YAESU

5 Watts Submersible 6 m/2 m/70 cm Tri-Band FM Handheld (222 MHz:1.5 W)

VX-8DR/E*

5 Watts GPS 2 m/70 cm Dual Band FM Handheld

VX-8GR/E*

* E for European Version

Actual size

Actual size

PRESTIGE HANDHELD

VX-8DR/E

6 m / 2 m / 70 cm
FM 5 W / AM 1 W (6 m) Triplie Band Handheld
***222 MHz 1.5 W (US Version)**
Wideband receive
500 kHz - 999 MHz / Cellular blocked - US version
Bluetooth® operation (Optional)

ALL IN ONE HANDHELD

VX-8GR/E

2 m / 70 cm
FM 5 W Dual Band Handheld
Wideband receive
108 - 999 MHz / Cellular blocked - US version
Built-in GPS antenna and data terminal

A TECHNOLOGY BREAKTHROUGH

New Advanced VX-8 Series GPS/APRS® Handheld Transceivers
Chose one that matches your style!

8DR/E

6 m/2 m/70 cm (220 MHz/USA Version)
Tri-Band FM Handheld
Heavy Duty : IPX7 Waterproof Rating
Bluetooth® Capabilities (optional)
Wideband Receive :
500 kHz to 999.990 MHz
The optional GPS Antenna Unit FGPS-2

The optional GPS antenna may be attached to the radio microphone input jack using the CT-136 adapter. Or it may be mounted on the MH-74A7A Speaker Microphone.

6 m/2 m/70 cm (220 MHz) Triple Band FM Transceiver

VX-8DR/E*

(7.4 V 1,100 mAh Lithium Ion battery FNB-101LI and battery charger NC-86 included)

8GR/E

2 m/70 cm Dual Band FM Handheld
Waterproof IPX5 Rating
Built-in GPS antenna and Data terminal
Wideband Receive :
108 MHz to 999.990 MHz

2 m/70 cm Dual Band FM Transceiver

VX-8GR/E*

(7.4 V 1,100 mAh Lithium Ion battery FNB-101LI and battery charger NC-86 included)

*E for European Version

Heavy duty, tough and rugged ready for your field operation!

8DR/E Waterproof/Submersible IPX 7 rated - 3 ft (1m) for 30 minutes

8GR/E Fully ruggedized and waterproof (IPX5) design - Perfect for extreme sports and outdoor use

8DR/E 8GR/E Ultra-Rugged Polycarbonate Resin Front Panel with Aluminum die-cast chassis

The tough compact case combines a rugged die-cast chassis with the clean and tough polycarbonate resin front panel. Its high shock proof versatility will allow you to operate the radio in the toughest environments!

8DR/E 8GR/E Enjoy 5 W high power and long hours of operation! (The optional Cell Holder FBA-39 permits operation with 3 AA batteries.)

You will enjoy up to 5 hours operation on 144/430 MHz with the supplied FNB-101LI Lithium-ion battery. The optional FNB-102LI High Capacity Lithium-ion Battery will provide up to 8.5 hours on 144 MHz, and 8 hours on 430 MHz.

■Approximate Battery Operating time
(VX-8DR/E on one band with no optional items)

Operating Band	Battery Life (Approx.)		
	FNB-101LI	FNB-102LI	FBA-39
50 MHz	5.5 hours	9.0 hours	20 hours
144 MHz	5.0 hours	8.5 hours	17 hours
222 MHz (USA version)	6.0 hours	11 hours	20 hours
430 MHz	5.0 hours	8.0 hours	16 hours
Broadcast Band	13 hours	20 hours	20 hours

☐ ···Also VX-8GR/E on 2 m / 70 cm Band.

*Reference only. May vary depending on environmental temperature, humidity, etc.

*TX (5 W) 6 sec./RX 6 sec., and squelched 48 sec.

8DR/E 8GR/E Real dual Ham Band Operation (V+V/U+U/V+U)

With two completely independent Amateur Radio Band Receivers, you can listen to either the same or a different band simultaneously.

V+V

U+U

V+U

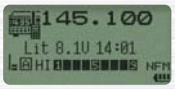
Wideband Receive* Capability

8DR/E 504 kHz - 999.900 MHz (A Band) Continuous reception for short-wave, FM/AM broadcasts, analog TV station audio, aircraft, public service channels, etc.

