



Instructions for Upgrading V Series Locks to B.A.S.I.S. Locks and Keypad EZ Locks

Planning the upgrade

Overview

These installation instructions describe how to upgrade your:

- 35HV Mortise Lock to a 35HG, 35HBV, or 35HZ
- or
- 93KV–95KV Cylindrical Lock to a 93KG–95KG, 93KBV–95KBV, or 93KZ–95KZ

To upgrade your lock, you need to replace the escutcheons and the battery pack. The new outside escutcheon contains the new reader and control electronics.

This product meets the following Locked Door Outdoor test requirements for ANSI/BHMA 156.25:

| Side of door | Range |
|--------------|----------------------------------|
| Inside | +66°F to +74°F (+19°C to +23°C) |
| Outside | -31°F to +151°F (-35°C to +66°C) |

This product meets the following Full Indoor test requirements for ANSI/BHMA 156.25:

| Side of door | Range |
|--------------------|--------------------------------|
| Inside and outside | +32°F to +120°F (0°C to +49°C) |

Contents

The following topics are covered in these instructions.

Planning the upgrade 1

Removing components 2

Installing components 6

Completing the upgrade 11

Components checklist

Use the following checklist to make sure that you have the items necessary to upgrade your lock to a B.A.S.I.S.® Lock† or Keypad EZ Lock.

- Inside escutcheon assembly
- Battery compartment door
- Battery pack
- Outside escutcheon assembly
- Hub washers (cylindrical locks)
- Trim hole insert package
- Escutcheon screw package
- Bar code ID sticker (for your records)
- Upgrade instructions

For Keypad EZ Mortise Lock, function EV & FV upgrades only:

- Mortise cylinder

For B.A.S.I.S. Locks only:

- Temporary operator card

Special tools checklist

Use the following checklist to make sure that you have the special tools necessary to upgrade your lock.

- T15 TORX® bit driver††
- Spanner wrench (for cylindrical locks)
- 1/8" Allen wrench (for mortise locks)

† The Best Access Systems logo and B.A.S.I.S. are registered trademarks of Best Lock Corporation.

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

Removing components

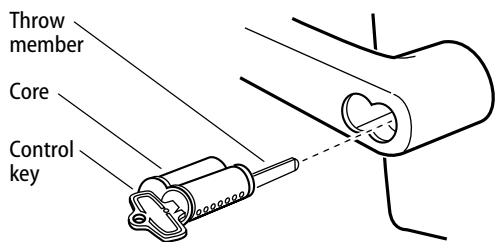


Figure 1 Removing the core and throw member (cylindrical locks)

1 Remove core and throw member (cylindrical locks)

- 1 Insert the control key into the core and rotate the key 15 degrees to the right.
- 2 Remove the core and throw member from the lever.

Removing components

2 Remove inside and outside levers

To remove the outside lever from cylindrical locks

- 1 Insert a flat blade screw driver into the figure-8 core hole and into the lever keeper.
- 2 Press the screwdriver blade in the direction of the arrow shown in Figure 2a.

Note: You will not be able to remove the lever if the screwdriver blade is inserted too far past the keeper.

- 3 Slide the lever off the sleeve.

To remove the inside lever from cylindrical locks

- 1 Insert the protrusion on the spanner wrench into the hole on the shaft of the lever, as shown in Figure 2b.
- 2 Slide the lever off the sleeve.

