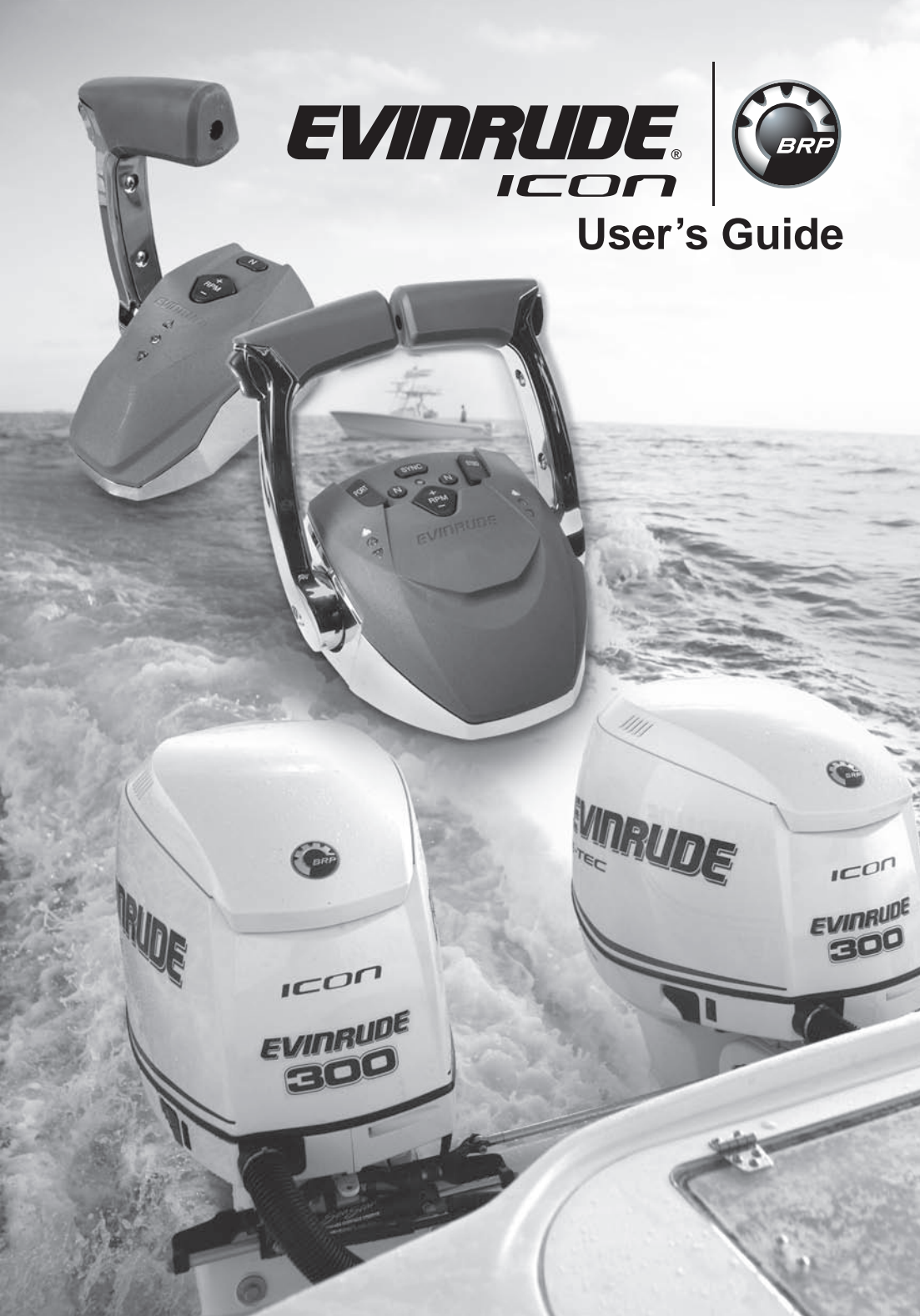


EVINRUDE®
ICON



User's Guide



ICON™ USER'S GUIDE

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DECLARATION OF CONFORMITY

- **Application of Council Directives:**

Directive 94/25/EC as amended by 2003/44/EC – Recreational-Craft

This product has been designed to be compliant with the above Directive.

Maximum performance, and compliance with the EMC Directive, can only be ensured by correct installation. It is strongly recommended that the installation conforms with the following standards:

Applicable Standards

- **ISO 8846 Small Craft-Electrical Devices**

Protection against ignition of surrounding flammable gases.

ISO = International Standards Organization

This device meets or exceeds the applicable ABYC, ISO, and USCG safe boating rules, regulations, standards, and guidelines.

SAFE BOATING ON THE WEB

U.S. Coast Guard (US)	www.uscg.mil
U.S. Power Squadron (US)	www.usps.org
National Safe Boating Council (US)	www.safeboatingcouncil.org/
Canadian Coast Guard (CA)	www.ccg-gcc.gc.ca
The Royal National Lifeboat Institution (UK)	www.rnli.org.uk
The Boat Safety Scheme (UK)	www.boatsafetyscheme.com
Safe Boating Australia (AU)	www.safeboating.org.au
NSW Maritime (AU)	www.maritime.nsw.gov.au
Marine Safety Victoria (AU)	www.marinesafety.vic.gov.au
Maritime Safety Queensland (AU)	www.msq.qld.gov.au/
Transport South Australia (AU)	www.transport.sa.gov.au/
Recreational Boating Safety (AU)	www.dpi.wa.gov.au/imarine/19078.asp

SAFETY INFORMATION


This User's Guide uses the following signal words identifying important safety messages.

DANGER

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

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.

NOTICE Indicates an instruction which, if not followed, could severely damage engine components or other property.

IMPORTANT: Identifies information that will help with assembly and operation of the product.

This User's Guide contains essential information to help prevent personal injury and damage to equipment. Use the *ICON* User's Guide in combination with the boat and engine operator's guides. Always follow safety and operation information.

Be careful! Human error is caused by many factors: carelessness, fatigue, overload, pre-occupation, unfamiliarity of operator with the product, drugs and alcohol to name a few. Damage to your boat and outboard can be fixed in a short period of time, but injury or death, has a lasting effect.

WARNING

This device should not be used as a navigational aid to prevent collision, grounding, boat damage, or personal injury. When the boat is moving, water depth may change too quickly to allow time for you to react. Always operate the boat at very slow speeds if you suspect shallow water or submerged objects.

WARNING

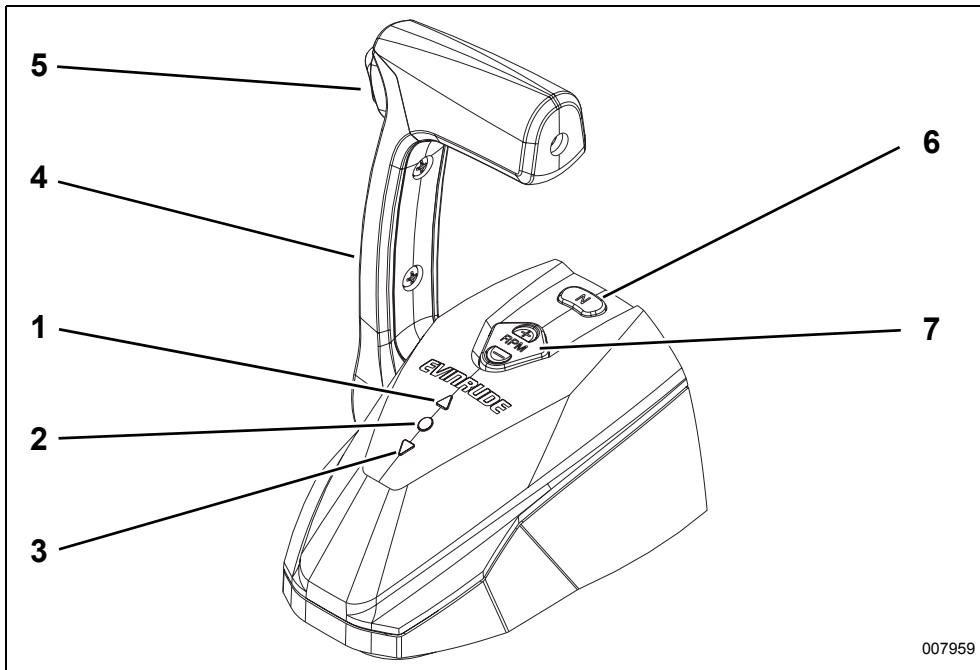
This product contains lead, a chemical known to the State of California to cause cancer, birth defects, and other reproductive harm.

Read and familiarize yourself with the complete *ICON Remote Control User's Guide* before attempting to start the outboard.

