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Raymarine SmartController

User Guide

Welcome to the SmartController

Handbooks can be such daunting things, can't they? Please don't worry, we have made this guide as simple as possible.

Your guide contains an explanation on how to use your SmartController, so finding your way around will become second nature.

If all you want to do is power up and get going, that's fine. But if you want to know more about what your SmartController will do for you, you'll find it here.

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SmartController

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Getting started . . .

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Battery power and signal strength

The battery power (5 levels) are indicated on the left hand side of the display. Your SmartController will sound an alarm when battery power is running low.

Wireless signal strength is shown in a similarly on the right hand side of the display.

Charging the SmartController

Before using the SmartController for the first time, you will need to charge the unit.

To charge the SmartController, simply place it into the cradle, pull open the rubber cover on the base and connect the charging cable.

CAUTION:
Do not use any other cable to charge the unit.

The battery power indicator will flash during charging. The recommended charge time is approximately five hours. Once fully charged the battery indicator will stop flashing.

The SmartController can also be charged whenever you wish without affecting performance.

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Your SmartController

SmartController display with power and battery strength indicators

C (POWER) Exit, cancel or back
When off, press to power on the SmartController

ACTION Performs softkey function

UP/DOWN Scroll through a list or a set of values

NAVIGATE STARBOARD
Use in PILOT mode to power steer your boat. Press and hold for Smart Steer

PILOT Use to activate the autopilot.

MODE Press to select required pilot mode.

STANDBY Use to return to manual control of your boat when in PILOT mode.
Press and hold to access Pilot Setup

NAVIGATE PORT Use in PILOT mode to power steer your boat. Press and hold for Smart Steer

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How do I power the unit on/off?

POWER ON

Press and hold the **C** button. The handset will beep, the display will show the first instrument data page and you're ready to go.

POWER OFF

Press and hold the **C** button for 3 seconds. The display will countdown to zero and will then go blank.

Note: You cannot power off the handset when the autopilot is in control of your boat.

Keylock

When using your SmartController, you can temporarily lock the autopilot keys to ensure that it is not accidentally operated. Access to the instrument pages is unaffected by the keylock.

How do I activate the keylock?

Press and hold the **mode** button until you see the "KEYLOCK ACTIVE" message. A key symbol will also be displayed on the instrument data pages.

Note: You cannot activate keylock when the autopilot is in control of your boat.

How do I turn off the keylock?

Press **mode** followed by the **action** button. A "KEYLOCK OFF" message will be displayed.

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Using your SmartController

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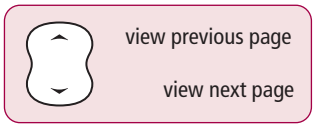
How do I view instrument data?

Your SmartController can display up to 8 pages of boat information. Each page can be set to show 1,2 or 4 data items, or, to view information graphically. When the autopilot is enabled, an extra "P" page is added to the favourites, showing autopilot specific information.

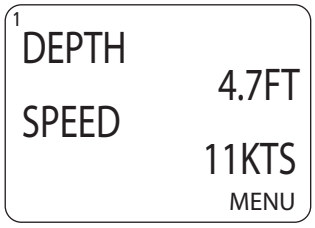


From the main instrument display:

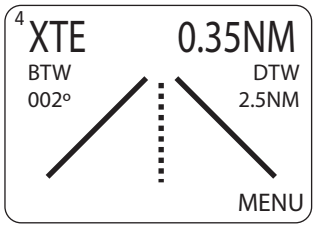
1. Press the **up/down** key to move to the previous or next page.
2. The number of the page currently being displayed will be shown in the upper left hand corner.
3. Press the **MENU** softkey to access SmartController settings

Example Screens

2 Data items



Graphcal data



Quick Tip If you only ever use a few favourite pages, use the PAGE ON/OFF feature to turn off the rest.

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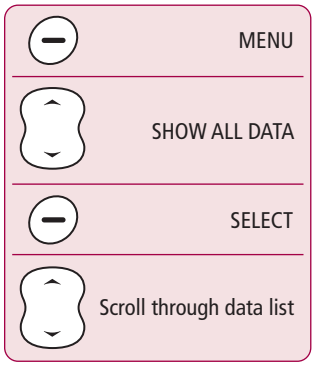
How do I see all the available data?

You can display all the available SeaTalk data in a list for reference. This is particularly useful when checking the availability of data, or when wishing to see an infrequently used reading.

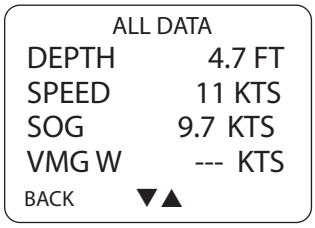


1 2 3

From the main instrument display:

1. Press the MENU softkey to display the main menu.
2. Using the up/down key, scroll to "SHOW ALL DATA" and press the SELECT softkey.
3. All of the available SeaTalk data will be displayed with its present value. Use the up/down key to scroll through the data. Where the is no data present, "- - -" will be displayed.

