

LOWRANCE®

Link-9 Fixed Mount VHF

Product Brief

November 2018



Product Description

Introducing Lowrance's latest premium VHF radio

Lowrance Link-9 (Link-8 replacement)



System Overview

Lowrance Link-9

- Replaces the current Link-8 VHF radio
- New front mountable mechanical design for easy installation
- New Industrial Design to align with style of Lowrance MFD's
- Seamless integration with a wider Lowrance system through NMEA 2000 and 0183
- Built in AIS Receiver
- Large screen with intuitive user interface



Important Notes

New European Regulation - EN 301 025 (v2.2.1)

On November 30th 2018 a new regulation comes into effect in Europe stating that any DSC capable VHF radio must meet the following requirements:

- A GNSS receiver shall be integrated either into the radio telephone transceiver or its dedicated DSC encoder/decoder
- The integrated GNSS receiver shall have the possibility to connect to an external antenna

After this date non-compliant radios can not be imported into Europe and must be removed from all advertising material. Navico will not be responsible for any fines given the notice we have provided.

Unique Selling Points

Easy front mount solution

Internal GPS antenna

Style matched to current Lowrance MFD's

- Large clear white dot matrix LCD
- Inverted LCD night mode for reduced light emission
- Dimmable to 0.5 nits for night operation

Remote mount connection for fist mic

Easy channel Scan and Favorites options



Remote mount six button backlit fist mic

Internal AIS Receiver

Unique Selling Points

New features

- Start up wizard
 - Region & Country selection
 - Enter MMSI
 - Call sign
 - GPS source selection
 - Time offset
- Improved SCAN features
 - ALL SCAN
 - ALL CHANNELS + 16
 - MY CHANNELS
 - MY CHANNELS + 16
- Favourites shortcut
 - Customizable favourite functions
 - Defaults
 - Contrast
 - Sensitivity
 - VHF info
 - Channel name
- My Channels
 - Set Channels as favourite channels
 - Enter favourite channel mode by long pressing channel dial
 - Only favourite channels will be included in channel scrolling

Unique Selling Points

GPS 4-Ways

With the integrated GPS receiver the RS40 now has four ways to ensure you have a GPS fix in the event of an emergency.

1. A GPS antenna in the face of the radio means open air installations don't need another antenna at all
2. An SMA connector on the rear case allows for connection to a GPS-500 antenna
3. NMEA 0183 allows you to get GPS from a chartplotter
4. NMEA 2000 means you don't need another antenna if you already have one in your network.

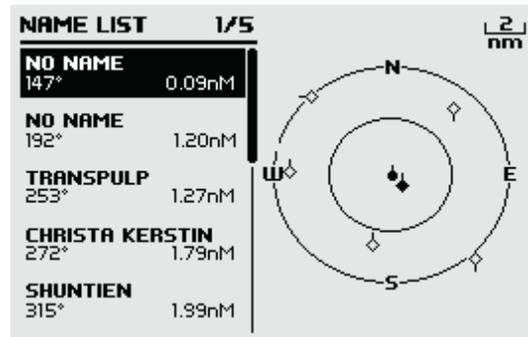


Unique Selling Points

Built in AIS

A dual-channel AIS receiver monitors the position of nearby AIS-equipped vessels, helping you to avoid collisions in crowded harbours and waterways.

AIS information can be viewed on the Link-9's built-in screen, or overlaid on your chart or radar screen through a compatible multifunction display.



VHF Display



MFD Display

Unique Selling Points



Remote Mountable Fist Mic

The Link-9's removable fist mic can be connected to the front or rear of the radio, and optional extension cable allows the radio and mic to be mounted separately.

This offers a simple and cost-effective solution for any mounting location, with no cable clutter.

For example, the Link-9 can be mounted overhead, with no hanging cables, while the mic is connected to an extension socket on the dash below.



Unique Selling Points



Mount from the front

Link-9 features easily removable top and bottom bezels which reveal mounting holes allowing the same style of mounting from the front that is featured on Lowrance MFDs.

Unique Selling Points

Track Buddy

Track buddy is a feature that automatically requests the position of another VHF radio. Simply enter the MMSI of the VHF into your contact list, then start tracking!

- Track up to 5 buddies
- Polls your contacts for their Lat/Long position automatically
- Can be set to 1, 5, 15, 30 or 60 minute intervals
- Displays the position on a compatible chart plotter
- Great for keeping track of friends, family or vessels you need to know the position of that don't have AIS



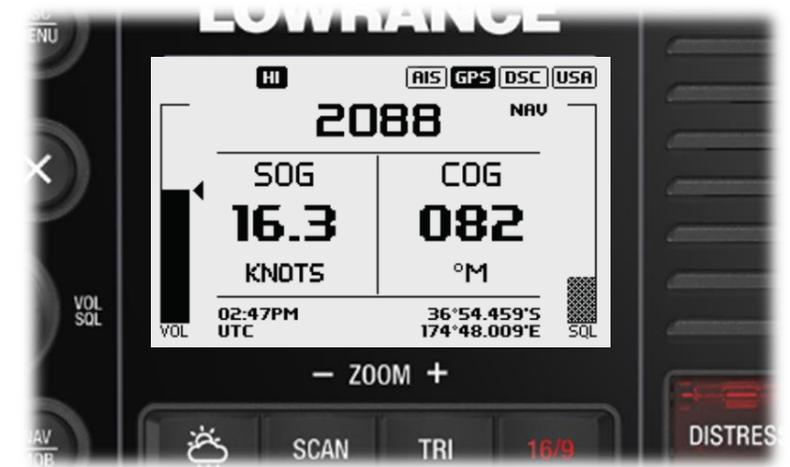
Tracked buddy displayed on Lowrance HDS Carbon

