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Autohelm® ST 50

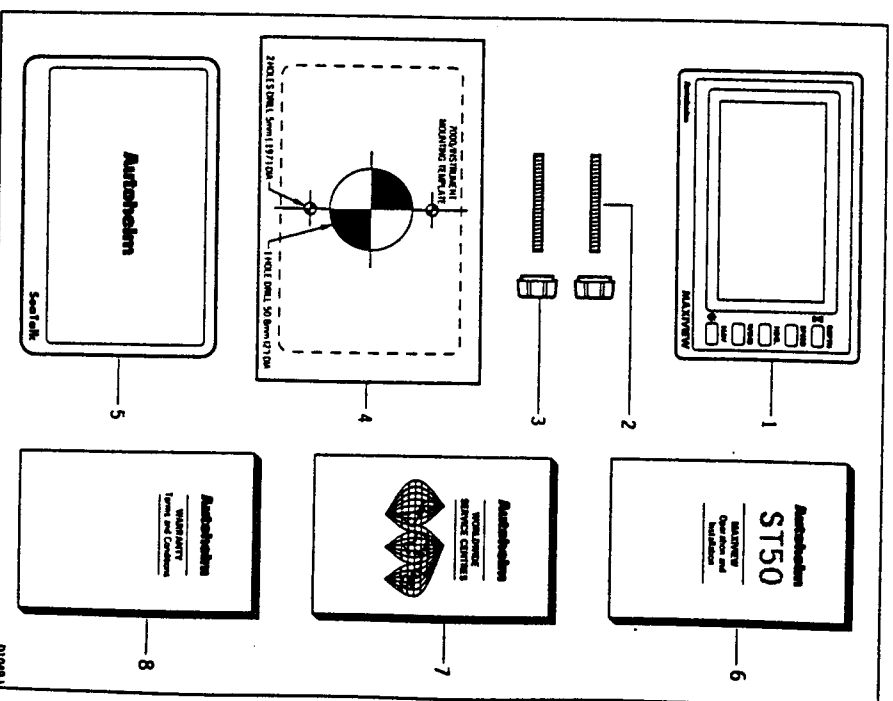
MAXVIEW™
Operation and
Installation

Autohelm®

Package Contents

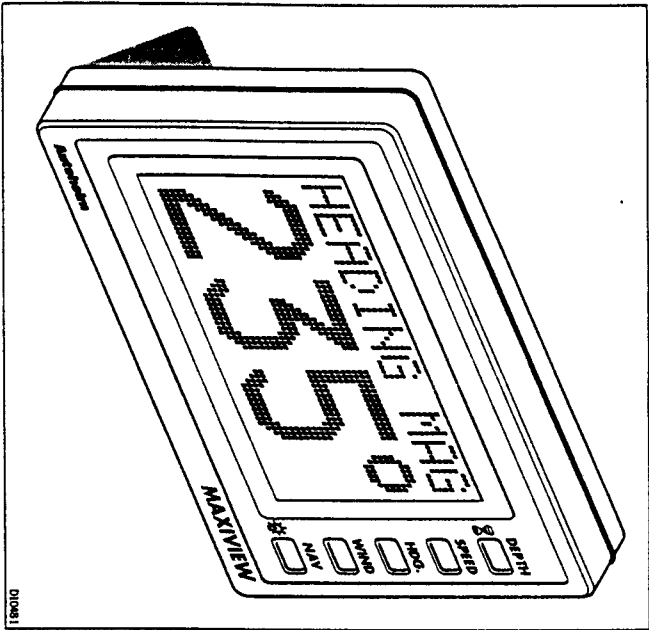
The ST50 MaxView package contains the following items:

1. ST50 MaxView instrument
2. Fixing studs (2 off)
3. Thumb nuts (2 off)
4. Fitting template
5. Instrument cover
6. Installation and Operation handbook
7. Dealer list
8. Warranty document



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ST50 MaxiView™

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Introduction

Congratulations. You are now the owner of a MaxView intelligent SeaTalk repeater. This instrument will provide you with access to the full range of SeaTalk performance and navigational information via a single instrument lead.

Whatever your type of boat, power or sail, MaxView gives you a large scale display of unprecedented clarity, as a result of the advanced super twist LCD display technology used.

The waterproof construction incorporates a 5-button control system, and large format, scratch resistant display window. As an alternative, the MaxView can be controlled by a SeaTalk remote control unit (Z190).

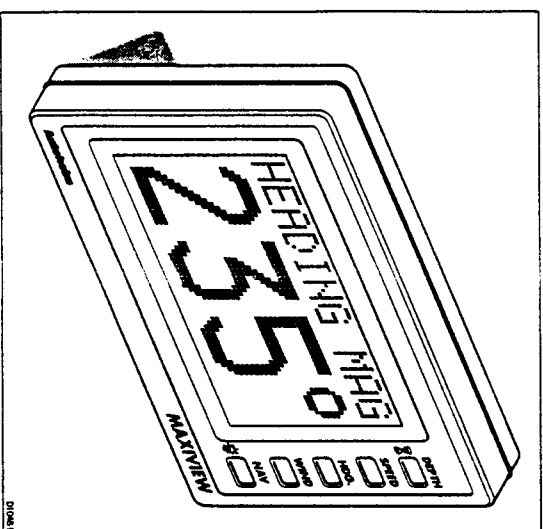
The MaxView repeater can be mast or cockpit mounted on sailing yachts using one of our custom Autohelm 2-unit (D186) or 4-unit (D184) mounting pods.