ICON REMOTE CONTROL FEATURES

ICON Single Lever Binnacle Mount Remote Control

The *ICON* single lever binnacle mount remote control is used in single engine installations. Use the *ICON* single lever binnacle mount remote control for single and dual station installations.

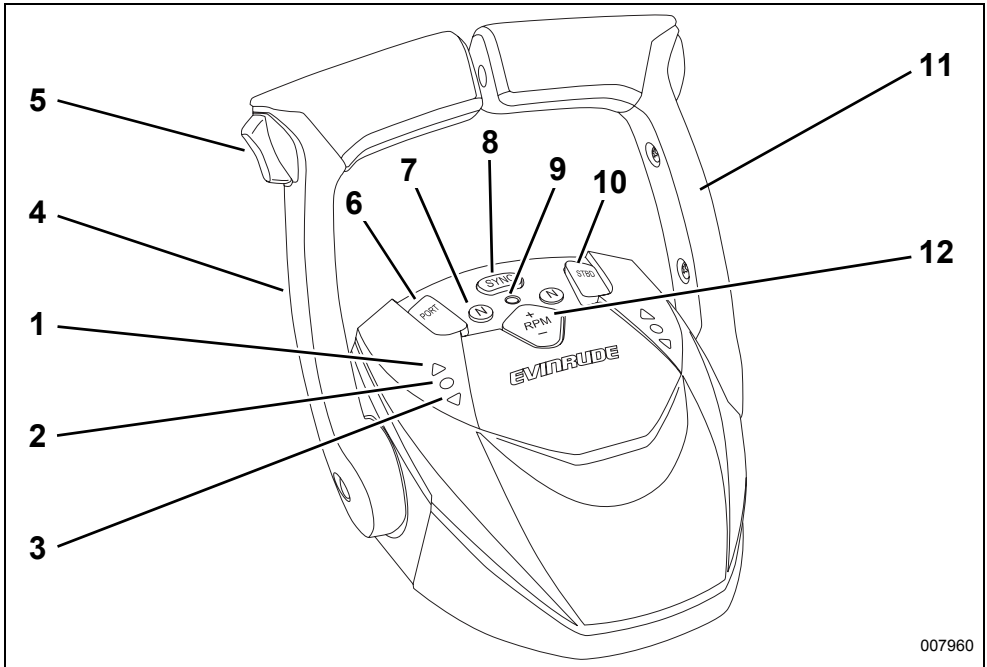


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	Feature	Function
1	FORWARD Gear Indicator LED	Turns green when control lever is shifted into FORWARD gear.
2	NEUTRAL Indicator LED	Turns yellow when control lever is shifted into NEUTRAL position.
3	REVERSE Gear Indicator LED	Turns green when control lever is shifted into REVERSE gear.
4	Control Lever	Controls shift and throttle function.
5	Master Trim And Tilt Switch	Press to adjust trim or tilt setting of outboard.
6	N (NEUTRAL) Throttle Switch	Press to disengage shift function. Allows throttle only function.
7	RPM Switch	Press + or - to make slight adjustments to engine speed.

ICON Dual Lever Binnacle Mount Remote Control

The *ICON* dual lever binnacle mount remote control is used in two, three, four and five engine installations. Use the *ICON* dual lever binnacle mount remote control for single and dual station installations.



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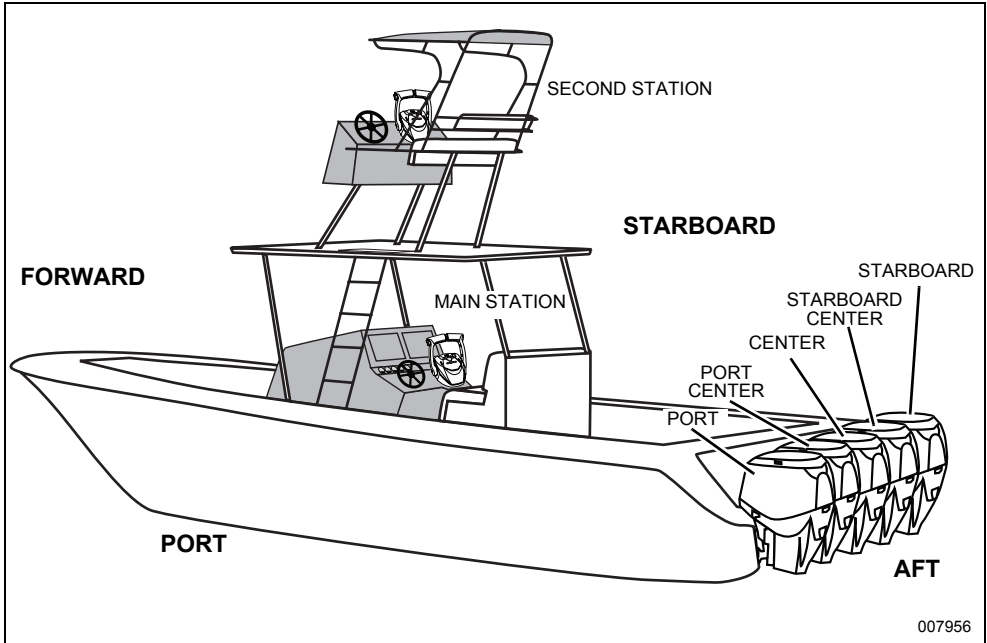
	Feature	Function
1	FORWARD Gear Indicator LED	Turns green when control lever is shifted into FORWARD gear.
2	NEUTRAL Indicator LED	Turns yellow when control lever is shifted into NEUTRAL position.
3	REVERSE Gear Indicator LED	Turns green when control lever is shifted into REVERSE gear.
4	Port Control Lever	Controls shift and throttle function for port and center outboards. Functions as the “master” control lever when SYNC is engaged.
5	Master Trim And Tilt Switch	Press to adjust trim or tilt setting of all outboards.
6	PORT Trim And Tilt Switch	Press to trim the port outboard. ⁽¹⁾
7	N (NEUTRAL) Throttle Switch	Press to disengage shift function. Allows throttle only function.
8	SYNC Switch	Press to control 2 to 5 outboards with port control lever.
9	SYNC Indicator LED	Turns red when SYNC is active.
10	STBD Trim And Tilt Switch	Press to trim the starboard outboard. ⁽¹⁾
11	Starboard Control Lever	Controls shift and throttle function for starboard outboards.
12	RPM Switch	Press + or – to make slight adjustments to engine speed.

(1) Also see **Dual Lever Remote Control Trim and Tilt Switches** and **Trim and Tilt Switch Panels** on p.13.

OPERATION

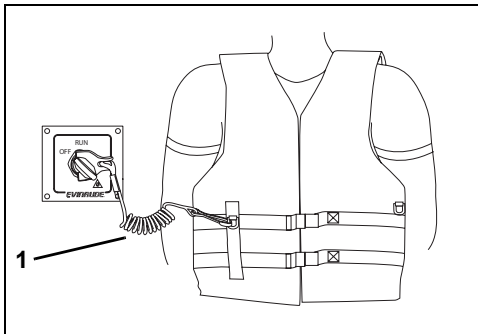
Operators should be familiar with nautical orientation.

This User's Guide often identifies outboards, parts or procedures using terms shown in the diagram below.



Emergency Stop Lanyard

Snap the emergency stop lanyard to a **secure** place on the operators clothing or life vest – not where it might tear away instead of activating the stop switch.



1. Emergency stop lanyard

⚠ WARNING

Emergency stop lanyard MUST be securely attached to the operator, and clip MUST be installed on master power/key switch. DO NOT operate outboard with clip removed from switch, except in an emergency.

Disconnecting the clip of the emergency stop lanyard from the master power/key switch will stop all engines and prevent the boat from becoming a runaway if the driver moves beyond the range of the lanyard. If the lanyard is too long, it can be shortened by knotting it or looping it. **DO NOT** cut and retie the lanyard.

⚠ WARNING

Avoid knocking or pulling clip off the stop switch during normal boating. Avoid bumping the key if operating without the clip on the switch. The resulting unexpected loss of forward motion can throw occupants forward causing injury.

Keep the lanyard free from obstructions and entanglements.

At each outing, test the system's operation. With the engine running, remove clip from the switch by pulling the lanyard. If the engine does not stop running, see your dealer.

soon as possible. See your dealer to order a spare Emergency Stop Lanyard, P/N 176288.