Example Screen



Quick Tip When planning your favourite pages, use SHOW ALL DATA to see what data will be shown

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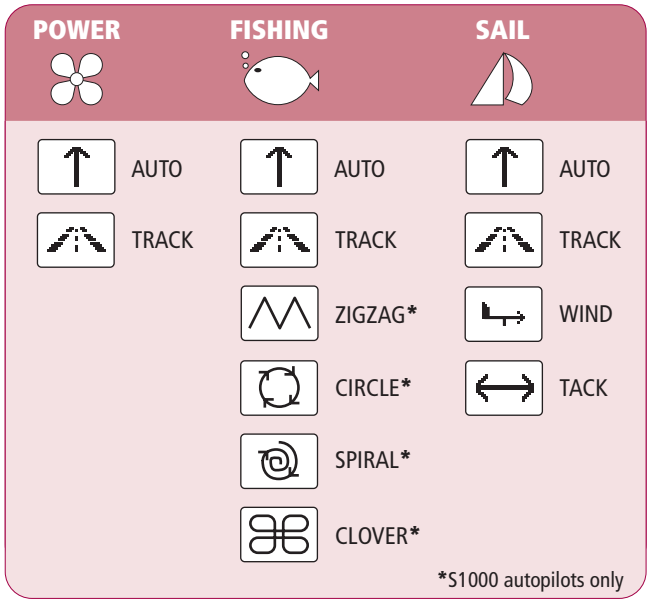
How do I use the autopilot?

Your autopilot can steer your boat according to one of its preset patterns. The types of patterns that are available are dependant on your boat and autopilot type. Each of the patterns are explained on the following pages.

Available modes



Quick Tip You can change your boat type in the autopilot setup pages - See page 29

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How do I automatically steer straight?

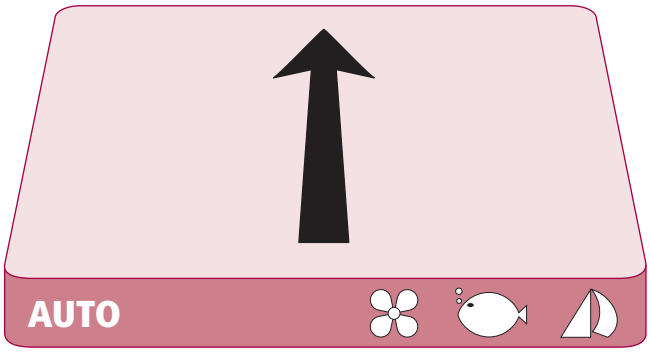
To continue on your current heading under autopilot control, use the AUTO mode. This will steer you in a straight line ahead until commanded otherwise. AUTO mode can be used in conjunction with SMARTSTEER (see page 20) to give you remote, power-steering control of your boat.

PILOT	Activates autopilot in AUTO mode
STANDBY	Returns the boat to manual steering

1 2 3

From any screen:

1. Steer your boat onto the desired heading.
2. Check that there are no obstructions.
3. Press the **PILOT** key to activate the autopilot.



Quick Tip AUTO mode is also available for selection via the **MODE** button

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How do I follow a route from my GPS?

Your autopilot can follow a route that you have previously set on your GPS or Chartplotter. Ensure that your GPS/Chartplotter is sending valid SeaTalk or NMEA 0183 data.

MODE	press repeatedly until you reach TRACK
PILOT	activates autopilot in TRACK mode
PILOT	Press when asked to accept new heading.

On arrival at each waypoint

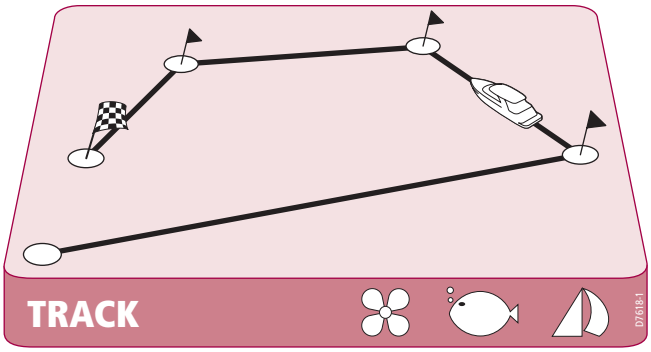
PILOT	Press when asked to accept new heading.

1 2 3

From any screen:

1. Press **MODE** repeatedly until TRACK is displayed.
2. Press **PILOT** to activate TRACK mode.
3. If a valid route is received, the SmartController will tell you the direction in which it will turn the boat and the new heading it will steer to. Press **PILOT** to accept.

Note: At each waypoint, confirmation of turn will be required. Press **PILOT** to accept.



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How do I follow a circle pattern?

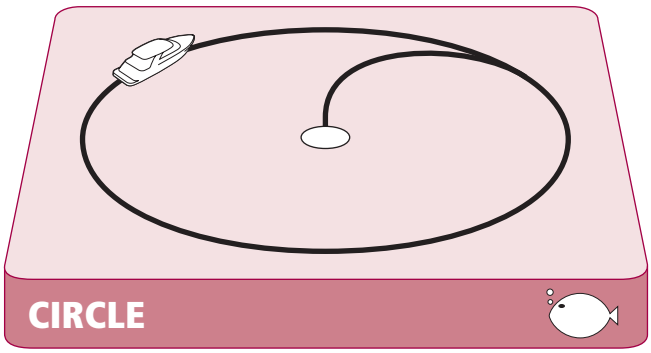
When you select CIRCLE mode, your current position is marked as the center of the circle pattern. Your autopilot will now gently steer your boat into the circle of the selected size.

