

ULTRA COMPACT 2 m/70 cm DUAL BAND FM HANDHELD

# VX-3R/E\*

\* E for European Version

## Yaesu Now Presents the Third Generation Ultra-compact Handheld FM Transceiver

The Third Generation Ultra-compact Handheld, VX-3R/E, is loaded with more new convenient and enjoyable features "AA" Battery Operation\*, FM Stereo Broadcast Reception, Internal Bar Antenna for the AM Broadcast Band. Yaesu again leads the world of Compact Hand Held Transceivers!! The supplied High-Capacity Lithium-ion Battery (FNB-82LI) is compatible with the VX-2R/E. Handy to upgrade!

\* Optional 3 x AA Cell Battery Case FBA-37 (Batteries not supplied)

**Ultra-Compact**  
1.9" x 3.2" x 0.9" (47 x 81 x 23 mm) and  
Light Weight! 4.6 oz (130 g)

**Rugged Aluminum Die-cast Chassis**



**1.5 W Output w/Internal Battery (70 cm : 1 W)**  
**3 W Output w/External DC (70 cm : 2 W)**

**High-Capacity Super-thin Tiny Lithium-ion Battery with Charger(supplied)**



FNB-82LI  
\* "B" for 120 VAC, "C" for 220-240 VAC, "U" for 220-240 VAC UK plug.

**The Optional FBA-37 Permits Convenient Operation with AA Batteries ("AA" x 3)**

**Special Memory Banks :**  
WX Broadcast\*, VHF Marine,  
Short-wave Broadcast Stations  
\*USA Version

**Huge 1286-channel Memory Capacity**  
24 Memory Banks x 100 ch

**Wide-band Receiver Coverage\***  
\*Cellular-band blocked



**Internal Bar Antenna for AM Broadcast Band**



(Not actual : Cut-out image photo)

**Separate Broadcast Band Earphone Jack for a Stereo Headset or Earphone**



\*Earphone not included

**AF Dual (Sub RX) Function : Listen to Your Favorite AM or FM Stereo Broadcast Station and Monitor the Amateur Band at the Same Time**

**New Mechanical Dial Lock Function**



**CW Learning and Training Feature**

**EAI (Emergency Automatic ID) Function**

**WiRES-II® Internet Key**

**Short Text Messaging Function**

Actual Size

# VX-3R/E\* ULTRA COMPACT 2 m/70 cm DUAL BAND FM HANDHELD

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## 20 hours of continuous reception with high-capacity Lithium-ion Battery (supplied)

The VX-3R/E comes with the FNB-82LI, high capacity, super-thin and tiny Lithium-ion Battery, and the NC-85 2.5 hour charger. You may enjoy up to 6 hours of Amateur Band operation, or more than 20 hours listening to your favorite AM or FM broadcast stations using the supplied high-performance Lithium-ion battery.

### Battery Operating Time (Approximately)

Band	FNB-82LI	"AA" Battery operation
Amateur Band	144 MHz	About 6.0 hours
	430 MHz	About 7.0 hours
AM Broadcast/Short-wave Broadcast/FM Stereo Broadcast reception (Receive Only)	About 20 hours	About 25 hours

Note:  
Operating times may vary depending on operating conditions, and are based on a duty cycle of 6 seconds of transmission at 1.5 watts, 6 seconds of reception at 50% audio level, and 46 sec of stand by operation.



## Ultra-Compact and Light Weight !!

As tiny in your palm as the legendary VX-2R/E. Only 1.9" x 3.2" x 0.9". The high capacity FNB-82LI Lithium-Ion battery provides 1.5 watts (70cm: 1 W) output power!



Use convenient replaceable AA batteries with the optional FBA-37 Battery Case.

## 3 W Output with External DC (70 cm : 2 W)

The optional DC Cable with Cigarette-Lighter Adapter enables you to operate the VX-3R/E at full power output (3 W / 2 m : 2 W / 70 cm) while charging the battery at the same time !

## Wide-band Receiver Coverage

- The VX-3R/E has incredible frequency coverage of 1.8 - 76 MHz and 108 - 999.9 MHz\*, in addition, it has a totally separate and independent AM / FM Stereo Broadcast receiver inside.

(\*Cellular coverage is blocked and not restorable)

## • Separate Earphone Jack for FM Stereo Broadcast Reception

You may enjoy your favorite FM broadcast station in stereo with your stereo headset or earphone! The connected headset/ earphone cable works as an antenna to receive FM broadcast signals.



## • Internal Bar Antenna for AM Broadcast Band

The VX-3R/E has an internal bar antenna to provide good reception on the AM broadcast band.



(Not actual : Cut-out image photo)

## Sub RX (AF-Dual) Function allows you to listen to your favorite AM / FM stereo broadcast stations and monitor the Amateur Band at the same time

Totally new and different from the conventional "Priority Scanning" that only periodically checks a memory channel for activity. The dedicated broadcast receiver in the VX-3R/E permits listening to your favorite AM/FM stereo broadcast stations, and monitoring an amateur band at the same time.