Emergency Stop Switch – Second Station

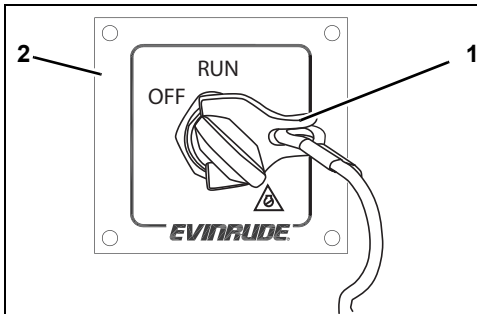
In dual station installations, the second station emergency stop switch is unique.

NOTICE Clips of emergency stop lanyard for the Master Power/Key Switch and the second station Emergency Stop Switch are different. It is highly recommended to keep a spare emergency stop lanyard for the Emergency Stop Switch at the second station. See your dealer to order a spare Emergency Stop Lanyard, P/N 432230.

Push the clip of emergency stop lanyard onto the emergency stop switch.

Master Power/Key Switch

Push the clip of emergency stop lanyard onto the master power/key switch.

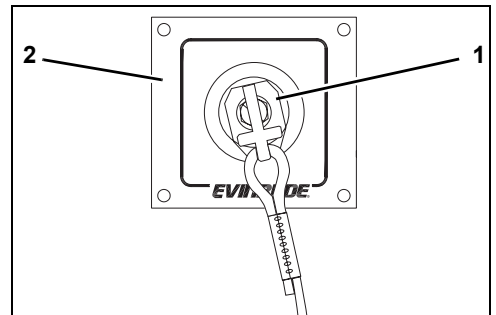


1. Clip of emergency stop lanyard
2. Master power/key switch

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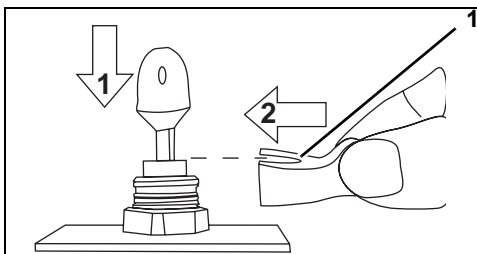
⚠ WARNING

In an emergency situation the engine(s) cannot be restarted without the clip of the emergency stop lanyard in place at the second station.



1. Clip of emergency stop lanyard
2. Emergency stop switch

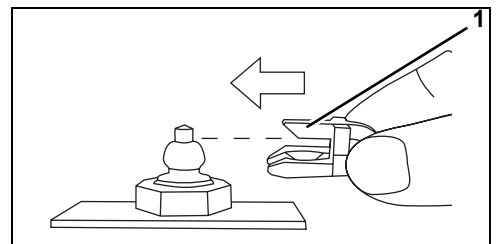
007897



1. Clip of emergency stop lanyard

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In an emergency situation the engine(s) can be restarted without the clip in place. Follow normal starting procedure. Reinstall clip as



1. Clip of emergency stop lanyard

007898

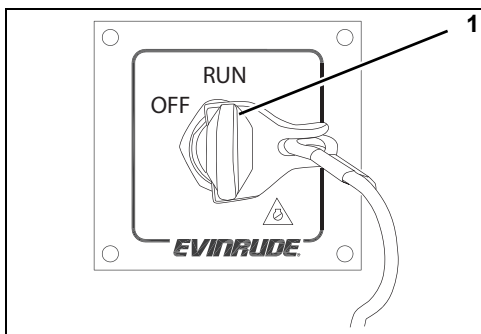
Operation

Station Select

Station select is the process of activating a remote control station during system power up.

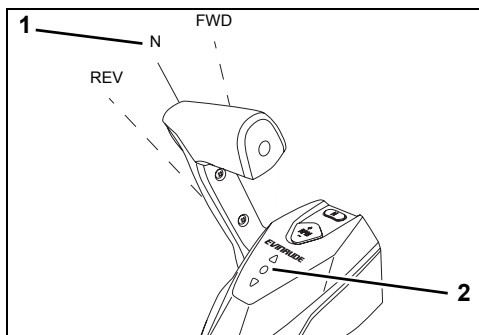
⚠ CAUTION If **Station Protect** is enabled, a unique key sequence must be entered to activate the station. See **Station Protect** on page 16.

Turn the master power/key switch to the RUN position.



1. RUN position

Note: Position control lever(s) in the NEUTRAL position to start or stop outboard. NEUTRAL indicator Light Emitting Diodes (LEDs) will turn ON.



1. NEUTRAL position
2. NEUTRAL indicator LED(s)

The master power/key switch turns power ON and OFF to the:

- ICON control network
- Outboard(s)
- NMEA 2000/gauge network
- Boat accessories (requires Accessory Power Relay Kit, P/N 765296)

In single station installations, the remote control activates automatically.

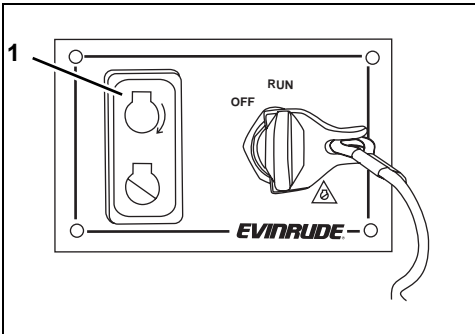
In dual station installations, the operator must select a station:

- Go to the master station or the remote or second station in the boat.
- Press any switch on the remote control, or press the START symbol of the START/STOP to activate the station.

Start/Stop Switch Panel

One START/STOP switch is used for each engine. START/STOP switches are located at each operator station.

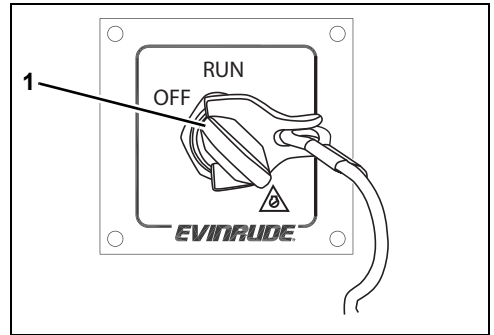
Press the START symbol of switch to start the outboard. Crank the engine no longer than 20 seconds.



1. START symbol

007958

Turn the master power/key switch to the OFF position.



1. OFF position

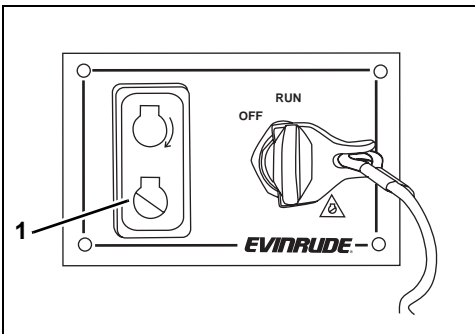
007895

Note: Turning the master power/key switch to the OFF position also stops all outboards and to turns off power to all stations.

NOTICE The starter motor can be damaged if operated continuously for more than 20 seconds.

Upon start-up, release the switch.

Press and release the STOP symbol of switch to stop the outboard.



1. STOP symbol

007958

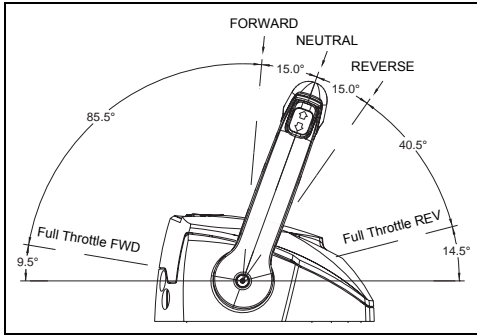
Operation

Shift and Throttle Control

IMPORTANT: Carefully check the function of all control and engine systems before leaving the dock. **DO NOT** shift the engines into FORWARD or REVERSE while the engines are stopped. Shift **ONLY** when engines are running.

Control Levers

Control lever shift and throttle range is as shown.



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Dual Lever Binnacle Mount Remote Control

The dual lever binnacle control has unique operation when used in multiple outboard installations. Also see **DOCKING Mode** on page 11.

The port control lever operates:

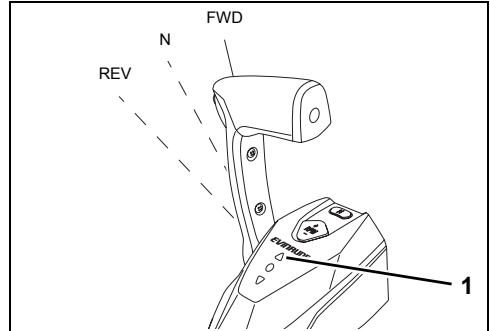
- Port outboard in two outboard installations
- Port and center outboards in three outboard installations
- Port and port center outboards in four outboard installations
- Port, port center and center outboards in five outboard installations

The starboard control lever operates:

- Starboard outboard in two outboard installations
- Starboard outboard in three outboard installations
- Starboard and starboard center outboards in four outboard installations
- Starboard and starboard center outboards in five outboard installations

FORWARD Gear

Move the control lever(s) to the forward position. The FORWARD gear indicator LED(s) turn ON and the outboard(s) shift into FORWARD (FWD) gear.



