

## 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	6 W (5W)*2/2W/1W (@7.4V)	6 W (5W)*2/2.5W/1W (@7.4V)	6 W (5W)*2/2.5W/1W (@7.4V)	5 W / 1 W (@3.7V)	5 W / 1 W (@7.4V)	1.5 W / 0.5 W / 2W / 0.5 W (@7.4V)	5 W / 1 W (@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





# Floating Handheld VHF Radios

LEADING THE INDUSTRY WITH THE FIRST FLOATING VHF WITH GPS

## ADVANCED FEATURES

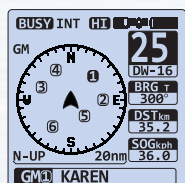
- Integrated 66 Channel WAAS GPS antenna and GPS memory log



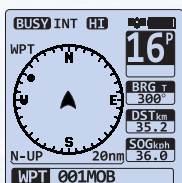
- Oversized full dot matrix display (43.2mm x 43.2mm) (58.4mm diagonal)



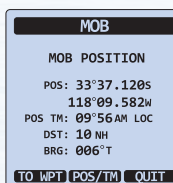
MENU SCREEN



GROUP MONITOR SCREEN



MOB WAYPOINT SCREEN



MOB SCREEN

- Noise canceling function for transmit and receive audio
- USB Data Port - NMEA 0183 sentence Output DSC, DSE, GLL, RMC, GSA, GSV and GGA (9600 baud), and download GPS logged Data
- Water Activated Emergency Strobe Light
- Supplied with a 7.4V 1800mAh Li-Ion battery

### Supplied Accessories:

CAT460 Antenna, SBR-13LI 7.4V 1800mAh Li-Ion Battery Pack, SBH-12 Charger Cradle, SAD-11 AC Adapter, E-DC-19A DC Cable with Cigarette Lighter Plug, SBT-13 Alkaline Battery Case, Clip-22 Belt Clip, YS-05-01 Hand Strap and T9101606 USB Cable

Overall Dimensions: 62mm x 138mm x 43mm Weight: 322g (with: SBR-13LI, Hand Strap, Belt Clip & Antenna)



## HX870E ITU CLASS D

FLOATING CLASS D HANDHELD VHF WITH GPS

- Floating
- 6W (5W)\* transmit power output (Selectable 6 (5)/2/1W)
- 700mW Loud Audio Output
- Preset key used to recall up to 10 favorite channels
- Easy to Operate Menu System
- Scanning operation and Multi-Watch (Dual Watch and Triple Watch)
- CH16/S Quick Access (S: Sub-channel)
- Supplied with 7.4V 1800mAh Li-Ion battery
- ATIS mode for European Inland waterways



- Meets ITU-R M.493-13 Class D DSC (Digital Selective Calling)
- Built in dedicated channel 70 receiver for Class D DSC
- Navigate to the location of a DSC Distress Call using the Compass Page
- GM (Group Monitor) using DSC Group Position Calling
- DSC Test Calling and Auto DSC Channel Change Selection
- Automatically poll the GPS positions of vessels using DSC
- Navigation to Waypoints that are entered & saved on the Compass Page
- MOB (Man Overboard) GPS Location Function
- Navigation (LAT/LON, SOG, and COG) information shown on display

\* 5W TX power required in some countries



## NEW for 2018 HX40E



\* When fitted into optional flotation case

ULTRA COMPACT HANDHELD VHF

### Supplied Accessories:

CAT460 Antenna, SBH-27 Charger Cradle, SAD-23 or SAD-11 AC Adapter, E-DC-19A DC Cable with Cigarette Lighter Plug, SHB-19 Belt Clip and Hand Strap

Overall Dimensions: 52mm x 95mm x 33mm Weight: 230g (with: Hand Strap, Belt Clip & Antenna)

- Floating (When fitted into optional flotation case)
- Ultra Compact case design: 52mm x 95mm x 33mm
- 6W(5W)\* transmit power output (Selectable 6 (5)/2.5/1W)
- 600mW Loud Audio Output
- Preset key used to recall up to 10 favorite channels
- Easy to Operate Menu System
- Scanning operation and Multi-Watch (Dual Watch and Triple Watch)
- CH16/S Quick Access (S: Sub-channel)
- Built-in Lithium Polymer Battery Pack (7.4V, 1850mAh)
- ATIS mode for European Inland waterways
- FM Broadcast Radio Receiver

