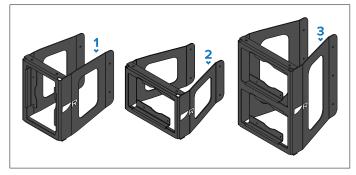
Raymaríne[®]

Alpha Series Performance Display Mast Bracket Installation Summary

Mast bracket overview

In conjunction with an Alpha Series performance display, the following accessories can be used to mount your performance display to a mast:



- Single portrait mast bracket (Alpha 7 / Alpha 9 A80713 / A80716).
- Single landscape mast bracket (Alpha 7 / Alpha 9 A80711 / A80714).
- Dual landscape mast bracket (Alpha 7 / Alpha 9 A80712 / A80715).

Arrays of multiple mast brackets

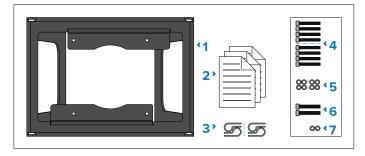
Alpha Series mast brackets which are appropriate for the same display size and orientation (e.g. a **9**" single **landscape** bracket and a **9**" dual **landscape** bracket) can be connected together to form an expanded array of mast-mounted performance displays, using hex nuts located at the top of each bracket.

Note:

For more information on assembling an array of multiple mast brackets, refer to the following section: Assembling mast bracket arrays (p. 3)

Parts supplied

The following parts are supplied with your Alpha display mast bracket:



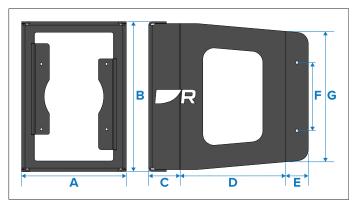
- 1. Alpha Series display mast bracket (9" landscape bracket illustrated).
- 2. Documentation pack.
- (2x with single mast bracket / 4x with dual mast bracket) P-clips — used to a fix cables to the mast.
 Document number: 88130 (Rev 2) AB;49352;2023-09-19T15:34:37

- 4. (4x with single mast bracket / 8x with dual mast bracket) M4x14 Hex socket drive screws — used to secure the Alpha Series display to an Alpha Series mast bracket.
- (4x with single mast bracket / 8x with dual mast bracket) M4x9 Flat washers — used to secure the Alpha Series display to an Alpha Series mast bracket.
- 6. (2x) M5x16 Hex socket drive screws used to secure the Alpha Series mast bracket to another Alpha Series mast bracket.
- (2x) M5x10 Flat washers used to secure the Alpha Series display mast bracket to another Alpha Series display mast bracket.

Note:

For more information on how to connect together 2 Alpha display mast brackets in an array, refer to: Assembling mast bracket arrays (p. 3)

Single mast bracket dimensions (portrait)



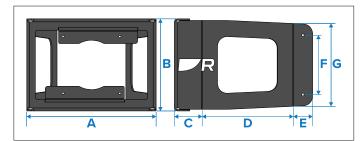
Alpha 7 performance display single portrait mast bracket:

ltem	Dimension
Α	156.00 mm (6.14 in).
В	217.00 mm (8.54 in).
С	55.55 mm (2.19 in).
D	144.10 mm (5.67 in).
Е	39.63 mm (1.56 in).
F	120.00 mm (4.72 in).
G	181.34 mm (7.14 in).

Alpha 9 performance display single portrait mast bracket:

ltem	Dimension
Α	185.00 mm (7.28 in).
в	265.50 mm (10.45 in).
С	55.47 mm (2.18 in).
D	186.13 mm (7.33 in).
Е	39.69 mm (1.56 in).
F	120.00 mm (4.72 in).
G	229.79 mm (9.05 in).

Single mast bracket dimensions (landscape)



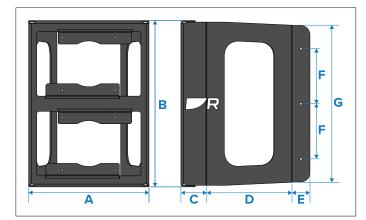
Alpha 7 performance display single landscape mast bracket:

Item	Dimension
Α	217.00 mm (8.54 in).
В	156.00 mm (6.14 in).
С	56.31 mm (2.22 in).
D	153.46 mm (6.04 in).
Е	39.1 mm (1.54 in).
F	110.00 mm (4.33 in).
G	137.97 mm (5.43 in).

Alpha 9 performance display single landscape mast bracket:

ltem	Dimension
Α	265.50 mm (10.31 in).
в	185.00 mm (7.28 in).
С	56.34 mm (2.22 in).
D	184.53 mm (7.26 in).
Е	39.08 mm (1.54 in).
F	120.00 mm (4.72 in).
G	167.59 mm (6.60 in).

