DOMETIC

STABILIZATION
GYROSCOPIC STABILIZER

DG3

EN **Gyroscopic Stabilizer**

Copyright

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Garmin® is a registered trademark of Garmin Ltd.

Heli-Coil® is a registered trademark of Böllhoff Group.

California Prop 65

⚠ WARNING

Handling recreational marine vessel parts can expose you to chemicals such us phthalates and lead, which can cause cancer and reproductive harm. To minimize exposure, service the vessel outdoors or in a well-ventilated area, wear gloves, and wash your hands. For more information see www.P65Warnings.ca.gov/marine-vessel-parts.

English

1 Important notes

Please read these instructions carefully and follow all instructions, guidelines, and warnings included in this product manual in order to ensure that you install, use, and maintain the product properly at all times. These instructions MUST stay with this product.

By using the product, you hereby confirm that you have read all instructions, guidelines, and warnings carefully and that you understand and agree to abide by the terms and conditions as set forth herein. You agree to use this product only for the intended purpose and application and in accordance with the instructions, guidelines, and warnings as set forth in this product manual as well as in accordance with all applicable laws and regulations. A failure to read and follow the instructions and warnings set forth herein may result in an injury to yourself and others, damage to your product or damage to other property in the vicinity. This product manual, including the instructions, guidelines, and warnings, and related documentation, may be subject to changes and updates. For up-to-date product information, please visit documents.dometic.com.

2 Related documents

Find the Installation manual online at qr.dometic.com/bg5QKG.

3 Explanation of symbols

A signal word will identify safety messages and property damage messages, and also will indicate the degree or level of hazard seriousness.

DANGER!
Indicates a hazardous situation that, if not avoided, will result in death or serious injury.

WARNING!
Indicates a hazardous situation that, if not avoided, could result in death or serious injury.

CAUTION!
Indicates a hazardous situation that, if not avoided, could result in minor or moderate injury.

NOTICE!
Indicates a situation that, if not avoided, could result in property damage.

4 Safety instructions

4.1 General safety

DANGER! Failure to obey these warnings could result in property damage, serious injury, or death
Boating is a safe and enjoyable activity, but being on the water is not without risk. To minimize those risks:

- Read and understand this and any other applicable manual before operating the equipment.
- Know and obey all applicable laws and regulations that govern boating in your area.
- Dometic recommends all boat operators take a boating safety course.
- Never operate a boat while under the influence of drugs or alcohol.
- Always wear an approved personal flotation device (PFD) while boating.
- Attach the engine shut-off lanyard to your PFD or other item of clothing.
- Do not allow anyone to operate the boat unless they are familiar with the controls.

4.2 Operating the device safely

NOTE The terms gyroscopic stabilizer and gyro are used interchangeably in this manual.

WARNING! Pinch point hazard
Moving parts can crush and cut.

- Keep covers in place.
- Keep hands clear while operating.
- Confirm flywheel is stationary and disconnect power before removing covers for maintenance.

WARNING! Risk of property damage, serious injury, or death

- Read and understand this and any other applicable manual before operating the equipment.
- Use the gyroscopic stabilizer only as intended.
- Do not operate the gyro while trailering the boat or while the boat is on a lift.
- This manual contains important safety information that you may need if a problem occurs while on the water. Keep the manual on the boat.

WARNING! Risk of serious injury or death

When instructed to remove power from the gyro, disconnect both sources.

WARNING! Scalding hazard

Hot pressurized coolant can cause serious burns

- Do not remove the coolant tank cap when the system is hot. Wait two hours after the flywheel has stopped rotating.
- Open the coolant tank cap slowly.

CAUTION! Risk of property damage or injury

- Do not stand on the protective covers or use any part of the gyro as a step.
- Do not store anything on top of the gyro.
- Do not place anything on or around the harness and hose connections to the gyro.

CAUTION! Minor shock hazard

While 48 V is a touch-safe voltage, contact with the 48 V system may result in a minor electric shock when skin is wet, which can cause pain, muscle spasms, or secondary injuries from reacting to the shock.

- Shut off both the 48 V battery and house battery switches before removing the top cover.
- Use caution when hands are in the vicinity of the gyro electrical connections or the dedicated 48 V battery.

NOTE You can find a QR code with a link to download an electronic version of this manual on the MFD's gyro control page. See Multi-function display (MFD) on page 6 for more information.

4.3 Gyro safety decals

The gyro is supplied with decals that warn of safety hazards, reproduced here for reference. In the event a decal is damaged or otherwise illegible, contact Dometic for a replacement. Contact information can be found in Warranty on page 12

1

DG3 GYRO
12V / 24V / 48V

DOMETIC
dometic.com

MEMBER ABYC

Ignition Protected
SAE J1171, ISO 8846:1990

WARNING

Improper installation and/or maintenance may result in property damage, personal injury and/or death.

