

Elecraft® MH2 Microphone Assembly and Operating Instructions

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INTRODUCTION

The MH2 contains a high- performance condenser microphone element optimized for SSB, AM and FM use with the Elecraft K2 and K3 radios. The MH2 provides excellent frequency response and gain.

Note: Both the front and rear MH2 labels have a removable protective plastic film. The film can easily be removed by lightly scratching the label with your finger nail and then peeling off the film.

Parts Supplied

| QTY | Description |
|-----|---|
| 1 | MH2 Microphone |
| 1 | Microphone Mounting Clip |
| 8 | Mic. Configuration Jumper Blocks (<i>For K2 only</i>) |
| 1 | Resistor, 5.6K (green-blue-red) (<i>For K2 only</i>) |

SET UP AND OPERATION FOR THE ELECRAFT K3

Important! The following applies *only* to an Elecraft K3. See the next page if you have an Elecraft K2.

No internal hardware changes are required to use your MH2 with the Elecraft K3. Setup consists of attaching the microphone, enabling it using the MENU commands and making other front-panel adjustments.

Note: The jumper blocks and 5.6 k resistor supplied with your microphone are not used. They are required only when using the MH2 with an Elecraft K2.

The K3 can receive microphone input from either front or back panel connectors. Select the front panel connector as follows:

1. Tap **MENU** and locate **MIC SEL** with VFO B.
2. Select **FP.L** or **FP.H** with VFO A.
3. If **FP.H** is displayed, tap the **1** button to toggle the display to show **FP.L**.
4. Tap the **2** button as needed to display **BIAS**. (This turns on the microphone bias voltage required by the MH2.)

Plug the microphone into the K3 front panel 8-pin microphone connector.

Choose a voice mode (AM, FM, USB or LSB) your K3 is equipped to operate. Set the K3 power level to 10 W and make sure an appropriate dummy load or antenna is attached to the K3.

Press the PTT button on the MH2 and speak normally into the front of the microphone. You should observe movement on the K3's power meter. Adjust the K3 front panel MIC (microphone gain) and CMP (compression) controls as needed.

This confirms that your microphone is working. Refer to the K3 Owner's manual for adjusting your K3 for optimum results. See *Basic Operation*, *Voice Modes*, *SSB*, *AM*, *FM* as well as *Advanced Operating Features*.

In Case of Difficulty

If you have problems getting your MH2 to operate with your K3, first confirm that you have enabled the external microphone bias (see the first step of the above procedure). If this does not correct the problem, please consult *Troubleshooting* in your K3 Owner's Manual.

Also, please feel free to email us at k3support@elecraft.com with your questions.

SET UP AND OPERATION FOR THE ELECRAFT K2

Important! The following applies *only* to an Elecraft K2. See first page if you have an Elecraft K3

Using the MH2 with your K2 requires installing the microphone jumper blocks in the default Elecraft configuration and adding a microphone bias resistor as follows:

- Remove the four exterior screws securing the K2 Front Panel assembly to the front of the K2 case and the two interior screws holding the Control Board to the Front Panel board.
- Remove the Front Panel assembly by gently pulling it away from the K2 case.

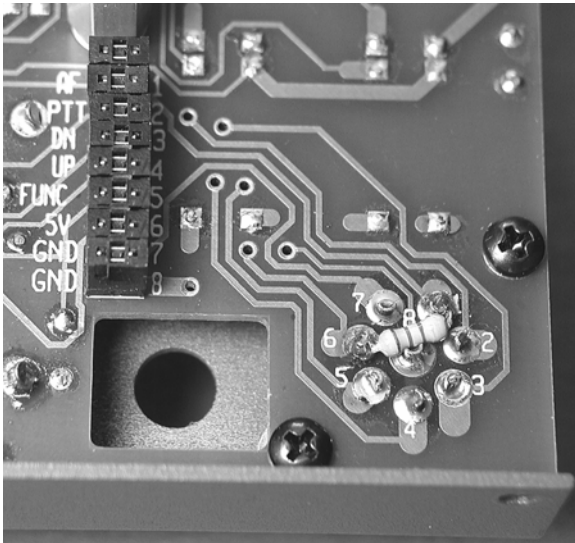


Figure 1. Jumper Blocks and Mic Bias Resistor (K2 ONLY!)

- Install the eight supplied jumper blocks on the Microphone Configuration Header (P1), located on the rear of the Front Panel board (see upper left area of Figure 1). Install each jumper so that it connects each adjacent pair of pins. Pin 1 to AF, Pin 2 to PTT, Pin 3 to DN etc. as shown.
- Install the supplied 5.6K resistor on the rear of the 8 pin microphone connector between pin 1 and pin 6 (see Figure 1). Solder each end of the resistor and trim the excess lead length.
- Plug the Front Panel assembly back into the RF Board. Secure it to the chassis (4 screws) and Control Board (2 screws).

Test and Set Up

- Plug the MH2 into the K2/K3 microphone connector and power up the K2. Make sure the K2 is set to USB or LSB and is connected to a dummy load or appropriate antenna.
- Make sure the K2 SSB menu options are set up as follows: SSBA = 1; SSBC = 2. Set the power to ten watts.
- Press the PTT button on the MH2 and speak normally into the front of the microphone. You should observe movement on the K2's power meter.
- See *Using the SSB Adapter* on pages 21- 22 of the KSB2 manual for SSB set up and operation. Normal SSB menu settings for the MH2 are: SSBA = 1 (3 for softer voices); SSBC = 1 (no compression), 2 (low), 3 (medium) and 4 (strong). Most users set compression at SSBC 2 or 3.
- You may wish to optimize the K2's transmit audio by adjusting the **BF1t** settings for USB and LSB. See "SSB Transmit BFO Optimization" on page 22 of the KSB2 manual. Adjusting these settings allows you to shift the K2's transmit frequency response up or down to match your personal voice characteristics and taste.

In Case of Difficulty

If you have problems getting your MH2 to operate with the K2 first confirm that you have properly installed the eight microphone configuration jumpers and the 5.6K resistor. If you have not previously confirmed the operation of your KSB2 with another microphone, refer to the troubleshooting section of the KSB2 manual.

Also, please feel free to email us at support@elecraft.com.