To remove the levers from mortise locks

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

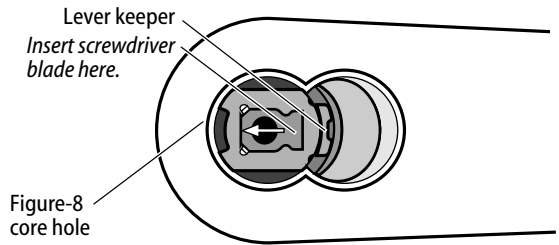


Figure 2a Removing the outside lever from cylindrical locks

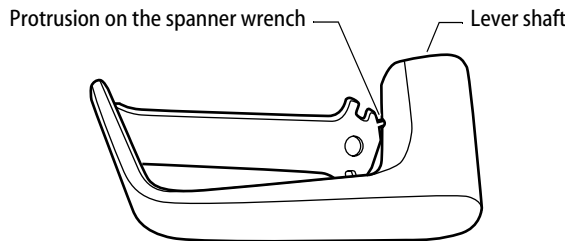


Figure 2b Removing the inside lever from cylindrical locks

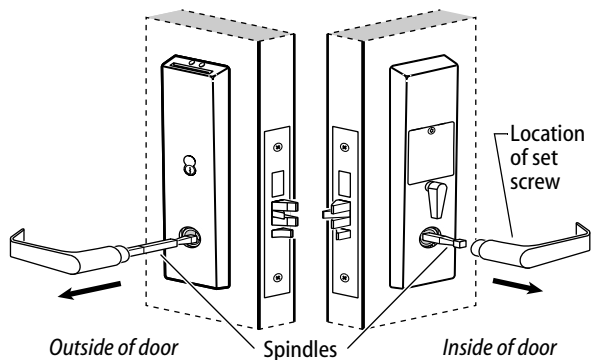


Figure 2c Removing the levers from mortise locks

Removing components

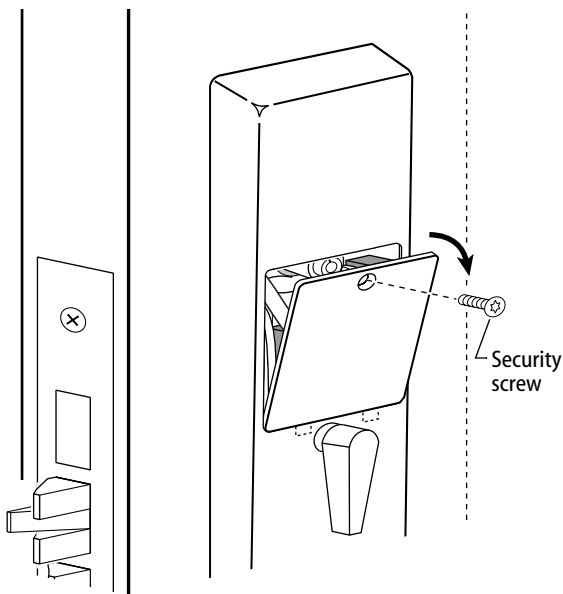


Figure 3 Removing the battery compartment door

3 Remove old battery compartment door

- 1 Use a T15 TORX bit driver to remove the security screw from the battery compartment door.
- 2 Remove the battery compartment door.

Note: You can discard the battery compartment door or save it for use with another V Series Lock with zinc escutcheons.

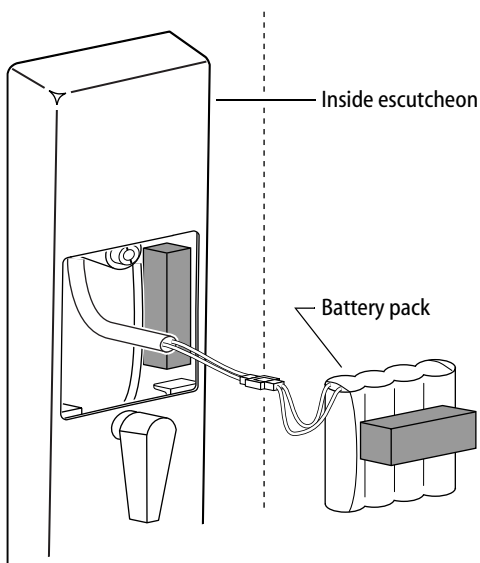


Figure 4 Removing the old battery pack

4 Remove old battery pack

- 1 Remove the battery pack from the battery compartment.
- 2 Disconnect the battery pack.

Note: You can discard the battery pack (following the battery manufacturer's instructions). It cannot be used with B.A.S.I.S. or Keypad EZ Locks.

