

3.5 Setup Parameter Descriptions

System Chapter

In the descriptions below, system default values/options are shown in bold text

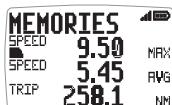
Memories Page

S1 Trip



The distance travelled since the last Trip Reset.
Resets to 0.00.

S2 Speed Maximum



The maximum speed attained since switch on or since the last Maximum Speed Reset.
Resets to current boat speed.

S3 Speed Average



The average speed attained since switch on or since the last Average Speed Reset.
Resets to current boat speed.

Alarms Page

S4 Shallow Water Alarm



Sets the shallow depth at which the display will alarm.
The options are: **Off** and 0.0 to 25.0 feet (0.0 to 7.6 metres)
(0.0 to 4.1 fathoms).

Values are displayed in the previously selected units (see page 22 S10 to select units) and are all subject to any keel or waterline offset added (see page 23 S18 to set an offset).

This alarm sounds as the depth passes below the set value and NOT as the depth increases past this value.

S5 Deep Water Alarm



Sets the deep depth at which the display will alarm.
The options are: **Off** and 0.0 to 250 feet (0.0 to 76.2 metres)
(0.0 to 41.6 fathoms). Values are displayed in the previously selected units (see page 22 -s10 to select units) and are all

subject to any keel or waterline offset added (see page 23 s18 to set an offset).

This alarm sounds as the depth increases past this value or decreases past this value.

S6 High Wind Alarm



Sets the wind speed at which the display will alarm. The options are: **Off** and 0.0 to 100 knots (0.0 to 51.4 m/s). Values are displayed in the previously selected units (see page 22 S11 to select units).

This alarm sounds as the wind speed increases past the set value and NOT as it decreases past this value.

S7 Cross Track Error Alarm



Sets the display to alarm if a Large Cross Track Error Alarm is issued by the GPS.

The options are: **On/Off**.

S8 Waypoint Arrival Alarm



Sets the display to alarm if a Waypoint Arrival Alarm is issued by the GPS.

The options are: **On/Off**.

Units Page

S9 Speed



The units in which ALL speed related information is displayed.

The options available are: **KNOTS**, KPH (Kilometres per hour) or MPH (Statute Miles per hour).

S10 Depth



The units in which ALL depth related information is displayed.

The options available are: **FEET**, METRES or FATHOMS.

S11 Wind



The units in which ALL wind speed related information is displayed.

The options available are: **KNOTS** or M/S (Metres per second).

S12 LOG (Distance)



Sets the units in which ALL Distance related information is displayed.

The options available are: **NM** (Nautical Miles), KM (Kilometres) or SM (Statute Miles).

S13 Temperature

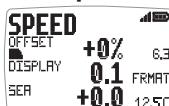
Sets the units in which water temperature information is displayed.

The options available are: **°C (Degrees Celsius)** or **°F (Degrees Fahrenheit)**.

4.2 Sensors Chapter**Speed Page****S14 Speed Response**

Sets the update period of the Speed display.

The options are: **Auto**/Slow/Medium/Fast

S15 Speed Offset (%)

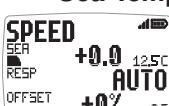
The boat speed calibration factor adds a percentage factor which corrects the information from the paddlewheel and ensures the boat speed is displayed correctly.

See page 32 for the calibration procedure.

S16 Speed Display Format

Sets the number of decimal places to which the boat speed information is displayed.

The options are **0.1** or 0.01.

S17 Sea Temperature Calibration

The sea temperature calibration factor adds a value which corrects the information from the temperature sensor and ensures the water temperature is displayed correctly.

Depth Page**S18 Keel / Waterline Offset**

Allows a keel offset to be added allowing the display depth reading to indicate depth below the bottom of the boat, or a waterline offset allowing the depth reading to indicate actual water depth. See page 31 to set a depth offset.

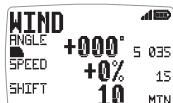
Wind Page

S19 Wind Response



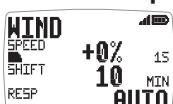
Sets the update period of the wind display.
The options available are: **Auto**/Slow/Medium/Fast.

S20 Wind Angle



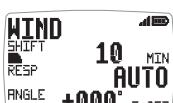
Aligns the displayed apparent wind angle with the actual wind direction with respect to the boat.
See page 33 for the calibration process.

S21 Wind Speed Calibration (%)



The wind speed calibration factor adds a percentage factor which corrects the information from the wind speed sensor and ensures the apparent wind speed is displayed correctly.
See page 33 for the calibration process.