Unique Selling Point

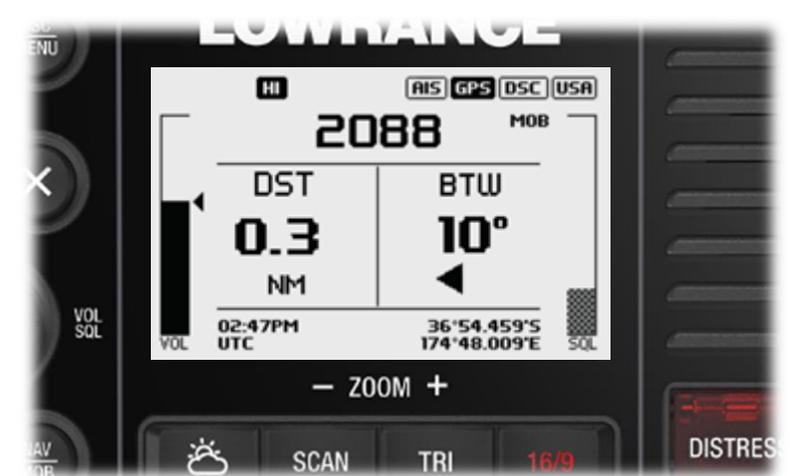
Navigation Mode

Press the NAV button on the Link-9 to turn it into a navigational instrument displaying your Speed and Course.

Link-9 also contains a Man Overboard (MOB) function, hold down the NAV/MOB button to drop a waypoint on your current location and the Link-9 will enter MOB mode to show you how far away you are and where you need to steer to get back to the person in the water. The MOB waypoint is also transmitted over NMEA 2000 to the rest of your network.



Navigation Mode showing current SOG and COG



MOB mode instructing you to adjust course 10° to port and travel 0.3NM.

Competitor Comparison

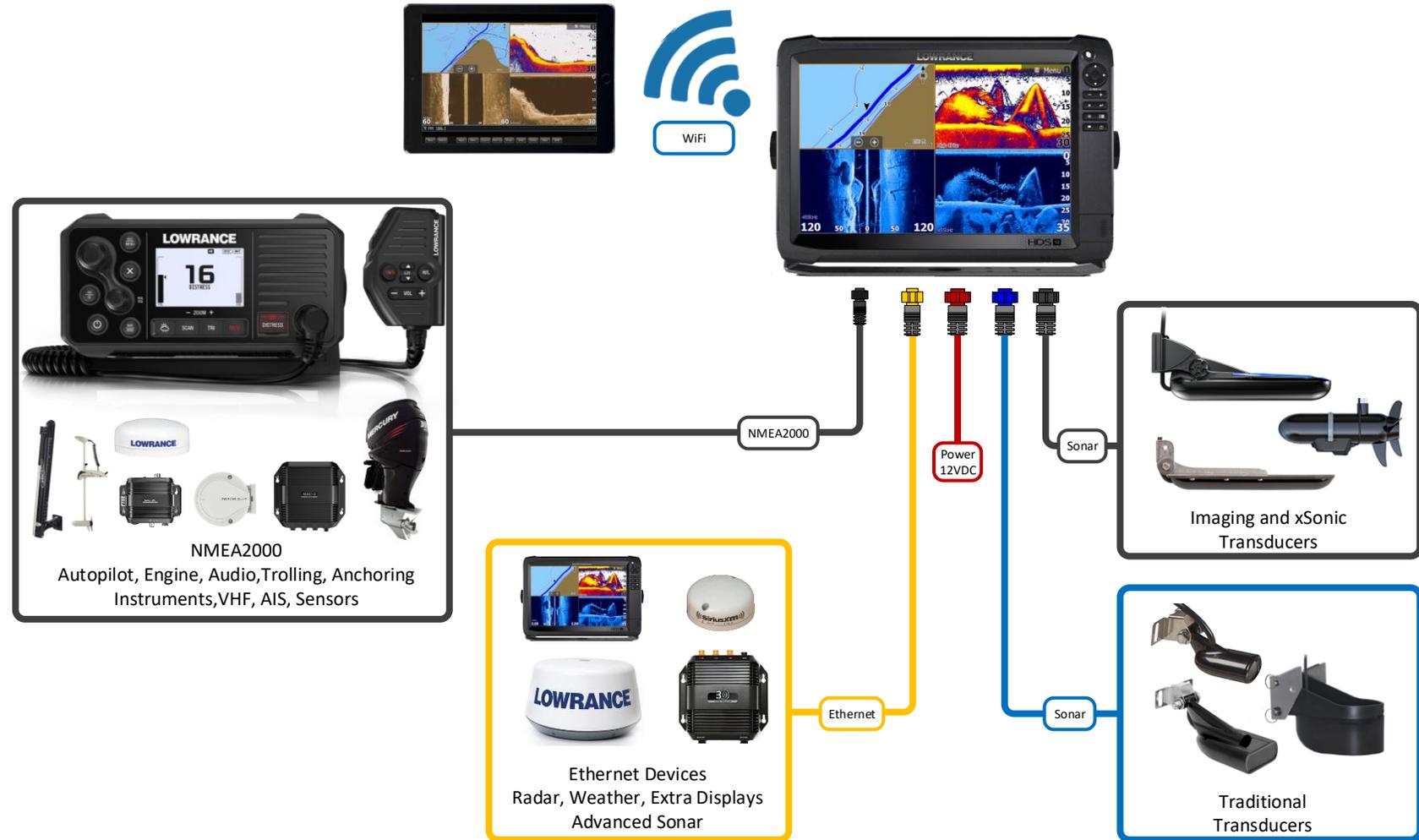
	Simrad RS40	Lowrance Link-9	Garmin VHF215 AIS	Raymarine Ray70	Furuno FM-4800	Raymarine Ray60	Icom M506	Standard Horizon GX6000
NMEA2000	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Internal GPS	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Internal AIS	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
Front Mount	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
Rear Mount Mic	Yes	Yes	Yes	Yes	Yes	Yes	Separate SKU	Yes
Serviceable Mic	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Favourite Channel Mode	Yes	Yes	No	No	No	No	No	No
Buddy Track	Yes	Yes	Yes	No	No	No	No	No
Additional Handsets	2 x Wireless	No	1 x Wired	1 x Wired	1 x Wired	1 x Wired	1 x Wired	4 x Wireless
Hailer/ Foghorn	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
Intercom	Yes	No	No	Yes	Yes	Yes	Yes	Yes
Dual/Tri Watch	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
External Speaker	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Price	\$619	\$499	\$649	\$699	\$745	\$349	\$499	\$499

External Launch Schedule

Key Launch Event	Date
Training	NOLA ~15 Sept 18
Open Order Book	1 Oct 18
Commercial Ship Date	15 Nov 18
Website goes live	15 Nov 18

Integration, Supported Functionality

Link-9 is ideal for vessels with a larger, more integrated system. Networking is available through NMEA 0183 and 2000. Benefits from networking include AIS and DSC display, MOB and group backlight control.



