

## FIXED MOUNT VHF AND LOUD HAILER SPECIFICATIONS

### Fixed Mount VHF Radios

MODEL	GX6500E / GX6000E	GX2200E	GX1700E	GX1300E
<b>GENERAL</b>				
Frequency Range	Marine Band 156.025 - 163.275 MHz	Marine Band 156.025 - 163.275 MHz	Marine Band 156.025 - 163.275 MHz	Marine Band 156.025 - 163.275 MHz
Input Voltage	13.8 VDC ±20 %	13.8 VDC ±20 %	13.8 VDC ±20 %	13.8 VDC ±20 %
Current Drain	Standby: 0.55 A Receiver: 0.9 A Transmit: 5.0 A (Hi), 1.0 A (Lo)	Standby: 0.55 A Receiver: 0.9 A Transmit: 5.0 A (Hi), 1.0 A (Lo)	Standby: 0.45 A Receiver: 0.8 A Transmit: 5.0 A (Hi), 1.0 A (Lo)	Standby: 0.3 A Receiver: 1.0 A Transmit: 5.5 A (Hi), 1.5 A (Lo)
Overall Dimensions	175.5W × 110H × 173.3D mm	180W × 80H × 160D mm	150W × 85H × 90D mm	155W × 60H × 150D mm
Flush-Mount Dimensions	158W × 94H × 158D mm	161W × 65H × 150D mm	137W × 72H × 90D mm	131W × 51H × 140D mm
Weight	1.66 kg	1.45 kg	900 g	870 g
PA/FOG Power Output	25 W with listen back	30 W with listen back	-	-
<b>TRANSMITTER</b>				
RF Output	25 W (Hi), 1 W (Lo)	25 W (Hi), 1 W (Lo)	25 W (Hi), 1 W (Lo)	25 W (Hi), 1 W (Lo)
Conducted Spurious Emissions	Less than -80 dBc (Hi), -66 dBc (Lo)	Less than -80 dBc (Hi), -66 dBc (Lo)	Less than -80 dBc (Hi), -66 dBc (Lo)	Less than -80 dBc (Hi), -66 dBc (Lo)
Frequency Stability	±3 ppm (-20° C to +60° C)	±3 ppm (-20° C to +60° C)	±3 ppm (-20° C to +60° C)	±3 ppm (-20° C to +60° C)
FM Hum and Noise	50 dB	50 dB	50 dB	50 dB
<b>RECEIVER (for Voice and DSC)</b>				
Sensitivity (12 dB SINAD)	0.30 µV	0.30 µV	0.25 µV	0.25 µV
Spurious and Image Rejection	80 dB for Voice (75 dB for DSC / 70 dB for AIS)	80 dB for Voice (75 dB for DSC)	80 dB for Voice (75 dB for DSC)	80 dB for Voice (75 dB for DSC)
Intermodulation and Rejection	80 dB for Voice (75 dB for DSC / 70 dB for AIS)	80 dB for Voice (75 dB for DSC)	70 dB for Voice (70 dB for DSC)	70 dB for Voice (70 dB for DSC)
Audio Output	10 W	4.5 W	4.5 W	4.5 W
DSC Format	Class D ITU-R M.493-13	Class D ITU-R M.493-13	Class D ITU-R M.493-13	Class D ITU-R M.493-13
<b>TRANSMITTER (for AIS)</b>				
Sensitivity	0.5 µV*1	0.5 µV	-	-
Selectivity	Spurious and Image Rejection 70 dB*1 Intermodulation and Rejection 70 dB*1	Spurious and Image Rejection 70 dB Intermodulation and Rejection 70 dB	-	-
<b>NMEA Input/Output</b>				
NMEA 2000	Compatible	-	-	-
NMEA 0183	Input: GLL, GGA, GNS, RMC, GSA*1 and GSV*1 (4800 or 38400*1 bps) Output: DSC, DSE, GGA, GLL, GNS, RMC, GSA and GSV (4800 or 38400 bps), VDM and VDO (38400 bps)	Input: GLL, GGA, GNS, RMC, GSA and GSV (4800 or 38400 bps) Output: DSC, DSE	Input: GSA, GSV, GGA, GLL, GNS and RMC Output: DSC and DSE	Input: GSA, GSV, GGA, GLL, GNS and RMC Output: DSC and DSE
NMEA 0183-HS	Output: VDM and VDO (38400 bps)	Output: VDM (38400 bps)	-	-

