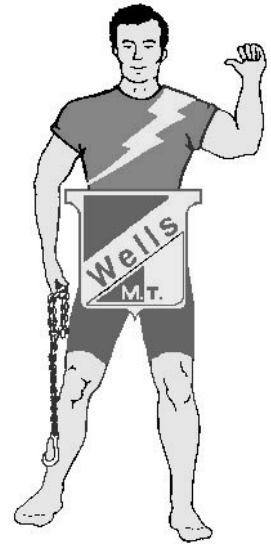




Wells Marine Technology's
HITCH'HYKER

Installation Guide



IMPORTANT INSTALLATION INFORMATION

The installer will need two (2) lengths of charge wire long enough to run from tow vehicle battery, back to BassMaxx II in boat. We find a #8 gauge wire works very well. Thick gauge wire has less “line loss” over the run than thinner gauge wire. #8 gauge provides good charge power to boat batteries and it is easy to work with.

You will note that the manual refers in detail to #8 gauge wire. Please measure how much primary (Red & Black) wire you will need to wire from the tow vehicle back to your boat.

**** CAUTION ****

This manual refers to colors: Black & Red because they are commonly used in DC wiring. If you use all one color be very careful that polarity is not reversed and continuity is followed to completion.

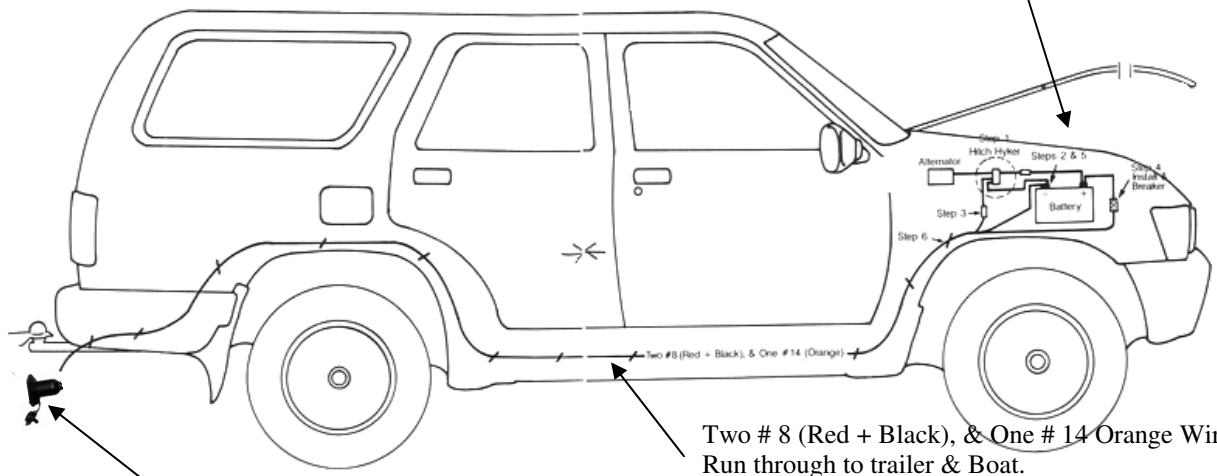
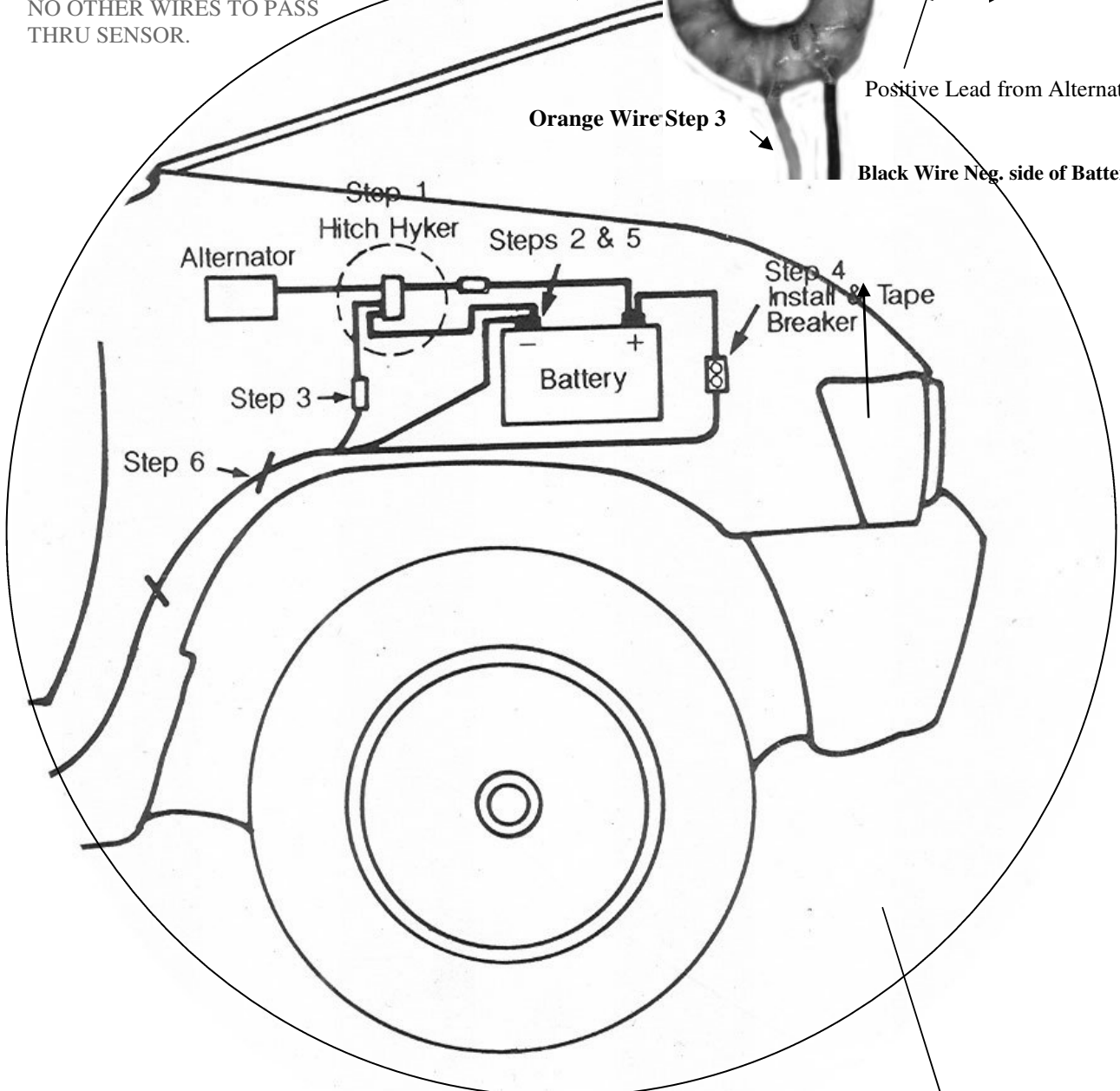
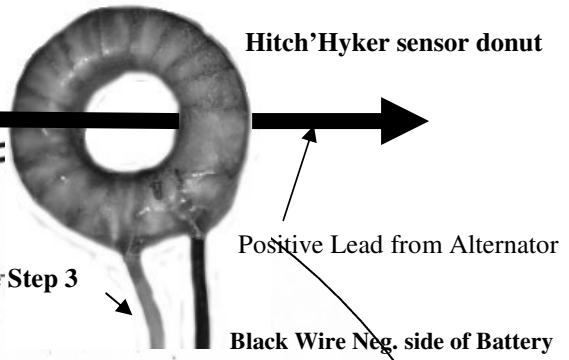
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NOTES: Only the Alternator wire to PLUS (+) side of vehicle battery must pass thru "HOLE" in the sensor donut.
 NO OTHER WIRES TO PASS THRU SENSOR.



