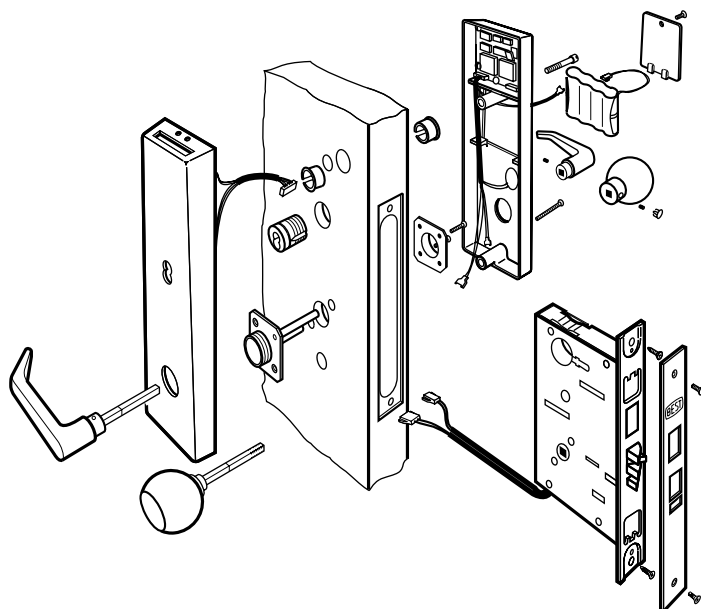## Overview

Figure 1

1   Mark centerlines

Note 1: *Determine whether fabricated hollow metal doors are properly reinforced to support the lock. If door reinforcement is not adequate, consult the door manufacturer for information on proper reinforcement.*

Note 2: *The suggested height from floor to centerline of the knob/lever is 38".*

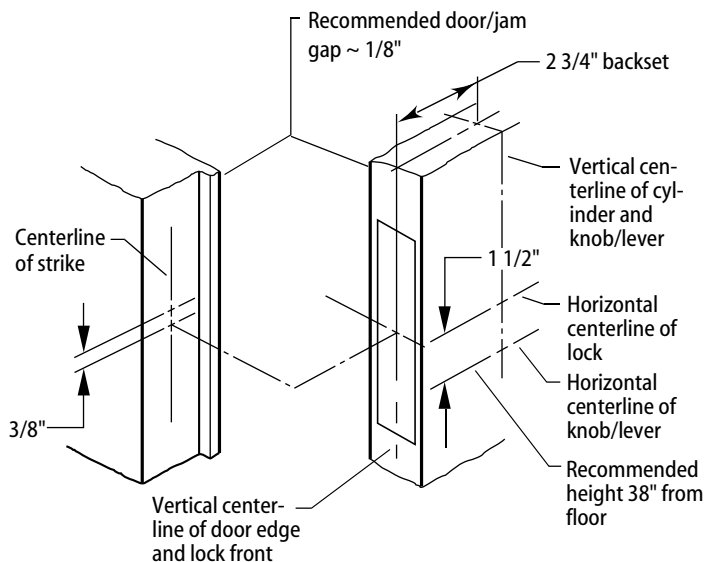1 Mark the horizontal centerline of the lock on both sides of the door and on the door's edge.

Recommended door/jam gap ~ 1/8"

2 3/4" backset

Vertical centerline of cylinder and knob/lever

1 1/2"

Horizontal centerline of lock

Horizontal centerline of knob/lever

Recommended height 38" from floor

Centerline of strike

3/8"

Vertical centerline of door edge and lock front

Figure 2

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 3/8" above the horizontal centerline of the lock.

2   Position template

1 Cut the template along the dotted line and align the horizontal and vertical arrows to the marked centerlines on the door.
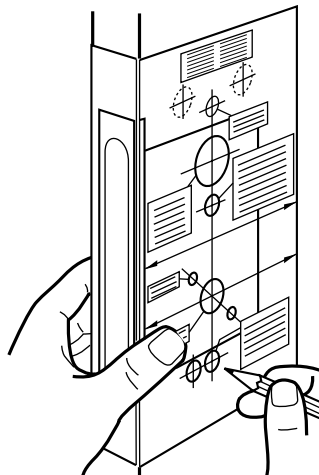