MODE	press repeatedly until you reach CIRCLE
‹ ›	change pattern size (Sml, Med or Large)
PILOT	activates autopilot in CIRCLE mode

1 2 3

From any screen:

1. Press **MODE** repeatedly until CIRCLE is displayed.
2. Use the **PORT** and **STARBOARD** keys to change the size (S, M or L) if required
3. Press the **PILOT** key to activate the autopilot



Quick Tip Fishing patterns are designed to work at speeds up to 15kts. Check your speed before starting.

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How do I follow a spiral pattern?

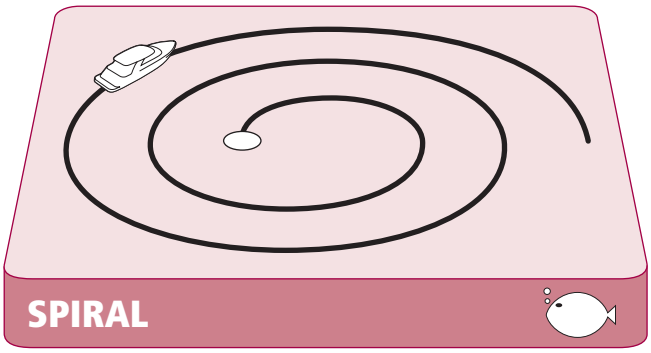
When you select SPIRAL mode, your current position is marked as the center of the spiral. Your autopilot will now gently steer your boat into a spiral of the selected size.

MODE	press repeatedly until you reach SPIRAL
‹ ›	change pattern size (Sml, Med or Large)
PILOT	activates autopilot in SPIRAL mode

1 2 3

From any screen:

1. Press **MODE** repeatedly until SPIRAL is displayed.
2. Use the **PORT** and **STARBOARD** keys to change the size (S, M or L) if required
3. Press the **PILOT** key to activate the autopilot



Quick Tip You can change the pattern direction in PILOT SETUP (See section 3)

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How do I follow a zig-zag pattern?

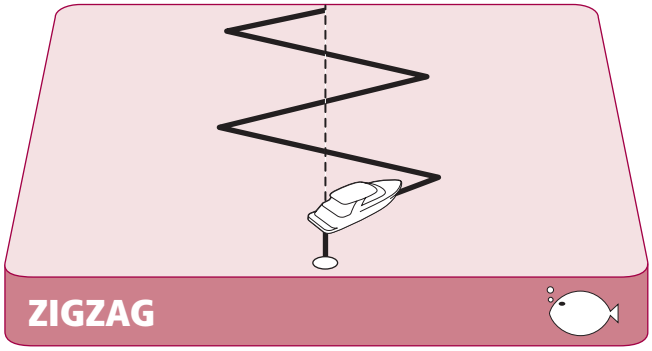
When you enter ZIGZAG mode, the autopilot will use your current position and heading as the center line of the zig-zag. The autopilot will now gently steer your boat into the pattern starting with a turn to starboard.

MODE	press repeatedly until you reach ZIGZAG
‹ ›	change pattern size (Sml, Med or Large)
PILOT	activates autopilot in ZIG ZAG mode

1 2 3

From any screen:

1. Press **MODE** repeatedly until ZIGZAG is displayed.
2. Use the **PORT** and **STARBOARD** keys to change the size (S, M or L) if required
3. Press the **PILOT** key to activate the autopilot



Quick Tip Fishing patterns are designed to work at speeds up to 15kts. Check your speed before starting.

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How do I follow a cloverleaf pattern?

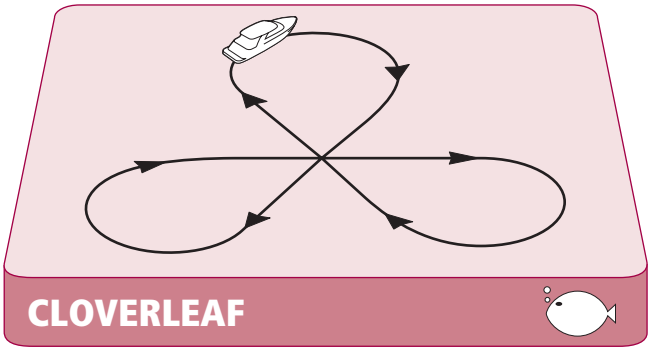
When you enter CLOVERLEAF mode, the autopilot will use your current position as the center point. The autopilot will then steer your boat through a series of starboard turns, repeatedly intersecting the start point.

MODE	press repeatedly until you reach CLOVERLEAF
‹ ›	change pattern size (Sml, Med or Large)
PILOT	activates autopilot in CLOVERLEAF mode

1 2 3

From any screen:

1. Press **MODE** repeatedly until CLOVERLEAF is displayed.
2. Use the **PORT** and **STARBOARD** keys to change the size (S, M or L) if required
3. Press the **PILOT** key to activate the autopilot



Quick Tip You can change the pattern direction in PILOT SETUP (See section 3)

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How do I steer to a fixed wind angle?

