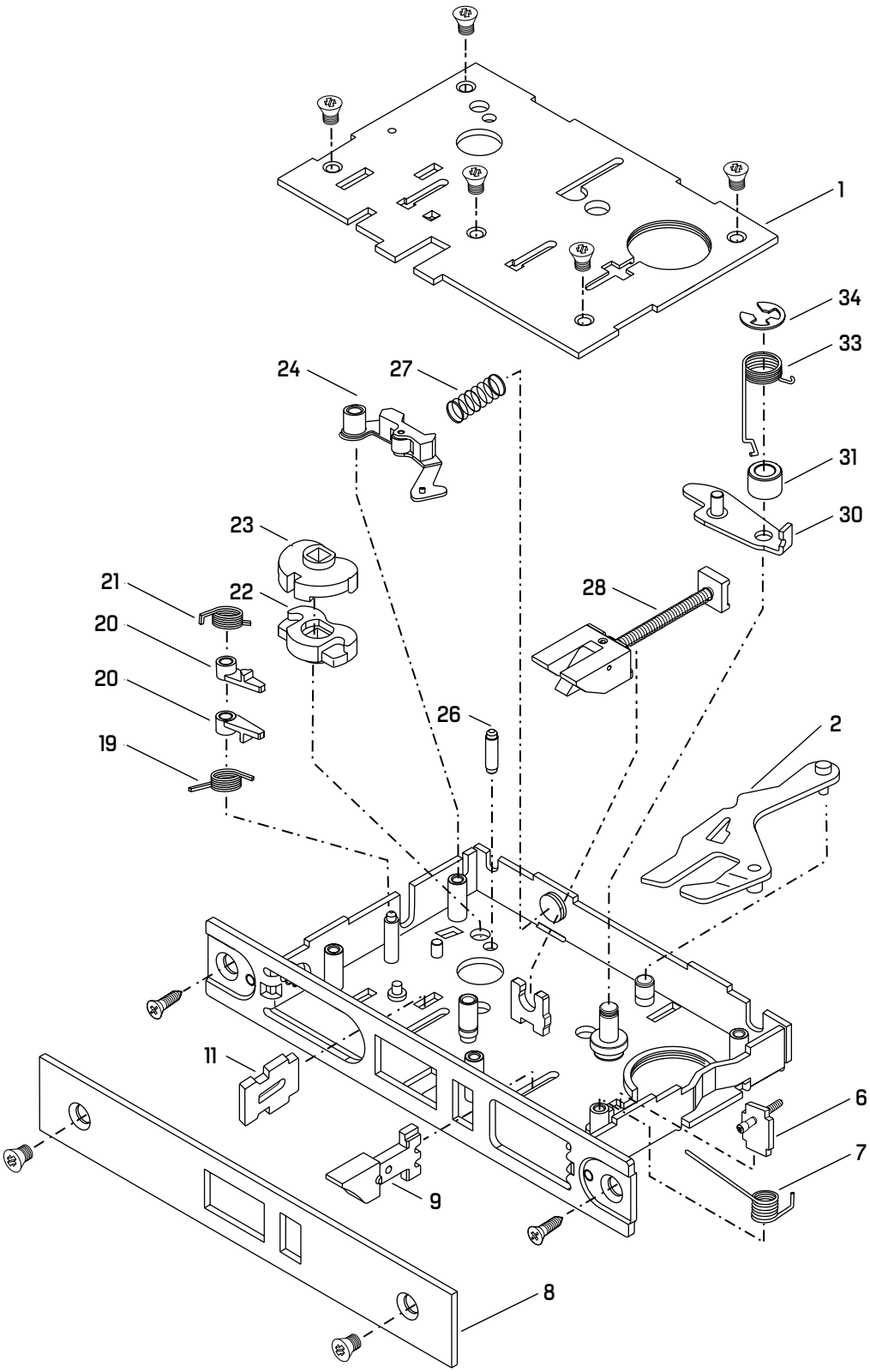


Figure 2.7 EW, Y function case

F FUNCTION CASE—DORMITORY OR EXIT LOCK

For part numbers, see pages 2–31, 2–32, and 3–31.

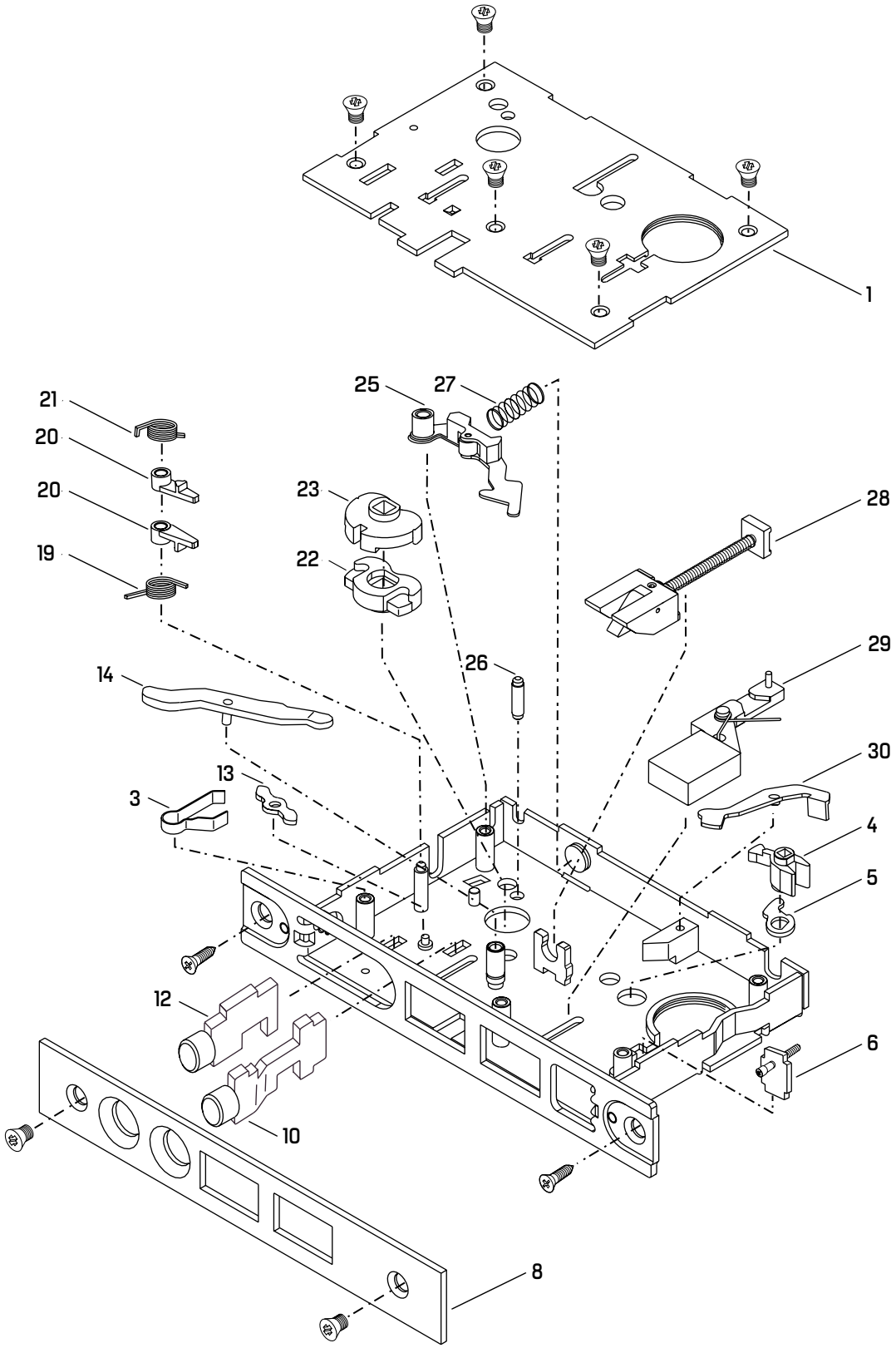


Figure 2.8 F function case

FD FUNCTION CASE—DORMITORY OR EXIT LOCK
HF FUNCTION CASE—HOTEL LOCK
HJ FUNCTION CASE—HOTEL LOCK

For part numbers, see pages 2–31, 2–32, and 3–31.

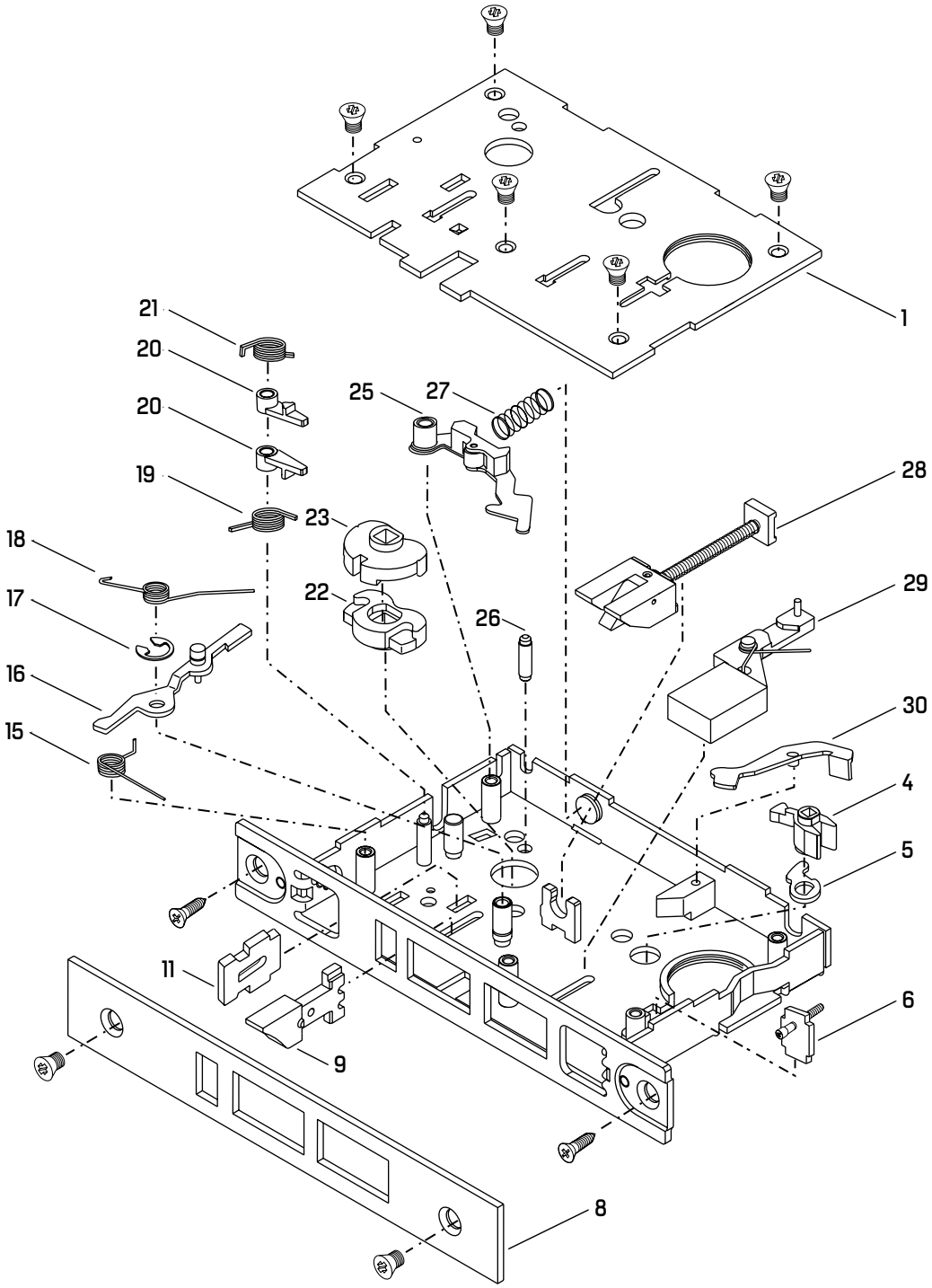


Figure 2.9 FD, HF, HJ function case

FW FUNCTION CASE—DORMITORY OR EXIT LOCK
LF FUNCTION CASE—PRIVACY LOCK
IND FUNCTION CASE—INTRUDER LOCK

For part numbers, see pages 2–31, 2–32, and 3–31.

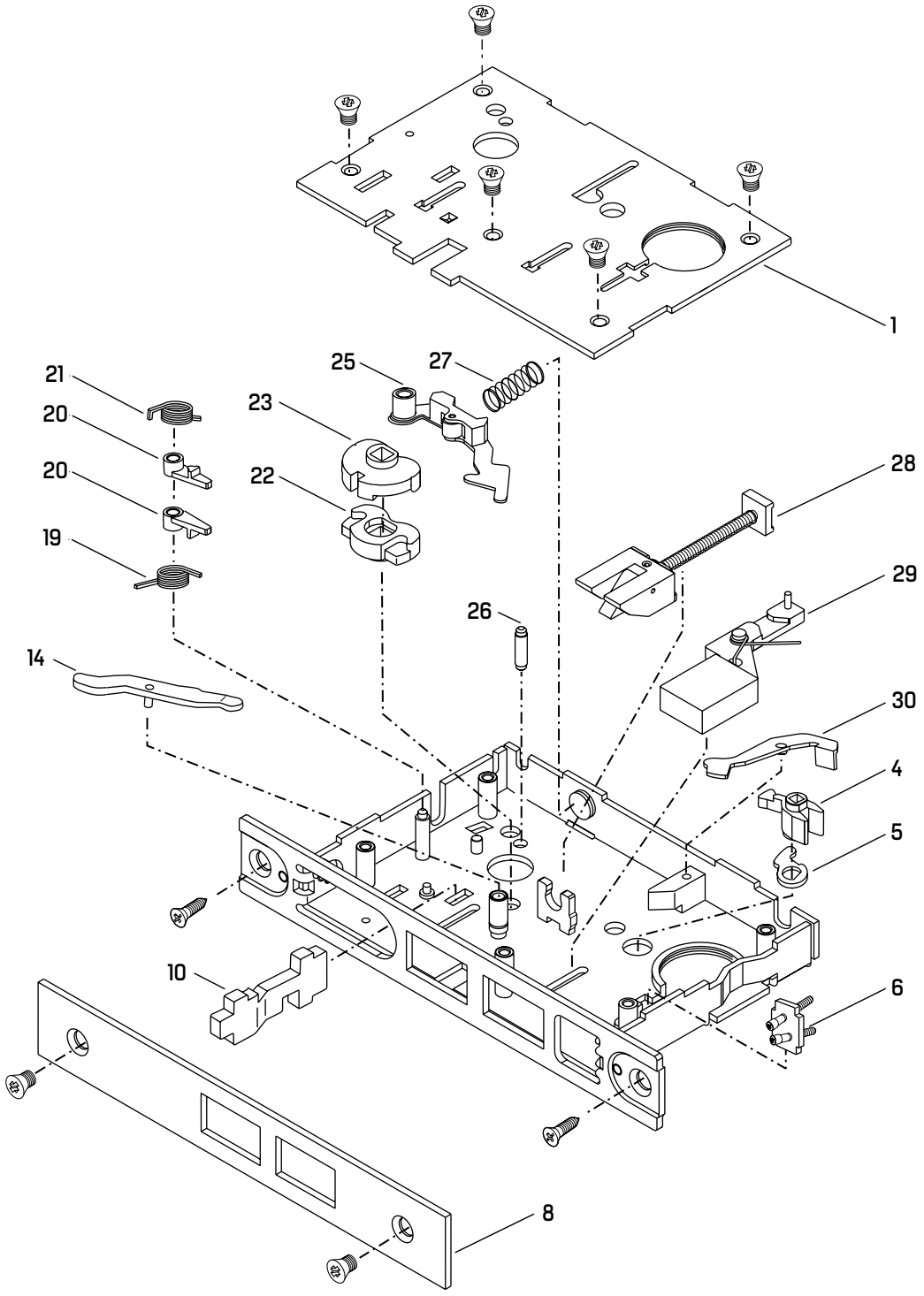


Figure 2.10 FW, LF, IND function case

G FUNCTION CASE—PUBLIC ENTRANCE LOCK
J FUNCTION CASE—CLASSROOM LOCK
INL FUNCTION CASE—INTRUDER LOCK

For part numbers, see pages 2–31, 2–32, and 3–31.

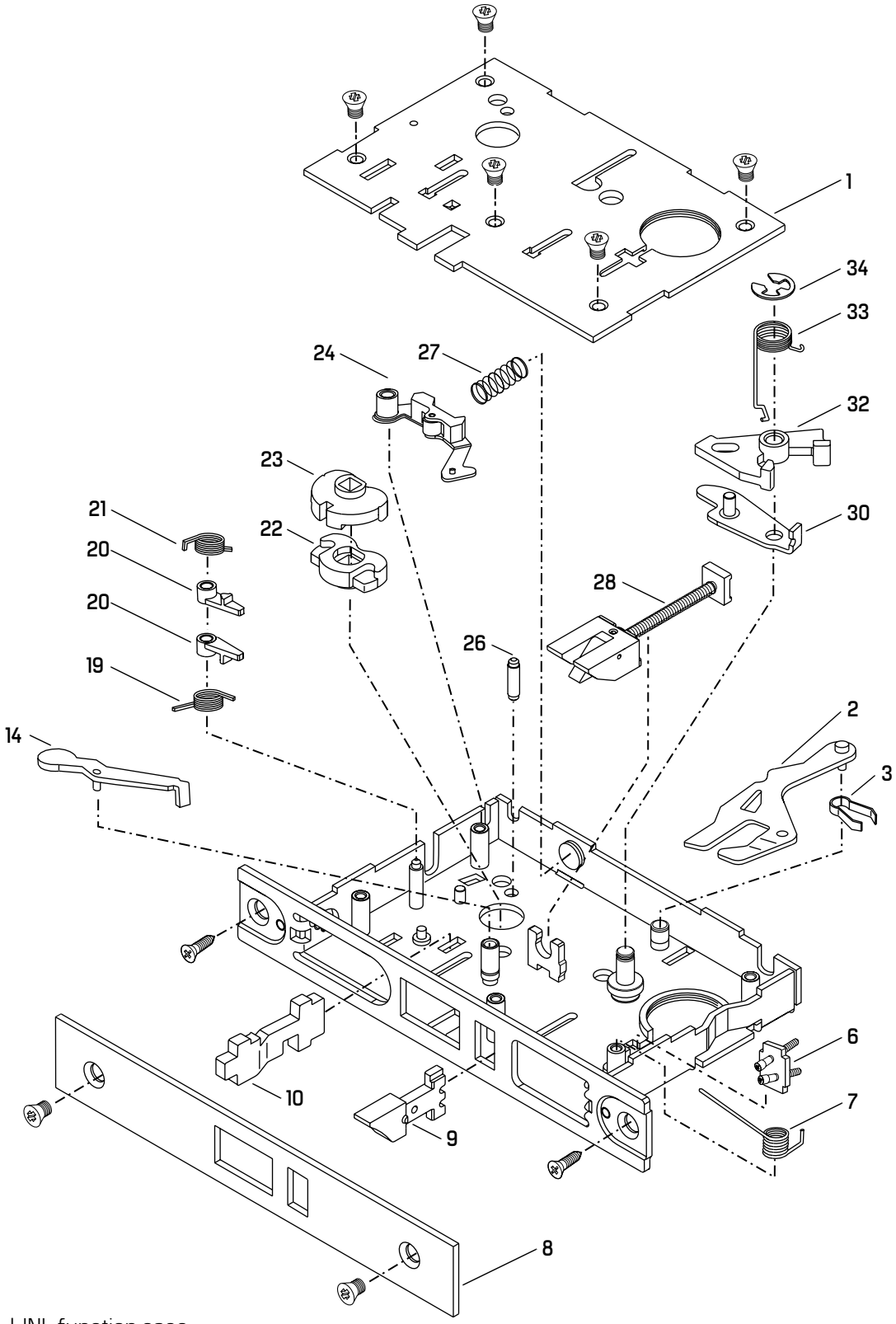


Figure 2.11 G, J, INL function case

N FUNCTION CASE—PASSAGE LOCK

For part numbers, see pages 2–31, 2–32, and 3–31.

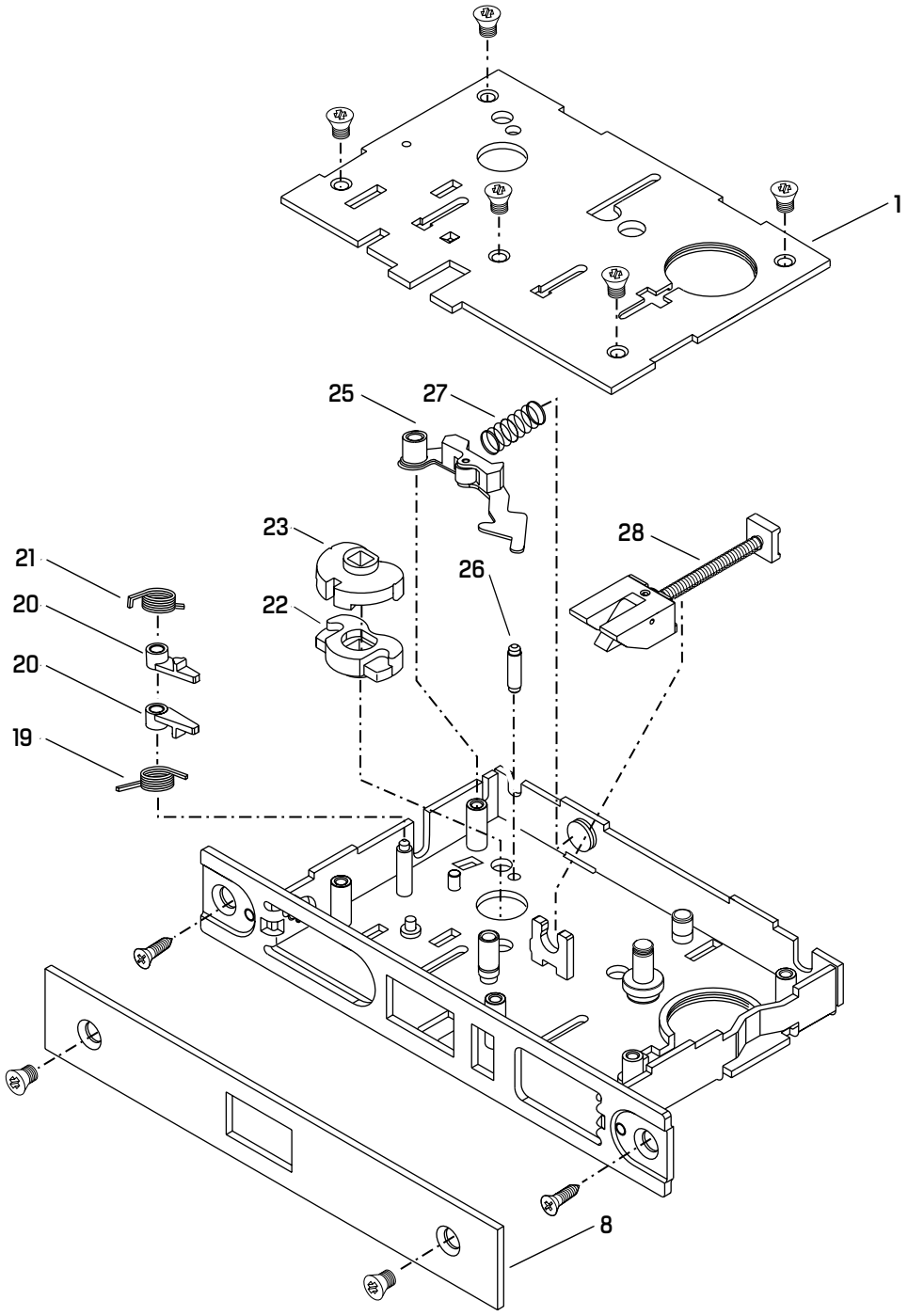


Figure 2.12 N function case

P FUNCTION CASE—DEADLOCK
R FUNCTION CASE—DEADLOCK
S FUNCTION CASE—DEADLOCK
T FUNCTION CASE—DEADLOCK

For part numbers, see pages 2–31, 2–32, and 3–31.

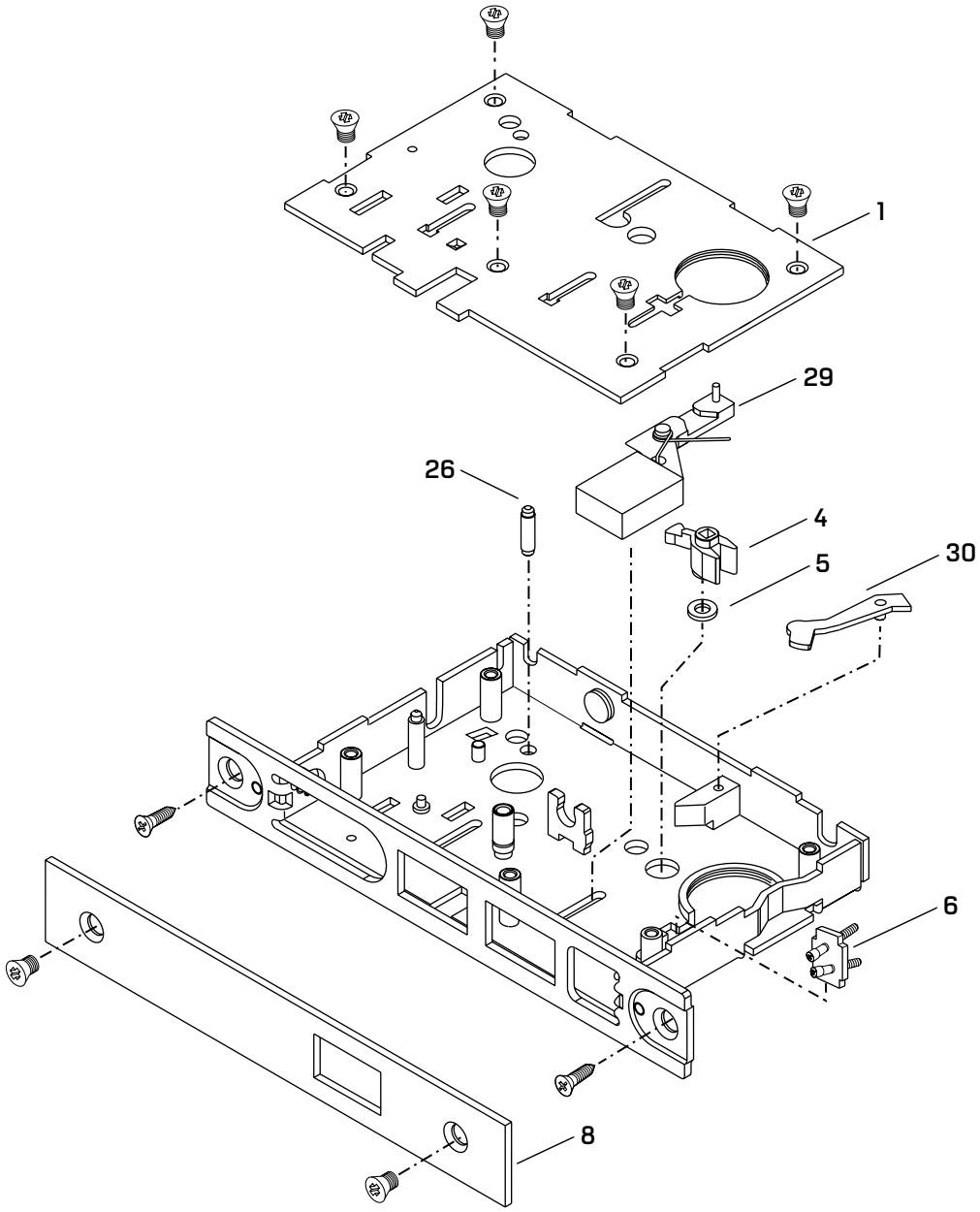


Figure 2.13 P, R, S, T function case

WW FUNCTION CASE—STOREROOM OR ENTRANCE LOCK

For part numbers, see pages 2–31, 2–32, and 3–31.

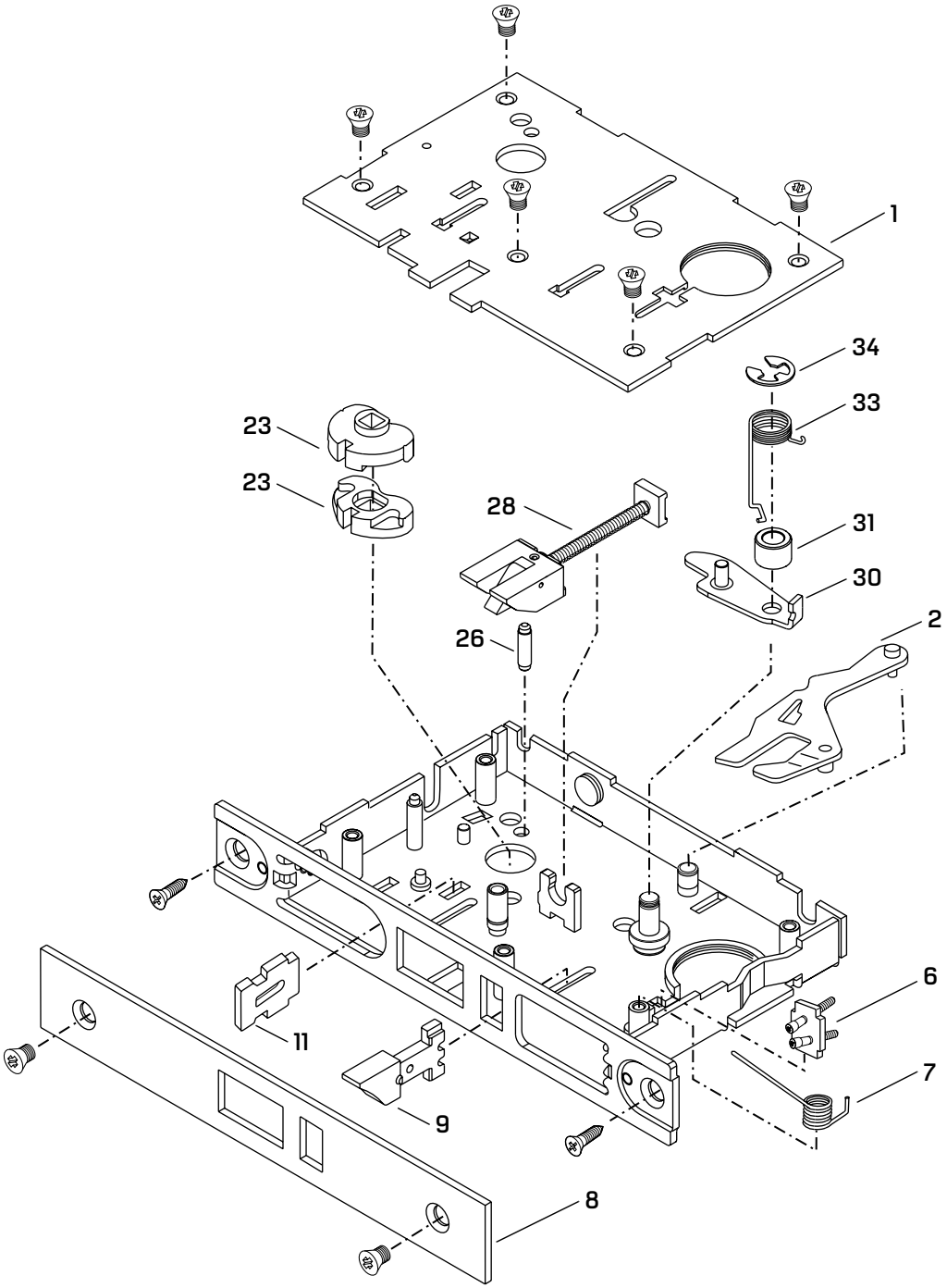


Figure 2.14 WW function case

TR FUNCTION CASE—TIME OUT BY LEVER/KNOB

For part numbers, see pages 2–31, 2–32, and 3–31.

