# **CPT-S Transom** INSTALLATION INSTRUCTIONS

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#### Software updates

Important: Check the Raymarine website for the latest software releases for your product.

#### www.raymarine.com/software

#### Product handbooks

The latest versions of all English and translated handbooks are available to download in PDF format from the website www.raymarine.com.

Please check the website to ensure you have the latest handbooks.

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# **Chapter 1: Important information**

# **Certified Installation**

Raymarine recommends certified installation by a Raymarine approved installer. A certified installation qualifies for enhanced product warranty benefits. Contact your Raymarine dealer for further details, and refer to the separate warranty document packed with your product.



# Warning: Product installation and operation

- This product must be installed and operated in accordance with the instructions provided. Failure to do so could result in personal injury, damage to your vessel and/or poor product performance.
- Raymarine recommends certified installation by a Raymarine approved installer. A certified installation qualifies for enhanced product warranty benefits. Contact your Raymarine dealer for further details, and refer to the separate warranty document packed with your product.



#### Warning: High voltages

This product may contain high voltages. Do NOT remove any covers or otherwise attempt to access internal components, unless specifically instructed in the documentation provided.



# Warning: Positive ground systems

Do not connect this unit to a system which has positive grounding.



# Warning: Switch off power supply

Ensure the vessel's power supply is switched OFF before starting to install this product. Do NOT connect or disconnect equipment with the power switched on, unless instructed in this document.



#### Warning: Transducer operation

Only test and operate the transducer in the water. Do NOT operate out of water as overheating may occur.

# Caution: Do not cut transducer cables

- Cutting the transducer cable severely reduces sonar performance. If the cable is cut, it must be replaced, it cannot be repaired.
- Cutting the transducer cable will void the warranty and invalidate the European CE mark.

# Transducer care and cleaning

Growth can collect on the bottom of the transducer, this can reduce performance. To prevent the build-up of sea growth, coat the transducer with a thin layer of water-based antifouling paint, available from your local marine dealer. Reapply paint every 6 months or at the beginning of each boating season. Certain smart transducers have restrictions on where antifouling paint is applied. Please consult your dealer.

**Note:** Transducers with a temperature sensor may not work properly if painted.

**Note:** Never use ketone-based paint. Ketones can attack many plastics, possibly damaging the sensor.

**Note:** Never use spray paint on your transducer. Spraying incorporates tiny air bubbles, and a marine transducer cannot transmit properly through air.

Use a soft cloth and mild household detergent to clean the transducer. If the fouling is severe, remove the growth with a tough cleaning pad, such as a green Scotch Brite<sup>™</sup> pad for example. Be careful to avoid scratching the face of the transducer.

**Note:** Harsh cleaning solvents such as acetone WILL damage the transducer.

#### Caution: Service and maintenance

This product contains no user serviceable components. Please refer all maintenance and repair to authorized Raymarine dealers. Unauthorized repair may affect your warranty.

# Water ingress

Water ingress disclaimer

The waterproof rating capacity of this product meets the stated IPX standard referred to in the product's *Technical Specification*.

# Disclaimer

Raymarine does not warrant that this product is error-free or that it is compatible with products manufactured by any person or entity other than Raymarine.

Raymarine is not responsible for damages or injuries caused by your use or inability to use the product, by the interaction of the product with products manufactured by others, or by errors in information utilized by the product supplied by third parties.

# **Declaration of conformity**

Raymarine UK Ltd. declares that this product is compliant with the essential requirements of EMC directive 2004/108/EC.

The original Declaration of Conformity certificate may be viewed on the relevant product page at www.raymarine.com.

# Warranty registration

To register your Raymarine product ownership, please visit www.raymarine.com and register online.

It is important that you register your product to receive full warranty benefits. Your unit package includes a bar code label indicating the serial number of the unit. You will need this serial number when registering your product online. You should retain the label for future reference.

# **Product disposal**

Dispose of this product in accordance with the WEEE Directive.



The Waste Electrical and Electronic Equipment (WEEE) Directive requires the recycling of waste electrical and electronic equipment.

