

MAYFAIR TRIM TAB INSTALLATION137-8091

Thanks for purchasing a Mayfair Hydraulics product, we do our best to make sure our products are the finest available. If you ordered a complete trim tab kit it will include the following components.

1 pair of Mayfair trim tabs (part number depends on length ordered)

2 trim tab pumps (137-8200)

4 inside trim hoses 60" long each (137-8267)

1 billet trim tab dash switch panel (137-8258)

1 set mounting hardware

1 transom mounting template

1 set of instructions

Optional items available depending on kit ordered:

LED trim tab magnetic sensors (you can upgrade your trim tabs at anytime to the LED dash indicators)

Complete wiring harness from the dash to the pumps (137-8280)

Installation of the Trim Tabs

If you are replacing a set of Mercury K-planes then you are in luck as the Mayfair trim tab is a direct replacement for the 280 or 380 versions. Just clean the old silicone from the transom and follow the installation instructions below for mounting your new tabs to the transom.

Trim Tab Location

If this is a new installation you must first find a spot on the transom that the trim tabs fit the best for your application. Make sure to check on the outside as well as the inside of the transom that there are no interferences for the installation. Keep in mind that the wider the tabs are set on the transom the better they will work giving you the best performance possible. (SEE DIAGRAMS 137-8022 TAOV Top View & 137-8022 TAFB Front View)

If you are replacing an existing set of trim tabs then make sure to fill or that you cover completey any existing holes in the transom. The mounting location should not extend into the chine area, nor too close to the outdrive to cause any interference of either component. The trim tabs can be mounted over the strakes as this will not cause any performance issues.

The trim tabs are assembled so that the oil pass thrus are to the outside of the transom. If you have any interferences on the inside of the transom they can be switched side to side without any issue.

You will need to have the trim tab mounted from 1/4" to 3/4" up from the bottom of the boat. (SEE DIAGRAM 137-8022 TASV Side View) This will allow the trim plate to be pulled up completely out of the water when fully retracted. Use the supplied paper template to mark the drill locations on the transom once you have found the mounting locations that work on the outside as well as the inside of the transom.



MAYFAIR TRIM TAB INSTALLATION137-8091

Drilling the Transom

Once the transom is marked drill the transom holes following the drawing below for the correct size holes to be drilled. After all of the holes have been drilled through test fit the trim tab dry. Make sure everything fits smoothly thru the holes and that the tabs are parallel with the bottom. Now is the best time to drill for the indicator cables or wires if you are using a tab indicator of any kind. This hole is best drill at 30 degree up angle for the ease of the cable installation.

Mounting to the Transom

Make sure to use only 3M 5200 marine grade sealant or another brand with the same specs that is suitable for underwater use and yes more is better in this case as you always wipe off the excess and it is hard to add more later. Follow the drawing below for the best placement of the sealant. (SEE DIAGRAM Trim Tab Transom Installation)

The installation of the trim tab is best done with 2 people one on the outside and the other on the inside. When the tab is placed onto the transom install the oil pass thru nuts loosly first to hold the tab in place. Now install the 4 3/8 bolts and nuts making sure to use some antisieze on the stainless hardware. Make sure that the tab is still parallel with the bottom of the transom and torque the 4 3/8 bolts to 30 to 35 ft lbs. The 2 oil pass thru nuts can be tightened to 25 to 30 ft lbs. at this point. Clean any excess sealant from around the trim tab transom plate at this time for a clean looking installation.

Mounting the Trim Pumps

The trim tab pumps need to be mounted in such a manor as to keep them out of the water from the bilge or from being submerged or exposed to water in any way. Mount the pumps so that the supplied hoses will reach the oil pass thrus for the trim tabs. It is best when at all possible to mount the pumps as level as possible with the pump always in a vertical postion.

The Mayfair pumps are supplied with a race style mounting bracket that can be mounted directly to the transom or to any custom built bracket as well. This bracket is not supplied with mounting hardware but some 3/8 stainless lag bolts work very well, length depending on the transom thickness.

When mounting the bracket check to make sure that you have enough room above and below the bracket for the pump installation. (SEE DIAGRAM 137-8200 Mayfair Trim Pump Assembly Mounting) The transom bracket mounts with the threaded hole facing upward. You will need 9" above the top of the bracket, 3" below the bracket, and 8" out from the bracket.

Once the bracket is firmly mounted slide the pump side bracket down over the transom portion until it stops and then istall the retaining bolt and tighten.



MAYFAIR TRIM TAB INSTALLATION

Hose Routing

Both ends of the hydraulic hoses are a -3 male inverted flare style of fitting so it does not matter if the 90 degree or the straight end is connected to the pump. Take care when connecting the hoses that you do not cross thread or over tighten the fittings which will cause leaks.