Target Consumer Summary

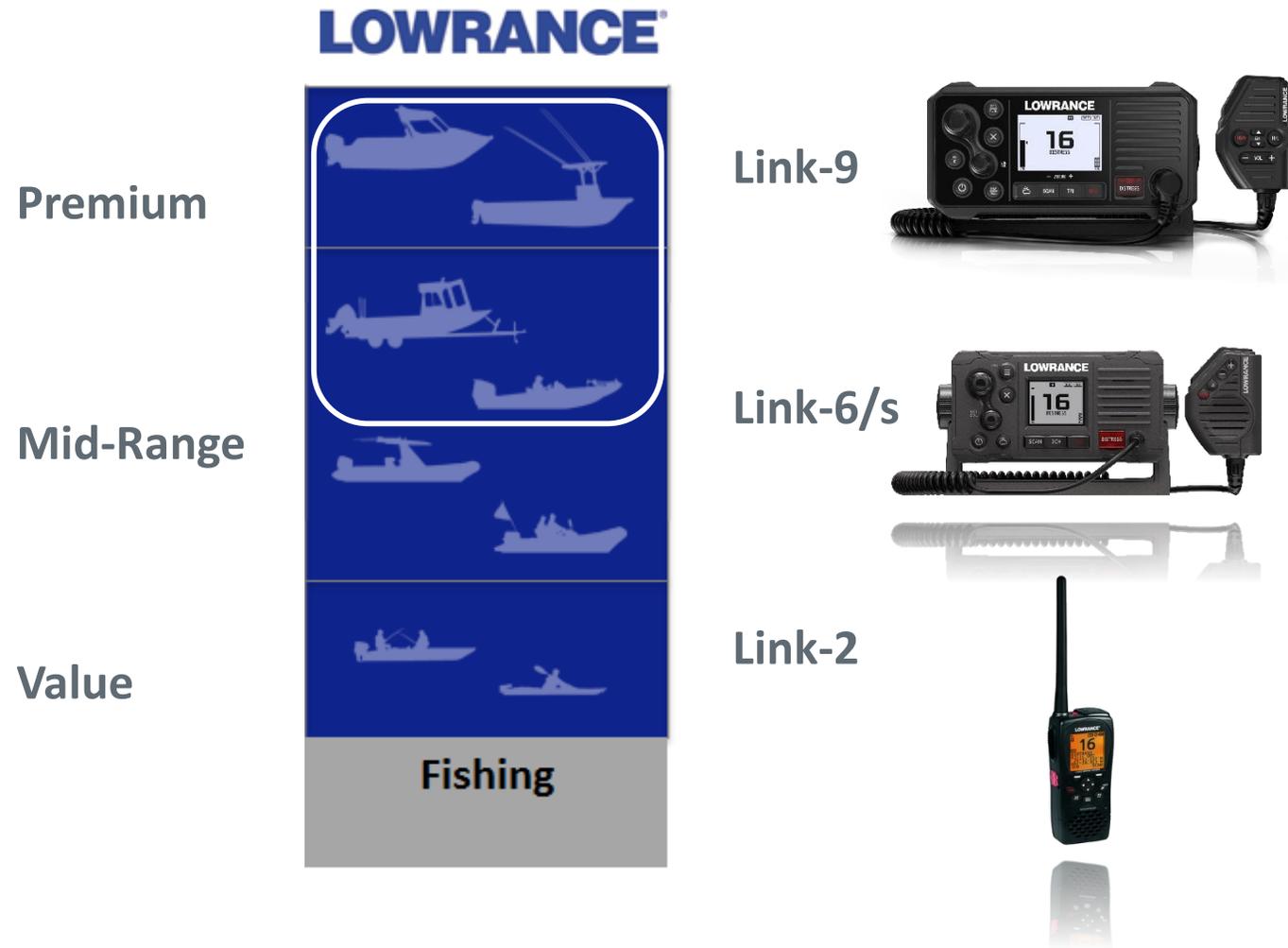
Cruising

Link-9 VHF radio offers a level of safety in all conditions, features like the AIS receiver helping to improve situational awareness with a view of who else is around you. DSC (Digital Selective Calling) allows a user to easily call friends, and in emergency situations the Distress key allows any vessel in VHF range to be notified of a problem with a single key press.

Sport fishing

Link-9 integrates with Lowrance displays to allow “Buddy tracking” with friends position to be displayed on their chart plotter without showing everyone else your position like you get with AIS. Advanced channel scan and favourites features allow quick access to commonly used channels.

Product Positioning



Pricing

Region	Price	Currency	Discount Code
Americas	\$ 499.00*	USD	R27
Europe	€ 429.00	EURO	R27
APAC	\$ 579.00	AUD	R27



*Americas pricing includes an increase due to import tariffs. If the tariffs are removed then we will lower our price. Check pricebook for latest pricing.

