

Installation Instructions - iTroll G2 / G2.5 / G3 Control Head and Power Module

STEP 1:

Install the servo motor and throttle linkages from the FIT KIT into your motor that iTroll will be controlling. The fit kit has specific instructions for the motor it was designed for. **Make sure that you have performed the servo ROTATION and TRAVEL programming sequence in the fit kit instructions for your particular boat motor(s)!** When fit kit install is finished, go to Step 2 below.

STEP 2:

Find a location in the battery compartment to mount the power module (Fig 1). Location requirements are:

1. Close enough to 12V battery to allow Red power lead and Black ground lead to be connected to it.
2. There must be a flat surface to mount the power module to with double stick tape or supplied screws. **If using screws, consider what is BEHIND this surface prior to drilling into it!**
3. Another way to mount the power module is to lash it to an existing harness with included cable ties.
4. The 10 foot long grey servo harness must be run into the power head of outboard motor that iTroll is controlling or to servo location on inboard motor that iTroll is controlling.
5. Grey harness with oval 3 pin connector is for the second servo in dual motor setups.

STEP 3:

Mount power module. If using double stick tape, clean mounting surface with supplied alcohol pad and let it dry. If temp is below 70 degrees, warm mounting surface with a blow dryer for best bond strength.

STEP 4:

Connect Red wire to **+12 VOLT** battery terminal or UNSWITCHED (live at all times) fuse panel. 5 amp fuse has been installed at factory. Connect Black wire to (-) battery terminal.

STEP 5:

NOTE: Keep servo harness as far away as possible from spark plug wires and do not let it rest directly against areas of motor that get hot.

- If iTroll will be controlling a SINGLE motor, run servo control harness described in Step 2.4 into the power head of the motor you installed the fit kit on. Plug servo into iTroll's harness. Note that iTroll's 3 pin connector has a polarizing "DOT" on it. This dot corresponds to the servo's signal wire that is Orange, Yellow or White, depending on the brand of servo.
- If iTroll will be controlling DUAL motors, run the servo control harness described in Step 2.4 into the power head of the KICKER motor and servo control harness described in Step 2.5 into power head of the MAIN motor. Plug servo into iTroll's harnesses. Note that iTroll's 3 pin connectors have a polarizing "DOT" on them. This dot corresponds to the servo's signal wire that is Orange, Yellow or White, depending on the brand of servo.

STEP 6: Neutral Safety interfaces: Uses the thin (22 Gauge) BLUE & YELLOW wires from power module.

If using iTroll on a "T" handle remote shift and throttle motor(s), you may want to install neutral safety interface(s) (sold separately) so that iTroll will go to idle whenever the shifter is put in neutral. iTroll can recognize two neutral safety interfaces. The BLUE wire is for motor 1's interface, the YELLOW wire is for motor 2's.

STEP 7:

iTroll's data cable from the power module joins to the control head's data cable with our weatherproof cable union. This allows the control head to be removed from boat to prevent theft. The union may need to be removed to allow you to run the data cable in the boat. See Fig 2 on how the union works. **Put union in a location (under dash board or in storage compartment) that is not exposed to rain or spray.** The union is weather-proof when fully assembled, but if left unassembled when the control head is removed, water can reach the internal contacts of the data cables.

STEP 8:

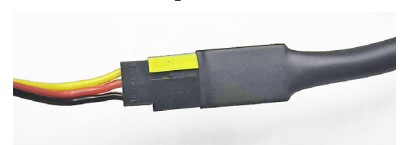
Use supplied cable ties to give the installation a professional appearance.

STEP 9: Mount iTroll control head.

- G2 units without custom mount (ball / gimbal): Use supplied Velcro strips to secure iTroll to any hard surface. Clean mounting surface and back of iTroll with supplied alcohol pad and let dry before applying Velcro.
- G2 / G2.5 / G3 units with custom mount (ball / gimbal): Mount a Ram ball base to boat and connect the balls together with a Ram arm. Note: Due to the fact that no two iTroll installations are the same, and RAM has different base types and arm lengths, RAM arm(s) and base(s) are NOT included in our electronics kit. We do offer a few types on our web site at additional cost.



**Power Module Mounting
Figure 1**



**Servo Connector to
Power Module Connector**

CAUTION: When using iTroll, make sure data cable is managed at all times to prevent it from becoming a tripping hazard!

Data Cable Union / CABLE STOPPER:

Note: When iTroll is shipped, there is a stopper installed in the cable union. This stopper keeps the union weatherproof when the control head is unplugged. Use of the stopper is VERY IMPORTANT so that the contacts of the union stay dry and don't corrode.