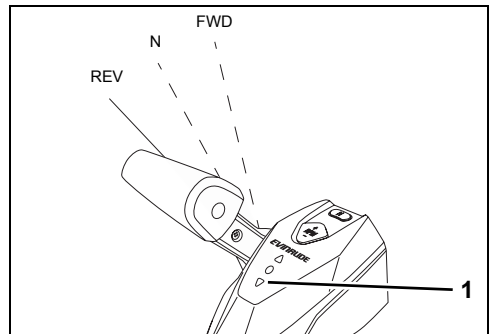
1. FORWARD gear indicator LED

007955

Note: The *ICON* system delays gear changes until engine speeds are below 1500 RPM.

REVERSE Gear

Move the control lever(s) to the reverse position. The REVERSE gear indicator LED(s) turn ON and the outboard(s) shift into REVERSE (REV) gear.



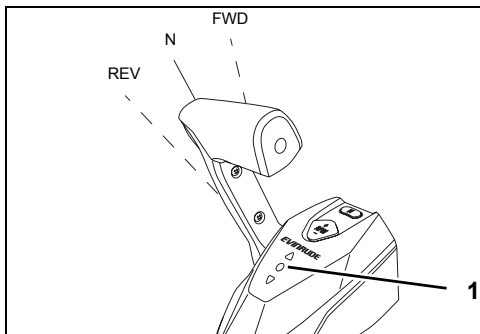
1. REVERSE gear indicator LED

007954

NEUTRAL

Move the control lever(s) to the NEUTRAL (N) position.

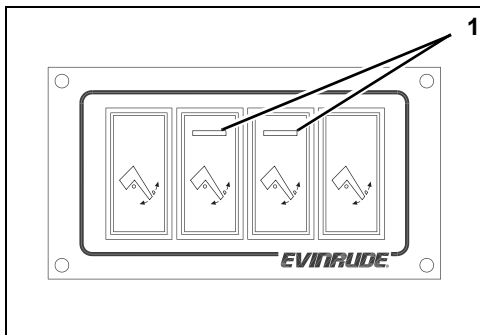
The NEUTRAL indicator LED(s) turn ON and the outboard(s) shifts into NEUTRAL.



1. NEUTRAL indicator LED(s)

007953

Note: Dashboard mounted trim and tilt switch panels are used on three, four and five outboard installations. Indicator LEDs turn ON when outboard is in NEUTRAL.



Trim and Tilt Switch Panel, Four Engine

007957

1. Indicator LEDs

DOCKING Mode

“Docking Mode” is functional in installations of three or five outboards.

The *ICON* system software provides unique support for remote control operation on three and five outboard installations. The center engine shift and throttle functions are automatically controlled while in “Docking Mode”.

Shift position is set to NEUTRAL and the throttle position remains at IDLE if the PORT and STARBOARD control levers are moved into opposite shift positions at the same time.

Note: See **Dual Lever Binnacle Mount Remote Control** on page 10.

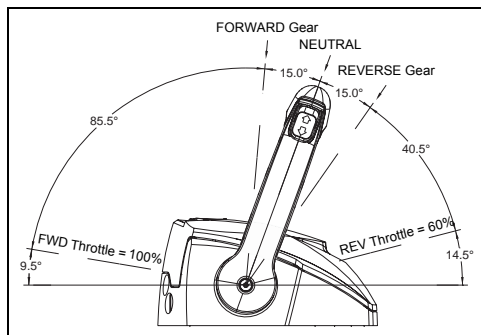
THROTTLE

After shifting, move the control handle slowly in the same direction to increase speed.

For FORWARD gear, move control lever(s) in a forward direction to increase speed.

For REVERSE gear, move control lever(s) in an aft direction to increase speed.

Reverse throttle range is limited to a maximum of 60% power.



007952

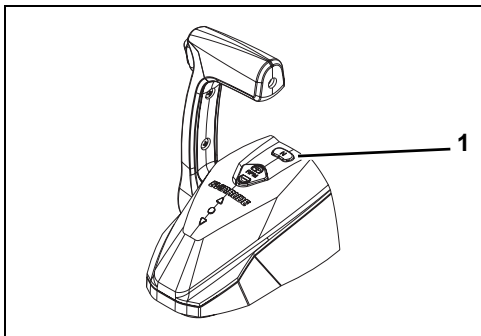
Operation

NEUTRAL Throttle Switch

The **NEUTRAL** throttle switch (**N**) allows operation of the throttle without shifting the outboard into **FORWARD** or **REVERSE** gear.

Press the **N** switch. The **NEUTRAL** indicator LED flashes. Advance the control lever in a forward direction to increase engine speed.

Note: In dual lever binnacle mount control installations, if the **NEUTRAL** throttle switch is activated while in **SYNC**, all engines are controlled by the **NEUTRAL** throttle switch and port control lever.



1. **N** switch

007951

During normal operation, the Engine Management Module (**EMM**) of the outboard limits engine speed to 1200 RPM while in **NEUTRAL**.

Return the control lever to the **NEUTRAL** position and press the **N** switch to deactivate **NEUTRAL** throttle switch. The **NEUTRAL** indicator LED(s) stop flashing.

Use **NEUTRAL** Throttle for warm-up and to perform the long-term storage (winterization) procedure. See **Outboard Operator's Guide** and **I-Command User's Guide**.

Note: During the long-term storage/winterizing procedure, engine speed will be between 1200 to 2600 RPM. Refer to **LONG-TERM STORAGE (WINTERIZATION)** in outboard **Operator's Guide**.

RPM Adjustment

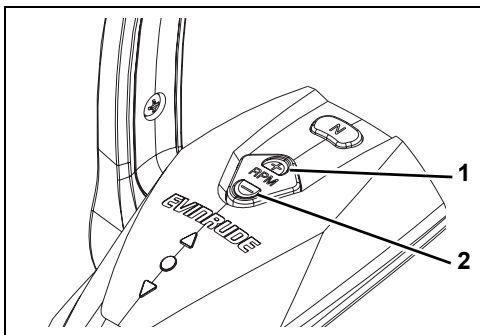
The **RPM** adjustment switch allows the operator to gradually adjust engine RPM.

RPM adjustment range is limited to 5% of the throttle setting. Each press of the **RPM** switch changes throttle setting 1%. The adjustment range is approximately 100 to 200 RPM depending on engine speed.

IMPORTANT: To use the RPM adjustment feature, all control levers **MUST** be in **FORWARD** gear and engine speed must be above 500 RPM.

Press the **+** side of the **RPM** switch to increase engine speed. Press the **-** side of the **RPM** switch to decrease engine speed.

Reposition the control lever and start the process again for further adjustment. To cancel the RPM adjustment switch setting move the control lever to a faster or slower position.



1. **+** side of **RPM** switch

2. **-** side of **RPM** switch

007947

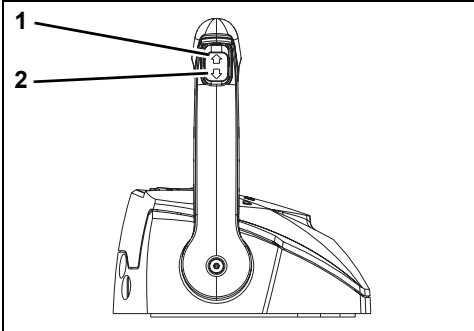
Note: The **RPM** switch may be used while **ICON** control system is in **SYNC**. See **SYNC** on page 14.

Trim and Tilt Switches

Control Lever Trim and Tilt Switch

The trim and tilt switch on the control lever (port control lever on dual lever control) allows the operator to trim all outboards at the same time.

- Press the **UP** side of the trim and tilt switch to trim all outboards up.
- Press the **DOWN** side of the trim and tilt switch to trim all outboards down.



1. **UP** side of trim and tilt switch
2. **DOWN** side of trim and tilt switch

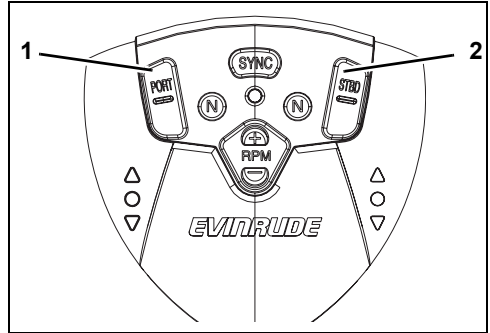
007950

Dual Lever Remote Control Trim And Tilt Switches

The dual lever remote control features trim and tilt switches to adjust trim on individual outboards.