When you are looking at the trim pump the fitting on the port side is the up and the starboard fitting is the down side. This is also marked on the pump housing as well. On the trim tabs the top fitting is up and the bottom fitting is the down. Make sure to double check the hose connections before operating the system that they are correct.

Wiring the Trim Pump

The wiring connections are basically 4 wires per pump. (SEE DIAGRAM 137-8200 Mayfair Trimp Pump Assembly Wiring Diagram) The main 12 volt battery connection needs to be a minimum 10ga red wire ran through a 20 amp fuse. The main ground wire needs to be a 10ga black wire connected to battery ground. The 2 smaller trigger wires that run to the switch are a 14ga blue wire for the up action connects to the top solenoid. The bottom solenoid connection will be a 14ga green wire for the down actuation of the trim tab. This is the same for both pumps. See diagrams for the switch wiring, there is also a seperate wiring harness available part number 137-8280 to wire from the pump to the switches.

The dash switch panel needs to be mount within easy reach of the operator to control the tabs while at speed. Use template 137-8259 Trim Tab Switch Panel Template to mount. Follow the wiring diagram below for the correct wiring of the switches if you not installing the optional 137-8280 wiring kit.

Filling Hydraulic System

The Mayfair trim tabs are shipped with no oil in the system and must be filled with a good quality SAE 10W30 oil. (DO NOT RUN THE PUMP DRY OF OIL AS DAMAGE WILL OCCUR)

With the trim tab in the fully up position fill the reservoir with the 10W30 oil to the MAX mark on the side of the reservoir tank. Cycle the system up and down several times to purge any air that maybe in the system. With trim tab again in the fully up position check the fluid level in the reservoir and fill as needed to the MAX line taking care to not over fill. After cycling each trim tab several times check all of the hose connections for any possible leak.

Some air bubbles may form in the oil after operation of the tabs from the purged air this will settle, recheck the oil level after 24 hours and fill as needed. (SEE DIAGRAM 137-8022 Mayfair Trim Hose Routing)

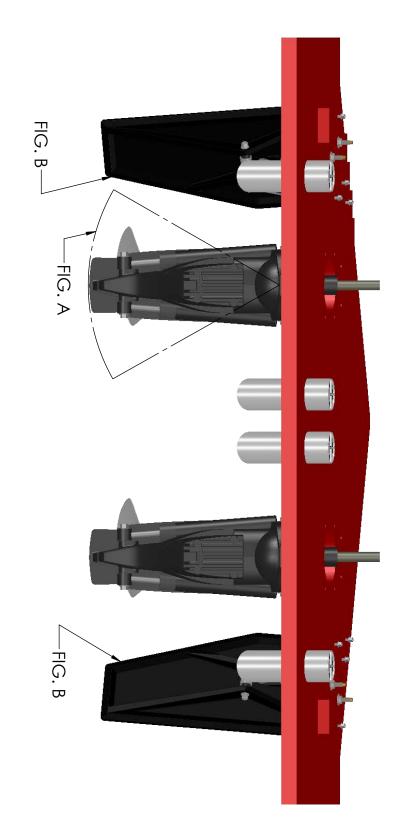
IILE:

PART NO.

137-8022TAUV

TRIM TAB TRANSOM MOUNTING - TOP VIEW

www.mayfairhydraulics.com



INSTALLATION INSTRUCTIONS:

1) WHEN INSTALLING TRIM TABS. MAKE SURE YOU HAVE PROPER DRIVE TURNING AND PROPELLER CLEARANCE. SEE FIG. A. THIS IS VERY IMPORTANT IN DUAL OUTDRIVE APPLICATION LIKE SHOWN.

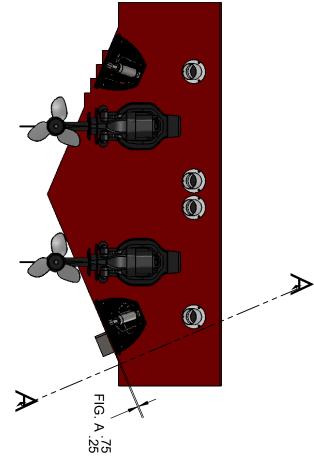
2) THE TRIM TABS ARE CUTAWAY TO PROVIDE EXTRA DRIVE CLEARANCE. SEE FIG. B

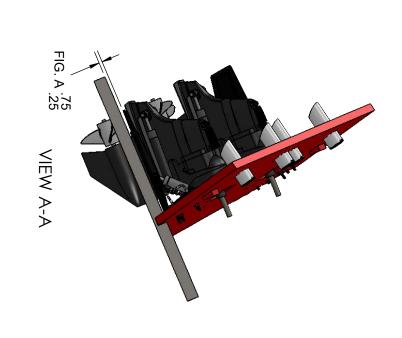
PART NO. 137-8022TASV

TITLE:

