

## STANDARD HORIZON

Nothing takes to water like Standard Horizon

## FLOATING HANDHELD VHF RADIOS

LEADING THE INDUSTRY WITH THE FIRST FLOATING VHF WITH GPS



# NEW FOR 2015



### NG 6 WATT CLASS D HANDHELD VHF WITH GP































- Meets ITU-R M.493-13 Class D DSC (Digital Selective Calling)
- Built in Dedicated channel 70 receiver for class D DSC
- Integrated 66 Channel WAAS GPS antenna with memory log
- Oversized full dot matrix display (43.2mm (W) x 43.2mm (H) or 2.3" diagonal)
- Easy to operate icon driven menu system
- Navigate to a DSC Distress Call with Compass Page
- GM (Group Monitor) using DSC Group Position Call
- DSC Test Call and Auto DSC Channel Change Selection
- Automatically poll the GPS position of ships using DSC
- Enter, Save, and Navigate to a waypoint with Compass Page
- MOB (Man Over Board) Function
- Water Activated Emergency Strobe Light
- 6 W Transmit Power
- Navigation (LAT/LON, SOG, and COG) information shown on display

- Submersible IPX8 / (1.5 m for 30 minutes)
- · Noise cancelling function for transmit and receive audio
- All International, USA and Canadian Marine Channels
- USB Data Port NMEA 0183 sentence Output DSC, DSE, GLL, RMC, GSA, GSV and GGA (9600 baud), and download GPS logged Data
- ATIS Mode for European Inland Waterways
- Programmable Scan, Priority Scan, Dual and Triple Watch
- Preset key used to recall up to 10 favourite channels
- Supplied with a 7.4 V 1800 mAh Li-Ion battery, AC and DC 3-hour quick chargers and cradle









MENU SCREEN









### Features:

- Floating
- Submersible IPX8 (1.5 m for 30 minutes)
- 5 Watt Transmit power
- Unique USB charging system
- E2O (Easy To Operate) menu system
- · Volume & Squelch indication on the display
- · Water enabled light, when dropped into the water
- Preset key (Maximum 10 channels)
- Preset channel scan function
- 600 mW loud internal speaker audio
- ATIS Mode for European Inland Waterways
- Programmable Scan, Priority Scan, Dual Watch and Triple Watch
- Supplied with 1560 mAh 3.7 V Li-Ion battery and AC USB type charger





















- Submersible IPX8 (1.5 m for 30 minutes)
- · Glow-In-The-Dark strip
- Selectable 5 and 1 Watt transmit power output
- Huge channel display
- Optional Speaker microphone or Headset capable
- Programmable Scan, Priority Scan and Dual Watch
- ATIS Mode for European Inland Waterways
- Key lock
- Low battery indicator
- Preset key used to recall up to 10 favourite channels
- Supplied with 1140 mAh Li-Ion battery, AC charger and cradle



## **HANDHELD VHF RADIOS**

### DESIGNED SPECIFICALLY FOR USE IN HARSH MARINE ENVIRONMENTS



## **HX400E**











### Features:

- Submersible IPX8 (1.5 m for 30 minutes)
- Selectable 5 and 1 Watt transmit power output
- Built-in True Noise Cancelling Microphone
- 40 Programmable Land Mobile Channels 134 MHz to 174 MHz with CTCSS and DCS signalling
- Programmable channel names
- ATIS Mode for European Inland Waterways
- Low battery indicator
- Built-in Voice Scrambler for private communications
- · Optional speaker microphones and headsets available
- Supplied with 2300 mAh Li-lon battery, AC rapid charger and cradle
- Programmable Scan, Priority Scan and Dual Watch
- Preset key used to recall up to 10 favourite channels











