



# 2016

[MARINE](#) ELECTRONICS PRODUCT GUIDE



**Raymarine®**  
BY  **FLIR®**





Raymarine products are engineered to deliver the very best in visual navigation information and with a legacy of marine technology spanning over 80 years, we are renowned today for ease-of-use, rugged design, and reliability. We are constantly innovating to deliver high-performance sensors and intelligent navigation systems so your time on the water is stress-free and fun. We are committed to you with an industry-leading warranty and worldwide service network. Whether you fish, sail, or cruise you can get underway with the confidence of Raymarine on board.

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## LIGHTHOUSE™ II OPERATING SYSTEM

### LIGHTHOUSE II

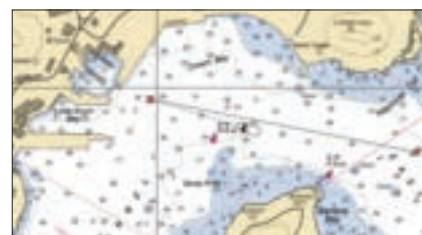
The easy-to-use operating system inside every Raymarine multifunction display, LightHouse II puts you in command with a fluid touch-screen or HybridTouch™ user experience. LightHouse II lets you navigate with the best charts and makes navigating as simple as using a smartphone.

### LIGHTHOUSE II FOR SAILORS – ADVANCED SAILING TOOLS

LightHouse II SmartMarks™ and dynamic layline overlays help sailors determine the quickest, most efficient ways to navigate while racing or cruising.

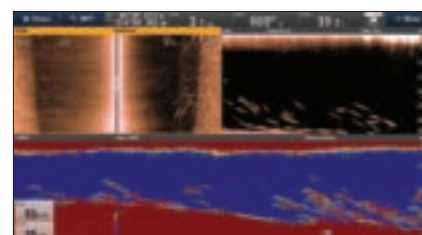
### LIGHTHOUSE II FOR CRUISING – THE BEST CHARTS

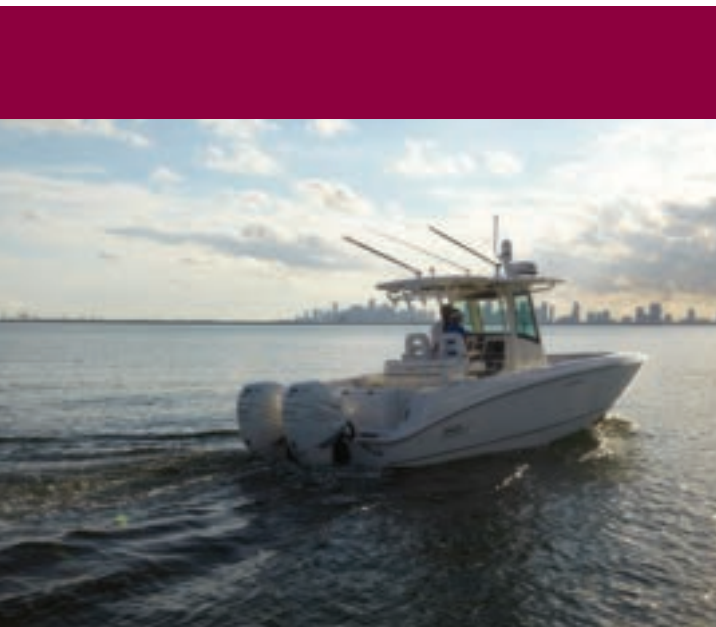
LightHouse II gives users the freedom to choose the very best charts from C-MAP by Jeppesen, Navionics, and Raymarine's expanding LightHouse chart catalogue.



### LIGHTHOUSE II FOR FISHING – SONAR COMMAND CENTER

View up to 4 independent sonar channels simultaneously, including our award winning wide spectrum CHIRP DownVision™ and SideVision sonar.





### **LIGHTHOUSE II AND FLIR THERMAL MONITORING**

LightHouse II Multifunction Displays can now monitor engine rooms and other onboard machinery using the FLIR AX8 marine thermal monitoring system. The FLIR AX8 keeps a watchful eye on critical equipment such as engines, exhaust manifolds, and shaft bearings and lets captains spot problems before they become costly repairs.





### LIGHTHOUSE CLOUD™

Stay connected with your boat and your Raymarine gear with the new LightHouse Cloud™ service. LightHouse Cloud lets you store and access all your valuable waypoints and routes from any mobile device or computer. Plan your next trip from home or the office and LightHouse Cloud lets you sync with your Raymarine multifunction display on board. The LightHouse Cloud web app also connects you with all your Raymarine gear and keeps you up to date with the latest product updates, software releases, and product handbooks. LightHouse Cloud is easy-to-use and easy-to-access. Simply connect from your phone, tablet or pc. Only a web browser and internet connection is needed to access the LightHouse Cloud and no special apps or software is required.



### NAVIGATE SAFER WITH LIGHTHOUSE COLLISION AVOIDANCE TOOLS

LightHouse Collision Avoidance tools give both expert and novice captains the power to monitor potential dangerous crossing situations with easy-to-interpret on screen graphics, called target interception zones. These zones can also help commercial and first responder vessels track and rendezvous with designated AIS targets. LightHouse II also enhances collision avoidance with all new AIS target icons and user interface improvements that simplify guard zone setup and target tracking.



### REGULAR LIGHTHOUSE UPDATES

LightHouse is an expanding user interface with regular downloadable FREE updates.





# eS SERIES

THE SMARTER  
MULTIFUNCTION  
DISPLAY

**NEW**



Whether you fish, sail, or cruise the open water, eS Series' advanced LightHouse II operating system with HybridTouch™ gives you total control. With the choice of responsive touch screen or keypad control, eS Series puts navigation, sensors, safety, and entertainment at your fingertips.

## RUGGED ERGONOMIC DESIGN

- The sleek glass bridge design of eS Series will enhance any helm station with bracket, surface and completely flush mounting options.
- Mount eS Series anywhere — flush and bracket mounted hardware included.
- Super-bright displays with optical bonding technology deliver sharp colours and contrast in all lighting conditions.







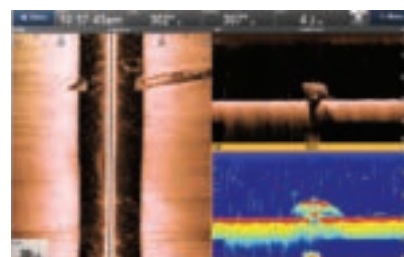
### HYBRIDTOUCH™

HybridTouch technology offers a choice of intuitive touch screen interaction with pinch-to-zoom or full keypad control when seas are rough.



### MULTIFUNCTION ROTARY CONTROL

Innovative Multifunction Rotary Control combines precise cursor and menu adjustments into a single point of control.



### SUPERIOR SONAR

Go Hunting Underwater with eS Series and Raymarine high-fidelity Sonar.

### HIGH-FIDELITY CHIRP SONAR

- Internal wide-spectrum CHIRP DownVision™ on eS78, eS98 and eS128 models.
- High performance CHIRP SideVision™ compatible with optional CP200.



### LIGHTHOUSE II – THE POWER BEHIND RAYMARINE MFDS

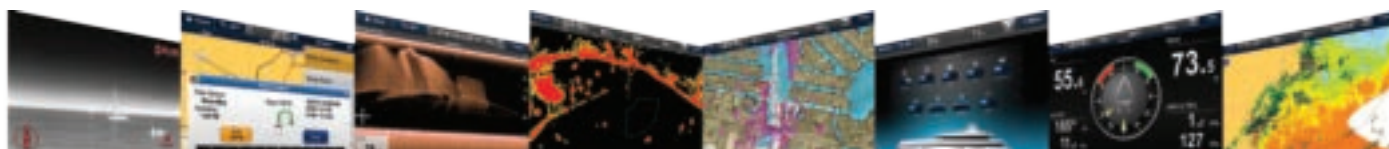
Lighthouse™ II is the User Interface (UI) that powers Raymarine multifunction displays. LightHouse is updated regularly to bring you new and exciting features. Best of all, updates are FREE so your hardware is always up-to-date.



### AUTOMATIC ROUTE BUILDING

Automatically plots the best route between two points using Navionics or C-MAP By Jeppesen charts.

- Navionics Dock-to-dock Autorouting with Navionics+ and Platinum charts (available Spring 2016).







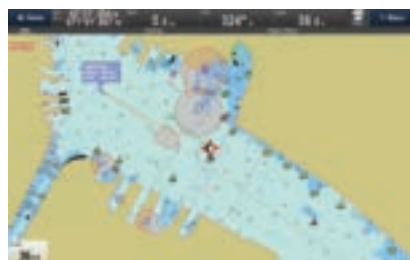
### MOBILE

Access your eS Series from anywhere on board. Built-in Wi-Fi allows you to stream to Raymarine mobile apps (RayView, RayRemote, RayControl) as well as transfer routes and markers, upload sonar logs and update Navionics charts with Navionics Boating apps.

### STAY SAFE WITH THERMAL NIGHT VISION

- Easy-to-use. As simple as watching and controlling your TV.
- Day and night operation.
- The best man-overboard detection.
- Slew-to-cue\* improves situational awareness and safety. Thermal camera automatically keeps "cued" targets in view at all times.

\* Slew-to-cue functionality available on select FLIR cameras.



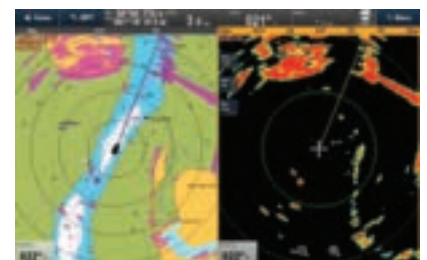
### COLLISION AVOIDANCE

Intuitive Target Interception graphic overlays for tracking AIS targets.



### DIGITAL SWITCHING

Control lighting, monitor AC and DC electrical systems, remotely monitor fluid tanks and battery levels and much more.



### RADAR

Display radar data with an optional Raymarine Digital, HD Color, Super HD Color, or Quantum radar antenna.



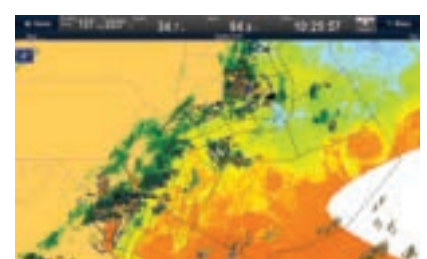
### ENGINE MONITORING

Monitor engine and fuel performance using NMEA 2000 or Raymarine's exclusive ECI-100 Universal Engine and Control Interface.



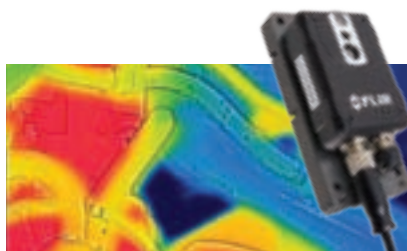
### EVOLUTION AUTOPILOTS

Experience full autopilot control directly from your eS Series display by connecting the Evolution autopilot.



### SIRIUSXM WEATHER

Enjoy detailed weather reports, NOWRad weather radar and much more on your aSeries display (US only).



### SPOT PROBLEMS BEFORE THEY HAPPEN

Stream live thermal video of exhaust manifolds, propeller shafts, electrical panels, and other machinery with the FLIR AX8 thermal monitoring system.



### RMK-9 REMOTE

The optional RMK-9 Remote keypad gives you full control of single or multiple displays from a remote location.

## SPECIFICATIONS

### LCD SCREEN SIZES

eS7: 7in  
eS9: 9in  
eS12: 12.1in

### DISPLAY RESOLUTION

eS7/eS9: 800x480  
eS12: 1280x800

### VIEWING ANGLES

eS7: Top / Bottom: 60 deg / 70 deg  
Left / Right: 70 deg / 70 deg  
eS9/12: Top / Bottom: 80 deg / 80 deg  
Left / Right: 80 deg / 80 deg

### SCREEN BRIGHTNESS

1,250 nits

### MOUNTING OPTIONS

Flush, bracket, or rear panel mount

### WATERPROOF RATING

IPX6/IPX7

### NETWORKING

Ethernet/NMEA 0183/NMEA2000/Wi-Fi/  
Bluetooth

### MEMORY CARD SLOTS

Two MicroSD slots (up to 32GB each)

### VOLTAGE

12V / 24V DC (10.8 V DC to 31.2V DC)

### POWER CONSUMPTION (FULL BRIGHTNESS)

eS7: 7.97W  
eS8: 11.7W  
eS9: 20W  
eS12: 29.6W



Images for illustrative purposes only. Product information subject to change without prior notice



NEW! Quantum CHIRP Radar

### ONBOARD VIDEO MONITORING

eS Series MFDs support IP cameras (requires ONVIF compatibility) including record and playback facilities. eS Series also support analogue and thermal video

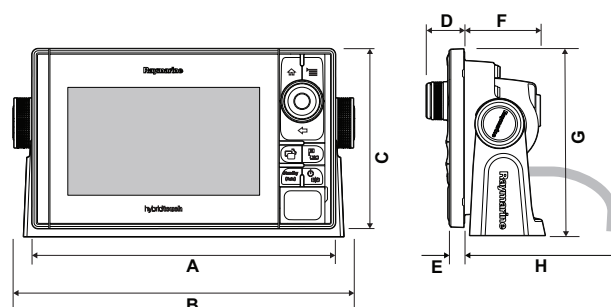


### WHAT'S IN THE BOX eS SERIES



- (1) Multifunction display
- (2) Panel Seal Gasket
- (3) 1.5 m (4.9 ft) Power cable
- (4) Sun Cover
- (5) Trunnion bracket and knobs
- (6) Documentation pack
- (7) Bezel pieces and Home/Menu button
- (8) Fixing sets

eS SERIES DIMENSIONS			
	eS7	eS9	eS12
A	9.6in. (244.2 mm)	11.8in. (299.3 mm)	14in. (358 mm)
B	10.8in. (275.2 mm)	13in. (332 mm)	15.4in. (390.5 mm)
C	5.7in. (144.7 mm)	6.8in. (173.8 mm)	8.8in. (222.8 mm)
D	1.2in. (31 mm)	1.3in. (32 mm)	1.3in. (31.9 mm)
E	0.49in. (12.5 mm)	0.53in. (13.5 mm)	0.53in. (13.5 mm)
F	2.4in. (61.9 mm)	2.6in. (64.7 mm)	2.5in. (64.4 mm)
G	6in. (152.5 mm)	7.3in. (184.6 mm)	9.6in. (244.5 mm)
H	5.9in. (150 mm)	5.9in. (150 mm)	5.9in. (150 mm)







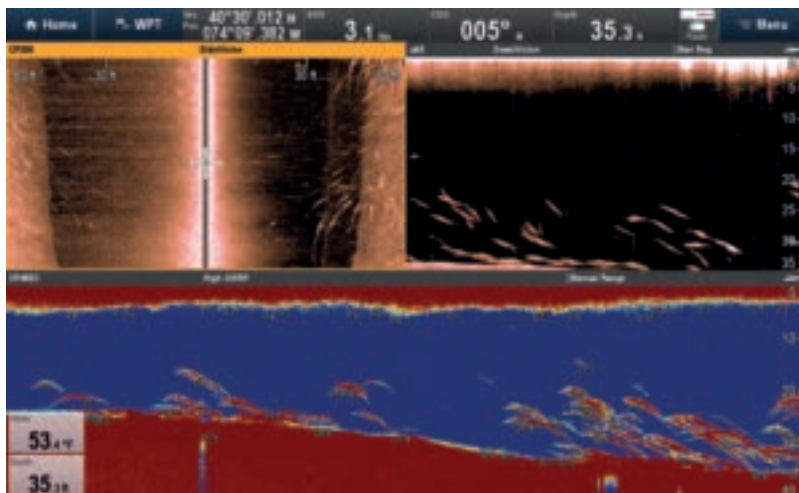
## aSERIES

TOUCH SCREEN  
NETWORK  
MULTIFUNCTION  
DISPLAYS



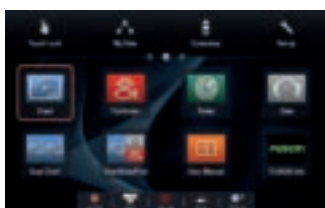
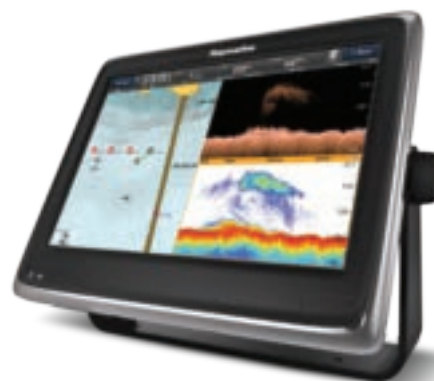
Powerful, go-anywhere, navigation; aSeries multifunction displays deliver the speed and simplicity of Raymarine technology in sleek, compact, touch screen displays.

- Swipe, Touch and Navigate – very easy
- Powered by Raymarine's intuitive LightHouse II user-interface
- Super-fast dual-core processor
- Powerful dedicated graphics processor
- Super-bright LED Technology – sunlight viewable, high-contrast display
- Available with built-in Wi-Fi



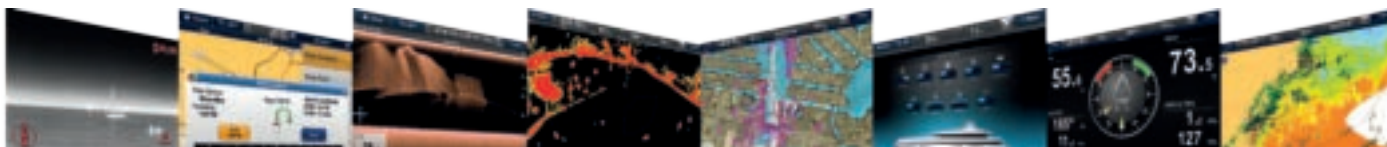
#### SONAR (CHIRP/CHIRP DOWNVISION)

- aSeries with built-in sonar is the perfect choice for anglers looking for a powerful do-it-all combo
- a68, a78, a98, and a128 feature CHIRP sonar to target fish and Raymarine's exclusive CHIRP DownVision sonar for photo-realistic images of structure
- a67, a77, a97, and a127 feature an integrated digital sonar, ideal for coastal fishing and the occasional offshore venture



#### LIGHTHOUSE II – THE POWER BEHIND RAYMARINE MFDS

LightHouse™ II is the User Interface (UI) that powers Raymarine multifunction displays. LightHouse is updated regularly to bring you new and exciting features. Updating could not be easier: either download manually, or connect your MFD to any Wi-Fi hotspot for instant, over-the-air updating of your display and peripheral devices. Best of all, updates are FREE so your hardware is always up-to-date.

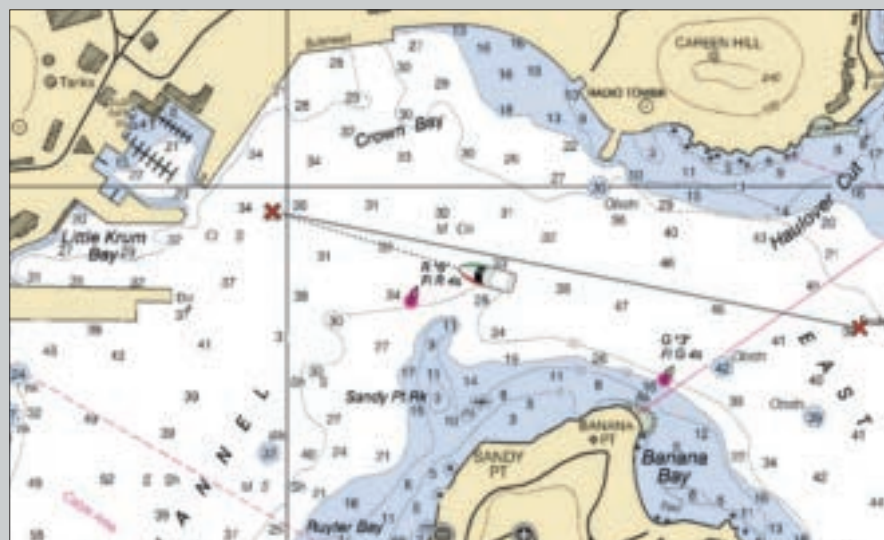






### ONBOARD VIDEO MONITORING

aSeries MFDs connect with Raymarine IP video cameras and the FLIR AX8 thermal monitoring system. See all the action, record video, and take snap shots. You can even playback video right from the display. The a9 and a12 models also support analogue video from entertainment sources or T-Series thermal cameras.



Raymarine



C-MAP



Navionics



### THE BEST CHARTS

LightHouse II gives users the freedom to choose the very best charts from C-MAP by Jeppesen, Navionics, and Raymarine's expanding LightHouse chart catalogue.



### aSERIES VARIANTS

Choose aSeries multifunction displays bundled with Navionics, C-MAP by Jeppesen, or Raymarine LightHouse charts. For a complete list of aSeries with charts bundled together, please refer to the pricing guide at the back of this brochure.

### RADAR

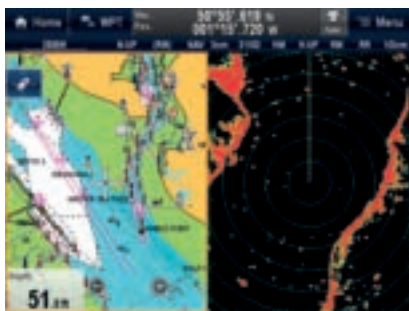
Display radar data with an optional Quantum CHIRP Radar, HD Color or Super HD Color radar scanner.

### NETWORKING

- Fast RayNet Ethernet port (SeaTalk<sup>hs</sup> compatible)
- Network up to 10 Raymarine MFDs
- Network Raymarine Quantum and HD Color Radar scanners, CHIRP Sonar modules, and more!
- NMEA 2000 and SeaTalk<sup>ng</sup> connectivity



NEW! Quantum CHIRP radar



### CUSTOM SCREENS

Display multiple screens at the same time, such as chart and radar information



### ENGINES DATA DISPLAY

Connect with NMEA 2000 compatible engines for graphical engine data displays. Monitor up to 5 engines at any one time.



### INSTRUMENT DISPLAYS

Sharp, easy-to-read analogue and digital instrument graphics transform aSeries into a powerful information display



### REMOTE CONTROL

The optional RMK-9 Remote Keypad gives you full control of single or multiple gS Series displays from a remote location. The keypad can be used in portrait or landscape orientation.



### MOBILE

Access your aSeries from anywhere on board. Built in Wi-Fi allows you to stream via Raymarine mobile apps as well as transfer routes and markers, upload sonar logs and update charts with Navionics Boating apps.

## SPECIFICATIONS

### Nominal voltage supply

a6: 12 Vdc | a7: 12 Vdc | a9: 12 or 24 Vdc | a12: 12 or 24 Vdc

### OPERATING VOLTAGE RANGE

a6: 10.2 – 15.6 Vdc | a7: 10.8 – 15.6 Vdc | a9: 10.8 – 31.2 Vdc | a12: 10.8 – 31.2 Vdc

### WATERPROOFING STANDARD

IPX6 and IPX7

### DISPLAY SIZE

a6: 5.7" | a7: 7.0" | a9: 9.0" | a12: 12.1"

### DISPLAY RESOLUTION

a6: 640 x 480 (4:3) | a7: 800 x 480 (16:9) | a9: 800 x 480 (16:9) | a12: 1280 x 800 (16:9)

### Wi-Fi

802.11 b / g

### BLUETOOTH

Bluetooth 2.1 + EDR power class 1.5 (supported profile: AVRCP 1.0)

### WIRED CONNECTIVITY

#### a6 and a7

NMEA2000  
Network (Raynet)

#### a9 and a12

NMEA0183  
NMEA2000  
Network (Raynet)  
GA150 GPS Antenna  
Video input

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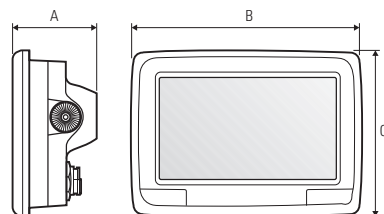
## WHAT'S IN THE BOX aSERIES



- (1) Front bezels (a6 and a7: 1x metallic silver bezel. a9 and a12: 1x metallic silver bezel, 1x matt black bezel)
- (2) Multifunction Display (MFD)
- (3) Mounting gasket
- (4) Sun cover
- (5) Trunnion bracket kit
- (6) Documentation pack
- (7) (a9 and a12) SeaTalk<sup>®</sup> to DeviceNet adaptor kit
- (8) 4x nuts, bolts, spring washers and washers (can be used for either surface or bracket mounting)
- (9) (a9 and a12 only) 1m (3.3ft) SeaTalk<sup>®</sup> spur cable
- (10) (a9 and a12 only) 2m (6.6ft) RayNet cable
- (11) (a6 and a7) Power cable
- (12) (a9 and a12) Power and data cable (Power/NMEA/Video)

## aSERIES DIMENSIONS

	A		B		C	
	mm	in	mm	in	mm	in
a6	71	2.79	164	6.45	144	5.66
a7	73.6	2.89	205	8.07	147	5.78
a9	82.6	3.25	250	9.84	189.5	7.46
a12	84.1	3.31	318	12.5	238.3	9.38

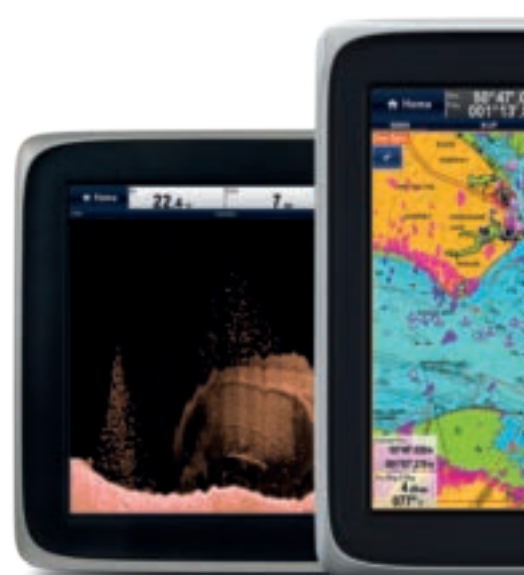






## cSERIES AND eSERIES

HIGH PERFORMANCE  
NETWORK  
MULTIFUNCTION  
DISPLAYS



### RAYMARINE ANYWHERE ONBOARD

Take control of eSeries from your tablet or smartphone using built-in Wi-Fi and Raymarine mobile apps.



Harness the full power of Raymarine navigation technologies with eSeries and cSeries multifunction displays. Raymarine multifunction displays are the perfect fit. Configure eSeries and cSeries as a single all-in-one chart, radar, and sonar navigation display or expand into a navigation network with multiple displays, CHIRP DownVision™ and CHIRP SideVision™ sonar, thermal night vision and more.

### eSERIES MFDS WITH HYBRIDTOUCH™

eSeries HybridTouch display allows simple touch screen control or take command with the rotary Unicontroller and keypad – the choice is yours.

### cSERIES WITH KEYPAD CONTROL

The perfect combination of performance and value, cSeries with keypad control offers confident control and ease of use.



## SPECIFICATIONS

### LCD SCREEN SIZES

c9: 9in  
c12: 12.1in  
e165: 15.4in

### DISPLAY RESOLUTION

c9: 800x480  
c12: 1280x800  
e165: 1280x800

### MOUNTING OPTIONS

Surface mount. Trunnion mount with optional bracket.

### WATERPROOF RATING

c9/c12: IPX6  
e165: IPX6 and IPX7

### NETWORKING

c9/c12: Up to 8 displays plus sensors

### MEMORY CARD SLOTS

Two MicroSD slots (up to 32GB each)

### GPS

Built-in 50 channels; WAAS, EGNOS and MSAS. e165 requires external GPS sensor

### WIRELESS CONNECTIVITY

WiFi: 802.11 b/g;  
Bluetooth: AVRCP 2.1+EDR power class 1.5.

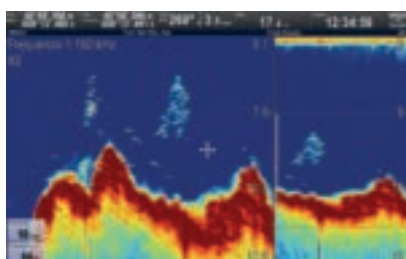
### VOLTAGE

12V/24V dc

### OPERATING VOLTAGE

10.8V dc to 31.2V dc

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### SUPERIOR BUILT-IN DIGITAL SONAR (OPTIONAL)

Choose built-in Digital sonar or step up to more power and high resolution CHIRP sonar technology with optional network CHIRP DownVision™ and SideVision™ sonar modules.

