Ground Control

A CLS Group Company

RockFLEET Assured

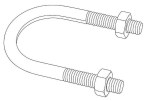
Quick Start Guide

v2.0 - 2nd June 2026

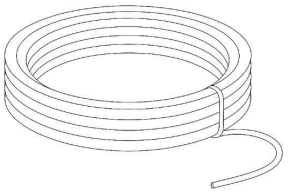
What's in the box

RockFLEET Assured - NMEA 0183 and NMEA 2000 stand-alone bundles:

RockFLEET Assured - above deck unit

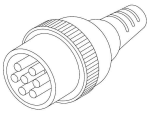


Pole mounting kit; diameter 38-44mm

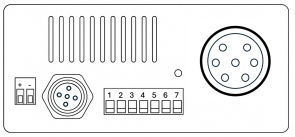


Communication/power cable; up to 100 metres

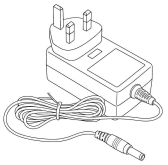
Female connector; attach to above deck unit



Male connector; attach to power hub



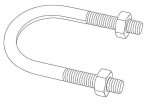
Power Hub



24V DC power supply with universal plug adapters; connect to below deck unit

RockFLEET Assured - Rapid Deploy bundle

RockFLEET Assured - above deck unit



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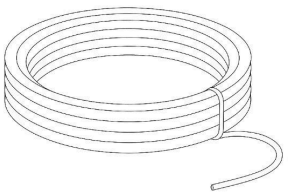
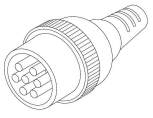


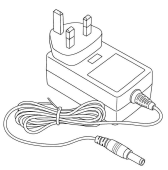
Communication/power cable; up to 100 metres

Female connector; attach to above deck unit



Male connector; attach to below deck unit

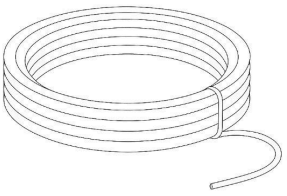
Ray Marine Axiom+ 9 Chart Plotter in rugged case - below deck unit



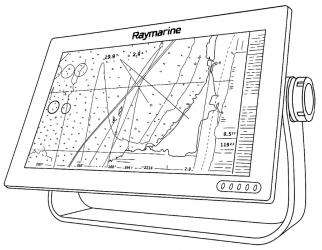
24V DC power supply with universal plug adapters; connect to below deck unit

RockFLEET Assured - Full bundle

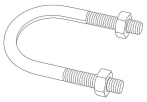
RockFLEET Assured - above deck unit



Communication/power cable; up to 100 metres

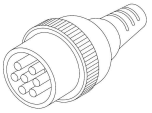


Raymarine Axiom+ 9 Chart Plotter - below deck unit

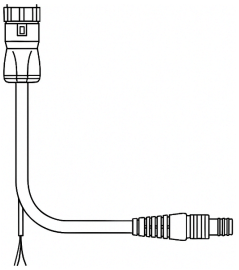


Pole mounting kit; diameter 38-44mm

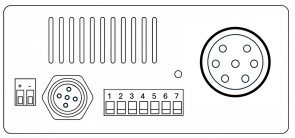
Female connector; attach to above deck unit



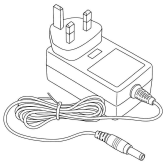
Male connector; attach to power hub



Raymarine ‘Y’ NMEA cable



Power Hub



24V DC power supply with universal plug adapters; connect to below deck unit

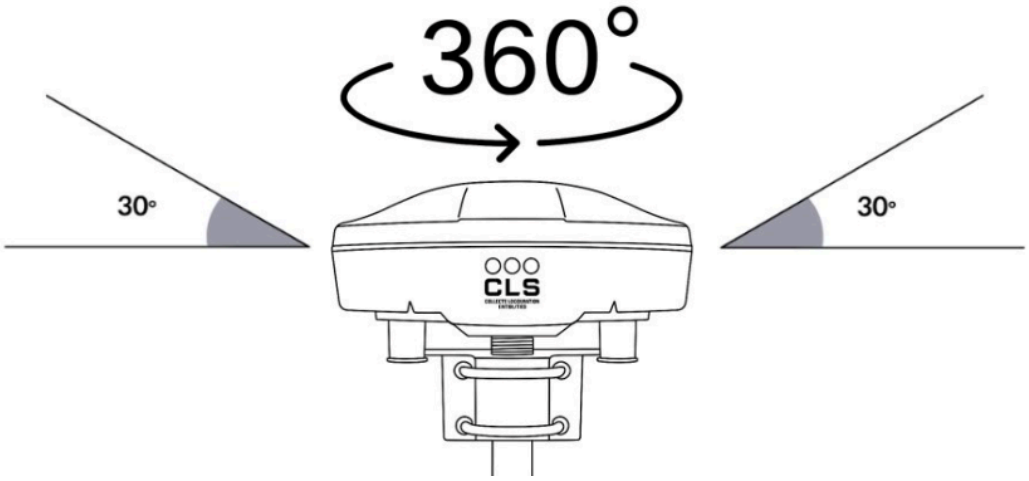
Physical installation

Above Deck Unit

The above deck unit is supplied with a pole mount kit for vertical installation on a pole ~38-44mm in diameter. Placement will differ from vessel to vessel and is determined by these key considerations:

- The above deck unit has a clear view of the sky
- Located within the 100m cable length constraints of the unit
- Is not located within 1 metre of any L-band devices
- Ensure the above deck unit is installed outside of any radar's **primary radiation pattern** to prevent signal degradation and potential damage

The RockFLEET Assured utilises the Iridium LEO satellite constellation and requires a clear view of the sky for optimum performance; in practice this means an unobstructed view for a 30 degree elevation from the top of the unit, spanning 360 degrees across the horizon.



