

# YAESU MD-200A8X

## ULTRA-HIGH-FIDELITY DESKTOP MICROPHONE

The MD-200A8X Desktop Microphone is designed for base station operation with the latest generation of Yaesu HF transceivers, including those with VHF/UHF capability. Designed especially for ultra-low distortion and the highest fidelity, the MD-200A8X includes a new-technology "Variable Side Pressure Control" (VSPC)\*, which allows precise adjustment of the microphone's audio response without resorting to "active" equalization circuits that can introduce distortion and/or degrade signal-to-noise ratio.

The exceptional fidelity of the MD-200A8X is realized through the use of a high-quality Polyethylene Terephthalate Dynamic Element, which provides wide dynamic range. Using the VSPC control, "Hi-Fi" (totally flat), "DX" (additional "brightness" in the high-frequency range), or intermediate frequency responses can be set up.

The MD-200A8X includes provision for the installation of a user-supplied Dynamic, Magnetic, or Crystal microphone element, which then can be selected via a convenient slide switch on the microphone's base.

The MD-200A8X microphone's housing is suspended in a solid metal yoke with a shock-absorbing rubberized ring, to absorb low-frequency vibrations that can ruin fidelity and rob power from desired frequencies. Convenient switches for PTT and scanning activation are located on the solid aluminum die-cast base.

Please read this manual thoroughly, so as to get the most out of your new Yaesu MD-200A8X Microphone. \*Patent Pending

### INSTALLATION

1. Screw in the Microphone Neck into the Microphone Stand, then mount the Microphone Head onto the Microphone Stand, using the supplied Knob Screw (see Figure 1).
2. Connect the (short) Microphone Cable (with the miniature connector) from the microphone body to the base's miniature multi-pin jack.
3. Connect the supplied coiled cable to the MIC jack on the transceiver, and connect the other end of this cable to whichever of the MIC jacks on the rear of the MD-200A8X that is appropriate.
4. During operation, please keep the microphone housing in the vertical position. The Dynamic Microphone Element inside the housing is already canted upward by about 30°, so it is not necessary to adjust the microphone's housing toward an upward-facing angle.

### INSTALLATION AND OPERATION TIPS

- Keep the MD-200A8X and its cable away from power supplies and their power cables, to minimize the chance for inductive pick-up of AC noise and hum.
- Especially during portable operation, keep the MD-200A8X away from your antenna, its coaxial cable, and its counterpoise (if used), so as to minimize the chance for pick-up of RF interference.
- The MD-200A8X microphone head cannot be operated alone.
- Do not change the position of the Microphone Element Selector Switch while transmitting.

### VERTEX STANDARD CO., LTD.

4-8-8 Nakameguro, Meguro-Ku, Tokyo 153-8644, Japan

### VERTEX STANDARD

US Headquarters

17210 Edwards Rd., Cerritos, CA 90703, U.S.A.

International Division

8350 N.W. 52nd Terrace, Suite 201, Miami, FL 33166, U.S.A.

### YAESU EUROPE B.V.

P.O. Box 75525, 1118 ZN Schiphol, The Netherlands

### YAESU UK LTD.

Unit 12, Sun Valley Business Park, Winnall Close  
Winchester, Hampshire, SO23 0LB, U.K.

### VERTEX STANDARD HK LTD.

Unit 5, 20/F., Seaview Centre, 139-141 Hoi Bun Road,  
Kwun Tong, Kowloon, Hong Kong

### ADJUSTMENT OF FREQUENCY RESPONSE USING VSPC

The MD-200A8X employs a new technology for adjustment of the frequency response, called "VSPC" (Variable Side Pressure Control). The VSPC adjustment is accomplished using a ring around the Dynamic element, inside the microphone's housing.

Adjustment of the frequency response is best performed using a separate receiver in your station. Disconnect the antenna from the monitor receiver, and disable the input preamplifier and/or activate the input attenuator, if necessary, to reduce the signal from your transceiver to a reasonable level (S7 to S9 maximum).

To adjust the frequency response of the MD-200A8X:

1. Unscrew the two large gold screws with a help of a coin (a U.S. 5¢ coin is ideal), one from each side of the yoke supporting the MD-200A8X housing. Detach the microphone head from the microphone yoke, then remove the top cover from the microphone head (see Figure 2).
2. Referring to Figure 3, gently turn the VSPC ring to achieve the desired voice characteristics. The default setting (configured at the factory) for the VSPC is "Flat," which provides the most broad, natural-sounding, high-fidelity response. This response is obtained when the calibration mark ("■") is positioned at the top. The adjustment range of the VSPC ring is 180°; rotation of the VSPC ring fully clockwise (or counter-clockwise) will produce emphasis on the higher frequencies, ideal for contest or DX work; fidelity will still be excellent, however.