TRIM TAB TRANSOM MOUNTING- SIDE VIEW

www.mayfairhydraulics.com



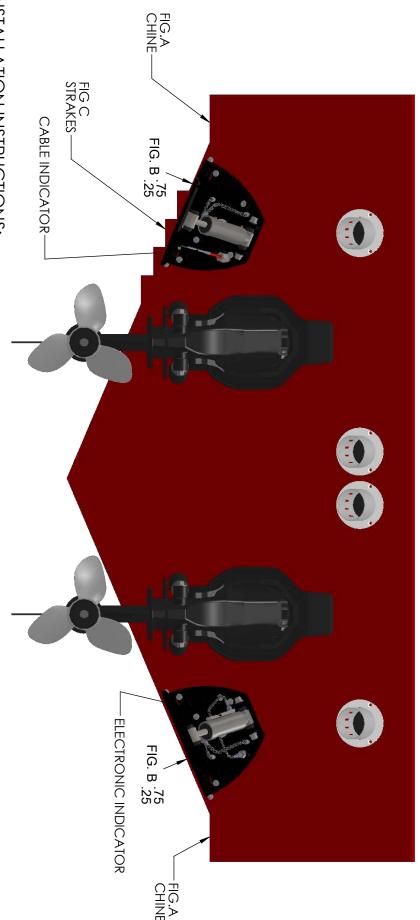


1) WITH THE TRIM TAB IN THE FULL UP POSITION. LAY A STRAIGHT EDGE ON THE BOTTOM OF THE BOAT. MAKE SURE THE END OF THE TRIM TAB IS 1/4-3/4 ABOVE THE STRAIGHT EDGE. SEE FIG. A. **NSTALLATION INSTRUCTIONS FOR 20 DEGREE PLUS TRANSOMS:**

137-8022TAFV PART NO.

TRIM TAB TRANSOM MOUNTING - FRONT VIEW

www.mayfairhydraulics.com



INSTALLATION INSTRUCTIONS:

WHEN SELECTING A MOUNTING LOCATION VERIFY PROPER CLEARANCE INSIDE AND OUTSIDE THE TRANSOM. MAKE SURE YOU HAVE PROPER DRIVE TURNING AND PROPELLER CLEARANCE. SEE TRANSOM UPPER VIEW

DRAWING.

3) DO NOT MOUNT IN THE CHINE AREA, SEE FIG. A.
4) THE FARTHER THE TABS ARE BETWEEN EACH OTHER THE BETTER. THIS WILL ALLOW YOU TO ACHIEVE THE MAXIMUM PERFORMANCE OUT OF YOU TRIM TABS.
5) USING A STRAIGHT EDGE, MOUNT TABS 1/4-3/4 ABOVE THE BOTTOM OF THE BOAT, SEE FIG. B. SEE SIDE VIEW DRAWING THAT SHOWS STRAIGHT EDGE ALONG THE BOTTOM OF THE BOAT. IT IS OK TO MOUNT ABOVE THE

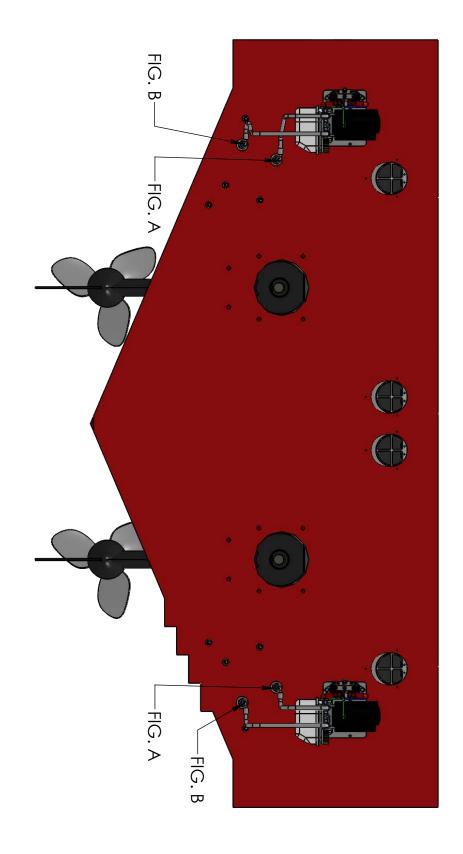
THIS DRAWING IS CONFIDENTIAL AND IS SUPPLIED ON EXPRESS CONDITION THAT IT SHALL NOT BE LENT, COPIED OR DISCLOSED TO ANY OTHER PERSON OR USED FOR ANY OTHER PURPOSE WITHOUT WRITTEN CONSENT OF HARDIN MARINE INC., BREACH OF THIS CONTRACT WILL HOLD AND IT'S PRINCIPALS LIABLE FOR LOSS AND DAMAGES.

