

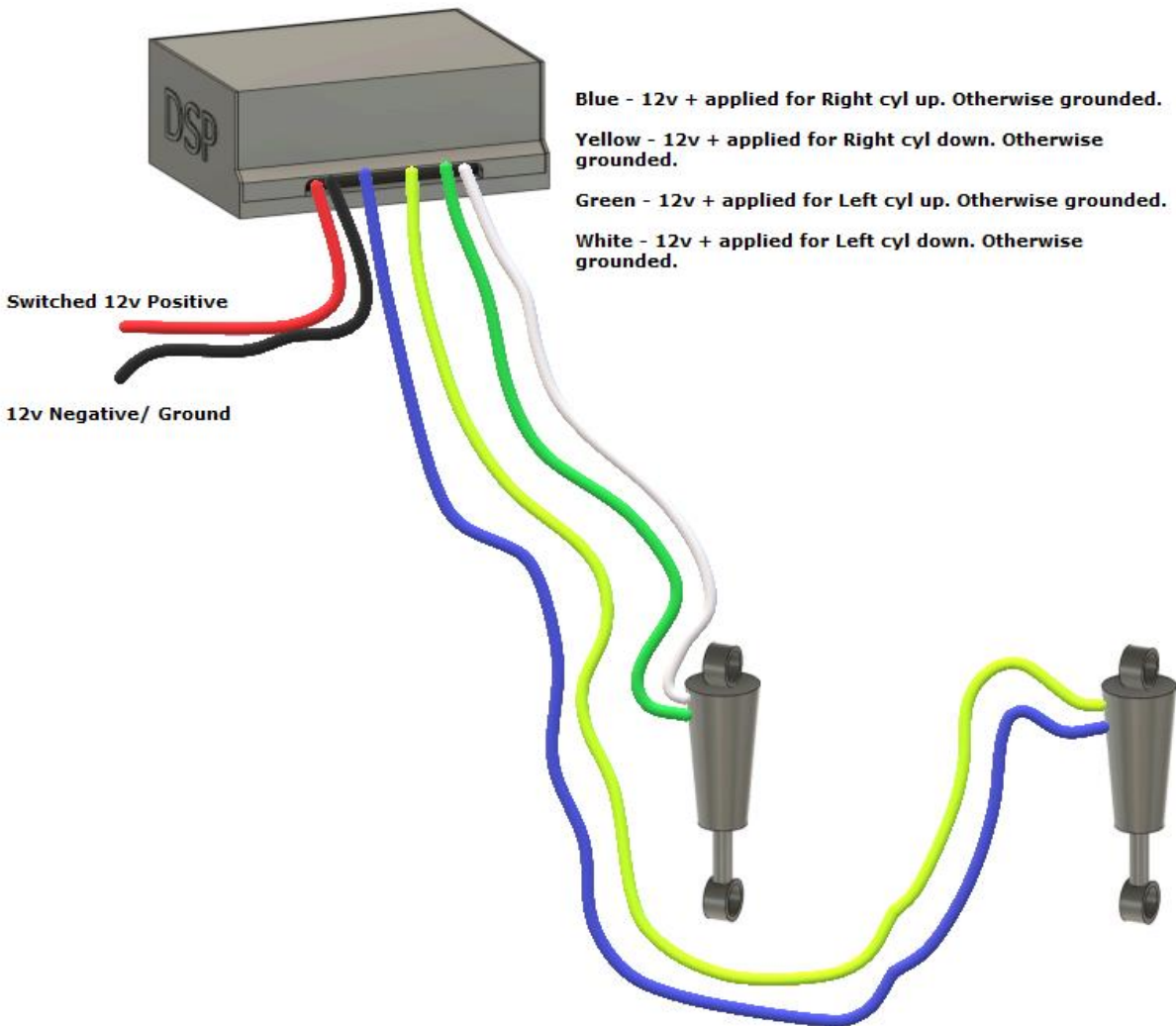
DSP Trim Controller

~ Installation and setup guide ~

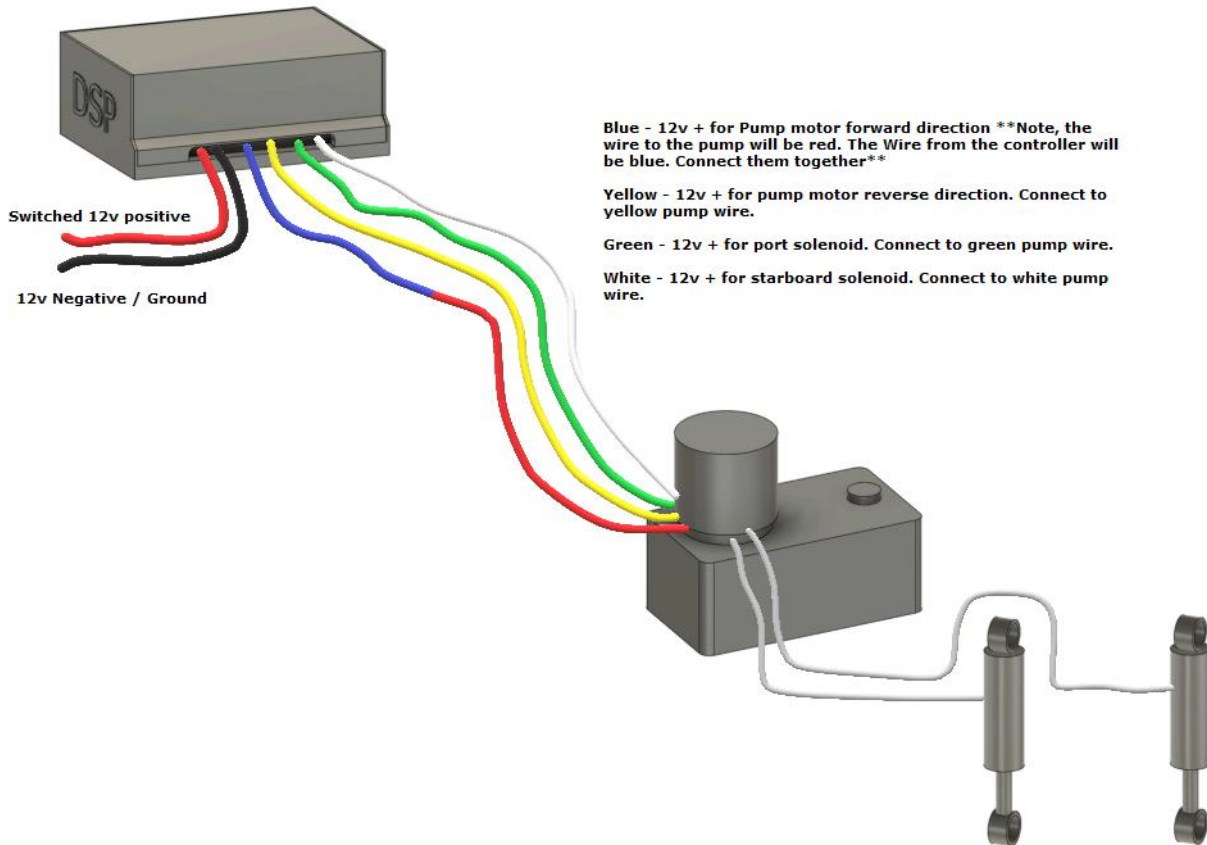
- **Wiring** - Please follow this wiring diagram for your controller type.

It is recommended installing trim controller on a separate 12v + power switch and using a 20 amp inline fuse, not to the engine key switch. Make all connections with solder and heat shrink tubing or sealed splice connectors.

Electric trim tabs. This is for fully electronic stepper motor type trim tabs. This type does not use a hydraulic pump.