8GR/E 108 MHz - 999.900 MHz (A Band) In addition to Amateur Radio bands, aircraft, public service channels, etc.
*(USA Cellular blocked)

8DR/E 8GR/E The large LCD display provides clear and easy-to-read indication

The large LCD Display shows everything needed for your advanced operations, including the main and sub band frequencies, operating mode and S-meters. A high-resolution Spectrum Analyzer with ±50 channels indication permits wave monitoring of the received signal modulation! It is very easy to scroll through the set menu items to check the previous settings and make new selections as well.
*Audio scope can be displayed on the VX-8DR only.



●Pictorial Icons (VX-8DR)

●Spectrum Analyzer

8DR/E 8GR/E Four independent durable buttons on the side, together with the front numeric keypad, afford easy and dependable operation!

In addition to the PTT and the MONI (Squelch OFF) buttons, the often used F (Function) and VOL keys, have been conveniently located on the side of the radio. Improved ergonomics and the simple function keys, allow quick versatile selections.The front numeric keypad buttons perform multiple functions by pushing the "F" (Function) Key on the side, or pressing and holding the key button.

8DR/E 8GR/E Independent A and B Band Keys with TX/Busy Indication

The "A" and "B" band key buttons, on the left side of the large LCD display, will let you know your operating condition at a glance. You can change the operating band by pushing the desired band key. (VX-8DR only.)

8DR/E A large non-slip rubber dial knob for dependable outdoor operation

8DR/E Bluetooth® Capabilities (Optional Bluetooth unit required)

Install the optional Bluetooth® BU-1 Unit for Hands-free operation with the optional waterproof BH-1A (Stereo) or BH-2A (Monaural) Bluetooth® Headsets. Take your VX-8DR outdoors wherever you go, in your backpack, pocket or pouch, and enjoy total Hands-free operation with the built-in VOX function!


●Bluetooth® Unit BU-1

Optional GPS Operation

8DR/E The optional 12 chanel GPS Receiver Antenna Unit (FGPS-2) provides GPS data. Your exact current position, moving speed, altitude, etc. may be displayed and transmitted on APRS. The FGPS-2 can be directly attached to the radio using the microphone input jack. Alternately the GPS antenna can be attached to the optional MH-74A7A speaker/microphone.

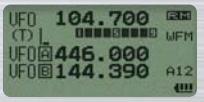

●The optional GPS Antenna Unit FGPS-2 attached to the optional Speaker/Microphone MH-74A7A

8GR/E Take full advantage of the VX-8GR GPS functions with its built-in GPS unit/antenna. (The optional GPS unit/antenna is not required.)


●Built-in GPS unit/antenna
(The photo is for illustration only)

8DR/E Dual Band AF DUAL monitor Function

You can listen to the AM or FM broadcast radio while monitoring two HAM frequency channels! When the radio receives a signal on either the "A" or the "B" Amateur Band, it will mute the FM/AM broadcast and switch operation to the Amateur Band that the VX-8DR is receiving.



8GR/E Vibrate Alert Function when a message is received

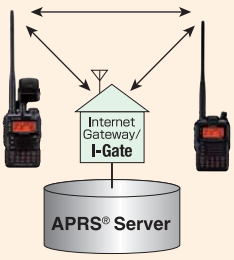
Chose a Vibrate Pattern from three styles, to alert on message and bell ringer reception.

8DR/E 8GR/E Many additional features to support active outdoor operations!

●CW Training feature, Emergency Automatic ID system and Emergency Strobe/Beep and Busy strobe LED functions ●Original (compatible with VX-3R/E and FTM-10R/SR series) messaging feature with your TX station ID (up to 16 characters x 20 different messages) ●Huge 1,830 ch (VX-8DR) / 1,327 ch (VX-8GR) memory channel management capability! ●Built-in CTCSS/DCS encode/decode enables selective call features for the A and the B Band individually. Enhanced Paging Code Squelch functions are available to place a call to an individual member of your group. ●Various timer functions ●Easy access to WiRES-II Internet Linking System with the WiRES-II Access DTMF memory function ●Useful and convenient battery saving features ●Yaesu's original "Auto-Range Transponding System" (ARTS) which provides audio and/or visual confirmation that another ARTS-equipped station is within communication range ●VOX function (VX-8DR) ●Built-in Barometric Pressure and Temperature Sensor (VX-8DR) ●Internal Bar Antenna for better AM Broadcast Band reception (VX-8DR) ●External Data Jack for other data communications (VX-8GR) ●Sub Band operating system (VX-8GR)

APRS® 1200/9600 bps data communication (B band only) using the worldwide standard AX25 Data TNC Modem

The built-in AX25 Data TNC Modem permits uncomplicated APRS® (Automatic Packet/Position Reporting System) operation. The VX-8DR/8GR supports APRS 1200/9600 bps data communication (B band only). You may communicate your location to other APRS stations with the position, speed and heading displayed on your radio! Your information may be transmitted to an Internet Gateway (I-Gate) and your movements reported on the Internet. The optional GPS Antenna Unit FGPS-2 provides you with real time APRS data. (You may also manually input and send APRS data without the GPS antenna)



APRS®I-Gate System


●You may also track your movements on the website

APRS® Station Display

When you receive signals and information from other APRS® stations, the radio displays message positions, heading directions, message icons (46 kinds), weather information, object, etc.

