Installation Instructions for B.A.S.I.S. Cylindrical Locks

Planning the installation

Contents

These installation instructions describe how to install your B.A.S.I.S.® G (93KG–95KG) or B.A.S.I.S. V (93KBV–95KBV) Cylindrical Lock. The following topics are covered.†

Site survey

Use the following survey to record information about the installation site. You need this information to determine how to prepare the door for the lock.

Door information

Door handing and bevel:

- ❑ Left hand (LH)
- ❑ Left hand, reverse bevel (LHRB)
- ❑ Right hand (RH)
- ❑ Right hand, reverse bevel (RHRB)

Door thickness: _____ inches (1 3/4″ to 2 1/4″)

Environment information

Ambient temperature:

- ❑ Is within specifications. See the tables below.

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 +42°C)

Components checklist

Use the following checklist to make sure that you have the items necessary to install your B.A.S.I.S. Cylindrical Lock.

Components provided in the box:

- ❑ Chassis with outside lever and outside rose liner assembly
- ❑ Inside escutcheon assembly
- ❑ Battery compartment door
- ❑ Battery pack
- ❑ Inside rose liner
- ❑ Outside escutcheon assembly
- ❑ Inside lever
- ❑ Throw member package
- ❑ Latch
- ❑ Plastic bushing package
- ❑ Escutcheon screw package
- ❑ Strike package
- ❑ Bar code ID sticker (for your records)
- ❑ Temporary operator card
- ❑ Installation template and instructions

Other components:

- ❑ Core
- ❑ Control key

Special tools checklist

Use the following checklist to make sure that you have the special tools necessary to install your B.A.S.I.S. Cylindrical Lock.

- ❑ KD303 Drill jig
- ❑ T15 TORX® bit driver‡
- ❑ KD325 Strike plate locating pin
- ❑ KD315 Faceplate marking chisel

† 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.

Preparing the door and door jamb

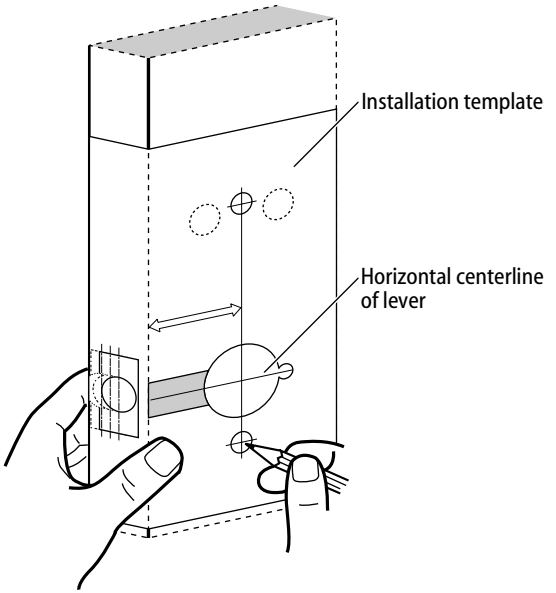

Figure 1 Positioning the template

1 Position template and mark drill points

Note: *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. For dimensions for preparing metal doors, see the* G01 and G02 Templates—Installation Specifications for 93KG and 93KBV Cylindrical Locks.

Note: *If the door is a LH or RH door, mark the inside of the door. If the door is a LHRB or RHRB door, mark the outside of the door.*

For uncut doors and frames

1 Measure and mark the horizontal centerline of the lever (the centerline for the chassis hole) on the door and door jamb. Mark the vertical centerline of the door edge.

Note: *The recommended height from the floor to the centerline of the lock is 38″.*

2 Fold the *G05 Template—Installation Template for 93KG and 93KBV Cylindrical Locks* on the dashed line and carefully place it in position on the high side of the door bevel.

Note: *For steel frame applications, align the template's horizontal centerline for the latch with the horizontal centerline of the frame's strike preparation.*

3 Tape the template to the door.

4 Center punch the necessary drill points. Refer to the instructions on the template.

For doors with standard cylindrical preparation

1 Fold the *G05 Template—Installation Template for 93KG and 93KBV Cylindrical Locks* on the dashed line. Looking through the hole from the opposite side of the door, align the template so that you see the template outline of the 2 1/8″ diameter chassis hole.