System Builder Capture

LOWRANCE Q	FIXED VHF	HANDHELD VHF	AIS CLASS B
HDS Carbon	Fixed- Mount VHF		
Elite Ti		Part Number 000-13543-001	Description VHF MARINE RADIO,DSC,LINK-6: Lowrance Link-6 Marine DSC VHF Radio
Hook2		Part Number 000-13544-001	Description VHF MARINE RADIO,DSC,LINK-6 (WHITE): Lowrance Link-6 Marine DSC VHF Radio (WHITE)
Portables		Part Number 000-14472-001	Description VHF MARINE RADIO, LINK-9, DSC Lowrance Link-9 Class D DSC VHF Radio :Mid Level VHF Radio, Integrated GPS, AIS RX, NMEA2000 connectivity
VHF and AIS			
Maps			

Technical Specifications

GENERAL	LIMIT	Unit
Frequency Range: Transmit	156.025~157.425 MHz	MHz
Frequency Range: Receive	156.050~163.275 MHz .	MHz
Number Of Channels	INT / US / CAN / EU	
Oscillate Mode	PLL	
Modulation	FM(16KOG3E) DSC(16KOG2B)	
Channel Spacing	25	KHz
Frequency Stablility	±5	PPM
Temperature range	-15~+55	°C
Normal Working Voltage	+13.6 DC	V
Minimum operating Voltage	≤10	V
Low battery detect Voltage	10.5 ± 0.5	V
Digital Selectivity Calling (DSC)	Class D	

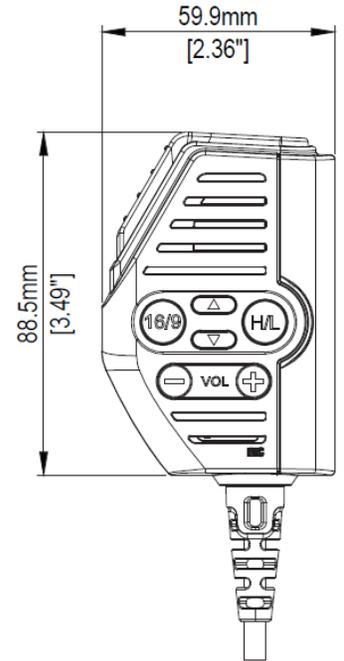
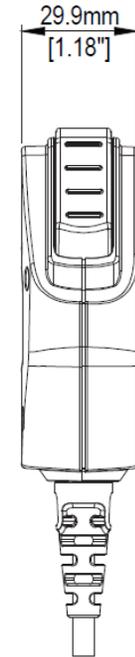
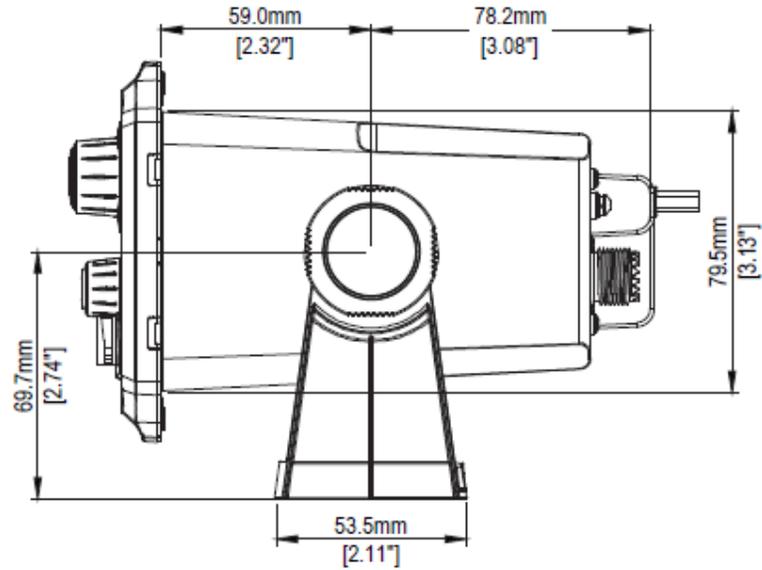
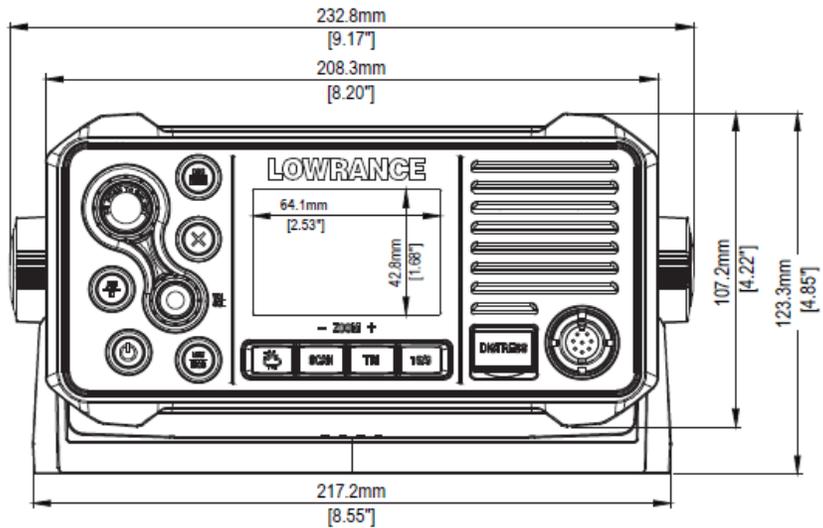
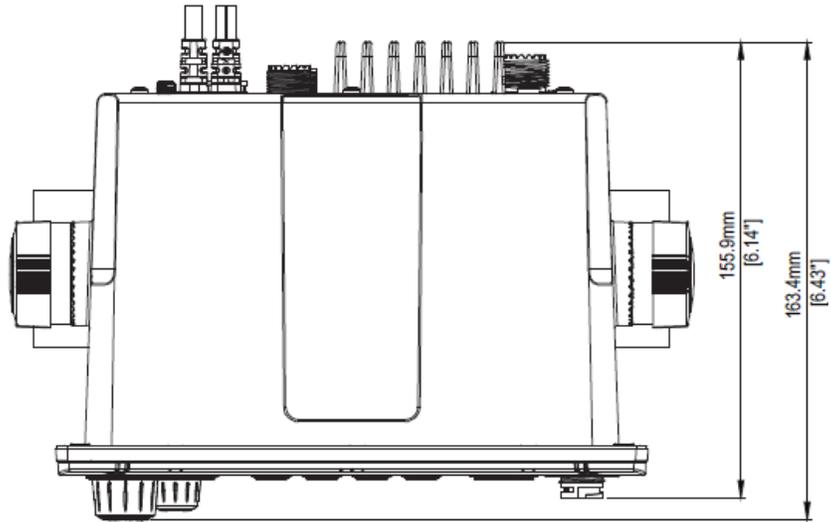
Technical Specifications

