eForce® 150 Keyless Entry

Model 3090

Installation Instructions and User's Guide



TABLE OF CONTENTS

TABLE OF CONTENTS 3
INSTALLATION 5
- Important Notes 5
- Tools and Equipment Needed 5
- Supplied Parts 6
- Preparing the Door 6
- Preparing the Spindle 8
- Configuring the Model 3090 for Lock Series 9
- Handing the eForce 150 11
- Installing the Mortise Cylinder 12
- Mounting the eForce 150 14
- Installing the eForce 150 Batteries 15

SETTING UP AND USING THE eFORCE 150 16
- General Information 16
- Programming Information 17
- Speed Mode 17
- User Code Descriptions 18
- Features and Options Descriptions 19
- Programming the User Codes 20
  - Master Code 20
  - Reset Master Code 21
  - Emergency Code 21
  - Supervisor Code 22
  - Lockout Code 23

Passage Code....24
Normal User Codes....24
One Time User Codes....25
Programming Features and Options....26
Delete All User Codes....26
Delete Supervisor, Lockout, Passage, or a Single Normal User Code....26
Delete a Block of Normal User Codes....27
Reset All Features to Default Values....28
Set Audible Keypad Feedback....28
Set Visual Keypad Feedback....29
Set Number of Successive Invalid User Code Entries Accepted....29
Set Error Lockout Time....30
Set Hold-Open (Unlock) Time....30
Set Emergency Hold-Open (Unlock) Time....31
Replacing the eForce 150 Batteries....31
Replacing the Mortise Cylinder....33
TROUBLESHOOTING....37
Green light comes on, but lever will not retract latch-bolt.....37
No lights come on when pushbuttons are depressed.....37
No tones sound when pushbuttons are depressed....37
Factory default codes not working.....37
User codes not working....37
Operator stays unlocked.....37
WARRANTY....38
eFORCE 150 USER LOG....39

INSTALLATION

Important Notes

The 3090-01 is designed exclusively for latching hardware including:

- Adams Rite 4500/4900 deadlatches
- Adams Rite 8000 series exit devices
- Yale 7200 series narrow stile exit devices
- Corbin Russwin ED4000 series

The 3090-02 is compatible with Adams Rite MS® Series Deadbolts only! These units are not interchangeable. These instructions, and the fasteners supplied, apply to metal door applications. Other door types will need fasteners designed for the given medium.

IMPORTANT: This product must be installed according to all applicable building and life safety codes!

Tools and Equipment Needed

The following common hand tools are needed for installation:

- Center punch
- Drill gun
- 1/4” [6.35 mm] drill bit
- Phillips screwdriver
- Pliers
- Flat tip screwdriver
- Pencil

The following additional equipment is needed:

NOTE: 1-1/2” cylinders require a 1/8” trim ring.

- Mortise Cylinder - 1” to 1-1/2” in length range with MS cam

Supplied Parts

NOTE 1: Figure 1 illustrates the supplied parts.

NOTE 2: A cam plug is supplied for either the 3090-01 or 3090-02.

Item	Description	Quantity
1	Mounting Bracket (Part Number 22-9076)	1
2	#10-32 x 5/8” Phillips Pan Head Screws with lock washer	4
3	Spindle (Part Number 22-9154)	1
4	5/64” Allen Key	1
5	Cylinder Locking Ring (Part Number 24-0061)	1
6	Locking Ring Spanner Tool (Part Number 22-0594)	1

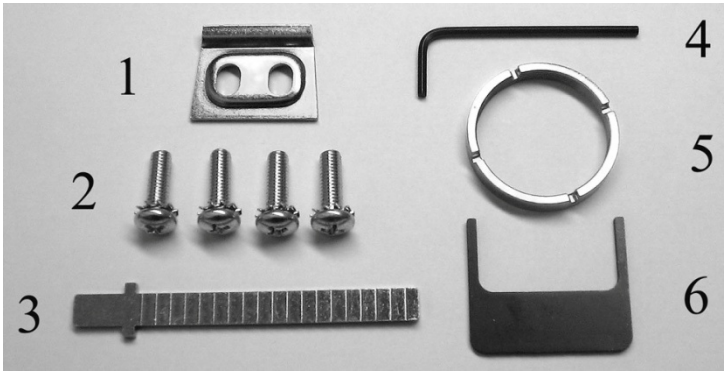


Figure 1

Preparing the Door

NOTE: Template 80-0180-396-01 is used for Yale, Corbin Russwin and SARGENT exit devices (see Figure 2).

1. SELECT the stick-on template to match the application.
2. MARK the backset and horizontal centerlines.
3. APPLY clear template over the centerline marks (see Figure 2).
4. CENTER-PUNCH the four (4) referenced mounting holes, and REMOVE template.
5. DRILL holes at center-punch locations using a 1/4” [6.35 mm] drill bit.
6. INSTALL Rivnuts according to instructions supplied in Rivnut kit.

7. INSTALL the mounting bracket with two (2) #10-32 x 5/8” pan head screws (see Figure 3, “Installing the Mounting Bracket”).

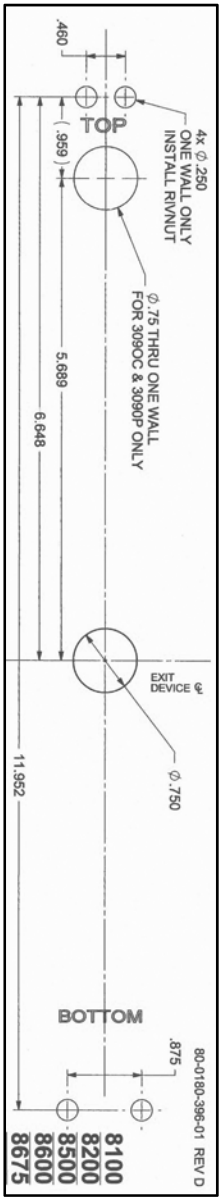


Figure 2

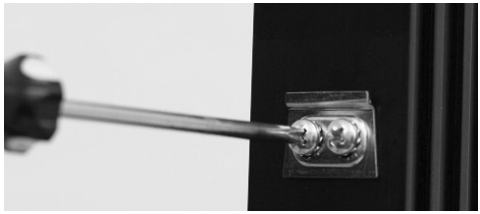


Figure 3

Preparing the Spindle

NOTE 1: Steps 1–2 are performed for Adams Rite MS1850 Deadbolts, 4500/4900 Deadlatches, and 8000 Series Mortise Exit Devices.

