



MERCURY®

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Operation Manual

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Joystick Piloting for Inboards—Single or Dual Engines

Welcome

You have selected one of the finest marine power packages available. It incorporates numerous design features to assure operating ease and durability. With proper care and maintenance, you will thoroughly enjoy using this product for many boating seasons.

This manual is a supplement to the operations manual provided with your engine, and provides additional information about using and maintaining the Joystick Piloting for Inboards (JPI) propulsion system. To ensure maximum performance and carefree use, we ask that you thoroughly read this manual.

The serial numbers are the manufacturer's keys to numerous engineering details that apply to your power package. When contacting your authorized Mercury dealer about service, always specify model and serial numbers.

Keep this manual with the product for ready reference whenever you are on the water.

Thank you for purchasing one of our products. We sincerely hope your boating will be pleasant.

Mercury Marine

Warranty Message

The product you have purchased comes with a **limited warranty** from Mercury Marine. The terms of the warranty are set forth in the Warranty Information Manual included with your power package. The warranty statement contains a description of what is covered, what is not covered, the duration of coverage, how to best obtain warranty coverage, important disclaimers and limitations of damages, and other related information. Be certain to review this important information.

Mercury Premier Service

Mercury evaluates the service performance of its dealers and assigns its highest rating of "Mercury Premier" to those demonstrating an exceptional commitment to service.

Earning a Mercury Premier Service rating means a dealer:

- Achieves a high 12-month service Customer Satisfaction Index (CSI) score for warranty service.
- Possesses all of the necessary service tools, test equipment, manuals, and parts books.
- Employs at least one certified or master technician.
- Provides timely service for all Mercury Marine customers.
- Offers extended service hours and mobile service, when appropriate.
- Uses, displays, and stocks an adequate inventory of genuine Quicksilver or Mercury Precision Parts.
- Offers a clean, neat shop with well-organized tools and service literature.

Read This Manual Carefully


⚠ WARNING

The operator (driver) is responsible for the correct and safe operation of the boat, the equipment aboard and the safety of all occupants aboard. We strongly recommend that the operator read this Operation, Maintenance and Warranty Manual and thoroughly understand the operational instructions for the power package and all related accessories before the boat is used.

IMPORTANT: If you do not understand any portion of this manual, contact your dealer for a demonstration of actual starting and operating procedures.

Notice to Users of This Manual

Throughout this publication, safety alerts labeled WARNING and CAUTION

(accompanied by the symbol ) are used to alert you to special instructions concerning a particular service or operation that may be hazardous if performed incorrectly or carelessly. Observe these alerts carefully.

These safety alerts alone cannot eliminate the hazards that they signal. Strict compliance to these special instructions when performing the service, plus common sense operation, are major accident prevention measures.

⚠ WARNING

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

⚠ CAUTION

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

Additional alerts provide information that requires special attention:

NOTICE

Indicates a situation which, if not avoided, could result in engine or major component failure.

IMPORTANT: Identifies information essential to the successful completion of the task.

***NOTE:** Indicates information that helps in the understanding of a particular step or action.*

The description and specifications contained herein were in effect at the time this guide was approved for printing. Mercury Marine, whose policy is one of continuous improvement, reserves the right to discontinue models at any time, or to change specifications or designs, without notice and without incurring obligation.

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Identification Record

Record the following information:

Starboard or single engine serial number:
Port engine (if equipped) serial number:
Hull identification number (HIN):
Boat manufacturer:
Boat model:
Boat length:

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GETTING TO KNOW THE JOYSTICK PILOTING SYSTEM

Vessel Personality

Mercury Marine and your boatbuilder developed a vessel propulsion personality to ensure optimal performance of the joystick under ideal conditions. As wind and current conditions change, user input will be required to compensate.

Changing engine performance, propellers, or boat weight (including variations in ballast amounts) may affect the performance of the joystick as well as the top speed of the vessel. Changing any parameter from the original factory equipment and settings can have a negative effect on performance. Propeller changes must not be made without first consulting the boat manufacturer and a Mercury product integration engineer.

The vessel propulsion personality is the property of the boat manufacturer. Changes or upgrades to the personality must be approved and distributed by the boat manufacturer. Mercury Marine will assist with software personality changes only at the request of the boat manufacturer.

Joystick Piloting—Basic Operation

IMPORTANT: The vessel personality that determines how a boat responds to joystick commands was created for typical boat loading and operation in ideal boating conditions. Variations in wind, current, and boat loading will have a substantial effect on the performance of joystick operations. For example, a boat that is loaded heavily to the bow will behave differently than a boat that is loaded heavily to the stern. The vessel personality cannot anticipate nor compensate for these variables. It is the operator's responsibility to make the necessary corrections by changing the loading of the boat or by performing additional maneuvers to track the desired path.

