RC-Hydros.com

SC3 Instruction Sheet

The 90 Amp SC-3 comes in three versions – 4-12 cells, 6-14 cells and 10-24 cells. The 60A SC3-LITE   is available only for 6-14 cells. These versions share many common features:

- 1.5" x 2.5" x 0.5" thick (40 x 65mm x 13mm)
- Weighs only 1.5oz (44g) with wires
- 6-FET (4 FETs for SC3-LITE) design for minimum on-resistance .001 ohms!
- 450A surge current, 90A continuous with water cooling a standard feature, 60A for SC3-LITE
- Two-color LED shows OFF (red) and FULL POWER (green) oper ation
- All adjustments are done on your transmitter - no pots to fiddle with!
- Opto-Isolated and no BEC - reduces or eliminates radio interference
- Pre-wired for Futaba receivers, easy to change for other brands
- Micro-Lite servo leads reduce weight
- Fail-safe powers down on radio signal loss (but doesn't glitch)
- Safe-On feature prevents glitching on power-up – cycle throttle to "arm" the ESC
- 12AWG wire for minimum resistance

CONNECTING TO THE BATTERY AND MOTOR

The underside of each SC3 tells how many cells your controller is good for. Look for it to say "4-12" or "6-14" or "10-24" on the bottom side. NEVER use more or less cells than your ESC is intended for – it can cause the unit to burn up!

All leads are color coded. The red and black leads which are found near the water cooling tubes (left side of photograph) attach to the battery pack. Red goes to plus, black goes to minus. The red and blue leads attach to the motor. Red goes to plus, blue goes to minus.

Connect the provided Schottky diode between the red and black motor leads with the stripe toward the red lead. Attach the diode as close to the motor as possible. ***PRESERVE YOUR WARRANTY - DO NOT OPERATE YOUR ESC WITHOUT THE SCHOTTKY DIODE ON THE MOTOR*** If you normally use capacitors on your motor, you may continue to do so. If you are using multiple motors, use a Schottky diode on each motor.

CONNECTING TO YOUR RADIO

You may have noticed that the radio connection has only two wires rather than three. The white lead is the signal lead, the black lead is the ground lead. All controllers are shipped for use according to the industry-standard Futaba format, with black on one end and white at the other. Some companies have in the past configured their systems with the black in the center. If your ESC does not work as shipped, move the black wire at the connector into the center position and all should be fine. Do not worry – you can't break anything doing this!

ADJUSTING YOUR TRANSMITTER

With most pistol-grip radios, you will need to make any only minor adjustments if any. Hook up your main power batteries (charged), ESC, radio and receiver battery; do NOT hook up the motor yet! Turn OFF the transmitter. The LED should glow red. If it does not, please check the wiring. Usually a wiring error keeps it from working.

Turn the transmitter on. If the LED stays red, this is good. When you pull the trigger the LED should first go off, then turn green. If this sequence is reversed (it is green or off with the transmitter in idle, pulling the trigger makes it turn red) then you need to reverse the throw on the transmitter. There is usually a small switch to slide or a function in a computer radio to perform this operation.

After you have the sequence correct (green when pulling trigger) you may still need to adjust endpoints and trim. Since we can't document setup for every radio, please refer to the radio owners manual. Your best response with the throttle will be when the red LED stays on with a slight pull on the trigger, and turns green just before you've pulled the trigger all the way. Try to get your radio set up like this – it will make driving the boat much easier.

Now disconnect the main power battery and plug the motor into the ESC. Re-connect the main battery again. The LED should be red. If not, please disconnect the motor and refer to the preceding paragraph to adjust the radio. After this is corrected, pulling the trigger will cause the motor to spin. When the LED turns green the motor is at full speed.

If you have any problems, please e-mail to support@montanadesign.com or call (Eastern time, 5pm-9pm Mon-Fri, Sat 10AM-3PM 908-454-4611) or write to the address below.

Schottky Diode goes between motor red and black leads at the motor, with the stripe to red. Caps are also installed.
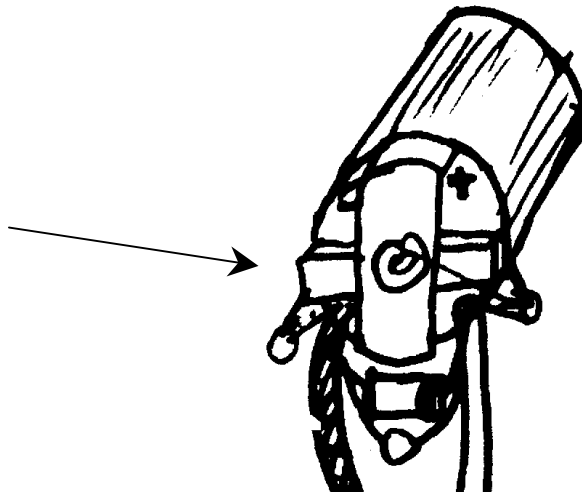
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