NOTE 2: One notch is added for a 2” thick door.

1. SNAP OFF the spindle at the fifth (5th) notch (see Figure 4).
2. INSERT the flat end into the exit device.

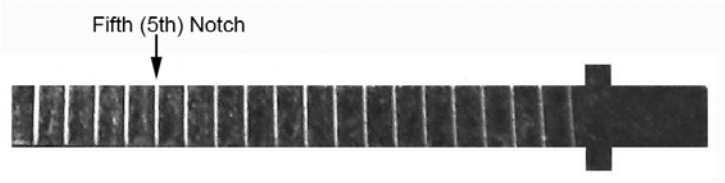


Figure 4

NOTE 1: Steps 3–4 are performed for Adams Rite 8600 Concealed Vertical Rod Exit Devices.

NOTE 2: Two (2) notches are added for a 2” thick door.

3. SNAP OFF the spindle at the sixth (6th) notch (see Figure 5).
4. INSERT the flat end into the exit device.

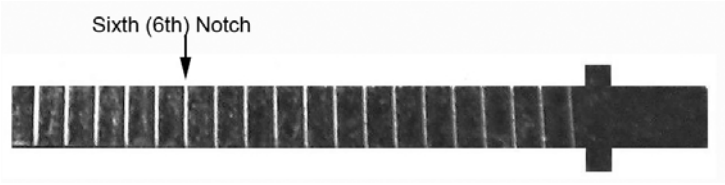


Figure 5

NOTE 1: Steps 5–6 are performed for Adams Rite 8000 Series Surface Vertical Rod and Rim Exit Devices, Yale 7200 Series Narrow Stile Exit Devices, and Corbin Russwin ED4000 Series Exit Devices.

NOTE 2: Two (2) notches are added for a 2” thick door.

5. SNAP OFF the spindle at the fourteenth (14th) notch (see Figure 6).
6. INSERT the “T” end into the exit device.

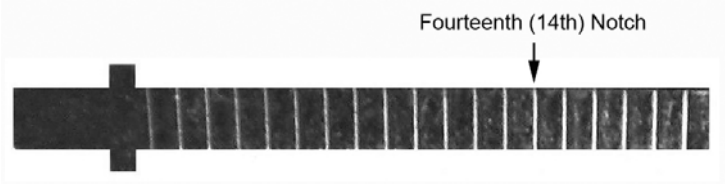


Figure 6

Configuring the Model 3090 for Lock Series

NOTE: Steps 1–3 are performed to configure a Model 3090-01 for a mortise latch application using 4500/4900 Deadlatches (including 8300/8400 Exit Devices).

1. CONFIGURE the supplied cam plug to match the hand of door (see Figures 7 and 8).
2. INSERT cam plug into latch case with notch on the cam plug aligned with latch case set screw.
3. TIGHTEN set screw and SECURE with the two brass cam plug screws (see Figure 9).

Figure 7 

Figure 8 

Figure 9 

NOTE: Steps 4–5 are performed to configure a Model 3090-01 for a CVR exit device application using 8500/8600 Exit Devices.

4. INSTALL tailpiece adapter on the vertical rod.
5. FASTEN with Phillips screw (see Figure 10)

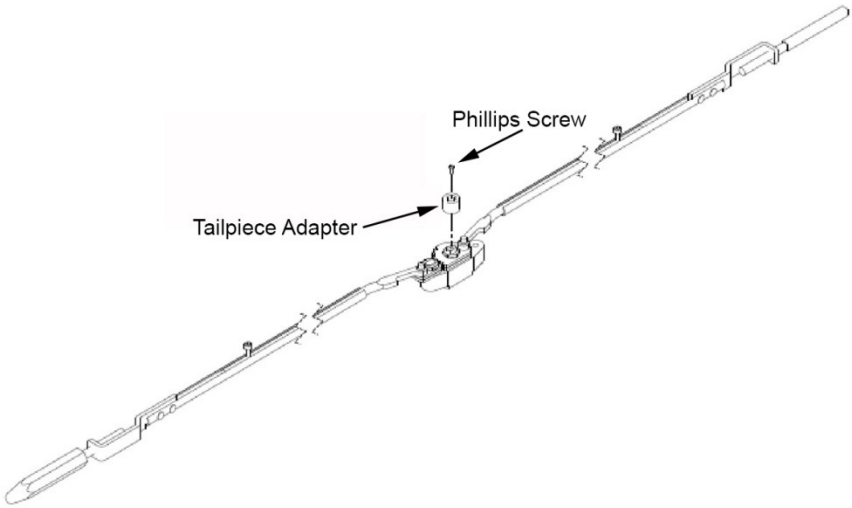


Figure 10

NOTE: Step 6 is performed to configure a Model 3090-01 for a RIM exit device using 8700/8800 Exit Devices.

6. On the back side of the exit device, REMOVE only the lower Phillips head screw, depending on hand of door, to free up the cylinder actuator for use (see Figure 11).

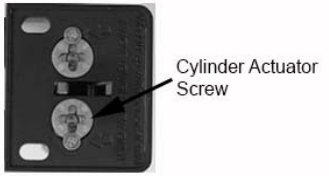


Figure 11

NOTE: Steps 7–8 are performed to configure a Model 3090-02 for a MS 1850 application using a MS® series Deadbolt.

7. For MS Deadbolt, INSERT cam plug into lock case ensuring the notch on the cam plug is aligned with lock case set screw.

