



MERCURY®

Electronic Remote Control

OPERATION
MANUAL



Generation II

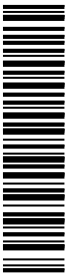


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Section 1 - DTS Controls and Features

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Electronic Remote Control (ERC)

Electric steering requires a Digital Throttle and Shift (DTS) electronic remote control (ERC). Because it is electronic, an ERC is capable of several features beyond the basic remote control functions of throttle and shift.

There are several DTS ERCs that can be used with electric steering, depending on the number of engines and the desired features. The following images show the current Mercury ERCs that will function with electric steering.



Panel mount ERC - ES



Single-engine console ERC - ES



Dual-engine console ERC - no trim



Dual-engine console ERC - with trim



Dual-engine console ERC - premier



Triple-engine console ERC - standard



Triple-engine console ERC - premier



Quad-engine console ERC - standard



Quad-engine console ERC - premier



Five or six-engine console ERC

The basic styles of ERC are panel mount (single-engine only), single-handle console (single-engine only), and dual-handle console (two or more engines).

Panel Mount ERC

Panel mount ERCs control a single engine. There are several variations, but only one of these can be used with electric steering (ES).



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Ref	Control/LED	Function
a	Neutral (N) LED	Illuminates when the engine is in the neutral gear position. The light flashes when the engine is in throttle-only mode.
b	Brightness (+ and –)	Increases and decreases the brightness settings for the lights on the ERC and Mercury helm components.
c	THROTTLE ONLY	Allows the boat operator to increase engine RPM without shifting into gear. Refer to Throttle-Only Mode .
d	QUICK STEER (if equipped)	Decreases the number of steering helm turns, lock-to-lock, for quicker response during docking. This feature also limits engine speed. Refer to Quick Steer .
e	ACTIVE TRIM (if equipped)	The ACTIVE TRIM button turns the Active Trim feature ON or OFF . Refer to Active Trim .
	Profile ▲ and ▼	Changes the selected Active Trim profile.
	Active Trim LEDs (1, 2, 3, 4, 5)	Indicates the currently selected Active Trim profile. NOTE: If the LED indicators are flashing, Active Trim is in setup mode.
f	Lanyard stop switch (emergency stop)	In conjunction with the lanyard cord, shuts off the engine when the operator moves away from the ERC.
g	START/STOP ENGINE	Starts or stops the engine.
h	UP ▲ and DN ▼ —trim control	Raises and lowers the engine/drive for best efficiency, or for conditions such as shallow water or trailering. Some boats are equipped with separately-mounted trim controls.
i	Mechanical lock bar	Pressing the mechanical lock bar allows the engine to shift. The mechanical lock bar must always be pressed when moving the control handle out of the neutral position.

Single-Handle Console ERC

Single-handle console ERCs control a single engine. There are several variations, but only one of these can be used with electric steering (ES).



Ref	Control/LED	Function
a	Neutral (N) LED	Illuminates when the engine is in the neutral gear position. The light flashes when the engine is in throttle-only mode.
b	Brightness (+ and –)	Increases and decreases the brightness settings for the lights on the ERC and Mercury helm components.
c	TRANSFER	Allows boat control to be transferred to a different helm. (The LED will be ON at the active helm.) Refer to Helm Transfer .
d	THROTTLE ONLY	Allows the boat operator to increase engine RPM without shifting into gear. Refer to Throttle-Only Mode .
e	QUICK STEER (if equipped)	Decreases the number of steering helm turns, lock-to-lock, for quicker response during docking. This feature also limits engine speed. Refer to Quick Steer .
f	ACTIVE TRIM (if equipped)	The ACTIVE TRIM button turns the Active Trim feature ON or OFF . Refer to Active Trim .
	Profile ▲ and ▼	Changes the selected Active Trim profile.
	Active Trim LEDs (1, 2, 3, 4, 5)	Indicates the currently selected Active Trim profile. NOTE: If the LED indicators are flashing, Active Trim is in setup mode.
g	START/STOP ENGINE	Starts or stops the engine.
h	UP ▲ and DN ▼ —trim control	Raises and lowers the engine/drive for best efficiency, or for conditions such as shallow water or trailering. Some boats are equipped with separately-mounted trim controls.
i	Mechanical lock bar	Pressing the mechanical lock bar allows the engine to shift. The mechanical lock bar must always be pressed when moving the control handle out of the neutral position.

Dual-Handle Console ERC

Dual-handle console ERCs control two, three, four, five, or six-engines. Dual-engine ERCs are available with or without integral trim switches.

Section 1 - DTS Controls and Features

Premier ERCs have an integral, supplemental display, and are available for dual, triple, or quad-engine configurations. Refer to **ERC Supplemental Display** for details.