\*1 GX6500E only

### Loud Hailer

MODEL	VLH-3000A
<b>GENERAL</b>	
Input Voltage	13.8 VDC ± 20 %
PA Horn Output	30W : 2ch (at 4 ohm 10 % distortion)
Intercom Output	4W : 2ch (at 4 ohm 10 % distortion)
Listen-Back Input Level	2 mV
AF Output	4 W (at 4 ohm 10 % distortion)
EXT SPK Output	2 W (at 8 ohm 10 % distortion)
INT SPK Output	10 mV
Mic sensitivity	7 A (MAX) when Forward and Aft Horns are used.
Drain current	300 mA
Idle current	-20° C to +55° C
Operating temperature	-20° C to +70° C
Storage temperature	IPX7 (1 m for 30 min) for the front panel
Water integrity performance	Overall Dimensions 180W × 110H × 140D mm
Overall Dimensions	Flush mount dimensions 165W × 92H × 115D mm
Flush mount dimensions	Weight 1.35 kg
Weight	

MODEL	GX6500E / GX2200E / GX1700E
<b>GPS Specifications</b>	
Channels	66 channels
Sensitivity	Less than -147 dBm
Time to First Fix	1 min typical (@Cold Start) 5 sec typical (@Warm Start)
Geodetic Datum	WGS84
SBAS Correction	WAAS, MSAS and EGNOS