# **IMO and SOLAS**

The equipment described within this document is intended for use on leisure marine boats and workboats NOT covered by International Maritime Organization (IMO) and Safety of Life at Sea (SOLAS) Carriage Regulations.

# **Technical accuracy**

To the best of our knowledge, the information in this document was correct at the time it was produced. However, Raymarine cannot accept liability for any inaccuracies or omissions it may contain. In addition, our policy of continuous product improvement may change specifications without notice. As a result, Raymarine cannot accept liability for any differences between the product and this document. Please check the Raymarine website (www.raymarine.com) to ensure you have the most up-to-date version(s) of the documentation for your product.

# **Chapter 2: Document and product information**

#### **Chapter contents**

- 2.1 Document information on page 10
- 2.2 CHIRP Sonar overview on page 11

# 2.1 Document information

This document contains important information related to the installation of your Raymarine product.

The document includes information to help you:

- plan your installation and ensure you have all the necessary equipment;
- install and connect your product as part of a wider system of connected marine electronics;
- troubleshoot problems and obtain technical support if required.

This and other Raymarine product documents are available to download in PDF format from www.raymarine.com.

# **CPT-S Transom transducer**



Part number	Description	Construc- tion
E70342	<b>CPT-S</b> — Transom CHIRP sonar transducer	Plastic

- The CPT-S is a CHIRP, conical beam sonar transducer
- The transducer can be connected to DownVision<sup>™</sup> sonar modules or DownVision<sup>™</sup> variant MFDs running LightHouse II Version 16 software, offering sonar only functionality to DownVision<sup>™</sup> products.

# **Document illustrations**

Your product may differ slightly from that shown in the illustrations in this document, depending on product variant and date of manufacture.

All images are provided for illustration purposes only.

# Product documentation

The following documentation is applicable to your product:

Description	Part number
<b>CPT–S transducer Installation instructions</b> Installation of a <b>CPT–S</b> transducer and connection to a sonar module / display.	87263 / 88059
LightHouse MFD operation instructions Details the operation of the Fishfinder application for LightHouse <sup>™</sup> powered DownVision <sup>™</sup> variant multifunction displays.	81360

# **Operation instructions**

For detailed operation instructions for your product, refer to the documentation that accompanies your display.

# Sonar module installation instructions

This document includes installation instructions for the transducer only. For installation instructions for connecting a sonar module, please refer to the documentation that accompanies the sonar module.

# 2.2 CHIRP Sonar overview

CHIRP sonar produces a conical shaped beam, the coverage of the conical beam is the water column directly beneath the vessel

#### **Conical beam**



Sonar is effective at a range of speeds. In deeper waters the CHIRP bandwidth is automatically optimized to improve bottom lock and the detection of moving objects (e.g. fish) in the wider water column.

#### CHIRP sonar screen example



# **Chapter 3: Planning the installation**

#### **Chapter contents**

- 3.1 Installation checklist on page 14
- 3.2 Parts supplied **CPT-S** on page 14
- 3.3 Required additional components on page 15
- 3.4 Tools required on page 15
- 3.5 Warnings and cautions on page 16
- 3.6 Selecting a location for the transducer on page 16

# 3.1 Installation checklist

Installation includes the following activities:

	Installation Task
1	Plan your system.
2	Obtain all required equipment and tools.
3	Site all equipment.
4	Route all cables.
5	Drill cable and mounting holes.
6	Make all connections into equipment.
7	Secure all equipment in place.
8	Power on and test the system.

#### Schematic diagram

A schematic diagram is an essential part of planning any installation. It is also useful for any future additions or maintenance of the system. The diagram should include:

- Location of all components.
- Connectors, cable types, routes and lengths.

# 3.2 Parts supplied – CPT-S



- 1. Transducer
- 2. Ratchet arm
- 3. Mounting bracket
- 4. M5 Hex ratchet bolt
- 5. Ratchet plate
- 6. Compression washer
- 7. M5 washer
- 8. M5 locking nut
- 9. 3 x Self tapping screws
- 10. Documentation

# 3.3 Required additional components

This product forms part of a system of electronics and requires the following additional components for full operation.