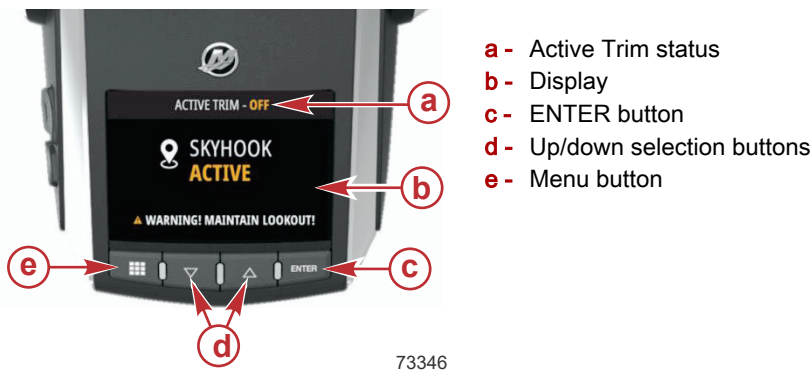


Dual-handle, quad-engine premier ERC shown, others similar

Ref	Control/LED	Function
a	Neutral (N) LEDs (one on each handle)	Illuminate when the engine is in the neutral gear position. The lights flash when the engine is in throttle-only mode.
b	Brightness (+ and -)	Increases and decreases the brightness settings for the lights and display (if equipped) on the ERC and Mercury helm components.
c	1 LEVER	Enables the throttle and shift functions of all engines to be controlled by the port lever. Refer to Single-Lever Mode .
d	TRANSFER	Allows boat control to be transferred to a different helm. (The LED will be ON at the active helm.) Refer to Helm Transfer .
e	THROTTLE ONLY	Allows the boat operator to increase engine RPM without shifting into gear. Refer to Throttle-Only Mode .
f	ACTIVE TRIM (if equipped)	The ACTIVE TRIM button turns the Active Trim feature ON or OFF . Refer to Active Trim .
	Profile ▲ and ▼	Changes the selected Active Trim profile.
	Active Trim LEDs (1, 2, 3, 4, 5)	Indicates the currently selected Active Trim profile. NOTE: If the LED indicators are flashing, Active Trim is in setup mode.
g	START/STOP individual engines	Press to start or stop the indicated engine, as equipped: P (port), PC (port center), C (center), SC (starboard center), S (starboard)
h	Display and display buttons (premier ERCs only)	Refer to ERC Supplemental Display for details.
i	START/STOP - ALL ENGINES	Starts or stops all engines. If some, but not all engines are running, pressing this button will stop all running engines. Refer to Start/Stop All Engines .
j	UP ▲ and DN ▼ —trim control (if equipped)	Raises and lowers the engines/drives for best efficiency, or for conditions such as shallow water or trailering. NOTE: Trim switches for the individual engines are located on the front (bow side) of the ERC. Some boats are equipped with separately-mounted trim controls.

ERC Supplemental Display

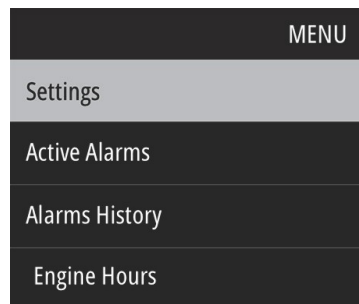
The ERC supplemental display will show the faults and the status of various features. Warnings for advanced features, such as Skyhook and Active Trim, will appear on the ERC supplemental display. Visit mercurymarine.com for additional details.



Supplemental Display Menu Selection

IMPORTANT: All of the ERCs are factory set to English language by default and programed for either a dual, triple, or quad-engine, single-helm application. Multiple-helm vessels, the ERC helm locations must be programed for that helm location (2, 3, 4) by the dealer.

The display menu selection is the start location for programing the ERC for the type of vessel configuration: dual-helm, triple-engines, for example. There are four initial menu selections; **Settings**, **Active Alarms**, **Alarms History**, and **Engine Hours**. Each menu selection accesses specific information such as number of engines, language, software version, for example.

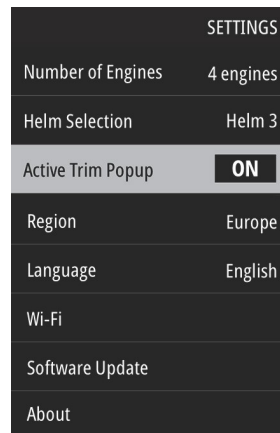


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Supplemental display menu

Settings

The **Settings** menu selection is where the ERC display information portfolio is modified, such as the number of engines, the preferred language to be displayed on the display, and more. Select **MENU>Settings**. Use the up and down selection buttons to move to the specific setting you want to modify and press **ENTER** to access the selection.

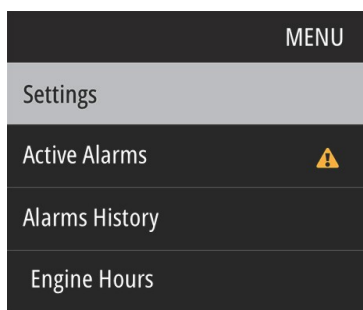


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1. **Number of Engines:** The number of engines must be selected for important information to be displayed such as gear position or faults that will pop up on the display. ERCs can be purchased already programed with the number of engines on the vessel. For multiple helm vessels; each ERC display configuration must have the same number of engines selected at each helm station.
2. **Helm Selection:** The helm number must be different at each helm location. This is important so that each helm has a different address identifying the ERC and its location.
3. **Active Trim Popup:** Turn this feature on if you want to be notified if there is a change to the trim position.
4. **Region:** There are five regions available - Americas, Europe, Asia, Africa, and Oceania. Select the region where the boat will be operated.
5. **Language:** There are 23 languages available. The selected language will show the primary language spelling and the local native language spelling.
6. **Wi-Fi:** The ERC is its' own wireless network and the purpose of the network is to update the ERC display through Wi-Fi. The Wi-Fi area is where you will find the network name and password to access the ERC network. You must be familiar with the Wi-Fi address to enter the network password. You can also regenerate a password if necessary. Refer to **Updating Through Wi-Fi**.
7. **Software Update:** Software Update is where you go if you are updating the display through a USB flash drive. Selecting software update will display the files present on the USB flash drive. Select the update file and the update will begin. Refer to **Updating Through USB Drive**.
8. **About:** Listed here will be the product name and the software version currently being used. Refer to **About**.

Active Alarms

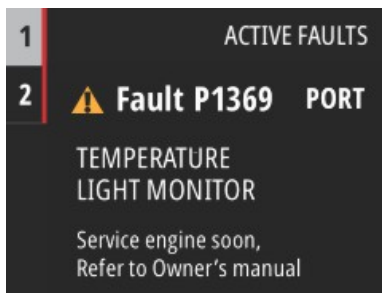
Active Alarms only shows alarms which are currently active. When an alarm is active, the hazard symbol will be displayed in the menu list. A hazard symbol icon will also be displayed on all activities such as Helm Transfer, Cruise, and Active Trim.



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Use the selection buttons to highlight the alarm you want to review and press **ENTER**. The fault number and location will be listed along with short text description of the fault. Press **ENTER** to see more text information about the alarm. Press **Enter** to exit the alarm.