2 Tape the template to the door.

3 Center punch the necessary drill points. Refer to the instructions on the template.

Preparing the door and door jamb

2 Drill holes and mortise for latch face.

1 Drill the holes listed below:

- upper and lower trim holes
  — 5/8″ diameter
  — through door
- harness hole
  — 3/4″ diameter
  — through door
  — location based on handing
- motor wire hole
  — 7/16″ diameter
  — through door
  — before drilling chassis hole
- chassis hole
  — 2 1/8″ diameter
  — through door
  — after drilling motor wire hole
- latch hole
  — 1″ diameter
  — meets chassis hole

Note 1: *To locate the center of a hole on the opposite side of the door, drill a pilot hole completely through the door.*

Note 2: *For holes through the door, it is best to drill halfway from each side of the door to prevent the door from splintering.*

2 Mortise the edge of the door to fit the latch face.

3 Drill the holes for the screws used to install the latch.

Components checklist

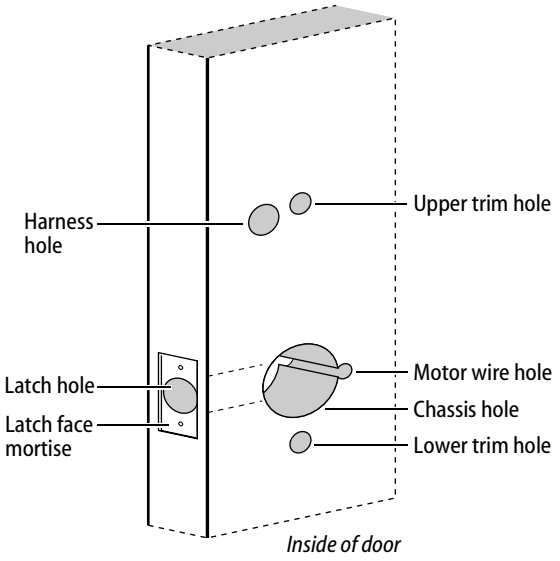

Figure 2 Drilling holes and mortising for the latch face

Preparing the door and door jamb

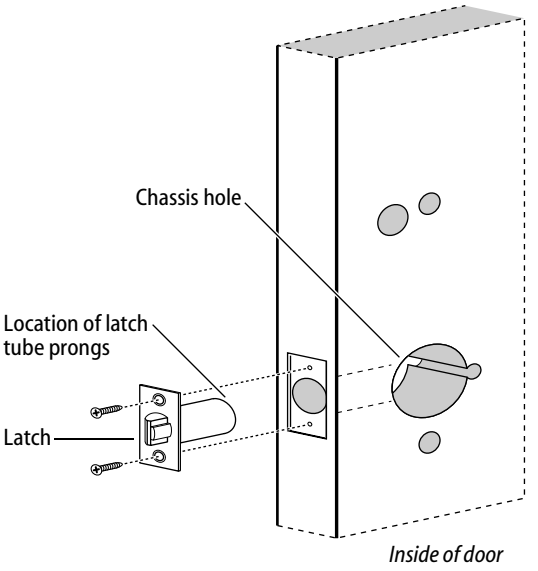

Figure 3 Installing the latch in the door

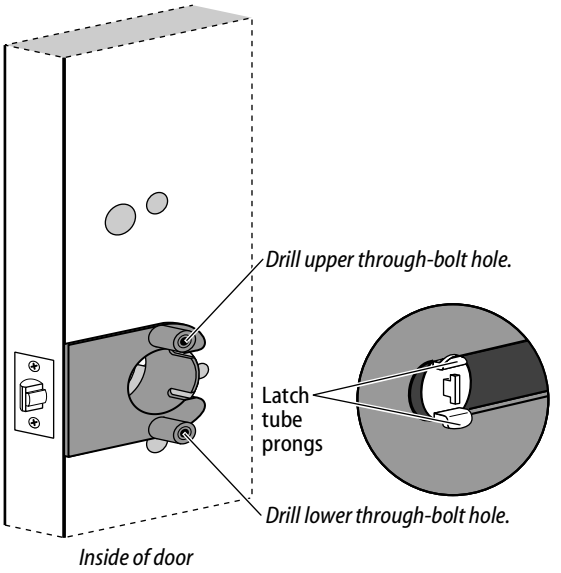

Figure 4 Installing the drill jig and drilling the through-bolt holes

3 Install latch

1 Install the latch in the door.

Note: *The latch tube prongs should be centered and should project into the chassis hole.*

2 Check that the door swings freely.

4 Use drill jig to drill through-bolt holes

1 Press the drill jig (KD303) onto the door, engaging it with the latch tube prongs (see the close-up in Figure 4). Make sure the front edge of the jig is parallel with the door edge.