NOTE: Cam Plug must be positioned below door surface.

8. TIGHTEN set screw and SECURE with the two (2) brass cam plug screws (see Figure 12).



Figure 12

Handing the eForce 150

NOTE: The eForce 150 is shipped in a non-handed, neutral position with the access cover off (see Figure 12).

1. **IF** installing the Model 3090-02,
   THEN GOTO the “Installing the Mortise Cylinder” section.
2. To hand the eForce 150, ROTATE the handle until it clicks into the horizontal position (see Figure 13).

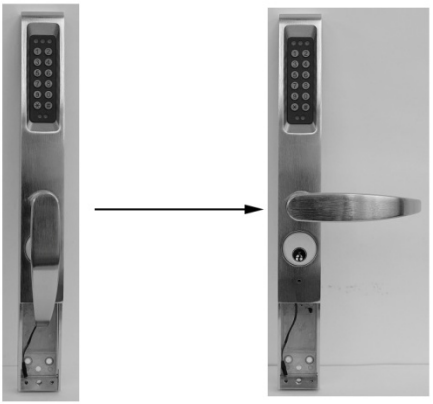


Figure 13

NOTE: The output hub, located on the back of the eForce 150, is shipped with a clockwise rotation as viewed from rear. In some instances, this rotation must be changed to match the device and/or hand of the door (see Table 1, “Handing Setup).

Table 1. Handing Setup

Device Type	Left Hand Reverse Rotation	Right Hand Reverse Rotation
SVR	Clockwise	Clockwise
Mortise Latch	Counter-Clockwise	Clockwise
CVR	Clockwise	Clockwise
RIM	Counter-Clockwise	Counter-Clockwise

NOTE 1: Hubs that have (+) shape are for use with deadlatches and exits only.

NOTE 2: Hubs that have (-) shape are for use with deadbolts only.

3. To change rotation and reconfigure the unit to the opposite rotation, INSERT a flat screwdriver into the output hub (see Figure 14) located on the back of the eForce 150, and TURN approximately 270° clockwise or counter-clockwise.

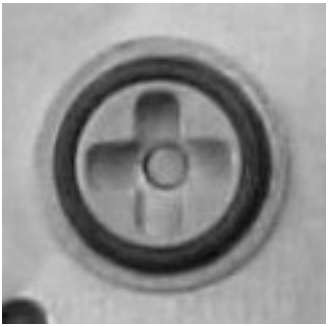


Figure 14

Installing the Mortise Cylinder

CAUTION
There are wires connecting the housing and back plate assembly. These must be handled with care to not cause damage. Over-tightening must also be avoided.

1. Using a Philips head screwdriver, REMOVE the eight (8) #10-32 x 5/8" screws on the back of the eForce 150 (see Figure 15), and gently LIFT the back plate off the housing.



Figure 15

2. INSTALL the cylinder into housing.
3. SECURE and FASTEN with supplied locking ring using locking ring spanner tool (see Figure 16).

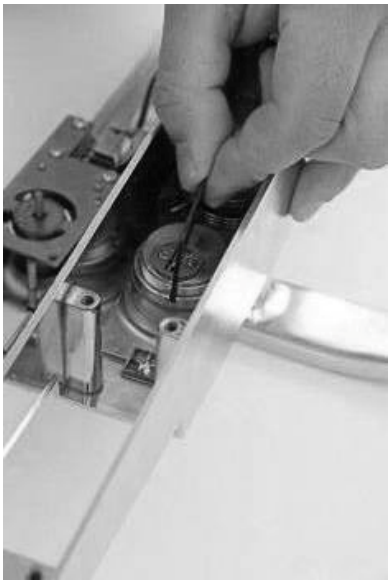


Figure 16

CAUTION
There are wires connecting the housing and back plate assembly. These must be handled with care to not cause damage. Over-tightening must be avoided. Additionally, a dummy cylinder cannot be used.

4. Gently PLACE back plate back on housing and SECURE with eight (8) #10-32 x 5/8" screws.

NOTE: Step 5 is an optional step to install a RSK-3090 Remote Switch Kt.

5. For applications that require a remote activation switch, PLUG the RSK-3090 into the board (see Figure 17).

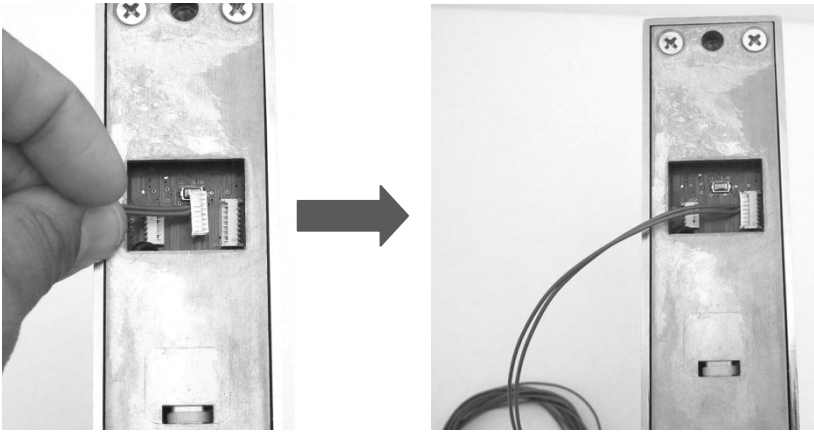


Figure 17

Mounting the eForce 150

1. INSERT the properly dimensioned spindle into the output hub.

NOTE: The eForce 150 must sit flush on the door surface.

2. MOUNT the eForce 150 onto mounting bracket and GUIDE the spindle into the cam plug (see Figures 18 and 19 [MS 1850 configuration shown]).



Figure 18

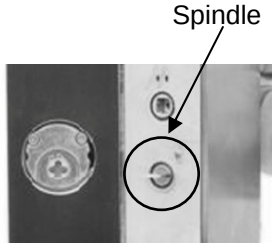


Figure 19

3. SECURE with two (2) #10-32 x 5/8” screws (see Figure 20).



Figure 20

Installing the eForce 150 Batteries

NOTE: Lithium batteries are suggested in climates reaching 20°F and below.