### Features:

- Submersible IPX7 (1 m for 30 minutes)
- Slim, form fitting case design
- More than 13 hours of battery life
- Selectable 5 and 1 Watt transmit power output
- · Supplied with a 1600 mAh Li-lon battery, AC charger and charging cradle
- Large channel display
- All International, USA, and Canadian Marine Channels
- ATIS Mode for European Inland Waterways by Dealer Programming
- Programmable Scan, Priority Scan and Dual Watch
- Squelch level on display
- Low battery indicator
- Preset key used to recall up to 10 favourite channels



## **ICON FUNCTION LIST**























































## FIXED MOUNT VHF RADIOS

POWER, PERFORMANCE, RELIABILITY



## GX2200E MATRIX AIS/GPS ITUCLASSID





























### Features:

- Integrated 66 Channel GPS antenna
- Integrated dual channel AIS

(Automatic Identification System) receiver

- AIS / AIS SART target display: MMSI, Call Sign, Ship Name, BRG, DST, SOG and COG
- 4800 or 38400 NMEA baud rate selection, for plotters with 1 NMEA port
- Directly call class A and class B vessels using the DSC individual call feature
- Programmable CPA or TCPA collision avoidance alarms
- 80dB Commercial grade receiver
- Meets ITU-R M.493-13 Class D DSC (Digital Selective Calling)
- Submersible IPX7 (1m for 30 minutes)
- DSC position request and report functions
- 30 Watt PA/Loud Hailer with preprogrammed fog signals and listen back

- ClearVoice noise cancelling speaker microphone with channel selection and 16/9 key
- · GPS Compass, Waypoint and GPS status pages
- Navigation (LAT/LON, Time, SOG and COG) information shown on display
- Enter, Save and Navigate to waypoints with Compass page
- User customisable soft keys for easy menu operation
- Versatile user-programmable scanning, priority scan and Dual Watch
- Oversized rotary channel knob with push to enter, backlit display and keys
- Optional connection for RAM3 second station remote microphone with AIS display
- Local/Distance attenuator
- ATIS Mode for European Inland Waterways
- NMEA 0183 Input and Output



## 2000E MATRIX MUCLASSID





FIXED MOUNT DSC VHF WITH AIS INPUT,30 W PA/FOG-RAM3 COMPATIBLE



- AIS (Automatic Identification System) receiver or transponder connection
- AIS target display: MMSI, Call Sign, Ship Name, BRG, DST, SOG and COG\*1,2
- Contact AIS Ship with DSC\*1,2
- CPA (Closest Point of Approach) Alarm\*1,2
- 80dB Commercial grade receiver
- Meets ITU-R M.493-13 Class D (Digital Selective Call)
- · Class D DSC (Digital Selective Calling) with Individual, Group, All ship, Position Report, Request and Distress
- Local/Distance attenuator
- Enter, Save and Navigate to waypoints with Compass page\*2
- Submersible IPX7 (1 m for 30 minutes)

- · ClearVoice noise cancelling speaker microphone with channel selection and 16/9 key
- Oversized rotary channel knob with push to enter, backlit display and keys
- 30 Watt PA/Loud Hailer with pre-programmed fog signals
- Capable of connecting an optional RAM3 second station remote microphone
- · Able to control all radio, DSC, Hailer and AIS (when connected) functions remotely with optional RAM3
- Intercom between radio and RAM3
- Versatile user-programmable scanning, priority scan and Dual Watch
- Navigation (LAT/LON, SOG and COG) information shown on display\*2
- ATIS Mode for European Inland Waterways





## GX1700E EXPLORER GPS ITUCLASSE



## SLIM & COMPACT REAR CASE FIRST FIXED MOUNT VHF WITH BUILT-IN GPS!



















### Fixed Mount VHF with BUILT-IN 66 channel GPS

- Ultra thin and compact rear case design (3.5" depth)
- Meets ITU-R M.493-13 Class D (Digital Selective Call)
- · Automatically poll the GPS position of up to 4 ships using DSC
- · Enter, Save, and Navigation to Waypoint with Compass page
- GPS Compass display
- Navigation (LAT/LON, SOG, and COG) information shown on display
- Submersible IPX8 (1.5 m for 30 minutes)
- Noise cancelling microphone with channel UP/DOWN, 16/9 and H/L keys

