

YAESU FT 450



The FT-450 is a compact yet superb HF/50MHz radio with state-of-the-art IF DSP technology configured to provide World Class performance in an easy to operate package. New licensees, casual operators, DX chasers, contesters, portable / field enthusiasts, and emergency service providers...This Radio is for YOU !

Compact Size & Lightweight

The FT-450 is compact 9"W x 3.3"H x 8.5"D, lightweight 7.9 pounds package designed to be used as a desktop radio at home or in portable applications. The FT-450 can also be used mobile with the MMB-90 convenient mobile bracket accessory. Besides home or mobile operation, this easy to pack radio is a DXpeditioner or Emergency Service Providers dream come true - compact, lightweight, high performance receiver, and 100 watts on 160 through 6 meters.

Power Requirements

The FT-450 can be powered by any convenient 13.8 VDC 22 amp external power source.

Large Easy-to-Read LCD Display

You will love the FT-450 9-segment Black-Nega type LCD frequency display with larger-than-normal easy to read characters.

IF Roofing Filter

The FT-450 includes a 10 kHz bandwidth Roofing Filter in the 68 MHz first IF, right after the first mixer. This filter provides narrow-band selectivity to protect the following IF and DSP stages – a feature rarely found in rigs in this price range!

IF SHIFT & WIDTH

The FT-450 IF Width and IF Shift features are the primary tools you should use for best interference reduction. After narrowing the bandwidth (Width) and/or adjusting the center of the passband (Shift), the Contour control (see details of this feature below) may also yield additional signal-enhancement benefits on the net residual bandwidth. What's more, the IF Notch Filter (see details of this feature below) may also be utilized in conjunction with the three other filter systems to significant advantage. The IF WIDTH tuning system allows you to vary the width of the DSP IF passband to eliminate interference. Moreover, the bandwidth may actually be expanded from its default setting, should you wish to enhance incoming signal fidelity when interference on the band is low. The IF WIDTH is varied in steps: SSB - 1.8/2.4/3.0 kHz. AM - 3.0/6.0/9.0 kHz. FM - 2.5/5.0. CW - 0.5/1.8/2.4 kHz. kHz. The IF SHIFT tuning system allows you to vary the DSP filter passband higher or

lower, without changing the pitch of the incoming Signal to reduce or eliminate interference. Because the carrier tuning frequency is not varied, there is no need to re-tune the operating frequency when eliminating the interference. The total passband tuning range for the IF Shift system is ± 1 kHz. Rotate the [SHIFT] knob to the left or right to reduce the interference. You may observe the position of the passband in the "SHIFT" indicator of the DSP Graphic Display portion of the LCD front panel main display.

CONTOUR

The Contour filtering system provides a gentle shaping of the IF filter pass band to suppress or enhance particular frequency components, thus improving the sound and/or readability of a received signal. The DSP Contour filter is a unique capability of the receiver, providing either Nulling or Peaking of tunable segments of the receiver passband to suppress interference or excessive frequency components on an incoming signal, or to peak those tunable frequency segments. The amount of Nulling / Peaking and the bandwidth over which it is applied are adjustable via the Menu. The peak position of the contour filter is graphically depicted in the "CONTOUR" indicator of the DSP Graphic Display portion of the LCD front panel main display. SPECIAL FILTERING NOTE: The steep slopes of the DSP filtering can, when adjusted aggressively, impart an unnatural sound to an incoming signal. Often, a narrow bandwidth is not the key to improving copy. The incoming signal itself may have undesirable or excessive frequency components. By judicious use of the Contour filter, the "shoulder" of the passband response may be altered, or components removed from within the passband, allowing the desired signal to rise above the background noise and interference in a manner not obtainable with other filtering systems.

IF NOTCH

The IF Notch filter is a highly effective system that allows you to slice out an interfering beat note or other carrier signal from inside the receiver passband. You may observe the graphically depicted peak position of the IF Notch filter in the "NOTCH" indicator of the DSP Graphic Display portion of the LCD front panel main display.

DNR - Digital Noise Reduction

The Digital Noise Reduction (DNR) feature utilizes eleven (11) different mathematical algorithms to analyze and suppress different noise profiles encountered on the HF/50 MHz bands. You get to choose the selection that provides the best noise suppression. The DSP's Digital Noise Reduction (DNR) system is designed to reduce the level of random noise found on the HF and 50 MHz bands. It is especially effective during SSB operation. Any of eleven different noise-reduction algorithms can be selected. Each of these algorithms was created for dealing with a different noise profile. You will want to experiment with the DNR system to find the best setting according to the noise currently being experienced that concurrently will allow the signal to rise up out of the noise.