Press the **PORT** trim and tilt switch to trim only the port outboard in two, three, four and five engine installations.

Press the **STBD** trim and tilt switch to trim only the starboard outboard in two, three, four and five engine installations.

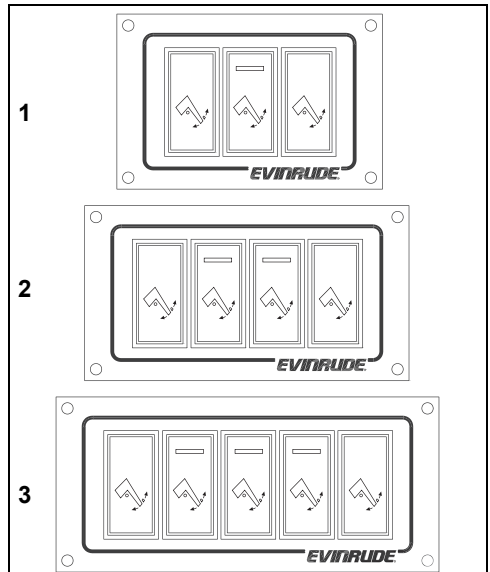


1. Port trim and tilt switch
2. Starboard trim and tilt switch

007948

Trim and Tilt Switch Panels

Installations of three, four or five outboards use a dashboard mounted trim and tilt switch panel to adjust trim on individual outboards.



Trim and Tilt Switch Panels

1. Three outboard installation
2. Four outboard installation
3. Five outboard installation

007901

Operation

SYNC

The **SYNC** switch allows the operator to control shift and throttle function for two to five outboards with the port control lever. This feature synchronizes engine speeds to within 75 RPM.

SYNC Activation

IMPORTANT: Disengage Neutral Throttle before activating SYNC. See **NEUTRAL Throttle Switch** on page 12.

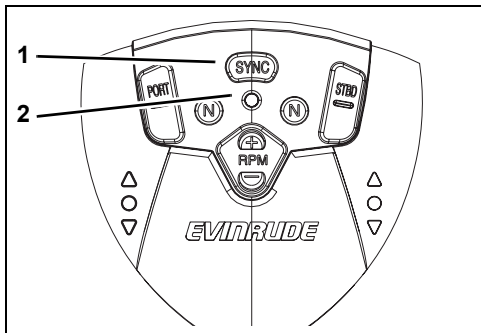
Align control levers.

Press the **SYNC** switch.

The SYNC indicator LED turns ON when SYNC is active.

The control levers must be aligned within 5 seconds or SYNC will not activate.

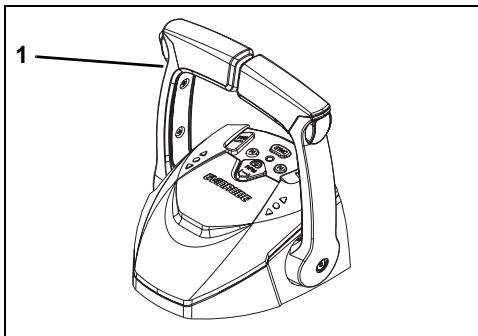
Note: If control levers are not aligned, the SYNC indicator LED flashes. Move control levers together until SYNC indicator LED stops flashing.



1. SYNC switch
2. SYNC indicator LED

007948

Shift and throttle function for all outboards are now controlled by the port control lever.



1. Port control lever

007949

Note: SYNC will not match engine RPM under the following conditions:

- NEUTRAL Throttle is active
- Port engine speed is below 700 RPM
- Port throttle setting is above 95%
- A critical fault is set

SYNC Deactivation

Align port and starboard control levers. Press the **SYNC** switch to exit SYNC.

Note: For improved control and maneuverability, disengage SYNC when docking the boat.

Station Transfer

“Station Transfer” moves shift and throttle control between control stations in dual control station installations.

Station Transfer is available on single and multiple engine installations.

WARNING

NEVER leave the active control station while the outboard(s) are in FORWARD or REVERSE gear. A loss of boat control could result.

Transfer between control stations with outboards in NEUTRAL.

Only transfer between control stations with outboards in FORWARD or REVERSE gear if there is a qualified operator at each station.

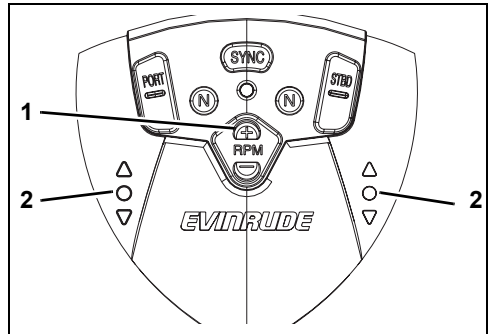
IMPORTANT: If the Station Protect option is turned ON, a unique key sequence must be used to transfer station control. See **Station Protect** on page 16.

Perform station transfer with the control levers of both remote controls in NEUTRAL position. Engines must be running.

To transfer stations:

- Go to the appropriate station in the boat.
- Snap the lanyard to a **secure** place on the operators clothing or life vest – not where it might tear away instead of activating the stop switch. See **Emergency Stop Lanyard** on page 6.
- Press the **+** side of the RPM switch to activate the control station.

When transfer is complete, the NEUTRAL indicator LED(s) turn ON.



1. The + side of RPM switch

007948

2. NEUTRAL indicator LEDs

Note: If control levers are not in the NEUTRAL position, the FORWARD, NEUTRAL, REVERSE and SYNC indicator LEDs flash. Make sure all control levers are in the NEUTRAL position.

Operation

Station Protect

In a dual station installation, the “Station Protect” feature limits use of control stations. Station Protect operates in both single and dual station applications.

When Station Protect is turned ON, a unique key sequence must be entered to activate a station and start, run and control all outboards.

Note: Station Protect must be set up during installation. Dealers must use *Evinrude Diagnostics* software to reprogram the Engine Management Module (EMM) to turn ON this option.

At the inactive station, press the + side of the RPM switch and N switches in this sequence:

- 1) Press the + side of the RPM switch first,
- 2) Press the + side of the RPM switch second,
- 3) Press the N switch third and
- 4) Press the + side of the RPM switch last.

Note: Press the PORT N switch on multiple outboard controls.

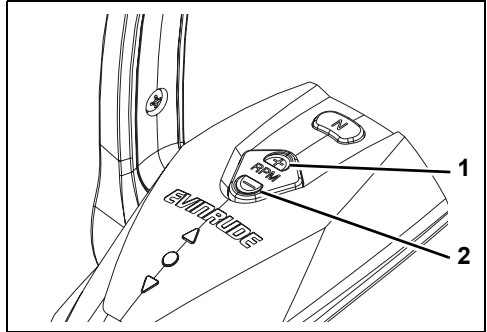
Indicator LED Brightness and Gauge Backlighting

The RPM switch also allows the operator to adjust the brightness of indicator LEDs on the control base and the backlighting of the NMEA 2000//Command gauges.

IMPORTANT: Control lever(s) MUST be in the NEUTRAL position.

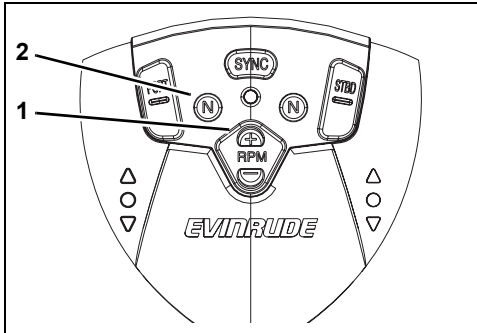
To change the brightness of indicator LEDs and gauge backlighting, press:

- the + side of the RPM switch to brighten
- the – side of the RPM switch to dim.



1. The + side of RPM switch
2. The – side of RPM switch

007947



1. The + side of RPM switch
2. Port N switch

007948

CONTROL LEVER FRICTION ADJUSTMENTS

Check control lever friction adjustments. When properly adjusted, the control lever(s) should have low friction to allow easy movement in the throttle range, and not allow vibration to change the throttle setting.

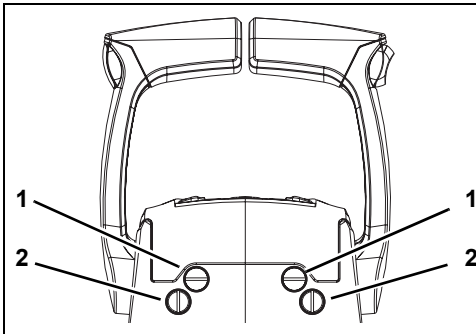
Use a flat tip screwdriver to adjust friction adjustment screws. Turn adjustment screws clockwise to increase the friction or counter-clockwise to reduce the friction.