When used in a full SeaTalk system the following information is available:

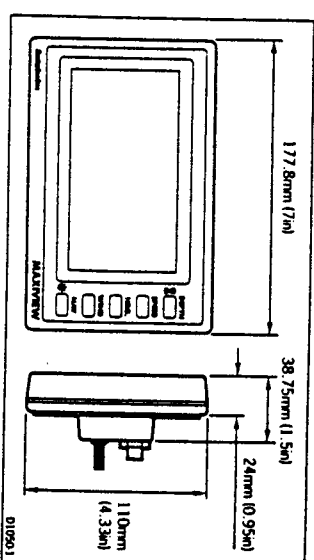
- Water Depth
- Deep Alarm Warning
- Shallow Alarm Warning
- Sea Temperature
- Current Boat Speed
- Average Speed
- Timer
- Maximum Speed
- Trip Log
- Total Log
- Current/Locked Magnetic Heading
- VMG
- True and Apparent Wind Direction
- True and Apparent Wind Speed
- Wind Beaufort Strength
- Heading on Next Tack

If the boat's system contains a radio navigation receiver (with SeaTalk output or an NMEA 0183 interface), the following information is also available:

- Speed Over Ground
- Course Over Ground
- Bearing to Waypoint
- Cross Track Error
- Latitude (current position)
- Longitude (current position)
- Time and date (if available from navigation receiver)
- Estimated Time of Arrival at Waypoint
- Tidal Vector
- Velocity Made Good Over Ground
- Velocity Made Good to Waypoint



Chapter 1: Instrument Head Installation



1.1 Siting

The ST50 MaxView can be mast, helm or cockpit/bulkhead mounted. When mast or helm mounting the MaxView requires a custom Autohelm mast or stormrail mounting pod:

2 unit Mastpod – D186

4 unit Mastpod – D184

Single unit ST50 HelmPod – D171

Note: Installation procedures for helm and mast mounting are covered in the Instrument Pod handbook.

Site the MaxView where it is:

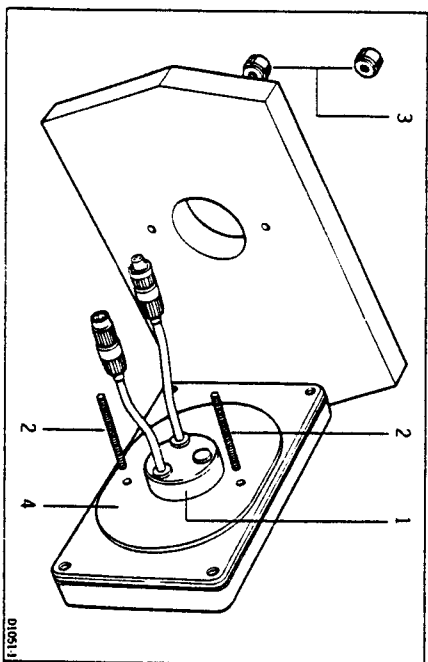
- easily readable by the helmsman.
- protected from physical damage.
- at least 230mm (9in) from a compass.
- at least 500mm (20in) from radio receiving equipment.

- accessible from behind for ease of installation and cable running.

Note: To prevent the accumulation of moisture, the ST50 MaxView breathes through a small vent in the connector boss. The rear of the MaxView must, therefore, be sited where it is protected from possible contact with water.

The ST50 MaxView is fitted with a foam gasket that forms a water-tight seal between the rear case and the installation face.

1.2 Mounting procedure (cockpit/bulkhead)



1. Connector boss 2. Fixing studs 3. Thumb nuts 4. Sealing gasket
1. Make sure the surface to which the MaxView is to be mounted is smooth, flat and clean.
2. Use the template (supplied) to mark the centres for the fixing studs (2) and the connector boss (1).

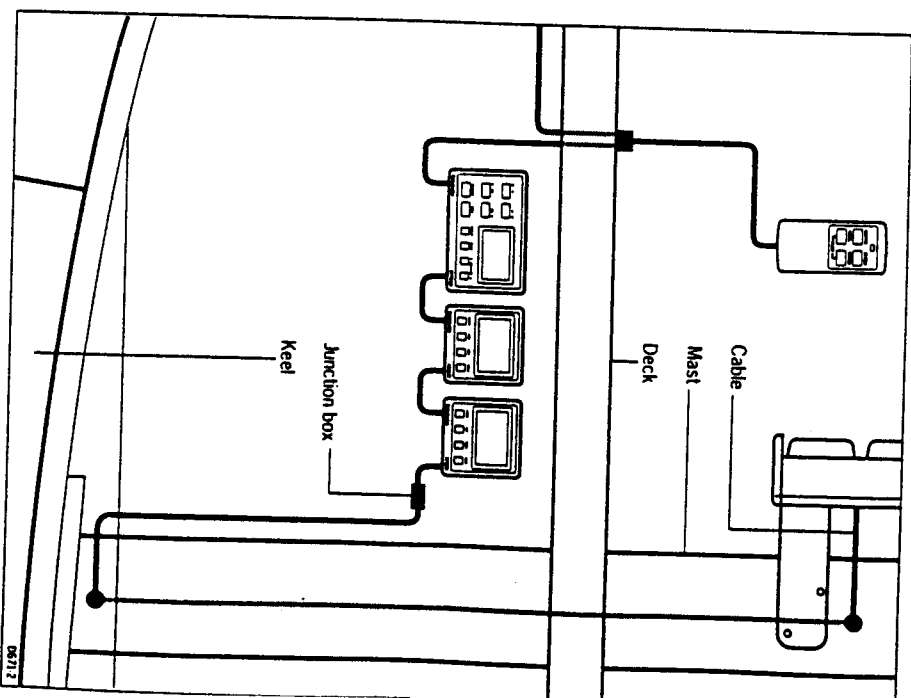
Note: To allow protective covers to be fitted, adjacent MaxView instruments should have at least 6mm (1/4in.) gap between them.

3. Drill two 5mm (0.2in.) diameter holes for the fixing studs.
4. Using a 60mm (2 3/8in.) diameter cutter, drill a hole for the connector boss (1).
5. Screw the two fixing studs (2) into the rear case of the MaxView.
6. Install the MaxView in the chosen location and secure with the thumb nuts (3).

Note: The thumb nuts should be hand tightened only - do not over tighten using wrenches etc. Also, do not use silicone grease/sealants as an additional method of sealing - these expand and may, if applied to the seal attached to the rear case, distort the MaxView casing.

1.3 Power supply

Power for the ST50 MaxView is taken from the SeaTalk bus.



The SeaTalk cable from the MaxView pod should be connected to the cable tail of the last instrument in the existing SeaTalk system.

