

# HEAVY-DUTY VHF FM TRANSCEIVER FT-2800M



ACTUAL SIZE





HEAVY-DUTY VHF FM TRANSCEIVER  
**FT-2800M**

# NO COOLING FAN COOL AND QUIET 65 W OPERATION

Yaesu's FT-2800M, the most ruggedly-built 2-meter amateur transceiver ever, provides 65 Watts of power along with Yaesu's renowned bullet-proof receiver front end. Direct keypad frequency entry, Alpha-Numeric Memory System, the high power output, and unsurpassed ergonomics make the FT-2800M an operator's dream come true!

## New Ultra-High-Dissipation Heat Sink Design

The all-new heat sink of the FT-2800M provides more effective cooling than any other design, allowing long transmission periods without dangerous heat build-up or power reduction due to thermal protection.



High power output, a huge, easy-to-read display, and one-touch WIRES™ Internet Linking Access capability are yours with the exciting new FT-2800M.

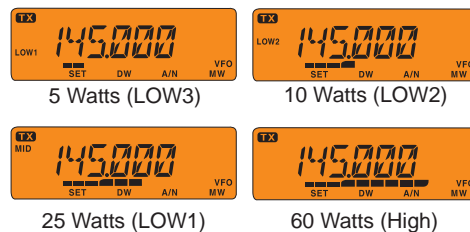
On transmit, the 65 Watts of true FM power output provides you with excellent coverage and superb voice clarity. On receive, you get extended coverage of 134-174 MHz, with a special memory bank dedicated to the NOAA Weather Broadcast Channels (U.S. version only).

Built to the exacting requirements of both the commercial radio industry, as well as the U.S. military's MIL-STD 810, the FT-2800M is constructed using an aluminum diecast chassis/heatsink assembly, providing outstanding mechanical and thermal stability for the internal components.

With superb ergonomics to go along with its stout RF design, the FT-2800M is ready for action, at home or away!

### 65 WATTS POWER OUTPUT

Four selectable power output levels are provided: 65/25/10/5 Watts. The power selection may be stored into memory, allowing you to conserve power while using strong local repeaters.



### EXTENSIVE MEMORY SYSTEM

The FT-2800M provides a total of 221 memory channels, including 200 "regular" memories, ten pairs of band-limit memories, and an instant-recall "Home" channel you can dedicate to a frequently-used repeater or simplex frequency. Memories can store repeater shift information, CTCSS/DCS data, power output level, scanning status ("Skip"), and Alpha-Numeric labels.

### ALPHA-NUMERIC CHANNEL DISPLAY

Memory channels may be displayed either with the channel frequency or a personalized Alpha-Numeric label, for easy channel recognition. Up to six letters, characters, or numbers may be used for labeling channels.

### CTCSS AND DCS ENCODE/DECODE BUILT IN

For easy repeater access, or silent monitoring of busy channels, both CTCSS and DCS (Digital Code Squelch) Encoder/Decoder circuits are built in. CTCSS and DCS configuration data may be stored independently in each memory channel. A "Split Tone" mode also allows operation on systems where CTCSS and DCS are used separately on the repeater uplink/downlink.

### VERSATILE SCANNING CAPABILITY

The FT-2800M's high-speed scanning features include a choice of scanning-resume options ("carrier drop," "time delay," or "halt"), with scanning provided on the memories, the VFO, or within a limited VFO sub-band established by one of the ten pairs of sub-band memories. You may designate certain constant-carrier memories to be "skipped" during scanning, and you also may create a "preferential scan list" to allow scanning only of selected memories within the main 200-channel memory bank.

### WX CHANNELS WITH "SEVERE WEATHER" ALERT

A special 10-channel Weather Band memory bank is provided in the U.S. version, allowing quick access to NOAA weather broadcasts. When the 1050-Hz "Severe Weather" alert tone is transmitted,

the FT-2800M may be configured to emit an alarm tone to get your attention quickly. With the "Weather Alert" feature enabled, the FT-2800M will scan the ten Weather memories, stopping only if the 1050-Hz tone is received.



### SMART SEARCH™

The Smart Search™ feature may be used to load - automatically with no operator intervention - a special bank of up to 31 memories, based on activity. Smart Search™ will sweep the band, automatically loading frequencies on which activity is found, making it ideal when visiting a city for the first time.

### WIRES™ INTERNET LINKING ACCESS FEATURE

The FT-2800M includes a conveniently-located "Internet" key, for quick access to Internet-linked repeater systems. Internet repeater linking allows you to use your FT-2800M to talk to other Amateurs throughout the world, with outstanding voice signal quality. The "Internet" key may be configured to send either a single DTMF digit, or a DTMF string, for operation on a WIRES™ (Wide-Coverage Internet Repeater Enhancement System) repeater, or on other Internet-linked repeaters using DTMF tone access. For more information on WIRES™, please visit our Web site ([www.vxstd.com](http://www.vxstd.com)).