S22 Wind Shift



The time period over which the system determines the mean wind direction can be user adjusted in the range 2 to 60 minutes. (**Default 10 minutes**)

Compass Page

S23 Heading Response



Sets the update period of the compass display.
Auto/Slow/Medium/Fast

S24 Heading Format



Tells the system to show heading information in either **Magnetic** or True format.

S25 Compass Offset



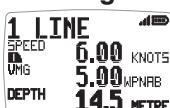
Aligns the displayed heading with the actual magnetic heading of the boat.
See page 34 for the calibration process.

S26 Magnetic Variation

Allows manual entry of local magnetic variation. This setting is ignored if variation information is available from a GPS source.

S27 Magnetic Deviation

However carefully positioned the Compass Transducer is there is always the possibility of errors being introduced by the vessel and equipment. To remove errors it is necessary to "Swing" the compass by turning the boat slowly until the system can optimize the readings. Once the correction has been completed the deviation correction value will be displayed. See page 34 for the calibration process.

Page Configuration Chapter**S28 Single-Line Display Page**

This setup page allows the selection of the data items to be displayed on each of the 8 single item display pages. When this page is first selected, the display shows the cursor beneath the title of the data item currently selected for display page 1.

To select an alternative single line display page:

Press the button repeatedly to show the data items currently allocated to pages 2 through 8 (the cursor changes from to as appropriate).

To change the data item associated with a page:

Press the or button. The currently selected item will flash. Press the or button repeatedly until the required data item title is under the cursor. Press to confirm the selection.

If a single line page is set to display the OFF (null) data item, the page concerned is removed from the cycle of single line display pages. If all single line display pages are set to display the OFF (null) data item, the whole single line display chapter is removed from the chapter cycle.

S29 Four-Line Display Page

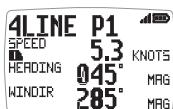


This page permits the selection of a four-line display page to configure.

To select a four-line display page to configure:

Press  repeatedly until the desired page is next to the cursor . Press  to configure the page.

To select a line to configure:



Initially, the display shows the cursor  beneath the title of the data item currently selected for line 1 of the four-line display page.

Press the  button repeatedly to show the data items currently allocated to pages 2 through 4 (the cursor changes from  to  as appropriate).

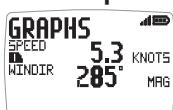
To change the data item associated with a line:

Press the  or  button repeatedly until the required data item title is under the cursor. Press  to confirm the selection.

If a page has all four lines set to display the OFF (null) data item, it is removed from the cycle of four-line display pages.

If all lines of all four-line display pages are set to show the OFF (null) data item, the whole four-line display chapter is removed from the chapter cycle.

S30 Graphs Page



This page permits the selection of the data item to be plotted on each of the two graphical data display pages.

To select a line to configure:

Initially, the display shows the cursor  beneath the title of the data item currently selected for graphical display page 1.

Press the  button to show the data items currently allocated to graphical display page 2 (the cursor changes from  to ).

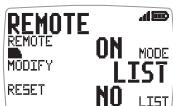
To change the data item associated with a line:

Press the  or  button repeatedly until the required data item title is under the cursor. Press  to confirm the selection.

The options available are **Speed (max 25 Kts)**, VMG to Wind (max 25 Kts), VMG to Waypoint (max 25 Kts), Depth (max 250 ft), App Wind Speed (max 50 Kts), True Wind Speed (max 50 Kts), SOG (max 25 Kts), Sea Temperature, Power Volts, Apparent Wind Angle, True Wind Angle, **True Wind Direction**, Heading and COG.

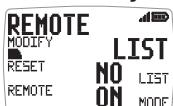
Remote Chapter

S31 Remote Mode



Permits the remote control function to be enabled or disabled. Press the button to toggle between ON and OFF.

S32 Modify Control List



The Remote Display builds a list of the Micronet displays on the network that are configured for remote control. This list allows the user to select a display to control with the Remote Display. By default, all Maxi and Dual Maxi displays on the network are shown on the list of controllable displays when the button is pressed. By default all other displays on the network are hidden from the list.

To modify the list of controllable displays:

Press the button to enter list configuration mode.

A list of all displays currently connected to the network is shown.

Individual displays are identified by a numeric display ID (starting at :01) and are marked as follows:

SHOW - the display will be visible in the list of available displays.

HIDE - the display is connected to the Micronet network, is compatible with remote control, but will not be shown on the list of controllable displays.