PART NO. 137-8022THD

HLE:

TRIM HOSE ROUTING

www.mayfairhydraulics.com



INSTALLATION INSTRUCTIONS:

1) KIT IS SUPLIED WITH 60" LINES. MOUNTING TRIM PUMPS ACCORDING TO HOSE LENGTH. SEE DIAGRAM 137-8200

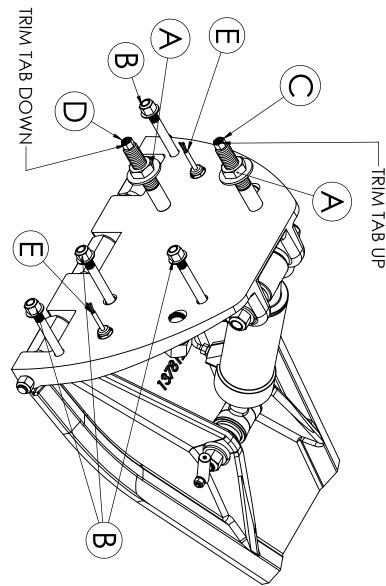
MAYFAIR TRIM PUMP ASSEMBLY MOUNTING FOR PROPER MOUNTING INSTRUCTIONS.

2) TRIM PUMPS ARE MARKED UP AND DOWN. THE UP LINE GOES TO THE UPPER THRU HULL FITTING, SEE FIG. A. THE DOWN LINE GOES TO THE LOWER THRU HULL FITTING, SEE FIG. B.

Ę

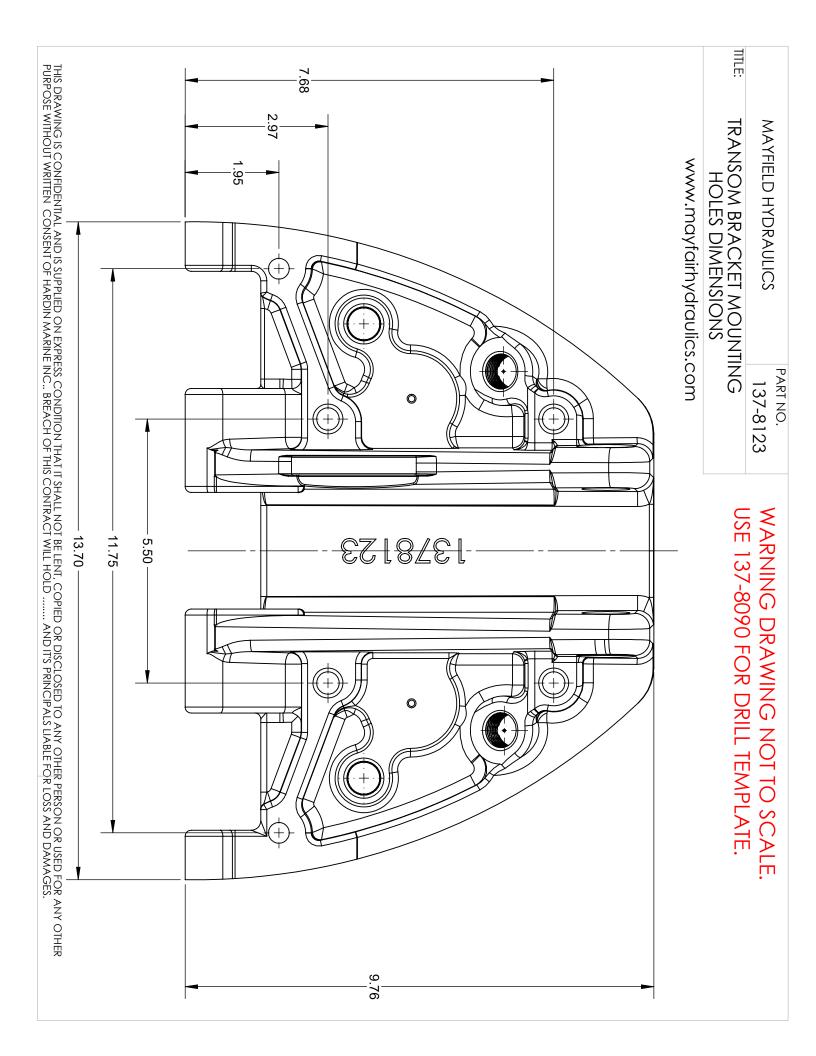
TRIM TAB TRANSOM INSTALLATION

www.mayfairhydraulics.com



INSTALLATION NOTES:

