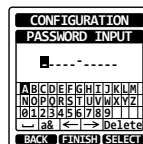


3. Input the acquired reset code.
 - Select the character with the CH▼/CH▲/◀/▶ keys
 - Press the [SELECT] soft key to input the character
 - Press the [SELECT] soft key to select “←” or “→” on the screen to move the cursor.
 - Press the [SELECT] soft key to select “Delete” on the screen to delete the selected character
4. Press the [FINISH] soft key.



If the reset is successful, “COMPLETE!” will appear on the screen.

If the error message is displayed, input the reset code again.



5. Press the [OK] soft key to return to setup screen.

NOTE

The acquired reset code is available only one time.

19.4 TROUBLESHOOTING CHART

SYMPTOM	PROBABLE CAUSE	REMEDY
The USA/INTL/CAN modes do not function.	Proper operation not followed.	Specify the item number from “SETUP MENU” – “CH SETUP” – “CH GROUP”.
Cannot output sound by pressing and holding the SQL key.	Low battery.	Charge battery. Refer to section 6 of this manual.
	Audio volume level is too low.	Press the VOL+ key until background noise outputs.
Cannot transmit a DSC Call.	MMSI number is not programmed.	Program the MMSI number. Refer to section “11.2.2 Programming the MMSI”.
Cannot fix the GPS satellites.	Internal GPS receiver is “off”.	Internal GPS receiver is “on”. Refer to “17.1 GPS ON/OFF”.
	Poor location for GPS satellite reception.	Move to a less obstructed position.
Charge indicator does not appear on the display when charging a battery.	Defective battery SBR-13LI .	Contact Standard Horizon dealer.
	The transceiver is not set onto the SBH-32 Charger Cradle properly.	Set the transceiver onto the SBH-32 Charger Cradle properly.
	Power is not supplied to the SBH-32 Charger Cradle.	Connect SAD-25 or E-DC-19A to the SBH-32 Charger Cradle for AC/DC power supplies.

20. VHF MARINE CHANNEL ASSIGNMENTS

20.1 HX890 (USA Version)

VHF MARINE CHANNEL CHART							
CH	U	C	I	S/D	TX	RX	CHANNEL USE
01		X	X	D	156.050	160.650	Public Correspondence (Marine Operator)
1001	X			S	156.050		Port Operation and Commercial. VTS in selected areas
02		X	X	D	156.100	160.700	Public Correspondence (Marine Operator)
03		X	X	D	156.150	160.750	Public Correspondence (Marine Operator)
1003	X			S	156.150		U.S. Government Only, Coast Guard
04			X	D	156.200	160.800	Public Correspondence (Marine Operator), Port operation, ship movement
1004		X		S	156.200		Pacific coast: Coast Guard, East Coast: Commercial fishing
05			X	D	156.250	160.850	Public Correspondence (Marine Operator), Port operation, ship movement
1005	X	X		S	156.250		Port operation. VTS in Seattle
06	X	X	X	S	156.300		Inter-ship Safety
07			X	D	156.350	160.950	Public Correspondence (Marine Operator), Port operation, ship movement
1007	X	X		S	156.350		Commercial
08	X	X	X	S	156.400		Commercial (Inter-ship only)
09	X	X	X	S	156.450		Boater Calling channel, Commercial & Non-commercial (Recreational)
10	X	X	X	S	156.500		Commercial
11	X	X	X	S	156.550		Commercial. VTS in selected areas.
12	X	X	X	S	156.600		Port operation. VTS in selected areas.
13	X	X	X	S	156.650		Inter-ship Navigation Safety (Bridge-to-bridge)
14	X	X	X	S	156.700		Port operation. VTS in selected areas.
15	X			S	- - -	156.750	Environmental (Receive only)
15		X	X	S	156.750		Commercial, non-commercial, ship movement (1 W)
16	X	X	X	S	156.800		International Distress, Safety and Calling
17	X	X	X	S	156.850		State Controlled (1 W)
18			X	D	156.900	161.500	Port operation, ship movement
1018	X	X		S	156.900		Commercial
19			X	D	156.950	161.550	Port operation, ship movement
1019	X	X		S	156.950		Commercial (USA) Coast Guard (Canada)
1019			X	S	156.950		
2019			X	S	161.550		
20	X	X	X	D	157.000	161.600	Canadian Coast Guard Only, International: port operations and shipment
1020			X	S	157.000		
1020	X			S	157.000		Port operation
2020			X	S	161.600		
21			X	D	157.050	161.650	Port operation, ship movement
1021	X	X		S	157.050		U.S. Government Only (USA) Canadian Coast Guard (Canada)
2021		X			- - -	161.650	CMB Service
22			X	D	157.100	161.700	Port operation, ship movement
1022	X	X		S	157.100		US Coast Guard Liaison and Maritime Safety Information Broadcasts announced on channel 16 (USA) Canadian Coast Guard Liaison and Maritime Safety Information Broadcasts announced on channel 16 (Canada)