- ATIS Mode for European Inland Waterways
- Programmable Scan, Priority Scan, and Dual Watch
- Preset key (Maximum 10 channels)
- · GPS repeating of position, SOG, COG and time
- Customisable channel names
- NMEA 0183 Input and Output GPS information when connected to another NMEA device
- Programmable soft keys
- Capable of connecting to a Second Station RAM3 Remote Access Microphone
- Die-cast chassis

## **FIXED MOUNT VHF RADIOS AND LOUD HAILER**

POWER, PERFORMANCE, RELIABILITY



## GX1600E EXPLORER ITUCLASSE





















- Ultra thin and compact rear case design (3.5" depth)
- Meets ITU-R M.493-13 Class D (Digital Selective Call)
- DSC test call
- Large Dot Matrix LCD display
- Automatically poll the GPS position of up to 4 ships using DSC
- Enter, Save, and Navigation to waypoint with Compass page\*2
- · GPS Compass display
- Navigation (LAT/LON, SOG, and COG) information shown on display\*2
- Submersible IPX8 (1.5 m for 30 minutes)
- Noise cancelling microphone with channel UP/DOWN, 16/9 and H/L keys
- ATIS Mode for European Inland Waterways
- Programmable Scan, Priority Scan, and Dual Watch
- NMEA 0183 Input and Output
- Programmable soft keys
- Capable of connecting to a Second Station **RAM3 Remote Access Microphone**
- Die-cast chassis





ECLIPSE ITUCLASSID







- Affordable Ultra Compact Fixed Mount VHF radio
- Meets ITU-R M.493-13 Class D DSC (Digital Selective Calling)
- Built in Separate Receiver for CH70 (Receiving DSC Calls)
- Easy to operate icon driven menu system
- Oversized Full dot matrix display (31 mm x 55 mm)
- DSC Distress, Individual, Group, All Ships, Position Request, Position Report, and DSC Test Call
- GPS position and Time shown on a full dot Matrix Display when connected to a GPS Receiver
- NMEA 0183 Input and Output Connections to a Compatible NMEA device
- User programmable soft keys for easy menu operation
- Automatically poll the GPS position of up to 6 ships using DSC
- Submersible IPX8 (1.5 m for 30 minutes)
- All International, USA and Canadian Marine Channels
- Preset key used to recall up to 10 favorite channels
- Programmable Scan, Priority Scan, and Multi Watch (Dual Watch or Triple Watch)
- ATIS Mode for European Inland Waterways
- Overall Dimension: 6.1" W x 2.4" H x 5.9" D
- Flush Mount Cutout: 5.2" W x 2.0" H



## **VLH-300**



### **30 W DUAL ZONE LOUD HAILER**

### Features:

- 30 Watt PA output
- · Forward and aft dual zone hailer with listen back
- · Bells & whistles and 4 fog signals
- Noise cancelling microphone

• Easy push button control • Loud internal speaker audio · Dual zone intercom capability with connection of up to 2 optional MLS-300i intercom speakers \*1 when connected to an optional AIS receiver or transponder \*2 when connected to an optional GPS

