

MIRAGE

COMMUNICATIONS EQUIPMENT, INC.

B23A

2 METER POWER
AMPLIFIER

P.O. Box 1000 • Morgan Hill, CA 95037 • 408-779-7363

5/84

The MIRAGE B23A represents the latest in 2 Meter Power Amplifiers. It incorporates features that make it the most useful and versatile amplifier available today. The B23A has a built-in receive preamp and variable SSB delay. It will amplify both FM and SSB signals.

SPECIFICATIONS:

FREQUENCY RANGE	144 to 148 MHz
POWER	INPUT 0.1-4 Watts (5 Watts max.) OUTPUT 28 Watts or more for 2 Watts input-intermittent duty cycle
MODES	FM, SSB and CW
RECEIVE PREAMP	10 db gain with $2 \pm .5$ db noise figure
DC POWER	13.6 VDC at 5 Amps nominal
FUSE	7.5 Amps
IMPEDANCE	50 Ohm input and output
SIZE	7.25 x 3.5 x 2
WEIGHT	1.5 LBS.

INSTALLATION:

The B23A may be mounted by using the brackets supplied. The B23A must have adequate ventilation around the heat sink. Use of No. 10 or larger wire to connect the B23A to the battery is recommended. Use good quality 50 Ohm

co-ax, between the radio and the B23A. RG-8U or the equivalent should be used between the B23A and the antenna. The antenna should be matched, to better than 1.5:1 for best performance. SWR less than 3:1 will degrade system performance. SWR greater than 3:1 may cause damage to the amplifier voiding any warranty.

Front Panel Functions :

POWER—ON/OFF—This switch turns the power amplifier ON and OFF.

SSB/FM — Selects the relay time delay for the mode of operation. In either the SSB or FM position, the amplifier is still biased for linear operation.

PREAMP—ON/OFF—Turns ON and OFF the receive preamp. This works independent from the Power ON/OFF switch. When either the Preamp or Power Amp is turned on the Amplifier automatically switches the antenna using its internal circuitry.

Rear Panel Functions :

“INPUT” — This connects to the transmitter or receiver.

“OUTPUT” — This connects to the antenna.

PRECAUTIONS:

Heat Sink Temperature—The B23A must be mounted where air can circulate over the heat sink.

Input Power — Input power should not exceed 5 Watts. Higher power than this may cause failure of the input transistor. This will VOID ANY WARRANTY.

Internal Adjustments:

“SSB DELAY”—This allows the relay delay to be adjusted to any desired delay. Access to this adjustment is through the hole in the left side of the cover. Use a small screwdriver to adjust the control.

“INPUT” and “OUTPUT” MATCH—These are factory adjusted and do not normally require adjustment.

Preamp Tuning—These trimmers are factory set for the best gain and noise figure. They should not be re-adjusted unless connected to the proper equipment to set the noise figure.

Fuse—A 7.5 Amp fuse is located in the power lead. Should the fuse “blow”, determine the cause before replacement.

IN CASE OF DIFFICULTY:

1. Check for loose antenna or B+ connections.
2. Check S.W.R. of antenna.
3. Look for bad or lossy co-ax.

5 YEAR LIMITED WARRANTY

Any MIRAGE COMMUNICATIONS product found defective in materials or workmanship (except RF Power Transistors), within 5 years from date of purchase, by the original owner, will be replaced or repaired at no charge, if the product is returned to the factory, freight prepaid. RF Power Transistors are warranted for 1 year from date of purchase.

All Internal adjustments are factory set for best performance consistent with reliable operation. Changing internal adjustments may void the 5 year warranty.

Unauthorized repairs may void the 5 year warranty. We suggest that repair problems be returned to the factory.

RF power transistor replacement beyond the 1 year warranty period must be done at the factory to maintain the 5 year warranty on the rest of the unit.

This unit was not designed for repeater operation. The use of Mirage amplifiers in repeater service is at your own discretion. Consult the factory for recommendations regarding repeater service.

The Warranty Registration card must be submitted within 10 days from date of purchase, to obtain warranty service.

MIRAGE COMMUNICATIONS assumes no responsibility for any antenna, radio or accessories connected to this product.

This warranty does not apply to units that have been misused, accidentally damaged, subjected to more than the rated input power, manufactured prior to June 1978 or subjected to unauthorized service or repair.