2 Drill the through-bolt holes (5/16″ diameter) halfway into the door.

3 Turn over the drill jig and repeat steps 1 and 2 from the opposite side of the door.

Note: *Replace the drill jig after 10 door preparations.*

Preparing the door and door jamb

5 Install strike box and strike plate

1 In alignment with the center of the latchbolt, mortise the door jamb to fit the strike box and strike plate.
2 Drill the holes for the screws used to install the strike box and strike plate.
3 Insert the strike box and secure the strike with the two screws provided.
4 Check the position of the deadlocking plunger against the strike plate.

Caution: **The deadlocking plunger of the latchbolt must make contact with the strike plate, as shown in Figure 5b. The plunger deadlocks the latchbolt and prevents someone from forcing the latch open when the door is closed.**

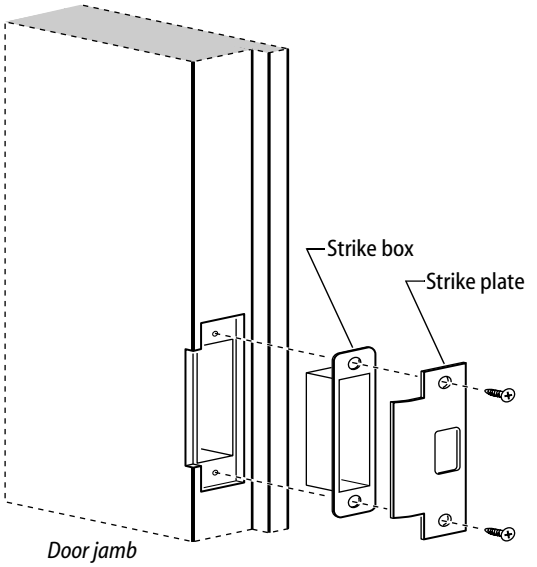

Figure 5a Installing the strike box and strike plate

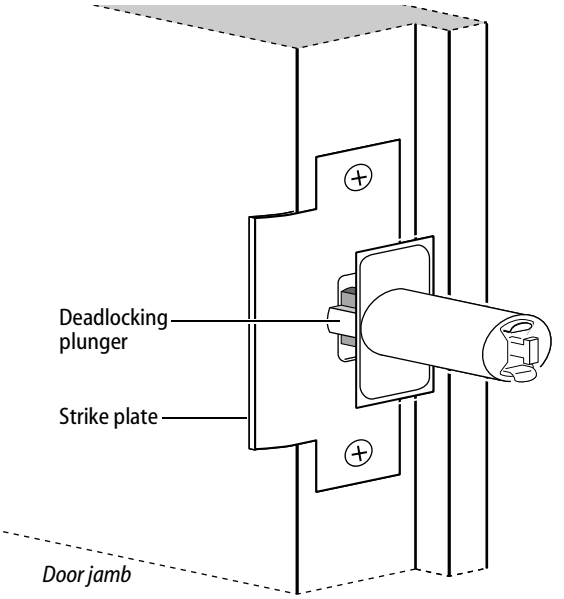

Figure 5b Aligning the deadlocking plunger with the strike plate

Installing the lock

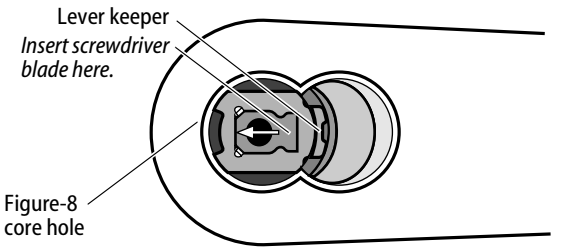

Figure 6 Removing the outside lever

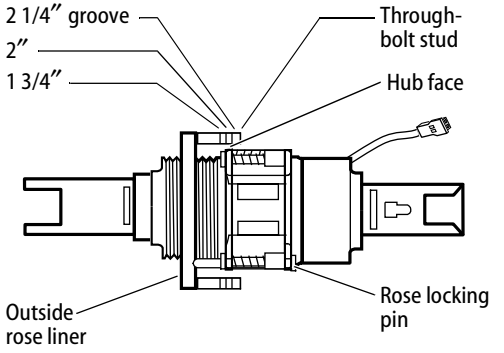

Figure 7 Adjusting the rose liner for the door thickness

6 Remove outside lever

1 Insert the control key into the core and rotate the key 15 degrees to the right.
2 Insert a flat blade screwdriver into the figure-8 core hole and into the lever.
3 Press the screwdriver blade in the direction of the arrow in Figure 6.