The VSPC ring is a precision adjustment instrument. Please turn the VSPC ring carefully when making adjustments.

3. Replace the top cover onto the microphone housing, then replace the microphone head onto the microphone yoke, using the two large gold screws with a help of a coin. Installation is now complete.

### APPLICABLE TRANSCEIVERS

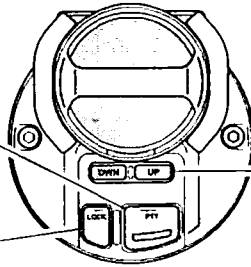
MARK-V FT-1000MP, FT-1000MP, FT-1000/1000D\*, FT-990\*, FT-920, FT-900, FT-847, FT-840\*, FT-817

\* The FT-1000/1000D/990/840 do not support the illumination of the TX LED during transmission.


SWITCHES AND CONNECTORS

**Main PTT Switch:** Press and hold in this switch to transmit, and release it to receive.

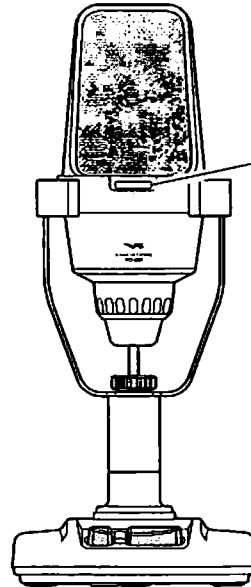
**PTT Lock Switch:** Press this switch to lock the PTT circuit on (for long transmissions); press it once more to release the PTT and return to the receive mode.



**UP/DWN Switches:** Press one of these switches momentarily to step the operating frequency (or memory channel) up or down, respectively. If the squelch is closed, holding one of these keys down will engage scanning, which will continue until a signal is found (or until you press the PTT switch).

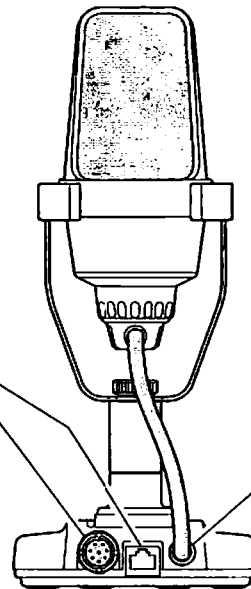
 **Some models do not support the scanning function.**

**TX LED:** This LED glows Red when you are transmitting (except on the some models, which do not support this function. See "Applicable Transceiver" section).



**MIC Jacks:** The supplied (coiled) cable includes a modular microphone plug on one end, and a round 8-pin microphone plug on the other.

Connect the matching plug on the cable to the transceiver's MIC jack, and connect the other end of the cable to the matching jack on the microphone's base. Do not attempt to use both jacks on the microphone base at the same time.

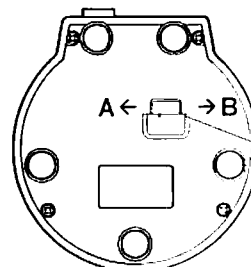


**Mini MIC Jack:** Connect the short cable emanating from the microphone housing to this miniature microphone connector.

SPECIFICATIONS

Microphone Element Type: Dynamic  
 Frequency Range: 30 - 17000 Hz  
 Sensitivity: -62 dB (1 kHz, 0 dB = 1 V/1 pa)  
 Impedance: 600 Ohms  
 Dimensions (WHD): 4.7" x 11.4" x 4.9"  
 (120 x 290.5 x 124.5 mm)  
 Weight: Approx. 2.2 lb. (1 kg.)

*Specifications are subject to change without notice or obligation.*



**Microphone Element Selector Switch:** Use this switch to select between the stock Polyethylene Terephthalate Dynamic Element ("A") and the user-supplied microphone element ("B"), if installed. Do not move the position of this switch while transmitting.

## INSTALLING AN ADDITIONAL MICROPHONE ELEMENT

If you wish to install an additional microphone element (not supplied) into your MD-200A8x housing, use the following procedure:

1. Unscrew the two large gold screws with a help of a coin, one from each side of the yoke supporting the MD-200A8x housing. Detach the microphone head from the microphone yoke, then remove the top cover from the microphone head (see Figure 2).
2. Referring to Figure 4, mount the new microphone element into the microphone housing, using the supplied mounting board; peel off the protective sheet from the adhesive tape on the mounting board, then stick on the microphone element.
3. Wrap the supplied Sponge Sheet around the user-supplied microphone element to reduce wind noise or to conceal it from view.

4. Solder the wires from the new element to the solder pads on the "LED Unit" circuit board: The "hot" microphone lead goes to "MIC-B," and the Microphone Ground lead goes to "BGND."
5. Replace the top cover onto the microphone housing, then replace the microphone head onto the microphone yoke, using the two large gold screws with a help of a coin. Installation is now complete.
6. To engage the newly-installed microphone element, set the Microphone Element selector Switch to the "B" position (the "normal" position, using the factory-supplied microphone element, is "A").