Two # 8 (Red + Black), & One # 14 Orange Wire Run through to trailer & Boat.

Female Plug with cover Step 7

INSTALLATION MANUAL FOR HITCH'HYKER

WIRING OF TOW VEHICLE

STEP 1: Hitch'Hyker "sensor" unit must be installed on the wire lead between engine alternator and vehicle battery, by removing one end of the wire lead from either alternator (+) or positive (+) side of battery. Pass wire lead through "sensor" hole and re-connect wire lead. If wire will not fit through hole because of terminal end, the wire lead must be cut and re-spliced after wire lead is passed through hole in "sensor."

STEP 2: There is one Orange and one Black # 14 wire lead coming from the Hitch'Hyker "sensor." Select the black lead and connect to the negative (-) side of vehicle battery (using a blue #14, 5/16" ring terminal.)

STEP 3: With the remaining Orange #14 wire lead, attach the provided Orange #14 wire, (with a Blue #14, butt connector.)

STEP 4: Connect the Red #8 wire to one side of the circuit breaker (with a Red #8, 1/4" ring term.) Then cut a short (2" to 10") piece from the other end of this wire and connect to other side of circuit breaker (with a Red #8, 1/4" ring term.) Finish end with a Red #8, 3/8" ring term, (wrap the entire circuit breaker with electrical tape to prevent short circuiting.)

CAUTION: Do not connect this wire to vehicle battery yet!
Please finish all wiring and connections first to ensure no danger of shorts.

STEP 5: Connect the Black # 8 wire to negative (-) side of battery (with a Red #8, 3/8" term.)

STEP 6: Tie wrap the Red and Black #8 wires together with the Orange #14 wire (coming from the Hitch'Hyker sensor donut and run under or through the vehicle, arriving at the towering hitch.