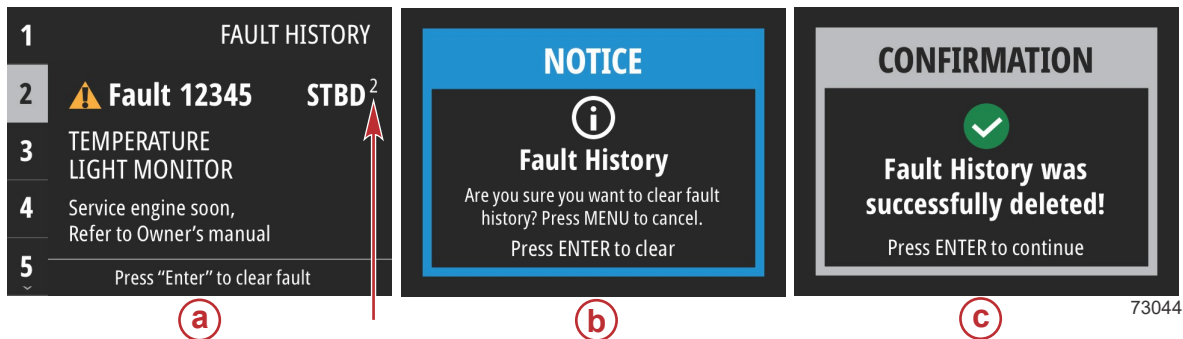
NOTE: Some faults can be reset by cycling the key **OFF** and then **ON**.



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Alarms History

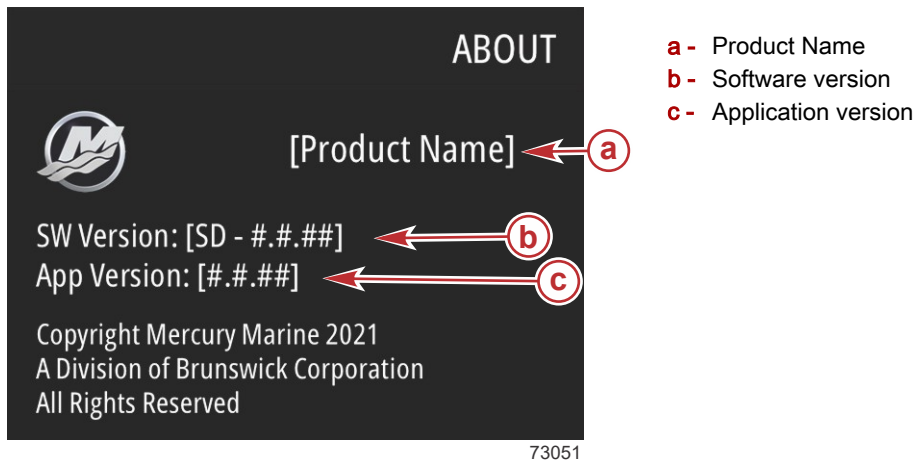
Alarm History will show all alarms that have occurred on the vessel. If the fault has occurred multiple times, a number will be shown in the upper right-hand corner of the display. The history of a specific alarm can be cleared by selecting the alarm and pressing **ENTER** to begin the sequence to clear the fault. A **NOTICE** will be displayed asking if you want to clear the fault: press **MENU** to cancel or **ENTER** to clear the fault. After clearing the fault, a confirmation will be displayed. Press **ENTER** to continue to the next fault.



- a - Fault history with incident number
- b - Press **MENU** to cancel or **ENTER** to clear the fault
- c - Confirmation

About

About is your ready source for the product name, software version, and application version.



- a - Product Name
- b - Software version
- c - Application version

Electronic Remote Control (ERC) Operation

Operation of the shift and throttle is controlled by the movement of the control handle. Push the control handle forward from neutral to the first detent for forward gear. Continue pushing forward to increase speed. Pull the control handle from the forward position to the neutral position to decrease speed and eventually stop. Pull the control handle back from neutral to the first detent for reverse gear. Continue pulling back to increase speed in reverse.

NOTE: On panel mount and single-handle console ERCs, press the mechanical lock bar when moving the control handle out of the neutral position.



ERC Handle Friction and Detent Adjustment

The control handle friction adjustment screw can be used to increase or decrease the tension on the control handle. This will help prevent unwanted motion of the handle in rough water.

The detent adjustment screw can be used to increase or decrease the effort it takes to move the control handle out of the detent position.

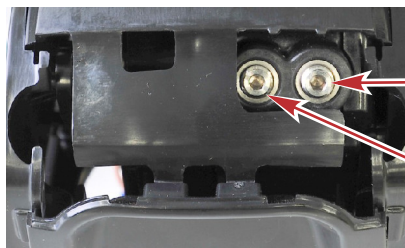
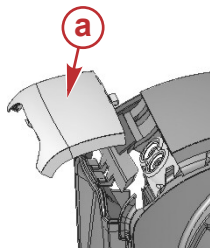
NOTE: The control handle friction and detent adjustment screws may require periodic maintenance adjustment.

Remove the access cover from the front of the ERC to expose the adjustment screws. Using a hex wrench turn the desired screw clockwise to increase tension, or counterclockwise to decrease tension. Install the access cover after the desired tension is achieved.



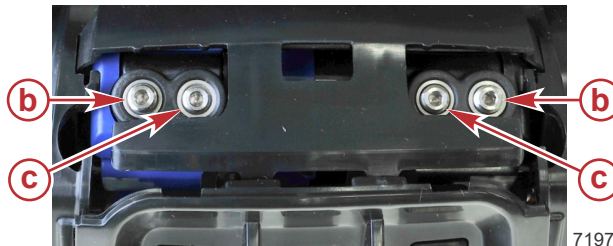
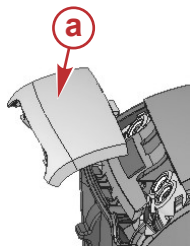
Panel mount ERC (ERC shown not installed, access cover removed)

- a - Handle friction adjustment screw
- b - Detent adjustment screw



Single-handle console ERC

- a - Access cover
- b - Detent adjustment screw
- c - Handle friction adjustment screw



Dual-handle console ERC

- a - Access cover
- b - Detent adjustment screws
- c - Handle friction adjustment screws

Active Trim

Introduction to Active Trim

Active Trim is Mercury Marine's patented GPS-based automatic trim system. This intuitive, hands-free system continually adjusts engine or drive trim for changes in operating conditions to improve performance, fuel economy, and ease of operation. It responds to boat maneuvers with precision and delivers a better overall driving experience. No knowledge of trimming an engine or drive is needed to take advantage of Active Trim.

- As the boat accelerates, the engine or drive will trim out.
- As the boat decelerates, for example, while making a turn, the engine or drive will trim in.
- Active Trim can be overridden at anytime by using the regular, manual trim buttons.
- Active Trim allows the boat operator to compensate for changes in boat load, driver preferences, and weather conditions while maintaining full automatic control.