Prior to every use:

- Verify all mounting fasteners are secure.
- Inspect mounting structure for signs of damage.

Installation, use and maintenance:

- Refer to instructions for installation guidelines.
- Do not operate gyro with any cover removed.
- Read and comply with safety and operating guidelines prior to use.
- Do not operate gyro if any component is not in proper working condition.
- Perform maintenance in accordance with instructions.
- Ensure all electrical connections are secure and free from corrosion.
- Ensure all plumbing connections are secure and leak free.

2

WARNING

Pinch point hazard – moving parts can crush and cut.
Improper installation may result in property damage, personal injury and/or death.

- Refer to instructions for installation guidelines.
- Read and comply with safety and operating guidelines prior to use.
- Use only Dometic spreader bar part # 103009 to lift product.
- Ensure lifting equipment is rated appropriately and safe lifting procedures are followed.
- Only trained persons shall perform maintenance or service on this product.

NOTICE

- Product weight 580LB [263KG].
- Remove spreader bar and reinstall top cover before operating unit.
- Do not operate product with covers removed.
- Do not service product until flywheel is stationary and power is disconnected.

SAFETY NOTES

Before first operation:

- Confirm clearances around product meet installation guidelines.
- Confirm electrical connections are secure and compliant with ABYC standards.
- Confirm plumbing connections are secure and leak free.
- Confirm fasteners are secure and tightened according to installation guidelines.

3

WARNING

Pinch point hazard – moving parts can crush and cut.

- Keep covers in place.
- Keep hands clear while operating.
- Confirm flywheel is stationary and disconnect power before servicing.

5 Target groups

The instructions in this manual are intended for persons who will use the device.

6 Intended use

The gyroscopic stabilizer is intended to be used to improve the comfort of boat and yacht users by decreasing the roll motion caused by waves. The gyroscopic stabilizer is not intended to correct instability resulting from operation in sea conditions beyond the vessel's design limits or from poor hull design. The

gyroscopic stabilizer is not suitable for use in land vehicles or when the boat is out of the water.

This product is only suitable for the intended purpose and application in accordance with these instructions.

This manual provides information that is necessary for proper installation and/or operation of the product. Poor installation and/or improper operation or maintenance will result in unsatisfactory performance and a possible failure.

The manufacturer accepts no liability for any injury or damage to the product resulting from:

- Incorrect installation, assembly or connection, including excess voltage
- Incorrect maintenance or use of spare parts other than original spare parts provided by the manufacturer
- Alterations to the product without express permission from the manufacturer
- Use for purposes other than those described in this manual

Dometic reserves the right to change product appearance and product specifications.

7 Technical description

The gyroscopic stabilizer (gyro) uses the principles of rotational motion and angular momentum to decrease the roll motion of a boat or yacht, improving stability and comfort for passengers and crew.

At the core of the gyroscopic stabilizer is a high-speed flywheel mounted within a gimbal system, which rotates around an axis perpendicular to the boat centerline. When the boat rolls, the stabilizer's control system senses the motion and rotates the gimbal, which applies a torque opposite the direction of the boat's roll. This dynamic counteraction reduces the roll motion and results in a smoother ride.

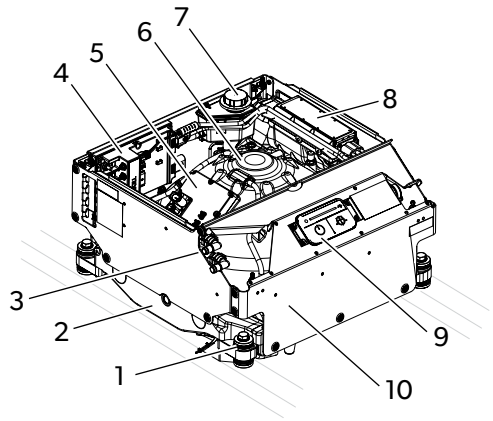
The gyro can be operated in the following ways:

- The touch pad on the gyro cover.
- A control screen on a multi-function display (MFD).

7.1 Component identification

Familiarize yourself with the main components of the gyroscopic stabilizer, shown in Fig. 4 on page 5.

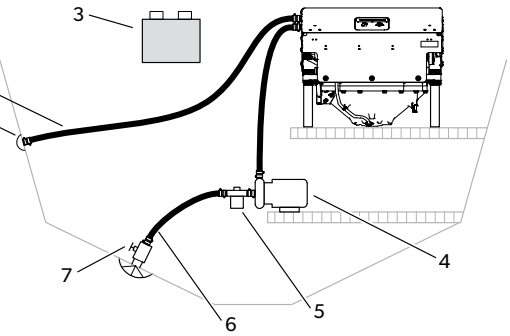
4



No.	Description
1	Mounting fastener (x4)
2	Frame assembly
3	Heat exchanger and raw-water connections to cooling system
4	GCU (gyro control unit)
5	HCU (hemisphere control unit)
6	Flywheel and spin motor (inside enclosure)
7	Coolant tank and fill cap
8	Precession actuator and PCU (precession control unit)
9	Touch pad (control panel)
10	Protective covers (five panels)

There are several accessory components that are part of the installed gyroscopic stabilizer system, shown in Fig. 5 on page 5.

