

144/430MHz ULTRA COMPACT FM DUAL BAND HANDIE

# VX-2R/E

E for European Version

## WORLD'S SMALLEST DUAL-BAND HT WITH WIDE-BAND RX

The world's smallest Dual-Band HT with up to 1.5 Watts\* of output power is your high-tech gateway to the world, via VHF, UHF, Shortwave Broadcast, Marine and Aircraft bands, or WiRES™ Internet linking!

\*1.5 W/144 MHz, 1 W/430 MHz

**ULTRA COMPACT and LIGHT WEIGHT**

**HIGH OUTPUT POWER**  
1.5 W/1 W (2 m/70 cm)  
(w/Li-Ion Battery)  
3 W/2 W (2 m/70 cm)  
(w/E-DC-21 Ext. DC Cable)



Aluminum Diecast Chassis

**SPECIAL MEMORY BANKS**  
Marine Band  
Shortwave broadcasts  
NOAA Weather broadcasts

**OVER 1300 MEMORY CHANNELS**  
Utilizing 20 Memory Groups

**ULTRA-THIN BATTERY**  
New-style High Capacity FNB-82LI  
Lithium-Ion Battery  
(3.7 V @ 1 Amp-Hour)



**Actual Size**

\*Simulated LCD display

**WIDE BAND RECEIVE**  
500 kHz — 960 MHz  
(except 730-799 MHz and blocked cellular freqs.)

**VERSATILE SCANNING**  
Memory Scan, Band Scan,  
Sub-band Limited Scan,  
Tone/DCS Scan

**CTCSS/DCS BUILT IN**  
With "Split Tone" Capability

**WiRES™ INTERNET LINKING**  
Internet Access Key and  
DTMF Auto-dial Memories



# VX-2 Series 144/430MHz ULTRA COMPACT FM DUAL BAND HANDIE

## POWER-PACKED LIKE NO OTHER ULTRA-COMPACT HT

### Ultra Compact, Ultra Rugged!

The VX-2 series unbelievably small, 1 Amp-hour Lithium-Ion battery pack powers a high-efficiency PA circuit to provide as much as 3 Watts (144 MHz) when using an external power source. This from a case even smaller than that of the VX-1R: 1.89" x 3.19" x 0.91" WHD (47 x 81 x 23 mm, w/o knob and antenna), weighing just 4.7 ounces (132 g, including antenna/FNB-82LI Battery). With its rugged die-cast aluminum chassis, the VX-2 series is built to last, and its big voice will get your transmission through!

### Up to 3 Watts of Power Output!

Despite its compact size, the VX-2 series provides 1.5 Watts of 144 MHz power output (430 MHz: 1 Watt) while using the internal FNB-85LI Lithium-Ion Battery pack. Connect the optional E-DC-21 DC Adapter Cable, and power output increases to 3 Watts on 144 MHz, and 2 Watts on 430 MHz! And while the "Low Power" setting may be used for short-range communications, you can just touch the [F] key to engage "High" power for one transmission!

## UNMATCHED OPERATING VERSATILITY IN AN ULTRA-COMPACT HT

### Wide-Band Receiver Coverage!

Besides 144- and 430-MHz transceive operation, the VX-2 series provides receive coverage of the AM (MF) and FM broadcast bands, HF Shortwave Bands, VHF and UHF TV bands, the VHF AM aircraft band, and a wide range of commercial and public safety frequencies, from 500 kHz up to 999 MHz are blocked.

### Special Memory Banks!

Special pre-programmed Memory Banks are loaded, at the factory, for monitoring of the Marine, Shortwave, and NOAA Weather Bands, for quick access to stations of interest. The Weather Band feature includes a "Severe Weather" alert that sounds an alarm when the 1050 Hz alert tone is transmitted by a NOAA weather broadcast station (U.S. version), ideal for emergency operations.



### CTCSS and DCS Systems Built In!

Both 50-tone CTCSS and 104-code Digital Code Squelch (DCS) Encode/Decode systems are built into every VX-2 series, for ease of repeater access or silent monitoring of busy channels. For systems requiring mixed CTCSS/DCS operation, a "Split Tone" mode is included, too. And if you don't know the CTCSS or DCS information you need when operating from a new location. Tone Search and DCS Search functions are also provided!

### User-Friendly Front Panel!

Thanks to the large button size, ergonomic case design, and carefully-crafted operating firmware, the VX-2 series is incredibly simple to operate the first time you pick it up! And its keys and large LCD screen become illuminated whenever a key is pressed or the tuning dial is turned, for ease of nighttime use.

## WIRES™ Internet Access Key and DTMF Autodialer

For ease of access to a local node station utilizing Vertex Standard's WiRES™ Internet Linking system, the front panel "Internet" key generates the DTMF tone needed for system access. And 16-digit, 9-memory DTMF Auto-dialer for autopatch use, or Internet access via a



### "Emergency" Feature

Activating the "Emergency" feature from the front panel, you'll place the VX-2 series on the 430 MHz "Home" channel frequency you've selected, an alarm beep will be emitted from the speaker (containing a CW "SOS" message, if you like), and the front panel's Strobe LED will flash a brilliant white visual beacon.



## UNMATCHED MEMORY MODE CAPABILITY

### Scanning Modes for All Occasions!

The VX-2 series allows you to scan just the memory channels, the entire operating band, or a portion of that band. It will halt on signals encountered, so you can talk to the station(s) on that frequency, if you like. The VX-2 series display will automatically become illuminated when an active channel is found.