- Compatible DownVision<sup>™</sup> Sonar Module or DownVision<sup>™</sup> variant MFD. Refer to Compatible products, for a list of compatible products.
- Transducer extension cables. Refer to Chapter 10 Spares and accessories, for suitable cables.

#### **Compatible products**

The transducer can be connected directly to the following **DownVision**<sup>™</sup> sonar modules and displays.

	Description	Part number
	CP100	E70204
Raymarine	a68 / a68 Wi-Fi	E70206 / E70207
	a78 / a78 Wi-Fi	E70208 / E70209
	a98	E70234
	a128	E70237
	eS78	E70265
	eS98	E70275
	eS128	E70285

# 3.4 Tools required

The following tools are required to install the transducer.



- 1. Power drill
- 2. Pozidrive screwdriver
- 3. 4 mm Hex wrench (Allen key)
- 4. Marine grade sealant (non-acetate based)
- 5. Suitable sized drill bit
- 6. Adhesive tape
- 7. 24 mm (15/16") Hole saw (only required if you are routing the cable through a bulkhead.)



#### Warning: Marine-grade sealant

Only use non-acetate based marine-grade sealants. Using an acetate based sealant can cause damage to plastic parts.

# 3.5 Warnings and cautions

**Important:** Before proceeding, ensure that you have read and understood the warnings and cautions provided in the Chapter 1 Important information section of this document.

# 3.6 Selecting a location for the transducer

The guidelines below should be followed when selecting a location for the transducer.

**Note:** The transducer is not suitable for mounting on vessels where the transom is aft of the propeller(s).

For best performance the transducer must be installed in a location with the least turbulence and aeration. The most effective way to determine this is by checking the water flow around the transom whilst underway.

- Mount close to the keel (centerline), in a position where the transducer element will be fully submerged when the vessel is planing and turning.
- Mount a suitable distance from the propeller(s) to avoid wake.
- Mount in a location where no load will be applied to the transducer during launching, lifting, trailering and storage of the boat.



- For clockwise rotating propellers, mount the transducer on the starboard side, for counter-clockwise, mount on the port side.
- On a twin engine vessel mount the transducer between the engines.
- Turbulence can be caused by a number of other factors such as steps (1), ribs (2), rows of rivets (3) and strakes (4). The turbulence appears aft of these locations.



- Air trapped under the front of the vessel can travel under the hull and appear as aeration aft.
- If installing on the step of a stepped transom, allow sufficient room above the transducer for transducer kick up.



**Note:** Optimum transducer location will vary depending on vessel type. Optimum transducer height and angle should be obtained by testing the transducer with the vessel in the water.

# Transducer dimensions — CPT-S



• CPT-S cable length: 10 m (32.8 ft).

# **Chapter 4: Cables and connections**

#### **Chapter contents**

- 4.1 General cabling guidance on page 20
- 4.2 Cable routing on page 20
- 4.3 Connections overview on page 21

# 4.1 General cabling guidance

#### Cable types and length

It is important to use cables of the appropriate type and length

- Unless otherwise stated use only standard cables of the correct type, supplied by Raymarine.
- Ensure that any non-Raymarine cables are of the correct quality and gauge. For example, longer power cable runs may require larger wire gauges to minimize voltage drop along the run.

#### **Routing cables**

Cables must be routed correctly, to maximize performance and prolong cable life.

 Do NOT bend cables excessively. Wherever possible, ensure a minimum bend diameter of 200 mm (8 in) / minimum bend radius of 100 mm (4 in).



- Protect all cables from physical damage and exposure to heat. Use trunking or conduit where possible. Do NOT run cables through bilges or doorways, or close to moving or hot objects.
- Secure cables in place using tie-wraps or lacing twine. Coil any extra cable and tie it out of the way.
- Where a cable passes through an exposed bulkhead or deckhead, use a suitable watertight feed-through.
- Do NOT run cables near to engines or fluorescent lights.

