

eForce-150 Keyless Entry

Installation instructions Model 3090



ASSA ABLOY

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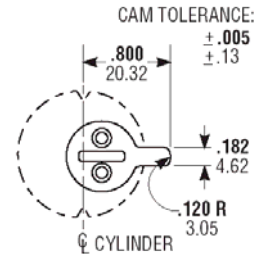
IMPORTANT NOTE: The 3090-01 is designed exclusively for latching hardware including: 4500/4900 Deadlatches and 8000 Series Exit Devices. The 3090-02 is compatible with MS® Series Deadbolts only! These units are not interchangeable! These instructions, and the fasteners supplied, apply to metal door applications. Other door types will need fasteners designed for the given medium.

TOOLS NEEDED:

Common hand tools such as center punch, drill gun, 1/4" drill bit, Phillips screwdriver, pliers, flat tip screwdriver, pencil.

ADDITIONAL EQUIPMENT NEEDED:

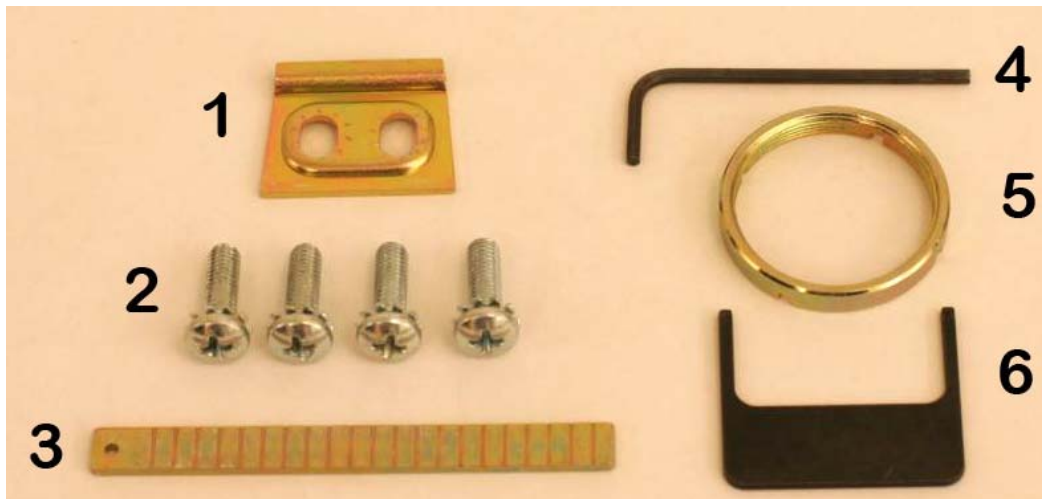
Mortise Cylinder - 1" to 1½" in length range with MS cam
(Note: 1½" cylinders require a 1/8" trim ring).



SUPPLIED PARTS:

Item	Description	Qty.
1	Mounting Bracket (Part # 22-9076)	1
2	#10-32 X 5/8" Phillips Pan Head Screws w/ Lockwasher	4
3	Spindle	1
4	5/64" Allen Key	1
5	Cylinder Locking Ring	1
6	Locking Ring Spanner Tool	1

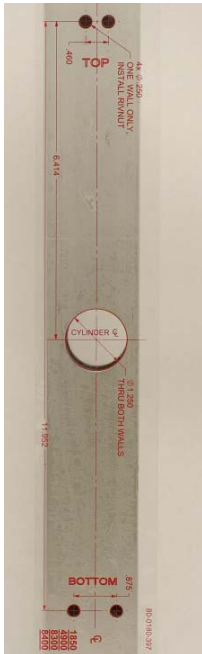
Note: A cam plug is supplied for either the 3090-01 latch or 3090-02 lock.