Shift Friction

This adjustment is used to increase or reduce the force required to move the control lever to the FORWARD and REVERSE gear positions.

Throttle Friction

This adjustment is used to increase or reduce the force required to move the control lever through the throttle range.



1. Shift friction adjustment screws
2. Throttle friction adjustment screws

007946

ICON NETWORK SPECIFICATIONS AND INFORMATION

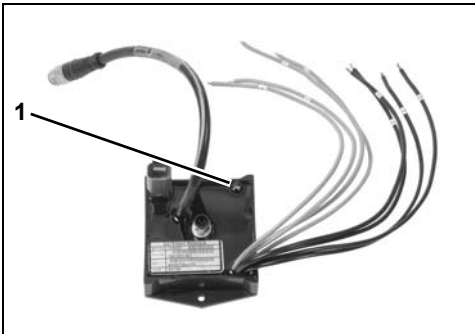
Specifications

Supply Voltage (Boat System)	9 to 18 VDC
Operating Voltage (ICON Control Network)	5 VDC
Engine Control	1, 2, 3, 4, or 5 outboards
Reverse Polarity Protection	Continuous
Fuse, Network	10 Amp, ATO Type, P/N 967545
Fuse, Master Power/Key Switch	3 Amp, ATO Type, P/N 3011730
Fuse, Electronic Servo Module	30 Amp, Minifuse Type, P/N 3011729
Fuse, Accessory Power Relay Kit	10 Amp, Minifuse Type, P/N 514766
Network Interface	Proprietary, based on NMEA 2000 standard
Operating Temperature Range	-13° to 167° F (-25° to 75° C)
Maximum Current Draw (Master Power/Key Switch turned OFF)	10 μ A

ICON Gateway Module

The *ICON* gateway module provides network data to the NMEA 2000 network and *I-Command* gauges.

The gateway module receives power from the network power cable. When the gateway is powered and receiving data from the network the LED on the gateway module turns ON.



1. LED on gateway module

007913

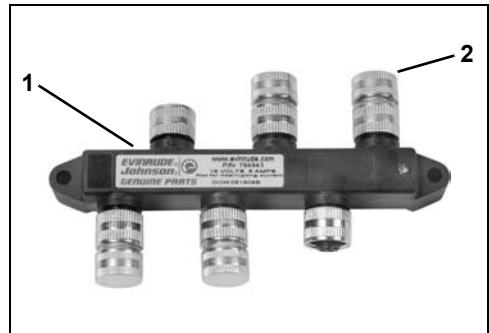
The gateway module provides fuel level monitoring for up to four fuel tanks when connected to fuel level senders.

ICON Network Hubs

ICON network hubs are used to connect buss cables to remote controls, gateway module, master power/key switch and to other devices on the network.

Two hubs **MUST** be installed in the *ICON* network. See **ICON System Diagram** on page 24.

Protective covers must be used to seal unused connections.



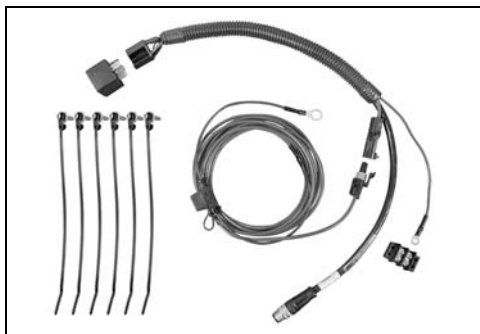
1. *ICON* network hub

2. Protective cover

007945

Accessory Power Relay Kit

Accessory Power Relay Kit, P/N 765296, must be used to power boat accessories which require switched B+. This kit is used in place of connecting accessories to the "A" terminal of the key switch.



Accessory Power Relay Kit

007940

Engine Identity Numbers

Engine identity numbers are assigned to the Electronic Servo Module (ESM) and Engine Management Module (EMM) of each outboard. Engine identity numbers allow the *ICON* network to correctly control the outboards. The table below lists typical engine identity number assignment.

Number of Outboards	Identity Numbers				
	Port	Port Center	Center	Starboard Center	Starboard
1	0				
2	0				1
3	0		1		2
4	0	1		2	3
5	0	1	2	3	4

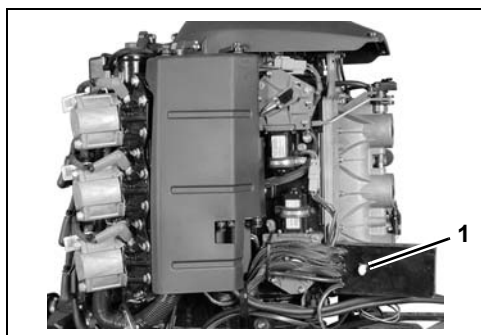
Each outboard is identified by an engine identity plug installed in its ESM.

The first time the *ICON* system is turned ON, it automatically checks engine identity numbers. During this time, the controls will not respond to operator inputs. Allow approximately 3 seconds per engine for this check to complete.

If duplicate engine identity numbers are detected, the affected outboard's NEUTRAL indicator LED will flash rapidly.

The system will enable one of the duplicates and disable the remaining duplicates. Outboards with a disabled ESM will not operate.

Check the engine identity plug number and be sure the engine identity plug is installed as outlined in the table.



1. Engine identity plug

007525

IMPORTANT: Do not exchange ESMs or *EMMs* between outboards. Severe engine damage can result from improper replacement of ESM or *EMM*.

FREQUENTLY ASKED QUESTIONS

Q: Does the *Evinrude ICON* electronic shift and throttle system require periodic calibration?

A: No. Normal use does not require periodic calibration. However, the system **MUST** be calibrated if the following services are performed:

- Replacement of throttle or shift actuator
- Replacement of Electro Servo Module (ESM)
- Replacement of Throttle Position Sensor (TPS)
- Shift linkage removal/installation
- Powerhead removal/installation
- Gearcase removal/installation

System calibration requires *Evinrude Diagnostics* software, version 4.0 or higher. See an authorized *Evinrude* dealer when this important procedure is required.

Q: How do I make a flashing NEUTRAL indicator LED stop flashing?

A: Check emergency stop lanyards are in place. Move control levers to NEUTRAL position. Reset the *ICON* system by turning the master power/key switch to the OFF position and then back to the RUN position.

Q: The Station Protect feature does not appear to be working. What can cause this?

A: This option must be turned ON in the outboards Engine Management Module (*EMM*). Your dealer must use *Evinrude Diagnostics* software (version 4.0 or higher) to turn ON this feature.

Q: SYNC is not matching engine RPM. What can cause this?

A: SYNC is capable of matching engine speed to within 75 RPM. SYNC will not match engine speed under certain conditions, see **SYNC** on page 14.

Q: While operating in SYNC, the engine speed of one outboard is much slower than the engine speed of the other outboards. What can cause this?

A: SYNC cannot match engine RPM of one engine that may be low on power. See an authorized *Evinrude* dealer to check the performance of the engine.

Q: My boat only has one fuel tank. Can the gateway module be configured to read other fluid levels, such as “Oil Level” or “Water Level”?

A: No. The gateway module only provides a fuel level monitor. It cannot be configured to read other fluid levels. See an authorized *Evinrude* dealer for accessory fluid level sensors.

