

Installation Instructions for Electronic Stand-Alone Exit Hardware Trim



dormakaba Group

Planning the installation

Contents

These installation instructions describe how to install your Offline G/V Series (EXG/EXBV) and Keypad EZ (EXZ) Exit Hardware Trim. Electronic Stand-Alone Exit Hardware Trim is available for use with the following types of exit devices manufactured by dormakaba USA Inc. (2000 Series) and Von Duprin® (98/99 Series):²

- rim
- surface vertical rod
- mortise
- concealed vertical rod.

Electronic Stand-Alone Exit Hardware Trim also is available for use with the Sargent® (8800 Series)³ rim exit device (NV function only).

These instructions cover the following topics:

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Site survey

Use the following survey to record information about the installation site.

Lock information

Exit hardware type:

- Rim
- Mortise
- Surface vertical rod
- Concealed vertical rod

Lock function:

- EV—With key override
- NV—Without key override

1. The BEST logo and Offline G/V Series are registered trademarks of dormakaba USA Inc.
2. Von Duprin is a registered trademark of Von Duprin, Inc.
3. Sargent is a registered trademark of Sargent Manufacturing Co.

Door information

Door handing and bevel:

- Left-hand reverse bevel (LHRB)
- Right-hand reverse bevel (RHRB)

Door type:

- Wood
- Metal

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

Components checklist

Use the following checklist to make sure that you have the items necessary to install your Electronic Stand-Alone Exit Hardware Trim.

Components provided in the box:

- Escutcheon and lever assembly
- Battery bracket
- Battery cover
- Battery pack
- Battery screw package
- Bar code ID sticker (for your records)
- Installation template and instructions

Other components (for EV function only):

- Cylinder mounting sleeve (for Von Duprin EV functions only)

Components for Offline G/V Series Locks only:

- Temporary operator card

Special tools checklist

Use the following checklist to make sure that you have the special tools necessary to install your Electronic Stand-Alone Exit Hardware Trim.

- Appropriate driver for the battery cover security screws
- ED211 cylinder wrench (for EV mortise function only)

Planning the installation

Compatibility Chart

Device Type	VonDuprin 98/99	Precision 1000	Precision 2000	Sargent 8800
Rim–w/o key override	98TP, 99TP, 98L, 99L	1105, 1108	2103	8828, 8863, 8866
Mortise–w/o key override	9875TP, 9975TP, 9875L, 9975L	1305, 1308	2303	N/A
Surface Vertical Rod–w/o key override	9827TP, 9927TP, 9827L, 9927L	1205, 1208	2203	N/A
Concealed Vertical Rod–w/o key override	9847TP, 9947TP, 9847L, 9947L	1705, 1708	2703	N/A
Rim–with key override	98TP, 99TP, 98L, 99L	N/A	2103	N/A
Mortise–with key override	N/A	1305, 1308	2303	N/A
Surface Vertical Rod–with key override	9827TP, 9927TP, 9827L, 9927L	N/A	2203	N/A
Concealed Vertical Rod–with key override	9847TP, 9947TP, 9847L, 9947L	N/A	2703	N/A

Preparing the door

1 Mark centerlines

Note 1: *If retrofitting the Electronic Stand-Alone trim to an existing exit hardware installation, skip this task. Instead, remove the exit hardware from the door.*

Note 2: *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 G10 Template—Installation Specifications for EXG, EXBV, and EXZ Exit Hardware Trim for use with Precision Hardware 1000/2000 Series and Sargent 8800 Series Locks or G09 Template—Installation Specifications for EXG, EXBV, and EXZ Exit Hardware Trim for use with Von Duprin 98/99 Series Locks.*

- 1 On the door, measure and mark the height of the centerline of the lock from the finished floor as specified by the exit hardware manufacturer.
On both sides of the door, on the door's edge, and on the door frame (if required for strike installation), mark the horizontal centerline of the lock.