●Position/Distance/Direction of the APRS® station picked up from the list

APRS® Station List function

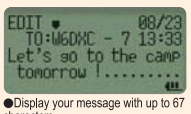
The list function stores up to 50 stations.

●APRS® Station List

APRS® Message Memories

The radio stores up to 30 messages automatically with the individual APRS® data, and you may recall them later!

●List of Incoming/Outgoing messages from/to other APRS® stations



●Display your message with up to 67 characters

Smart Beaconing™ Function:

When using APRS® for position tracking, the beacon timing is automatically adjusted to your traveling speed and location to plot a smoother trace to match your position and movement on a map.

DIGI-PATH route indication function:

The APRS® Packet data includes Digipeater routing info. The radio allows you to set up to 8/eight digipeaters for the APRS packet path.

More useful and helpful functions to enjoy your APRS® operation!

Easy to navigate RX/TX and Message List display
Symbol Icon Preset Function – You can choose your favorite 4 preset station icons and rotate them with ease!

OPTION

8DR/E ONLY	 GPS Antenna Unit **FGPS-2**	 GPS Antenna Adapter for FGPS-2 **CT-136**	 Waterproof Speaker / Microphone **MH-74A7A**	 Microphone Adapter **CT-131**	 Cloning Cable **CT-134**	 Soft Case **CSC-93**	—
8GR/E ONLY	 VOX Headset **VC-25**	 Speaker / Microphone **MH-34B4B**	 Earpiece Microphone **MH-37A4B**	 Microphone Adapter **CT-44**	 Cloning Cable (2.5Φ-2.5Φ) **CT-144**	 Data Cable (2.5Φ- Dsub 9PIN) **CT-143**	 Soft Case **CSC-95**
SHARED	 3X"AA"Cell Battery Case **FBA-39**	 7.4 V, 1100 mAh Rechargeable Lithium Ion Battery Packs **FNB-101LI*2**	 7.4 V, 1800 mAh Rechargeable Lithium Ion Battery Packs **FNB-102LI**	 Rapid Charger **CD-41**	 Battery Charger*2 (5 hrs:FNB-101LI/8 hrs:FNB-102LI) **NC-86B/C/U*1**	 DC Cable w/ Cigar Adapter **E-DC-5B**	 DC Cable **E-DC-6**
Bluetooth®	 Bluetooth® Adapter Unit **BU-1**	 Earphone (Stereo) for BH-1A Bluetooth® Headset **FEP-4**	 Bluetooth® Headset with stereo earphone jack (requires BU-1) **BH-1A**	 Bluetooth® Headset (requires BU-1) **BH-2A**	 3 hrs Charger Cradle for BH-1A/BH-2A **CD-40**	 Battery Charger for CD-40 **NC-85B/C/U*1**	 BNC-to-SMA Adapter **CN-3**

*1 : B for 120 VAC / C for 220-240 VAC / U for 230 VAC-UK Plug *2 : As same as Supplied Accessory

□···8DR/E ONLY □···8GR/E ONLY □···SHARED □···Bluetooth® (8DR/E ONLY)