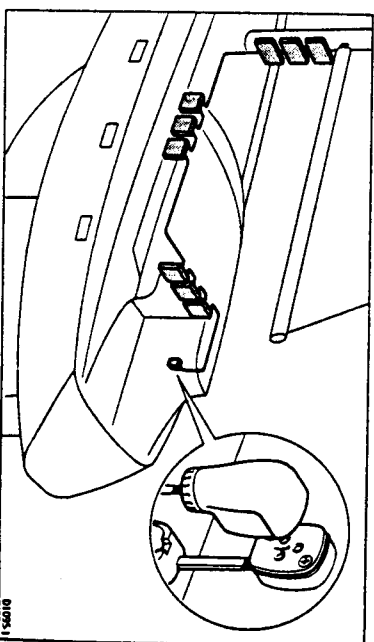
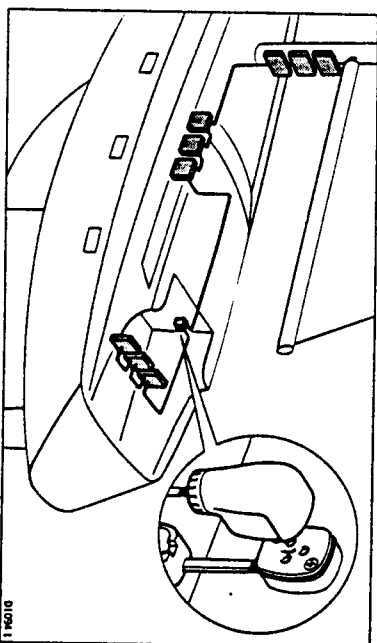
Chapter 2: MaxiView Remote Installation

2.1 SeaTalk Socket Installation

The MaxiView remote controller is SeaTalk compatible and controls the MaxiView instruments via the SeaTalk bus. It is supplied with a custom waterproof plug and socket. The plug comes ready assembled to the remote cable and the socket can be mounted in the cockpit area or anywhere a remote control is required. When correctly installed the SeaTalk socket is fully waterproof and can be situated in an exposed location.

Cabling

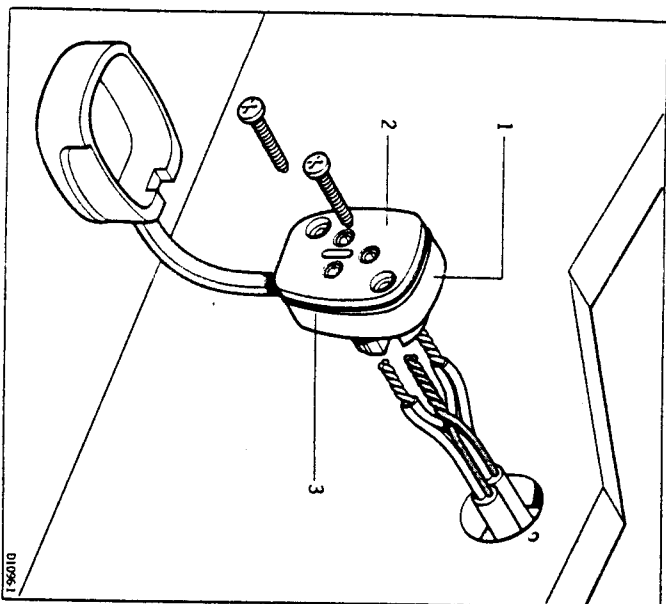
The bulkhead socket is wired to the bus using a SeaTalk extension cable (Cat. No. D131). This can be connected to a cable that links instruments in the nav area to those in the cockpit or, alternatively connected directly to the spare SeaTalk tail on the last instrument or autopilot control unit (also using D131).



2.2 Mounting/Cabling

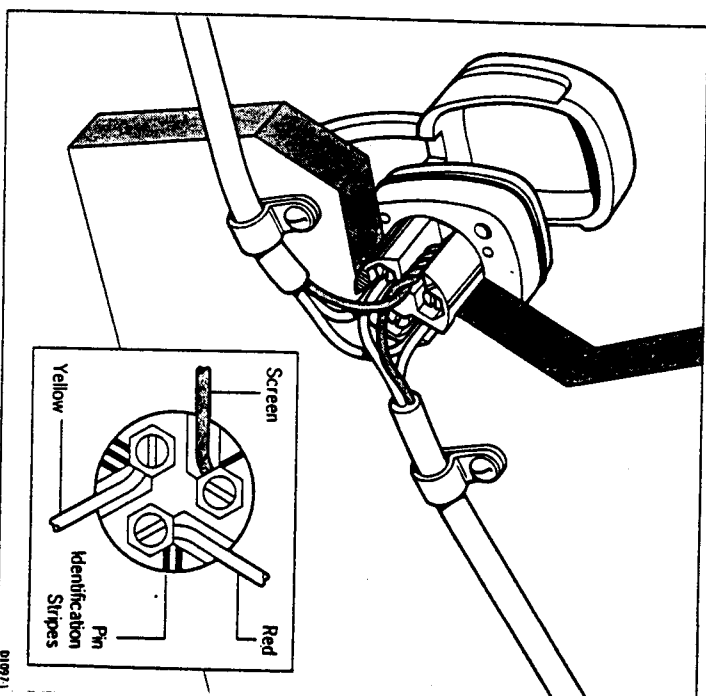
The socket is assembled as follows:

1. Apply the self adhesive template to the bulkhead at the selected location.
2. Carefully drill an 18mm (23/32in) clearance hole and two 2.4mm (3/32in) pilot holes. Remove the template.
3. Fit the cap plug (1) to the socket body (2) as shown.
4. Assemble the O' ring (3) to the groove between the plug cap and socket body.



Chapter 2: MaxView Remote Installation

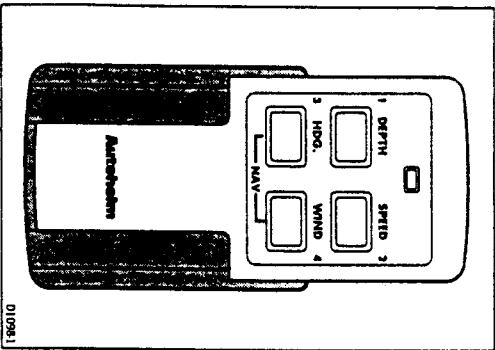
5. Cut and strip back the SeaTalk cable.
6. Thread both cables through the 18mm (23/32in) bulkhead hole and wire into the socket as shown, making sure that the wires are connected to the correct pins.



7. Attach the socket to the bulkhead using the two self tapping screws supplied.
8. Secure the cables as shown in the above illustration.

2.2 Bulkhead bracket installation

The ST50 MaxView remote is supplied with a bulkhead mounted stowage bracket. This should be attached to a convenient bulkhead using the 3 double sided adhesive pads supplied with the unit.