- 2 On both sides of the door, on the door's edge, and on the door frame (if required for strike installation), mark the vertical centerline of the lock stile case as specified by the exit hardware manufacturer.

Note: *The vertical centerline for the trim on the outside of the door should correspond exactly to the vertical centerline for the lock stile case on the inside of the door. When measuring from the edge of the door, take into account the door bevel (if any).*

2 Position exit hardware template(s) and mark drill points

Note: *If retrofitting the Electronic Stand-Alone trim to an existing exit hardware installation, skip this task.*

- 1 Position the Precision Hardware and Sargent exit hardware template or Von Duprin exit hardware template on the inside of the door; follow the instructions provided by the exit hardware manufacturer.

Preparing the door

- 2 Tape the template to the door.
- 3 Center punch the necessary drill points. Refer to the instructions on the template and to the hole schedule provided by the exit hardware manufacturer.
- 4 If necessary, repeat step 1 through step 3 to prepare the door frame or door stop for strike installation.

3 Position trim template and mark drill points

1 For new installations

- a Cut the *G08 Template—Installation Template for EXG, EXBV, and EXZ Exit Hardware Trim for Use with Precision Hardware 1000/2000 Series and Sargent 8800 Series Locks* or *G07 Template—Installation Template for EXG, EXBV, and EXZ Exit Hardware Trim for Use with Von Duprin 98/99 Series Locks* along the dashed lines.
- b Align the horizontal and vertical arrows marked on the template with the centerlines marked on the door. See Figure 3.

For retrofit installations

Align the mounting holes for the escutcheon and lock stile case marked on the template with the mounting holes in the door.

Note: *The outside escutcheon is mounted using the four lock stile case mounting holes ('A' holes); these holes must be 7/16" in diameter and drilled completely through the door.*

- 3 Tape the template to the door.
- 4 Center punch the necessary drill points. Refer to the instructions on the template.

4 Mortise for mortise case and faceplate (mortise exit devices only)

Note: *If retrofitting the Electronic Stand-Alone trim to an existing exit hardware installation, skip this task.*

Mortise the edge of the door for the mortise case and faceplate; follow the instructions provided by the exit hardware manufacturer.

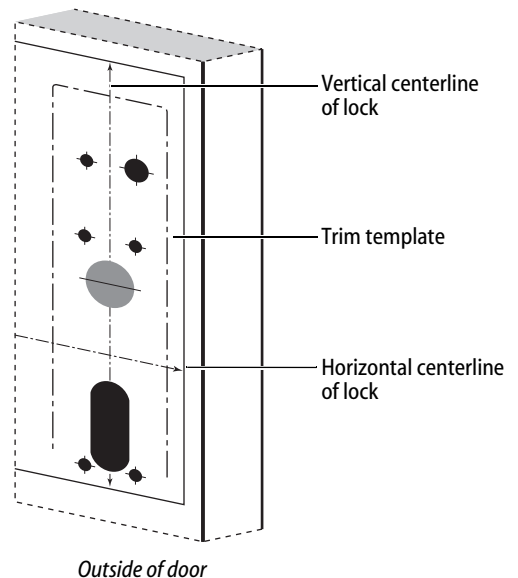


Figure 3 Positioning the trim template

Preparing the door

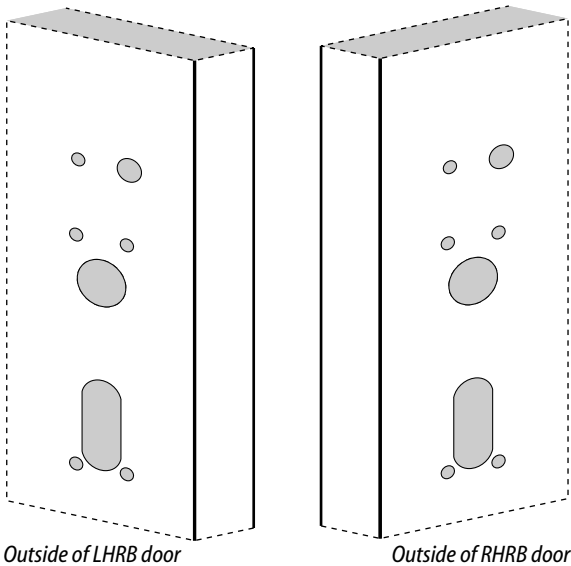


Figure 5a Drilling the trim holes for use with Precision Hardware and Sargent exit hardware

