YAESU
The radio

Fun to Operate Multifunctional Mobile

Leading C4FM Digital & High-Resolution Full-Color Display
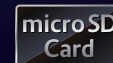
C4FM/FM 144/430MHz DUAL BAND 50W DIGITAL TRANSCEIVER

FTM-200D

《FTM-200DR: US, Asia and Australia, FTM-200DE: Europe》

《 Actual Size 》

C4FM DIGITAL CLEAR VOICE
Clear and Crisp Voice Technology

AMS Automatic Mode Select

66 ch GPS

WIRES-X

Bluetooth®

micro SD Card

Quick & Easy Operation with the New Custom Function List Display

C4FM/FM 144/430MHz DUAL BAND
50W DIGITAL TRANSCEIVER

FTM-200D

《FTM-200DR: US, Asia and Australia, FTM-200DE: Europe》

High Visibility Full-color Display and Superior Operability

High-Resolution Full-color Display

Full-color 2-inch display provides high visibility with high brightness and wide viewing angle. The high-resolution display highlights the frequency of the operational band. The color of the operating band frequency can be selected from White, Blue or Red.

CFL (Custom Function List) Display Ensures Easy and Smooth Operation

Frequently used functions can be easily operated on the CFL screen. With a single-press of the [F / MENU] key, you can check the list of priority functions and their setting status at a glance, and then directly execute the functions or change the settings on the same screen. To register a set item to the custom function list, press and hold the [F / MENU] key to display the setup menu, select the desired function with the dial, then press and hold the [F / MENU] key to easily move it to the custom list.
(Up to 8 functions or settings from the set-up menu can be registered to the CFL)

KEYPAD	HOME	
SCAN	TXPWR	HIGH
SQL T-SQL	ARS	AUTO
RPT-R	TONE	88.5
DTMF	APRS	OFF
HIGH		

Memory Auto Grouping (MAG)

The Memory Auto Grouping (MAG) function allows Memory Channels to be automatically categorized in each band, and then the Memory Channels can be quickly recalled by Band groups. By pressing the [BAND] key while operating on a Memory Channel, the bands will switch in the order of: ALL → AIR band→ VHF band→ UHF band→ OTHER. In ALL, the MAG function is turned OFF and all memory channels are recalled.

Memory Auto Grouping (MAG) function image
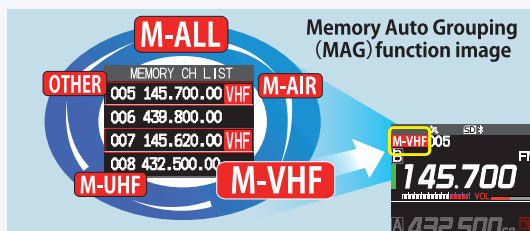
VFO Band Skip Function

VFO bands are selected by pressing the [BAND] key. Unused bands can be skipped using the VFO band skip function, providing efficient VFO operation. A frequency registered to a Memory Channel can be recalled in Memory mode, even if the frequency is in the skipped band on VFO mode.

PMG-SR Monitor (Monitor a Primary Memory Group with a Single Receiver)

The PMG function of the FT5D dual receiver has been simplified and adopted to the FTM-200D single receiver. Regardless of VFO or Memory Channel operation, the current display frequency can be instantly registered to the Primary Memory Group (PMG) (up to 5 channels), by pressing and holding the [PMG] key. After registration, simply press the [PMG] key to immediately switch to the PMG monitor screen from any mode. AUTO mode or MANUAL mode PMG operation can be selected, and you can switch the mode by pressing the dial when using the PMG display. In AUTO mode, scan automatically stops at the channel with the signal and outputs the received audio, and when there is no signal, scan automatically searches for a signal in PMG channels again.
When operating on the receiving channel, press the PTT key or press the dial to fix the channel. In MANUAL mode, rotate the dial to select the desired frequency, you can operate continuously as the fixed channel. During the signal receiving, the real-time reception status will not be displayed. It is easy to remove the registered channel in the PMG group by pressing and holding the [PMG] key on the "PMG" screen.
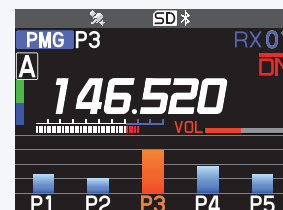
High speed 61 channel Band scope

The band scope function displays the receive status of the VFO mode, and the registered channels statuses are displayed when operating the Memory Channel mode. The FTM-200D has only one receiver, the received audio of a specific channel will not be output when the band scope is activated. To monitor the received audio, rotate the dial and select the desired channel bar. The band scope can be turned On/Off by pressing the [DISP] key on the front panel.
· In VFO mode, up to 61 channels, centered on the current frequency are displayed.
· In Memory Channel mode,up to 21 channels of signal information can be displayed.
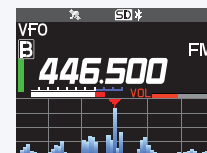
Memory Data Transfer to the VFO Register

By pressing and holding the [BAND] key when in the Memory mode operation, the memory data of the currently selected Memory Channel can be transferred into the VFO register. VFO operation can be performed without changing the communication setting.

