FT-902DM

YAESU

COMPETITION-GRADE HF TRANSCEIVER



FT-902DN SERIES

COMPETITION-GRADE HF TRANSCEIVER

The ham's dream -- to have the best -- is now reality. YAESU proudly introduces the FT-902DM all-mode HF/VHF/UHF total communications system. Designed to give you the competitive edge, at home or away, the FT-902DM series is without equal, at any price. Leave the crowd behind, and step up to the best: the FT-902DM total communications system. . .from YAESU.

- Selectable up/down repeater ■ Auto scan function scans until-■ Curtis 8044 IC keyer provides -■ TUNE control places transmitter ■ Audio peak filter for ■ TX monitor for envelope In-line monitoring of SWR and ■ Shaped-response external offset on 6 and 2 meters. a signal is received, then locks trouble-free operation, Just extra-sharp CW selectivity. in "tune" condition for ten monitoring or amplifier power levels up to 500 watts. speaker console, on the received station's plug in your paddle and you're seconds, then returns to "receive" linearity adjustment. frequency. ready for action! to protect final tubes. ■ Full metering and level controls ■ Selectable AGC: slow-fast-off. for hybrid phone patch. ■ 40 frequency memory bank,— ■ Clarifier allows precise tuning of VFO or memorized ■ Built-in RF speech processor Full duplex operation on -■ Digital plus analog frequency frequencies. OSCAR modes A/B/J using an for more "talk power" when readout, Digital display you need it. external receiver. resolution to 100 Hz. . 0 VARBU SP-SSIP 000000 Provision for 50, 144, and 430 ■ Coverage of all HF amateur Three-rate manual scanning ─■ Two-tone generator for SSB MHz operation, with split switches allow fast, medium, bands, 160 through 10 meters. transmitter modulation capability for satellite operation. or slow QSY. adjustment. ■ Clarifier for transmit, receive, — ■ Choice of transceiver or split — ■ Rejection tuning control nulls or transceive frequency. frequency operation on ■ All mode operation: SSB, CW, High performance oscilloscope out adjacent-channel QRM. FT-902DM or FV-901DM VFOs. FSK, AM, and FM. 10 meter Memory circuitry for storage for station measurements. Easy or use the FV-901DM memory ■ Continuously variable IF repeater operation possibleand recall of any operating interface to FT-902DM for -■ Optional band scope for quick Provision for matching 1 bank. Be seconds ahead of the frequency, plus interface to use the memory to program bandwidth from 300 Hz to station monitoring and received checking of band conditions random wire and 3 coax-fed competition! the input frequency! 2.4 kHz. FV-901DM external VFO. signal observation. and activity.

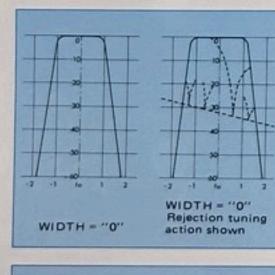
UNIQUE RECEIVER FILTERING

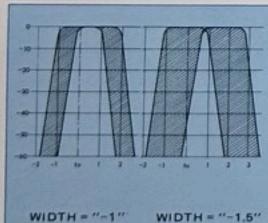
The combination of rejection tuning, variable IF bandwidth, and the audio peak filter (APF) makes such accessories as a CW filter unnecessary. The WIDTH control actually varies the width of the IF passband from 2.4 kHz down to 300 Hz! Thus, high-pitched "buckshot" on SSB, as well as unwanted CW signals, can be eliminated by narrowing the bandwidth as desired. Don't be fooled by other systems such as "IF shift," which only move the passband; they cannot change the bandwidth

The rejection tuning will null out any interfering signal within the IF passband, and, for CW, the APF provides razor-sharp selectivity without ringing, to yield a dramatic increase in signal-to-noise ratio and QRM rejection.

DIGITAL DISPLAY + MEMORY SYSTEM

Digital plus analog frequency display





memory unit will control the transmit, receive, or transceive frequency, as desired. The FV-901DM synthesized external VFO expands coverage with a 40 frequency memory bank and scanning capability. For DX, contest, or net operation, pushbutton controls take you anywhere in the band-instantly!

and the memory circuitry provide the

ultimate in versatility and operating

efficiency. The PLL local oscillator

provides unsurpassed stability, and the

BUILT-IN CURTIS KEYER

CW was not merely an afterthought on the FT-902DM. The Curtis 8044 IC, designed for amateur radio applications, provides such intangible qualities as immunity to RF interference and false keying caused by key contact "bounce." The inclusion of the 8044 IC keyer provides relief for the DXpeditioner, too, as it eliminates the need for a separate electronic keyer (and the power transformer to make the keyer work on unfamiliar voltages).



