

Instruction Manual

AXION SERIES - ELECTRIC STRIKE

MODEL EN 430/435



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PARTS LIST

Index No.	Name	Part Number
1	Latch	EN-430/435-LCH
2	Slider	EN-430/435-SLR
3	Coil Assembly (12 V)	EN-CA-12AC
	Coil Assembly (24 V)	EN-CA-24AC
		EN-CA-12DC
		EN-CA-24DC
4	Screw 4-40 x 1/8 (Cover)	EN-SCR.1/8
5	Frame Cover	EN-FR.C
6	Screw 4-40 x 1/4 (Coil)	EN-SCR.1/4
7	Frame	EN-F430, F435 (Specify LH or RH)
8	Assembly Pin*	EN-ASS.PN
9	Spring	EN-SPR
10	Latch Pivot Shaft	EN-LCH-PV-ST
11	Guard	EN-GRD
12	Face Plate	EN-430FACE, 435FACE
13	Mounting Screws (2) 12-24-1/2"	EN-MTS
14	Shim Kit (4) 1/16" Shim	EN-UNV-SHIM
15	Shim Screws (2) 6-32-1/4"	EN-SHIM-SCR-S
16	Shim Screws (2) 6-32-3/8"	EN-SHIM-SCR-L



NOTE: Number in parenthesis () indicates part in Parts List.

UL LISTED – 10B fire rated (class A, 3-hour, Single Swing Doors)

UL LISTED – 1034 Burglary Resistant Locking Mechanism for Indoor or Outdoor Use

ANSI/BHMA A156.5-1992 – 4-7/8" X 1-1/4" Fits Cutout Specification A115.1 (with Slight Jamb Modification)

BHMA – Grade1

NYC MEA 79-01-E

NOTE: UL 10B fire listing is void when using fail safe action.

* NOT PART OF ASSEMBLY. USED ONLY DURING DISASSEMBLY OR REPAIR.
 ** UNLESS OTHERWISE SPECIFIED, FRAME IS SUPPLIED AS SATIN STAINLESS STEEL - US32D. SPECIFY OTHER FINISHES AS FOLLOWS: BRIGHT BRASS - US3; SATIN BRASS - US4; DARK BRONZE - 10B; BRIGHT CHROME -US26.

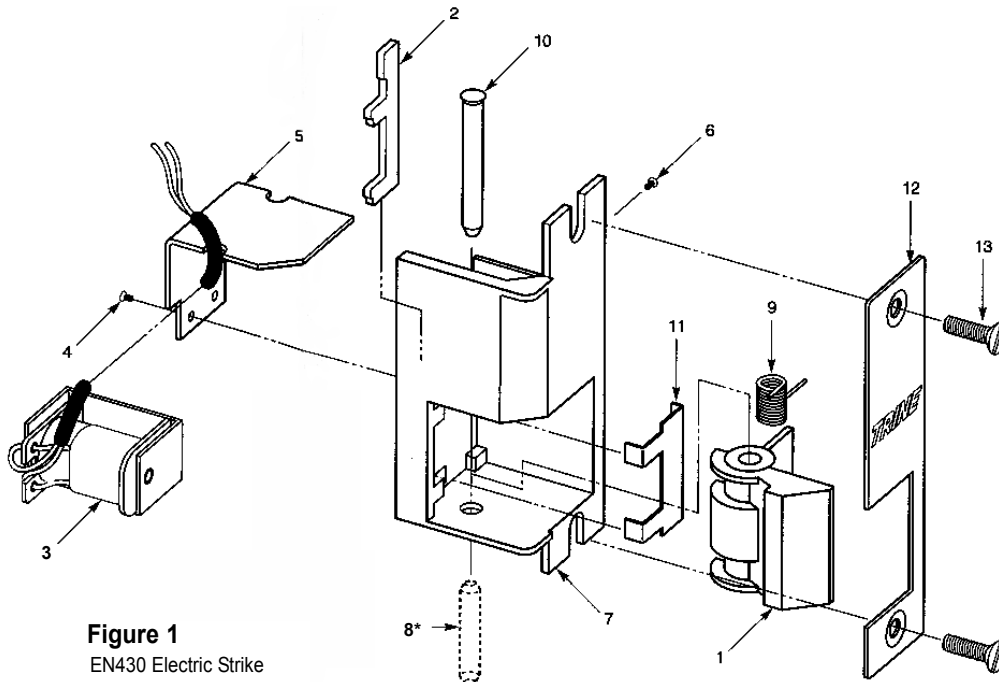
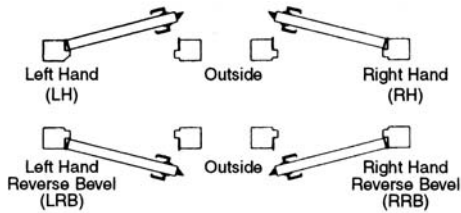