RECEIVER	LIMIT	Unit
Intermediate Frequency : 1st	38.85/21.7	MHz
Intermediate Frequency : 2nd	450	KHz
Sensitivity : 12dB SINAD	≤-6	dBuV(EMF)
Squelch Sensitivity: at tight	≤ 6	dBuV(EMF)
Spurious Response Rejection Ratio	≥70	dB
Adjacent Channel Selectivity	≥70	dB
Intermodulation Response	≥68	dB
S/N at 3KHz Dev.	≥40	dB
Audio Output Power At THD 10%	≥2.5	W
Audio Distortion	≤10	%
Audio Response	+1 to -3dB of 6dB/octave from 300hz to 3kHz	dB
Current Drain : Max Audio Power	≤1.5	A
Current Drain : Stand-By	≤0.5	A
2ND RX Sensitivity For 12dB SINAD	≤ 0	dBuV(EMF)
2ND RX bit error ratio@-107dBm	≤ 10 ⁻²	

Technical Specifications

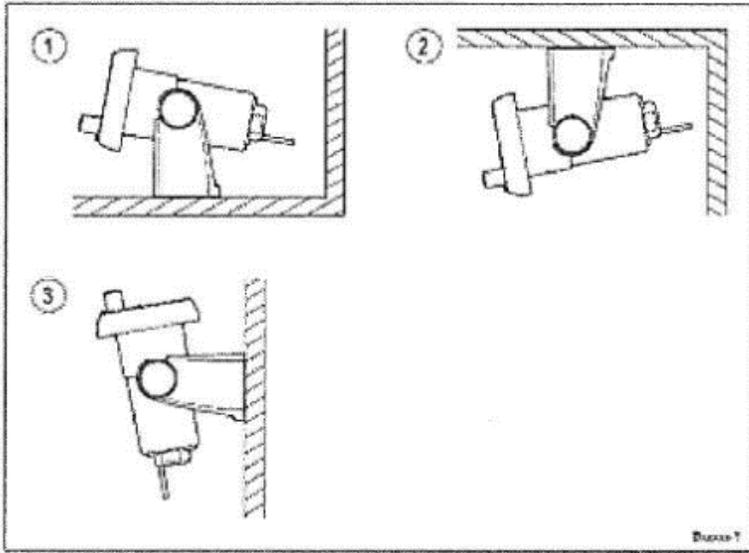
TRANSMITTER	LIMIT	Unit
Frequency error	$\leq \pm 1.5\text{KHz}$	KHz
RF Power : Hi	23 ± 2	W
: Lo	0.8 ± 0.2	W
Maximum Deviation	$\leq \pm 5$	KHz
S/N at 3KHz Dev.	≥ 40	dB
Modulation Distortion $\pm 3\text{KHz}$	≤ 10	%
Audio Response at 1KHz Dev.	+1 to -3dB of 6dB/octave from 300hz to 3KHz	dB
Spurious/Harmonic Emissions: Hi/LO	≤ 0.25	uW
Modulation Sensitivity	≤ 15	mV
Current Drain At 12V DC : Hi Power	≤ 6	A
: Lo Power	≤ 1.5	A
DSC TX deviation at 1.3K	2.6 ± 0.26	KHz
DSC TX deviation at 2.1K	4.2 ± 0.42	KHz
ATIS TX deviation at 1.3 KHz	1.3 ± 0.13	KHz
ATIS TX deviation at 2.1 KHz	2.1 ± 0.21	KHz