Loud 3W Outstanding Quality Audio

A 3W audio speaker ensures clear and crisp sound. The circuit has been specifically tuned for quality audio. You can enjoy communications with outstanding quality audio even in outdoor or noisy environments.

FACC (Funnel Air-Convection Conductor) cooling system, Ensures Stable High-Power Output

FACC Wind Tunnel construction gathers cool air through the wide-open front and side air intakes and directs it to the final amplifier area and then out the rear cooling fan. This efficient cooling system ensures stable transmit power for sustained long distance communications.
FACC: Funnel Air-Convection Conductor (Wind Tunnel)
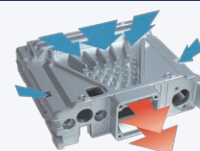
# Advanced Functions that Ensure Ease of Operation

Wide-band Reception

The FTM-200D provides continuous wide-range receive coverage from 108MHz - 999.995MHz.

Large 1104 Memory channels

The FTM-200D makes available a wide variety of memory resources, including 999 "Basic" Memories, 5 "Home" channels for favorite frequencies and 50 sets of Memories for PMS (Programmable Memory Scan). The channel TAGs are programmable with 16 alpha-numeric characters for easy recognition.

High Precision GPS Receiver

The FTM-200D comes standard with a high-sensitivity 66 channel GPS receiver in the Controller Panel. In C4FM digital mode, the position and direction of the contact stations can be displayed in real time. Various navigation, location and GPS log functions are supported. In addition, the controller has an external terminal to provide connection of an external GPS device.
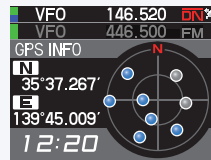
Hands-free Bluetooth® Operation

Installing the optional Bluetooth® unit (BU-4), permits wireless operation using a Bluetooth® headset (SSM-BT10: optional) or a commercially available headset*. The SSM-BT10 operates for approximately 20 hours on a single charge.

* Although other commercially available Bluetooth® headsets can be used, the operation of all Bluetooth® products is not guaranteed. We recommend using the Bluetooth® headset SSM-BT10.

SSM-BT10
Bluetooth® Headset

1200/9600bps APRS® Data communication

An APRS® received station information list is displayed. Message exchange as well as SmartBeaconing™ are supported. Communicate the location information between your own station and other stations, and view the positional relationship of the other stations on the compass display. Also, your APRS® movement trajectory can be confirmed on the internet websites.

Recording Function

The Received audio of other stations, or the transmit audio of the FTM-200D can be recorded. The recorded voice data is saved as an audio file list on the micro SD card. You can replay audio and listen at any time. The optional Voice guide unit (FVS-2) allows automatic recording of the last 30 seconds of received signals on the current operating frequency then immediately replay and review it.
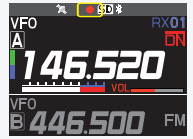
Snapshot Feature (Transmit & Receive Image data)

Snapshots may be taken with a connected camera microphone MH-85A11U (optional). The captured images are displayed with full color, and can be sent to other C4FM digital transceivers. Images are stored on the microSD card, so they can be viewed and edited later on a PC. The date, time, and location are stored in the image data, making it possible, using the backtrack function, to navigating to the location where the photo was taken.

microSD Card Slot

The FTM-200D accepts microSD cards (up to 32 GB) for storage of GPS logger data (recorded track information that can be displayed later by using map software on a PC), Voice data, Memory back-up and other useful information. Using the SD card, it is also possible to clone the radio data to other compatible radios.

C4FM Digital Technologies: Outstanding Audio Quality / Automatically Select Analog and C4FM digital Communications

Excellent C4FM Digital Audio Quality

Compared to other digital modulation methods, the C4FM digital is a standard method for professional use, and has excellent audio quality (BER: Bit Error Rate characteristics). Adding YAESU's original error correction technology has achieved comprehensive high-grade communications, with uninterrupted, clear-crisp audio, and a wide communication range.

DG-ID (Digital Group ID) / Group Monitor (GM)

The Digital Group ID (DG-ID) "00 to 99", can be configured by each group member to facilitate communications only between the specific group participants. When the DG-ID number is set to "00", the audio of all stations can be received. The Digital Group Monitor (GM) function automatically confirms whether stations with the GM function, on the same frequency and with the same DG-ID, are operating within communication range, and displays their call signs. GM function checks the status of up to 24 stations within the communications area.