**THIS PRODUCT MUST BE INSTALLED
ACCORDING TO ALL APPLICABLE
BUILDING AND LIFE SAFETY CODES**

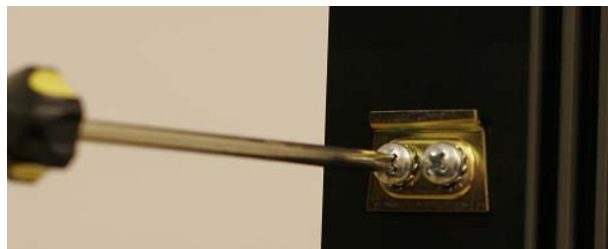
STEP 1. DOOR PREPARATION

(Fig. 1)



- Select the stick-on template to match the application.
- Mark the backset and horizontal centerlines.
- Apply clear template over the centerline marks (Fig. 1)
- Center-punch 4 referenced mounting holes and remove template.
- Drill holes at center-punch locations using a 1/4" drill bit.
- Install Rivnuts. Refer to instructions supplied in Rivnut kit.
- Install mounting bracket (Item 1) with 2 each of #10-32 x 5/8" (Item 2) pan head screws. (Fig. 2)

(Fig. 2)



STEP 2. SPINDLE PREPARATION (For 1-3/4" doors)

For MS1850 Deadbolts, 4500/4900 Deadlatches, & 8000 Series Mortise Exit Devices, snap-off spindle at third notch as shown in Fig. 3. For 2" thick door add one notch.



Fig. 3

For 8600 Concealed Vertical Rod Exit Devices snap-off spindle at fourth notch as shown in Fig.4. For 2" thick doors add two notches.

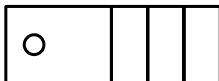


Fig. 4

For 8000 Series Surface Vertical Rod & Rim Exit Devices, snap-off spindle at sixteenth notch as shown in Fig. 5. For 2" thick doors add two notches.



Fig. 5

STEP 3. Configure For Lock Series

Mortise Latch Application – 3090-01 for 4500/4900 (including 8300/8400 Exit Devices)

Configure the supplied cam plug to match the hand of door and insert into latch case with notch on the cam plug aligned with latch case setscrew. Tighten setscrew and secure with the two brass cam plug screws.



Left Hand Reverse – LHR

Fig. 6



Right Hand Reverse – RHR

Fig. 7



CVR Exit Device Application – 3090-01 for 8500/8600

Install Tailpiece adaptor on shaft of the vertical rod and fasten with Phillips screw as shown in (Fig. 8).