Figure 1
 EN430 Electric Strike

HANDING DETERMINATION

The handing of a door is determined by the position of the hinges, as viewed from the outside of the room, building, office, etc. If the door hinges are on the left, the door is termed left-handed; if the door hinges are on the right, the door is termed right-handed. In addition, a door is either inswinging (opens into the room), or outswinging (opens to the outside of the room), as illustrated in Figure 2.



HAND OF DOOR IS ALWAYS DETERMINED FROM THE OUTSIDE

Figure 2. Door Handing Positions

NOTE

The EN430 and 435 are available in either LH (Left-handed) or RH (Right-handed). This needs to be specified when ordering.

The position of the Electric Strike within the door jamb will be the same for a right-handed inswinging door and a left-handed outswinging door. For these installations, the Electric Strike position within the door jamb will be as viewed in Figure 3.

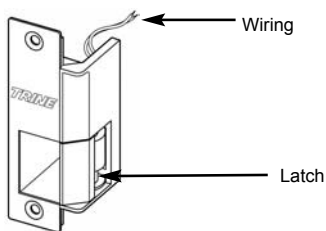


Figure 3. Position of Electric Strike for Right Handed Door.

In a similar manner, the position of the Electric Strike within the door jamb will be the same for a left-handed inswinging door and a right-handed outswinging door. For these installations, the Electric Strike position within the door jamb will be as viewed in Figure 4.

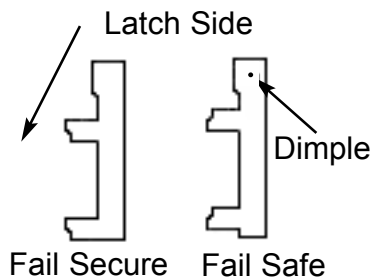
Figure 4. Position of Electric Strike for Left Handed Door



ACTION (FAIL SECURE OR FAIL SAFE)

The standard action is fail secure and is field changeable to fail safe when replaced with special order part EN-SLR-RS. When using the fail safe Slider, a DC Coil must be used.

The fail safe Slider is identified by the small dimple below the welded tip.



CHANGING THE ACTION

1. Place Electric Strike face down and, from back of assembly, remove Screw (4) from Frame Cover (5). Remove Frame Cover from Electric Strike.
2. On side of Electric Strike, remove Screw (6), which holds Coil Assembly (3) to Frame (7).
3. Remove Coil Assembly from Electric Strike.

NOTE

The Latch (1) is removed in the following step. Assembly Pin (8) is pushed through Latch to keep Spring (9) in place. If Assembly Pin is not available, use care when removing Latch Pivot Shaft (10) to keep Spring within Latch. If Spring comes out of Latch, reinstall Spring as shown in Figure 5.

The four EN latch shims provide cavity width adjustment in 1/16" increments.

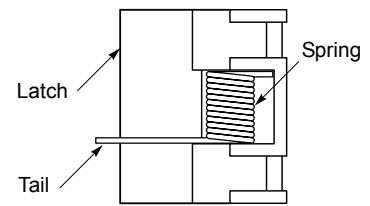


Figure 5.

Correct orientation of Latch Spring

Place Electric Strike on a flat surface with front of frame (7) facing up and insert Assembly Pin (8) into Latch to push out Latch Pivot Shaft (10). Remove Latch (1) containing Assembly Pin.

