

# 892984A1, 892984A2

## INSTALLATION INSTRUCTIONS -

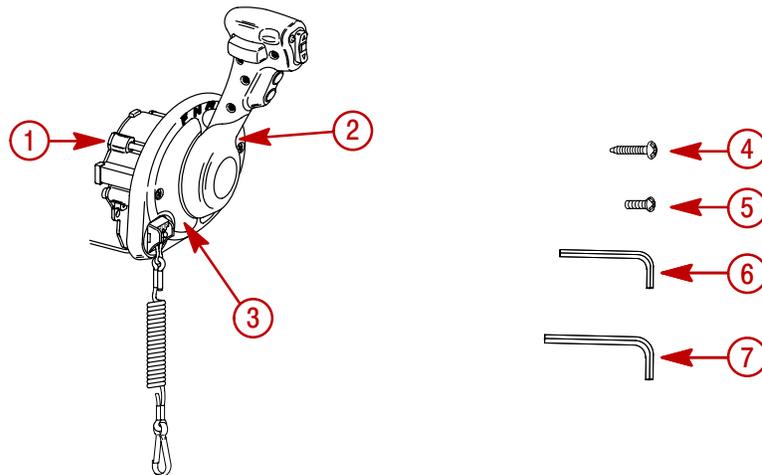
### DTS PANEL MOUNT REMOTE CONTROL

#### Notice to Personnel Installing this Kit

The installation of this product requires an installer who is specifically trained to work on Mercury Marine's digital throttle and shift (DTS) systems. The installer must be trained in the proper installation, electronic calibration, and operation of the DTS system. Failure to correctly install this product may make this product and/or the DTS system inoperable or unsafe for use.

**IMPORTANT: Electronic Calibration Required Before Use – After Installation of this product, the DTS system will require electronic calibration. This calibration must not be attempted by anyone other than a person who has been specifically trained in Mercury Marine's Digital throttle and shift (DTS) systems. Improper electronic calibration of the digital throttle and shift (DTS) system will make this product and/or the DTS system inoperable or unsafe for use.**

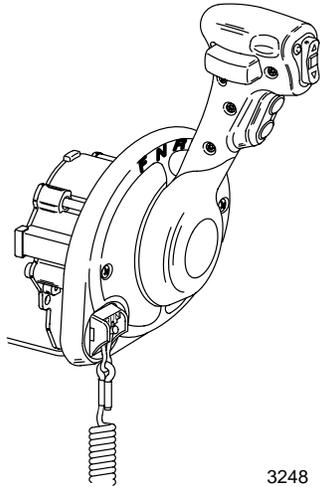
#### Components Contained in Kit



3247

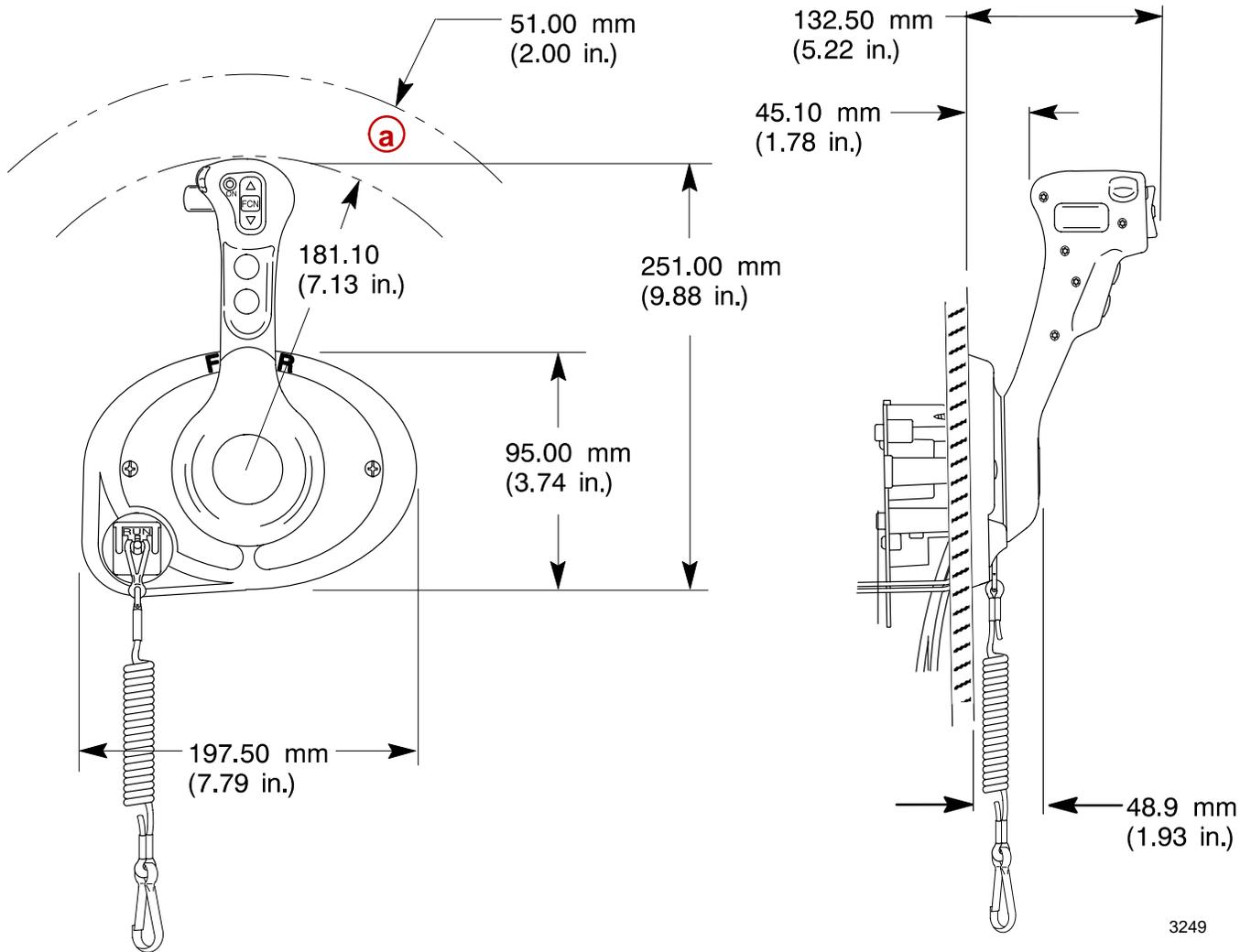
REF.	QTY.	DESCRIPTION	PART NUMBER
1	1	ERC - Remote Control, Panel	NSS
2	1	Cover - bezel, back	858682
3	1	Cover - bezel, front	858681
4	3	Screw - #12 x 1.25 in.	10-884543
5	2	Screw - M4 x 12	10-858660
6	1	Wrench - Allen 2.5 mm	NSS
7	1	Wrench - Allen, 5 mm	NSS