Always route data cables as far away as possible from:

- other equipment and cables,
- high current carrying AC and DC power lines,
- antennae.

#### Strain relief

Ensure adequate strain relief is provided. Protect connectors from strain and ensure they will not pull out under extreme sea conditions.

#### Cable shielding

Ensure that all data cables are properly shielded that the cable shielding is intact (e.g. hasn't been scraped off by being squeezed through a tight area).

# 4.2 Cable routing

Cable routing requirements for the transducer cable.

**Important:** To avoid interference, the cable must be routed as far away from VHF radio antenna cables as possible.

- Check that the cable is long enough to reach the equipment it will be connected to. An optional 4 m (13.1 ft) extension cable is available if required.
- Ensure there is enough slack in the transducer cable, at the transducer end, to allow the transducer to pivot up and down.
- Secure the cable at regular intervals using cable clips (not supplied).
- Any excess cable should be coiled up at a convenient location.

# 4.3 Connections overview

Use the following information to help you identify the connections on your product.

Connector	Connector type	Connects to:
	9 pin <b>DownVision</b> ™ type connector	DownVision <sup>™</sup> sonar module or MFD

#### **Making connections**

Follow the steps below to connect the cable(s) to your product.

- 1. Ensure that the vessel's power supply is switched off.
- 2. Ensure that the device being connected to the unit has been installed in accordance with the installation instructions supplied with that device.
- 3. Ensuring correct orientation, push the cable connector fully onto the corresponding connector on the unit.
- 4. Turn the locking collar clockwise to secure the cable.

#### Transducer cable extension

For best performance, cable runs should be kept to a minimum. However, for some installations it may be necessary to extend the transducer cable.

- A 4 m (13.1 ft.) Transducer extension cable (A80273) is available.
- It is recommended that only one cable extension is used.

# **Chapter 5: Mounting**

#### **Chapter contents**

- 5.1 Pre-installation test on page 24
- 5.2 Mounting the transom mount bracket on page 24
- 5.3 Mounting the transducer on page 25
- 5.4 Testing and adjusting the transducer on page 25
- 5.5 Finalizing the transducer mounting on page 26
- 5.6 Removing the transducer on page 26

# 5.1 Pre-installation test



### Warning: Transducer operation

Only test and operate the transducer in the water. Do NOT operate out of water as overheating may occur.

#### Testing the transducer

Transducer operation should be checked before installation.

- 1. Connect the transducer to the sonar module's / display's transducer connection.
- 2. Fully submerge the transducer in water.
- 3. Power up the sonar module / display.
- 4. Open a Fishfinder application on your display.
- If required, select the relevant transducer/channel from the Channel selection page (Menu > Channel).
- 6. Check that accurate depth and temperature readings are displayed.
- 7. If you experience difficulties obtaining readings then contact Raymarine Technical Support.

# 5.2 Mounting the transom mount bracket

The transducer must be mounted on the transom using the mounting bracket provided. The steps below describe the initial mounting steps required in order to test your transducers performance. After testing the transducer you must finish the mounting following the instructions in the *Finishing the transducer mounting* section.

1. Fix the transducer mounting template to the selected location, using masking or self-adhesive tape.



1	Transducer mounting template
2	Waterline
3	Mounting away from propeller

- 2. Ensure the template is parallel to the waterline.
- 3. Drill 2 x holes for the adjustment slot screws as indicated on the template.

**Note:** Do NOT drill the third mounting hole at this stage.

- 4. Fill the 2 holes with marine grade sealant.
- 5. Using a pozi-drive screw driver and the screws provided, secure the transom mount bracket using the 2 adjustment slots.



**Note:** The third locking screw is not used until the transducer has been successfully tested.

# 5.3 Mounting the transducer

The transducer must be mounted on the transom using the mounting bracket provided. The steps below describe the initial mounting steps required in order to test your transducers performance. After testing the transducer you must finish the mounting following the instructions in the *Finishing the transducer mounting* section.