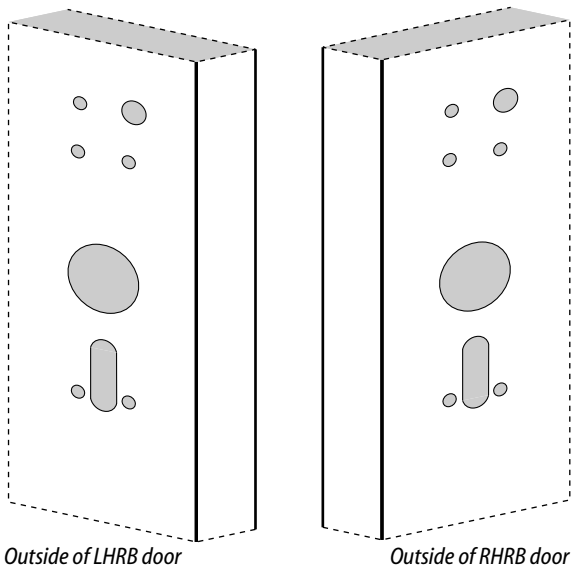


Figure 5b Drilling the trim holes for use with Von Duprin exit hardware

5 Drill holes and mortise door surface

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

- 1 Drill the trim holes listed below; follow the instructions on the trim template. See Figure 5a or Figure 5b, and Figure 5c.
 - battery bracket hole
 - ▲ 7/16" diameter
 - ▲ through door
 - battery bracket/harness hole
 - ▲ 7/8" diameter
 - ▲ through door
 - escutcheon mounting holes
 - ▲ 7/16" diameter
 - ▲ through door
 - cylinder hole (EV function only)
 - ▲ 1 3/8" diameter for use with Precision Hardware exit devices;
 - 2" diameter for use with Von Duprin exit devices
 - ▲ for rim and vertical rod exit devices, through door;
 - for mortise exit devices, from outside into mortise cavity
 - lift finger slot
 - ▲ for Precision Hardware and Sargent exit devices, 1 1/8" diameter slot
 - ▲ for Von Duprin exit devices, 3/4" diameter slot
 - ▲ through door

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

Note 2: For holes through the door, drill halfway from each side of the door to keep the door from splintering.

- 2 **For new installations**, drill the exit hardware holes and mortise the inside surface of the door according to the instructions provided by the exit hardware manufacturer.

Note: The Electronic Stand-Alone outside escutcheon is mounted using the four lock stile case mounting holes, labeled 'A' on the exit hardware template.