Modes of Operation

The Active Trim system has four modes of operation:

**1. Idle speeds**

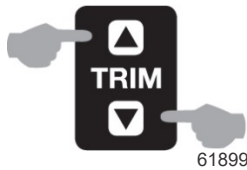
Maintains the existing trim position.

**2. Acceleration (hole shot)**

Tucks the engine or drive under to minimize bow rise and improve time-to-plane.

**3. Planing speeds**

Progressively trims the engine or drive based on GPS speed to maintain the most efficient running attitude.

**4. Override**

When the boat operator uses manual trim, the Active Trim system is immediately overridden, returning full control to the operator.

Setup and Configuration

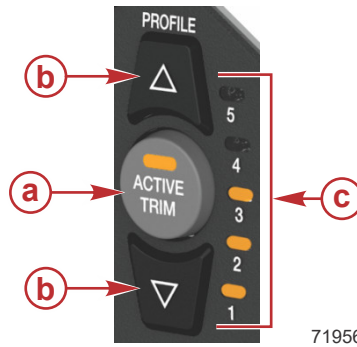
Refer to your authorized Mercury dealer for setup and configuration instructions.

Active Trim ERC Controls

IMPORTANT: Authorized Mercury dealers have the ability to disable the Active Trim feature. In this case, the Active Trim buttons and lights on the ERC will not function.

Section 1 - DTS Controls and Features

Use the buttons and lights on the ERC to control the Active Trim feature.



Active Trim controls on the ERC

Ref	Control/LED	Function
a	ACTIVE TRIM button	Turns the Active Trim feature ON or OFF .
	System status light	Provides Active Trim status information: <ul style="list-style-type: none">A constant amber light indicates that the system is working normally.A flashing amber light indicates that the Active Trim system is not controlling trim (user override). Press the ACTIVE TRIM button to resume Active Trim control.A flashing red light indicates a problem with the system. Refer to Active Trim Red Status Light.
b	PROFILE select buttons (▲ and ▼)	Up (▲) - Changes the adjustable trim profile to a more aggressive trim curve (more trim angle).
		Down (▼) - Changes the adjustable trim profile to a less aggressive trim curve (less trim angle).
c	Selected profile indicator LEDs (1, 2, 3, 4, 5)	Indicates the adjustable profile currently engaged. 1 is the least aggressive trim profile; 5 is the most aggressive. NOTE: If the LED indicators are flashing, Active Trim is in setup mode.

Active Trim Operation

- Active Trim automatically controls trim to maintain the optimum engine or drive position based on engine RPM and boat speed.
- Active Trim progressively trims out the engine or drive to maintain an efficient running attitude.
- Active Trim will maintain the last known trim position when operating at speeds in excess of 80 km/h (50 mph).
- Operation above 80 km/h (50 mph) may require trim adjustments using the panel mounted or control handle trim position switch.
- Active Trim will gradually return the engine or drive to the down position during deceleration.
- Active Trim will only function when the engine or drive is in the normal trim range.

GPS

Active Trim uses a GPS signal to determine vessel speed. The Active Trim system will not automatically control trim until the GPS unit has acquired a signal.

Resume Functionality

If the boat operator overrides the Active Trim system at planing speeds using the trim button, or exceeds 80 km/h (50 mph), the system will stop controlling the trim. Active Trim will resume automatically under the following conditions:

- Override occurred above 80 km/h (50 mph) and the boat operator then decelerates to below 80 km/h (50 mph).
- Override occurred above 80% of the rated engine RPM and the boat operator then decelerates to below 80% of the rated engine RPM.
- Override occurred in the cruising speed range and then the boat operator decelerates to idle. Active Trim will become active on the next acceleration.

Shallow Water Operation

Active Trim cannot detect water depth and will not trim up automatically in shallow water. The boat operator will need to override Active Trim by trimming the engine or drive manually or pressing the **Active Trim** button.

Trailer Position

Placing the engine or drive in trailer position—over 50% of the adapted trim range, will prevent Active Trim from engaging. Any time the engine or drive is trimmed above its normal range—to navigate shallow water, launch the boat from a trailer, or load the boat onto a trailer, for example—you must manually trim down before Active Trim will function. This safety feature is meant to prevent the engine or drive from automatically trimming down and hitting something.

Selecting the Correct Profile

With so many available trim profiles, it can be difficult to determine which profile is the correct one. In making this determination, it is important to understand what trim is, how it affects boat operation, and how boat loading can influence the required trim angle. Armed with a clear understanding of these concepts, selecting the correct trim profile becomes simple.

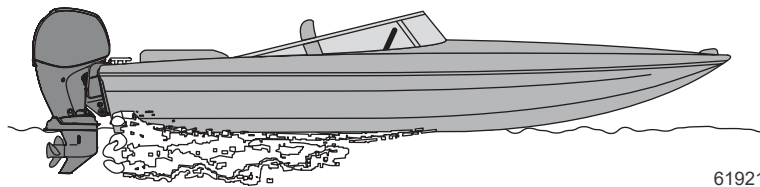
What Trim Is

The trim angle of an outboard or sterndrive is the angle between the boat bottom and the propeller shaft formed by moving the engine or sterndrive closer to the boat transom. This movement is called trimming in or down. Moving the engine or sterndrive further away from the transom is called trimming out or up. When a boat is cruising on plane and the trim is adjusted so that the propeller shaft is parallel to the surface of the water, that is said to be running at zero trim.

The term "trim" is generally used when referring to adjusting the outboard or sterndrive within the first 20° range of travel. This is the range used while operating your boat on plane. The term "tilt" is generally used when referring to adjusting the outboard or sterndrive further up or out of the water.

How Trim Affects Boat Operation

The trim angle of the outboard or sterndrive has a distinct effect on the planing angle of the boat, which in turn significantly alters the top speed and handling. The engine or drive should be trimmed in for best start-up acceleration and shortest time to plane. The engine or drive would then be trimmed out for peak performance. Active Trim automatically handles this transition for you.