Note: *You cannot remove the lever if the screwdriver blade is inserted too far past the keeper.*

4 Slide the lever off of the sleeve.

7 Adjust for door thickness

1 Determine the door's thickness.
2 Pull the rose locking pin and rotate the outside rose liner until the proper groove on the through-bolt stud lines up with the hub face.

Note 1: *Make sure that the locking pin fully locks into the rose liner.*

Note 2: *The lockset fits doors 1 3/4″ to 2 1/4″ thick.*

Installing the lock

8 Install lock chassis and engage retractor in latch

From the outside of the door, insert the lock chassis into the 2 1/8″ chassis hole, routing the motor wire through the notch.

Caution: **Make sure that the latch tube prongs engage the chassis frame and that the latch tailpiece engages the retractor.**

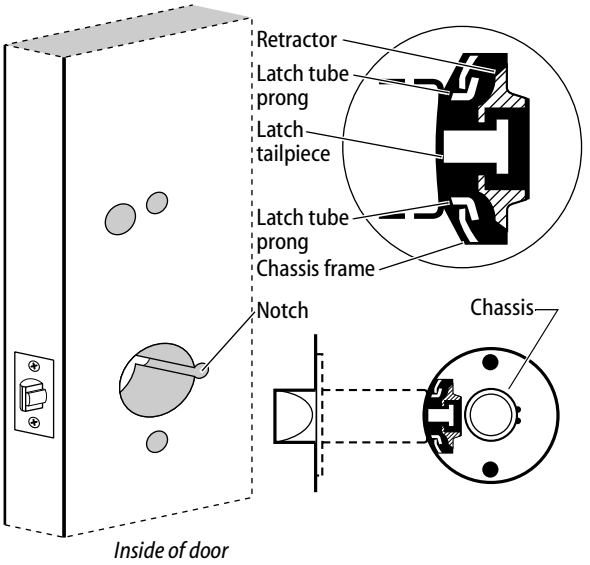

Figure 8 Installing the lock chassis and engaging the retractor in the latch

9 Install through-bolts and inside rose liner

1 Place the inside rose liner on the chassis, aligning the holes in the rose liner with the holes prepared in the door.

Caution: **Make sure that there is clearance for the motor wire between the rose liner and the door.**