# Panel Mount Control Installation



3248

## Required Mounting Clearances



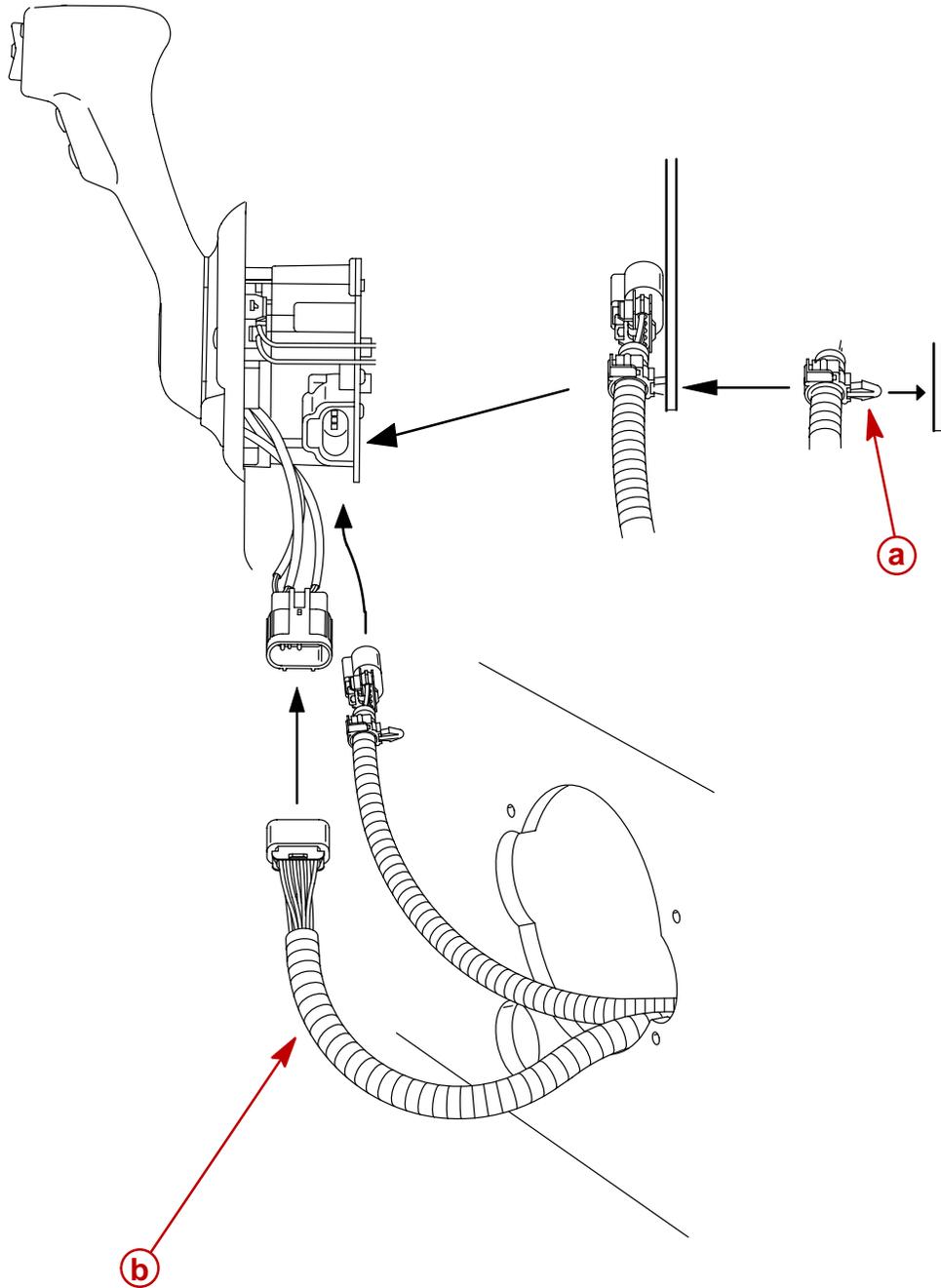
3249

**a** - Hand clearance



3. Make remote control wiring connections.
4. Insert the bayonet end into bracket hole. This will prevent connector from pulling out.
5. Allow slack in the trim button harness going to the control handle. This harness will flex and move during control handle movement.

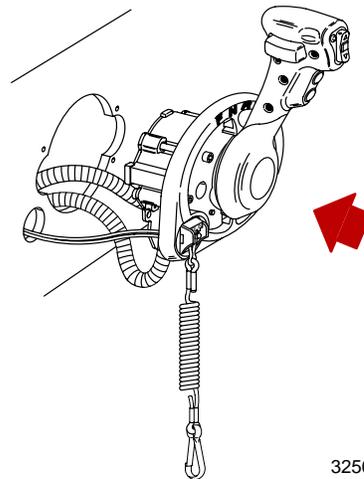
**IMPORTANT: Allow slack in the trim button harness going to the control handle. This harness will flex and move during control handle movement.**



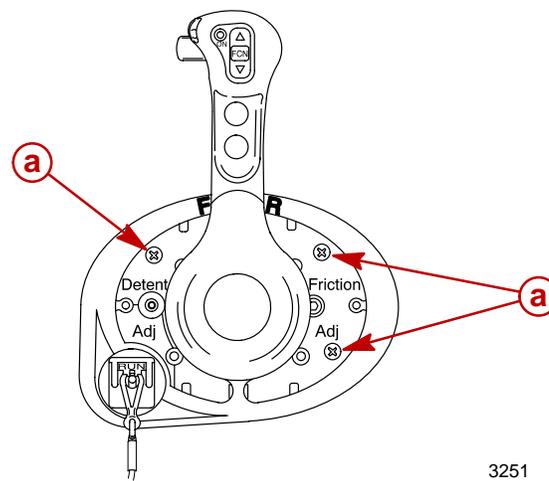
3601

- a** - Bayonet end
- b** - Trim button harness

6. Place the remote control into the opening.

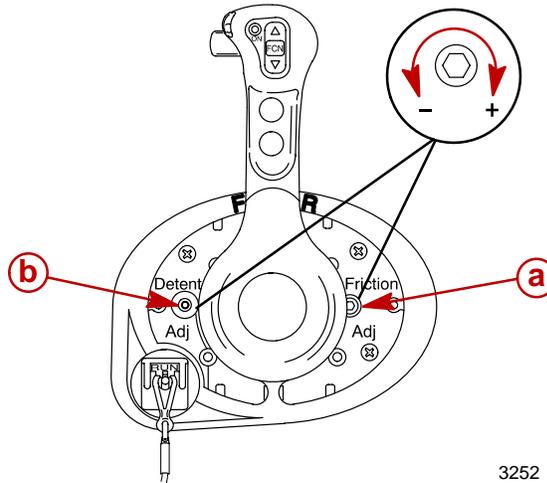


7. Fasten the remote control with three 32mm (1.25 in.) long screws.



**a** - Mounting screw (3)

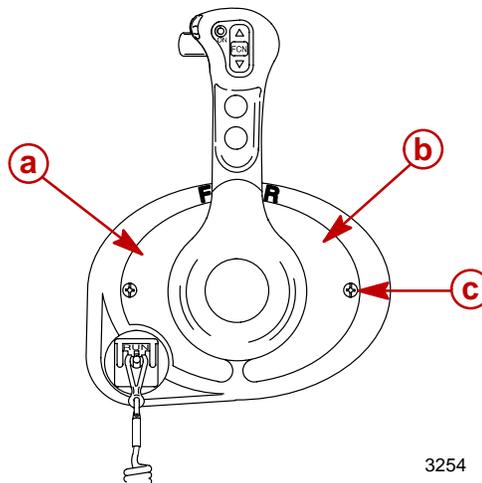
8. Control Handle Tension Adjustment – Screw can be adjusted to increase or decrease the overall effort to move the control handle. This will help prevent the handle from unwanted motion in rough water. Turn screw towards “+” to increase tension or towards “-” to decrease tension.
9. Detent Tension Adjustment Screw – This screw can be adjusted to increase or decrease the effort to move control handle into or out of detent position. Turn screw towards “+” to increase tension or towards “-” to decrease tension.