Note : Sub RX (AF Dual) function works only on the AM and FM broadcast bands.

## A Super-compact package! Fun to operate!

Incredibly small, easy to learn and operate, even for beginners and casual outdoor operators. The most often used keys are conveniently arranged on the front panel. Press and hold one of these keys for more than 1 second to change its parameters. Use the "F" (function) key to access additional menus and functions. You will love the "large" LCD backlit display in a "compact" body!

## New Mechanical Dial Lock function

The new Mechanical Dial Lock makes it very easy, and secure, to lock or unlock the main dial. Just pull the knob up, then turn it to adjust the frequency. Push the knob down to Lock it. Take your radio anywhere you want to go, in your briefcase or in your shirt pocket!



## Huge 1286-Channel Memory Capacity

The VX-3R/E provides an incredible variety of memory resources in a tiny micro-miniature structure. There are 900 "Standard" memory channels, 50 sets of band-edge memories (known as "Programmable Memory Scan" channels), "Home" channels, providing storage and quick recall of one prime frequency on each operating band, and 99 "Frequency Skip Memories". In addition, many special memory channels are preprogrammed.

## Yaesu's Original Emergency Feature

The VX-3R/E has the Emergency Automatic ID (EAI) feature which is also included in the FT-60R/E and the VX-6R/E. The EAI feature lets you and your support team configure your radios so that, in case of an accident or emergency that leaves one of your team incapacitated, someone else can command their radio to transmit without their pressing the PTT, allowing others to use the signal for direction finding and effect a rescue.

Note : This EAI function shall only be used in case of emergency or accident to support performing direction finding and rescue. Vertex Standard shall not be responsible for any direct or indirect results caused by using the EAI function.

- Easy-to-activate Emergency Beacon - Bright White Flashing LED and CW ID Press and hold the HM/RV key for more than 2 seconds, "EMERGENCY" will appear on the display and the LED will flash with an audible beep. You may also program the transceiver to transmit your CW ID on the 70 cm band, Home Memory Channel.



## "Wake-Up" Feature checks activity when Radio is turned off !!

When the Wake-Up feature is set, "WAKE UP" will appear on the display but otherwise the transceiver is turned completely off. The VX-3R/E will turn itself back on and check for activity on the current frequency. If no activity is found, the radio will go back to sleep for the selected time. The new "Wake-Up" battery saver feature works for up to 21 days when the battery is fully charged\*.

\* Using the supplied FNB-82LI and a 30 sec "Wake Up" interval

## Short Text Messaging function

The message function permits the exchange of pre programmed alphanumeric messages (up to 20 messages/16 characters maximum) including the sender's ID, between VX-3R/E and FTM-10R/E series users.



## Other Useful Features

- Various scanning functions •WiRES-II Internet Key •DTMF Operation
- Frequency Counter Operation (to measure the frequency of a nearby transmitter, without knowing the frequency in advance.)
- Smart Search Operation (automatically find and load, up to 31 Smart Memory Channels where activity is encountered) •CW Learning and Training feature •ARTS\* (Automatic Range Transponder System) that lets you know whether you and another ARTS\*-equipped station are within communications range •DW (Dual Receive) function to monitor a designated frequency every 5 seconds •RF Squelch that allows you to set the squelch to open only for signals exceeding a desired S-meter level •CTCSS/DCS Bell Operation •Battery Voltage Display •Internal temperature display •Automatic power-on function •Automatic Power-Off (APO) feature (to turn off after a user-defined period of time when there has been no dial or key activity.) •Transmitter Time-Out Timer (TOT) that will disengage transmission after a programmed interval (to prevent interference to others caused by an accidental "stuck microphone" condition) •Busy Channel Lock-Out (BCL) feature prevents transmission when the current frequency is in use •Mic gain adjustment •ATT (Front End Attenuator) •My Band function to display only your favorite band •Cloning feature for quick transfer of memory and configuration data between two VX-3R/E series transceivers (Requires optional CT-27). •Menu Masking (Menu "Set" Mode) permits hiding non-routine "Set" menus

## SPECIFICATIONS

### General

Frequency Ranges: RX 0.5-1.8 MHz (AM Broadcast)  
1.8-30 MHz (SW Band)  
( ) : USA Version  
30-76 MHz (50 MHz HAM)  
76-108 MHz (FM)  
108-137 MHz (Air Band)  
137-174 MHz (144 MHz HAM)  
174-222 MHz (VHF TV)  
222-470 MHz (ACT1)  
470-800(729) MHz (UHF TV)  
(757-774) MHz (UHF TV)  
800-999 MHz (GEN2; USA Cellular Blocked)  
TX 144-146(148) MHz  
430-440(450) MHz