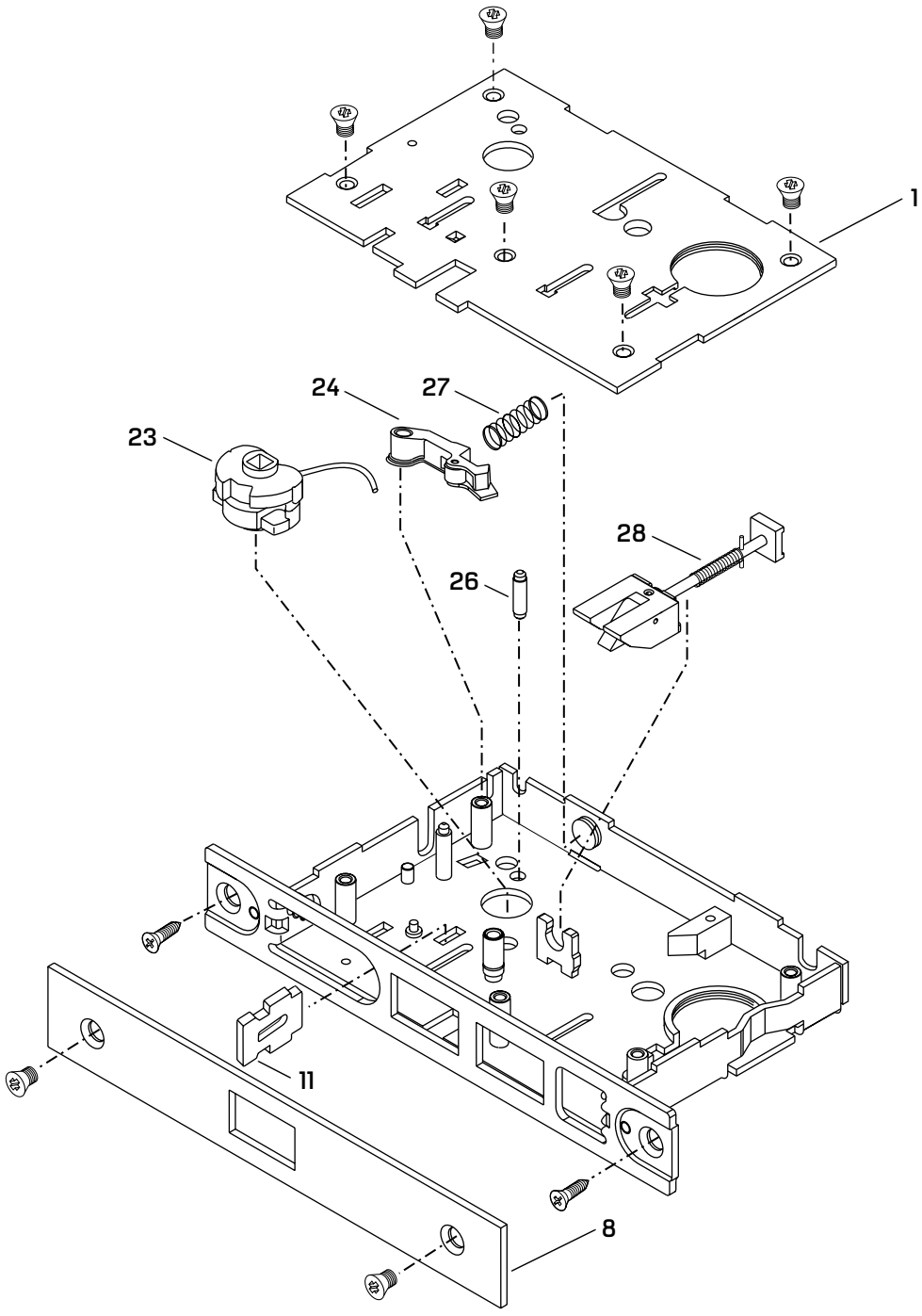


Figure 2.15 TR function case

TRK FUNCTION CASE—TIME OUT BY KEY

For part numbers, see pages 2–31, 2–32, and 3–31.

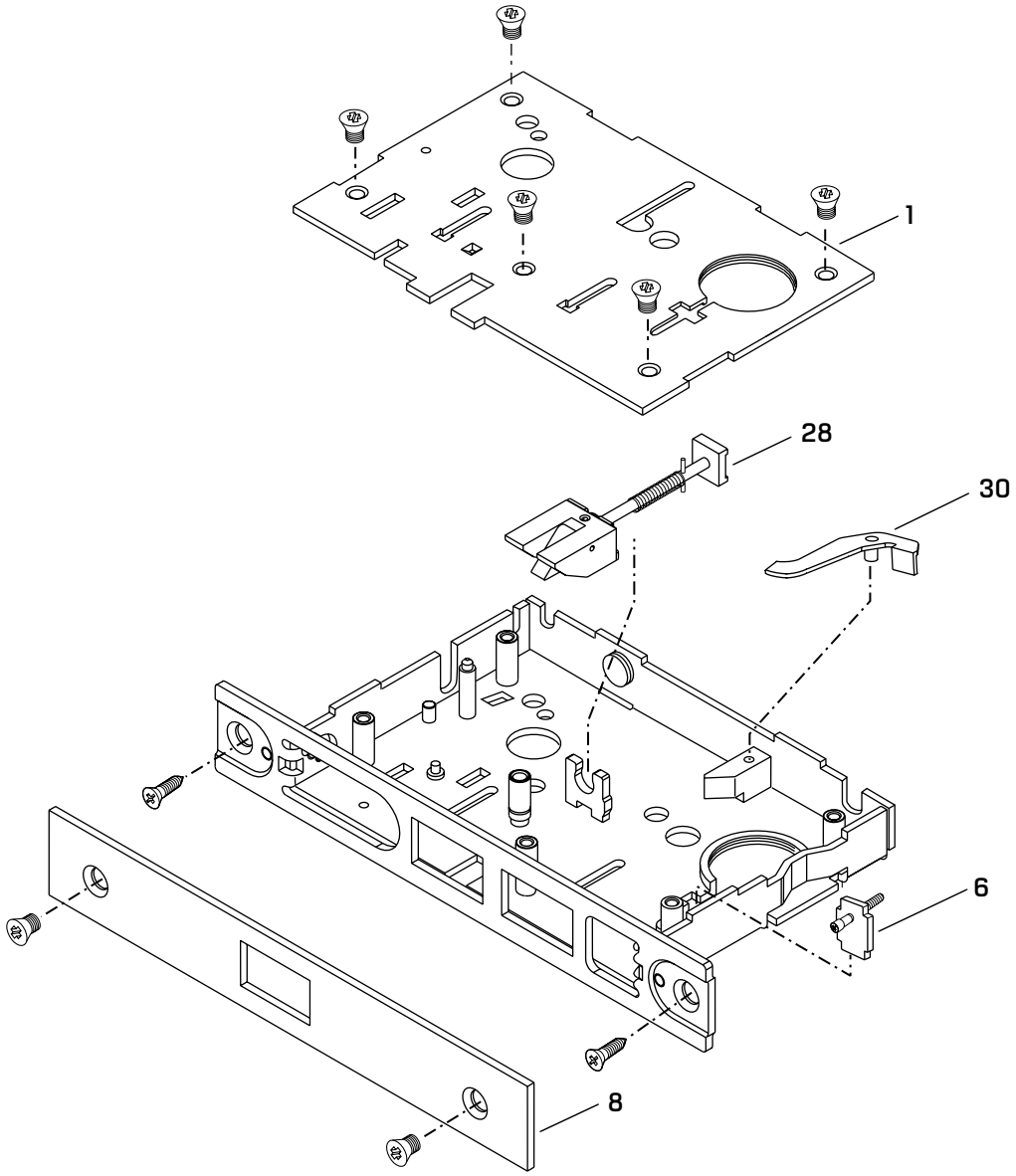


Figure 2.16 TRK function case

GHB FUNCTION CASE—LATCH HOLD BACK LOCK
JHB FUNCTION CASE—LATCH HOLD BACK LOCK

For part numbers, see pages 2–31, 2–32, and 3–31.

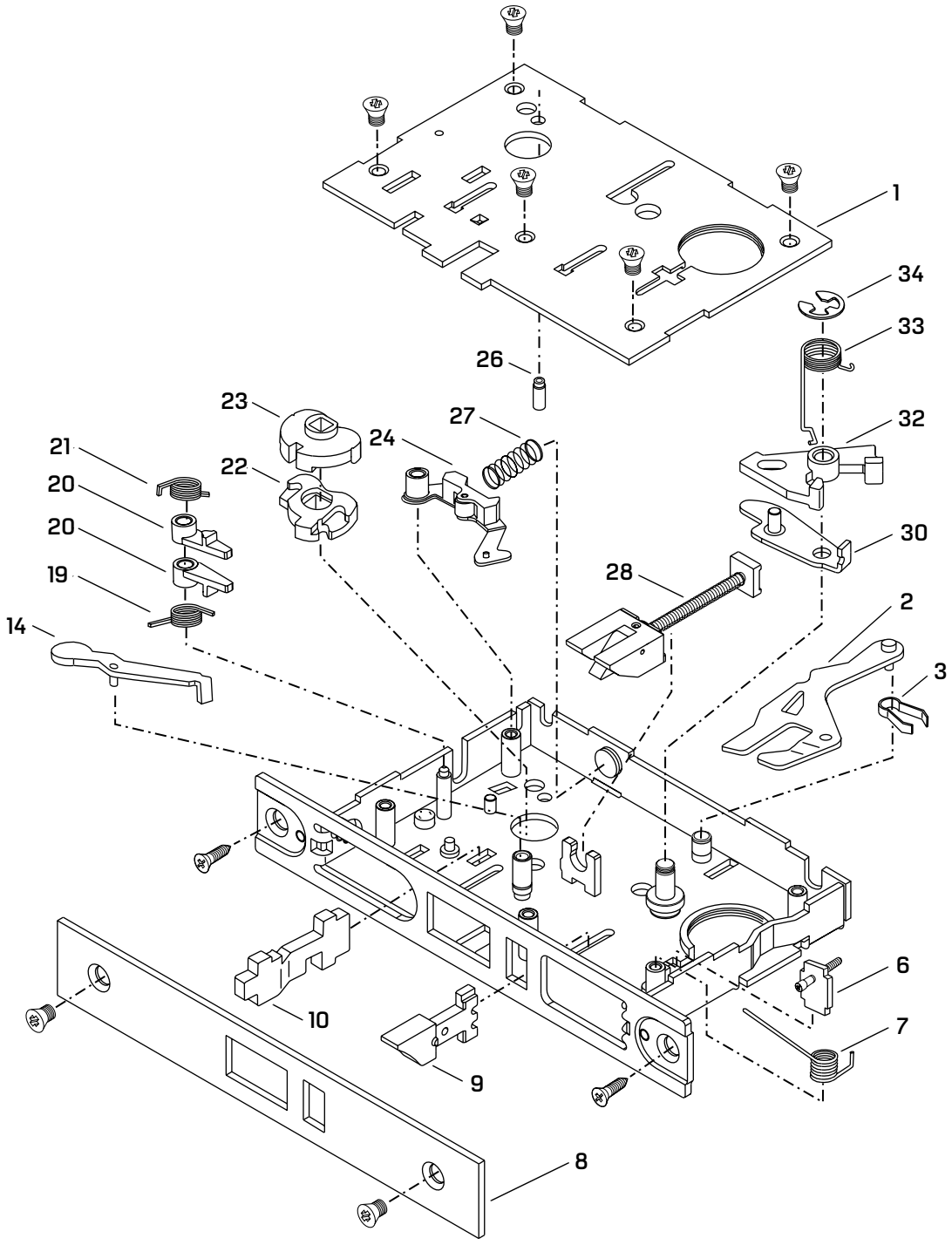


Figure 2.17 GHB, JHB function case

B4 & B5 FUNCTION CASES—ENTRANCE LOCK (FEDERAL BUREAU OF PRISONS)

For part numbers, see pages 2–31, 2–32, and 3–31.

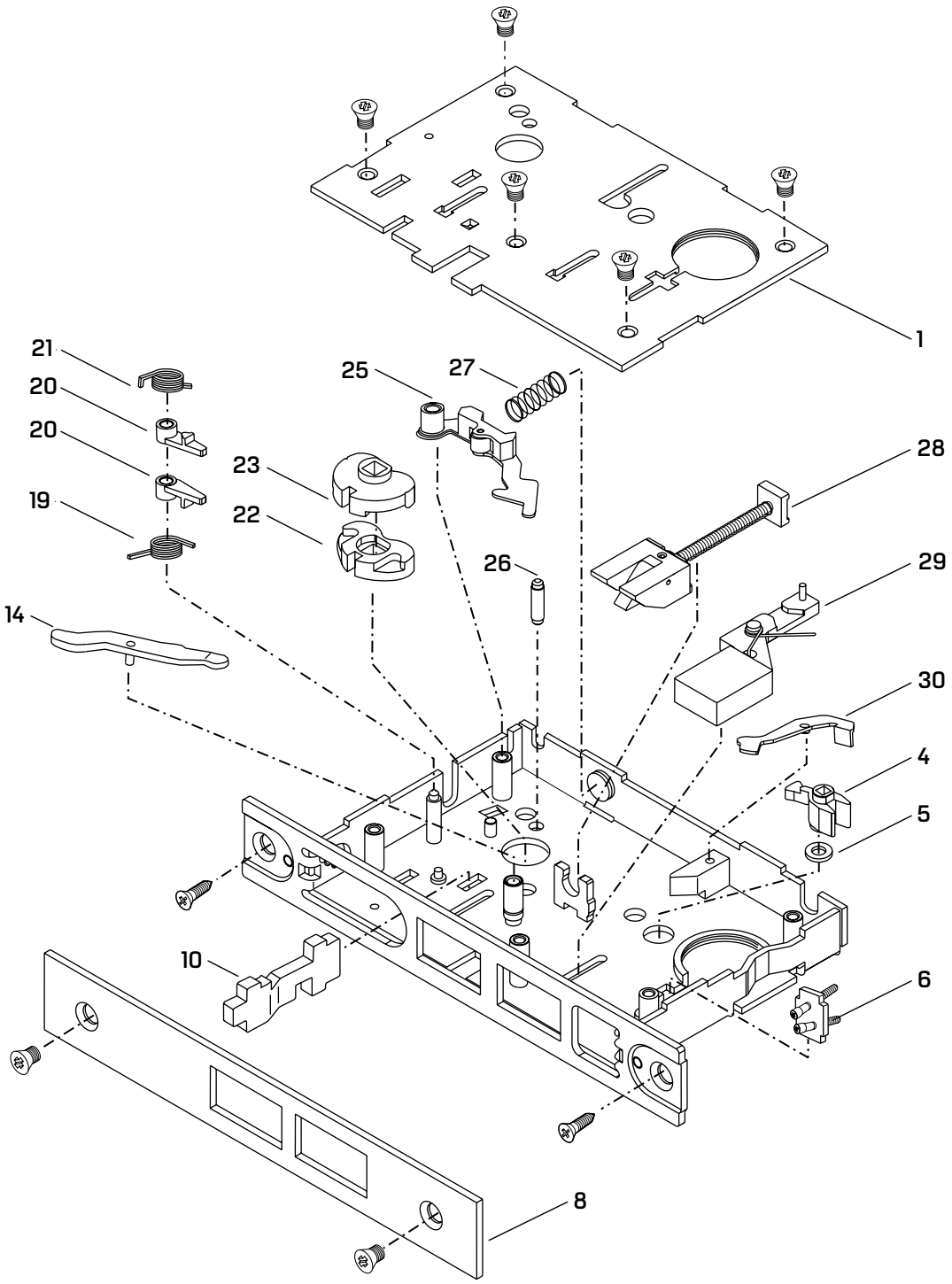


Figure 2.18 B4, B5 function case

B6 & B7 FUNCTION CASES—ENTRANCE LOCK (FEDERAL BUREAU OF PRISONS)

For part numbers, see pages 2–31, 2–32, and 3–31.

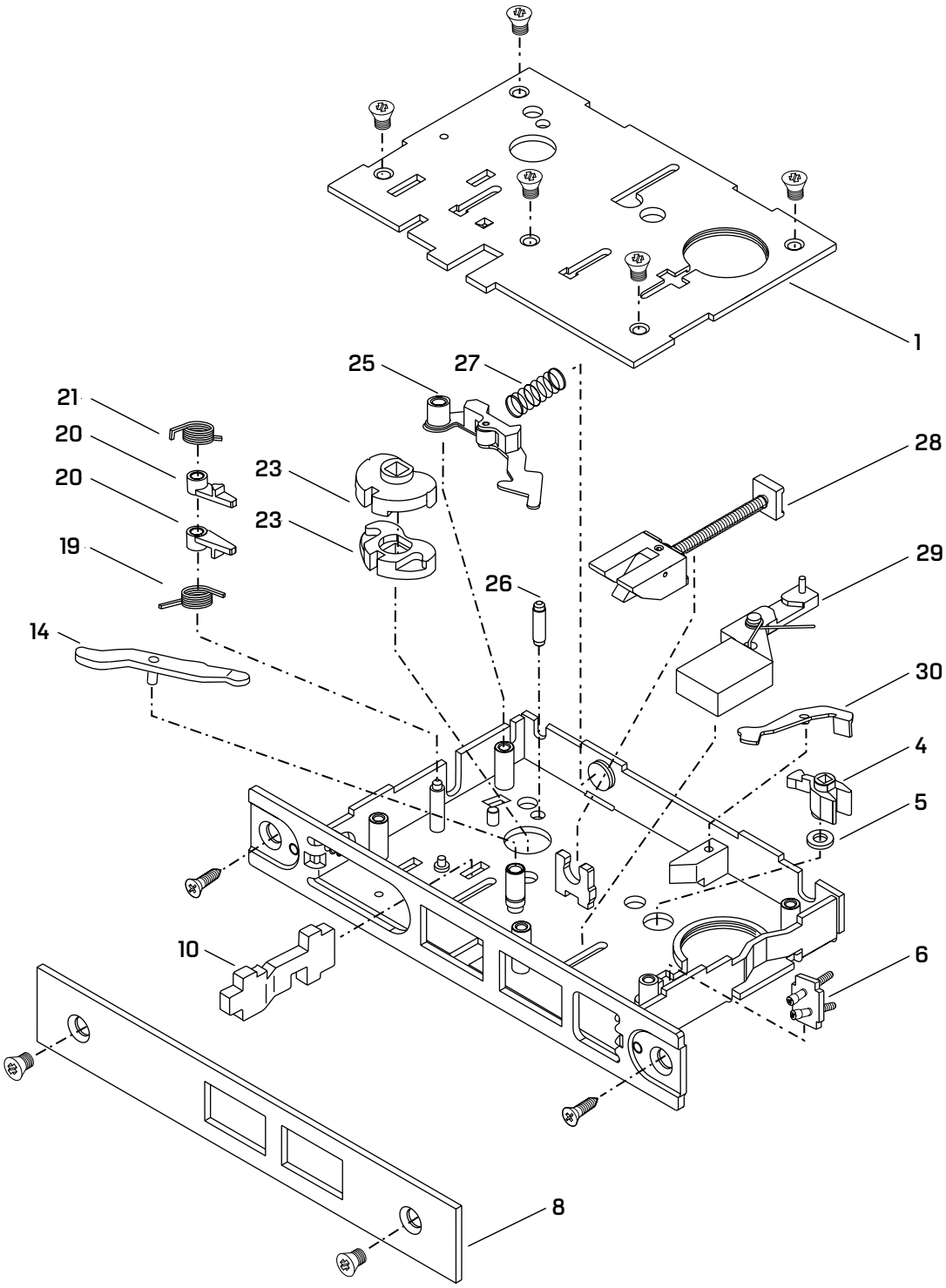


Figure 2.19 B6, B7 function case

34H–37H MORTISE CASE PARTS LIST

If you want to convert the function of an existing H Series Lock, use the following parts list table to determine the parts that you need. The parts are organized by case number.

Note: For screw part numbers, see page 3–31.

For screw part numbers, see page 3–31.

Item	Part No.	Qty.	Description	Functions: B35070 case E	EW, Y	G, J, INL	N	GHB, JHB	WW	B35071 case A, W	B, C, L	F	FW, IND, LF	TR	TRK	P, R, S, T	B4, B5	B6, B7	B35072 case AW	BW	FD, HF, HJ	Part No.	Item
1	D34070	1	Standard UL case cover	■	■	■	■		■	■	■	■	■				■	■	■	■	■	D34070	1
	D34316	1	Non–UL case cover					■						■	■	■						D34316	
2	A35021	1	"E" Tumbler	■	■				■													A35021	2
	A35005	1	"G" Tumbler			■		■														A35005	
3	A34064	1	Pivot spring	■		■		■		■		■							■			A34064	3
4	C34011	1	Turn knob hub							■	■	■	■			■[a]	■	■	■	■	■	C34011	4
	A63001	1	Turn knob hub (for R function left hand)													■						A63001	
	A63002	1	Turn knob hub (For R function right hand)													■						A63002	
5	A34120	1	"A" Turn knob hub spacer							■	■					■	■	■		■		A34120	5
	B34032	1	"F" Turn knob hub cam									■	■						■		■	B34032	
6	A35022	1	Double-keyed cylinder clamp plate (for B5, B7, C, G, GHB, IND, INL, T, W, WW)			■		■	■	■	■		■			■	■	■				A35022	6
	A35257	1	Single-keyed cylinder clamp plate (for A, B, FW, J, JHB, L, LF, P, R, S)	■	■	■		■		■	■	■	■		■	■			■	■	■	A35257	
	A35256	1	B4–B6 Cylinder clamp plate														■	■				A35256	
7	A34071	1	Auxiliary bolt spring	■	■	■		■	■													A34071	7
8	D34093	1	Faceplate							■		■										D34093	8
	D34094	1	Faceplate								■		■				■	■				D34094	
	D34095	1	Faceplate																	■	■	D34095	
	D34096	1	Faceplate				■															D34096	
	D34097	1	Faceplate													■						D34097	
	D34098	1	Faceplate	■																		D34098	
	D34099	1	Faceplate		■	■			■													D34099	
	A34309	1	Faceplate											■	■							A34309	
	A34235	1	Faceplate					■														A34235	
	B80573	1	Faceplate																■			B80573	
9	B34092	1	Auxiliary bolt	■	■	■		■	■											■	■	B34092	9
	C08578	1	Auxiliary bolt																■			C80578	
10	A35017	1	"E" Locking bar and button assembly	■																		A35017	10
	A34041	1	"FW" Locking bar			■		■			■		■				■	■				A34041	
	A35006	1	"F" Locking bar and button assembly							■		■										A35006	
	A80580	1	"AW" Locking bar							■		■							■			A80580	
11	A34027	1	Locking plate		■				■					■						■	■	A34027	11
12	B80577	1	Unlocking bar and button assembly																■			B80577	12
	B35008	1	Unlocking bar and button assembly	■						■		■										B35008	
13	A34038	1	Pivot cam	■						■		■										A34038	13
	A80575	1	Pivot cam																■			A80575	

a. The P, R, S, T functions also require the A34194 spacer.

For screw part numbers, see page 3–31.

Item	Part No.	Functions: B35070 Case E	EW, Y	G, J, INL	N	GHB, JHB	WW	B35071 Case A, W	B, C, L	F	FW, IND, LF	TR	TRK	P, R, S, T	B4, B5	B6, B7	B35072 AW	BW	FD, HF, HJ	Description	Part No.	Qty.	Item
14	A35001	■		■		■															A35001	1	14
	A35003								■	■	■				■	■					A35003	1	
	A80581																■				A80581	1	
15	A34049																	■	■		A34049	1	15
16	A35002																■	■	■	"H" Deadlocking lever assembly	A35002	1	16
17	A34315																■	■	■	Retaining ring	A34315	1	17
18	A34018																	■	■	"H" Deadlocking lever spring	A34018	1	18
	A80582																■			"AW" Deadlocking lever spring	A80582	1	
19	A34065	■	■	■	■	■		■	■	■	■				■	■	■	■	■	Lower auxiliary spring (35H/37H only)	A34065	1	19
20	B34020	■	■	■	■	■		■	■	■	■				■	■	■	■	■	Auxiliary return lever (35H/37H only)	B34020	2	20
21	A34066	■	■	■	■	■		■	■	■	■						■	■	■	Upper auxiliary spring (35H/37H only)	A34066	1	21
22	B34043	■	■	■	■			■	■	■	■						■	■	■	Inside hub	B34043	1	22
	A34563					■														Inside hub (for LH/LHRB)	A34563	1	
	A34564					■														Inside hub (for RH/RHRB)	A34564	1	
23	B34003	■	■	■	■	■[a]	■[b]	■	■	■	■				■[2]	■[2]	■	■	■	Outside hub	B34003	1	23
	B35026											■								Double rigid hub	B35026	2	
24	B35248	■	■	■		■														Short hub lever	B35248	1	24
	A34206											■								"TR" Hub lever	A34206	1	
25	B35490				■			■	■	■	■				■	■	■	■	■	Long hub lever	B35490	1	25
26	A34048	■	■	■	■	■[c]		■	■	■	■	■[3]			■	■		■	■	Stop pin (35H/37H only)	A34048	1	26
27	A34081	■	■	■	■	■		■	■	■	■	■			■	■	■	■	■	Hub lever spring	A34081	1	27
28	B35018	■	■	■	■	■	■	■	■	■	■				■	■	■	■	■	Latchbolt for knob (34H/36H only)	B35018	1	28
	B35019	■	■	■	■	■	■	■	■	■	■				■	■		■	■	Latchbolt for lever (35H/37H only)	B35019	1	
	B35038											■	■							"TR" Latchbolt	B35038	1	
29	B35035							■	■	■	■			■	■	■	■	■	■	Deadbolt	B35035	1	29
30	A35004							■	■	■	■				■	■	■	■	■	"A" Latch lever	A35004	1	30
	A35020													■						"T" Latch lever	A35020	1	
	A35013	■	■	■		■	■													"E" Latch lever	A35013	1	
	A35246												■							"TR" Latch lever	A35246	1	
31	A34068	■	■				■													Spacer	A34068	1	31
32	C34063			■		■														Cylinder locking lever	C34063	1	32
33	A34072	■	■	■		■	■													Tumbler spring	A34072	1	33
34	A34013	■	■	■		■	■													Retaining ring	A34013	1	34
35	A80583																■			Spacer for pivot cam	A80583	1	35

a. For trim-inside-only, use B34043.
b. Use a quantity of two.
c. Trim-inside-only requires no stop pin. Trim-both-sides requires the A34090 stop pin and the A34088 screw on the same side as the outside hub.

RQE SWITCH

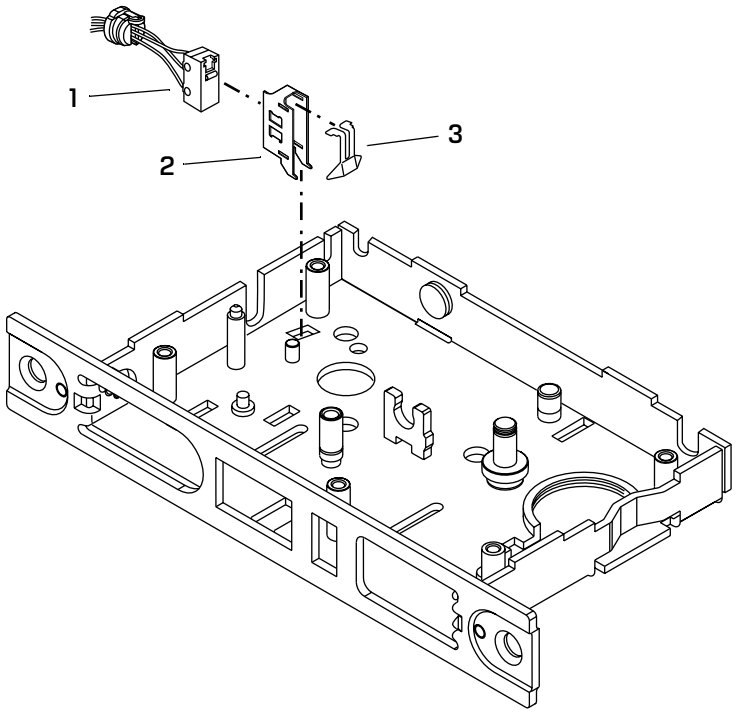


Figure 2.20 RQE switch assembly

RQE switch parts list

Item	Part no.[a]	Qty.	Description
1	A60300	1	Switch and wire assembly Hub
2	C60400	1	switch mounting bracket Hub
3	B60401	1	switch lever

a. To order the entire switch assembly, use part number B60301.

38-39H FUNCTIONS
K FUNCTION CASE—CYLINDER DEADLOCK
L FUNCTION CASE—CYLINDER DEADLOCK
M FUNCTION CASE—CYLINDER DEADLOCK
R FUNCTION CASE—CLASSROOM DEADLOCK

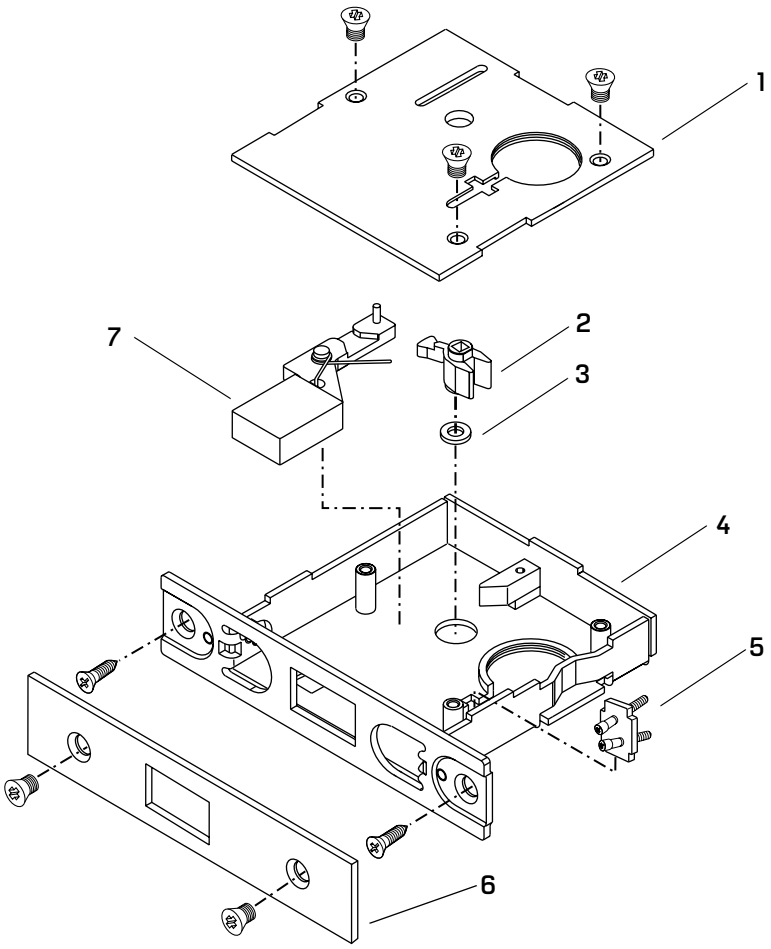


Figure 2.21 K, L, M, R function case

38-39H parts list

Item	Part no.	Qty.	Description	K	L	M	R
1	C34351	1	Case cover	■	■	■	■
2	B34011	1	Turn knob hub	■			
not shown	A63001	1	"R" turn knob hub (left hand)				■
not shown	A63002	1	"R" turn knob hub (right hand)				■
3	A34194	1	Turn hub spacer	■	■	■	■
4	B35402	1	Case	■	■	■	■
5	A35022	1	Double cylinder clamp plate			■	
not shown	A35257	1	Single cylinder clamp plate	■	■		■
6	B34353	1	Faceplate	■	■	■	■
7	B35399	1	Deadbolt	■	■	■	■

3 Trim Parts

The following pages contain diagrams and parts lists for all H Series Lock trim and miscellaneous parts.