Figure 3

2 Tape the template onto the door.
3 Center punch the drill points.

3   Mortise for lock case and front
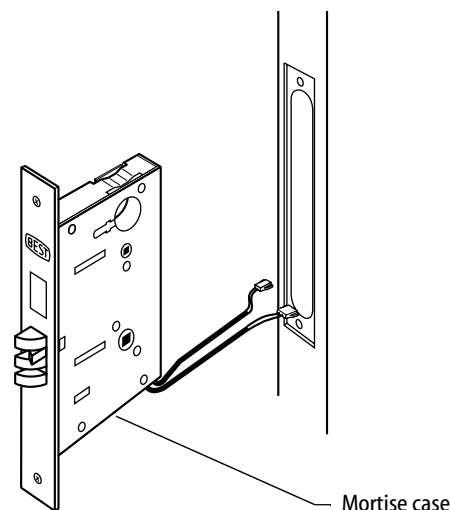
■ Mortise the door for the lock case and face plate.

Mortise case

Figure 4

4 Drill holes

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

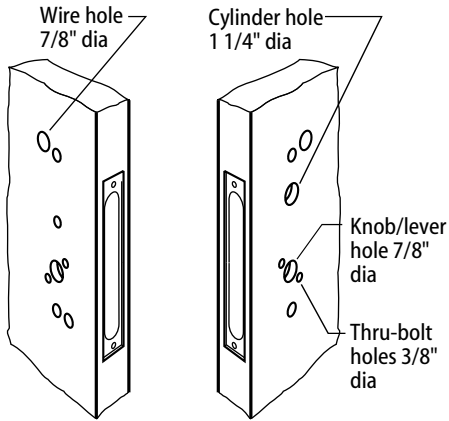■ Drill only those holes required for the function.
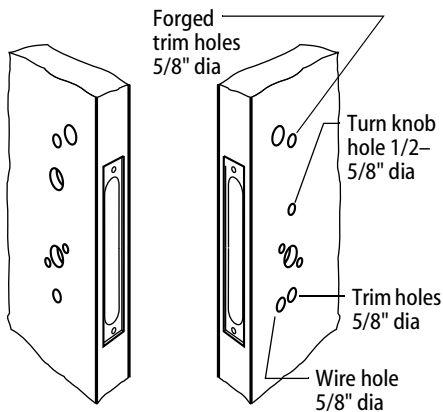

Figure 5—RH and RHRB hole pattern

Figure 6—LH and LHRB hole pattern

5 Install lock

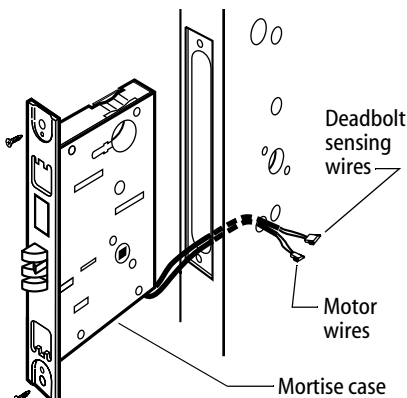1 Remove the faceplate from the lock.

Figure 7

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2 Install the lock while feeding the motor wires and deadbolt sensing wire (deadbolt function only) into the mortise cavity and out through the inside hole as shown in Figure 7.
3 Secure the lock case with the case mounting screws.

6 Install mounting plates

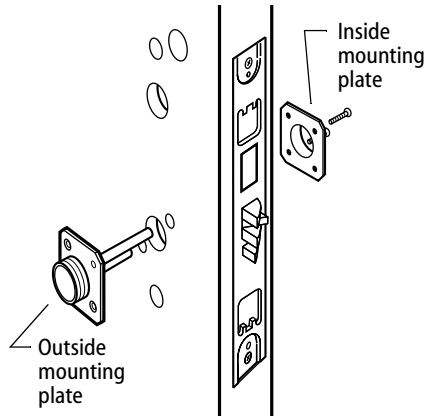1 Insert the outside mounting plate through the door and lock case.

Figure 8

2 Position the inside mounting plate opposite the outside mounting plate and screw securely in place.

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

7 Install cylinder

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

1 Thread the concealed cylinder into the lockset so that the groove around the cylinder head is even with the door surface. Using the outside trim and core, adjust the cylinder depth plus or minus one (1) turn. Do this so that the core, when installed in the cylinder, will be flush with the outer surface of the trim.
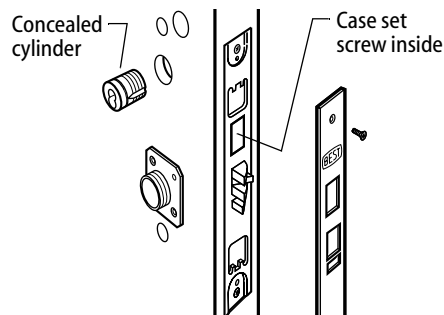

Figure 9

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2 Secure the cylinder into the case with the case set screw.
3 Secure the faceplate.
4 Check the cylinder and lock for proper operation.

