OPERATING INSTRUCTIONS -
24 VDC Latching Module

HOLATRON SYSTEMS, LLC
2800 Woodlawn Dr., Ste 138
Honolulu, HI 96822
(808) 732-5419
www.holatron.com

WARNING

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1.0 HARDWARE DESCRIPTION.

The module contains 7 spring terminals, a switch, and an indicator. The two terminals marked "Power In" connect to your 24 volt DC supply. Power polarity is not critical, but output polarity will match power polarity, as defined by the red and black terminals. That is, when latched on, power red is connected to output red. Power black is always connected to output black, whether on or off. **DO NOT USE AC POWER**, as that will damage the relays. The two terminals marked "24 VDC Output" connect to the 24 volt device you wish to actuate. The red indicator lights when 24 volts is present at the output terminals.

--- WARNING ---

THE INPUT POWER SOURCE SHOULD ALWAYS BE CONNECTED BEFORE THE OUTPUT. DO NOT CONNECT A DEVICE TO THE OUTPUT TERMINALS IF THE OUTPUT INDICATOR IS LIGHTED, AS IT WILL BE ACTUATED IMMEDIATELY.

Maximum current capacity of the relays is 5 amps. Operation with devices consuming more than 5 amps, or with shorted output terminals, will damage the relays and void the warranty. Please note that the output is not fused. So be very careful not to connect to a short circuit. Modules with internal automatic resetting fuses are available at a higher price.

2.0 OPERATION.

The three terminals marked "9 VDC Control" connect to outputs on our two-shot receivers or six-shot receivers. "COM+" connects to one of the "COM+" terminals on a two-shot or six-shot receiver. "ON" connects to one of the numbered receiver output terminals. This is the cue that will turn on your 24 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 24 VDC device. Pressing the transmitter button a second time fires the next sequential cue which turns off the 24 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. Note that at least 20 VDC is required at the “POWER IN” terminals in order for the module to latch on in LATCH mode. If the switch is in the MOM. position, the 24 volt output is simply slaved from the 9 volt "ON" terminal. The output switches off as soon as the "ON" terminal switches off, and the 9 volt "OFF" terminal has no effect. In this mode any voltages lower than 24 VDC may be applied to the “POWER IN” terminals and switched by the module.

4.0 SPECIFICATIONS.

Parameter	Minimum	Typical	Maximum
Output Current			5 Amps
Supply Voltage	20 VDC	24 VDC	26 VDC
Control Voltage	8.5 VDC	9 VDC	12 VDC
Control Current		18 milliamp	
Control Input Impedance		500 ohm	
Leakage current from power input to control inputs			0 milliamps

If further information or service is required, contact:

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