N.C. - (Non Controllable) the display is connected to the Micronet network but is not compatible with remote control (i.e. it has an older version of the software). This display will not be shown in the list of controllable displays.

WAIT - the system is building the list of connected displays.

To add or remove a display from the list of controllable displays:

Press the button to scroll down the list. The sequence number of the display in the list of controllable displays is shown by the cursor.

Press the button, the selected display entry will flash.

Press or to toggle between SHOW and HIDE.

Press to confirm the change.

To alter the position of a display in the list of controllable displays:

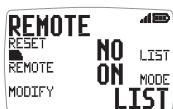
Press the  button to scroll down the list. The sequence number of the display in the list of controllable displays is shown by the  cursor.

Press the  button, the selected display entry will flash.

Press the  button until the required sequence number appears beside the display.

Press the  button to confirm the new sequence number. All displays below the selected display are pushed down the list.

S33 Reset List



Returns the list of controllable displays to its default settings.

Options Chapter

S34 Auto Networking



Adds display units or transducers to the Micronet network.

This function is only available on the display which was used to power up the system. Refer to the "Auto Network" sheet for further information.

S35 Pocket Mode



Sets the time out value for Pocket Mode, the options are OFF, 15, **30**, 60 or 120 seconds.

S36 Key Lock



Enables the key locking feature.

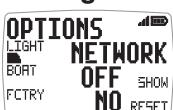
See Page 9 for the key locking process.

S37 Time



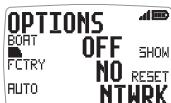
The number of hours added or subtracted from UTC (GMT) to allow the display to show local time.

S38 Light

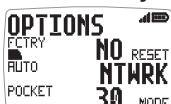


Configures the display to control the system backlighting or just its own backlighting.

The options are: **Network**/Local.

S39 Boat Show (Demonstration Mode)

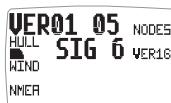
Allows the display to show information when NOT installed as part of a Micronet system for demonstration purposes only. Displays will return to default **Off** on power down.

S40 Factory Reset

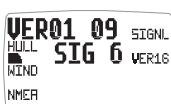
Returns all the calibration setting to the factory default values.

Health Chapter**S41 Software Version/Network Nodes**

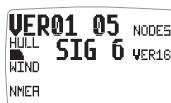
The top line of each Health chapter screen shows the software version of the Remote Display, battery level and charge rate to assist in troubleshooting and fault finding.



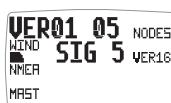
If the display is the "Master" (the one used to switch on the system) then the number of items (nodes) in the system will be shown.



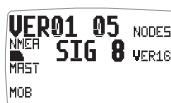
If the display is a "Slave" (was switched on by the system) then the signal strength to the "Master" will be shown in place of the number of nodes.

S42 Hull Transmitter Signal Strength

Shows the signal strength, software version, battery level and charge rate of the Hull Transmitter to assist in trouble shooting and fault finding.

S43 Wind Transmitter Signal Strength

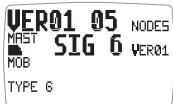
As above but for Wind Transmitter information.

S44 Wireless (NMEA) Interface Signal Strength

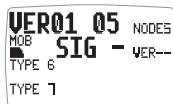
As above but for Wireless (NMEA) Interface information.

S45 Mast Rotation Transmitter Signal Strength

As above but for the Mast Rotation Transmitter

**S46 MOB Transmitter Signal Strength**

As above but for MOB Transmitter

**S47 Type 6 to Type 9 Signal Strength**

For possible future use.

4 Seatrial and Calibration

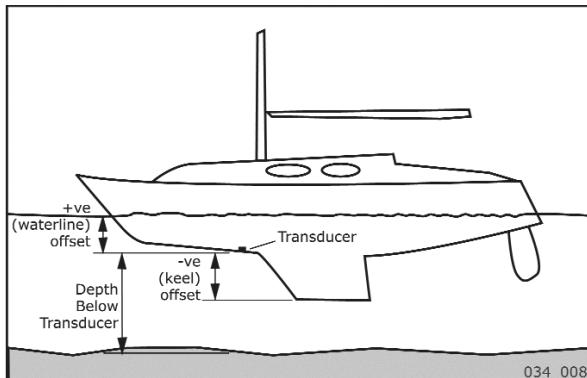
Once the Micronet system has been installed on the vessel and Auto Networking has been completed it is necessary to carry out Calibration.