NOTES

TROUBLESHOOTING

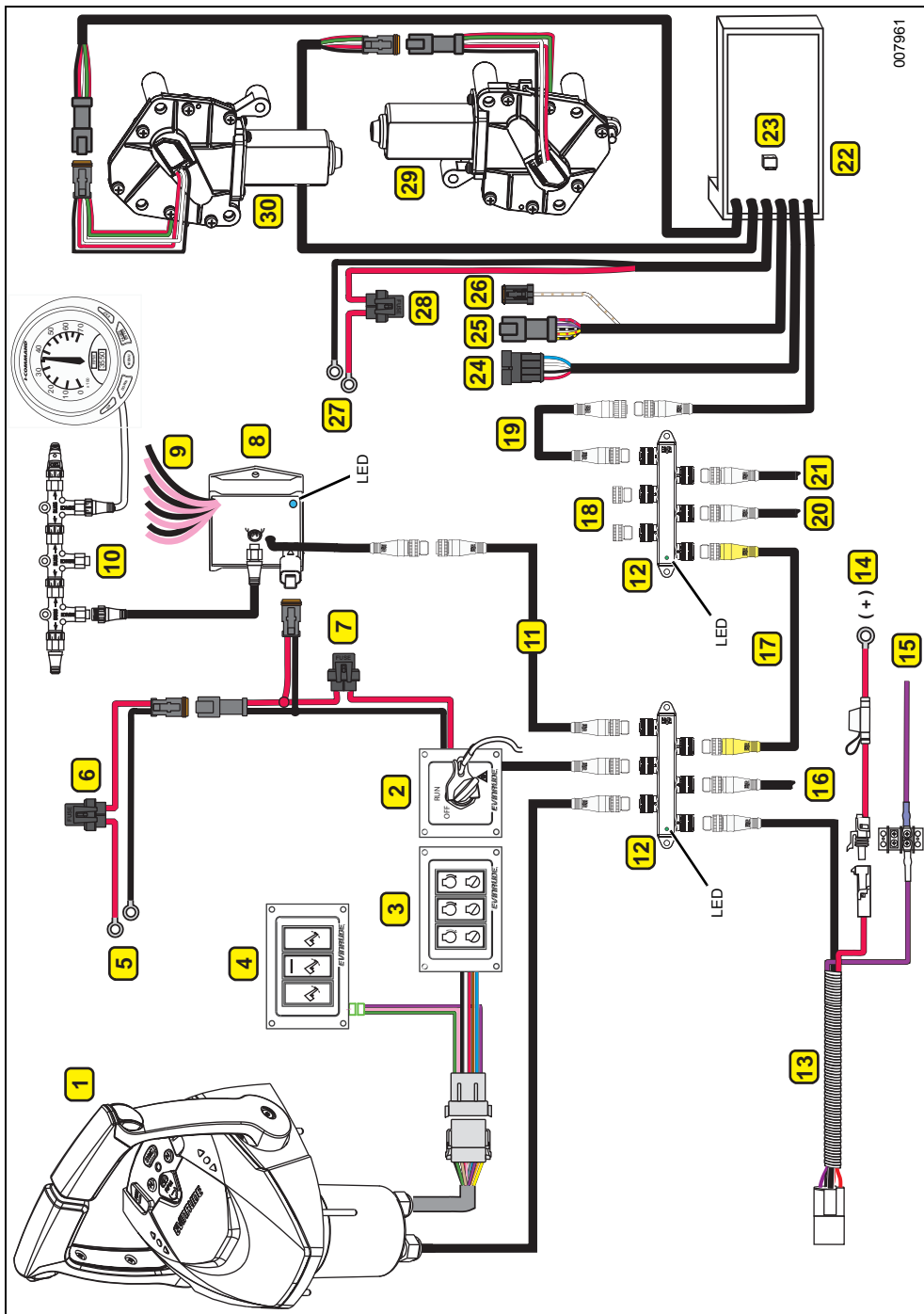
Observation	Possible Cause	Procedure
<i>ICON</i> system does not power up.	Network power cable 10 Amp fuse has failed.	Check network power cable and connections for damage or short circuit to ground.
	Master power/key switch/network 3 Amp fuse has failed.	Check master power/key switch cable, buss cable backbone, all buss cable extensions and connectors for damage or short circuit to ground.
<i>ICON</i> Fault Message displayed. Also see ICON Fault Messages on p. 23.	Communication error (fault 107) or failsafe mode (fault 108). ESM 30 Amp fuse has failed.	Check ESM power cable, actuator cables and all connectors for damage or short circuit to ground.
	Communication errors or faults (107 or 111) may be caused by low battery voltage.	Check condition of batteries, battery connections and/or battery switches. Check all network connections between control, ESM and outboard <i>EMM</i> .
Outboard(s) will not shut off with START/STOP switch.	Outboards must have <i>ICON</i> -compatible engine management software installed in the Engine Management Module (<i>EMM</i>).	If this problem has occurred after installing an <i>ICON</i> conversion kit, an authorized <i>Evinrude</i> dealer must install updated engine management software.
Outboard(s) will not trim/tilt up and/or down. Trim and tilt switch kits (3, 4 or 5 outboards only) do not operate power trim and tilt system of outboards.	Master power/key switch must be in RUN position.	Turn master power/key switch to RUN position.
	Outboards must have <i>ICON</i> -compatible engine management software installed in the Engine Management Module (<i>EMM</i>).	If this problem has occurred after installing an <i>ICON</i> conversion kit, an authorized <i>Evinrude</i> dealer must install updated engine management software.
	Possible communication fault (will NOT display on <i>I-Command</i> gauge).	Check trim/tilt operation with master trim and tilt switch or trim and tilt switches on engine(s). If trim and tilt system operates using other trim and tilt switches, check trim and tilt switch wiring and connectors for damage. See dealer.
FORWARD gear indicator LED flashes when shifting from NEUTRAL into FORWARD gear.	FORWARD shift fault. Engine must be running.	Return control lever to NEUTRAL position. Turn master power/key switch to OFF position and then back to RUN position to reset system.
REVERSE gear indicator LED flashes when shifting from NEUTRAL into REVERSE gear.	REVERSE shift fault. Engine must be running.	
When throttle is advanced, FORWARD or REVERSE indicator LED flashes.	Throttle fault.	
NMEA 2000 network/ <i>I-Command</i> gauges are OFF.	Gateway module is not on.	Check that gateway module LED is ON. Check power cable and connections from master power/key switch to gateway module.
	NMEA 2000 buss cable is not connected or is damaged.	Check NMEA 2000 buss cable connectors.
Gateway module LED flashing.	Gateway module is not receiving data from <i>ICON</i> control network.	Check network connections from gateway to <i>ICON</i> network hub and buss cable backbone.
NEUTRAL indicator LEDs for two or more outboards flashing rapidly. One or more outboards will not operate.	Incorrect engine identity plug(s) installed in ESM.	If this problem has occurred after installing an <i>ICON</i> conversion kit, or after replacing an ESM, check engine identity plugs. See Engine Identity Numbers on page 19.

ICON FAULT MESSAGES

Fault Message Displayed on I-Command Gauge	Procedure
RPM reduction, <i>ICON</i> fault 107, see dealer.	Communication Error Turn master power/key switch OFF and back to RUN position to reset system. Seek assistance to return to harbor. See dealer.
RPM reduction, <i>ICON</i> fault 108, see dealer.	ICON System Failsafe Mode Seek assistance to return to harbor. See dealer.
RPM reduction, <i>ICON</i> fault 109, see user guide.	Control Hardware Fault <ul style="list-style-type: none"> • Single outboard: <i>ICON</i> Shutdown - <i>ICON</i> system shifts into NEUTRAL idle if able. Seek assistance to return to harbor. See dealer. • Multiple outboards: Full operation remains active for all outboards by activating SYNC. In the event of a port lever sensor failure, the starboard control lever will become the “master” control lever. Use starboard control lever for all outboards. Return to harbor. See dealer.
RPM reduction, <i>ICON</i> fault 111, see dealer.	ESM Communication Fault <i>ICON</i> Shutdown - <i>ICON</i> system shifts into NEUTRAL idle if able. In multiple outboard installations, RPM reduction is applied to the failed outboard. Normal shift and throttle control remains active on other outboards. Move control levers to NEUTRAL position and then resume operation with other outboards (use SYNC to operate 3, 4, or 5 engines). Return to harbor. See dealer.
RPM reduction, <i>ICON</i> fault 112, see dealer.	ESM Fault <i>ICON</i> Shutdown - <i>ICON</i> system shifts into NEUTRAL idle if able. In multiple outboard installations, RPM reduction is applied to the failed outboard. Normal shift and throttle control remains active on other outboards. Move control levers to NEUTRAL position and then resume operation with other outboards (use SYNC to operate 3, 4, or 5 engines). Return to harbor. See dealer.
RPM reduction, <i>ICON</i> fault 149, see dealer.	Throttle Actuator Sensor Fault <i>ICON</i> Shutdown - <i>ICON</i> system shifts into NEUTRAL idle if able. In multiple outboard installations, RPM reduction is applied to the failed outboard. Normal shift and throttle control remains active on other outboards. Move control levers to NEUTRAL position and then resume operation with other outboards (use SYNC to operate 3, 4, or 5 engines). Return to harbor. See dealer.
RPM reduction, <i>ICON</i> fault 150, see user guide.	Throttle Actuator Motion Fault RPM reduction (See outboard's operator's guide for S.A.F.E.) if throttle is unable to move to closed position. Move control levers to NEUTRAL position. Stop outboard(s). Turn master power/key switch OFF and then back to RUN position to reset system. Check throttle linkage for obstructions to. Return to harbor. See dealer.
RPM reduction, <i>ICON</i> fault 151, see dealer.	Shift Actuator Sensor Fault <i>ICON</i> Shutdown - <i>ICON</i> system shifts into NEUTRAL idle if able. In multiple outboard installations, RPM reduction is applied to the failed outboard. Normal shift and throttle control remains active on other outboards. Move control levers to NEUTRAL position and then resume operation with other outboards (use SYNC to operate 3, 4, or 5 engines). Return to harbor. See dealer.
<i>ICON</i> fault 152, see user guide.	Shift Actuator Motion Fault Shift is unable to move to FORWARD or REVERSE gear position. <ul style="list-style-type: none"> • Outboard NOT running: DO NOT shift the engines into FORWARD or REVERSE while the engines are stopped. Shift ONLY when engines are running. Turn master power/key switch OFF and then back to RUN position to reset system. • Outboard running: Move control levers to NEUTRAL position. Stop outboard(s). Turn master power/key switch OFF and then back to RUN position to reset system. Check shift linkage for obstructions. If fault not corrected, return to harbor. See dealer.