VHF MARINE CHANNEL CHART							
CH	U	C	I	S/D	TX	RX	CHANNEL USE
23		X	X	D	157.150	161.750	Public Correspondence (Marine Operator)
1023	X			S	157.150		U.S. Government Only
2023		X			- - -	161.750	CMB Service
24	X	X	X	D	157.200	161.800	Public Correspondence (Marine Operator)
25	X	X	X	D	157.250	161.850	Public Correspondence (Marine Operator)
2025		X			- - -	161.850	CMB Service
26	X	X	X	D	157.300	161.900	Public Correspondence (Marine Operator)
27	X	X	X	D	157.350	161.950	Public Correspondence (Marine Operator)
28	X	X	X	D	157.400	162.000	Public Correspondence (Marine Operator)
2028		X			- - -	162.000	CMB Service
60		X	X	D	156.025	160.625	Public Correspondence (Marine Operator)
61			X	D	156.075	160.675	Public Correspondence (Marine Operator), Port operation, ship movement
1061	X	X		S	156.075		Public Coast: Coast Guard; East Coast: commercial fishing only
62			X	D	156.125	160.725	Public Correspondence (Marine Operator), Port operation, ship movement
1062		X		S	156.125		Public Coast: Coast Guard; East Coast: commercial fishing only
63			X	D	156.175	160.775	Public Correspondence (Marine Operator), Port operation, ship movement
1063	X	X		S	156.175		Port Operation and Commercial. VTS in selected areas.
64		X	X	D	156.225	160.825	Public Correspondence (Marine Operator), Port operation, ship movement
1064	X	X		S	156.225		Public Correspondence (Marine Operator), Port operation, ship movement
65			X	D	156.275	160.875	Public Correspondence (Marine Operator), Port operation, ship movement
1065	X	X		S	156.275		Port Operations
66			X	D	156.325	160.925	Public Correspondence (Marine Operator), Port operation, ship movement
1066	X	X		S	156.325		Port Operations
67	X	X	X	S	156.375		US: Commercial. Used for Bridge-to-bridge communications in lower Mississippi River. Inter-ship only. Canada: Commercial fishing, S&R
68	X	X	X	S	156.425		Non-commercial (Recreational)
69	X	X	X	S	156.475		US: Non-commercial (Recreational), Canada: Commercial fishing only, International: Inter-ship, Port operations and Ship movement
70	X	X	X	S	- - -	156.525	Digital selective calling (voice communications not allowed)
71	X	X	X	S	156.575		US, Canada: Non-commercial (Recreational), International: Port operations and Ship movement
72	X	X	X	S	156.625		Non-commercial (Inter-ship only)
73	X	X	X	S	156.675		US: Port Operations, Canada: Commercial fishing only, International: Inter-ship, Port operations and Ship movement
74	X	X	X	S	156.725		US: Port Operations, Canada: Commercial fishing only, International: Inter-ship, Port operations and Ship movement
75	X	X	X	S	156.775		Port Operations (Inter-ship only) (1 W)
76	X	X	X	S	156.825		Port Operations (Inter-ship only) (1 W)
77	X	X		S	156.875		Port Operations (Inter-ship only) (1 W)