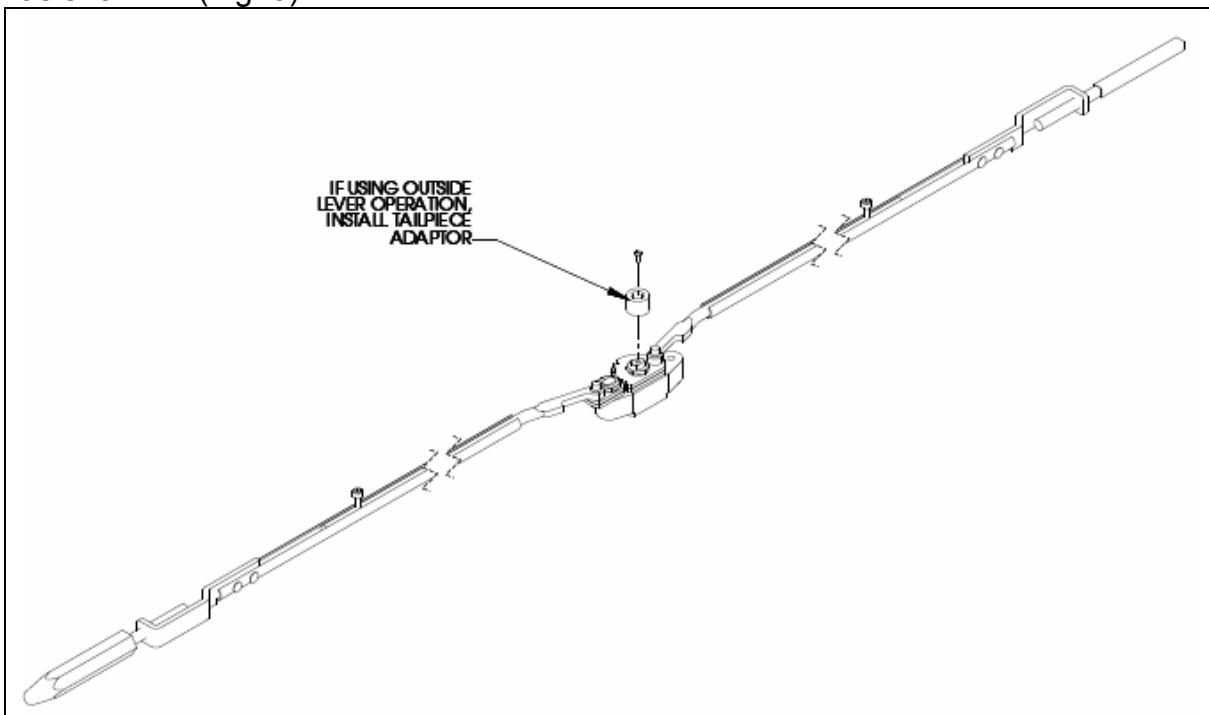


Fig. 8

RIM Exit Device Application – 3090-01 for 8700/8800



- 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. (Fig. 9).

Cylinder Actuator screw

Fig. 9

MS 1850 Application – 3090-02 for MS® Series Deadbolt



- Two brass hex head screws and the set screw from the MS1850 will fasten the cam plug to the MS1850. (Fig. 10)
- For MS Deadbolt, insert Cam Plug into lock case with notch on the cam pug aligned with lock case setscrew.
- Tighten setscrew and secure with the two brass cam plug screws (Item 8). Cam Plug must be positioned below door surface.

Fig. 10

STEP 4. HANDING THE eForce-150



- The eForce-150 is shipped in a non-handed neutral position with the battery cover off as shown.
- To hand the eForce-150, rotate the handle into the desired position until two detent clicks are completed.

Proceed to step 5 if installing the 3090-02!

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 (refer to chart). To change rotation, insert a flat screwdriver into the output hub (Fig. 11) located on the back of the eForce-50 and turn approximately 270° Clockwise or Counter-Clockwise. This will reconfigure the unit to the opposite rotation.



Fig. 11

HANDING SETUP CHART		
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

STEP 5. MORTISE CYLINDER INSTALLATION



Fig. 12

- Using a Philips Head Screwdriver, remove the (8) #10-32 x 5/8" screws on the back of the eForce-150 and gently lift the back plate off the housing.

Caution! There are wires connecting the housing and back plate assembly. Handle with care.



Fig. 13

- Install Cylinder into housing. Secure and fasten with supplied locking ring using locking ring spanner tool (Fig. 13).
- Gently place back plate back on housing and secure with (8) #10-32 x 5/8" screws.

Mounting the eForce 150



Fig. 14

- Insert the properly dimensioned spindle into the output hub.
- Mount eForce-150 onto mounting bracket and guide spindle into Cam Plug (MS 1850 configuration shown) (Fig. 14)
- The eForce-150 must sit flush on the door surface.

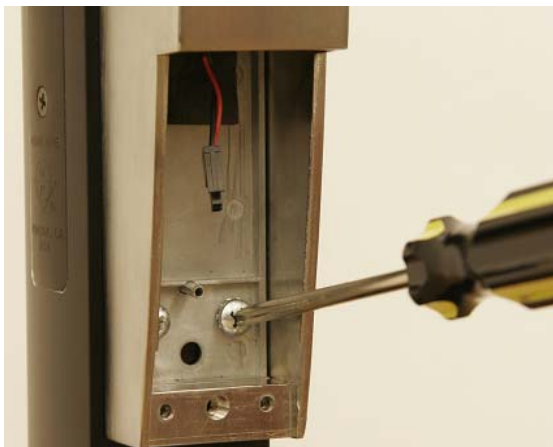


Fig. 15

- Secure with two #10-32 x 5/8" screws as shown in (Fig. 15)

Battery installation eForce 150



Fig. 16

- Properly insert 4 (AA) Alkaline batteries into battery holder observing the polarity markings.
- Plug battery pack into eForce-150 connector (Fig. 16).
- Lithium batteries are suggested in climates reaching 20°F and below.



Fig. 17

- Insert battery case into the e-Force as shown (Fig 17).
- Slide battery cover over the batteries.
- A battery moisture shield is preinstalled at the factory to protect the batteries from the elements.



Fig. 18

- Insert 5/64" Allen key (included) and turn counter-clockwise two full turns to secure the battery cover. (Fig. 18).