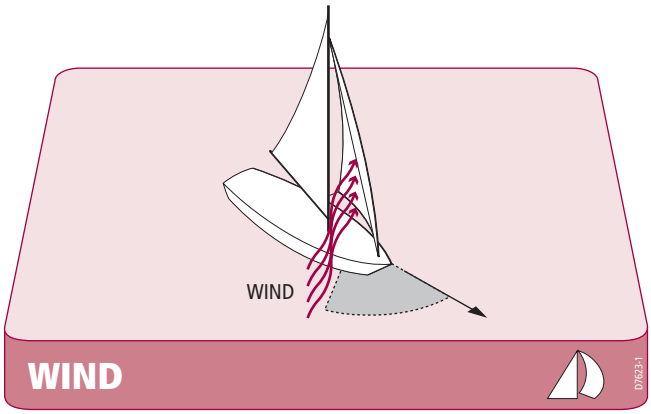
If your boat is equipped with a wind transducer, you can set the autopilot to steer at a fixed angle to the wind, WIND mode. You can adjust this angle to suit your needs.

MODE	press repeatedly until you reach WIND
PILOT	activates autopilot in WIND mode and shows current wind angle.
‹ ›	adjusts the desired wind angle
PILOT	press to steer to the new wind angle

1 2 3

From any screen:

1. Press **MODE** repeatedly until WIND is displayed.
2. Press **PILOT** to activate WIND mode.
3. The current wind angle will be displayed. Use the **PORT** and **STARBOARD** keys to change the angle as required. Press **PILOT** to accept.



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How do I tack using the autopilot?

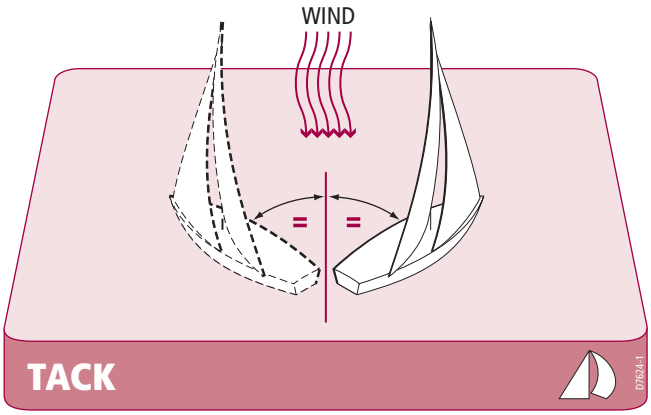
When in WIND mode you can use the autopilot to execute a tack maneuver. The degree of turn is set by the autopilot (Refer to the handbook supplied with the autopilot for details on changing the tack angle)

MODE	press repeatedly until you reach TACK
‹ ›	select the desired tack direction
PILOT	press to start the TACK maneuver

1 2 3

From any screen:

1. Press **MODE** repeatedly until TACK is displayed.
2. Use the **PORT** and **STARBOARD** keys to select the TACK direction.
3. Press **PILOT** to accept.



How do I dodge an obstacle?

Even when the autopilot is activated, you are are still able to override it. If, for example, you encounter an obstacle, or you just wish to change direction by a few degrees. This allows you to effectively power-steer your boat.

With the autopilot activated:

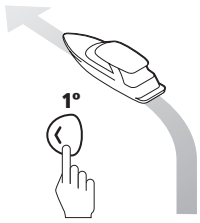
‹ or › press	1° course change (Dodge)
‹ or › press and hold	Large course change (SmartSteer)
STANDBY	returns the boat to manual steering

1 2 3

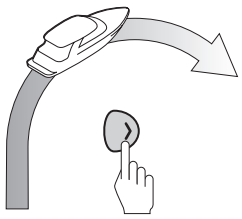
With the autopilot activated:

1. A brief press of the **PORT** or **STARBOARD** key will make a 1° course change in that direction.
2. A press and hold of the **PORT** or **STARBOARD** key will execute a controlled turn until you release the button. (SmartSteer)
3. The autopilot will now resume on the new heading.

Dodge



SmartSteer



Quick Tip When used with non-SMARTSTEER autopilots, the large course change will be made in 10° steps

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Setting up your SmartController

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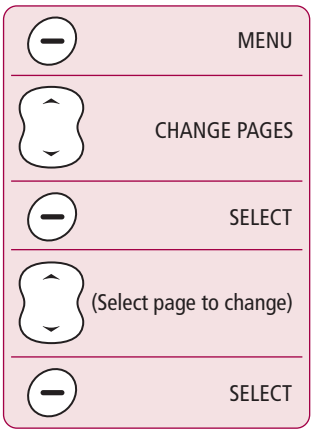
How do I change a favourite page?

You can change the appearance, content and layout of up to 8 favourite data pages. Set these up to best suit your boating needs

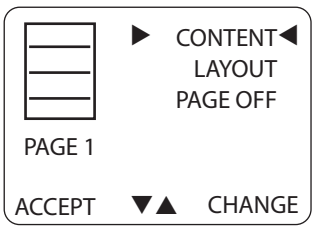


1 2 3

From the main instrument display:

1. Press the MENU softkey to display the main menu.
2. Using the up/down key, scroll to "CHANGE PAGES" and press the SELECT softkey.
3. Using the up/down key, scroll to the page you wish to change and press the SELECT softkey.