Converting an existing trim style

To convert a lock from one trim style to another, use the diagrams and tables provided to compare part numbers. Order the trim hardware accordingly.

34H A, B, C, & D TRIM

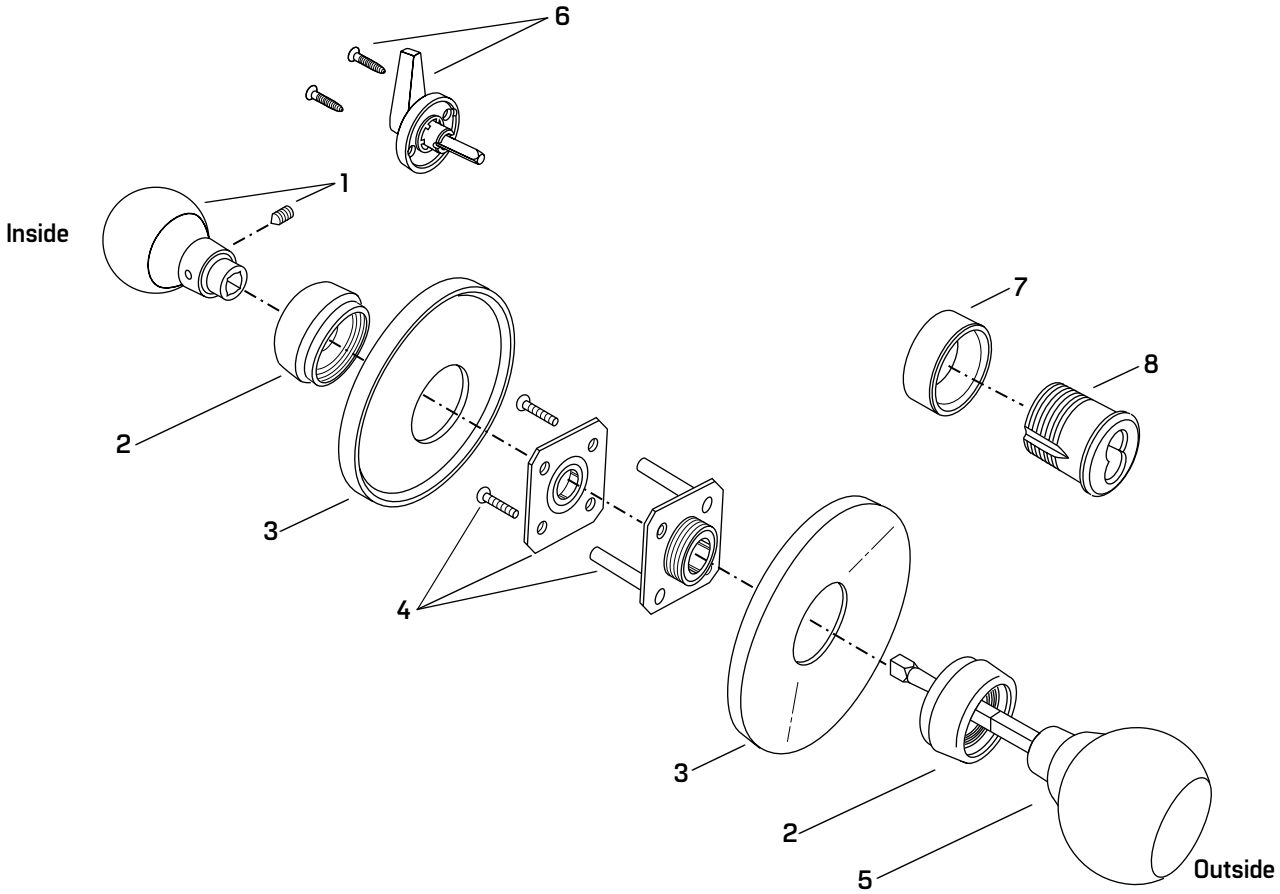


Figure 3.1 34H A, B, C, D trim

Item	Part No.	Qty.	Description	A, AW	B	BW	C	E	EW	F	FD	FW	G	HF	HJ	IND	INL	J	L	LF	N	W	WW	Y
1	Pg. 3–15	1	#4 inside knob assembly	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
2	Pg. 3–18	2	Rose ring	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
3	Pg. 3–18	2	Rose[a]	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
4	B35029	1	Mounting plate assembly[b]	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
5	Pg. 3–15, Pg. 3–26	1	#4 outside knob assembly	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
6	A19286	1	Turn knob assembly	■	■	■				■	■	■		■	■				■	■				
7	Pg. 3–23		Cylinder ring[c]	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■				■	■	
8	Pg. 3–21, Pg. 3–22		Cylinder[c]	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■				■	■	
not shown	A35034	1	Hotel indicator plate[d]											■										

a. HF function is available only with C and H sectional roses.
b. See page 3–27 for the part numbers of the individual components that make up the mounting plate assembly.
c. Double-keyed functions (C, G, IND, INL, W, WW) require two cylinders and two rings.
d. See page 3–29 for the part numbers of the individual components that make up the hotel indicator plate.

34H J TRIM

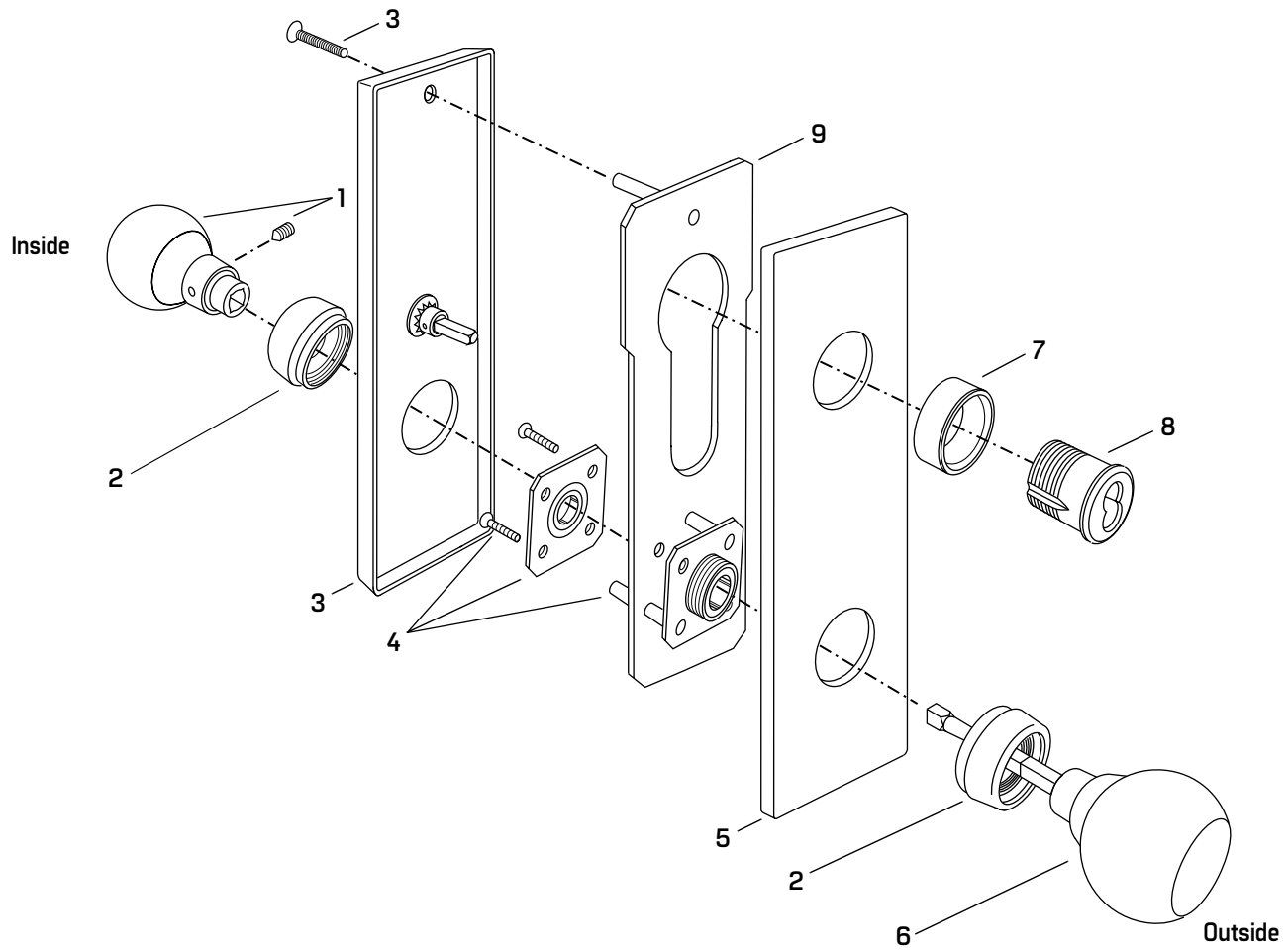


Figure 3.2 34H J trim

Item	Part No.	Qty.	Description	A,AW	B	BW	C	E	EW	F	FD	FW	G	HF	HJ	IND	INL	J	L	LF	N	W	WW	Y
1	Pg. 3–15	1	#4 inside knob assembly	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
2	B34543	2	Escutcheon ring	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
3	A35463	1	Inside escutcheon assembly	■	■	■				■	■	■		■	■				■	■					
not shown	A35461	1	Inside escutcheon assembly				■						■			■	■						■	■	
not shown	A35460	1	Inside escutcheon assembly					■	■									■			■				■
4	B35029	1	Mounting plate assembly[a]	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
5	C34413	1	Outside escutcheon	■	■	■	■	■	■	■	■	■	■		■	■	■	■						■	■	
not shown	C34415	1	Outside escutcheon																■	■					
not shown	A35465	1	Outside escutcheon											■											
not shown	C34416	1	Outside escutcheon																		■				■
6	Pg. 3–15, Pg. 3–26	1	#4 outside knob assembly	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
7	Pg. 3–23		Cylinder ring[b]	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■				■	■	
8	Pg. 3–21		Cylinder[b]	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■				■	■	
9	A35466	1	J alignment plate[c]	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

a. See page 3–27 for the part numbers of the individual components that make up the mounting plate assembly.
b. Double-keyed functions (C, G, W, WW, IND, INL) require two cylinders and two rings.
c. Use the A35468 J alignment plate with security head screws.

34H M TRIM

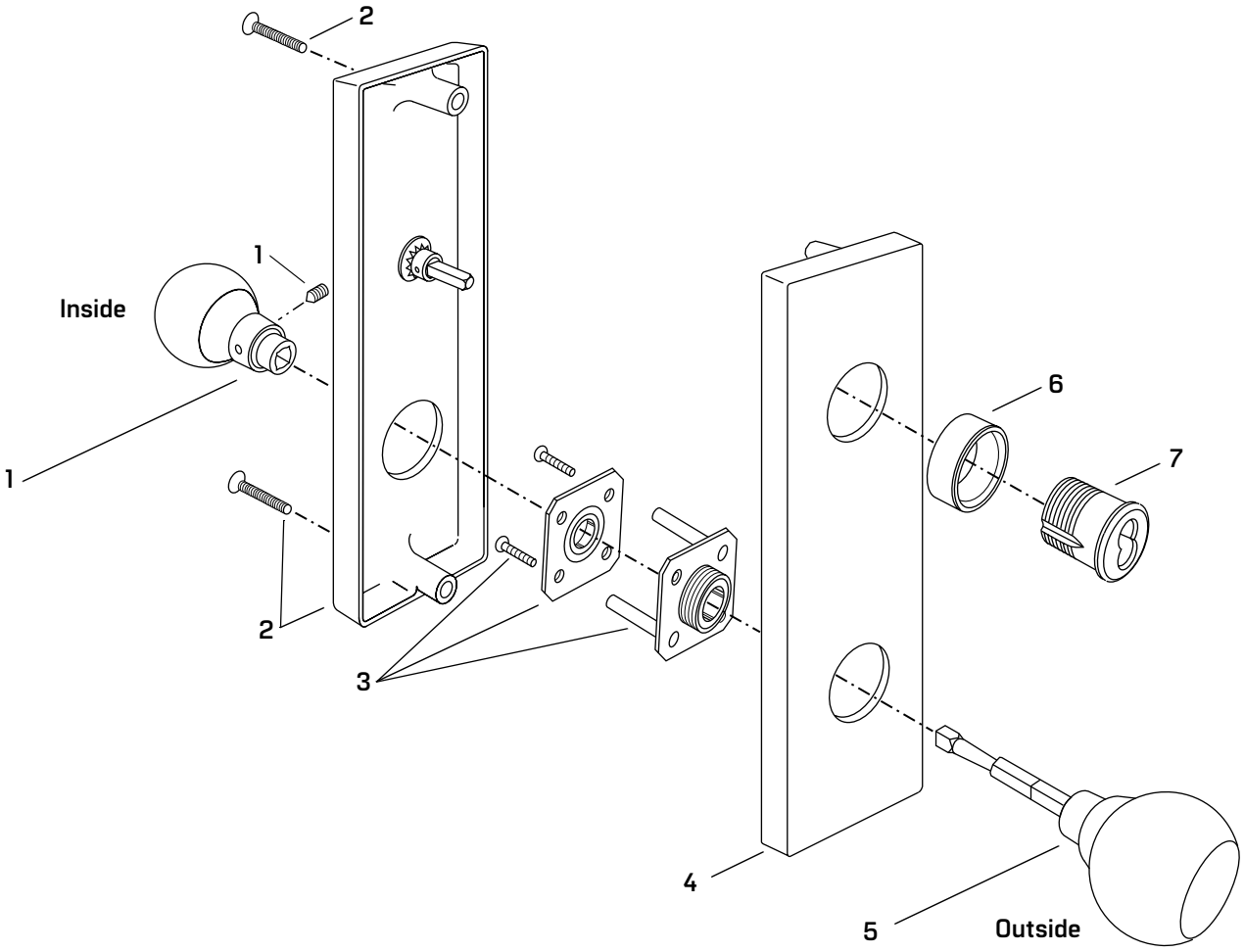


Figure 3.3 34H M trim

Item	Part No.	Qty.	Description	A, AW	B, BW	C	E	EW	F, FD	FW	G	HF	HJ	IND	INL	J	L, LF	N	W	WW	Y	B4	B5	B6	B7
1	Pg. 3–15	1	#4 inside knob assembly	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■[a]	■[a]	■[a]	■[a]
2	A35495	1	**Inside escutcheon assembly**	■	■				■	■		■	■				■								
not shown	A35494	1	Inside escutcheon assembly				■	■								■		■			■				
not shown	A35496	1	Inside escutcheon assembly			■					■			■	■				■	■					
not shown	C34447	1	Inside escutcheon assembly																			■[a]	■[a]	■[a]	■[a]
3	B35249	1	Mounting plate assembly[b]	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
4	C34445	1	Outside escutcheon	■	■	■	■	■	■	■	■		■	■	■	■			■	■				■[c]	■[c]
not shown	C34473	1	Outside escutcheon														■								
not shown	C34472	1	Outside escutcheon															■			■	■[c]	■[c]		
not shown	B35334	1	Outside escutcheon									■													
5	Pg. 3–15, Pg. 3–26	1	#4 outside knob assembly	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■[c]	■[c]	■[c]	■[c]
6	Pg. 3–23		Cylinder ring[d]	■	■	■	■	■	■	■	■	■	■	■	■	■	■			■	■			■		■
7	Pg. 3–21		Cylinder[d]	■	■	■	■	■	■	■	■	■	■	■	■	■	■			■	■			■		■

a. Assembled on the outside of the door.
b. See page 3–27 for the part numbers of the individual components that make up the mounting plate assembly.
c. Assembled on the inside of the door.
d. Double-keyed functions (B7, C, G, IND, INL, W, WW) require two cylinders and two rings.

34H N TRIM

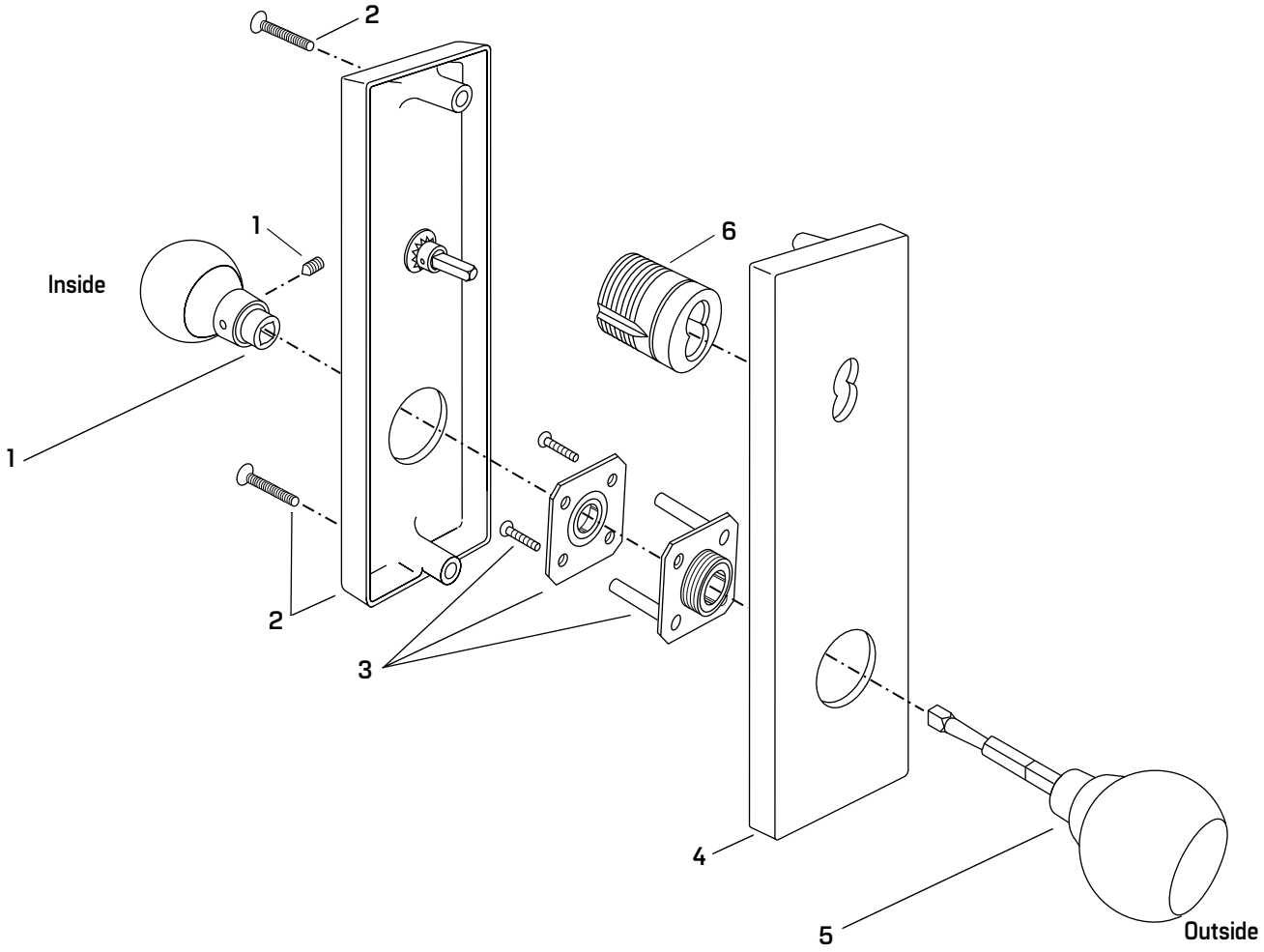


Figure 3.4 34H N trim

Item	Part No.	Qty.	Description	A, AW	B	BW	E	EW	F	FD	FW	HJ	J	L	LF	N	Y
1	Pg. 3–15	1	#4 inside knob assembly	■	■	■	■	■	■	■	■	■	■	■	■	■	■
2	A35495	1	Inside escutcheon assembly	■	■	■			■	■	■	■		■	■		
not shown	A35494	1	Inside escutcheon assembly				■	■					■			■	■
3	B35249	1	Mounting plate assembly[a]	■	■	■	■	■	■	■	■	■	■	■	■	■	■
4	C34474	1	Outside escutcheon	■	■	■	■	■	■	■	■	■	■				
not shown	C34473	1	Outside escutcheon											■	■		
not shown	C34472	1	Outside escutcheon													■	■
5	Pg. 3–15, Pg. 3–26	1	#4 outside knob assembly	■	■	■	■	■	■	■	■	■	■	■	■	■	■
6	Pg. 3–21		Cylinder[b]	■	■	■	■	■	■	■	■	■	■				

a. See page 3–27 for the part numbers of the individual components that make up the mounting plate assembly.
b. Double-keyed functions (B7, C, G, IND, INL, W, WW) require two cylinders.

35H H & S SECTIONAL TRIM

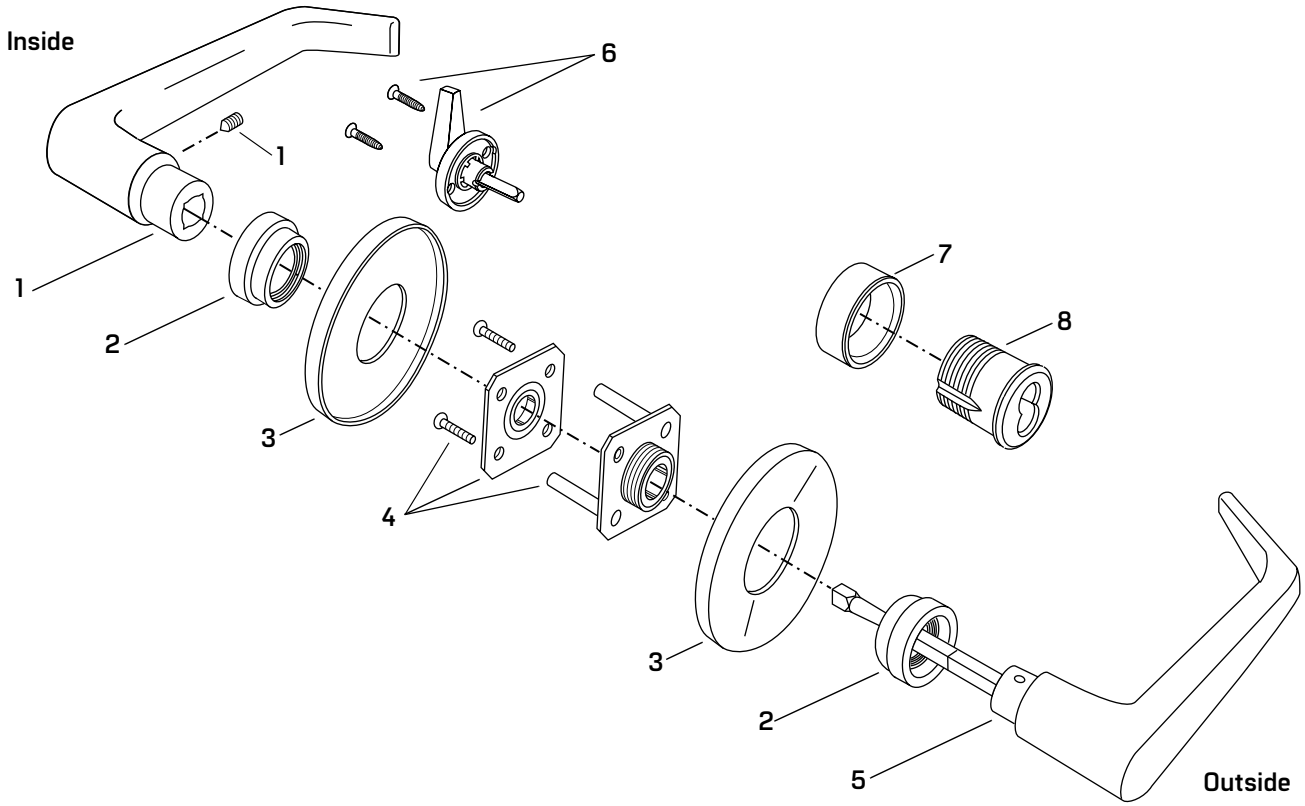


Figure 3.5 35H H, S sectional trim

Item	Part No.	Qty.	Description	A, AW	B, BW	C	E	EW	F	FD	FW	G	GHB	HF	HJ	IND	INL	J	JHB	L, LF	N	TR	TRK	W	WW	Y
1	Pg. 3–16	1	#15 inside lever assembly	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■[a]		■	■	■
2	Pg. 3–18	2	Rose ring	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■[b]		■	■	■
3	Pg. 3–18	2	Rose	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■[b]		■	■	■
4	B35029	1	Mounting plate assembly[c]	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■[d]		■	■	■
5	Pg. 3–16, Pg. 3–26	1	#15 outside lever assembly	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■			■	■	■
6	A19286	1	Turn knob assembly	■	■				■	■	■			■	■					■						
7	Pg. 3–23		Cylinder ring[e]	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■				■	■	■	
8	Pg. 3–21		Cylinder[e]	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■				■	■	■	
not shown	A35034	1	Hotel indicator plate											■												

a. Use one A35031 hook spindle, and one inside lever and set screw on the outside of the lock.
b. Use a quantity of one.
c. See page 3–27 for the part numbers of the individual components that make up the mounting plate assembly.
d. Use one A35028 inside mounting plate and two A39217 inside mounting plate surface mounting screws.
e. Double-keyed functions (C, G, GHB, W, WW) require two cylinders and two rings.

35H J TRIM

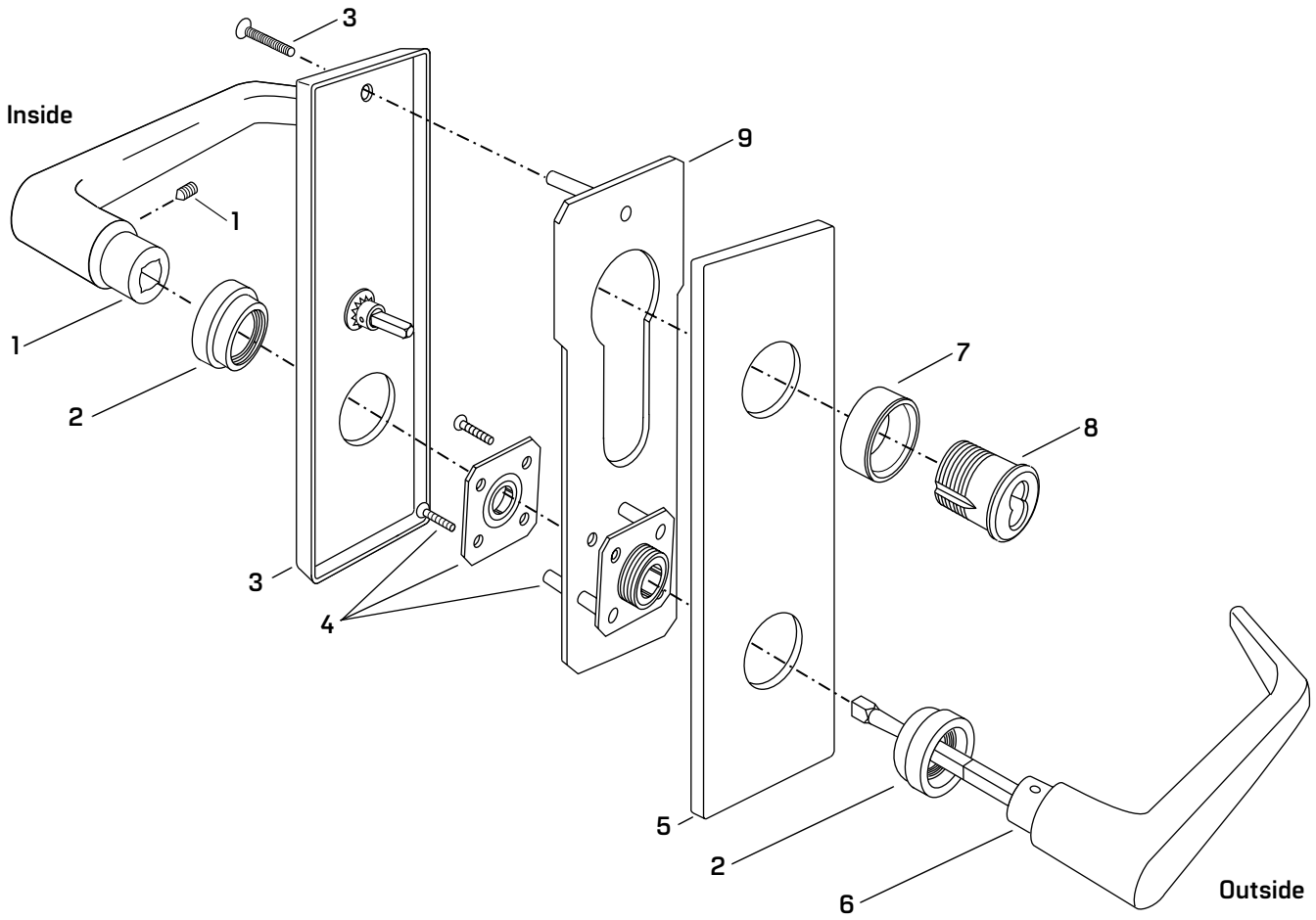


Figure 3.6 35H J trim

Item	Part No.	Qty.	Description	A, AW	B, BW	C	E	EW	F, FD	FW	G	GHB	HF	HJ	IND	INL	J	JHB	L, LF	N	TR	W	WW	Y
1	Pg. 3–16	1	#15 inside lever assembly	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■[a,b]	■	■	■
2	B34131	2	Escutcheon ring	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
3	A35463	1	Inside escutcheon assembly	■	■				■	■			■	■					■				■	■	
not shown	A35461	1	Inside escutcheon assembly			■					■	■			■	■						■	■		
not shown	A35460	1	Inside escutcheon assembly				■	■									■	■		■	■[b]				■
4	B35029	1	Mounting plate assembly[c]	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■[d]	■	■	■
5	C34413	1	Outside escutcheon	■	■	■	■	■	■	■	■	■		■	■	■	■	■				■	■	
not shown	C34415	1	Outside escutcheon																■					
not shown	A35465	1	Outside escutcheon										■											
not shown	C34416	1	Outside escutcheon																	■				■
6	Pg. 3–16, Pg. 3–26	1	#15 outside lever assembly	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		■	■	■
7	Pg. 3–23		Cylinder ring[d]	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■				■	■	
8	Pg. 3–21		Cylinder[e]	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■				■	■	
9	A35466	1	J alignment plate	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		■	■	■

a. Use one A35031 hook spindle, and one inside lever and set screw.
b. Assembled on the outside of the door.
c. See page 3–27 for the part numbers of the individual components that make up the mounting plate assembly.
d. Use one A35028 inside mounting plate and two A39217 inside mounting plate surface mounting screws.
e. Double-keyed functions (C, G, IND, INL, W, WW) require two cylinders and two rings.