Chapter 3: Fault Finding

All Autohelm products are, prior to packing and shipping, subject to comprehensive test and quality assurance programmes. However, if a fault arises with the ST50 MaxView, the following table will help to identify the probable cause and provide the most likely cure.

Fault	Cause	Action
Instrument display blank	No supply to instrument	Check supply. Check cabling and security of connectors. Check circuit breaker. Return ST50 MaxView for repair
No exchange of information between hand held remote and MaxView.	SeaTalk bus open circuit.	Check security of all SeaTalk connectors and wiring to the socket and autopilot.

Chapter 4: Maintenance

4.1 Instrument

Certain atmospheric conditions may cause condensation to appear on the display window - this will not harm the unit and may be cleared by switching on the instruments lights (level 3).

Chemical and abrasive materials must not be used to clean the ST50 MaxView; if it is dirty, clean with a soft, damp cloth.

4.2 Cabling

Examine all cables for chafing or damage to the outer shield and, where necessary, replace and re-secure.

4.3 Advice

For advice, or further information regarding installation of this product, please contact the Autohelm Product Support Department or your own National distributor.

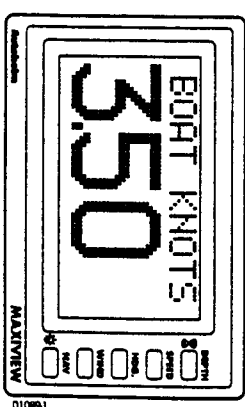
Chapter 5: Operation

5.1 Introduction

The ST50 MaxView can be programmed to operate in one of three modes:

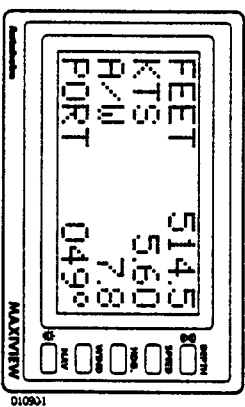
Full mode

In Full mode most functions are displayed in large format and called up by cycling the relevant key.



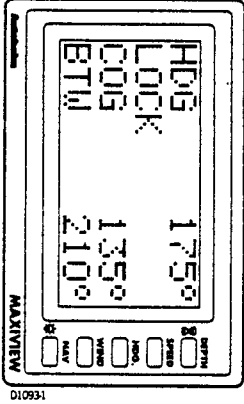
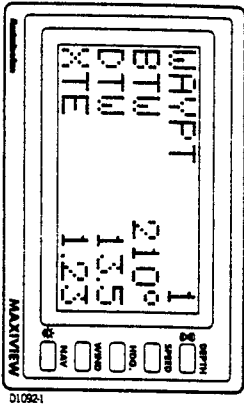
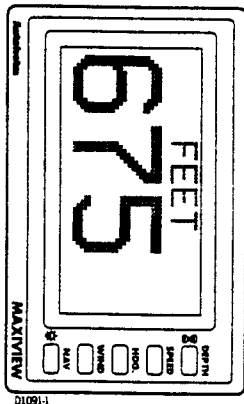
Cruising mode

Cruising mode condenses information into a smaller format to display four lines of information at a time.



Race mode

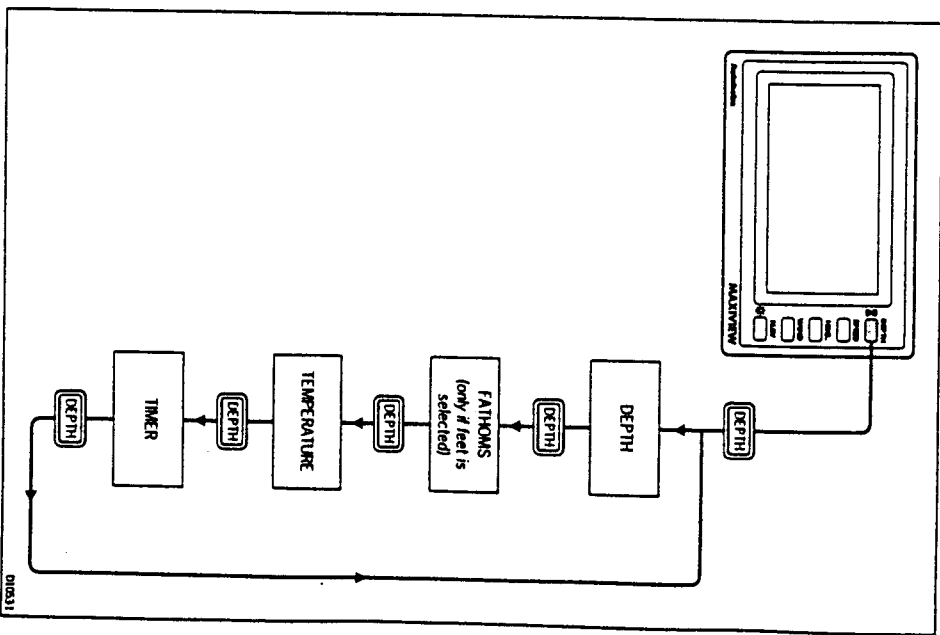
Race mode allows the user to define up to 6 screens from either the Full or Cruising menus, which can be remotely paged using the Maxi Remote Controller' (Z190).



Please refer to Calibration for information on setting the operating mode.

5.2 Full Mode

Depth

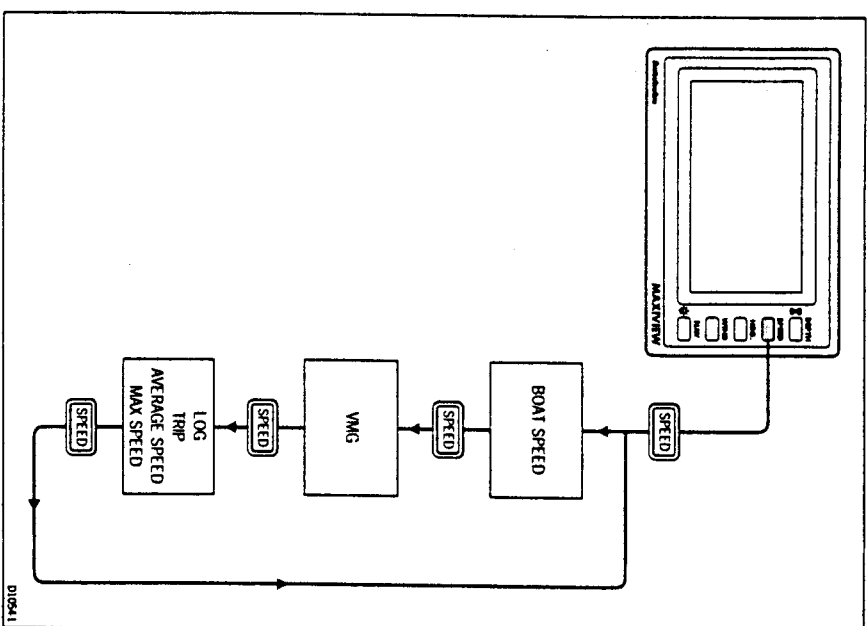


Note: Fathoms will only be displayed if the units are set to feet on the main depth instrument.