Preparing the door

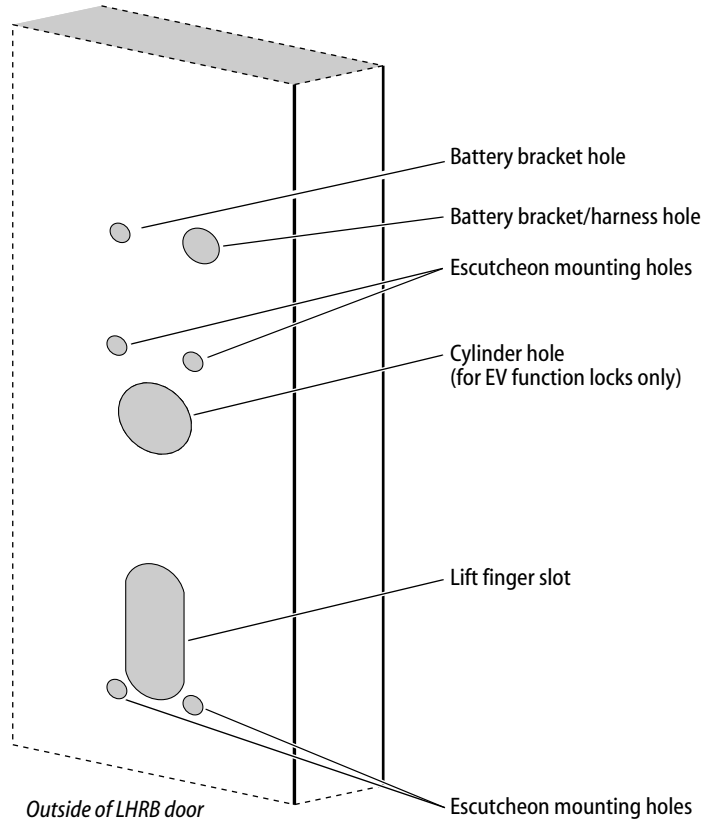


Figure 5c Trim hole guide – Precision Hardware and Sargent door preparation shown

Preparing the door

6 Optional for Keypad EZ only: Prepare for remote unlock installation

If you want to be able to operate the Keypad EZ Lock remotely from a momentary push-button switch, see *Installation Instructions for Keypad EZ Remote Unlock (T80922)* for complete instructions.

7 Install mortise case (mortise exit devices only)

Install the mortise case in the door; follow the instructions provided by the exit hardware manufacturer.

8 Install cylinder (Von Duprin EV function rim and rod exit devices only)

- 1 To determine the correct spindle length, try the cylinder in the door while holding the escutcheon and lock stile case in place.
Then break off the spindle at the groove where it will engage correctly with the latching mechanism.
Break off the mounting screws as shown in Figure 8.
- 2 From the front of the escutcheon, insert the cylinder into the cylinder opening.
- 3 Holding the cylinder in position in the escutcheon, insert the cylinder mounting sleeve through the back of the escutcheon, over the cylinder.
- 4 Orient the cylinder and clamp plate as shown in Figure 8. From the back of the escutcheon, secure the cylinder and mounting sleeve using the clamp plate and mounting screws.

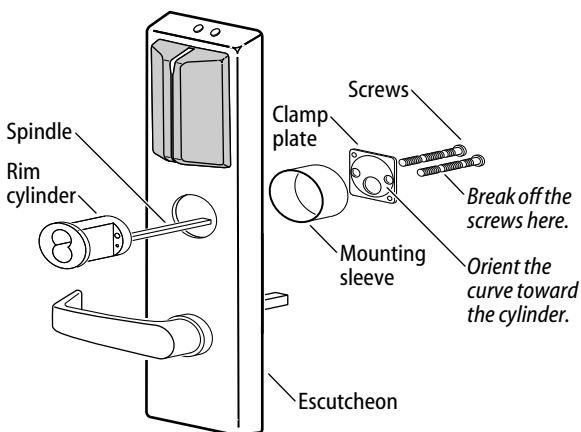


Figure 8 Installing the cylinder for Von Duprin rim and rod exit devices

Installing the exit hardware and trim

9 Route wire harnesses and position escutcheon

- 1 From the outside of the door, feed the wiring harness and the connectors through the battery bracket/harness hole as shown in Figure 9.

Caution 1: 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.

Caution 2: Do not put too much strain on the wire harness either by pulling too hard on it or by dangling the escutcheon from it.