35H M TRIM

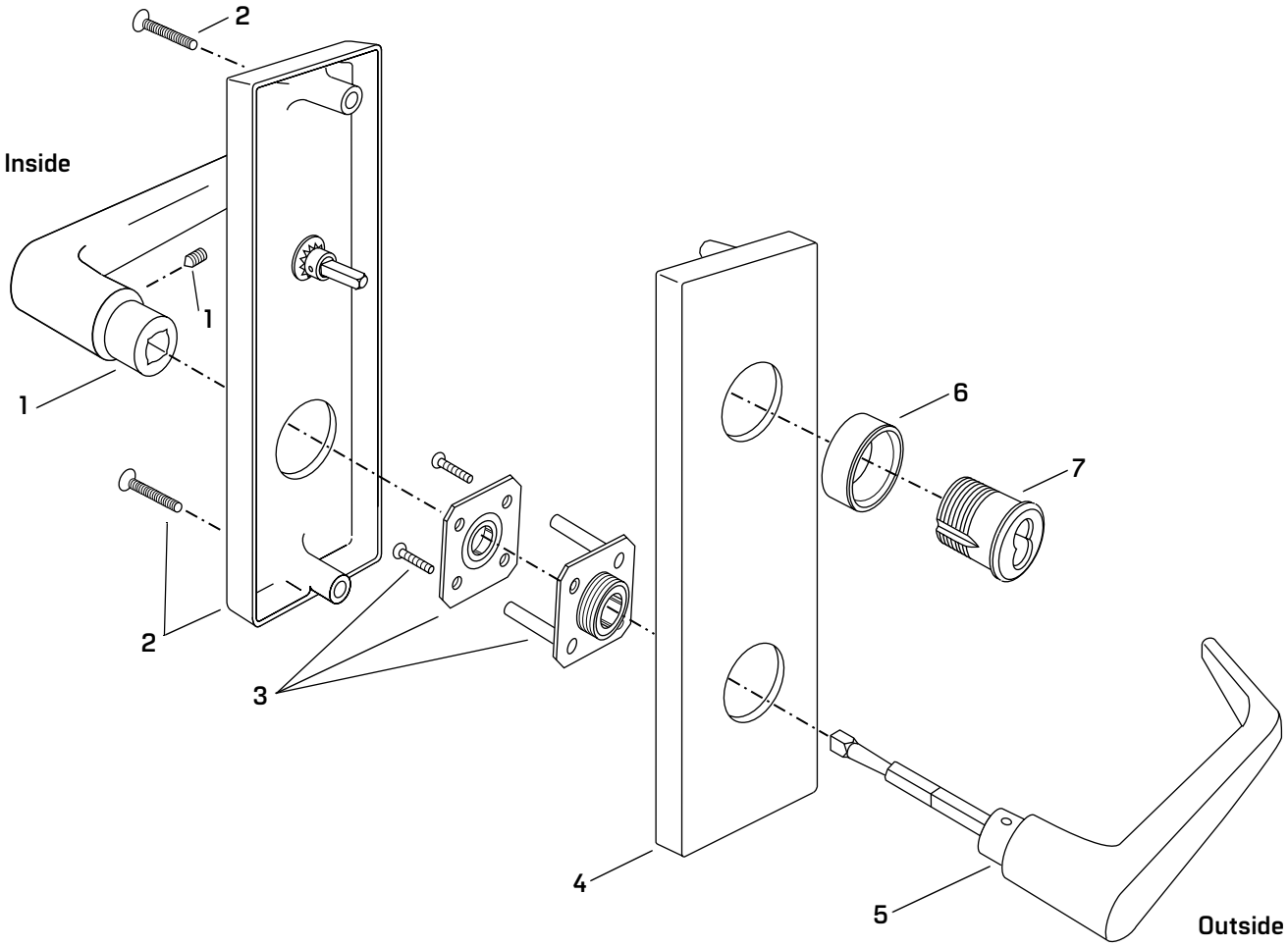


Figure 3.7 35H M trim

Item	Part No.	Qty.	Description	A, AW	B, BW	C	E	EW	F, FD	FW	G	GHB	HF	HJ	IND	INL	J	JHB	L, LF	N	TR	TRK	W	WW	Y
1	Pg. 3–16	1	#15 inside lever assembly	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■[a,b]		■	■	■
2	A35495	1	Inside escutcheon assembly	■	■				■	■			■	■					■							
not shown	A35494	1	Inside escutcheon assembly				■	■									■	■		■	■					■
not shown	A35496	1	Inside escutcheon assembly			■					■	■			■	■								■	■	
not shown	C34446	1	Inside escutcheon assembly																			■[b]			
3	B35249	1	Mounting plate assembly[c]	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■[d]		■	■	■
4	C34445	1	Outside escutcheon	■	■	■	■	■	■	■	■	■		■	■	■	■	■					■	■	
not shown	C34473	1	Outside escutcheon																■						
not shown	C34472	1	Outside escutcheon																	■					■
not shown	B35334	1	Outside escutcheon										■												
not shown	C34334	1	Outside escutcheon																		■[e]	■[e]			
5	Pg. 3–16, Pg. 3–26	1	#15 outside lever assembly	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■			■	■	■
6	Pg. 3–23		Cylinder ring[f]	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■				■	■	■	
7	Pg. 3–21		Cylinder[f]	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■				■	■	■	

a. Use one (1) A35031 hook spindle, and one inside lever and set screw.
b. Assembled on the outside of the door.
c. See page 3–27 for the part numbers of the individual components that make up the mounting plate assembly.
d. Use one A35028 inside mounting plate and two A39217 inside mounting plate surface mounting screws.
e. Assembled on the inside of the door.
f. Double-keyed functions (C, G, IND, INL, W, WW) require two cylinders and two rings.

35H N TRIM

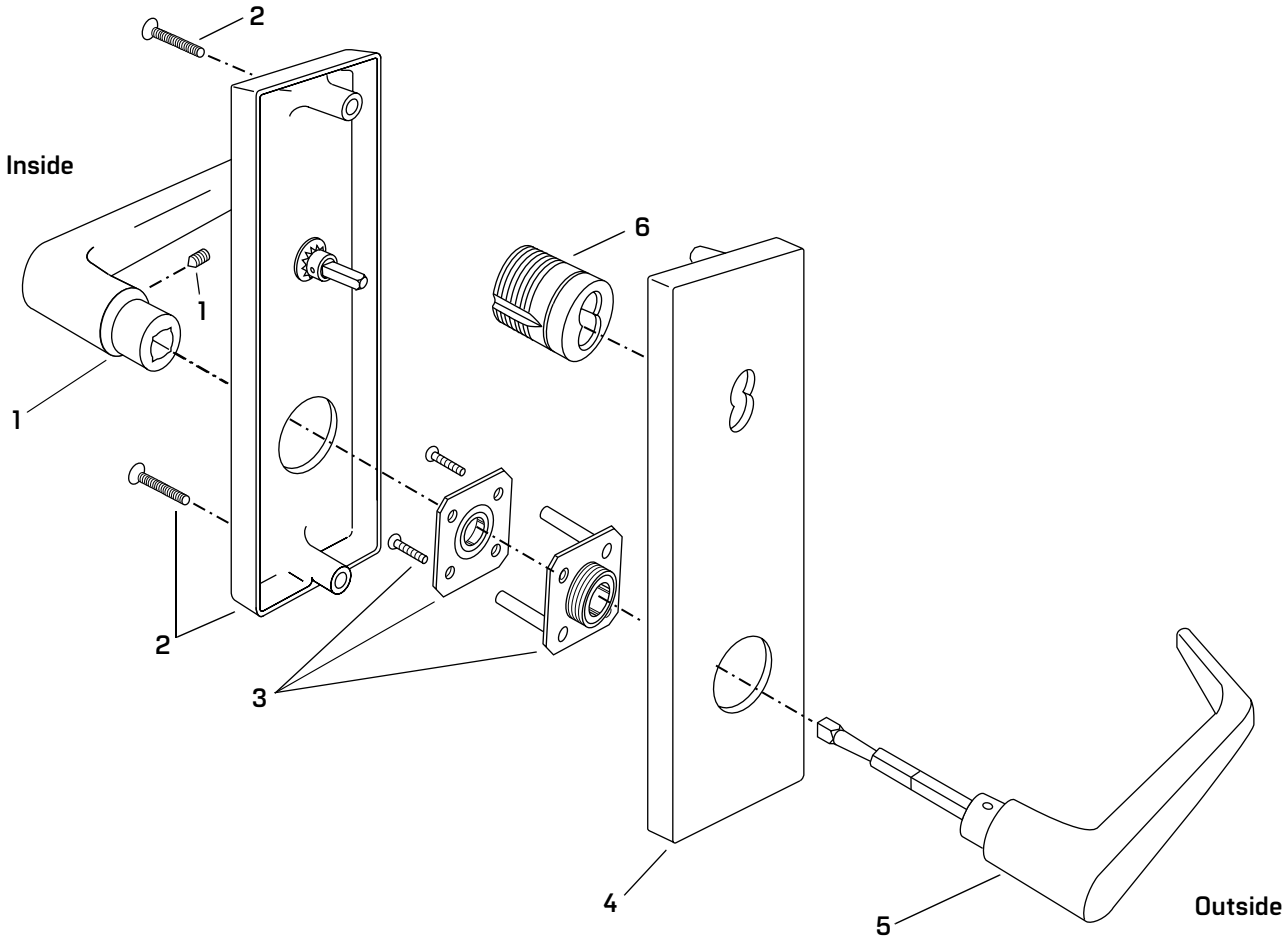


Figure 3.8 35H N trim

Item	Part No.	Qty.	Description	A, AW	B	BW	E	EW	F	FD	FW	J	JHB	L	LF	N	TR	TRK	Y
1	Pg. 3–16	1	#15 inside lever assembly	■	■	■	■	■	■	■	■	■	■	■	■	■	■[a,b]		■
2	A35495	1	Inside escutcheon assembly	■	■	■			■	■	■			■	■				
not shown	A35494	1	Inside escutcheon assembly				■	■				■	■			■	■		■
not shown	B34448	1	Inside escutcheon assembly															■[b]	
3	B35249	1	Mounting plate assembly[c]	■	■	■	■	■	■	■	■	■	■	■	■	■	■[d]		■
4	C34474	1	Outside escutcheon	■	■	■	■	■	■	■	■	■	■						
not shown	C34473	1	Outside escutcheon											■	■				
not shown	C34472	1	Outside escutcheon													■			■
not shown	C34334	1	Outside escutcheon														■[e]	■[f]	
5	Pg. 3–16, Pg. 3–26	1	#15 outside lever assembly	■	■	■	■	■	■	■	■	■	■	■	■	■			■
6	Pg. 3–21		Cylinder	■	■	■	■	■	■	■	■	■	■					■	

a. Use one A35031 hook spindle, and one inside lever and set screw.
b. Assembled on the outside of the door.
c. See page 3–27 for the part numbers of the individual components that make up the mounting plate assembly.
d. Use one A35028 inside mounting plate and two A39217 inside mounting plate surface mounting screws.
e. Assembled on the inside of the door.

36H M TRIM

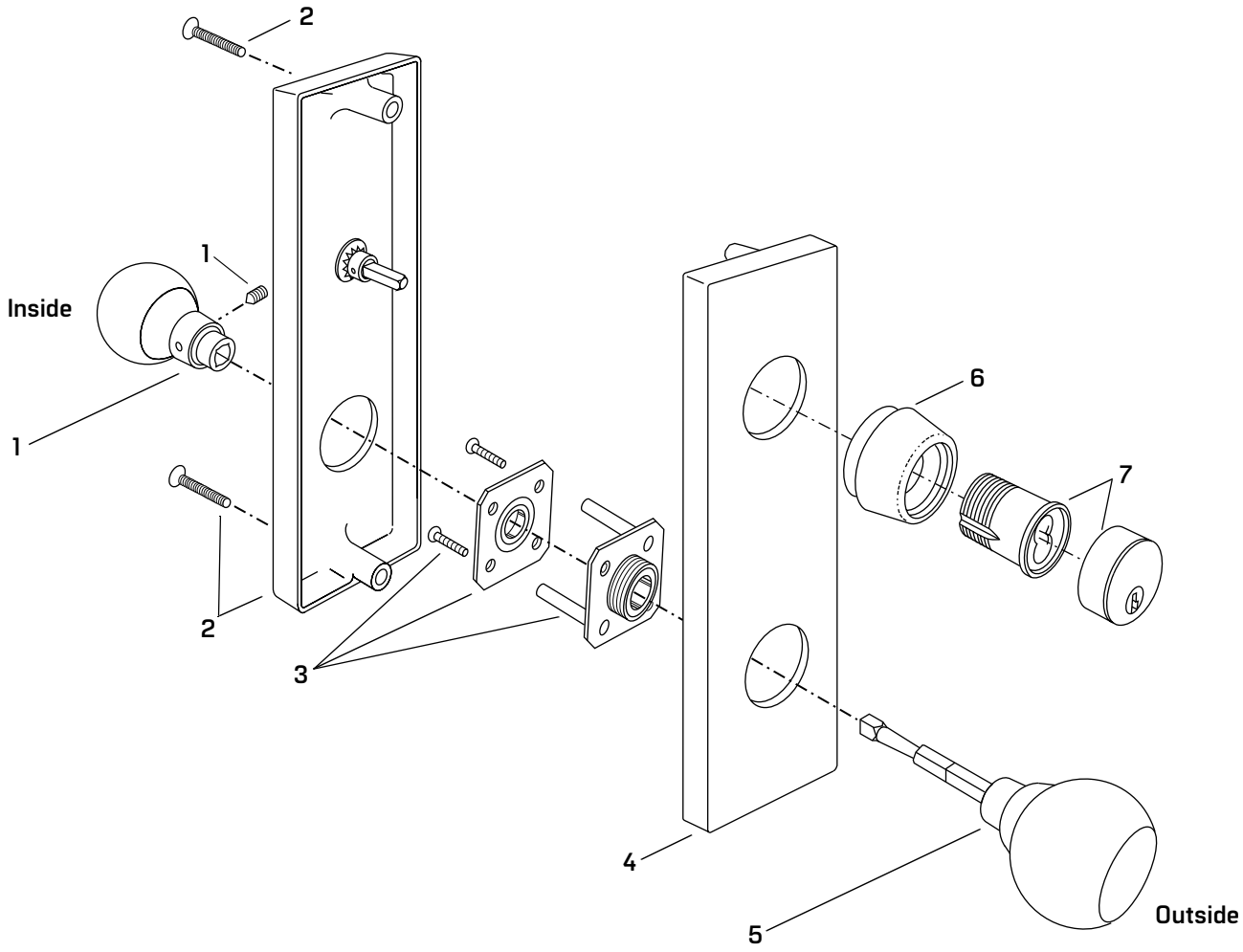


Figure 3.9 36H M trim

Item	Part No.	Qty.	Description	A, AW	B	BW	C	E	EW	F	FD	FW	G	IND	INL	J	W	WW
1	Pg. 3–15	1	#4 inside knob assembly	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
2	A35495	1	Inside escutcheon assembly	■	■	■				■	■	■						
not shown	A35494	1	Inside escutcheon assembly					■	■							■		
not shown	A35497	1	Inside escutcheon assembly				■						■	■	■		■	■
3	B35249	1	Mounting plate assembly[a]	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
4	B34511	1	Outside escutcheon	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
5	Pg. 3–15, Pg. 3–26	1	#4 outside knob assembly	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
6	Pg. 3–23		High security cylinder ring[b]	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
7	Pg. 3–21		High security cylinder & face[b]	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

a. See page 3–27 for the part numbers of the individual components that make up the mounting plate assembly.
b. Double-keyed functions (C, G, IND, INL, W, WW) require two cylinders and two rings.

37H M TRIM

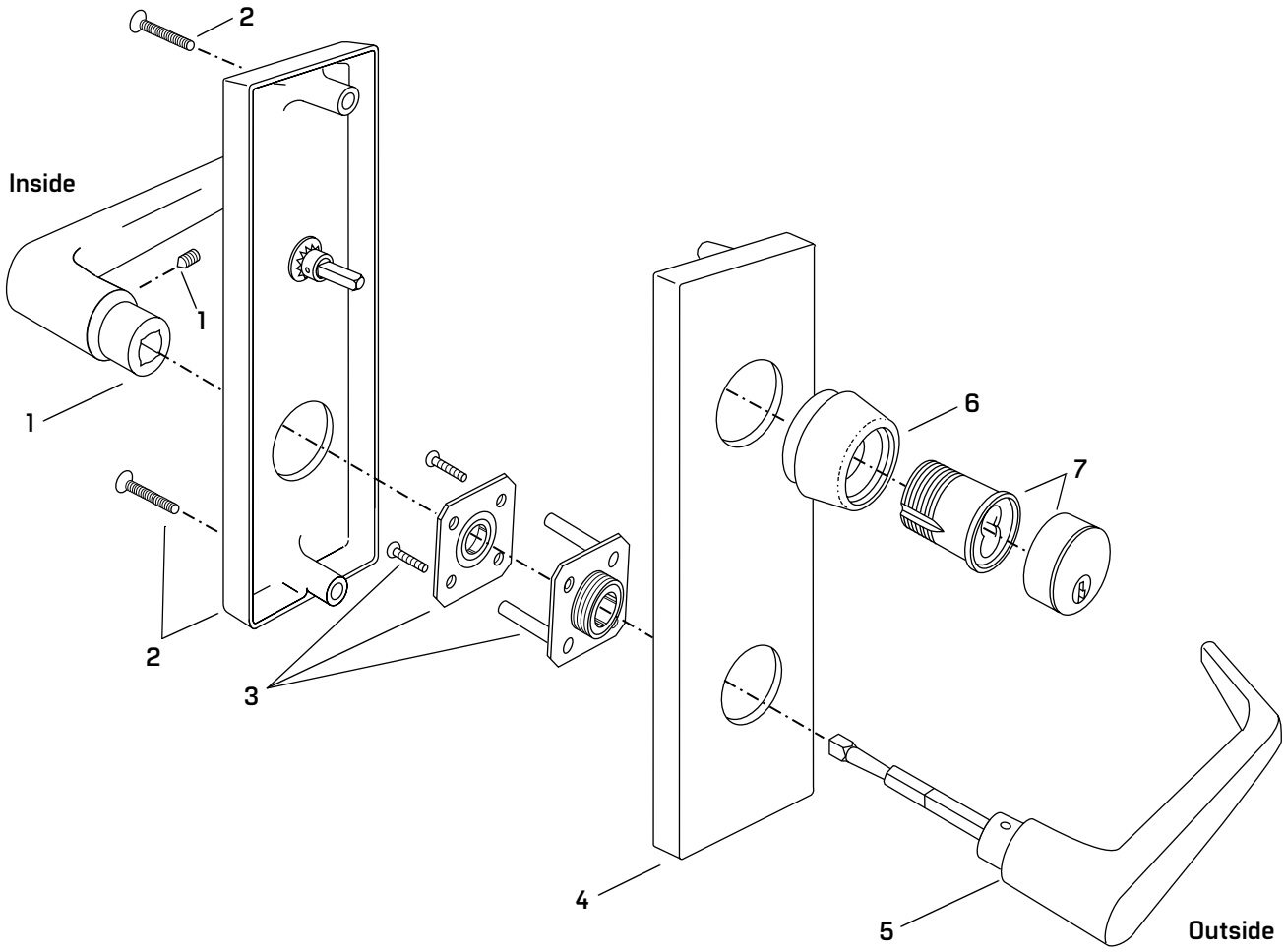


Figure 3.10 37H M trim

Item	Part No.	Qty.	Description	A, AW	B	BW	C	E	EW	F	FD	FW	G	GHB	IND	INL	J	JHB	TR	TRK	W	WW
1	Pg. 3–16	1	#15 Inside lever assembly	■	■	■	■	■	■	■	■	■	■		■	■	■		■[a,b]		■	■
2	A35495	1	Inside escutcheon assembly	■	■	■				■	■	■										
not shown	A35494	1	Inside escutcheon assembly					■	■								■	■	■[2]			
not shown	A35497	1	Inside escutcheon assembly				■						■	■	■	■					■	■
not shown	C34486	1	Inside escutcheon assembly																	■[b]		
3	B35249	1	Mounting plate assembly[c]	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■[d]		■	■
4	B34511	1	Outside escutcheon	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■			■	■
not shown	C34334	1	Outside escutcheon																■[e]	■[e]		
5	Pg. 3–16, Pg. 3–26	1	Outside lever assembly	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		■	■	■
6	Pg. 3–23		High security cylinder ring[f]	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		■	■	■
7	Pg. 3–21		High security cylinder & face[f]	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		■	■	■

a. Use one A35031 hook spindle, and one inside lever and set screw.
b. Assembled on the outside of the door.
c. See page 3–27 for the part numbers of the individual components that make up the mounting plate assembly.
d. Use one A35028 inside mounting plate and two A39217 inside mounting plate surface mounting screws.
e. Assembled on the inside of the door.
f. Double-keyed functions (C, G, IND, INL, W, WW) require two cylinders and two rings.

DEADBOLT TRIM

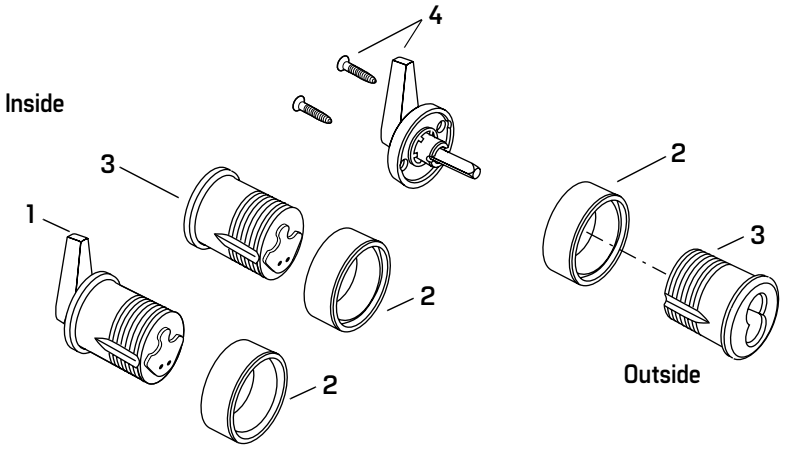


Figure 3.11 Deadbolt trim

34H deadbolt trim parts list

Item	Part No.	Qty.	Description	P	S	T	R
1	B35519	1	Turn knob cylinder (right hand doors)				■
not shown	B35520	1	Turn knob cylinder (left hand doors)				■
2	B35103	1	Cylinder ring	■	■		■
not shown	B35105	1	Cylinder ring			■[a]	■
3	1E74 ×C258	1	Cylinder	■	■	■[a]	■
4	A19286	1	Turn knob assembly	■			

a. Requires two.

38H deadbolt trim parts list

Item	Part No.	Qty.	Description	K	L	M	R
1	B35401	1	Turn knob cylinder (right hand doors)				■
not shown	B35405	1	Turn knob cylinder (left hand doors)				■
2	B35103	1	Cylinder ring	■	■		■
not shown	B35105	1	Cylinder ring			■[a]	■
3	1E74 ×C258	1	Cylinder	■	■	■[a]	■
4	A19286	1	Turn knob assembly	■			

a. Requires two.

HIGH SECURITY DEADBOLT TRIM

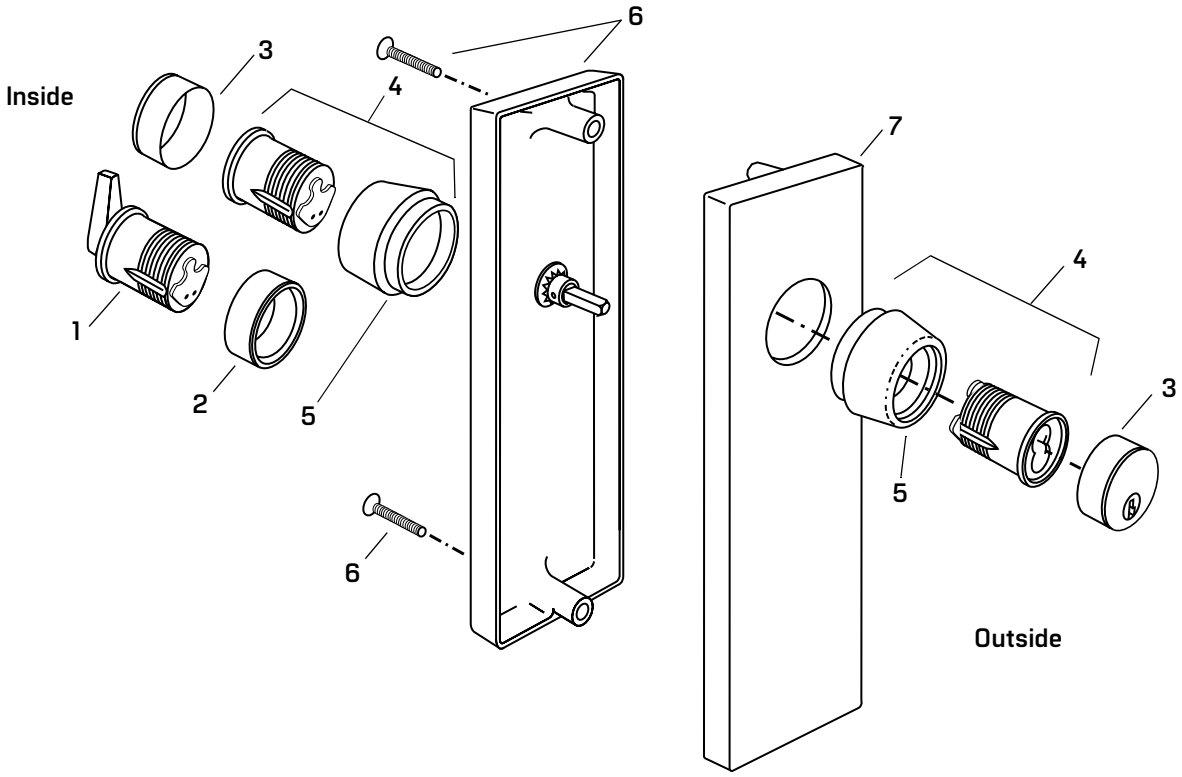


Figure 3.12 High security deadbolt trim

36H high security deadbolt trim parts list

The following parts are available only in 630 finish.

Item	Part no.	Qty.	Description	P	S	T	R
1	B35519	1	Turn knob cylinder (right hand doors)				■
not shown	B35520	1	Turn knob cylinder (left hand doors)				■
2	B35100	1	Cylinder ring			■	■
3	B19563	1	Non-UL cylinder face	■	■	■[b]	■
not shown	B19446	1	UL cylinder face	■	■	■[b]	■
4	1E7J4 × C258 *or* 1E7K4 × C258	1	Cylinder	■[a]	■[a]	■[ab]	■[a]
5	C34493	1	High security cylinder ring	■	■	■[b]	■
not shown	C19409	1	High security cylinder ring				■
6	B35336	1	Inside escutcheon assembly	■			
not shown	C34446	1	Inside escutcheon assembly				■
not shown	B34512	1	Inside escutcheon assembly			■	
not shown	C34481	1	Inside escutcheon assembly		■		
7	B34512	1	Outside escutcheon	■	■	■	■

a. Includes a C34493 high security cylinder ring.
b. Requires two.

39H high security deadbolt trim parts list

Item	Part No.	Qty.	Description	K	L	M	R
1	B35519	1	Turn knob cylinder (right hand doors)				■
not shown	B35520	1	Turn knob cylinder (left hand doors)				■
2	B35100	1	Cylinder ring				■
3	B19563		Non-UL cylinder face	■	■	■[a]	■
not shown	B19446		UL cylinder face	■	■	■[a]	■
4	B19436		Cylinder	■	■	■[a]	■
5	C34493	1	High security cylinder ring	■	■	■[a]	■
6	B35336	1	Inside escutcheon assembly	■			
not shown	C34446	1	Inside escutcheon assembly				■
not shown	B34513	1	Inside escutcheon assembly			■	
not shown	C34481	1	Inside escutcheon assembly		■		
7	B34512	1	Outside escutcheon	■	■	■	■

a. Requires two.

DUMMY TRIM

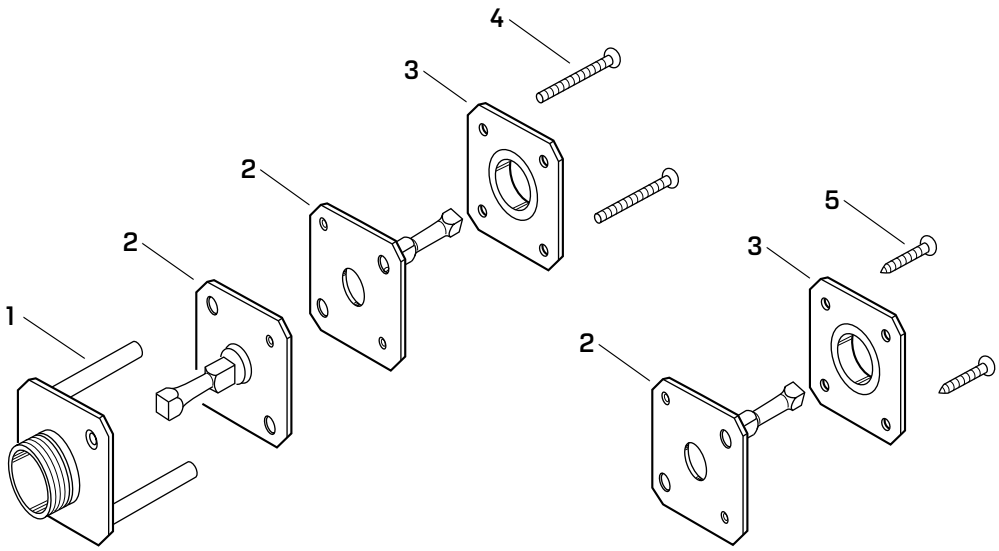


Figure 3.13 Dummy trim parts

Dummy trim parts list

Item	Part No.	Qty.	Description	1DT	2DT
1	B35027	1	Outside mounting plate		■
2	A35047	1	Dummy trim assembly	■	■[a]
3	A35028	1	Inside mounting plate #8	■	■
4	A18991	2	machine screw		■
5	A39217	2	#8 sheet metal screw	■	

a. Requires two.

KNOB ASSEMBLIES

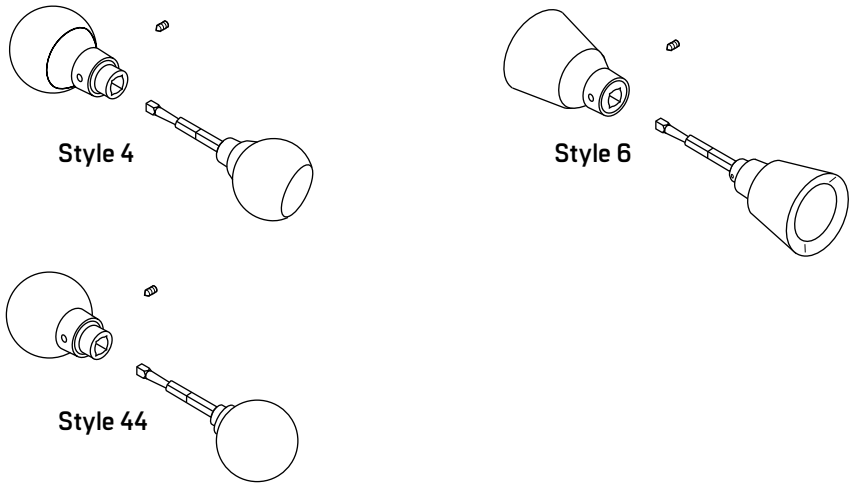
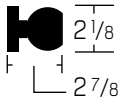
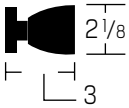
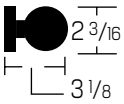


Figure 3.14 Knob assemblies

Knob assemblies parts list

To order parts that are listed in the following table as N/A, call dormakaba Mechanical Product Support for the part numbers.