## HANDHELD VHF SPECIFICATIONS

MODEL	HX870E	HX400E	HX210E	HX300E	HX400E / HX400IS	HX407E On-board / HX407E ATEX	HX380	
<b>GENERAL</b>								
Frequency Range	Marine Band 156.025 - 163.275 MHz	Marine Band 156.025 - 163.275 MHz	Marine Band 156.025 - 163.275 MHz	Marine Band 156.025 - 163.275 MHz	Marine Band: 156.025 - 162.000 MHz LMR Band: 134 - 174 MHz	Marine Band: 457.525 - 467.525 MHz	Marine Band: 156.025 - 163.275 MHz LMR Band: 134 - 174 MHz	
Battery type / Capacity	Li-Ion 1800 mAh	Lithium Polymer 1850 mAh (Built-in)	Lithium Polymer 1850 mAh (Built-in)	Li-Ion 1560 mAh	Li-Ion 2300 mAh (HX400E) / 2550 mAh (HX400IS)	Li-Ion 2300 mAh (HX400E on-board) / 2550 mAh (HX407E ATEX)	Li-Ion 1600 mAh	
Input Voltage	7.4 VDC	7.4 VDC	7.4 VDC	3.7 VDC	7.4 VDC	7.4 VDC	7.4 VDC	
Current Drain	Standby: 100 mA (GPS On), 60 mA (GPS Off) Receive: 330 mA (MAX AF Output) Transmit: 1.6 A / 1.0 A / 0.7 A (6W(5W)*2 / 2.5W / 1W)	Standby: 100 mA Receive: 330 mA (MAX AF Output) Transmit: 1.6 A / 1.0 A / 0.7 A (6W(5W)*2 / 2.5W / 1W)	Standby: 60 mA Receive: 330 mA (MAX AF Output) Transmit: 1.6 A / 1.0 A / 0.7 A (6W(5W)*2 / 2.5W / 1W)	Standby: 20 mA Receive: 330 mA (Typical at MAX AF Output) Transmit: 2.3 A / 0.9 A (5W / 1 W)	Standby: 50 mA Receive: 320 mA (MAX AF Output) Transmit: 1.6 A / 0.8 A (5W / 1 W)	Standby: 70 mA Receive: 320 mA (MAX AF Output) Transmit: 0.8 A / 0.5 A (Hi / Lo)	Standby: 70 mA Receive: 320 mA (MAX AF Output) Transmit: 1.6 A / 0.8 A (5W / 1 W)	Standby: 50 mA Receive: 320 mA (MAX AF Output) Transmit: 1.6 A / 0.8 A (5W / 1 W)
Overall Dimensions	62W × 138H × 43D mm	52W × 95H × 33D mm	60W × 132H × 40D mm	59W × 128H × 33D mm	57W × 133H × 40D mm	57W × 133H × 40D mm	57W × 133H × 33D mm	
Weight	322 g (w/SBR-13LI, Hand Strap, Belt Clip & Antenna)	230 g (w/Hand Strap, Belt Clip & Antenna)	280 g (w/Hand Strap, Belt Clip & Antenna)	240 g (w/SBR-27LI, Belt Clip & Antenna)	350 g (w/FNB-115LI/SBR-29LIIS, Belt Clip & Antenna)	350 g (w/FNB-115LI/SBR-30LI ATEX, Belt Clip & Antenna)	320 g (w/FNB-V105LI, Belt Clip & Antenna)	
<b>TRANSMITTER</b>								
RF Output	6W(5W)*2 / 2W / 1W (@7.4V)	6W(5W)*2 / 2.5W / 1W (@7.4V)	6W(5W)*2 / 2.5W / 1W (@7.4V)	5W / 1W (@3.7V)	5W / 1W (@7.4V)	1.5W / 0.5W / 2W / 0.5W (@7.4V)	5W / 1W (@7.4V)	
Conducted Spurious Emissions	-75 dBc Typical	Less than 0.25 µV	Less than 0.25 µV	-75 dBc Typical	-75 dBc Typical	-75 dBc Typical	At least 36 dBm below	
Frequency Stability	±3 ppm (-20° C to +60° C)	±3 ppm (-20° C to +60° C)	±3 ppm (-20° C to +60° C)	±5 ppm (-20° C to +60° C)	±2.5 ppm (-30° C to +60° C)	±2 ppm (-30° C to +60° C)	±2.5 ppm (-30° C to +60° C)	
FM Hum and Noise	40 dB	40 dB	40 dB	40 dB	40 dB	40 dB	40 dB	
<b>RECEIVER</b>								
Sensitivity (12 dB SINAD)	0.25 µV	0.25 µV	0.25 µV	0.25 µV	0.25 µV	0.25 µV	0.25 µV	
Selectivity	12 kHz / 25 kHz (-6 dB / -60 dB)	12 kHz / 25 kHz (-6 dB / -60 dB)	12 kHz / 25 kHz (-6 dB / -60 dB)	25 kHz (-70 dB)	12 kHz / 25 kHz (-6 dB / -60 dB)	12 kHz / 25 kHz (-6 dB / -60 dB)	12 kHz / 25 kHz (-6 dB / -60 dB)	
Audio Output	700 mW	600 mW	600 mW	600 mW	700 mW	700 mW	700 mW	
DSC Format	Class D ITU-R M.493-13	-	-	-	-	-	-	
NMEA 0183 In/Out	Input/Output: DSC, DSE, GGA, GLL, RMC, GSA and GSV	-	-	-	-	-	-	
<b>GPS</b>								
Channels	66 channels	-	-	-	-	-	-	
Sensitivity	Less than -147 dBm	-	-	-	-	-	-	
Time to First Fix	1 min Typical (@Cold Start) 5 sec Typical (@Warm Start)	-	-	-	-	-	-	
Geodetic Datum	WGS84	-	-	-	-	-	-	
SBAS Correction	WAAS, MSAS and EGNOS	-	-	-	-	-	-	

