

MFJ-299

Deluxe Desktop Microphone / Ham Station Console

Thank you very much for your purchase of the MFJ-299 Deluxe Desktop Microphone / Ham Station Console. To enjoy this unit to full satisfaction, please read the instructions carefully.

SPECIFICATIONS

Microphone	High Sensitivity Ceramic Microphone Element
Compressor Level	High: 45dB, Med: 30dB, Low: 10 dB
S/N Ratio (Graphic Equalizer)	80 dB
Distortion Factor	0.05% (at flat)
Graphic Equalizer	4 Elements (270, 540, 1000, & 2000 Hz)+12dB range
Output Voltage	COMP: 0 – 30 mV (RMS)
Matching Output Impedance	500 ohms – 100K ohms
Power Voltage	DC 6-9 V
Current Consumption	(EQ off) Receive – 3.5 mA, Transmit – 4.5 mA (EQ on) Receive – 10 mA, Transmit – 11 mA
Alarm Sound	Approximately 4.5 kHz Intermittent Tone
Size	8.937(W) X 5.118 (D) X 12.598 (H) inches
Weight	2.2 Lbs.

FEATURES

1. High Sensitivity Ceramic Microphone Element.
2. High Quality Compressor Amplifier. For constant transmission at an optimum level without distortion regardless of audio input.
3. Equipped with Graphic Equalizer for Optimum Audio Output Quality. The 4 Element Graphic Equalizer with center frequencies of 270, 540, 1000, and 2000 Hz can control the audio output quality. It gives the best audio quality for FM and maximum efficiency for SSB and DX.
4. Triple input socket for most transceiver models.
5. Battery check circuit built in. Press the power switch and the level meter indicates the battery condition with power voltages for a few seconds.

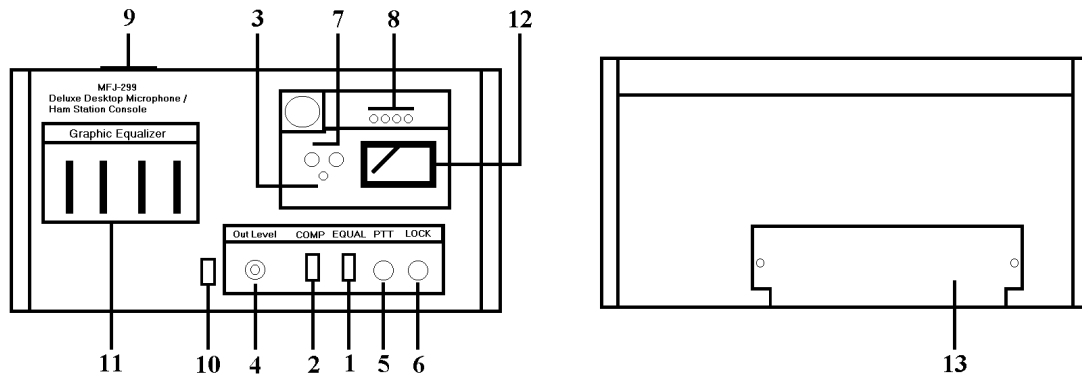
INSTALLATION

1. Install a fresh 9V battery (not included) in the battery compartment.
2. The MFJ-299 must be used with one of the following cables (sold separately):
 - MFJ-5397I - compatible with most ICOM transceivers that have an 8-Pin round connector.
 - MFJ-5397K - compatible with most Kenwood transceivers that have an 8-Pin round connector.
 - MFJ-5399Y - compatible with most Yaesu transceivers that have an 8-Pin round connector.
 - MFJ-5397MX - compatible with most transceivers that have an 8-Pin modular connector.
3. Plug the cable into the Microphone Output Connector and set the Microphone Output Connector Switch as follows:
 - Position A for all ICOM transceivers.
 - Position B for all Kenwood and Yaesu FT-100 transceivers.
 - Position C for all Yaesu transceivers.

CAUTION:

- Please be sure to use MFJ conversion cables. The MFJ-5399 is compatible with most transceivers that have an 8-Pin round connector. The MFJ-5399M is compatible with most transceivers that have an 8-Pin modular connector.
- Please be careful about high SWR of antenna and incomplete grounding. This may cause RF Feedback and noise depending on coaxial cable layout.
- Please be sure to turn the power switch off after use to ensure long battery life.
- Do not subject the microphone in high temperatures or place in direct sunlight.