The joystick offers intuitive control of your boat during low-speed operation and docking. In this mode, engine speed is limited to prevent excessive prop wash or unacceptable boat dynamics. For dual engine vessels, pressing the adjust button on the joystick trackpad (to change from two lit segments to one) further reduces engine demand. The remote control levers must be used for vessel maneuvering if conditions require more thrust than is offered by either joystick mode.

Although joystick operation is intuitive, you should avoid using it until you have the opportunity to become familiar with the vessel's handling characteristics. Practice operating the vessel with the joystick in open water. Thereafter, you should occasionally practice operating without the joystick in case the joystick becomes inoperable.

The remote control levers must be in the neutral position for the joystick to operate.

GETTING TO KNOW THE JOYSTICK PILOTING SYSTEM

JPI Operation Quick Reference Chart

Start Engine	<ol style="list-style-type: none">1. Turn on all battery switches and converters. Refer to the vessel owner's manual.2. Start the engines. Refer to the Operation Chart in the owner's manual provided with your power package.
Enable JPI	<ol style="list-style-type: none">1. For best results, steer the rudders to the straight back position.2. Place the ERC levers in the neutral detent.
Operate JPI	<p>Move the joystick in the direction that you want the boat to move.</p> <p>- OR -</p> <p>Press the thruster-only button (if equipped) and use the joystick to control only the thrusters (no engine thrust).</p>
Disable and Shut Down	<p>Move the ERCs out of neutral. (Disables the joystick only)</p> <p>- OR -</p> <p>Do not use.</p>

ON THE WATER

The Joystick Piloting System

WARNING

A spinning propeller, a moving boat, or any solid device attached to the boat can cause serious injury or death to swimmers. Stop the engine immediately whenever anyone in the water is near your boat.

Joystick Piloting for Inboards (JPI) aids in maneuvering in marinas and other tight quarters. It ties together the control of the main engine or engines with the electric bow thruster and stern thruster (if equipped), giving the operator single-handed control of all vessel motions.

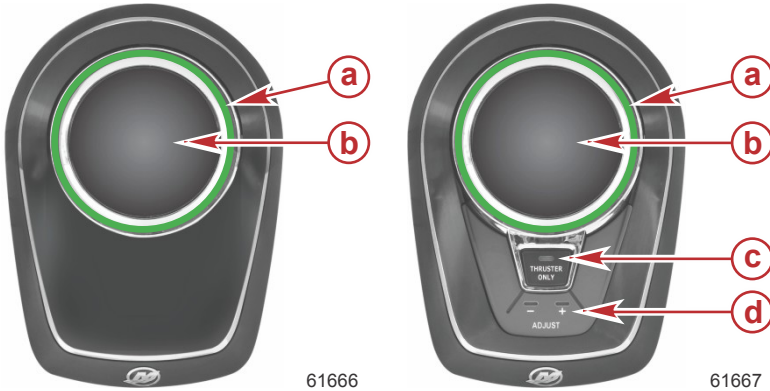
The system can be engaged any time the engines are running and the control levers are in neutral. To activate the joystick piloting system, follow the steps in **System Start Up**. The green light ring will remain solidly lit when the system is ready for use.

JOYSTICK FEATURES

The joystick includes a light ring to indicate when the joystick is in use. For descriptions of the behavior of the light ring during joystick operation, refer to **Maneuvering with the Joystick**.

ON THE WATER

For dual engine vessels, the joystick also includes a thruster-only button and light. The light on the button indicates when thruster-only mode is engaged.



Single engine joystick

Dual engine joystick

- a -** Light ring - The light ring will illuminate, flash, pulse, or rotate, to indicate a variety of states. The light ring will flash when an input error occurs.
- b -** Joystick - Controls engine, transmission, and thruster functions to move the vessel in any desired motion. Refer to **Maneuvering with the Joystick**.
- c -** Thruster-only button and light (dual-engine models only) - Activates thruster-only mode. The light illuminates when the thruster-only mode is engaged.
- d -** Adjust button and lights (dual-engine models only) - Toggles between normal and reduced engine demand mode. The two light segments indicate the current operating mode: two light segments for normal engine demand mode or one light segment for reduced engine demand mode.

NOTE: Reduced engine demand operates with a lower engine maximum RPM limit; thruster output is not affected. This mode may be helpful when the thruster battery voltage is low, to keep from overpowering the thrusters.

JOYSTICK OPERATION

The joystick controls vessel movement and rotation. The vessel response is proportional to the joystick input fore and aft. Moving the joystick forward or backward will put the transmissions in the appropriate gear and adjust the throttle. The vessel will move proportionally faster as the joystick is tilted farther away from center. For example, pushing forward slightly will put the engine or engines in gear, continuing to push the joystick farther forward will incrementally add throttle to the engine or engines and make the vessel move faster.