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

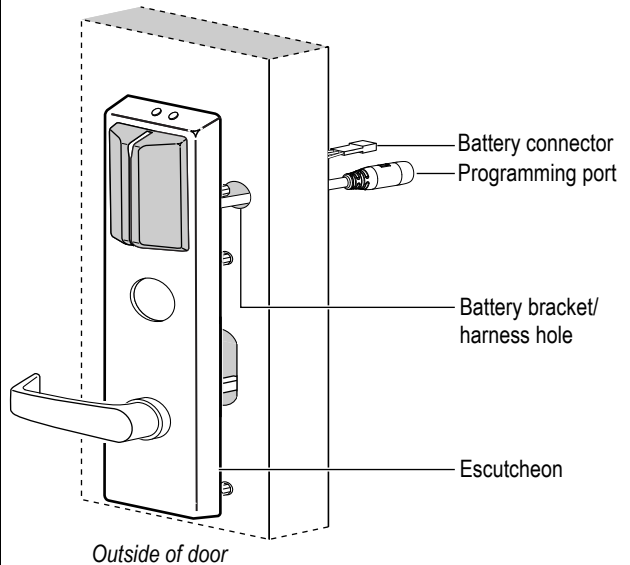


Figure 9 Feeding the wire harness connectors through the battery bracket/harness hole

Installing the exit hardware and trim

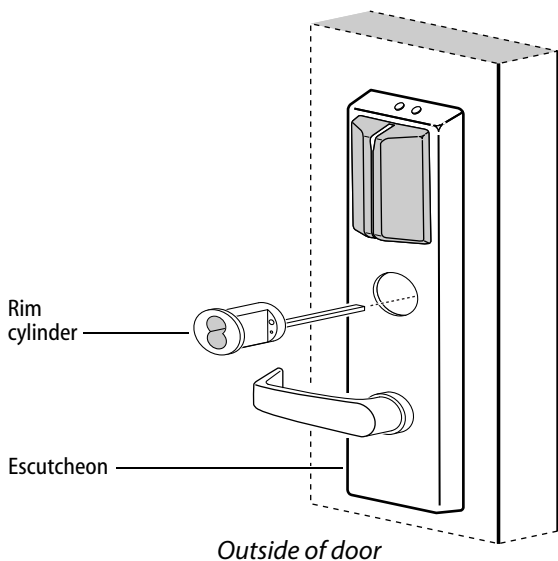


Figure 10a Installing the cylinder

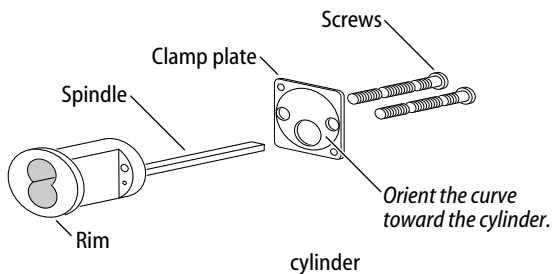


Figure 10b Rim cylinder components

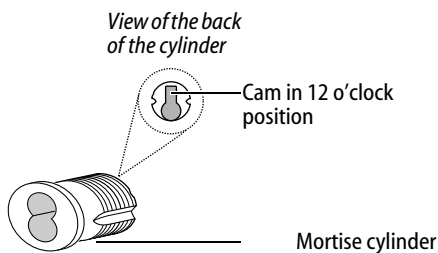


Figure 10c Mortise cylinder components

10 Install cylinder (EV function only)

For Precision hardware rim and rod exit device installations

- 1 To determine the correct spindle length, try the cylinder in the door while holding the escutcheon and lock stile case in place.
Then break off the spindle at the groove where it will engage correctly with the latching mechanism.
Break off the mounting screws at the groove where they will secure the clamp plate to the cylinder.
- 2 Insert the cylinder through the cylinder opening in the escutcheon and into the door as shown in Figure 10a.
- 3 Orient the cylinder and clamp plate as shown in Figure 10b. From the inside of the door, secure the cylinder using the clamp plate and mounting screws.

For all mortise exit device installations

- 1 Rotate the cylinder cam to the 12 o'clock position, as shown in Figure 10c.
- 2 Using a cylinder wrench (ED211), insert the cylinder through the cylinder opening in the mortise case and screw the cylinder into the mortise case. Make sure that the figure-8 hole is in the 12 o'clock position.