Removing components

5 Remove old escutcheons

- 1 From the inside of the door, remove the upper and lower escutcheon screws and pull the inside escutcheon out enough to expose the circuit board.
- 2 Carefully disconnect the reader harness connector from the circuit board.
- 3 Disconnect the motor connector and the deadbolt sensor connector (FV and LV function mortise locks).
- 4 Remove the inside escutcheon.
- 5 Remove the outside escutcheon, pulling the reader harness through the harness hole in the door.

Note: You can discard the escutcheons.

6 For Keypad EZ mortise upgrades, EV & FV functions only:

- a Using an ED211 cylinder wrench, remove the old cylinder by unscrewing it from the mortise case.
- b Using the control key, remove the core from the cylinder. Set the core aside to reuse on task 11 on page 8.

Note 1: The B.A.S.I.S. Mortise Lock upgrade reuses the old cylinder, but the Keypad EZ Lock upgrade does not.

Note 2: You can discard the removed cylinder or save it for use with a B.A.S.I.S. Lock. It cannot be used with Keypad EZ Locks.

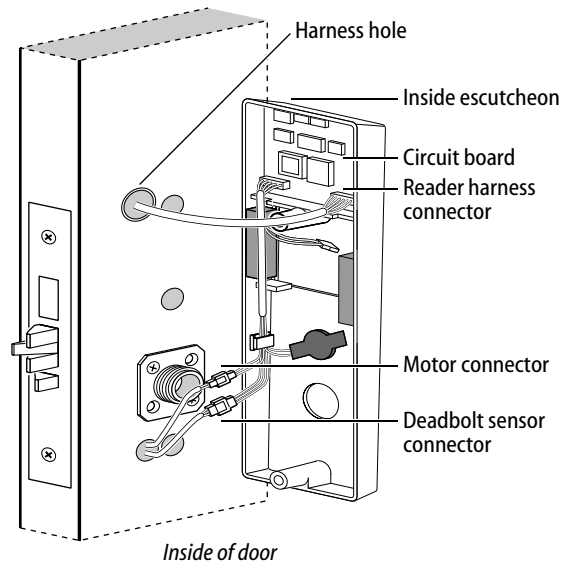


Figure 5 Removing the old escutcheons

Installing components

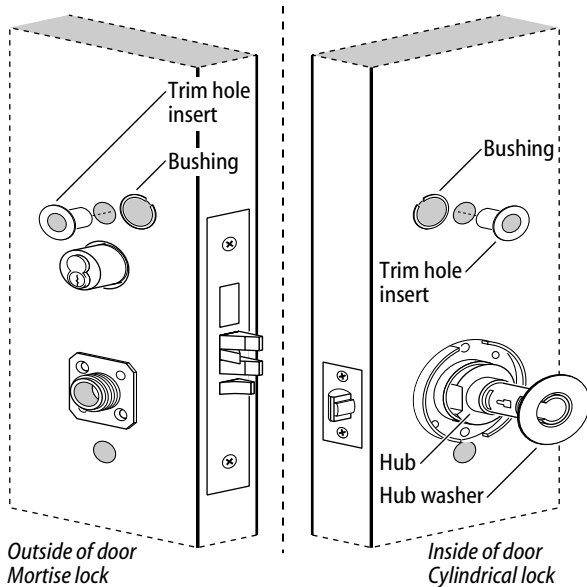


Figure 7 Installing the trim hole inserts, bushings, and hub washers (B.A.S.I.S. Lock shown)

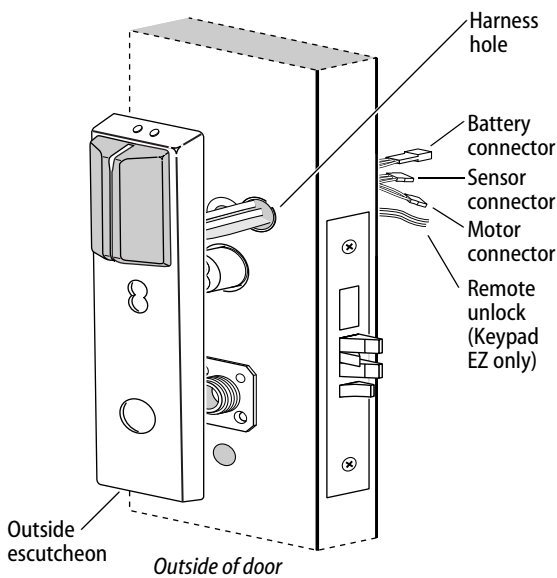


Figure 8 Feeding the wire harness connectors through the harness hole (B.A.S.I.S. Lock shown)

6 B.A.S.I.S. Locks only: Remove backup battery tab

Caution 1: For the lock to operate properly, you must remove the backup battery tab.

