Arizona Regulator

DUAL VOLTAGE OUTPUT HELICOPTER REGULATOR AND SWITCH FOR LITHIUM BATTERIES

FROMECO

INSTRUCTIONS

Wiring

The Arizona Regulator has 5 leads, labeled as follows: with colored plugs, or tape with text.

BTTY - Battery lead, plug into Li+ battery, observing correct polarity.

CHK - Male JR plug, can be used for charging and checking the attached battery.

SW - Male JR plug, may be used for a switch. Closed contacts turn the regulator OFF, and open contacts turns the regulator ON ("failsafe" configuration).

GYRO RDDR - Connect to rudder channel on RX. This takes signal from the RX and also provides power (adjustable voltage) to the RX.

GYRO GAIN - Connect to gain channel on RX. Takes signal from RX, also provides power to RX.

NOTE: The Gyro Gain JR plug is Lime Green, the Switch JR plug is Bright Yellow. Under certain lighting conditions these 2 plugs may appear to be the same color, they are not interchangeable.

Fig. 1: Plug gyro leads into Arizona Regulator so that the conductors are (-), (+), and (SIGNAL) as viewed from left to right.

VOLTAGE for the gyro is set to 5 volts, and cannot be changed.

VOLTAGE to power the RX (and other servos) can be adjusted between 4.95 and 6.00V, as follows:

Turn on the Arizona Regulator. Observe the RX voltage on a meter. Observe that there are two pins sticking out the right side of the regulator, near the top. By carefully bridging the two pins with a conductive object (e.g., paperclip), the voltage will start to cycle up and down across it's range. When you stop adjusting for > 2 seconds, the new setpoint voltage is saved. Verify the new setpoint is saved, by turning the regulator off and back on again, and observing the desired voltage. Please do not touch the pins to the heatsink while adjusting. This may cause damage only if the protective blue anodized finish has been scratched.

Power Consumption in the OFF postion.

Arizona Regulator draws a small amount of power in the OFF position, if it is being used as a switch.

This current is <= 85 microamps, or 0.000085A. The battery will deplete by roughly 2 mA-h per day, when the regulator is used as a switch. Batteries should be unplugged for extended layups or idle periods (i.e., > 1 month).