

# OPERATING MANUAL

## JUICE GOOSE

### RC-5

## REMOTE CONTROL MONITOR

The Juice Goose RC-5 is a remote control and operations monitor for the Juice Goose CQ Series line of power sequencing products. For additional information please see product literature or operations manuals for any CQ Series Product.

The RC-5 will control and monitor any CQ Series product. The RC-5 is available in either wall (panel) or rack mount models and with a key switch security control or with a convenient rotary knob switch which requires no key. The RC-5 also features:

- o Sequence Up, Sequence Down and Pause Function
- o Indicator Lights for:
  - o Sequence Operation
  - o Sequence Completion
  - o System Status

**CAUTION:** There are no user serviceable parts inside the RC-5. If a malfunction occurs, consult the Troubleshooting section at the end of this manual or contact Juice Goose if desired.

**WARNING:** Do not expose the RC-5 or any electrical or electronic device to moisture or excessive humidity. Doing so could be detrimental to the device and may create a hazardous condition.

**DISCLAIMER:** Juice Goose shall under no circumstances be held responsible for any loss, damage or injury resulting directly or indirectly from the use of the RC-5 in a manner inconsistent with safe and proper operating procedures and/or with this documentation. The user should determine prior to use whether the Juice Goose RC-5 is adequate, suitable or safe for the application intended. Since individual applications can be subject to extreme variation, Juice Goose makes no representation or guarantee as to the suitability of the RC-5 for any specific application.

### DETAIL SPECIFICATIONS

#### Chassis

- Rack Mount.....Steel, Powder Coat Faceplate w/ Finished Back Box
- Wall Mount.....Aluminum Face Plate w/ Finished Back Box

#### Space Requirements

- Rack Mount.....Single Rack Space
- Wall Mount.....Single Gang Utility Box

#### Dimensions

- Rack Mount.....1.75" x 19" x 1.5"
- Wall Mount.....4.5" x 2.75" x 1.5"

Signal Line Connections.....6 Wire Flat Phone Cable w/ Modular RJ Type Connectors

## INSTALLATION

The RC-5 requires no external power supply.

### RACK MOUNT

The Rack Mount RC-5-RM should be installed with standard rack hardware. Nylon mounting washers are recommended to prevent damage to the painted surface of the RC-5. The unit requires one rack space. If easy access is available to the back of the rack in which the RC-5 will be mounted the signal line can be connected after the RC-5 is mounted in the rack. Otherwise, it may be desirable to feed the connection cable through to the front of the rack and connect it to the RC-5 before mounting the RC-5 in the rack.

### WALL MOUNT

The Wall Mount RC-5-WM fits into a standard, single gang utility box with a minimum depth of 1.5". Mounting screws are provided with the RC-5. However, in cases where the utility box is recessed from the mounting surface (e.g. sheetrock) longer mounting screws may be required. First, the signal cable should be fed through a knock-out in the utility box and connected to the RC-5-WM. The RC-5 may then be mounted in the utility box.

### SEQUENCE SIGNAL LINE CONNECTION

Sequence signal line output from the RC-5 is accomplished by way of standard 6 wire, RJ type, modular telephone or data cable. CAT-5 will serve this purpose. However, the high bandwidth capacity of CAT-5 is not necessary for the RC-5. Cable, connectors and appropriate crimping tools are available from local electronic supply dealers. Attachment of the modular connector to the signal cable can be accomplished with AMP Modular Crimper Model #1-231652-8, or equivalent.

Using proper tools, strip the outer insulation from the cable exposing approximately 1/4" of the colored wire strands inside the cable. The exposed wires should then be inserted inside the connector so that each of the 6 separate wire strands fits into an individual terminal position in the connector. The connector may then be crimped to hold the cable firmly in place.