More advice on positioning the unit can be found in an FAQ on our website: https://docs.groundcontrol.com/iot/signal_strength

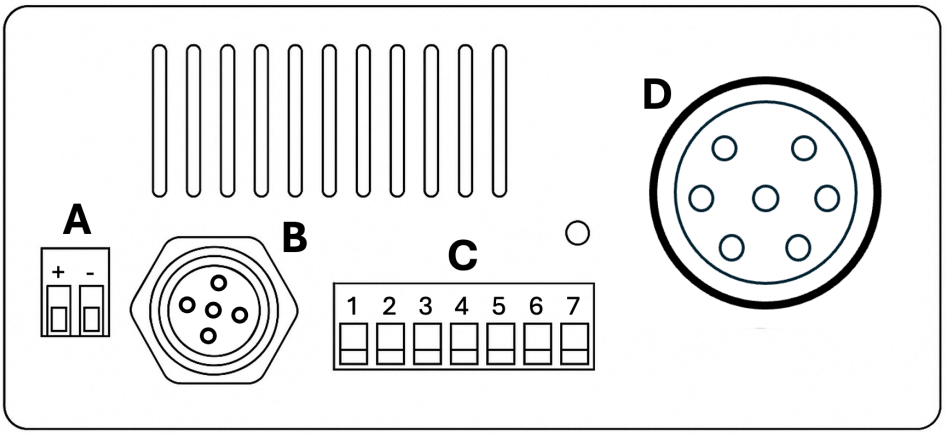
Cable connection

Attach the 7-pin female connector to the RockFLEET Assured above deck unit; please ensure that this is **seated correctly and securely screwed on to the port** on the underside of the case to maintain the IP67 rating.

Below Deck Unit

Power Hub

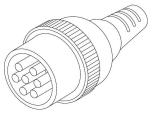
The RockFLEET Assured Power Hub provides a below deck junction box that offers simplified installation and power management for the RockFLEET Assured. The Power Hub will be configured to match your chosen RockFLEET Assured build option (NMEA 2000 or NMEA 0183 - note: factory build only, cannot be reconfigured once shipped).



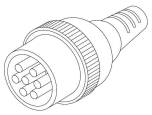
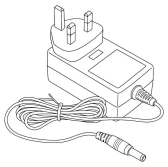
https://docs.groundcontrol.com/Tracking-and-Messaging/RockFLEET-Assured/power-hub

Connector A	DC power input connector with screw terminals. Supply voltage is 10-30V, positive wire left and negative wire right.
Connector B	Standard NMEA 2000 female connector for attaching the Ground Control supplied Chart Plotter or any 3rd party equipment that supports our position and AIS NMEA 2000 sentences. The Power Hub includes a NMEA 2000 terminator, completing a backbone connection to the RockFLEET Assured above deck unit, and connector B offers a drop/spur connection to the attached device; therefore cable lengths to the device should be no more than 6 metres.
Connector C	1: Power out + *Power output for Chart Plotter (15V DC)* 2: Power out - 3: Screen *Cable screen connector for Chart Plotter (where required). Also provides a reference ground for RS-422.* 4: RS-422 TX+ 5: RS-422 TX- 6: RS-422 RX+ 7: RS-422 RX-
Connector D	7 pin Amphenol connector to connect the Power Hub to the RockFLEET Assured above deck unit.

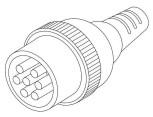
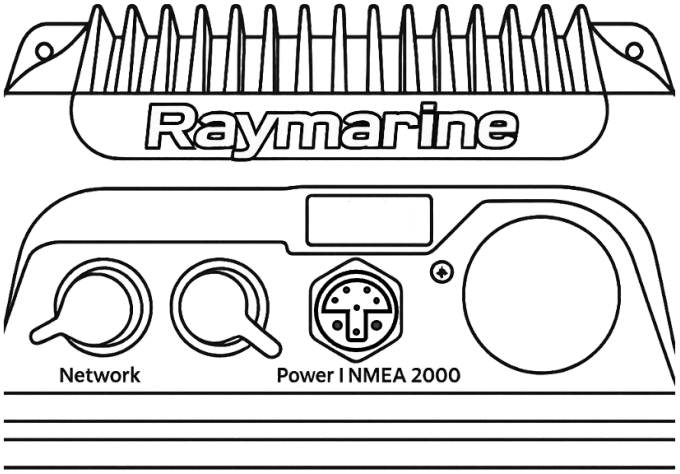
Cable connections for ‘Stand Alone’ bundle