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Engine or drive properly trimmed

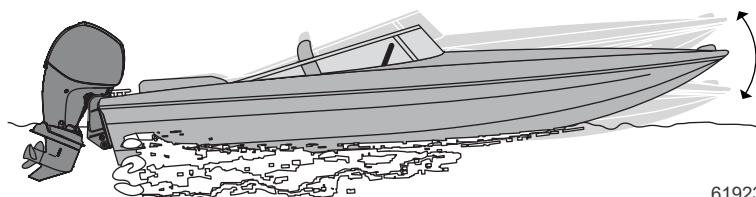
If the engine or drive is trimmed in too far, the bow drops and the boat runs too wet. In this condition, top speed drops, fuel economy decreases, the boat may oversteer in one direction or the other (bow steering), and steering torque will increase (to the right with a right-hand rotation propeller). Occasionally, extreme trim down can cause a boat to list to the left (with a right-hand propeller).



61922

Engine or drive trimmed in (bow too low)

If the engine or drive is trimmed out too far, the propeller may lose its hold on the water, fast V-bottom boats may start to walk from side to side (chine walking), steering torque will increase in the opposite direction to that when trimmed in, and getting on plane may be difficult or labored. Porpoising of the boat may also occur.



61923

Engine or drive trimmed out (bow too high); porpoising

Boat Loading and Trim

Under normal loading and operating conditions while on plane, the boat bottom is roughly parallel to the surface of the water. Changing the loading of the boat will not change the trim angle as previously defined, but it will change the running attitude of the boat with respect to the surface of the water. Adding weight toward the stern of the boat will cause the bow to rise. Similarly, adding weight toward the bow of the boat will cause the bow to lower.

Changing the trim angle can compensate for a change in the running attitude of the boat. Increasing the trim angle will raise the bow of the boat, compensating for bow heavy loading. Decreasing the trim angle will lower the bow of the boat, compensating for stern heavy loading.

Choosing an Active Trim Profile

If Active Trim is configured properly, the normal setting for running on plane will be profile 2, 3, or 4. This allows the operator the flexibility to change the trim angle to compensate for variations in boat loading or other operating conditions. Selecting a higher number profile will raise the bow and selecting a lower number profile will lower the bow.

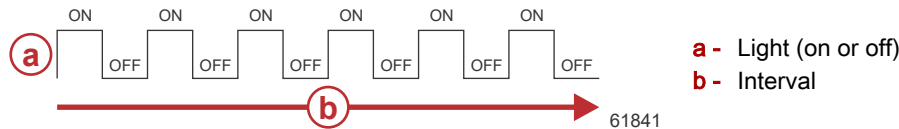
Use the preceding descriptions of trim in and trim out to help determine whether or not your boat is trimmed properly (refer to **How Trim Affects Boat Operation**). In general, this means you can increase the trim profile until the bow begins to porpoise (rise and fall), and then back off one level.

Active Trim Red Status Light



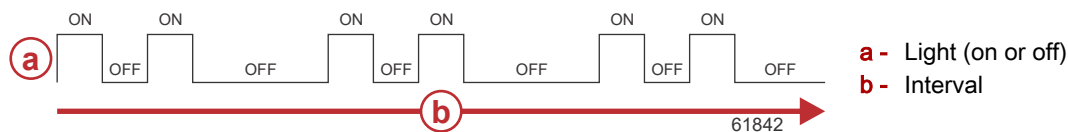
A flashing red light can indicate different things, depending on if it is a single or a double flash sequence.

Single Flashing Red



Fault Condition	Description	Notes
GPS signal intermittent	GPS signal has achieved fix, but is dropping out intermittently.	Indicates loss of GPS signal.
GPS signal unavailable	GPS has not achieved fix since key ON .	Indicates obstructed GPS antenna or weak signal.

Double Flashing Red



Fault Condition	Description	Notes
Trim up or trim down not achieved	The engine did not achieve its trim setpoint while attempting to trim up or down.	Indicates a problem with hydraulic pump operation, fuse, connection, trim sensor, or trim down circuit.

Engine Synchronization (Multiple Engines)

Digital Throttle and Shift (DTS) engines have an automatic engine synchronization feature that engages automatically at key-up. Sync mode monitors the position of both ERC levers. If both levers are within 10% of one another, all engines synchronize to the starboard engine's RPM. The SmartCraft system will automatically disengage sync at the last 10% of the lever range to allow each engine the ability to reach the maximum available RPM. Sync mode cannot engage until its minimum RPM is met.

Helm Transfer

Some boats are designed to allow control of the vessel from more than one location. These locations are commonly referred to as helms or stations. Helm transfer is a term used to describe the method of transferring control from one helm (or station) to another helm.

⚠ WARNING

Avoid serious injury or death from loss of boat control. The boat operator should never leave the active station while engine is in gear. Helm transfer should only be attempted while both stations are manned. One-person helm transfer should only be performed while engine is in neutral.

The helm transfer function allows the boat operator to select which helm is in control of the vessel. Before a transfer can be initiated, the ERC levers at the active helm and at the helm intended for the transfer must be in the neutral position.

NOTE: *If you attempt to transfer helm control when the ERC levers are not in neutral, a beep will sound and the helm transfer will not succeed until the levers at the helms are moved to neutral and the transfer is requested again.*

Some fault codes may appear on the Mercury-approved multifunction display if other control or navigation functions are attempted after the helm transfer procedure is started. To remove the fault codes it may be necessary to cycle the key switch **OFF** and **ON**, and then restart the helm transfer procedure. Ensure that other control and navigation inputs are performed after the helm transfer is complete to avoid setting fault codes.

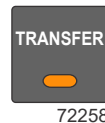
NOTICE

The ERC levers must be in neutral to perform a helm transfer. While in neutral your vessel could drift and collide with objects nearby resulting in damage. Keep an adequate look out while performing the helm transfer.

To avoid damage, use extra care when attempting a helm transfer while the vessel is close to docks, piers, or other fixed items or when near other vessels.

Transfer Light and Single-Helm Boats

IMPORTANT: On boats with a single-helm, the **TRANSFER** light is constantly **ON**, whenever the ignition key switch is **ON**. This is normal.



Requesting Helm Transfer

NOTE: *Any movement of the joystick (if equipped) or ERC levers after pressing the transfer button terminates the helm transfer request. A single beep sounds and the transfer button light turns off signaling the end of the transfer request.*



To request the transfer of vessel control from one helm to another:

1. All of the ignition keys must be in the **ON** position.
2. All of the vessel's ERC levers must be in the neutral position.
3. At the helm you are requesting to be made active, press the **TRANSFER** button once. The transfer light turns on and one beep will sound confirming the impending transfer.

