

MIRAGE KP-1 In-Shack Pre-Amplifier

General Information

This in-line GaAs-FET receive pre-amp provides high gain and low noise amplification for weak receive signals. The pre-amp has an attenuator built into the circuit which can be selected by changing the position of a switch on the internal circuit board. This switch is set in the **LOW** level gain position at the factory. This has been included to prevent *receiver overloading* and subsequent *intermodulation distortion* that can come from very strong signals. The pre-amp also has automatic RF-switching, which disengages the pre-amp any time it detects a transmission signal being emitted by the transceiver.

Specifications

– **NOTE:** Unless otherwise indicated, specifications apply to all models of the KP-1 Series.

Frequency Coverage:

<u>MIRAGE Model #</u>	<u>Range</u>
KP-1 / 10 Meter:	28.000 - 28.500 MHz
KP-1 / 6 Meter:	50 - 54 MHz
KP-1 / 2 Meter:	144 - 148 MHz
KP-1 / 1-1/4 Meter:	222 - 225 MHz
KP-1 / 70 Centimeter:	440 - 450 MHz

Gain: 20-25 dB (HIGH gain setting)
10-15 dB (LOW gain setting)

Noise Figure: 0.6 dB, independent of gain setting

Power Requirements: Positive 13.6 - 15 Vdc

Power Capability: 100 Watts, maximum

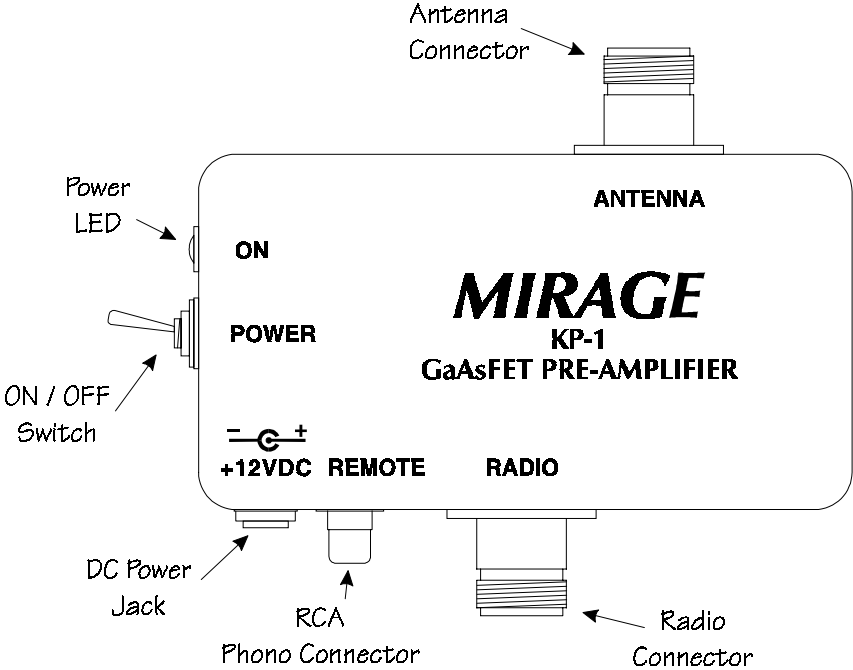
Connectors:

Antenna:	UG-58N VHF connector
Radio:	UG-58N VHF connector
Remote:	RCA Phono jack
Power:	3.5mm DC Coaxial jack

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Installation

The Mirage KP-1 connects in-line between your radio and your antenna. The KP-1 requires a positive 13.6 - 15 Vdc power source. The center pin of the 3.5mm coaxial power jack, located next to the RCA phono plug labeled **REMOTE**, is positive. Plug your antenna into the 'N' type antenna connector labeled **ANTENNA**, and your radio into the connector labeled **RADIO**. Use good quality 50 Ohm coax between your radio and the pre-amp, and RG-8U or equivalent between the pre-amp and your antenna. If your radio provides remote keying, connect to the RCA phono plug labeled **REMOTE**. Apply power to the KP-1 by toggling the **POWER** switch towards the LED labeled **ON**.



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Figure 1

In cases of very weak signal reception, you may want to change the factory preset gain level to the **HIGH** position. To do so, follow these steps:

1. Remove the four screws in the cover.
2. Carefully pry open the cover.
3. Move the two white toggles on the black switch (located approximately 1" from the **RADIO** connector) to the downward position.
4. Replace the cover.

Technical Assistance

If you have any problem with this unit, first check the appropriate section of this manual. If the manual does not reference your problem or your problem is not solved by reading the manual you may call *MIRAGE* at **601-323-8287**. You will be best helped if you have your unit, manual and all information on your station handy so you can answer any questions the technicians may ask.

You can also send questions by FAX to **601-323-6551**. Send a complete description of your problem, an explanation of exactly how you are using your unit, and a complete description of your station.