- 1) DRAWING SHOWS A STARBOARD SIDE 22" TRIM TABS WITH CABLE ACTUATOR.
- 2) USE THE SUPPLIED TRANSOM TEMPLATE TO DRILL HOLES IN THE TRANSOM.
- 3) TEST FIT TRIM TAB TO THE TRANSOM
- 4) APPLY 3M 5200 MARINE ADHESIVE AROUND ALL HOLES ON THE TRANSOM BRACKET.
- 5) APPLY ANTI SIEZE ON THE THRU HULL AND 3/8 BOLT THREADS.
- 6) SLIDE TRIM TAB INTO THE DRILLED HOLES. INSTALL THE THRU HULLS NUT AND WASHER, FIG. A, TO HOLD TRIM TAB TO TRANSOM.
- 7) INSTALL THE (4)3/8 BOLTS THRU THE TRANSOM PLATE. INSTALL NUT AND WASHER, FIG. B.
- 8) BEFORE TIGHTENING THE BOLTS. MAKE SURE THE TRIM TAB IS SITTING PARALLEL TO THE BOTTOM OF THE TRANSOM.
- 9) TIGHTEN OIL THRU HULLS NUTS TO 25-30 FT LBS. TIGHTEN 3/8 BOLTS TO 30-35 FT. LBS.
- 10) ATTACHED HOSES FROM TRIM PUMP TO THE -3 INVERTED FLARE OIL THRU HULLS. FIG. C MOVES THE TRIM TAB UP. FIG. D MOVES THE TRIM TAB DOWN.
- 11) FIG E SHOWS 137-8126 LED LIGHTS.





User Manual

Part Number:

PL-DP-27W-RGB

Important: Read all instructions prior to installation.

Drain Plug Light

Features

316L Marine Grade Stainless Steel Poly-Carbonate Lens 5 Ft Power Wire (22AWG) Over-Temp Protection Waterproof IP68

Specifications

27W LED Drain Plug Light		
Input Voltage	12 VDC	
Current Draw	1.2 A @ 13.5VDC	
Total Power Consumption	16.2W @ 13.5VDC	
Operating Temperature	-22°F~122°F (-30°C~50°C)	
Available Colors	RGB	
LED Lifetime	50,000 Hours	
LED Brand	CREE	
Warranty	3 Years	
Dimensions	1/2" or 3/4 NPT	
Weight	0.77 lb (0.35kg)	

Parts Included

Underwater Boat Light 1x (PL-DP-27W-RGB)

Recommended Tools (not included)

Wrench PTFE Sealing Tape Alcohol Lint Free Cloths Masking Tape

Caution

LIGHTS MUST BE SUBMERGED TO AVOID OVERHEATING.
USE OUT OF WATER WILL DECREASE LED LIFETIME AND CAUSE EARLY
FAILURE.

LIGHTS HAVE OVER TEMPERATURE PROTECTION (FOR TESTING PURPOSES ONLY) AND WILL SHUT OFF WHEN MAX TEMP (194°F / 90°C) IS REACHED.

ENSURE THE POWER WIRE IS SECURED AS MOVEMENT OF POWER WIRE WILL WEAR OUT THE SEAL AND ULTIMETELY CAUSE LIGHT FAILURE.

WE ARE NOT RESPONSIBLE FOR ANY INJURY OR PROPERTY DAMAGE INCURRED DUE TO IMPROPER INSTALLATION.

Bluetooth Control Box

Search for the PlashLights APP in the APP store or Scan the QR code to download App (IOS 6 or Android 4.3 above)

Bluetooth Control Box	
Input Voltage	DC 12V
Output power	Max:200W
Waterproof	IP67
Material	Polycarbonate
Size	126*82*28(mm)
Bluetooth Transmit distance	30FT

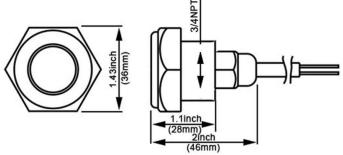


Note:

- Bluetooth Controller is SOLD SEPARATELY
- Bluetooth Controller can only drive up to 200W of boat lights.

