# R–3 Operating Guide

## *14 or 28 Channel Relay Receiver*

## Care and Handling

Failure to follow care and handling instructions will void the warranty and could result in unsafe equipment operation.

Remove receiver from machine prior to welding on machine.

Do not paint electrical connectors.

Use only factory provided antenna and cabling.

Do not open receiver enclosure except to make adjustments to factory settings.

Use transmitter to test functions. Do not apply voltage to circuit board directly.

## OPERATION

### General

Receivers are factory configured and programmed for each application. Refer to the wiring diagram for your specific system for receiver wiring and output information.

### Transmitter/Receiver Matching

Transmitters and receivers are shipped from the factory as matched pairs. If a new transmitter is to be used, it must be trained to operate the receiver.

Training procedure:

Receivers with tether connection:

1. Connect transmitter to receiver using tether cable provided.
2. Operate transmitter to verify tether is connected.
3. Disconnect tether, and resume normal operation.

Receivers with learn button:

1. Power on transmitter and receiver.
2. Press “LEARN” button on receiver.
3. Operate transmitter normally.

### IMPORTANT!

Read this manual completely before operating system.

Keep this manual available for future reference.

Make sure the area is safe for operating equipment before turning power on or starting equipment.

If you encounter any problem or malfunction, discontinue use immediately, and contact your equipment dealer for service or replacement parts.

### CAUTION

Improper operation of these controls could cause damage to equipment. Do not allow anyone to operate this equipment before completely reading all manuals.

### NOTICE

Miratron, Inc. controls are not intended for life or safety applications. Miratron, Inc. shall not accept responsibility for installation, application, or safety of machine or systems which utilize miratron, Inc. controls.

# SPECIFICATIONS

| | | |
|---|---|---|
| **General** | Power Requirement | 10 to 30vdc, 500mA nominal + power to loads |
| | Fuses | 15 amp standard blade. Outputs protected |
| **Radio** | Frequency | 902-928MHz, Unlicensed ISM band standard models<br>2.4-2.4835GHz, Unlicensed ISM band international option |
| | Type | Frequency hopping spread spectrum |
| | Frequency Control | Direct FM |
| | FCC id | OUR9XCITE: Standard range<br>OUR9XTREAM: Extended range<br>OURXBEE: International version |
| | Sensitivity | -104dBm |
| **Receiver** | RF Connector | BNC |
| | Relays | 14 or 28 x 5-amp contacts, DC only |
| | Proportional Current Outputs | 2 x PWM up to 5-amp |
| | Field Wiring | 29-pin Deutsch HD connector with mating 6' pigtail cable |
| **Enclosure** | | NEMA 4, powder coated steel<br>NEMA 4X polycarbonate available<br>Approximate size: 9" L x 6"W x 4"D |
| **Environmental** | Storage | -40°C to 85°C |
| | Operating | -10°C to 60°C |

# Troubleshooting:

| ISSUE | SOLUTIONS |
|---|---|
| Poor range. | Check receiver antenna and cable for loose connections or damage.<br>Obstructions, interference, and adverse weather can affect range.<br>Check transmitter batteries and replace if necessary. |
| One or more functions do not operate properly. | Check receiver fuse. (May be in receiver and/or wire harness.)<br>Verify receiver wiring is correct.<br>Verify control device is operational (solenoid valve, pump, etc.)<br>Inspect transmitter, receiver, and cabling for damage. (Do not open.)<br>Some control systems feature special program logic that can disable functions under certain conditions. Consult factory for specific details. |