Dual mast bracket dimensions (landscape)



Alpha 7 performance display dual landscape mast bracket:

Item	Dimension
Α	217.00 mm (8.54 in).
В	303.00 mm (11.93 in).

Item	Dimension
С	56.31 mm (2.22 in).
D	153.46 mm (6.04 in).
Е	39.10 mm (1.54 in).
F	120.00 mm (4.72 in).
G	284.53 mm (11.20 in).

Alpha 9 performance display dual landscape mast bracket:

Item	Dimension
Α	265.50 mm (10.45 in).
в	362.00 mm (14.25 in).
С	56.34 mm (2.22 in).
D	185.48 mm (7.30 in).
Е	39.08 mm (1.54 in).
F	120.00 mm (4.72 in).
G	341.87 mm (13.46 in).

Bracket mast size compatibility

Before obtaining and attempting to install an Alpha display mast bracket, ensure that the diameter of your mast does not exceed the minimum and maximum mast bracket tolerances specified below.

Important:

- Depending on the diameter of your mast, one or more of the following accessory mast brackets may not be appropriate for the size of your mast.
- Exceeding the specified mast bracket tolerances may cause damage to the bracket and any attached products.

Single mast bracket tolerances (portrait):

Display variant	Minimum and maximum mast tolerances
Alpha 7:	90 mm (3.54 in) min — 150 mm (5.91 in) max
Alpha 9:	120 mm (4.72 in) min — 210 mm (8.27 in) max
Single mast bracket tolerances (landscape):	
Display variant	Minimum and maximum mast tolerances
	Minimum and maximum mast tolerances 90 mm (3.54 in) min — 150 mm (5.91 in) max
variant	90 mm (3.54 in) min — 150 mm (5.91 in)

Display variant	Minimum and maximum mast tolerances
Alpha 7:	90 mm (3.54 in) min — 150 mm (5.91 in) max
Alpha 9:	120 mm (4.72 in) min — 210 mm (8.27 in) max

Alpha Series Performance Display Mast Bracket Installation Summary

Location requirements

Before proceeding, ensure that you have read and understood the location requirements listed below and throughout the *Alpha Series Performance Display Installation Instructions* document (**87457**).

Hollow mast cable routing

Cables connected to an Alpha performance display may be routed inside a hollow mast.

If you run any cabling inside a mast, take the appropriate measures to:

- Prevent the cables from chafing where they enter and exit the mast.
- Minimize electrical interference by:
 - Not running the cables near other electrical equipment.
 - Not running the cables alongside other power or antenna equipment cabling.



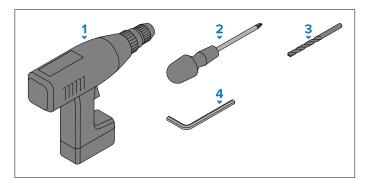
Warning: 2 person installation required

To prevent potential product damage, vessel damage and personal injury, a 2-person installation is recommended.

It is recommended that one person holds the display and mast bracket in the mounting position, while another person secures the bracket to the mast.

Tools required

The following tools are required for installation:



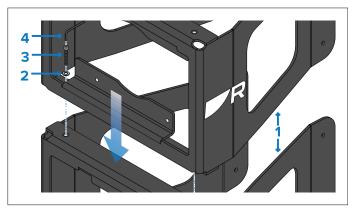
- 1. Power drill.
- 2. Pozidrive screwdriver.
- 3. Drill bit.
- 4. 3 mm & 4 mm Hex wrench (Allen key) set.

Note:

The appropriate drill bit size is dependent on the thickness and material of the mounting surface.

Assembling mast bracket arrays

In order to connect together 2 Alpha Series mast brackets (which are appropriate for the same display size and orientation):



- Place 2 Alpha Series mast brackets appropriate for the same display size and orientation (e.g. a 9" single landscape bracket and a 9" dual landscape bracket) on top of one another, so that the hexagon rivet nuts on the bottom bracket align with the fixing holes on the top bracket.
- 2. Feed the supplied M5 flat washers over the supplied M5 hex socket drive screws.
- 3. Insert the M5 hex socket drive screws (with M5 flat washers attached) through the fixing holes on the top bracket and into the hexagon rivet nuts on the bottom bracket.
- 4. Tighten the M5 hex socket drive screws using a Hex wrench (Allen key), until the 2 brackets are firmly secured to one another.

Important:

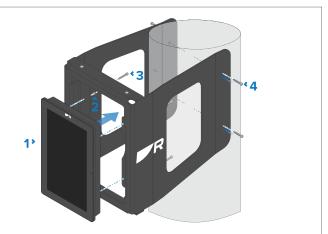
Check the security and integrity of the mounted array before finalizing your installation. If necessary, obtain replacement or additional mounting screws to ensure a secure installation.

