

55lb Minkota Bow Mount on top of home made transport box with standard connectors in the front. Spare foot control with IP67 connector that has the waterproof cap removed in background



Cut control cable from the main motherboard of the electric trolling motor right at the face of the standard connector.....you will need all this cable length to successfully fit the new IP67 waterproof connectors.

To ensure maximum length of control cable from the foot controller itself cut the cable close to the standard connector on this side as well. Do not be lulled into a false sense of security by leaving a length of cable on either side of the standard connectors in order to



reuse by re soldering together some time later as a contingency plan. This will not be necessary as the replacement IP 67 connectors are a proven, robust solution.



Approximately 28mm in from the end of the cut control cables gently cut the insulation (make sure the insulation of the internal wire cores are not cut) & remove the outer insulation sleeve as shown.

It is important to note that the caps for these waterproof connectors have “O” ring seals....be careful not to lose them. It is also a good idea to use some silicone based grease(ie molykote 55 or the like) to keep the seals in place & provide longer life expectancy. The other key point is that the caps , as shown , serve as the tool to assemble/disassemble these plug & socket connectors. Insert the top of the cap into the connector & rotate the inner threaded locking ring until it comes out.

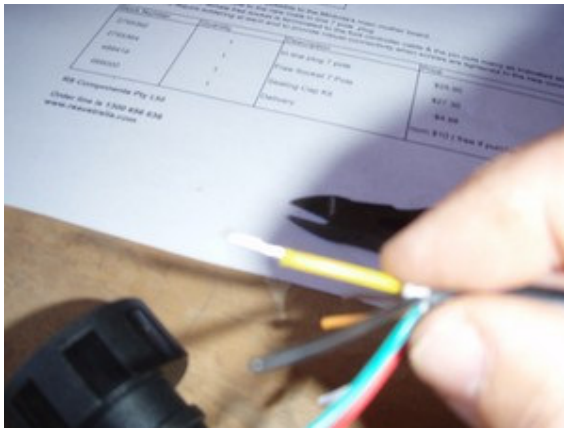


Here the cap “tool” is on the left with the inner threaded locking ring & the 7 pin terminal block on the right side . On the far right is the connector socket housing.



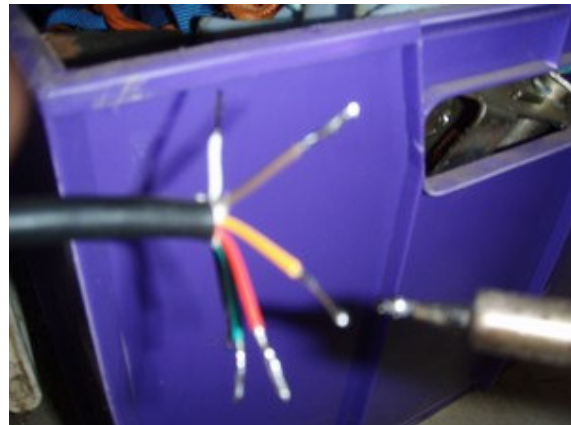
From the opposite end of the connector remove the cable gland seal, follower & threaded compression fitting as shown. Then slide the compression fitting over the pared back cable...then the follower & then the

gland seal as indicated. Note that the outer cable insulation is pared back to approximately 28 – 30 mm.



Pare back the insulation on each of the 7 wires to about 5mm – 8mm

Solder the ends of each of these wires. A hot clean soldering iron really helps with this “tinning” process. The solder helps to give the terminal block screws something to bind into & minimises the risk of breaking wire strands when tightening the screws in the connector terminal blocks.





After all the wires are tinned , wait until they cool down & carefully feed them through the connector socket housing.



Use a small terminal screw driver to terminate all the wires as per the schedule in the previous article. Do not over tighten. The tinned wires will require 2-3 mm to be cut off before terminating.



Once the wires are all connected in the terminal block...simply press the wires & tinned ends firmly against the edge of the terminal block. It is vital that the wires are not left too long so the cable gland effects a seal on the outer control cable sheath. Note the flat edge on the terminal block...this must be lined up with the connector socket's internal recess's "flat edge" slot. Gently pull the cable back through the socket housing so these aligned slots marry up. Insert the threaded locking ring into the face of the socket housing & proceed to use the cap tool to thread it into place. The terminal block is then fixed into position by the locking ring. Finger tight firm is all that is needed.



Proceed to evenly slide the gland seal & follower up into the socket housing. Push the threaded gland up until the threads meet & gently rotate until the gland fitting is compressed firmly around the control cable.

This ensures no water ingress will occur. It pays to check the gland fittings & the terminal screws every 6 months, depending on use. This small amount of maintenance ensures your new connectors provide you with plenty of hassle free , fishing time with your trolling motor.



The cap can then be gently threaded on to seal your connector. The “o” ring seal means that finger tight is more than good enough. Simply repeat steps 1 through to 20 for the plug connector on the other end. This is a little more tricky

in that there is only a small amount of cable available at the mother board end. Take your time & be patient ...the results & trouble free fishing with your Minkota electric will be worth it.



Finally connect your newly mounted IP67 waterproof ,7 pin , plug & socket connectors & test the operation of your foot control for full functionality. Make sure the plug is fully inserted into the socket housing & rotate the housing seal so that it winds in square . This will only require finger tightening as the “o” ring seal will keep the moisture out for you.



After this it is always a good idea to thread the caps to each other so they remain clean on the inside



This is the end result. Neat , compact & waterproof. Enjoy .
Should any queries arise or more help is needed please give me
a call on 07 49751128 or email me at peter.stoneley@orica.com

The next article will provide practical ways to bypass defective,
Minkota bow mount auto-pilot gyros....which are unfortunately
becoming more frequent. There will also be some tips on other
quick fixes when in remote fishing locations. Enjoy fishing
today for tomorrow.