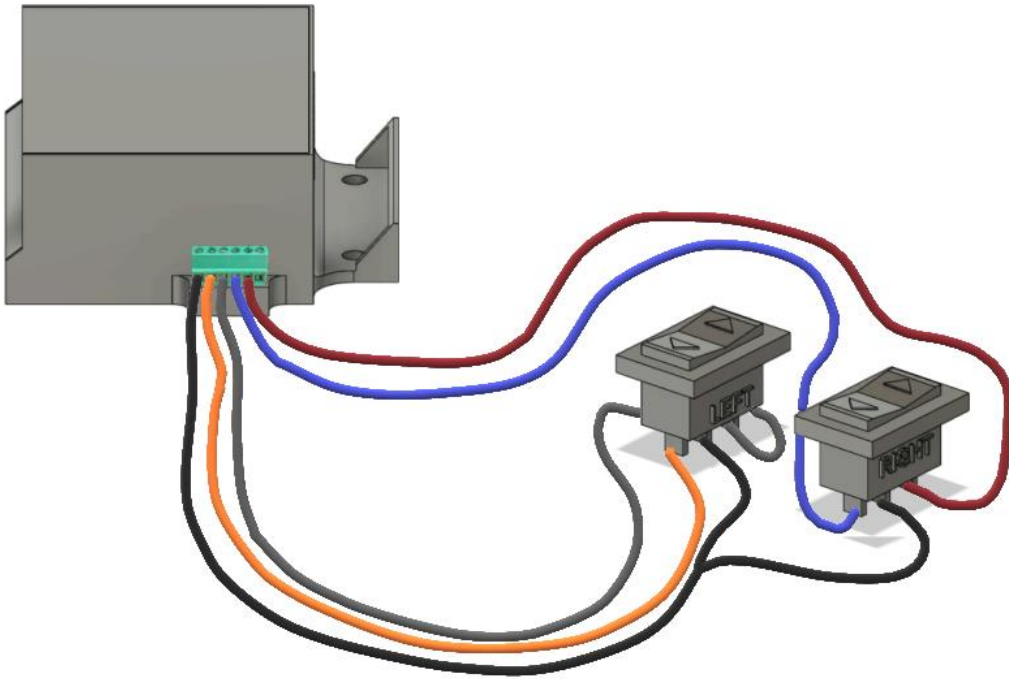


Hydraulic trim tabs. This type uses a hydraulic pump and reservoir. The connection from the pump to the trim tabs will be a plastic or metal tubing.



Manual switch control. This can be added to use the mechanical buttons that likely came with your trim tabs. Disconnect all wires from the switches and only connect them to the controller as shown. If you fail to wire this correctly, it can permanently disable the Controller.

Use small 22 gauge wires to connect the Controller input terminals to the switches. Note, Pin 6 is not used. If you do not wish to connect manual switches, it's advised to cover input terminal with electrical tape or equivalent to prevent accidental shorting.



- **Mounting** - Use the mounting tab on the front of the controller. Mount the controller with the front of the controller facing the front of the boat. Ideal placement would be an area near the center of the boat and away from as much vibration as possible. Depending on installation location, you may need to make brackets or rubber mount the controller. The unit is water resistant, but it is not recommended to be submerged under water.

- **Setup** – Once unit is mounted and wired, power on the controller. After several seconds you should see a WiFi access point called “DSP-Trim-Controller”. Connect to this using the password 12345678. Once connected, open a web browser and go to the website/ IP address “192.168.4.1”. When viewing the website, you will have to do an initial setup to match your boat’s features. Navigate to the settings page by clicking the SETTINGS button on the upper right of the “Trim Tab Control” page, next click SETUP button on the upper right of the 2nd page labeled “Trim Tab Settings”. Here you will need to set your cycle speed. Set one side at a time by

pressing the DOWN button and once the tab is fully down press STOP. It should show a value in seconds in the box above the SUBMIT button. Once satisfied with this time value press SUBMIT to save. You can also use a stopwatch or other time and input that time value in the box, then press SUBMIT. Do this for both sides. The values will generally be the same time, but this allows for the adjustment if needed.