5



No.	Description	No.	Description
1	Raw water overboard drain	**5**	Raw water strainer
2	Raw water discharge hose	**6**	Raw water intake hose
3	Dedicated 48 V battery	**7**	Raw water seacock
4	Raw water pump		

7.1.1 Sources of power

The gyro uses two sources of power:

Dedicated 48 V battery	The gyro uses energy stored in this lithium iron phosphate ($LiFePO_4$) battery to get the flywheel up to speed quickly and to supply short bursts of power to the precession actuator. The battery recovers energy by using regenerative braking to slow the flywheel down and by absorbing energy from the precession actuator.
House power	The house battery supplies 12 – 24 V to power the gyro.

WARNING! Risk of serious injury or death
When instructed to remove power from the gyro, disconnect both sources.

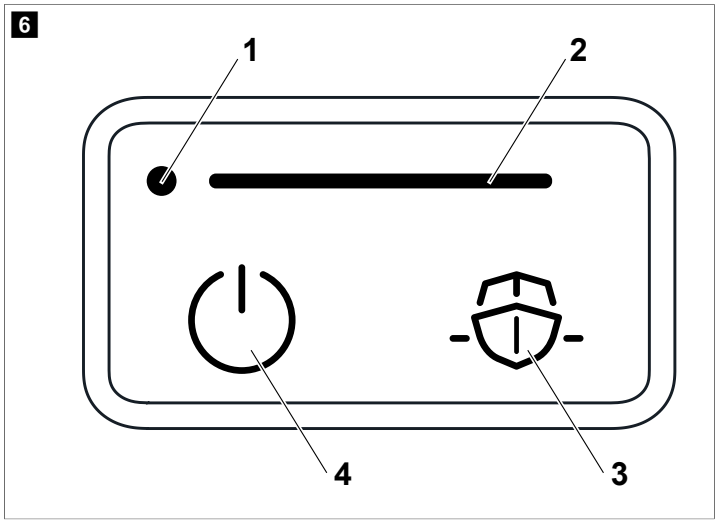
Regeneration

When you are finished boating for the day, the regeneration system uses the energy in the flywheel to recharge the dedicated 48 V battery while rapidly stopping the flywheel. If the dedicated battery is disconnected while the flywheel is still spinning a fault is triggered and the flywheel coasts down. The flywheel will take about eight hours to stop without regeneration.

7.2 Touch pad

The touch pad (control panel) is located on the gyro cover. Fig. 6 on page 6 shows the parts of the touch pad.

6



No.	Name	Description
1	System power LED indicator	A white LED comes on when the gyro has house power.
2	Flywheel speed progress bar	A series of white LED segments shows the flywheel speed. When all segments are lit, the flywheel is at the target speed. A segment pulses white when speed is increasing or decreasing.
3	Stabilize button	Starts and stops the stabilizing function. A white LED comes on continuously when the gyro is stabilizing. The white LED pulses until the flywheel is at the mimimum stabilizing speed.
4	Power button	Starts and stops the gyro. A white LED comes on continuously when the gyro is running. A pulsing white LED means the flywheel is slowing down. Once the flywheel has stopped the LED will turn off.

Fault indication

The LEDs in the control panel will turn yellow or red when there is a fault in the gyro.

Yellow	The gyro has a non-critical fault. The gyro will continue to operate but may have decreased performance.
Red	The gyro has a critical fault and will not operate. If the fault occurs during operation the gyro will stop in a safe condition.

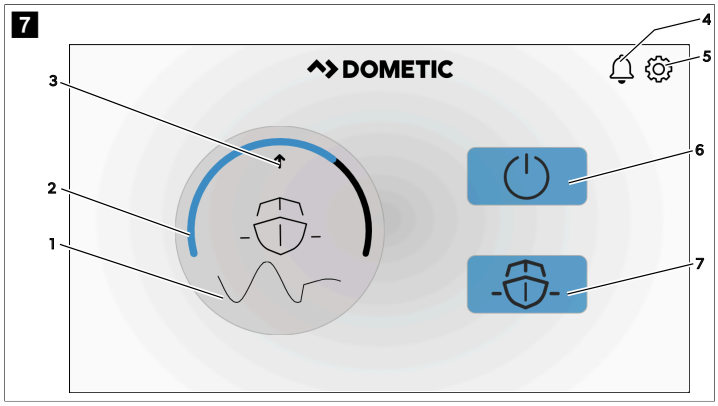
7.3 Multi-function display (MFD)

The gyro can be operated and monitored with a compatible multi-function display (MFD). Fig. 7 on page 6 shows the standard user interface screen. Touch the gyro app icon on your MFD's main page to open the standard user interface.