2 Install the through-bolts through the rose liner and door in the top and bottom holes.

3 Tighten the rose liner on the door with the through-bolts.

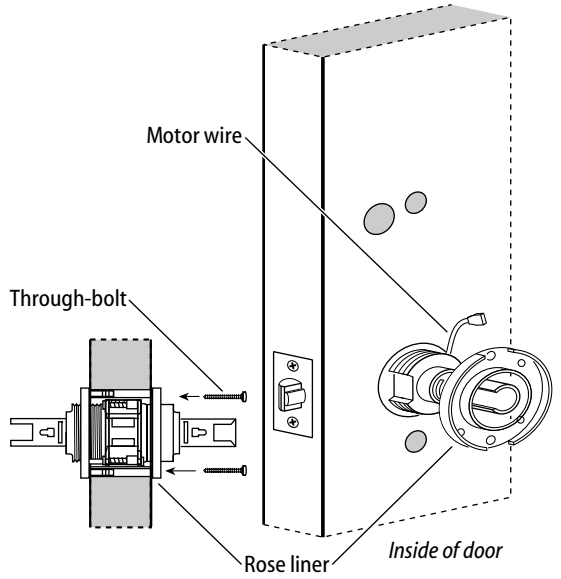

Figure 9 Installing the through-bolts and rose liner

Installing the lock

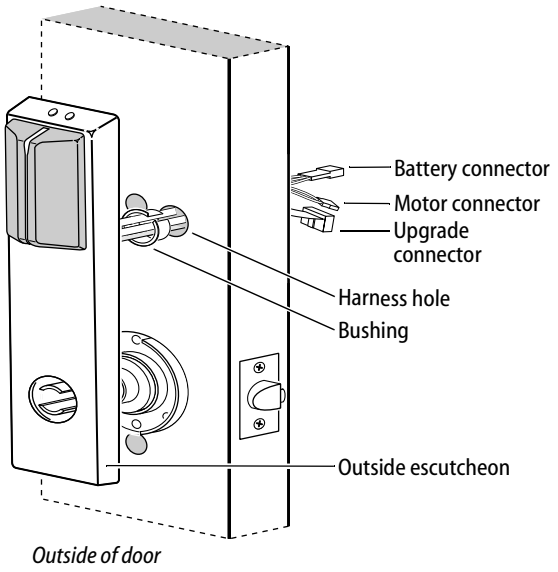

Figure 11 Feeding the wire harness connectors through the harness hole

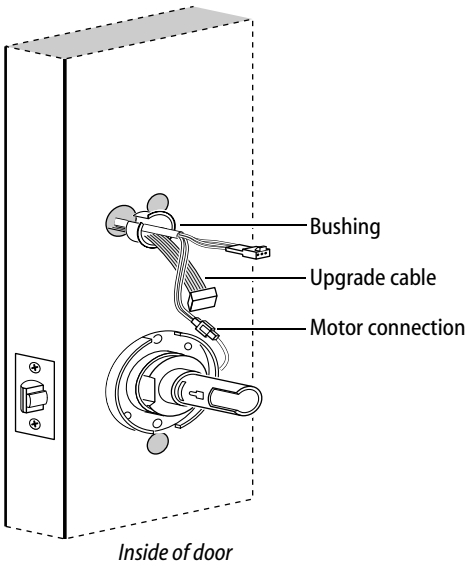

Figure 12 Making the motor connection

10 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 outside escutcheon.

2 Pull down on the tab and remove it from the outside escutcheon to turn on the backup battery.

11 Route wire harness and position outside escutcheon

1 Insert the two bushings into the harness hole on each side of the door, as shown in Figure 11 and Figure 12.

2 From the outside of the door, feed the upgrade connector, and then the motor connector and battery connector, through the harness hole.

Caution: **When routing the connectors, make sure the wire harness is not routed across any sharp edges or over any surface that could damage its sleeving or wire insulation.**

3 Temporarily 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 15 on page 10.*

12 Make motor connection

From the inside of the door, connect the motor connector from the chassis to its mating connector on the wire harness.

Note 1: *The upgrade cable is used for reprogramming the lock's firmware without removing the lock from the door. This cable does not connect to a mating lock connector.*

Note 2: *The motor connection has 2 wires and 2 pins. The wire colors are yellow and gray.*

Caution: **When making the motor connection, make sure:**

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

Installing the lock

13 Secure escutcheons

1 Position the inside and outside escutcheons on the door.

2 **Making sure that the escutcheons do not pinch the wires**, secure the escutcheons to the door—but do not tighten. Use the combination mounting screw at the upper trim hole and the standard mounting screw at the lower trim hole.