It is not safe to use the displays for navigational purposes until Calibration has been carried out correctly.

4.1 Depth Offset

The default depth offset is 0.0 making the display read the depth below the transducer. By adding a +ve or -ve offset the display will show the waterline depth or depth below the keel respectively.



To enter a depth offset:

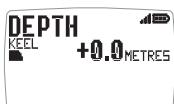
Press and hold the button for 2 seconds to enter Setup.

Press the button repeatedly to scroll to the Sensors chapter.

Press the button to enter the sensors menu.

Press the button repeatedly to scroll to the Depth page.

Press the button to advance to the Keel/Waterline Offset parameter.



Press the button to enter Edit Mode, the parameter value will flash.

Press the and buttons to change the value.

Press the button to exit Edit Mode.

Press and hold the button to exit Setup and return to normal operation.

4.2 Speed Calibration

To ensure that the boat speed (and distance) is accurate it is necessary to calibrate the speed to take into account variations in water flow between different hulls. Adjustment is made by multiplying the speed through the water (V) by a percentage calibration factor.

It is essential to carry out this procedure at a time when little or no tide is flowing.

To take account of tidal flow, the calibration run should be carried out twice, once with the tide and once against the tide. The calibration percentage factor should then be set to the average of the factors determined by the two runs.

To enter a Log Calibration Factor:

With the vessel under power, steer a straight course allowing the boat speed reading to settle to a constant value. Check the GPS is showing a constant SOG.

Press and hold the  button for 2 seconds to enter Setup.

Press the  button to select the Sensors chapter.

Press the  button to enter the Sensors chapter.

Press the  button to select the Speed page.

Press the  button to enter the Speed page.

Press the  button repeatedly to scroll to the Speed % parameter.



Press the  button to enter Edit Mode, the parameter value will flash.

Press the  and  buttons to change the displayed % value until the speed reading shown (in small text) matches the SOG from the GPS.

Press the  button to exit Edit Mode.

Press and hold the  button to exit Setup and return to normal operation.

Should you be unable to carry out this procedure due to strong tidal conditions or poor GPS information there is further information regarding Speed Calibration using a measured distance on the Tacktick website at www.tacktick.com.

4.3 Wind Calibration

Both Wind Speed and Direction can be calibrated to ensure that readings from the Wind Transmitter are displayed accurately.

Wind Angle Offset

Motor the vessel directly into the wind.

Press and hold the  button to enter Setup.

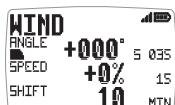
Press the  button repeatedly to select the Sensors chapter.

Press the  button to enter the Sensors chapter.

Press the  button repeatedly to select the Wind page.

Press the  button to enter the Wind page.

Press the  button repeatedly to select the **WIND +/- °** (Wind angle) parameter.



Press the  button to enter Edit Mode, the parameter value will flash.

Press the  and  buttons to change the wind angle displayed (in small type) to 000. The display will indicate the number of degrees of offset entered.

Press the  button to exit Edit Mode.

Press and hold the  button to exit Setup and return to normal operation.

Wind Speed Correction

Note: The Wind Speed reading is factory calibrated to display correctly and should not be altered unless external factors are thought to be causing incorrect readings. Correction should only be carried out if a known correct Wind Speed is available.

Press and hold the  button to enter Setup.

Press the  button repeatedly to select the Sensors chapter.

Press the  button to enter the Sensors chapter.

Press the  button repeatedly to select the Wind page.

Press the  button to enter the Wind page.

Press the  button repeatedly to select the **WIND +/- %** (Wind speed) parameter.



Press the  button to enter Edit Mode, the parameter value will flash.

Press the  and  buttons to change the displayed value to the required percentage. The display will indicate the percentage correction factor entered.

Press the  button to exit Edit Mode.

Press and hold the  button to exit Setup and return to normal operation.

4.4

Compass Calibration and Alignment

To ensure that inaccuracies caused by metallic and magnetic objects on the boat are kept to a minimum it is necessary to calibrate or swing the compass. A deviation caused by surrounding objects will be compensated for and the compass reading may be set to the correct heading.

Press and hold the  button for two seconds to enter Setup.

Press the  button repeatedly to select the Sensors chapter.

Press the  button to enter the Sensors chapter.

Press the  button repeatedly to select the Compass page.

Press the  button to enter the Compass page.

To Complete a deviation correction turn:

Press the  button to advance to the DEV parameter.

Press the  button to enter Compass Calibration Mode.