NOTE: *If all ERC levers are not in neutral, the neutral lights will flash. Move all ERC levers to neutral and the neutral light will stop flashing.*

4. With the transfer light and neutral light on, press the **TRANSFER** button a second time to complete the helm transfer.
5. When the helm transfer is complete, another beep sounds. The transfer light stays on at the active helm location.

NOTE: *If the helm transfer is not completed in 10 seconds, the request is automatically cancelled and a double beep sounds. Control will remain at the existing active helm. Press the transfer button again to restart helm transfer.*

6. The helm where the transfer request was initiated is now active and controls the vessel.

Helm Transfer and Autopilot

Transferring control from an active helm to an inactive helm (from one station to another station) affects the functionality of autopilot modes. Some of the effects are listed.

Section 1 - DTS Controls and Features

- Auto heading mode will disengage when the ERC levers are moved to the neutral position. You must engage auto heading at the selected active helm.
- Requesting a helm transfer places the autopilot into standby mode. Any required inputs will need to be entered at the selected active helm.
- Skyhook will disengage when the transfer button is pressed the second time. Skyhook must be engaged at the selected active helm.
- If auto heading is activated, the helm transfer functionality is disabled. Turn this feature off and resume the transfer. At the selected active helm, engage auto heading.
- If route mode is activated, the helm transfer functionality is disabled. Turn this feature off and resume the transfer. At the selected active helm, engage route mode.
- Route mode (waypoint sequencing) control of the route and display of route data on your chartplotter does not automatically transfer to the chartplotter at the active helm. You must turn on the chartplotter at the selected active helm, input the waypoint route to be tracked, and engage route mode.

IMPORTANT: If faults are encountered while attempting to complete a helm transfer, all controlling modules for the engine and the joystick piloting system must be turned off. To turn these controlling modules off, turn both engines off and place both engine ERC handles in reverse full throttle for three seconds.

Quick Steer

Quick Steer is available on vessels equipped with Single Outboard Electric Steering. Electric steering versions of the panel mount and single-handle console ERCs have a button to enable the Quick Steer feature. This feature is meant to provide rapid steering and more precise throttle control when operating in tight quarters, such as when docking.



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- Quick Steer decreases the number of steering turns, lock-to-lock, at the helm to approximately quarter-turn each direction, while still providing full steering capacity.
- Quick steer limits engine speed.

Throttle and Shift Operation with Three or Four Engines

Triple-Engine Throttle and Shift Operation

Movement of the handles on the remote control allows the boat operator to control the engine throttle speed and gear shift positions of all three engines.

The throttle and shift function is dependent on what engines are running. Refer to the following table.

Port Engine	Center Engine	Starboard Engine	Control Handle Function
Running	Running	Running	Port engine throttle and shift = controlled by port control handle
			Starboard engine throttle and shift = controlled by starboard control handle
			Center engine throttle = shadows the engine with the lowest throttle setting until the port and starboard engine are within 10% of one another at which point all engines synchronize to the starboard engine's RPM.
			Center engine shift = neutral unless both engines are in the same gear
Running	Running	Off	Port and center engine throttle and shift = controlled by port control handle
Off	Running	Running	Starboard and center engine throttle and shift = controlled by starboard control handle
Running	Off	Running	Port engine throttle and shift = controlled by port control handle
			Starboard engine throttle and shift = controlled by starboard control handle
Running	Off	Off	Port engine throttle and shift = controlled by port control handle
Off	Off	Running	Starboard engine throttle and shift = controlled by starboard control handle
Off (ignition key switch turned ON)	Running	Off (ignition key switch turned ON)	Center engine throttle and shift = neutral/idle unless both control handles are in the same gear

Turning off one of the outer engines while underway will cause the center engine to go into forced neutral/idle. Operation to the center engine can be restored by moving the control handle of the functioning outer engine back into neutral position and then engaging. The center engine speed and gear shift will then be controlled by the functioning outer engine.

Turning off the center engine while underway will have no effect on the operation of the outer engines.

If a failure should occur while underway which causes one of the outer engines into forced neutral/idle condition, the center engine will also be forced to neutral/idle. Operation to the center engine can be restored by moving the control handle of the functioning outer engine back into neutral and then engaging.

Quad-Engine Throttle and Shift Operation

Movement of the handles on the remote control allows the boat operator to control the engine throttle speed and gear shift positions of all four engines.

The throttle and shift function is dependent on what engines are running. Refer to the following table.

Port Outer Engine	Port Inner Engine	Starboard Inner Engine	Starboard Outer Engine	Control Handle Function
Running	Running	Running	Running	Port inner and outer engines throttle and shift = controlled by port control handle
				Starboard inner and outer engines throttle and shift = controlled by starboard control handle
Running	Running	Off	Off	Port inner and outer engine throttle and shift = controlled by port control handle
Off	Off	Running	Running	Starboard inner and outer engine throttle and shift = controlled by starboard control handle
Off (ignition key switch turned ON)	Running	Running	Running	Port inner engine throttle and shift = controlled by port control handle
Running	Running	Running	Off (ignition key switch turned ON)	Starboard inner engine throttle and shift = controlled by starboard control handle
Off (ignition key switch turned OFF)	Running	Running	Running	Port inner engine throttle and shift = controlled by starboard control handle
Running	Running	Running	Off (ignition key switch turned OFF)	Starboard inner engine throttle and shift = controlled by port control handle
Running	Off	Off	Running	Port outer engine throttle and shift = controlled by port control handle
				Starboard outer engine throttle and shift = controlled by starboard control handle
Off (ignition key switch turned ON)	Running	Running	Off (ignition key switch turned ON)	Port inner engine throttle and shift = controlled by port control handle
				Starboard inner engine throttle and shift = controlled by starboard control handle

Turning off the starboard outer engine while underway will cause the starboard inner engine to go into forced neutral/idle. Operation to the inner engine can be restored by turning the starboard outer engine ignition key to the **ON** position and moving the starboard control handle back into neutral position and then engaging. The inner engine speed and gear shift will then be controlled by the starboard control handle.

Turning off the port outer engine while underway will cause the port inner engine to go into forced neutral/idle. Operation to the inner engine can be restored by turning the port outer engine ignition key to the **ON** position and moving the port control handle back into neutral position and then engaging. The inner engine speed and gear shift will then be controlled by the port control handle.

Turning off one of the inner engines while underway will have no effect on the operation of the outer engines.