VHF MARINE CHANNEL CHART								
CH	U	C	I	S/D	TX		RX	CHANNEL USE
77			X	S	156.875			Port Operations (Inter-ship only)
78			X	D	156.925		161.525	Public Correspondence (Marine Operator), Port operation, ship-movement
1078	X	X		S	156.925			Non-commercial (Recreational)
1078			X	S	156.925			Port operation and Ship movement
2078			X	S	161.525			
79			X	D	156.975		161.575	Port operation and Ship movement
1079	X			S	156.975			Commercial
1079			X	S	156.975			Port operation and Ship movement
2079			X	S	161.575			
80			X	D	157.025		161.625	Port operation, ship movement
1080	X	X		S	157.025			Commercial
81			X	D	157.075		161.675	Port operation, ship movement
1081	X	X		S	157.075			U.S. Government Only - Environmental protection operations. (USA) Canadian Coast Guard Only (Canada)
81A				S	157.075			
82			X	D	157.125		161.725	Public Correspondence (Marine Operator), Port operation, ship movement
1082	X	X		S	157.125			U.S. Government Only (USA) Canadian Coast Guard Only (Canada)
83			X	D	157.175		161.775	Public Correspondence (Marine Operator)
1083	X	X		S	157.175			U.S. Government Only (USA) Canadian Coast Guard Only (Canada)
2083		X			- - -		161.775	CMB Service
84	X	X	X	D	157.225		161.825	Public Correspondence (Marine Operator)
85	X	X	X	D	157.275		161.875	Public Correspondence (Marine Operator)
86	X	X	X	D	157.325		161.925	Public Correspondence (Marine Operator)
87	X	X	X	S	157.375			Port operation, ship movement
88	X	X	X	S	157.425			Port operation, ship movement Commercial, Inter-ship Only
81			X	D	157.075		161.675	Port operation, ship movement
1081	X			S	157.075			U.S. Government Only - Environmental protection operations.
81A		X		S	157.075			Canadian Coast Guard Only
82			X	D	157.125		161.725	Public Correspondence (Marine Operator), Port operation, ship movement
82A		X		S	157.125			Canadian Coast Guard Only
1082	X			S	157.125			U.S. Government Only
83			X	D	157.175		161.775	Public Correspondence (Marine Operator)
83A		X		S	157.175			Canadian Coast Guard Only
83B		X			- - -		161.775	CMB Service
1083	X			S	157.175			U.S. Government Only
84	X	X	X	D	157.225		161.825	Public Correspondence (Marine Operator)
85	X	X	X	D	157.275		161.875	Public Correspondence (Marine Operator)
86	X	X	X	D	157.325		161.925	Public Correspondence (Marine Operator)
88	X	X	X	S	157.425			Port operation, ship movement Commercial, Inter-ship Only

NOTE: Simplex channels, 1003, 1021, 1023, 1061, 1064, 1081, 1082 and 1083 CANNOT be lawfully used by the general public in U.S.A. waters.