Dimensional Drawings

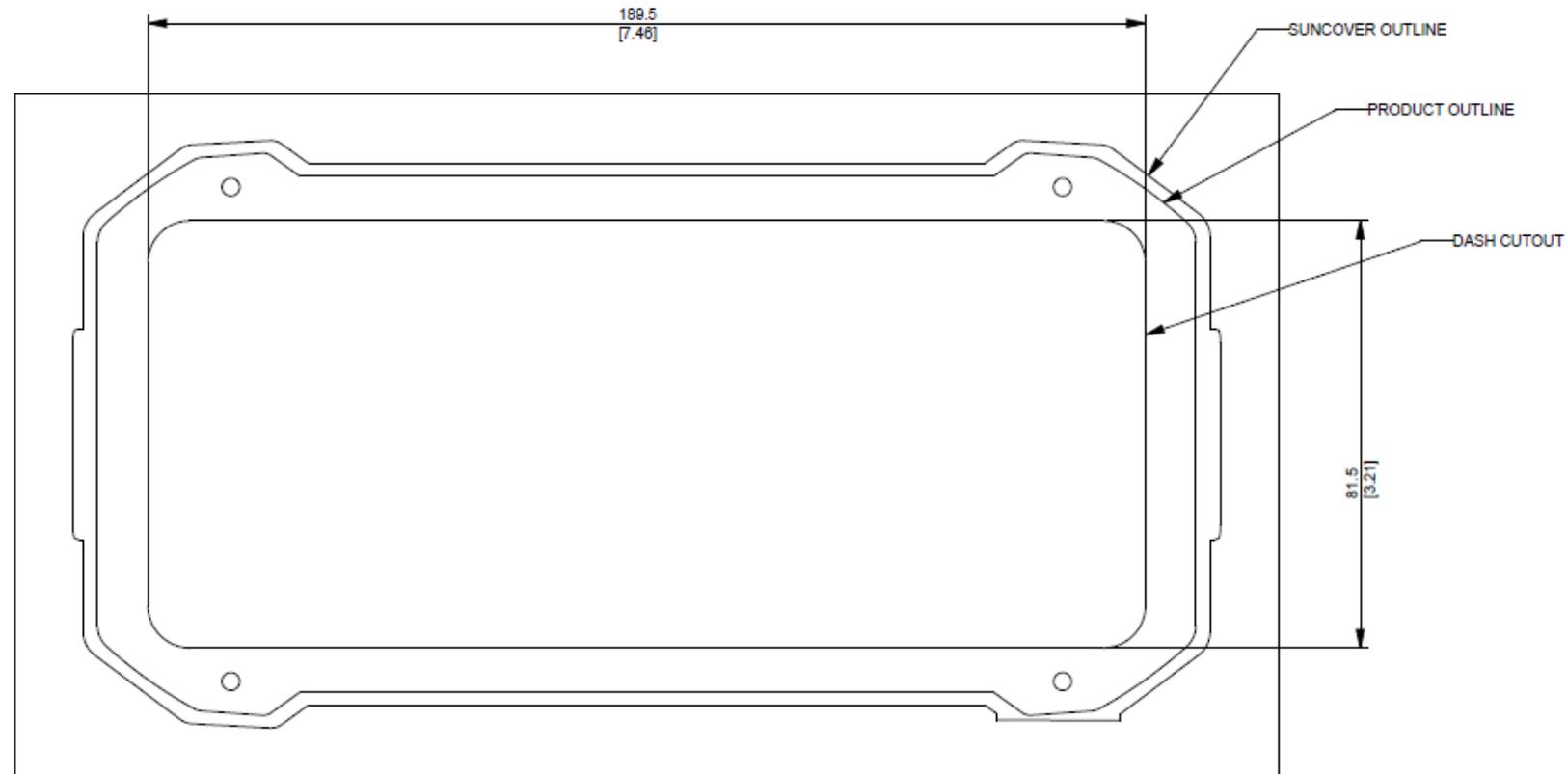


Installation & Mounting

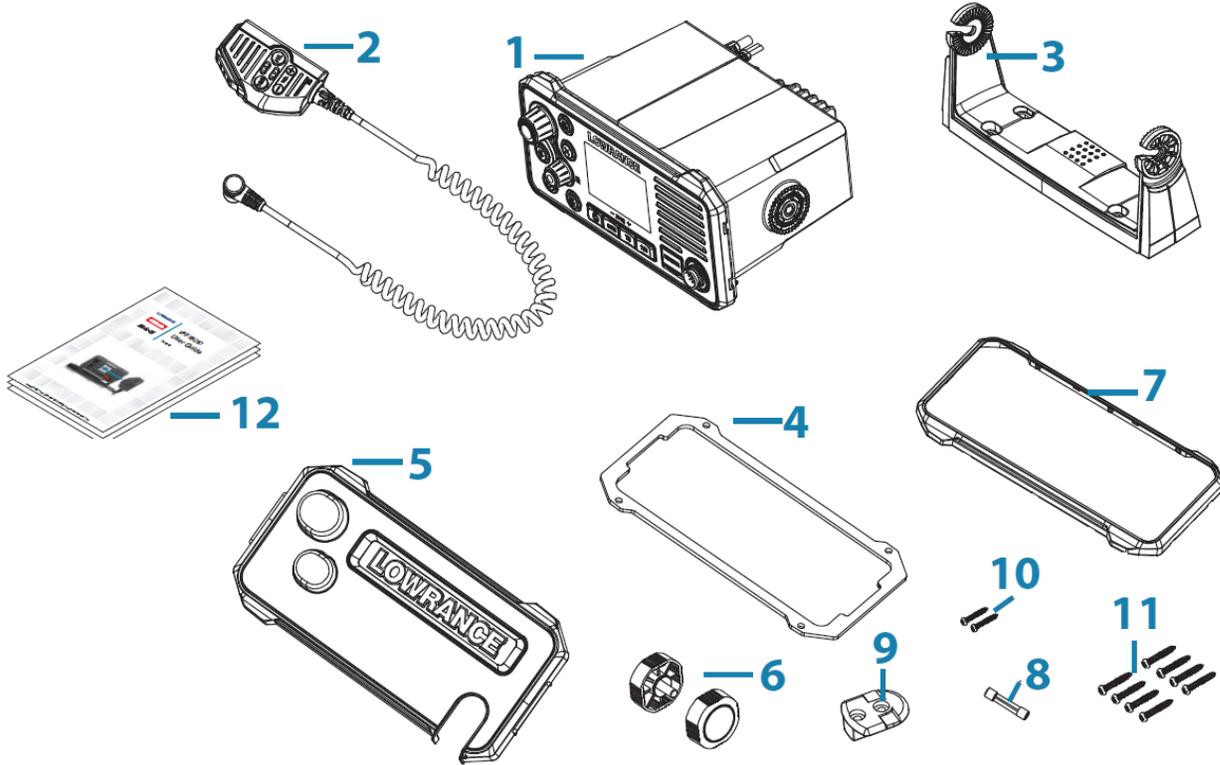
1. Table top mount
2. Overhead mount
3. Bulkhead mount



4. Flush Mount



Box Contents



	Description	P/N for Spare
1.	VHF radio base station	000-14472-001
2.	Removable hand mic	000-14920-001
3.	Bracket for gimbal mounting	000-14916-001
4.	Gasket for recessed mounting	000-14914-001
5.	Sun cover	000-14911-001
6.	Knobs for bracket	000-14916-001
7.	Bezel trim	000-14914-001
8.	8A (3AG) spare fuse	
9.	Bulkhead mount for hand mic	000-14918-001
10.	2 pcs 3.5 x 20 mm, stainless steel, panhead Phillips	000-14918-001
11.	8 pcs 4 x 25 mm, stainless steel, panhead Phillips	000-14916-001
12.	Documents: User manual, warranty card, mounting template	

Options & Accessories

Description	Part Number
VHF, Sun Cover, Link-9	000-14911-001
VHF, Flush Mount Kit, Link-9	000-14914-001
RS90 Speaker	000-11229-001
VHF, MOUNTING BRACKET, Link-9	000-14916-001
VHF, MIC CLIP FOR Link-9	000-14918-001
VHF, FIST MIC Link-9	000-14920-001
VHF, Fist MIC ext Cable 5m	000-14923-001
VHF, Fist MIC ext Cable 10m	000-14924-001
GPS-500 GPS Antenna	000-13613-001