Installation Instructions

TIP: Know your thread; is it 1/2" or 3/4 NPT?



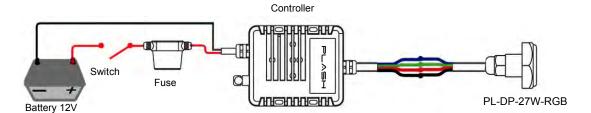
Bluetooth Pairing Steps:

Power on the control box, within 2 minutes open the PlashLights APP on your phone, the APP will automatically connect to the Bluetooth controller indicated by a red wheel on the right, go to home icon, create zone, name is optional, add devise to zone, select zone, lights can be controlled now.

TROUBLE SHOOT CONNECTION:

- 1, Check whether the device is powered, whether the phone Bluetooth is turned on, please do not connect the Bluetooth controller to your Bluetooth setting.
- 2, APP click to refresh to see if the connection can be successfut. If not, exit APP from the background, and re-power the controller , reopen the APP.
- 3, Keep your phone and the controller no more than 30 FT apart.

Wiring Diagram



HARDIN MARINE 11 Industry Dr. Palm Coast, FL 32137 386-445-2500 / FAX 386-445-1122 137-8684

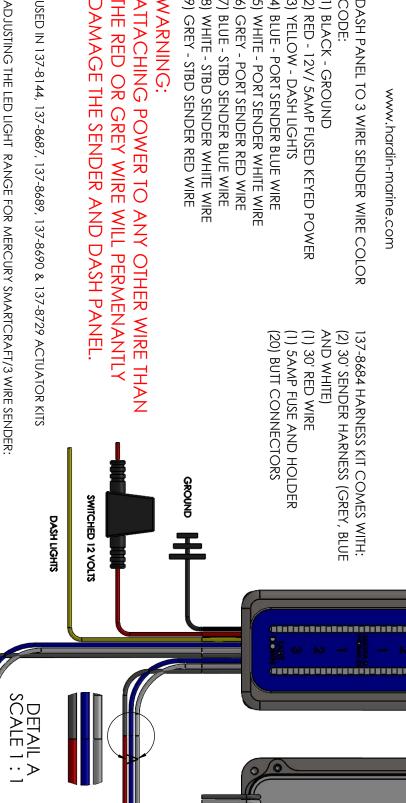
3 WIRE SENDER WIRING

www.hardin-marine.com

-STBD

DASH PANEL TO 3 WIRE SENDER WIRE COLOR

- 1) BLACK GROUND
- 2) RED 12V/ 5AMP FUSED KEYED POWER
- 3) YELLOW DASH LIGHTS
- 4) BLUE PORT SENDER BLUE WIRE
- 5) WHITE PORT SENDER WHITE WIRE
- 6) GREY PORT SENDER RED WIRE
- 7) BLUE STBD SENDER BLUE WIRE
- 9) GREY STBD SENDER RED WIRE 8) WHITE - STBD SENDER WHITE WIRE
- AND WHITE) 5AMP FUSE AND HOLDER (1) 30' RED WIRE (2) 30' SENDER HARNESS (GREY, BLUE



WARNING:

THE RED OR GREY WIRE WILL PERMENANTLY DAMAGE THE SENDER AND DASH PANEL ATTACHING POWER TO ANY OTHER WIRE THAN

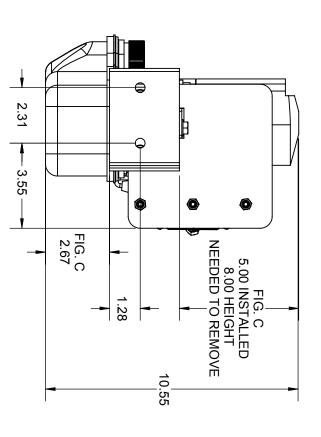
USED IN 137-8144, 137-8687, 137-8689, 137-8690 & 137-8729 ACTUATOR KITS