Next, press BACK and go to page 2, "Trim Tab Settings". Read each description and enter the desired value for your boat. This will take several tries to get the best working value for your boat.

The Controller is now setup. It is best to test functionality back on page 1. Use the Manual Control to operate the tabs, ensuring they are working as they should.

Once everything is tested, you can toggle on Auto Adjustment Mode (Auto Mode) by pressing the button. Also, if you want Auto Mode to come on when you power on the Controller, you will need to enable that on page 3. Note, all settings need a value to work properly. If the device is ever reset and values are not shown, input the default values to get the Controller operational again.

- Operation – Start boat motor, switch on Controller power, upon startup your Controller will make a baseline calibration. This will be made within the first 2 seconds of power up. It is best during that point to have the boat level as possible, so the Controller will know when it is out of adjustment. Next, if Auto Mode is enabled, the trim tabs will raise all the way up and then start making the trim tab corrections to level the boat. Some features such as Accel Mode work better with some types of boats than others. If you find even after adjusting the G-force settings, it is not working as expected, that feature may not be compatible with your boat setup. Furthermore, some customers found that Bow to Stern adjustment mode works the best when the Bow to Stern offset is set higher to allow the bow to rise during larger waves.

If manual switch control is installed, the switches will have a slight delay when triggered. If Auto Mode is enabled, it will adjust the trim tabs automatically if needed moments after manual switches are released. If you want to turn off Auto

Mode if want the trim tabs fully up for loading the boat on a trailer or in shallow waters, hold the manual switches together in the UP position for 6-10 seconds (this value may be longer if your refresh rate is greater than 2 seconds). This will disable Auto Mode and it will have to be reenabled. To reenable it, you need to use the web app, on the display, by power cycling the Controller or by holding the manual switches in the DOWN position for 6-10 seconds.

SETTINGS

Trim Tab Control

Auto Adjustment Mode

Port to Starboard ON

Bow to Stern OFF

Manual Control- Manually activate trim with buttons below. Press **STOP** when desired level is met. If Auto Mode is used, you will have to reenable it above.

Current Values (in degrees)

Port to Starboard angle: [0.00]
 Bow to Stern angle: [5.00]
 Last Event: [Port to Starboard Levelled]

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BACK SETUP

Trim Tab Settings

Refresh Rate - The time in seconds the change in adjustments are made. (1-60 seconds) (Default 2) (Current refresh rate value: [2])

Bow to Stern Offset - Angle in degrees off of level before auto level makes adjustments. (0-40 degrees) (Default 5) (Current offset value: [10])

Port to Starboard Offset - Angle in degrees off level before auto level makes adjustments. (1-40 degrees) (Default 3) (current value: [3])

Accel Time - Time in seconds for trim to be full down on takeoff. (1-30 Seconds) (Default 2) (current value: [2])

G-force level - G-force sensitivity level to activate trim down for accel. The lower the number the more sensitive the reading. (1-20) (Default 4) (current value: [20])

Startup Delay - Delay time in seconds before unit starts after power is applied. (1-300) (current value: [1])

Current values (in degrees)

Port to Starboard: [0.00]
 Bow to Stern:[5.00]
 Last Event: [Port to Starboard Levelled]

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BACK

Trim Tab Setup

Cycle Speed - To set trim full cycle time value, raise each tab all the way up. Press the down key until it lowers all the way to the down most position, then press Stop. Press Submit when finished. NOTE: Auto Mode will be disabled when viewing this page, visit the main page to reenable.

Current Value
 Current Left cycle speed saved value:[3]
 Current Right cycle speed saved value:[3]

Auto Mode - Toggle to enable/disable all auto adjustments upon startup.

Accel Mode - Toggle to enable/disable trim down on acceleration.

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