1. Properly INSERT four (4) Size AA Alkaline batteries into battery holder ensuring proper polarity.
2. PLUG the battery pack into the eForce 150 connector (see Figure 21).
3. INSERT the battery case into the eForce 150 (see Figure 22).

NOTE: A battery moisture shield is pre-installed at the factory to protect the batteries from the elements.

4. SLIDE battery cover over the inserted battery case.
5. INSERT the included 5/64” Allen key and TURN clockwise two full turns to secure the battery cover (see Figure 23).



Figure 21



Figure 22



Figure 23

SETTING UP AND USING THE eFORCE 150

General Information

The eForce 150 has the following features and requirements:

- A keypad (with numbers 0-9, *, and #) that is used for programming. In normal operating mode, the * key is used as the ENTER key after user code entry.
- Each key press flashes the yellow LED and sounds one tone. Audible and visual keypad feedback can be disabled (see programming instructions).
- Master and Emergency Codes must be reprogrammed from the factory pre-set codes before user codes may be entered. The factory preset Master and Emergency codes (1234 & 4321) cannot be revised back into the unit.
- All codes need to be entered twice for validation during programming. If the two entered codes do not match, the eForce 150 will exit programming mode and the previous code will remain active.
- Following a number of 5 successive invalid code entries, the red LED flashes once and a tone indicates that the eForce 150 will no longer accept further entries for 15 seconds. One tone per second sounds during this time. Refer to programming instruction to change default settings for successive invalid code entries and error lockout time.

Programming Information

1. PERFORM the following to enter the programming mode.
   a. PRESS and HOLD the # key until the yellow LED flashes three times.
   b. RELEASE the # key and the yellow LED will begin to flash continually.

   NOTE: At the end of each programming step ending with the # key (ENTER), the green LED will flash twice and the sounder will emit 2 tones to indicate that valid values were accepted.

   c. PROGRAM, as required.
   d. **WHEN** the end of the programming sequence is reached,
   THEN WAIT two (2) seconds for the device to time out and return to normal operating mode,
   OR PRESS the * key to exit programming mode.

Speed Mode

1. PERFORM the following to enter the speed mode.

   NOTE: The following step initiates the “speed programming mode,” eliminating the need to re-enter the Master or Supervisor code.

   a. At the end of a programming sequence, PRESS the # key within 2–4 seconds to program additional codes.

   NOTE: For the following steps, the red LED will flash and a tone will indicate that the programming mode has been exited.

   b. In programming mode, PRESS the * key at any time to exit this mode.
   c. WAIT 2 seconds before entering any code.

   NOTE 1: The programming mode will exit automatically if an invalid code is entered during programming (indicated by a red LED flash and a tone).

   NOTE 2: The eForce 150 will always return to the standard user mode after the programming mode is exited.

   d. **IF** the programming mode has exited,
   THEN PRESS the # key to reinitiate the programming mode.

User Code Descriptions

NOTE: In user mode, entries must be followed by the * key.

The following are the user code descriptions:

- **Master Code.** The default Master code setting (1234) must be changed before programming additional user codes. In addition to using this code to program Emergency and Supervisor codes, the Master code can be used to unlock the device. The code must be between 4 and 7 digits.
- **Emergency Code.** The default Emergency code setting (4321) must also be changed prior to programming the eForce 150 features and codes, though it is not used in programming the eForce 150. This code unlocks the device in all conditions, including a low battery condition or "blackout." It will open the eForce 150 for the preset time (10-second default). The code must be between 4 and 7 digits.
- **Supervisor Code.** The Supervisor code has no preset default, so it must be programmed by the user if needed. It is used to unlock the eForce 150, even under low battery conditions. It allows for programming every code except the Master code, and is also required to delete codes. Normal and One Time user codes (6-152) may be entirely deleted or partially deleted in a block. The Emergency, Lockout, and Passage codes may be singly deleted, rendering these functions completely non-operational (they will not return to default once deleted). The Supervisor code must be between 4 and 7 digits.
- **Lockout Code.** The Lockout code is used to restrict Normal User codes (6-152) from gaining access. Entry of Lockout Mode is indicated by a green LED flash and two tones, with a pause followed by two additional tones. Only the Master, Emergency, and Supervisor codes can override the Lockout code. Entering the Lockout code a second time will cancel the Lockout and allow access with Normal User codes. Exit of Lockout Mode is indicated by a green LED flash and two tones. The Lockout code must be between 4 and 7 digits.
- **Passage Code.** The Passage code is used to enable or disable the Passage mode. Entering the Passage code will cause the device to allow free ingress entry (Passage enabled is indicated by green LED flash and 3 tones). A second entry of the Passage code will return the eForce 150 to the Normal User Mode (exiting Passage Mode is indicated by green LED flash and 2 tones). The Passage Mode operates when the battery is low and can be overridden by the Lockout code. The code must be between 4 and 7 digits.

- **Normal User Codes.** Normal User codes are used to briefly unlock the device. A correct code entry is indicated by a green LED flashing once per second. An incorrect code entry is indicated by red LED flash and 3 tones. Up to 144 different Normal User codes may be programmed. These codes may not be programmed until after the default Master and Emergency codes have been reprogrammed. They must be between 2 and 7 digits.
- **One-Time User Codes.** One-Time user codes are used to unlock the device and are only valid for a single operation of the eForce 150. A correct code entry is indicated by a green LED flashing once per second. An incorrect code entry is indicated by red LED flash and 3 tones. Different One-Time user codes may be programmed into locations 151 and 152. These codes may not be programmed until after the default Master and Emergency codes have been reprogrammed. They must be between 2 and 7 digits. After a One-Time user code is used to operate the eForce 150, the same or a new code must be programmed into the eForce 150 using the Master or Supervisor codes.