The gyro interface layout changes with screen size. If you have custom screen layouts on your MFD, the gyro interface may not appear as shown. The gyro controls are the same in all layouts, but some graphic elements are not available, or are displayed differently.

NOTE You can only access the fault and settings pages from the standard user interface.

7

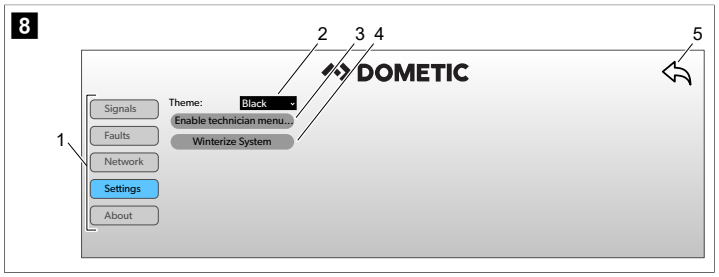


No.	Name	Description
1	Roll angle gauge	Shows the boat's roll angle. This gauge is not available on smaller screen layouts.
2	Flywheel speed progress bar	Shows the speed of the flywheel. The flywheel is at the target speed when the progress bar is full. On smaller screen layouts the progress bar is straight.

No.	Name	Description
3	Flywheel speed arrow	Shows if the flywheel speed is increasing (up arrow) or decreasing (down arrow).
4	Notification icon	A yellow or red dot in the bell icon means there is an active fault. Touch the icon to see information about the fault and what actions you should take. Available only on the standard interface.
5	Settings icon	Touch to go to the settings screen, from which you can change the screen color theme. You can also access information pages about the gyroscopic stabilizer. Available only on the standard interface.
6	Power button	Starts and stops the gyro. The button background is blue when power is on, gray when off.
7	Stabilize button	Starts and stops the stabilize function. The button background is blue when the stabilize function is on, gray when off. When the stabilize function is on, the boat icon will pulse if the flywheel has not reached the minimum stabilizing speed.

Settings page and screen navigation

8



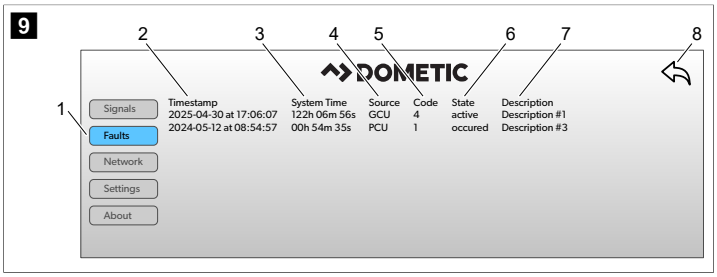
No.	Description
1	These buttons navigate to different information and diagnostic pages. The active page is highlighted.
	Signals — Shows operating data about the gyro, including total running hours, flywheel speed, coolant temperature, and battery voltage and current
	Faults — Opens the fault page. See Fault page on page 7
	Network — Shows devices on the network and their software version
	About — Information about the gyro and a QR code link to download the operating manual
2	Change the theme color for the user interface
3	Access the technician menu (passcode required)
4	Activate the winterizing function
5	The back arrow returns to the main control screen

NOTE Use the QR code on the "About" page to download a copy of the operating manual onto your mobile device.

Fault page

Touch the notification icon to open the fault page, which displays a history of system faults. A sample is shown in figure Fig. 9 on page 7

9



No.	Description
1	Navigation buttons — the active page is highlighted in blue
2	The calendar date and clock time when the fault was triggered
3	The time the fault was triggered, given as the elapsed time since the control module sending the fault was first powered on
4	Shows which control module triggered the fault
5	Shows the fault code
6	Shows whether the fault is active or if the fault ocurred in the past
7	Gives a description of the fault to help with troubleshooting
8	The back arrow returns to the main control screen

7.3.1 Add a Garmin overlay

If you are using a Garmin® chartplotter, you can add a gyro user interface to the top or bottom bar of your most frequently used screen.

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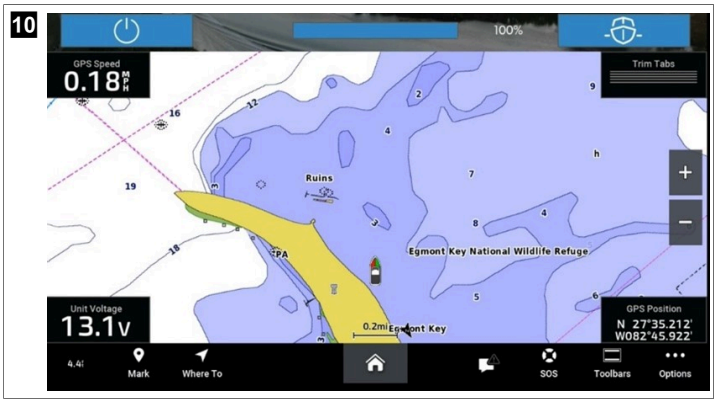