Single mast bracket mounting (portrait)

Follow these instructions to mast mount your Alpha Series performance display using the single portrait mast bracket (Alpha 7 / Alpha 9 — A80713 / A80716).

Before mounting the product, ensure that you have:

- Selected a suitable location, based on the suggested location requirements.
- Identified the relevant cable connections and the route that the cables will take.
- Routed the cables through the mast, if required.



1. Route the display's cables (not shown in the above drawing) and then fit the display, as follows:

- i. Route the cables behind the mast bracket, and then feed through the mast bracket to the display, from the rear of the mast bracket.
- ii. Connect the routed cables to the display.
- iii. Place the display into the mast bracket.
- 2. Feed the supplied M4 flat washers over the supplied M4 hex socket drive screws.
- 3. Insert the M4 hex socket drive screws (with M4 flat washers attached) through the mast bracket fixing holes, and into the rear of the display. Tighten the M4 hex socket drive screws using a Hex wrench (Allen key) until the display is firmly secured to the bracket.
- 4. Hold the bracket in place at your chosen location, then secure the bracket on both sides of the mast using fixings that are appropriate for the mast's thickness and material.

Important:

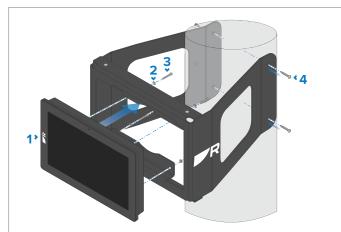
Check the security and integrity of the mounted product before finalizing your installation. If necessary, obtain replacement or additional mounting screws to ensure a secure installation.

Single mast bracket mounting (landscape)

Follow these instructions to mast mount your Alpha Series display using the single landscape mast bracket (Alpha 7 / Alpha 9 — A80713 / A80716).

Before mounting the product, ensure that you have:

- Selected a suitable location, based on the suggested location requirements.
- Identified the relevant cable connections and the route that the cables will take.
- Routed the cables through the mast, if required.



- 1. Route the display's cables (not shown in the above drawing) and then fit the display, as follows:
 - i. Route the cables behind the mast bracket, and then feed through the mast bracket to the display, from the rear of the mast bracket.
 - ii. Connect the routed cables to the display.
 - iii. Place the display into the mast bracket.
- 2. Feed the supplied M4 flat washers over the supplied M4 hex socket drive screws.
- Insert the M4 hex socket drive screws (with M4 flat washers attached) through the mast bracket fixing holes, and into the rear of the display. Tighten the M4 hex socket drive screws using a Hex wrench (Allen key) until the display is firmly secured to the bracket.

4. Hold the bracket in place at your chosen location, then secure the bracket on both sides of the mast using fixings that are appropriate for the mast's thickness and material.

Important:

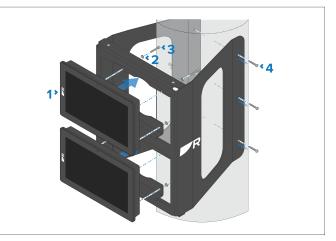
Check the security and integrity of the mounted product before finalizing your installation. If necessary, obtain replacement or additional mounting screws to ensure a secure installation.

Dual mast bracket mounting (landscape)

Follow these instructions to mast mount 2 Alpha displays, using the dual landscape mast bracket (Alpha 7 / Alpha 9 — A80713 / A80716).

Before mounting the product, ensure that you have:

- Selected a suitable location, based on the suggested location requirements.
- Identified the relevant cable connections and the route that the cables will take.
- Routed the cables through the mast, if required.



- 1. Route each display's cables (not shown in the above drawing) and then fit the displays, as follows:
 - i. Route the cables behind the mast bracket, and then feed through the mast bracket to the displays, from the rear of the mast bracket.
 - ii. Connect the routed cables to the displays.
 - iii. Place the displays into the mast bracket.
- 2. Feed the supplied M4 flat washers over the supplied M4 hex socket drive screws.
- 3. Insert the M4 hex socket drive screws (with M4 flat washers attached) through the mast bracket fixing holes, and into the rear of the displays. Tighten the M4 hex socket drive screws using a Hex wrench (Allen key) until the displays are firmly secured to the bracket.
- 4. Hold the bracket in place at your chosen location, then secure the bracket on both sides of the mast using fixings that are appropriate for the mast's thickness and material.

Important:

Check the security and integrity of the mounted products before finalizing your installation. If necessary, obtain replacement or additional mounting screws to ensure a secure installation.