

ADAMS RITE MANUFACTURING COMPANY
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3700EL/8700EL/8800EL RIM Exit Devices ELECTRIC LATCH RETRACTION --- INSTALLATION INSTRUCTIONS

SAFETY INSTRUCTIONS

This device is limited in its applications, interface only with components that are equally rated to this device. Failure to observe and adhere to operating limits detailed in these instructions void its warranty and Adams Rites responsibility. Care must be taken to ensure no shorts are across power feed wires to power transfer and electric latch retraction exit device.

FUNCTION

This EL features is available on all 3000/8000 series exit devices and provides for electrical latch retraction of the device from a remote location. The exit device is fail secure. In the event of a power failure the exit device defaults to the locked position. The device is rated for both continuous and intermittent operation.

SOLENOID SPECIFICATIONS

	EL--12	EL--24
VOLTAGE	12 VDC CONT. DUTY*	24 VDC CONT. DUTY*
CURRENT	1.5 AMPS INRUSH/HOLD	.6 AMPS INRUSH/HOLD
COIL RESISTANCE	8 Ohms	40 Ohms

* The solenoid is rated for both intermittent and continuous operation.

MOUNTING INFORMATION

This device is mounted in the standard manner per the specific exit device installation instructions. Ensure that the device functions mechanically prior to operating electrically.

A 3/8" diameter hole on the door must be drilled at the time of installation for wiring access. Refer to Fig. 2. The wire must be protected from abrasion where they pass through the hole in the door. A rubber grommet (not supplied) is sufficient.

"PRODUCT MUST BE INSTALLED ACCORDING TO ALL APPLICABLE BUILDING AND LIFE SAFETY CODES"
INSTALLATION HOOKUP

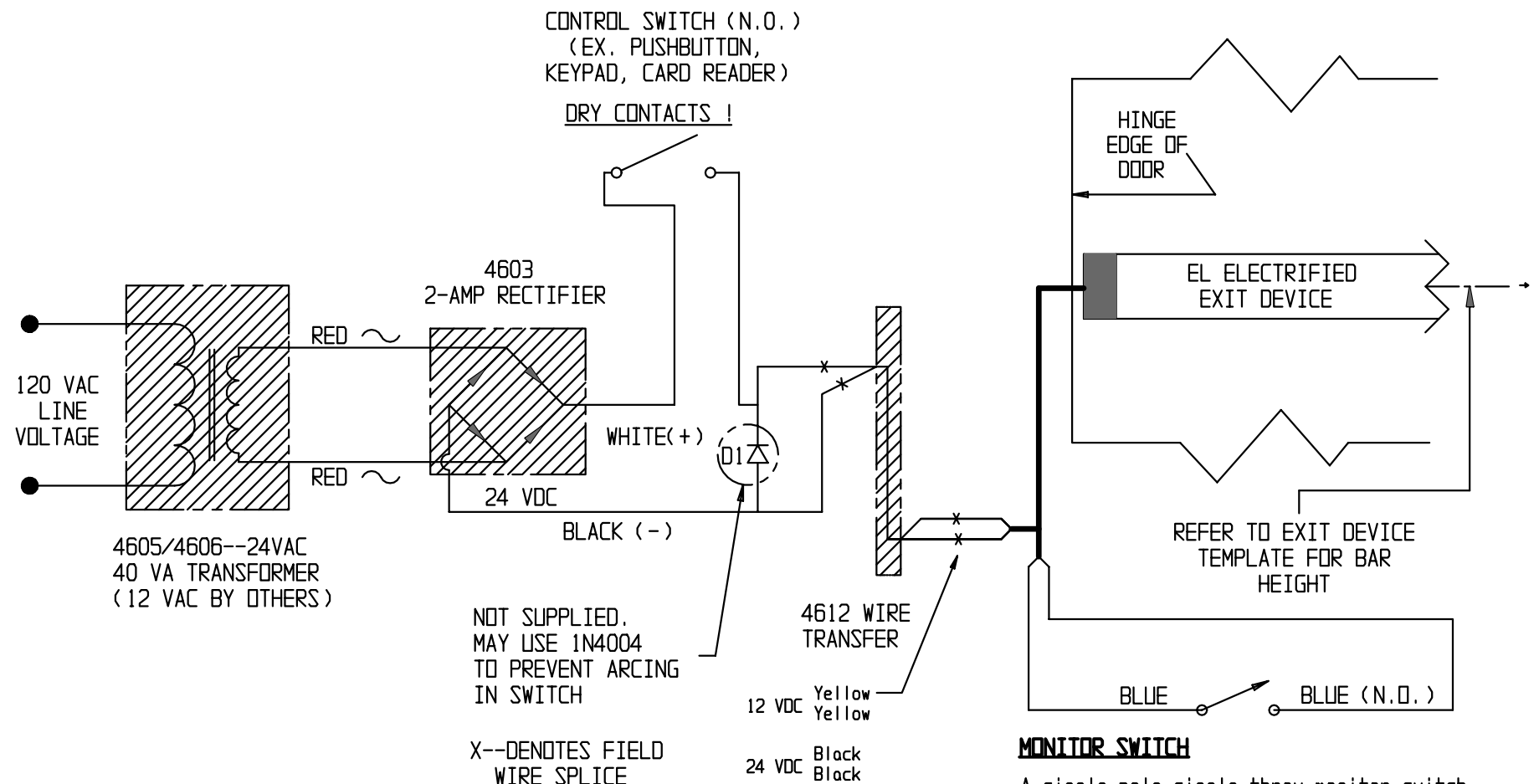
This product is offered in both 12 VDC and 24 VDC. Verify that the power being supplied matches the electrical requirement of each device. Refer to Fig. 1 for recommended circuit hookup. Refer to Fig. 3 for wire size recommendations.