ON THE WATER

For dual thruster vessels: Moving the joystick sideways will activate the thrusters, which will operate continuously until the joystick is returned to center. Due to thruster battery voltage levels, the total amount of thrust generated is determined by the amount of time the thrusters are on.

For single thruster vessels: Moving the joystick sideways will engage the engines—one in forward and one in reverse. The bow thruster will also engage, combining with the yaw force generated by the engines to move the boat laterally in the direction of the joystick motion.

Twisting the joystick will also proportionally activate the engines, transmissions, and other thrusters to turn the vessel in the direction that the joystick is twisted. You can tilt and twist the joystick at the same time to rotate the vessel while it moves.

System Start Up

SYSTEM ACTIVATION REQUIREMENTS

In order for the joystick to function:

- All engines must be running.
- The ERC levers must be in the neutral/idle positions.
- All installed thrusters must have the capacity to operate.
- The system must be free of faults, with the green light ring on.

The rudders should also be in the straight ahead position, but this will not prohibit the system from operating.

START UP PROCEDURE

1. Ensure that all the battery switches, converter switches, and engine key switches are on.
2. Place the electronic remote control (ERC) levers in neutral/idle position.
3. Start all engines. Refer to the engine owners and operations manual provided with your power package.

NOTE: *For best performance, use the steering wheel to center the rudders in the straight ahead position.*

4. For dual-engine systems, the indicators on the trackpad will light briefly.
5. For all systems, the green light ring should remain solidly lit.
6. If the light ring is not illuminated, the system is not ready for use. Identify and correct the issue.

Maneuvering with the Joystick

The joystick provides a single lever interface to maneuver the vessel. Operating the vessel with the joystick is well suited for close quarter operations and when docking. The joystick system controls thrust to move or rotate the boat in a desired direction. For example, if you move the joystick sideways, the control system commands the thrusters and gear positions to change as necessary to move the boat in the sideways direction.

ON THE WATER

The joystick gives three axis control: fore and aft, port and starboard, and rotational, or any combination thereof. For example, moving the joystick to port causes the boat to move sideways to port. Rotating the joystick causes the boat to rotate around its center. You can move and rotate the joystick at the same time, allowing for intricate movements for maneuvering in tight quarters.

Factors such as wind, water conditions, thruster battery voltage levels, and vessel loading may degrade the accuracy of the response to the operator's joystick movements. Manual yaw correction may be required when commanding the boat in the fore and aft, port and starboard, or diagonal directions. To correct for unintended yaw during any maneuver, rotate the joystick in the direction opposite of the yaw.

To maneuver the boat with the joystick:

1. Move the electronic remote control (ERC) levers to the neutral position.
2. Move the joystick in the direction that you want the boat to move, or twist the joystick in the direction that you want the boat to rotate. The joystick can be moved and rotated at the same time.



JOYSTICK INPUT AND BOAT RESPONSE

The following tables give some limited examples of the basic responses to inputs from the joystick.


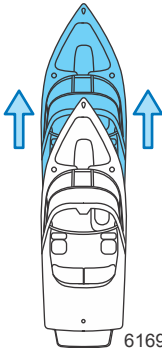

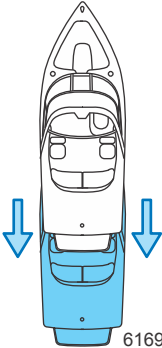

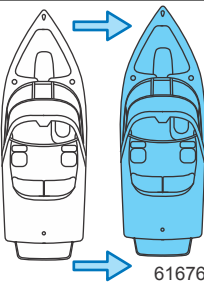
IMPORTANT: All boat movements shown in the following tables are as they occur in a perfect environment. Practice joystick maneuvers under various conditions to learn how your boat responds.

- Real world variables—such as wind, waves, and boat loading—have an impact on boat behavior.
- Some JPI configurations (single engine; dual engine, single thruster; or dual engine, dual thruster) may execute maneuvers more precisely than others.


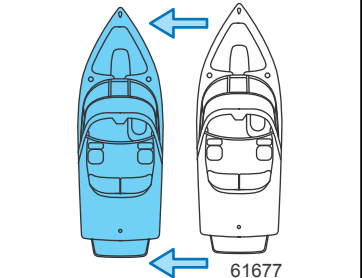

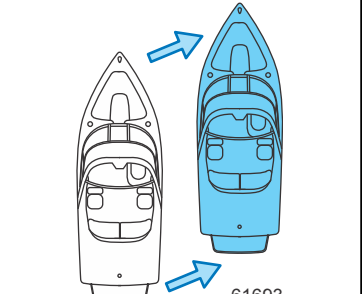

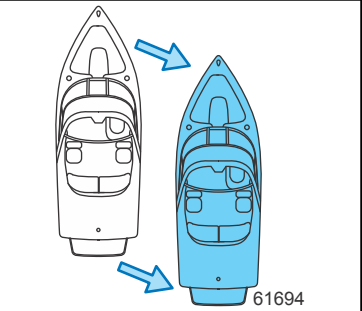
Basic Maneuvers

Joystick Input	Boat Response	Movement (white indicates starting position)
 61643	Boat at rest. Joystick is ready for use.	 61690