FM Friendly Digital Communications using AMS
(Automatic Mode Select)

AMS automatically determines whether the received signal is C4FM Digital or conventional FM, and sets the receiver to the appropriate mode. The AMS function enables FM friendly digital operation by removing the need for users to manually switch between modes.

Smart Navigation Functions are shown in Full color

・Real Time Navigation Function

The Digital V/D Mode transmits additional information such as position data, distance and direction at the same time as the audio signal. This allows the location of the received station to be displayed on the compass screen in real time, while communicating.

・Backtrack Function

The Backtrack function allows viewing the direction and distance to a pre-registered point from your current position in real time. Navigation back to the departure point, or to a previously registered point is made possible. Up to three locations can be pre-registered.
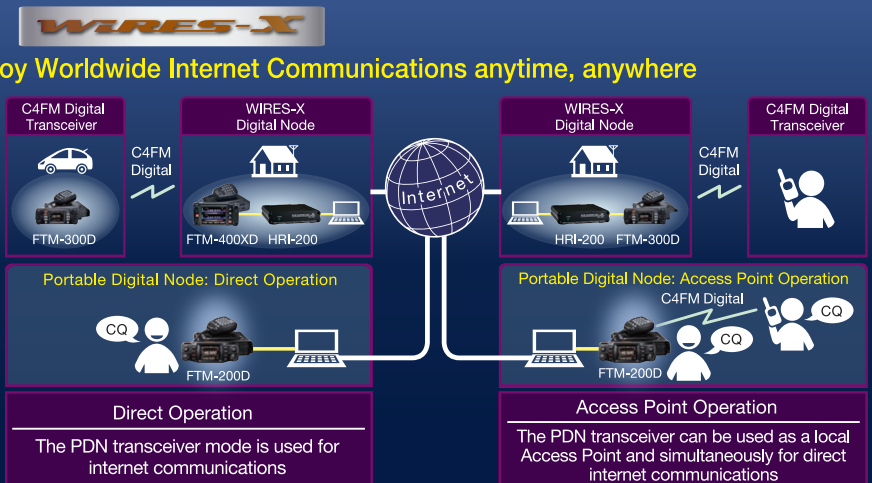
WIRES-X

World-recognized WIRES, enjoy Worldwide Internet Communications anytime, anywhere

Portable Digital Node Function

Worldwide communications are enabled with a Digital node station connected to the internet. With the Wires-X Portable Digital Node function, the FTM-200D can connect to the Wires-X network through an internet connected PC, from any location.

Operate digital node stations even when you are away from home using the Internet online

Easily enjoy Internet communications using the FTM-200D and a PC without connecting to a Wires-X node station

C4FM Digital Transceiver
FTM-300D

C4FM Digital

WIRES-X Digital Node
FTM-400XD HRI-200

Internet

WIRES-X Digital Node
HRI-200 FTM-300D

C4FM Digital

C4FM Digital Transceiver

Portable Digital Node: Direct Operation
CQ
FTM-200D

Portable Digital Node: Access Point Operation
C4FM Digital
CQ
CQ
FTM-200D

Direct Operation

The PDN transceiver mode is used for internet communications

Access Point Operation

The PDN transceiver can be used as a local Access Point and simultaneously for direct internet communications

*PDN: Portable Digital Node station

Simpler and Highly-mobile, Portable Digital Node Function

Other Practical Features

- Illuminated keyboard that will assist operation in dark or poor lighting
- VOX (Voice Activated Transmit) Operation
- DTMF Encode
- DTMF Memory
- Built-in: CTCSS; DCS; and Pager (EPCS) encode/decode functions, enable the Selective Call features
- Split Memory function
- ARS (Automatic Repeater Shift)
- GPS Logger function
- GPS status (Satellite Capture Status) display

- External GPS device connectivity
- Versatile Rear panel DATA terminal (GPS data output; Waypoint data output; Packet; Clone; HRI-200 or WIRES-X Portable digital Node connection)
- Clock, Lap/Countdown timer
- Key lock function
- Automatic Power Off (APO)
- Time-out Timer (TOT)
- NOAA Weather alert: when available in-service area*

* Check local regulations for availability in your region.

SSM-85D multifunctional microphone with a DTMF provides the user with quick access to major functions (Supplied accessory)

DOWN key   UP key

PTT key

[MUTE] Audio Mute
[1] to [0] Enters the numbers and letters
[*] Changes the VFO/Memory operating mode of the operating band
[#] Changes the operating band
[A] Switches the operating band to Band A
[B] Switches the operating band to Band B
[C] Adjusts the squelch level
[D] Switches the band scope display
[P1] Activates the GM (Group Monitor) functions
[P2] to [P4] Assignable from 16 functions*

*Functions to be assigned to [P2] through [P4] can be selected from among 16 functions.
(e.g.: Changes the transmit power; Switches WIRES-X mode; Changes the Mode Digital/Analog)