ICON SYSTEM DIAGRAM

Item	Description	Item	Description
1	/CON Remote Control Assembly	16	To Second Control Station (Optional)
2	Master Power/Key Switch	17	Buss Cable, Backbone
3	Start/Stop Switch Panel	18	Protective Covers
4	Trim and Tilt Switch Panel (3, 4 or 5 engines only)	19	To Engine 1
5	Network Power Cable, to Main Battery (12 V)	20	To Engine 2
6	Fuse, Main Network - 10 Amp	21	To Engine 3
7	Fuse, Master Power/Key Switch - 3 Amp	22	Electronic Servo Module (ESM)
8	/CON Gateway Module	23	Engine Identity Plug
9	To Fuel Tank Sender(s)	24	To Engine CANbus Connector
10	NMEA 2000 Network/Gauges	25	To Engine Key Switch Connector
11	Buss Cable, Extension	26	To Engine Trim/Tilt Connector
12	/CON Network Hub	27	To Engine Solenoid
13	Accessory Power Relay Kit	28	Fuse, ESM - 30 Amp
14	To Positive (+) 12 Volt Source	29	Shift Actuator
15	To Accessories	30	Throttle Actuator



PRODUCT WARRANTY

BRP US Inc.* ("BRP") warrants its *Evinrude®/Johnson®* Genuine Parts and accessories ("Product") sold by authorized *Evinrude* or *Johnson* dealers in the fifty United States and Canada from defects in material or workmanship for the period and under the conditions described below. This limited warranty does not apply to Products not bearing the *Evinrude* or *Johnson* trademarks that are made by other manufacturers. This limited warranty extends to the original retail purchaser only ("Purchaser") and is not transferable to any subsequent owner. This warranty is available only on Products purchased as new and unused from a dealer authorized to distribute the Products in the country in which the sale occurred ("Dealer").

Aluminum propellers, plastic propellers, stainless steel propellers, *Snap-In™* control cables and *DuraTank™* fuel tanks are warranted for THIRTY SIX (36) CONSECUTIVE MONTHS from the date of purchase as of July 1, 2006.

ICON™ engine control systems and components are warranted for THIRTY SIX (36) CONSECUTIVE MONTHS from the date of purchase for recreational use or TWELVE (12) CONSECUTIVE MONTHS for commercial use.

Powerhead assemblies are warranted for a period of SIX (6) CONSECUTIVE MONTHS from the date of purchase. All other Products are warranted for a period of TWELVE (12) CONSECUTIVE MONTHS from the date of purchase.

The following are not warranted under any circumstances: (a) normal wear and tear; (b) routine maintenance items including, but not limited to, adjustments, oil changes, water pumps, carburetor maintenance, spark plug replacements, etc.; (c) cosmetic damage or paint changes due to exposure to the elements; or (d) damage caused by: improper or lack of installation, maintenance, winterization and/or storage; failure to follow the procedures and recommendations in the Operator's Guide; removal of parts, improper repairs, service, maintenance, or modification; use of parts or accessories not manufactured or approved by BRP that are either incompatible with Product or adversely affect its operation, performance, or durability; repairs done by anyone, including Purchaser, other than an authorized Dealer; abuse, misuse, abnormal use, neglect, racing, improper operation or operation of Product in a manner inconsistent with the Operator's Guide; external damage, accident, submersion, water ingestion, fire, theft, vandalism or act of God; operation with fuels, oils or lubricants not suitable for use with Product (see Operator's Guide); rust or corrosion; or cooling system blockage by foreign material.

This warranty will be voided in its entirety and rendered null and void: (a) where Product has been altered or modified in such a way so as to adversely affect its operation, performance or durability, or has been altered or modified to change its intended use; or (b) where Product is or has been used for racing or any other competitive activity, at any point.

ALL WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE LIMITED IN DURATION TO THE LIFE OF THIS EXPRESS LIMITED WARRANTY. ALL INCIDENTAL, CONSEQUENTIAL, DIRECT, INDIRECT OR OTHER DAMAGES OF ANY KIND ARE EXCLUDED FROM COVERAGE UNDER THIS WARRANTY INCLUDING, BUT NOT LIMITED TO: expense for gasoline, expense for transporting Product to and from Dealer, removal of Product from a boat and reinstallation, mechanic's travel time, in-and-out of water charges, slip or dock fees, trailering or towing, storage, telephone, cell phone, fax or telegram charges, rental of a like or replacement Product or boat during warranty services or down time, taxi, travel, lodging, loss of or damage to personal property, inconvenience, cost of insurance coverage, loan payments, loss of time, income, revenue, profits, enjoyment or use of Product.

SOME JURISDICTIONS DO NOT ALLOW FOR THE DISCLAIMERS, LIMITATIONS OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, OR OTHER EXCLUSIONS IDENTIFIED ABOVE. AS A RESULT, THEY MAY NOT APPLY TO YOU. THIS WARRANTY GIVES YOU SPECIFIC RIGHTS, AND YOU MAY ALSO HAVE OTHER LEGAL RIGHTS THAT MAY VARY FROM JURISDICTION TO JURISDICTION.

Purchaser must bring the Product, including any defective part therein, and proof of purchase of the Product (original bill of sale) to Dealer promptly after the appearance of the defect and, in any event, within the warranty period. Purchaser must sign the repair/work order prior to repair to validate warranty coverage and must provide BRP/Dealer with a reasonable opportunity to repair/replace the defective part. All replaced parts become the property of BRP.

BRP's obligations under this warranty are limited to, at its sole discretion, repairing or replacing parts of Product found to be defective in material or workmanship, in BRP's reasonable judgment. Repair or replacement of parts will be without charge for parts and labor, at any authorized Dealer. No claim of breach of warranty shall be cause for cancellation or rescission of the sale of Product to Purchaser. BRP reserves the right to improve, modify or change Products without assuming any obligation to modify Products previously manufactured. If warranty service is required outside of the fifty United States or Canada, Purchaser will bear responsibility for any additional charges due to local practices and conditions including, but not limited to, freight, insurance, taxes, license fees, import duties, and any financial charges levied by governments, states, territories and agencies.

No distributor, Dealer or any other person is authorized to make any affirmation, representation or warranty regarding Product other than those contained in this limited warranty and, if made, shall not be enforceable against BRP. BRP reserves the right to modify this warranty at any time, being understood that such modification will not alter the warranty conditions applicable to the Products sold while this warranty is in effect. For assistance, please contact BRP US Inc. Consumer Support, P.O. Box 597, 10101 Science Drive, Sturtevant, WI 53177, 1-847-689-7090 or visit www.brp.com.

The Limited Warranty applies only to Products purchased as new and unused from a distributor or dealer authorized to distribute Products in the country in which the sale occurred.

Products purchased for commercial use, or used commercially at any time during the warranty period, are warranted for TWELVE (12) CONSECUTIVE MONTHS from the date of purchase. Product is used commercially when it is used in connection with any work or employment that generates income, during any part of the warranty period. Product is also used commercially when, at any point during the warranty period, it is installed on a boat that has commercial tags or is licensed for commercial use.

If warranty service is required outside of the country of original sale, Purchaser bears responsibility for any and all charges due to local practices and conditions that exceed or are in addition to customary charges in the country of sale, such as, but not limited to, freight, insurance, taxes, license fees, import duties, and any financial charges levied by governments, states, territories and agencies.

For assistance, please contact BRP US Inc. Consumer Support, P.O. Box 597, 10101 Science Drive, Sturtevant, WI 53177, 1-847-689-7090, or the affiliate of BRP Inc. where the Product was sold to the retail Purchaser.

No other change to the Limited Warranty shall be made or implied.

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Effective as of July 1, 2009.

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