20.2 HX890E (EXP Version)

CH	TX (MHz)	RX (MHz)	SIMPLEX/DUPLEX	LOW PWR	CHANNEL USE	
					All countries (except Germany)	Germany
01	156.050	160.650	DUPLEX	–	TELEPHONE	NAUTIK
02	156.100	160.700	DUPLEX	–	TELEPHONE	NAUTIK
03	156.150	160.750	DUPLEX	–	TELEPHONE	NAUTIK
04	156.200	160.800	DUPLEX	–	INTL	NAUTIK
05	156.250	160.850	DUPLEX	–	INTL	NAUTIK
06	156.300		SIMPLEX	LOW*4	SAFETY	SHIP-SHIP
07	156.350	160.950	DUPLEX	–	INTL	NAUTIK
08	156.400		SIMPLEX	LOW*4	COMMERCIAL	SHIP-SHIP
09	156.450		SIMPLEX	–	CALLING	NAUTIK
10	156.500		SIMPLEX	LOW*4	COMMERCIAL	SHIP-SHIP
11	156.550		SIMPLEX	LOW*4	VTS	SHIP-PORT
12	156.600		SIMPLEX	LOW*4	VTS	SHIP-PORT
13	156.650		SIMPLEX	LOW*4	BRG/BRG	SHIP-SHIP
14	156.700		SIMPLEX	LOW*4	VTS	SHIP-PORT
15	156.750		SIMPLEX	LOW	COMMERCIAL	ON-BOARD
16	156.800		SIMPLEX	–	DISTRESS	
17	156.850		SIMPLEX	LOW	SAR	ON-BOARD
18	156.900	161.500	DUPLEX	–	INTL	NAUTIK
19	156.950	161.550	DUPLEX	–	INTL	NAUTIK
1019	156.950		SIMPLEX	–	–	–
2019	161.550		SIMPLEX	–	–	–
20	157.000	161.600	DUPLEX	LOW*6	PORT OPR	NAUTIK
1020	157.000		SIMPLEX	–	–	–
2020	161.600		SIMPLEX	–	–	–
21	157.050	161.650	DUPLEX	–	INTL	NAUTIK
22	157.100	161.700	DUPLEX	–	INTL	NAUTIK
23	157.150	161.750	DUPLEX	–	INTL	
24	157.200	161.800	DUPLEX	–	TELEPHONE	
25	157.250	161.850	DUPLEX	–	TELEPHONE	
26	157.300	161.900	DUPLEX	–	TELEPHONE	
27	157.350	161.950	DUPLEX	–	TELEPHONE	
28	157.400	162.000	DUPLEX	–	TELEPHONE	
31*1	157.550	162.150	DUPLEX	LOW	NED JACHTHAV	–
37*2	157.850		SIMPLEX	LOW	YACHTING UK	–
60	156.025	160.625	DUPLEX	–	TELEPHONE	NAUTIK
61	156.075	160.675	DUPLEX	–	INTL	NAUTIK
62	156.125	160.725	DUPLEX	–	INTL	NAUTIK
63	156.175	160.775	DUPLEX	–	INTL	NAUTIK
64	156.225	160.825	DUPLEX	–	TELEPHONE	NAUTIK
65	156.275	160.875	DUPLEX	–	INTL	NAUTIK
66	156.325	160.925	DUPLEX	–	INTL	NAUTIK
67	156.375		SIMPLEX	–	BRG/BRG	NAUTIK
68	156.425		SIMPLEX	–	SHIP-SHIP	
69	156.475		SIMPLEX	–	PLEASURE	
70	–	156.525	SIMPLEX	–	DSC	
71	156.575		SIMPLEX	LOW*4	PLEASURE	SHIP-PORT
72	156.625		SIMPLEX	LOW*4	SHIP-SHIP	

CH	TX (MHz)	RX (MHz)	SIMPLEX/DUPLEX	LOW PWR	CHANNEL USE	
					All countries (except Germany)	Germany
73	156.675		SIMPLEX	–	PORT OPR	NAUTIK
74	156.725		SIMPLEX	LOW*4	PORT OPR	SHIP-PORT
75	156.775		SIMPLEX	LOW	–	SHIP-PORT
76	156.825		SIMPLEX	LOW	–	NAUTIK
77	156.875		SIMPLEX	LOW*4	PORT OPR	SHIP-SHIP
78	156.925	161.525	DUPLEX	–	INTL	NAUTIK
1078	156.925		SIMPLEX	–	–	–
2078	161.525		SIMPLEX	–	–	–
79	156.975	161.575	DUPLEX	–	INTL	NAUTIK
1079	156.975		SIMPLEX	–	–	–
2079	161.575		SIMPLEX	–	–	–
80	157.025	161.625	DUPLEX	–	INTL	NAUTIK
81	157.075	161.675	DUPLEX	–	INTL	NAUTIK
82	157.125	161.725	DUPLEX	–	INTL	TELEPHONE
83	157.175	161.775	DUPLEX	–	INTL	TELEPHONE
84	157.225	161.825	DUPLEX	–	TELEPHONE	
85	157.275	161.875	DUPLEX	–	TELEPHONE	
86	157.325	161.925	DUPLEX	–	TELEPHONE	
87	157.375		SIMPLEX	–	PORT OPR	
88	157.425		SIMPLEX	–	PORT OPR	
M*3	157.850		SIMPLEX	–	YACHTING UK	–
M2*3	161.425		SIMPLEX	–	YACHTING UK	–
L1*5	155.500		SIMPLEX	–	PLEASURE	–
L2*5	155.525		SIMPLEX	–	PLEASURE	–
L3*5	155.650		SIMPLEX	–	PLEASURE	–
F1*5	155.625		SIMPLEX	–	FISHING	–
F2*5	155.775		SIMPLEX	–	FISHING	–
F3*5	155.825		SIMPLEX	–	FISHING	–

NOTE Country Channel assignment are different depending on the region.

*1: Channel 31 is assigned to only BELGIUM and NETHERLAND.

*2: Channel 37 is assigned to only NETHERLAND.