If the depth echo is lost LOST ECHO will be displayed alternately with FEE
If the shallow alarm is activated SHALLOW ALARM will be displayed
alternately with FEE.

If the deep alarm is activated DEEP ALARM will be displayed alternately
with FEE.

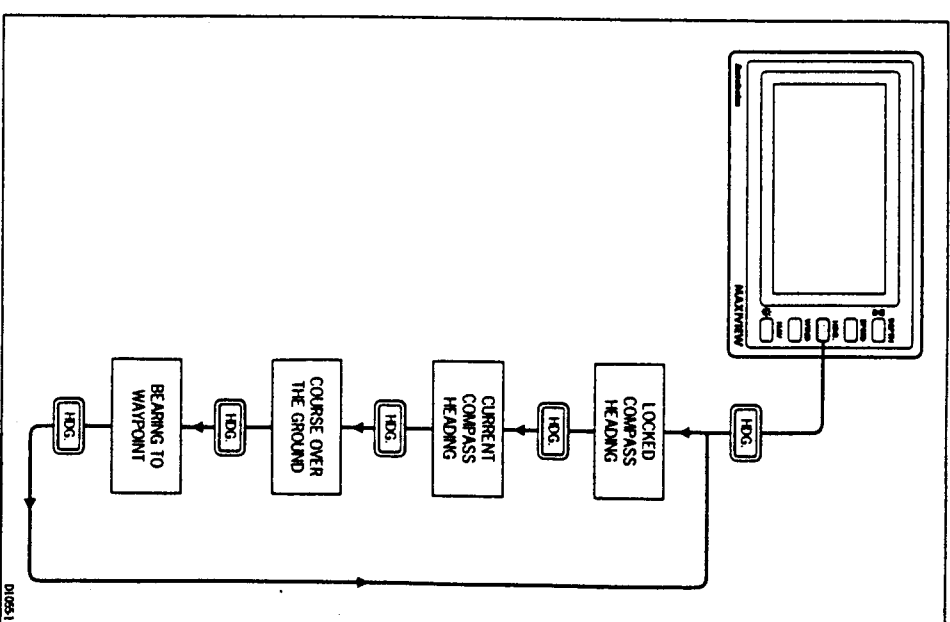
Speed Key



A one second press of **SPEED** resets the **MAXIMUM** speed reading.

Speed will automatically be displayed in either mph or knots depending on the setup of the main speed instrument.

HDG Key

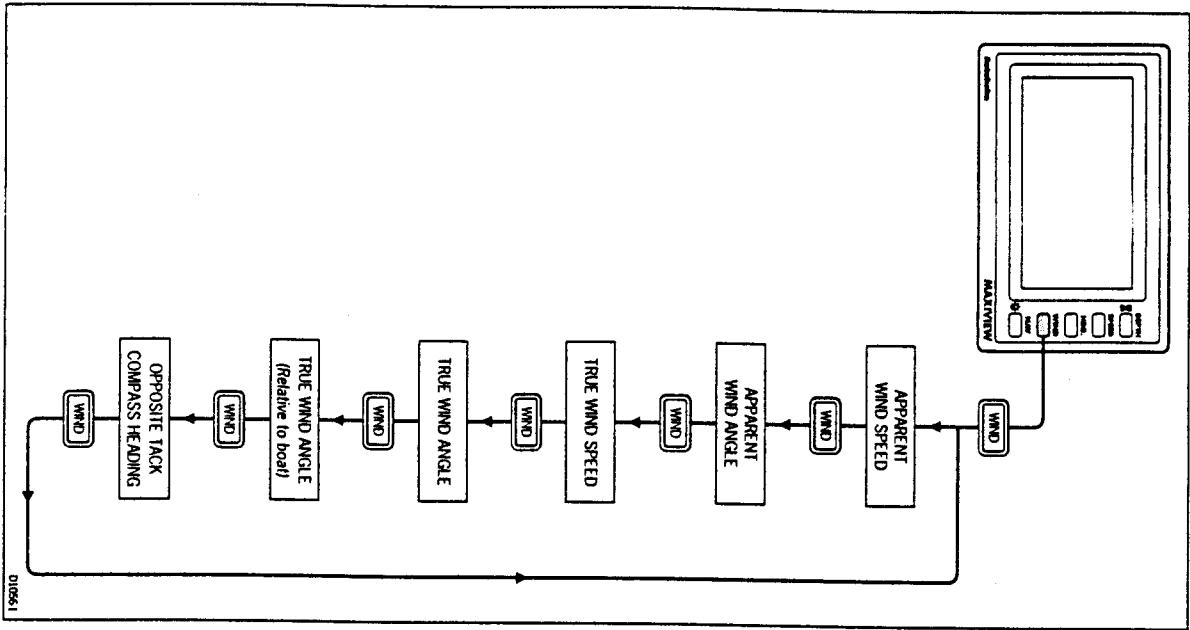


Note: Headings will be either True or Magnetic depending on the calibration setting (refer to section 6.1).

The units displayed by the master instrument will those displayed by the repeating unit.