\*2 5 W TX power required in some countries

## STANDARD HORIZON

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

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# STANDARD HORIZON

EUROPE / ASIA PACIFIC

Nothing takes to water like Standard Horizon



## MARINE COMMUNICATIONS PRODUCT CATALOGUE 2018



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# Commercial Grade Marine VHF

BUILT BY PROFESSIONALS FOR PROFESSIONALS

## ADVANCED FEATURES

- Integrated AIS (Automatic Identification System) Class B Transponder (GX6500E only)
- Capable of connecting two optional wired RAM4 or one wired RAM4 and four wireless RAM4W microphones
- Integrated NMEA 2000 interface supporting all PGNs for Navigation, GPS, AIS and DSC functions
- Integrated Dual Channel AIS Receiver
- 66 Channel External GPS antenna included (GX6500E only)
- GPS Compass, Waypoint and GPS status pages
- Dual Zone 25W PA/Loud Hailer with preprogrammed fog signals and listen back
- Submersible IPX8 (1.5 meters for 30 minutes)
- Integrated 32 Code Voice Scrambler and 4 Code Voice Scrambler

► Supplied Accessories:  
Hand Microphone, Power Cord, Mounting Bracket and Hardware, External GPS Antenna SCU-31\*1, USB Cable



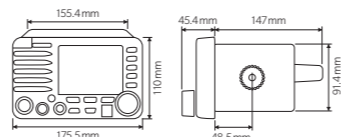
## Fixed Mount VHF Radio

### NEW for 2018 **GX6500E** QUANTUM Class B AIS/GPS *ITU CLASS B* **GX6000E** QUANTUM AIS *ITU CLASS B*

FIXED MOUNT VHF WITH NMEA 2000 AND INTEGRATED CLASS B AIS TRANSPONDER BUILT-IN\*\*

- Integrated dual channel AIS (Automatic Identification System) receiver
- Integrated Class B AIS transponder\*\*
- AIS/AIS SART target display: MMSI, Call Sign, Ship Name, BRG, DST, SOG and COG
- Meets ITU-R M493-13 Class D DSC (Digital Selective Calling)
- NMEA 2000 and NMEA 0183 compatible
- 66 Channel External GPS antenna included\*\*
- Selectable 4800 or 38400 baud rate for plotters
- GPS Compass, Waypoint and GPS status pages
- Programmable CPA or TCPA collision avoidance alarms
- Dual Zone 25W PA/Loud Hailer with preprogrammed fog signals and listen back
- Submersible IPX8 (1.5 meters for 30 minutes)
- 80dB Commercial grade receiver
- Noise-canceling for both transmit and receive audio

**IPX8** Submersible 1.5m for 30min  
**3 Year WARRANTY**



- Front panel microphone can be connected to rear panel and extended 6m using MEK-4 mic extension kit
- Integrated Voice Recorder to playback up to two minutes of RX receive audio
- Integrated 32 Code Voice Scrambler compatible with FVP-42 and 4 Code Voice Scrambler compatible with CVS2500A
- Easy to Operate menu system
- User customisable soft keys for easy menu operation
- Capable of connecting two optional wired RAM4 or one wired RAM4 and four wireless RAM4W microphones
- Contact Class A and Class B AIS vessels using the DSC individual call
- GM (Group Monitor) using DSC Group Position Call
- MOB (Man Overboard) GPS Location Function

\*1 GX6500E only



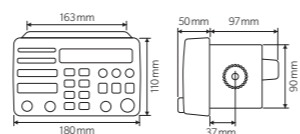
## Loud Hailer

### **VLH-3000A** **IPX7** Submersible 1m for 30min **3 Year WARRANTY**

30W DUAL ZONE LOUD HAILER

► Supplied Accessories: Mounting Bracket, Power Cord and Dust Cover

- PA/Hailer 30W output with Listen Back
- Dual Zone - Forward, Aft or Both
- 6 Preprogrammed Fog Signals: Underway, Stop, Sail, Tow, Anchor and Aground
- Horn and Siren
- Noise cancelling microphone
- Easy push button control
- 2W Loud internal speaker audio Output
- Compatible with optional MLS-300i intercom speaker with IC1 and IC2 Push-to-Alert Button
- Compatible with MLS-300 and MLS-310 (10W amplified) external speakers
- Adjustable Backlight