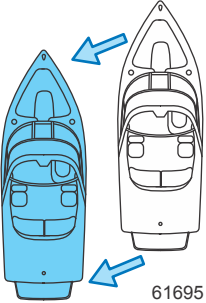

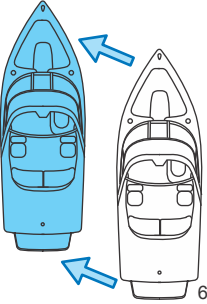

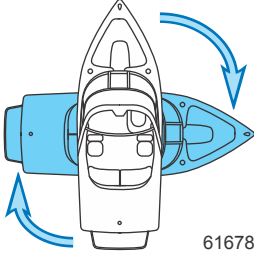

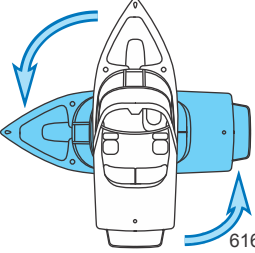
ON THE WATER

Joystick Input	Boat Response	Movement (white indicates starting position)
 61644	Boat moves forward.	 61691
 61645	Boat moves aft.	 61692
 61646	Boat moves to starboard without rotating.	 61676

ON THE WATER

Joystick Input	Boat Response	Movement (white indicates starting position)
 61647	Boat moves to port without rotating.	 61677
 61648	Boat moves diagonally forward and to the starboard without rotating.	 61693
 61649	Boat moves diagonally aft and to the starboard without rotating.	 61694


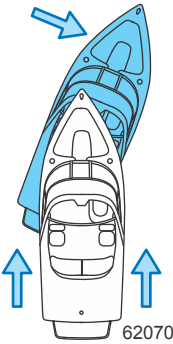

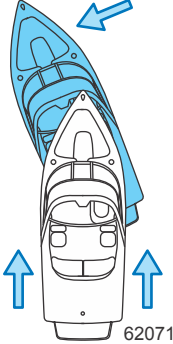

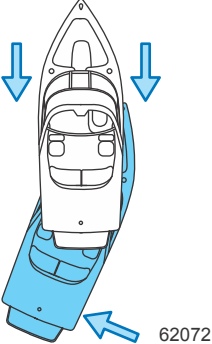
ON THE WATER

Joystick Input	Boat Response	Movement (white indicates starting position)
 61650	Boat moves diagonally aft and to the port without rotating.	 61695
 61651	Boat moves diagonally forward and to the port without rotating.	 61696
 61652	Boat rotates clockwise.	 61678
 61653	Boat rotates counterclockwise.	 61679


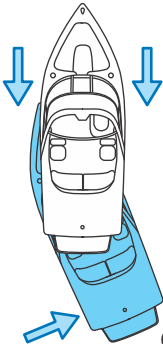

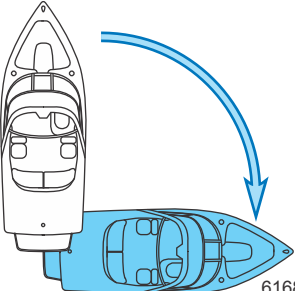

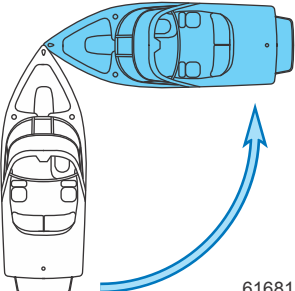
ON THE WATER

Combination Maneuvers


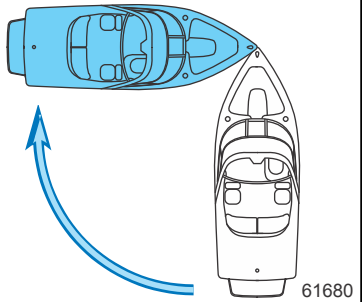

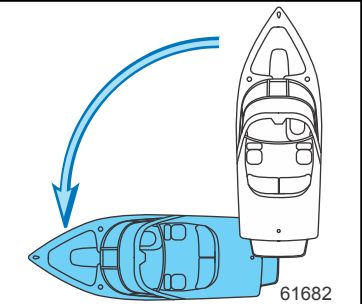
These diagrams show approximate behavior only. Experiment in calm, open waters to determine your boat's exact behavior.

