STANDARD HORIZON

Nothing takes to water like Standard Horizon

Class-H DSC GPS 6W Transceiver

HX891BT

Bluetooth®

Ergonomic Design Incorporates the Most Advanced Features

Leading with Class-H DSC & Hands-free Operation with Bluetooth



IPX8
1.5 m for 30 min Submersible

66 ch GPS

3 Year WARRANTY

Radio Specification

FLOATING | SUBMERSIBLE | 6W Transmit Power | LOUD AUDIO

Usability

E 2 O Easy To Operate | LARGE DISPLAY | 16 / S | Li-Ion Battery Included | AC and DC Charger Included | Bluetooth Ver. 5.3

Features

CLASS H | DSC DISTRESS and POS Polling | GPS | GPS COMPASS | WAYPOINT NAV | GM Group Monitor

TONE CONTROL | MOB Man Overboard | NOAA WEATHER CHANNELS / ALERT | STROBE LIGHT | FM Broadcast Radio Receiver

Connectability

OPTIONAL MIC / HEADSET | Bluetooth HANDS FREE OPERATION

Floating

MIL-STD-810F

Actual Size

Ergonomic Design & Durable Construction

Marine Class-H DSC & GPS Floating 6W VHF Transceiver

Class-H DSC GPS 6W Transceiver

HX891BT

Bluetooth®

Floating

IPX8 1.5 m for 30 min Submersible

66 ch GPS

MIL-STD-810F

HX891BT: for USA
HX891BT/E: for Europe, Asia and Australia

Supplied Accessories

CAT460 Antenna, SBR-13LI 7.4V 1800mAh Li-ion Battery Pack, SBH-32 Charger Cradle, SAD-25 AC Adapter, E-DC-19A DC Cable with Cigarette Lighter Plug for SBH-32 , SBT-13 Alkaline Battery Case (AAA x 5) , CLIP-22 Belt Clip, Hand Strap and T9101648 USB Cable

NAVY BLUE

SOLID BLACK



Rounded Case Design and Durable Construction

The HX891 has an innovative rounded case design that provides excellent handheld comfort and easy front panel operation. Professional grade construction meets MIL-STD-810F for operation in the harsh environment.

Floating IPX8 Submersible Construction (4.92 ft/1.5m for 30 minutes)

Engineered to be rugged and reliable, the HX891 is designed to float and also constructed to survive submersion with the IPX8 water resistant rating (4.92 ft /1.5m of water for 30 minutes).



Floating image

ITU-R M.493-16 Class-H DSC (Digital Selective Calling) & CH70 DSC call Receiver

The HX891 is capable of DSC (Digital Selective Calling) ITU-R M.493-16 Class-H operation. Class-H operation permits continuous reception of Digital Selective Calling functions on channel 70, concurrent with reception of radio calls on the audio channels.

DSC DISTRESS ALERT

Transmit and reception of DSC distress messages is incorporated. Distress alert transmissions include the latitude and longitude of the vessel when the Distress alert is activated.

Built-in Integrated 66 Channel WAAS GPS Receiver

With the internal high-performance 66 Channel GPS receiver, SBAS (WAAS / MSAS / EGNOS) satellites can be received. The HX891 includes a position logger that permits recording/logging the GPS location information at periodic intervals.

Extended Range 6W Transmit Power on Marine VHF

The HX891 provides a full *6Watts of transmit power and also is selectable to 2W and 1W settings to assist the user in obtaining maximum battery life.

*5W TX required in some countries

700mW Loud Audio and Noise Canceling Function

The HX891 is designed to be heard even in noisy environments with 700mW of audio power supplied to the internal speaker. In addition, the HX891 has the Noise canceling function for both receive and transmit audio.

*11 hours Operating time with supplied Li-ion Battery

The Supplied 1800mAh high-capacity Li-ion battery provides up to *11 hours operating time. Also, the HX891 may be operated with the included "AAA" SBT-13 Alkaline Battery Case (AAA x 5).

*Based on Duty Cycle = (TX) 5sec: (RX) 5sec: (Standby) 90sec; with 6W TX power, GPS: ON, DSC: ON



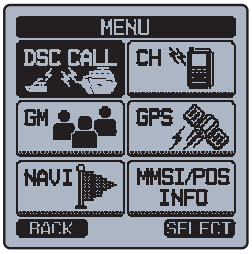
SSM-BT20
Bluetooth® headset

Hands-free Operation with Bluetooth®

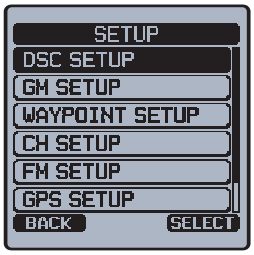
The HX891 enables hands-free operation using the optional Bluetooth® headset SSM-BT20.

Oversized Full-dot Matrix Display & E2O (Easy to Operate) Icon /Menu System

Designed with a large (1.7"x1.7", 43.2 x 43.2mm) Full-dot matrix display with wide digits and bold information flags that makes great visibility in any conditions. Also the HX891 advanced features "MENU" screen is displayed by pressing the MENU key on the front panel.