8 Make wire connections

1 Insert the bushings into the wire hole as shown in Figure 10 and Figure 11.
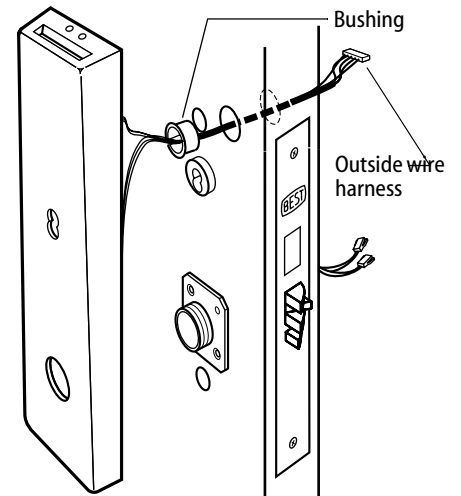2 Insert the two plastic bushings into the wire hole.

Figure 10

3 Feed the outside wire harness connector through the top wire hole as shown in Figure 10.
4 Temporarily rest the trim on the door by inserting the trim studs into the stud holes.
5 From the inside of the door, connect the motor connector and the optional deadbolt sensing connector to their mating connectors from the circuit board as shown in Figure 11.
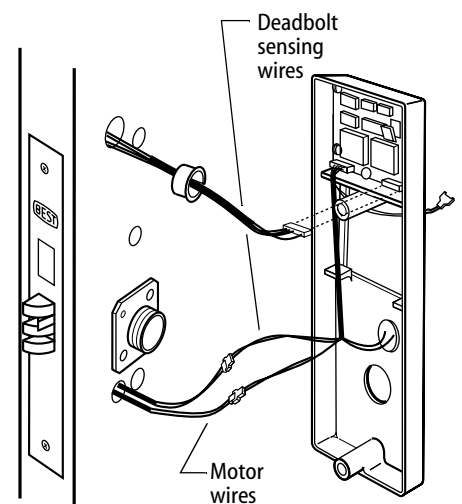

Figure 11

6 Making sure that the connector is properly aligned, connect the outside wire harness connector to the lower right circuit board connector in the inside trim. Press firmly until fully seated.

9 Throughbolt trim

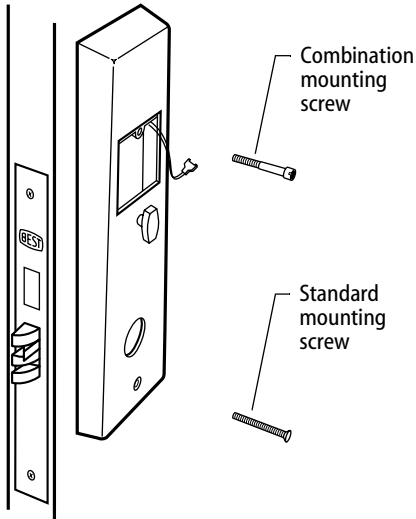1 Pull excess outside wire harness back through to the outside.

Combination mounting screw

Standard mounting screw

Figure 12

2 Position inside and outside trim onto the door.
3 **Making sure the trim does not pinch the wires**, secure the trim to the door — but do not tighten — with the combination mounting screw at the top mounting hole and with the standard screw at the bottom mounting hole.

10 Connect battery

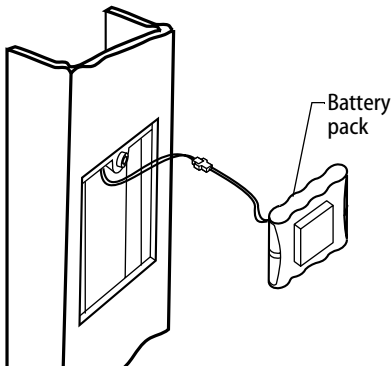1 Connect the battery to the connector hanging inside the battery compartment.