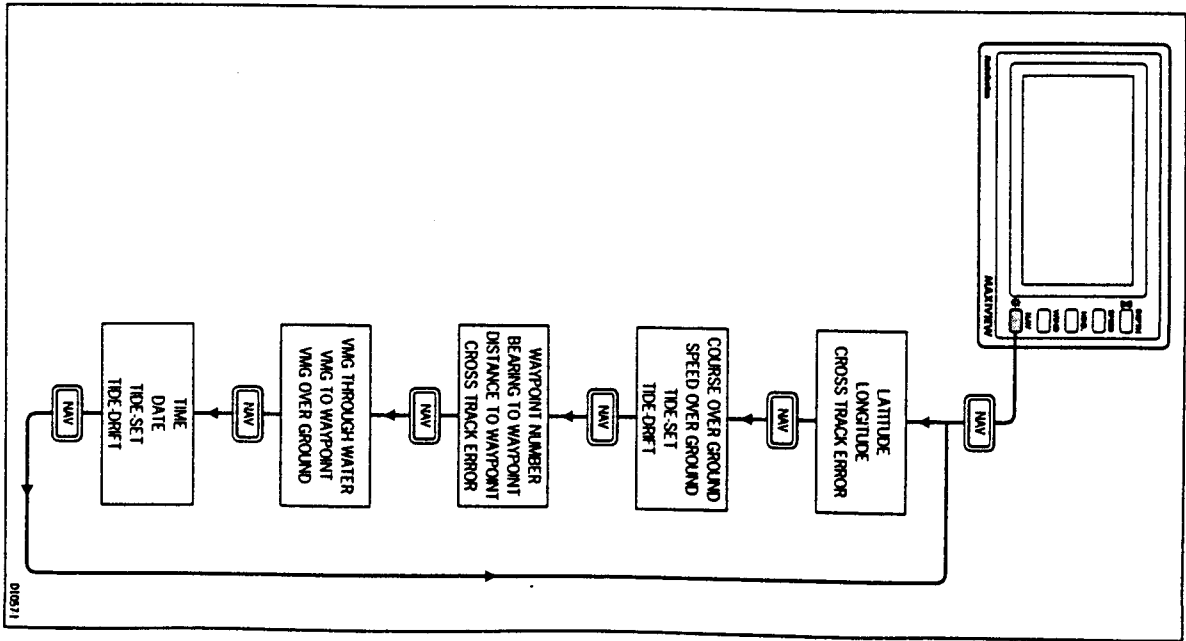
LOCKED HEADING appears only when the autopilot is in **AUTO** mode or the steering compass is in **LOCKED** mode.

Wind Key



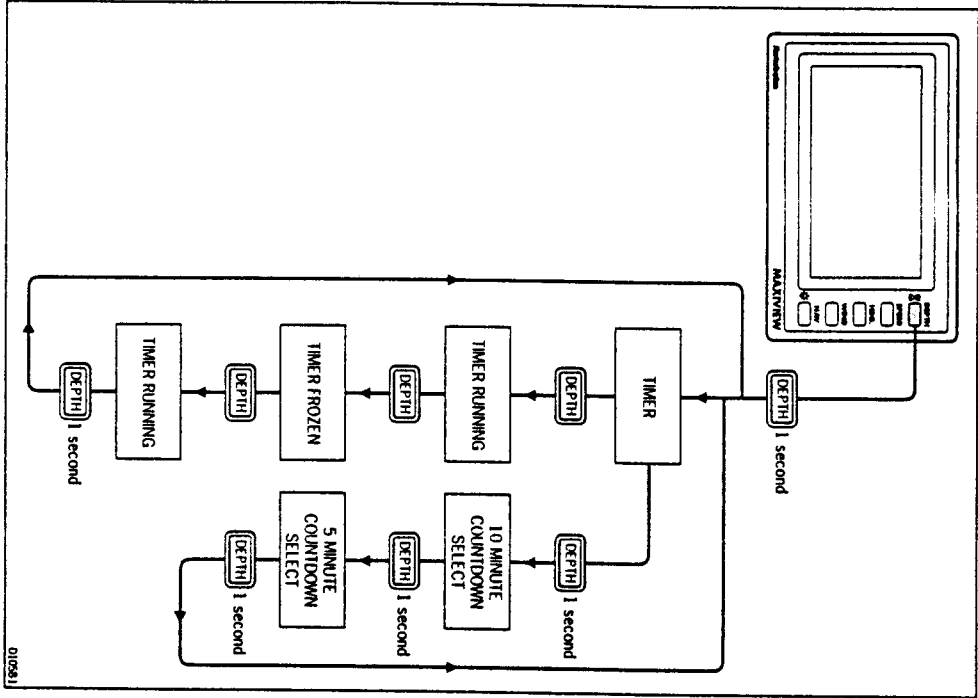
Wind will automatically be displayed in either knots or mph depending on the setup of the main wind instrument.

NAV Key



Navigation units will automatically be displayed in the same format as the main navigation instrument.

Timer Control

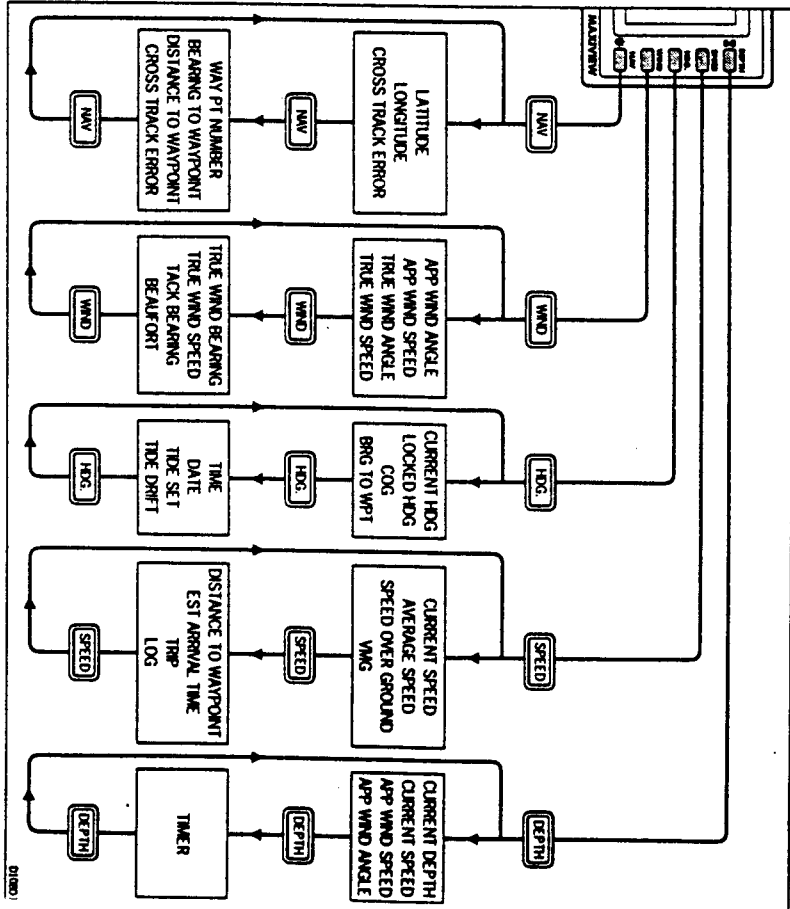


When the timer is running a 1 second press of **NAV** will stop the timer, a further press of **NAV** for 1 second will set the timer to zero.