Joystick Input	Boat Response	Movement (white indicates starting position)
 62062	Boat moves forward while rotating clockwise (bow moves toward starboard).	 62070
 62063	Boat moves forward while rotating counterclockwise (bow moves toward port).	 62071
 62064	Boat moves aft while rotating clockwise (stern moves toward port).	 62072

ON THE WATER

Joystick Input	Boat Response	Movement (white indicates starting position)
 62065	Boat moves aft while rotating counterclockwise (stern moves toward starboard).	 62073
 62066	Boat rotates clockwise about its stern.	 61683
 62067	Boat rotates counterclockwise about its bow.	 61681

ON THE WATER

Joystick Input	Boat Response	Movement (white indicates starting position)
 <p>62068</p>	Boat rotates clockwise about its bow.	 <p>61680</p>
 <p>62069</p>	Boat rotates counterclockwise about its stern.	 <p>61682</p>

Thruster-Only Mode: Dual-Engine, Single-Thruster Models

To maneuver the boat with the joystick in thruster-only mode:

1. Move both electronic remote control (ERC) levers to the neutral position.
2. Press the thruster-only mode button on the joystick trackpad. The button will light up.


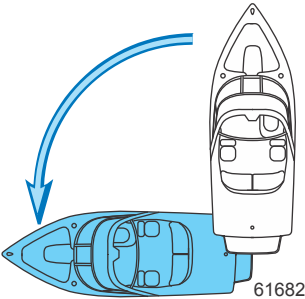


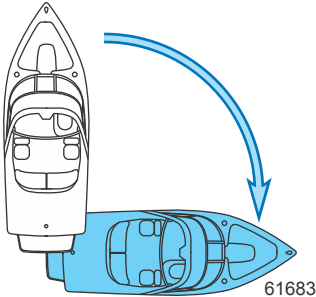

NOTE: The joystick light ring will not light up in thruster-only mode.

3. The joystick will move the boat using only the bow thruster. Refer to the following table.
4. Press the thruster-only mode button again to exit thruster-only mode.

The following table gives some limited examples of the basic responses to inputs from the joystick in thruster-only mode.

IMPORTANT: All boat movements shown in the following table are as they occur in a perfect environment. Real world variables—such as wind, waves, and boat loading—have an impact on boat behavior. Practice joystick maneuvers under various conditions to learn how your boat responds.

ON THE WATER

Joystick Input	Boat Response	Movement (white indicates starting position)
 62080	Boat rotates counterclockwise about its stern.	 61682
 62082		
 62079	Boat rotates clockwise about its stern.	 61683
 62081		

ON THE WATER

Thruster-Only Mode: Dual-Engine, Dual-Thruster Models

To maneuver the boat with the joystick in thruster-only mode:


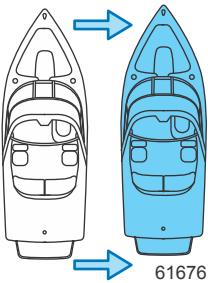
1. Move both electronic remote control (ERC) levers to the neutral position.
2. Press the thruster-only mode button on the joystick trackpad. The button will light up.

NOTE: *The joystick light ring will not light up in thruster-only mode.*


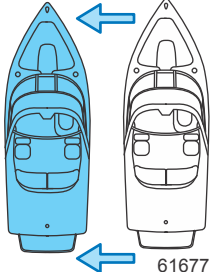

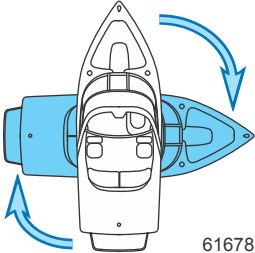

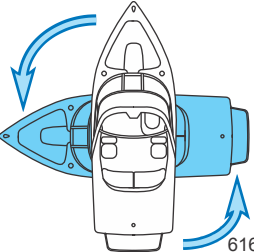

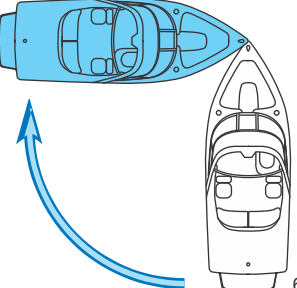
3. The joystick will move the boat using only the thrusters:
 - Twist the joystick to cause the boat to rotate in the direction of the joystick yaw.
 - Move the joystick forward to control the bow thruster. Then twist the joystick in the direction that you want the bow to move.
 - Move the joystick aft to control the stern thruster. Then twist the joystick in the direction that you want the stern to move.
 - Move the joystick left or right to control both thrusters, causing the boat to move to the left or right, accordingly. Add yaw to the joystick to shut off one thruster and cause the boat to rotate in the direction of the joystick yaw.
4. Press the thruster-only mode button again to exit thruster-only mode.