*3: Channel M and M2 are assigned to only UNITED KINGDOM.

*4: LOW Power setting for BELGIUM, NETHERLAND and GERMANY.

*5: Channel L1, L2, L3, F1, F2 and F3 are assigned to only SWEDEN.

*6: LOW Power setting for GERMANY.

21. SPECIFICATIONS

Performance specifications are nominal, unless otherwise indicated, and are subject to change without notice. Measurements are in accordance with TIA/EIA-603 (U.S.A.) and EN301 178 (EXP).

21.1 GENERAL

Frequency Range	TX: 156.025MHz - 161.600MHz
(except for Region Channel)	RX: 156.050MHz - 163.275MHz
	(USA/International, Including WX channels)
Channel Spacing	25kHz
Frequency Stability	$\pm 3\text{ppm}$ (-4°F to $+140^{\circ}\text{F}$ [-20°C to $+60^{\circ}\text{C}$])
Emission Type	16K0G3E for Voice, 16K0G2B for DSC
Antenna Impedance	50 Ω
Supply Voltage.....	7.4V DC, Negative Ground (Battery Terminal)
Current Consumption	330mA (Receive)
	100mA (Standby, GPS On)
	60mA (Standby, GPS Off)
	1.6A / 1.0A / 0.7A
	(TX: 6W (5W)* / 2.5W / 1W)
Operating Temperature.....	-4°F to $+140^{\circ}\text{F}$ (-20°C to $+60^{\circ}\text{C}$)
DSC Individual Directory	Store up to 100
DSC Group Directory.....	Store up to 20
DSC Format.....	ITU-R M.493-14
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" (66mm x 138mm x 38mm)
	(w/o knob & antenna)
Weight	11.29oz (320g)
	w/ SBR-13LI, hand strap, belt clip & antenna

21.2 TRANSMITTER

RF Power Output.....	6 W(5W)* (HI) / 2.5W (MEDIUM) / 1W (LOW) (@7.4V)
Modulation Type	Variable Reactance
Maximum Deviation	$\pm 5\text{kHz}$
Spurious Emission.....	Less than 0.25uW
Microphone Impedance.....	2k Ω
	*(5W TX required in some countries)

21.3 RECEIVER (for Voice and DSC)

Circuit Type.....	Double-Conversion Superheterodyne
Intermediate Frequencies.....	for Voice 1st: 38.85MHz
	2nd: 450kHz

for DSC 1st: 30.4MHz
 2nd: 450kHz

Sensitivity for Voice 0.25 μ V for 12dB SINAD(U.S.A.)
 -5dBu for 20dB SINAD(EXP)
 for DSC 0.5 μ V for 12dB SINAD(U.S.A.)
 0dBu for 20dB SINAD(EXP)

Adjacent Channel Selectivity 70dB typical

Intermodulation 70dB typical

Hum & Noise Ratio 45dB typical

Selectivity 12kHz / 25kHz (-6dB / -60dB)

AF Output (Internal SP) 700mW @16 Ω for 10% THD (@7.4V)

21.4 GPS

Receiver Channels66Channels

Sensitivity Less than -147dBm

Time to First Fix..... 1min typical (@Cold Start)
 5sec typical (@Hot Start)

Geodetic Datum..... WGS84

21.5 FM BROADCAST RECEIVER

Frequency Range: 65MHz - 108MHz

Frequency Step: 100kHz

Sensitivity: 1.0 μ V for 12dB SINAD

Symbols placed on the equipment

=== Direct current

22. CONNECTING A USB DATA TERMINAL TO THE PC

The **HX890** outputs the following NMEA 0183 sentences 9600: GLL, GGA, GSA, GSV, RMC, DSC and DSE.

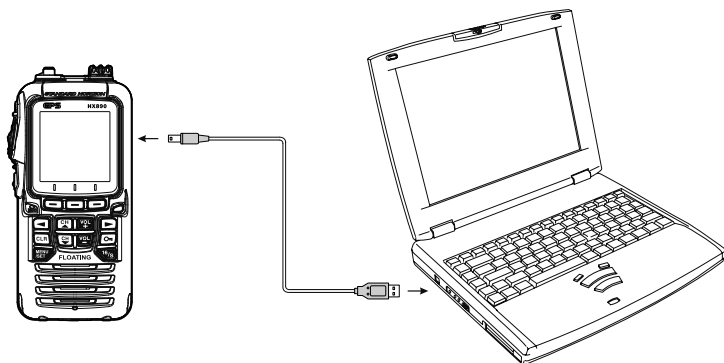
If you have further inquiries, please feel free to contact Product Support at:

Phone: (800) 767-2450

Email: marinetech@yaesu.com

You can also download the log data from the radio by using the PC Programming Software which may be downloaded from the Standard Horizon website. The PC Programming Software is compatible with Windows 7, and Windows 8, and Windows 10.