Description	Part Number
2.4 m (8-ft) fiberglass quick fit VHF antenna (White)	AA000355
1 m (3.3-ft) fiberglass quick fit VHF antenna	AA000358
2.4 m (8-ft) fiberglass quick fit VHF antenna (Black)	000-14968-001
Nylon quick-fit antenna mount	AA000223
Stainless steel quick-fit antenna mount	AA000224
VHF antenna extension cable 5 m (16 ft)	AA000400

System Resets



HIDDEN MENUS:		While Power On:	Button-1:	Button-2:	Notes:
A	COUNTRY SELECT	PRESS & HOLD	8	4	Select / change REGION and COUNTRY
B	FACTORY RESET	PRESS & HOLD	3	11	Reset back to as shipped from factory - deletes all settings/contacts/logs/MMSI etc. Needs PIN number: 2137
C	BYPASS MODE	PRESS & HOLD	9	11	Allows an installer to make a TX and RX (Radio check) using INT channel Bank without having to complete the STARTUP MENU.
D	PROGRAM MODE (CLONE)	PRESS & HOLD	3	9	Places radio into programing mode via NMEA0183. (back to default setting)
E	PROGRAM MODE (UPGRADE)	PRESS & HOLD	8	12	Update the software of the radio via NMEA0183, It's different with Clone mode.

Software Version & Language Packs

Language – English

- Regional settings (US/CAN, EU, INT) Preprogrammed
- Individual country channel banks will be preprogrammed on the radio and can be user selected (No external programming required)
- Regional/Country programming can be reset using Dealer unlock code

Compliance



Europe

RED safety 3 (1) (a)
EN 60950
IEC 60529
EN 60945

RED EMC 3 (1)(b)
EN 301 843-1 v1.3.1
EN 301 843-2 v1.2.1

RED Radio Spectrum 3(2)
EN 301 025-2 V1.5.1
EN 301 025-1 V1.5.1
EN 300 698-2 V1.2.1

RED Emergency Services 3(3)
EN 300 698-3 V1.2.1
EN 301 025-3 V1.5.1

Statement of Opinion
Declaration of Conformity



Australia/NZ

AS/NZS 4415.1:2003
Statement of Opinion
Declaration of Conformity



Canada

RSS-Gen Issue 4 November 13, 2014
RSS-182 Issue 5 January 2012
RSS-210 License-exempt Radio Apparatus (All
Frequency Bands): Category I Equipment
Certificate



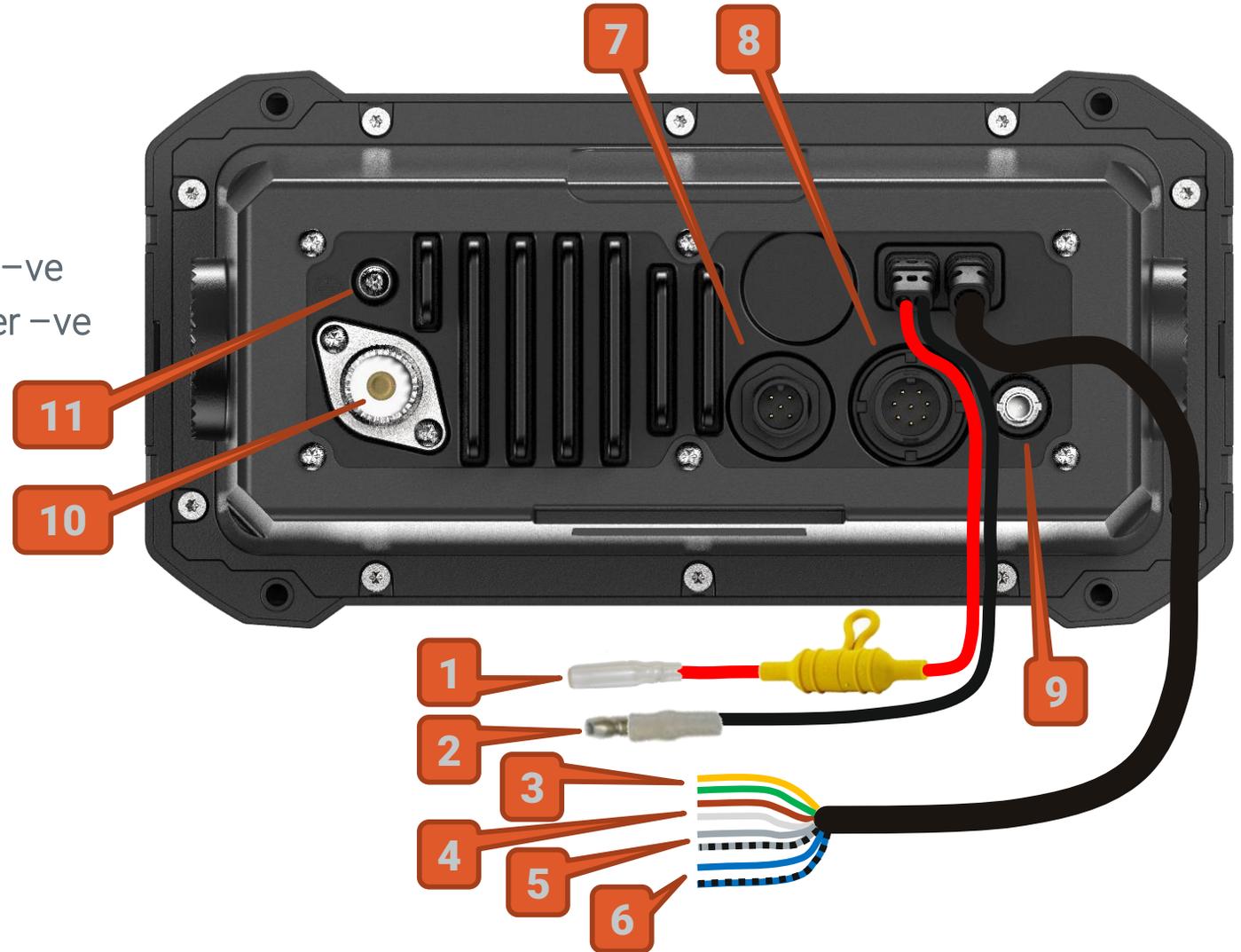
USA

FCC Part 15 Subpart B - Radio Frequency Devices
FCC Part 15.107
FCC Part 15.109
FCC 15.247