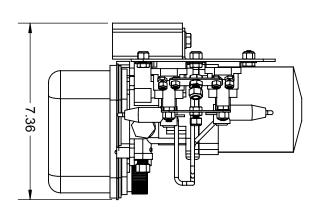
- MOVE THE DRIVE/TAB ALL THE WAY DOWN.
- 2) BOTH SENDERS MUST BE WIRED AND THE BOTTOM LIGHT ON BOTH SIDES MUST BE LIT. IF ONLY ONE SENDER IS BEING USED, WIRE BOTH SIDES OF THE DASH PANEL TO THE SINGLE SENDER.
- SENDER IS VERY SENSITIVE TO MOVEMENT. 3) ADJUST THE MERCURY SENDER SO THE BOTTOM LIGHT IS ON. WHEN TIGHTENING THE BOLTS, THE LIGHT MIGHT TURN OFF OR SHOW TWO LIGHTS. IF SO, LOOSEN BOLTS, ADJUST SENDER AND TIGHTEN BOLTS AGAIN.
- 4) MOVE THE DRIVE/TAB ALL THE WAY UP.
- 5) USING 1/16 ALLEN KEY, REMOVE THE BACK COVER.
- 6) USING A SMALL FLAT SCREWDRIVER, CAREFULLY TURN THE ADJUSTMENT SCREW ON THE BACK OFF THE led panel all the way counterclockwise. Some of the top led's should turn off.
- PANEL IS NOW ADJUSTED FOR FULL RANGE, NOW ADJUST THE OTHER SIDE. CYCLE UP AND DOWN A FEW 7) SLOWLY TURN THE ADJUSTING SCREW CLOCKWISE UNTIL THE THE TOP LED LIGHT BEGINS TO ILLUMINATE TIMES TO MAKE SURE LIGHTS ARE ADJUSTED PROPERLY.
- 8) REINSTALL REAR COVER.
- 9) 2 SLOT SHOWN. SAME INSTRUCTIONS FOR 4 AND 6 SLOT PANELS.

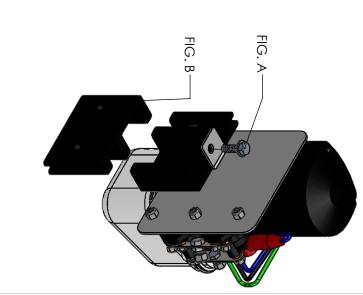
PART NO. 137-8200

MAYFAIR TRIM PUMP ASSY MOUNTING

www.mayfairhydraulics.com







- INSTALLATION INSTRUCTIONS:

 1) MOUNT TRIM PUMP IN SUCH A MANOR AS TO KEEP THEM OUT OF THE WATER FROM THE BILGE OR FROM BEING SUBMERGED OR EXPOSED TO WATER IN ANY WAY. KIT COMES WITH 60" LONG TRIM HOSES. IF DISTANCE NEEDS TO BE FURTHER, CUSTOM HOSES ARE AVAILABLE. PUMPS MUST BE MOUNTED VERTICALLY, LIKE SHOWN IS DIAGRAM.
- 2) NO MOUNTING HARDWARE IS SUPPLIED. USE 3/8 STAINLESS LAG BOLTS OR 3/8 THRU BOLTS FOR MOUNTING
- 3) TRIM PUMP COMES ASSEMBLED AS SHOWN. REMOVE THE 5/16 BOLT AND WASHER, FIG. A. THIS WILL REMOVE BRACKET THAT MOUNTS TO THE INSTALLED AREA, FIG. B. USE THIS BRACKET TO DRILL YOU HOLES.
- 4) MOUNT BRACKET SO THE PUMP HAS MINIMUM 2.67 DISTANCE BELOW AND 8.00 ABOVE. SEE FIG. C

PART NO. 137-8200

IILE:

MAYFAIR TRIM PUMP ASSY WIRE DIAGRAM

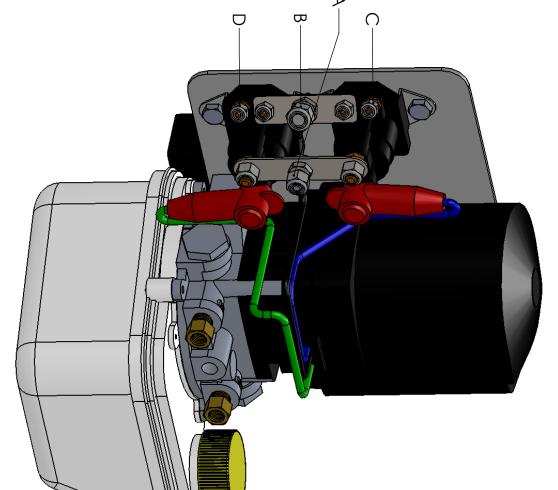
www.mayfairhydraulics.com

ELECTRICAL WIRING

- 1) Attach optional wire harness (137-8280 sold seperately) to the supplied 137-8258 trim pump panel.
- CAUTION All wiring must meet U.S.Coast Guard Standards.
 2) Attached the harness to the pump following color code listed below.
- A) 10ga. red wire to positive battery terminal. 20 AMP fuse required in this line per U.S. Coast Guard standard.
- B) 10ga. black wire to negative battery terminal.C) Blue wire, trim tab - IJP
- C) Blue wire, trim tab UP.D) Green wire, trim tab -DOWN.