## HANDHELD VHF RADIOS ACCESSORIES & SPECIFICATIONS

CAT460 VHF marine antenna



SBR-13LI 1800 mAh Li-ION battery



FNB-115LI 2300 mAh Li-Ion battery



SSM-14A Speaker Microphone



PA-48C/U\*1 AC Wall Charger





### **HANDHELD VHF ACCESSORIES**

MODEL	Description	HX870E	HX400E	HX300E	HX290E	HX280E
CAT460	VHF marine antenna	•	•	•	•	•
Charging cradle		SBH-12	CD-50		CD-52	CD-46
Belt clip		CLIP-22	CLIP-22	CLIP-22	CLIP-22	CL <b>I</b> P-920
CN-3	Radio to Ship's Antenna Adapter	•	•	•	•	•
E-DC-6	12VDC cable	•			•	•
E-DC-19A	DC cable with cigarette lighter plug	•			•	•
Alkaline battery tray	Alkaline battery tray	SBT-13	FBA-42	FBA-44	FBA-42	FBA-40
Battery		SBR-13LI 1800 mAh Li-ION	FNB-115LI 2300 mAh Li-ION	FNB-122LI 1560 mAh Li-ION	FNB-110LI 1140 mAh Li-ION	FNB-V105LI 1600 mAh Li-ION
SHC-18	Leather Case w / belt loop and shoulder strap		•			
MH-57A4B	Submersible speaker microphone	•	•		•	
MH-73A4B	Submersible speaker microphone	•	•		•	
SSM-14A	Submersible speaker microphone with earphone jack	•	•		•	
SSM-55A	Earpiece/microphone	•	•		•	
SEP-10	Earphone for SSM-14A	•	•		•	
VC-24	VOX Headset	•	•		•	
PA-45C/U*1	3-hour charger used with CD-50		•			
PA-48C/U*1	Charger used with CD-46/52				•	•
PA-54C/U*1	USB Wall Charger			•		
SAD-11C/U*1	Charger used with SBH-12	•				

<sup>\*1 &</sup>quot;C" suffix is for use with 230 VAC (Type-C plug), and "U" suffix is for use with 230 VAC (Type-BF plug).

## **HANDHELD VHF SPECIFICATIONS**

FLOATING MODEL	HX870E	HX300E	HX290E
GENERAL			
Battery type / Capacity	Li-Ion 1800 mAh	Li-lon 1560 mAh	Li-Ion 1140 mAh
Input Voltage	7.4 V DC	3.7 V DC	7.4 V DC
Current Drain	Standby: 100 mA (GPS On), 60 mA (GPS Off)	Standby: 20 mA	Standby: 50 mA
	Receive: 330 mA (MAX AF Output)	Receive: 330 mA (Typical at MAX AF Output)	Receive: 320 mA (MAX AF Output)
	Transmit: 1.6 A / 1.0 A / 0.7 A (6 W / 2 W / 1W)	Transmit: 2.3 A / 0.9 A (5 W / 1 W)	Transmit: 1.6 A / 0.7 A (5 W / 1 W)
Overall Dimensions	62 W x 138H x 43D mm	59W x 128H x 33D mm	57W x 133H x 44D mm
Weight	322 g (w/SBR-13Ll, Hand Strap, Belt Clip & Antenna)	240 g (w/FNB-122LI, Belt Clip & Antenna)	310 g (w/FNB-110Ll, Belt Clip & Antenna)
TRANSMITTER			
RF Output	6 W / 2 W / 1 W (@7.4 V)	5 W / 1 W (@3.7 V)	5 W / 1 W (@7.4 V)
Conducted Spurious Emissions	-75 dBc Typical	-75 dBc Typical	-75 dBc Typical
Frequency Stability	±3 ppm (-20°C to +60°C)	±5 ppm (-20°C to +60°C)	±10 ppm (-20°C to +60°C)
FM Hum and Noise	40 dB	40 dB	40 dB
RECEIVER			
Sensitivity (12 dB SINAD)	0.25 μV	0.25 μV	0.25 μV
Selectivity	70 dB Typical	70 dB Typical	70 dB Typical
Audio Output	700 mW	600 mW	700 mW
DSC Format	Class D ITU-R M.493-13	-	-
NMEA 0183 In/Out	Output: DSC, DSE, GGA, GLL, RMC, GSA and GSV	-	-
	Input: DSC, DSE, GGA, GLL, RMC, GSA and GSV	-	-