3252

- a** - Control handle tension adjustment screw
- b** - Detent tension adjustment screw

10. Install front and back bezel covers with attaching screws.

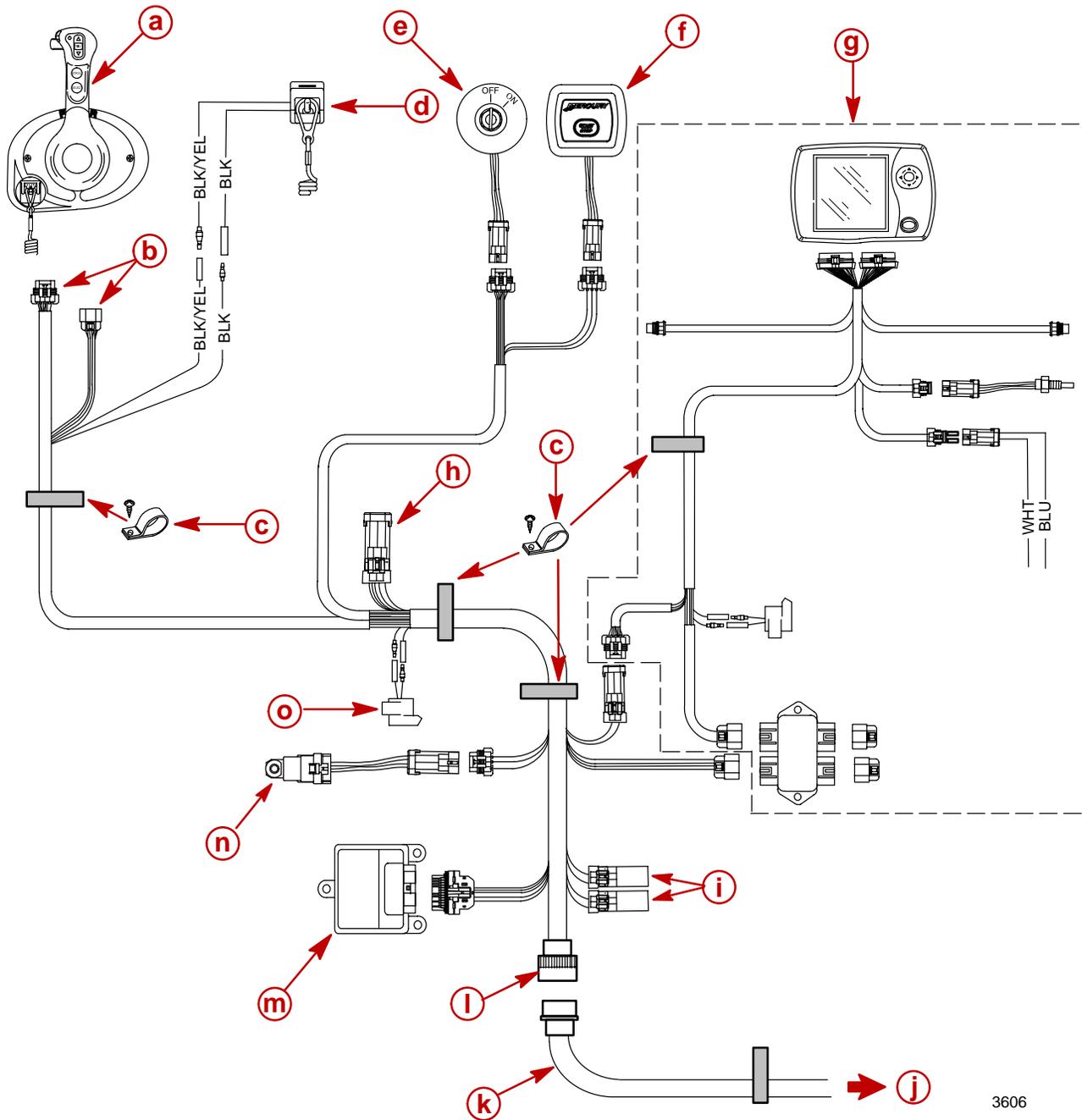


3254

- a** - Front cover
- b** - Back cover
- c** - Screw - (2) M4 x 12

# Wiring & Installation

## Wiring – Single Engine with Panel Control

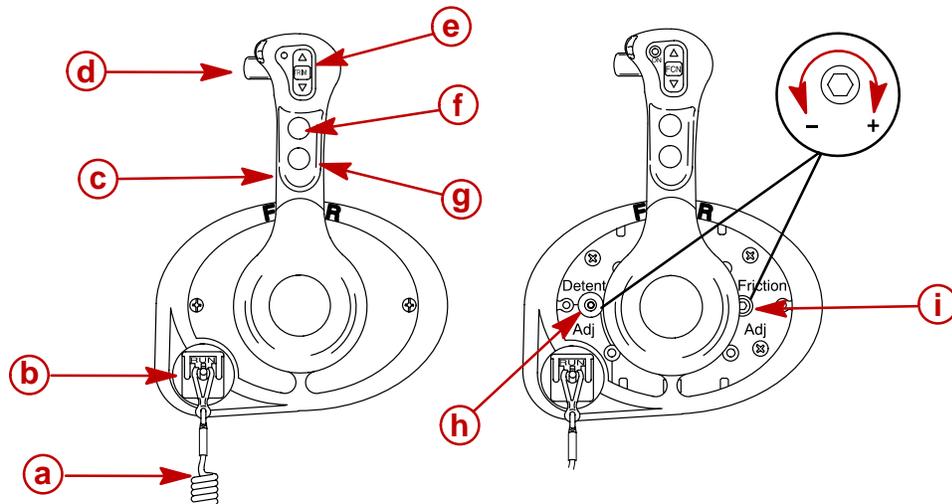


3606

- a** - Remote control
- b** - Remote control connections
- c** - "D" clamps
- d** - Lanyard stop switch
- e** - Key switch
- f** - Start/stop panel (optional)
- g** - System View (optional)
- h** - Connector – foot throttle

- i** - Termination resistor
- j** - To engine
- k** - Data harness
- l** - DTS command module harness
- m** - DTS command module
- n** - Accessory power relay
- o** - Horn

