

# JUICE GOOSE™

## CQ15 Series SEQUENCED POWER CONTROL



### GENERAL DESCRIPTION

The Juice Goose CQ-1515 and 1520, along with the other products in the CQ Series, provide a convenient and economical means of remotely activating AC power in a sequenced array for application to both sensitive and high amperage equipment. CQ Series products need no additional controllers or programming. Each contains the circuitry to be activated by a Juice Goose RC Series accessory or a simple contact closure and to perform in coordination with other CQ devices. All power down sequences are automatically exact reversals of the power up sequences.

### OPERATION

The CQ-1515 (15 amp) and CQ-1520 (20 amp) are rack mount, plug-in models featuring AC line protection and seven power outputs. These three sequence event devices can be used by themselves, activated via remote control or included with a more extensive power sequencing system. In a typical sequencing system the rack mounted CQ is used to control power to the signal source or "front-of-house" equipment before power is applied to amplifiers. In this configuration, the initial CQ in the series is connected by way of eight wire modular phone cable to another CQ device at that or another location. No time delay settings or additional equipment are required. All CQ units will automatically turn on and off in the proper sequence. Note: the CQ-1520 has a 20 amp capacity and requires a NEMA 5/20R AC receptacle for connection of the power cord to the main AC power.

The CQ-1515 and CQ-1520 feature three sequenced duplex receptacles and one unswitched single AC receptacle on the back of the chassis. Each duplex has its own preset turn on and off timing. Because the CQ activates its outlets in three stages it is useful as a stand-alone sequencer. Signal source and processing equipment can be powered by the first sequence stages while amplifiers are powered by the last ones. The CQ can be triggered by the switch on the front of the unit, by a remote contact closure or by a Juice Goose RC5 accessory.

### CONTROL LINE CONNECTION

All CQ products can be easily controlled by way of 8 wire, RJ-45 cable. (Consult the CQ Series Owners Manual before assembling the cable.) Each CQ has a *Sequence Signal Input* and *Output* connector on the chassis. This communication link allows any CQ device to be installed at any stage in a power sequencing system. Sequence timing is controlled by a nominal 8 VDC "Outputs Active" circuit between the units which is regenerated with each CQ module. There is no limit to the number of CQ devices that can be connected and no practical distance limit between them.

The system can be activated with the sequence control switch on the CQ device itself or a Juice Goose RC5 control accessory. The sequence process can also be initiated with a latching contact closure, enabling use of a custom mounted single pole switch, a relay or processor based controllers from Crestron, AMX or other manufacturers.

## CONTROLS AND MONITORS

The CQ-1515 and CQ-1520 feature a two position switch on the front of the chassis. This switch is active only if there is no control cable on the *Sequence Signal Input* connector. When active, this switch causes the unit to turn outlets on or off in sequence and to control the sequencing of any unit connected to the *Sequence Signal Output* connector. A Manual Override switch allows the CQ to be manually operated, overriding the control circuit in the unlikely event of a fault or failure.

Lights on the front of the chassis allow monitoring of the unit operation. The *Processor* light will blink to indicate the control processor on the unit is functioning. The *POD* lights are illuminated as a result of contact closure by the CQ relays, indicating that actual relay closure has occurred.

## POWER PROTECTION

The CQ-1515 and CQ-1520 feature a multi-stage AC line filter to reduce high frequency interference and a triple surge protection matrix across hot, neutral and ground power leads.

## DETAIL SPECIFICATIONS

Chassis.....	Tour Class (tm) 16 gauge steel with 11 gauge rack mount brackets
Dimensions.....	1.75"H x19"W x 7"D
Weight.....	10 lbs
Circuit Breaker (thermal on back of the chassis)	
.....	CQ-1515 15A
.....	CQ-1520 20A
AC Power Filtration.....	Multi-stage Filter (48dB @ 30 MHz)
AC Surge Protection.....	Triple surge protection matrix on hot, neutral and ground
Number of Sequence Events.....	Three
Power Input (seven foot power cord)	
.....	CQ-1515 14/3 SJ with NEMA 5/15P plug
.....	CQ-1520 12/3 SJ with 5/20P (requires a 5/20R receptacle)
Power Output (plus one unswitched NEMA 5/15R on back of the chassis)	
.....	CQ-1515 six sequenced NEMA 5/15R
.....	CQ-1520 six sequenced NEMA 5/20R
Input Voltage.....	US standard (120 VAC @60Hz)
Signal Connections.....	RJ-45, eight wire cable
Monitor Features.....	Monitor LEDs correlate to processor and relay operation



CQ-1515 Back

See the other Juice Goose power sequencers: CQ-1, CQ-2200, CQ-3000 and CQ-PD1-4.



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**Juice Goose**

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