To connect a PC, use the supplied USB cable through the **DATA** jack of the **HX890**.



CAUTION

The **DATA** jack is NOT designed to be waterproof when the cover is opened. Connect the radio and PC in a dry location.

23. FCC AND CANADA RADIO LICENSE INFORMATION

Standard Horizon radios comply with the Federal Communication Commission (FCC) and the Innovation, Science and Economic Development Canada (ISED) requirements that regulate the Maritime Radio Service.

23.1 STATION LICENSE

An FCC ship station license is no longer required for any vessel traveling in U.S. waters (except Hawaii) which is under 20 meters in length. However, any vessel required to carry a marine radio on an international voyage, carrying a HF single side band radiotelephone or marine satellite terminal is required to have a ship station license. FCC license forms, including applications for ship (605) and land station licenses can be downloaded via the Internet at <https://www.fcc.gov/fcc-form-605>. To obtain a form from the FCC, call (888) 225-5322.

23.2 RADIO CALL SIGN

Currently the FCC does not require recreational boaters to have a Ship Radio Station License. The USCG recommends the boats registration number and the state to be used when calling another vessel.

23.3 CANADIAN SHIP STATION LICENSING

Please click on the following link for licensing information:
http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/h_sf01775.html

The following link lists several Branches/Offices regarding licensing. Licensing depends on the region of operations.

<http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf01742.html>

23.4 FCC / ISED INFORMATION

The following data pertaining to the transceiver is necessary to fill out the license application.

Type Acceptance FCC Part 80/ISED RSS-182
Output Power..... 1 Watt (low), 2.5 Watts (medium) and 6 Watts (high)
Emission 16K0G3E, 16K0G2B
Frequency Range 156.025 to 163.275 MHz
FCC Type Number..... K6630633X30
Industry Canada Type Approval 511B-30633X30

24. RF EXPOSURE SAFETY STATEMENT

24.1 SAFETY INFORMATION

Your wireless handheld portable transceiver contains a low power transmitter. When the Push-to-Talk (PTT) button is pushed, the transceiver sends out radio frequency (RF) signals. In August 1996, the Federal Communications Commission adopted RF exposure guidelines with safety levels for hand-held wireless devices.

This device is authorized to operate at a duty factor not to exceed 50 % (this corresponds to 50% transmission time and 50 % reception time).

WARNING: To maintain compliance with the FCC's RF exposure guidelines, this transmitter and its antenna must maintain a separation distance of at least 1 inch (2.5 centimeters) from your face. Speak in a normal voice, with the antenna pointed up and away from the face at the required separation distance.

If you use a headset accessory for this radio, with the radio worn on your body, use only the Yaesu belt clip for this transceiver, and ensure that the antenna is at least 1 inch (2.5 centimeters) from your body when transmitting.

Use only the supplied antenna. Unauthorized antennas, modifications, or attachments could damage the transmitter, and may violate FCC regulations.

24.2 CONSIGNES DE SECURITE

Votre émetteur-récepteur portatif sans fil contient un émetteur à faible puissance. Lorsque vous appuyez sur le bouton Push-to-Talk (PTT), l'émetteur-récepteur émet des signaux de radiofréquence (RF). En août 1996, la FCC (Commission Fédérale des Communications) a adopté des directives relatives à l'exposition aux RF avec des niveaux de sécurité pour les appareils sans fils portatifs.

Le fonctionnement de cet appareil est autorisé à un facteur d'utilisation ne dépassant pas 50 % (correspondant à 50% de la durée de transmission et 50% de la durée de réception).

AVERTISSEMENT: Pour assurer la conformité avec les directives d'exposition RF de la FCC, cet émetteur-récepteur et son antenne doivent être maintenus à une distance minimum d'un pouce (2,5 centimètre) de votre visage. Parlez avec une voix normale, avec l'antenne dirigée vers le haut et éloignée du visage, à la distance requise.