Features and Options Descriptions

NOTE: Program Command Codes (PCC) are designated codes for programming and are always entered after the Master or Supervisor code during programming mode.

The following are the eForce 150 features and options:

- **Error Lockout.** The eForce 150 will stop accepting key presses after 3 successive invalid entries. Error Lockout is indicated by one red LED flash and 3 tones, followed by one tone per second for the duration of the Lockout time. The eForce 150 will not accept any key presses during this preset (PCC 34) time. The Error Lockout function overrides the horn disable function (PCC 31).
- **Low Battery Indicator.** When the battery voltage drops below 4.0 volts, the eForce 150 will emit 4 tones before allowing entry. If the battery voltage drops below 3.8 volts, the eForce 150 will enter blackout mode, indicated by 4 tones followed by 4 tones, and will not open. The eForce 150 will function for the Master, Emergency, and Supervisor codes only.
- **Piezo Sounder.** This will emit a tone with each keystroke and varying tones to indicate various conditions. The sounder can be disabled using the Master or Supervisor code (PCC31).

- **LED Indicator.** All 3 LED's can be disabled in User Mode by the Master or Supervisor code (PCC32), but will remain enabled in programming mode. Yellow indicates programming mode. Green indicates successful entry. Red indicates input error. The LED's will also flash to indicate various conditions.
- **Variable Re-lock time.** The duration that the eForce 150 remains unlocked can be adjusted (PCC 44) from 1 to 9 seconds. Default is 4 seconds.

Programming the User Codes

The eForce 150 can support 152 individual user codes. Each code is assigned a code location (1–152) in addition to a user name and the code's programmed digits. Program Command Code 51 is used for programming Master, Emergency, Supervisor, Lockout, Passage, Normal, and One Time User codes. The Master code is always code location number 1 and can be used to operate and program the eForce 150. A record log in included in this document to assign and log all codes before proceeding on to programming. The log should be stored in a secure location.

Master Code

1. PERFORM the following to program the Master Code (Location 1).

   NOTE: Yellow LED will blink continuously during programming.

   a. PRESS and HOLD # for approximately 5 seconds, and RELEASE when the yellow LED blinks.

   NOTE: After Step b, there will be green LED flash and 2 short tones.

   b. ENTER 1234#.

   NOTE: After Step c, there will be green LED flash and 2 short tones.

   c. ENTER 51#

   NOTE: After Step d, there will be green LED flash and 2 short tones.

   d. ENTER 1#

NOTE 1: Master Code must be 4–7 digits.

NOTE 2: After Step e, there will be green LED flash and 2 short tones.

e. ENTER new Master Code and then #.

NOTE: After Step f, there will be green LED flash and 2 short tones to indicate successful Master Code programming.

f. RE-ENTER new Master Code and then #.

2. PRESS # within 2 seconds to stay in programming mode, and then ENTER 51# to continue programming.

Reset Master Code

NOTE 1: If the Master Code is lost, the controller's Master and Emergency Codes may be reset to factory defaults (1234 and 4321 respectively).

NOTE 2: The eForce 150 must be removed from the door to reset the Master and Emergency Codes.

1. PERFORM the following to reset the Master Code (Location 1).

NOTE 1: Yellow LED blinks, and then green LED and red LED flash with a tone to indicate a successful reset. Following this step, the Master and Emergency Codes have been replaced with the factory default codes (1234 & 4321)

NOTE 2: All other codes will remain intact following this step. In order to accomplish any additional programming of features and codes, the Master and Emergency Codes must be changed from the defaults.

a. PRESS and HOLD both the Reset Button and #, and RELEASE when the yellow LED blinks.

Emergency Code

1. PERFORM the following to program the Emergency Code (Location 2).

NOTE: Yellow LED will blink continuously during programming.

a. PRESS and HOLD # for approximately 5 seconds, and RELEASE when the yellow LED blinks.

NOTE: After Step b, there will be green LED flash and 2 short tones.

b. ENTER new Master Code and then #.

NOTE: After Step c, there will be green LED flash and 2 short tones.

c. ENTER 51#

NOTE: After Step d, there will be green LED flash and 2 short tones.

d. ENTER 2#

NOTE 1: Emergency Code must be 4–7 digits.

NOTE 2: After Step e, there will be green LED flash and 2 short tones.

e. ENTER new Emergency Code and then #.

NOTE 1: After Step f, there will be green LED flash and 2 short tones to indicate successful Emergency Code programming.

NOTE 2: Emergency Code defaults to a 10-second unlock time [PCC 46#].

f. RE-ENTER new Emergency Code and then #.

2. PRESS # within 2 seconds to stay in programming mode, and then ENTER 51# to continue programming.

Supervisor Code

1. PERFORM the following to program the Supervisor Code (Location 3).

   NOTE: Yellow LED will blink continuously during programming.

   a. PRESS and HOLD # for approximately 5 seconds, and RELEASE when the yellow LED blinks.

   NOTE: After Step b, there will be green LED flash and 2 short tones.

   b. ENTER Master Code and then #.

   NOTE: After Step c, there will be green LED flash and 2 short tones.

   c. ENTER 51#

   NOTE: After Step d, there will be green LED flash and 2 short tones.

   d. ENTER 3#

NOTE 1: Supervisor Code must be 4–7 digits.

NOTE 2: After Step e, there will be green LED flash and 2 short tones.

e. ENTER new Supervisor Code and then #.

NOTE: After Step f, there will be green LED flash and 2 short tones to indicate successful Supervisor Code programming.

f. RE-ENTER new Supervisor Code and then #.

2. PRESS # within 2 seconds to stay in programming mode, and then ENTER 51# to continue programming.

Lockout Code

1. PERFORM the following to program the Lockout Code (Location 4).

NOTE: Yellow LED will blink continuously during programming.

a. PRESS and HOLD # for approximately 5 seconds, and RELEASE when the yellow LED blinks.

NOTE: After Step b, there will be green LED flash and 2 short tones.

b. ENTER Master Code or Supervisor Code and then #.