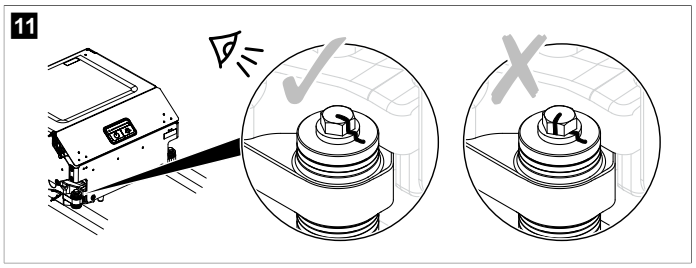
1. Open the Garmin® screen you'd like to add the gyro user interface to.
2. On the Garmin® display: **`Options`** > **`Edit overlays`** > **`Top bar (or bottom bar)`** > **`Gyro`**

8 Using the device

8.1 Pre-start system inspection

Before every use of the gyro:

- Check that all mounting fasteners are securely fastened and that the paint marks are aligned.



- Inspect the mounting structure for any signs of damage.
- Inspect the gyro for visible signs of damage or fluid leaks.
- Check that the raw water seacock is open.
- Check that the raw water strainer is clear of debris.

WARNING! Risk of structural damage
The gyroscopic stabilizer exerts large forces on the boat's structure that must be withstood by the mounting system.

› Do not operate the gyro if any of the paint marks on the mounting fasteners are not aligned.
› Do not operate the gyro if there is any sign of damage to the mounting structure.
› If the paint marks are not aligned or there is damage to the mounting structure, take the boat to an authorized service facility.

8.2 Starting the gyro

WARNING! Pinch point hazard
Moving parts can crush and cut.

› Do not operate the gyro without all covers in place.
› Do not reach into gaps in the covers.

1. Turn on the house power to the gyro using your boat's battery switches and/or circuit breakers.

˅ The system power LED indicator on the touch pad comes on.

2. Push the power button on the touch pad or MFD.

˅ The flywheel starts to spin up. The touch pad and MFD show the status as follows:

Touch pad	The power button's white LED comes on. The flywheel speed progress bar lights up as speed increases.
MFD	The power button turns blue. A small up arrow shows that the flywheel speed is increasing. The flywheel speed progress bar fills up as speed increases.

3. Push the stabilize button on the touch pad or MFD.

˅ The gyro will start stabilizing when the flywheel reaches the minimum stabilizing speed. The touch pad and MFD show the status as follows:

Touch pad	The stabilize button's white LED pulses until stabilizing begins, at which time the LED comes on continuously.
MFD	The stabilize button turns blue. The boat icon pulses until stabilizing begins.

NOTE If you do not want stabilization to start automatically, do not push the stabilize button until you are ready.

NOTE You may start and stop stabilizing at any time. There may be some conditions in which you do not want the stabilizing function to operate.

8.3 Stopping the gyro

› Push the power button on the touch pad or MFD.

˅ The gyro enters regeneration mode, which slows the flywheel down by using the motor as a generator to charge the dedicated 48 V battery. The touch pad and MFD show the status as follows:

Touch pad	The white LED in the power button pulses to indicate that the flywheel is slowing down. The flywheel speed progress bar segments turn off as speed decreases.
MFD	The power button turns gray. A small down arrow shows that flywheel speed is decreasing. The flywheel speed progress bar empties as speed decreases.

NOTE The dedicated 48 V battery must remain connected to the gyro. If you switch the battery off, the gyro will go into a fault state and it will take about eight hours for the flywheel to stop spinning.

9 Cleaning and maintenance

The Dometic gyroscopic stabilizer is designed to require very little maintenance. Like all equipment that operates in a marine environment, periodic inspection and maintenance is required to maximize the service life of your equipment.

Most of the system maintenance and inspection must be performed by a qualified marine technician, but there are some more frequent inspections that you should do as an owner:

Task	Interval
Check that the four gyro mounting fasteners are secure and the paint marks are aligned. See Pre-start system inspection on page 7	Before every use
Check that the raw water strainer is not blocked by debris. To clean the strainer, see section Cleaning the raw water strainer on page 9	Before every use
If the gyro is installed in a wet space, check that salt residue is not collecting on the gyro. Clean the exposed parts of the gyro with mild soapy water to remove salts that cause corrosion.	Monthly
Check the coolant level. See Coolant level check on page 9. A change in coolant level indicates a problem in the cooling system that must be addressed.	Monthly

Raw water automatic maintenance cycle
The raw water pump will periodically run at an increased flow rate to flush the raw water system. You may notice more flow out of the discharge outlet than normal while this maintenance cycle is active.