CAUTION

Please leave NO plugs open or exposed!

Keep all wire away from direct heat and moving parts!

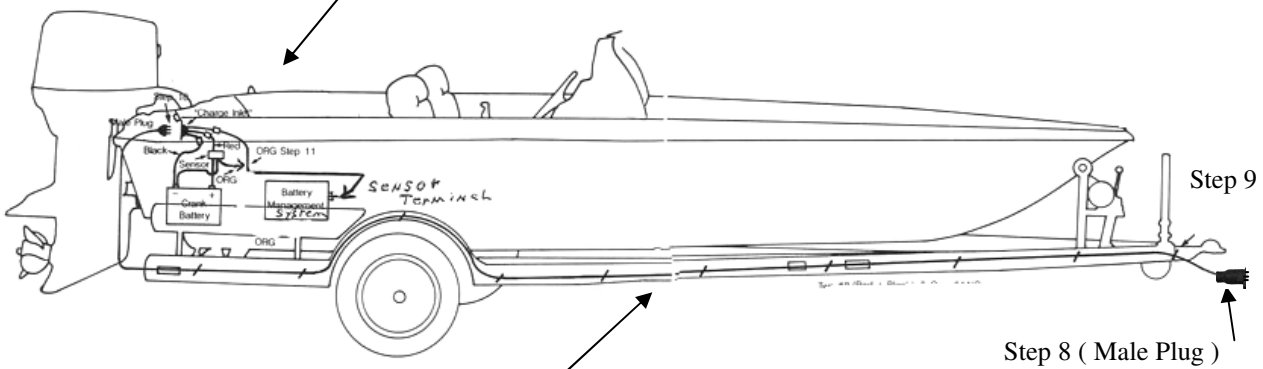
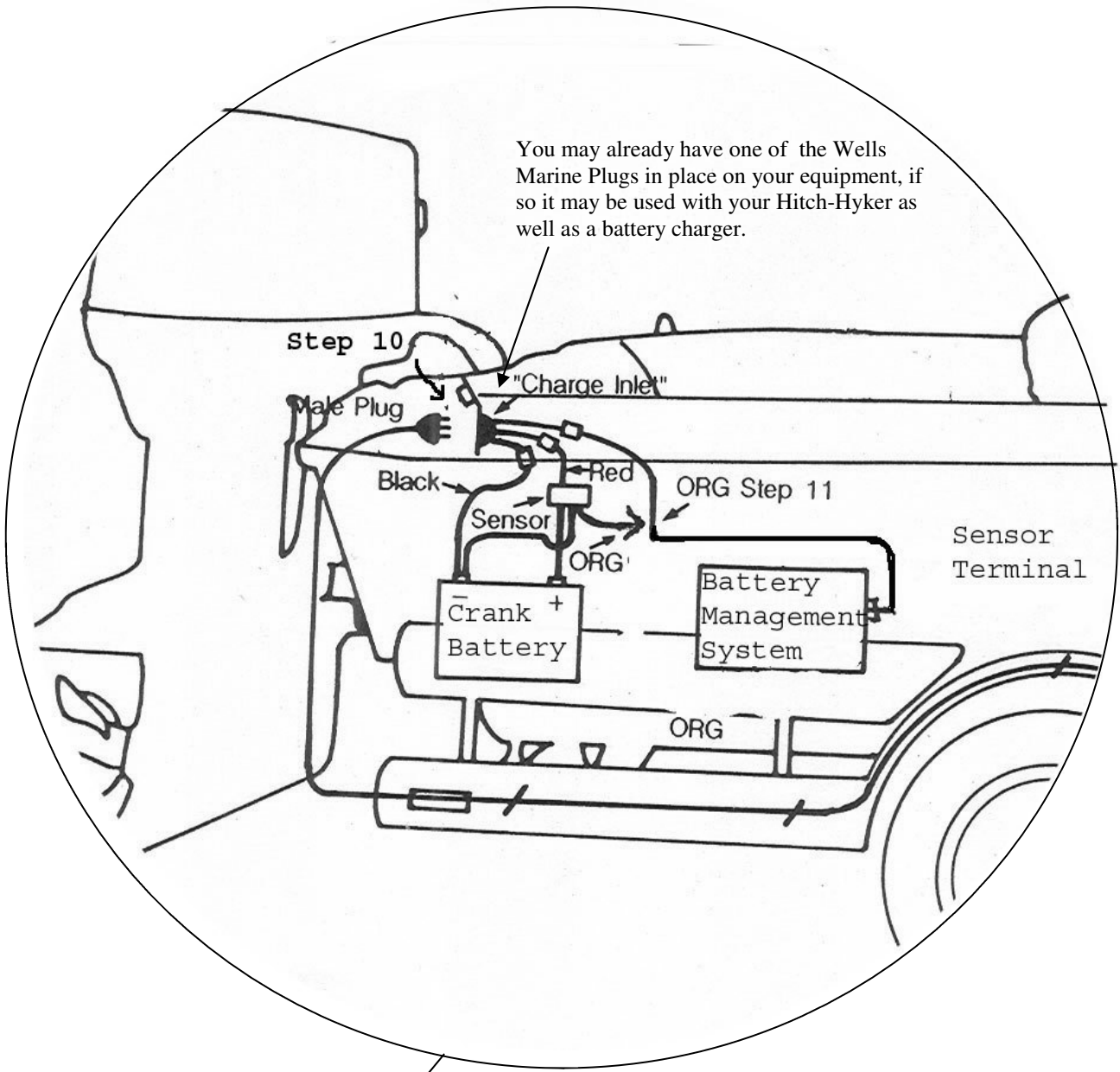
i.e. Exhaust Manifold * Exhaust Piping * Catalytic Converter * Shocks * Springs * Etc.

