

HAMSOURCE Kool-Amp

Automatic/Manual Cooling Fan

For Power Amplifiers

This is a fan to assist in the cooling of power amplifiers. It allows the amplifier to run closer to continuous duty without endangering the output tubes. The fan sits $\frac{3}{4}$ inch above the amplifier's air exhaust vent and increases the air flow across the output tubes..

The fan runs on the shack's 12 volt supply. Plug the red Powerpole into + 12 Volts, and the black connector to common. If replacing the connectors with your own, remember the red wire is positive.

The three position switch operates as follows: the center position power is OFF. When switched to the right the fan is ON continuously. When switched to the left the fan is in the AUTOMATIC mode. It will turn ON when the amplifier's air exhaust reaches a temperature of 105 degrees F. The fan will stay ON until the temperature returns to below 105 degrees. The sensor's heat is retained for a considerable time to allow the switching to conform to the long term air, and tube, temperature.

The temperature sensor is a thermal switch using a bi-metal contact that makes and breaks at its design temperature. In the auto position the switch is placed in series with the 12 volt power lead.

The fan is a commercial unit using a brushless motor. It takes about 300 mA when connected to 13.5 volts. The fan is quite; the sound level is only 70 dB A-weighted SPL.

With the increased use of digital transmission modes, such as PSK-31, JT65, Slow scan TV, RTTY, and others, the power amplifier runs in a continuous operating state. The amplifier's output tubes become hotter than on CW or SSB. Additional cooling is necessary for long tube life. The Kool-Amp fan is a welcome addition for the contester and the dxpeditioner, especially in hot climates.

Specifications:

Operating voltage: 10 -15 V dc

Current: 300 mA @ 13.8 Volts

Size: 4.75 x 4.75 x 1.5 inches

Noise: 70 dB SPL

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