9.1 Cleaning the raw water strainer

The raw water strainer is mounted to the inlet of the raw water pump. The strainer should be cleaned periodically, or whenever debris is seen inside.

1. Close the seacock.
2. Remove the bowl from the strainer.

   On the strainer supplied by Dometic, the bowl unscrews from the body by hand. Your builder or installer may have used a different strainer, in which case removal of the bowl may require tools.
3. Clean the bowl and the filter element.
4. Install the bowl on the strainer by reversing step 2 on page 9.

   Make sure that the bowl seal is clean and not damaged. Take care when installing the bowl that the seal does not get twisted, damaged, or moved out of place.
5. Open the seacock.
6. Check that there is no leak from the strainer bowl.

9.2 Coolant level check

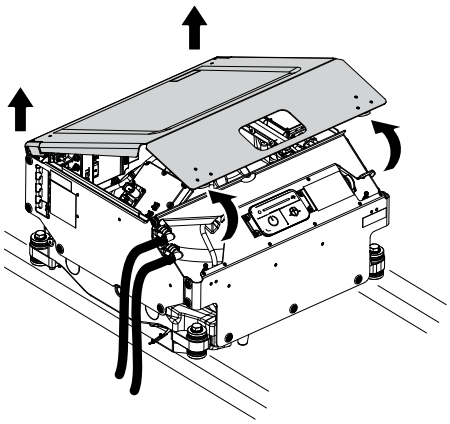
The gyro must be stopped for at least two hours to ensure the coolant is at ambient temperature before checking the level.

1. Disconnect power to the gyro using the battery switches.

   WARNING! Pinch point hazard
   Moving parts can crush and cut.
   - Keep covers in place.
   - Keep hands clear while operating.
   - Confirm flywheel is stationary and disconnect power before removing covers for maintenance.
2. Remove the top cover from the gyro.

   To remove: lift up on the front corners of the cover until the ball and socket joints detach, then rotate the cover up to detach the joints at the rear of the cover.

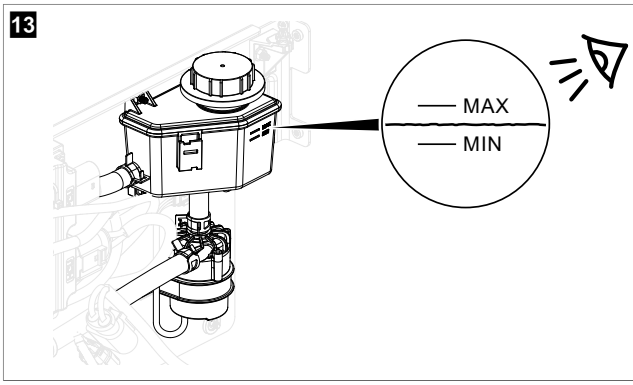
12



3. Check that the fluid level in the coolant tank is between the MIN and MAX markings on the tank.

   NOTE A fluid level outside these limits indicates that there is a problem in the cooling system. Do not operate the gyro until the cooling system has been inspected by a qualified marine technician.

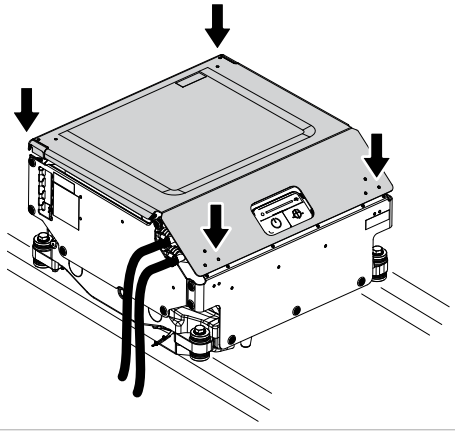
13



4. Re-install the top cover.

   To install: set the cover in place, then push down at each corner until the balls snap into the sockets.

14



5. Re-connect the power to the gyro.

9.3 Storing

During storage, the gyro maintains charge in the dedicated 48 V battery by trickle charging from the house battery bank. To avoid draining your house battery, plug in the house battery charger when not using the boat for more than two weeks.

9.4 Winterizing

You will need to winterize the raw water cooling system if the gyro, or any gyro subsystem, is exposed to freezing temperatures during winter storage.

NOTICE! Environmental hazard
Discharge of antifreeze into the water is harmful to aquatic life, and is prohibited in most jurisdictions.
- › When winterizing your system, do not allow antifreeze to discharge into the water.
- › Recycle or dispose of antifreeze according to your local regulations.

Tools required:
- Marine antifreeze of suitable freezing point for your climate
- Two buckets, minimum 3 gal (11.36 L) capacity
- Funnel
- Slot head screwdriver

You may need a helper to complete this procedure.

1. Close the raw water seacock that supplies the cooling system.
2. Remove the hose clamps that attach the raw water discharge hose to the overboard drain. Place the end of the hose in a bucket.
3. Remove and empty the bowl from the raw water strainer. Clean all debris from the bowl and strainer, then re-install the bowl.