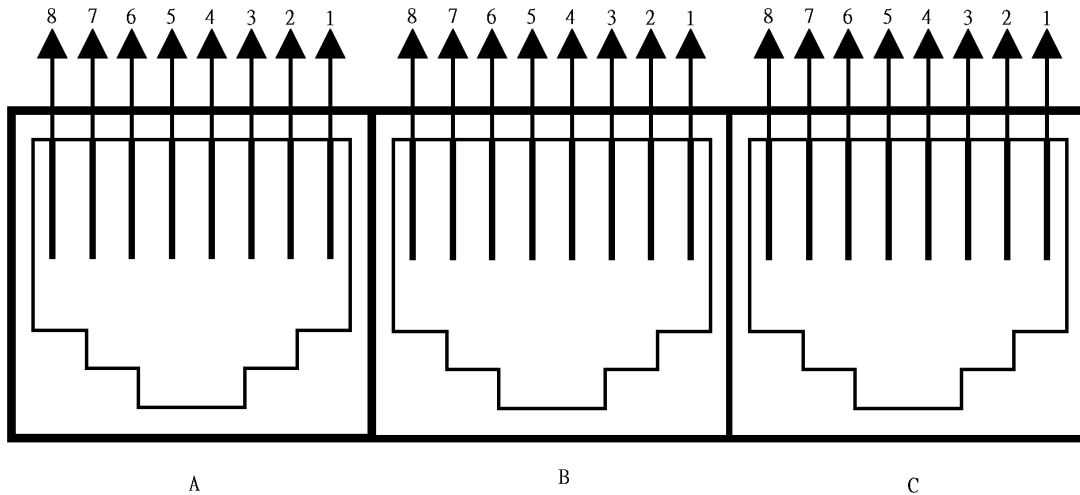
CONTROLS (Front and Rear Panel)



1. Power and Graphic Equalizer ON/OFF Switch.
Slide the switch to the "ON/B.CHECK" position. The Level Meter (#12) will indicate the condition of the battery. The MFJ-299 will function as a desktop microphone without enabling the graphic equalizer. To enable the graphic equalizer slide this switch to the "EQUAL ON" position.
2. Compressor Level Selector Switch:
 - HIGH (45 dB): Select this position when speaking softly or if you are more than 12 inches away from the microphone. (The microphone will pick up any noise around the microphone.)
 - MED (35 dB): This is optimum position for normal QSOs. You can enjoy QSOs with enough voice level at 4 inches away from the microphone.
 - LOW (10 dB): The compressor function will activate the microphone only when you speak directly into microphone. This position should be selected when you operate in a noisy area.
3. "On Air" Indicator: When the Power ON/OFF Switch (#1) is moved to either ON position; the LED will flash on and off to indicate the unit is in stand-by mode. When the PTT (#5) or LOCK (#6) buttons are pressed, the LED will light up continuously. The LED will remain lit during transmission.
4. Output Level Volume: This controls the audio output level of the microphone. Adjust the level from MIN to MAX to find the optimum output level. The output level should be adjusted so that the meter indicator does not exceed 0dB. This control is independent of the compressor control.
5. PTT Switch: Use this for short QSOs. When this button is pressed, a beep will sound and the "ON AIR" LED indicator (#3) will be continuously illuminated thus indicating the unit is in transmit mode. When this button is released, the "ON AIR" LED will begin to flash indicating the unit is in stand-by mode.
6. LOCK Switch: Use this for longer QSOs. When this button is pressed, a beep will sound and the "ON AIR" LED indicator (3) will be continuously illuminated thus indicating the unit is in transmit mode. When this button is released, the "ON AIR" LED indicator will remain illuminated. To end transmission, press the PTT button (#5).
7. UP/DOWN Switch: The UP button will adjust the frequency of your transceiver up and the DOWN button will adjust the frequency of your transceiver down.
8. Function Key: These four buttons are specifically designed for KENWOOD transceivers. These buttons may or may not work with other types of transceivers.
 - CALL – Selects the call frequency.
 - VFO – Selects VFO mode for manual tuning.
 - MR – Memory recall selects preset memory tuning.
 - PF – Activates the Preset Function feature.
9. Microphone Output Connector: Connect a MFJ conversion cable (not included) to the Output connector compatible with your radio.
10. Microphone Output Connector Switch: Select position A for ICOM transceivers, position B for Kenwood transceivers, and position C for Yaesu transceivers (Note: the switch should be in position B for the Yaesu FT-100 transceiver).
11. Graphic Equalizer: The Graphic Equalizer consists of 4 elements with center frequencies of 270, 540, 1000, and 2000 Hz. The output level of each element can be adjusted freely between the +12dB level and -12dB level. If you speak in a low voice tone, the 270 and 540 Hz levels should be adjusted down. For DX operation, it is recommended that the 1000 and 2000 Hz levels be set at a high position. When you are in a local QSO, adjust the higher tone levels back to normal. The adjustment level of each element is about 12dB. If all elements are adjusted to the +12dB level, the overall output level of the microphone will increase by +12dB. When all elements are at the +12dB, the Output Level Volume should be adjusted accordingly so that the output does not exceed 0dB.