DIGITAL DISPLAY + MEMORY SYSTEM

FULL COVERAGE

When the new amateur bands become available, you won't want to miss out on the action. With the FT-902DM, you get complete coverage of 160 through 10 meters, including the new 10, 18, and 24 MHz bands, all factory installed! A hallmark of the FT-902DM is its all mode capability-SSB, CW, AM, FSK, and FM-on both transmit and receive. Teamed with the FTV-901R transverter, operation can be extended to 50, 144, and 430 MHz from your desk top. Be one step ahead of the crowd with the exciting new FT-902DM.

WORLD-WIDE POWER CAPABILITY

For the traveler, the keyer is not the only helpful feature. The FT-902DM has provision for operation from a variety of AC voltages from 100 to 234 volts. Thus, no heavy, bulky external transformer is ever needed. In addition, a DC-DC converter is built in, for operation from your boat, car, or mobile home. Small enough to

qualify as carry-on baggage on most airlines, the FT-902DM is equipped with a strong, side-mounted handle for ease of carrying around airports.

RF SPEECH PROCESSOR

The built-in RF speech processor increases your average talk power by approximately 6 dB, by filling in the "holes" in your voice. The processor accomplishes this average power increase without an accompanying increase in distortion, and it gives you that extra "boost" you may need in a tough pile-up.

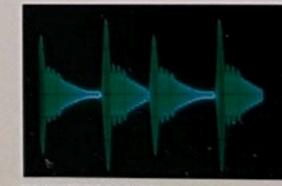
COMPUTER-BRED MODULAR CONSTRUCTION

The internal layout is clean and straightforward. Computer-type plug-in circuit boards make servicing a breeze, because a technician can perform voltage tests and other measurements using an "extender" board, thus saving valuable time (and your service dollar!) that might be wasted unsoldering components from deep inside the

chassis. The plug-in board concept also reduces point-to-point wiring, resulting in a clean, compact transceiver with high component density

PROCESSOR ON

NEW BANDS FACTORY INSTALLED!



PROCESSOR OFF

CLEAN OUTPUT SIGNAL

Purity of emissions is important, both legally and ethically. The new FCC regulations regarding spurious emissions put tough demands on design. But even more important is your reputation, which can deteriorate quickly if you transmit distortion products across the band and harmonics that can cause TVI. YAESU engineers have included such features as a built-in low-pass filter, toroidal output circuitry, and RF negative feedback, for a spurious-free output signal.

OUR TOP OF THE LINE

The FT-902DM is the standard by which all other transceivers must be compared. Wide receiver dynamic range, unmatched selectivity, PLL stability, and the convenience of digital readout are but a few reasons for choosing the FT-902DM. Don't compromise when you can have the best . . . see your YAESU dealer today about the FT-902DM family.







FV-901DM SYNTHESIZED, SCANNING EXTERNAL VFO

The FV-901DM gives you unbeatable flexibility in frequency control, especially in DX or contest situations where seconds count. Using PLL synthesis in 100 Hz steps, the FV-901DM features an auto scan mode, which will search the band until it finds a signal--perfect for watching for openings! Or use the manual mode, which will scan at one of three rates while you activate a lever switch. The FV-901DM also features an expanded memory bank, capable of storing as many as 40 (yes, FORTY!) frequencies; no more trying to remember the frequency of that big pile-up down the band. And a clarifier allows fine tuning between the 100 Hz steps or to follow a memorized signal that begins to drift.

The FV-901DM is another YAESU "first" in the amateur industry. When you need that competitive edge, that knowledge that your station is the best, the FV-901DM is for you. Add it to your FT-902DM total communications system today!

FTV-901R VHF/UHF/OSCAR TRANSVERTER

In another industry first, YAESU brings you a three-band VHF/UHF transverter for your FT-902DM station. The basic unit comes equipped with 144 MHz capability, and you may add our plug-in modules for 50 or 430 MHz as options. Repeater offset is provided for 6 and 2 meters, and full duplex operation on OSCAR modes A/B/J is possible with an external receiver.

When the HF bands are flat, switch to the "very highs," with the amazing FTV-901R VHF/UHF/ OSCAR transverter. You're years ahead with YAESU!