Style	Knob diagram	Knob assembly parts	Standard	Knurled	Tactile
4		Entire knob assembly	A35134	N/A	A35135
		Outside knob & spindle assembly	A35084	N/A	A80515
		Inside knob assembly	B62520	N/A	B62533
6		Entire knob assembly	A35136	N/A	A80516
		Outside knob & spindle assembly	A35086	N/A	A80517
		Inside knob assembly	C62518	N/A	B62538
44		Entire knob assembly	A80500	A80512	N/A
		Outside knob & spindle assembly	A80501	A80513	N/A
		Inside knob assembly	A80502	A80514	N/A

LEVER ASSEMBLIES

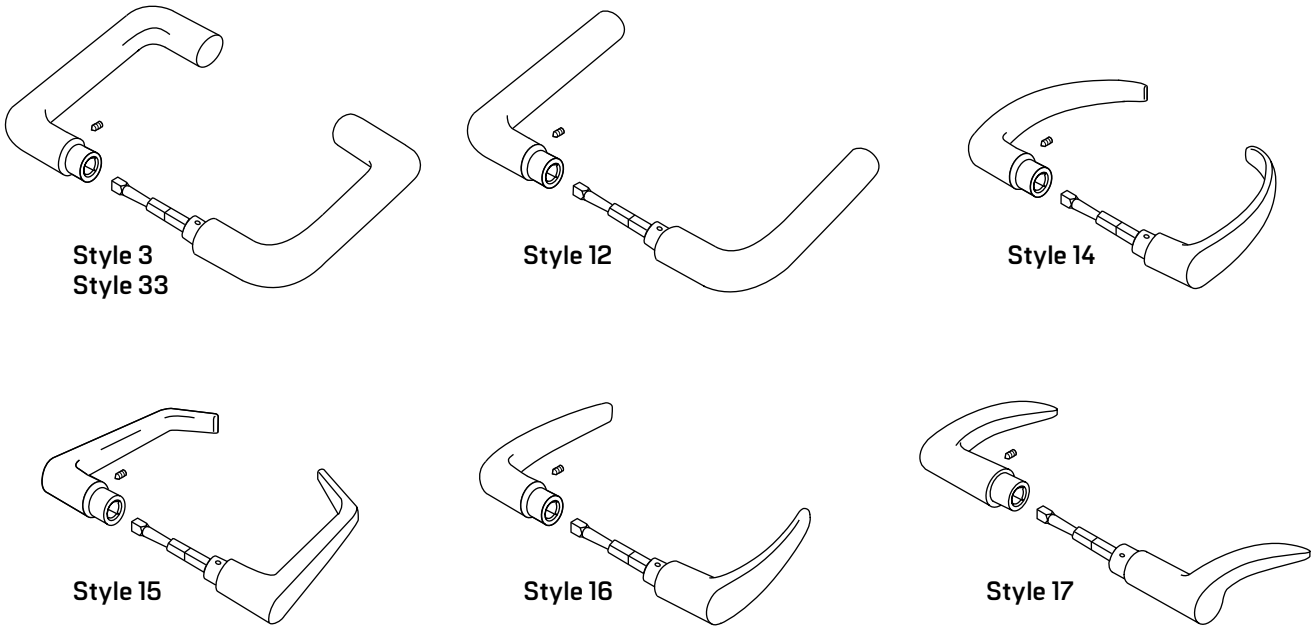
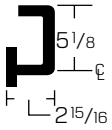
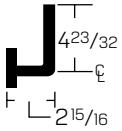
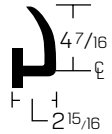
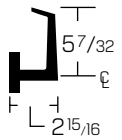
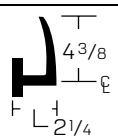
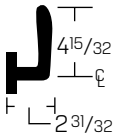
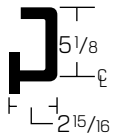


Figure 3.15 Lever assemblies

Lever assemblies parts list To order parts that are listed in the following table as N/A, call dormakaba Mechanical Product Support for the part numbers.

Style	Lever diagram	Lever assembly parts	Standard	Abrasive	Knurled	Tactile[a]
3[b, c]		Entire lever assembly	A35133	A35474	A35475	N/A
		Outside lever & spindle assembly[d]	A35067	A35387	A35500	N/A
		Inside lever assembly[e]	A35045	A35383	A80518	N/A
12		Entire lever assembly	A35125	A35478	A35479	N/A
		Outside lever & spindle assembly[d]	B35449	A80519	A80528	N/A
		Inside lever assembly[e]	A35396	B35348	A80529	N/A
14[b]		Entire lever assembly	A35189	A35481	N/A	A35482
		Outside lever & spindle assembly[d]	A80503	A80520	N/A	A35503
		Inside lever assembly[e]	A80504	A80521	N/A	A80530
15[b]		Entire lever assembly	A35152	A35483	N/A	A35484
		Outside lever & spindle assembly[d]	A35455	B35422	N/A	A35505
		Inside lever assembly[e]	A35454	A80522	N/A	A80531
16		Entire lever assembly	A35153	A35485	N/A	A35486
		Outside lever & spindle assembly[d]	A80505	B35423	N/A	A35507
		Inside lever assembly[e]	A80506	A80523	N/A	A80532

Style	Lever diagram	Lever assembly parts	Standard	Abrasive	Knurled	Tactile[a]
17		Entire lever assembly				
		Right hand	A35443	A35487	N/A	N/A
		Left hand	A35444	B35488	N/A	N/A
		Outside lever & spindle assembly[d]				
		Right hand	A80507	A35424	N/A	N/A
		Left hand	A80508	A35425	N/A	N/A
		Inside lever assembly[e]				
		Right hand	A80509	A80524	N/A	N/A
		Left hand	A80510	A80525	N/A	N/A
33[2,3]		Entire lever assembly	A80511	A80526	N/A	N/A
		Outside lever & spindle assembly[d]	B35513	A35515	N/A	N/A
		Inside lever assembly[e]	A35511	A80527	N/A	N/A

a. Tactile levers are grooved in the back of the lever.
b. Returns to within 3/8″ to 1/2″ of the door surface.
c. Style 3 is wrought and filled with aluminum. Style 33 is cast solid.
d. See page 3–26 for a complete list of spindle part numbers.
e. Includes the A63110 set screw.

Roses & rose rings

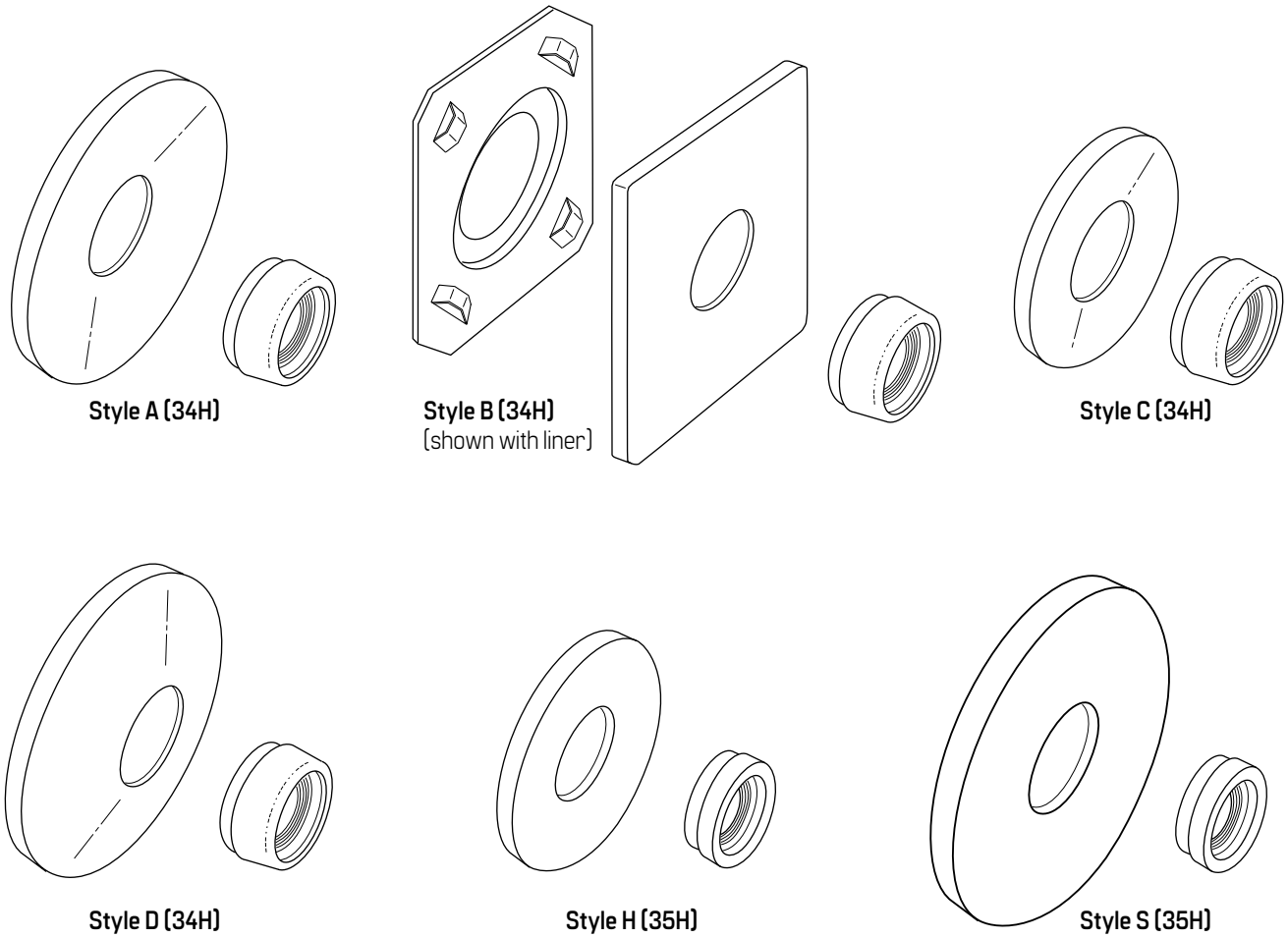


Figure 3.16 Roses and rose rings

Rose and rose rings parts list

Style	Description	Rose	Rose ring	Dimensions
A	Concave round	A29508	B34544	3 3/8″ diameter
B	Flat square	A54479[a]	B34544	3 3/8″ square
C	Concave round	A54478	B34544	2 9/16″ diameter
D	Convex round	A54476	B34545	3 3/8″ diameter
H	Flat round Flat	A34129	B34131	2 9/16″ diameter
S	round	B34585	B34131	3 1/2″ diameter

a. Does not include the A29510 liner.

STRIKES AND STRIKE BOXES

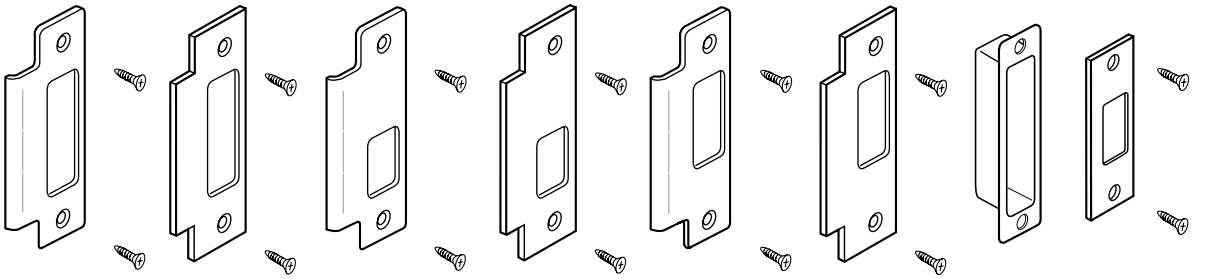


Figure 3.17 Strikes and strike box

Strikes parts list by function for standard doors

To determine what strike part number to use for your 1 3/4″ thick door, use the table below. Find the intersection of the row for the function of the lock and the column for the hand of the door.

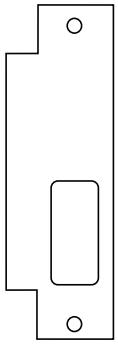
Functions	Strike Type	Standard RH/LHRB	LH/RHRB	Flat-lipped RH/LHRB	LH/RHRB	Strike Box[a]
A, B, B4–B7, C, F, FW, IND, L, LF, N, P, R, S, T, TR, TRK, W 30HS1	B18731		B18731	C63015	C63015	B34380
E, EW, GHB, G, INL, J, JHB, WW, Y	30HS2	B29552	B29553	C63014	C63013	B34380
AW, BW, FD, HF, and HJ	30HS3	B29516	B29517	C63012	C63011	B34380
All 38H–39H functions (for non-beveled strike)	38HS1	A34360	A34360	N/A	N/A	C34361
All 38H–39H functions (for beveled strike)	38HS2	C18731	C18731	N/A	N/A	B34380

a. The strike box is ordered separately from the strike.

Strikes parts list by door thickness for thick doors

To determine what strike part number to use for your thick door, first use the table above to find the intersection of the row for the function of the lock and the column for the strike type. In the table below, find the intersection of the row for the thickness of the door and hand of the door and the column for the strike type. If the function of your door requires a 30HS1 strike, use the 30HS3 strike instead.

Note: See Figure 3.17 for an illustration of the strike styles.



Lip to center dimension—taken from the edge of the lip to the center of the screw holes

Figure 3.18 Lip to center dimension

Door thickness	Hand of door	30HS2	30HS3	Lip to center dimension
2 1/4″	RH/LHRB	B29724	B29700	1.424″
	LH/RHRB	B29736	B29712	
2 1/2″	RH/LHRB	B29725	B29701	1.549″
	LH/RHRB	B29737	B29713	
2 3/4″	RH/LHRB	B29726	B29702	1.674″
	LH/RHRB	B29738	B29714	
3″	RH/LHRB	B29727	B29703	1.799″
	LH/RHRB	B29739	B29715	
3 1/4″	RH/LHRB	B29728	B29704	1.924″
	LH/RHRB	B29740	B29716	
3 1/2″	RH/LHRB	B29729	B29705	2.049″
	LH/RHRB	B29741	B29717	
3 3/4″	RH/LHRB	B29730	B29706	2.174″
	LH/RHRB	B29742	B29718	
4″	RH/LHRB	B29731	B29707	2.299″
	LH/RHRB	B29743	B29719	
4 1/4″	RH/LHRB	B29732	B29708	2.424″
	LH/RHRB	B29744	B29720	
4 1/2″	RH/LHRB	B29733	B29709	2.549″
	LH/RHRB	B29745	B29721	
4 3/4″	RH/LHRB	B29734	B29710	2.674″
	LH/RHRB	B29746	B29722	
5″	RH/LHRB	B29735	B29711	2.799″
	LH/RHRB	B29747	B29723	

CYLINDERS & RINGS

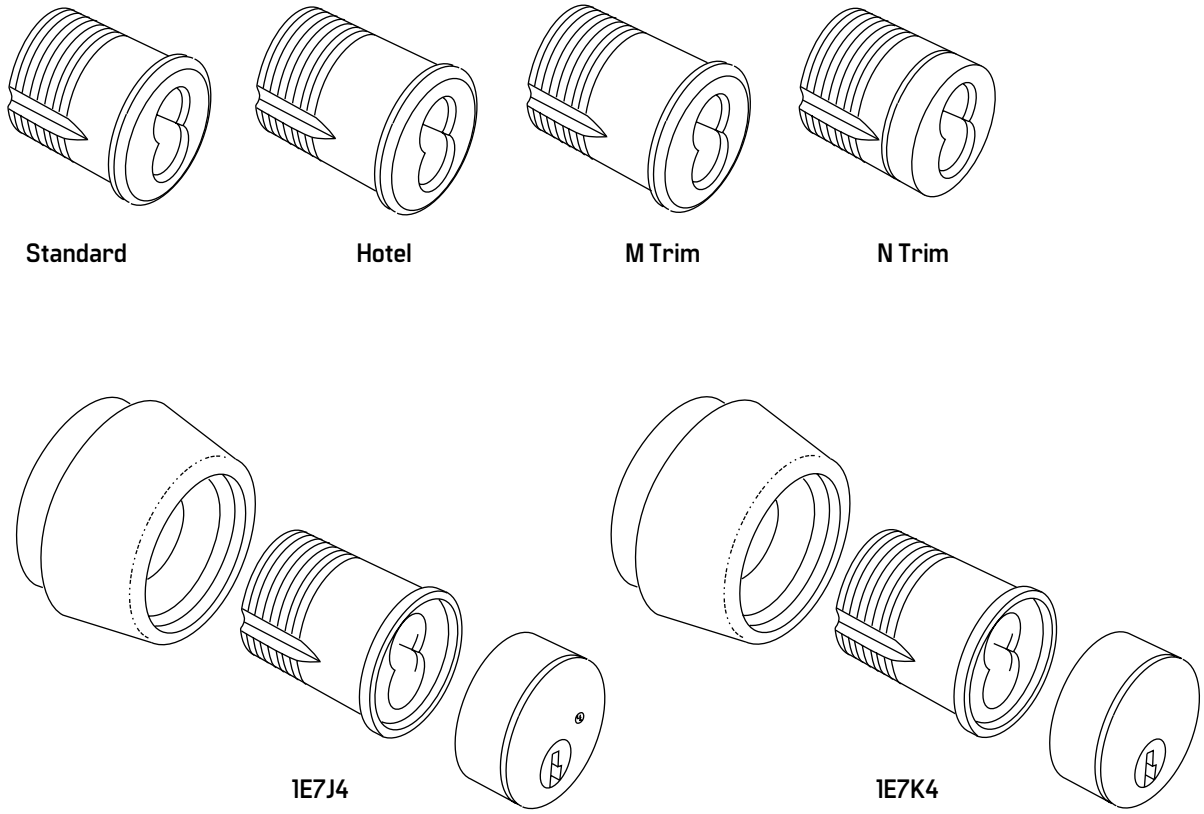


Figure 3.19 Cylinders and rings

Cylinders parts list

Type	Nomenclature	Notes
Standard	1E74 × cam	See page 3–25 for a list of cams.
Hotel	1E7G4 × C258	See page 3–25 for a list of cams.
M Trim	1E7M4 × cam	See page 3–25 for a list of cams.
N Trim	1E7N4 × cam	See page 3–25 for a list of cams.
High security[a b c]	1E7J4 × cam	The 1E7J4 cylinder must be ordered with a combinated 5C security core to qualify for the UL® listing. See page 3–25 for a list of cams.
High security[a]	1E7K4 × cam	The 1E7K4 cylinder can be ordered uncombinated or less core. It does not carry the UL® listing. See page 3–25 for a list of cams.

a. Cylinder face is shown without the BEST logo.
b. 5C cores must be combinated at the factory to qualify for the UL listing.
c. 1E7J4 cylinders must be used with M style escutcheons to qualify for the UL listing.

Cylinders parts list by door thickness

Door thickness	Standard cylinder	Hotel cylinder	M cylinder	N cylinder
2″	B35170	B35200	B35172	1E7N4
2 1/4″	B35171	B35201	B35173	B35284
2 1/2″	B35172	B35202	B35174	B35284
2 3/4″	B35173	B35203	B35175	B35285
3″	B35174	B35204	B35176	B35285
3 1/4″	B35175	B35205	B35177	B35286
3 1/2″	B35176	B35206	B35178	B35286
3 3/4″	B35177	B35207	B35179	B35287
4″	B35178	B35208	B35180	B35287
4 1/4″	B35179	B35209	B35181	B35288
4 1/2″	B35180	B35210	B35182	B35288
4 3/4″	B35181	B35211	B35498	B35289
5″	B35182	B35212	B35499	B35289

Cylinder rings

Wrench resistant cylinder rings are required by ANSI 156.13. The following cylinder rings are required for the 34H–35H Mortise Locks based on lock function, trim style, and cylinder length.

Caution

Installing cylinder rings of lengths other than those designated may cause the lock to malfunction.

Note: Specify the finish when ordering cylinder rings. Each ring requires one wavy washer, part number B34115.

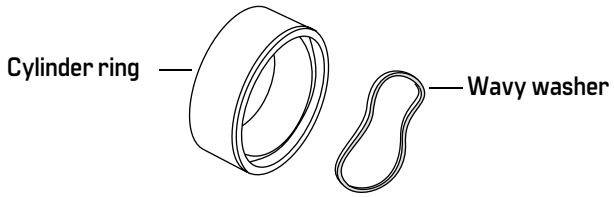


Figure 3.20 Cylinder ring and wavy washer

Cylinder rings parts list by function

Function[a]	Trim style	Pin size	Ring part no.	Ring length (decimal)
A, AW, B, BW, B4, B5, E, EW, F, FD, FW, J, JHB, L, P[b], S[b], TRK	A, B, C, D, H	6	B35101	11/32″ (0.344)
		7	B35103	7/16″ (0.438)
	J, M	6	B35100	7/32″ (0.219)
		7	B35100	7/32″ (0.219)
B6, B7, C, G, GHB, IND, INL, R[b], T[b], W, WW	A, B, C, D, H	6	B35103	7/16″ (0.438)
		7	B35105	19/32″ (0.594)
	J, M	6	B35100	7/32″ (0.219)
		7	B35101	11/32″ (0.344)
HF	A, B, C, D, H	6	B35104	9/16″ (0.562)
		7	B35107	23/32″ (0.719)
	J, M	6	B35102	13/32″ (0.406)
		7	B35104	9/32″ (0.562)
HJ	A, B, C, D, H	6	B35106	21/32″ (0.656)
		7	B35108	13/16″ (0.812)
	J, M	6	B35102	13/32″ (0.406)
		7	B35104	9/16″ (0.562)

a. Double-keyed functions require two rings.
b. Requires cylinder rings for sectional trim.

Cylinder rings parts list by part number

Ring part no.	Length (decimal)
B35100	7/32″ (.219)
B35101	11/32″ (.344)
B35102	13/32″ (.406)
B35103	7/16″ (.438)
B35104	9/16″ (.562)
B35105	19/32″ (.594)
B35106	21/32″ (.656)
B35107	23/32″ (.719)
B35108	13/16″ (.812)
B35109	5/16″ (.312)

Cylinder cams parts list by function

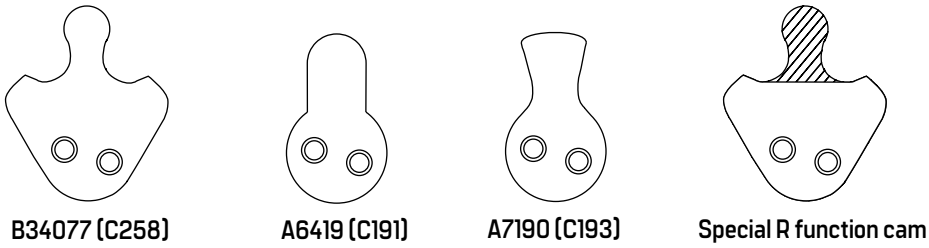


Figure 3.21 Cylinder cams

Function	Outside cam Part no.	Nomenclature	Inside cam Part no.	Nomenclature
A	B34077	C258		
AW	B34077	C258		
B	B34077	C258		
B4	B34077	C258		
B5	B34077	C258		
B6	B34077	C258	B34077	C258
B7	B34077	C258	B34077	C258
C	B34077	C258	B34077	C258
E	A6419	C191		
EW	A6419	C191		
F	B34077	C258		
FD	B34077	C258		
FW	B34077	C258		
G	A7190	C193	A6419	C191
GHB	A6419	C191	A6419	C191
HF	B34077	C258[a]		
HJ	B34077	C258[a]		
IND	B34077	C258	B34077	C258
INL	A6419	C191	A6419	C191
J	A6419	C191		
JHB	A6419	C191		
P	B34077	C258		
R	B34077	C258	Special R function cam[b, c]	
S	B34077	C258		
T	B34077	C258		
TRK	A6419	C191		
W	B34077	C258	B34077	C258
WW	A6419	C191	A6419	C191

a. Requires the shifting cam cylinder, part number and nomenclature B35119 (1E6G4 xC258) or B35120 (1E7G4 x C258).
b. The R function inside turn knob cylinder is handed. For RH/RHRB doors, use B35401; for LH/LHRB doors, use B35405. For M trim RH/RHRB doors, use B35519; for M trim LH/LHRB doors, use B35520.
c. The special R function cam includes cams B63003 and A10526. The B63003 cam is modified by removing the middle lobe. The full-size cam A10526 mounts against the cylinder.

MISCELLANEOUS PARTS

Standard tapered and hook spindles

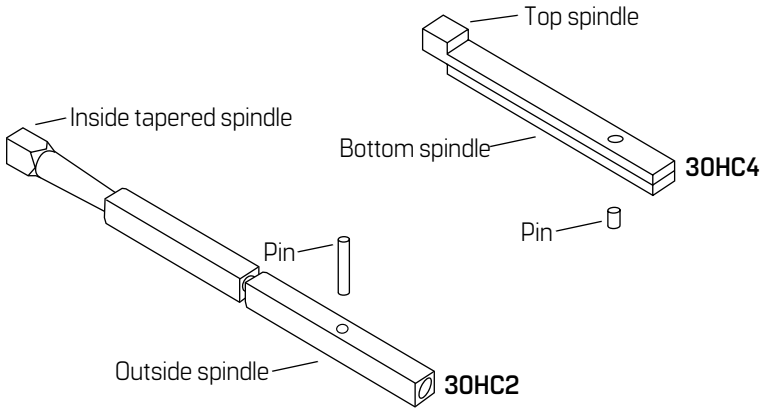


Figure 3.22 Standard tapered and hook spindles

Standard tapered and hook spindles parts list

Type	Inside	Outside	One side only	Pin
Standard tapered				
30HC2	B34016	B34211		A29518
Hook[a]				
30HC4 Assembly			A35031	
Top section			A34204	
Bottom section			A34205	A34203

a. Used only on doors that are 1 3/4″ to 2 1/2″ thick.

Thick door spindles parts list

	34H–37H spindles	
Door thickness[a]	Inside	Outside[b]
2″	B34016	B34252
2 1/4″	B34016	B34253
2 1/2″	B34016	B34254
2 3/4″	B34016	B34255
3″	B34165	B34256
3 1/4″	B34165	B34257
3 1/2″	B34165	B34258
3 3/4″	B34165	B34259
4″	B34165	B34260
4 1/4″	B34550	B34261
4 1/2″	B34550	B34262
4 3/4″	B34550	B34263
5″	B34550	B34264

a. If your door thickness measurements are in between those listed, round up.
b. The A29518 pin is required for all outside spindles. It is ordered separately from the spindle.

Mounting plates

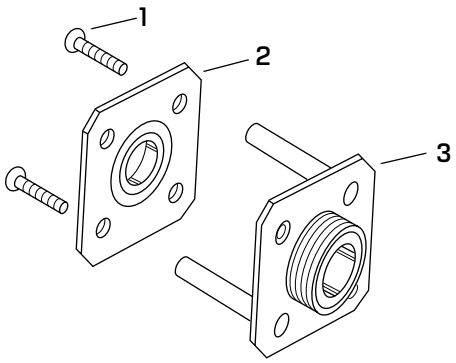


Figure 3.23 Mounting Plate Assembly (B35029 shown)

Mounting plates parts list

Item	Description	Part No. for A, B, C, D, H, S, J trim	Part No. for M, N trim
All	Mounting plate assembly	B35029	B35249
1	Screw	A18991	A18991
2	Inside mounting plate	A35028	B35030
3	Outside mounting plate	B35027	B35247

Knob-to-lever conversion kit

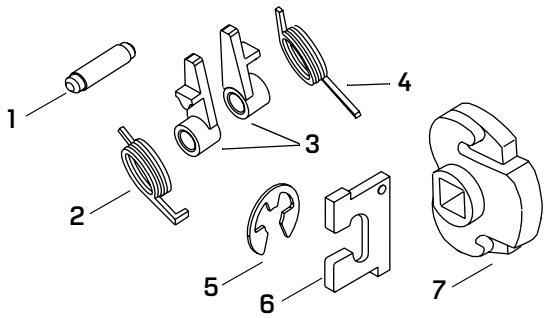


Figure 3.24 Knob-to-lever conversion kit

Knob-to-lever conversion kit parts list

Item	Description	Part No.
All	Knob-to-lever conversion kit	A35074
1	Stop pi n *or*	A34048 *or*
	Special stop pin[a]	A34090 *and*
	Screw[a]	A34088 *and*
	Spacer for knob by lever[a]	A34089
2	Upper return spring	A34066
3	Auxiliary return levers	A34020
4	Lower return spring	A34065
5	Retainer ring	A34013
6	Fusible slide plate	A35009
7	Inside hub[b]	B34043

a. Used on knob by lever trim, GHB, and JHB functions only.
b. Required only for the old style screw-on knobs. The new style knobs have a set screw and already use this part.

Hotel indicator

The hotel indicator plate is required for C and H rose styles only. Specify the finish when ordering.

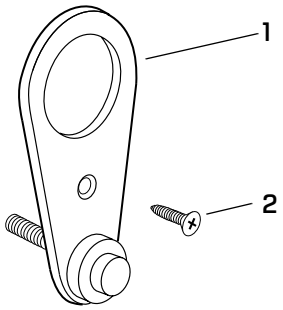


Figure 3.25 Hotel indicator

Hotel indicator parts list

Item	Description	Part No.
All	Hotel indicator plate	A35034
1	Plate	A35033
2	Screw	A18513

Emergency key kit

The emergency key kit is required for L and LF functions using A, B, C, D, H, or S rose styles only. Specify the finish when ordering.

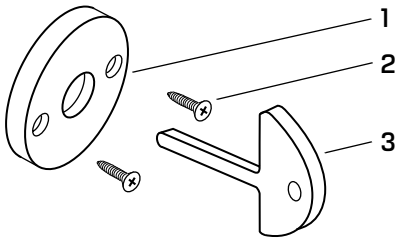


Figure 3.26 Emergency key kit

Emergency key kit parts list

Item	Description	Part No.
All	Emergency key and rose kit	A35150
1	Rose	B17796
2	Screw	A18513
3	Emergency key	A18719

Faceplates

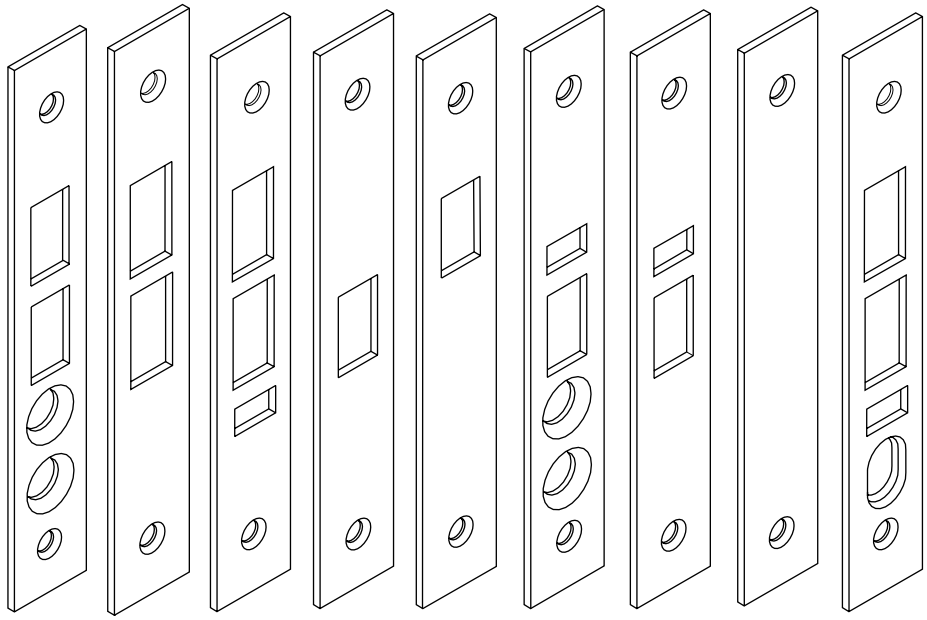


Figure 3.27 Faceplates (shown without the BEST logo)

Faceplates parts list by function

Function	Part no.
A, F, W	D34093
AW	B80573
B, B4, B5, B6, B7, C, FW, IND, L, LF	D34094
BW, FD, HF, HJ	D34095
N	D34096
P, R, S, T	D34097
E	D34098
EW, G, INL, J, WW, Y	D34099
GHB, JHB	A34235[a]
TR, TRK	A34309[b]
1DT, 2DT	A34389[c]

a. The D34099 faceplate is identical to the A34235 faceplate except that A34235 has no UL markings.
b. The D34096 faceplate is identical to the A34309 faceplate except that A34309 has no UL markings.
c. Used as a "dummy" faceplate.