Caution 2: Do not connect the battery pack before you have removed the backup battery tab. Doing so may cause the lock to malfunction.

- 1 Locate the backup battery tab on the inside of the new outside escutcheon.
- 2 Pull down on the tab and remove it from the outside escutcheon to turn on the backup battery.

7 Install trim hole inserts, bushings, and hub washers

- 1 Insert the two trim hole inserts into the upper trim hole on each side of the door, as shown in Figure 7.
- 2 Make sure the two bushings are inserted into the harness hole on each side of the door, as shown in Figure 7.
- 3 **For cylindrical locks**, on each side of the door, slide a hub washer over the chassis sleeve so it rests on the hub.

8 Route wire harnesses and position new outside escutcheon

- 1 From the outside of the door, feed the motor connector, battery connector, deadbolt sensor connector (mortise locks), and remote unlock wires (Keypad EZ only) through the harness hole.

Note: Cylindrical locks and NV function mortise locks do not have a sensor harness.

Caution: When routing the connectors, make sure the harnesses are not routed across any sharp edges or over any surface that could damage their sleeving or wire insulation.

- 2 Rest the outside escutcheon on the door by inserting the trim studs into the trim holes.

Note: You can temporarily install the outside lever to hold the outside escutcheon in place. See task 13 on page 9.

Installing components

9 Make motor and sensor connections

- 1 From the inside of the door, make the motor connection and the deadbolt sensor connection (FV and LV function mortise locks).

Caution: When making the motor connection and sensor connections, make sure:

- there are no loose wire connections where the wires are inserted into the connectors
- the connectors are firmly mated.

| Wire connection | Colors | No. of wires | No. of pins |
|-----------------|----------------|--------------|-------------|
| Motor | Yellow Gray | 2 | 2 |
| Deadbolt sensor | Blue | 2 | 3 |
| Remote unlock | Brown | 2 | – |

- 2 **Optional: Keypad EZ only:** Make the remote unlock connections with wire nuts or crimp connectors. See the *Installation Instructions for Keypad EZ Remote Unlock* for more information.

Note: To install the Keypad EZ remote unlock feature, further lock removal and door preparation must be done. For complete information see *Installation Instructions for Keypad EZ Remote Unlock*.

10 Secure new escutcheons

- 1 Position the inside escutcheon and outside escutcheon on the door.
- 2 **Making sure that the escutcheons do not pinch the wires,** secure the escutcheons to the door using the new mounting screws provided. Do not tighten the screws completely. Use the combination mounting screw in the upper trim hole and the standard mounting screw in the lower trim hole.