From top of frame remove Slider (2) from beneath Guard (11). Figure 6A. Take replacement fail safe Slider and insert through top opening with welded tip in upright position. Make sure the Slider rests on the bottom of the cavity. Figure 6B.

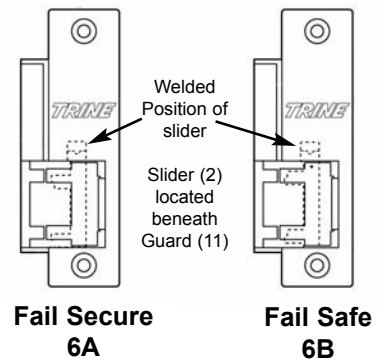


Figure 6.

Slider and Guard Positions

Hold Latch by satin side and roll into frame cavity with back end and exposed tip of Spring at the bottom of the cavity. Insert tail end of Spring into hole on the side of frame while replacing latch.

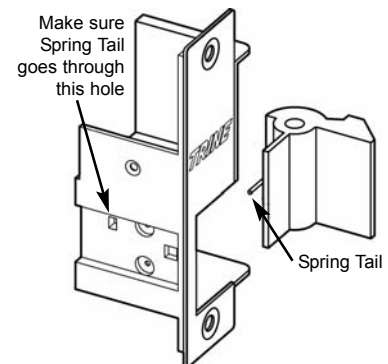
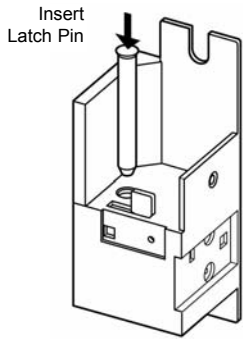
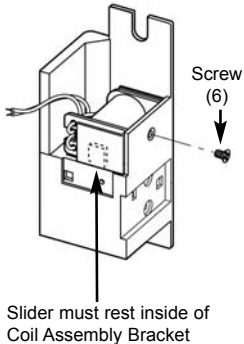


Figure 7.



Take Latch Pivot Shaft with crown end in upright position and insert through shaft hole at the top of the frame. This will push the Assembly Pin out through bottom hole.

Figure 8.



Check Slider action. Make sure Slider is free to move up and down with no resistance.

Before replacing cover, make sure the unit operates properly by testing with appropriate voltage. NOTE: Do not attempt to lubricate Electric Strike!!!

Place Strike face down and attach the cover over the Coil with wire leads seated through the notched hole.

Figure 9.

INSTALLATION PROCEDURE

For new or replacement installation:

1. Verify that voltage rating of Electric Strike is compatible with voltage supply at installation. Coil assemblies are wire lead color coded for voltage as shown:

WIRE LEAD	CODE/STRIPE
12AC	Blue/Orange Stripe
12DC	2 Orange Stripe
24AC	Blue/Black Stripe
24DC	2 Black Stripe

2. Using dimensions of template supplied with Electric Strike, mark door frame for cutout and screw holes.

3. Prepare door jamb (cut out frame if required) for Electric Strike. Leave sufficient wire length or splicing between power wiring and Electric Strike wire leads.

4. If required, run new wiring to door frame mounting hole. See Figure 10 for typical wiring installations. Refer to wiring chart below for correct wire size. (Total wiring length includes routing to door-release push button.)

NOTE

For DC operation, to obtain an audible signal when Electric Strike is energized, install buzzer type BZ-12 for 12 VDC operation, or BZ-24 for 24 VDC operation (purchased separately), as illustrated in Figure 10. DC buzzer must be wired in parallel.

5. Splice Electric Strike wiring to power wiring and secure with wire nuts supplied.

6. Install Electric Strike into door jamb and secure with Screws supplied into the Strike Face Plate..

7. Verify that door operates correctly when Electric Strike is energized and not energized.

NOTE

1. Rectifier can be located either between transformer and push button or between push button and Electric Strike.

2. Use a current-regulating rectifier (CR-1) for converting AC voltage at the transformer secondary to DC for operating a DC Electric Strike.