CC Part 80 Maritime Service
CC Part 80.211 AIS Receiver
CC Part 80.215(e)(1) Main Radio
ertificate

Advanced Installation Reference

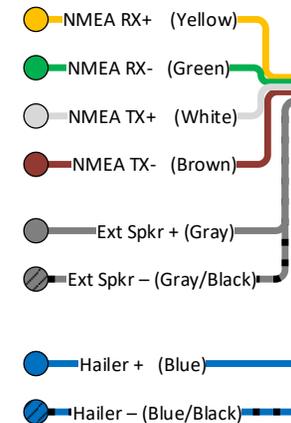
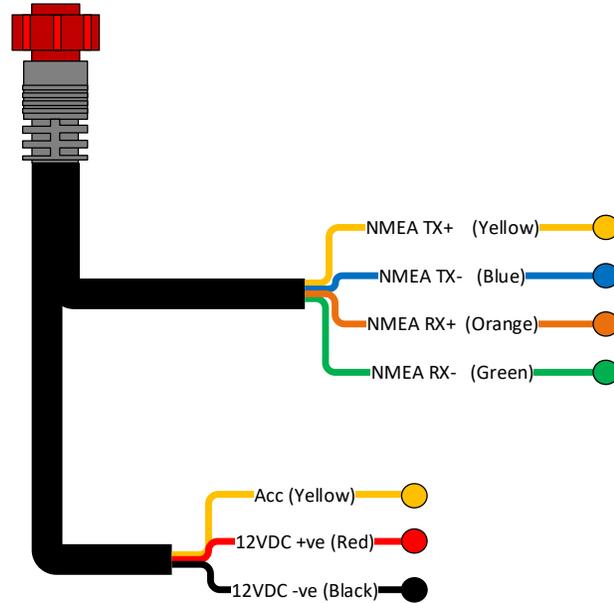
1. Red - Battery (+ve)
2. Black - Battery (-ve)
3. Yellow, Green - NMEA0183 IN +ve, NMEA0183 IN -ve
4. White, Brown - NMEA0183 OUT +ve, NMEA0183 OUT -ve
5. Grey, Grey/Blk - External Speaker +ve, External Speaker -ve
6. Blue, Blue/Blk - Hailer +ve, Hailer -ve
7. NMEA 2000
8. Rear Fist Mic connector
9. GPS Antenna
10. VHF Antenna
11. Ground



Advanced Installation Reference



GPS		VHF	
Yellow	NMEA Tx+	NMEA Rx+	Yellow
Blue	NMEA Tx-	NMEA Rx-	Green
Orange	NMEA Rx+	NMEA Tx+	White
Green	NMEA Rx-	NMEA Tx-	Brown
		Ext Speaker +	Gray
		Ext Speaker -	Gray/Black
		Hailer +	Blue
		Hailer -	Blue/Black



Key Selling Points by Cluster



Custom

- Style matched to MFDs with easy integration
- Easy install with mount from front and removable fist mic
- Built-in AIS receiver and GPS antenna
- More mounting options for tidier install with removable fist mic
- Global SKUs, no country specific programming required

VBB

- Easy install with mount from front and removable fist mic
- Lower profile off dash
- More mounting options for tidier install with removable fist mic
- Global SKUs, no country specific programming required

Large Retail

- Modern, sleek industrial design
- Easy integration with Navico MFDs
- Built-in AIS receiver and GPS antenna
- Colour retail packaging
- Feature competitive with all major competition
- 2 Year Warranty

Local

- Modern, sleek industrial design
- Easy integration with Navico MFDs
- Built-in AIS receiver and GPS antenna
- Colour retail packaging
- Feature competitive with all major competition
- 2 Year Warranty

Wholesale

- Easy integration with Navico MFDs
- Built-in AIS receiver and GPS antenna
- Feature competitive with all major competition
- 2 Year Warranty
- Global SKUs, no country specific programming required

INDDIS

- Easy integration with Navico MFDs
- Built-in AIS receiver and GPS antenna
- Feature competitive with all major competition
- 2 Year Warranty
- Global SKUs, no country specific programming required

5YU Options



P/N	Description	Option	P/N 5YU	Description 5YU
000-10789-001	VHF MARINE RADIO, LINK-8, DSC	Replace	000-14911-001	VHF MARINE RADIO, DSC, AIS-RX, LINK-9
		Up1		
000-14911-001	VHF MARINE RADIO, DSC, AIS-RX, LINK-9	Replace	000-14911-001	VHF MARINE RADIO, DSC, AIS-RX, LINK-9
		Up 1		
000-13543-001	VHF MARINE RADIO, DSC, LINK-6	Replace	000-14493-001	VHF MARINE RADIO, DSC, LINK-6S
		Up 1	000-14911-001	VHF MARINE RADIO, DSC, AIS-RX, LINK-9

Logistic Centre Responsibilities



- Single SKU for all regions
- Link-9 no longer needs to be programmed by the logistic centre for different regions
- Country mode selection at first time power up to be done by customer or installing dealer

Launch Schedules



Key Launch Event	Date
Commercial Ship Date	15 November 2018
Internal communication	01 September 2018
External communication (Dealer reveal)	01 October 2018
First boat show	FLIBS?
Open order books	01 October 2018
Website goes live	15 November 2018

Training Schedule



Event	Date
US Sales/Customer Service	~15 Sept 2018
APAC Sales/Customer Service	~15 Sept 2018
EMEA Sales/Customer Service	~15 Sept 2018

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