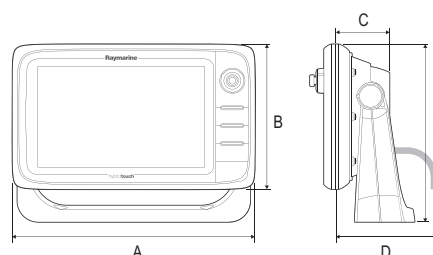
### WHAT'S IN THE BOX cSERIES & eSERIES



- (1) Sun cover
- (2) Front bezel
- (3) Multifunctional display
- (4) Rear bezel
- (5) Gasket
- (6) Fixings for surface mounting
- (7) Documentation pack
- (7) Power and data cable
- (8) Trunnion bracket kit (e7 only)

### c SERIES AND eSERIES DIMENSIONS

	c9	c12	e165
A	11.4in. (289.6mm)	13.93in. (353.6mm)	16.8in. (426mm)
B	6.81in. (173.1mm)	8.74in. (222mm)	11.1in. (281.4mm)
C	2.5in. (63.9mm)	2.71in. (68.9mm)	2.75in. (69.8mm)
D	6.29in. (160mm)	6.29in. (160mm)	6.29in. (160mm)
E	8.35in. (212mm)	10.1in. (256.5mm)	11.5in. (292mm)







## gS SERIES

PREMIUM  
GLASS BRIDGE  
MULTIFUNCTION  
NAVIGATION  
DISPLAYS

Elegant, flexible and simple to use, gS Series multifunction displays will transform your helm station into a powerful glass bridge navigation system. A step above black-box systems, each gS Series display is a smart, self-contained multifunction navigation display equipped with Raymarine's fastest dual-core processor plus a third dedicated-graphics processor, delivering super-fast and responsive performance.

### STAY INFORMED

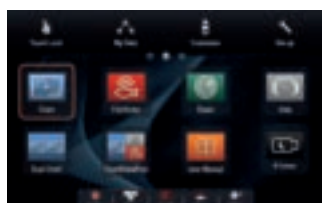
Display the full suite of navigational information, graphics and data in stunning clarity. Network gS Series with NMEA 2000 engine instruments and access engine and fuel consumption data. For engines with J1939 interface protocols, the optional ECI-100 Universal Engine and Control Interface bridges engine data to the gS Series network.

### A PERFECT FIT

The edge-to-edge glass appearance of gS Series allows the displays to be completely flush-mounted in the helm panel for an attractive and integrated navigation experience.

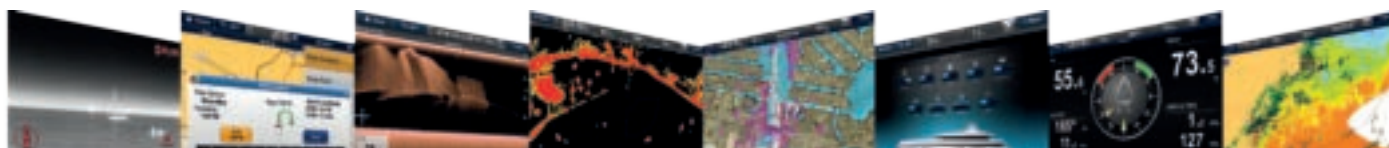
### TOUCH OR REMOTE CONTROL

Enjoy fluid and effortless full touch-screen interaction with Raymarine's easy-to-use LightHouse II user interface or interact with any gS Series display from a single RMK-9 remote keypad.



### LIGHTHOUSE II – THE POWER BEHIND RAYMARINE MFDs

LightHouse™ II is the User Interface (UI) that powers Raymarine multifunction displays. LightHouse is updated regularly to bring you new and exciting features. Best of all, updates are FREE so your hardware is always up-to-date.





## HD VIDEO INPUT AND OUTPUT

HDMI output enables connection to remote monitors or big screen TVs. Connect gS Series to your TV in the saloon and take control of the system with your tablet or smartphone via Raymarine mobile apps. HD-SDI video input on gS195.



NEW! Quantum CHIRP Radar



### RADAR

Display radar data with an optional Raymarine Digital, HD Color, Super HD Color or Quantum radar antennas.



### COLLISION AVOIDANCE

Intuitive Target Interception graphic overlays for tracking AIS targets.



### DIGITAL SWITCHING

Control lighting, monitor AC and DC electrical systems, remotely monitor fluid tanks and battery levels and much more.



### EVOLUTION AUTOPILOTS

Experience full autopilot control directly from your gS Series display by connecting the Evolution autopilot.



### THERMAL IMAGING

Integrate thermal night vision technology to enhance your situational awareness in limited visibility.



### VIDEO

Monitor the engine room, crew quarters or docking. The gS195 also features HD-SDI video input for high-definition serial digital interface capable cameras.

## DISPLAYS

- Four display sizes 9.0", 12.1", 15.4" or 19"
- Ultra-bright sunlight-viewable LCD
- Optically bonded for sharp color and contrast
- Low power consumption LED backlighting

## CONNECTIVITY

- 2x composite analogue video input for thermal cameras and entertainment
- HDMI video output
- HD-SDI video input on gS195
- Each gS Series display is equipped with 3x RayNet POE Ethernet ports with integrated network switching for simple, reliable connectivity
- NMEA 2000 support using SeaTalk<sup>ng</sup> cabling
- NMEA 0183 input and output
- Built in Wi-Fi for syncing with Raymarine mobile apps on smartphones or tablets
- Bluetooth connectivity to smartphones with remote audio controls
- External alarm connection
- GPS: Optional RS130 remote 50 channel GPS sensor



#### RMK-9 REMOTE

The optional RMK-9 Remote keypad gives you full control of single or multiple displays from a remote location.



#### RCU-3 REMOTE

Stay in command of your aSeries without leaving the wheel with the wireless Bluetooth RCU-3 Remote.



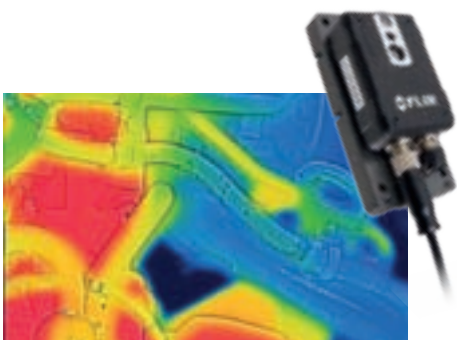
#### MOBILE

Access Raymarine anywhere onboard via Raymarine mobile apps and gS Series built-in Wi-Fi. Take full control of your gS Series direct from your tablet or smart phone. Also, transfer routes and markers, upload sonar logs and update charts with Navionics Boating apps.



#### ENGINE MONITORING

Monitor engine and fuel performance using NMEA 2000 or Raymarine's exclusive ECI-100 Universal Engine and Control Interface.



#### SPOT PROBLEMS BEFORE THEY HAPPEN

- Stream live thermal video of exhaust manifolds, propeller shafts, electrical panels, and other machinery with the FLIR AX8 thermal monitoring system
- Continuous thermal monitoring with audible and visual alarms across the Raymarine network.



## SPECIFICATIONS

### LCD SCREEN SIZES

gS95: 9.00in | gS125: 12.1in | gS165: 15.4in | gS195: 19.0in

### DISPLAY RESOLUTION

gS95: 800x480 | gS125: 1280x800 | gS165: 1280x800 | gS195: 1280x1024

### TOUCH SCREEN

Multi-touch with pinch-to-zoom

### GPS

Optional RS130 50 channel GPS sensor, WAAS/EGNOS/MSAS

### MOUNTING OPTIONS

Flush or surface mount

### WATERPROOF RATING

IPX6

### MEMORY CARD READER

Dual MicroSD external card reader for charts and data

### INTERFACES

NMEA0183 / SeaTalk<sup>®</sup> / Raynet  
HD SDI video port (gS195 only)

### POWER REQUIREMENTS

12V or 24V systems

### MULTI-LANGUAGE

Yes

Images for illustrative purposes only. Product information subject to change without prior notice

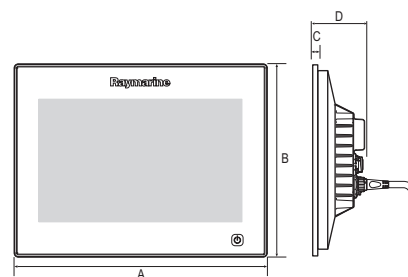
## WHAT'S IN THE BOX gS SERIES



- Multifunction display
- 2x Display mounting brackets
- RCR-2 Remote Card Reader
- Mounting gasket for RCR-2
- Document pack
- RCR-2 inlay card x2
- Sun cover
- 4x Mounting bolts, washers, lock nuts and feet
- 4x Bracket fixings
- 4x RCR-2 fixings (self tapping screws)
- 10x M5 pan head screw (not supplied with gS95)
- M5 Wavy washer (for additional grounding strap)
- 1.5m (4.9 ft) Power / Data cable
- 2m (6.6 ft) Video / Alarm cable
- Display mounting gasket
- 2m (6.6 ft) RayNet cable
- Auxiliary alarm
- 1m (3.28 ft) SeaTalk<sup>®</sup> spur cable

## gS SERIES DIMENSIONS

	A		B		C		D	
	in	mm	in	mm	in	mm	in	mm
gS95	9.7	246.8	7.4	188.2	0.3	8.0	2.72	69.0
gS125	12.3	311.8	9.3	237.0	0.3	8.0	2.75	70.0
gS165	15.0	383.2	11.2	284.7	0.3	8.0	2.72	69.0
gS195	17.1	433.9	15.4	391.2	0.3	8.0	3.0	75.9







# MARINE CHARTS

AN UNPRECEDENTED CHOICE



Raymarine chartplotters and multifunction displays now have the option of three cartography choices in one MFD: Navionics cartography, C-MAP by Jeppesen and Raymarine's ever-expanding range of LightHouse charts give you a powerful and flexible navigation experience.

Transform the way you navigate with fully-featured vector charts, dynamic raster charts, plus 3D and satellite chart options.





Visit the Raymarine LightHouse Chart store to purchase charts from leading map makers.

### RAYMARINE LIGHTHOUSE CHARTS

- Compatible with Raymarine's latest range of multifunction displays and Dragonfly Sonar/GPS
- LightHouse Charts are available in Raster or Vector formats
- Ever-expanding cartography library.
- General navigation and specialty titles from leading mapmakers around the world including:
  - Blue Latitude Press
  - Fugawi Aboard
  - NV Charts
  - Raymarine LightHouse
  - Solteknik HB
  - Standard Mapping
  - Wavey Line

### C-MAP BY JEPPESEN

- C-MAP 4D MAX and 4D MAX+ products compatible with Raymarine's range of multifunction displays and Dragonfly Sonar/GPS displays
- Requires LightHouse R13 software or later
- C-MAP Essentials charts bundled with Raymarine products provide coastal navigation data: includes all critical navigation aids, chart objects, marina icons, all normal contours, spot depths, and three shaded depth areas
- C-MAP Essentials charts are eligible for free or paid upgrades
- Upgrades available to full C-MAP 4D MAX or 4D MAX+
- Easy-routing available with C-MAP 4D MAX+ products

### NAVIONICS CHARTS

- Compatible with Raymarine's latest range of multifunction displays and Dragonfly Sonar/GPS
- Choice of Navionics+ for 2D charts or Platinum+ and HotMaps Platinum for additional advanced features such as 3D View and satellite overlay and panoramic photos
- Keep charts up to date, free for one year with a Freshest Data subscription included with every Navionics product.
- SonarChart 1ft/0.5m HD contour chart is continuously improved with sonar logs uploaded by the Navionics community of boaters
- Various charts bundled with Raymarine products
- Autorouting and Dock to Dock routing available with Navionics+ and Platinum charts

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# VISIBLE LIGHT

## MARINE VIDEO CAMERAS

Raymarine video cameras transform your Raymarine multifunction display into a powerful video observation system

Connect multiple IP based cameras to your Raymarine LightHouse II powered MFD and keep an eye on all the action. Switch from camera-to-camera with a simple swipe of the MFD's touchscreen. LightHouse II supports video viewing, recording, playback, and snapshot.



### CAM50

- Analog video camera with composite video output
- Ideal for mounting in the saloon, wheel house or engine room
- Plug-and-play with Raymarine MFDs
- Ceiling or wall mount
- Manually adjustable pan and tilt



### CAM100

- Analog video camera with composite video output
- Auto switching between true color (Day) and black and white (night)
- Clear focus at night with Anti-IR focus distortion technology built-in
- Ideal for monitoring blind spots, decks, engine room and cabins



**CAM200IP**

The CAM200IP produces stunning High Definition images by day. Use CAM200IP to record the fishing action on deck, or use it as a aft-deck or side-deck camera for docking and manoeuvring.

CAM200IP also provides detailed black and white video at night, even in total darkness. A built-in array of 20 infrared LEDs allows the CAM200IP to see up to 20 metres making it the ideal engine room or aft-deck camera.

**NEW****CAM210 IP CAMERA**

Ruggedised, High Definition, Day and Night network bullet video camera suitable for all above deck applications. Integrated sun-cover for maximum visibility and small frame size for easy installation anywhere on the boat.

- Plug and play integration with Raymarine MFD's running Lighthouse II
- Power over Ethernet (PoE) or direct 12v DC power supply
- High bright IR LEDs for operation in total darkness
- Digital Defog processing improves the captured image in poor weather conditions (such as smog, fog or smoke)
- Intelligent IR technology for clear video images at night in all conditions.

**SPECIFICATIONS****FORMAT**

CAM50:	PAL 500 x 582 pixels NTSC 512 x 492 pixels
CAM100:	PAL 752 x 582 pixels NTSC 768 x 494 pixels
CAM2XX:	Up to 1920 x 1080 (FHD)

**IMAGE SENSOR**

CAM50:	1/3 Sony DSP Color CCD
CAM100:	1/3 Sony Super HAD CCD (Super Hi-resolution)
CAM2XX:	2.0 Megapixel 1/2.8" SONY progressive scan, CMOS (Exmor)

**WATERPROOF RATING**

CAM50:	IP63
CAM100:	IPX6 and CFR46
CAM2XX:	IP67

**LENS**

CAM50:	3.6mm Best focus - 1.5m Viewable distance - 3.5m
CAM200:	6.0mm Megapixel Board Lens
CAM210:	3.6mm Megapixel
CAM220:	6.0mm Megapixel

**POWER**

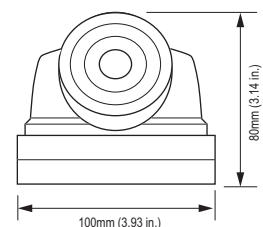
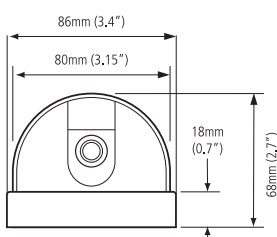
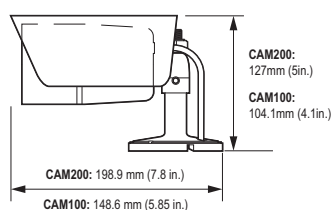
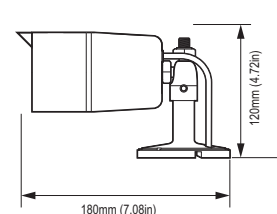
CAM50:	12V DC (+30% -10%)
CAM100:	12V DC (+30% -10%)
CAM2XX:	DC12V/1.5A, PoE (Power over Ethernet): 802.3af-Optional

FLIR Systems, Raymarine's parent company is a world leader in video security solutions.

**CAM220 IP CAMERA**

Ruggedized, High Definition, Day and Night network eyeball video camera suitable for above or below deck applications. Eyeball design provides all round selected viability whilst the small frame size allows for rapid installation. Stylised to blend in with your boats aesthetic design.

- Plug and play integration with Raymarine MFD's running Lighthouse II
- Power over Ethernet (PoE) or direct 12v DC power supply
- Simple mechanical frame allows the camera to be locked, rock steady, into position
- High bright IR LEDs for operation in total darkness

**NEW****CAM200IP****CAM50****CAM100/200IP****CAM220IP**

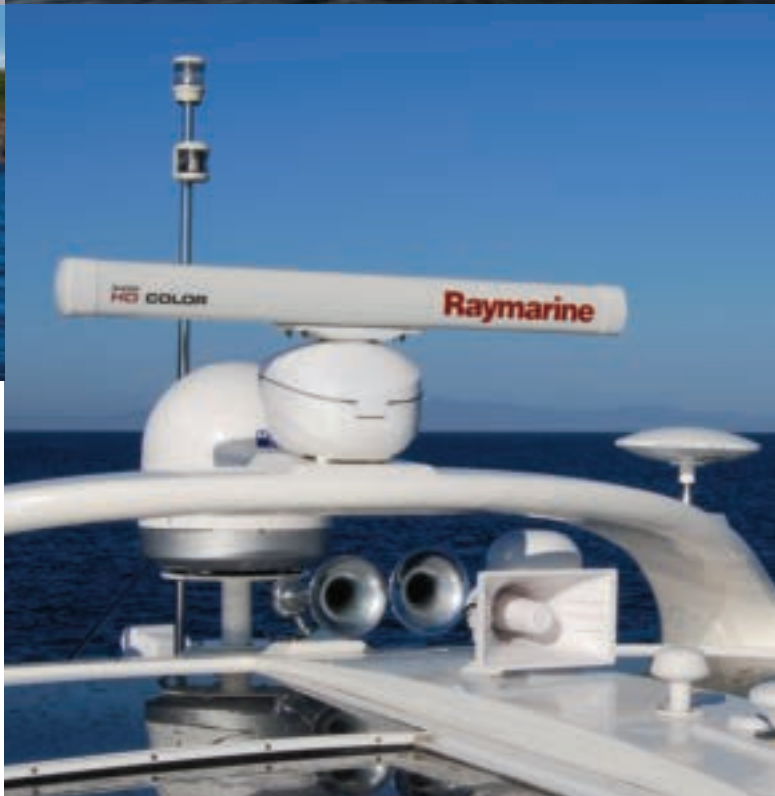


# RADAR

## SCANNERS



Day and night, radar systems from Raymarine keep you aware of surrounding traffic, hazards, rain, sea birds and much more. From Quantum™ CHIRP radar, to ultra-high performance Super HD Color open arrays, Raymarine has the perfect radar solution for every boat.



## QUANTUM™ CHIRP RADAR

Raymarine Quantum Radar, by FLIR, is the next generation of marine radar featuring CHIRP pulse compression technology. Setting a new standard for compact solid state radar, Quantum delivers superior radar imaging on both long and extremely short ranges. Integrated Wi-Fi and thin cabling simplifies installation plus Quantum's energy efficient and lightweight design provides safe radiated emissions and substantially reduced power consumption.



### SUPERIOR PERFORMANCE

- Offshore or within a few yards, Quantum's CHIRP pulse compression radar technology delivers sharper targets with reduced clutter
- CHIRP pulse compression technology ensures more energy reaches each target, resulting in superior imaging on long ranges
- Excellent short-range detection and enhanced target detail with 18' (6m) minimum range (80% improvement over magnetron radars)
- Immediate awareness – Quantum starts up and is ready to go in seconds
- Superior interference rejection eliminates noise from other radars

### ENERGY EFFICIENT AND LIGHTWEIGHT DESIGN

- Weighs 50% less than traditional magnetron radars
- Safe Emissions thanks to Quantum's low power solid state transmitter
- Very low power consumption (17 Watts transmit and 7 watts standby)
- Extended vessel battery life when under sail

### SIMPLIFIED INSTALLATION

- Simple Wi-Fi connection between Quantum and any Raymarine LightHouse II powered MFD
- Quantum's small diameter power cable is easy to route through tight spaces
- Easy to upgrade – Quantum uses the same bolt pattern as previous generation radars.
- Optional Quantum adapter cable eliminates the need to run new radar cables

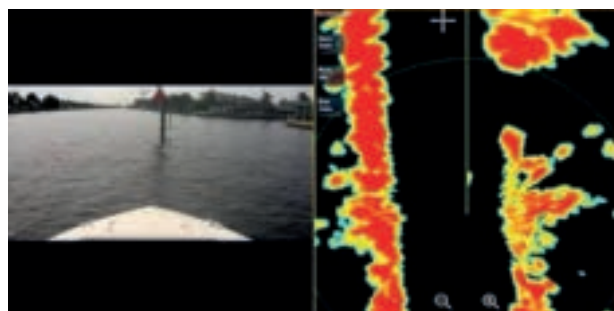


**NEW**



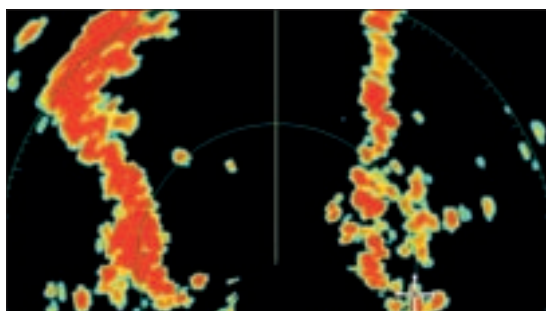
### EXCELLENT SHORT-RANGE DETECTION

CHIRP Pulse Compression technology lets you detect targets as near as 18-feet, giving you extra confidence in dense fog and low visibility.



### EXCEPTIONAL DETAIL AND CLARITY

Sharp, crisp targets and automatic sea clutter rejection produce radar images with stunning, life-like clarity.





R A D A R

**HD COLOR**

**Raymarine**

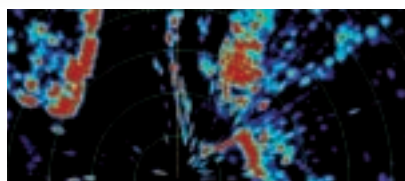
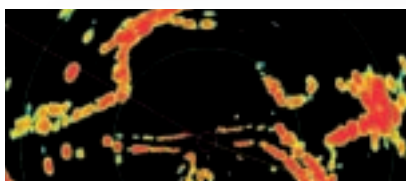
### HD AND SUPER HD COLOR OPEN ARRAY SCANNERS

The choice of mid to large-sized powerboats and large sailing vessels, open array radar scanners deliver higher sensitivity, better target detection and improved target separation. Open array systems are available with 4kW or 12kW transmitters for exceptional performance at all ranges.



### HD COLOR RADOME SCANNERS

Radome antennas are the perfect blend of compact size, light weight and high performance. Choose a radome antenna when space is at a premium or restricted by rigging. Radome scanners also consume less power than open array scanners which is essential for long-distance cruising sailboats.



### SUPER HD DIGITAL COLOR RADAR

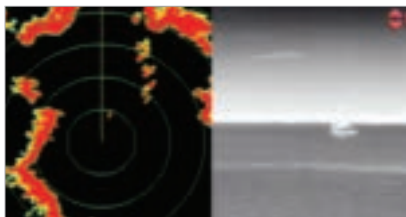
- 48 and 72 inch open array options
- Choice of 4kW or 12kW power output
- Greater dynamic range than conventional radar
- Acquires and processes vast amounts of echo information normally lost by conventional analog radar
- Intelligently isolates and identifies true radar targets and simultaneously eliminates unwanted clutter
- Extra-narrow beam width pinpoints targets with stunning clarity and gives dramatically clearer radar displays

### HD DIGITAL COLOR RADAR

- 18 and 24 inch 4kW radomes
- 48 and 72 inch open arrays with 4kW or 12kW power output
- Superior target detection and interpretation
- Identify target types, detect weak and distant contacts automatically, and virtually eliminate clutter and noise
- Adaptive transmitter and receiver automatically adjusts to changing environmental and sea conditions
- Dramatically clearer radar images
- Crisp, well-defined contact echoes
- Superior target separation and life-like target presentation

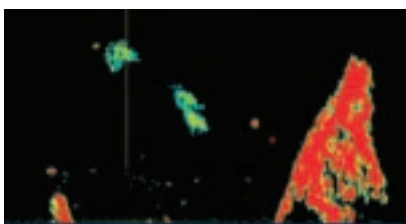
### DIGITAL RADAR

- 18 and 24 inch radome options
- Basic radar for small vessels
- 4kW capability for improved performance
- Digital processing for increased target definition
- Reduced power consumption
- Trusted Raymarine radar performance and great value



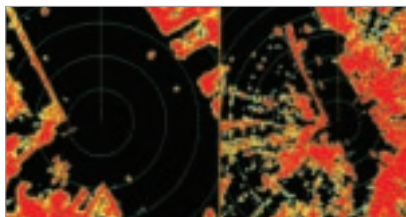
### RADAR & THERMAL IMAGING

Every Raymarine radar integrates with T-Series thermal night vision camera systems. Instantly identify radar contacts night or day. Slew-to-cue target tracking with Raymarine T300/T400 Series thermal night vision camera systems.



### BIRD MODE

Bird Mode automatically tracks flocks of seabirds, giving fishermen the heads up on where the fish are. Available on the HD Color and Super HD Color Radar Systems.



### DUAL RANGE SCANNING

Simultaneously monitor near and far targets from a single radar antenna with dual-range scanning, found on the HD Color and Super HD Color radar systems, and dual-scanner support.



### TRACK TARGETS

Not everything transmits AIS. Using MARPA (mini-automatic radar plotting aid) allows you to identify vessel, speed, bearing, closest point of approach (CPA) and time to closest point of approach (TCPA), set dangerous/proximity alarms, and overlay AIS info for further target clarification.

## SPECIFICATIONS

### QUANTUM

#### Input Voltage:

12 – 24 V dc (Min: 10.8 V, Max: 31.2 V)

#### Networking

Wi-Fi or wired Ethernet (RayNet)

#### Antenna Type:

Phased Array

#### Maximum Range Scale:

24 nm

#### Waterproofing:

IPX6

### DIGITAL RADOMES

#### Input Voltage:

12–24 Vdc

#### Networking

SeaTalk<sup>HS</sup>

#### Peak Power Output:

4kW (nominal)

#### Maximum Range Scale:

48 nm

#### Waterproofing:

IPX6

### HD COLOR RADOMES

#### Input Voltage:

12–24 Vdc

#### Networking

SeaTalk<sup>HS</sup>

#### Peak Power Output:

4kW (nominal)

#### Maximum Range Scale:

48 nm

#### Waterproofing:

IPX6

### HD & SUPER HD COLOR

#### OPEN ARRAYS

#### Input Voltage:

10.8–32 Vdc (using VCM100)

#### Networking:

Raynet

#### Peak Power Output:

48" and 72" HD and SHD available in 4kW or 12kW options

#### Maximum Range Scale:

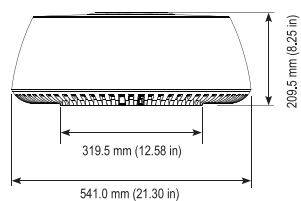
72 nm

#### Waterproofing:

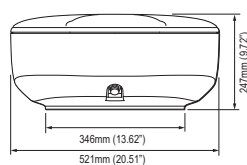
IPX6

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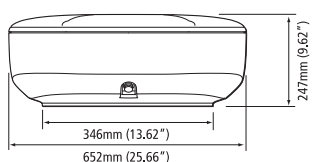
#### QUANTUM



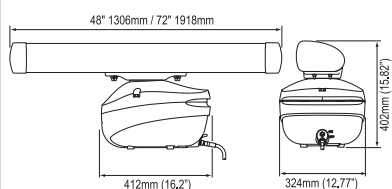
#### 18" RADOME



#### 24" RADOME



#### OPEN ARRAYS



### WHAT'S IN THE BOX QUANTUM

- (1) Quantum Radome
- (2) Power Cable
- (3) Installation kit
- (4) Documentation including installation template

### WHAT'S IN THE BOX HD COLOR RADOMES

- (1) Radome Scanner
- (2) Installation kit
- (3) Documentation including installation template

### WHAT'S IN THE BOX OPEN ARRAYS

- (1) Pedestal
- (2) VCM100 Voltage Converter Module
- (3) Installation kit
- (4) Documentation including installation template





# DRAGONFLY

SONAR/GPS  
DISPLAYS



Welcome to Dragonfly®, superior fishing electronics made incredibly simple by Raymarine. With advanced technologies like wide-spectrum CHIRP DownVision™ and all-weather optically bonded displays, Dragonfly sonars let you spend more time catching fish and less time looking for them.



### THE DRAGONFLY DIFFERENCE

A leap into the future of sonar, Dragonfly sonars employ true wide spectrum CHIRP technology. With wide spectrum CHIRP more sonar signals are transmitted into the water allowing Dragonfly to interpret more detail, target more fish, and image structure with unmatched clarity.



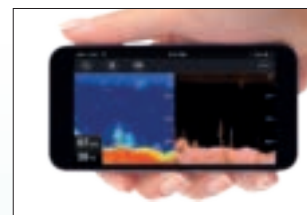
### CHIRP DOWNVISION™: SIMPLY THE BEST IMAGING SONAR

CHIRP DownVision™ will change your underwater view with incredibly clear, photo-like sonar images. Dragonfly's CHIRP DownVision™ surpasses ordinary imaging sonars with superior deep water penetration and reliable high-speed bottom tracking.



