



STANDARD HORIZON

Submersible Tri-Band Marine Portable HX470S

- Submersible
- Industries first Portable Tri-band, including VHF Marine, FRS* and MURS* bands. *USA Only
- Additional receive capabilities include AM, FM broadcast and Aeronautical bands.
- DSC Distress with GPS position when connected to GPS

- Unique Distress Beacon
- Selectable 1, 2.5 or 5 Watts of transmit power on marine band.
- Rugged Magnesium Die-cast case construction
- Includes 1300 mAh Lithium-ion battery, 120 / 220 VAC and 12 VDC 3 hour chargers, Drop in charger NMEA cradle.

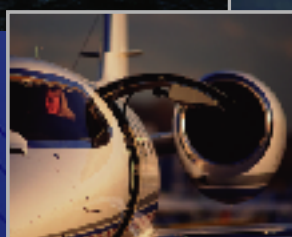
INDUSTRY FIRST
Tri-band



Actual Size



AVAILABLE IN BLACK



MULTI PURPOSE MARINE PORTABLE

TRANSMIT & RECEIVE

VHF Marine

+

FRS
Family Radio Service
(USA Only)

+

MURS
Multiple-Use Radio Service
(USA Only)

RECEIVE ONLY

Air Band

+

FM Broadcast

+

AM Broadcast

+

NOAA Weather Band

TRI-BAND

First Portable Marine transceiver capable of transmitting and receiving on Marine VHF, Family Radio Service, and the high powered Multi-Use Radio Service!

Having a portable radio able to communicate on three bands, the possibilities are endless. Want to communicate with another vessel? You can with the HX470S. Want to communicate from your vessel to family or friends on shore? You can use the FRS or high power MURS bands. Want a submersible radio to take along hiking; skiing, hunting or caravanning? You can have it all with the HX470S.

MULTI-BAND Receive

First Portable Marine transceiver capable of receiving AM, FM, and Aeronautical bands!

Imagine being in a small vessel and wanting to listen to music and news broadcasts. With the HX470S, simply press the BAND key to select the FM band, and tune to your favorite channel. Want to listen to a ball game on the AM Broadcast band? You can with the HX470S. The HX470S even allows you to monitor the AM Aeronautical band. Simply put the HX470S allows you to monitor a range of frequencies previously unavailable in any Portable Marine VHF.

Distress Beacon

Since the HX470S can be legally used while on the water or land STANDARD HORIZON has included a unique Distress Beacon. The HX470S features a strobe capable of being used as a light source, continuous beacon or in time of distress a beacon broadcasting the international Morse code for "S.O.S."

Rugged Magnesium Die-Cast Construction

The HX470S utilizes a high impact, non-corrosive die-cast case and chassis. This unique case insures the HX470S will withstand the physical abuse a Portable receives from being dropped or banged on the deck of a boat.

All you expect in Portable Marine VHF and more. . .

Digital Selective Calling (DSC) Distress Call

The HX470S is supplied with an NMEA charging cradle that allows the radio to be connected to a GPS. Connecting the HX470S to a GPS allows the position of your vessel to be stored inside the HX470S. In the event of an emergency, simply grab the HX470S lift the DISTRESS cover and depress the DISTRESS key. The HX470S will transmit a DSC distress call containing your position, while automatically activating the Distress beacon on the radio as well.

Scanning, Dual Watch, Presets and more. . .

Want to monitor more than one channel the HX470S can be programmed to scan any number or combination of channels with or without a priority channel of choice. Want to monitor one marine channel and one FRS or MURS channel? You can with the HX470S. "Preset" key can be used to store up to 10 channels for each band (NOAA Weather Alert, FRS, MURS Band only for USA), handy for quick recall of your favorite channels.

JIS7 Submersible

Engineered for unparalleled reliability, the HX470S is designed to exceed JIS 7 standards for submersibility to 3 feet for 30 minutes continuously.

Value Packaging

Packaged with a 1300 mAh lithium-ion battery, the HX470S will deliver 10-12Hours of continuous operation off a single charge. In addition the Lithium-ion battery never will develop a "memory" inhibiting its ability to deliver a complete day of service. Attaching either the 120/220 VAC or 12 VDC cable to the NMEA Charging Jack allows the Lithium-ion battery to be charged within 3 hours, after which time the radio is trickle charged to keep the battery topped off. Additionally, both chargers act as a power cord allowing you to operate the radio directly off of 12 VDC or 120/220 VAC.