**NOTE: Orientation of the wire colors in the cable should be the same for the connectors at both ends of the cable. When the connectors on both ends of the cable are placed end to end, the colors should match when viewed from left to right. This assembly process conforms to standard telephone configuration.**

Once the cable has been attached to the modular connectors, the cable may join the RC-5 and the CQ Series unit which will be controlled by the RC-5. There is no known functional distance limit between an RC-5 and a CQ Series device. The CQ Series system operates by a contact closure creating a low voltage DC current loop. It is not sensitive to minor voltage fluctuations along this line. Also it is neither sensitive to nor does it create high frequency transmissions. Therefore, this wire may be run along any desired path, subject to any local wiring codes.

## ENABLING THE MONITOR

In order to enable the monitoring features of the RC-5, a “Terminator” (provided with the RC-5) must be installed at the signal output connection of the last CQ Series product in the system.

## CONTROLS AND FEATURES

### FRONT PANEL

Key or Rotary Knob Switch Control - Three positions: left is *Sequence Down*, up is *Pause* and right is *Sequence Up*. The Pause position will halt the activation or deactivation of the CQ system without affecting any units that have been previously powered. This position will also prevent the system from automatically turning back on should there be a momentary loss of utility electric power.

Indicator Lights - One set of lights confirms the position of the key switch as either in the sequence up, pause or sequence down position. A second set of lights indicates the status of the CQ system: *Sequence Down Complete*, *System OK* or *System Up Complete*. The System OK light will be on when the key is in the center position and the signal connection is complete between all CQ units. This light being out indicates a signal connection fault in the CQ system. This indication may be the result of a faulty signal cable, a faulty Terminator or a faulty CQ product.

### REAR PANEL

Sequence Signal Output - This receptacle is a standard RJ type, 6 pin modular phone type connector, female.

## OPERATION

After the RC-5 is installed and all equipment is connected (see “Installation” section) the system is ready to be powered up. With the RC-5 switch in the Sequence Down position and the Down Complete light on, turn the power switches “on” for all equipment connected to the CQ Series devices. With the switches “on” the connected equipment will be ready to receive power once the CQ System sequences up.

To sequence the system up turn the key switch to the Sequence Up position. The equipment connected to the closest RC5 device will turn on first, followed by equipment successively farther away. When the last piece of equipment is activated the Sequence Up Complete light will turn on. To turn the system off, turn the switch to the Sequence Down position. The farthest equipment will turn off first, followed by successively closer equipment. When all equipment is off the Sequence Down Complete light will turn on.

So long as the switch is in the Sequence Up position, should AC main power be lost the system will sequence back up once power is restored. It will not turn on all at once. However, should this not be desired, after the system is sequenced up place the switch in the Pause position. In this position, should power be lost it will not automatically restart once power is restored.

## IN CASE OF MALFUNCTION

The RC-5 is not intended to function with any other power sequencing product or any other product that uses a 6 wire RJ type connection, including data communications or telephony equipment

Should there be a problem with the performance of the RC-5 the following check list is provided

as a diagnostic aid. If a problem is observed, first double check that the CQ cable has been correctly assembled and connected. Call Juice Goose Technical Support for assistance if desired.

## TROUBLESHOOTING

1. Unit lights are not on.
  - a. Check cable connection to the RC-5. Is it plugged in?
  - b. Is it connected to a CQ Series product that is receiving power.
2. System OK Light is out while other functions are normal
  - a. Check all sequence signal connections between CQ units.
  - b. Check all power supplies to CQ units.
  - c. Check to be sure the Terminator is installed in the Output port of the last CQ device.
3. Sequence Up light will not activate after completion of the sequence up process.
  - a. See No. 2., above.
4. Some lights on the RC5 are lit, but the proper system status is not indicated and the CQ System is not functioning correctly. The probable problem is that one cable connector is attached to the cable upside down.
  - a. Disconnect the RC-5 from the first CQ device and attempt to turn on the CQ device using the sequence switch on the CQ.
  - b. Check that the connectors are properly installed as per the directions in this manual.

If the problem can not be remedied, contact Juice Goose for Technical Support. You may call or contact Juice Goose online for fast and complete technical information. If a unit is to be returned for service, an authorization number will be required for tracking purposes.

## CONTACT JUICE GOOSE

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