Screws

Figure 3.28 Screws

Screws parts list

Component	Screw specification	Standard	Security	Driver
Case screws[a]				
Case cover screw	#8–32 X 3/8″ PHFHMS	A34087	N/A	N/A
Case mounting screw	#12–24 X 3/4″ PHFHMS	A18724	A34450	T25
Strike screws	#12–24 X 3/4″ PHFHMS	A18724	A34450	T25
Trim screws[b]				
Chassis mounting screw	#8–32 X 1 1/4″ PHFHMS	A18991	N/A	N/A
Lever set screw	#1/4-20 SHCPSS	A63110	A34406	Spanner head
J escutcheon screw[c]	#8-32	A34418	A34451	T15
M & N escutcheon bolt	#10–32 X 2 1/8″	A34463	A34553	T25
Turn knob rose screw	#6 X 1/2″ POH	A18513	A34452	T15
Faceplate screws	#8–32 X 1/4″ PHFHMS	A18722	A34454	T15

a. See Chapter 2, *Lock Parts and Functions*, for case screw illustrations.
b. See page 3–2 to page 3–13 for trim screw illustrations.
c. The standard head screw is 1 1/4″; the security head screw is 3/4″ long.

Bit drivers parts list

Type	Part number
TORX® T10[a]	A34462
TORX T15	A34457
TORX T25	A34458
Spanner head	A34407

a. TORX is a registered trademark of the Camcar Division of Textron.

4 Service and Maintenance

This chapter contains instructions for removing and replacing components, servicing and maintaining components, and troubleshooting common problems.

TOOLS

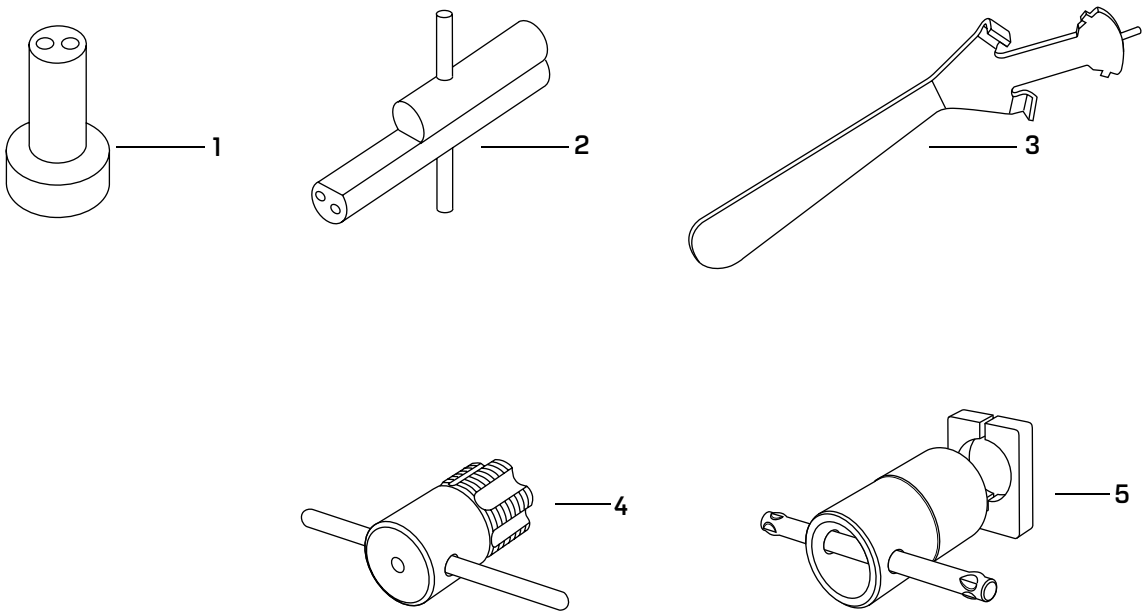


Figure 4.1 Tools

Item	Nomen-clature	Description	Use
1	ED212	Mortise cylinder cam assembly tool	Tool for assembling cams to mortise cylinders
2	ED211	Cylinder wrench	Tool for installing, removing, and testing cylinders
3	KD316	Spanner wrench	Tool for installing sectional trim
4	ED225	Cylinder tap	Tool for rethreading case threads
5	ED221	Cylinder die	Tool for rethreading 15/32″ diameter cylinders

REMOVING THE TRIM

In order to perform any maintenance on your H Series Lock, you must first remove the trim from the door. The next four sections outline the tasks to perform in order to remove the different types of trim. Each section references the appropriate trim diagrams in Chapter 3 and the detailed instructions for each task found in *Tasks for removing the trim*.

Removing the A, B, C, D, H, & S sectional trim

Refer to the trim diagrams on page 3–2 and page 3–6 and the detailed instructions for each task that follows.

1. Perform Task A, *To remove the levers/knobs*. See page 4–4.
2. Perform Task B, *To remove the faceplate*. See page 4–4.
3. Perform Task C, *To remove the cylinder*. See page 4–4.
4. Perform Task D, *To remove the turn knob assembly*. See page 4–5.
5. Perform Task E, *To remove the rose rings*. See page 4–6.
6. Perform Task F, *To remove the roses*. See page 4–6.
7. Perform Task H, *To remove the mounting plates*. See page 4–6.

Removing the J trim

Refer to the trim diagrams on page 3–3 and page 3–7 and the detailed instructions for each task that follows.

1. Perform Task A, *To remove the levers/knobs*. See page 4–4.
2. Perform Task B, *To remove the faceplate*. See page 4–4.
3. Perform Task C, *To remove the cylinder*. See page 4–4.
4. Perform Task E, *To remove the rose rings*. See page 4–6.
5. Perform Task G, *To remove the escutcheons*. See page 4–6.
6. Perform Task H, *To remove the mounting plates*. See page 4–6.

Removing the M trim

Refer to the trim diagrams on page 3–4, page 3–8 and page 3–10, and the detailed instructions for each task that follows.

1. Perform Task A, *To remove the levers/knobs*. See page 4–4.
2. Perform Task B, *To remove the faceplate*. See page 4–4.
3. Perform Task C, *To remove the cylinder*. See page 4–4.
4. Perform Task G, *To remove the escutcheons*. See page 4–6.
5. Perform Task H, *To remove the mounting plates*. See page 4–6.

Removing the N trim

Refer to the trim diagram on page 3–5 and the detailed instructions for each task that follows.

1. Perform Task A, *To remove the levers/knobs*. See page 4–4.
2. Perform Task B, *To remove the faceplate*. See page 4–4.
3. Perform Task G, *To remove the escutcheons*. See page 4–6.
4. Perform Task H, *To remove the mounting plates*. See page 4–6.
5. Perform Task C, *To remove the cylinder*. See page 4–4.

Tasks for removing the trim

Task A. To remove the levers/knobs:

1. Use a 1/8″ Allen wrench to loosen the set screw from the inside lever/knob.
2. Remove the inside lever/knob, then the outside lever/knob and spindle assembly from the door.

Task B. To remove the faceplate:

Unscrew the two faceplate screws and remove the faceplate from the lock. Save the screws.

Task C. To remove the cylinder:

1. Insert the control key into the core and rotate the key 15 degrees clockwise. Remove the core.
2. Loosen the cylinder clamp screw, found on the inside of the lock case.

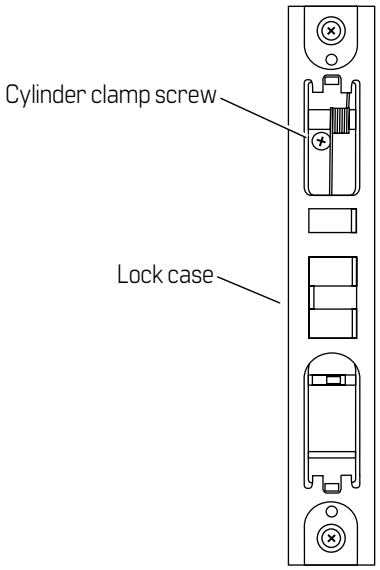


Figure 4.2 Location of the cylinder clamp screw (view from the edge of the door)

3. Insert the mortise cylinder wrench into the cylinder and turn it counterclockwise until you can remove the cylinder and cylinder ring.

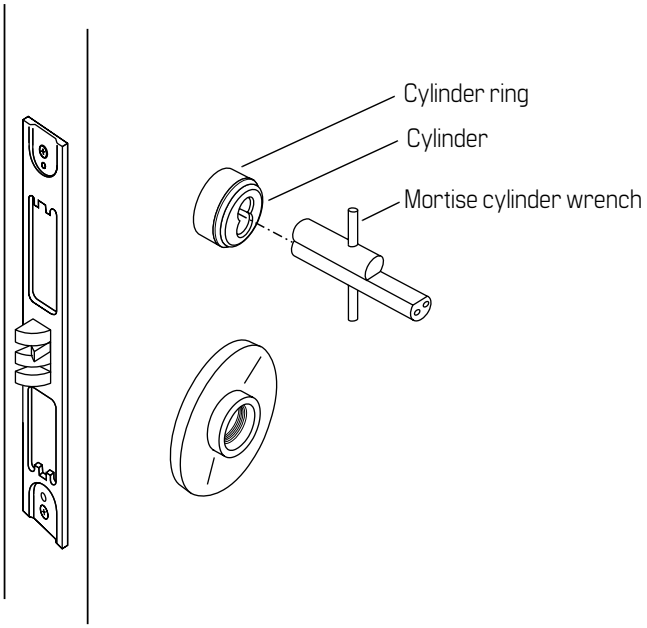


Figure 4.3 Removing the cylinder

4. If the lock is double-keyed, repeat steps 1 through 3 for the other cylinder.

Task D. To remove the turn knob assembly:

Remove the two turn knob assembly screws and the turn knob assembly.

Task E. To remove the rose rings:

1. Insert the protrusion on the spanner wrench into the hole in the inside rose ring and rotate counterclockwise until you can remove the inside rose ring.

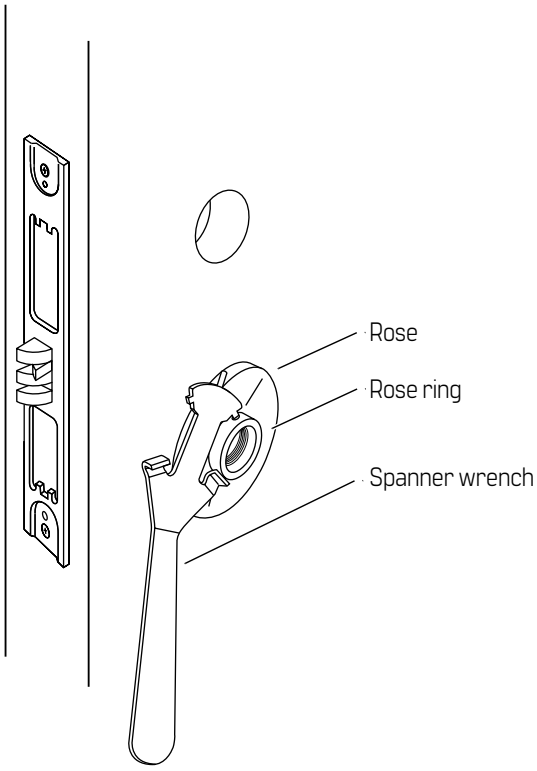


Figure 4.4 Removing the rose rings

2. Repeat step 1 for the outside rose ring.

Task F. To remove the roses:

Pull the inside and outside roses off of the door.

Task G. To remove the escutcheons:

1. Remove the upper and lower escutcheon screws.

   Note: The J escutcheon only has an upper escutcheon screw.

2. Remove the inside and outside escutcheons.

Task H. To remove the mounting plates:

1. Remove the two mounting plate screws from the inside of the door. Save the screws.
2. Remove the outside and inside mounting plates.
3. For J trim, remove the J alignment plate.

REPLACING THE TRIM

After you have performed any maintenance on your H Series Lock, you must replace the trim on the door. The next four sections outline the tasks to perform in order to replace the different types of trim. Each section references the appropriate trim diagrams in Chapter 3 and the detailed instructions for each task found in *Tasks for replacing the trim*.

Replacing the A, B, C, D, H & S sectional trim

Refer to the trim diagrams on page 3–2 and page 3–6 and the detailed instructions for each task that follows.

1. Perform Task A, *To replace the mounting plates*. See page 4–8.
2. Perform Task C, *To replace the roses*. See page 4–8.
3. Perform Task D, *To replace the rose rings*. See page 4–8.
4. Perform Task E, *To replace the turn knob assembly*. See page 4–8.
5. Perform Task F, *To replace the cylinder*. See page 4–8.
6. Perform Task G, *To replace the faceplate*. See page 4–9.
7. Perform Task H, *To replace the levers/knobs*. See page 4–9.

Replacing the J trim

Refer to the trim diagrams on page 3–3 and page 3–7 and the detailed instructions for each task that follows.

1. Perform Task A, *To replace the mounting plates*. See page 4–8.
2. Perform Task B, *To replace the escutcheons*. See page 4–8.
3. Perform Task D, *To replace the rose rings*. See page 4–8.
4. Perform Task F, *To replace the cylinder*. See page 4–8.
5. Perform Task G, *To replace the faceplate*. See page 4–9.
6. Perform Task H, *To replace the levers/knobs*. See page 4–9.

Replacing the M trim

Refer to the trim diagrams on page 3–4, page 3–8, page 3–10, and page 3–11 and the detailed instructions for each task that follows.

1. Perform Task A, *To replace the mounting plates*. See page 4–8.
2. Perform Task B, *To replace the escutcheons*. See page 4–8.
3. Perform Task F, *To replace the cylinder*. See page 4–8.
4. Perform Task G, *To replace the faceplate*. See page 4–9.
5. Perform Task H, *To replace the levers/knobs*. See page 4–9.

Replacing the N trim

Refer to the trim diagram on page 3–5 and the detailed instructions for each task that follows.

1. Perform Task F, *To replace the cylinder*. See page 4–8.
2. Perform Task A, *To replace the mounting plates*. See page 4–8.
3. Perform Task B, *To replace the escutcheons*. See page 4–8.
4. Perform Task G, *To replace the faceplate*. See page 4–9.
5. Perform Task H, *To replace the levers/knobs*. See page 4–9.

Tasks for replacing the trim

Task A. To replace the mounting plates:

1. For J trim, position the J alignment plate on the outside of the door. For all other trim, go to step 2.
2. Install the outside and inside mounting plates.
3. Install the two (2) mounting plate screws from the inside of the door.

Task B. To replace the escutcheons:

1. Position the inside and outside escutcheons on the door.
2. Install the upper and lower escutcheon screws from the inside of the door.

   Note: The J escutcheon only has an upper escutcheon screw.

Task C. To replace the roses:

Position the inside and outside roses on the door. They should rest on the mounting plates.

Task D. To replace the rose rings:

1. If there are roses or escutcheons, hold them in position so that they are centered on the mounting plates.
2. Use the spanner wrench to install the inside and outside rose rings onto the mounting plates.

Task E. To replace the turn knob assembly:

1. Position the turn knob assembly on the inside of the door.
2. Install the two turn knob assembly screws.

Task F. To replace the cylinder:

1. Make sure that the washer, if present, and cylinder ring are positioned on the cylinder.

   Note: The high security cylinder ring does not have a washer.
2. With the mortise cylinder wrench inserted into the core hole, insert the cylinder assembly into the cylinder hole on the outside of the door.
3. *For standard cylinders*, rotate the mortise cylinder wrench clockwise until the cylinder ring is flush against the door.
   For concealed cylinders, rotate the mortise cylinder wrench clockwise until the groove around the cylinder head is even with the door surface.

For high security cylinders, rotate the mortise cylinder wrench clockwise until the cylinder head touches the inside rim of the cylinder ring.

A malfunction can occur if the cylinder is threaded in too far.

Caution

4. Tighten the cylinder clamp screw, found on the inside of the lock case, into the cylinder groove.

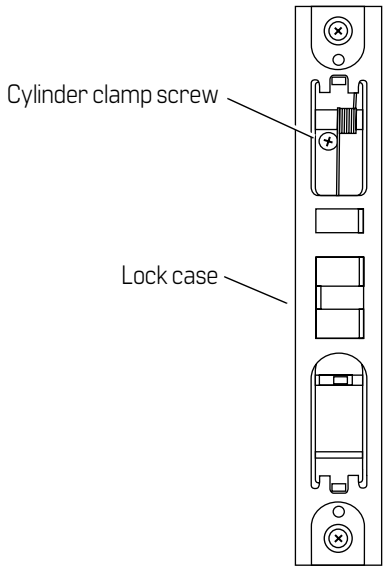


Figure 4.5 Location of the cylinder clamp screw (view from the edge of the door)

5. Insert the control key and core into the cylinder. Rotate the control key 15 degrees counterclockwise and then remove the key.
6. If the lock is double-keyed, repeat steps 1 through 4 for the other cylinder.

Task G. To replace the faceplate:

Position the faceplate on the lock and install the two faceplate screws.

Task H. To replace the levers/knobs:

1. From the outside of the door, insert the outside lever/knob and spindle assembly through the door.
   Note: For lever trim, position the lever so that the handle points toward the door hinges.
2. Install the inside lever/knob onto the inside spindle.
3. Use a 1/8″ Allen wrench to tighten the set screw on the inside lever/knob.
4. Turn the levers/knobs to check that they work smoothly.

REMOVING AND REPLACING THE CASE AND CASE COVER

Removing the case and case cover

In order to perform any maintenance on your H Series Locks, you must remove the trim and the lock from the door. Perform these steps to remove the lock case and cover:

1. Remove the trim. For more information, see *Removing the trim* on page 4-3.
2. From the edge of the door, remove the two case mounting screws.
3. Remove the case from the door.
4. Set the case on a flat surface.
5. Remove the five case cover screws. Carefully remove the case cover. Many parts are spring loaded and may shift.

Replacing the case and case cover

After you have performed any maintenance on your 30H Lock, you must replace the case cover and the case before replacing the trim. Perform these steps to replace the lock case cover and case:

1. Place the case cover on the case and install the five case cover screws.
2. Check to see if the lock works properly.
3. Slide the case into the door.
4. Install the two case mounting screws.
5. Replace the trim. For more information, see *Replacing the trim* on page 4-7.

CHANGING THE HAND AND BEVEL

This section describes how to change the hand and/or bevel of the lock. The section includes a quick reference, outlines of the tasks required to change the hand and/or bevel, and detailed instructions for each task. Each outline references the detailed instructions for each task found in *Tasks for changing the hand and bevel*.

Changing hand and bevel quick reference

Review the diagram below to understand the hand and bevel of the door.

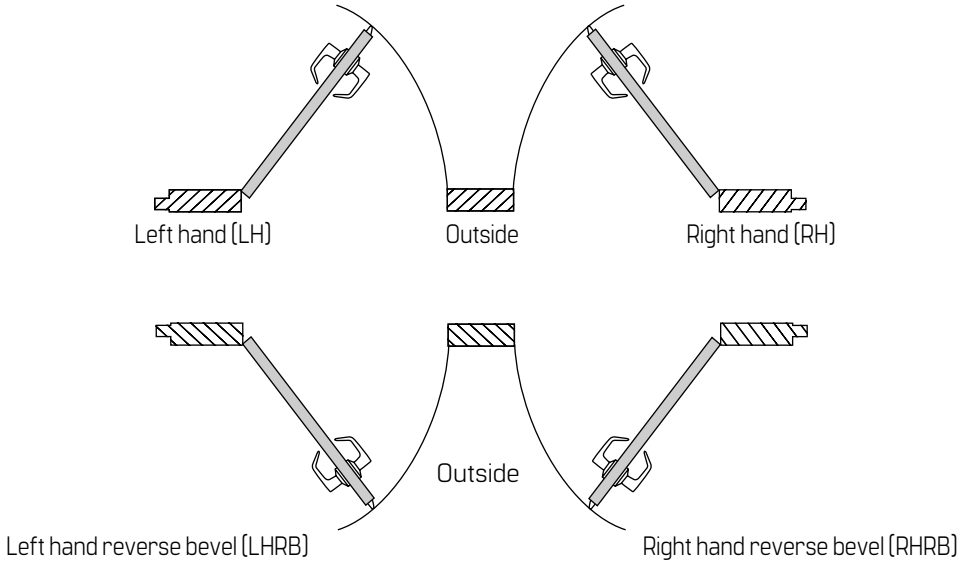


Figure 4.6 Explanation of the hand and bevel of the door

The following diagram and table shows which components need to be turned over when changing the hand and bevel. See the sections that follow for instructions.

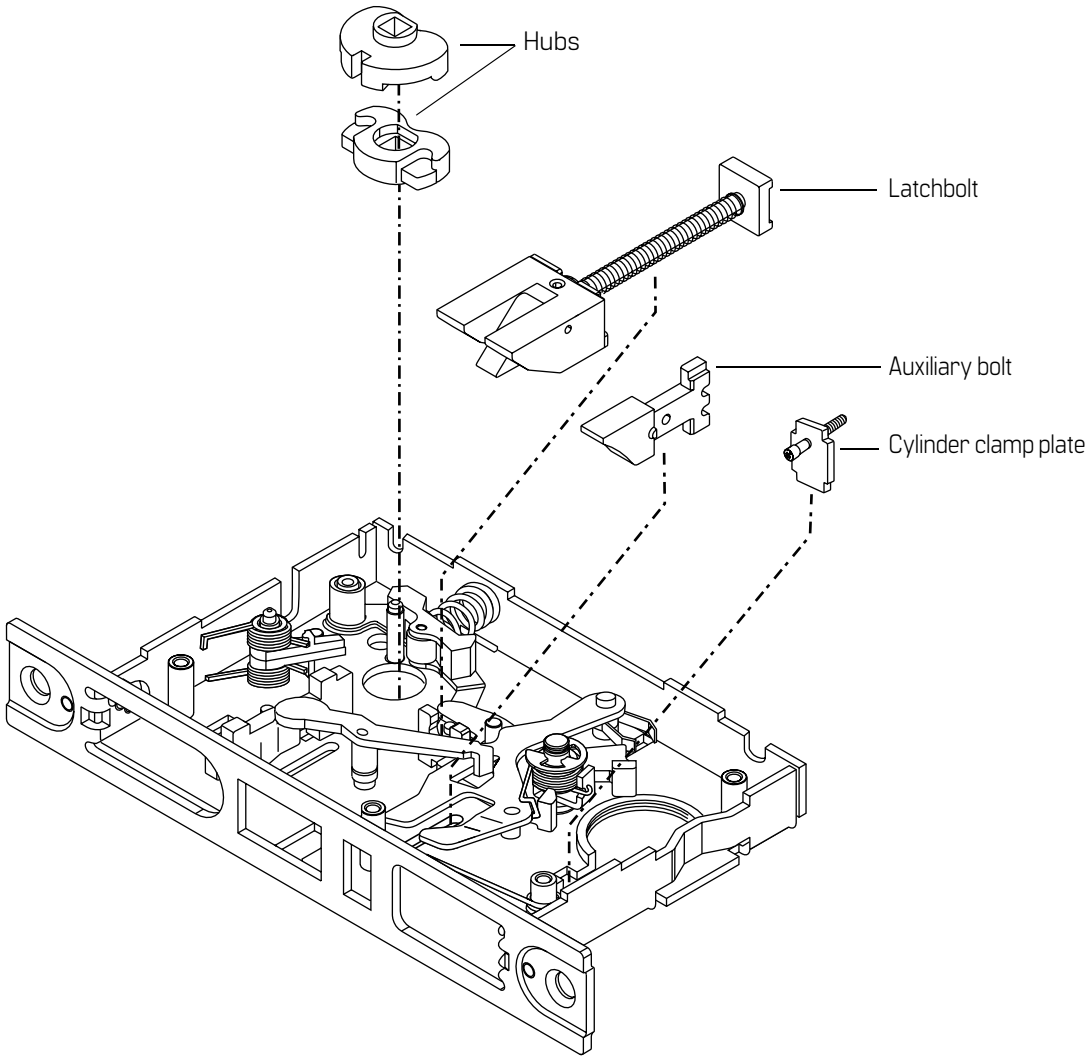


Figure 4.7 Overview of changing the hand and bevel

- B represents the latch and auxiliary bolts.
- H represents the hubs
- C represents the cylinder clamp plate assembly.

	LH	RH	LHRB	RHRB
LH		B/H/C	B	H/C
RH	B/H/C		H/C	B
LHRB	B	H/C		B/H/C
RHRB	H/C	B	B/H/C	

Changing the hand only

Refer to the detailed instructions for each task that follows.

1. Remove the trim. See *Removing the trim* on page 4–3.
2. Remove the case and case cover. See *Removing the case and case cover* on page 4–10.
3. Perform Task A, *To remove and turn over the hubs*. See page 4–15.
4. Perform Task C, *To replace the hubs*. See page 4–17.
5. If the lock is single-keyed, perform Task D, *To turn over the cylinder clamp plate*. See page 4–18.
6. Perform Task E, *To turn over the auxiliary bolt*. See page 4–18.
7. Perform Task F, *To turn over the latchbolt*. See page 4–19.
8. Replace the case cover and case. See *Replacing the case and case cover* on page 4–10.
9. Replace the trim. See *Replacing the trim* on page 4–7.

Changing the hand only with the RQE switch

Refer to the detailed instructions for each task that follows.

1. Remove the trim. See *Removing the trim* on page 4–3.
2. Remove the case and case cover. See *Removing the case and case cover* on page 4–10.
3. Perform Task A, *To remove and turn over the hubs*. See page 4–15.
4. Perform Task B, *To turn over the RQE switch*. See page 4–15.
5. Perform Task C, *To replace the hubs*. See page 4–17.
6. If the lock is single-keyed, perform Task D, *To turn over the cylinder clamp plate*. See page 4–18.
7. Perform Task E, *To turn over the auxiliary bolt*. See page 4–18.
8. Perform Task F, *To turn over the latchbolt*. See page 4–19.
9. Replace the case cover and case. See *Replacing the case and case cover* on page 4–10.
10. Replace the trim. See *Replacing the trim* on page 4–7.

Changing the bevel only for non-deadbolt locks

Refer to the detailed instructions for each task that follows.

1. Remove the trim. See *Removing the trim* on page 4–3.
2. Remove the case and case cover. See *Removing the case and case cover* on page 4–10.
3. Perform Task E, *To turn over the auxiliary bolt*. See page 4–18.
4. Perform Task F, *To turn over the latchbolt*. See page 4–19.
5. Replace the case cover and case. See *Replacing the case and case cover* on page 4–10.
6. Replace the trim. See *Replacing the trim* on page 4–7.

Changing the bevel only for deadbolt locks

Refer to the detailed instructions for each task that follows.

1. Remove the trim. See *Removing the trim* on page 4–3.
2. Remove the case and case cover. See *Removing the case and case cover* on page 4–10.
3. Perform Task F, *To turn over the latchbolt*. See page 4–19.
4. Replace the case cover and case. See *Replacing the case and case cover* on page 4–10.
5. Replace the trim. See *Replacing the trim* on page 4–7.

Changing the hand and bevel

Refer to the detailed instructions for each task that follows.

1. Remove the trim. See *Removing the trim* on page 4–3.
2. Remove the case and case cover. See *Removing the case and case cover* on page 4–10.
3. Perform Task A, *To remove and turn over the hubs*. See page 4–15.
4. Perform Task C, *To replace the hubs*. See page 4–17.
5. If the lock is single-keyed, perform Task D, *To turn over the cylinder clamp plate*. See page 4–18.
6. Replace the case cover and case. See *Replacing the case and case cover* on page 4–10.
7. Replace the trim. See *Replacing the trim* on page 4–7.

Changing the hand and bevel with the RQE switch

Refer to the detailed instructions for each task that follows.

1. Remove the trim. See *Removing the trim* on page 4–3.
2. Remove the case and case cover. See *Removing the case and case cover* on page 4–10.
3. Perform Task A, *To remove and turn over the hubs*. See page 4–15.
4. Perform Task B, *To turn over the RQE switch*. See page 4–15.
5. Perform Task C, *To replace the hubs*. See page 4–17.
6. If the lock is single-keyed, perform Task D, *To turn over the cylinder clamp plate*. See page 4–18.
7. Replace the case cover and case. See *Replacing the case and case cover* on page 4–10.
8. Replace the trim. See *Replacing the trim* on page 4–7.

Tasks for changing the hand and bevel

Task A. To remove and turn over the hubs:

1. If there is a locking lever, remove it.
2. If there is a locking bar, remove it.
3. Remove the top hub from the case, maintaining the hub's orientation.
4. Push the hub lever toward the side of the case and remove the bottom hub from the case. Maintain the hub's orientation.
5. Turn over the hubs.

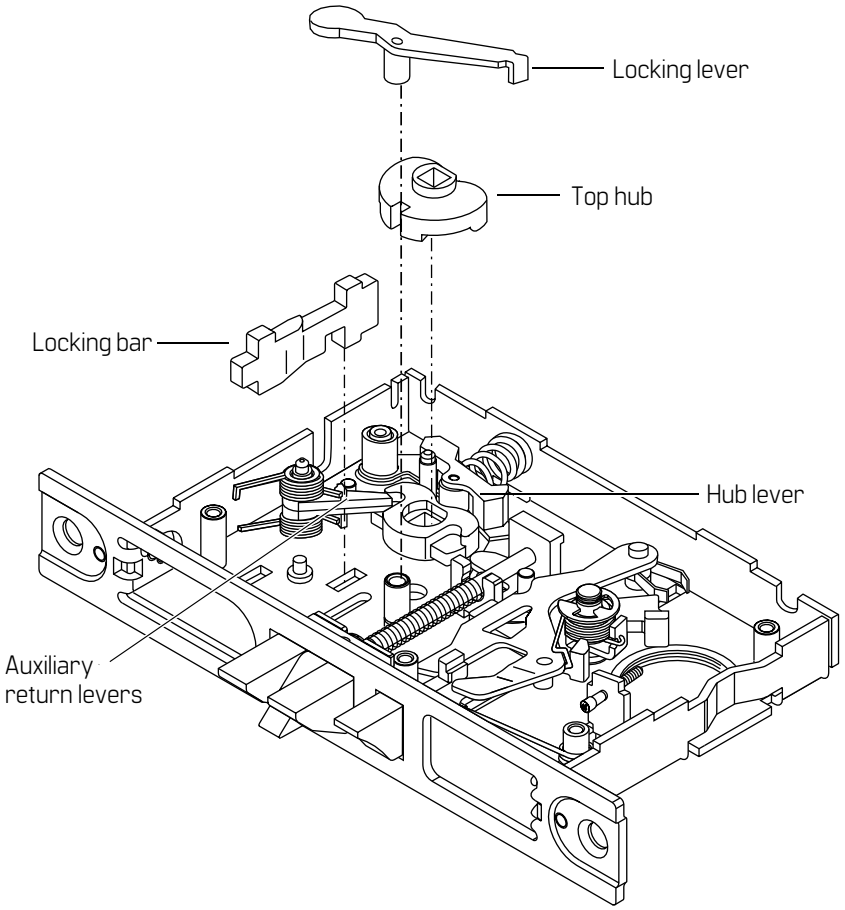


Figure 4.8 Turning over the hubs (LH orientation shown)

Task B. To turn over the RQE switch:

1. Pull the wire strain relief up and out of the case.
2. Tilt the RQE switch toward the middle of the case, then pull it up and out of the case.