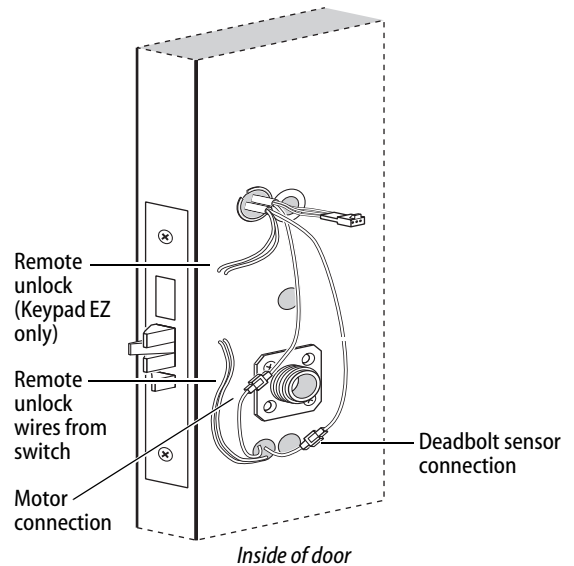


Figure 9 Making the motor connection and deadbolt sensor connection

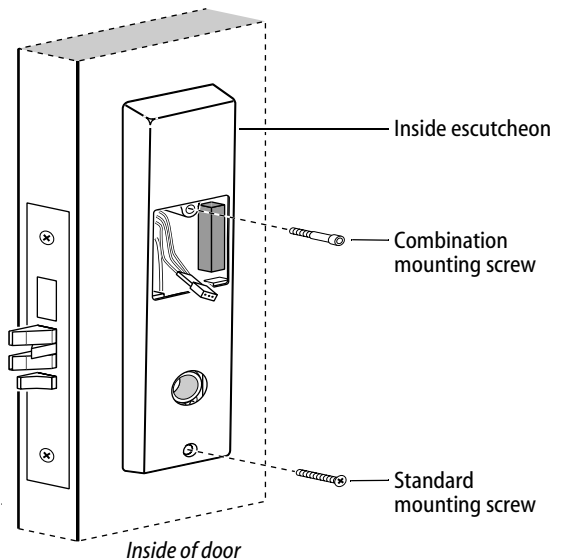


Figure 10 Securing the escutcheons

Installing components

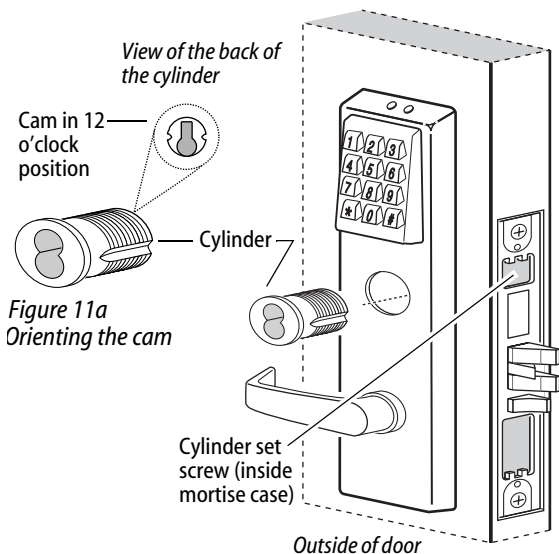


Figure 11a
Orienting the cam

11 Keypad EZ Mortise Locks only: Install new cylinder (EV & FV functions only)

- 1 Rotate the cylinder cam to the 12 o'clock position as shown in Figure 11a.
- 2 Use a cylinder wrench (ED211) to thread the cylinder into the mortise case. See Figure 11b.
- 3 Secure the cylinder in the mortise case with the cylinder set screw.
- 4 Install the core. See task 5 on page 5.
- 5 Test the lock and deadbolt for smooth operation.

12 Install new battery pack

- 1 Connect the new battery pack to the battery connector on the wire harness inside the battery compartment.

Note: The battery connection has 3 wires and 3 pins. The wire colors are:

- red with white stripe
- white
- black with white stripe.

Caution: When connecting the battery pack, make sure:

- there are no loose wire connections where the wires are inserted into the connectors
- the connectors are firmly mated.

- 2 Place the battery pack inside the battery compartment so that the foam will face the battery compartment door.

Caution: When routing the battery wires, make sure the wires are not routed across any sharp edges or over any surface that could damage their sleeving or wire insulation.