Caution: Do not screw the cylinder in too tightly. Doing so may cause you or someone else to be locked out.

11 Install exit hardware and secure escutcheon

Install the exit hardware (lock stile case, case cover, touch bar assembly and mounting bracket, latches and rods [if applicable], and related hardware); follow the instructions provided by the exit hardware manufacturer.

Note: Make any adjustments to the exit hardware necessary for compatibility with lever function outside trim.

Installing the exit hardware and trim

The escutcheon is secured on the outside of the door by the screws used to mount the lock stile case on the inside of the door.

Caution: When securing the escutcheon, make sure that it does not pinch the wire harness.

12 Install core (EV function only)

- 1 Insert the control key into the core and rotate the key 15 degrees to the right.
- 2 With the control key in the core, insert the core into the cylinder as shown in Figure 12.
- 3 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.

13 Install mortise case faceplate (mortise exit devices only)

- 1 Secure the mortise case faceplate to the mortise case; follow the instructions provided by the exit hardware manufacturer.
- 2 Check the lock for proper operation.

14 Install strike(s)

Note: If retrofitting the trim to an existing exit hardware installation, skip this task.

- 1 Install the strike(s) in the door frame or door stop; follow the instructions provided by the exit hardware manufacturer.
- 2 Check the lock for proper alignment between the strike(s) and latch(es).

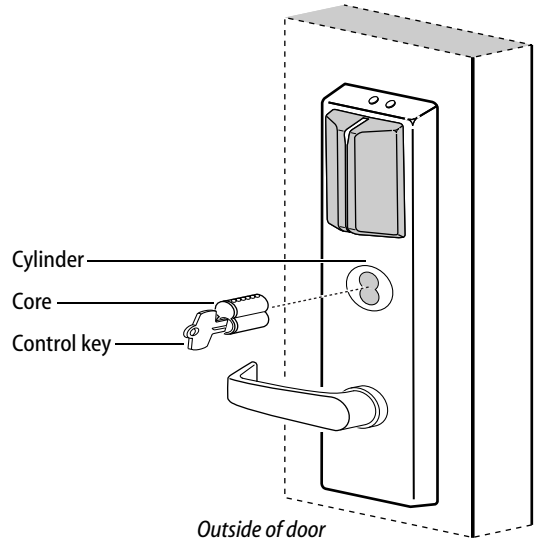


Figure 12 Installing the core (Offline G/ Series shown)

Completing the installation

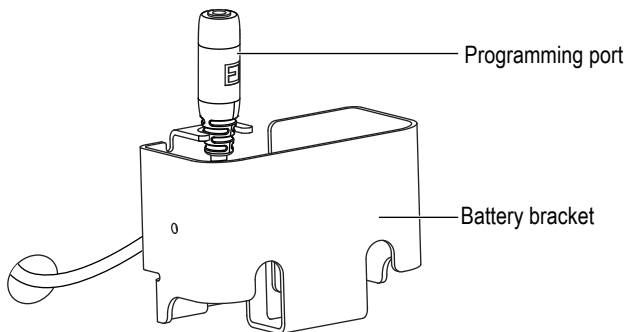


Figure 15 Installing the programming port in the battery bracket
(Offline G/V Series only)