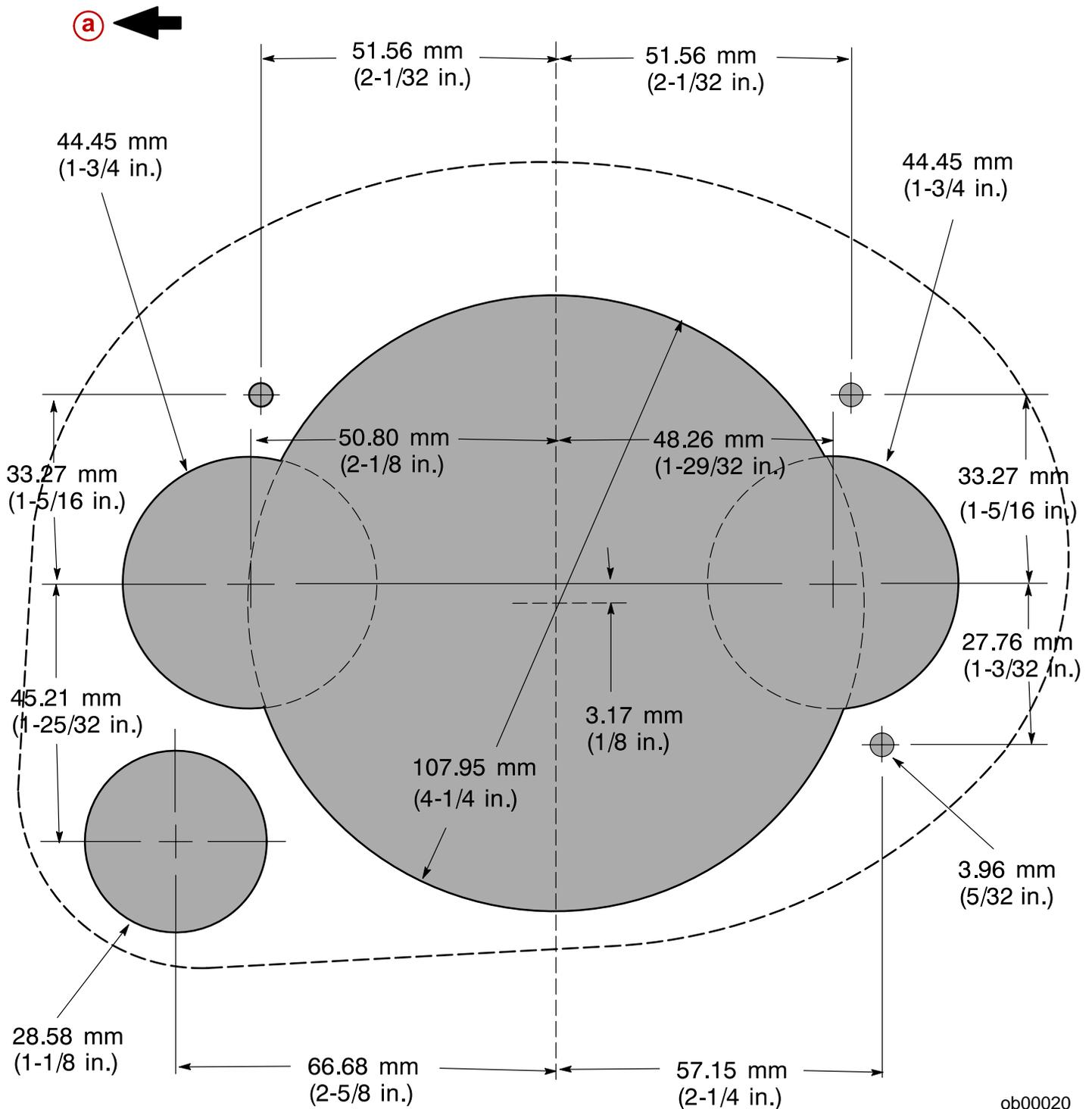
## Panel Mount Control Features



- a** - Lanyard
- b** - Lanyard Stop Switch
- c** - Control Handle – (F) Forward, (N) Neutral, (R) Reverse. Position control handle to neutral for starting the engine.
- d** - Neutral Lock Button – Pressing this button will allow the control handle to be moved out of neutral and will allow the engine to shift into gear. If the control handle is moved without pressing the shift switch, the remote control provides throttle control only. The horn will sound twice when in this mode, the engine will not shift and RPM is limited to 3000 RPM to prevent engine damage.
- e** - Trim/Tilt Switch – Refer to Power Trim Operation in the engine operation manual. The ignition switch will have to be turned on for trim/tilt operation.
- f** - Throttle Only Key – This feature allows the boat operator to increase engine RPM for warm-up, without shifting the engine into gear. To engage throttle only, move the control handle into neutral position. Depress and hold the throttle only button while moving the control handle ahead to the forward detent. Hold in the button until the horn sounds twice. The horn sound indicates that throttle only is engaged. Advance the control handle to increase engine RPM. To disengage, return the control handle back to neutral position. Engine RPM is limited to prevent engine damage.
- g** - Stop/Start Key – Can be used to start or stop the engine. The ignition key switch will have to be in the “ON” position to start the engine.
- h** - Detent Tension Adjustment – (remove cover for access) This screw can be adjusted to increase or decrease the effort to move control handle into or out of detent position. Turn screw towards “+” to increase tension or towards “-” to decrease tension.
- i** - Control Handle Tension Adjustment Screw – (remove cover for access) This screw can be adjusted to increase or decrease the overall effort to move the control handle. This will help prevent the handle from unwanted motion in rough water. Turn screw towards “+” to increase tension or towards “-” to decrease tension.

**NOTE:** Suggest more tension to control handle movement to allow user to get acquainted to feel of control and to prevent unexpected acceleration when shifting from neutral to gear.

# Template



ob00020

**a** - Front of boat

***Products of Mercury Marine***  
W6250 Pioneer Road  
Fond du Lac, WI 54936-1939

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# DTS SYSTEM CALIBRATION

## DTS System Calibration – for Models with 14 Pin Data Harness Between Engine and Helm

**NOTE:** The DTS system calibration must be performed following the complete system installation. It must also be done after an accessory or replacement part is added to the system that requires new configuration codes.

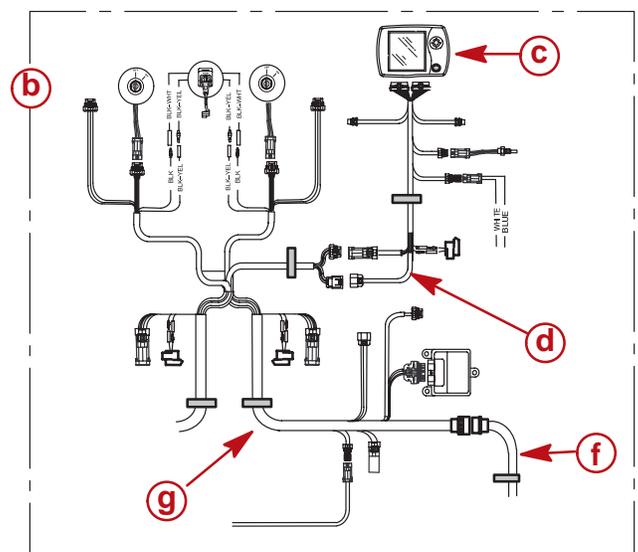
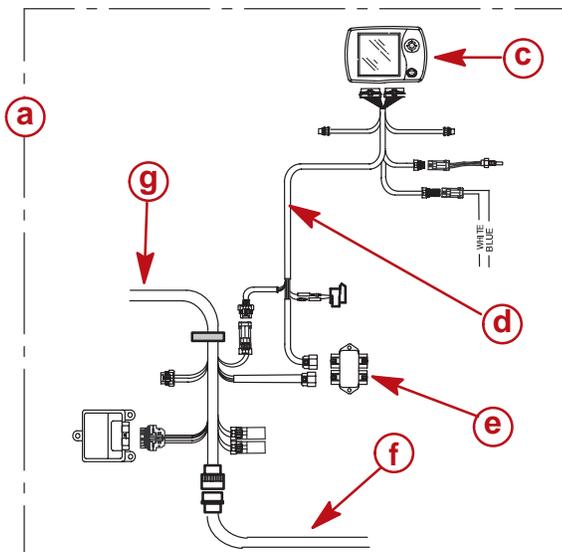
Before the Mercury Marine Digital Throttle and Shift (DTS) system can be correctly operated, the DTS system will have to be calibrated in order for the DTS system to learn and interpret the operating ranges (parameters) of all connected hardware. If the DTS system was previously calibrated, the system will have to be re-calibrated to accept this new product.

### Methods of Calibration

- Method 1 – Mercury Marine Computer Diagnostic System – Connect the Computer Diagnostic System to the CAN BUS circuit and follow the helm configuration setup on the computer diagnostic screen.
- Method 2 – Mercury Marine SmartCraft System View display – If the boat does not have a System View display installed, temporarily connect a System View display to the helm harness as shown in the following wiring diagrams. Follow the DTS calibration setup instructions. If the DTS system was previously calibrated, perform a DTS system reset (see instructions following) in order to restore the calibration presets back to factory defaults before calibrating.

### System View Display Connection

If the boat is not equipped with a System View display, temporarily connect a System View display to the DTS command module harness as shown. After calibration, remove System View and harness, and seal harness connections with weather caps.