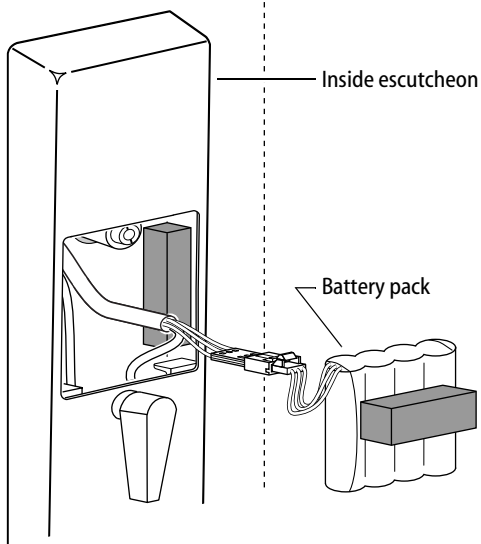


Figure 12 Connecting the battery pack

Installing components

13 Install inside and outside levers

To install the levers for mortise locks

- 1 Unscrew the inside spindle one full turn to allow the spindles to turn freely.
- 2 With the handle pointing toward the door hinges, insert the outside lever and spindle assembly into the lock from the outside of the door.
- 3 Slide the inside lever onto the inside spindle and secure it with the set screw.
- 4 **For B.A.S.I.S. Mortise Locks only:** Making sure that the core is positioned properly in the outside escutcheon (EV and FV function mortise locks) and the escutcheons are aligned properly on the door, tighten the escutcheon mounting screws.
- 5 Turn the levers to check that they operate smoothly.

To install the levers for cylindrical locks

Note: To use a core and throw member from a manufacturer other than BEST with a B.A.S.I.S. or Keypad EZ Cylindrical Lock, see the Installation Instructions for 9K Non-interchangeable Cores & Throw Members (T56093). Skip task 12 and task 13.

- 1 With the handle pointing toward the door hinges, position a lever on the outside sleeve and push firmly on the lever until it is seated. Repeat, placing the other lever on the inside sleeve.
- 2 Tighten the escutcheon mounting screws.
- 3 Turn the levers to check that they operate smoothly.

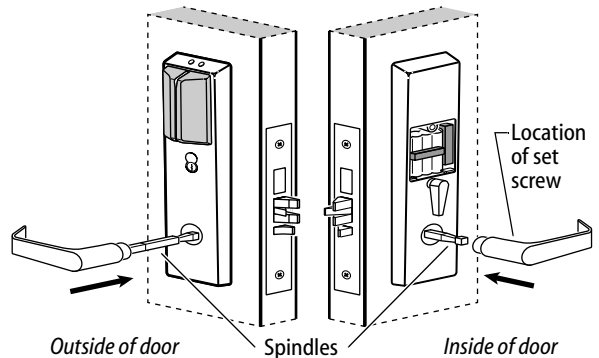


Figure 13a Installing the levers for mortise locks (B.A.S.I.S. Mortise Lock shown).