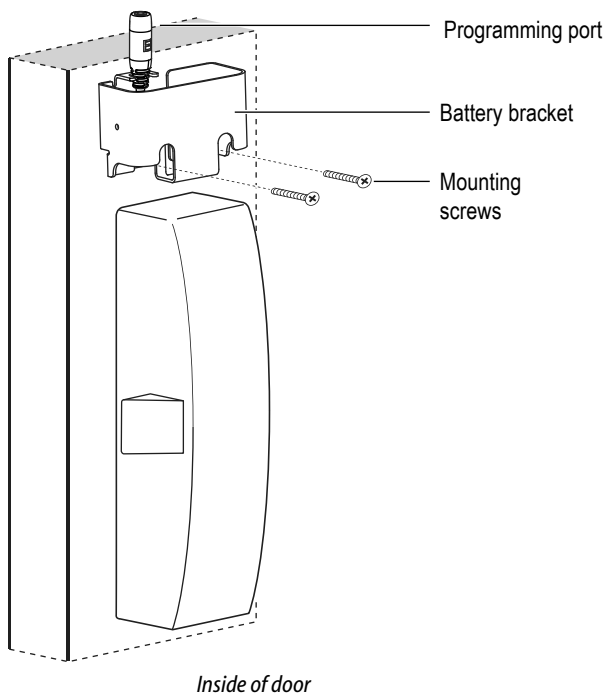


Figure 17 Installing the battery bracket on the door
(Offline G/V Series shown)

15 Offline G/V Series only: Install Programming port in battery bracket

- 1 Route the wire harness into the bottom of the battery bracket, as shown in Figure 15.

Note: The programming port is used when programming the control electronics for the lock.

16 Optional for Keypad EZ only: Make remote unlock connections

If you have made door preparations for remote unlock operation, pull the remote unlock wires through the door channel (if you have not already done so) to the battery bracket harness hole and into the battery bracket housing. Make the connections with wire nuts or crimp connectors. See the *Installation Instructions for Keypad EZ Remote Unlock (T80922)* for complete instructions.

17 Install battery bracket on door

- 1 Position the battery bracket on the inside of the door as shown in Figure 17.

Note: If installing with a surface rod exit device, the battery bracket is mounted over the upper rod.

- 2 Secure the battery bracket to the door using two of the mounting screws provided.

Note: For doors less than 2" in thickness, use the 1 1/4" screws. For doors 2" or greater, use the 1 3/4" screws.

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

Completing the installation

18 Install battery pack in bracket

- 1 Connect the battery pack to the battery connector on the wire harness as shown in Figure 18.

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 in the holder inside the battery bracket and dress the wire harness inside the bracket.

Caution: Make sure you do not damage the sleeving on the battery pack. Doing so may cause the batteries to drain.

- 3 **If installing with a surface rod device**, dress the wire harness inside the bracket to the left of the rod so that the harness will not interfere with the movement of the rods.

We recommend that you loosely coil the harness and use a cable tie to secure the coil. To avoid damaging the harness, do not put any sharp bends in it or flex it close to the connectors.

Caution: Failure to dress the wire harness away from the rod could damage the wire harness, causing the lock's electronics to not work properly.

19 Install battery cover on bracket

- 1 **If installing with a surface rod exit device**, remove the knockouts for the rod from the battery cover. See Figure 19.
- 2 Making sure that the battery cover does not pinch any wires, place the cover over the bracket.
- 3 Use the appropriate driver to secure the battery compartment cover with the screws. Tighten firmly. See Figure 19.

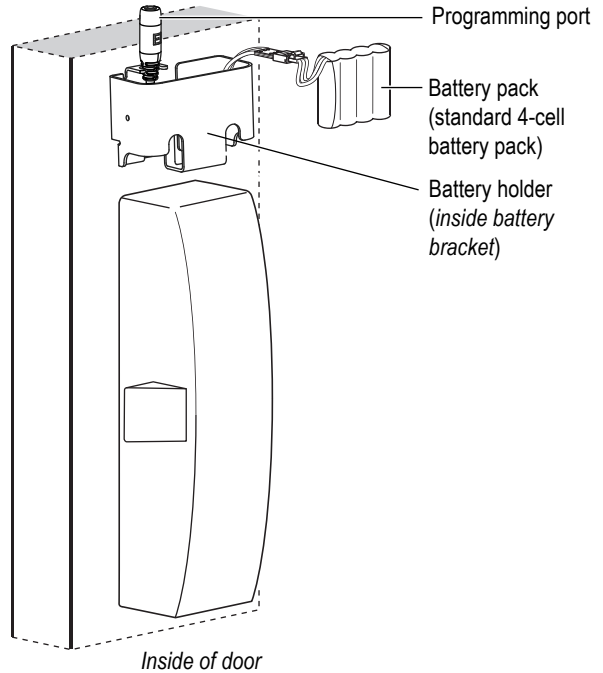


Figure 18 Connecting the battery pack (Offline G/V Series shown)