Si vous utilisez un casque pour cette radio, et que vous portez la radio sur vous, utilisez exclusivement le clip de ceinture Yaesu pour cet émetteur-récepteur, et assurez-vous que l'antenne se trouve à une distance minimum d'un pouce (2,5 centimètres) de votre corps pendant l'émission.

Utilisez exclusivement l'antenne fournie. Les antennes, les modifications ou les accessoires non autorisés peuvent endommager l'émetteur-récepteur et enfreindre les réglementations FCC.

25. FCC NOTICE

NOTICE

Unauthorized changes or modifications to this equipment may void compliance with FCC Rules. Any change or modification must be approved in writing by STANDARD HORIZON, a division of YAESU USA.

THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS: (1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE, AND (2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRE OPERATION.

NOTE: THE GRANTEE IS NOT RESPONSIBLE FOR ANY CHANGES OR MODIFICATIONS NOT EXPRESSLY APPROVED BY THE PARTY RESPONSIBLE FOR COMPLIANCE. SUCH MODIFICATIONS COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industry Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

The applicant is responsible for providing proper instructions to the user of the radio device, and any usage restrictions, including limits of exposure durations. The user manual shall provide installation and operation instructions, as well as any special usage conditions, to ensure compliance with SAR and/or RF field strength limits. For instance, compliance distance shall be clearly stated in the user manual.

The user manual of devices intended for controlled use shall also include information relating to the operating characteristics of the device; the operating instructions to ensure compliance with SAR and/or RF field strength limits; information on the installation and operation of accessories to ensure compliance with SAR and/or RF field strength limits; and contact information where the user can obtain Canadian information on RF exposure and compliance. Other related information may also be included.

CAN ICES-3 (B) / NMB-3 (B)

YAESU

Declaration of Conformity

Type of Equipment:	Floating Class H DSC Marine Transceiver with GPS
Brand Name:	STANDARD HORIZON
Model Number:	HX890
Manufacturer:	YAESU MUSEN CO., LTD.
Address of Manufacturer:	Tennozu Parkside Building, 2-5-8 Higashi-Shinagawa, Shinagawa-ku, Tokyo 140-0002 Japan

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions; (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

The technical documentation as required by the Conformity Assessment procedures is kept at the following address:

Company: Yaesu U.S.A.
Address: 6125 Phyllis Drive, Cypress, CA 90630, U.S.A.
Telephone: (714) 827-7600

STANDARD HORIZON Limited Warranty

Limited Warranty is valid only in the country/region where this product was originally purchased.

On-line Warranty Registration:

Thank you for buying STANDARD HORIZON products! We are confident your new radio will serve your needs for many years! Please register your product at www.standardhorizon.com - Owner's Corner

Warranty Terms:

Subject to the Limitations of the Warranty and the Warranty Procedures described below, YAESU MUSEN hereby warrants this product to be free of defects in materials and workmanship in normal use during the "Warranty Period." (the "Limited Warranty").

Limitations of Warranty:

- A. YAESU MUSEN is not liable for any express warranties except the Limited Warranty described above.
- B. The Limited Warranty is extended only to the original end-use purchaser or the person receiving this product as a gift, and shall not be extended to any other person or transferee.
- C. Unless a different warranty period is stated with this YAESU product, the Warranty Period is three years from the date of retail purchase by the original end-use purchaser.
- D. The Limited Warranty is valid only in the country/region where this product was originally purchased.
- E. During the Warranty Period, YAESU MUSEN will, at its sole option, repair or replace (using new or refurbished replacement parts) any defective parts within a reasonable period of time and free of charge.
- F. The Limited Warranty does not cover shipping cost (including transportation and insurance) from you to us, or any import fees, duties or taxes.
- G. The Limited Warranty does not cover any impairment caused by tampering, misuse, failure to follow instructions supplied with the product, unauthorized modifications, or damage to this product for any reasons, such as: accident; excess moisture; lightning; power surges; connection to improper voltage supply; damage caused by inadequate packing or shipping procedures; loss of, damage to or corruption of stored data; product modification to enable operation in another country/purpose other than the country/purpose for which it was designed, manufactured, approved and/or authorized; or the repair of products damaged by these modifications.
- H. The Limited Warranty applies only to the product as it existed at the time of the original purchase, by the original retail purchaser, and shall not preclude YAESU MUSEN from later making any changes in design, adding to, or otherwise improving subsequent versions of this product, or impose upon YAESU MUSEN any obligation to modify or alter this product to conform to such changes, or improvements.
- I. YAESU MUSEN assumes no responsibility for any consequential damages caused by, or arising out of, any such defect in materials or workmanship.
- J. TO THE FULLEST EXTENT PERMITTED BY LAW, YAESU MUSEN SHALL NOT BE RESPONSIBLE FOR ANY IMPLIED WARRANTY WITH RESPECT TO THIS PRODUCT.
- K. If the original retail purchaser timely complies with the Warranty Procedures described below, and YAESU MUSEN elects to send the purchaser a replacement product rather than repair the "original product", then the Limited Warranty shall apply to the replacement product only for the remainder of the original product Warranty Period.
- L. Warranty statutes vary from state to state, or country to country, so some of the above limitations may not apply to your location.