MENU screen

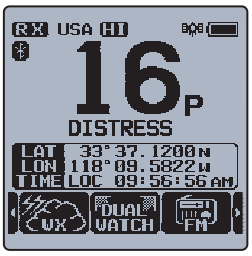


SETUP Menu screen

Selectable Display Mode (Night Mode Display)

The display is selectable between DAY mode and NIGHT mode.

The NIGHT mode display improves visibility at night by inverting the black and white dots of the display from the DAY mode.



DAY mode



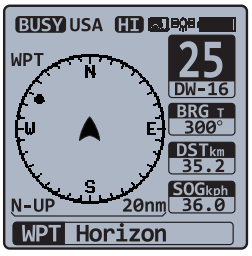
NIGHT mode

Waypoint Navigation

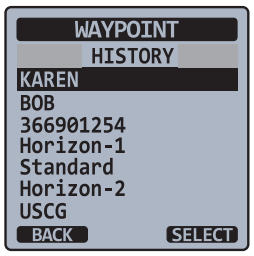
Use the Compass Screen to navigate to stored memory locations

The HX891 is capable of storing up to 250 waypoints for navigation using the compass page. The compass screen includes the distance and direction to the destination and the waypoints are indicated by dots. The large compass screen makes it easy to discern the overall positional relationship at a glance.

Also, the HX891 allows setting 1 to 30 waypoints to create a route.



Navigation Compass screen

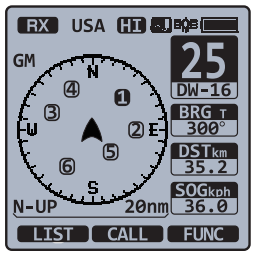


Waypoint List screen

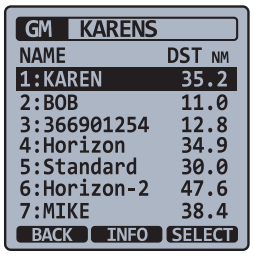
GM (Group Monitor) using DSC Group position Call

The HX891 GM (Group Monitor) feature utilizes the DSC (Digital Selective Calling), the Group call and Auto Position Polling, to display the group member locations.

By selecting the specific group member, you may begin navigation using the GM function. The HX891 is capable of storing up to 10 groups with 1 to 9 members each.



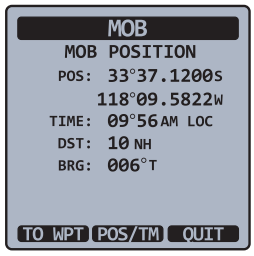
Group Monitor Screen



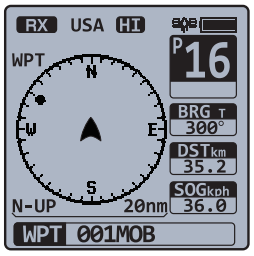
Group List

MOB (Man over Board) Location and navigation System

In an emergency, the MOB (Man Over Board) feature permits instantly recording the location where a person falls overboard.
This position may be reported for navigation to the exact location.



MOB information screen



Navigation screen

Water Activated Emergency Strobe Light

When the HX891 comes in contact with water, the water activated strobe light will turn on "WHITE" to assist finding the radio in low light conditions. This feature operates when the radio is ON or OFF.

Integrated Voice Scrambler Systems

Two types of voice scrambler functions are available: the 4-Code type (CVS2500A compatible) or the 32-code type (FVP-42 compatible)

*The scrambler is not available for CH16 and CH70

Versatile Scanning modes and Multi-watch

The HX891 will automatically scan channels programmed into the preset channel memory and also the scan channel memory, and the last selected weather channel.

Multi-watch is used to scan two or three channels for communications.

- In Dual Watch, a normal VHF channel and the priority channel are scanned alternately.
- In Triple Watch, a normal VHF channel, the priority channel, and the sub channel are scanned repeatedly.

NOAA Weather Alert (USA version only)

In the event of extreme weather disturbances, such as storms and hurricanes, the NOAA (National Oceanic and Atmospheric Administration) sends a weather alert including a 1050Hz tone and subsequent weather report on one of the NOAA weather channels. The HX891 can receive weather alerts when monitoring a weather channel, on the last selected weather channel during scanning modes, or while listening on another working channel.

Built in FM Broadcast Radio Receiver

FM broadcast receiver function is included in the HX891, with FM broadcast frequency sweep and Memory frequency Store/Recall operations.