NOTE: After Step c, there will be green LED flash and 2 short tones.

c. ENTER 51#

NOTE: After Step d, there will be green LED flash and 2 short tones.

d. ENTER 4#

NOTE 1: Lockout Code must be 4–7 digits.

NOTE 2: After Step e, there will be green LED flash and 2 short tones.

e. ENTER new Lockout Code and then #.

NOTE: After Step f, there will be green LED flash and 2 short tones to indicate successful Supervisor Code programming.

f. RE-ENTER new Lockout Code and then #.

2. PRESS # within 2 seconds to stay in programming mode, and then ENTER 51# to continue programming.

Passage Code

1. PERFORM the following to program the Passage Code (Location 5).

   NOTE: Yellow LED will blink continuously during programming.

   a. PRESS and HOLD # for approximately 5 seconds, and RELEASE when the yellow LED blinks.

   NOTE: After Step b, there will be green LED flash and 2 short tones.

   b. ENTER Master Code or Supervisor Code and then #.

   NOTE: After Step c, there will be green LED flash and 2 short tones.

   c. ENTER 51#

   NOTE: After Step d, there will be green LED flash and 2 short tones.

   d. ENTER 5#

   NOTE 1: Passage Code must be 4–7 digits.

   NOTE 2: After Step e, there will be green LED flash and 2 short tones.

   e. ENTER new Passage Code and then #.

   NOTE: After Step f, there will be green LED flash and 2 short tones to indicate successful Supervisor Code programming.

   f. RE-ENTER new Passage Code and then #.
2. PRESS # within 2 seconds to stay in programming mode, and then ENTER 51# to continue programming.

Normal User Codes

1. PERFORM the following to program the Normal User Codes (Locations 6–150).

   NOTE: Yellow LED will blink continuously during programming.

   a. PRESS and HOLD # for approximately 5 seconds, and RELEASE when the yellow LED blinks.

   NOTE: After Step b, there will be green LED flash and 2 short tones.

   b. ENTER Master Code or Supervisor Code and then #.

NOTE: After Step c, there will be green LED flash and 2 short tones.

c. ENTER 51#

NOTE: After Step d, there will be green LED flash and 2 short tones.

d. ENTER 6# through 150#, as desired.

NOTE 1: Normal User Codes must be 2–7 digits.

NOTE 2: After Step e, there will be green LED flash and 2 short tones.

e. ENTER desired Code and then #.

NOTE: After Step f, there will be green LED flash and 2 short tones to indicate successful Supervisor Code programming.

f. RE-ENTER desired Code and then #.

2. PRESS # within 2 seconds to stay in programming mode, and then ENTER 51# to continue programming.

One Time User Codes

1. PERFORM the following to program the One Time User Codes (Locations 151–152).

NOTE: Yellow LED will blink continuously during programming.

a. PRESS and HOLD # for approximately 5 seconds, and RELEASE when the yellow LED blinks.

NOTE: After Step b, there will be green LED flash and 2 short tones.

b. ENTER Master Code or Supervisor Code and then #.

NOTE: After Step c, there will be green LED flash and 2 short tones.

c. ENTER 51#

NOTE: After Step d, there will be green LED flash and 2 short tones.

d. ENTER 151# or 152#, as desired.

NOTE 1: One Time User Codes must be 2–7 digits.

NOTE 2: After Step e, there will be green LED flash and 2 short tones.

e. ENTER desired Code and then #.

NOTE: After Step f, there will be green LED flash and 2 short tones to indicate successful Supervisor Code programming.

f. RE-ENTER desired Code and then #.

2. PRESS # within 2 seconds to stay in programming mode.

Programming Features and Options

NOTE: Completing the following programming section returns the eForce 150 to factory settings.

Delete All User Codes

1. PERFORM the following to delete All User Codes.

   NOTE: Yellow LED will blink continuously during programming.

   a. PRESS and HOLD # for approximately 5 seconds, and RELEASE when the yellow LED blinks.

   NOTE 1: After Step b, there will be green LED flash and 2 short tones.

   NOTE 2: Entering the Supervisor Code will delete User Codes 6–150 only.

   b. ENTER Master or Supervisor Code and then #.

   NOTE: After Step c, there will be green LED flash and 2 short tones.

   c. ENTER 60#.

   NOTE: After Step d, there will be green LED flash and 2 short tones to indicate successful programming, deletion of all User Codes, and return to factory default settings.

   d. RE-ENTER 60#.

Delete Supervisor, Lockout, Passage, or a Single Normal User Code

1. PERFORM the following to delete Supervisor, Lockout, Passage, or a Single Normal User Code.

   NOTE: Yellow LED will blink continuously during programming.

   a. PRESS and HOLD # for approximately 5 seconds, and RELEASE when the yellow LED blinks.

NOTE: After Step b, there will be green LED flash and 2 short tones.

b. ENTER Master Code and then #.

NOTE: After Step c, there will be green LED flash and 2 short tones.

c. ENTER 61#.

NOTE: After Step d, there will be green LED flash and 2 short tones to indicate successful programming.

d. ENTER desired code location and then #.

Delete a Block of Normal User Codes

1. PERFORM the following to delete a block of Normal User Codes.

   NOTE: Yellow LED will blink continuously during programming.

   a. PRESS and HOLD # for approximately 5 seconds, and RELEASE when the yellow LED blinks.

   NOTE 1: After Step b, there will be green LED flash and 2 short tones.

   NOTE 2: Master Code will delete locations 3–150.

   NOTE 3: Supervisor Code will delete locations 6–150.

   b. ENTER Master or Supervisor Code and then #.

   NOTE: After Step c, there will be green LED flash and 2 short tones.

   c. ENTER 62#.

   NOTE: After Step d, there will be green LED flash and 2 short tones.

   d. ENTER first location of the block to be deleted and then #.