- a** - Single engine vessel
- b** - Dual engine vessel
- c** - System View
- d** - Display harness

- e** - Junction box
- f** - 14 pin data harness from engine
- g** - DTS Command Module harness

## DTS System Reset

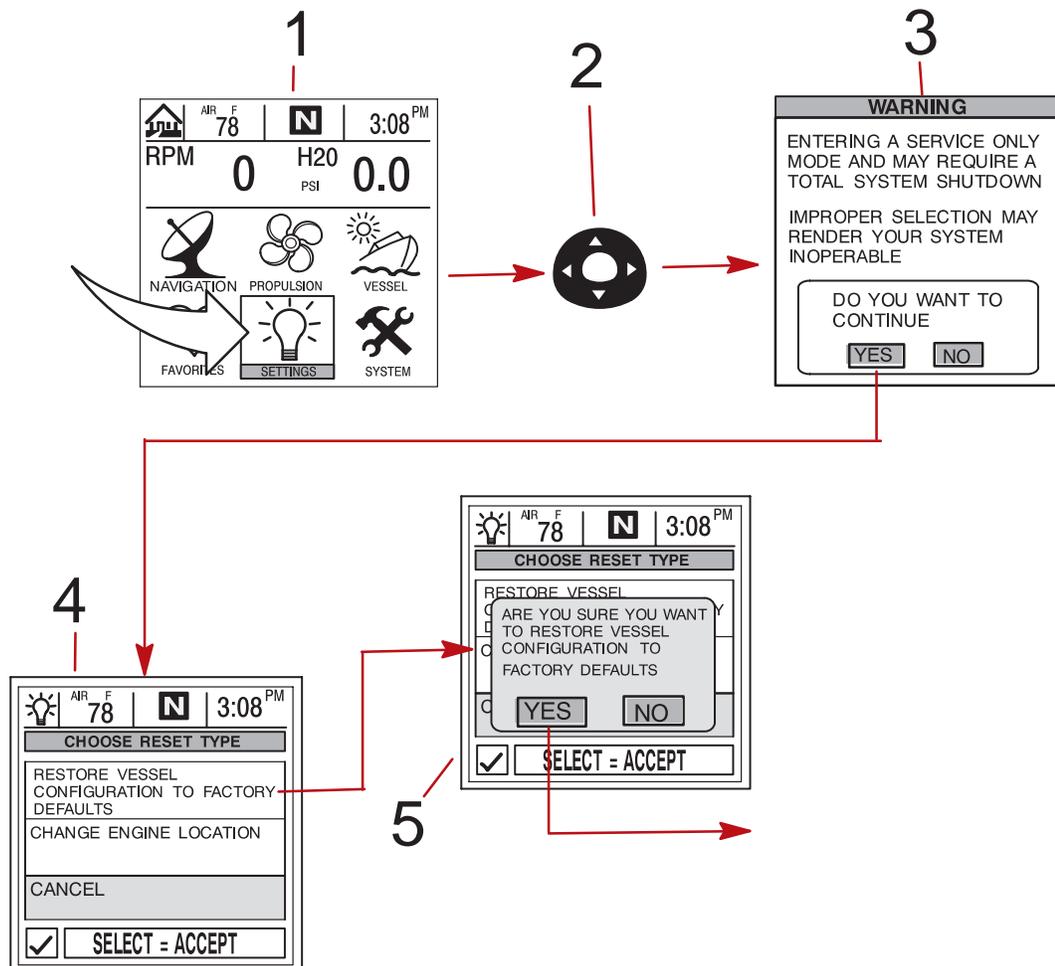
**NOTE:** If the boat does not have a System View display installed, temporarily connect a System View display to the DTS command module harness.

A system configuration reset has to be performed if the DTS system has been previously calibrated, or if an error is made during the calibration setup. The DTS system reset will restore all the engine setup and remote control menus entries back to factory defaults.

**IMPORTANT:** Performing a DTS system reset will restore engine setup and remote control calibration data back to all factory defaults, thus eliminating any installation calibrations performed during a previous calibration.

### ENTER DTS SYSTEM RESET AS FOLLOWS:

1. Use the trackpad to highlight the SETTINGS directory on the home screen.
2. Press and hold in the bottom arrow ▼ for 10 seconds, then while still holding in the bottom arrow, press in the top arrow ▲. This will bring up the reset screen.
3. Select YES – Press SELECT to accept.
4. Choose the Restore Vessel Configuration to Factory Defaults setting. Press SELECT to accept.
5. Select YES – Press SELECT to accept. Refer to DTS system calibration setup following to re-start calibration.



## DTS System Calibration Setup

### SPECIAL SETUP PROCEDURE INSTRUCTIONS FOR DUAL HELM VESSELS

- Perform the initial setup procedure at each helm using the System View. After the setup procedure is complete at one helm, repeat setup on the second helm.
- If one System View is being installed in the vessel, the System View will have to be moved from one helm to the other for the initial setup of each helm. If an extra System View is available, the System View can be temporarily connected at the second helm. This will eliminate the need to move one System View between helms.
- If one System View is being used between helms for initial setup, the System View will have to be reset each time it is moved to a different helm. Refer to System View Reset procedure.
- Setup can be started at either helm. However, if one System View is being used for setup, it is best to start at helm 2 (helm with the start/stop switch) and then move to helm 1.
- Setup procedure requires lever movement for helm 1 and for helm 2. Remember helm 1 is always the helm with the ignition key switch and helm 2 has the start/stop switch.

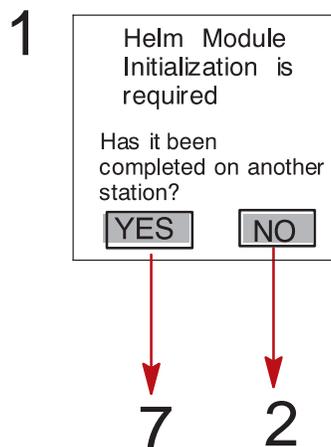
### SPECIAL SETUP PROCEDURE INSTRUCTIONS FOR DUAL ENGINE VESSELS

- During setup procedure, step 8 requires lever movement for engine 1 and for engine 2. Remember engine 1 is always the starboard engine and engine 2 is the port engine.

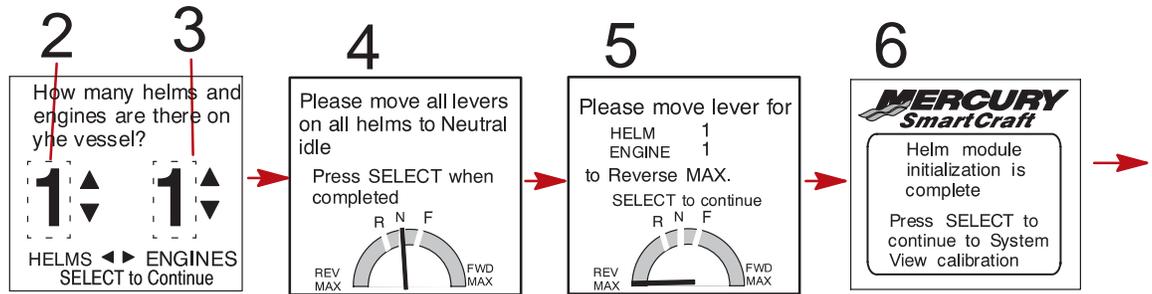
### CALIBRATION SETUP

**NOTE:** If the boat does not have a System View display installed, temporarily connect a System View display to the DTS command module harness.

1. Select NO on single helm vessels and if initial setup has not been completed at another helm on dual helm vessels. Select YES if the initial setup has already been completed on the other helm on dual helm vessels. Press SELECT to advance to step shown.



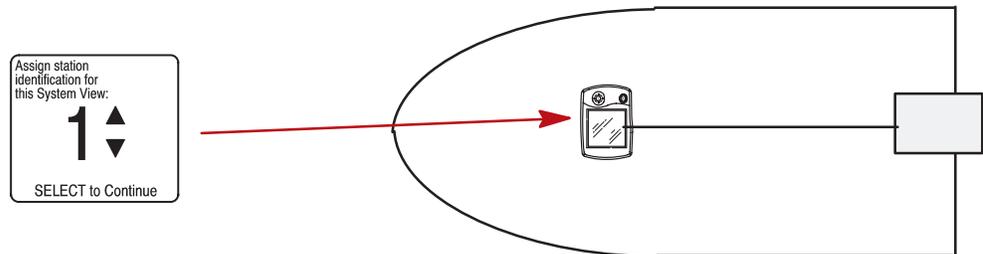
2. Press ▲▼ to select the number of helms the vessel has.
  3. Press ▲▼ to select the number of engines the vessel has. Press SELECT to continue.
  4. Move all the remote control levers to neutral at each helm. Press SELECT to continue.
- NOTE:** There are two things to remember when performing step 5: 1) On dual helm vessels, helm 1 is the helm with the ignition key switch. Helm 2 is the helm with the start/stop switch. 2) On dual engine installations, engine 1 is the starboard engine. Engine 2 is the port engine.
5. Move the selected control lever to maximum reverse. Press SELECT to continue.
  6. This completes the initialization of the DTS command modules. Press SELECT to continue setup procedure.