SUBMERSIBLE MODEL	HX400E	HX280E
GENERAL		
Battery type / Capacity	Li-Ion 2300 mAh	Li-Ion 1600 mAh
Input Voltage	7.4 V DC	7.4 V DC
Current Drain	Standby: 50 mA	Standby: 50 mA
	Receive: 320 mA (MAX AF Output)	Receive: 320 mA (MAX AF Output)
	Transmit: 1.6 A / 0.8 A (5 W / 1 W)	Transmit: 1.6 A / 0.7 A (5 W / 1 W)
Overall Dimensions	2.24"W x 5.24"H x 1.57"D (57W x 133H x 40D mm)	62W x 138H x 43D mm
Weight	12.3 oz (350 g) (w/FNB-115LI, Belt Clip & Antenna)	322 g (w/FNB-V105LI, Belt Clip & Antenna
TRANSMITTER		
RF Output	5 W / 1 W (@7.4 V)	5 W / 1 W (@7.4 V)
Conducted Spurious Emissions	-75 dBc Typical	-75 dBc Typical
Frequency Stability	±2.5 ppm (-30°C to +60°C)	±5 ppm (-20°C to +60°C)
FM Hum and Noise	40 dB	40 dB
RECEIVER		
Sensitivity (12 dB SINAD)	0.25 μV	0.25 μV
Selectivity	80 dB(25 kHz) / 70 dB(12.5 kHz)	70 dB Typical
Audio Output	700 mW	700 mW
DSC Format	=	=
NMEA 0183 In/Out	=	-
	-	-

MODEL	HX870E GPS Specifications
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

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

## FIXED MOUNT VHF RADIOS ACCESSORIES & SPECIFICATIONS











### **FIXED MOUNT VHF ACCESSORIES**

MODEL	Description	MATRIX AIS/GPS GX2200E	MATRIX GX2000E	EXPLORER GPS GX1700E	EXPLORER GX1600E	ECLIPSE GX1300E	VLH-3000
CMP30B/CMP30W	Remote station microphone (Black/White)	•	•	•	•		
CT-100	23-foot extension cable for CMP30/VH-310	•	•	•	•		
Q7000619A	External GPS antenna with 30 Ft of cable	•	•	•	•	•	
CVS2500A	Voice scrambler	•	•				
Dust Cover		HC2000	HC2000	HC1600	HC1600	HC1100	
MLS-300	External speaker	•	•	•	•	•	•
MLS-300i	Intercom speaker with push-to-alert						•
MLS-310	External speaker with 10 W amplifier	•	•	•	•	•	•
Flush mount bracket		MMB-84	MMB-84	MMB-97	MMB-97	MMB-84	MMB-84
220SW	5" Round 4 Ohm 30 Watt PA/hailing horn	•	•				•
240SW	5 x 8" Rectangular 4 Ohm 40 Watt PA/hailing horn	•	•				•

## **FIXED MOUNT VHF SPECIFICATIONS**

MODEL	GX2200E/GX2000E
GENERAL	
Input Voltage	13.8 V DC ±20%
Current D <mark>rain</mark>	Standby: 0.55 A
	Receiver: 0.8 / 0.9 A
	Transmit: 5.0 A (Hi), 1.0 A (Lo)
Overall Dimensions	180W x 80H x 160D mm
Flush-Mount Dimensions	161W x 65H x 150D mm
Weight	1.5 kg
PA/FOG Power Output	30 W with listen back / 30 W no listen back
TRANSMITTER	
RF Output	25 W (Hi), 1 W (Lo)
Conducted Spurious Emissions	Less than -80 dBc (Hi), -66 dBc (Lo)
Frequency Stability	±3 ppm (-20°C to +60°C)
FM Hum and Noise	50 dB
RECEIVER (for Voice and DSC	
Sensitivity (12 dB SINAD)	0.3 <mark>0 µV</mark>
	80 dB for Voice (75 dB for DSC)
Intermodulation and Rejection	80 dB for Voice (75 dB for DSC)
Audio Output	4.5 W
DSC Format	Class D ITU-R M.493-13
RECEIVER (for AIS)	
Sensitivity	0.5 μV *1
Selectivity	Spurious and Image Rejection 70 dB *1
	Intermodulation and Rejection 70 dB *1
NMEA Input/Output	
NMEA-0183	Input: GLL, GGA, GNS, RMC, GSA *1 and GSV *1 (4800 or 38400 *1 bps)
	Output: DSC, DSE(4800 or 38400 *1 bps)
NMEA-0183-HS	Output: VDM*1(38400 bps)