3. Gently pull the switch bracket feet apart and remove the bracket from the switch.

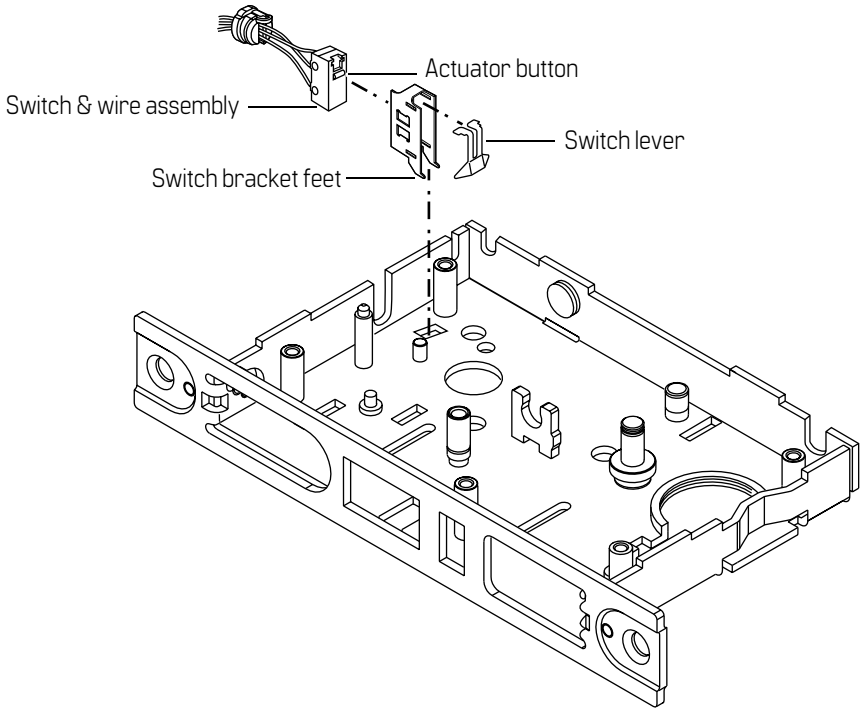


Figure 4.9 RQE switch assembly anatomy (LH orientation shown)

4. Reposition the switch lever. For RH/RHRB, the switch lever pivots at the bottom of the bracket (near the feet). For LH/LHRB, the switch lever pivots at the top of the bracket.
5. Position the bracket so that the RQE actuator button is on the same end as the pivot point of the switch lever. Gently bend the bracket feet apart and slide the bracket forward on the switch until the bracket tabs enter the two switch mounting holes.

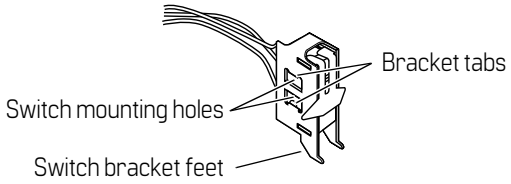


Figure 4.10 Assembled RQE switch assembly (LH orientation shown)

6. Clamp the wires in the strain relief. Slide the strain relief into position on the case. It should lock into place.
7. Tilt the RQE switch forward and slide it into place in the case.

Task C. To replace the hubs:

1. Push the hub lever toward the side of the case and slide the now bottom hub under the auxiliary levers.
2. Insert the now top hub onto the bottom hub.

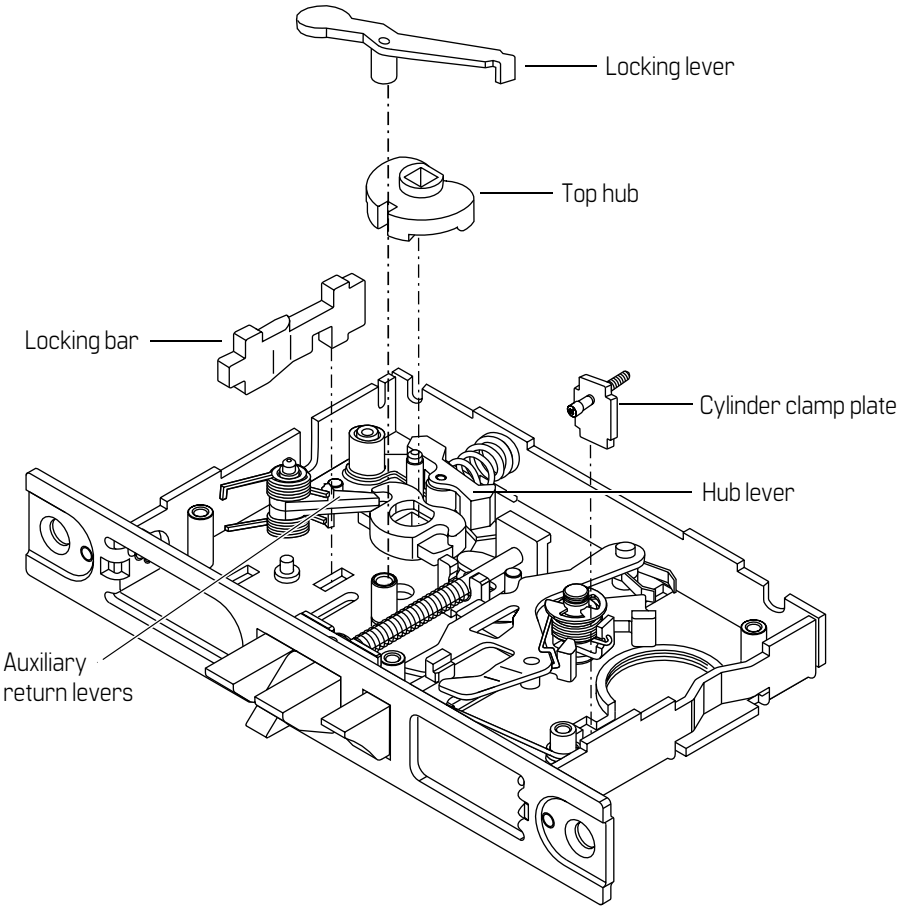


Figure 4.11 Turning over the hubs and cylinder clamp plate (LH orientation shown)

Note: If there is an RQE switch, the flat side of the outside hub should be opposite the pivot point on the RQE switch, as shown in Figure 4.12.

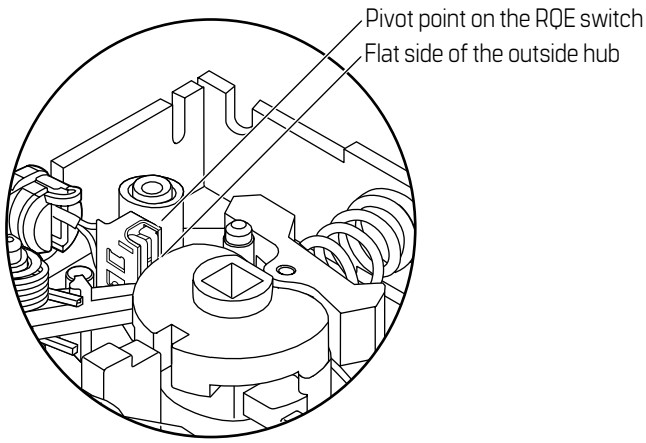


Figure 4.12 RQE switch and hub orientation (close-up, LH orientation shown)

3. If there is a locking bar, install it.
4. If there is a locking lever, install it.

Task D. To turn over the cylinder clamp plate:

If the lock is single-keyed, turn over the cylinder clamp plate and insert it in the case. See Figure 4.11.

Note: The screw must be on the same side of the lock case as the mortise cylinder.

Task E. To turn over the auxiliary bolt:

1. Remove the auxiliary bolt spring.
2. Remove the auxiliary bolt from the case and turn it over.
3. Insert the auxiliary bolt into the case. The angled portion of the bolt should be pushed through the front of the case and the feet should be resting in the slot.
4. Place the long, straight end of the auxiliary bolt spring into the hole on the auxiliary bolt. The center of the spring coil should rest around the screw post.

5. Press the L-shaped end of the spring so that the center of the spring can slide to the bottom of the screw post. The spring tension should push the bolt toward the front of the case.

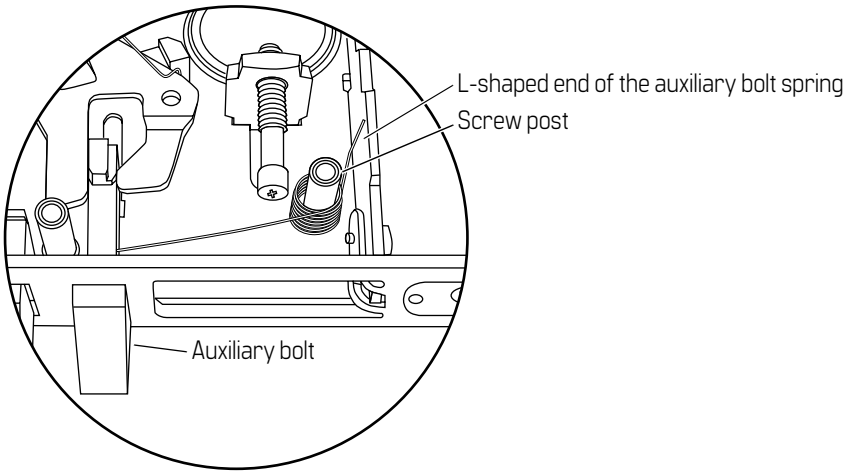


Figure 4.13 Turning over the auxiliary bolt (close-up)

Task F. To turn over the latchbolt:

1. If there is a locking lever, remove it.
2. Slide the brass grommet on the latchbolt away from the U-shaped latchbolt rod support. Grasp the latchbolt by the square-shaped tail and pull the latchbolt up and out of the case.
3. Turn over the latchbolt and rotate the anti-friction latch lever into position. Place the latchbolt in the case.

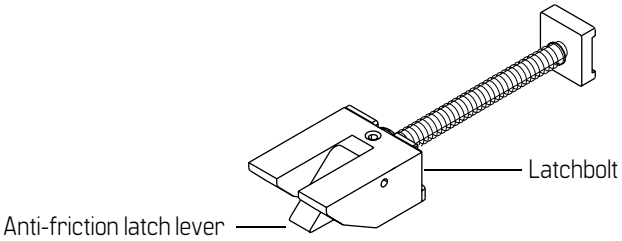


Figure 4.14 Latchbolt with anti-friction latch lever in position

4. Slide the brass grommet on the latchbolt away from the U-shaped latchbolt rod support. Rest the latchbolt rod into the U-shaped support. Release the grommet. It should snap into place.
   Note: If you can pull the square-shaped tail out of the rod support, the latchbolt is not placed properly. Reposition the latchbolt.
5. If there is a locking lever, replace it.

6. Make sure that the tumbler spring rests against the E tumbler.

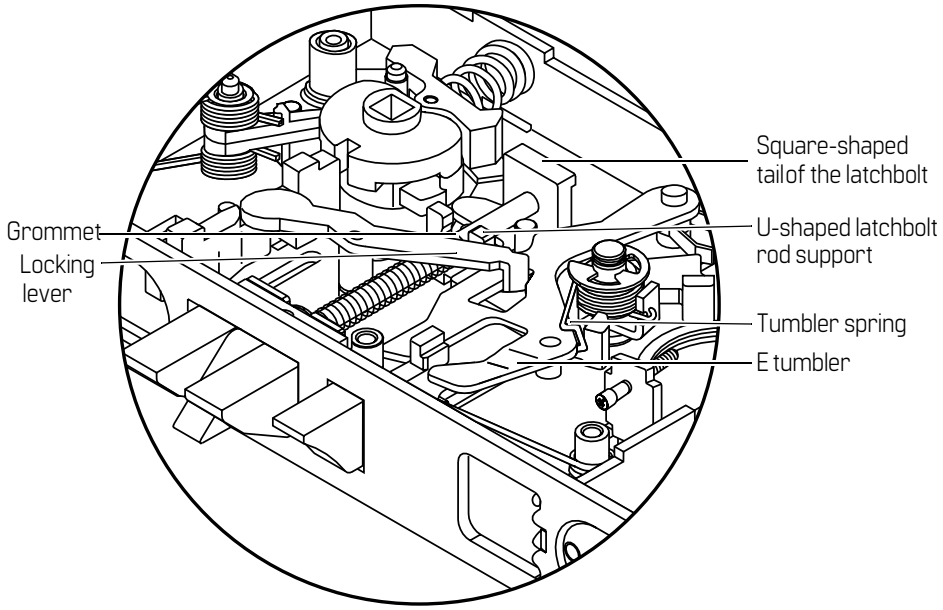


Figure 4.15 Turning over the latchbolt (close-up, LHRB orientation shown)

ADDING THE RQE SWITCH

Perform the following steps in order to add an RQE switch to your lock.

1. Remove the trim. See *Removing the trim* on page 4–3.
2. Remove the case and case cover. See *Removing the case and case cover* on page 4–10.
3. While maintaining the orientation of the hubs, remove the hubs from the case. See *Task A. To remove and turn over the hubs:* on page 4–15.
4. Make sure that the RQE switch components have the correct orientation. When installed, the pivot point on the RQE switch should be opposite the flat side of the outside hub, as shown in Figure 4.16.

   Note: If you need to change the orientation of the RQE switch, see step 3 through step 5, *Task B. To turn over the RQE switch:* on page 4–15.
5. Clamp the wires in the strain relief. Slide the strain relief into position on the case. It should lock into place.
6. Tilt the RQE switch forward and slide it into place in the case.
7. Reinstall the hubs. See *Task C. To replace the hubs:* on page 4–17. The flat side of the outside hub should be opposite of the pivot point on the RQE switch.

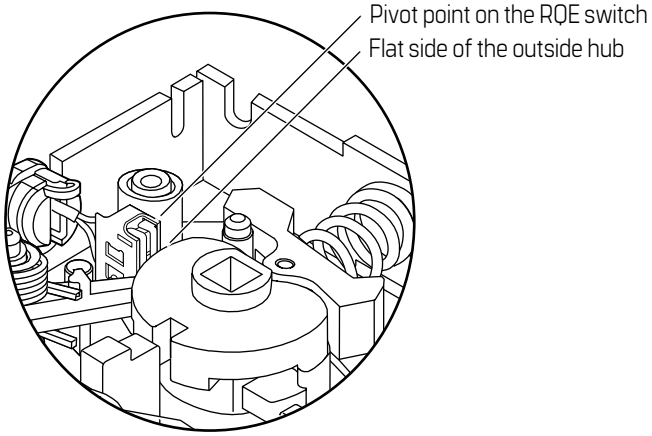


Figure 4.16 RQE switch and hub orientation (close-up)

8. Replace the case cover and case. See *Replacing the case and case cover* on page 4–10.
9. Replace the trim. See *Replacing the trim* on page 4–7.

PERFORMING KNOB-TO-LEVER CONVERSION

This section describes how to convert a lock with knobs to a lock with levers using the knob-to-lever conversion kit. The kit is shown on page 3–28.

1. Remove the trim. See *Removing the trim* on page 4–3.
2. Remove the case and case cover. See *Removing the case and case cover* on page 4–10.
3. If there is a locking lever, remove it.
4. Slide the brass grommet on the latchbolt away from the U-shaped latchbolt rod support. Notice the orientation of the latchbolt. Grasp the latchbolt by the square-shaped tail and pull the latchbolt up and out of the case.

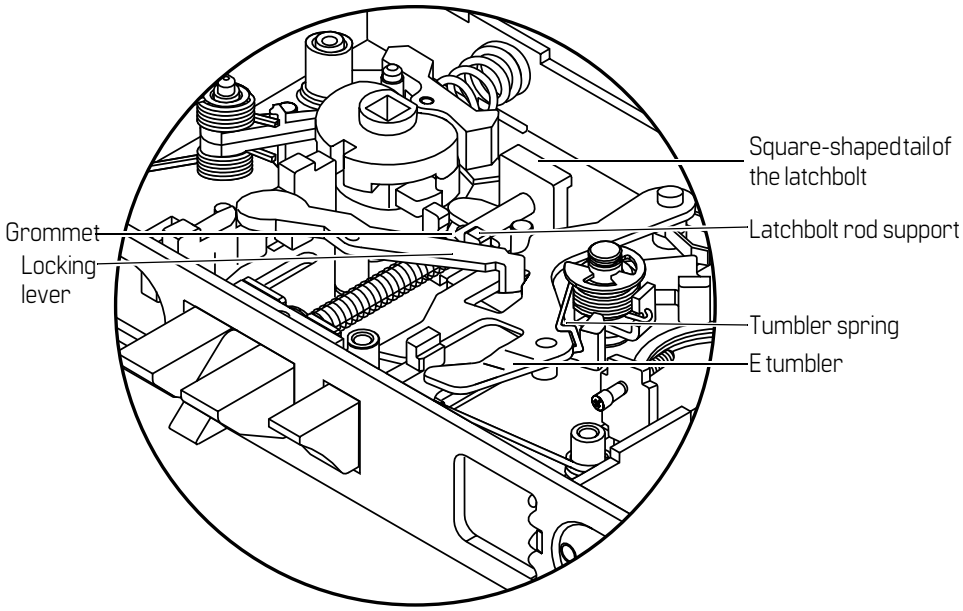


Figure 4.17 Turning over the latchbolt (close-up, LHRB orientation shown)

5. Position the fusible slide plate onto the latchbolt head so that the pin on the fusible slide plate inserts into the hole on the latchbolt head.
6. Install the retainer ring into the groove on the latchbolt rod near the latchbolt head.

7. Rotate the anti-friction latch lever into position. Place the latchbolt in the case the same orientation as before.

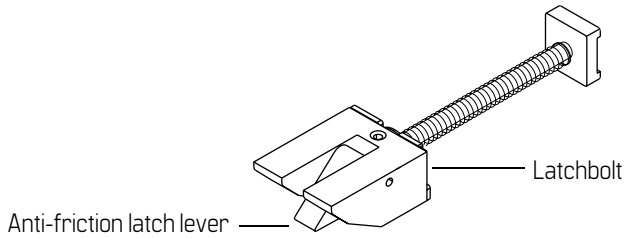


Figure 4.18 Latchbolt with anti-friction latch lever in position

8. Slide the brass grommet on the latchbolt away from the U-shaped latchbolt rod support. Rest the latchbolt rod into the U-shaped support. Release the grommet. It should snap into place.
   Note: If you can pull the square-shaped tail out of the rod support, the latchbolt is not placed properly. Reposition the latchbolt.
9. If there is a locking lever, replace it.
10. Install the lower auxiliary spring onto the post located at the bottom center of the case, as shown in Figure 4.19.
11. Position the two auxiliary return levers so that the flat sides are together and install them onto the post.
12. Position the upper auxiliary spring onto the post, as shown in Figure 4.19.
13. Place the stop pin in the smaller of the two holes between the hub lever and hubs.

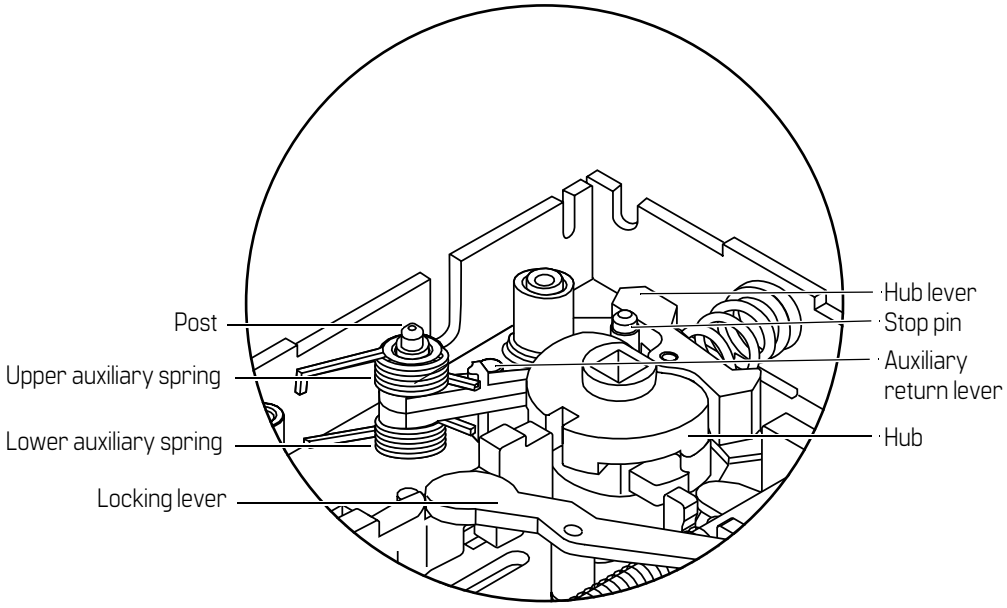


Figure 4.19 Performing knob to lever conversion

14. Replace the case cover and case. See *Replacing the case and case cover* on page 4–10.
15. Replace the trim. See *Replacing the trim* on page 4–7.

REPLACING PARTS

Replacing the spindle, locking bar, and locking lever

When the 30HC2 spindle has been broken or twisted, it must be replaced. A new mortise spindle has been designed that requires almost double the amount of force to twist and break as the old one.

If the lock was produced since October 1994, order the 30HC2 mortise spindle. Follow the instructions below to install it. Also, inspect the case, locking bar, and locking lever for damage.

If the lock was produced before October 1994, order the 30HC2 mortise spindle replacement kit and specify the function of the lock. For example, for a J function lock, order 30HC2-J.

The 30HC2 mortise spindle replacement kit contains the parts you'll need to replace the spindle and locking bar. The new locking bar has been designed with increased strength. Follow the instructions below to replace the spindle and locking bar.

If the lock was produced before October 1994 and is a B, C, or L function, order the 30HC2 mortise spindle replacement kit *and* a locking lever. The new locking lever has been designed with increased strength. Follow the instructions below to replace the spindle, locking bar, and locking lever.

Caution

If you do not replace or add the locking bar and/or locking lever, the lock will be weakened and more vulnerable to attack. This failure to replace the components may also void the manufacturer's warranty and any service agreement you may have.

To replace the spindle:

1. Remove the levers/knobs. See *Task A. To remove the levers/knobs:* on page 4–4.
2. Push the pin through the base of the outside lever/knob.
3. Remove the spindle assembly from the outside lever/knob.
4. Insert the new spindle assembly into the outside lever/knob and install the pin.
5. Replace the levers/knobs. See *Task H. To replace the levers/knobs:* on page 4–9.

To replace the locking bar and locking lever:

The following steps apply to locks made before October 1994.

Note: If the new locking bar has already been installed, you should be able to change the spindle several times without needing to change the locking bar. But, if the lock has been repeatedly abused, check the case, and particularly the locking bar, for damage.

1. Remove the trim. See *Removing the trim* on page 4–3.
2. Remove the case and case cover. See *Removing the case and case cover* on page 4–10.
3. Remove the locking lever. Remove the locking bar.
4. Replace the new locking bar.
5. Replace the locking lever.

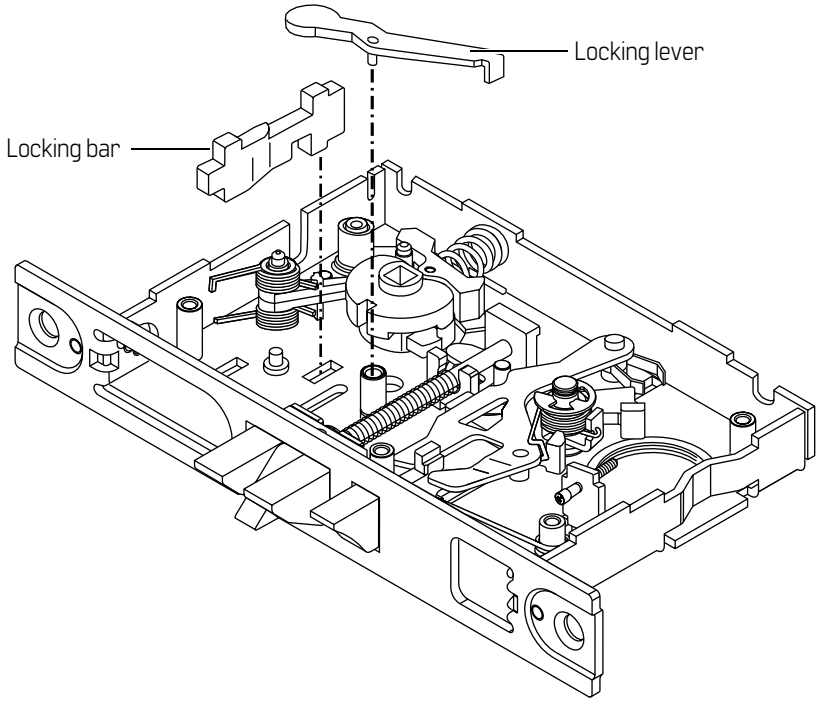


Figure 4.20 Replacing the locking bar and locking lever

6. Replace the case cover and case. See *Replacing the case and case cover* on page 4–10.
7. Replace the trim. See *Replacing the trim* on page 4–7.

Replacing the turn knob hubs and R function turn knob cylinder

The R function turn knob cylinder has been redesigned and requires a special turn knob hub. After these new parts are installed and the deadbolt is retracted, the turn knob will rotate freely in the direction that the deadbolt retracts.

Note: To order a R function turn knob cylinder, use the following part numbers:

- RH/RHRB, B35401
- LH/LHRB, B35405
- M trim RH/RHRB, B35519
- M trim LH/LHRB, B35520.

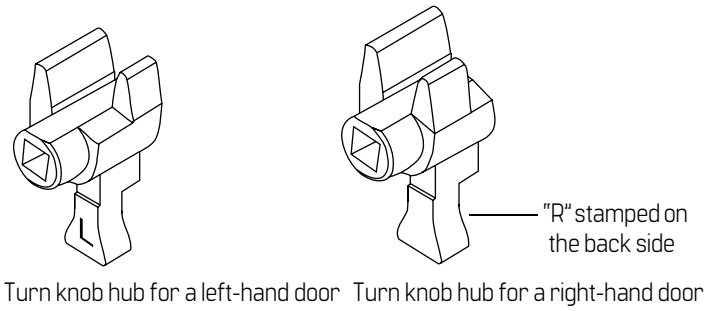


Figure 4.21 Left hand and right hand turn knob hubs

Perform the following steps to replace the turn knob hub and turn knob cylinder:

1. Remove the trim. See *Removing the trim* on page 4–3.
2. Remove the case and case cover. See *Removing the case and case cover* on page 4–10.
3. Remove the turn knob hub from the case.

4. Install the new turn knob hub.

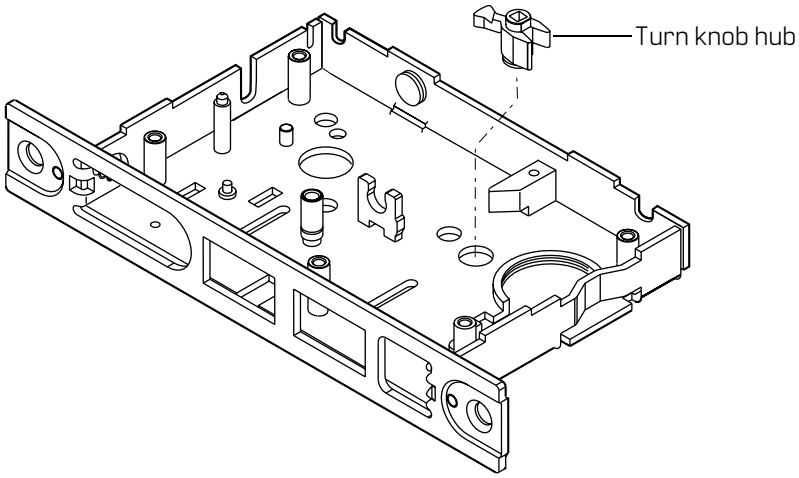


Figure 4.22 Replacing the turn knob hub

5. Replace the case cover and case. See *Replacing the case and case cover* on page 4–10.
6. Replace the trim. See *Replacing the trim* on page 4–7.
7. Check that the deadbolt and keyed cylinder are operating properly.
   a. Use the key to slowly extend the deadbolt.
   b. Grasp the deadbolt with your fingers. The deadbolt should extend fully.
   c. Use the key to slowly retract the deadbolt. Make sure that the deadbolt retracts fully.
8. Check that the deadbolt and turn knob cylinder are operating properly.
   a. Use the key to extend the deadbolt.
   b. Use the turn knob to slowly retract the deadbolt while grasping the deadbolt with your fingers. Make sure that the deadbolt retracts fully.
9. If the deadbolt does not fully extend or retract, adjust the turn knob cylinder or keyed cylinder in or out.
   a. Remove the faceplate. See page 4–4.
   b. Adjust the cylinder. See page 4–4.
   c. Repeat step 7 and step 8 to check again that the components are operating properly.

TROUBLESHOOTING

This table summarizes the possible causes for certain lock problems. The causes of failure are listed in the order of likelihood. (The most likely cause is first, and so forth.)

For problems with the core and key, such as difficulty removing or inserting the key or difficulty turning the key, see the *Core and Key Service Manual*.

You notice...	Possible causes include...	You should...
Knobs or levers won't turn.	a. Spindle is not backed off.	a. Unscrew the inside spindle one full turn to allow the spindle to turn freely.
	b. Trim is out of alignment.	b. Loosen the trim and realign it so that the deadbolt does not bind.
Outside knob won't lock.	Handing is reversed.	Change the handing (pg. 4-11).
Latch won't extend and is not working smoothly.	No notch in the door to accommodate the anti-friction latch.	Notch out the wood door to accommodate the anti-friction latch.
Cannot remove the core.	Set screw is inverted.	Remove the mortise case faceplate (pg. 4-4) and reverse the cylinder set screw.
Deadbolt won't or is difficult to retract and throw.	Trim is out of alignment.	Loosen the trim and realign it so that the deadbolt does not bind.
Outside lever droops.	Spindle has been twisted.	Replace the spindle (pg. 4-24).
Door won't open.	Auxiliary latch projects into the strike.	Attempt to jimmy or loid the lock, or call your local dormakaba Representative.
Inside lever droops.	Spindle is not backed off.	Unscrew the inside spindle one full turn to allow the spindle to turn freely.

A

Glossary

Abrasive lever — A lever handle with an abrasive strip on the inside of the handle.

Anti-friction latch — A latchbolt designed to reduce friction between the main latchbolt and strike.

Armored front — The mortise lock front and faceplate designed to prevent tampering with the cylinder set screw and case mounting screws.

Auxiliary dead latch — A latch that prevents the latchbolt from being loided when the door is closed. See *loiding*.

Backset — The distance from the faceplate to the center of the cylinder or lever/knob.

Bevel — See *Door bevel*.

Cam — See *Cylinder cam*.

Core — See *Interchangeable core*.

Cylinder — See *Mortise cylinder*.

Cylinder cam — A rotating part of a keyed cylinder that drives the deadbolt or latchbolt.

Cylinder die — A tool for rethreading a 1 5/32″ diameter cylinder.

Cylinder ring — A metal ring that fits around the cylinder and protects it from tampering. The cylinder ring also spaces the cylinder out to the right position.

Cylinder tap — A tool for rethreading case threads.

Cylinder wrench — A tool for installing, removing, and testing cylinders.

Door bevel — The angle on the edge of a door.

Dummy cylinder A nonfunctional mortise cylinder used only to plug a cylinder hole.