### **HX400E** **IPX8** Submersible 1.5m for 30min **3 Year WARRANTY**

COMMERCIAL GRADE VHF WITH LMR CHANNELS

► Supplied Accessories (HX400E/HX400EIS):  
CAT460 Antenna, FNB-115LI (HX400E) 7.4V 2300mAh/SBR-29LIIS (HX400EIS) 7.4V 2550mAh Li-Ion Battery Pack, CD-50 Charger Cradle, PA-45 AC Adapter, CLIP-22 Belt Clip and Hand Strap

Overall Dimensions (HX400E/HX400EIS): 57mm x 133mm x 40mm  
Weight: 350g (with: FNB-115LI (HX400E)/SBR-29LIIS (HX400EIS), Belt Clip & Antenna)

- Selectable 5 and 1 Watt transmit power output
- Marine VHF with 40 Programmable Land Mobile Channels 134MHz to 174MHz
- 700mW Loud Audio Output
- Supplied with 7.4V 2300mAh Li-Ion battery
- Built-in Noise cancelling microphone
- Voice Scrambler
- Scanning operation and Multi-Watch (Dual Watch or Triple Watch)

### **HX407E On-board** **IPX8** Submersible 1.5m for 30min **3 Year WARRANTY**

COMMERCIAL GRADE UHF ON-BOARD RADIO

► Supplied Accessories:  
SRA-14 Antenna, FNB-115LI (HX407E On-board) 7.4V 2300mAh/SBR-30LI ATEX (HX407E ATEX) 7.4V 2550mAh Li-Ion Battery Pack, CD-50 Charger Cradle, PA-45 AC Adapter, CLIP-22 Belt Clip and Hand Strap

Overall Dimensions: 57mm x 133mm x 40mm  
Weight: 350g (with: FNB-115LI (HX407E On-board)/SBR-30LI ATEX (HX407E ATEX), Belt Clip & Antenna)

- Selectable 1.5 and 0.5 Watt transmit power output
- 32 Programmable Marine UHF Channels
- 700mW Loud Audio Output
- Supplied with 7.4V 2300mAh Li-Ion battery
- Noise cancelling function for transmit and receive audio
- Voice Scrambler
- Scanning operation and Dual Watch

### **HX380** **IPX7** Submersible 1m for 30min **3 Year WARRANTY**

(Asia only; Non CE version)

COMMERCIAL VHF WITH LMR CHANNELS

► Supplied Accessories:  
CAT460 Antenna, FNB-V105LI 7.4V 1600mAh Li-Ion Battery Pack, CD-48 Charger Cradle, PA-48 AC Adapter and CLIP-920 Belt Clip

Overall Dimensions: 57mm x 133mm x 33mm  
Weight: 320g (with: FNB-105LI, Belt Clip & Antenna)

## Fixed Mount VHF Radio and Loud Hailer Accessories

Model	Microphone / Cable				Access Point / GPS Antenna		
	SSM-70H Remote Access Microphone RAM4	SSM-71H Wireless Remote Access Microphone RAM4W	SDD-14 USB DC Charger with Cigarette Lighter Plug for SSM-71H	CT-100 7m extension cable for SSM-70H	MEK-4 Microphone Extension Kit (6m)	SCU-30 Wireless Access Point for SSM-71H (RAM4W)	SCU-31 External GPS Antenna with 15m of Cable
GX6500E / GX6000E VLH-3000A	•	•	•	•	•	•	• <sup>*2</sup>
Model	Bracket		External Speaker		Hail / PA Speaker		
	MMB-84 Flush Mount Bracket	MLS-300 External Speaker	MLS-310 External Speaker with 10W amplifier	MLS-300i Loud Hailer Intercom Speaker (with CALL button)	220SW 114mm Round PA/hailing horn 30W 4 Ohm	240SW 127mm x 203mm Rectangular PA/hailing horn 40W 4 Ohm	
GX6500E / GX6000E VLH-3000A	•	•	•	•	•	•	