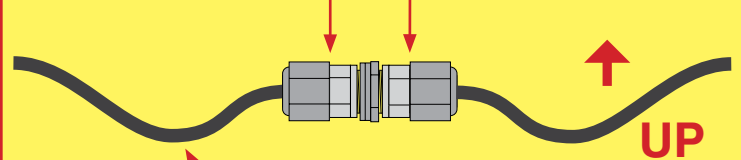
Cable Union ASSEMBLY VIDEO:

<https://www.youtube.com/watch?v=sTaH01Ngqko>



Cable Union Install Notes

Tighten **end caps** so there are **NO gaps at these locations**

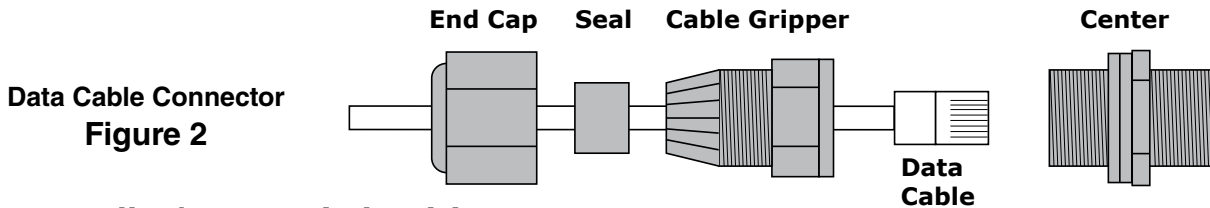


Secure union so it sits horizontally (see UP arrow).
Make **sags** in data cable so water will drip off.

The cable union assembly is made up from a center connector, two cable grippers, two seals and two end caps. To assemble:

1. Thread data cable through end cap.
2. Install seal on data cable. Seal has slit in it for easy installation.
3. Thread data cable through cable gripper.
4. Plug data cable into center connector.
5. Tighten cable gripper over center connector - FINGER tight only!
6. Slide seal into "fingers" of cable gripper. When properly installed, seal should NOT stick out from the fingers of the cable gripper.
7. Tighten end cap over cable gripper - **TO INSURE WEATHERPROOFNESS, MAKE SURE THERE IS NO GAP BETWEEN END CAP AND CABLE GRIPPER!**
8. Repeat for other side.

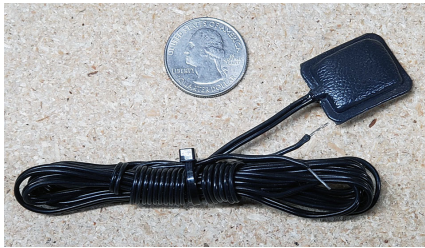
To remove control head, simply reverse above steps on the side of the union that hold the control head's data cable.



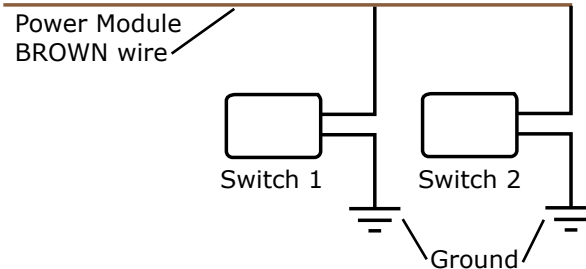
Remote Idle / Run Switch Wiring:

Please note that these switches are optional and must be purchased separately!

You can install remote mounted pad switches anywhere in the boat that work EXACTLY like the Idle / Run button on the control head. This allows you to control iTroll from multiple locations. There is NO limit to the number of switches that you can install.



Remote Idle / Run Switch



Gunnel mounted switch - wire hidden behind grab handle

When mounting switches, choose locations that will not allow for accidental operation of a switch. For instance, mounting a switch where a tackle box might be placed on top of it or stepped on is NOT a good location.

Wiring these switches is very easy. The switches simply connect the BROWN wire from the power module to ground. If you want to install more than one switch, simply duplicate the hook up for the switches in this diagram:

Reference 1: Changing Servo Travel and Rotation

iTroll has the unique ability to allow you to program both the TRAVEL and ROTATION direction of the servo motor(s). Additionally, when dual motor enabled, iTroll remembers independent travel and rotation values for each servo! This gives iTroll the ability to be compatible with any servo on the market and to be installed on the greatest variety of motors. Specific details for servo travel and rotation (Clockwise or Counter-Clockwise) are specified in iTroll's fit kit instructions. To set servo rotation and travel, follow the steps below:

Note: When given the same positional commands, some servos rotate in the same direction (when increasing throttle) as iTroll's dial (clockwise) and others counterclockwise. Please test the rotation direction of your particular servo before reprogramming.

To set servo rotation and travel, see your owner's manual and look for "Digital Padlock / Other User Programmable Options" in the table of contents.