### 100 Programmable Band-Limit Memories!

To limit scanning within a user-defined sub-band range, or to prevent incursion into the SSB/CW portions of the bands, you may utilize the 50 pairs of Programmable Memory Scan memories to establish sub-band limits for tuning or scanning.

### Preferential Scan List

Within the "regular" memories, you may designate certain memories in a "Preferential Scan List." If scanning is initiated while operating on one of the "preferred" channels, the scanning loop will only include those channels on the "preferred" list.

### Over 1300 Memory Channels

The VX-2 series incredible memory capacity includes 900 "regular" memories, 11 "Home" channels, 50 pairs of "Band Edge" memories, in addition to 100 channels which allow you to "skip" particular frequencies during band scanning. And each memory may have a six-character Label appended, for quick channel identification.

## AND MUCH, MUCH MORE...

•Dual-Channel "Priority" Operation •VOX (optional VC-25 Headset required) •RF Squelch Only responds to signals exceeding user-set signal strength •Channel Counter Searches for frequency of strong nearby station •Automatic Repeater Shift (ARS) •ARTS™ Auto-Range Transponder System •Busy Channel Lock-Out (BCLO) •DC Voltage Meter •Wide/Narrow Deviation Setting •Cloning For quick transfer of programming data between two VX-2 series •1750 Hz Tone Calling For European Repeater Access

## SPECIFICATIONS

### General

Frequency Ranges: RX 0.5-1.8 MHz (BC Band)  
(USA Version) 1.8-30 MHz (SW Band)  
30-76 (59) MHz (50 MHz HAM)  
76 (59)-108 MHz (FM)  
108-137 MHz (Air Band)  
137-174 MHz (144 MHz HAM)  
174-222 MHz (VHF TV)  
222-420 MHz (ACT1)  
420-470 MHz (430 MHz HAM)  
470-800 (729) MHz (UHF TV)  
(758-774) MHz (UHF TV)  
800-999 MHz (ACT2; USA Cellular Blocked)  
TX 144-146 (148) MHz  
430-440 (450) MHz  
Channel Steps: 5/9/10/12.5/15/20/25/50/100 kHz  
Frequency Stability: ±5 ppm (14° F to +140° F [-10° C to +60° C])  
Repeater Shift: ±600 kHz (144 MHz) ±1.6/5.0/7.6 MHz (430 MHz)  
Emission Type: F2, F3  
Antenna Impedance: 50 Ω  
Supply Voltage: Nominal: 3.7 V DC, Negative Ground  
Operating: 3.2 - 7.0 V, Negative Ground  
(EXT DC Jack)  
5.5 - 7.0 V, Negative Ground  
(EXT DC Jack when Charging)  
Current Consumption: 150 mA (Receive)  
58 mA (Standby, Saver Off)  
20 mA (Standby, Saver On)  
200 µA (Auto Power Off)  
1.3 A (1.5 W TX, 144 MHz) 3.7 V DC  
1.8 A (3 W TX, 144 MHz) 6.0 V DC  
1.2 A (1 W TX, 430 MHz) 3.7 V DC  
1.5 A (2 W TX, 430 MHz) 6.0 V DC  
Operating Temperature: -4° F to +140° F (-20° C to +60° C)  
Case Size (W x H x D): 1.9 x 3.2 x 0.9 inch (47 x 81 x 23 mm)  
Weight: 4.6 oz (132 g) With FNB-82LI & antenna

### Transmitter

RF Power Output: 1.5 W (@ 3.7 V FNB-82LI 144 MHz)  
3 W (@ 6.0 V EXT DC IN 144 MHz)  
1 W (@ 3.7 V FNB-82LI 430 MHz)  
2 W (@ 6.0 V EXT DC IN 430 MHz)  
Modulation Type: Variable Reactance F2, F3  
Maximum Deviation: ±5 kHz (F2, F3)  
Spurious Emission: At least 60 dB below (HIGH)  
At least 50 dB below (LOW)  
Microphone Impedance: 2 kΩ

### Receiver

Circuit Type: AM, NFM: Double-Conversion Superheterodyne  
WFM: Triple-Conversion Superheterodyne  
Intermediate Frequencies: 1st 2nd 3rd  
AM, NFM 47.25MHz 450 kHz —  
WFM 45.8 MHz 10.7 MHz 1 MHz  
Sensitivity: 3 µV for 10 dB SN (0.5-30 MHz, AM)  
0.35 µV TYP for 12 dB SINAD (30-54 MHz, NFM)  
1 µV TYP for 12 dB SINAD (54-76 MHz, NFM)  
1.5 µV TYP for 12 dB SINAD (76-108 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 µV TYP 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 µV TYP for 12 dB SINAD (540-800 MHz, WFM)  
1.5 µV TYP for 12 dB SINAD (800-999 MHz, NFM)  
USA Version Cellular Blocked  
Selectivity: NFM, AM: 12 kHz/35 kHz (-6 dB/-60 dB)  
WFM: 200 kHz/300 kHz (-6 dB/-20 dB)  
AF Output: 50 mW @ 8 Ω for 10% THD (@ 3.7 V)  
100 mW @ 8 Ω for 10% THD (@ 6.0 V)

Specifications are subject to change without notice, and are guaranteed within the 144 and 430 MHz amateur bands only. Frequency ranges will vary according to transceiver version; check with your dealer.

Supplied Accessories: Battery Charger NC-85B/C/U\*, 3.7V 1000 mAh Lithium-Ion Battery FNB-82LI, Antenna, Belt Clip

\*"B" suffix for use with 120 VAC, "C" suffix for use with 220-240 VAC, or "U" suffix for use with 220-240 VAC UK plug.

## 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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