The selected favourite page can now be configured:



Quick Tip When viewing a favourite page, Press and hold the SELECT button to change the content for that page

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How do I change the page layout?

You can change the layout of each favourite page.

From the change page screen

LAYOUT

CHANGE

selects the next available layout (see options below)

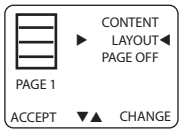
When desired format selected:

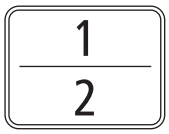
ACCEPT

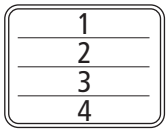
From the change page screen:

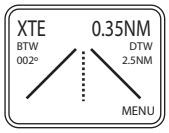
1. Using the up/down key, scroll to "LAYOUT".
2. Press the CHANGE softkey to scroll through the layout options. The icon to the left reflects the selected option.
3. Press the ACCEPT softkey to use the selected layout for this page.

The selected favourite page can now be configured:









Quick Tip If you only ever use a few favourite pages, use the PAGE ON/OFF feature to turn off the rest.

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How do I change page content?

You can change the content of each favourite page.

From the change page screen:

CONTENT

▲▼ data element selection

data type selection

When desired data selected:

ACCEPT

Example screen:

DEPTH	4.7FT
SPEED	11KTS
HEADING	227M
AWS	2.3KTS
ACCEPT DATA	▼▲

1 2 3

From the change page screen:

1. Using the up/down key, scroll to "CONTENT" and press the CHANGE softkey. The current data type(s) will be displayed.
2. The selected data element will be shown with a black background. Where you have more than one piece of data displayed, use the softkey to select the data element you wish to change.
3. Use the up/down control to scroll through the available data types for your current selection. When complete, press the ACCEPT softkey to save your changes and return to the change page screen.

Quick Tip If you only ever use a few favourite pages, use the PAGE ON/OFF feature to turn off the rest.

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How do I show or hide pages?

Use as many or as few data pages as you like The page on/off option allows you to only display those data pages you really want to see.

From the change page screen:

PAGE ON/OFF

CHANGE

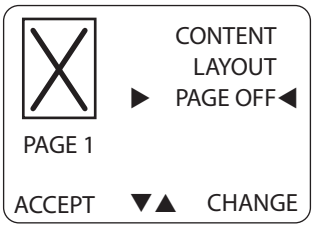
Toggles Page On/Off

1 2 3

From the change page screen:

1. Using the up/down key, scroll to "PAGE ON" or "PAGE OFF"
2. The label displayed indicated the current status of the selected page. This will also be represented graphically in the icon.
3. Press the CHANGE softkey to toggle the setting from ON to OFF and vice-versa.

Example screen:



Quick Tip If you only need to show a few items of data then use a larger display size to make it stand out

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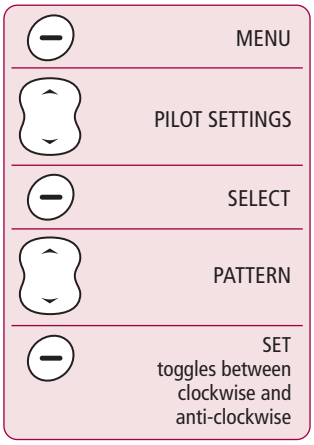
How do I change the pattern direction?

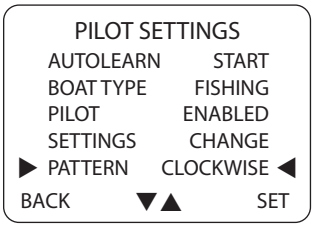
You can change the autopilot pattern direction.



From the main instrument display:

1. Press the MENU softkey to display the main menu.
2. Using the up/down key, scroll to "PILOT SETTINGS" and press the SELECT softkey.
3. Use the up/down key to scroll down to the "PATTERN" option and press SET to switch between CLOCKWISE and ANTI-CLOCKWISE patterns. When you are done, press BACK to return to the main menu.

Example screen:



Quick Tip Turns to starboard (clockwise) is the default pattern direction.

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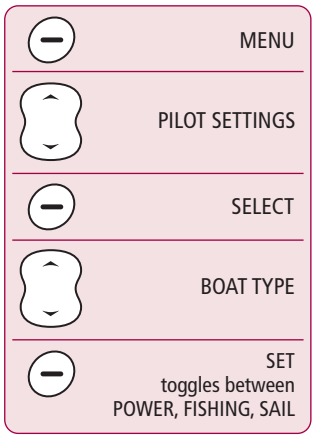
How do I change my boat type?

Your SmartController can be set to suit the type of vessel to which it is fitted. This ensures that the user interface will offer you the most relevant features.

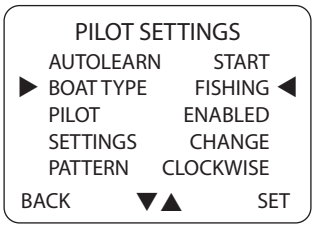


1 2 3

From the change page screen:

1. Using the up/down key, scroll to "PAGE ON" or "PAGE OFF"
2. The label displayed indicated the current status of the selected page. This will also be represented graphically in the icon.
3. Press the CHANGE softkey to toggle the setting from ON to OFF and vice-versa.