Turn the vessel slowly keeping the speed below 4 knots and taking approximately 2 minutes to complete 360 degrees. Keep turning the vessel until the display changes to show a new value (usually about 1.25 turns)

Note: If the rate of turn of the vessel is too fast the display will show **TURN HIGH**. It is not necessary to abandon the turn at this stage but do lessen the rate of turn by reducing speed or widening the turning circle.

If required, press the  button to cancel Compass Calibration Mode, the system will revert to its previous value.

Then, to align the heading:

Steer the vessel on a known heading.

Note: Only use the main steering compass as a known heading if you are certain it has been checked and compensated.

Press the  button repeatedly to display the **HDG +/-nnn** (heading angle) parameter.



Press the  button to enter Edit Mode.

Press the  and  buttons to change the displayed heading (in small text) to the known correct value. The display will show the offset entered.

Press the  button to exit Edit Mode.

Press and hold the  button to exit Setup and return to normal operation.

5. Installation

5.1 Changing the Bezel

Each Remote Display is shipped with one white and one black bezel.

To change the bezel:

Caution: work in a location where parts cannot be lost overboard or in the bilges as the keypad mat and lanyard attachment will fall free of the main unit.

Remove the screw securing the lanyard attachment tab (bottom center at the back of the unit).

Insert a large flat screwdriver blade into the lanyard attachment slot and twist gently to separate the bezel and the instrument base at the bottom.

Carefully insert a finger on each side between the bezel and the base and gently flex the sides of the bezel outwards, easing the bezel away from the base.

Insert the keypad into the replacement bezel and lower the main unit into the bezel applying slight pressure until a clicking sound indicates the bezel is attached. Turn over the unit and check the bezel is secure all around.

Replace the lanyard tab in its slot, with the moulded nut facing the back of the unit and replace the screw.

Caution: take care not to over-tighten the screw.

It is not recommended that the bezel is frequently exchanged, this could weaken the clips that attach the bezel to the base of the unit.

5.2 Cradle

Each Remote Display is supplied with 2 cradles. It is recommended that one of these is mounted in a sunny or well illuminated place, so that the Remote Display can be left to "recover" during the day in case it has been used extensively at night.

To install the cradle:

Using the cradle as a template, drill three 2.5mm holes. Use three self tapping screws (not supplied) to attach the cradle.

6 Maintenance and Fault Finding

6.1 Care and Maintenance

All Micronet products are totally sealed against water and are not serviceable. Any attempt to take a Micronet product apart will invalidate the warranty.

To clean, use only a damp, soft cloth. No detergents, solvents or abrasives should be used. To avoid damaging a Micronet display unit we recommend storing in the supplied soft pack when not in use.

If the displays are to be stored for a long period of time before next use (over winter) ensure that the batteries are fully charged before storage.

6.2 Fault Finding and Technical Support

Power No Volts alarm sounds



The Hull Transmitter and Wireless (NMEA) Interface must be connected to external power supplies. If this connection is not made, then you will see this alarm 10 seconds after powering up your system. Any DC voltage between 9 and 30V is sufficient to power the Hull Transmitter and Wireless (NMEA) Interface.

Power Save Alarm sounds.



There has been no significant data activity on the network. The alarm sounds to indicate that the display system will turn itself off. To continue using the system press any button to cancel the alarm.

Lost Network Alarm sounds.



On a single display this indicates that the particular display has lost communication with the Master*. Either there is a problem with the Master* display or the display in question has been moved out of effective range.

On several displays this indicates that these displays have lost communication with the Master*. Either there is a problem with the Master* or the Master* has been moved out of effective range.

The displays will power down shortly after sounding the alarm to save power.

A single display flashes the battery symbol and then switches off.

The battery level is low on the particular display affected. Connect to a 9 to 30V DC power source or leave in bright sunlight for 12 hours minimum to recharge the display's internal battery. If the particular display is the system Master* then the other displays will sound the "Lost Network" alarm. To continue using the rest of the system power down and restart the system from another display.

Note: there is no external power facility for the Remote Display.

Low Battery Alarm sounds.



The power level is low in the Hull Transmitter, Wireless (NMEA) Interface or Wind Transmitter. Enter Setup and Calibration Mode (Page 18) and go to the Health Chapter. Check the battery levels of the Transmitters and Interface Box. The battery level icon should show 1, 2 or 3 bars to ensure correct operation. Connect the Hull Transmitter or Wireless (NMEA) Interface to a 9 to 30V DC power source for 12 hours minimum to recharge the internal battery. Leave the Wind Transmitter in bright sunlight for 12 hours minimum to recharge its internal battery.

