

Extending Battery Cables

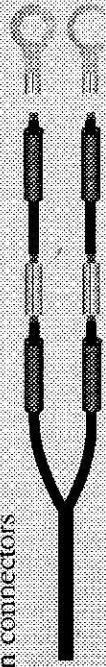
Dual Phase II is equipped with 10 gauge battery cables that are 5 feet long. If any of the battery cables need to be extended, or if you need to extend the power leads coming from your trolling motor or trolling motor plug-in panel, do so as follows:

The gauge of wire that you will need to use depends upon the length you need to extend the wires. If the wire size is not great enough for the length of the wire run, you will experience a power loss that will result in less charging power. Here are the guidelines you should follow:

Wire Length	Wire Size
10 feet	10 gauge
15 feet	8 gauge
20 feet	6 gauge

To make the connections, use a high quality crimp-on style connector along with heat shrink tubing for insulation. Use the diagram below for proper attachment of the connectors.

1. Attach wires using crimp-on connectors



2. Use heat shrink tubing to cover connectors.



Neptune Technologies offers 5, 10 and 20 foot extension kits that include pre-assembled cables and heat shrink tubing that can be attached directly to the Dual Phase II battery cables with no crimping or special tools. To order a kit, call the number listed on the back of this booklet.

Connecting The Ignition Wire

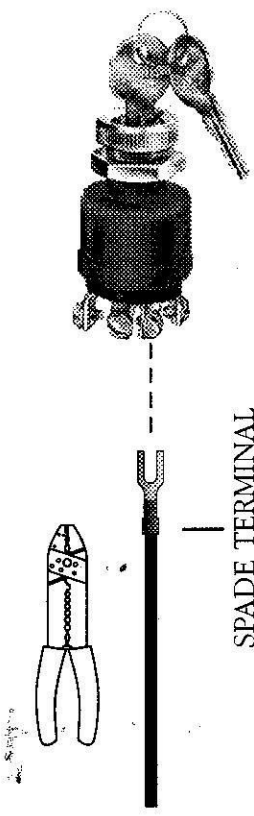
Dual Phase II operates automatically so that every time you start your engine, your auxiliary batteries are connected in parallel to your starting battery. This way, your auxiliary batteries will be charging while your boat is running. To connect the charger to your ignition system, the red "IGNITION WIRE" coming out of the bottom side of the Dual Phase II unit must be connected to any wire that is "hot" when the ignition switch is ON and is "dead" when the ignition switch is OFF.

One convenient place to make this connection is right at the back side of the ignition switch where there are screw-in connectors. Be sure to attach the red ignition wire only to a connector that is on when the ignition switch is ON and off when the ignition switch is OFF.

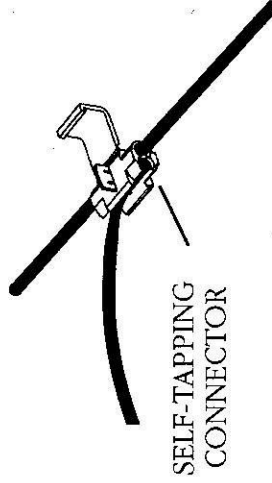
Another possible location is to tap into any wire that is hot only when the ignition switch is on. Use a 12 volt circuit tester to determine where the connection should be made.

Two different types of connectors are provided to connect the red ignition wire. The spade terminal can be used to connect the red ignition wire to the back of the ignition switch. The self-tapping connector can be used to splice into any wire that is hot when the ignition switch is on. See the illustrations below.

Connect the red ignition wire to connector that is on when the ignition is on.



SPADE TERMINAL



SELF-TAPPING CONNECTOR