Example screen:



Quick Tip If you own a powerboat and still require wind information, set the boat type to SAIL

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How do I adjust the autopilot settings?

Your SmartController is designed to work with any Raymarine autopilot and it can also configure some. For proper operation, we recommend that any configuration of the autopilot is completed according to the table below:

Raymarine Autopilot	Operation	Configuration
ST1000	Yes	Use existing controller, see your autopilot handbook
ST2000	Yes	Use existing controller, see your autopilot handbook
ST3000	Yes	Use existing controller, see your autopilot handbook
ST4000	Yes	Use existing controller, see your autopilot handbook
ST5000	Yes	Use existing controller, see your autopilot handbook
100/300 Series	Yes	Use existing controller, see your autopilot handbook
SmartPilot S1 Series with ST 6001,7001,8001	Yes	Use existing controller, see your autopilot handbook
SmartPilot S2 Series (was 150 Series) with ST 6001,7001,8001	Yes	Use existing controller, see your autopilot handbook
SmartPilot S3 Series (was 400 Series) with ST 6001,7001,8001	Yes	Use existing controller, see your autopilot handbook
SmartPilot S1000	Yes	SmartController enabled. Refer to your S1000 system handbook for individual setting options.

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Alarms and Troubleshooting

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Fault finding

All Raymarine products are designed to provide many years of trouble-free operation. We also put them through comprehensive testing and quality assurance procedures before shipping.

If a fault occurs with your SmartController, use the fault finding tables in this section to help identify the problem and provide a solution. If you cannot resolve the problem yourself, refer to the product support information.

SYMPTOM	POSSIBLE CAUSE and SOLUTION
Display is blank	No power – press **C** to power up the SmartController or charge the batteries.
Autopilot not responding.	Drive the boat for 30 seconds at above 2.5kts and retry. Check autopilot connections.
Boat turns slowly and takes a long time to come onto course	Rudder gain too low. Complete AutoLearn or increase gain setting.
Boat overshoots when turning onto a new course	Rudder gain too high. Complete AutoLearn or decrease gain setting.
Position information not received	Navigator not transmitting the correct position data.
The pilot will not auto advance to the next waypoint.	No bearing to waypoint information received from the navigator.

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SmartController Alarm messages

When the SmartController detects a fault or failure on the system, it will activate one of the alarm messages listed in the following table.

Unless otherwise stated, you should respond to the alarm by pressing **standby** to clear the alarm and return to manual control, before you attempt to resolve the problem.

In some situations, the SmartController will raise more than one alarm. When you have dealt with the first alarm, it will display the next alarm.

ALARM MESSAGE	POSSIBLE CAUSE and SOLUTION
CHECK PILOT	See the main autopilot display head for information on this alarm.
CURRENT LIMIT	Serious drive failure – the drive is taking too much current due to short-circuit or jamming. Check the drive unit.
DRIVE STOPPED	The autopilot is unable to turn the rudder (this occurs if the weather load on helm is too high, or if the rudder position sensor has passed beyond the preset rudder limits or rudder end-stops). Check drive and rudder position sensor.
LARGE XTE	This alarm will sound when you are more than 0.3nm from your planned track. The alarm will also state if you are to the PORT or STARBOARD of the track,
LRN FAIL 1, 2 or 4	AutoLearn not completed successfully. Failure codes: 1 = AutoLearn has not been carried out 2 = AutoLearn failed, usually due to manual interruption 4 = AutoLearn failed, probably due to drive or compass failure Repeat the AutoLearn procedure.

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ALARM MESSAGE	POSSIBLE CAUSE and SOLUTION
MOT POW SWAPPED	Motor cables are connected to power terminals (and power cables are connected to motor terminals) at course computer. Turn off power and swap over connections.
NO DATA	The autopilot is in Track mode and: • the autopilot is not receiving SeaTalk navigation data, or • your GPS is receiving a low strength signal, this will clear when the signal improves Note: The autopilot stops adjusting the heading as soon as it loses data.
NO GPS COG	The autopilot is not receiving valid COG data from your GPS system. Check the connections and that your GPS unit is setup to send out COG data.
NO GPS FIX	Your GPS is receiving a low strength signal, this will clear when the signal improves
NO PILOT	The controller is not receiving data from the autopilot. Check connections and check course computer is switched on.
OFFCOURSE	This alarm sounds if you have been off course from the locked heading for more than 20 seconds. It also states if you are to the PORT or STARBOARD of the intended heading.
RG FAIL	GyroPlus yaw sensor has failed. Call a Raymarine service agent.
ROUTE COMPLETE	This sounds on the completion of a track. Press **PILOT** to continue on the same heading or **STANDBY** for manual control.
SHIPS BATTERY	The ships battery voltage has dropped below acceptable limits, replace the batteries.
WAYPOINT ADVANCE	You have arrived at a waypoint on your route. The autopilot is now requestiong permission to turn onto the next leg, press **PILOT** to accept.