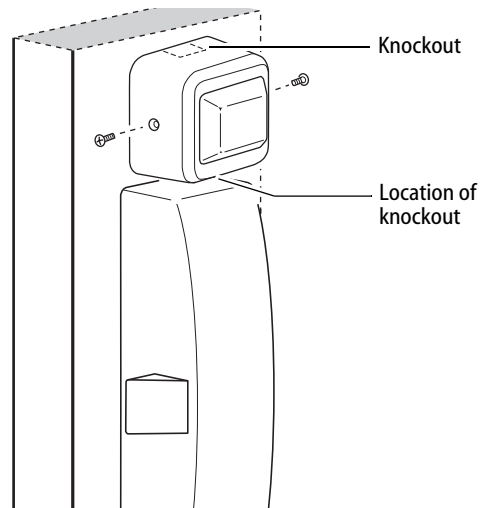


Figure 19 Installing the battery cover on the bracket

Completing the installation

20 Test lock

For Keypad EZ Exit Hardware Trim 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 Offline G/V Series Exit Hardware Trim only:

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.

- 1 Use the temporary operator card to access the lock.
The green light flashes and the locking mechanism unlocks.
- 2 Turn the lever and open the door.

If the mechanism doesn't unlock, refer to the following table. For additional troubleshooting instructions, see the *Electronic Stand-Alone Locks 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.
—	—	Check the battery connection.

For EV function locks

Insert and turn the key to unlatch the door.

Important: When the trim and exit hardware installation is complete, perform all testing specified by the exit hardware manufacturer.



For Online Instructions Visit:
<https://dhwsupport.dormakaba.com/hc/en-us>
For Assistance or Warranty Information:
Call 1-800-392-5209



Para obtener instrucciones línea, visite:
<https://dhwsupport.dormakaba.com/hc/en-us>
Para obtener asistencia o información de la garantía:
Lláme al 1-800-392-5209



Pour obtenir des directives en ligne, consultez le site :
<https://dhwsupport.dormakaba.com/hc/en-us>
Pour obtenir de l'aide ou des renseignements sur la garantie :
Appelez au 1-800-392-5209 ou consultez le site

Warning: This Manufacturer advises that no lock can provide complete security by itself. This lock may be defeated by forcible or technical means, or evaded by entry elsewhere on the property. No lock can substitute for caution, awareness of your environment, and common sense. Builder's hardware is available in multiple performance grades to suit the application. In order to enhance security and reduce risk, you should consult a qualified locksmith or other security professional.

Advertencia: Este fabricante debe saber que no hay cerraduras que puedan proporcionar seguridad completa por sí mismas. Esta cerradura puede fallar forzándola o utilizando medios técnicos o entrando por otra parte del edificio. No hay cerraduras que puedan sustituir precaución, estar al tanto de su entorno y sentido común. Este fabricante también ofrece cerraduras de diferentes grados y rendimientos para ajustarse a su aplicación. Para mejorar la seguridad y reducir riesgos, usted debe consultar con un cerrajero especializado u otro profesional de seguridad.

Advertissement: Le fabricant tient à vous aviser qu'aucun verrou ne peut à lui seul offrir une sécurité complète. Ce verrou peut être mis hors d'état par la force ou des moyens techniques ou être évité par l'utilisation d'une autre entrée sur la propriété. Aucun verrou ne peut remplacer la surveillance de votre environnement et le bon sens. La qualification pour le constructeur est offerte selon différents grades de performance pour différentes applications. Afin d'augmenter la sécurité et de réduire le risque, vous devriez consulter un serrurier qualifié ou un autre professionnel de la sécurité.