The following table gives some limited examples of the basic responses to inputs from the joystick in thruster-only mode.


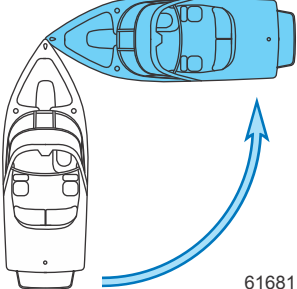

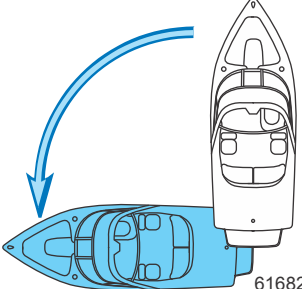

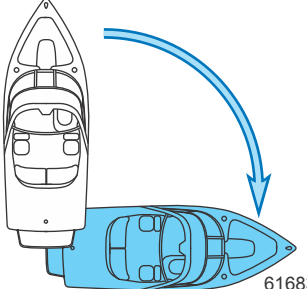
IMPORTANT: All boat movements shown in the following table are as they occur in a perfect environment. Real world variables—such as wind, waves, and boat loading—have an impact on boat behavior. Practice joystick maneuvers under various conditions to learn how your boat responds.

Joystick Input	Thrusters Activated	Boat Response	Movement (white indicates starting position)
 62079	Bow and stern	Boat moves to starboard without rotating.	 61676

ON THE WATER

Joystick Input	Thrusters Activated	Boat Response	Movement (white indicates starting position)
 <p>62080</p>	Bow and stern	Boat moves to port without rotating.	 <p>61677</p>
 <p>62081</p>	Bow and stern	Boat rotates clockwise.	 <p>61678</p>
 <p>62082</p>	Bow and stern	Boat rotates counterclockwise.	 <p>61679</p>
 <p>62083</p>	Stern	Boat rotates clockwise about its bow.	 <p>61680</p>

ON THE WATER

Joystick Input	Thrusters Activated	Boat Response	Movement (white indicates starting position)
 62084	Stern	Boat rotates counterclockwise about its bow.	 61681
 62085	Bow	Boat rotates counterclockwise about its stern.	 61682
 62086	Bow	Boat rotates clockwise about its stern.	 61683

MAINTENANCE AND TROUBLESHOOTING

Maintenance

OPERATOR RESPONSIBILITIES

This manual covers only the joystick piloting system and does not address the maintenance of the engines, transmissions, or other vessel components or systems. For information covering your engine and transmission, refer to the appropriate engine operation and maintenance manual. For all other information, refer to your vessel operations manual.

It is the operator's responsibility to ensure that all safety checks are performed, ensure that all lubrication and maintenance instructions are complied with for safe operation, and return the vessel to a Mercury Marine dealer or authorized repair facility for a periodic checkup. If you have any questions about how to perform these checks, consult your dealer or distributor for additional information. While many owners are capable of performing these checks, it is best to have all checks and maintenance performed by a trained service technician.

Normal maintenance, service, and replacement parts are the responsibility of the owner or operator and as such, are not considered defects in workmanship or material within the terms of the warranty. Individual operating habits and usage contribute to the need for maintenance service.

Proper maintenance and care of your joystick piloting system will ensure optimum performance and dependability and will keep your overall operating expenses at a minimum. See your Mercury dealer or authorized repair facility for parts and service.

JOYSTICK MAINTENANCE

The joystick is a sealed unit that requires only surface cleaning. Wipe the joystick with a clean cloth, dampened with water after each use to maintain appearance and gasket integrity. To avoid harming the surface finish, do not use a harsh or corrosive solvent.

THRUSTER SYSTEM MAINTENANCE

For all thruster system maintenance concerns (including battery specifications and maintenance), refer to the recommendations outlined by the vessel manufacturer.

Troubleshooting Guide

Refer to the headings for the current situation and the corresponding table for possible causes and solutions before contacting your nearest dealer or distributor.

MAINTENANCE AND TROUBLESHOOTING

JOYSTICK NOT OPERATING

Situation	Remedy
Joystick does not function.	<ul style="list-style-type: none">• Ensure that the keys are on and engines are running. The green light ring should be on, if all operating conditions are met.• Check the thruster battery voltage levels.• Was there a warning horn indicating a fault? (Refer to Audio Warning System for definitions.) If a fault is indicated, see your authorized Mercury MerCruiser dealer or distributor.
No main power with key switch on.	<ul style="list-style-type: none">• Ensure that the battery power on/off switch is on.• Ensure that the engines are running.• Check the fuses.
The thruster-only button does not respond.	Ensure that the green light ring is lit. If it is not on, ensure that the key switches are on. Start the engines.
Electric motors getting power, but not turning or turning too slowly.	<ul style="list-style-type: none">• Check thruster for debris stuck in the propeller or tunnel.• Check for broken propeller.

