

50/144/430 MHz 5W FM TRANSCEIVER

VX-7R

ULTRA-RUGGED, SUBMERSIBLE TRI-BAND MAGNESIUM HANDIE



Actual Size

INTERNET KEY FOR ACCESS TO
WIRES™ II

50/144/430 MHz 5 Watt FM Transceiver
(50 MHz AM: 1W; 222 MHz FM: 300 mW (USA version Only))

VX-7R/VX-7Rb

Magnesium Silver Version

Black Version

IPX7
Submersible
30 minutes @ 3 feet (1 m)

Waterproofing specifications are assured only when using the genuine YAESU FNB-80LI Battery Pack or FBA-23 Battery Holder. The use of after-market batteries or other accessories may compromise the effectiveness of the waterproofing.



YAESU
Choice of the World's top DX'ers™

And Much, Much More. . .

- 16-digit, 9-memory DTMF Auto-dialer ●Automatic Repeater Shift (ARS) ●Battery-saving Auto Power Off feature (APO) ●Transmit Time-Out Timer (TOT) ●TX Battery Saver to reduce power during local QSOs ●Two-channel Dual Watch with 5-second polling ●Keypad/Dial Lockout capability ●Easy-to-use Menu customization of many functions ●Battery Voltage Meter ●Vox operation (Required VC-27) ●Cloning capability between VX-7Rs ●Easy interface to Packet TNCs (using optional CT-91 Mic Adapter)



General

Frequency Ranges:
 MAIN Rx: 0.5-1.8 MHz (BC Band)
 1.8-30 MHz (SW Band)
 30-59 MHz (50 MHz HAM: USA version)
 30-76 MHz (50 MHz HAM: EXP version)
 59-108 MHz (FM: USA version)
 76-108 MHz (FM: EXP version)
 108-137 MHz (Air Band)
 137-174 MHz (144 MHz HAM)
 174-222 MHz (VHF-TV)
 222-225 MHz (220MHz HAM: USA version)
 222-420 MHz (ACT1: Action Band 1: USA version)
 222-420 MHz (ACT1: Action Band 1: EXP version)
 420-470 MHz (430 MHz HAM)
 470-729 MHz (UHF-TV: USA version)
 470-800 MHz (UHF-TV: EXP version)
 800-999 MHz (ACT2: Action Band 2, Cellular Blocked)
 SUB Rx: 50-54 MHz, 137-174 MHz, 420-470 MHz
 Tx: 50-54 MHz (MAIN & SUB)
 144-146 MHz or 144-148 MHz (MAIN & SUB)
 222-225 MHz (MAIN, USA version)
 430-440 MHz or 430-450 MHz (MAIN & SUB)
 Channel Steps: 5/9/10/12.5/15/20/25/50/100 kHz
 Frequency Stability: ±5 ppm (-10° C to +50° C [-14 F to +122 F])
 Repeater Shift: ±600 kHz (144 MHz), ±1.6 MHz (222 MHz/USA version), ±1.6/5.0/7.6 MHz (430 MHz)
 Emission Type: A3/F2/F3
 Antenna Impedance: 50 Ohms
 Supply Voltage: Nominal: 7.4 V DC, Negative Ground
 Operating: 6-16 V DC, Negative Ground (EXT DC Jack)
 Current Consumption: 200 mA (Mono Band Receive)
 (Approx.) 240 mA (Dual Band Receive)
 67 mA (Mono Band Receive, Standby, Saver Off)
 100 mA (Dual Band Receive, Standby, Saver Off)

