

INSTALLATION INSTRUCTIONS

INTERNAL/CHARGEABLE BATTERY MAG BOX

Mount magneto, box, and coil on the car. Attach the screw-on metal end of the harness to the box. There are safety wire holes provided in the locking ring for the harness metal connector that screws onto the front of the control box. Use them; twist the safety wire through the one of the holes and around the neck of the connector. If you do not, it WILL come loose. Then cut the 5-wire cable to the length necessary to reach the magneto. See enclosed hookup diagram. Strip back the cut end of the 5-wire cable and attach the 2-pin and 3-pin Weather Pack connectors as follows:

2-pin connector:	Harness ORANGE YELLOW	Magneto ORANGE YELLOW
3-pin connector:	RED BROWN GREEN	RED BROWN BLACK

There is a 2-wire pigtail coming out of the metal box connector with an ORANGE and a YELLOW wire. Cut these to length and attach them to the coil primary terminals as follows:

Connect ORANGE wire to coil (+) terminal. Wind this through an inductive computer pickup, if desired.

Connect YELLOW wire to coil (-) terminal. **VERY IMPORTANT:** Connect a separate wire, 16-gauge or larger, between the coil (-) terminal and ground (engine block or cylinder head).

There is a 2-wire pigtail coming out of the metal box connector with a GREEN and a BROWN wire. Connect your kill switch to these wires. A normal toggle switch works fine. The ignition is "killed" when the GREEN and BROWN wires are connected together. **DO NOT** connect the GREEN or BROWN wires to engine/chassis ground. If you already have a kill switch that connects to the coil directly, you can use it and leave this pigtail unconnected.

There is an unused pigtail coming out of the metal box connector. This will eventually be used to trigger a computer fiber optic module directly, eliminating the inductive pickup in the coil (+) wire. For now, tape or cable tie this pigtail out of the way. **DO NOT** cut it off.

VERY IMPORTANT: You **MUST** use a suppressor wire between the coil secondary (high voltage) terminal and the center distributor cap terminal. The spark plug wires from the cap to the plugs can be solid core or suppression core; performance is the same.