Warranty Procedures:

1. To find the Authorized STANDARD HORIZON Service Center in your country/region, visit www.standardhorizon.com. Contact the STANDARD HORIZON Service Center for specific return and shipping instructions, or contact an authorized STANDARD HORIZON dealer/distributor from whom the product was originally purchased.
2. Include proof of original purchase from an authorized STANDARD HORIZON dealer/distributor, and ship the product, freight prepaid, to the address provided by the STANDARD HORIZON Service Center in your country/region.
3. Upon receipt of this product, returned in accordance with the procedures described above, by the STANDARD HORIZON Authorized Service Center, all reasonable efforts will be expended by YAESU MUSEN to cause this product to conform to its original specifications. YAESU MUSEN will return the repaired product (or a replacement product) free of charge to the original purchaser. The decision to repair or replace this product is the sole discretion of YAESU MUSEN.

Other conditions:

YAESU MUSEN'S MAXIMUM LIABILITY SHALL NOT EXCEED THE ACTUAL PURCHASE PRICE PAID FOR THE PRODUCT. IN NO EVENT SHALL YAESU MUSEN BE LIABLE FOR LOSS OF, DAMAGE TO OR CORRUPTION OF STORED DATA, OR FOR SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR INDIRECT DAMAGES, HOW EVER CAUSED; INCLUDING WITHOUT LIMITATION TO THE REPLACEMENT OF EQUIPMENT AND PROPERTY, AND ANY COSTS OF RECOVERING, PROGRAMMING OR REPRODUCING ANY PROGRAM OR DATA STORED IN OR USED WITH THE YAESU PRODUCT.

Some Countries in Europe and some States of the USA do not allow the exclusion or limitation of incidental or consequential damages, or a limitation on how long an implied warranty lasts, so the above limitation or exclusions may not apply. This warranty provides specific rights, there may be other rights available which may vary between countries in Europe or from state to state within the USA.


This Limited Warranty is void if the label bearing the serial number has been removed or defaced.

EU Declaration of Conformity

We, Yaesu Musen Co. Ltd of Tokyo, Japan, hereby declare that this radio equipment HX890E is in full compliance with EU Radio Equipment Directive 2014/53/EU. The full text of the Declaration of Conformity for this product is available to view at <http://www.yaesu.com/jp/red>

ATTENTION – Conditions of usage

This transceiver works on frequencies that are regulated and not permitted to be used without authorisation in the EU countries shown in this table. Users of this equipment should check with their local spectrum management authority for licensing conditions applicable for this equipment.

					
AT	BE	BG	CY	CZ	DE
DK	ES	EE	FI	FR	UK
GR	HR	HU	IE	IT	LT
LU	LV	MT	NL	PL	PT
RO	SK	SI	SE	CH	IS
LI	NO	–	–	–	–

Disposal of Electronic and Electrical Equipment

Products with the symbol (crossed-out wheeled bin) cannot be disposed as household waste. Electronic and Electrical Equipment should be recycled at a facility capable of handling these items and their waste by-products. Please contact a local equipment supplier representative or service center for information about the waste collection system in your country.



STANDARD HORIZON

Nothing takes to water like Standard Horizon

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YAESU MUSEN CO., LTD.

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Printed in China