We recommend that the microphone housing be canted upward by about 30° to pick up your voice clearly when operating with the "B" microphone element.

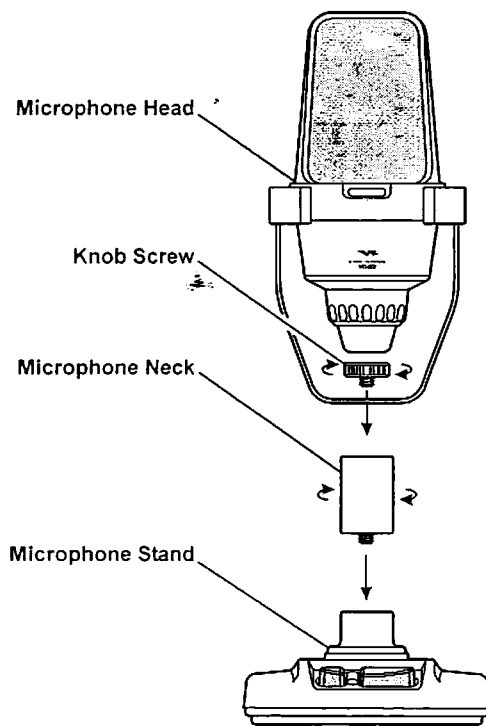


Figure 1

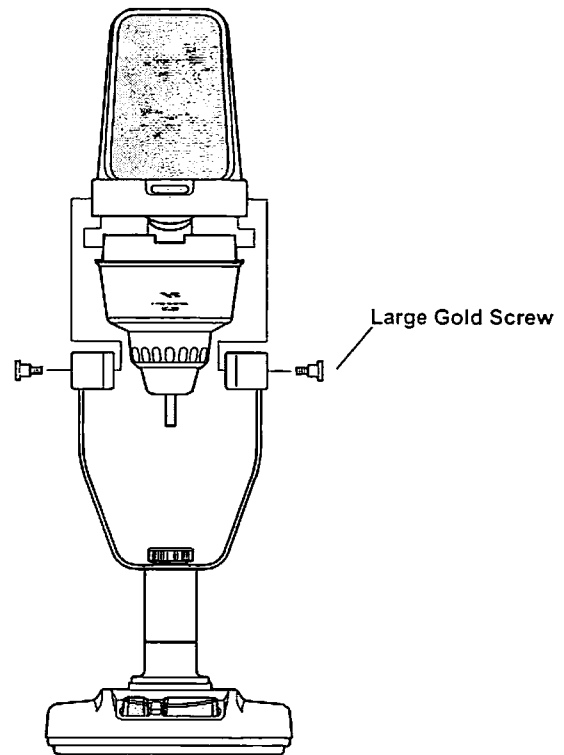
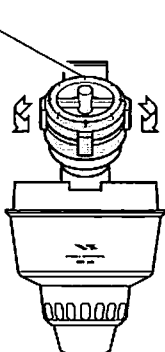


Figure 2

When the "■" mark is located at the *top*, the VSPC is set to "Flat." Conversely, when the "■" mark is located at the *bottom*, the VSPC produces the *highest-articulation audio*. Intermediate settings may also be used, of course.



Gently turn the VSPC ring to achieve the desired voice characteristics.

Figure 3

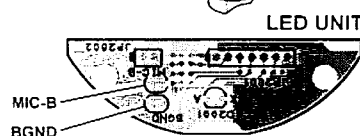
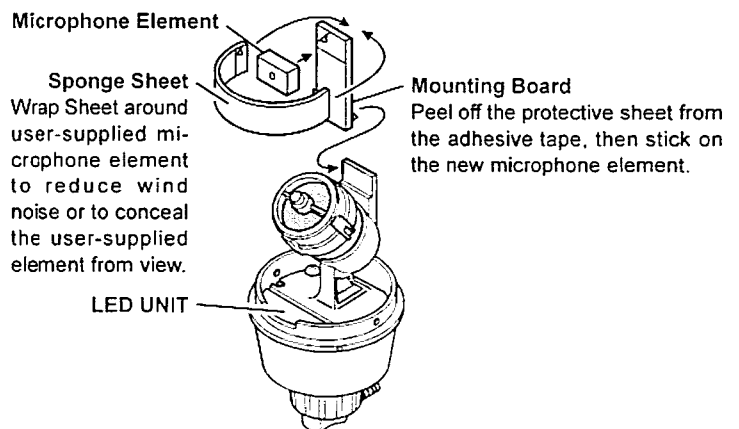


Figure 4