To control the electrical operation a remote switch, momentary or maintained, is needed or normally open dry contacts within an access control system. Ensure the switch contacts are rated for the power requirements of the solenoid. Operation of the switch will retract the latching mechanism for as long as the switch closure is maintained. Any delay function required must be a feature of the control switch.

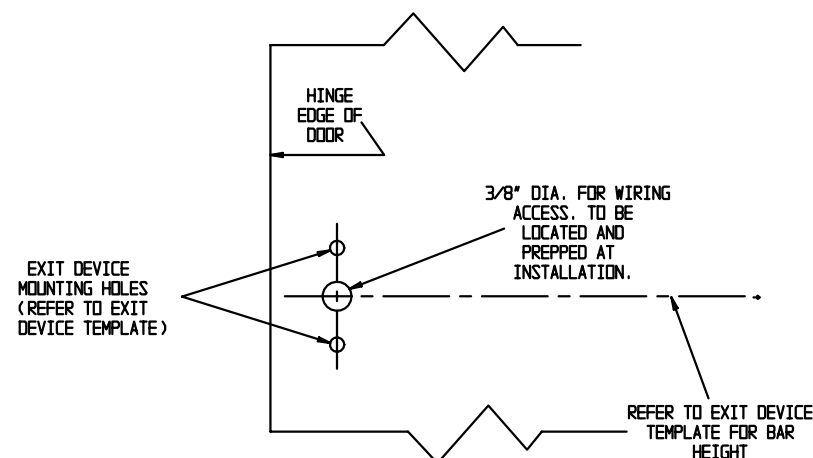
To protect switch or relay from arcing due to inductive discharge of the solenoid, use a 1N4004 diode or metal oxide varistor (MOV) wired in parallel with the load.

A maximum of two 24 VDC and one 12VDC electrified devices can be operated with one 4605 Transformer/4603 Rectifier combination.

Automatic Door Operator -- When using this device with an automatic door operator utilize the switch (two blue wires) at the back of the solenoid to operate it.



ELECTRIC LATCH RETRACTION WIRING SCHEMATIC FIG. 1



DOOR PREPARATION FIG. 2

AWG CHART - RUN LENGTH	
24 VDC -- .53 AMPS	
RUN LENGTH (IN FEET)	WIRE GAGE
0-300	18
300-600	16
600-900	14

AWG CHART - RUN LENGTH	
12 VDC -- 1.03 AMPS	
RUN LENGTH (IN FEET)	WIRE GAGE
0-200	18
200-300	16
300-450	14

WIRE SIZING FIG. 3

ELECTRIC LATCH RETRACTION (3700EL/8700EL/8800EL)
TROUBLESHOOTING GUIDE

SYMPTOM	POSSIBLE CAUSE	CORRECTIVE ACTION
DEVICE IS INOPERATIVE	INCORRECT VOLTAGE OR NO VOLTAGE PRESENT AT THE EXIT DEVICE	WITH A MULTIMETER MEASURE THE VOLTAGE AT THE DEVICE, WITH DEVICE ENERGIZED. VERIFY THAT VOLTAGE MATCHES THE DEVICE REQUIREMENTS, BOTH VOLTAGE LEVEL(24/12) AND TYPE (DC). CORRECT ANY DISCREPANCIES.
	FAULTY SWITCH	VERIFY OPERATION OF CONTROL SWITCH. PERFORM A CONTINUITY CHECK TO ENSURE PROPER OPERATION.
	FAILED SOLENOID	MEASURE THE RESISTANCE ACROSS THE SOLENOID WIRES. COMPARE WITH THE VALUES ON THE INSTALLATION INSTRUCTIONS. ± 5% REPLACE IF NECESSARY.
SLUGGISH OPERATION	INCORRECT VOLTAGE	VERIFY VOLTAGE BEING SUPPLIED TO THE DEVICE, BOTH VOLTAGE LEVEL (24/12) AND TYPE (DC)
DEVICE BUZZES WHEN ENERGIZED	USING AC TO POWER THE DEVICE	VOLTAGE MUST BE DC. USE A RECTIFIER TO CONVERT AC TO DC.
DEVICE TRIES, BUT FAILS TO FULLY RETRACT.	INCORRECT VOLTAGE	VERIFY VOLTAGE BEING SUPPLIED TO THE DEVICE, BOTH VOLTAGE LEVEL (24/12) AND TYPE (DC) CORRECT ANY DISCREPANCIES.
	WIRE SIZE TOO SMALL, OR WIRE RUN TOO LONG	SEE FIG. 3 OF INSTALLATION INSTRUCTIONS FOR PROPER WIRE SIZING.
	BINDING BETWEEN LATCH AND STRIKE	TRY TO ELECTRICALLY OPERATE THE DEVICE WITH THE DOOR IN THE OPEN POSITION. IF THE DEVICE OPERATES MAKE THE NECESSARY STRIKE ADJUSTMENT TO RELIEVE THE BACK PRESSURE ON THE BOLT.

3700EL/8700EL/8800EL RIM EXIT DEVICES
ELECTRIC LATCH RETRACTION --- INSTALLATION INSTRUCTIONS

REPLACEMENT PARTS AVAILABLE

1.	SOLENOID ASS'Y 12 VDC	31-0735
	SOLENOID ASS'Y 24 VDC	31-0736
2.	SOLENOID MTG. SCREW #8-32x5/16 FLATHEAD SOCKET SREW (2 REQ'D)	S245-08-05
3.	HEX HEAD SHOULDER SCREW	26-0430
4.	NYLON CLAMP TIE	29-0123
5.	PAN HEAD SELF TAP SCR #6 × 3/8	S282-06R06-603