When either the 10 minute or 5 minute timers are selected a single push of the **DEPTH** key will start the countdown.

A small **c** will appear in the lower right hand side of the display when in Timer Control mode.

5.3 Cruising Mode



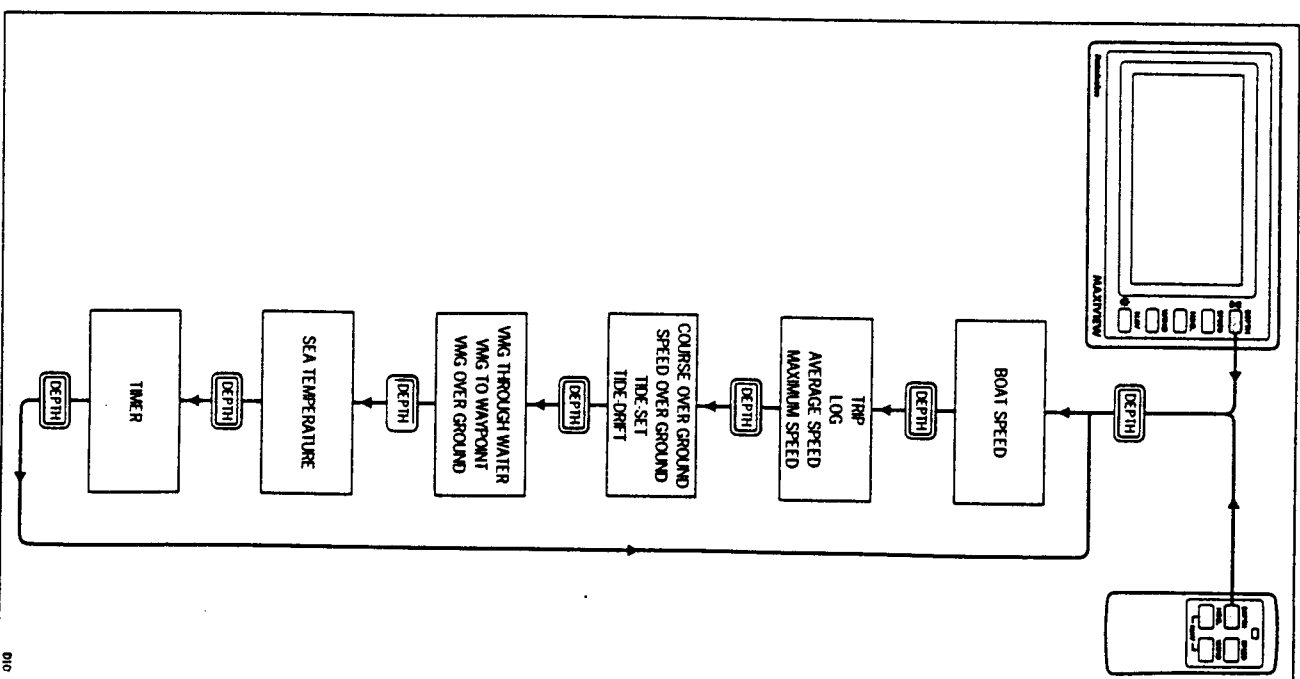
5.4 Race Mode

The following diagram is an example of a RACE mode setup with the **DEPTH** key chosen to page through 6 pages of selected information. For detailed procedures on how to setup Race mode, please refer to Chapter 6, Calibration.

Remote Timer Operation

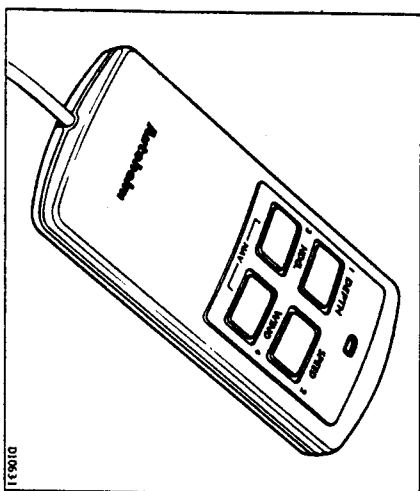
To control the timer using the MaxView Remote:

- Set up the MaxView to respond to key number 1 (see chapter 6).
- Pressing **DEPTH** and **SPEED** together on the MaxView Remote now has the same action as pressing **DEPTH** on the MaxView (see 5.2, Timer Control).



5.5 Remote Control

The MaxView can be remotely controlled using the Maxi Remote Control (cat. no. Z190). Each instrument can be programmed to respond directly to each key or page through a sequence of pre-programmed displays.



Operation

In 'FULL' or 'CRUISING' mode the remote control will operate the MaxView in exactly the same way as the MaxView keypad. A simultaneous press of **HDG** and **WIND** will call up NAV information.

In 'RACING' mode a single key is dedicated to each MaxView. Pressing the selected key (or any key on the MaxView facial) will page through up to six screens selected from the 'FULL' or 'CRUISING' menu's.

Refer to section 6.1 for information on setting up the MaxView to operate with the Remote Control.