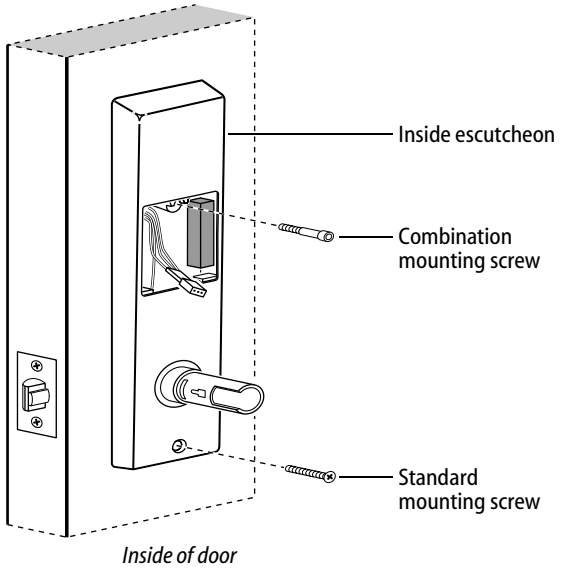

Figure 13 Securing the escutcheons

14 Install battery pack

1 Connect the 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.**

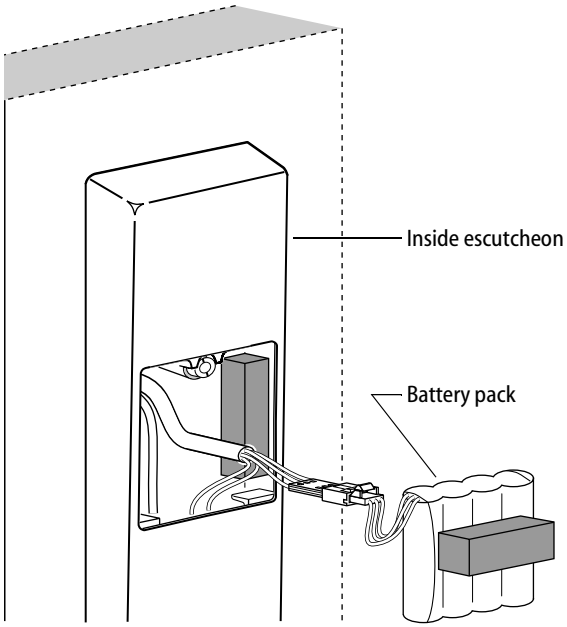

Figure 14 Connecting the battery pack

Completing the installation

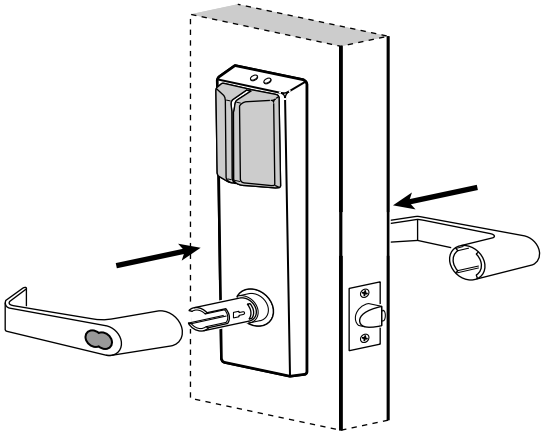

Figure 15 Installing the levers

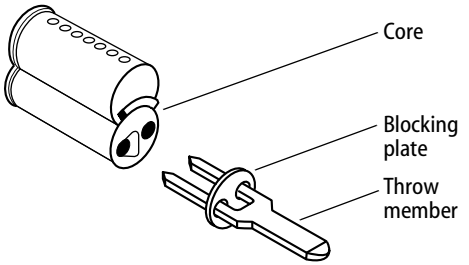

Figure 16a Installing the blocking plate and throw member

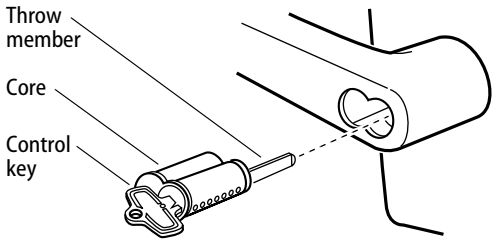

Figure 16b Installing the core

15 Install inside and outside levers

Note: *To use a core and throw member from a manufacturer other than BEST with a B.A.S.I.S. Lock, see the* Installation Instructions for 9K Non-interchangeable Cores & Throw Members *(T56093). Skip task 15 and task 16.*

For the inside and outside levers

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.

16 Install core and throw member

1 Install the blocking plate onto the throw member.

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

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.**

Completing the installation

17 Install 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.

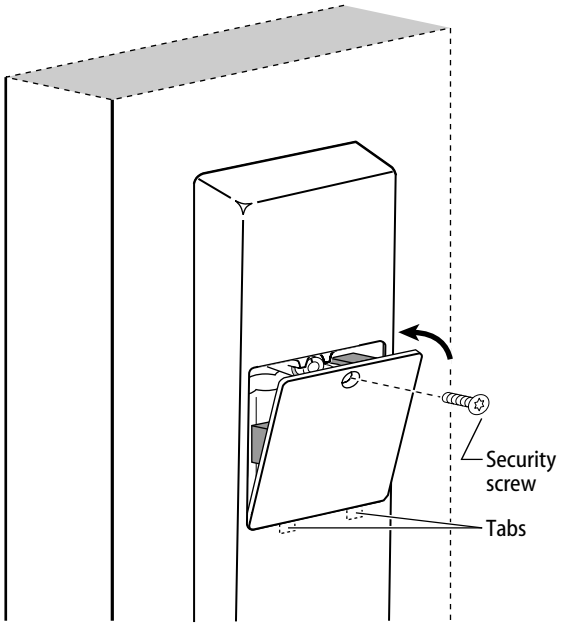

Figure 17 Installing the battery compartment door

Completing the installation

18 Test lock

To test the lock for proper operation before the lock is programmed, 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 detect 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 presence 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.

4 With the door closed, insert and turn the key to unlatch 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.

T63301/Rev D 1819347 ER-7991-12 November 2001