If a failure should occur while underway which causes the starboard outer engines into forced neutral/idle condition, the inner starboard engine will also be forced to neutral/idle. Operation to the inner engine can be restored by moving the starboard control handle back into neutral and then engaging.

If a failure should occur while underway which causes the port outer engines into forced neutral/idle condition, the inner port engine will also be forced to neutral/idle. Operation to the inner engine can be restored by moving the port control handle back into neutral and then engaging.

Single-Lever Mode (Multiple Engines)

Dual-handle console ERCs feature the ability to command all engines with a single-lever. This feature simplifies engine management. Single-lever mode has no affect on the joystick function (if equipped).



To engage single-lever mode:

1. Place both ERC levers in neutral.
2. Press **1 LEVER**. The single-lever light will turn on.
3. Place the port ERC lever into gear.
4. The RPM on all engines will increase and decrease in sync, while all drives remain in gear.

To disengage single-lever mode:

1. Place both ERC levers in neutral.
2. Press **1 LEVER**. The single-lever light will turn off.

Start/Stop All Engines

Dual-handle console ERCs have a **START/STOP ALL ENGINES** button, which allows starting or stopping all engines with a single button push. The exact behavior of the engines depends on:

1. How many engines are running when the button is pressed (none, all, or some)
2. Whether a particular engine's key switch is **ON** or **OFF**
3. What other actions the operator takes immediately after pressing the **START/STOP ALL ENGINES** button



Engine Indicator LEDs

LEDs on the **START/STOP ALL ENGINES** button and the individual engine **START/STOP** buttons (on the aft end of the ERC) indicate the status of all engines.

No Engines Running - Start Engines

When no engines are running (and no engine status LEDs are lit), press the **START/STOP ALL ENGINES** button to start all engines.

1. The LED on the **START/STOP ALL ENGINES** button turns on.
2. The engines will start according to the following sequence (as equipped):
 - a. Starboard outer engine - the LED on the starboard outer (**S**) button will light when the engine starts.
 - b. Port outer engine - the LED on the port outer (**P**) button will light when the engine starts.
 - c. Starboard inner engine - the LED on the starboard inner (**C** or **SC**) button will light when the engine starts.
 - d. Port inner engine - the LED on the port inner (**PC**) button will light when the engine starts.

Certain conditions will cause an engine to be skipped in the starting sequence. The starting sequence will ignore an engine and continue with any remaining engines, if:

1. Smart start times out (around 8 seconds) for an engine
2. The ignition key switch is **OFF** for an engine (the starting sequence will proceed with no delay)

All Engines Running - Stop Engines

When all engines are running (and all engine status LEDs are lit), press the **START/STOP ALL ENGINES** button to stop all engines. All engine status LEDs (individual and the **ALL ENGINES** LED) will turn **OFF**.

Some (Not All) Engines Running - Stop Engines

When some but not all engines are running (and the corresponding engine status LEDs are lit), press the **START/STOP ALL ENGINES** button to stop all running engines. All engine status LEDs (individual and the **ALL ENGINES** LED) will turn **OFF**.

Interrupting the Start All Process

Pressing any **START/STOP** button or turning an ignition key switch during engine start up is not recommended.

Throttle-Only Mode

Placing the ERC in throttle-only mode will avoid unintended gear engagement. The engines or drives will turn using the steering wheel or the joystick and the RPM of the engines can be increased while in throttle-only mode, but the gear position will remain in neutral.



To engage throttle-only mode:

1. Place both ERC levers into neutral.
2. Press **THROTTLE ONLY**. The throttle-only light will turn on and the neutral lights will blink.
3. Place either ERC lever into forward or reverse detent position. The warning horn will beep each time the levers are moved into or out of gear while in throttle-only mode, but the drive will remain in neutral.

NOTE: Throttle-only mode also affects the joystick, if equipped. The drives will move and the RPM can be increased, but the gear position will remain in neutral.

4. The RPM of the engines can be increased.

To disengage throttle-only mode:

1. Place both ERC levers into neutral. Throttle-only mode will not disengage unless the ERC levers are in neutral.

NOTE: Pressing **THROTTLE ONLY** while the ERC levers are in gear will only turn off the throttle-only light. The engines will remain in throttle-only mode until the operator returns the levers to the neutral position.

2. Press **THROTTLE ONLY**. The throttle-only light will turn off.
3. The neutral lights stop flashing and remain illuminated. Either the ERC levers or the joystick (if equipped) can now be used to control the boat's movement.

Notes:

Section 2 - Premier ERC Display Software Update

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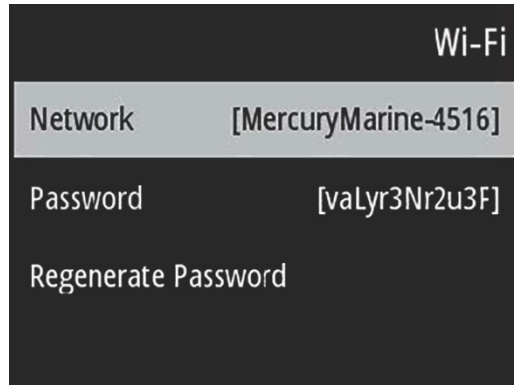
Updating Through Wi-Fi

NOTE: Updating the ERC via Wi-Fi can take 20 minutes or longer with a phone or PC. Make sure the phone will remain awake for the software to be loaded into the ERC. If the phone closes (sleep) while the download is in process, you will need to start the process over from the beginning.

IMPORTANT: All Premier dual-handle ERCs include a factory installed USB Wi-Fi dongle.

1. Download the ERC display update file at Mercury's website www.mercurymarine.com and save it to the device that will be performing the update. We recommend updating with a PC but a mobile device could be used.
2. On the supplemental display, navigate to **MENU > Settings > Wi-Fi**.
3. The display will show the ERC network address (name) and password. For multiple helm applications: each ERC will have a different address and password.