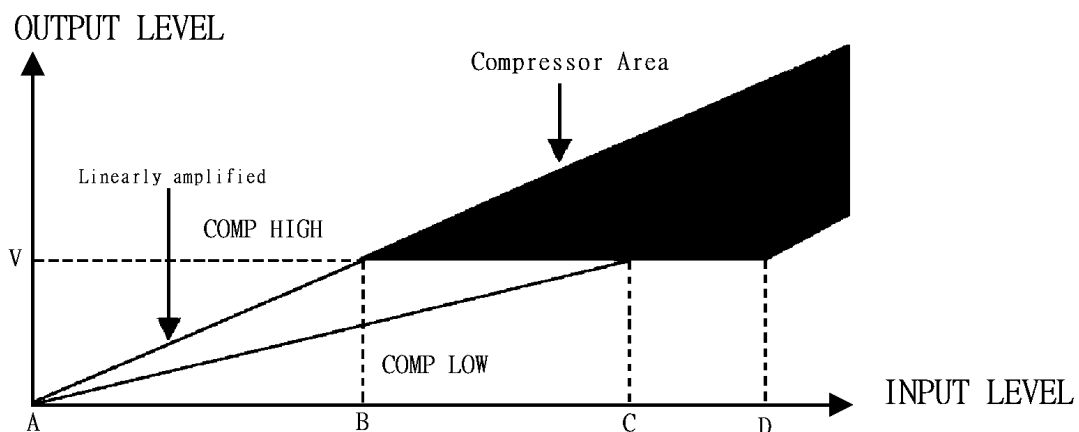
12. Level Meter: You can see the output level of the MFJ-299 with this meter. Adjustments should be made as mentioned in #4 & #11 above so that the output level does not exceed 0dB. If the output level exceeds 0dB, distortion will occur.
13. Battery Cover: Remove the screws on the bottom plate. Install a fresh 9V battery (not included) to the connector. Replace the battery cover and screws before operation.

Microphone Output Connector Information



A for ICOM Transceivers	B for Kenwood Transceivers	C for Yaesu Transceivers
1 No Connection	1 Frequency UP	1 No Connection
2 PTT Ground	2 +8V DC Input	2 No Connection
3 Microphone Input	3 PTT Ground	3 PTT
4 Microphone Ground	4 PTT	4 Microphone Input
5 PTT	5 Microphone Ground	5 Ground
6 No Connection	6 Microphone Input	6 +8V DC Input
7 Frequency UP/DOWN	7 No Connection	7 Frequency UP
8 +8V DC Input	8 Frequency DOWN	8 Frequency DOWN

Compressor Characteristic Curve Chart



The compressor amplifier serves to keep distortion low and the output level constant regardless of the input level. The audio input level is automatically adjusted by an electrical volume control. Please refer to the sketch above. The input level from A to B is linearly amplified. The input level from B to D is compressed. The compression level is the voltage ratio of input levels at B and D. The high compression level has a 45 dB minimum compression level. You can extend the communication distance by using the rated output power of your transceiver and microphone.

12 MONTH LIMITED WARRANTY

MFJ Enterprises, Inc. Warrants to the original owner of this product, if manufactured by MFJ Enterprises, Inc. and purchased from an authorized dealer or directly from MFJ Enterprises, Inc. to be free from defects in material and workmanship for a period of 12 months from date of purchase provided the following terms of this warranty are satisfied.

1. The purchaser must retain the dated proof-of-purchase (bill of sale, canceled check, credit card or money order receipt, etc.) describing the product to establish the validity of the warranty claim and submit the original or machine reproduction of such proof-of-purchase to MFJ Enterprises, Inc. at the time of warranty service. MFJ Enterprises, Inc. shall have the discretion to deny warranty without dated proof-of-purchase. Any evidence of alteration, erasure, or forgery shall be cause to void any and all warranty terms immediately.
2. MFJ Enterprises, Inc. agrees to repair or replace at MFJ's option without charge to the original owner any defective product under warranty, provided the product is returned postage prepaid to MFJ Enterprises, Inc. with a personal check, cashiers check, or money order for \$7.00 covering postage and handling.
3. MFJ Enterprises, Inc. will supply replacement parts free of charge for any MFJ product under warranty upon request. A dated proof-of-purchase and a \$5.00 personal check, cashiers check, or money order must be provided to cover postage and handling.
4. This warranty is NOT void for owners who attempt to repair defective units. Technical consultation is available by calling (662) 323-5869.
5. This warranty does not apply to kits sold by or manufactured by MFJ Enterprises, Inc.
6. Wired and tested PC board products are covered by this warranty provided only the wired and tested PC board product is returned. Wired and tested PC boards installed in the owner's cabinet or connected to switches, jacks, or cables, etc. sent to MFJ Enterprises, Inc. will be returned at the owner's expense unrepaired.
7. Under no circumstances is MFJ Enterprises, Inc. liable for consequential damages to person or property by the use of any MFJ products.
8. Out-of-warranty Service: MFJ Enterprises, Inc. will repair any out-of-warranty product provided the unit is shipped prepaid. All repaired units will be shipped COD to the owner. Repair charges will be added to the COD fee unless other arrangements are made.
9. This warranty is given in lieu of any other warranty expressed or implied.
10. MFJ Enterprises, Inc. reserves the right to make changes or improvements in design or manufacture without incurring any obligation to install such changes upon any of the products previously manufactured.
11. All MFJ products to be serviced in-warranty or out-of-warranty should be addressed to MFJ Enterprises, Inc., 300 Industrial Park Road, Starkville, Mississippi 39759, USA and must be accompanied by a letter describing the problem in detail along with a copy of your dated proof-of-purchase.
12. This warranty gives you specific rights, and you may also have other rights, which vary from state to state.