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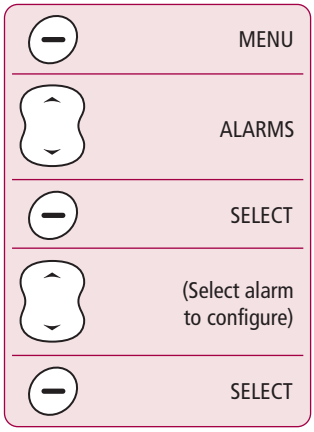
How do I set up alarms?

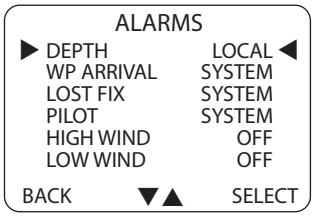
You can configure which alarms to you want the SmartController to report.



From the main instrument display:

1. Press the MENU softkey to display the main menu.
2. Using the up/down key, scroll to "ALARMS" and press the SELECT softkey.
3. Using the up/down key, scroll to the alarm you wish to change and press the SELECT softkey.

Example Screen



Quick Tip Wind alarms are only visible when the boat type is set to SAIL. See page 20 forinformation on boat types. D7634-1

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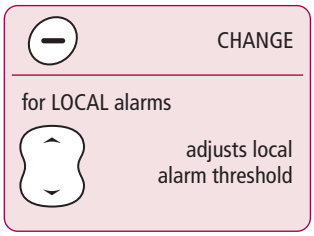
How do I set up local and system alarms?

Where applicable, local alarm threshold values can also be set independantly of the ships system

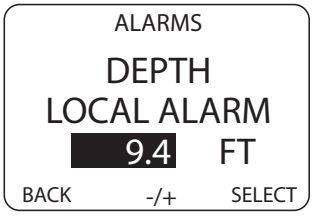


1 2 3

From the main instrument display:

1. Press the CHANGE softkey to select the type of alarm top be reported.
2. **SYSTEM** - alarms with the ship's system
   LOCAL - alarms to a value set on the handheld
   OFF - Alarm not reported
3. For LOCAL alarms, use the up/down key to adjust the alarm threshold value.

Example Screen



Quick Tip Wind alarms are only visible when the boat type is set to SAIL. See page 20 forinformation on boat types. D7635-1

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General maintenance

Routine checks

The SmartController does NOT contain any user-serviceable parts. If you remove the main cover you will invalidate the warranty. It should be serviced only by authorized Raymarine service technician.

As a result, user maintenance is limited to the following checks

- make sure all cable connectors are firmly attached
- examine for signs of wear or damage – replace any damaged cables

Cleaning the SmartController

Take care when cleaning the display. Avoid wiping the display screen with a dry cloth as this could scratch the screen coating. If necessary, only use a mild detergent.

Never use chemical or abrasive materials to clean the controller. If it is dirty, wipe it with a clean, damp cloth.

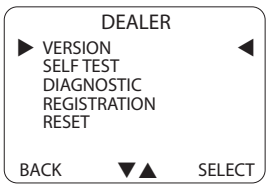
Dealer Maintenance Procedures

This section includes procedures that have a significant impact on autopilot operation and can affect your boat's safety. You will not need to follow these procedures in normal operation. We therefore recommend that these are only performed by authorised service personnel.

Accessing the dealer calibration area.

From the MAIN MENU mode, press and hold SELECT for 5 seconds until the dealer calibration screen is displayed:

Use the up/down key to scroll through the various calibration options.



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Hardware and Software version numbers

Use this option to display the current hardware revision and the software version numbers for the SmartController. At VERSION, press the **SELECT** key to display the information.

Self test

Press **SELECT** to start the unit test sequence and then follow the on-screen instructions. This will test the display, buzzer and button functions.

Diagnostics

Press **PILOT** to display the the status of the wireless link.

Handset Registration

Raymarine wireless systems require each wireless controller to be "registered" to a basestation. This registration process is to prevent unauthorised control of your boat by another wireless user.

Note: There may be instances where you want to move your controller to another boat and use it with another system. In this case, you will need to de-register from the current system and register with the new system. You can do this using the REGISTRATION function.

Note: For best results always perform registration and de-registration with the handset close to the basestation.

To register a handset

At REGISTRATION, press **SELECT**.

If the SmartController is not registered, then the display will read HANDSET NOT REGISTERED. Press REG to start the registration process.

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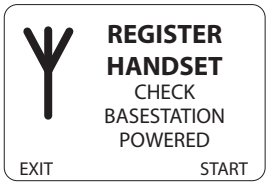
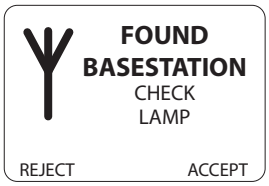
The SmartController will now search for the basestation, you can press **EXIT** at any time to stop the search. When a basestation is found by the SmartController, check that the yellow registration light on the basestation is on.



If the yellow light is on, then press **ACCEPT** to complete the registration, the display will read REGISTER SUCCESSFUL. Otherwise, press **REJECT** and re-start the registration procedure



To de-register a handset

At REGISTRATION, press **SELECT**.