## Handheld VHF/UHF Radio Accessories

Model	Antenna / Adapter			Battery		Battery Charger			
	CAT460 VHF Marine Antenna	SRA-14G/H/J <sup>*5</sup> UHF Marine Antenna	CN-3 BNC-SMA Adapter	Rechargeable	Alkaline Battery tray	Cradle	AC Adapter	SAD-1460 6 Unit Multi Charger	
HX400E	• <sup>*4</sup>	•	•	FNB-115LI 2300mAh Li-Ion <sup>*4</sup>	FBA-42 (6 x AA)	CD-50 <sup>*4</sup>	PA-45C/U <sup>*4,6</sup>	•	
HX400IS	• <sup>*4</sup>	•	•	SBR-29LIIS <sup>*3</sup>	•	CD-50 <sup>*4</sup>	PA-45C/U <sup>*4,6</sup>	•	
HX407E On-board	•	• <sup>*4</sup>	•	Intrinsically Safe 2550mAh Li-Ion <sup>*4</sup>	•	CD-50 <sup>*4</sup>	PA-45C/U <sup>*4,6</sup>	•	
HX407E ATEX <sup>*3</sup>	•	• <sup>*4</sup>	•	FNB-115LI 2300mAh Li-Ion <sup>*4</sup>	•	CD-50 <sup>*4</sup>	PA-45C/U <sup>*4,6</sup>	•	
HX380	• <sup>*4</sup>	•	•	SBR-30LI ATEX <sup>*3</sup>	•	CD-50 <sup>*4</sup>	PA-45C/U <sup>*4,6</sup>	•	
				Intrinsically Safe 2550mAh Li-Ion <sup>*4</sup>	•	CD-48 <sup>*4</sup>	PA-48C/U <sup>*4,6</sup>	•	
				FNB-V105LI 1600mAh Li-Ion <sup>*4</sup>	•	CD-48 <sup>*4</sup>	PA-48C/U <sup>*4,6</sup>	•	
Model	Speaker Microphone / Vox Headset / Earpiece Microphone						Belt clip / Hanger		Case
	SSM-14A Submersible speaker microphone with earphone jack <sup>*3</sup>	MH-57A4B Speaker microphone	MH-73A4B Submersible speaker microphone	CMP460 Submersible speaker microphone	SEP-10A Earphone for SSM-14A	SSM-55A Earpiece / microphone	SSM-64A Vox Headset	SCH-11 Belt Clip Hanger	SHC-18 Leather Case w/ belt loop and shoulder strap
HX400E	•	•	•	•	•	•	•	CLIP-22 <sup>*4</sup>	•
HX400IS	•	•	•	•	•	•	•	CLIP-22 <sup>*4</sup>	•
HX407E On-board	•	•	•	•	•	•	•	CLIP-22 <sup>*4</sup>	•
HX407E ATEX <sup>*3</sup>	•	•	•	•	•	•	•	CLIP-22 <sup>*4</sup>	•
HX380	•	•	•	•	•	•	•	CLIP-920 <sup>*4</sup>	•

\*2 The same as the supplied accessory for GX6500 \*3 Intrinsically Safe Version \*4 The same as the supplied accessory \*5 G for 400 - 430MHz / H for 420 - 450MHz / J for 440 - 470MHz \*6 "C" suffix is for use with 230VAC (Type-C plug), and "U" suffix is for use with 230VAC (Type-BF plug) Standard Horizon reserves the right to make changes and enhancements to products at our discretion. Current specifications are therefore subject to change without notice.