MODEL	VLH-3000
GENERAL	
Input Voltage	13.8 VDC ± 20 %
PA Output	Two 30W (at 4 ohm 10 % distortion)
IC Output	Two 4W (at 4ohm 10 % distortion)
Listen-Back Input Level	2 mV
AF Output	
EXT SPK Output	More than 4 W (at 4 ohm 10 % distortion)
INT SPK Output	More than 2 W (at 8 ohm 10 % distortion)
Mic sensitivity	10 mV
Drain current	8 A (MAX) when Forward and Aft Horns are used.
Idle current	300mA
Operating temperature	-20°C to +55°C
Storage temperature	-30°C to +70°C
Water integrity perlormance	IPX7 (1 m for 30 min) for the front panel
Overall Dimensions	110W x 180H x 140D mm
Flush mount dimensions	92W x 165H x 115D mm
Weight	1.4 kg
	<u> </u>

MODEL	GX2200E/GX1700E GPS Specifications
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

\*1 GX2200E only

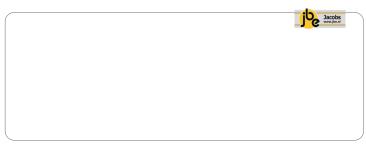
MODEL	GX1700E	GX1600E	GX1300E
GENERAL			
Input Voltage	13.8 VDC ±20 %	13.8 VDC ±20 %	13.8 VDC ±20 %
Current Drain	Standby: 0.45 A	Standby: 0.45 A	Standby: 0.3 A
	Receive: 0.8 A	Receive: 0.8 A	Receive: 1.0 A
	Transmit: 5.0 A (Hi), 1.0 A (Lo)	Transmit: 5.0 A (Hi), 1.0 A (Lo)	Transmit: 5.5 A (Hi), 1.5 A (Lo)
Overall Dimensions	150W x 85H x 90D mm	150W x 85H x 90D mm	155W x 60H x 150D mm
Flush-Mount Dimensions	137W x 72H x 65D mm	137W x 72H x 65D mm	131W x 51H x 140D mm
Weight	0.9 kg	0.9 kg	870 g
PA/FOG Power Output	1	-	-
TRANSMITTER			
RF Output	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)	80 dB (Hi), 66 dB (Lo)
Frequency Stability	±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
RECEIVER (for Voice and DSC			
Sensitivity (12dB SINAD)	0.25 μV	0.25 μV	0.25 μV
Spurious and Image Rejection	80 dB for Voice (75 dB for DSC)	80 dB for Voice (75 dB for DSC)	75 dB
Intermodulation and Rejection	70 dB for Voice (70 dB for DSC)	70 dB for Voice (70 dB for DSC)	70 dB
Audio Output	4.5W	4.5W	4.5W
DSC Format	Class D ITU-R M.493-13	Class D ITU-R M.493-13	Class D ITU-R M.493-13
NMEA Input/Output			
NMEA-0183 (4800bps for Position Data)	Input: GSA, GSV, GGA, GLL, GNS and RMC	Input: GSA, GSV, GGA, GLL, GNS and RMC	Input: GLL, GGA, RMC and GNS
<u>'</u>	Output: DSC and DSE	Output: DSC and DSE	Output: DSC and DSE
NMEA-0183 HS (38400bps for AIS Data)	-	-	-

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