   NOTE 1: After Step e, there will be green LED flash and 2 short tones to indicate successful programming.

   e. ENTER last location of the block to be deleted and then #.
2. PRESS # within 2 seconds to stay in programming mode.

NOTE: Completing the following programming section does not include resetting User Codes.

Reset All Features to Default Values

1. PERFORM the following to reset all features to factory default values.

   NOTE: Yellow LED will blink continuously during programming.

   a. PRESS and HOLD # for approximately 5 seconds, and RELEASE when the yellow LED blinks.

   NOTE: After Step b, there will be green LED flash and 2 short tones.

   b. ENTER Master or Supervisor Code and then #.

   NOTE: After Step c, there will be green LED flash and 2 short tones.

   c. ENTER 72#.

   NOTE: After Step d, there will be green LED flash and 2 short tones to indicate successful programming.

   d. RE-ENTER 72#.
2. PRESS # within 2 seconds to stay in programming mode.

Set Audible Keypad Feedback

1. PERFORM the following to set audible keypad feedback.

   NOTE: Yellow LED will blink continuously during programming.

   a. PRESS and HOLD # for approximately 5 seconds, and RELEASE when the yellow LED blinks.

   NOTE: After Step b, there will be green LED flash and 2 short tones.

   b. ENTER Master or Supervisor Code and then #.

   NOTE: After Step c, there will be green LED flash and 2 short tones.

   c. ENTER 31#.

   NOTE: After Step d, there will be green LED flash and 2 short tones to indicate successful programming.

   d. ENTER either 1# (for enable) or 0# (for disable).
2. PRESS # within 2 seconds to stay in programming mode.

NOTE: When completing the following programming section, the default is “Enabled.”

Set Visual Keypad Feedback

1. PERFORM the following to set visual keypad feedback.

   NOTE: Yellow LED will blink continuously during programming.

   a. PRESS and HOLD # for approximately 5 seconds, and RELEASE when the yellow LED blinks.

   NOTE: After Step b, there will be green LED flash and 2 short tones.

   b. ENTER Master or Supervisor Code and then #.

   NOTE: After Step c, there will be green LED flash and 2 short tones.

   c. ENTER 32#.

   NOTE: After Step d, there will be green LED flash and 2 short tones to indicate successful programming.

   d. ENTER either 1# (for enable) or 0# (for disable).
2. PRESS # within 2 seconds to stay in programming mode.

NOTE: When completing the following programming section, the number set can be between 1 and 255 attempts. The default is 5.

Set Number of Successive Invalid User Code Entries Accepted

1. PERFORM the following to set the number of successive invalid user code entries accepted.

   NOTE: Yellow LED will blink continuously during programming.

   a. PRESS and HOLD # for approximately 5 seconds, and RELEASE when the yellow LED blinks.

   NOTE: After Step b, there will be green LED flash and 2 short tones.

   b. ENTER Master or Supervisor Code and then #.

   NOTE: After Step c, there will be green LED flash and 2 short tones.

   c. ENTER 33#.

NOTE: After Step d, there will be green LED flash and 2 short tones to indicate successful programming.

d. ENTER 1–255 and then #.

2. PRESS # within 2 seconds to stay in programming mode.

NOTE: For the following section, Error Lockout Time is the amount of time the user is unable to use the keypad following successive invalid attempts. This number can be between 1 and 255 seconds. The default is 15 seconds.

Set Error Lockout Time

1. PERFORM the following to set the Error Lockout Time.

   NOTE: Yellow LED will blink continuously during programming.

   a. PRESS and HOLD # for approximately 5 seconds, and RELEASE when the yellow LED blinks.

   NOTE: After Step b, there will be green LED flash and 2 short tones.

   b. ENTER Master or Supervisor Code and then #.

   NOTE: After Step c, there will be green LED flash and 2 short tones.

   c. ENTER 34#.

   NOTE: After Step d, there will be green LED flash and 2 short tones to indicate successful programming.

   d. ENTER 1–255 and then #.

2. PRESS # within 2 seconds to stay in programming mode.

NOTE: For the following section, Hold-Open (Unlock) Time is the amount of time the eForce 150 will remain unlocked following a successful User Code entry. This number can be between 1 and 9 seconds. The default is 5 seconds.

Set Hold-Open (Unlock) Time

1. PERFORM the following to set the Hold-Open (Unlock) Time.

   NOTE: Yellow LED will blink continuously during programming.

   a. PRESS and HOLD # for approximately 5 seconds, and RELEASE when the yellow LED blinks.

   NOTE: After Step b, there will be green LED flash and 2 short tones.

   b. ENTER Master or Supervisor Code and then #.

NOTE: After Step c, there will be green LED flash and 2 short tones.

c. ENTER 44#.

NOTE: After Step d, there will be green LED flash and 2 short tones to indicate successful programming.

d. ENTER 1–9 and then #.

2. PRESS # within 2 seconds to stay in programming mode.

NOTE: This number can be between 1 and 9 seconds. The default is 5 seconds.

Set Emergency Hold-Open (Unlock) Time

3. PERFORM the following to set the Emergency Hold-Open (Unlock) Time.

NOTE: Yellow LED will blink continuously during programming.

a. PRESS and HOLD # for approximately 5 seconds, and RELEASE when the yellow LED blinks.

NOTE: After Step b, there will be green LED flash and 2 short tones.

b. ENTER Master or Supervisor Code and then #.

NOTE: After Step c, there will be green LED flash and 2 short tones.

c. ENTER 46#.

NOTE: After Step d, there will be green LED flash and 2 short tones to indicate successful programming.

d. ENTER 1–9 and then #.

4. PRESS # within 2 seconds to stay in programming mode.

Replacing the eForce 150 Batteries

The eForce 150 goes into blackout mode when the voltage drops to 3.8V. If this happens, users 6-152 will be locked out. Only Master, Emergency, and Supervisor Codes will allow access in this mode. No codes are lost during low power conditions, blackout, or battery replacement, as they are stored in non-volatile memory.