   Some strainers have a top opening that allow you to pour antifreeze into the strainer. If that is the case on your boat, fill the strainer with antifreeze and skip to step 6 on page 10.
4. Remove the hose clamps that attach the raw water intake hose to the seacock. Remove the hose from the fitting and put the end in a bucket to collect the water that drains out. Once the water drains, empty the bucket.
5. Put the intake hose back in the bucket and add enough antifreeze to submerge the end of the intake hose. If the hose is too short, or there isn't space in the boat to use a bucket, you can tilt the hose up and use a funnel to add antifreeze directly to the hose.
6. On the gyro MFD user interface, go to the Settings page (gear icon) and touch the button labeled "Winterize System" to activate winterizing mode.

˅ The raw water pump will run for 15 seconds to circulate the antifreeze through the system.

7. Make sure the intake hose or the strainer is kept full of antifreeze during the winterizing cycle to avoid drawing air into the system.
8. Repeat step 6 on page 10 until undiluted antifreeze is coming out of the discharge hose. Watch to make sure the bucket does not overflow.
9. If you filled the system through the raw water strainer, close the strainer. Reconnect the intake (if necessary) and discharge hoses to the through hull fittings and tighten the hose clamps.

Your gyro is now ready for winter.

9.4.1 Returning a winterized gyro to service

This task needs to be done with the boat in the water.

1. Remove the hose clamps that attach the raw water discharge hose to the overboard drain. Place the end of the hose in a bucket.
2. Open the raw water seacock that supplies the gyro cooling system.
3. On the gyro MFD user interface, go to the Settings page (gear icon) and activate winterizing mode.

˅ The raw water pump will run for 15 seconds and pump raw water into the system. The winterizing antifreeze will be flushed into the bucket.

4. Repeat as necessary until only raw water is being pumped into the bucket.
5. Reconnect the raw water discharge hose to the overboard drain and tighten the hose clamps.
6. Safely dispose of the antifreeze according to local regulations.

Your gyro is now ready for use.

9.5 Recommended maintenance schedule

The maintenance schedule describes the recommended inspection and service intervals. In harsh environments, you may need to increase the frequency of service.

WARNING! Risk of serious injury and equipment malfunction
- › Maintenance and service must be performed by a qualified marine technician.
- › Remove all sources of power from the gyro before performing any work with the cover(s) removed.

Table 1: Maintenance schedule

System	Service task	Interval
All	Inspect the gyro for corrosion. Pay particular attention to the frame bearings and the precession actuator and linkage.	12 months or 1000 hours
Precession	Inspect the hardstop pads and replace if necessary.	12 months or 1000 hours

System	Service task	Interval
Cooling – raw water side	Check all hoses for cracking, chafing, kinking, or crushing. Replace if damaged.	12 months or 1000 hours
	Check that all hose clamps in the system are tight.	
	Check that the through-hull fittings are in good condition.	
	Check that the lock tabs that secure the raw water quick-connect fittings to the heat exchanger are secure.	
	Cycle the seacock (close, then open again) to ensure the valve mechanism does not seize.	
Cooling – gyro side	Inspect the heat exchanger for signs of leaks.	12 months or 1000 hours
	Check all hoses for cracking or other damage. Replace if damaged.	
	Check the coolant pump and the connector for signs of corrosion.	
Electrical	Inspect electrical connectors for corrosion.	12 months or 1000 hours
	Inspect all electrical harnesses for chafing or wear of the insulation.	
	Check that the power connections are tight.	

NOTE Regular coolant flushes are not required. The system is sealed and designed for lifetime operation. If the coolant level is outside of the specified range, contact an authorized service center.

10 Troubleshooting

The first step when there is a problem with the gyro is to check the gyro control screen on the MFD. A yellow or red dot in the notification icon indicates that there is an active fault. Touch the icon to open the fault page to see a list of all active faults. In some cases, potential remedies are shown with the fault.

Listed here are some common problems you may see with the gyro and some suggested remedies. If the remedies do not resolve the problem, take the boat to an authorized service facility for diagnosis and repair.

Problem	Possible cause	Suggested remedy
Gyro user interface is not available on the MFD	No house power to gyro.	Check that the gyro touch pad's system power LED indicator is on. If the LED is not on, check that the battery switch(es) and circuit breaker(s) are on.
	Ethernet cable is not connected.	Check that the ethernet cable is connected at the MFD or ethernet hub (if your boat is so equipped).
		With the gyro off and the house battery and 48 V battery switches in the off position, remove the top cover and check that the connector plugged into the GCU receptacle labeled "Ethernet" is fully seated.
Can't start the gyro	No house power to gyro.	Check that the gyro touch pad's system power LED indicator is on. If the LED is not on, check that the house battery switch and circuit breaker are on.
	No power from dedicated 48 V battery.	Check that the 48 V battery switch is on.
		Check the fuse on the 48 V battery. Do not attempt to replace a blown fuse. Take the boat to an authorized service facility for analysis.
House battery low voltage fault	House battery is not charging.	Make sure at least one engine is running.
		Check that the battery charging system is working, and that there are no loose connections in the charging circuit.
	House battery is not able to take a charge.	Have a marine technician test the battery.
Dedicated 48 V battery low voltage fault	Dedicated 48 V battery is not charging.	The battery is charged by the regenerative braking of the flywheel when the gyro is turned off. Make sure the 48 V battery switch is left in the on position when stopping the gyro so that the battery can recharge.