Step 1	 Connect the 7-pin male connector from the above deck unit to the Power Hub **Connector D**
Step 2	For NMEA 0183 versions you can output the NMEA to your equipment via an RS422 connection wired to pins 4,5,6 and 7 on **Connector C** of the Power Hub. Terminal 4: RS422 TX + (TX from RF Assured) Terminal 5: RS422 TX - Terminal 6: RS422 RX + Terminal 7: RS422 RX - For NMEA 2000 versions, connect an NMEA drop/spur cable to **Connector B** of the Power Hub; cable length should be no more than 6 metres.
Step 3	Connect a power supply of 10-30V DC to **Connector A** + and - terminals

Cable connections for ‘Rapid Deploy’ bundle

Step 1	 Connect the 7-pin male connector from the above deck unit to the back of the Rapid Deploy Chart Plotter case.
Step 2	 Use the supplied 24V DC Power Supply and connect to the back of the Rapid Deploy Chart Plotter case; a set of international plug adapters are included for connection to the 220V AC on-board power supply.

Cable connections for ‘Full’ bundle

Step 1	 Connect the 7-pin male connector from the above deck unit to the Power Hub **Connector D**
Step 2	 Attach the largest NMEA 2000 connector of the Raymarine ‘Y’ cable to the back of the Axiom 9+ Chart Plotter.
Step 3	Attach the smaller NMEA 2000 connector of the Raymarine ‘Y’ cable to **Connector B** of the Power Hub.
Step 4	The remaining 3 wires of the Raymarine ‘Y’ cable can now be attached to **Connector C** of the Power Hub: Terminal 1: Red (power +) Terminal 2: Black (power -) Terminal 3: Grey (screen)
Step 5	Connect a power supply of 10-30V DC to **Connector A** + and - terminals

Power On and Configuration

Once the above deck unit and below deck unit are correctly installed and powered on, you should be receiving GNSS and APNT positions within 1 minute of start up.

Your unit will arrive pre-configured for typical marine applications and the reporting frequencies that you have purchased and should not require adjustment. However, there are options to fine tune the Kalman filter settings, choose which NMEA sentences to output, and change the data displayed on the Chart Plotter.

For simple validation that your unit is working and to apply local updates to your settings you can utilise our 'RockCONNECT IoT' bluetooth app available for both iOS and Android:
https://apps.apple.com/gb/app/rockconnect-iot/id6749900371
https://play.google.com/store/apps/details?id=com.gc.iot

You can also perform remote over-the-air configuration changes via our Cloudloop platform using the login details provided by your Account Manager:
http://devicemanager.cloudloop.com/

Chart Plotter

The supplied Axiom 9+ Chart Plotter is pre-configured to display GNSS spoofing and jamming alerts (via AIS safety messages); changes to this can be made via the Bluetooth app or via the Chart Plotter settings directly. Detailed instruction on the various menus can be found on our website:
https://docs.groundcontrol.com/Tracking-and-Messaging/RockFLEET-Assured/assured-config

Troubleshooting & Support

The latest information and advice on the RockFLEET Assured features and configuration can be found on our documentation website:
https://docs.groundcontrol.com/tracking/rockfleet-assured

For specific support and questions, please feel free to contact our support team via email:
help@groundcontrol.com

You can also view our support pages for regional telephone numbers:
https://www.groundcontrol.com/support/

FAQs

Why am I not seeing a position?	Ensure that the RockFLEET Assured is powered on. Check that positions are displayed via the Bluetooth app; if so, then investigate the connection / configuration of the below deck unit. Ensure you are providing a clear and unobstructed view of the sky to the above deck unit. Check that the APNT licence key is valid.
My device is not able to read the NMEA 0183 output	Check the baud rate of the RockFLEET Assured is correctly configured to match your equipment, and the wiring is correctly connected. Check that the correct NMEA sentences have been configured to be sent from the RockFLEET Assured, and that 'NMEA forwarding' is enabled. Check the configuration of your NMEA equipment to ensure it is expecting one/both of the GPxxx and GNxxx 'talkers'.
I am only receiving GNSS (GNGGA) positions and not APNT (GPGGA)	Check that your APNT licence is valid; this is visible within the Bluetooth app or via Cloudloop Device Manager. Check that the GPGGA sentences are enabled via

	the Bluetooth App or Cloudloop Device Manager.
Why do I only see basic maps on my Chart Plotter?	The Raymarine Axiom chart plotter requires a ‘Lighthouse’ map for detailed navigation views and these are installed via an SD card for a specific region; each SD card is an optional extra and can be purchased from Ground Control.
My vessel position on the Chart Plotter is jumping or I suspect it is incorrect.	The chart plotter may be misconfigured to use its internal GPS and is therefore not receiving the RockFLEET Assured APNT position. Check the ‘Settings → Internal GPS’ option on the chart plotter and ensure it is disabled.