STEP 7: Cut these three (3) wires and splice them to the female plug (provided) leaving enough wire to reach past hitch.

Splice wires as follows: A) Red to Red (with Red #8, butt)

B) Black to Black (with Red #8, butt)

C) Orange to Orange (with Yellow #10, butt)



ALL PLUG MUST BE CONSISTENTLY WIRED

WIRING OF THE BOAT TRAILER

STEP 8: With the remaining lengths of the Red and Black #8 wire and the Orange #14 wire, splice a male plug the same way you did the female plug in Step 7 above. Now plug into tow vehicle female plug.

STEP 9: Tie rap these three (3) wires to your trailer with enough slack at the hitch end for turning. Run wires along or inside of frame to rear of trailer, on the side you have your Battery Management System “Charge Inlet” mounted in your boat.

STEP 10: Loop the wires up to your “Charge Inlet” cut and splice the remaining male plug, the same way you did the other two (2) (See step 7.) It is important that all three plugs have the same color connections. Now plug into “Charge Inlet.”

NOTE: The splice connections on these three (3) plugs should be sealed with either heat shrink, tape or sealant.

PREPARE BOAT THAT HAS A BATTERY MANAGEMENT SYSTEM PROPERLY INSTALLED

STEP 11: THE ORANGE WIRE THAT RUNS FROM THE SENSOR ON THE TWO VEHICLE ALTERNATOR, THROUGH THE PLUGS TO THE BOAT WILL CONNECT TO THE “SENSOR” TERMINAL ON THE RIGHT SIDE OF THE BATTERY MANAGEMENT SYSTEM (BATT MAXX) THIS IS THE SAME TERMINAL BOAT ENGINE SENSOR IS CONNECTED TO.

This completes the installation.

Now you may connect the Red #8 wire, with the circuit breaker, to the positive (+) side of your tow vehicle battery (See step 4.)

OPERATION

Whenever the boat is connected to the tow vehicle via the trailer harness and Hitch’Hyker, the crank battery of the boat and the vehicle battery are connected in parallel. (Line a pair of jumper cables.) When the tow vehicle starts the Hitch’Hyker “sensor” will sense the charging current coming from the alternator to the battery. This will turn on the BassMaxx II and parallel the troll motor batteries with the crank battery and the tow vehicle battery.

Since the tow vehicle battery will be mostly charged, the remainder of the alternator current will pass back to the batteries on your boat. You cannot overcharge any of your batteries as long as your alternator/regulator is working properly, nor can you run down your tow vehicle battery unless you leave trailer plugged in with lights or something running on your boat for a day or two.

Supplied Parts List

Sensor Donut	1 ea.
50' Coil of # 14 awg orange wire	1 ea.
Female 3 wire plug	2 ea.
Male 3 wire plug	2 ea.
# 14 awg. (Blue) butt connectors	6 ea.
50 amp. Circuit breaker	1 ea.
14 awg (Blue Nylon) 1/4" ring terminal.	1 ea.
10 awg (Yellow Nylon) 5/16" ring terminal..	2 ea.
10 awg (Yellow Nylon) 3/8" ring terminal..	2 ea.

Wire Size Chart

TOTAL CURRENT ON CIRCUIT IN AMPS.	Feet					
	10	15	20	25	30	40
	<u>12 Volts - 3% Drop Wire Sizes (gauge)</u>					
5	18	16	14	12	12	10
10	14	12	10	10	10	8
15	12	10	10	8	8	6
20	10	10	8	6	6	6
25	10	8	6	6	6	4
30	10	8	6	6	4	4
40	8	6	6	4	4	2
50	6	6	4	4	2	2
60	6	4	4	2	2	1
70	6	4	2	2	1	0
80	6	4	2	2	1	0
90	4	2	2	1	0	2/0
100	4	2	2	1	0	2/0