Specifications

General

Frequency Range:	RX:	108 - 137MHz (AIR Band)
		137 - 174MHz (144MHz HAM / VHF Band)
		174 - 400MHz
		400 - 480MHz (430MHz HAM / UHF Band)
		480 - 999.995MHz *1
	TX:	144 - 148MHz or 144 - 146MHz
		430 - 450MHz or 430 - 440MHz
		(Depends on the transceiver version)
Channel Steps:		5, 6.25, (8.33), 10, 12.5, 15, 20, 25, 50, 100kHz
		(8.33kHz: Only for Air band)
Frequency Stability:		±2.5ppm -4°F to +140°F (-20°C to +60°C)
Emission Type:		F1D, F2D, F3E, F7W
Supply Voltage:		Nominal 13.8V DC, Negative Ground
Current Consumption:		0.5A (Receive)
		11A (50W TX, 144MHz)
		11A (50W TX, 430MHz)
Operating Temperature:		-4°F to +140°F (-20°C to +60°C)
Case Size: Radio Unit		5.47"(W) x 1.66"(H) x 5.2"(D) (139 x 42 x 132mm) w/o Fan
Controller		5.47"(W) x 2.09"(H) x 0.7"(D) (139 x 53 x 18mm) w/o Knob
Weight (Approx.):		2.43 lbs. (1.1kg) with Radio Unit, Controller, Control Cable

Transmitter

RF Power Output:	50W/25W/5W
Modulation Type:	F1D, F2D, F3E: Variable Reactance Modulation
	F7W: 4FSK (C4FM)
Maximum Deviation:	±5kHz
Spurious Emission:	At least 60dB below
Microphone Impedance:	2kΩ
Data Jack Impedance:	10kΩ

Receiver

Circuit Type:	Double-Conversion Super heterodyne
Intermediate Frequencies:	1st: 58.05MHz 2nd: 450kHz
Sensitivity:	0.8µV TYP for 10dB SN (108 - 137MHz, AM)
	0.2µV for 12dB SINAD (137 - 150MHz, FM)
	0.25µV for 12dB SINAD (150 - 174MHz, FM)
	0.3µV TYP for 12dB SINAD (174 - 222MHz, FM)
	0.25µV for 12dB SINAD (222 - 300MHz, FM)
	0.8µV TYP for 10dB SN (300 - 336MHz, AM)
	0.25µV for 12dB SINAD (336 - 420 MHz, AM)
	0.2µV for 12dB SINAD (420 - 470 MHz, FM)
	0.2µV for 12dB SINAD (470 - 540MHz, FM)
	0.8µV for 12dB SINAD (540 - 800MHz, FM)
	0.4µV TYP for 12dB SINAD (800 - 900MHz, FM)
	0.8µV TYP for 12dB SINAD (900 - 999.99MHz, FM)*1
	0.19µV TYP for BER 1% (Digital Mode)
Selectivity:	NFM, AM 12kHz / 30kHz (-6dB / -60dB)
AF Output:	3W (8Ω, THD 10%, 13.8V) Internal Speaker
	3W (8Ω, THD 10%, 13.8V) External Speaker
AF Output Impedance:	8Ω
Strength of secondary radio waves:	4nW and below

■ Specifications are subject to change without notice, and are guaranteed within the amateur bands only. Frequency ranges and functions will vary according to transceiver version; check with your dealer.   *1 USA Cellular Blocked

Options

MH-85A11U Microphone with Snapshot camera	**SSM-85D***2 DTMF Microphone	**MH-42C6J** Microphone
SSM-BT10 Bluetooth® Headset	**BU-4** Bluetooth® Unit	**MLS-100** High-Power External Speaker
FVS-2 Voice Guide Unit	**MMB-98** Vacuum Cup Mount Bracket for Controller	**SCU-47** Control Cable 20ft (6m) (Radio – Controller connection cable)

MEK-5 Mic Extension Kit 10ft (3m) for SSM-85D and MH-42C6J	**SCU-23** Mic Extension Cable 10 ft (3m) for MH-85A11U	**FP-1030A***3 AC Power Supply (25A)
FP-1023*4 AC Power Supply (23A)	**SCU-40** WIRES-X Connection Cable kit (inc. SCU-20 and Audio Cable)	**CT-166** Cloning Cable

CT-163 Data Cable MDIN10 pin to MDIN6 pin + Dsub9

CT-164 Data Cable MDIN10 pin to MDIN6 pin

CT-167 Data Cable MDIN10 pin to open

*2 The same as the supplied accessory
*3 US and Asian versions only
*4 US version only

(Supplied Accessories)   ● DTMF Microphone SSM-85D ● Mounting Bracket ● Bracket for Controller ● Control Cable 10ft (3m) ● USB Cable ● DC Power Cable

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YAESU
The radio

VEGETABLE OIL INK

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