FEATURES

- Automatically poll the GPS positions of ships using DSC
- Individual Calling, Group Calling and Test Calling
- DSC Beep and Selectable Call Ringer time
- Preset key used to recall up to 10 favorite channels
- CH16/S Quick Access (S: Sub-channel)
- Checking GPS Signal (GPS Status Display)
- TOT (Transmit Time-Out-Timer)
- Micro USB Data jack for PC interface
- VOX Operation with optional VOX Headset (SSM-64A)
- Battery Saver
- Dimmer Adjustment
- Keypad Illumination
- Key Beep
- Key Lock

SPECIFICATIONS

General	
Frequency Range (Frequency differs in some regions)	TX: 156.025MHz - 161.600MHz RX: 156.050MHz - 163.275MHz (USA/International, Including WX channels)
Channel Spacing	25kHz
Frequency Stability	±3ppm (-4°F to +140°F [-20°C to +60°C])
Emission Type	16K0G3E (Voice) , 16K0G2B (DSC)
Antenna Impedance	50Ω
Supply Voltage	7.4VDC, Negative Ground (Battery Terminal)
Current Consumption	380mA (Receive) 130mA (Standby, GPS on), 110mA (Standby, GPS off) TX: 1.6A / 1.0A / 0.7A (TX: 6W *(5W) / 2W / 1W) *Depends on the transceiver version
Operating Temperature	-4°F to +140°F (-20°C to +60°C)
Waterproof Rating	IPX8 (4.92ft/1.5m for 30 minutes)
DSC Individual Directory	Store up to 100 Identities
DSC Group Directory	Store up to 30 Groups
DSC Format	ITU-R M.493-16
NMEA Output	DSC, DSE, GLL, GGA, GSA, GSV, and RMC
Case Size (W x H x D)	2.60" x 5.43" x 1.50" (66 x 138 x 38mm) w/o knob & antenna
Weight (Approx.)	10.94oz (310g) with SBR-13LI, Belt Clip, hand strap & Antenna
Transmitter	
RF Power Output	6W *(5W)/2W / 1W @7.4V *5W TX required in some countries
Modulation Type	Variable Reactance
Maximum Deviation	±5kHz
Spurious Emission	Less than 0.25μW
Microphone Impedance	2kΩ
Receiver	
Circuit Type	Double-Conversion Superheterodyne
Intermediate Frequencies	(Voice) 1st: 38.85MHz, 2nd: 450kHz (DSC) 1st: 30.4MHz, 2nd: 450kHz
Sensitivity	(Voice) 0.25μV for 12dB SINAD, -5dBμ for 20dB SINAD (DSC) 0.5μV for 12dB SINAD, 0dBμ for 20dB SINAD
Adjacent Channel Selectivity	70dB typical
Intermodulation	70dB typical
Selectivity	12kHz/ 25kHz (−6dB / −60dB)
AF Output	700mW @16 Ohm for 10% THD (@7.4V)
GPS	
Receiver Channels	66 Channels
Sensitivity	Less than −147dBm
Time to First Fix	1 min typical (@Cold Start) 5 sec typical (@Hot Start)
Geodetic Datum	WGS84
FM BROADCAST RECEIVER	
Frequency Range	65MHz - 108MHz
Frequency Step	100kHz
Sensitivity	1.0μV for 12dB SINAD
Bluetooth	
Version	Version 5.3
Class	Class 1

Applicable MIL-STD

Standard: MIL-STD-810F			
MIL Standard	Method / Procedures	MIL Standard	Method / Procedures
Low Pressure	500.4 / I, II	Humidity	507.4
High Temperature	501.4 / I, II	Salt Fog	509.4
Low Temperature	502.4 / I, II	Settling Dust	510.4 / III
Temperature Shock	503.4 / I	Vibration	514.5 / I
Solar Radiation	505.4 / I	Shock	516.5 / I, IV
Rain Blowing/Drip	506.4 / I, III	–	–

SUPPLIED ACCESSORIES

- **CAT460** Antenna
- **SBR-13LI** 7.4V 1800mAh Li-ion Battery Pack
- **SBH-32** Charger Cradle
- **SAD-25** AC Adapter for SBH-32
- **E-DC-19A** DC Cable with 12V Cigarette Lighter Plug for SBH-32
- **SBT-13** Alkaline Battery Case (AAA x 5)
- **CLIP-22** Belt Clip
- **T9101648** USB Cable
- **Hand Strap**

OPTIONAL ACCESSORIES

SSM-14A Submersible Speaker Microphone with Earphone jack



MH-73A4B Submersible Speaker Microphone



MH-57A4B Speaker Microphone



SSM-BT20 Bluetooth Speaker Microphone



SEP-10A Earphone for SSM-14A



SSM-64A VOX Headset



SSM-517A Earpiece/ microphone



CN-3 BNC-SMA Adapter



SBR-13LI*1 7.4V 1800mAh Li-ion Battery Pack



SBH-32*1 Charger Cradle



SAD-25*1 AC Adapter for SBH-32



E-DC-19A*1 DC Cable with 12V Cigarette Lighter Plug for SBH-32



E-DC-6 DC Cable (plug and wire only)



SBT-13*1 Alkaline Battery Case (AAA x 5)



CLIP-22*1 Belt Clip



SCH-11 Belt Clip Hanger



CAT460*1 Antenna



*1 The same as supplied accessory

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STANDARD HORIZON

Nothing takes to water like Standard Horizon

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