

HOLATRON

OPERATION & MAINTENANCE GUIDE – 12 Volt Latching Relay Module, 12V Control



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WARNING

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1.0 HARDWARE DESCRIPTION.

The module contains 7 spring terminals, a switch, and an indicator. The two terminals marked "12 VDC POWER IN" connect to your 12 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 "Output" connect to the 12 volt device you wish to actuate. The red indicator lights when 12 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 "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. Note that at least 10 VDC is required at the "POWER IN" terminals in order for the module to be able to latch on in LATCH mode.

If the switch is in the MOM. position, the 12 volt output is simply slaved from 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. In this mode any voltages lower than 12 VDC may be applied to the "POWER IN" terminals and switched by the module, but the indicators will be dimmer.

4.0 SPECIFICATIONS.

| Parameter | Minimum | Typical | Maximum |
|----------------------------------------------------|---------|-------------|-------------|
| Output Current | | | 5 Amps |
| Supply Voltage | 10 VDC | 12 VDC | 14 VDC |
| Control Voltage | | 12 VDC | |
| Control Current | | 30 milliamp | |
| Control Input Impedance | | 400 ohm | |
| Leakage current from power input to control inputs | | | 0 milliamps |

If further information or service is required, contact:

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