SPECIFICATIONS

General	
Frequency Ranges (MHz)	156 MHz - 163.275 MHz (Marine Band + WX Band) Channel Steps: 25 kHz MURS Band (USA only) FRS Band (USA only) 88 MHz - 108 MHz (FM Broadcast) Channel Steps: 100 kHz 500 kHz - 1800 kHz (AM Broadcast) Channel Steps: 10 / 9 kHz 108 MHz - 137 MHz (AIR Band) Channel Steps: 25 kHz
Frequency Stability	±2.5 ppm (-22° F to +140° F [-30° C to +60° C])
Emission Type	16K0F3E, 11K0F3E (FRS), 16K0G2B (DSC)
Antenna Impedance	50 Ohms
Supply Voltage	Nominal: 7.4V DC, Negative Ground (Battery Terminal)
Current Consumption	195 mA (Receive) 68 mA (Standby, Saver Off) 45 mA (Standby, Saver On) 1.7 A (Marine High Power) 1.2 A (Marine Mid Power & MURS) 0.8 A (Marine Low Power & FRS)
Operating Temperature	-22° F to +140° F (-30° C to +60° C)
Case Size (W x H x D)	2.36" x 3.78" x 1.12" (60 x 96 x 29 mm) w/o knob & antenna
Weight (approx.)	0.3 lbs (285 g) with FNB-80LI
Transmitter	
RF Power Output (@7.4 V)	5, 2.5 or 1 W (Marine Band) 2 W (MURS Band) 0.5W (FRS Band)
Modulation Type	Variable Reactance
Maximum Deviation	±5 kHz (Marine Band) ±5 kHz (MURS Band) ±2.5 kHz (FRS Band)
Spurious Emission	At least 65 dB below
Microphone Impedance	2 k-Ohm
Receiver	
Circuit Type	Double-Conversion Superheterodyne (NFM, AM) Triple-Conversion Superheterodyne (WFM)
Intermediate Frequencies	NFM, AM WFM 1st: 47.25 MHz 45.8 MHz 2nd: 450 kHz 10.7 MHz 3rd: - 1 MHz
Sensitivity	0.2 µV for 12 dB SINAD (Marine & MURS Band) 0.2 µV for 12 dB SINAD (FRS Band) 1 µV for 12 dB SINAD (FM Broadcast) 0.5 µV for 10 dB SN (AM Broadcast) 0.5 µV for 10 dB SN (AIR Band)
Adjacent Channel Selectivity	65 dB Typical
Intermodulation	65 dB Typical
Selectivity	12 kHz / 25 kHz (-6 dB / -60 dB) NFM / AM 200 kHz / 300 kHz (-6 dB / -20 dB) WFM 6 kHz / 18 kHz (-6 dB / -60 dB) FRS Band
AF Output	400 mW @ 8 Ohm for 10 % THD (@7.4 V)

Standard Horizon reserves the right to make changes and enhancements to products at our discretion. Current specifications are therefore subject to change without notice.

OPTIONAL ACCESSORIES



FBA-23
Alkaline Battery Case



SU-1
Barometric Pressure Sensor Unit



FVP-31
Encryption Unit



CMP460
Waterproof Speaker/Microphone



MH-57A4B
Speaker/Microphone



VC-25
VOX Headset

INCLUDED ACCESSORIES
FNB-80LI Rechargeable Battery Pack
NC-72B/C* Charger
CD-25 Charger Cradle
E-DC-19 Cable With Cigar Lighter Plug
Quick Draw **Belt Clip**

*B for 120 VAC/C for 220 VAC

Vertex Standard

VERTEX STANDARD CO., LTD.

4-8-8 Nakameguro, Meguro-ku, Tokyo 153-8644, Japan

For our latest product news, visit us on the Internet:
<http://www.vxstdusa.com> <http://www.yaesu.co.uk>

VERTEX STANDARD

US Headquarters

10900 Walker Street, Cypress, CA 90630, U.S.A.
International Division
8350 N.W. 52nd Terrace, Suite 201, Miami, FL 33166, U.S.A.

YAESU EUROPE B.V.

P.O. Box 75525, 1118 ZN Schiphol, The Netherlands

YAESU UK LTD. Email: sales@yaesu.co.uk

Unit 12, Sun Valley Business Park, Winnall Close
Winchester, Hampshire, SO23 0LB, U.K.

VERTEX STANDARD HK LTD.

Unit 5, 20/F., Seaview Centre, 139-141 Hoi Bun Road,
Kwun Tong, Kowloon, Hong Kong