### A BETTER VIEW

Each Dragonfly is engineered with optical bonding LCD display technology. Once only available on high-end marine displays, Dragonfly's all weather optically bonded displays deliver brighter colours, sharper contrast, and are guaranteed to never fog up.



### CONNECT AND SHARE

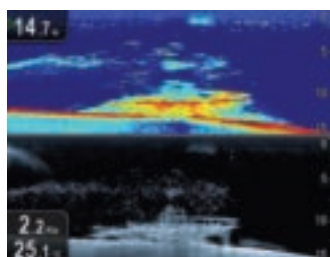
Dragonfly PRO models feature built-in Wi-Fi. Stream sonar data right to your smartphone or tablet with the Raymarine Wi-Fish™ mobile app. With Wi-Fish you can rewind and capture sonar images to share online with friends.



### DUAL-CHANNEL CHIRP

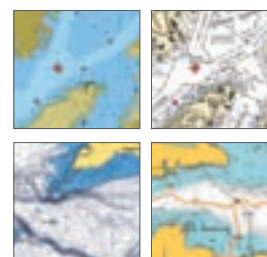
CHIRP DownVision™ plus a CHIRP-powered fish-targeting channel for conventional sonar imagery.

Dual-channel sonar is available on all Dragonfly models except the Dragonfly 4DV.



### SUPERIOR SONAR

Unlike conventional imaging sonars that transmit at a single frequency with each pulse, Dragonfly's DownVision™ sonar uses CHIRP technology to transmit across a wide spectrum of sonar frequencies simultaneously—the result is much higher-resolution, life-like sonar images.



### THE BEST MAPS

Dragonfly models with GPS built-in give you the choice of Navionics, C-MAP by Jeppesen or Raymarine LightHouse compatible charts.





#### DRAGONFLY-4 DV

##### 4.3" CHIRP DOWNVISION™ SONAR

- All-Weather Bonded Display
- CHIRP Technology
- DownVision™ Sonar



#### DRAGONFLY-4 PRO

##### 4.3" DUAL-CHANNEL CHIRP DOWNVISION™ SONAR WITH CHARTPLOTTER

- All-Weather Bonded Display
- 10Hz GPS
- Fish-Targeting Sonar
- CHIRP Technology
- DownVision™ Sonar
- Wi-Fish Mobile



#### DRAGONFLY-4 DVS

##### 4.3" DUAL-CHANNEL CHIRP SONAR WITH DOWNVISION™

- All-Weather Bonded Display
- Fish-Targeting Sonar
- CHIRP Technology
- DownVision™ Sonar



**NEW**

**THE BIGGEST  
AND BRIGHTEST  
DRAGONFLY**

#### DRAGONFLY-7 PRO

##### 7" DUAL-CHANNEL CHIRP DOWNVISION™ SONAR WITH CHARTPLOTTER

- 7" Super-Bright LCD
- All-Weather Bonded Display
- 10Hz GPS
- Fish-Targeting Sonar
- CHIRP Technology
- DownVision™ Sonar
- Wi-Fish Mobile



## DRAGONFLY-5M

**5" GPS/ CHARTPLOTTER**

- All-Weather Bonded Display
- 10Hz GPS



## DRAGONFLY-5 DVS

**5" DUAL-CHANNEL CHIRP  
SONAR WITH DOWNVISION™**

- All-Weather Bonded Display
- Fish-Targeting Sonar
- CHIRP Technology
- DownVision™ Sonar



## DRAGONFLY-5 PRO

**5" DUAL-CHANNEL CHIRP  
DOWNVISION™ SONAR  
WITH CHARTPLOTTER**

- All-Weather Bonded Display
- 10Hz GPS
- Fish-Targeting Sonar
- CHIRP Technology
- DownVision™ Sonar
- Wi-Fish Mobile

## DUAL CHANNEL CHIRP TRANSDUCER

DownVision produces a 60° side-to-side and 1.4° fore to aft beam. The second element provides a conical shaped beam for imaging fish targets, ensuring you will never miss any of the action below your boat.

DownVision transducers are available in transom mount, trolling motor and thru-hull mounting options.

CPT-70 and CPT-80 plastic/bronze through hull transducers also available.

For detailed information about the range of transducers available for use with Dragonfly



CPT-DV Downvision only  
or CPT-DVS Downvision and  
conventional sonar transducerx



DRAGONFLY

	DRAGONFLY-4, 5 AND 7							WI-FISH
	4DV	4 DVS	4-PRO	5M	5-DVS	5-PRO	7-PRO	Wi-Fish
Screen size	4.3in		5.0in			7.0in		
Screen resolution (pixels)	480 x 272		800 x 480			800 x 480		
CHIRP Sonar		●	●		●	●	●	
CHIRP DownVision™	●	●	●		●	●	●	●
All weather viewable	●	●	●	●	●	●	●	
Raymarine Wi-Fish app			●			●	●	●
Android and iOS compatible			●			●	●	●
Save and share sonar screen shots			●			●	●	●
Built-in GPS			●	●		●	●	
LightHouse vector and raster chart compatibility			●	●		●	●	
Navionics +, Hotmaps and SonarChart compatible			●	●		●	●	
C-MAP by Jeppesen chart compatibility			●	●		●	●	
microSD card reader			●	●		●	●	
Navionics Boating and SonarChart Live compatible			●			●	●	●
Dual Channel Sonar: DownVision™ plus conventional fish targeting sonar		●	●		●	●	●	
Depth range	183m (600ft) CHIRP Downvision™ and CHIRP Sonar models 275m (900ft)							

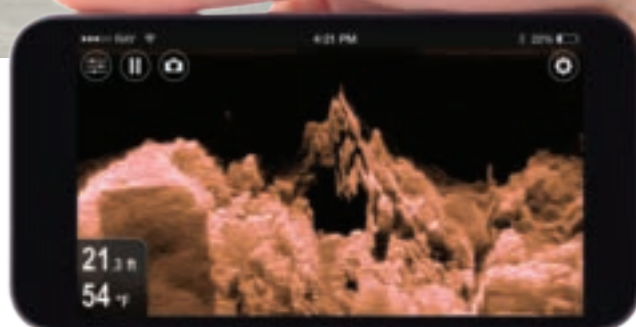




## Wi-FISH

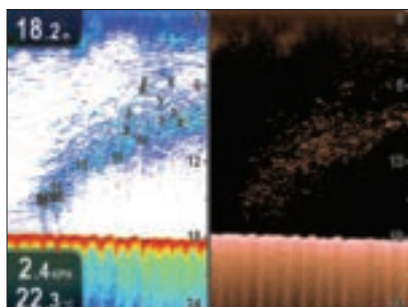
### Wi-Fi CHIRP DOWNVISION™ SONAR FOR SMARTPHONES AND TABLETS

Transform your smartphone into a powerful CHIRP DownVision™ sonar with Wi-Fish™. Simply download the free Wi-Fish app and connect using standard Wi-Fi and you will be streaming real-time sonar direct to your phone or tablet.

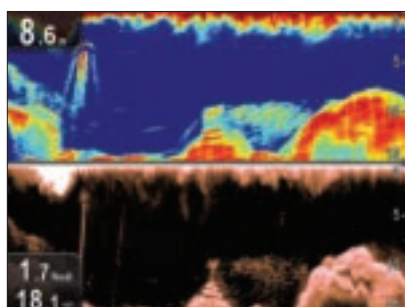


- Connect with the free Wi-Fish mobile app for iOS and Android devices (iOS7 or Android 4.0 minimum)
- Pause, zoom, and rewind the sonar right on your phone. Save your favourite catch and share with friends online
- Wide-spectrum CHIRP DownVision™ sonar technology for photo-like images, high-speed tracking, and better deep water resolution
- Access Wi-Fish sonar on Navionics Boating Apps and generate bathymetric charts with Navionics Sonar Chart Live
- Includes transom mount CHIRP transducer with temperature sensor

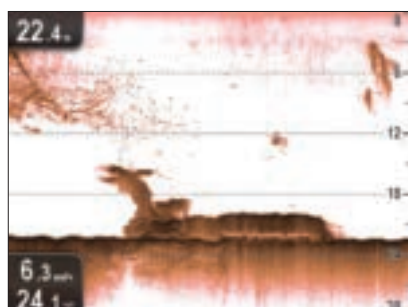
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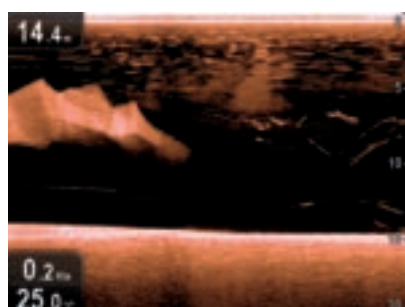
Shoal of fish



Submerged statue, fish and bottom structure



Submerged airliner



Massive ball of bait followed by Hairtail



### MOUNT ANYWHERE

The Dragonfly 4, 5 and 7's compact ball-and-socket mounting system makes installation simple. Easy to upgrade to after-market ball and socket mounting systems.

## SPECIFICATIONS

### LCD SCREEN SIZES

Dragonfly-4: 4.3in  
Dragonfly-5: 5.0in  
Dragonfly-7 PRO: 7.0in

### DISPLAY RESOLUTION

Dragonfly-4: 480x272  
Dragonfly-5: 800x480  
Dragonfly-7: PRO 800 x 480

### SONAR TYPE [EXCEPT 5M]

CHIRP Sonar - CPT-60 dual-beam CHIRP transducer supplied with product (check ordering information) (Cable length 6m)

### DEPTH RANGE [EXCEPT 5M]

CHIRP DownVision™ 183m (600ft) and CHIRP Sonar imagery 275m (900ft)

### GPS

Dragonfly 4/5/7-PRO: 72 channel GPS

### CHART COMPATIBILITY

Support for Navionics, C-MAP by Jeppesen and Raymarine LightHouse chart formats on microSD cards

### MOUNTING OPTIONS

Ball and socket bracket or surface mount

### WATERPROOF RATING

IPX6/IPX7

### MEMORY CARD READER

MicroSD

### CONNECTIONS

Power/transducer combined input

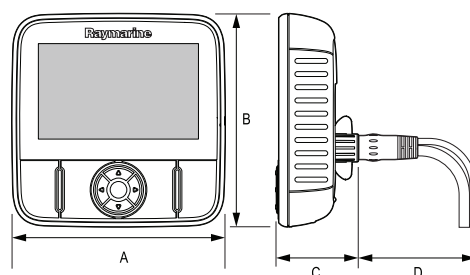
### POWER REQUIREMENTS

10.8–15.6V

Images for illustrative purposes only. Product information and pricing subject to change without prior notice

## DRAGONFLY DIMENSIONS

	A		B		C		D	
	mm	in	mm	in	mm	in	mm	in
DF-4	145	5.7	145	5.7	56	2.2	90	3.5
DF-5	145	5.7	145	5.7	56	2.2	90	3.5
DF-7 PRO	199	7.83	178	7.0	62.2	2.45	90	3.5
Wi-Fish	145	5.7	145	5.7	54	2.1	90	3.5



### WHAT'S IN THE BOX DRAGONFLY-5M



- (1) Display unit
- (2) Locking collar
- (3) Pivot ball
- (4) M6 Hex bolt
- (5) Display bracket base
- (6) x3 M5 pozi-drive bolt
- (7) x3 M5 washer
- (8) x3 M5 locking nut
- (9) Documentation
- (10) 1.5m (4.9ft) power cable

### WHAT'S IN THE BOX DRAGONFLY-4 AND 5 DV/DVS/PRO AND 7 PRO



- (1) Display unit
- (2) Locking collar
- (3) Pivot ball
- (4) M6 Hex bolt
- (5) Display bracket base
- (6) x3 M5 pozi-drive bolt
- (7) x3 M5 washers
- (8) x3 M5 locking nut
- (9) Documentation
- (10) Mounting bracket
- (11) M5 Hex ratchet bolt
- (12) Ratchet plate
- (13) Compression washer
- (14) M5 washer
- (15) M5 locking nut
- (16) x3 self-tapping screws
- (17) Documentation
- (18) Transducer with combined power cable



# CP100

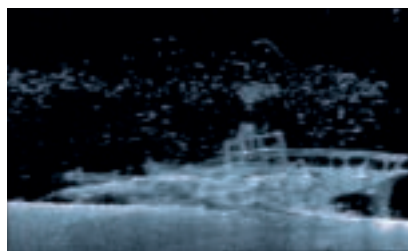
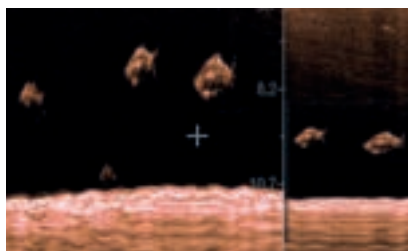
## CHIRP DOWNVISION™ SONAR MODULE



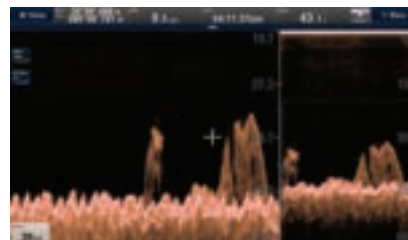
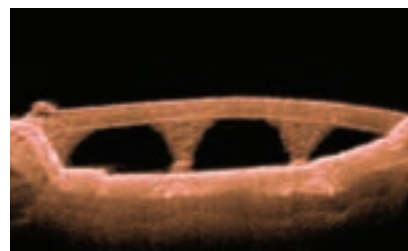
### UNDERWATER VISION

The CP100 network sonar module brings CHIRP DownVision technology to Raymarine's multifunction displays. CP100's CHIRP DownVision delivers a photo-like view of the world beneath your boat, allowing you to image bottom structure with amazing detail and simultaneously target fish.

Images for illustrative purposes only. Product information subject to change without prior notice



CHIRP technology lets you image structure and pinpoint fish on a single sonar display



#### WIDE SPECTRUM CHIRP TECHNOLOGY

Unlike conventional imaging sonars that transmit a single frequency with each pulse, the CP100 uses CHIRP technology to transmit across a wide spectrum of sonar frequencies with each pulse – the result is much higher resolution, photo-like sonar images.

#### KEY FEATURES:

- Photo-like images of bottom structure with CHIRP DownVision
- Dual-channel; view high resolution CHIRP DownVision structure images and target fish with CHIRP sonar at the same time
- Network with Raymarine's latest multifunction displays. From the aSeries to the flagship –gS Series the CP100 brings underwater vision in resolutions up to 1280 x 800 pixels
- Perfectly matched dual-beam CHIRP transducers available in transom mount, plastic and bronze thru-hull configurations

#### FRESHWATER FISHING

CP100 is ideal for freshwater anglers. Combined with Raymarine eSeries HybridTouch displays, the CP100 lets freshwater anglers create a multi-display network with HybridTouch control. Photo-realistic CHIRP DownVision™ easily identifies the habitat of bass and other fresh water species.

#### COASTAL FISHING

With depths down to 183m (600ft) for DownVision and 277m (900ft) conical, CP100 is perfect for coastal and bay fishing. View wrecks with unmatched clarity and use the second CHIRP channel to target bait and predators.





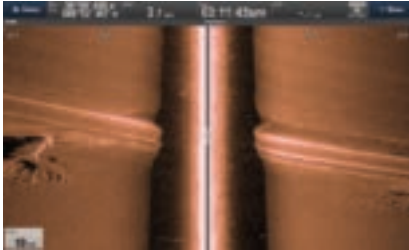
# CP200

## SIDEVISION™ SONAR MODULE

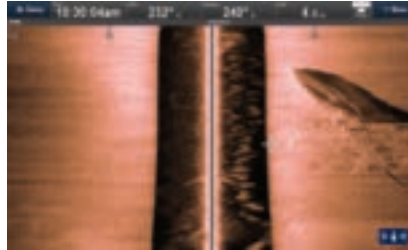
The CP200 CHIRP SideVision™ Sonar expands your underwater horizon with crystal-clear, bank-to-bank displays of fish, bait and underwater structure. Engineered with the same CHIRP sonar technology as Raymarine's award winning DownVision™ the CP200 uses advanced CHIRP signal processing technology to let you see further, see more clearly, and detect more fish than traditional side scanning sonars.

### SUPERIOR RANGE PERFORMANCE

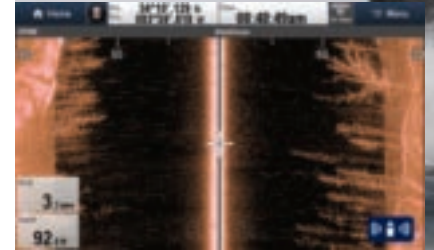
Raymarine CHIRP signal processing delivers high resolution and excellent long range performance. Identify objects and see fish even further, out to 183m (600 ft.) on each side.



Underwater tree



Wreck



Underwater brush

### DUAL INDEPENDENT TRANSDUCER ARRAYS

Best-in-class side scan performance using two high-performance transducer arrays with dedicated CHIRP sonar channels.

### SEE FURTHER

Independently adjustable transducer arrays enable anglers to preset their SideVision™ transducer angle for either shallow or deep water applications. Left and Right sonar images up to 183m (600ft.) either side of the boat.

### CHIRP SIDEVISION™ AND DOWNVISION™ TOGETHER

Combine the CP200 with CHIRP DownVision™ for the ultimate in sonar intelligence, giving you a full 180 degree view of your underwater surroundings.

### CP200 KEY FEATURES

- Network compatible CHIRP SideVision™ sonar for aSeries, cSeries, eSeries, eS Series and gS Series MFDs
- Multi-sonar compatible: view CHIRP SideVision™ alongside other sources, simultaneously
- Image fish, bait and bottom structure at distances up to 183m (600 feet) horizontally per side
- CHIRP signal processing delivers crystal-clear images with amazing detail
- Adjustable CPT-200 transducer optimizes performance for shallow or deep water scanning



CP200 delivers amazing photo-like imagery of underwater terrain and man-made objects.



### CPT-200: CHIRP SIDEVISION™ TRANSDUCER

Engineered for high performance CHIRP sonar, the CPT-200 transducer is perfectly matched to the CP200's CHIRP transceiver.

### CP100

#### SONAR TYPE

CHIRP

#### CHANNELS

2x CHIRP DownVision plus a high frequency CHIRP channel for fish targeting

#### NOMINAL SUPPLY VOLTAGE

12/24V DC Systems

#### OPERATING VOLTAGE RANGE

10.2 - 32 V DC

#### POWER CONSUMPTION AT FULL POWER

3W

#### CONNECTIONS

Power (power cable), transducer (9 pin connector), and Raynet network connector

#### TRANSDUCER INFO

Max depth DownVision - 600ft, CHIRP - 900ft.

### CP200

#### SONAR TYPE

CHIRP SideVision

#### CHANNELS

2 x CHIRP SideVision™ (port and starboard)

#### NOMINAL SUPPLY VOLTAGE

12/24V DC Systems

#### OPERATING VOLTAGE RANGE

10.8 - 32 V DC

#### POWER CONSUMPTION AT FULL POWER

5.6W (Max)

#### CONNECTIONS

Power (power cable), transducer (9 pin connector), and Raynet network connector

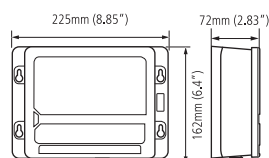
#### BEAM COVERAGE

Port and starboard facing fan beams - wide (port / starboard) and thin (fore / aft)

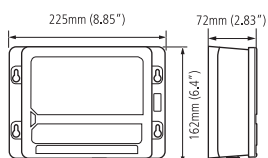
#### TRANSDUCER INFO

Range performance up to 183m (600ft)

CP100



CP200



- (1) Sonar module
- (2) Documentation pack
- (3) Mounting screws
- (4) Power cable 1 m (3.28 ft)

- (1) Sonar module
- (2) Documentation pack
- (3) Mounting screws
- (4) Power cable 1 m (3.28 ft)

Images for illustrative purposes only.  
Product information and package contents  
subject to change without prior notice.





# CP370 DIGITAL

DIGITAL SONAR  
MODULE FOR  
OFFSHORE &  
COASTAL FISHING



Images for illustrative purposes only. Product information  
subject to change without prior notice



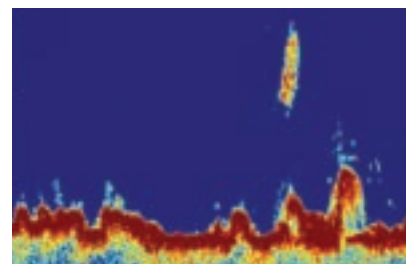
The CP370 delivers exceptional clarity, sharper fish targets, and automatic operation using Raymarine's next-generation ClearPulse™ digital sonar processing. The CP370 boasts up to 1,000 watts of power and operates at 200kHz for inshore and 50kHz for offshore fishing. ClearPulse™ signal processing intelligently manages the CP370 sonar parameters in all conditions so anglers can spend more time fishing and less time adjusting the sonar.

#### SHARPER, CLUTTER-FREE TARGETS

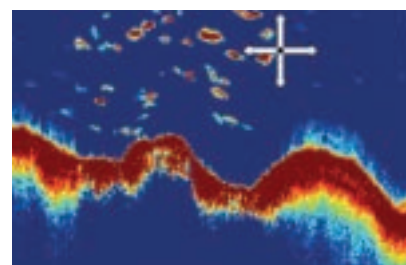
- Smarter target intensity controls reveal bait and game fish with exceptional clarity
- Enhanced digital filtering reveals fish targets through the entire water column
- Spend less time looking for fish and more time fishing. CP370 takes the guesswork out of interpreting the sonar display.

#### ACCURATE BOTTOM TRACKING

- Track the bottom in extreme conditions with advanced ClearPulse™ signal processing.
- New and improved bottom tracking algorithms deliver reliable performance in challenging conditions like running at high speeds and transitioning across canyons.



Better Noise Reduction



Enhanced Bottom Tracking



Enhanced Automatic Sensitivity Control

#### TRANSDUCERS

For detailed information about the range of transducers available for use with CP370.

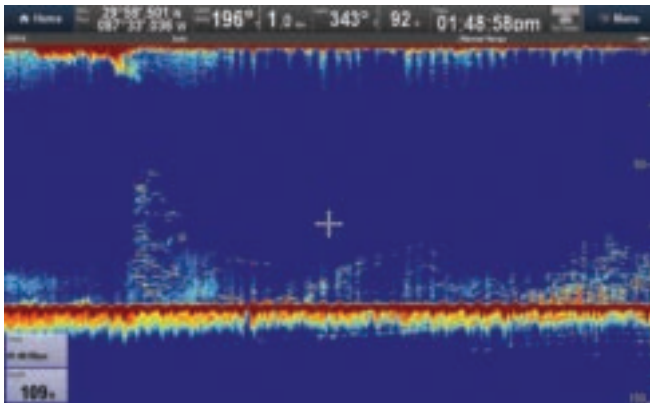




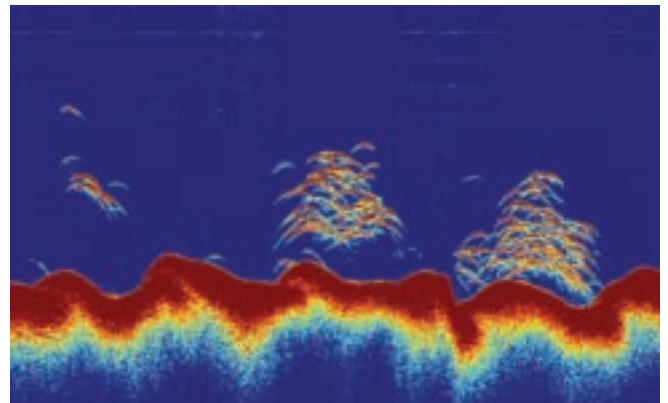
# CP470 CHIRP

## HIGH PERFORMANCE CHIRP FOR COASTAL AND OFFSHORE BLUE WATER FISHING

Engineered for serious anglers, the CP470 and CP570 sonars bring best-in-class target separation and high-resolution CHIRP sonar imagery to Raymarine multifunction displays. Using a wide spectrum of frequencies and greater sensitivity, the CP470 and CP570's advanced CHIRP transceiver can see through dense schools of baitfish, identify thermoclines, and simultaneously target desired game fish. Rated for offshore use and rough conditions, the CP470 and CP570 intelligently filter out unwanted noise while producing high resolution fish targets and reliable bottom tracking. Both models offer dual CHIRP sonar capabilities. For the professional angler the CP570's two fully independent sonar channels deliver faster target identification and up to 4kW of combined output power.



Bait fish



Tuna feeding



### EASY TO CUSTOMIZE

Choose optional low, medium, and high CHIRP frequency transducers in standard or wide-beam to match your fishing preferences.

- CP470 and CP570 automatically recognize connected transducers and adjust sonar parameters for optimized performance.
- View and control each CHIRP channel independently and create your own combination of full or split-screen sonar windows on Raymarine's LightHouse II powered multifunction displays.



Images for illustrative purposes only.  
Product information and package contents subject to change without prior notice.



# CP570 CHIRP

## PROFESSIONAL CHIRP SONAR MODULE FOR TOURNAMENT AND OFFSHORE BLUE WATER FISHING

### SERIOUS OFFSHORE SONAR

Superior target definition and enhanced sensitivity using Raymarine's exclusive wide spectrum CHIRP sonar technology.

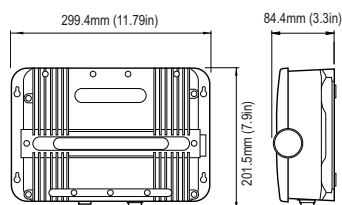
- Target fish, identify bait, and track the sea floor down to 10,000ft. (3,000m) with two adjustable CHIRP sonar channels.
- Hunt for fish in different parts of the water column simultaneously with the CP570's two fully independent 2kW sonar channels.

### STUNNING DETAIL & CLARITY

With 10 times the resolution of ordinary sonars the CP470 and CP570 deliver sharper, more defined fish targets and automatically filter out unwanted noise so you never miss the action below.

- TruZoom™ magnification mode reveals extra target detail without any loss of resolution.
- CP570's ultra-fast ping rate processing delivers accurate bottom tracking in extreme offshore conditions.

CP370/470

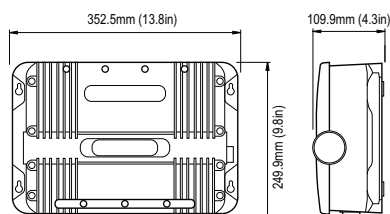


### WHAT'S IN THE BOX CP370 SONAR



- (1) Sonar Module
- (2) Power Cable
- (3) Fixing Screws
- (4) Documentation Pack
- (5) RayNet Cable

CP570



### WHAT'S IN THE BOX CP370/470 SONAR



- (1) Sonar Module
- (2) Power Cable
- (3) Fixing Screws
- (4) Documentation Pack
- (5) RayNet Cable

### CP370

#### SONAR TYPE

Digital

#### POWER

600W / 1000W Depending on transducer

#### FREQUENCY & CHANNELS

Fixed frequency 50KHz and 200KHz channels

#### DEPTH RANGE

5000ft. (1,500m)

#### WATERPROOFING STANDARD

IPX6

#### NOMINAL SUPPLY VOLTAGE

12/24 V DC

#### CONNECTIONS

Power connection | Network connection (RayNet connector) 10/100 Mb/s | Transducer connection

### CP470/CP470

#### SONAR TYPE

Wide Spectrum CHIRP

#### POWER

CP470: 1kW / 2kW depending on transducer

CP570: Max 4kW output using 2 independent CHIRP channels

#### FREQUENCY & CHANNELS

CP470: Dual CHIRP from 25 to 250kHz

CP570: Dual independent CHIRP channels from 25 to 250kHz

#### DEPTH RANGE

10,000ft (3,000m)

#### WATERPROOFING STANDARD

IPX6

#### NOMINAL SUPPLY VOLTAGE

12/24 V DC

#### CONNECTIONS

Power connection | Network connection (RayNet connector) 10/100 Mb/s | Transducer connection



### TRANSDUCERS

For detailed information about the range of transducers available for use with CP470/CP570.





# RACE, CRUISE OR FISH

EVOLUTION WILL  
TAKE COMMAND





### EVOLUTION TECHNOLOGY

The culmination of Raymarine autopilot expertise, FLIR Systems' R&D, and advanced aerospace guidance technology, Evolution AI™ control algorithms deliver a new level of accurate autopilot control.

### EVOLUTION AI™ – AUTOPILOT INTELLIGENCE

Evolution autopilots perceive their environment and instantly calculate and evolve steering commands to maximize performance. The result is precise and confident course keeping, regardless of vessel speed or sea conditions.

### EASY TO INSTALL

- Freedom from restrictions of conventional heading sensors
- EV sensor core can be installed above or below deck, upside-down or off the vessel's centre line

### AEROSPACE TECHNOLOGY

9-axis precision monitoring of pitch, roll, yaw and heading

### FUEL EFFICIENT

Evolution autopilots steer so accurately they can save fuel and get you to your destination faster

### AUTOMAGIC™

- No lengthy calibration procedures to perform
- No compass calibration
- Plug and play connections



### RACE PERFORMANCE

When only the best will do. Razor-sharp course keeping. Fine-tuned for racers!