Data is shown as dashes.

The information is not being transmitted to the displays. There may be lost communication between the Wind Transmitter or Hull Transmitter and the displays. On any Digital display enter Setup and Calibration Mode (page 18) and scroll through to the Health Chapter. Check the signal levels of the Hull and Wind Transmitters. The signal level should show a value of greater than 3 to ensure correct operation.

Compass Transducer rattles and/or splashes

Good! The fluxgate compass is gimballed in a fluid filled container to ensure it is not affected by the boats movement in the water.

Compass information displayed on the system does not agree with the main steering compass

Ensure that the main steering compass has been swung correctly and is showing correct information. Ensure that the display system has completed correctly the "Swing" procedure described on page 34. If there are still differences, look for magnetic objects (loud speakers, pumps and motors, etc.) close to the transducer and try mounting the compass transducer in an alternative location. After changing position of nearby equipment or the Compass Transducer it will be necessary to re-swing the compass following the procedure on page 34.

Boat Speed reads 0

Information being transmitted from the Hull Transmitter is being received with a zero value. Check the paddle wheel for fouling, clean it and make sure it turns easily.

Wind Speed reads 0

Information being transmitted from the Wind Transmitter is being received with a zero value. If the anemometer cups at the top of the mast are turning and the wind speed reads zero then there is a problem with your Wind Transmitter.

No NMEA data showing on external displays

From any digital display enter Setup and Calibration Mode (page 18) and scroll through to the Health Chapter. Check the signal level and battery status of the Wireless (NMEA) Interface. If the signal level shows a value of greater than 3 then check the data connections and the settings of the NMEA source equipment to ensure that NMEA 0183 is being transmitted correctly.

The Depth Alarm does not sound

If the actual water depth is shallow and the alarm has not sounded it is most likely that the alarm is switched off. From any Digital Display enter Setup and Calibration Mode (page 18) and scroll through to the Depth Chapter. Ensure the Depth Alarm settings are correct.

Note: * The "Master Display" is normally the display which was used to power up the entire system. This display may be different each time the system is used. If the system is powered up using a Remote Display and that display is in Pocket Mode, the Remote Display will hand over the function of "Master" to another display on the network in order to maintain network continuity if the Remote Display is taken out of network range.

If you are fault finding and are uncertain which display is the Master, switch off the system and switch on again (using a display other than a Remote Display). The display which you switched on is now the Master.

Warranty Information

General

All Tacktick products are designed and built to standards suitable for use in a harsh marine environment. If the products are installed correctly and operated as described in the user guides they will provide long and reliable service. For information and assistance Tacktick operates a network of international distributors.

Limited Warranty

The warranty covers repair or replacement of parts due to faulty manufacturing and includes labour charges. The warranty period is two years from the date of purchase. Tacktick specifically exclude the implied warranty of merchantability and fitness for a particular purpose.

Conditions

- A receipt with proof of purchase date must be shown to validate any warranty claim.
- The warranty is extended only to the original purchaser and is non transferable.
- Products that have been incorrectly installed or have serial numbers removed will not be covered.
- No compensation is payable for consequential damage caused directly or indirectly by any malfunction of Tacktick products.
- Tacktick is not liable for any personal damage caused as a consequence of using its equipment.
- Tacktick, its distributors or dealers are not liable for charges arising from sea trials, installation surveys or visits to the boat to attend to the product whether under warranty or not.
- Tacktick reserves the right to replace any products deemed faulty, within the warranty period, with the nearest equivalent.
- The terms and conditions of this warranty do not affect your statutory rights.

Claims Procedure

Product should be returned to the national distributor, or one of its appointed dealers, in the country where it was originally purchased. Valid claims will then be serviced and returned to the sender free of charge. Distributors reserve the right to charge for exceptional or express carriage if requested.

Alternatively, if the product is being used away from the country of purchase, it may be returned to the national distributor, or one of its approved dealers, in the country where it is being used. In this case valid claims will cover parts only. Labour, handling costs and return shipping will be invoiced to the sender.

Disclaimer

Tacktick products should only be considered an aid to navigation and common sense must be applied at all time when navigating at sea.

Tacktick reserves the right to change product specification without notice to comply with its policy of continuous improvement.

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions. (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference's that may cause undesirable operation.

Note: the manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.

Tacktick Ltd hereby declare that the Micronet Remote Display is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.





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