THRUSTER NOT OPERATING

Situation	Remedy
The ERC levers are in neutral, the engines are running, but one or more thrusters are inoperable.	Let the thruster cool or batteries recharge.
Electric motors getting power but propellers not turning or turning too slowly.	<ul style="list-style-type: none">• Check thruster for debris stuck in the propeller or tunnel.• Check for broken propeller thrust pin.

MAINTENANCE AND TROUBLESHOOTING

Situation	Remedy
No main power.	Check the battery power on/off switch.
Thruster motors turning, but no thrust.	<ul style="list-style-type: none"> Thruster tunnels clogged with debris. Thruster propeller pin broken. See your authorized service technician.
System has just recovered from shutting itself off after exceeding capacity, all systems are operational, a fault horn is sounding, and one or both thrusters are not operating.	Heat limit protection on the motor may be opened. See your authorized service technician.

CONTROLS NOT RESPONDING AS EXPECTED

Situation	Remedy
Joystick moved in forward or backward direction, but boat turns.	Straighten the steering wheel and ensure that the rudders are in the straight-ahead position.
Joystick pushed to the side, but boat turns.	One thruster not functioning: <ul style="list-style-type: none"> Check the thrusters for operation. Check for faults.
	For single-thruster models: Ensure that the thruster-only mode is not engaged.
Thrust is produced, but boat turns or doesn't leave the dock.	<ul style="list-style-type: none"> Untie the lines. Ensure that the anchor is properly stowed.
Boat turns when it should go straight to the side (usually after extended use).	The motors are hot or the batteries are discharged. Temporarily stop using the joystick, and let the thruster motors cool and the batteries recharge.

WARNING HORN SOUNDS

IMPORTANT: Refer to Audio Warning System for definitions of the different warning horn states.

MAINTENANCE AND TROUBLESHOOTING

Situation	Remedy
The warning horn sounded.	Turn off the key switches, and then turn them back on.

Audio Warning System

IMPORTANT: The audio warning system alerts the operator that a problem has occurred. It does not protect the engine from damage.

Most faults cause the warning horn circuit to activate. How the warning horn activates depends on the severity of the problem.

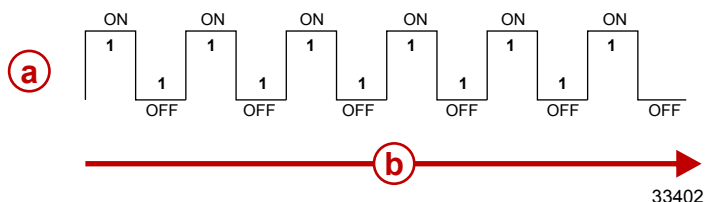
There are two warning horn states:

- Caution
- Critical

There is also an alarm that sounds if the helm has not been properly configured using the CDS G3 service tool.

CAUTION

If a caution state is detected, the audio warning system will sound for six one-second intervals.

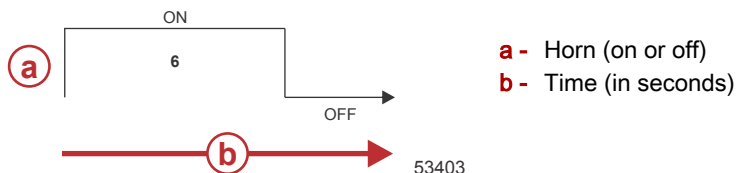


a - Horn (on or off)

b - Time (in seconds)

CRITICAL

If a critical state is detected, the audio warning system sounds for six seconds and then turns off.



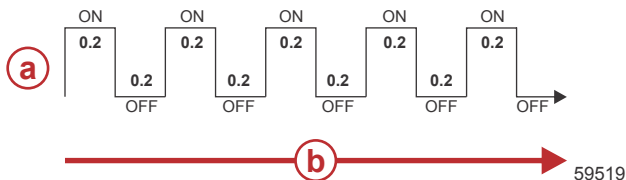
a - Horn (on or off)

b - Time (in seconds)

MAINTENANCE AND TROUBLESHOOTING

NONCONFIGURED ALARM

If the helm has not been properly configured using the CDS G3 service tool, the audio warning system will sound for five rapid intervals in less than two seconds.



a - Horn (on or off)

b - Time (in seconds)

NOTE: Times are approximate.

TESTING THE AUDIO WARNING SYSTEM

1. Turn the key switch to the on position without cranking the engine.
2. Listen for the audio alarm. The alarm will sound if the system is functioning correctly.