YO-901 MULTISCOPE

Unsurpassed monitoring capability is yours with the YO-901 Multiscope. Featuring a high-performance oscilloscope, useful for countless varieties of station adjustments, the YO-901 also includes a two-tone generator, as well as an optional band scope for instant determination of band conditions and activity. Monitoring of both received and transmitted signals is a breeze, using the convenient interconnection jacks on the rear of the FT-902DM. For experimentation, transceiver or amplifier adjustment, and a variety of on-the-air monitoring applications, the YO-901 Multiscope meets your requirements with ease. YAESU promises you only the best.

FC-902 ANTENNA

The FC-902 tuner for the in-line watte for selection one single-water to your FT-FC-902 anterponent from munications Frequency of 30m. 20m. 1

SP-901P PHONE PA

SP-901P cor speaker. Stylir the FT-902 se

Printed in Japan



COUPLER

s an efficient, compact antenna FT-902DM series. It features an ter, SWR meter, and provision of three coax-fed antennas and antenna. Present a 50 ohm load 2DM all across the band with the a coupler, another quality comne world's leader in amateur comuipment.

erage: 160m (L, H). 80m. 40m. n. 15m. 12m. 10m.



CH/SPEAKER

FT-902DM station with the bination hybrid phone patch/ , size, and interconnections match es of transceivers.

FT-902D/SD/DE/DM MODEL CHART

O=Built-in feature

×=Available option

FEATURE	FT-902D	FT-902SD	FT-902DE	FT-902DM
FM UNIT	0	X	X	0
RF SPEECH PROCESSOR	0	0	0	0
AM FILTER	×	X	X	X
CW FILTER	X	X	Х	- X
KEYER UNIT	X	X	0	0
MEMORY UNIT	X	X	X	0
DC-DC CONVERTER	X	X	X	0
COOLING FAN	0	X	0	0
POWER OUTPUT	100 W	10 W	100 W	100 W
NEW BANDS	0	0	0	0

FT-902DM SPECIFICATIONS GENERAL

Frequency coverage:

1.8-2.0 MHz, 3.5-4.0 MHz, 7.0-7.5 MHz, 10.0-10.5 MHz, 14.0-14.5 MHz, 18.0-18.5 MHz, 21.0-21.5 MHz, 24.5-25.0 MHz, 28.0-29.9 MHz Power requirements:

AC 100/110/117/200/220/234 V, 50/ 60 Hz; DC 13.5 V, negative ground

Power consumption:

AC 117 V: 70 watts receive (45 watts HEATER OFF), 320 watts max transmit; DC 13.5 V: 5 A receive (1.1 A HEATER OFF), 21 A max transmit Size:

342(W) x 154(H) x 324(D) mm

Weight:

Approx 18 kg

TRANSMITTER

Emission:

LSB, USB, AM, CW, FM, FSK.

PA input power:

SSB - 180 watts PEP

CW - 180 watts DC

AM, FM, FSK - 80 watts DC

Carrier suppression:

Better than 40 dB

Unwanted sideband suppression:

Better than 50 dB @ 1000 Hz

Spurious radiation:

Better than 40 dB below rated output

Transmitter frequency response:

300-2700 Hz (-6 dB)

3rd order distortion products:

Better than 31 dB below rated output

Stability:

Less than 300 Hz drift from a cold start; less than 100 Hz drift over a 30 minute period after warm-up

RF negative feedback:

6 dB at 14 MHz

Modulation type:

SSB-balanced modulator; AM-amplitude modulation of a low power stage; FM-variable reactance frequency modulation, maximum deviation ±5 kHz

Antenna output impedance:

50-75 ohms unbalanced

Microphone impedance:

500-600 ohms (low impedance)

RECEIVER

Sensitivity:

0.25 µV for S/N 10 dB

Image rejection:

1.8-21 MHz--better than 60 dB;

28 MHz-better than 50 dB

IF rejection: Better than 70 dB

Selectivity:

WIDTH control at "0"

SSB 2.4 kHz (-6 dB), 4.0 kHz (-60 dB); CW/FSK (with optional CW filter installed) 0.6 kHz (-6 dB), 1.2 kHz (-60 dB); AM (with optional AM filter installed) 6 kHz (-6 dB), 12 kHz (-60 dB); FM 12 kHz (-6 dB), 24 kHz (-60 dB)

Passband tuning:

Continuous from 300 Hz to 2.4 kHz

Audio output:

Better than 3 watts @ 10% THD. audio output impedance 4-16 ohms