NOTE: The password will remain the same for future updates unless it is manually changed. To change the password, highlight **Regenerate Password** and press **ENTER**.



a - Network address (name)

b - Password

c - Regenerate Password

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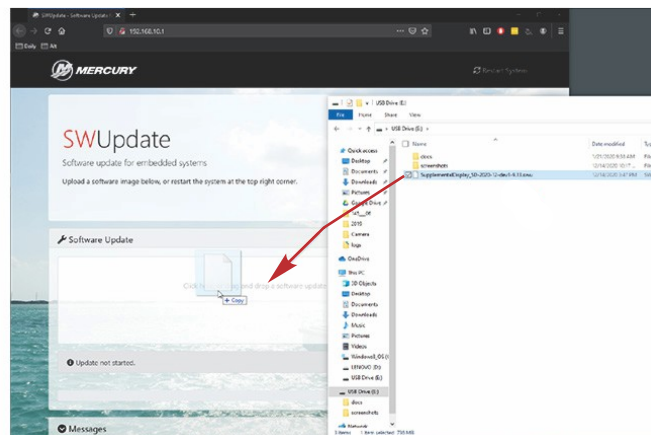
4. From the PC or mobile device, search for available Wi-Fi connections.
5. Select the network that matches the network name on the ERC display. When prompted, enter the password from the ERC display to gain access to the ERC Wi-Fi network.

6. Open a browser window and type **hotspot.mercurymarine.com** in the search bar and press **ENTER**.

NOTE: You must use the ERC network to access hotspot.mercurymarine.com.

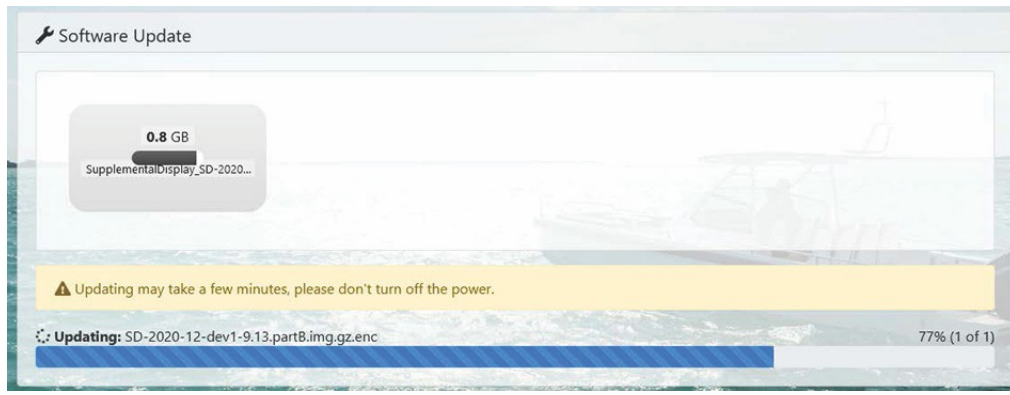
7. The Mercury Marine software update site should open.
8. From the **Software Update** window, select the update file or drag and drop the file to start the update.

NOTE: The download process can take over 20 minutes to complete.



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9. A window will open showing the progress of the download.



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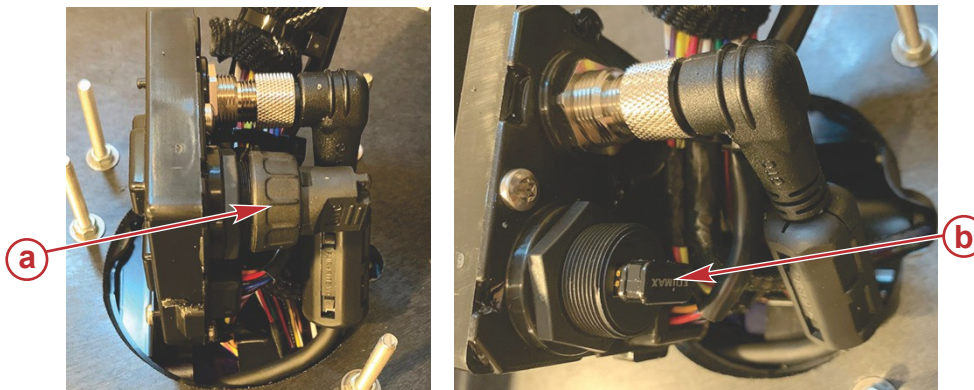
10. The ERC supplemental display will restart when the update is complete.

Updating Through USB Drive

IMPORTANT: All premium dual-handle ERCs include a factory installed USB Wi-Fi dongle.

1. Download the ERC display update file at Mercury's website www.mercurymarine.com and save it to a USB flash drive.
2. Insert the USB flash drive into the USB port on the bottom side of the ERC.

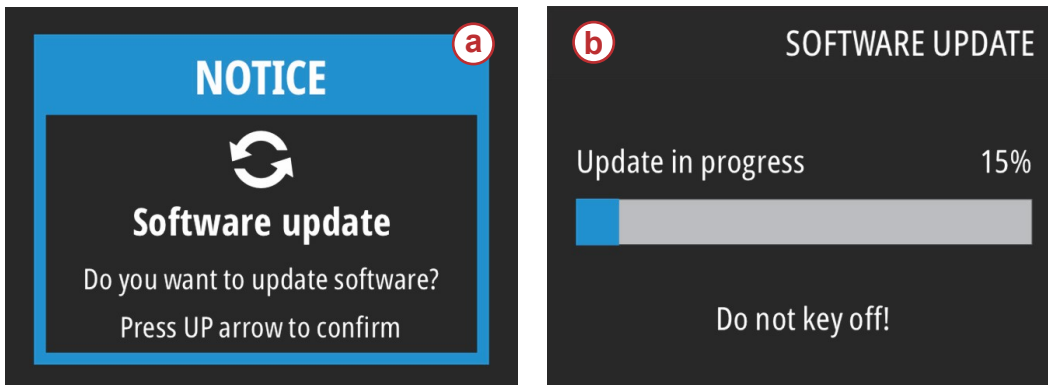
NOTE: A USB WI-FI dongle may need to be removed to install the USB flash drive.



- a** - Remove cover
- b** - Remove Wi-Fi dongle and insert USB flash drive

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3. Turn the key switch **ON**. The ERC display will be active.
4. On the display, navigate to **MENU > Settings > Software Update**.
5. Select the .swu file and confirm the update intent by pressing the up selection button on the ERC. A software update progress bar window will be displayed.



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- a** - Confirm update - press **UP** button on ERC
- b** - Software update progress bar

Section 2 - Premier ERC Display Software Update

6. The ERC display will restart when the upload is successful.
7. After the upload is completed, install the Wi-Fi dongle into the ERC USB port. Install and tighten the cover so it is secure.