Battery pack

Figure 13

2 Insert the battery pack into the battery compartment.

Caution: **If installing a turn knob function, make sure that the battery wires are not rubbing against the turn knob retaining ring.**

11 Install battery compartment door

1 Insert the tabs of the battery compartment door into its mating slots and swing closed.
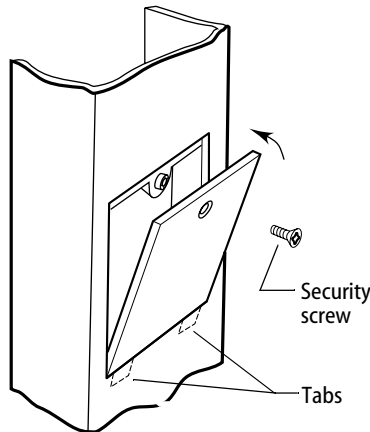

Security screw

Tabs

Figure 14

2 Secure the battery compartment door with the security screw. Tighten firmly.

12 Install inside and outside levers or knobs

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 lockset from the outside of the door.
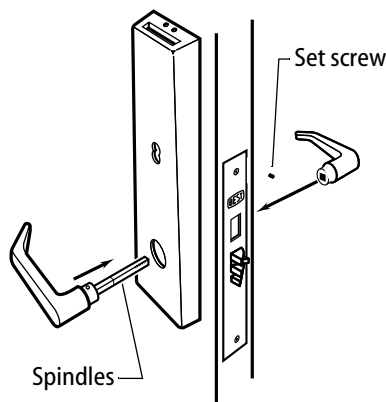

Set screw

Spindles

Figure 15

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2 Slide the inside lever onto the inside spindle and secure with the set screw.
3 Tighten the trim mounting screws (see Figure 12).
4 Turn the levers to check for smooth operation.

For knobs

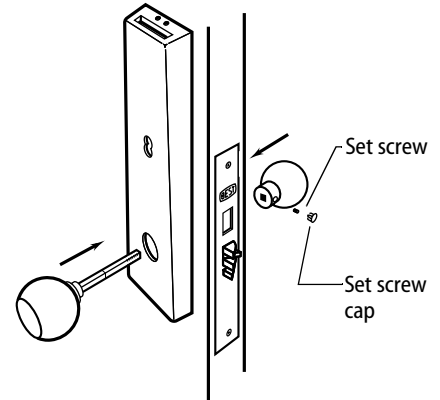1 From the outside of the door, put the outside knob and spindles into the lockset.

Set screw

Set screw cap

Figure 16

2 Slide the inside knob onto the inside spindle and secure with the set screw.
3 Push the set screw cap into the set screw hole.
4 Tighten the trim mounting screws (see Figure 12).
5 Turn the knobs to check for smooth operation.

For both levers and knobs

■ Check the lock for smooth operation.

13 Install strike plate

1 Mortise the door jamb for the strike box and strike plate. (See Installation Specifications or dimensions, template V03 and H11.)
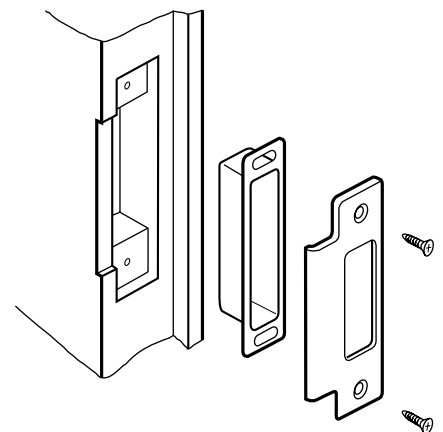

Figure 17

2 Insert the strike box and secure the strike with screws provided. When the strike box is not installed, mortise the jamb deep enough to allow the latch bolt and dead-bolt to fully extend.

Caution: **The auxiliary bolt must not enter the strike plate. The auxiliary bolt deadlocks the latchbolt and prevents forcing the latch when the door is closed. If the incorrect strike is installed, a lock-in can occur.**

14 Install core

1 Insert the control key into the core and rotate 15 degrees to the right.
2 Insert the core into the cylinder with the control key.
3 Rotate the control key 15 degrees to the left and withdraw the key.

Caution: **The control key is a security key.**

15 Test lock

To test the lock for proper operation, use the temporary operator card or personal identification number (PIN) that came with the lock. This card or PIN is for temporary use only and once permanent cards or PINs have been programmed for the lock, you should delete the temporary cards or PINs.

These temporary operator cards and PINs will only work on factory default V Series locks.