\* 5W TX power required in some countries



## HX210E



COMPACT FLOATING HANDHELD VHF

### Supplied Accessories:

CAT460 Antenna, SBH-25 Charger Cradle, SAD-23 or SAD-11 AC Adapter, E-DC-19A DC Cable with Cigarette Lighter Plug, CLIP-22 Belt Clip and Hand Strap

Overall Dimensions: 60mm x 132mm x 40mm Weight: 280g (with: Hand Strap, Belt Clip & Antenna)

- Floating
- Compact case design: 60mm x 132mm x 40mm
- 6W(5W)\* transmit power output (Selectable 6 (5)/2.5/1W)
- 600mW Loud Audio Output
- Preset key used to recall up to 10 favorite channels
- Easy to Operate Menu System
- Scanning operation and Multi-Watch (Dual Watch and Triple Watch)
- CH16/S Quick Access (S: Sub-channel)
- Built-in Lithium Polymer Battery Pack (7.4V, 1850mAh)
- ATIS mode for European Inland waterways
- FM Broadcast Radio Receiver
- Water activated light

\* 5W TX power required in some countries



## HX300E



COMPACT FLOATING HANDHELD VHF

### Supplied Accessories:

CAT460 Antenna, SBR-27LI 3.7V 1800mAh Li-Ion Battery Pack, SAD-17 AC Adapter, CLIP-22 Belt Clip, Hand Strap and T9101606 USB Cable

Overall Dimensions: 59mm x 128mm x 33mm Weight: 240g (with: SBR-27LI, Belt Clip & Antenna)

- Floating
- Compact case design 59mm x 128mm x 33mm
- Selectable 5 and 1 Watt transmit power output
- 600mW Loud Audio Output
- Preset key used to recall up to 10 favorite channels
- Easy to Operate Menu System
- Scanning operation and Multi-Watch (Dual Watch and Triple Watch)
- CH16/9 Quick Access
- Supplied with 3.7V 1800mAh Li-Ion battery
- ATIS mode for European Inland waterways
- Unique USB charging system
- Water activated light



## Handheld VHF Radio Accessories

Model	Antenna / Adapter		Battery		Battery Charger			
	CAT460 VHF Marine Antenna	CN-3 BNC-SMA Adapter	Rechargeable	Alkaline Battery tray	Cradle	AC Adapter	DC Cable (with Cigarette Lighter Plug)	SDD-14 USB DC Charger with Cigarette Lighter Plug
HX870E	•1	•	SBR-13LI 1800mAh Li-Ion*1	SBT-13 (5 x AAA)*1	SBH-12*1	SAD-11C/U/H*1,2	E-DC-19A*1	
HX40E	•1	•	1850mAh (Dealer replaceable)		SBH-27*1	SAD-23C/U*1,2, SAD-11H*1,2	E-DC-19A*1	
HX210E	•1	•	1850mAh (Dealer replaceable)		SBH-25*1	SAD-23C/U*1,2, SAD-11H*1,2	E-DC-19A*1	
HX300E	•1	•	SBR-27LI 1800mAh Li-Ion*1	FBA-44 (3 x AAA)		SAD-17C/U/H*1,2		

Model	Belt clip / Case / Hanger			Speaker Microphone / Vox Headset / Earpiece Microphone						
	SHC-29 Flotation case for HX40	SCH-11 Belt Clip Hanger		SSM-14A Submersible speaker microphone with earphone jack	MH-57A4B Speaker microphone	MH-73A4B Submersible speaker microphone	CMP460 Submersible speaker microphone	SEP-10A Earphone for SSM-14A	SSM-64A Vox Headset	SSM-55A Earpiece/microphone
HX870E	CLIP-22*1									
HX40E	SHB-19*1									
HX210E	CLIP-22*1									
HX300E	CLIP-22*1									

\*1 The same as the supplied accessory \*2 "C" suffix is for use with 230VAC (Type-C plug), "U" suffix is for use with 230VAC (Type-BF plug) and "H" suffix is for use with 240VAC (Type-Australia plug)