CAUTION

Avoid damage to trim pump. DO NOT electrically operate pump without having hoses connected and 10W30 oil in the reservoir.

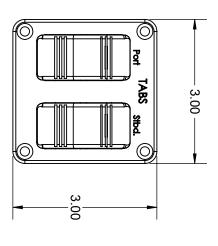


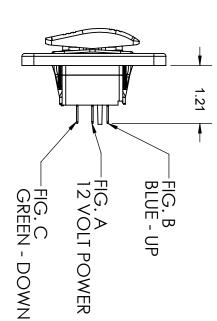
THIS DRAWING IS CONFIDENTIAL AND IS SUPPLIED ON EXPRESS CONDITION THAT IT SHALL NOT BE LENT, COPIED OR DISCLOSED TO ANY OTHER PERSON OR USED FOR ANY OTHER PURPOSE WITHOUT WRITTEN CONSENT OF HARDIN MARINE INC.. BREACH OF THIS CONTRACT WILL HOLD AND IT'S PRINCIPALS LIABLE FOR LOSS AND DAMAGES.

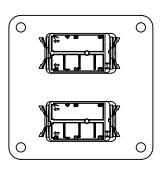
137-8259

TRIM TAB SWITCH PANEL

www.mayfairhydraulics.com

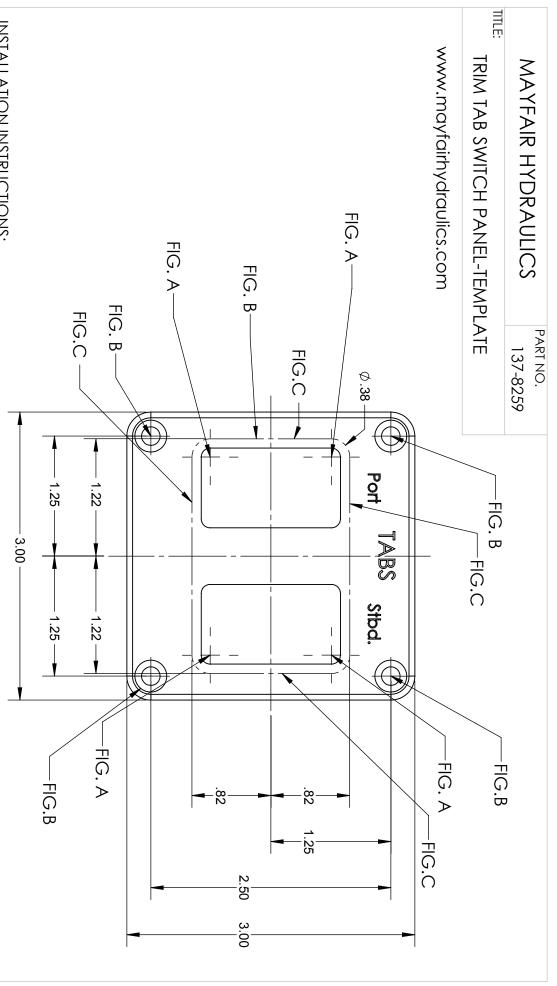






- INSTALLATION INSTRUCTIONS:

 1) SEE 137-8259 TEMPLATE ON HOW TO MOUNT THE SWITCH PANEL TO THE DASH.
- 2) SEE OPTIONAL 137-8280 WIRE HARNESS DIAGRAM FOR PROPER WIRE TO THE 137-8200 TIRM PUMP.
- 3) CENTER SPADE IS 12 VOLT POWER, FIG. A
- 4) UPPER SPADE GOES TO BLUE WIRE ON 137-8200 TRIM PUMP, FIG B. THIS MOVES THE TABS IP
- 5) LOWER SPADE GOES TO GREEN WIRE ON 137-8200 TRIM PUMP, FIG. C. THIS MOVES THE TABS DOWN.



INSTALLATION INSTRUCTIONS: 1) FIND FLAT SURFACE ON DASH FOR THE 3" \times 3 " PANEL. MAKE SURE YOU HAVE 2-1/2 OF DEPTH BEHIND THE DASH.

- 2) MAKE SURE PRINTER IS SET TO 1:1. CHECK SIZE WHEN PRINTED.
- 3) USING THE 4 CENTER MARKS, FIG. A. DRILL \emptyset 3/8 HOLES
- 4) USING THE 4 CENTER MARKS, FIG. B. PRE DRILL FOR MOUNTING SCREWS THAT YOU WILL BE USING
- 5) USE A JIG SAW AND CUT ALONG THE DOTTED LINES. SEE FIG. C