Specifications

28 mA (Mono Band Receive, Standby, Saver On (Save Ratio 1:5))
 34 mA (Dual Band Receive, Standby, Saver On (Save Ratio 1:5))
 200 µA (Auto Power Off)
 1.6 A (50 MHz, 5 W Tx)
 1.7 A (144 MHz, 5 W Tx)
 1.0 A (220 MHz, 0.3 W Tx, USA version)
 1.9 A (430 MHz, 5 W Tx)
 Operating Temperature: -4 F to +140 F (-20° C to +60° C)
 Case Size (W x H x D): 2.4 x 3.5 x 1.1 inch (60 x 90 x 28.5 mm) w/o knob & antenna
 Weight (Approx.): 9.2 oz (260 g) with FNB-80LI & antenna
Transmitter
 RF Power Output: 5.0 W (Ø7.4 V & 13.8 V EXT DC IN)
 0.3W (Ø7.4 V & 13.8 V EXT DC IN, 222 MHz/USA version)
 1.0W (Ø7.4 V & 13.8 V EXT DC IN, 50 MHz AM)
 F2, F3: Variable Reactance (MAIN & SUB)
 A3: Low Level Amplitude Modulation (MAIN, 50 MHz)
 Modulation Type:
 Maximum Deviation: ±5 kHz F2/F3
 Spurious Emission: At least 60 dB down (Ø Tx H/L3)
 At least 50 dB down (Ø Tx L2/L1)
 Microphone Impedance: 2K Ohms
Receiver
 Circuit Type: N-FM, AM: Double-Conversion Superheterodyne
 W-FM: Triple-Conversion Superheterodyne
 IF: MAIN Rx
 1st: 47.25 MHz (N-FM, AM), 45.8 MHz (W-FM)
 2nd: 450 kHz (N-FM, AM), 10.7 MHz (W-FM)
 3rd: 1 MHz (W-FM)
 SUB Rx
 1st: 46.35 MHz
 2nd: 450 kHz
 Sensitivity:
 MAIN Rx: 3.0 µV for 10 dB S/N (0.5-30 MHz, AM)
 0.5 µV (TYP) for 12 dB SINAD (30-50, N-FM)
 0.16 µV for 12 dB SINAD (50-54, N-FM)
 1.0 µV (TYP) for 12 dB SINAD (54-65, N-FM)
 1.0 µV (TYP) for 12 dB SINAD (76-108, W-FM)
 1.5 µV (TYP) for 10 dB SN (108-137, AM)
 0.2 µV for 12 dB SINAD (137-140, N-FM)
 0.16 µV for 12 dB SINAD (140-150, N-FM)
 0.2 µV for 12 dB SINAD (150-174, N-FM)
 0.3 µV for 12 dB SINAD (174-225, N-FM)
 0.5 µV for 12 dB SINAD (300-350, N-FM)
 0.2 µV for 12 dB SINAD (350-400, N-FM)
 0.18 µV for 12 dB SINAD (400-470, N-FM)
 0.35 µV for 12 dB SINAD (470-540, W-FM)
 3.0 µV (TYP) for 12 dB SINAD (540-800, W-FM)
 1.0 µV (TYP) for 12 dB SINAD (800-860, N-FM) (Cellular Blocked/USA version)
 SUB Rx: 0.18 µV for 12 dB SINAD (50-54, N-FM)
 0.18 µV for 12 dB SINAD (137-174, N-FM)
 0.2 µV for 12 dB SINAD (420-470, N-FM)
 Selectivity: 12 kHz/25 kHz (-6dB/-60dB: N-FM, AM)
 200 kHz/300 kHz (-6dB/-20dB: W-FM)
 AF Output: 200 mW @ 8 Ohms for 10% THD (Ø 7.4 V DC)
 400 mW @ 8 Ohms for 10% THD (Ø 13.8 V DC)
 Specifications are subject to change without notice, and are guaranteed within the amateur bands only.

●Supplied Accessories : AC Adapter NC-72B/C/U*, Lithium-ion Battery Pack FNB-80LI, Antenna, Belt Clip



Innovative Multi-section Antenna!

When operating on 144 and 430 MHz, use the bottom section of the supplied antenna. For operation on 50 MHz, simply screw on the antenna extension element and you're ready for DX action!



The NC-72B/C/U* may be plugged directly into the VX-7R for charging of the FNB-80LI Battery Pack. When used with the optional CD-15A Quick Charger, charge time is only about 2.5 hours!

*B for 120 VAC/ C for 240 VAC/ U for UK plug



Options

CMP460A Waterproof Speaker / Microphone	MH-57A4B Speaker / Microphone	VC-27 Earpiece / Microphone (Vox operation available)
CN-3 BNC-to-SMA Adapter	SU-1 Barometric Pressure Sensor Unit	E-DC-5B DC Cable w/Noise Filter
CT-91 Microphone Adapter	FBA-23 2 x AA Cell Battery Case (batteries not supplied)	CSC-88 Soft Case
CD-15A Rapid Charger (Requires NC-72B/C/U*)	E-DC-6 DC Cable; plug and wire only	FNB-80LI (spare) Lithium-ion Battery Pack (7.4 V/1,300 mAh)

*B for 120 VAC/ C for 240 VAC/ U for UK plug

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. 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.

YAESU VERTEX STANDARD CO., LTD.
 4-8-8 Nakameguro, Meguro-ku, Tokyo 153-8644, Japan

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VERTEX STANDARD US Headquarters
 10900 Walker Street, Cypress, CA 90630, U.S.A.

YAESU EUROPE B.V.
 P.O. Box 75525, 1118 ZN Schiphol, The Netherlands

YAESU UK LTD. <http://www.yaesu.co.uk>
 Email: sales@yaesu.co.uk
 Unit 12, Sun Valley Business Park, Winnall Close
 Winchester, Hampshire, SO23 0LB, U.K.

VERTEX STANDARD HK LTD. <http://www.vxstd.com.hk>
 Unit 5, 20/F., Seaview Centre, 139-141 Hoi Bun Road,
 Kwun Tong, Kowloon, Hong Kong