3. AC units should not be operated at continuous duty.

4. Improperly installed or misused units are not covered by manufacturer's warranty.

5. In UL listed systems, a UL listed burglar alarm power supply and annunciator of compatible rating should be employed.

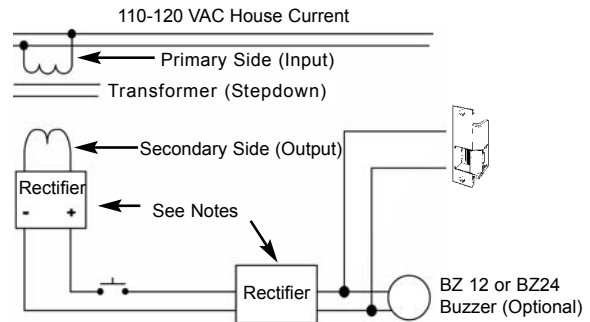


Figure 10.

Typical Electric Strike Wiring

ELECTRICAL CHARACTERISTICS CHART

FAIL SECURE(Intermittent Duty) NORMALLY LOCKED

VOLTAGE	CURRENT/AMPS	OHMS	SOUND	DUTY
12 VAC	.70	4.5	Buzz	Intm
24 VAC	.37	18.0	Buzz	Intm
12 VDC	.28	43.0	Silent	Intm/Cont
24 VDC	.15	64.0	Silent	Intm/Cont

TOTAL WIRING LENGTH TO TRANSFORMER

	12V	24V
Up to 50 ft	18 AWG	20 AWG
50 to 150 ft	16 AWG	18 AWG
150 to 300 ft	14 AWG	16 AWG
300 to 600 ft	12 AWG	14 AWG



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TROUBLESHOOTING

Possible Trouble	Probable Cause	Suggested Remedy
Door lockset is not secured by Electric Strike	1. Centerline of lockset not properly aligned to centerline of Electric Strike.	Check for proper cutout installation of Electric Strike by referring to template and door frame and lockset position.
	2. Latch does not project properly into cavity of Electric Strike.	Check for excessive gap between door and jamb. Check that lockset is compatible with EN series cavity and requirements. If necessary, use other type of lockset or Electric Strike (refer to Trine Catalog for more information).
	3. Latch Spring broken or missing.	Hold Electric Strike so that wiring faces down and apply pressure to Latch. Verify that Latch releases and that there is sufficient Spring tension to push it to closed position when released. If Latch does not have Spring tension, disassemble Electric Strike and inspect for improperly installed or broken Spring.
Electric Strike does not energize	1. Wiring to Electric Strike open or shorted.	Check that electrical connections are secure and that no fraying has occurred during installation. Use voltmeter to verify that Electric Strike is receiving energizing voltage and that wiring is not shorted.
	2. Insufficient voltage to Electric Strike.	Verify that voltage rating on Electric Strike label is compatible with voltage from secondary transformer (12V or 24V). If voltages do not match, either replace transformer or change Electric Strike or Coil Assembly. Use voltmeter to verify that Electric Strike is receiving proper voltage and that wiring is not shorted. If voltage is too low because wire size is too small for length or wiring to Electric Strike (see wiring-length data on previous page), either replace wiring or use transformer with higher VA rating.
	3. Slider does not move when Coil receives proper voltage.	Using an OHM meter, verify that resistance of the Coils matches the chart on page 3. If Coil is open (burned out), verify that transformer for Electric Strike has correct voltage current AC/DC and is wired correctly. AC Coils do not operate at continuous duty, or on DC voltage. Check that Slider (2) floats freely, as follows: Remove Electric Strike from jamb and hold with wires facing up. Test that Strike is locked by applying pressure to Latch. Then turn Strike upside down with wires facing down and verify that Latch opens freely by applying pressure. The locking Slider (#2) must float freely for unit to operate properly.
Electric Strike energizes but does not disengage lockset	1. Lockset is applying pressure to Electric Strike, preventing Latch from releasing.	Check for proper cutout installation of Electric Strike. Latch requires proper clearance to open correctly and provide path for Lockset Latch to engage Strike. Check that Lockset Latch is not binding to bottom of Strike cavity due to door sag. Check if foam insulation or the materials around door jamb are preventing door from closing flush, causing door to put pressure on Latch.