CUSTOMER ASSISTANCE INFORMATION

Owner Service Assistance

LOCAL REPAIR SERVICE

If you need service for your Mercury MerCruiser-equipped boat, take it to your authorized Mercury MerCruiser or Mercury Diesel dealer. Only authorized dealers specialize in Mercury MerCruiser products and have factory-trained mechanics, special tools and equipment, and genuine Mercury parts and accessories to properly service your product.

SERVICE AWAY FROM HOME

If you are away from your local dealer and the need arises for service, contact the nearest authorized dealer. If, for any reason, you cannot obtain service, contact the nearest regional service center. Outside the United States and Canada, contact the nearest Marine Power International service center.

STOLEN POWER PACKAGE

If your power package is stolen, immediately inform the local authorities and Mercury Marine of the model and serial numbers and to whom the recovery is to be reported. This information is maintained in a database at Mercury Marine to aid authorities and dealers in recovery of stolen power packages.

ATTENTION REQUIRED AFTER SUBMERSION

1. Before recovery, contact an authorized Mercury MerCruiser dealer.
2. After recovery, service by an authorized Mercury MerCruiser dealer is immediately required to reduce the possibility of serious damage.

REPLACEMENT SERVICE PARTS

WARNING

Avoid fire or explosion hazard. Electrical, ignition, and fuel system components on Mercury Marine products comply with federal and international standards to minimize risk of fire or explosion. Do not use replacement electrical or fuel system components that do not comply with these standards. When servicing the electrical and fuel systems, properly install and tighten all components.

PARTS AND ACCESSORIES INQUIRIES

Direct any inquiries concerning Mercury or Quicksilver replacement parts and accessories to your local authorized dealer. The dealer has the necessary information to order parts and accessories for you if they are not in stock. When inquiring on parts and accessories, the dealer requires the **engine model** and **serial numbers** to order the correct parts.

CUSTOMER ASSISTANCE INFORMATION

RESOLVING A PROBLEM

Satisfaction with your Mercury MerCruiser product is very important to your dealer and to us. If you ever have a problem, question or concern about your power package, contact your dealer or any authorized Mercury MerCruiser dealership. If your question, concern, or problem cannot be resolved by your dealership, please contact a Mercury Marine Service Office for assistance. Mercury Marine will work with you and your dealership to resolve all problems.

The following information will be needed by Customer Service:

- Your name and address
- Daytime telephone number
- Model and serial numbers for your power package
- The name and address of your dealership
- Nature of the problem

CONTACT INFORMATION FOR MERCURY MARINE CUSTOMER SERVICE

For assistance, call, fax, or write. Please include your daytime telephone number with mail and fax correspondence.

United States, Canada		
Telephone	English +1 920 929 5040 Français +1 905 636 4751	Mercury Marine W6250 Pioneer Road P.O. Box 1939 Fond du Lac, WI 54936-1939
Fax	English +1 920 929 5893 Français +1 905 636 1704	
Website	www.mercurymarine.com	

Australia, Pacific		
Telephone	+61 3 9791 5822	Brunswick Asia Pacific Group 41-71 Bessemer Drive Dandenong South, Victoria 3175 Australia
Fax	+61 3 9706 7228	

Europe, Middle East, Africa		
Telephone	+32 87 32 32 11	Brunswick Marine Europe Parc Industriel de Petit-Rechain B-4800 Verviers, Belgium
Fax	+32 87 31 19 65	

Mexico, Central America, South America, Caribbean		
Telephone	+1 954 744 3500	Mercury Marine 11650 Interchange Circle North Miramar, FL 33025 U.S.A.
Fax	+1 954 744 3535	

CUSTOMER ASSISTANCE INFORMATION

Japan		
Telephone	+072 233 8888	Kisaka Co., Ltd. 4-130 Kannabecho Sakai-shi Sakai-ku 5900984 Osaka, Japan
Fax	+072 233 8833	

Asia, Singapore		
Telephone	+65 65466160	Brunswick Asia Pacific Group T/A Mercury Marine Singapore Pte Ltd 29 Loyang Drive Singapore, 508944
Fax	+65 65467789	

Customer Service Literature

ENGLISH LANGUAGE

English language publications are available from:

Mercury Marine

Attn: Publications Department

W6250 Pioneer Road

P.O. Box 1939

Fond du Lac, WI 54936-1939

Outside the United States and Canada, contact the nearest Mercury Marine or Marine Power International Service Center for further information.

When ordering be sure to:

- List your product, model, year, and serial numbers.
- Check the literature and quantities you want.
- Enclose full remittance in check or money order (NO COD).

OTHER LANGUAGES

To obtain an Operation, Maintenance and Warranty Manual in another language, contact the nearest Mercury Marine or Marine Power International Service Center for information. A list of part numbers for other languages is provided with your power package.