VX-8DR/E Specifications

GENERAL

Frequency Ranges: A (Main) Band RX: 0.5-1.8 MHz (AM Radio)
1.8-30 MHz (SW Band)
30-76 MHz (50 MHz HAM)
76-108 MHz (FM Radio)
108-137 MHz (Air Band)
137-174 MHz (144 MHz HAM)
174-222 MHz (VHF-TV)
222-420 MHz (General 1)
420-470 MHz (430 MHz HAM)
470-774 MHz (UHF-TV)
774-999.90 MHz (General 2, Cellular Blocked)
B (Sub) Band RX: 30-76 MHz (50 MHz HAM)
108-137 MHz (Air Band)
137-174 MHz (144 MHz HAM)
174-222 MHz (VHF-TV)
222-420 MHz (General 1)
420-580 MHz (430 MHz HAM)
TX: 50-54 MHz or 50-52 MHz
144-146 MHz or 144-148 MHz
222-225 MHz (USA version only)
430-440 MHz or 430-450 MHz
Channel Steps*: 5/6.25/8.33/9/10/12.5/15/20/25/50/100 kHz
Emission Type: F1D, F2A, F2D, F3E, A3E
Frequency Stability*: ±5 ppm (–10 °C to +60 °C [+14 °F to +140 °F])
Repeater Shift: ±600 kHz (144 MHz), ±1.6 MHz (222 MHz), ±1.6/5.0/7.6 MHz (430 MHz)
Antenna Impedance*: 50 Ohms
Supply Voltage*: Nominal: 7.4 V DC (Negative Ground)
Operating:4-14 V DC (Negative Ground, EXT DC jack)
Operating with Charging: 11-14 V DC (Negative Ground, EXT DC jack)
Current Consumption (@7.4 VDC, approx.): 200 mA (Mono Band Receive)
240 mA (Dual Band Receive)
85 mA (Mono Band Receive, Standby, Saver Off)
120 mA (Dual Band Receive, Standby, Saver Off)
35 mA (Mono Band Receive, Standby, Saver On "Save Ratio 1:5")
42 mA (Dual Band Receive, Standby, Saver On "Save Ratio 1:5")
300 µA (Auto Power Off)
1.6 A (50 MHz, 5 W TX)
1.7A (144 MHz, 5W TX)
1.2 A (222 MHz, 1.5 W TX)
1.9 A (430 MHz, 5W TX)
Operating Temperature*: –20 °C to +60 °C (+4 °F to +140 °F)
Case Size (W x H x D): 60 x 95 x 24.2 mm (2.4" x 3.7" x 0.9") w/o knob & antenna
Weight (Approx.): 240 g (8.5 oz) with FNB-101LI & antenna

TRANSMITTER

RF Power Output: 50/144/430 MHz 1.0 W (@4.5 V: AA x 3)
5.0 W (@7.4 V or EXT DC)
50 MHz AM 1.0 W (Fixed)
222 MHz (USA only) 0.5 W (@4.5 V: AA x 3)
1.5 W (@7.4 V or EXT DC)
L3: 2.5 W, L2: 1 W, L1: 0.05 W (@7.4 V, 50/144/430 MHz)
L3: 1 W, L2: 0.5 W, L1: 0.05 W (@7.4 V, 222 MHz)
Modulation Type: F2E, F3E: Variable Reactance
A3E: Low Level Amplitude Modulation (50 MHz only)
Maximum Deviation*: ±5 kHz (F2E/F3E)
Spurious Emission: At least 60 dB below (@ TX power HI/L3)
At least 50 dB below (@ TX power L2/L1)
Microphone Impedance*: 2 K Ohms

RECEIVER

Circuit Type: NFM, AM:Double-Conversion Superheterodyne
WFM:Triple-Conversion Superheterodyne
AM/FM Radio:Single-Conversion Superheterodyne
IF: NFM, AM 1st: 47.25 MHz (A (Main) Band),46.35 MHz (B (Sub) Band),
2nd:450 kHz
WFM 1st: 45.8 MHz, 2nd: 10.7 MHz, 3rd: 1 MHz
AM/FM Radio: 130 kHz
Sensitivity: (A (Main) Band) 3.0 µV for 10 dB S/N (0.5-30 MHz @AM)
0.35 µV (TYP) for 12 dB SINAD (30-54 MHz @NFM)
1.0 µV (TYP) for 12 dB SINAD (54-76 MHz @NFM)
1.0 µV (TYP) for 12 dB SINAD (54-59 MHz @NFM, USA Version)
1.5 µV (TYP) for 12 dB SINAD (76-108 MHz @WFM)
1.5 µV (TYP) for 12 dB SINAD (59-108 MHz @WFM)
1.5 µV (TYP) for 10 dB SN (108-137 MHz @AM)
0.2 µV for 12 dB SINAD (137-140 MHz @NFM)
0.16 µV for 12 dB SINAD (140-150 MHz @NFM)
0.2 µV for 12 dB SINAD (150-174 MHz @NFM)
1.0 µV for 12 dB SINAD (174-222 MHz @WFM)
0.5 µV for 12 dB SINAD (300-350 MHz @NFM)
0.2 µV for 12 dB SINAD (350-400 MHz @NFM)
0.18 µV for 12 dB SINAD (400-470 MHz @NFM)
1.5 µV for 12 dB SINAD (470-540 MHz @WFM)
3.0 µV (TYP) for 12 dB SINAD (540-800 MHz @WFM)
1.5 µV (TYP) for 12 dB SINAD (800-999.90 MHz @NFM) (Cellular Blocked)
Sensitivity: (B (Sub) Band) 0.18 µV(TYP) for 12 dB SINAD (50-54 MHz @NFM)
0.18 µV for 12 dB SINAD (144-148 MHz @NFM)
0.2 µV for 12 dB SINAD (430-450 MHz @NFM)
Selectivity: 12 kHz/35 kHz (-6dB/-60dB: NFM, AM)
200 kHz/300 kHz (-6dB/-20dB: WFM)
AF Output: 200 mW @ 8 Ohms for 10 % THD (@ 7.4 V DC)
400 mW @ 8 Ohms for 10 % THD (@ 13.8 V DC)