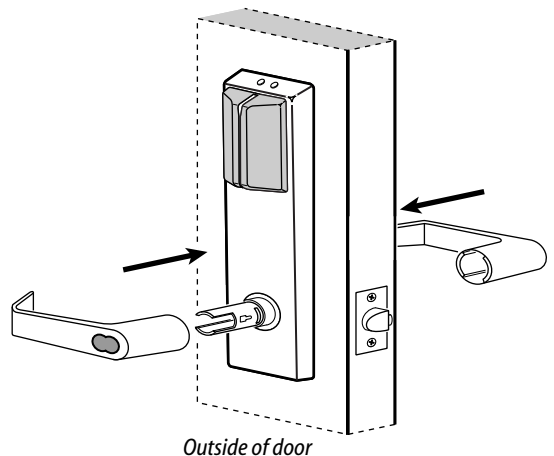


Figure 13b Installing the levers for cylindrical locks

Installing components

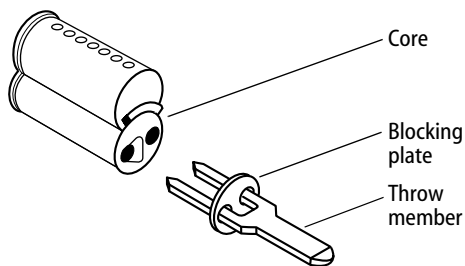


Figure 14a Installing the blocking plate and throw member

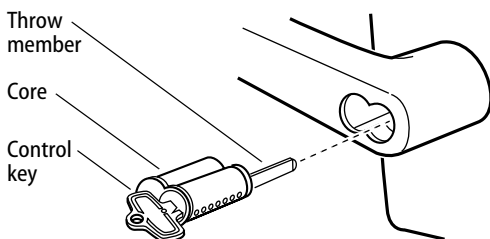


Figure 14b Installing the core

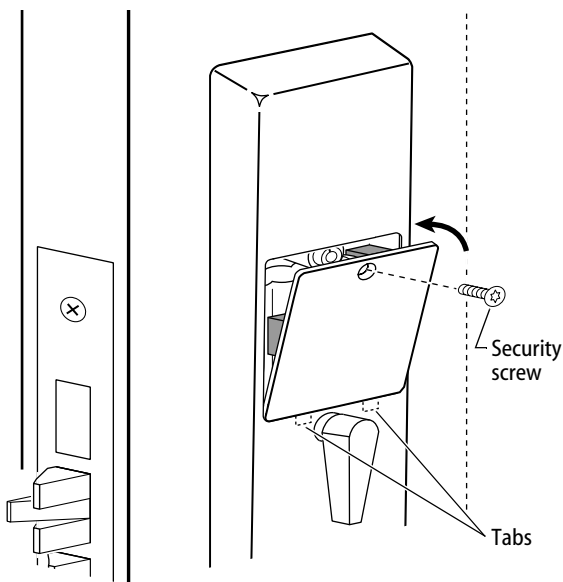


Figure 15 Installing the battery compartment door

14 Install core and throw member (cylindrical locks)

- 1 Install the blocking plate onto the throw member.

Caution: You must use the blocking plate to prevent unauthorized access.

For 6-pin core users only: Install the plastic spacer (not shown, supplied with permanent cores) instead of the blocking plate, on the throw member.

- 2 Insert the control key into the core and rotate the key 15 degrees to the right.
- 3 Insert the throw member into the core.
- 4 Insert the core and throw member into the lever with the control key.
- 5 Rotate the control key 15 degrees to the left and withdraw the key.

Caution: The control key can be used to remove cores and to access doors. Provide adequate security for the control key.

15 Install new battery compartment door

- 1 Making sure that the battery compartment door does not pinch any wires, insert the tabs of the battery compartment door into its mating slots and swing the door closed.
- 2 Use a T15 TORX bit driver to secure the battery compartment door with the security screw. Tighten firmly.

Completing the upgrade

16 Test lock

For Keypad EZ Electronic Stand-alone Locks only:

To test the lock for proper operation before the lock is programmed, follow these instructions:

- 1 Press **9998**.
- 2 Press **#**.
The green light flashes and the locking mechanism unlocks.
- 3 Turn the lever and open the door.

For B.A.S.I.S. G and B.A.S.I.S. V Electronic Stand-alone Locks only:

To test the lock for proper operation, use the temporary operator card that came with the lock. This card is for temporary use only. After permanent cards have been programmed for the lock, the temporary card should be deleted.

- 1 Use the temporary operator card to activate the lock.
When the lock detects the presence of a card for the first time, it performs a series of diagnostic self-tests. If no problem is detected, the lock responds with 4 red LED flashes, simultaneous with 4 green LED flashes and 4 short tones.
If a problem is detected, the lock's red LED and green LED simultaneously flash in a repeating pattern (and no tones sound). The lock's control electronics board must be replaced. For instructions, see the *B.A.S.I.S. G Service Manual (T63300)* or the *B.A.S.I.S. V Service Manual (T61805)*.
Note: *If the lock has a proximity card reader, it may have already been activated by the presences of an object near the card reader.*
- 2 Use the temporary operator card to access the lock.
The green light flashes and the locking mechanism unlocks.
- 3 Turn the lever and open the door.

If the mechanism doesn't unlock, refer to the following table. For additional troubleshooting instructions, see the *B.A.S.I.S. G Service Manual* or the *B.A.S.I.S. V Service Manual*.

| LEDs | Sounder | You should |
|------------------|---------------|---|
| Single red flash | — | Use the card at a moderate speed. |
| Red flashes | 3 short tones | Use the temporary operator card provided with the lock. |
| Green flashes | — | Check the motor connection. |
| — | — | Check the battery connection. |

For all cylindrical locks and for EV and FV function mortise locks

Insert and turn the key to unlatch the door.

For FV and LV function mortise locks

From the inside of the door, turn the turn knob and make sure that the deadbolt operates properly.

Completing the upgrade

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