### CRUISING PERFORMANCE

Superb course keeping and crisp turns in all conditions – the Raymarine skippers choice

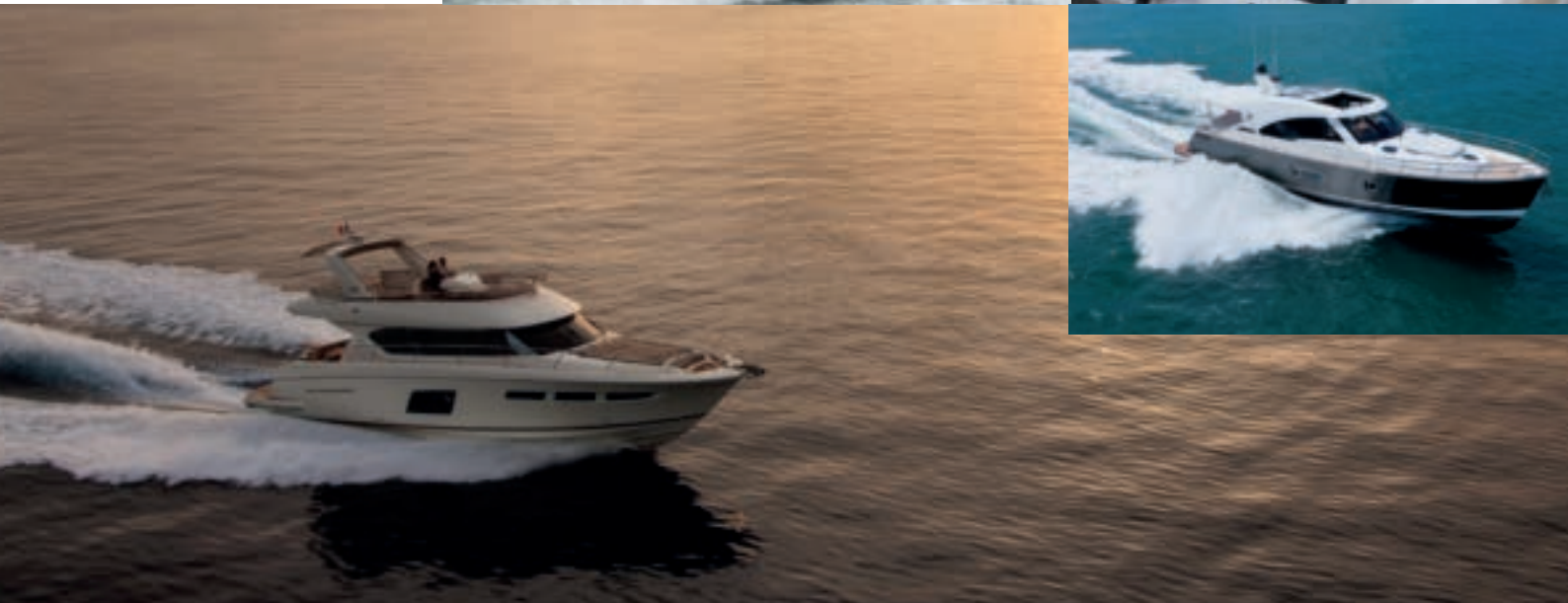


### LEISURE PERFORMANCE

For relaxed boating, when soaking up the sun is more attractive than precise course keeping







### AUTOPILOT CONTROL

Complete your Evolution autopilot system with a p70 or p70R autopilot control head. The p70 and p70R feature vibrant color displays and are powered by Raymarine's intuitive LightHouse user interface. LightHouse organizes all options into simple menu structures, so with Evolution's Automagic 3-step setup process you will be up and running in minutes.

### P70 CONTROL HEAD

Designed for sailing yachts, the p70 offers simple 1 and 10 degree direct course changes at the touch of a button.

### P70R CONTROL HEAD

Features a rotary dial control for power boaters. Use the rotary dial for menu and course changes or activate power steer mode and steer manually right from the p70R.



## EV-1 COCKPIT AND INBOARD AUTOPILOTS

EV-1 autopilots consist of a Control Head, EV-1 Sensor, Autopilot Control Unit (ACU) and drive unit. The drive unit (inboard mechanical/hydraulic or cockpit mounted), and correct ACU for your vessel is dependent on the steering system and displacement of the vessel itself.



p70 /p70R



EV-1



AUTOPILOT CONTROL UNIT


DRIVE UNIT  
(TYPE DEPENDENT ON VESSEL STEERING SYSTEM)

## EV-2 FOR DRIVE-BY-WIRE PROPULSION

EV-2 has been designed for the latest drive-by-wire steering systems and connects directly to Raymarine's SeaTalk<sup>ng</sup> bus. EV-2 also has a dedicated CAN Bus port for direct connection to steer-by-wire steering systems such as ZF Pod Drives, Yamaha Helm Master, Volvo IPS\* and SeaStar Solutions Optimus systems.

A single CAN Bus connection to the EV-2 eliminates the need for an Autopilot Control Unit (ACU), further simplifying installation.

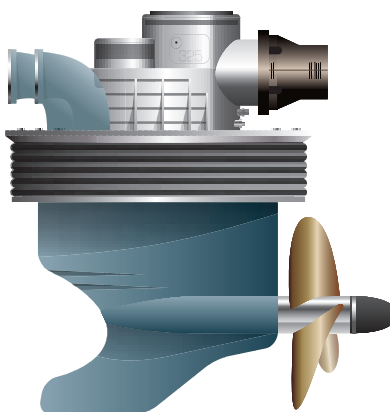
\* Use a Raymarine ECI-100 Universal Control and Engine Interface for a quick and easy install.



p70 /p70R



EV-2



INBOARD ENGINE



OUTBOARD ENGINE

## ECI-100 UNIVERSAL ENGINE AND CONTROL INTERFACE



The ECI-100 Universal Engine and Control Interface is an innovative and affordable solution for bridging engine instrumentation and drive-by-wire steering with Raymarine autopilot and navigation systems.

A simple isolated CAN Bus solution, the ECI-100 offers reliable integration with Raymarine's latest generation of multifunction displays and delivers a seamless autopilot steering interface to Raymarine's Evolution EV-2 Drive-By-Wire autopilot system.





#### MFD PILOT CONTROL

Evolution pilots can also be controlled from aSeries, cSeries, eSeries, eS Series and gS Series Raymarine multifunction displays (MFD).



#### EVOLUTION PERFECT ON ALL POINTS OF SAIL

- Upwind in short chop
- Downwind with kite up
- Broad reach with quartering sea



#### FISHING PATTERNS

Fishing patterns are available when the p70 and p70R control heads are used with Evolution.



#### HYDROBALANCE

Hydro-Balance™ Technology delivers superior autopilot performance on boats with hydraulic steering, and particularly on boats with rudder reference-less steering and outboard motors.

Hydro-Balance™ is now available and any existing Evolution™ autopilot system customers can download the new software, free of charge, from the software download area of the Raymarine website.



## COCKPIT AUTOPILOTS

EV-100 autopilots are installed in the cockpit of tiller and wheel steered yachts and smaller power boats. An EV-100 system consists of an EV-1 Sensor, ACU-100 Autopilot Control unit, drive unit and control head.



## INBOARD AUTOPILOTS

The Evolution inboard range consists of autopilot packs designed to suit specific vessel types, steering systems and vessel displacements. Autopilot pack selection is, therefore, determined by:

1. The type of steering system installed on your vessel
2. Hydraulic steering systems; the pump has to be matched to the ram (in cc)
3. The size and displacement of your vessel – always take the fully laden displacement of your vessel into account (often 20% above the designed displacement)

## SPECIFICATIONS

### P70/P70R

Nominal voltage: 12V  
Screen size: 3.5" TFT LCD 320 x 240 pixels  
Connections: SeaTalk<sup>ng</sup> (x2) and SeaTalk1 Compatible  
Waterproofing: IPX6

### EV1/EV2

Nominal voltage: 12V (powered by SeaTalk<sup>ng</sup> system)  
Connections: SeaTalk<sup>ng</sup> | NMEA 2000  
DeviceNet (EV-2 only)  
Sensors: 3-axis digital accelerometer | 3-axis digital compass | 3-axis gyro digital angular rate sensor

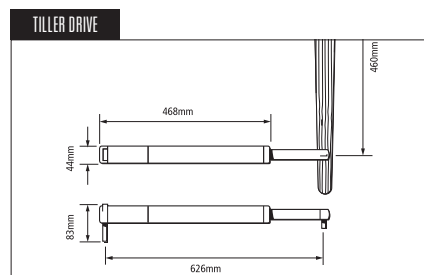
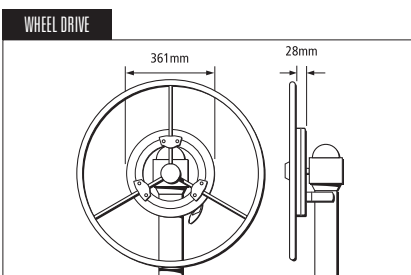
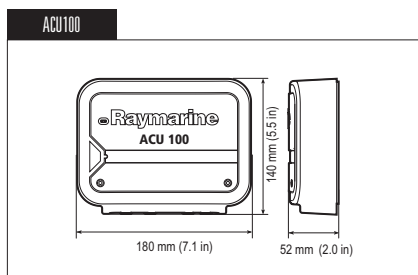
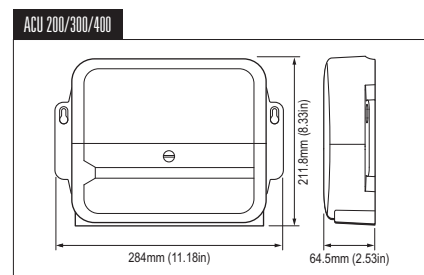
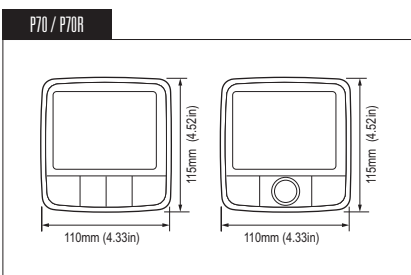
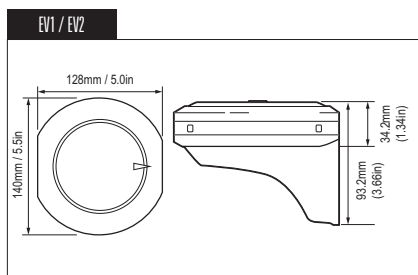
### ACU-100

Nominal voltage: 12V  
Data connections: SeaTalk<sup>ng</sup>  
Waterproofing: Connector panel IPX2, Drive electronics - IPX6

### ACU-200/300/400

Nominal voltage: 12V or 24V  
Data connections: SeaTalk<sup>ng</sup>  
Waterproofing: Drip resistant

Images for illustrative purposes only. Product information and package contents subject to change without prior notice.



## WHAT'S IN THE BOX EVOLUTION EV1/EV2

- (1) Mounting Trim
- (2) EV-1/EV-2
- (3) Sealing ring
- (4) Mounting tray
- (5) Sealing ring

## WHAT'S IN THE BOX ACU 100

- (1) ACU Unit
- (2) Documentation pack
- (3) Screws (pan head type)
- (4) SeaTalk<sup>ng</sup> spur to bare wires cable 1m (3.3ft)

## WHAT'S IN THE BOX ACU 200/300/400

- (1) ACU Unit
- (2) Documentation pack
- (3) ACU SeaTalk<sup>ng</sup> spur power cable 0.3m (1.0ft)
- (4) Rudder reference unit (if supplied; refer to separate installation sheet for list of parts supplied)
- (5) Screw pack, consisting of: Cable ties; Pan head screw; Countersunk screw.





# THERMAL NIGHT VISION CAMERAS

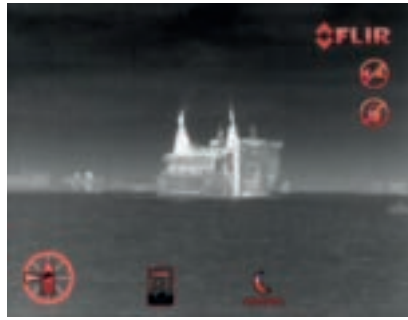
Thermal night vision cameras from Raymarine give captains the confidence to navigate safely in total darkness.

Engineered with genuine FLIR thermal imaging technology, Raymarine's thermal night vision cameras are designed for simple, seamless operation with Raymarine multifunction displays.



Day or night, thermal imaging cameras deliver enhanced levels of safety and situational awareness, allowing you to clearly see other vessels, navigation hazards, buoys and much more.

Equipment described herein may require US Government authorization for export purposes. Diversion contrary to US law is prohibited.



### DAY AND NIGHT OPERATION

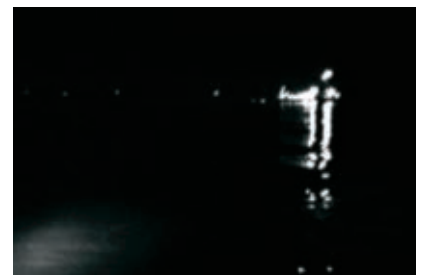
Thermal imaging camera systems are amazing at night, but are also just as effective at seeing through bright sun, glare, haze and more.

### SUPERIOR FLIR THERMAL IMAGING TECHNOLOGY

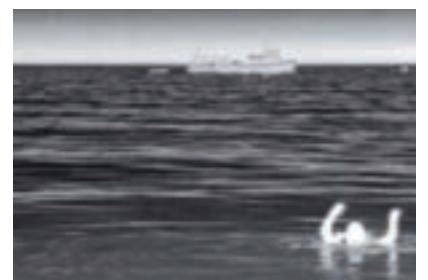
As the worldwide leader in thermal technology, FLIR Systems are the choice of military and law enforcement professionals.



Your night vision



Thermal night vision



### FIXED-MOUNT, OR FULL-MOTION SYSTEMS

Previously reserved for military, law-enforcement and ultra-luxury vessels only, thermal night vision technology is now available for every boater.

Choose from the affordable T200 Series fixed mount thermal cameras or, for a 360 degree view, step up to T300 and T400 with pan, tilt and zoom.

### THE BEST MAN-OVERBOARD DETECTION

If one of your crew should fall overboard, a Raymarine thermal camera is your best bet in low visibility to find and track them so you can quickly get them back on board.

Images for illustrative purposes only. Product information subject to change without prior notice





## T300 AND T400 SERIES

- Full pan, tilt and zoom capabilities
- Simple touchscreen control from Raymarine multifunction displays. Simply swipe your finger across the screen to slew the camera
- T300 models feature a single-payload thermal camera to produce standard or high-resolution FLIR thermal images
- T400 dual-payload models add a high-resolution day/night, lowlight camera. Anywhere your eyes can see just a little, the lowlight camera will show you a whole lot more
- Optional 2-axis gyro-stabilized models provide steady imagery in heavy seas and a color low-light camera with 10x optical zoom

### SLEW-TO-CUE TARGET TRACKING

Slew-To-Cue improves situational awareness and safety. Thermal camera automatically keeps "cued" targets in view at all times

### CHART OBJECT SLEW-TO-CUE

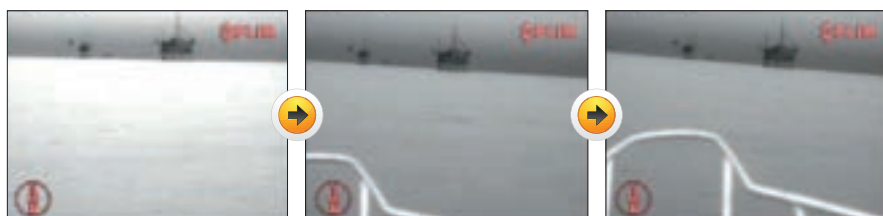
Touch the display (cue) and the thermal camera automatically moves to the cursor position (slew), allowing you to keep chart objects like buoys or obstructions in constant view.

### AUTO SLEW TO AIS AND MARPA TARGETS

T Series cameras and Raymarine MFDs can Auto Slew to dangerous MARPA and AIS targets, keeping dangerous targets in the camera's sight during limited visibility situations.

### MOB AUTO SLEW

The MFD and thermal camera will Auto Slew to a Man Over Board alarm location, maintaining the Man Over Board position in view at all times during a rescue situation.



## GYRO-STABILIZATION

The Raymarine T470SC and T473SC thermal cameras feature gyro-stabilization. The video below demonstrates the effectiveness of gyro-stabilization. As the vessel approaches these oil rigs it gradually speeds up so you can see how the camera compensates for the varying rates of boat movement up and down the waves.



## T200 SERIES

The affordable T200 series fixed mount camera is designed to increase your situational awareness without blowing your budget.

Simple to mount and easy to integrate into your existing Raymarine electronics, the T200 Series outputs standard analog video that can be easily displayed on almost any monitor at the helm or other locations on the vessel.

- Compact, fixed mount cameras
- Look-ahead visibility, targeting objects in the vessel's path
- Simple installation
- Easy integration with Raymarine multifunction displays
- User-selectable color palettes for enhanced on-screen visibility
- 2x and optional 4x digital zoom for enlarging far-away targets
- Standard and high resolution options



Easily see navigation aids masked by bright urban background lighting



Stay alert to unlit watercraft, kayaks and paddle-boarders



## FLIR OCEAN SCOUT HANDHELD THERMAL SCOPE

Ocean Scout is a rugged, compact thermal night vision camera that lets you see other vessels, landmarks, buoys, and floating debris in total darkness.

Now with a high resolution LCD display and FLIR's industry-leading thermal sensor technology, Ocean Scout makes your time on the water safer and more relaxing.



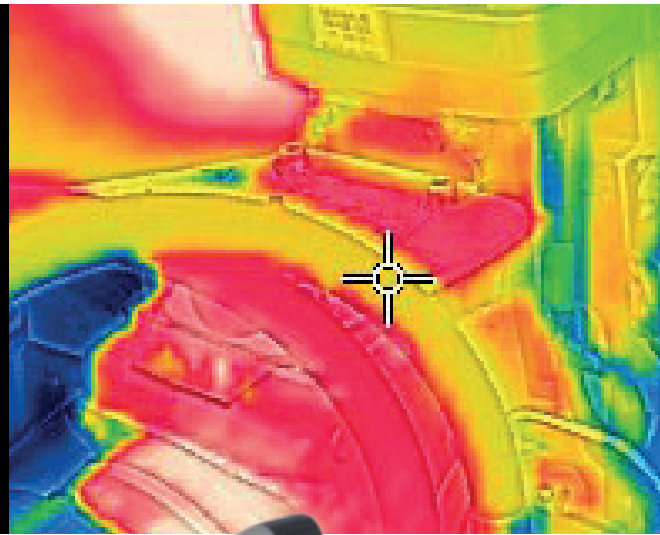
## RANGE AND DETECTION

The range at which Raymarine thermal night vision cameras detect objects is shown in the table (left). However, actual object detection range performance may vary depending on camera set-up, environmental conditions, user experience and display type.

Images for illustrative purposes only. Product information subject to change without prior notice

	RANGE & DETECTION	
	MOB	Small Vessel
Ocean Scout 240	350m (1,150ft)	0.9 km (0.48nm)
Ocean Scout 320	550m (1,800ft)	1.5km (0.84nm)
Ocean Scout 640	1,140m (3,705ft)	3.2km (1.73nm)
T200/T203/T223/T220	450m (1,500ft)	1,280m (4,200ft)
T253/T250/T273/T270	820m (2,700ft)	2,200m (1.2nm)
T403/T400/T300/T303	450m (1,500ft)	1,280m (4,200ft)
T453/T450/T353/T350	820m (2,700ft)	2,200m (1.2nm)
T463/T460	1,200m (4,000ft)	3,200m (2.0miles)
T473SC/T470SC	1,200m (4,000ft)	3,900m (2.4miles)

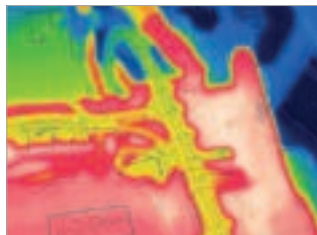
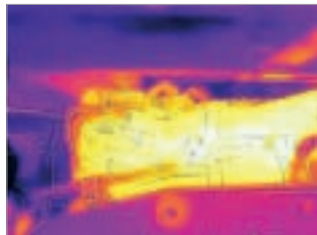




## FLIR AX8 MARINE THERMAL MONITORING

Gain an entirely new view of your vessel's mechanical system with the new AX8 thermal monitoring camera. Combining thermal and visible cameras in a small, affordable package, the AX8 integrates with Raymarine multifunction displays (MFDs) and sends audible and visual alerts when the temperature of machine parts rise above preset thresholds.

Keep a watchful eye on such critical equipment as engines, exhaust manifolds, and shaft bearings and spot problems before they leave you stranded on the water. Exclusive MSX® imaging blends visible and thermal images for more detailed imagery that is easier to understand.



## FLIR ONE THERMAL CAMERA FOR SMARTPHONES

Explore the world around you in ways you never thought possible, with no additional cords, cases, devices or screens necessary. Connect your FLIR ONE to your smartphone or tablet to transform it into a thermal camera. What will you do with your new super power?

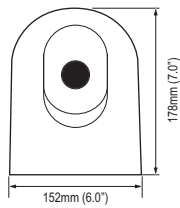
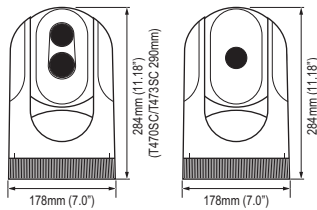
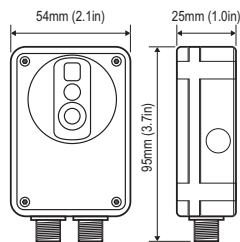
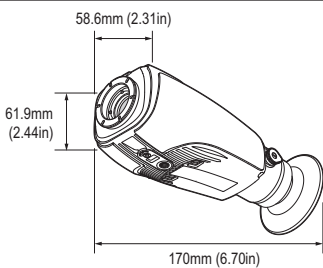


### WHAT'S IN THE BOX AX8



- (1) Infrared camera with lens
- (2) Printed documentation
- (3) User documentation CD-ROM
- (4) Cooling/mounting plate
- (5) POE injector
- (6) Camera PoE Cable
- (7) Raymarine RayNet Ethernet cable

\* Phone not included

**T200****T300 / T400****AX8****OCEAN SCOUT****AX8****IR Resolution**

80x60 pixels

**FOCUS**

Fixed

**FIELD OF VIEW**

48° x 37°

**DETECTOR TYPE**

Focal Plane Array (FPA) Uncooled Microbolometer

**BUILT-IN DIGITAL CAMERA**

640x480

**MEASUREMENT**

-10°C to +150°C (14°F to 302°F)

**WATERPROOF RATING**

IP67 (IEC 60529)

**ETHERNET POWER**

Power over Ethernet, PoE IEEE 802.3as class 0

**T200 SERIES****DETECTOR TYPE**

T20X/T22X: 320 x 240 VOx Microbolometer

T25X/T27X: 640 x 480 VOx Microbolometer

**FIELD OF VIEW**

T20X/T22X: 24° x 18° NTSC

T25X/T27X: 25° x 20° NTSC

**IMAGE PROCESSING**

FLIR Proprietary Digital Detail Enhancement

**FOCAL LENGTH**

T20X/T22X: 13mm

T25X/T27X: 25mm

**VIDEO OUTPUT**

NTSC or PAL, 25Hz or &lt;9Hz (Check ordering information for more details)

**PAN/TILT COVERAGE**

Pan: ±30° per key | Tilt: +34°, -27° (Locked in at Installation)

**CONNECTOR TYPES**

F-type BNC with BNC-to-RCA adapter included for video out

**POWER REQUIREMENTS**

PoE injector required per IEEE 802.3af

**OCEAN SCOUT****DETECTOR TYPE**

OS240: 240 x 180 VOx Microbolometer

OS320: 336 x 256 VOx Microbolometer

OS640: 640 x 512 VOx Microbolometer

**VIDEO REFRESH RATE**

&lt;9Hz NTSC or 30 Hz

**FIELD OF VIEW (HxV)**

OS240: 24° x 18° NTSC

OS320: 17° x 13° NTSC

OS640: 18° x 14° NTSC

**DISPLAY**

640 x 480 LCD Display

**BATTERY TYPE**

Internal Li-ion cell

**BATTERY LIFE**

Up to 5 hours

**WATERPROOF RATING**

IP67, submersible

**T300/400 SERIES****VIDEO RESOLUTION**

320 x 240 or 640 x 480

Check ordering information for more details

**FIELD OF VIEW**

T300, T303, T400, T403 = 24° x 19°

T350, T353, T450, T453 = 25° x 20°

T460, T463 = 12° x 10°

T470SC, T473SC = 18° x 14°

**IMAGE PROCESSING**

FLIR Proprietary Digital Detail Enhancement

**FOCAL LENGTH**

T300, T303, T400, T403 = 19mm

T350, T353, T450, T453 = 25mm

T460, T463 = 50mm

470SC, T473SC = 35mm

**VIDEO OUTPUT**

NTSC, 25Hz or 9Hz

Check ordering information for more details

**PAN/TILT COVERAGE**

Pan: Full 360° pan Tilt: ±90°

**CONNECTOR TYPES**

T300 models: 1x F Type Video Connector with F to BNC adaptor included T400 models: 2x F Type Video Connector (InfraRed and Low Light)

**POWER REQUIREMENTS**

12 VDC to 24 VDC (-10% / +30%)

Images for illustrative purposes only. Product information subject to change without prior notice

**WHAT'S IN THE BOX  
OCEAN SCOUT**

- (1) Ocean Scout thermal camera
- (2) Drawstring pouch
- (3) USB cable
- (4) Lens cover
- (5) Wrist wrap
- (6) Camera

**WHAT'S IN THE BOX  
T300/T400 SERIES**

- (1) T-Series thermal camera
- (2) Mounting fasteners
- (3) Ethernet waterproof coupler
- (4) Small O-ring
- (5) Large O-ring
- (6) Documentation pack (containing: camera mounting template, warranty policy and documentation CD.)

**WHAT'S IN THE BOX  
T200 SERIES**

- |   |  |
|---|--|
| (1) Thermal camera  | (9) Video connectors: Female to female F-type connector; |
| (2) Ethernet coupler  | Female F-type to Male                                    |
| (3) Power over Ethernet (PoE) Injector                                  | RCA adaptor; Female F-type to BNC connector              |
| (4) Mounting kit, consisting of: M8 nylock nut; acorn nut; stud; washer | (10) Zip ties  |
| (5) O-ring  | (11) 1 m (3.28ft.) RayNet to SeaTalk <sup>hs</sup> cable |
| (6) Top-down fixing   | (12) 7.7m (25ft.) Ethernet cable                         |
| (7) Documentation pack  | (13) 7.7m (25ft.) Coaxial video cable.                   |
| (8) Grounding strap securing nut  |  |



# INSTRUMENTS

ANALOG &  
DIGITAL





## i70 MULTIFUNCTION INSTRUMENT

Our most advanced and versatile instrument display, the i70 multifunction instrument's powerful features are very easy to use. The large 4" LCD screen gives superb visibility at distance and from acute angles.

### KEY FEATURES

- 4" over-sized LCD display with 160° viewing angles
- 43mm digits in full screen mode
- Data views include: Wind, Speed, Depth, Tridata, Engine, Environment, Fuel and Navigation
- Low power – typically 132mA/ 1.6W



### CUSTOMIZATION

The Raymarine i70 instrument is easily customized to suit your personal boating requirements. From traditional analog dials to engine information and tank levels, i70 has the capability to show it all.



### NETWORKING

Raymarine i70 seamlessly integrates with NMEA 2000 using SeaTalk and SeaTalk<sup>ng</sup> marine networks. User-selectable data sources allow integration on multi-sensor networks.



### AIS REPEATER

Displays AIS targets from NMEA 2000 AIS receivers. View the closest 25 AIS-equipped vessels and select individual targets to obtain vessel information.





## i50 & i60 ANALOG & DIGITAL INSTRUMENTS

The i50 and i60 instruments are designed to complement Raymarine's latest generation multifunction displays. These stylish, dedicated-function instruments are the perfect solution for smaller power boats, yachts and RIBs. The i50 range consists of 3 digital displays: speed and depth displays with extra-large digits and a multi-line tridata unit. Designed primarily for the sailboat, i60 covers wind and close hauled wind options in analog and digital formats.

Excellent viewing angles for both day and night conditions, and simple push-button controls make i50 and i60 instruments extremely easy to see and use. They are also simple to install thanks to the front-mount design.