Specifications are subject to change without notice, and are guaranteed within the 50/144/222/430 MHz amateur bands only.
Cellular Blocked per FCC rule Part 15.121, may not receive 900 MHz Amateur band.

*The item of the sign is a common numerical value. (VX-8DR/E & VX-8GR/E)

VX-8GR/E Specifications

GENERAL

Frequency Ranges: A (Main) Band RX: 108-137 MHz (Air Band)
137-174 MHz (144 MHz HAM)
174-222 MHz (VHF Band)
222-420 MHz (General 1)
420-470 MHz (430 MHz HAM)
470-800 MHz (UHF Band, Cellular Blocked)
800-999.90 MHz (General 2, Cellular Blocked)
B (Sub) Band RX: 108-137 MHz (Air Band)
137-174 MHz (144 MHz HAM)
174-222 MHz (VHF Band)
222-420 MHz (General 1)
420-470 MHz (430 MHz HAM)
470-580 MHz (UHF Band)
TX: 144-146 MHz or 144-148 MHz
430-440 MHz or 430-450 MHz
Emission Type: F1D, F2A, F2D, F3E
Repeater Shift: ±600 kHz (144 MHz), ±1.6/5.0/7.6 MHz (430 MHz)
Antenna Impedance: 50 Ohms
Current Consumption (@7.4 VDC, approx.): 200 mA (Mono Band Receive)
240 mA (Dual Band Receive)
85 mA (Mono Band Receive, Standby, Saver Off)
120 mA (Dual Band Receive, Standby, Saver Off)
35 mA (Mono Band Receive, Standby, Saver On "Save Ratio 1:5")
42 mA (Dual Band Receive, Standby, Saver On "Save Ratio 1:5")
2 mA (Auto Power Off)
1.7A (144 MHz, 5W TX)
1.9 A (430 MHz, 5W TX)
Case Size (W x H x D): 60 x 95 x 28 mm (2.4" x 3.7" x 1.1") w/o knob & antenna
Weight (Approx.): 250 g (8.8 oz) with FNB-101LI & antenna

TRANSMITTER

RF Power Output: 1.0 W (@4.5 V: AA x 3)
5.0 W (@7.4 V or EXT DC)
L3: 2.5 W, L2: 1 W, L1: 0.05 W (@7.4 V)
Modulation Type: F2E, F3E: Variable Reactance
Spurious Emission: At least 60 dB below (@ TX power HI/L3)
At least 50 dB below (@ TX power L1/L2)

RECEIVER

Circuit Type: Double-Conversion Superheterodyne
IF: 1st: 47.25 MHz (A (Main) Band), 46.35 MHz (B (Sub) Band),
2nd: 450 kHz
Sensitivity: 1.5 µV (TYP) for 10 dB SN (108-137 MHz @AM)
0.2 µV for 12 dB SINAD (137-140 MHz @NFM)
0.16 µV for 12 dB SINAD (140-150 MHz @NFM)
0.2 µV for 12 dB SINAD (150-174 MHz @NFM)
1.0 µV for 12 dB SINAD (174-222 MHz @NFM)
0.5 µV for 12 dB SINAD (300-350 MHz @NFM)
0.2 µV for 12 dB SINAD (350-400 MHz @NFM)
0.18 µV for 12 dB SINAD (400-470 MHz @NFM)
1.5 µV for 12 dB SINAD (470-540 MHz @NFM)
3.0 µV (TYP) for 12 dB SINAD (540-800 MHz @NFM)
1.5 µV (TYP) for 12 dB SINAD(800-999.90 MHz @NFM)(Cellular Blocked)
Selectivity: 12 kHz/35 kHz (+6dB/+60dB: NFM, AM)
AF Output: 200 mW @ 8 Ohms for 10 % THD (@ 7.4 V DC)
400 mW @ 8 Ohms for 10 % THD (@ 13.8 V DC)

Specifications are subject to change without notice, and are guaranteed within the 144/430 MHz amateur bands only.
Cellular Blocked per FCC rule Part 15.121, may not receive 900 MHz Amateur band.

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 to 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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