For magnetic stripe card electronic locks

1 With the BEST logo facing toward you, insert and remove the temporary operator card as shown in Figure 18.

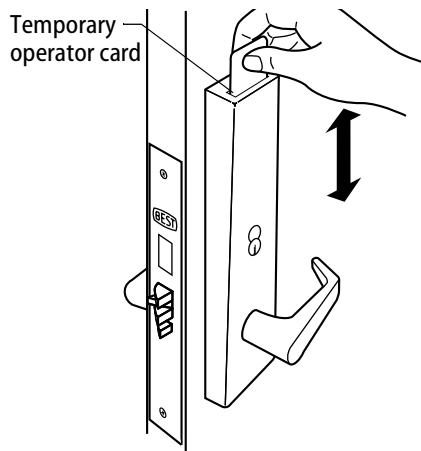*The green light flashes and the locking mechanism unlocks.*

Figure 18

Note 1: *If the lock's red light flashes and the lock remains locked, make sure that you insert and remove the card in a smooth motion.*

Note 2: *If the lock's green light stays on and the lock remains locked, make sure that you're using the temporary operator card and not the temporary communication card*

Note 3: *If the lock's green light flashes but the lock remains locked, make sure that the motor wires are connected.*

Note 4: *If the lock does not respond (no lights, no tones, and the lock remains locked, try one of the following solutions:*
▲ make sure that the battery is connected
▲ make sure that the outside wire harness is connected.
2 Turn the lever or knob and open the door.
3 Insert and turn the key to unlatch the door.

For details on programming the lock for access control, refer to the *V Series Intelligent Programming Software User Manual* or the *V Series Handheld Terminal User Manual*.

For keypad electronic locks

1 Enter the temporary operator PIN **99998** on the keypad as shown in Figure 19.
2 Press ✱.

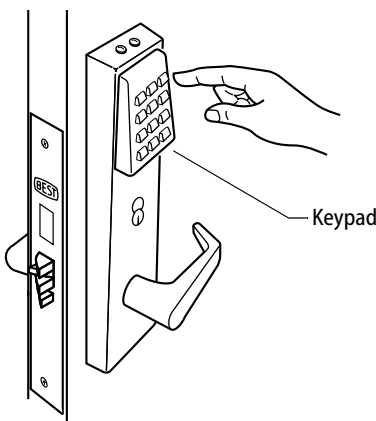*The green light flashes and the locking mechanism unlocks.*

Keypad

Figure 19

Note 1: *If the lock's green light stays on and the lock remains locked, make sure that you're using the temporary operator PIN and not the temporary communication PIN.*

Note 2: *If the lock's green light flashes but the lock remains locked, make sure that the motor wires are connected.*

Note 3: *If the lock does not respond (no lights, no tones, and the lock remains locked, try one of the following solutions:*
▲ make sure that the battery is connected

▲ make sure that the outside wire harness is connected.
3 Turn the lever or knob and open the door.
4 Insert and turn the key to unlatch the door.

For details on programming the lock for access control, refer to the *V Series Intelligent Programming Software User Manual* or the *V Series Handheld Terminal User Manual*.

For proximity card electronic locks

1 Place the temporary operator card in front of the proximity reader as shown in Figure 20.

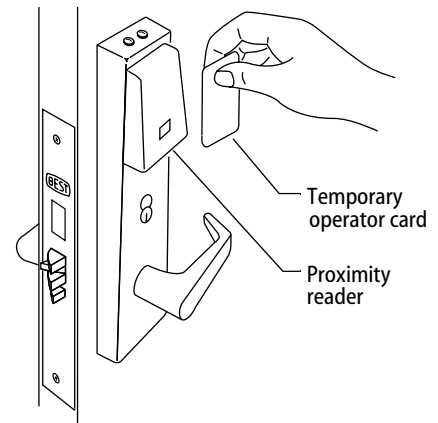*The green light flashes and the locking mechanism unlocks*

Temporary operator card

Proximity reader

Figure 20

Note 1: *If the lock's green light stays on and the lock remains locked, make sure that you're using the temporary operator card and not the temporary communication card*

Note 2: *If the lock's green light flashes but the lock remains locked, make sure that the motor wires are connected.*

Note 3: *If the lock does not respond (no lights, no tones, and the lock remains locked, try one of the following solutions:*
▲ make sure that the battery is connected
▲ make sure that the outside wire harness is connected.
2 Turn the lever or knob and open the door.
3 Insert and turn the key to unlatch the door.

For details on programming the lock for access control, refer to the *V Series Intelligent Programming Software User Manual* or the *V Series Handheld Terminal User Manual*.