### GENERAL FEATURES

- i60: Large analog dials
- i50: Large numerals and digits
- SeaTalk and SeaTalk<sup>ng</sup> interfaces
- NMEA 2000 support
- Built-in transducer interface
- 110mm x 115mm footprint
- Low power consumption
- Multiple data source support eliminates potential data conflicts
- Front-mounted design for simple installation



i50 Speed



i50 Depth



i50 Tridata



i60 CH Wind



i60 Wind



i40 Speed



i40 Bidata



i40 Wind

### i40 COMPACT SPEED, DEPTH, WIND & BIDATA INSTRUMENTS

Big displays for smaller powerboats, yachts and RIBs, these compact yet powerful SeaTalk instruments offer full integration with Raymarine autopilots and navigation equipment and can be surface or trunnion-mounted. Easy-to-use i40 instruments have extra-large (28mm max) digits and razor-sharp LCDs for outstanding visibility in all lighting conditions.



Optional black bezel for i50/i60/i70 instruments matches style of eS Series displays

## RAYMARINE WIRELESS

You need instant access to accurate data and displays that are absolutely reliable. Raymarine Wireless instruments display all the data you'll need and there are no wires running through your hull or down your mast.



Micro Compass



Race Master



T100



T200



Wireless Remote

### SPECIFICATIONS

#### NOMINAL VOLTAGE

i40/i50/i60: 12Vdc

#### WATERPROOFING

IPX6

#### CONNECTIONS

i40: SeaTalk, Transducer connections.

i50/i60: 2x SeaTalk<sup>®</sup> and transducers

Compatible with marine industry CAN systems

i70: SeaTalk<sup>®</sup> - compliant with NMEA2000

and SeaTalk specifications

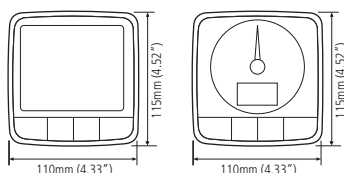
Compatible with marine industry CAN systems

#### NOMINAL VOLTAGE

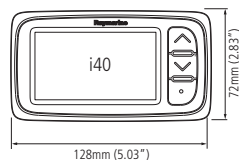
i40/i50/i60: 12Vdc

Images for illustrative purposes only. Product information and package contents subject to change without prior notice.

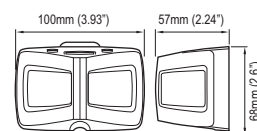
#### i50 | i60 | i70



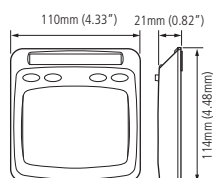
#### i40



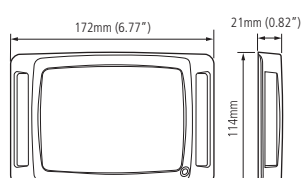
#### MICRO COMPASS



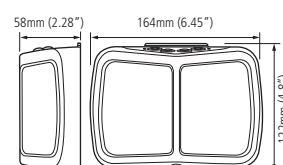
#### T100



#### T200



#### RACE MASTER



#### WHAT'S IN THE BOX i40 INSTRUMENTS

- (1) i40 Instrument
- (2) Instrument Suncover
- (3) Mounting Gasket
- (4) Clamping Bracket
- (5) Fixing Studs and Nuts
- (6) SeaTalk Power Cable
- (7) Documentation Pack

#### WHAT'S IN THE BOX i50/i60 INSTRUMENTS

- (1) i50 Instrument
- (2) Front Bezel
- (3) SeaTalk to SeaTalk<sup>®</sup> Adaptor Cable
- (4) SeaTalk<sup>®</sup> Spur Cable
- (5) Gasket
- (6) Suncover
- (7) Documentation Pack
- (8) SeaTalk<sup>®</sup> blanking plug
- (9) 4x Fixing Screws

#### WHAT'S IN THE BOX i70 INSTRUMENTS

- (1) i70 Instrument
- (2) Front Bezel
- (3) SeaTalk<sup>®</sup> Spur Cable
- (4) Gasket
- (5) Suncover
- (6) Documentation Pack
- (7) SeaTalk<sup>®</sup> blanking plug
- (8) 4x Fixing Screws



# DIGITAL SWITCHING

VESSEL SYSTEM CONTROL & AUTOMATION





**WHAT IS DIGITAL SWITCHING?**

Raymarine Digital Switching brings all the power and convenience of advanced home automation to your boat. Digital Switching allows you to control onboard electrical and electronic systems like lighting, air-conditioning, navigation lights, wipers, horns, entertainment systems, security systems and much more from your network-connected multifunction displays, smartphone or tablet.



Raymarine Digital Switching replaces the standard mechanical circuit breakers and switches with state-of-the-art digital power distribution. This system not only offers convenience and ease-of-use, it also delivers on the promise of seamless, reliable operation as well as simple and cost-effective installation.



**MOBILE DEVICES**

With Raymarine Control and Remote Apps, you can take control using a tablet or smartphone.



**RAYMARINE MFDS**

Control your environment and onboard technology using Raymarine a/c/e/eS Series displays or gS Series glass bridge displays.

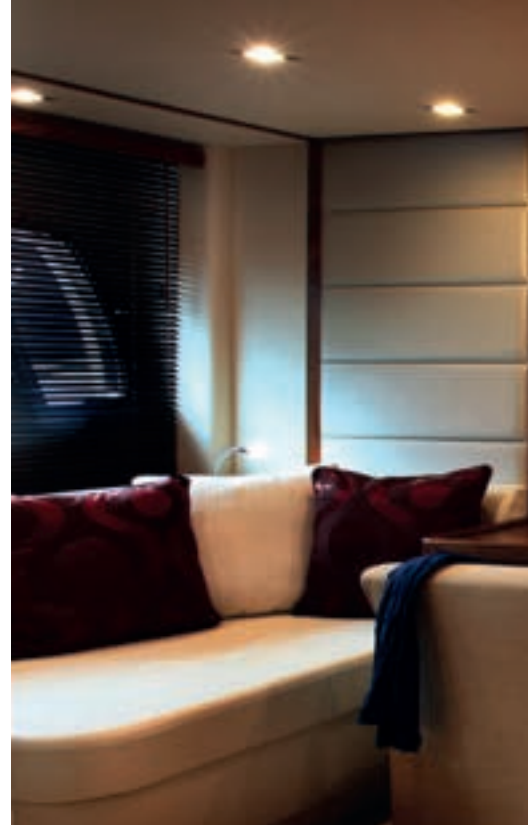




### DIGITAL SWITCHING: ELEGANT SIMPLICITY

Instead of bulky and expensive switch panels, Raymarine's Digital Switching system uses rugged and compact digital Circuit Control Modules (CCMs.) Each CCM supports multiple circuits that are customised to meet the exact needs of the equipment being controlled.

Each CCM connects to the vessel's existing NMEA 2000 network backbone allowing it to communicate with other CCMs and multifunction displays onboard. This flexible network architecture enables the CCMs to be mounted near the equipment they are controlling. This benefits the boat builder and owner by creating a system that is simpler to install and troubleshoot than traditionally switched systems. Significant cost savings can be easily realised due to the faster installation and reduced amount of cable required to wire the vessel's systems.



Assets for every type of circuit switch or monitor

Fully customisable screens. Assets may be dragged and dropped into any configuration

Screens can be personalised by uploading boat images



### MASTER CONTROL UNIT (MCU)

The Master Control Unit is the central processor that drives the system, providing computing power, intelligence and decision making. In addition, there are various interfaces for connection to external devices and a remote control port.

The MCU is a NMEA 2000 device that talks to other system components via the NMEA 2000 network. The MCU stores and executes configuration files for installation; holding data for every DC Module and Membrane Panel present. Should a Module or Membrane panel need to be replaced, the MCU distributes data to the replacement once the base address of the new component has been entered.



### CIRCUIT CONTROL MODULE

The Circuit Control Module (CCM) is a NMEA 2000 device that is connected to the main DC Bus and provides inputs and outputs to the system. With multiple input capabilities and ranges, the CCM is an extremely versatile and cost effective means of interfacing system signals - when combined with the powerful software, complex monitoring and control systems are easily realised.



Trim tabs



Bilge Pumps



AC and DC Power



### COMPATIBLE WITH ENOCEAN WIRELESS SWITCHES, SENSORS, AND CONTROLS

Completely wireless and self-powered, ENOcean-enabled switches, sensors, and climate controls use state-of-the-art energy-harvesting technology. Wireless-enabled CCMs can support up to 16 ENOcean wireless devices.

ENOcean wireless light switches, thermostats, and motion sensors can be installed anywhere because they never need wires, batteries, or a power connection. ENOcean channels available.

## EmpirBus

Raymarine is proud to partner with Trigent AB and integrate with the EmpirBus NXT distributed power supply system. Based in Uddevalla, Sweden, Trigent has over 10 years of experience developing and deploying ruggedised power distribution systems for marine applications and speciality vehicles. Trigent's power distribution products are used by commercial, industrial and military customers around the world.

### DIGITAL SWITCHING SPECIFICATIONS

#### CIRCUIT CONTROL MODULE (CCM) DETAILS:

##### OUTPUTS

- Configurable fuse setting up to 18A
- High and low-side options for reversible function
- Dimming function, including soft start/stop
- Under-current circuit detection

##### INPUTS

- Configurable thresholds for alarms and/or graphical functions
- Plus or minus sensing for digital
- Analogue inputs for voltage (0-32V), current (4-20mA) or resistive

#### MULTIPLEXED CHANNELS

Up to 4 circuits may be multiplexed onto a single channel

#### TANK MONITORING

Calibration with set points

#### WINDOW WIPER FUNCTIONS

High/low speed, interval etc...

#### MASTER CONTROL UNIT (MCU) DETAILS:

The Master Control Unit (MCU) provides numerous benefits to the existing Circuit Control Modules (CCMs):

- In larger systems, the MCU stores the full configuration and ensures effective communication between CCMs.
- The MCU-200 adds GSM capabilities to the system. A dedicated SIM card slot allows the MCU-200 to connect to a mobile GSM network and communicate with a smartphone via text messaging.
- The MCU-150 offers a dedicated CAN-bus link to third-party systems such as air conditioning, battery management etc.





# AIS RECEIVERS & TRANSCEIVERS

SEE AND BE SEEN



AIS (Automatic Identification System) systems enable the wireless exchange of navigation status between vessels and shore-side traffic monitoring centres. Commercial ships, ocean-going vessels and recreational boats equipped with AIS transceivers broadcast AIS messages that include the vessel's name, course, speed and current navigation status.



## VHF WITH AIS

See page 62 to learn about the Ray70 multifunction VHF with an integrated AIS receiver.

## RECEIVE-ONLY AIS

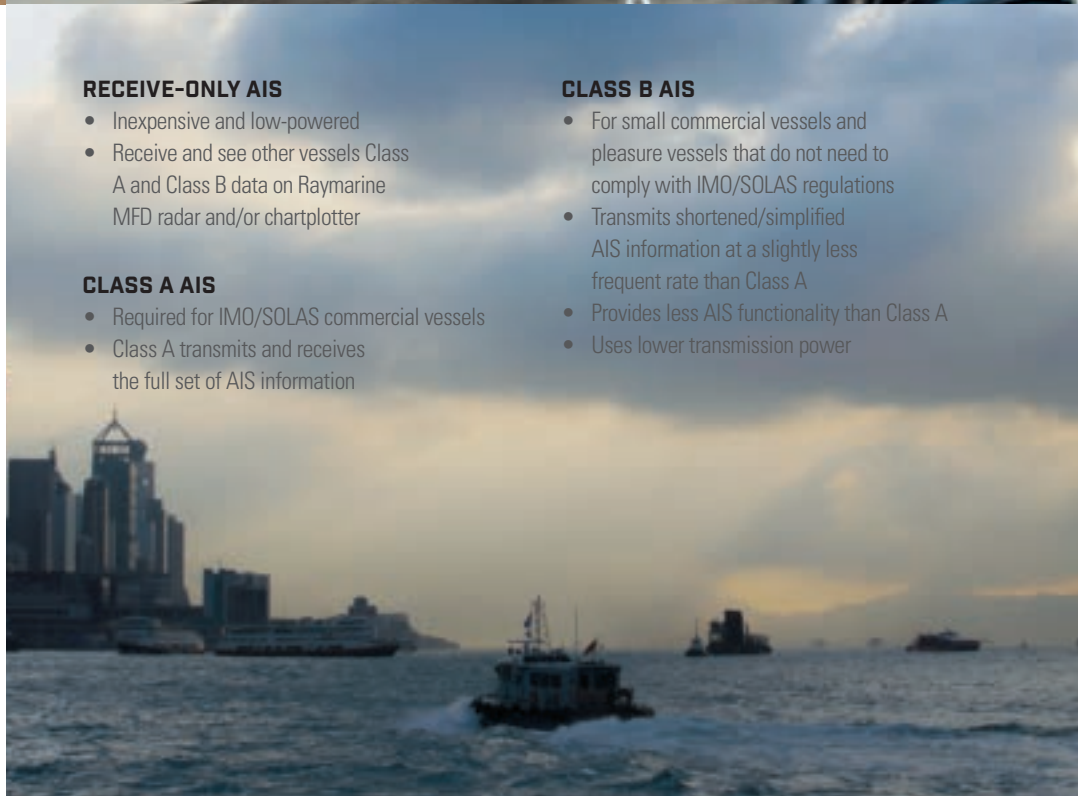
- Inexpensive and low-powered
- Receive and see other vessels Class A and Class B data on Raymarine MFD radar and/or chartplotter

## CLASS A AIS

- Required for IMO/SOLAS commercial vessels
- Class A transmits and receives the full set of AIS information

## CLASS B AIS

- For small commercial vessels and pleasure vessels that do not need to comply with IMO/SOLAS regulations
- Transmits shortened/simplified AIS information at a slightly less frequent rate than Class A
- Provides less AIS functionality than Class A
- Uses lower transmission power





### AIS950 TRANSCEIVER (CLASS A)

- Combined receiver and transmitter
- Approved for deep sea and inland waterway standards (royalty costs apply)
- Fully compliant Class A AIS product
- Advanced radio communications technology
- Intuitive user interface for easy access to all information
- Large, high visibility mono LCD

### AIS650 TRANSCEIVER (CLASS B)

- Transmit your boat's data to AIS equipped vessels
- Receive and see data on Raymarine MFD radar and/or chartplotter screens
- Engineered for high performance and seamless integration with Raymarine navigation systems



### AIS350

#### TRANSMITTER TYPE

Listen only AIS receiver

#### RECEIVERS

2 Receivers

#### OPERATING VOLTAGE RANGE

9.6V - 31.2V DC

### AIS650

#### TRANSMITTER TYPE

Class B AIS transceiver

#### RECEIVERS

2 Receivers

#### TRANSMITTERS

1 Transmitter

#### OPERATING VOLTAGE RANGE

9.6V - 31.2V DC

### AIS950

#### TRANSMITTER TYPE

Class A AIS transceiver

#### RECEIVERS

2x TDMA 156.025 MHz to 162.025 MHz and 1x DSC 156.525 (channel 70)

#### TRANSMITTERS

1 Transmitter

#### GPS RECEIVERS (AIS INTERNAL)

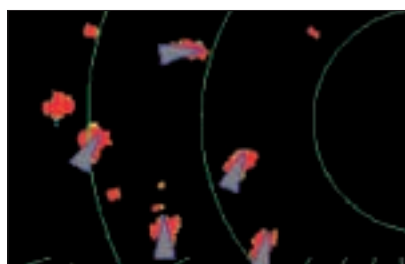
IEC 61108-1 compliant

#### OPERATING VOLTAGE RANGE

10.8 to 31.2v DC



AIS Target Intercept graphic overlays



AIS Targets overlaid on radar screen



AIS Targets overlaid on chart



### AIS350 RECEIVER ONLY

- Dual-channel receive-only
- For small vessels wanting increased situational awareness, but without the need to transmit
- Low cost alternative brings AIS safety advantages to a wider range of vessels

### WHAT'S IN THE BOX AIS350/AIS650



- (1) AIS unit
- (2) Documentation pack
- (3) Fixing screws
- (4) SeaTalk<sup>®</sup> dust cap
- (5) 2m (6.5ft.) power / data cable
- (6) 1m (3.25ft.) SeaTalk<sup>®</sup> spur cable

Note: AIS 650 includes GPS



# VHF RADIOS

You'll always be heard loud and clear with a VHF radio from Raymarine. Whether it's the compact Ray50, full-sized Ray60, or multifunction Ray70, you can depend on your Raymarine VHF for years of trouble-free communication at sea.



## RAY260 MODULAR VHF

Premium VHF system with remote transceiver, speaker, and handset. Built-in loudhailer/foghorn plus multi-station intercom capability. Available with an integrated AIS receiver.





## SPECIFICATIONS

### OPERATING VOLTAGE

9V DC to 16V DC (Ray260 10.8 to 15.6V)

### WATERPROOFING STANDARD

Ray50/60/70: IPX6/IPX7 complies with EN60945

Ray260: IPX7

### COMMUNICATIONS PORT

NMEA 0183 (version 4.01); NMEA2000 (version 3.0)

### POWER OUTPUT

High Power = 25 Watt | Low Power = 1 Watt

Images for illustrative purposes only.  
Product information and package contents  
subject to change without prior notice.

## EVERY RAYMARINE VHF OFFERS

- Simple operation with intuitive icons and menus
- Easy-to-read LCD displays with red backlighting
- Commercial-grade transceivers with stable, powerful output, and high receiver sensitivity
- Sleek, premium designs that match Raymarine Instruments, MFDs and Glass Bridge Displays



### RAY50 COMPACT VHF RADIO

The Ray50 VHF packs a powerful communications system into a case that is small enough to mount just about anywhere.

**Ray52 also available with built-in GPS.**



### RAY60 VHF RADIO WITH DUAL STATION CONTROL AND INTERCOM CAPABILITY

The Ray60 is a full-sized VHF radio that is packed with essential communications features every boater needs.



### RAY70 MULTIFUNCTION RADIO: ALL-IN-ONE VHF, AIS RECEIVER, LOUDHAILER AND INTERCOM

Hear and be heard! The Ray70 from Raymarine is the ultimate all-in-one communications solution for Captains who demand the best. Ray70 features full-function VHF, loudhailer output, AIS receiver, and is dual-station capable with the optional RayMic accessory.

### RAYMIC

The Ray70 VHF Radio also supports the optional second station RayMic handset for remote locations. This gives you full-function VHF and intercom capability from a second location onboard.

## WHAT'S IN THE BOX RAY50



- (1) Ray50 with Fisticmic
- (2) Suncover
- (3) Panel mount gasket
- (4) Mounting bracket
- (5) Mounting bracket knobs
- (6) Fisticmic mounting clip
- (7) 4x Mounting bracket fixings
- (8) Documentation
- (9) 4x panel mount fixings
- (10) Protective antenna boot
- (11) 2x Fisticmic mounting clip fixings
- (12) SeaTalk® 400mm (15.7in.) spur cable

## WHAT'S IN THE BOX RAY60/RAY70



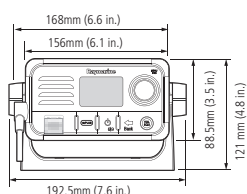
- (1) Ray60 / Ray70 radio
- (2) Sun cover
- (3) Flush mount gasket
- (4) Fisticmic
- (5) Mounting bracket
- (6) Mounting bracket knobs
- (7) Fisticmic mounting clip
- (8) Documentation
- (9) Protective antenna boot
- (10) 2x Fisticmic mounting clip fixings
- (12) SeaTalk® 400mm (15.7in.) spur cable

## WHAT'S IN THE BOX RAY260

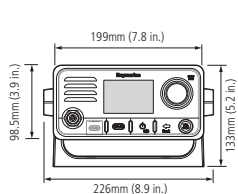


- (1) Ray260 Base station
- (2) Ray260 Handset
- (3) Ray260 speaker including cable
- (4) Speaker gasket
- (5) 4x screws for base station mounting
- (6) 2x Screws for handset mounting
- (7) SeaTalk® blanking plug
- (8) 2x handset station blanking plugs
- (9) Handset extension kit
- (10) 4x Thumb nut and studs for speaker mounting
- (11) Handset mounting clip
- (12) Documentation pack
- (13) Power / Data cable 1m (3.3ft.)

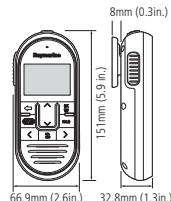
RAY50



RAY60/70



RAYMIC





# SATELLITE TV

## ANTENNA SYSTEMS



### DUAL OR QUAD LNB

- Connect multiple television receivers and tune in to different channels on each television
- Dual systems (33 and 37STV) allow the connection of two television receivers and the Quad systems (45 and 60STV) connection of four receivers

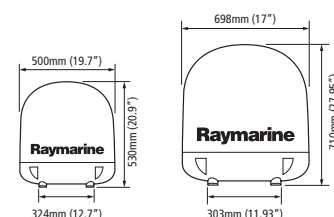




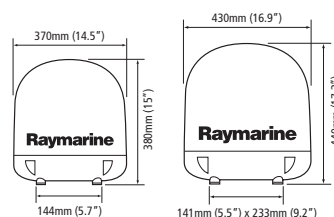
Raymarine's Satellite TV antennas bring the same combination of high performance and ease-of-use to your onboard entertainment that you would expect from your home entertainment system.

- Compact domes
- Automatically track and receive satellite TV signals in almost any conditions
- Access to hundreds of digital channels
- Quickly identify and acquire satellite signals
- Once you have a fix on the satellite signal, tracking algorithms will help you keep it
- Designed to cope with tough conditions
- Dynamic Beam Tilting (DBT) continuously measures and compensates for your vessel's heading, pitch and roll – keeping your antenna locked on a satellite for a clear picture

#### 33STV / 37STV



#### 45STV / 60STV



#### WHAT'S IN THE BOX SAT TV



- (1) Antenna Unit
- (2) Antenna Control Unit
- (3) Installation Kit
- (4) Cables
- (5) Documentation

Images for illustrative purposes only.  
Product information and package contents  
subject to change without prior notice.

#### SATELLITE TV FEATURES

	33STV	37STV	45STV	60STV
Dual or Quad LNB design for multiple receivers	Dual	Dual	Quad	Quad
DVB (Digital Video Broadcast) compatible	●	●	●	●
Dish diameter (cm)	13in (33cm)	14.6in (37cm)	17.7in (45cm)	23.6in (60cm)
Wide Range Search Algorithm for high speed search and fast satellite acquisition	●	●	●	●
Dynamic Beam Tilting (DBT) technology signal tracking in extreme weather and sea conditions	●	●	●	●
High Definition (HD) compatible	●	●	●	●
Enhanced signal reception and improved antenna gain for better performance				●
NMEA 0183 GPS position input capability for reduced acquisition time	●	●	●	●
Conical scanning detects strongest satellite signal for enhanced stabilisation	●	●	●	●
Enhanced elevation angles to maintain satellite fix				●
Automatic LNB skew control (not USA)			Optional	●
Rotating sub-reflector redirects signal for reduced dish movement and quieter operation	●	●	●	●
Suggested vessel size	20–25ft (6–7.6m)	25–35ft (7.6–10.7m)	35–50ft (10.7–15.2m)	over 50ft (over 15.2m)
Built in GPS		●	●	●
Tracks DUB-S2 or HD Transponders	●	●	●	●



Wi-FiSH & Dragonfly		
PART NO.	DESCRIPTION	
<b>Wi-FiSH ECHO SOUNDER</b>		
E70290	Wi-FiSH black box Wi-Fi DownVision sonar including CPT-DV Transducer	
<b>DRAGONFLY 4</b>		
E70291	Dragonfly 4DV fishfinder with 4.3" screen and CHIRP Downvision including CPT-DV transducer	
E70292	Dragonfly 4DVS fishfinder with 4.3" screen, CHIRP Downvision and CHIRP sonar including CPT-DVS transducer	
E70294	Dragonfly 4Pro fishfinder 4.3" screen with CHIRP Downvision and Sonar including CPT-DVS transducer, Wi-Fi, GPS Chart Plotter	
E70294-US	Dragonfly 4Pro fishfinder 4.3" screen with CHIRP Downvision and Sonar, Wi-Fi, GPS and North America CMAP Essentials Chart	
E70294-NAG	Dragonfly 4Pro fishfinder 4.3" screen with CHIRP Downvision and Sonar, Wi-Fi, GPS and North America Navionics + Cartography	
E70294-CROW	Dragonfly 4Pro fishfinder 4.3" screen with CHIRP Downvision and Sonar, Wi-Fi, GPS and ROW CMAP Essentials Cartography	
E70294-CEUR	Dragonfly 4Pro fishfinder 4.3" screen with CHIRP Downvision and Sonar, Wi-Fi, GPS and Europe CMAP Essentials Cartography	
<b>DRAGONFLY 5</b>		
E70306	Dragonfly 5DVS fishfinder with 5" screen, CHIRP Downvision and CHIRP sonar including CPT-DVS transducer	
E70295	Dragonfly 5m 5" GPS Chart Plotter	
E70295-US	Dragonfly-5m 5" GPS Chart Plotter and North America CMAP Essentials Chart	
E70295-NAG	Dragonfly-5m 5" GPS Chart Plotter and North America Navionics + Cartography	
E70295-CROW	Dragonfly-5m 5" GPS Chart Plotter and ROW CMAP Essentials Cartography	
E70295-CEUR	Dragonfly-5m 5" GPS Chart Plotter and Europe CMAP Essentials Cartography	
E70293	Dragonfly 5Pro fishfinder 5" screen with CHIRP Downvision and Sonar including CPT-DVS transducer, Wi-Fi & GPS Chart Plotter	
E70293-US	Dragonfly 5Pro fishfinder 5" screen with CHIRP Downvision & Sonar including CPT-DVS transducer, Wi-Fi, GPS Chart Plotter & USA CMAP Essentials Chart	
E70293-NAG	Dragonfly 5Pro fishfinder 5" screen with CHIRP Downvision and Sonar, Wi-Fi, GPS and North American Navionics + Cartography	
E70293-CROW	Dragonfly 5Pro fishfinder 5" screen with CHIRP Downvision and Sonar, Wi-Fi, GPS and ROW CMAP Essentials Cartography	
E70293-CEUR	Dragonfly 5Pro fishfinder 5" screen with CHIRP Downvision and Sonar, Wi-Fi, GPS and Europe CMAP Essentials Cartography	
<b>DRAGONFLY 7 PRO</b>		
E70320	Dragonfly-7 Pro 7" Sonar GPS with CHIRP DownVision & CPT-DVS Transom Mount Transducer, No Chart	
E70320-US	Dragonfly-7 Pro 7" Sonar GPS with CHIRP DownVision & CPT-DVS Transom Mount Transducer, North America CMAP Essentials Chart	
E70320-NAG	Dragonfly-7 Pro 7" Sonar GPS with CHIRP DownVision & CPT-DVS Transom Mount Transducer, North America Navionics + Chart	
E70320-CROW	Dragonfly-7 Pro 7" Sonar GPS with CHIRP DownVision & CPT-DVS Transom Mount Transducer, ROW CMAP Essentials Chart	
E70320-CEUR	Dragonfly-7 Pro 7" Sonar GPS with CHIRP DownVision & CPT-DVS Transom Mount Transducer, Europe CMAP Essentials Chart	
<b>DRAGONFLY ACCESSORIES</b>		
A80366	Dragonfly 4 & 5 Flush Mounting Kit	
A80347	Dragonfly-7 Pro Flush Mounting Kit	
A80367	Dragonfly 4 & 5 Suncover (flush mount only)	
A80348	Dragonfly-7 Pro Suncover (flush mount only)	
R70375	Dragonfly 4, 5 & 7 Mounting Bracket	
R70373	CPT-DV Transducer, for Dragonflies with yellow locking collar	
R70374	CPT-DVS Transducer, for Dragonflies with green locking collar	
A80195	CPT-60 Transom Mount Transducer w/6M Cable	
A80278	CPT-70 Plastic Through Hull CHIRP Transducer, Depth & Temp, Dragonfly only (10m cable)	
A80349	CPT-80 Bronze Through Hull CHIRP Transducer with High Speed Faring, Depth & Temp, Dragonfly only (10m cable)	
A80329	CPT-80/CPT-120 High Speed Faring	
A80224	4M Extension Cable for CPT-60 Transducer	
A80207	Trolling Motor Bracket for CPT-60 or CPT-100	
A80312	CPT-DV / CPT-DVS Extension cable 4m (Green / Yellow locking collar)	
A80330	CPT-DV / CPT-DVS Trolling Motor Mount	
R70439	CPT-DV / CPT-DVS Transom Mount	
A80332	Dragonfly 4/5/6/7 adaptor for CPT-60/70/80 (Green / Yellow locking collar)	
A80331	Dragonfly 6 & 7 CPT-DV / CPT-DVS Adaptor Cable	
R70376	Dragonfly 5m Power cable 1.5m	