- 1. Feed the transducer cable between the posts on the mounting bracket as shown.
- 2. Slide the ratchet arm into the guide on the top of the transducer, ensuring it locks in place.
- 3. Hold the ratchet plate in place on the ratchet arm as shown.
- 4. Insert the ratchet arm between the mounting bracket posts, aligning the center hole with the holes in the posts.
- 5. Slide the M5 washer and then the compression washer onto the ratchet bolt.
- 6. Slide the ratchet bolt through the mounting bracket assembly.
- 7. Insert the M5 locking nut into the captive housing on the mounting bracket.
- 8. Using a 4 mm Hex wrench (allen key) tighten the ratchet bolt until the ratchet mechanism is engaged but can still be adjusted by hand.
- 9. Position the transducer so that the bottom face of the transducer will be parallel with the waterline and tighten the ratchet bolt.



The transducer position will be adjusted further during testing.

# 5.4 Testing and adjusting the transducer

Once the initial mounting procedures have been carried out, the transducer must be tested prior to finishing the mounting.

The testing should be carried out with your vessel in the water, with a depth greater than 0.7 m (2.3 ft) but less than the maximum depth range of the transducer.

- Open the Sonar application on your display. After a few seconds the bottom should be visible onscreen and a depth reading displayed.
- 2. Start moving your vessel at a low speed, ensuring you have a depth reading and a clear image is displayed.
- 3. Gradually increase the vessel speed whilst checking the display, if the image becomes poor or the bottom is missing at lower speeds then the transducer needs to be adjusted.
- 4. Angle and height adjustments should be made in small increments and re-tested each time until you obtain optimum performance.





- 5. Loosen the ratchet arm bolt to adjust the transducer angle.
- 6. Loosen the 2 mounting bracket screws to adjust the transducer height.
- 7. Re-tighten the ratchet arm bolt and mounting screws before re-testing.

#### Note:

- It may not always be possible to obtain depth readings at higher speeds due to air bubbles passing under the transducer.
- It may be necessary to make several adjustments to the transducer before obtaining optimum performance.
- If the transducer requires repositioning ensure all old holes are filled with marine grade sealant.

# 5.5 Finalizing the transducer mounting 5.6 Removing the transducer

Once you have achieved optimum performance at the desired vessel speeds the transducer must be locked into position to complete the installation.



- 1. Drill the locking hole location taking care not to damage the mounting bracket.
- 2. Fill the locking hole with marine grade sealant.
- 3. Secure the transducer and bracket by fully tightening all 3 mounting screws.
- 4. Secure the ratchet arm bolt, by tightening until the compression washer is compressed and then add another 1/4 turn. If the transducer kicks up at speed then tighten further.

**Important:** Take care to ensure that the pivot bolt is not overtightened as this will prevent kick-up and may cause damage.

The transducer can be released from the bracket using a 2 mm (0.08 in) diameter metal rod such as a small drill bit or hex key.



- 1. Insert the metal rod into the transducer release hole.
- 2. Pull the metal rod aft of the transom from both sides and hold in position.
- 3. Slide the transducer forwards off the bracket.

# **Chapter 6: System checks and troubleshooting**

### **Chapter contents**

• 6.1 Troubleshooting on page 28

# 6.1 Troubleshooting

The troubleshooting information provides possible causes and corrective action required for common problems associated with marine electronics installations.

All Raymarine products are, prior to packing and shipping, subjected to comprehensive test and quality assurance programs. However, if you experience problems with the operation of your product this section will help you to diagnose and correct problems in order to restore normal operation.

If after referring to this section you are still having problems with your unit, please contact Raymarine Technical Support for further advice.

#### **Operation instructions**

For detailed operation instructions for your product, refer to the documentation that accompanies your display.

#### Sonar troubleshooting

Problems with the sonar and their possible causes and solutions are described here.