7. Press ▲▼ to assign 1 for System View connected at helm 1. Assign 2 to System View connected at helm 2. Press SELECT to continue.

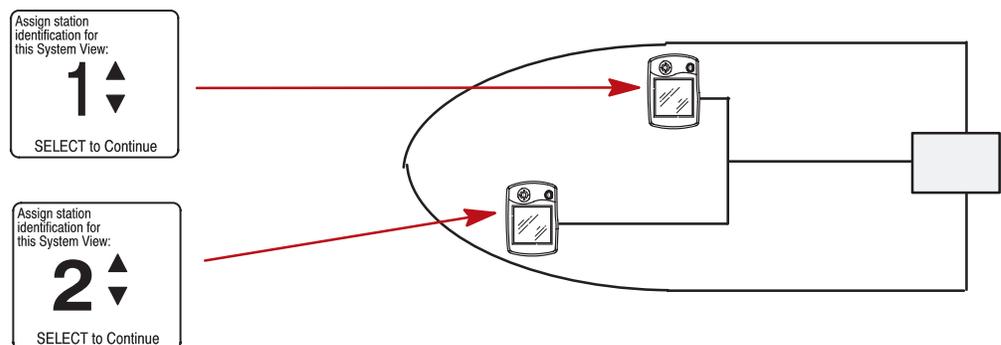
Single helm

7



Dual helm

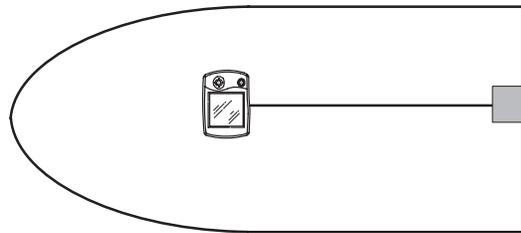
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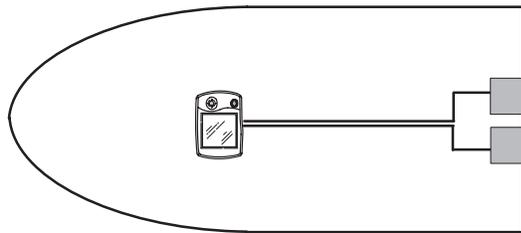
8. Depending on your engine setup, enter the engine configuration shown. Press SELECT.

**8** Select the engine configuration for this System View.  
SELECT to Continue

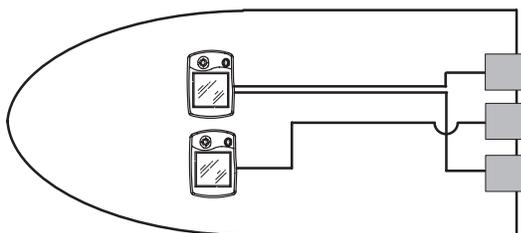
ENGINE	LOCATION
1	
2	



ENGINE	LOCATION
1	STBD
2	NONE

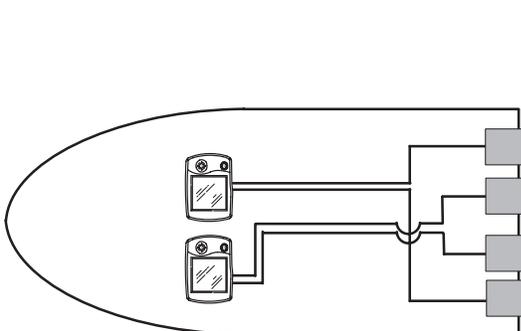


ENGINE	LOCATION
1	STBD
2	PORT



ENGINE	LOCATION
1	STBD
2	PORT

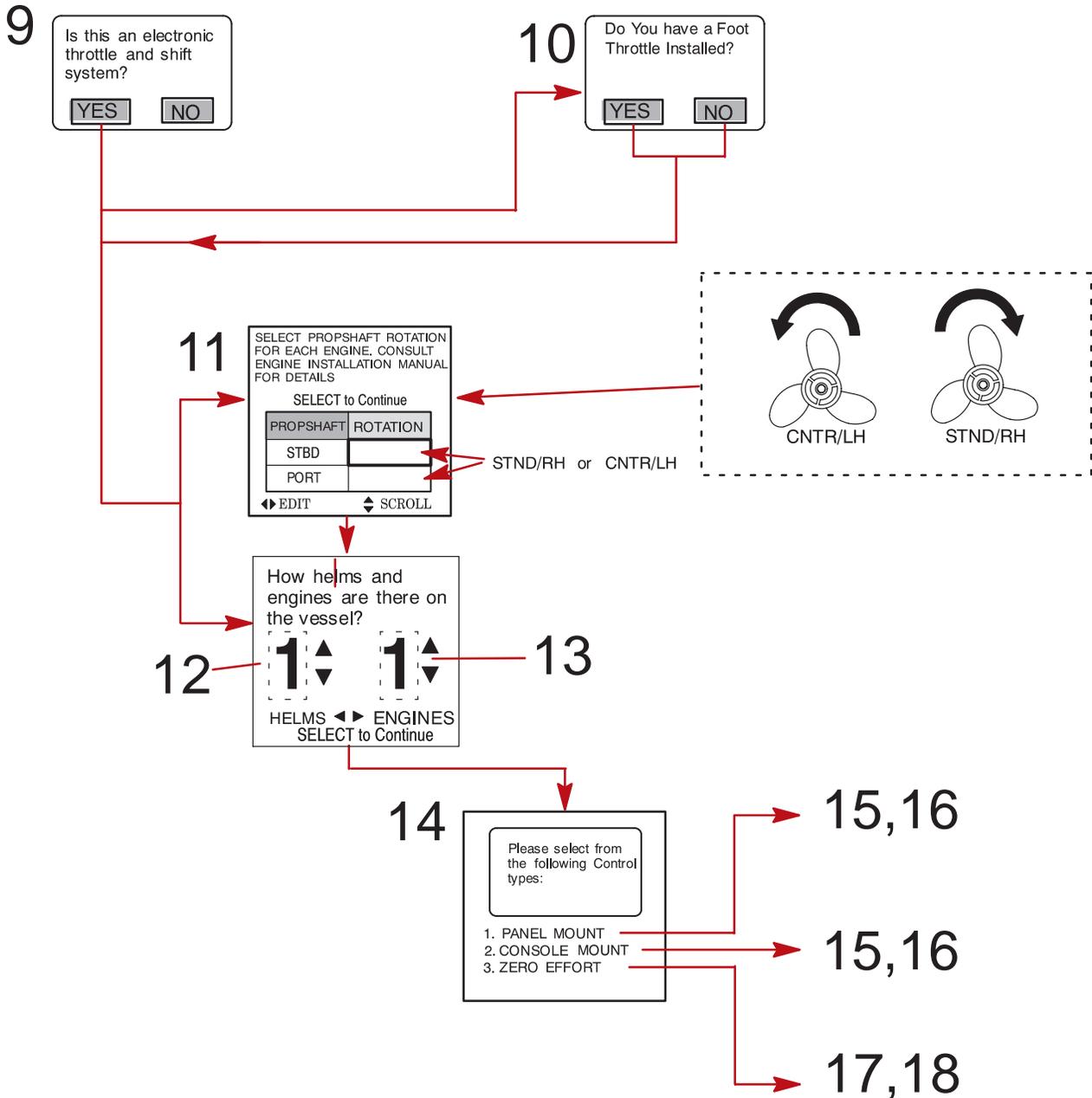
ENGINE	LOCATION
1	STBD 2
2	NONE



ENGINE	LOCATION
1	STBD
2	PORT

ENGINE	LOCATION
1	STBD 2
2	PORT 2

9. Press ◀▶ to select if the system is (DTS) Electronic Throttle and Shift. Press SELECT.
10. Single engine – press ◀▶ to select foot throttle if installed. Press SELECT.
11. Depending on engine type, propeller rotation screen may be displayed. Select forward gear propeller rotation of each engine. Press SELECT.  
STND/RH = Standard rotation/right hand  
CNTR/LH = Counter rotation/left hand
12. Press ▲▼ to select the number of helms the vessel has.
13. Press ▲▼ to select the number of engines the vessel has.
14. Select the remote control that is being used. Press SELECT to continue. Continue at one of the steps shown.