**a-Series (6" & 7")**

PART NO.	DESCRIPTION	
<b>a65 MULTIFUNCTION DISPLAYS WITH Wi-Fi</b>		
E70162	a65 5.7" Multifunction Display with Wi-Fi No Chart	
E70162-LNC	a65 5.7" Multifunction Display with Wi-Fi and LightHouse USA Charts	
E70162-US	a65 5.7" Multifunction Display with Wi-Fi and North America CMAP Essentials Chart	
E70162-NAG	a65 5.7" Multifunction Display with Wi-Fi and North America Navionics + Chart	
E70162-CROW	a65 5.7" Multifunction Display with Wi-Fi and ROW CMAP Essential Chart	
E70162-CEUR	a65 5.7" Multifunction Display with Wi-Fi and Europe CMAP Essential Chart	
<b>a67 MULTIFUNCTION DISPLAYS WITH FISHFINDER AND Wi-Fi</b>		
E70163	a67 5.7" Multifunction Display with Built-in Fishfinder and Wi-Fi No Chart	
E70163-LNC	a67 5.7" Multifunction Display with Built-in Fishfinder, Wi-Fi and LightHouse USA Chart	
E70163-US	a67 5.7" Multifunction Display with Built-in Fishfinder and Wi-Fi and North America CMAP Essentials Chart	
E70163-NAG	a67 5.7" Multifunction Display with Built-in Fishfinder and Wi-Fi and North America Navionics + Chart	
E70163-CROW	a67 5.7" Multifunction Display with Built-in Fishfinder and Wi-Fi and ROW CMAP Essentials Chart	
E70163-CEUR	a67 5.7" Multifunction Display with Built-in Fishfinder and Wi-Fi and Europe CMAP Essentials	
<b>a68 MULTIFUNCTION DISPLAYS WITH DOWNVISION AND Wi-Fi</b>		
E70201	a68 5.7" Multifunction Display with CHIRP DownVision Fishfinder and Wi-Fi, No Transducer, No chart	
E70201-LNC	a68 5.7" Multifunction Display with CHIRP DownVision Fishfinder and Wi-Fi and LightHouse USA Chart, No Transducer,	
E70207	a68 5.7" Multifunction Display with CHIRP DownVision Fishfinder and Wi-Fi, CPT-100 Transom Mt Transducer, No chart	
E70207-LNC	a68 5.7" Multifunction Display with CHIRP DownVision Fishfinder and Wi-Fi, CPT-100 Transom Mt Transducer and LightHouse USA Chart	
T70201-US	a68 5.7" Multifunction Display & CHIRP DownVision Fishfinder, Wi-Fi & CPT-100 TM T.ducer, North America CMAP Essentials Chart	
T70201-NAG	a68 5.7" Multifunction Display & CHIRP DownVision Fishfinder, Wi-Fi & CPT-100 TM T.ducer, North America Navionics + Chart	
T70201-CROW	a68 5.7" Multifunction Display & CHIRP DownVision Fishfinder, Wi-Fi & CPT-100 TM T.ducer, ROW CMAP Essential Chart	
T70201-CEUR	a68 5.7" Multifunction Display & CHIRP DownVision Fishfinder, Wi-Fi & CPT-100 TM T.ducer, Europe CMAP Essential Chart	
<b>a75 MULTIFUNCTION DISPLAYS WITH Wi-Fi</b>		
E70166	a75 7" Multifunction Display with Wi-Fi, No Chart	
E70166-LNC	a75 7" Multifunction Display with Wi-Fi and LightHouse USA Chart	
E70166-US	a75 7" Multifunction Display with Wi-Fi and North America CMAP Essentials Chart	
E70166-NAG	a75 7" Multifunction Display with Wi-Fi and North America Navionics + Chart	
E70166-CROW	a75 7" Multifunction Display with Wi-Fi and ROW CMAP Essential Chart	
E70166-CEUR	a75 7" Multifunction Display with Wi-Fi and Europe CMAP Essential Chart	
<b>a77 MULTIFUNCTION DISPLAYS WITH FISHFINDER AND Wi-Fi</b>		
E70167	a77 7" Multifunction Display with Built-in Fishfinder and Wi-Fi, No Chart	
E70167-LNC	a77 7" Multifunction Display with Built-in Fishfinder and Wi-Fi and LightHouse USA Chart	
E70167-US	a77 7" Multifunction Display with CHIRP DownVision Fishfinder and Wi-Fi and North America CMAP Essentials Chart	
E70167-NAG	a77 7" Multifunction Display with CHIRP DownVision Fishfinder and Wi-Fi and North America Navionics + Chart	
E70167-CROW	a77 7" Multifunction Display with CHIRP DownVision Fishfinder and Wi-Fi and ROW CMAP Essentials Chart	
E70167-CEUR	a77 7" Multifunction Display with CHIRP DownVision Fishfinder and Wi-Fi and Europe CMAP Essentials Chart	
<b>a78 MULTIFUNCTION DISPLAYS WITH DOWNVISION AND Wi-Fi</b>		
E70203	a78 7" Multifunction Display with CHIRP DownVision Fishfinder and Wi-Fi, No Transducer, No chart	
E70203-LNC	a78 7" Multifunction Display with CHIRP DownVision Fishfinder and Wi-Fi and LightHouse USA Chart, No Transducer	
E70209	a78 7" Multifunction Display with CHIRP DownVision Fishfinder and Wi-Fi, CPT-100 Transom Mount Transducer, No chart	
E70209-LNC	a78 7" Multifunction Display with CHIRP DownVision Fishfinder and Wi-Fi, CPT-100 Transom Mount Transducer and LightHouse USA Chart	
T70203-US	a78 7" Multifunction Display with CHIRP DownVision Fishfinder and Wi-Fi and North America CMAP Essentials Chart	
T70203-NAG	a78 7" Multifunction Display with CHIRP DownVision Fishfinder and Wi-Fi, CPT-100 Transom Mount Transducer, North America Navionics	
T70203-CROW	a78 7" Multifunction Display with CHIRP DownVision Fishfinder and Wi-Fi, CPT-100 Transom Mount Transducer, ROW CMAP Essentials	
T70203-CEUR	a78 7" Multifunction Display with CHIRP DownVision Fishfinder and Wi-Fi, CPT-100 Transom Mount Transducer, Europe CMAP Essentials	
<b>a75/a77/a78 RADAR PACKS</b>		
T70230	a75 7" MFD with Wi-Fi, LightHouse USA Chart, 4kW 18" Digital Radome and 10m Radar Raynet Cable	
T70228	a78 7" MFD with Downvision, CPT-100, Wi-Fi, LightHouse USA Chart, 4kW 18" Digital Radome and 10m Radar Raynet Cable	



a-Series (9" & 12")		
PART NO.	DESCRIPTION	
<b>a95 MULTIFUNCTION DISPLAYS WITH Wi-Fi</b>		
E70232	a95 9" Multifunction Display with Wi-Fi, No Chart	
E70232-LNC	a95 9" Multifunction Display with Wi-Fi and LightHouse USA Chart	
E70232-US	a95 9" Multifunction Display with Wi-Fi and USA CMAP Essentials Chart	
E70232-NAG	a95 9" Multifunction Display with Wi-Fi and USA Navionics + Chart	
E70232-CROW	a95 9" Multifunction Display with Wi-Fi and ROW CMAP Essentials Chart	
E70232-CEUR	a95 9" Multifunction Display with Wi-Fi and Europe CMAP Essentials Chart	
<b>a97 MULTIFUNCTION DISPLAYS WITH FISHFINDER AND Wi-Fi</b>		
E70233	a97 9" Multifunction Display with Built-in Fishfinder and Wi-Fi, No Chart	
E70233-LNC	a97 9" Multifunction Display with Built-in Fishfinder and Wi-Fi and LightHouse USA Chart, No Chart	
E70233-US	a97 9" Multifunction Display with Built-in Fishfinder with Wi-Fi and USA CMAP Essentials Chart	
E70233-NAG	a97 9" Multifunction Display with Built-in Fishfinder with Wi-Fi and North America Navionics + Chart	
E70233-CROW	a97 9" Multifunction Display with Built-in Fishfinder with Wi-Fi and ROW CMAP Essentials Chart	
E70233-CEUR	a97 9" Multifunction Display with Built-in Fishfinder with Wi-Fi and Europe CMAP Essentials Chart	
<b>a98 MULTIFUNCTION DISPLAYS WITH DOWNVISION AND Wi-Fi</b>		
E70234	a98 9" Multifunction Display with CHIRP DownVision Fishfinder and Wi-Fi, No chart	
E70234-LNC	a98 9" Multifunction Display with CHIRP DownVision Fishfinder and Wi-Fi and LightHouse USA Chart	
E70234-US	a98 9" Multifunction Display with CHIRP DownVision Fishfinder and Wi-Fi and North America CMAP Essentials Chart	
E70234-NAG	a98 9" Multifunction Display with CHIRP DownVision Fishfinder with Wi-Fi and North America Navionics + Chart	
E70234-CROW	a98 9" Multifunction Display with CHIRP DownVision Fishfinder with Wi-Fi and ROW CMAP Essentials Chart	
E70234-CEUR	a98 9" Multifunction Display with CHIRP DownVision Fishfinder with Wi-Fi and Europe CMAP Essential Chart	
T70247-LNC	a98 9" Multifunction Display with CHIRP DownVision Fishfinder and Wi-Fi and LightHouse USA Chart and CPT-100 Transducer	
T70247-US	a98 9" Multifunction Display with CHIRP DownVision Fishfinder and Wi-Fi and North America CMAP Essentials Chart and CPT-100 Transducer	
T70247-NAG	a98 9" Multifunction Display with CHIRP DownVision Fishfinder with Wi-Fi and North America Navionics + Chart and CPT-100 Transducer	
<b>a125 MULTIFUNCTION DISPLAYS WITH Wi-Fi</b>		
E70235	a125 12" Multifunction Display with Wi-Fi, No Chart	
E70235-LNC	a125 12" Multifunction Display with Wi-Fi and LightHouse USA Chart	
E70235-US	a125 12" Multifunction Display with Wi-Fi and USA CMAP Essentials Chart	
E70235-NAG	a125 12" Multifunction Display with Wi-Fi and North America Navionics + Chart	
E70235-CROW	a125 12" Multifunction Display with Wi-Fi and ROW CMAP Essential Chart	
E70235-CEUR	a125 12" Multifunction Display with Wi-Fi and Europe CMAP Essential Chart	
<b>a127 MULTIFUNCTION DISPLAYS WITH FISHFINDER AND Wi-Fi</b>		
E70236	a127 12" Multifunction Display with Built-in Fishfinder and Wi-Fi, No Chart	
E70236-LNC	a127 12" Multifunction Display with Built-in Fishfinder and Wi-Fi and LightHouse USA Chart	
E70236-US	a127 12" Multifunction Display with Built-in Fishfinder with Wi-Fi and USA CMAP Essentials Chart	
E70236-NAG	a127 12" Multifunction Display with Built-in Fishfinder with Wi-Fi and North America Navionics + Chart	
E70236-CROW	a127 12" Multifunction Display with Built-in Fishfinder with Wi-Fi and ROW CMAP Essentials Chart	
E70236-CEUR	a127 12" Multifunction Display with Built-in Fishfinder with Wi-Fi and Europe CMAP Essentials Chart	
<b>a128 MULTIFUNCTION DISPLAYS WITH DOWNVISION AND Wi-Fi</b>		
E70237	a128 12" Multifunction Display with CHIRP DownVision Fishfinder and Wi-Fi, No chart	
E70237-LNC	a128 12" Multifunction Display with CHIRP DownVision Fishfinder and Wi-Fi and LightHouse USA Chart	
E70237-US	a128 12" Multifunction Display with CHIRP DownVision Fishfinder with Wi-Fi and USA CMAP Coastal and Lakes Chart	
E70237-NAG	a128 12" Multifunction Display with CHIRP DownVision Fishfinder with Wi-Fi and North America Navionics + Chart	
E70237-CROW	a128 12" Multifunction Display with CHIRP DownVision Fishfinder with Wi-Fi and ROW CMAP Essentials Chart	
E70237-CEUR	a128 12" Multifunction Display with CHIRP DownVision Fishfinder with Wi-Fi and Europe CMAP Essentials	
T70251	a128 12" Multifunction Display with CHIRP DownVision Fishfinder and Wi-Fi and CPT-100 Transducer, No chart	
T70251-LNC	a128 12" Multifunction Display with CHIRP DownVision Fishfinder and Wi-Fi, CPT-100 Transducer and LightHouse USA Chart	
T70251-US	a128 12" Multifunction Display with CHIRP DownVision Fishfinder with Wi-Fi, CPT-100 Transducer and USA CMAP Coastal and Lakes Chart	
T70251-NAG	a128 12" Multifunction Display with CHIRP DownVision Fishfinder with Wi-Fi, CPT-100 Transducer and North America Navionics + Chart	
<b>a-SERIES DOWNVISION AND SIDEVISION PACKS</b>		
T70254	a78 DownVision & SideVision Pack with a78, 400mm Raynet cable, CPT-100 transducer, CP200 and CPT-200 transducer	
T70255	a98 DownVision & SideVision Pack with a98, 400mm Raynet cable, CPT-100 transducer, CP200 and CPT-200 transducer	
T70256	a128 DownVision & SideVision Pack with a128, 400mm Raynet cable, CPT-100 transducer, CP200 and CPT-200 transducer	

PART NO.	DESCRIPTION	
<b>ACCESSORIES</b>		
A80217	System Remote Control Keypad (RMK-9)	
E62351	RCU-3 Remote Control Unit	
A80288	GA150 GPS & Glonass antenna (a9, a12, eS9, eS12 direct connection only)	
E32153	Raystar 130 GPS antenna (STng)	
A80007	HS-5 SeaTalkHS Network Switch (Raynet)	
R70147	a6 Trunnion Mount Kit	
R70149	a6 Suncover	
R70158	a7 Trunnion Mount Kit	
R70155	a7 Suncover	
R70305	a9 Trunnion Kit	
R70303	a9 Suncover	
R70309	a12 Trunnion Mount Kit	
R70307	a12 Suncover	
R70159	a6, a7, eS7 Power Cable 1.5m Straight	
A80221	a6, a7, eS7 Power Cable 1.5m Right Angle	
A80273	Transducer Extension for CPT100, CPT110 & CPT120 (4m cable)	
A80363	CPT-S Trolling Motor Mounting Kit	
R70496	CPT-S Transom Bracket with Hardware	
<b>CHIRP DOWNVISION TRANSDUCERS (CP100/a68/a78/a128/eS78/eS98/eS128)</b>		
E70342	CPT-S Plastic Conical HIGH CHIRP Transom Mount Transducer	
E70339	CPT-S Plastic Conical HIGH CHIRP Through Hull 0° Angled Element Transducer	
E70340	CPT-S Bronze Conical HIGH CHIRP Through Hull 12° Angled Element Transducer	
E70341	CPT-S Bronze Conical HIGH CHIRP Through Hull 20° Angled Element Transducer	
A80270	CPT-100 Transom Mount CHIRP Transducer, Depth & Temp, Direct connect to CP100 & xx8 MFDs (10m cable)	
A80277	CPT-110 Plastic Through Hull CHIRP Transducer, Depth & Temp, Direct connect to CP100 & xx8 MFDs (10m cable)	
A80350	CPT-120 Bronze Through Hull CHIRP Transducer with High Speed Fairing, Depth & Temp, Direct connect to CP100 & xx8 MFDs (10m cable)	
<b>DIGITAL CLEARPULSE TRANSDUCERS (a67/a77/a97/a127/c97/c127/e7D/e97/e127/eS97/eS127 Direct connect)</b>		
A80150	P48 Depth/Temp Transom Mount Transducer (a/c/e/eS Direct connect)	
A102138	P58 D/S/T Transom Mount Transducer (a/c/e/eS Direct connect)	
E66073	P74 D/T In Hull/Trolling Transducer (a/c/e/eS Direct connect)	
A80170	P79 In Hull Depth Transducer (a/c/e/eS Direct connect)	
A80171	P319 Low Profile Depth/Temp Transducer (a/c/e/eS Direct connect)	
E66087	B60 D/T Through Hull Transducer 20° Angle (a/c/e/eS Direct connect)	
E66088	Bronze B60 D/T Through Hull Transducer 12° Angle (a/c/e/eS Direct connect)	
A66090	B744V D/S/T Transducer with Fairing Block (a/c/e/eS Direct connect)	
A80172	B258 Bronze Through Hull Depth/Temp Transducer (a/c/e/eS Direct connect)	
A80173	B164 Bronze Low Profile Depth/Temp Transducer (a/c/e/eS Direct connect)	
A80214	SS60 600W Depth/Temp 0 Degree Transducer (a/c/e/eS Direct connect)	
A80215	SS60 600W Depth/Temp 12 Degree Transducer (a/c/e/eS Direct connect)	
A80216	SS60 600W Depth/Temp 20 Degree Transducer (a/c/e/eS Direct connect)	
E66074	3m Transducer Extension Cable	
E66066	Transducer Adaptor Cable for DSM transducers to a, c & e Series	
A62363	1m Minnkota Adaptor Cable	

### c-Series & e-Series

PART NO.	DESCRIPTION	
<b>c95/c97 Multifunction DISPLAY (NON TOUCH)</b>		
E70011	c95 9" Multifunction Display No Chart	
E70011-LNC	c95 9" Multifunction Display with LightHouse USA Chart	
E70011-US	c95 9" Multifunction Display with USA CMAP Essentials Chart	
E70011-NAG	c95 9" Multifunction Display with North America Navionics + Chart	
E70011-CROW	c95 9" Multifunction Display with ROW CMAP Essentials Chart	



PART NO.	DESCRIPTION	
E70011-CEUR	c95 9" Multifunction Display with Europe CMAP Essentials Chart	
E70012	c97 9" Multifunction Display with Built-in Fishfinder No Chart	
E70012-LNC	c97 9" Multifunction Display with Built-in Fishfinder with LightHouse USA Chart	
E70012-US	c97 9" Multifunction Display with Built-in Fishfinder, USA CMAP Essentials Chart	
E70012-NAG	c97 9" Multifunction Display with Built-in Fishfinder, North America Navionics + Chart	
E70012-CROW	c97 9" Multifunction Display with Built-in Fishfinder, ROW CMAP Essentials Chart	
E70012-CEUR	c97 9" Multifunction Display with Built-in Fishfinder, Europe CMAP Essentials Chart	
<b>c125/c127 Multifunction DISPLAY (NON TOUCH)</b>		
E70013	c125 12" Multifunction Display No Chart	
E70013-LNC	c125 12" Multifunction Display with LightHouse USA Chart	
E70013-US	c125 12" Multifunction Display with USA CMAP Essentials Chart	
E70013-NAG	c125 12" Multifunction Display with North America Navionics + Chart	
E70013-CROW	c125 12" Multifunction Display with ROW CMAP Essentials Chart	
E70013-CEUR	c125 12" Multifunction Display with Europe CMAP Essentials Chart	
E70014	c127 12" Multifunction Display with Built-in Fishfinder No Chart	
E70014-LNC	c127 12" Multifunction Display with Built-in Fishfinder with LightHouse USA Chart	
E70014-US	c127 12" Multifunction Display with Built-in Fishfinder, USA CMAP Essentials Chart	
E70014-NAG	c127 12" Multifunction Display with Built-in Fishfinder, North America Navionics + Chart	
E70014-CROW	c127 12" Multifunction Display with Built-in Fishfinder, ROW CMAP Essentials Chart	
E70014-CEUR	c127 12" Multifunction Display with Built-in Fishfinder, Europe CMAP Essentials Chart	
<b>e165 HYBRIDTOUCH Multifunction DISPLAY (no internal GPS)</b>		
E70025	e165 15.4" HybridTouch Multifunction Display No Chart	
E70025-LNC	e165 15.4" HybridTouch Multifunction Display with LightHouse USA Chart	
E70025-US	e165 15.4" HybridTouch Multifunction Display with US Coastal Chart	
E70025-NAG	e165 15.4" HybridTouch Multifunction Display with North America Navionics + Chart	
E70025-CROW	e165 15.4" HybridTouch Multifunction Display with ROW CMAP Essentials Chart	
E70025-CEUR	e165 15.4" HybridTouch Multifunction Display with Europe CMAP Essentials Chart	
<b>e165 BUNDLE</b>		
E70025-DDB	e165 15.4" HybridTouch Dual Display Bundle, RS130 GPS & STNG Starter kit	
<b>ACCESSORIES</b>		
A80217	System Remote Control Keypad (RMK-9)	
E62351	RCU-3 Remote Control Unit	
E32153	Raystar 130 GPS antenna (STng)	
A80007	HS-5 SeaTalkHS Network Switch (Raynet)	
R70005	c9, e9 Replacement SunCover	
R70007	c12, e12 Replacement SunCover	
R70127	e165 Suncover	
R70355	c9x, e9x Aluminum Rugged Trunnion bracket	
R70356	c12x, e12x Aluminum Rugged Trunnion bracket	
A80176	e165 - Trunnion Kit	
R70029	a9, a12, c9, c12, e7, e9, e12, e165, eS9, eS12 & gS Power cable, NMEA0183 & Video-in 1.5m Right Angle	
R62379	a9, a12, c9, c12, e7, e9, e12, e165, eS9, eS12 & gS Power, NMEA0183 & Video-in cable 1.5m Straight	
R70079	c9, e9 Display Flush Mount Kit	
R70080	c12, e12 Display Flush Mount Kit	
R70125	e165 Display Flush Mount Kit	
R70008	c9, e9 Mounting Adaptor Kit for C90W/E90W cutout	
R70009	c12, e12 Mounting Adaptor Kit for C120W/E120W cutout	
R70010	c9, e9 Mounting Adaptor Kit for C80/E80 cutout	
R70011	c12, e12 Mounting Adaptor Kit for C120/E120 cutout	
E112115	Voyage Planner PC Software	

## c-Series & e-Series

PART NO.	DESCRIPTION	
<b>DIGITAL CLEARPULSE TRANSDUCERS (a67/a77/a97/a127/c97/c127/e7D/e97/e127/eS97/eS127 Direct connect)</b>		
A80150	P48 Depth/Temp Transom Mount Transducer (a/c/e/eS Direct connect)	
A102138	P58 D/S/T Transom Mount Transducer (a/c/e/eS Direct connect)	
E66073	P74 D/T In Hull/Trolling Transducer (a/c/e/eS Direct connect)	
A80170	P79 In Hull Depth Transducer (a/c/e/eS Direct connect)	
A80171	P319 Low Profile Depth/Temp Transducer (a/c/e/eS Direct connect)	
E66087	B60 D/T Through Hull Transducer 20° Angle (a/c/e/eS Direct connect)	
E66088	Bronze B60 D/T Through Hull Transducer 12° Angle (a/c/e/eS Direct connect)	
A66090	B744V D/S/T Transducer with Fairing Block (a/c/e/eS Direct connect)	
A80172	B258 Bronze Through Hull Depth/Temp Transducer (a/c/e/eS Direct connect)	
A80173	B164 Bronze Low Profile Depth/Temp Transducer (a/c/e/eS Direct connect)	
A80214	SS60 600W Depth/Temp 0 Degree Transducer (a/c/e/eS Direct connect)	
A80215	SS60 600W Depth/Temp 12 Degree Transducer (a/c/e/eS Direct connect)	
A80216	SS60 600W Depth/Temp 20 Degree Transducer (a/c/e/eS Direct connect)	
E66074	3m Transducer Extension Cable	
E66066	Transducer Adaptor Cable for DSM transducers to a, c & e Series	
A62363	1m Minnkota Adaptor Cable	

## eS-Series

PART NO.	DESCRIPTION	
<b>eS75 / eS78 HYBRIDTOUCH MULTIFUNCTION DISPLAYS</b>		
E70263	eS75 7" HybridTouch Multifunction Display with Wi-Fi, No Chart	
E70263-LNC	eS75 7" HybridTouch Multifunction Display with Wi-Fi and LightHouse USA Chart	
E70263-US	eS75 7" HybridTouch Multifunction Display with Wi-Fi and USA CMAP Essentials Chart	
E70263-NAG	eS75 7" HybridTouch Multifunction Display with Wi-Fi and Navionics + Chart for North America	
E70263-CROW	eS75 7" HybridTouch Multifunction Display with Wi-Fi and ROW CMAP Essentials Chart	
E70263-CEUR	eS75 7" HybridTouch Multifunction Display with Wi-Fi and Europe CMAP Essentials Chart	
E70265	eS78 7" HybridTouch Multifunction Display with Built in DownVision Sonar and Wi-Fi, No Chart	
E70265-LNC	eS78 7" HybridTouch Multifunction Display with Built in DownVision Sonar, Wi-Fi and LightHouse USA Chart	
E70265-US	eS78 7" HybridTouch Multifunction Display with Built in DownVision Sonar, Wi-Fi and USA CMAP Essentials Chart	
E70265-NAG	eS78 7" HybridTouch Multifunction Display with Built in DownVision Sonar, Wi-Fi and Navionics + Chart for North America	
E70265-CROW	eS78 7" HybridTouch Multifunction Display with Built in DownVision Sonar, Wi-Fi and ROW CMAP Essentials Chart	
E70265-CEUR	eS78 7" HybridTouch Multifunction Display with Built in DownVision Sonar, Wi-Fi and Europe CMAP Essentials Chart	
<b>eS97 / eS98 HYBRIDTOUCH MULTIFUNCTION DISPLAYS</b>		
E70274	eS97 9" HybridTouch Multifunction Display with Built in Fishfinder and Wi-Fi, No Chart	
E70274-LNC	eS97 9" HybridTouch Multifunction Display with Built in Fishfinder, Wi-Fi and LightHouse USA Chart	
E70274-US	eS97 9" HybridTouch Multifunction Display with Built in Fishfinder, Wi-Fi and USA CMAP Essentials Chart	
E70274-NAG	eS97 9" HybridTouch Multifunction Display with Built in Fishfinder, Wi-Fi and North America Navionics + Chart	
E70274-CROW	eS97 9" HybridTouch Multifunction Display with Built in Fishfinder, Wi-Fi and ROW CMAP Essentials Chart	
E70274-CEUR	eS97 9" HybridTouch Multifunction Display with Built in Fishfinder, Wi-Fi and Europe CMAP Essentials Chart	
E70275	eS98 9" HybridTouch Multifunction Display with Built in DownVision Sonar and Wi-Fi, No Chart	
E70275-LNC	eS98 9" HybridTouch Multifunction Display with Built in DownVision Sonar, Wi-Fi and LightHouse USA Chart	
E70275-US	eS98 9" HybridTouch Multifunction Display with Built in DownVision Sonar, Wi-Fi and USA CMAP Essentials Chart	
E70275-NAG	eS98 9" HybridTouch Multifunction Display with Built in DownVision Sonar, Wi-Fi and North America Navionics + Chart	
E70275-CROW	eS98 9" HybridTouch Multifunction Display with Built in DownVision Sonar, Wi-Fi and ROW CMAP Essentials Chart	
E70275-CEUR	eS98 9" HybridTouch Multifunction Display with Built in DownVision Sonar, Wi-Fi and Europe CMAP Essentials Chart	
<b>eS127 / eS128 HYBRIDTOUCH MULTIFUNCTION DISPLAYS</b>		
E70284	eS127 12.1" HybridTouch Multifunction Display with Built in Fishfinder and Wi-Fi, No Chart	
E70284-LNC	eS127 12.1" HybridTouch Multifunction Display with Built in Fishfinder, Wi-Fi and LightHouse USA Chart	
E70284-US	eS127 12.1" HybridTouch Multifunction Display with Built in Fishfinder, Wi-Fi and USA CMAP Essentials Chart	
E70284-NAG	eS127 12.1" HybridTouch Multifunction Display with Built in Fishfinder, Wi-Fi and North America Navionics + Chart	
E70284-CROW	eS127 12.1" HybridTouch Multifunction Display with Built in Fishfinder, Wi-Fi and ROW CMAP Essentials Chart	
E70284-CEUR	eS127 12.1" HybridTouch Multifunction Display with Built in Fishfinder, Wi-Fi and Europe CMAP Essentials Chart	
E70285	eS128 12.1" HybridTouch Multifunction Display with Built in DownVision Sonar and Wi-Fi, No Chart	
E70285-LNC	eS128 12.1" HybridTouch Multifunction Display with Built in DownVision Sonar, Wi-Fi and LightHouse USA Chart	



