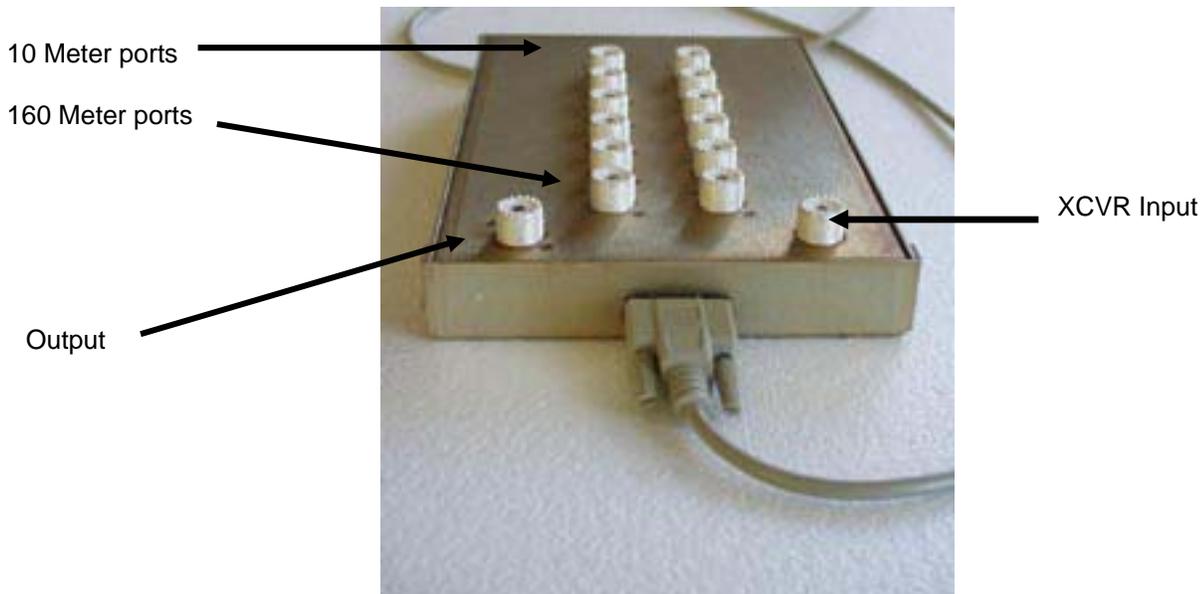




## Array Solutions Filter Master FM-6



### FM-6

Thank you and congratulations for purchasing the Array Solutions FM-6 filter selector. We are proud to offer this high quality product. It represents the most isolation available of any filter set on the market, especially when coupled with the W3NQN transceiver filters.

If you have a filter failure, no big deal, you can just replace the filter with a spare and be back on the air in minutes, vs. off the air maybe completely due to a failure with other integrated systems.

## Wiring the System

The FM-6 comes complete with a DB9 cable that plugs into the female DB9 connector on the box. The other end of the cable is then prepared to be connected to your band selection device, which may be our SixPak controller, an automatic band decoder, or a remote antenna switch controller such as our RatPak. The relays inside the FM-6 are activated by + 12VDC. 13.8VDC is fine as well. It is not a sinking device so if you are using a decoder that supplies a ground sink you will need to convert this to a 12V source with our Level Converter Box.

The cable colors should be wired as in chart below:

Color	Band and DB9 pin
Black	10 pin 9
Brown	15 pin 1
Red	20 pin 2
Orange	40 pin 3
Yellow	80 pin 4
Green	160 pin 5
Blue	Ground pin 6

## 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 with the corresponding colored wires on the cable. The TopTen decoder requires the source driver option from TopTen or the level converter sold by Array Solutions.

## Adding your Filters

We recommend you use double shielded flexible cables such as the 12-cable cable set we sell. It uses high quality LMR195 or HPF195 coaxial cables. These are 15 inches long and will wrap around the FM-6 and attach to the mono-band filters that you may rack below the FM-6.

The FM-6 was designed to fit perfectly on top of the W3NQN mono-band filters.

Populate the filters from 10M to 160M by putting the 160M filter closest to the Input output terminals.



The above picture shows the FM-6 on top of 6 W3NQN Filters, which are strapped together. The coaxial cables will be routed next around from the FM-6 to each individual filters input and output connector.

Connect your transceiver to the port marked XCVR on the FM-6. The remaining output port goes to the amplifier or the antenna switch.

### FM-6 Specifications

<b>Frequency Range</b>	DC to 30 MHz
<b>Power</b>	500 Watts Continuous
<b>Insertion Loss</b>	Less than .01 dB
<b>SWR</b>	Less than 1.1:1
<b>Design architecture</b>	50 ohm strip line on G10 solder masked protected double sided board
<b>Enclosures</b>	Metal box. Shielded no plastic
<b>Weight</b>	2 lb
<b>Size</b>	6 1/4 X 9 5/8 X 1.5 inches
<b>Relays</b>	12 VDC 20 ma 4 amp contacts small signal relay - hermetically sealed gold contacts
<b>Isolation between filter sections</b>	110db – unused filters are grounded out
<b>Connectors</b>	SO239 silver pin Teflon insulators

Manufacturer reserves the right to modify the design and specifications

## **Warranty**

Thank you for purchasing this product. We warranty it for life except for acts of God.