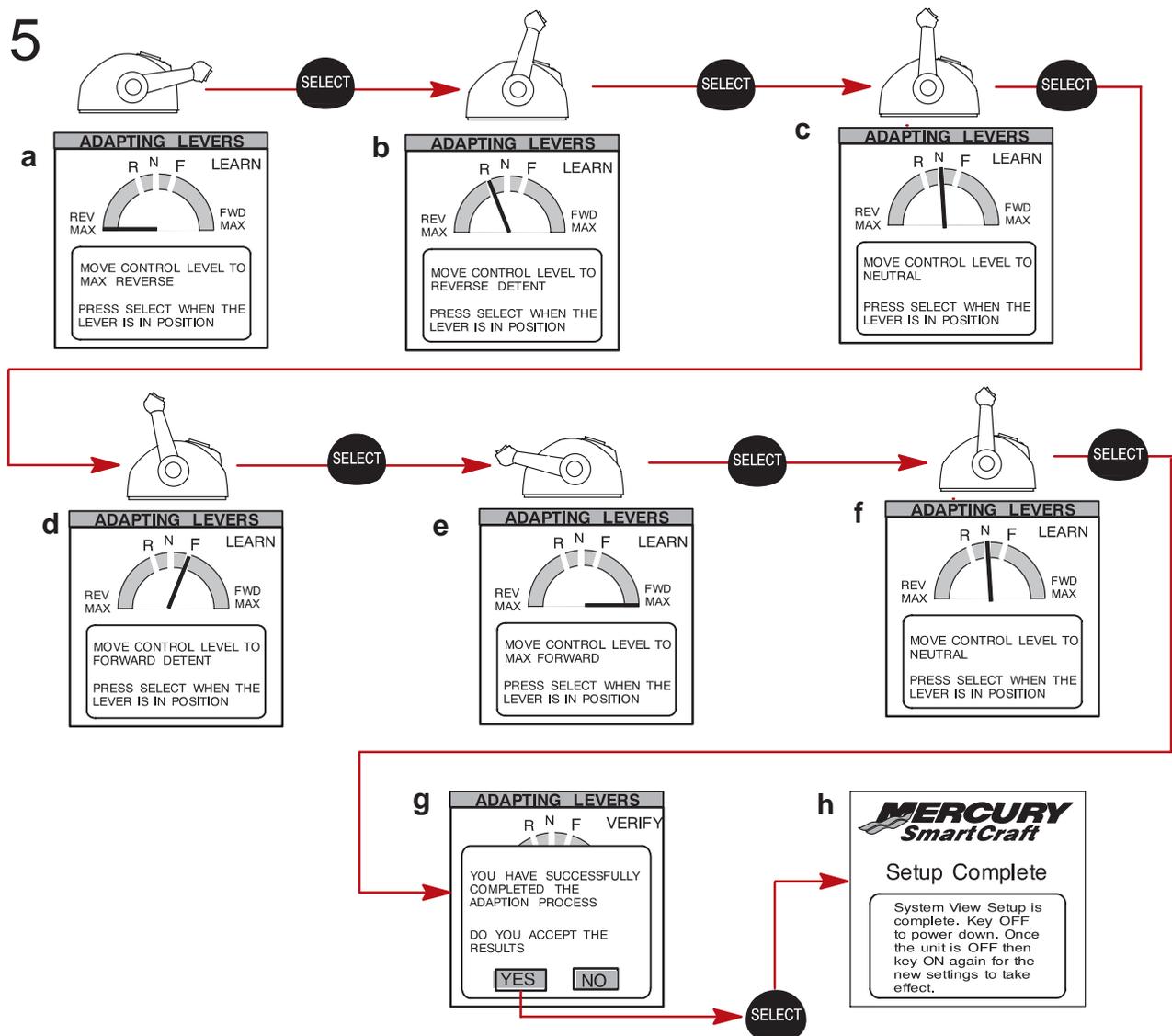


## CONSOLE AND PANEL MOUNT

**NOTE:** On dual level controls (twin engines) – move and position both levels together.

15. Move the remote control lever to the selected positions (a through f, as instructed) for the command module to learn all of the lever positions.
  - a. Move control lever to maximum reverse.
  - b. Move control lever to reverse detent. Press SELECT.
  - c. Move the control lever to neutral. Press SELECT.
  - d. Move the control lever to forward detent. Press SELECT.
  - e. Move the control lever to maximum forward. Press SELECT.
  - f. Move the control lever to neutral. Press SELECT.
  - g. Press ◀ to select YES and press SELECT to accept.
  - h. Initial setup is complete. Turn the power off to the System View. Once the unit is turned off, then turn the power back on again for the settings to take effect.