PART NO.	DESCRIPTION	
E70285-US	eS128 12.1" HybridTouch Multifunction Display with Built in DownVision Sonar, Wi-Fi and USA CMAP Essentials Chart	
E70285-NAG	eS128 12.1" HybridTouch Multifunction Display with Built in DownVision Sonar, Wi-Fi and North America Navionics + Chart	
E70285-CROW	eS128 12.1" HybridTouch Multifunction Display with Built in DownVision Sonar, Wi-Fi and ROW CMAP Essentials Chart	
E70285-CEUR	eS128 12.1" HybridTouch Multifunction Display with Built in DownVision Sonar, Wi-Fi and Europe CMAP Essentials Chart	
<b>eS-SERIES DOWNVISION AND SIDEVISION PACKS</b>		
T70263	eS78 DownVision & SideVision Pack with a78, 400mm Raynet cable, CPT-100 transducer, CP200 and CPT-200 transducer	
T70264	eS98 DownVision & SideVision Pack with a98, 400mm Raynet cable, CPT-100 transducer, CP200 and CPT-200 transducer	
T70265	eS128 DownVision & SideVision Pack with a128, 400mm Raynet cable, CPT-100 transducer, CP200 and CPT-200 transducer	
<b>eS SERIES ACCESSORIES</b>		
A80217	System Remote Control Keypad (RMK-9)	
E62351	RCU-3 Remote Control Unit	
E32153	Raystar 130 GPS antenna (STng)	
A80007	HS-5 SeaTalkHS Network Switch (Raynet)	
R70393	eS7/eS9/eS12 - Card Reader Gasket	
R70378	eS7 Suncover	
R70381	eS7 Trunnion Mount Kit	
R70379	eS7 Trim Kit	
R70380	eS7 Flush Mount Seal Kit	
A80341	eS7 Rear Mounting Bracket	
R70414	eS7 Video In / NMEA0183 Cable	
R70382	eS9 Suncover	
R70384	eS9 Trunnion Mount Kit	
R70383	eS9 Trim Kit	
R70385	eS9 Flush Mount Seal Kit	
A80342	eS9 Rear Mounting Bracket	
R70386	eS12 Suncover	
R70389	eS12 Trunnion Mount Kit	
R70387	eS12 Trim Kit	
R70388	eS12 Flush Mount Seal Kit	
A80343	eS12 Rear Mounting Bracket	
A80363	CPT-S Trolling Motor Mounting Kit	
R70496	CPT-S Transom Bracket with Hardware	
R70159	a6, a7, eS7 Power Cable 1.5m Straight	
A80221	a6, a7, eS7 Power Cable 1.5m Right Angle	
R62379	a9, a12, c9, c12, e7, e9, e12, e165, eS9, eS12 & gS Power, NMEA0183 & Video-in cable 1.5m Straight	
R70029	a9, a12, c9, c12, e7, e9, e12, e165, eS9, eS12 & gS Power cable, NMEA0183 & Video-in 1.5m Right Angle	
<b>CHIRP SONAR TRANSDUCERS (CP100/a68/a78/a128/eS78/eS98/eS128)</b>		
E70342	CPT-S Plastic Conical HIGH CHIRP Transom Mount Transducer	
E70339	CPT-S Plastic Conical HIGH CHIRP Through Hull 0° Angled Element Transducer	
E70340	CPT-S Bronze Conical HIGH CHIRP Through Hull 12° Angled Element Transducer	
E70341	CPT-S Bronze Conical HIGH CHIRP Through Hull 20° Angled Element Transducer	
A80270	CPT-100 Transom Mount CHIRP Transducer, Depth & Temp, Direct connect to CP100 & xx8 MFDs (10m cable)	
A80277	CPT-110 Plastic Through Hull CHIRP Transducer, Depth & Temp, Direct connect to CP100 & xx8 MFDs (10m cable)	
A80350	CPT-120 Bronze Through Hull CHIRP Transducer with High Speed Fairing, Depth & Temp, Direct connect to CP100 & xx8 MFDs (10m cable)	
<b>DIGITAL CLEARPULSE TRANSDUCERS (a67/a77/a97/a127/c97/c127/e7D/e97/e127/eS97/eS127 Direct connect)</b>		
A80150	P48 Depth/Temp Transom Mount Transducer (a/c/e/eS Direct connect)	
A102138	P58 D/S/T Transom Mount Transducer (a/c/e/eS Direct connect)	
E66073	P74 D/T In Hull/Trolling Transducer (a/c/e/eS Direct connect)	
A80170	P79 In Hull Depth Transducer (a/c/e/eS Direct connect)	
A80171	P319 Low Profile Depth/Temp Transducer (a/c/e/eS Direct connect)	
E66087	B60 D/T Through Hull Transducer 20° Angle (a/c/e/eS Direct connect)	
E66088	Bronze B60 D/T Through Hull Transducer 12° Angle (a/c/e/eS Direct connect)	
A66090	B744V D/S/T Transducer with Fairing Block (a/c/e/eS Direct connect)	

PART NO.	DESCRIPTION	
A80172	B258 Bronze Through Hull Depth/Temp Transducer (a/c/e/eS Direct connect)	
A80173	B164 Bronze Low Profile Depth/Temp Transducer (a/c/e/eS Direct connect)	
A80214	SS60 600W Depth/Temp 0 Degree Transducer (a/c/e/eS Direct connect)	
A80215	SS60 600W Depth/Temp 12 Degree Transducer (a/c/e/eS Direct connect)	
A80216	SS60 600W Depth/Temp 20 Degree Transducer (a/c/e/eS Direct connect)	
E66074	3m Transducer Extension Cable	
E66066	Transducer Adaptor Cable for DSM transducers to a, c & e Series	
A62363	1m Minnkota Adaptor Cable	

## G-Series

PART NO.	DESCRIPTION	
<b>G SERIES MONITORS</b>		
E70027	GB120H 12" Glass Bridge Monitor	
E70028	GB150H 15" Glass Bridge Monitor	
E70029	GB170H 17" Glass Bridge Monitor	
E70030	GB190H 19" Glass Bridge Monitor	

## gS-Series

PART NO.	DESCRIPTION	
<b>gS GLASS BRIDGE MULTIFUNCTION DISPLAY (6 O'CLOCK VIEWING ANGLE)</b>		
E70183	gS95 - 9" Glass Bridge Multifunction Display (6 o'clock Viewing Angle)	
E70184	gS125 - 12.1" Glass Bridge Multifunction Display (6 o'clock Viewing Angle)	
E70185	gS165 - 15.4" Glass Bridge Multifunction Display (6 o'clock Viewing Angle)	
E70213	gS195 - 19" Glass Bridge Multifunction Display (6 o'clock Viewing Angle)	
<b>gS GLASS BRIDGE MULTIFUNCTION DISPLAY (12 O'CLOCK VIEWING ANGLE)</b>		
E70124	gS95 - 9" Glass Bridge Multifunction Display (12 o'clock Viewing Angle)	
E70125	gS125 - 12.1" Glass Bridge Multifunction Display (12 o'clock Viewing Angle)	
E70126	gS165 - 15.4" Glass Bridge Multifunction Display (12 o'clock Viewing Angle)	
<b>gS BUNDLES</b>		
E70185-DDB	gS165 - 15.4" Glass Bridge Dual Display Bundle (6 o'clock Viewing Angle), RMK-9 & RS130 GPS & STNG Starter kit	
E70126-DDB	gS165 - 15.4" Glass Bridge Dual Display Bundle (12 o'clock Viewing Angle), RMK-9 & RS130 GPS & STNG Starter kit	
E70213-DDB	gS195 - 19" Glass Bridge Dual Display bundle (6 o'clock Viewing Angle), RMK-9 & RS130 GPS & STNG Starter kit	
<b>gS SERIES ACCESSORIES</b>		
A80217	System Remote Control Keypad (RMK-9)	
A80218	System Micro SD Card Reader (RCR-2)	
E26033	External Alarm Buzzer	
A80219	5m Video Out Accessory Cable for gS Series	
A80235	2m gS Series Video In and Alarm Cable	
A80220	Mounting Kit for gS95 - 9" Glass Bridge Display	
A80263	Mounting Kit for gS125 - 12.1" Glass Bridge Display	
A80264	Mounting Kit for gS165 - 15.4" Glass Bridge Display	
R70291	Mounting Kit for gS195 - 19" Glass Bridge Display	



Radar		
PART NO.	DESCRIPTION	
<b>QUANTUM CHIRP PULSE COMPRESSION RADAR</b>		
E70210	Quantum Q24C 18" Radar (Wired & Wi-Fi) with 10m Power Cable	
T70243	Quantum Q24C 18" Radar (Wired & Wi-Fi) with 10m Power and Data Cable	
<b>QUANTUM CABLES</b>		
A80274	Quantum Data Cable 5M	
A80275	Quantum Data Cable 10M	
A80310	Quantum Data Cable 15M	
A80311	Quantum Data Cable 25M	
A80309	Quantum Power Cable 10M	
A80308	Quantum Power-Data Adapter Cable	
<b>DIGITAL RADOME RADAR SCANNERS</b>		
E92130	4kW 18" (456mm) Digital Radome - No Cable	
T70166	4kW 18" (456mm) Digital Radome + 10m Raynet Cable	
E92132	4kW 24" (608mm) Digital Radome - No Cable	
T70167	4kW 24" (608mm) Digital Radome + 10m Raynet Cable	
<b>HD COLOR RADOME RADAR SCANNERS</b>		
E92142	4kW 18" (456mm) HD Color Radome no Cable	
T70168	4kW 18" (456mm) HD Color Radome + 10m Raynet Cable	
E92143	4kW 24" (608mm) HD Color Radome no Cable	
T70169	4kW 24" (608mm) HD Color Radome + 10m Raynet Cable	
<b>HD COLOR OPEN ARRAY ANTENNA PACKS</b>		
T70170	4kW 48" HD Color Open Array + 15m Raynet cable	
T70171	4kW 72" HD Color Open Array + 15m Raynet cable	
T70174	12kW 48" HD Color Open Array + 15m Raynet cable	
T70175	12kW 72" HD Color Open Array + 15m Raynet cable	
<b>SUPER HD COLOR OPEN ARRAY ANTENNA PACKS</b>		
T70172	4kW 48" SHD Color Open Array + 15m Raynet cable	
T70173	4kW 72" SHD Color Open Array + 15m Raynet cable	
T70176	12kW 48" SHD Color Open Array + 15m Raynet cable	
T70177	12kW 72" SHD Color Open Array + 15m Raynet cable	
<b>HD / SUPER HD COLOR OPEN ARRAY COMPONENTS</b>		
E52069E	4kW Pedestal – HD Color (includes VCM100)	
E52081E	4kW Pedestal – Super HD Color (includes VCM100)	
E92160E	12kW Pedestal - HD Color (includes VCM100)	
E52082E	12kW Pedestal – Super HD Color (includes VCM100)	
E52083	48" Open Array – HD Color	
E52084	72" Open Array – HD Color	
E52092	48" Open Array – Super HD Color	
E52093	72" Open Array – Super HD Color	
E52091	VCM100 – Voltage Converter Module (spare)	
<b>RADAR SCANNER CABLES</b>		
A80227	5m Digital Radar Cable with Raynet Connector	
A80228	10m Digital Radar Cable with Raynet Connector	
A80229	15m Digital Radar Cable with Raynet Connector	
A80230	25m Digital Radar Cable with Raynet Connector	
A55076D	5m Digital Radar Cable (RJ45 Connector)	
A55077D	10m Digital Radar Cable (RJ45 Connector)	
A55078D	15m Digital Radar Cable (RJ45 Connector)	
A55079D	25m Digital Radar Cable (RJ45 Connector)	
A92141D	2.5m Digital Radar Extension Cable	
A55080D	5m Digital Radar Extension Cable	
A55081D	10m Digital Radar Extension Cable	
A80160	RayNet (F) to SeaTalkHS (F) adaptor - 400mm	

PART NO.	DESCRIPTION	
<b>RADOME/PEDESTAL MOUNTS</b>		
M92722	Mast Mount Bracket for 18" (456mm) Radome Scanner	
M92698	Mast Mount Bracket for 24" (608mm) Radome Scanner	
A92159	Pedestal Mount Adaptor Plate	
<b>ACCESSORIES</b>		
A80007	HS-5 SeaTalkHS Network Switch (Raynet)	
A80162	RayNet (M) to RayNet (M) cable - 100mm	
E55060	SeaTalkHS Crossover Coupler	
R32142	Ethernet Coupler	
E70096	Evolution EV1 Sensor Core	

<b>CP100 &amp; CP200</b>		
PART NO.	DESCRIPTION	
<b>SOUNDER MODULE</b>		
E70204	CP100 DownVision Fishfinder	
E70256	CP200 SideVision Fishfinder	
<b>CHIRP SONAR, DOWNVISION &amp; SIDEVISION TRANSDUCERS</b>		
E70342	CPT-S Plastic Conical HIGH CHIRP Transom Mount Transducer	
E70339	CPT-S Plastic Conical HIGH CHIRP Through Hull 0° Angled Element Transducer	
E70340	CPT-S Bronze Conical HIGH CHIRP Through Hull 12° Angled Element Transducer	
E70341	CPT-S Bronze Conical HIGH CHIRP Through Hull 20° Angled Element Transducer	
A80270	CPT-100 Transom Mount CHIRP Transducer, Depth & Temp, Direct connect to CP100 & xx8 MFDs (10m cable)	
A80277	CPT-110 Plastic Through Hull CHIRP Transducer, Depth & Temp, Direct connect to CP100 & xx8 MFDs (10m cable)	
A80350	CPT-120 Bronze Through Hull CHIRP Transducer with High Speed Fairing, Depth & Temp, Direct connect to CP100 & xx8 MFDs (10m cable)	
A80281	CPT-200 Transom Mount CHIRP Transducer, SideVision & Temp, Direct connect to CP200 (10m cable)	
<b>DOWNVISION &amp; SIDEVISION BUNDLE</b>		
E70205	CP100 DownVision Fishfinder and Transom Mount CPT-100 Depth & Temp CHIRP Transducer Pack	
E70257	CP200 SideVision Fishfinder and Transom Mount CPT-200 SideVision & Temp CHIRP Transducer Pack	
T70229	CP100 & CP200 System Pack with Downvision & SideVision CPT-100 & CPT-200 Transom Mount Depth, Side & Temp Transducers	
<b>ACCESSORIES</b>		
A80363	CPT-S Trolling Motor Mounting Kit	
R70496	CPT-S Transom Bracket with Hardware	
A80273	Transducer Extension for CPT100, CPT110 & CPT120 (4m cable)	
A80305	CPT200 Transducer Ext cable 4m	

<b>CP370</b>		
PART NO.	DESCRIPTION	
<b>SOUNDER MODULE</b>		
E70297	CP370 ClearPulse 1KW Sonar Module	
<b>DEPTH – 600W TRANSDUCERS</b>		
E66008	P79 Adjustable In-Hull Angle	
E66013	P319 Low Profile Through Hull	
E66014	B117 Low Profile Through Hull	
<b>DEPTH/TEMPERATURE – 600W TRANSDUCERS</b>		
E66085	B60 D/T Through Hull with 20° Tilted Element Transducer	
E66086	B60 D/T Through Hull with 12° Tilted Element Transducer	
E66077	P319 Depth/Temp Transducer	
<b>DEPTH/SPEED/TEMPERATURE – 600W TRANSDUCERS</b>		
E66054	P66 D/S/T Transom Mount Transducer	
A66091	B744V D/S/T Through Hull Retractable Transducer (includes E66023 Fairing Block)	
A66092	B744VL D/S/T Through Hull Retractable Transducer (includes E66023 Fairing Block)	
<b>DEPTH – 1KW HIGH PERFORMANCE TRANSDUCERS</b>		
A66089	M260 D Transducer with in hull-kit	
E66076	R199 D In-Hull DP/SP Transducer	

PART NO.	DESCRIPTION	
<b>DEPTH/TEMPERATURE – 1KW HIGH PERFORMANCE TRANSDUCERS</b>		
E66084	TM258 D/T Transom Mount Transducer with Transom Mount Bracket (DSM30 & CP300 connect)	
E66082	B258 D/T Through Hull Transducer (includes Fairing Block) (DSM30 & CP300 connect)	
A102112	B164-12 D/T 12° 50/200 kHz Low Profile (DSM30 & CP300 connect)	
A102113	B164-20 D/T 20° 50/200 kHz Low Profile Transducer (DSM30 & CP300 connect)	
A102137	B164-0 D/T 0° 50/200 1kW Flush Transducer (DSM30 & CP300 connect)	
E66079	B260 D/T Broadband Through Hull Stem (includes Fairing Block) (DSM30 & CP300 connect)	
A102121	SS270 D/T 50/200 kHz Widebeam Through Hull WDPL (DSM30 & CP300 connect)	
<b>SPEED/TEMPERATURE – TRANSDUCERS</b>		
E66071	P120 S/T Retractable Through Hull Transducer	
E66072	B120 S/T Low Profile Through Hull Retractable Transducer	
<b>ACCESSORIES</b>		
E66070	CP370 5M Transducer Extension Cable	
E65010	CP370 to C Series Classic Cable Assembly, 3M	
E65011	CP370 to C-Series Classic Cable Assembly, 10M	
E66010	5m Transducer Extension Cable with Removable Back-Shell	
E66022	Speed/Temperature Y-Cable Adaptor	
R69011	DSM Transducer Connector Kit	
E66066	Transducer Adaptor Cable for DSM transducers to a, c & e Series	
A80344	Adapter Cable to connect 600W a/c/e transducers to CP370	
E66023	B744V/B744VL Hi-Speed Fairing Block	

## CP470 & CP570

PART NO.	DESCRIPTION	
<b>CP470/CP570 SOUNDER MODULE</b>		
E70298	CP470 Clear Pulse 470 CHIRP	
E70258	CP570 Clear Pulse 570 CHIRP	
<b>CP470/CP570 300W - 600W TRANSDUCERS</b>		
A80014	B765LH D/T Through Hull Low (300W) - High (600W) Transducer	
A80015	B765LM D/T Through Hull Low (300W) - Medium (600W) Transducer	
A80016	B75L Bronze Low Profile D/T Through Hull Transducer 0° Angle (300W)	
A80017	B75M Bronze Low Profile D/T Through Hull Transducer 0° Angle (600W)	
A80018	B75H Bronze Low Profile D/T Through Hull Transducer 0° Angle (600W)	
A80033	B75L Bronze Low Profile D/T Through Hull Transducer 12° Angle (300W)	
A80034	B75M Bronze Low Profile D/T Through Hull Transducer 12° Angle (600W)	
A80035	B75H Bronze Low Profile D/T Through Hull Transducer 12° Angle (600W)	
A80036	B75M Bronze Low Profile D/T Through Hull Transducer 20° Angle (600W)	
A80037	B75H Bronze Low Profile D/T Through Hull Transducer 20° Angle (600W)	
<b>CP470/CP570 300W - 600W TRANSDUCER PAIRS</b>		
T70060	B75 Bronze Low Profile D/T Through Hull Low (300W) - High (600W) Transducer pair 0 deg	
T70061	B75 Bronze Low Profile D/T Through Hull Low (300W) - Medium (600W) Transducer pair 0 deg	
T70062	B75 Bronze Low Profile D/T Through Hull Medium (600W) - High (600W) Transducer pair 0 deg	
T70063	B75 Bronze Low Profile D/T Through Hull Low (300W) - High (600W) Transducer pair 12 deg	
T70064	B75 Bronze Low Profile D/T Through Hull Low (300W) - Medium (600W) Transducer pair 12 deg	
T70065	B75 Bronze Low Profile D/T Through Hull Medium (600W) - High (600W) Transducer pair 12 deg	
T70068	B75 Bronze Low Profile D/T Through Hull Medium (600W) - High (600W) Transducer pair 20 deg	
<b>CP470/CP570 1KW TRANSDUCERS</b>		
A80010	B265LH D/T Through Hull Low-High Transducer	
A80011	B265LM D/T Through Hull Low-Medium Transducer	
A80322	B275LH-W 1000W D/T Through Hull Low-High Wide Beam Bronze Transducer with Fairing Block	
A80012	M265LH D In Hull Low-High Transducer	
A80038	M265LM D In Hull Low-Medium Transducer	
A80013	TM265 LH D/T Transom Mount Low-High Transducer	
A80041	TM265 LM D/T Transom Mount Low-Medium Transducer	
A80318	TM275LH-W 1000W D/T Transom Mount Low-High Wide Beam Transducer	
A80325	PM275LH-W 1000W D/T Pocket/Keel Mount Low-High Wide Beam Transducer	
A80042	B175L Bronze Low Profile 1000W D/T Through Hull Transducer 0° Angle	



PART NO.	DESCRIPTION	
A80043	B175M Bronze Low Profile 1000W D/T Through Hull Transducer 0° Angle	
A80044	B175H Bronze Low Profile 1000W D/T Through Hull Transducer 0° Angle	
A80045	B175L Bronze Low Profile 1000W D/T Through Hull Transducer 12° Angle	
A80046	B175M Bronze Low Profile 1000W D/T Through Hull Transducer 12° Angle	
A80047	B175H Bronze Low Profile 1000W D/T Through Hull Transducer 12° Angle	
A80048	B175L Bronze Low Profile 1000W D/T Through Hull Transducer 20° Angle	
A80049	B175M Bronze Low Profile 1000W D/T Through Hull Transducer 20° Angle	
A80050	B175H Bronze Low Profile 1000W D/T Through Hull Transducer 20° Angle	
A80319	B175H-W 1000W D/T Through Hull Wide Beam Transducer 0° Angle	
A80320	B175H-W 1000W D/T Through Hull Wide Beam Transducer 12° Angle	
A80321	B175H-W 1000W D/T Through Hull Wide Beam Transducer 20° Angle	
<b>CP470/CP570 1KW TRANSDUCER PAIRS</b>		
T70069	B175 D/T Through Hull Low-High Transducer pair 0 deg	
T70070	B175 D/T Through Hull Low-Medium Transducer pair 0 deg	
T70071	B175 D/T Through Hull Medium-High Transducer pair 0 deg	
T70072	B175 D/T Through Hull Low-High Transducer pair 12 deg	
T70073	B175 D/T Through Hull Low-Medium Transducer pair 12 deg	
T70074	B175 D/T Through Hull Medium-High Transducer pair 12 deg	
T70075	B175 D/T Through Hull Low-High Transducer pair 20 deg	
T70076	B175 D/T Through Hull Low-Medium Transducer pair 20 deg	
T70077	B175 D/T Through Hull Medium-High Transducer pair 20 deg	
<b>CP470/CP570 2KW TRANSDUCERS</b>		
A80039	R109 D/T Through Hull Low-High 2KW molded Transducer	
A80040	R109 D/T Through Hull Low-Medium 2KW molded Transducer	
A80323	R109LH-W 2000W D/T Through Hull Low-High molded Wide Beam Transducer	
A80133	R111 D/T In Hull Low-High 2KW Molded Transducer	
A80134	R111 D/T In Hull Low-Medium 2KW Molded Transducer	
A80326	PM111LH-W 2000W D/T In Hull/Pocket/Keel Mount Low-High Wide Beam Transducer	
<b>CP470/CP570 3KW TRANSDUCERS</b>		
A80210	R509 D/T Through Hull Low-High Hi Performance 3KW Transducer	
A80211	R509 D/T Through Hull Low-Medium Hi Performance 3KW Transducer	
A80324	R509LH-W 3000W D/T Through Hull Wide Beam Transducer	
A80212	R599 D/T In Hull Low-High Hi Performance 3KW Transducer	
A80213	R599 D/T In Hull Low-Medium Hi Performance 3KW Transducer	
<b>CP470/CP570 ACCESSORIES</b>		
A102146	CP470/CP570 Y-Cable	
A102147	Convertor Cable DSM300 Transducer to CP470/CP570	
A102148	CP470/CP570 3m Transducer Extension Cable	
A102150	CP470/CP570 5m Transducer Extension Cable	
A80327	CP470/CP570 CHIRP Ducer Extension Cable	
A80328	Single B75/B175 Operation Cable	
A80345	CP470/CP570 Speed-Temp Y-Cable	
A80346	CP370/CP470/CP570 Power Cable	

<b>Autopilot</b>		
PART NO.	DESCRIPTION	
<b>EVOLUTION SYSTEM PACKS WITH DRIVES</b>		
T70154	Evolution Hydraulic Pilot with p70R control head, ACU-100 & 0.5l hydraulic pump	
T70153	Evolution Tiller Pilot with p70 control head, ACU-100 & Tiller Drive	
T70152	Evolution Wheel Pilot with p70 control head, ACU-100 & Wheel Drive	
T70157	Evolution Autopilot with p70R control head, ACU-200 & Type 1 Hydraulic pump	
T70158	Evolution Autopilot with p70 control head, ACU-200 & Type 1 Mechanical Linear drive	
<b>EVOLUTION SYSTEM PACKS</b>		
T70155	Evolution Autopilot with p70 control head & ACU-200 (suitable for Type 1 drives)	
T70156	Evolution Autopilot with p70R control head & ACU-200 (suitable for Type 1 drives)	
T70160	Evolution Solenoid Autopilot with p70R control head & ACU-300 (suitable for Solenoid drives)	
T70164	Evolution DBW Autopilot with p70R control head (suitable for drive by wire steering systems)	

PART NO.	DESCRIPTION	
T70214	Evolution DBW Autopilot with p70R control head (direct Volvo IPS /Aquamatic system connection)	
T70161	Evolution Autopilot with p70 control head & ACU-400 (suitable for Type 2 & 3 drives)	
T70162	Evolution Autopilot with p70R control head & ACU-400 (suitable for Type 2 & 3 drives)	
<b>AUTOPILOT CONTROL UNIT</b>		
E22166	p70 Autopilot Control Head (Sail)	
E22167	p70R Autopilot Control Head (Power)	
<b>EVOLUTION COMPONENTS</b>		
E70096	Evolution EV1 Sensor Core	
E70097	Evolution EV2 Sensor Core	
E70098	ACU-100 Actuator Control Unit	
E70099	ACU-200 Actuator Control Unit	
E70139	ACU-300 Actuator Control Unit	
E70100	ACU-400 Actuator Control Unit	
<b>EVOLUTION ACCESSORIES</b>		
R70160	Evolution Cabling Kit	
R70192	Evolution Cabling Kit EV-2	
R70161	Evolution EV-unit seal pack	
R70162	Evolution EV-unit wall bracket	
E15023	SmartController Wireless Autopilot Remote complete with Base Station	
E15024	S100 Wireless Autopilot Remote Complete with Base Station	
A18104	S100 Controller only	
A18105	Smart Controller only	
A18106	Base Station	
R70368	Black Bezel for i50/60/70/Pilots (a, c, e series style)	
R22168	Gunmetal Bezel for i50/60/70/Pilots (a, c, e series style)	
R22169	i50 / i60 / i70 / p70 Suncover (a, c, e, series style)	
R22174	p70R Suncover (a, c, e series style)	
A80355	Black Bezel for i50/60/70/Pilots (eS series style)	
A80356	Gunmetal Bezel for i50/60/70/Pilots (eS series style)	
A80357	Suncover i50/i60/i70/p70 (eS series style)	
A80358	Suncover for p70R (eS series style)	
<b>ENGINE CONTROL INTERFACE &amp; ACCESSORIES</b>		
E70227	ECl-100 Universal Engine and Control Interface	
E70240	Volvo Engine EVC Link Cable (1M)	
E70241	Volvo Engine Y-Loom cable	
E70242	Yamaha Command-Link Cable 1M	
E70305	Caterpillar Engine 12 Pin Link Cable (400mm)	
E70260	NMEA 2000 Devicenet male to Devicenet female cable (2m)	
<b>STERN DRIVE UNIT</b>		
E12026	Universal I/O Drive Unit	
M81138	Sterndrive Drive Unit	
<b>ROTARY DRIVE UNITS</b>		
M81135	Type 1/12v Rotary Drive	
M81136	Type 2/12v Rotary Drive	
M81137	Type 2/24v Rotary Drive	
<b>HYDRAULIC PUMPS</b>		
E12139	Type 0.5/12v Hydraulic Pump	
M81119	Type 1/24v Hydraulic Pump	
M81120	Type 1/12v Hydraulic Pump	
M81121	Type 2 /12v Hydraulic Pump	
M81122	Type 3/12v Hydraulic Pump	
M81123	Type 2/24v Hydraulic Pump	
M81124	Type 3/24v Hydraulic Pump	
<b>HYDRAULIC LINEAR DRIVES</b>		
E12207	Type 2/12v Hydraulic Linear Drive	
E12208	Type 2/24v Hydraulic Linear Drive	
M81202	Type 3/12v Hydraulic Linear Drive	
M81203	Type 3/24v Hydraulic Linear Drive	

PART NO.	DESCRIPTION	
<b>MECHANICAL LINEAR DRIVE UNITS</b>		
M81130	Type 1/12v Short Shaft Linear Drive	
M81131	Type 2/12v Short Shaft Linear Drive	
M81132	Type 2/12v Long Shaft Linear Drive	
M81133	Type 2/24v Short Shaft Linear Drive	
M81134	Type 2/24v Long Shaft Linear Drive	
<b>HYDRAULIC CONTINUOUS RUNNING PUMP</b>		
E12171	3 to 4.5L Constant Running Pump 12v	
E12172	3 to 4.5L Constant Running Pump 24v	
<b>ACCESSORIES</b>		
A18127	Verado Hydraulic Hose Kit	
A80280	Hydraulic Pump Top Port Adaptor	
M81190	Fluxgate Compass - Discontinued when inventory is depleted	
D131	30' SeaTalk Cable	
E12136	Autopilot Seataalk Joystick	
M81181	SeaTalk Plug and Socket Assembly	
D165	Girdle Support Bracket Assembly	
D166	Adaptor Pin Bracket Assembly	
D228	Linear Feedback Fittings Pack	
D250	ST Steel Rudder Reference Ball Pin	
D309	Stern drive Bracket Mercruiser V8	
M81166	D.P. Check Valve	
M81167	Solenoid 12v	
M81182	13 Tooth Sprocket	
M81183	15 Tooth Sprocket	
M81105	Rudder Angle Transducer	