Problem	Possible cause	Suggested remedy
		Check that the connections between the gyro and the battery are not loose.
Gyro overheat fault	Raw water strainer is clogged.	Clean the raw water strainer.
	Raw water seacock is closed.	Open the seacock.
	Raw-water pump is not working.	Check that the pump is discharging water from the overboard outlet in the hull. If no water is coming out, seek service from a qualified marine technician.

11 Warranty

Refer to the sections below for information about warranty and warranty support in the US, Canada, and all other regions.

United States and Canada

Limited warranty available at qr.dometic.com/bfneEw.

If you have questions or to obtain a copy of the limited warranty free of charge, contact:

DOMETIC CORPORATION VANCOUVER
3831 NO. 6 ROAD
RICHMOND, BC, CANADA V6V 1P6
1-800-730-4082
marinesupport@dometic.com

Australia and New Zealand

Limited warranty available at qr.dometic.com/bfnePC. If you have questions or to obtain a copy of the limited warranty free of charge, contact:

DOMETIC AUSTRALIA PTY LTD
1 JOHN DUNCAN COURT
VARSITY LAKES, QLD, 4227
1800-212-121

DOMETIC NEW ZEALAND LTD
373 NEILSON STREET
PENROSE, AUCKLAND, 1061
+64 9 622 1490

Australia only

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure. The benefits provided to you as the consumer by this warranty are in addition to other rights and remedies available to you under the law.

New Zealand only

This warranty policy is subject to the conditions and guarantees which are mandatory as implied by the Consumer Guarantees Act 1993(NZ).

Local support

Please find local support at the following link address: dometic.com/dealer

All other regions

The statutory warranty period applies. If the product is defective, please contact the manufacturer's branch in your country (see dometic.com/dealer) or your retailer.

For repair and warranty processing, please include the following documents when you send in the device:

- A copy of the receipt with purchasing date
- A reason for the claim or description of the fault

Note that self-repair or nonprofessional repair can have safety consequences and might void the warranty.

12 Disposal

Protect the environment! Do not dispose of any batteries with general household waste. Return defective or used batteries to your retailer or dispose of them at collection points.

Place the packaging material in the appropriate recycling waste bins, wherever possible. Consult a local recycling center or specialist dealer for details about how to dispose of the product in accordance with the applicable disposal regulations.

13 Technical data

Mechanical	
Operating speed	4700 rpm
Angular momentum at operating speed	3000 Nm-s
Max stabilizing torque at operating speed	8000 Nm
Spin-up time to operating speed	16.5 minutes
Spin-up time to minimum stabilizing speed	9.5 minutes (2720 rpm)
Spin-down time	16.5 minutes with regeneration
Weight	580 lb (263.04 kg)
Envelope dimensions (L × W × H)	27.3 in (693.4 mm) × 27.3 (693.4) × 23 (584.2)
Dedicated 48 V battery (L × W × H)	10.2 in (259.1 mm) × 7.1 (180.3) × 10.8 (274.3)

Raw water supply to heat exchanger	2 (7.57) – 6 gpm (22.71 L/min)
Coolant	50/50 mixed long life automotive antifreeze (ethylene glycol based)
Electrical	
Operating power	250 – 750 W (depends on sea state)
DC power input	12 – 24 V ⎓ (nominal) with polarity protection and voltage auto-detection
Environmental	
Operating temperature	32°F (0°C) – 140°F (60°C)
Water ingress protection	IP67
Noise level, idle	72 dB
Radio devices	
Bluetooth declaration ID	D059143
FCC ID	2AC7Z-ESPS3WROOM1
IC certification number	21098-ESPS3WROOM1

14 Legal

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions:

- This device may not cause interference.
- This device must accept any interference, including interference that may cause undesired operation of the device. This Class B digital apparatus complied with Canadian ICES-3(B)/NBM-3(B).

DOMETIC

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YOUR LOCAL DEALER	YOUR LOCAL SUPPORT	YOUR LOCAL SALES OFFICE
dometic.com/dealer	**dometic.com/contact**	**dometic.com/sales-offices**

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A complete list of Dometic companies, which comprise the Dometic Group, can be found in the public filings of:
DOMETIC GROUP AB • Hemvärnsgatan 15 • SE-17154 Solna • Sweden