

Mirage B-34

The Mirage B-34 is a linear power amplifier designed for the 144-148 MHz band. It is the most useful and versatile amplifier available for handheld transceiver.

FEATURES

1. High output power of 30 to 35 watts.
30 to 35 watts is achieved with 1 - 8 watts input.
2. Input power from 1 to 8 watts
With an input power of 8 watts maximum, the Mirage is compatible with most modern handheld transceivers.
3. Small size
This amplifier's size makes it the perfect companion for field operation without the added weight.

SPECIFICATIONS

FREQUENCY	: 144 TO 148MHz
RF INPUT	: 1 - 8 WATTS
RF OUTPUT	: 35 WATTS TYPICAL
DUTY CYCLE	: INTERMITTENT (ICAS)
MODE	: FM
KEYING	: AUTOMATIC SENSING
SUPPLY VOLTAGE	: 12 - 15 VOLTS DC
RF CONNECTORS	: TWO (2) SO-239 VHF
SUPPLY CURRENT	: 4 AMPS TYPICAL
FUSE	: FAST BLOW, 8 AMP
INPUT/OUTPUT IMPEDANCE	: 50 OHMS

EXPLANATION OF FEATURES

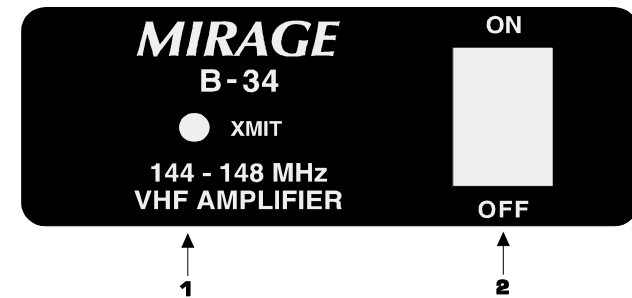
FRONT PANEL

1. ON AIR PILOT LAMP

The ON AIR pilot lamp indicates the amp is transmitting on the air.

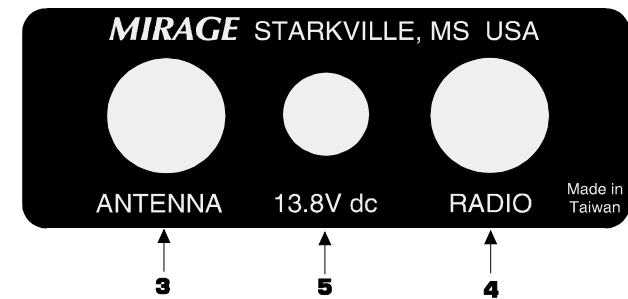
2. POWER ON SWITCH

When engaged, the amplifier is ready to amplify any signal applied to its input of the proper frequency.



BACK PANEL

3. ANT (RF OUTPUT)
The coax from your antenna is connected to this port.
4. RADIO (RF INPUT)
The coax from your radio or exciter is connected to this port.
5. DC PWR (13.8V)
This port has two wires. The Red wire is for positive and incorporates a FUSE holder. The Black wire is for negative . The Mirage B-34 amplifier will accept voltages of 12 to 15 volts DC.



INSTALLATION

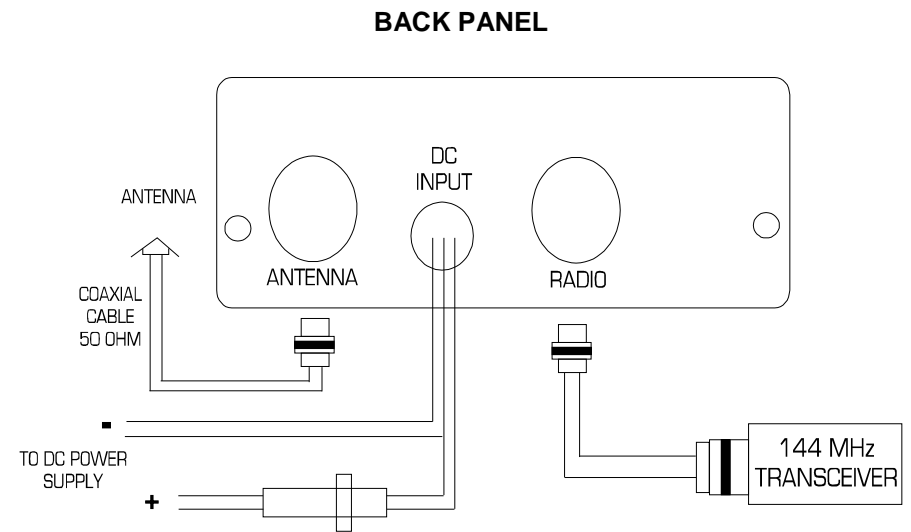
The Mirage B-34 may be placed in a convenient operating position. There must be adequate ventilation for the finned heat-sink. This generally means at least 1 inch clearance from the heat-sink to any surrounding enclosure and an unobstructed flow from the front to back of the heat-sink. Do not operate the amplifier in places where it will be exposed to the direct rays of sun or a nearby heat source such as heaters, radiators, etc.

CAUTION: With extended use the heat-sink becomes very hot.

If it is necessary to extend the DC power leads use wire of the same gauge in order to avoid a voltage drop on your power leads. Be careful that the DC power supplied is no higher than 15 volts or damage may result. A source voltage of 13.8 volts is recommended and should be used whenever available. Some automobiles will generate a high current surge when started. It is recommended that the amplifier be placed in the off position when starting your vehicle.

Use a minimum length of good quality 50 ohm cable between the radio and the amplifier. The antenna system should have a VSWR of 1.5:1 or better for the best performance. If used in a mobile

installation, choose a good mobile antenna which will withstand the power of this amplifier. Be sure to check the SWR for any degrading once the antenna has been heated by a few minutes of operation. An antenna with a rating of 100 watts is recommended.



**FIGURE I
CONNECTIONS**

TROUBLESHOOTING

The Mirage B-34 is designed for long, trouble-free performance and should not require extensive troubleshooting in the field. If difficulty is encountered, check the following before assuming the amplifier has malfunctioned:

1. Loose antenna or power supply connections
2. VSWR of the antenna system
3. Coaxial cables from radio to amplifier, and amplifier to antenna
4. Output voltage of power supply
5. Power output of radio
6. Improper fuse rating

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.

B-34 BOOSTER AMP. BLOCK CIRCUIT