Dummy trim Trim only (without lock). Used mainly on the inactive door of a double door.

Electrically-operated lock A lock that is locked or unlocked—usually from another location—by applying or removing electric power.

Emergency key The key that retracts the deadbolt of a privacy lock (L or LF function).

Escutcheon A surface-mounted plate that covers holes that were made in the door for knobs and cylinders.

Faceplate A finished part of a mortise lock that covers the armored front. See *Armored front*.

Faceplate buttons Two push buttons in the faceplate—one locks, the other unlocks the outside knob or lever.

Figure-8 The basic shape of the interchangeable core and its housing (door knob, cylinder, padlock, and so forth). See also *Interchangeable core*.

Hand of door The swing direction of the door as viewed from the outside of the door. A right-handed (RH) door is hinged on the right and swings inward. A left-handed (LH) door is hinged on the left and swings inward. If either of these doors swings outward, it is a right-hand reverse bevel (RHRB) door, or a left-hand reverse bevel (LHRB) door respectively.

High edge of door bevel The edge of the door that is closer to the frame.

Interchangeable core A figure-8 shaped device that contains all mechanical parts for a masterkeyed system. The interchangeable core can be removed by a special control key and can be recombinated without disassembling the lock. See also *Figure-8*.

Knurled lever/knob A lever/knob with a crisscross groove pattern cut into its surface. Knurling improves grip and can also serve as a warning when entering hazardous areas.

Life Safety Code® A document, developed by the National Fire Protection Association (NFPA) that regulates building construction to prevent injury in case of fire. Code sections 2-4, and 5-2.1.5 apply to locks and latches.

Lock function The way a lock operates. The function determines appropriate applications for the lock, such as; how the latchbolt is operated, how the deadbolt is operated, and how the knobs/levers are locked and unlocked.

Loiding A burglary attack method that uses a credit card-like object. This object is inserted between the door and the frame to separate the latchbolt from the strike.

Mortise cylinder A threaded lock cylinder that screws directly into the lock case. A key-driven rotating cam, attached to the back, drives the locking mechanism.

Mortise cylinder cam assembly tool	A tool for assembling the cylinder cam to the mortise cylinder.
Mortise	A rectangular cavity cut into the edge of a door. Can also mean the act of making such a cavity.
Mortise lock	A lock that fits into a mortise. Other locks fit into bored holes or mount to a surface. See also *Mortise*.
Occupied button	The button on a hotel function lock that, when pressed, shows whether the deadbolt is thrown (and therefore whether the room is occupied).
Removable core	See *Interchangeable core*.
Reverse bevel	See *Hand of door*.
Shifting cam	A spring-loaded cam that shifts back to drive another mechanism. See also *Cylinder cam*.
Spanner wrench	A wrench used to tighten a rose ring onto a door.
Swing	See *Hand of door*.
Tactile lever/knob	A lever/knob with deep grooves cut into its surface. Tactile grooves improve grip and can also serve as a warning when entering hazardous areas.
Template	A precise, detailed hole pattern that serves as a guide for the mortising and drilling of doors and frames.

B

Installation Instructions

The following pages contain the *Installation Instructions for 34H-37H Mortise Locks* and *Installation Instructions for 38H & 39H Mortise Locks*.

Installation Instructions for 34H – 37H Mortise Locks

Overview

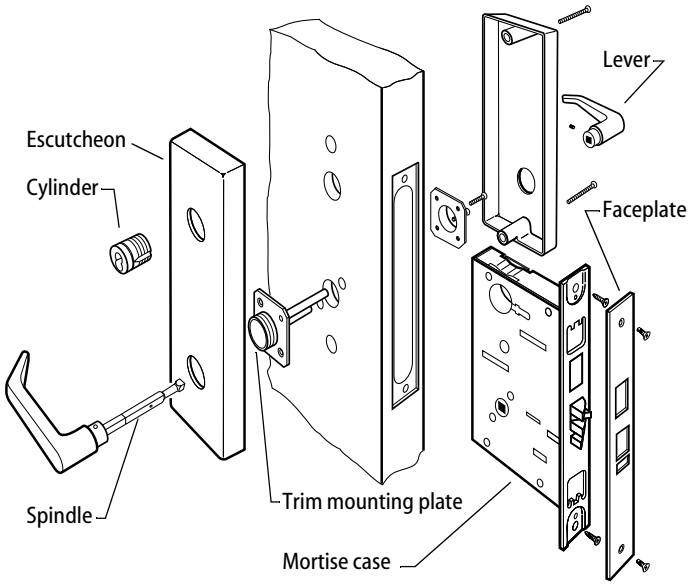


Figure 1—Exploded view of the mortise lock (M trim shown)

1 Mark centerlines

Caution: **If the door is a fabricated hollow metal door, determine whether it is properly reinforced to support the lock. If door reinforcement is not adequate, consult the door manufacturer for information on proper reinforcement.**

Note: *Prepare the door according to ANSI A115.1 before using these instructions.*

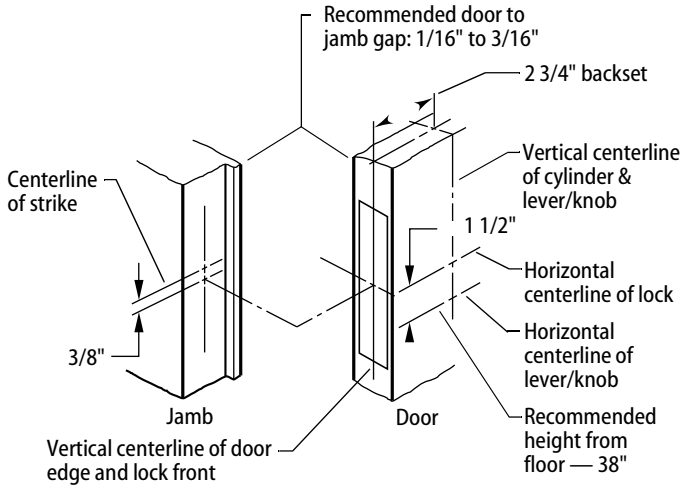


Figure 2—Marking the centerlines

1 Mark the horizontal centerline of the lock on both sides of the door and on the door's edge.
2 Mark the vertical centerline of the lock on the door edge.
3 Mark the vertical centerline of the cylinder & lever/knob on both sides of the door as measured from the vertical centerline on the door's edge.
4 Mark the horizontal centerline of the strike on the door jamb 3/8" above the horizontal centerline of the lock.

2 Center punch drill points

Caution: **Only center punch the holes required for the function and trim you are installing.**

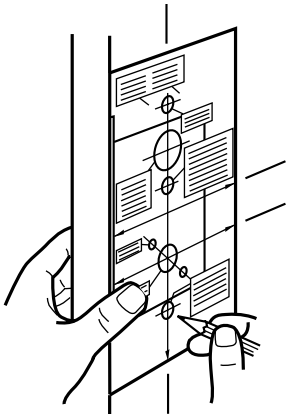


Figure 3—Punching the drill points

1 Cut the template along the dotted line and align the horizontal and vertical arrows to the marked centerlines on the door.
2 Tape the template to the door.
3 Center punch the appropriate drill points.

3 Install strike plate

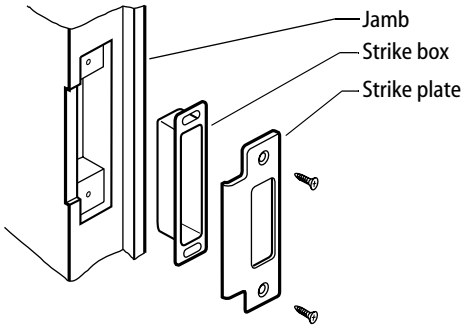


Figure 4—Installing the strike plate

1 Mortise the door jamb for the strike box and strike plate. When the strike box is not used, mortise the jamb deep enough to allow the latch bolt and dead bolt to fully extend. (See Installation Specifications for dimensions, template H03 and H11.)
2 Insert the strike box and secure the strike with screws provided.

Caution: **The auxiliary bolt must make contact with the strike plate. The auxiliary bolt deadlocks the latchbolt and prevents someone from forcing the latch open when the door is closed. If the incorrect strike is installed, a lock-in can occur.**

—Continued on the next page

4 Mortise and drill holes

Note: *Check the lock for function, hand, and bevel before drilling.*

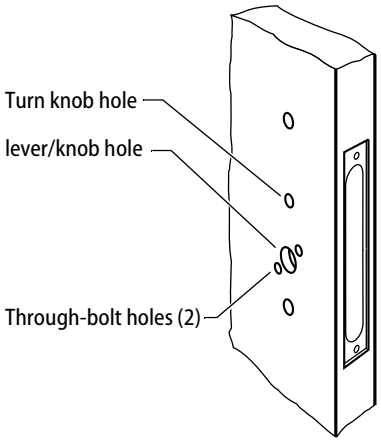


Figure 5—Hole pattern for inside of door

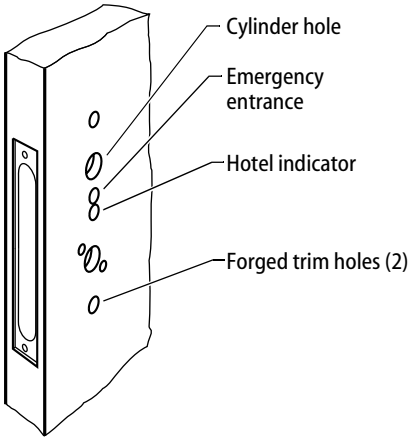


Figure 6—Hole pattern for outside of door

1 Mortise the door for the lock case and faceplate.
2 Drill only those holes required for the lock function and trim. See Installation Specifications and Hole Pattern Chart for hole requirements (templates H03 and H04).

5 Optional: Change hand and bevel

Check the hand and bevel of the mortise case before installing it in the door. Complete these steps if the lock hand or bevel needs to be changed.

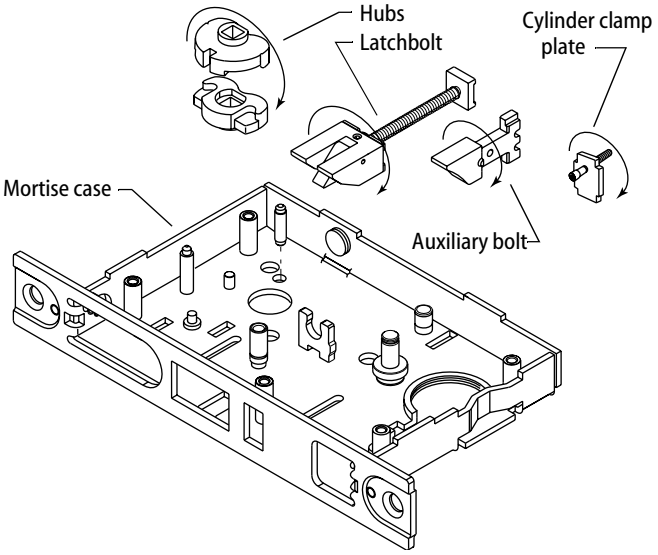


Figure 7—Changing the hand and bevel

1 Put the mortise case on a level surface and remove its cover.
2 Complete one of the following three steps:

To change the hand only (for example, from LH to RH)

▲ Turn over the latchbolt, auxiliary bolt, hubs (keeping the hubs together), and cylinder clamp plate, if applicable.

To change the bevel only: (for example, from LH to LHRB)

▲ Turn over the latchbolt and auxiliary bolt.

To change the hand and bevel (for example, from LH to RHRB)

▲ Turn over the hubs (keeping them together), and the cylinder clamp plate, if applicable.

3 Screw the cover back onto the mortise case.
4 Check to see if the lock works properly.

—Continued on the next page

6 Install mortise case

Note: *For electrically-operated locks see the instructions in* Wiring Diagrams for Electrically-Operated Locks.

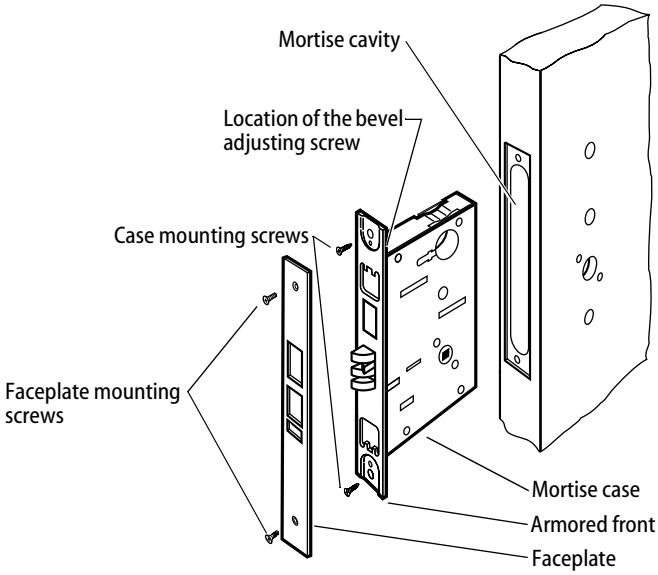


Figure 8—Installing the mortise case

1 Remove the faceplate from the lock.
2 If necessary, loosen the screws on the top and bottom of the lock case and adjust the bevel of the armored front to match the door bevel. Retighten the screws.
3 Install the mortise case into the mortise cavity.
4 Secure the mortise case in the door with the case mounting screws.

Note: *Do not put the faceplate back on yet.*

7 Install mounting plates, escutcheons or roses, & cylinders

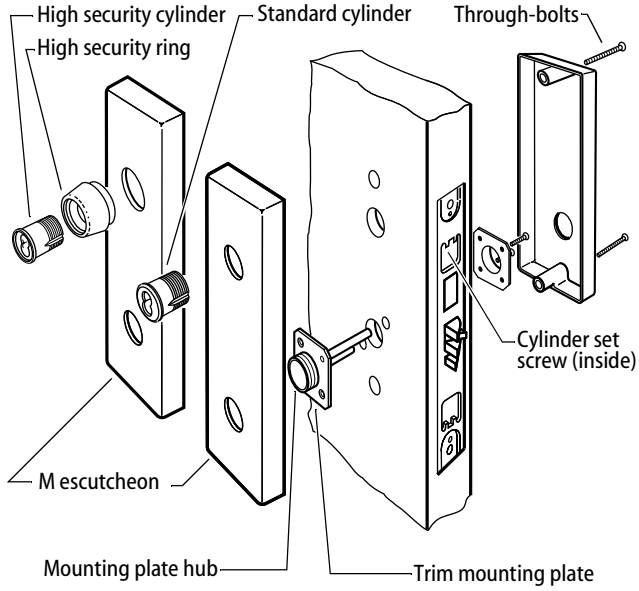


Figure 9—Installing the mounting plates, escutcheons, & cylinders

To install the mounting plates:

1 For J trim, position the J alignment plate on the outside of the door. For all other trim, go to step 2.
2 Install the outside and inside mounting plates.
3 Install the two mounting plate screws from the inside of the door.

Caution: **Do not overtighten the mounting plate screws. Overtightening may compress the mortise cavity and bind the locking mechanism.**

To install the concealed cylinder (for N trim only):

1 With the mortise cylinder wrench inserted into the core hole, insert the cylinder into the cylinder hole on the outside of the door. Rotate the cylinder wrench clockwise until the groove around the cylinder head is even with the door surface.

Caution: **A malfunction can occur if the cylinder is threaded in too far.**

2 Secure the cylinder in the mortise case with the cylinder set screw.

To install the escutcheons or roses:

1 Position the inside and outside escutcheons or roses on the door so they are centered on the mounting plates.
2 If there are escutcheon screws, install the upper and lower escutcheon screws from the inside of the door.

Note: *The J escutcheon only has an upper escutcheon screw.*

3 If there are escutcheon or rose rings, use the spanner wrench to install the inside and outside rings onto the mounting plates.

Note 1: *To adjust the hotel indicator for hotel functions, see the* Hotel Indicator Adjustment Instructions *(Document T61960).*

Note 2: *For complete instructions on installing the mortise cylinder, see the* Mortise Lock Cylinder Instructions *(Document T61972).*

To install the standard cylinder or high security cylinder:

1 Make sure that the washer, if present, and cylinder ring are positioned on the cylinder.

Note: *The high security cylinder does not have a washer.*

2 With the mortise cylinder wrench inserted into the core hole, insert the cylinder assembly into the cylinder hole on the outside of the door.
3 *For standard cylinders*, rotate the mortise cylinder wrench clockwise until the cylinder ring is flush against the door.

For high security cylinders, rotate the mortise cylinder wrench clockwise until the cylinder head touches the inside rim of the cylinder ring.

Caution: **A malfunction can occur if the cylinder is threaded in too far.**

4 Secure the cylinder in the mortise case with the cylinder set screw.

To install the faceplate:

Secure the mortise case faceplate to the mortise case with the faceplate mounting screws.

—Continued on the next page

8 Install knobs or levers

For both levers and knobs

Unscrew the inside spindle one full turn to allow the spindles to turn freely.

For levers

1 With the handle pointing toward the door hinges, put the outside lever and spindles into the lock from the outside of the door.
2 Slide the inside lever onto the tapered inside spindle.
3 Turn the set screw until it makes contact with the spindle. Then tighten the set screw approximately 3/4 of a turn.
4 Turn the levers to check that they work smoothly.

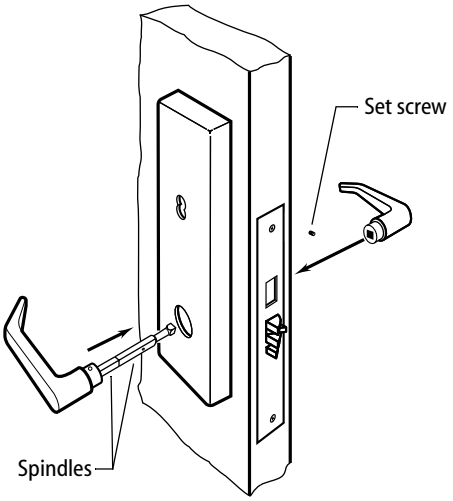


Figure 10—Installing the levers

For knobs

1 From the outside of the door, put the outside knob and spindles into the lock.
2 Slide the inside knob onto the tapered inside spindle.
3 Turn the set screw until it makes contact with the spindle. Then tighten the set screw approximately 3/4 of a turn.
4 Push the set screw cap into the set screw hole.
5 Turn the knobs to check that they work smoothly.

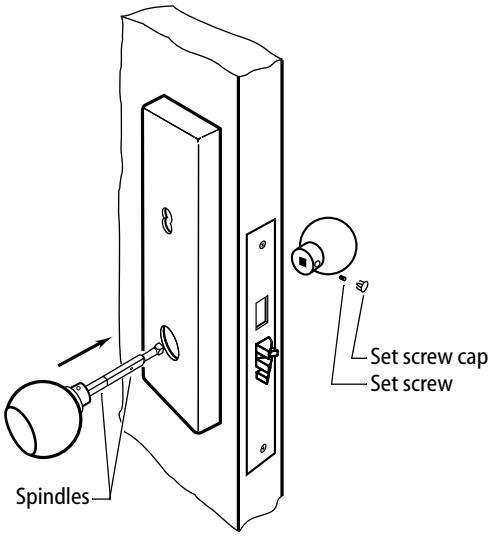


Figure 11—Installing the knobs

9 Install core

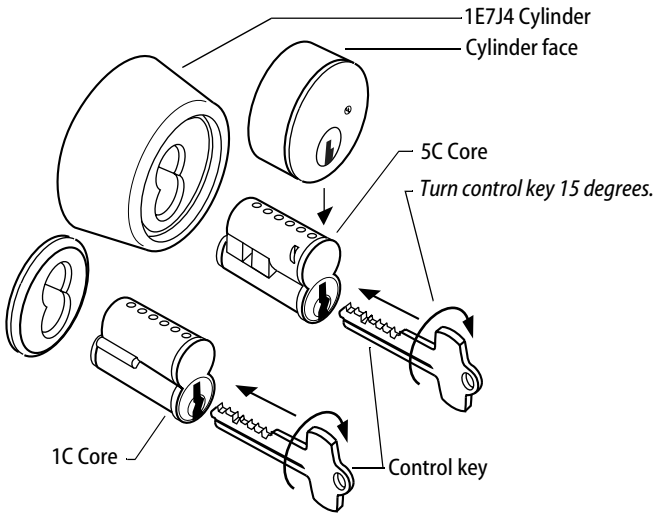


Figure 12—Installing the core

1 For 5C cores, slide the cylinder face down over the 5C core. For all other cores, go to step 2.
2 Put the control key into the core (or cylinder face) and turn the key 15 degrees clockwise.
3 Adjust the throw pins if needed, then put the core (and cylinder face) into the cylinder with the control key.
4 Turn the key 15 degrees counterclockwise and remove the key.

Note: *You may also follow these steps to remove the core.*

Installation Instructions for 38H & 39H Mortise Locks

Overview

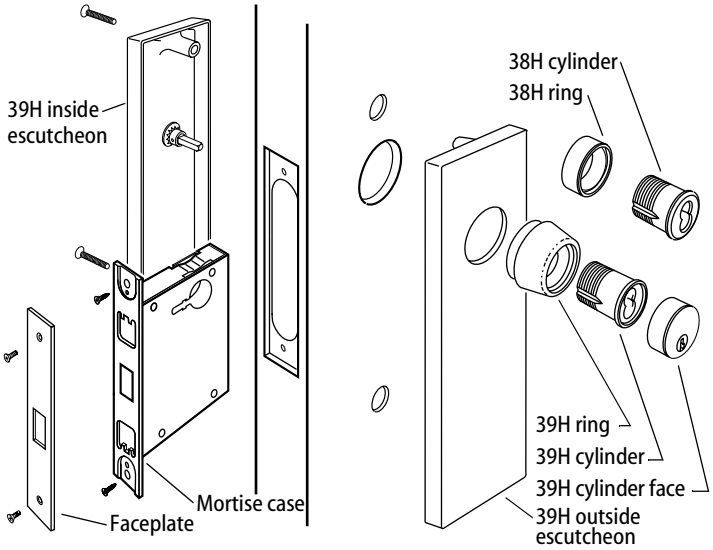


Figure 1—38H and 39H Mortise Lock overview diagram

1 Mark centerlines

Caution: **If the door is a fabricated hollow metal door, determine whether it is properly reinforced to support the lock. If the door reinforcement is not adequate, consult the door manufacturer for information on proper reinforcement.**

Note: *Prepare the door according to ANSI A115.1 before using these instructions.*

1 Mark the horizontal centerline of the lock on both sides of the door and on the door's edge.

Note: *dormakaba suggests a 38" height as measured from floor to lock centerline. The recommended gap between the door and jamb is 1/16" to 3/16".*

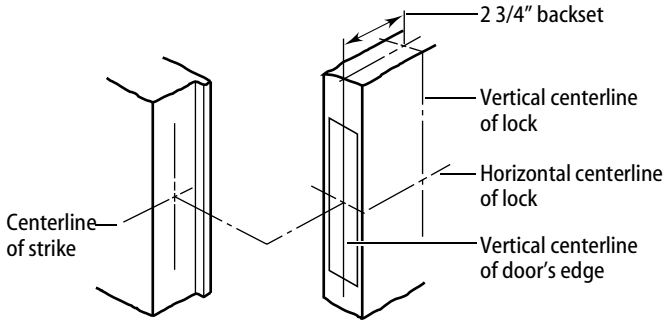


Figure 2—Marking the centerlines on the door

2 Mark the vertical centerline of the lock on the door edge.
3 Mark the vertical centerline of the lock on both sides of the door as measured from the vertical centerline on the door's edge.
4 Mark the horizontal centerline of the strike on the door jamb in line with the centerline of the lock.

2 Mark drill points

1 Cut the H08 template along the dotted line and align the horizontal and vertical arrows to the marked centerlines on the door.
2 Tape the template onto the door.
3 Center punch the drill points.

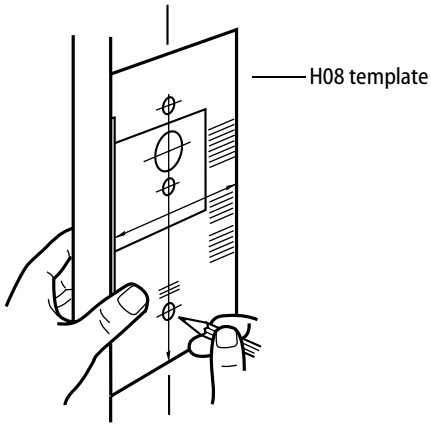


Figure 3—Marking the drill points

3 Install strike plate

1 Use the H08 template to mortise the door jamb for the strike box and strike plate. When the strike box is not used, mortise the jamb deep enough to allow the deadbolt to fully extend.
(See *Installation Specifications* for dimensions, Template H06.)
2 Insert the strike box and secure the strike with the screws provided.

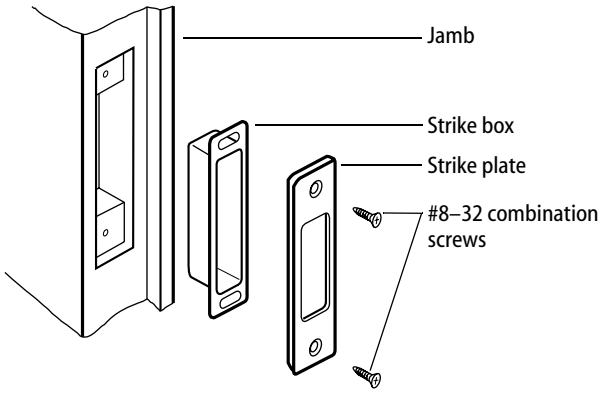


Figure 4—Installing the strike box and strike

4 Drill holes

Note: *Check the lock for the function before drilling.*

1 Mortise the edge of the door for the lock case and faceplate.
2 Drill only those holes required for the lock function and trim. See the Installation Specifications for hole requirements in Template H06.

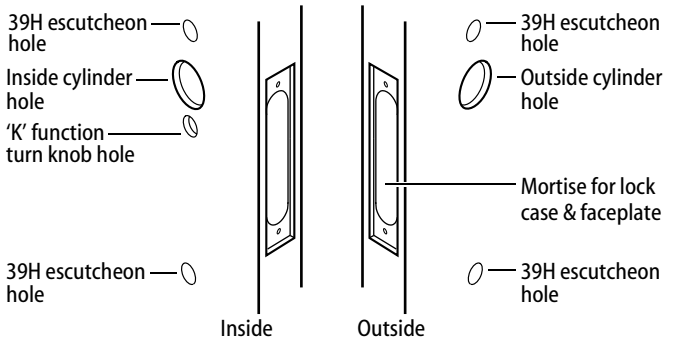


Figure 5—Mortising and drilling holes

5 Install mortise case

1 Remove the faceplate from the lock.

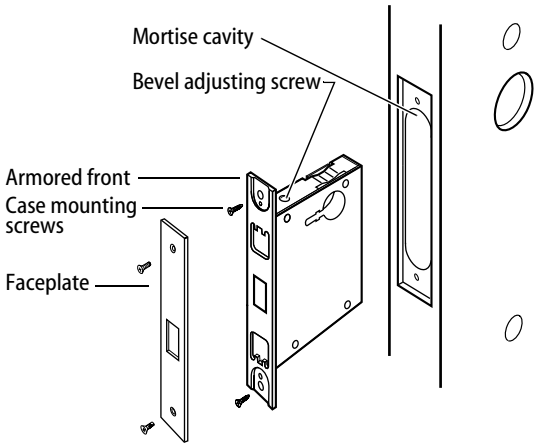


Figure 6—Installing the mortise case

2 Loosen the bevel adjusting screws on the top and bottom of the lock case and adjust the bevel of the armored front to match the door bevel. Tighten the screws.
3 Install the lock into the mortise cavity.
4 Secure the lock case with the case mounting screws.

6 Install trim

Caution: **If the handing of the 'R' turn knob is incorrect, you can be locked in.**

Caution: **A malfunction can occur if the cylinder is threaded in too far.**

To install 38H trim:

1 Position the washer and cylinder ring on the cylinder.
2 With the mortise cylinder wrench inserted into the core hole, insert the cylinder assembly into the cylinder hole. Rotate the mortise cylinder wrench clockwise until the cylinder ring is flush against the door.
3 Secure the cylinder in the mortise case with the cylinder clamp screw.
4 If there is a turn knob, position the turn knob assembly on the inside of the door. Install the two turn knob assembly screws.
5 Secure the mortise case faceplate to the mortise case with the faceplate mounting screws.
6 Check the lock to see that it operates properly.

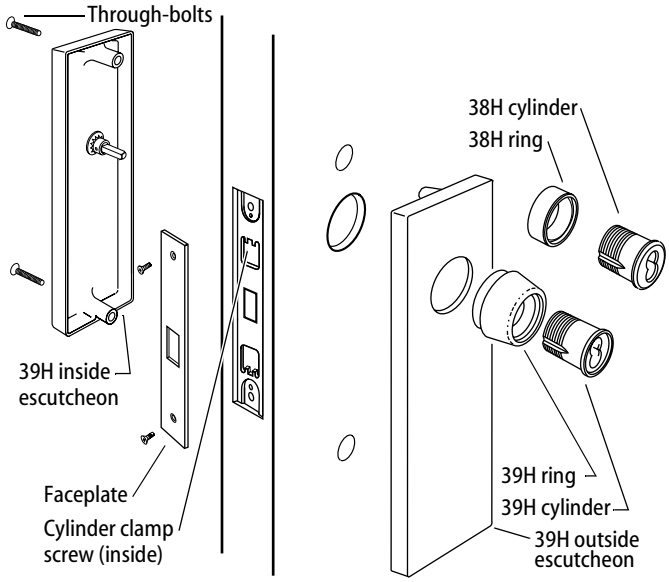


Figure 7—Installing 38H or 39H trim

To install 39H trim:

1 Position the inside and outside escutcheons opposite each other and screw them loosely in place.
2 Position the washer and cylinder ring on the cylinder.
3 With the mortise cylinder wrench inserted into the core hole, insert the cylinder assembly into the cylinder hole. Rotate the mortise cylinder wrench clockwise until the cylinder head touches the inside rim of the cylinder ring.
4 Secure the cylinder with the cylinder clamp screw.
5 Tighten the through-bolts.
6 Secure the mortise case faceplate to the mortise case with the faceplate mounting screws.
7 Check the lock to see that it operates properly.

7 Install core

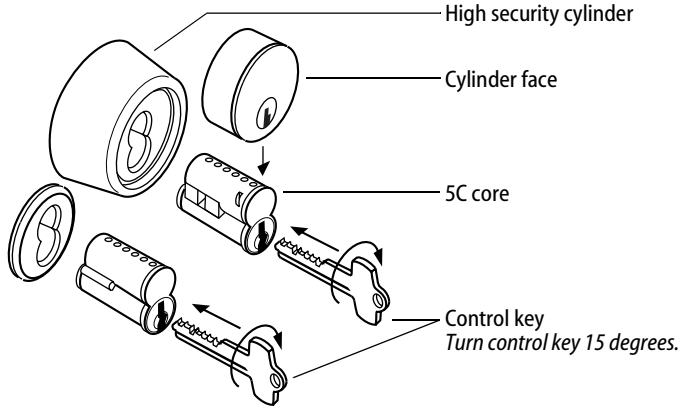


Figure 8—Installing the core

1 For 5C cores, slide the cylinder face down over the 5C core.
2 Put the control key into the core (or cylinder face) and turn the key 15 degrees clockwise.
3 Adjust the throw pins if needed, then put the core (and cylinder face) into the cylinder with the control key.
4 Turn the key 15 degrees counterclockwise and remove the key.

C

INDEX

C

D

E

F

G

H

I

J

K

L

M

N

O

P

R

S

T

U

W

Y