1. INSERT key into the cylinder and TURN key 180 degrees clockwise to release blocking plate.

CAUTION

Once loose, the battery cover is free to slide down and can fall. Be careful to support the battery cover with free hand.

2. INSERT the included 5/64” Allen key (included) and LOOSEN the screw to allow removal of the battery cover.
3. REPLACE the four (4) Size AA Alkaline batteries in the battery holder ensuring proper polarity.
4. PLUG the battery pack into the eForce 150 connector (see Figure 24).
5. INSERT the battery case into the eForce 150 (see Figure 25).

NOTE: A battery moisture shield is pre-installed at the factory to protect the batteries from the elements.

6. SLIDE battery cover over the inserted battery case.
7. INSERT the Allen key and TURN clockwise two full turns to secure the battery cover (see Figure 26).



Figure 24



Figure 25



Figure 26

8. REMOVE the Allen key.
9. TURN key into the neutral position and REMOVE key from the cylinder.
10. ENTER a known user code to ensure the eForce 150 is functioning correctly.
11. REFER to Troubleshooting section if eForce 150 does not function properly.

Replacing the Mortise Cylinder

1. INSERT key into the cylinder and TURN key 180 degrees clockwise to release blocking plate.

CAUTION

Once loose, the battery cover is free to slide down and can fall. Be careful to support the battery cover with free hand.

2. INSERT the included 5/64" Allen key (included) and LOOSEN the screw to allow removal of the battery cover (see Figure 27).



Figure 27

3. REMOVE the battery cover, DISCONNECT the battery holder (see Figure 28), and SET both aside.



Figure 28

4. REMOVE the two (2) #10-32 x 5/8 screws from the inside bottom of trim (see Figure 29).

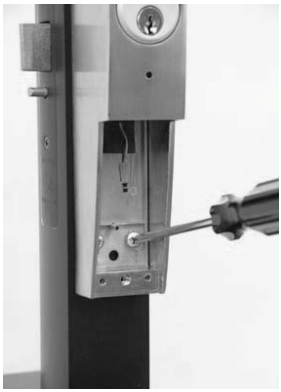


Figure 29

5. LIFT eForce 150 off mounting bracket, being careful not to lose spindle located in the spindle output on the back of the unit.

CAUTION

There are wires attached to the housing and back plate. Be careful not to damage wiring.

6. Using a Phillips head screwdriver, REMOVE the eight (8) #10-32 x 5/8 screws on the back of the eForce 150 and gently LIFT the back plate off the housing (see Figure 30).



Figure 30

NOTE: Do not use Dummy Cylinder!

7. REMOVE the cylinder with Locking Ring Tool (P/N 22-0594), REPLACE with new cylinder, and SECURE the new cylinder with locking ring (see Figure 31).

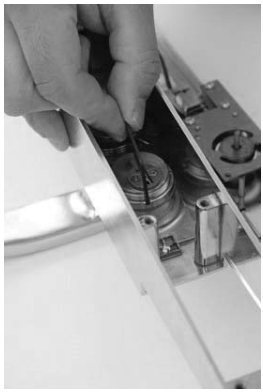


Figure 31

8. Gently PLACE back plate back on housing, and SECURE with the eight (8) #10-32 x 5/8 screws.
9. PLACE eForce 150 back on mounting bracket and GUIDE spindle into cam plug (see Figure 32).



Figure 32

10. ENSURE back surface of trim is flush with door stile surface, and then SECURE with two (2) #10-32 x 5/8 screws through the inside bottom of trim.

11. PLUG the battery pack into the eForce 150 connector (see Figure 33).



Figure 33

12. INSERT the battery case into the eForce 150.
13. SLIDE battery cover over the inserted battery case (see Figure 34).



Figure 34

14. INSERT the Allen key and TURN clockwise two full turns to secure the battery cover (see Figure 35).



Figure 35

15. REMOVE the Allen key.
16. TURN key into the neutral position and REMOVE key from the cylinder.
17. ENTER a known user code to ensure the eForce 150 is functioning correctly.
18. REFER to Troubleshooting section if eForce 150 does not function properly.

TROUBLESHOOTING

Green light comes on, but lever will not retract latch-bolt.

1. CHECK the eForce 150 body connection with lock/latch mechanism.
2. CHECK the cylinder tailpiece length (see installation instructions).
3. CHECK for proper door preparation (refer to door templates).

No lights come on when pushbuttons are depressed.

1. ENSURE Visual Keypad Feedback is set to Enable (PCC32).
2. CHECK battery installation.
3. CHECK 6-Volt battery.
4. CHECK keypad terminal connection.

No tones sound when pushbuttons are depressed.

1. ENSURE Audible Keypad Feedback is set to Enable (PCC 31).
2. CHECK battery installation.
3. CHECK 6-Volt battery.
4. CHECK keypad terminal connection.

Factory default codes not working.

1. DELETE all users and REPROGRAM default codes.

User codes not working.

1. ENSURE Lockout Code has not been entered.
2. CHECK battery power (operator may be in blackout mode). SEE “Replacing the eForce 150 Batteries” section.
3. CHECK eForce 150 body connection.

Operator stays unlocked.

1. ENSURE Passage Code has not been entered.
2. CHECK cylinder tailpiece length (see installation instructions).
3. CHECK eForce 150 body connection.

WARRANTY

For warranty information:
http://www.adamsrite.com/site/adamsritecom/About/Warranty

eFORCE 150 USER LOG

Installation Date	Door Description

Location	User Name	Code	Notes
1			
2			
3			
4			
5			
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7			
8			
9			
10			
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eFORCE 150 USER LOG

Installation Date		Door Description	
Location	**User Name**	**Code**	**Notes**
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eFORCE 150 USER LOG

Installation Date	Door Description

Location	User Name	Code	Notes
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eFORCE 150 USER LOG

Installation Date		Door Description	
Location	**User Name**	**Code**	**Notes**
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eFORCE 150 USER LOG

Installation Date		Door Description	
Location	**User Name**	**Code**	**Notes**
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