



OPERATING INSTRUCTIONS - 120 VAC Latching Relay Module with 12 VDC Control



HOLATRON SYSTEMS, LLC

2800 Woodlawn Dr, Suite 138

Honolulu, HI 96822

(808) 732-5419

www.holatron.com

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1.0 HARDWARE DESCRIPTION.

The module contains 3 spring terminals, a 120 VAC plug and outlet, a fuse, a switch, and two indicators. The plug connects to your 120 volt AC source. The 120 VAC outlet connects to the 120 VAC device you wish to actuate. The input indicator lights when 120 VAC is present at the input terminals and the fuse is not blown. The output indicator lights when 120 VAC is present at the output terminals (relay on). Recommended maximum output current is 5 amps.

--- WARNING ---

DO NOT PLUG A DEVICE INTO THE OUTLET IF THE OUTPUT INDICATOR IS LIGHTED, AS IT WILL BE ACTUATED IMMEDIATELY.

The input is protected by a 6.25 amp slow-blow fuse. Operation with devices consuming more than 6.25 amps will blow the input fuse. If the input indicator does not light when power is connected, the fuse should be replaced with a 6.25 amp slow-blow fuse. To open the fuseholder, rotate it $\frac{1}{4}$ turn counter-clockwise with a screwdriver. This will release the latch, allowing the fuseholder to pop out. Place a new 6.25 amp slow-blow 3AG fuse in the fuseholder, reinsert it, and turn it $\frac{1}{4}$ turn clockwise with a screwdriver to lock it.

2.0 OPERATION.

The three terminals marked "12 VDC Control" connect to outputs on our 12V spread-spectrum receivers. "COM+" connects to any one of the "COM+" (red) terminals on the receiver. "ON" connects to one of the black receiver output terminals. This is the cue that will turn on your 12 VDC device. "OFF" connects to a second receiver output terminal, typically the next cue in sequence after the "ON" cue, resulting in an "alternate-action" function when firing in semi-automatic mode. Pressing the transmitter button to fire the "ON" cue turns on the 12 VDC device. Pressing the transmitter button a second time fires the next sequential cue which turns off the 12 VDC device.

An input modification is required to enable it to be used with our SafeFire-12 receiver 18V outputs if those outputs will be on for durations longer than one second. It may be used without modification if the SafeFire-12 firing outputs will always be shorter than one second. Note that an 18V control input longer than one second may damage an unmodified latching module and void its warranty.

3.0 MODE SELECTION.

The operation described in the preceding paragraph requires that the Mode Switch be in the "Latch" position. If the switch is in the "Mom." (momentary) position, the 120 VAC output is simply slaved to the 12 volt "ON" terminal. The output switches off as soon as the "ON" terminal switches off, and the 12 volt "OFF" terminal has no effect.

4.0 SPECIFICATIONS.

Parameter	Minimum	Typical	Maximum
Output Current			5 Amps
Supply fuse, 3AG slow-blo		6.25 Amps	
Supply Voltage	108 VAC	120 VAC	130 VAC
Control Voltage		12 VDC	
Control Current (12 VDC in)		14 milliamp	
Control Input Impedance		850 ohm	
Leakage current from power input to control inputs			0 milliamps

If further information or service is required, contact:

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