Channel Steps: 5/9.6, 33/0.12, 5/15, 20/25/50/100 kHz  
Frequency Stability:  $\pm 5$  ppm (14° F to +140° F [-10° C to +60° C])  
Repeater Shift:  $\pm 600$  kHz (144 MHz) -1,65/0.7, 6 MHz (430 MHz)  
Emission Type: F2D, F3E, F2A  
Antenna Impedance: 50  $\Omega$   
Supply Voltage: Nominal: 3.7 V DC, Negative Ground  
Operating: 3.5 - 7 V, Negative Ground (EXT DC Jack)  
5.0 - 7 V, Negative Ground (EXT DC Jack with Charging)

Current Consumption: 120 mA (Receive)  
60 mA (Standby, Saver Off)  
30 mA (Standby, Saver On, Save Ratio 1:2)  
50 mA (Radio Band Receive)  
100  $\mu$ A (Auto Power Off)  
1.3 A (1.5 W TX, 144 MHz) 3.7 V DC  
1.6 A (3 W TX, 144 MHz) 6 V DC  
1.2 A (1 W TX, 430 MHz) 3.7 V DC  
1.8 A (2 W TX, 430 MHz) 6 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 (47 x 81 x 23 mm) (W/O knob & antenna)  
Weight: 4.6 oz (130 g) With FNB-82LI & antenna  
Transmitter  
RF Power Output: 1.5 W (@ 4.5 V AA x 3 or 3.7 V FNB-82LI 144 MHz)  
3 W (@ 6 V or EXT DC 144 MHz)  
1 W (@ 4.5 V AA x 3 or 3.7 V FNB-82LI 430 MHz)  
2 W (@ 6 V or EXT DC 430 MHz)  
Low 0.1 W (@ 4.5 V AA x 3 or 3.7 V FNB-82LI)  
Low 0.3 W (@ 6 V or EXT DC)

Modulation Type: Variable Reactance F2D, F3E, F2A  
Maximum Deviation:  $\pm 5$  kHz (F2D, F3E)  
Spurious Emission: At least 60 dB below (HIGH)  
At least 50 dB below (LOW or less than 1 W)

Microphone Impedance: 2 k $\Omega$   
Receiver  
Circuit Type: AM, NFM: Double-Conversion Superheterodyne  
WFM: Triple-Conversion Superheterodyne  
AM Radio/FM Radio: Single-Conversion Superheterodyne

Intermediate Frequencies: 1st 47.25MHz 450 kHz - 2nd 130 kHz 10.7 MHz 1 MHz - 3rd 10.7 MHz 1 MHz -  
AM Radio/FM Radio: 130 kHz - 10.7 MHz 1 MHz -

Sensitivity: 3  $\mu$ V for 10 dB SN (0.5-1.8 MHz, AM Radio)  
3  $\mu$ V for 10 dB SN (0.5-30 MHz, AM)  
0.35  $\mu$ V TYP for 12 dB SINAD (30-54 MHz, NFM)  
1  $\mu$ V TYP for 12 dB SINAD (54-76 MHz, NFM)  
3  $\mu$ V TYP for 12 dB SINAD (76-108 MHz, FM Radio)  
1.5  $\mu$ V TYP for 10 dB SN (108-137 MHz, AM)  
0.2  $\mu$ V for 12 dB SINAD (137-140 MHz, NFM)  
0.16  $\mu$ V for 12 dB SINAD (140-150 MHz, NFM)  
0.2  $\mu$ V for 12 dB SINAD (150-174 MHz, NFM)  
1  $\mu$ V TYP for 12 dB SINAD (174-225 MHz, NFM)  
0.5  $\mu$ V for 12 dB SINAD (300-350 MHz, NFM)  
0.2  $\mu$ V for 12 dB SINAD (350-400 MHz, NFM)  
0.18  $\mu$ V for 12 dB SINAD (400-470 MHz, NFM)  
1.5  $\mu$ V for 12 dB SINAD (470-540 MHz, WFM)  
3  $\mu$ V TYP for 12 dB SINAD (540-800 MHz, WFM)  
1.5  $\mu$ V 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  $\Omega$  for 10% THD (@ 3.7 V)  
100 mW @ 8  $\Omega$  for 10% THD (@ 6 V)

Specifications are subject to change without notice, and are guaranteed within the 2 m and 70 cm amateur bands only. Frequency ranges will vary according to transceiver version; check with your dealer.

## OPTIONS

MH-34B4B Speaker/ Microphone	MH-37A4B Earpiece/ Microphone	VC-25 VOX Headset	FBA-37 Dry Cell Battery Case for 3x "AA" Alkaline Cells	FNB-82LI 3.7V, 1000mAh Rechargeable Lithium Ion Battery Pack (Spare)	NC-85B/C/U* 2.5-Hour Charger (Spare)	E-DC-21 DC Cable w/ Cigarette-Lighter Adapter	CN-3 BNC-to-SMA Adapter	CT-44 For use with earlier 2-pin Yaesu microphones	CT-27 Cloning Cable	CSC-92 Soft Case

\* "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.

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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