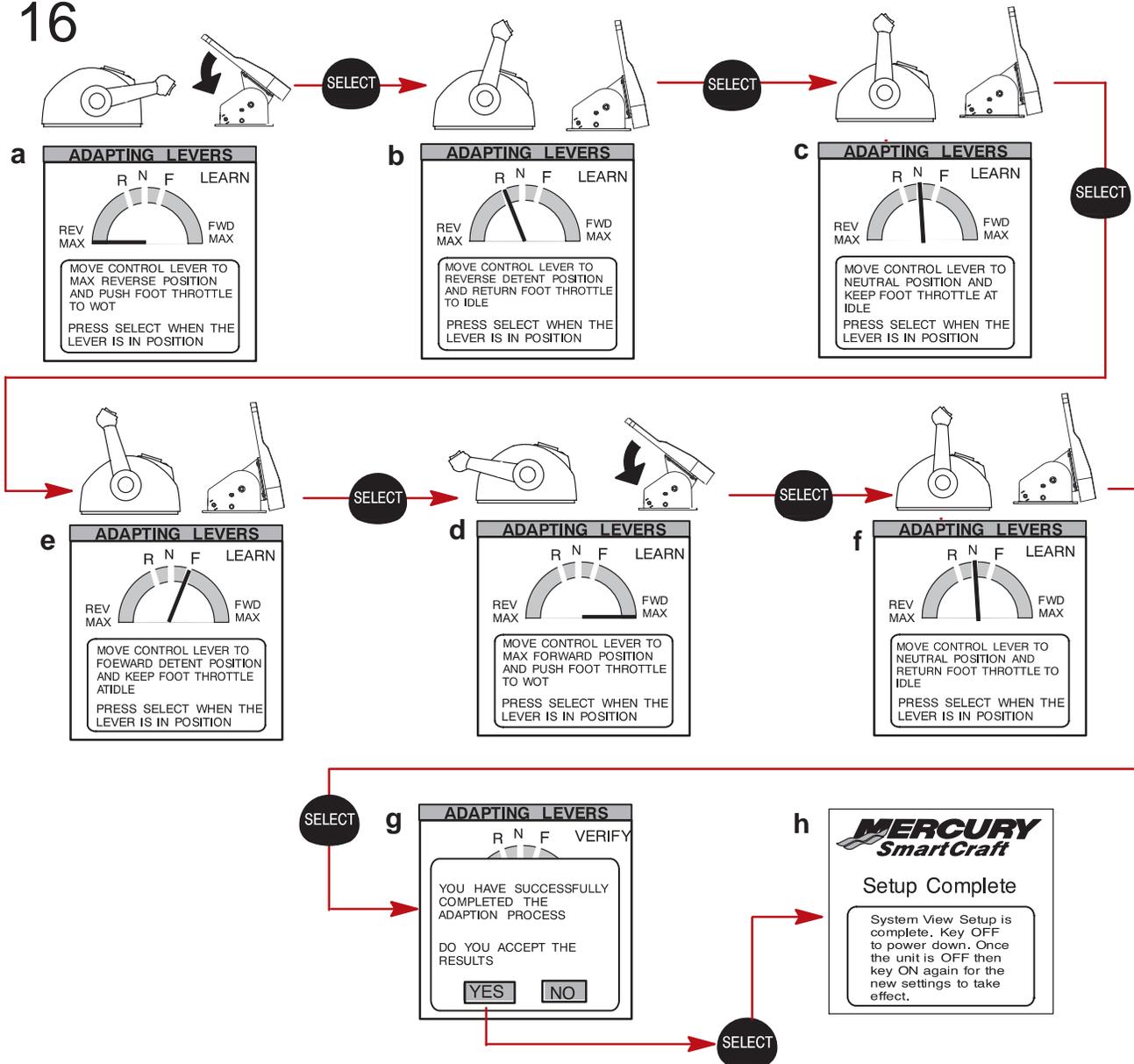
15



CONSOLE AND PANEL MOUNT WITH FOOT THROTTLE

16. Move the remote control lever and foot throttle to the selected positions (a through f, as instructed) for the command module to learn all of the lever positions.
  - a. Move control lever to maximum reverse. Push foot throttle to full throttle. Press SELECT.
  - b. Move control lever to reverse detent. Return foot throttle to idle. Press SELECT.
  - c. Move control lever to neutral position. Keep foot throttle at idle. Press SELECT.
  - d. Move control lever to forward detent. Keep foot throttle at idle. Press SELECT.
  - e. Move control lever to maximum forward. Push foot throttle to full throttle. Press SELECT.
  - f. Move control lever to neutral. Return foot throttle to idle. Press SELECT.
  - g. Select YES and press SELECT to accept.
  - h. Initial setup is complete. Turn the power off to the System View. Once the unit is turned off, then turn the power back on again for the settings to take effect.

16

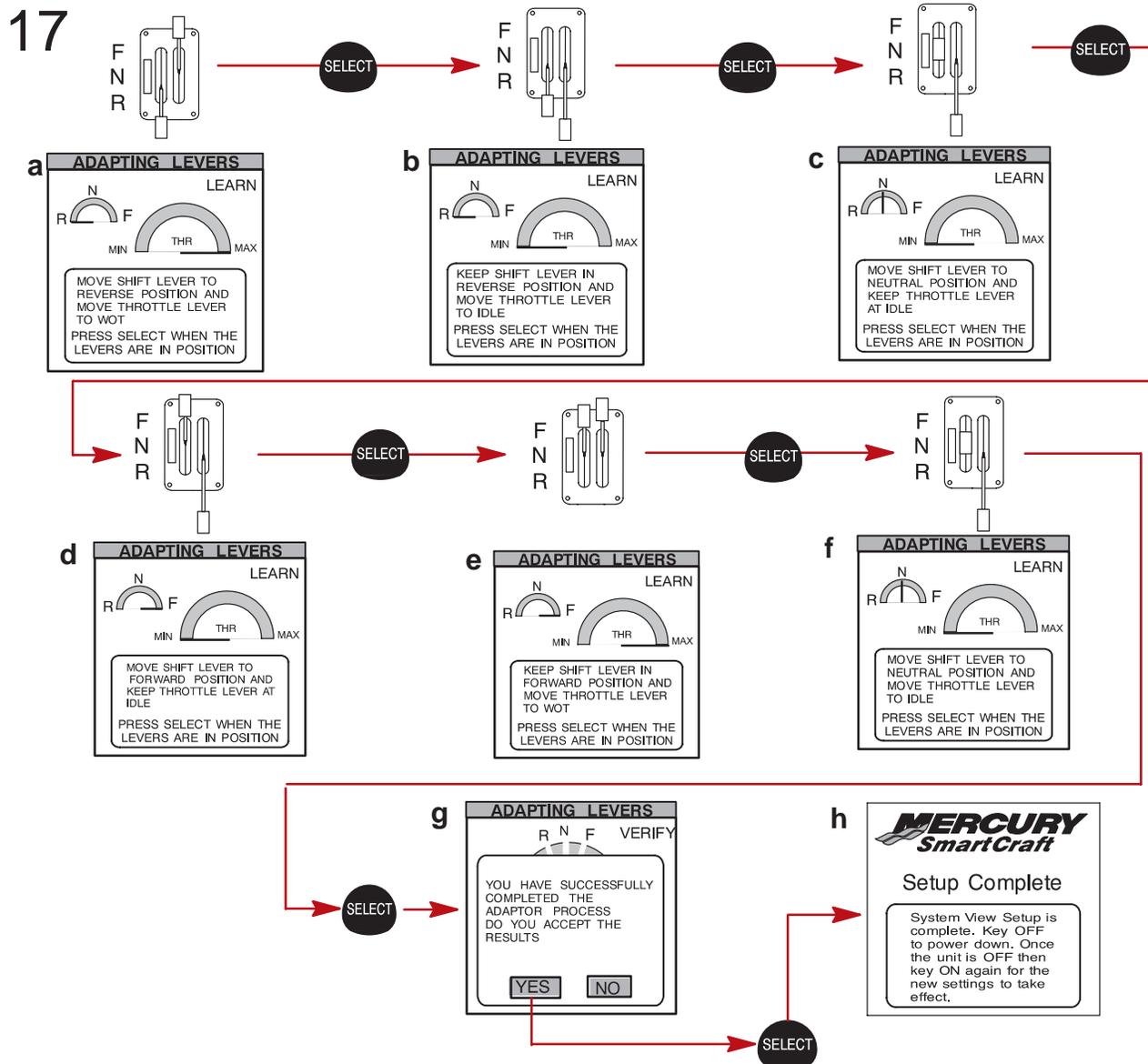


## ZERO EFFORT

**NOTE:** On dual level controls (twin engines) – move and position both sets of levels together.

17. Move the control levers to the selected positions (a through f) as instructed for the command module to learn all of the lever positions.

- a. Move shift lever to reverse and move throttle lever to full throttle Press SELECT.
- b. Keep shift lever in reverse and move throttle lever to idle. Press SELECT.
- c. Move shift lever to neutral and keep the throttle lever at idle. Press SELECT.
- d. Move shift lever to forward and keep the throttle lever at idle. Press SELECT.
- e. Move shift lever to forward and move throttle lever to full throttle. Press SELECT.
- f. Move shift lever to neutral and move throttle lever to idle. Press SELECT.
- g. Select YES and press SELECT to accept.
- h. Initial setup is complete. Turn the power off to the System View. Once the unit is turned off, then turn the power back on again for the settings to take effect.



ZERO EFFORT WITH FOOT THROTTLE

18. Move the shift lever to the selected positions (a through f, as instructed) in order for the system to learn all the lever positions. Complete steps a through f as follows:
  - a. Move shift lever reverse position. Push foot throttle to full throttle. Press SELECT.
  - b. Keep shift lever in reverse position. Return foot throttle to idle. Press SELECT.
  - c. Move shift lever to neutral position. Keep foot throttle at idle. Press SELECT.
  - d. Move shift lever to forward position. Keep foot throttle at idle. Press SELECT.
  - e. Keep shift lever in forward position. Push foot throttle to full throttle. Press SELECT.
  - f. Move control lever to neutral. Return foot throttle to idle. Press SELECT.
  - g. Select YES and press SELECT to accept.
  - h. Initial setup is complete. Turn the power off to the System View. Once the unit is turned off, then turn the power back on again for the settings to take effect.

18