Problem	Possible causes	Possible solutions
Sonar data not available on multifunction display.	Unit power supply fault.	Check the unit power supply and cables.
	Other unit fault.	Refer to the instructions supplied with the unit.
	SeaTalk <sup>hs</sup> / RayNet network problem.	Check that the unit is correctly connected to a Raymarine network switch. If a crossover coupler or other coupler cable / adapter is used, check all connections (as applicable).
		Check the status of the Raymarine network switch (if applicable).
		Check that SeaTalk <sup>hs</sup> / RayNet cables are free from damage.
	Software mismatch between equipment may prevent communication.	Contact Raymarine technical support.
Problematic data readings.	Gain or Frequency settings may	Check the sonar presets, gain and frequency settings.
<b>Note:</b> Not all transducers	be inappropriate for present conditions.	
support the detection of depth, range and temperature. For more information, refer to the latest specifications and documentation available for your particular products on the Raymarine website (www.raymarine.com).	Unit power supply fault.	Check the voltage from the power supply, if this is too low it can affect the transmitting power of the unit.
	Unit cable fault.	Ensure that the power, transducer and all other cables to the unit are properly connected and free from damage.
	Transducer fault.	Check that the transducer is mounted correctly and is clean.
		If you have a transom mount transducer, check that the transducer hasn't kicked-up due to hitting an object.
	Other unit fault.	Refer to the instructions supplied with the unit.
	Vessel stationary.	Fish arches are not displayed if the vessel is stationary; fish will appear on the display as straight lines.
	High vessel speed	Turbulence around the transducer may be confusing the unit.
	Scroll speed set to zero	Adjust the scroll speed.

#### Resetting the sonar module

You can use the reset function on a compatible Raymarine multifunction display to restore the sonar module to its factory default settings.

In the fishfinder application:

- 1. Select Menu.
- 2. Select Set-up.
- 3. Select Sounder Set-up.
- 4. Select **Sonar Reset**.
- 5. Select **Yes** to confirm or **No** to abort the operation, as appropriate.

The unit will now be reset to factory default settings.

# **Chapter 7: Maintenance**

#### **Chapter contents**

- 7.1 Routine checks on page 32
- 7.2 Unit cleaning instructions on page 32

# 7.1 Routine checks

The following periodic checks should be made:

- Examine cables for signs of damage, such as chafing, cuts or nicks.
- Check that the cable connectors are firmly attached and that their locking mechanisms are properly engaged.

**Note:** Cable checks should be carried out with the power supply switched off.



#### Warning: High voltage

This product contains high voltage. Adjustments require specialized service procedures and tools only available to qualified service technicians. There are no user serviceable parts or adjustments. The operator should never remove the cover or attempt to service the product.

# 7.2 Unit cleaning instructions

The unit does not require regular cleaning. However, if you find it necessary to clean the unit, please follow the steps below:

- 1. Ensure power is switched off.
- 2. Wipe unit clean with a damp cloth.
- 3. If necessary, use a mild detergent solution to remove grease marks.

#### Transducer care and cleaning

Growth can collect on the bottom of the transducer, this can reduce performance. To prevent the build-up of sea growth, coat the transducer with a thin layer of water-based antifouling paint, available from your local marine dealer. Reapply paint every 6 months or at the beginning of each boating season. Certain smart transducers have restrictions on where antifouling paint is applied. Please consult your dealer.

**Note:** Transducers with a temperature sensor may not work properly if painted.

**Note:** Never use ketone-based paint. Ketones can attack many plastics, possibly damaging the sensor.

**Note:** Never use spray paint on your transducer. Spraying incorporates tiny air bubbles, and a marine transducer cannot transmit properly through air.

Use a soft cloth and mild household detergent to clean the transducer. If the fouling is severe, remove the growth with a tough cleaning pad, such as a green Scotch Brite<sup>™</sup> pad for example. Be careful to avoid scratching the face of the transducer.

**Note:** Harsh cleaning solvents such as acetone WILL damage the transducer.

# **Chapter 8: Technical support**

### **Chapter contents**

- 8.1 Raymarine product support and servicing on page 34
- 8.2 Viewing product information on page 35

# 8.1 Raymarine product support and servicing

Raymarine provides a comprehensive product support service, as well as warranty, service, and repairs. You can access these services through the Raymarine website, telephone, and e-mail.