If the SmartController is already registered, then the display will read REGISTERED TO BASESTATION. Press **DEREG** to continue, or **EXIT** to cancel the operation.

The SmartController will attempt to commuicate with the basestation and de-register. When complete, the display will read HANDSET NOT REGISTERED.

If the SmartController cannot communicate with the basestation then a "BASE NOT FOUND" message will be displayed. It is still possible to de-register the SmartController at this point by pressing **SELECT**. To leave without de-registering, press **EXIT**.

Factory Reset

This option will clear all settings from the SmartController. Press and hold the **SELECT** key for 2 seconds to activate the reset.

Note: A reset does not alter the registration status of the SmartController

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Product Support

Raymarine products are supported by a worldwide network of distributors and Authorized Service Representatives. If you encounter any difficulties with this product, please contact either your national distributor, service representative, or the Raymarine Technical Services Call Center. Refer to the back cover or www.raymarine.com for contact details.

If you cannot trace or rectify the fault, contact your nearest Raymarine dealer or Service Center, specifying:

The SmartController serial numbers:

- the controller serial number is printed on its rear cover
- the controller software version numbers

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Important Safety Information

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Safety Notices

Product installation

This equipment must be installed and operated in accordance with the instructions contained in this handbook. Failure to do so could result in poor product performance, personal injury and/or damage to your boat.

Before installing the SmartController and basestation, check that they are the correct voltage for your boat's supply.

As correct performance of the boat's steering is critical for safety, we STRONGLY RECOMMEND that an Authorized Raymarine Service Representative fits this product.

WARNING: Electrical safety
Make sure the power supply is switched off before you make any electrical connections.

WARNING: Calibration
We supply this product calibrated to default settings that should provide initial stable performance for most boats. To ensure optimum performance on your boat, you must complete the AutoLearn procedure as described in your autopilot handbook.

WARNING: Navigation aid
Although we have designed this product to be accurate and reliable, many factors can affect its performance. As a result, it should only be used as an aid to navigation and should never replace common sense and navigational judgement. Always maintain a permanent watch so you can respond to situations as they develop.

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WARNING: Autopilot controller
If the wireless controller is your only method of operating the autopilot, ensure that your system includes a readily accessible method of switching off the autopilot power supply.

Your SmartController will add a new dimension to your boating enjoyment. However, it is the skipper's responsibility to ensure the safety of the boat at all times by following these basic rules:

- Ensure that someone is present at the helm AT ALL TIMES, to take manual control in an emergency.
- Make sure that all members of crew know how to disengage the autopilot.
- Regularly check for other boats and any obstacles to navigation – no matter how clear the sea may appear, a dangerous situation can develop rapidly.
- Maintain an accurate record of the boat's position by using either a navigation aid or visual bearings.
- Maintain a continuous plot of your boat's position on a current chart. Ensure that the locked autopilot heading will steer the boat clear of all obstacles. Make proper allowance for tidal set – the autopilot cannot.
- Even when your autopilot is locked onto the desired track using a navigation aid, always maintain a log and make regular positional plots. Navigation signals can produce significant errors under some circumstances and the autopilot will not be able to detect these errors.

General Care and Safety

Do not leave the controller in places where the temperature could exceed 60°C (140°F).

Do not attempt to dismantle the SmartController or any of its accessories.

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Only use with the lanyard supplied with your SmartController or a spare supplied by Raymarine.

Switch off your SmartController system at a refuelling point, even if you are not refuelling your own vessel.

The operation of some medical electronic devices such as hearing aids and pacemakers, may be affected if a controller is used next to them. Observe the manufacturers recommendations for such devices.

Radio frequency energy

Your SmartController and base station both low- power radio transmitters and receivers. When they are turned on, they intermittently receive and transmit radio frequency (RF) energy (radio waves).

Exposure to radio frequency energy

The SmartController is designed not to exceed the limits for exposure to RF energy set by national authorities and international health agencies These limits establish permitted levels of radio wave exposure for the general population. An example of a radio frequency exposure guideline and standard that the SmartController is designed to conform to is :

BS EN 50371:2002 - Generic standard to demonstrate the compliance of low-power electronic and electrical apparatus with the basic restrictions related to human exposure to electromagnetic fields.

Disposal

Disposal of this product, at the end of its useful life, should be in accordance with local regulations.

Do not incinerate or mutilate the integral battery pack.

Intended Use

These SRD products (Smart Controller and Base Station) are part of a Raymarine autopilot system intended for use on leisure vessels and small workboats

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Declaration of Conformity

Hereby Raymarine UK Ltd, declare that these SRD products (SmartController and Basestation) are in compliance with the essential requirements and other relevant provisions of the Directive 1999/5/EC

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

EMC Guidelines

All Raymarine equipment and accessories are designed to the best industry standards for use in the recreational marine environment. Their design and manufacture conforms to the appropriate Electromagnetic Compatibility (EMC) standards, but correct installation is required to ensure that performance is not compromised.

Connections to other equipment

If your Raymarine equipment is to be connected to other equipment using a cable not supplied by Raymarine, a suppression ferrite MUST always be attached to the cable near to the Raymarine unit.

Handbook Information

To the best of our knowledge, the information in this handbook was correct when it went to press. 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 the handbook.

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