



RT-21 APPLICATION NOTE CDE AR-40 Rotator

RT-21 Modification: Change R-23 on main board to 220 Ohms (from 97.1)

SETUP/OPTION = HAM-x

AC Motor

Jumper	Position
J10	1-2
J14	Open
J12	1-2

Transformer Taps

Transformer	J9 Connection	NOTE
Brown	J9-1	
Orange	J9-2	

Position Feedback Rotor Connections

Jumper	Position
J5	1-2
J6	2-3
J16	1-2

Function	AR-40	RT-21
POS (Pot)	1	4
GND	2	3
MOT COM	3	3
MOT CCW	5	2
MOT CW	4	1

NOTE: Term 3 gets 2 wires

CALIBRATION PROCEDURE

1. Use the CCW button to rotate the antenna position counter-clockwise until the antenna is pointed exactly 180 degrees CCW from the center of rotation. This should be at the CCW mechanical limit in the rotor
2. Press the CANCEL and CCW together and hold 2 seconds until the display reads "CAL CCW = xxx" where xxx should be a number < 50. (It may be helpful to press the CANCEL "slightly" ahead of the CCW button.)
3. Use the CW button to turn the antenna position exactly 360 degrees until it is back pointed in the same direction and up against the CW End-stop
4. Then Press CANCEL and CW this time until the "CAL CW = xxx" appears. This time the number should be ~ 720

It is very useful to use SETUP Utility instead to calibrate the rotator. Instead of using the CANCL + CW or CCW buttons to set the cal points, you can click on the Cal CCW Here, or Cal CW Here buttons. In SETUP utility you can always watch the value of the A/D converter as you turn the rotator. You may also just enter the A/D values directly in the CAL locations for CCW and CW.