#### Product information

If you need to request service or support, please have the following information to hand:

- Product name.
- · Product identity.
- Serial number.
- Software application version.
- · System diagrams.

You can obtain this product information using the menus within your product.

#### Servicing and warranty

Raymarine offers dedicated service departments for warranty, service, and repairs.

Don't forget to visit the Raymarine website to register your product for extended warranty benefits: http://www.raymarine.co.uk/display/?id=788.

Region	Tele- phone	E-mail
United Kingdom (UK), EMEA, and Asia Pacific	+44 (0)1329 246 932	emea.service@raymarine.com
United States (US)	+1 (603) 324 7900	rm-usrepair@flir.com

#### Web support

Please visit the "Support" area of the Raymarine website for:

- Manuals and Documents http://www.raymarine.com/manuals
- FAQ / Knowledgebase http://www.raymarine.com/knowledgebase
- Technical support forum http://forum.raymarine.com
- Software updates http://www.raymarine.com/software

#### Telephone and e-mail support

Region	Tele- phone	E-mail
United Kingdom (UK), EMEA, and Asia Pacific	+44 (0)1329 246 777	support.uk@raymarine.com
United States (US)	+1 (603) 324 7900 (Toll-free: +800 539 5539)	support@raymarine.com

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Germany	+49 (0)40 237 808 0	support.de@raymarine.com (Raymarine subsidiary)
Italy	+39 02 9945 1001	support.it@raymarine.com (Raymarine subsidiary)
Spain	+34 96 2965 102	sat@azimut.es (Authorized Raymarine distributor)
Netherlands	+31 (0)26 3614 905	support.nl@raymarine.com (Raymarine subsidiary)
Sweden	+46 (0)317 633 670	support.se@raymarine.com (Raymarine subsidiary)
Finland	+358 (0)207 619 937	support.fi@raymarine.com (Raymarine subsidiary)
Norway	+47 692 64 600	support.no@raymarine.com (Raymarine subsidiary)
Denmark	+45 437 164 64	support.dk@raymarine.com (Raymarine subsidiary)
Russia	+7 495 788 0508	info@mikstmarine.ru (Authorized Raymarine distributor)

# 8.2 Viewing product information

You can view information about your unit from the **Diagnostics** menu on a compatible multifunction display. This option displays information such as product serial number and software version.

With the Homescreen displayed:

- 1. Select Set-up.
- 2. Select Maintenance.
- 3. Select Diagnostics.
- Select the Select Device option.
   A list of connected devices is displayed.
- 5. Select the product for which you want to view information. Alternatively, select **Show All Data** to display information for all connected products.

# Chapter 9: Technical specification

### **Chapter contents**

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# 9.1 Technical specification

# Physical specification — CPT-S Transom

Dimensions	• Length: 86 mm (3.39 in)
	• Height: 111.6 mm (4.39 in)
Cable length	10 m (32.8 ft)
Weight (unit including cradle)	0.452 kg (1 lb)

### Transducer environmental specification

Operating temperature	0 °C to + 40 °C (32 °F to 104 °F)
Storage temperature	–20 °C to + 70 °C (23 °F to 158 °F)
Waterproof rating	• IPX6
	• IPX7
	• IPX8

### Sonar specification

Channels	1 x CHIRP sonar
Beam coverage	Conical beam
Depth range	0.6 m (2 ft) to 274 m (900 ft) depending on water conditions
Power	90 W

# **Conformance specification**

Conformance	• EN 60945:2002
	• IEC 28846:1993
	EMC Directive     2004/108/EC
	<ul> <li>Australia and New Zealand: C-Tick, Compliance Level 2</li> </ul>

# **Chapter 10: Spares and accessories**

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# 10.1 Spares and accessories — CPT-S Transom

# Spares

Description	Part number
Replacement Transom bracket with mounting hardware	R70496

#### Accessories

Description	Part number
Trolling motor mounting kit	A80363
4 m (13.1 ft.) Transducer extension cable	A80273





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