### MH-48A6J DTMF DIRECT ACCESS MICROPHONE

The backlit MH-48A6J microphone allows direct keypad frequency entry, or keypad memory channel recall. On transmit, the MH-48A6J allows manual entry of DTMF tones for autopatch use, and the FT-2800M also includes a nine-memory, 16-digit DTMF Autodialer. Four user-programmable "soft" keys on the microphone may be programmed for easy control of a number of different features, and the [A]/[B]/[C]/[D] keys replicate the functions of the keys on the front panel of the transceiver, for maximum convenience while driving.



### EXCELLENT RECEIVER PERFORMANCE

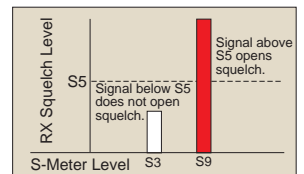
The FT-2800M's receiver front end features Yaesu's renowned Advanced Track Tuning RF input filtering, which affords outstanding protection from Intermodulation distortion.

### WIDE/NARROW DEVIATION SELECTION

For operation in crowded channel environments (12.5/15 kHz channel spacing), the "Narrow" deviation setting will reduce the transmitter deviation, thus reducing interference potential to other users.

### RF-LEVEL SQUELCH

The FT-2800M may be configured to keep the receiver squelched until the incoming signal exceeds a user-defined signal strength. When weak signals cause the squelch to open frequently, but if you don't want to use CTCSS or DCS control, the RF Squelch feature will keep your receiver quiet until a louder signal calls.



### INTERACTIVE PROGRAMMING MENU

The Menu system provides access to 34 configuring settings for your FT-2800M, allowing you to "Set and Forget" many aspects of transceiver operation. The Menu items are listed alphabetically, for easy recall.

### SUPPLY VOLTAGE DISPLAY

When you turn on the FT-2800M, the current DC supply voltage will be indicated on the display for one second. After this interval, the display will resume its normal indication of the operating frequency. You can also configure one of the microphone's programmable keys for instant display of the input voltage, too!

### AND SO MUCH MORE ...

Additional features include:  
• Transmit Time-Out Timer (TOT) • Automatic Power-Off (APO) • Automatic Repeater Shift (ARS) • 4-level Display Dimmer • Dual Watch



## SPECIFICATIONS

### General

Frequency Ranges: TX: 144 - 146 or 144 - 148 MHz  
 RX: 144 - 146 or 137 - 174 MHz  
 Channel Step: 5/10/12.5/15/20/25/50/100 kHz  
 Standard Repeater Shift: ±600 kHz  
 Frequency Stability: Better than ±10 ppm  
 [-4° F to 140° F (-20°C to +60°C)]  
 Modes of Emission: F2, F3  
 Antenna Impedance: 50 Ohms, unbalanced  
 Supply Voltage: 13.8 V DC ±15 %, negative ground  
 Current Consumption: RX: less than 0.7 A,  
 less than 0.3 A (squelched)  
 TX: 10 A(65W)/ 7A(25W)/ 5A(10W)/4A(5W)

Operating Temperature Range: -4° F to +140° F (-20° C to +60° C)  
 Case Size(WxHxD): 6.3" x 2.0" x 7.3"  
 (160 x 50 x 185 mm) (w/o knobs)  
 Weight: 4.0 lb (1.8 kg)

### Transmitter

Output Power : 65 W / 25W / 10W / 5W  
 Modulation Type: Variable Reactance  
 Maximum Deviation: ±5 kHz / ±2.5 kHz  
 Spurious Radiation: Better than -60 dB  
 Microphone Impedance: 2 kOhms

### Receiver

Circuit Type: Double Conversion Superheterodyne  
 IFs: 21.7 MHz & 450 kHz  
 Sensitivity (for 12 dB SINAD): Better than 0.2 µV  
 Selectivity(-6/-60 dB): 12 kHz / 28 kHz  
 IF Rejection: Better than 70 dB  
 Image Rejection: Better than 70 dB  
 Maximum AF Output: 3 W into 4 Ohms @ 10 % THD

Supplied accessories : Microphone MH-48A6J, Base Station Feet  
 Mobile Mounting Bracket MMB-83, DC cable  
 Specifications are subject to change without notice or obligation.  
 Specifications guaranteed only within Amateur band.

## CONTROLS AND SWITCHES



## OPTIONS



About this brochure: we have made this brochure as comprehensive and factual as possible. We reserve the right, however, to make changes at any time in equipment, optional accessories, specifications, model numbers, and availability. Precise frequency range may be different in some countries. Some accessories shown herein may not be available in some countries. Some information may have been updated since the time of printing; please check with your Authorized Yaesu Dealer for complete details.

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