5.6 LCD Illumination

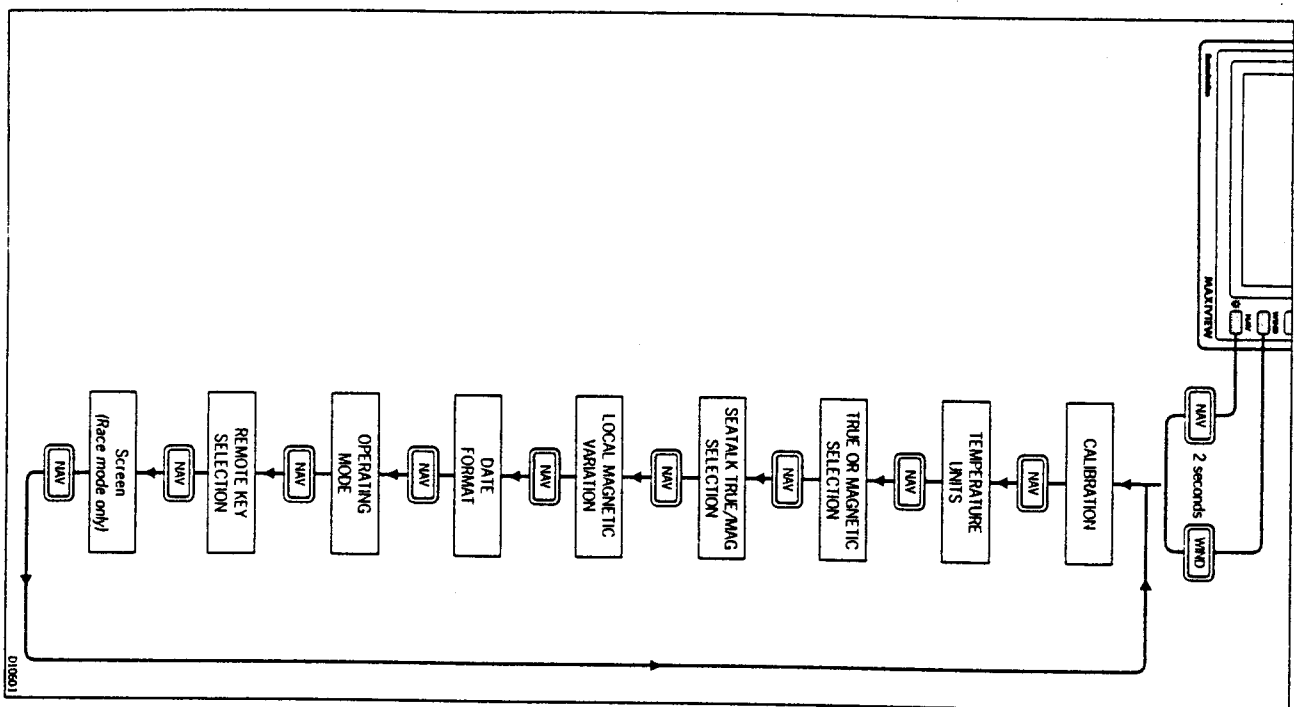
A 1 second hold down of the **NAV** key will switch on the nighttime display illumination. There are 3 levels of brightness, which can be selected using the **NAV** key. The display will automatically return to its normal mode after 8 seconds.

6. Calibration Procedures

The MaxView has a Calibration mode that allows various operating parameters to be set-up. These include:

- Operating mode
- Measurement units
- Local Magnetic Variation
- True or Magnetic bearing display
- European/USA date format
- Remote control enable

6.1 Basic Calibration



Enter Basic Calibration mode by holding down **NAV** and **WIND** for 2 seconds. The features can now be cycled by pressing **NAV**, and adjusted using **DEPTH** and **SPEED**.

To exit and store values, hold **NAV** and **WIND** until the display returns to normal mode.

Headings can be selected to display either **TRUE** or **MAGNETIC** but not both.

SeaTalk **TRUE/MAGNETIC SELECTION** defines the heading information received by the MaxView as either **TRUE** or **MAGNETIC** - some owners prefer to set-up primary compass instruments or autopilots to display and therefore, transmit **TRUE** heading.

Date format can be switched between **USA** and **European** format.

Operating mode can be set to **RACE**, **CRUISING** or **FULL**.

Remote key selection in **FULL** or **CRUISING** mode is simply on or off:

ON: MaxView responds to remote keys.

OFF: MaxView ignores remote keys.

In **RACE** mode five possible settings are available:

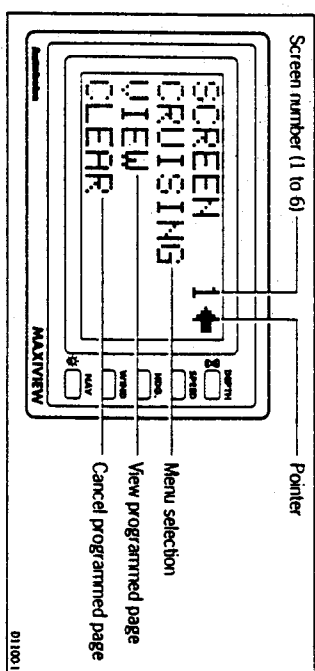
None: MaxView ignores remote key.

- 1: MaxView responds to the remote **DEPTH** key only.
- 2: MaxView responds to the remote **LOG** key only.
- 3: MaxView responds to the remote **HDG** key only.
- 4: MaxView responds to the remote **WIND** key only.

Once this key is defined upto 6 pages of information from either the **FULL** or **Cruiser** menus can be programmed into the MaxView. Each time the nominated key is pressed the MaxView will scroll onto the next programmed page.

Each of the six pages are set-up as follows:

1. Make sure RACE has been selected in Basic Calibration.
2. Cycle Basic Calibration until the Screen Selection page is displayed.



Note: If the Screen has not been programmed VIEW and CLEAR will not be displayed. Also a Screen cannot be changed without first clearing its contents.

3. With the pointer towards SCREEN select the screen to be programmed (1 to 6) by holding down the **DEPTH** key for 1 second.
4. Move the pointer to the Menu Selection with a momentary press of **DEPTH**.
5. Press **DEPTH** for 1 second to select either FULL or CRUISER – depending on which mode your chosen page appears.
6. Press **NAV** for 1 second to gain access to the FULL/CRUISER menu.
7. Select the page required and then press **NAV** for 1 second to return to Screen Selection.
8. Move the pointer back to SCREEN and select the next screen number by holding down **DEPTH** for 1 second.
9. To continue basic calibration, press **NAV**.
10. To store the selected screens press **WIND** and **NAV** for 2 seconds.
11. Setting up further screens is a repeat of procedures 3, 4, 5, 6, 7 and 8.

Note: The selected screen can be viewed at any time by pressing **DEPTH** momentarily to move the arrow to VIEW and then pressing **DEPTH** for 1 second. The screen will be displayed for as long as **DEPTH** is pressed.

As well as being able to view the selected screen, it may also be cleared by pressing **DEPTH** momentarily to move the arrow to CLEAR and then pressing **DEPTH** for 1 second.