<b>Autopilot</b>		
PART NO.	DESCRIPTION	
<b>TILLER PILOTS</b>		
A12004	ST1000+ Tiller	
A12005	ST2000+ Tiller	
<b>COCKPIT ACCESSORIES - TILLER</b>		
Q047	Tiller Drive Only	
D001	Tiller Pin (5 per Pack)	
D002	Mounting Socket (5 per Pack)	
D003	Pushrod Extension 25mm (1")	
D004	Pushrod Extension 51mm (2")	
D005	Pushrod Extension 76mm (3")	
D006	Pushrod Extension 102mm (4")	
D007	Pushrod Extension 127mm (5")	
D008	Pushrod Extension 153mm (6")	
D009	Tiller Bracket 25mm (1")	
D010	Tiller Bracket 51mm (2")	
D011	Tiller Bracket 76mm (3")	
D159	Tiller Bracket 102mm (4")	
D160	Tiller Bracket 127mm (5")	
D337	ST1/2000+ Tiller Pilot Plug	
D338	ST1/2000+ Tiller Pilot Socket	
D339	ST1/2000+ Tiller Pilot Plug and Socket	
D026	Pedestal Assembly 38mm (1.5")	
D027	Pedestal Assembly 51mm (2")	
D028	Pedestal Assembly 64mm (2.5")	
D029	Pedestal Assembly 76mm (3")	
D030	Pedestal Assembly 89mm (3.5")	
D031	Cantilever Socket Assembly	
G004	Tiller Arm End Cap	



PART NO.	DESCRIPTION	
<b>COCKPIT ACCESSORIES - WHEEL</b>		
E12093	Wheel Drive (inc. Fitting Kit)	
E15017	Wheel Drive Flat Pedestal Kit	
E15018	Wheel Drive GOIOT Installation Kit	
A18083	Replacement Belt for Wheel Pilot	

<b>Instruments</b>		
PART NO.	DESCRIPTION	
<b>INSTRUMENTS</b>		
E70063	i40 Speed Display	
E70064	i40 Depth Display	
E70065	i40 Wind Display	
E70066	i40 Bidata Display	
<b>INSTRUMENT PACKS</b>		
E70140	i40 Speed Pack, with P371 Speed/Temp Through Hull Transducer	
E70141	i40 Speed Pack, with ST69 Speed/Temp Transom Mount Transducer	
E70142	i40 Depth Pack, with P7 Depth Through Hull Transducer	
E70143	i40 Depth Pack, with P66 Depth Transom Mount Transducer	
E70144	i40 Wind Pack, with RotaVecta Transducer	
E70145	i40 Bidata Pack, with P371 & P7 Speed/Temp/Depth Through Hull Transducers	
<b>ACCESSORIES</b>		
R70112	i40 Sun Cover	
<b>INSTRUMENTS</b>		
E70058	i50 Speed Display (Digital)	
E70059	i50 Depth Display (Digital)	
E70060	i50 Tridata Display (Digital)	
<b>INSTRUMENT PACKS</b>		
E70147	i50 Speed Pack, with P120 Retractable Speed/Temp Through Hull Transducer	
E70148	i50 Depth Pack, with P319 Depth Through Hull Transducer	
E70149	i50 Tridata Pack, with P120 & P319 Speed/Temp/Depth Through Hull Transducers	
E70153	i50 & i60 Wind, Speed, Depth - 3 x Instrument & Transducer Pack	
<b>INSTRUMENTS</b>		
E70061	i60 Wind Display (Analogue)	
E70062	i60 Close Hauled Wind Display (Analogue)	
E22172	i70 Multifunction Colour Display	
<b>INSTRUMENT PACKS</b>		
E70150	i60 Wind Pack, with Short Arm Vane Transducer	
E70153	i50 & i60 Wind, Speed, Depth - 3 x Instrument & Transducer Pack	
T70216	i70 System Pack (Colour instrument & Wind, DST txducers), iTC-5, 3M backbone, T piece, power & 2 backbone terminators	
T70226	i70 System Pack (Colour instrument & Wind, DST txducers), iTC-5, Cable STNG Acc Inline Terminator, Cable STNG - STNG 9M & 1 backbone terminators	
<b>ITC-5 INSTRUMENT TRANSDUCER CONVERTER</b>		
E70010	iTC-5 Instrument Transducer Converter	
<b>STNG SMART TRANSDUCERS</b>		
A22112	DT800 12° Depth / Temperature Smart Transducer	
A22165	DT800 0° Depth / Temperature Smart Transducer	
A22111	DST800 0° Depth / Speed / Temperature Smart Transducer	
<b>ACCESSORIES</b>		
R70368	Black Bezel for i50/60/70/Pilots (a, c, e series style)	
R22168	Gunmetal Bezel for i50/60/70/Pilots (a, c, e series style)	
R22169	i50 / i60 / i70 / p70 Suncover (a, c, e, series style)	
A80355	Black Bezel for i50/60/70/Pilots (eS series style)	
A80356	Gunmetal Bezel for i50/60/70/Pilots (eS series style)	
A80357	Suncover i50/i60/i70/p70 (eS series style)	

Instruments		
PART NO.	DESCRIPTION	
<b>ITC-5 INSTRUMENT TRANSDUCER CONVERTER</b>		
E70010	iTC-5 Instrument Transducer Converter	
<b>DEPTH – TRANSDUCERS</b>		
E26009	P7 D Shorty™ Low Profile Through Hull Transducer	
M78713-PZ	P319 LP TH Plastic D Transducer 14m Cable	
E26030	P17 D Through Hull Retractable Transducer	
E26027-PZ	P66 D Transom Mount Transducer	
E26001-PZ	P79 D In Hull Transducer	
E26019-PZ	B45 D Through Hull Transducer Stem - includes Fairing Block	
M78717	B17 D Through Hull Retractable Transducer	
<b>DEPTH/SPEED/TEMPERATURE – TRANSDUCERS</b>		
E26006-PZ	ST40 D/S/T Transom Mount Transducer	
A22154	DST800 Analog out 200kHz	
E26028-PZ	P66 D/S/T Transom Mount Transducer	
A26043	B744V D/S/T Through Hull Transducer	
A26044	B744VL D/S/T Through Hull Transducer	
<b>SPEED/TEMPERATURE – TRANSDUCERS</b>		
E26005	ST69 S/T Transom Mount Transducer	
E26008	P371 S/T Shorty™ Through Hull Transducer	
E26031	ST800/P120 Low Profile Retractable Through Hull Transducer - 13.7m (45') Cable	
E25025	P17 S/T Low Profile Through Hull Retractable Transducer - 20m (65.6') Cable	
M78716	B120 S/T Low Profile Retractable Through Hull Transducer	
<b>WIND – TRANSDUCERS</b>		
Z195	RotaVecta Transducer supplied with 20m (65') Cable	
E22078	Short Arm Vane Transducer supplied with 30m (97.5') Cable	
E22079	Long Arm Vane Transducer supplied with 50m (162.5') Cable	
A28162	30m Mast Cable & Connector	
A28163	50m Mast Cable & Connector	
R28170	Short Arm Wind Masthead Transducer	
R28171	Long Arm Masthead Transducer	
<b>RUDDER REFERENCE - TRANSDUCERS</b>		
M81105	Rudder Angle Transducer	

Wireless Instruments		
PART NO.	DESCRIPTION	
<b>MICRONET WIRELESS DISPLAYS</b>		
T110-916	Wireless Multi Digital Display	
T111-916	Wireless Multi Dual Digital Display	
T112-916	Wireless Multi Analogue Display	
T113-916	Wireless Multi Remote Display	
<b>MICRONET WIRELESS CRUISING SYSTEMS</b>		
T100-916	Wireless Speed & Depth System	
T101-916	Wireless Multi Wind System	
T163-916	Wireless Power Boat System with Transom Triducer	
T103-916	Wireless Speed & Depth System with Triducer	
T108-916	Wireless Wind, Speed & Depth System with Triducer	
T104-916	Wireless Wind, Speed, Depth & NMEA System	
T106-916	Remote Display Starter System	
<b>MICRO COMPASS AND ACCESSORIES</b>		
T061	Micro Compass System - Includes Micro Compass and Strap Bracket	
T060	Micro Compass	
T004	Deck Bracket	
T005	Strap Bracket	
T006	Long Slug Bracket	
T008	Cat Pole Bracket	

PART NO.	DESCRIPTION	
<b>MICRONET WIRELESS RACING PRODUCTS</b>		
T070-916	Micronet Race Master	
T074-916	Micronet Race Master System and Transducer	
T075-916	Micronet Race Master System, Triducer and Solar Panel	
T210	Wireless Multi Maxi display	
T215	Wireless Multi Dual Maxi Display	
T222	Wireless Vertical Wind Transmitter	
T221	Mast Rotation Transmitter	
PP30-916	Performance Pack 30 (wind, speed, depth & compass txducers, 2-up mast bracket, NMEA interface, dual, maxi, dual maxi, & remote control displays)	
PP40-916	Performance Pack 40 (wind, speed, depth & compass txducers, 3-up mast bracket, NMEA interface, dual, 3 x maxi, & remote control displays)	
PP50-916	Performance Pack 50 (vertical wind, speed, depth & compass txducers, 3-up mast bracket, NMEA interface, dual, 3 x maxi, & remote control displays)	
<b>MICRONET COMPONENTS AND ACCESSORIES</b>		
T137	Slug Mast Bracket 1 up (Digital, Dual, Analogue and Master Range)	
T231	Mast Bracket 1 up (for Maxi, Dual Maxi or Race Master)	
T232	Mast Bracket Maxi 2 up (for Maxi, Dual Maxi or Race Master)	
T234	Mast Bracket Maxi 3 up (for Maxi or Dual Maxi)	
T909	Compass Transducer	
T120	Wind Transmitter	
T121	Hull Transmitter	
T122	Wireless Interface	
T138	External Solar Panel (9V) - 108mm x 108mm	
T235	Carbon Black Bezel for T110, T111, T112	
T910	Triducer (Speed, Depth and Temperature in One, Retractable - 50m range)	
T911	Speed Transducer (Speed and Temperature, Retractable with Flap Valve)	
T912	Depth Transducer (Depth, Retractable - 80m Range)	
T914	Active Depth and Temperature Transducer	
T915	Transom Mount Triducer (Speed, Depth and Temperature)	
T942	Bronze Fitting for Long Body Transducer	
T943	Flush Fitting for Long Body Transducer	
T139	Alarm Booster	
T050	Large Deck Bracket	
T905	Depth transducer (50mm through/in hull)	
T908	GPS Antenna with NMEA 0183 output	
TA900	Paddle Wheel Replacement Kit for T911	
TA106	Instrument Cover for Digital, Dual Digital or Analogue Displays	

## Thermal Cameras

PART NO.	DESCRIPTION	
<b>OCEAN SCOUT HANDHELD THERMAL CAMERAS</b>		
432-0008-22-00S	Ocean Scout 240 x 180, 24° Field of View (Detect man at 350m)	
432-0009-22-00S	Ocean Scout 320 x 256, 17° Field of View (Detect man at 550m) & Video Out	
432-0019-22-00S	Ocean Scout 640 x 512, 18° Field of View (Detect man at 1140m) & Video Out	
<b>ACCESSORIES</b>		
A80021	Floating Lanyard - TH Series	
A80022	Soft Carrying Pouch - TH Series	
A80023	Hard Storage Case - TH Series	
A80028	USB Charging Cable - TH Series	
A80029	Drawstring Pouch - TH Series	
A80030	Lens Cap - TH Series	
A80031	Eye Cup - TH Series	
A80032	Wrist Strap - TH Series	



PART NO.	DESCRIPTION	
<b>T SERIES FIXED MOUNT THERMAL CAMERAS</b>		
E70111	T200 Fixed Mount Thermal Camera (320 x 240, 9Hz, NTSC)	
E70110	T203 Fixed Mount Thermal Camera (320 x 240, 30Hz, NTSC)	
E70113	T220 Fixed Mount Thermal Camera (320 x 240, 9Hz, PAL)	
E70112	T223 Fixed Mount Thermal Camera (320 x 240, 25Hz, PAL)	
E70121	T250 Fixed Mount Thermal Camera (320 x 240, 9Hz, NTSC)	
E70120	T253 Fixed Mount Thermal Camera (320 x 240, 30Hz, NTSC)	
E70123	T270 Fixed Mount Thermal Camera (640 x 480, 9Hz, PAL)	
E70122	T273 Fixed Mount Thermal Camera (640 x 480, 25Hz, PAL)	
<b>ACCESSORIES</b>		
A80266	7.6m/25ft Coaxial Video Cable for T200	
A80267	7.6m/25ft Ethernet Cable for T200	
<b>T SERIES PAN &amp; TILT THERMAL CAMERAS</b>		
E32125	T300 Thermal Camera (320 x 240, 9Hz)	
T32147	T300 Thermal Camera (320 x 240, 9Hz) with Joystick Control Kit	
T32147-PAL	T300 Thermal Camera (320 x 240, 9Hz PAL) with Joystick Control Kit	
E32145	T303 Thermal Camera (320 x 240, 30Hz)	
T32148	T303 Thermal Camera (320 x 240, 30Hz) with Joystick Control Kit	
T32148-PAL	T303 Thermal Camera (320 x 240, 25Hz PAL) with Joystick Control Kit	
E32126	T350 Thermal Camera (640 x 480, 9Hz)	
T32149	T350 Thermal Camera (640 x 480, 9Hz) with Joystick Control Kit	
T32149-PAL	T350 Thermal Camera (640 x 480, 9Hz PAL) with Joystick Control Kit	
E70054	T353 Thermal Camera (640 x 480, 30Hz)	
T70099	T353 Thermal Camera (640 x 480, 30Hz) with Joystick Control Kit	
T70099-PAL	T353 Thermal Camera (640 x 480, 25Hz PAL) with Joystick Control Kit	
E32127	T400 Thermal Camera (320 x 240, 9Hz) & Low Light	
T32150	T400 Thermal Camera (320 x 240, 9Hz) & Low Light with Joystick Control Kit	
T32150-PAL	T400 Thermal Camera (320 x 240, 9Hz PAL) & Low Light with Joystick Control Kit	
E32128	T403 Thermal Camera (320 x 240, 30Hz) & Low Light	
T32151	T403 Thermal Camera (320 x 240, 30Hz) & Low Light with Joystick Control Kit	
T32151-PAL	T403 Thermal Camera (320 x 240, 25Hz PAL) & Low Light with Joystick Control Kit	
E32129	T450 Thermal Camera (640 x 480, 9Hz) & Low Light	
T32152	T450 Thermal Camera (640 x 480, 9Hz) & Low Light with Joystick Control Kit	
T32152-PAL	T450 Thermal Camera (640 x 480, 9Hz PAL) & Low Light with Joystick Control Kit	
E70055	T453 Thermal Camera (640 x 480, 30Hz) & Low Light	
T70100	T453 Thermal Camera (640 x 480, 30Hz) & Low Light with Joystick Control Kit	
T70100-PAL	T453 Thermal Camera (640 x 480, 25Hz PAL) & Low Light with Joystick Control Kit	
E70056	T460 Thermal Camera (640 x 480, 9Hz, 12 degree FOV) & Low Light	
T70101	T460 Thermal Camera (640 x 480, 9Hz, 12 degree FOV) & Low Light with Joystick Control Kit	
T70101-PAL	T460 Thermal Camera (640 x 480, 9Hz, PAL, 12 degree FOV) & Low Light with Joystick Control Kit	
E70057	T463 Thermal Camera (640 x 480, 30Hz, 12 degree FOV) & Low Light	
T70102	T463 Thermal Camera (640 x 480, 30Hz, 12 degree FOV) & Low Light with Joystick Control Kit	
T70102-PAL	T463 Thermal Camera (640 x 480, 25Hz, PAL, 12 degree FOV) & Low Light with Joystick Control Kit	
E70035	T470SC Stabilized Thermal Camera (640 x 480, 9Hz) & Color Low Light	
T70118	T470SC Stabilized Thermal Camera (640 x 480, 9Hz) & Color Low Light with Joystick Control Kit	
T70118-PAL	T470SC Stabilized Thermal Camera (640 x 480, 9Hz PAL) & Color Low Light with Joystick Control Kit	
E70073	T473SC Stabilized Thermal Camera (640 x 480, 30Hz) & Color Low Light	
T70119	T473SC Stabilized Thermal Camera (640 x 480, 30Hz) & Color Low Light with Joystick Control Kit	
T70119-PAL	T473SC Stabilized Thermal Camera (640 x 480, 25Hz PAL) & Color Low Light with Joystick Control Kit	
<b>ACCESSORIES</b>		
E32130	Joystick Control Unit for Thermal Cameras	
E32131	Plate Mounting Thermal Camera	
E32132	Mounting Riser Plate	
A80334	T Series Thermal Camera Insulation Riser	
R32141	Power Over Ethernet Injector	
R32142	Ethernet Coupler	
<b>AX8 ENGINE ROOM CAMERA</b>		
E70321	AX8 Thermal and Visible Imaging Camera for temperature measurement	
261-2319-00	AX8 RAM Mount Kit	

## Day & Night Video Cameras

PART NO.	DESCRIPTION	
<b>CAM50 DOME CAMERA</b>		
E03016	CAM50 (NTSC) Dome Camera	
E03017	CAM50 CCTV Dome Camera (PAL)	
E03018	CAM50 Reverse Image (NTSC) Dome Camera	
E03019	CAM50 CCTV Reverse Image (PAL)	
E06017	5m Camera Extension Cable	
E06018	15m Camera Extension Cable	
<b>CAM100 DAY &amp; NIGHT VIDEO CAMERA</b>		
E03007	CAM100 CCTV Day and Night Video Camera (NTSC)	
E03006	CAM100 CCTV Day and Night Video Camera (PAL)	
E03021	CAM100 CCTV Day and Night Reverse Image Video Camera (NTSC)	
E03020	CAM100 CCTV Day and Night Reverse Image Video Camera (PAL)	
E86001	5m Camera Extension Cable	
E06017	5m Camera Extension Cable	
E06018	15m Camera Extension Cable	
R08200	CCTV CAM100 Suncover	
R08201	CAM100 Adjustable Mounting Bracket	
<b>DAY AND NIGHT IP VIDEO CAMERA</b>		
E70262	CAM200 Bullet CCTV Day and Night Video Camera (IP Connected)	
E70346	CAM210 Bullet CCTV Day and Night Video Camera (IP Connected)	
E70347	CAM220 Eyeball CCTV Day and Night Video Camera (IP Connected)	
R32142	Ethernet Coupler	
A62360	RayNet (F) to RJ45 (M) cable - 1m	
A80151	RayNet (F) to RJ45 (M) cable - 3m	
A80159	RayNet (F) to RJ45 (M) cable - 10m	
R32141	Power Over Ethernet Injector	
<b>GPS ANTENNA</b>		
E32153	Raystar 130 GPS antenna (STng)	
T70133	RS130 + ST1 to STNG Adaptor Kit (E22158)	
A80288	GA150 GPS & Glonass antenna (a9, a12, eS9, eS12 direct connection only)	
A06072	White Spur Cable 6m (RS130 antenna cable)	
<b>AUTOMATIC IDENTIFICATION SYSTEM - AIS</b>		
E32157	AIS350 Dual Channel Receiver	
E32158	AIS650 Class B Transceiver	
A80190	Active AIS Splitter 100	
E70050	AIS950 Class A Transceiver	
PART NO.	DESCRIPTION	
<b>ACCESSORIES</b>		
A80140	Panel Mounting Bracket - AIS950	
A80141	Trunnion Bracket - AIS950	
A80191	VHF Antenna Splitter power and FM cable	
A80192	VHF Antenna Splitter AIS cable	
<b>WEATHER RECEIVERS</b>		
T70195	SR150 SiriusXM Weather Receiver with Antenna and Cable	
E70161	SR150 SiriusXM Weather Receiver Only	
A80368	SRA50 Sirius Weather Receiver Antenna w/25' Cable	
E03011	Sirius Weather Cable, 25'	

## Satellite TV

PART NO.	DESCRIPTION	
<b>33STV, 37STV, 45STV AND 60STV SATELLITE TV ANTENNAS</b>		
E42170	33STV - 33cm Satellite TV System for North America	
E93017-2	37STV - 37cm Satellite TV System for North America	
E93013-2	45STV - 45cm Satellite Antenna HD System Pack North America	
E93014-2	60STV - 60cm Satellite TV Antenna System North America HD Gen 2	

PART NO.	DESCRIPTION	
E42219-2	45STV - 45cm Satellite TV Antenna System for Latin America	
E70152	45STV – 45cm Satellite TV Antenna System with Auto Skew for Latin America	
E93008-2	60STV - 60cm Satellite TV Antenna System for Europe, Middle East, South America	
E93009-2	60STV - 60cm Satellite TV Antenna System for Latin America	
<b>SATELLITE TV ACCESSORIES</b>		
A42195	Dish Network MIM - Gen2	
E96011	DirectTV D11 Receiver	
A42218	DirectTV H24 Receiver with IR Remote	
E96015A	DirectTV RF Remote Control Kit	
A96014	DiSEqC Supplier - Includes 2 RF Cables (30cm)	
R08255	HD ACU Antenna Control Unit - used to upgrade to High Definition	
R08257	RF Cable, 3M	
E42172	33STV Empty Dome and Baseplate	
E96016	37STV Empty Dome and Baseplate	
E96009-V	45STV Empty Dome and Baseplate	
E96013	60STV Empty Dome and Baseplate	
E96007	Power/Data Cable – ACU to the Antenna 30m	
E96008	RF Cable 30m	

<b>VHF Radios</b>		
PART NO.	DESCRIPTION	
<b>VHF RADIOS</b>		
E70243	Ray50 VHF Radio	
E70245	Ray60 VHF Radio	
E70251	Ray70 VHF Radio with GPS and AIS	
<b>VHF RADIOS ACCESSORIES</b>		
A80289	Ray 60 & 70 Raymic Handset (without cable)	
A80291	Ray 60 & 70 Raymic 5m Extension Cable	
A80292	Ray 60 & 70 Raymic 10m Extension Cable	
A80290	Ray 60 & 70 Raymic 15m Extension Cable	
A80296	Fistmic Adaptor Cable (12 pin to 10 pin) 400mm	
A80297	Handset Adaptor cable (12 pin to 12 pin) with passive spk output (400mm)	
A80333	Black Bezel for Ray 60/70	
R70484	VHF Handset Hanger	
<b>RAY260 VHF RADIO</b>		
E70087	Ray260 Fixed Mount VHF with Passive Speaker	
E70089	Ray260 Fixed Mount VHF with Passive Speaker (European Version)	
E70253	Ray260 Fixed Mount VHF with Active Speaker (European Version)	
E70088	Ray260 Fixed Mount VHF with AIS Receiver and Passive Speaker	
E70090	Ray260 Fixed Mount VHF with AIS Receiver and Passive Speaker (European Version)	
A80197	RayMic for Ray260 with Passive speaker and 10m Cable (European Version)	
A80250	RayMic for Ray260 with Passive speaker and 20m Cable (European Version)	
A80196	Ray260 Expansion Handset with 10M Cable	
R70252	RayMic for Ray260 (European Version)	
A80198	Passive Speaker for Ray260	
A80199	Active Speaker for Ray260	
A80200	5m Extension Cable for Ray260 RayMic	
A80201	10m Extension Cable for Ray260 RayMic	
A80202	15m Extension Cable for Ray260 RayMic	
R70167	20m Extension Cable for Ray260 RayMic	
A80205	Power and Accessory Cable for Ray260	
M95435	External Hailing Horn Speaker	



## Digital Switching

PART NO.	DESCRIPTION	
<b>RAYMARINE DIGITAL SWITCHING CCMs</b>		
E70317	CCM 011 (Connect 50) 12v Only, inputs upto (11 Dig, 11 Alog), outputs (50A max) upto (20 Dim,20 x 10A) & 1 com grd	
E70296	CCM 016, 12v Only, inputs upto (16 Dig,16 Alog), outputs upto (16 Dim,12 x 10A) & 2 com grd	
E70169	CCM 116, inputs upto (16 Dig,16 Alog), outputs upto (16 Dim,12 x 10A) & 2 com grd	
E70170	CCM 116, inputs upto (16 Dig,16 Alog), outputs upto (16 Dim,12 x 10A), 2 com grd & w.less swit	
E70171	CCM 216, inputs upto (16 Dig,16 Alog), outputs upto (16 Dim,8 x 10A,4 x 18A) & 2 com grd	
E70172	CCM 216, inputs upto (16 Dig,16 Alog), outputs upto (16 Dim,8 x 10A,4 x 18A), 2 com grd & w.less swit	
E70173	CCM 316, inputs upto (16 Dig,16 Alog), outputs upto (16 Dim,12 x 10A,4 x 18A) & 2 com grd	
E70174	CCM 316, inputs upto (16 Dig,16 Alog), outputs upto (16 Dim,12 x 10A,4 x 18A), 2 com grd & w.less swit	
E70175	CCM 416, inputs upto (16 Dig,16 Alog,2 current), outputs upto (16 Dim,12 x 10A,4 x 18A) & 2 com grd	
E70176	CCM 416, inputs upto (16 Dig,16 Alog,2 current), outputs upto (16 Dim,12 x 10A,4 x 18A), 2 com grd & w.less swit	
E70177	CCM 516, inputs upto (16 Dig,16 Alog), outputs upto (16 Dim,12 x 10A,4 x 18A,4 invert,4 wiper) & 2 com grd	
E70178	CCM 516, inputs upto (16 Dig,16 Alog), outputs upto (16 Dim,12 x 10A,4 x 18A,4 invert,4 wiper), 2 com grd & w.less swit	
E70223	CCM 616, inputs upto (16 Dig,16 Alog, 16 current), output upto (16 Dim,12 x 10A,4 x 18A, 16 invert, 4 wiper) & 2 com grd	
<b>RAYMARINE DIGITAL SWITCHING MCUs</b>		
E70179	MCU-100 Master Control Unit	
E70261	MCU-150 Master Control Unit with J1939	
E70180	MCU-200 Master Control Unit with GSM	
E70315	MCU-250 Master Control Unit with J1939 and GSM	
<b>ACCESSORIES</b>		
E70313	12 Way Vertical Switch Panel	
E70314	8 Way Membrane Switch Panel	
E70181	MCU Programming Interface	
E70182	USB to USB-mini master cable 2m	
A80241	CCM connector 14-16 AWG wire	
A80242	CCM connector 18-22 AWG wire	
A80243	Female crimp 14-16 AWG (pack 40)	
A80244	Female Crimp 18-22 AWG (pack 40)	
A80245	Hand Crimp Tool (Molex)	
A80246	Manual Extraction Tool	

## STNG Cables and Components

PART NO.	DESCRIPTION	
<b>STNG CABLES AND COMPONENTS</b>		
E70010	iTC-5 Instrument Transducer Converter	
T70134	STNG Starter Kit (1xA06064, 2xA06031, 1xA06040, 1xA06049)	
A25062	STNG Backbone Kit (2 x A06031, 1 x A06037, 2 x A06036, 4 x A06028, 1 x A06049)	
E22158	ST1 to STNG Adaptor Kit (1xR52131, 2xA06031, 2xA06032, 1xA22164, 1xA06049, 1xA06039)	
E70196	VHF NMEA0183 TO STNG Converter Kit (1xR52131, 2xA06031, 2xA06032, 1xA06071, 1xA06049, 1xA06039)	
R52131	ST1 to STNG Convertor only	
A06049	STNG Power Cable	
A06028	T Piece	
A06064	5 Way Connector	
A06030	Extender	
A06031	Backbone Terminator	
A06033	Backbone Cable 400mm	
A06034	Backbone Cable 1m	
A06035	Backbone Cable 3m	
A06036	Backbone Cable 5m	
A06068	Backbone Cable 9m	
A06037	Backbone Cable 20m	
A06038	Spur Cable 400mm	
A06039	Spur Cable 1m	
A06040	Spur Cable 3m	
A06041	Spur Cable 5m	



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Raymarine products are intended to be used as aids to navigation and must never be used in preference to sound navigational judgement. Their accuracy can be affected by many factors, including environmental conditions, equipment failure or defects, and incorrect installation, handling or use.

Only official government charts and notices to mariners contain all the current information needed for safe navigation, and the captain is responsible for their prudent use. It is the user's responsibility to use official government charts, notices to mariners, caution and proper navigational skill when operating any Raymarine product.

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