



Array Solutions Remote Antenna Switch



RATPak System

Thank you and congratulations for purchasing the Array Solutions 10 position RATPak remote antenna controller. We are proud to offer one of the finest, most reliable and fastest antenna switches on the market.

This switch is designed to give you reliable performance even at very high power and SWR levels. This indeed should be the last antenna switch you should have to purchase. It is also designed so that in case of a failure of a relay or other device, it can be easily disassembled and repaired. This is not the least expensive switch on the market but we believe you will appreciate the quality that went into its design.

Wiring the System

The usual set-up has one Array Solutions Remote Antenna Switch control box, which is manually operated from the radio position. The control box for the system contains one rotary switch and 10 LEDs, so the operator can see which antennas are selected.

The Array Solutions Remote Antenna Switch can be set up inside or outside the shack. Wiring of your switch is accomplished by wiring a 11 wire cable (rotor cable will work) with or without a shield from the terminal strip of the controller to the terminal strips in the control box. A shielded cable is not necessary. The terminals are labeled 1-10 on both boxes. The controller also requires 12 to 16 V DC to be wired to the V+ and GND terminals Red and Black wires. Use your station 12V supply and try to avoid using those power cubes. Some of them are not certified for use near radios and they may be prone to RF interference. Please use a well-grounded DC source.

TIP - put a plug like a Cinch™ Jones Plug or a DB9 connector on your cable so you may disconnect them during thunderstorms. You may do this on both ends of your cable to allow you to do a quick disconnect from the tower as well. You also should route the cable through a bulkhead in your shack that has proper lightning protection. There are lightning surge protection devices sold by various companies, such as Array Solutions and ICE. We have also included MOVs in the relay box to protect the relays and controller from surges.

ANTENNA and FEEDLINE SET UP

Attach the feed-lines from the corresponding RF connectors of your choice and weather-proof them.

Also tape the coax cables to a tower rung or leg to strain relief them. Do not use the switch cover as a foot step while on the tower.

USE of AUTOMATIC BAND DECODERS

Alpha Power™ DAS , Top Ten, RF Applications and Array Solutions band decoders may be used to drive the Array Solutions Remote Antenna Switch directly. Just wire these outputs in parallel with the corresponding terminals in the switch box. The Top Ten decoder needs the source driver option or the level converter sold by Array Solutions.

The manual rotary switch can be switched out of line by turning the knob to the off position. If you have a failure in your decoder you can always go back to manual control with the rotary switch.

Custom 10 position RATPak Specifications

Frequency Range	DC to 30 Mhz
Power	10 kW+ CCS .1 to 30 MHz
Lighting surge protection	MOVs in the relay box