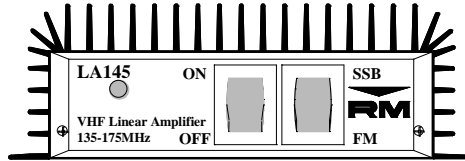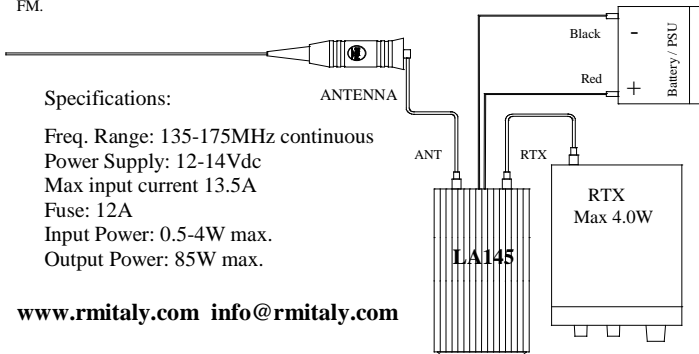# LA145 Wideband VHF Amplifier
135-175 MHz

The LA145 is a wideband compact amplifier for the VHF band; covering from 135 to 175 Mhz. Output is nominal 80W at full power (85W max).

Input drive from 0.5W to maximum of 4W, ideally suited to low power handheld transceivers. Output power depends both on input power and frequency of use. The graph illustrates the relationship between the two parameters. The amplifier features automatic RF switching between RX and TX. The diagram below illustrates the connection details. The power cable for the amplifier should be kept as short as practicably possible and less than 3m in length. When used in a mobile installation it is recommended that the power cable is connected directly to the auto battery. A safety fuse may be added at this position for protection against short circuit. 12 to 15A is sufficient as the amplifier is internally fused. The RF cable from the transceiver to the amplifier and amplifier to the antenna must be kept as short as practicably possible and be 50 Ohms impedance and suitable for the frequency of operation. The antenna must also be suitable for the frequency of operation. The amplifier must be installed in a suitable location that provides adequate ventilation to maximise cooling. As the amplifier is compact it must be appreciated that adequate time is allowed for the amplifier to cool down between transmissions especially if used at maximum power. As ambient temperature, installation location and ventilation are all factors that change for each installation the user must take this into account. The amplifier may be left in circuit when switched off and the RTX may be used normally at low power. SSB/FM. This switch when set to SSB adds a small delay before switching back to RX after a transmission. When using SSB this helps prevent the amplifiers RX TX relay from constantly switching between RX and TX during pauses in speech as there is no RF carrier to hold the relay open. In FM/AM modes this is not necessary and the switch position can be set to FM.

Specifications:

Freq. Range: 135-175MHz continuous
Power Supply: 12-14Vdc
Max input current 13.5A
Fuse: 12A
Input Power: 0.5-4W max.
Output Power: 85W max.

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LA145 VHF Amplifier