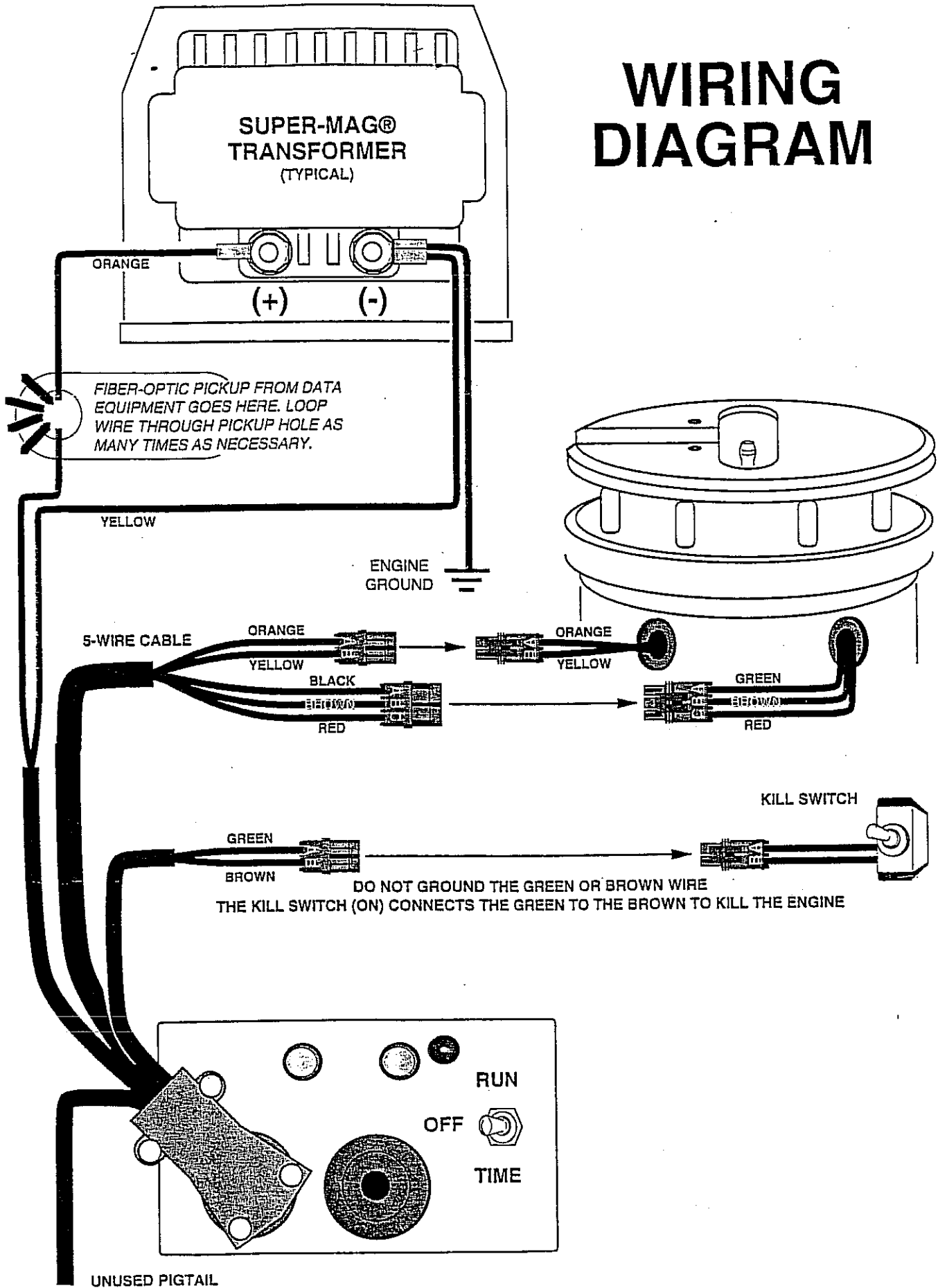
OPERATION

The battery on the back of the box is unplugged for shipping. Once you've got the system installed and wired, plug the battery into the harness coming out of the back of the box.

Static timing the magneto:

Put the switch on the front of the box in the TIME position. The box has a built-in buzzer and red light. You time this magneto just like a normal points-style magneto. The buzzer beeps and the red light flash on during "points closed." The buzzer is quiet and the red light is unlit during "points open." So when the magneto is timed correctly, and the motor is pulled over by hand, the buzzer beeps and the red light flash on until you reach your desired timing mark, where the buzzer stops beeping and the red light goes out.

WIRING DIAGRAM



Starting the engine:

Leave the switch on the box in the OFF position while you spin the engine over to build oil pressure. Then prime the engine (squirt gas into the bug catcher) as normal, spin the engine over with starter, and when you're ready to start, flip the box switch to RUN. After a 1/2 second delay, the ignition will click "on" and the engine should start. This delay is necessary to give the box electronics time to "power up" before exposing them to magneto energy.

Starting options:

If you normally pull a shorting wire off the coil to start, that is fine, just flip the box switch to RUN, spin the engine, and pull the wires as normal.

If you normally just prime the engine and spin it until it starts, that is fine, just flip the box switch to RUN and start as normal.

You can start the engine with the kill switch. Flip the box switch to RUN, make sure the kill switch is in the OFF position (so the GREEN and BROWN wires ARE SHORTED TOGETHER), spin the engine over, and flip the kill switch "on" to start the engine. There will be no delay, since the box is already powered up.

NOTE: The engine will not run if the box switch is in the TIME position. You can safely kill the engine by putting the switch in the OFF or TIME position.

Charging the battery:

Plug the charger into normal 120-volt wall power, and plug the charge plug into the front of the box. When the "Fast Charge" light on the front of the charger goes out, the battery is fully charged. You can keep the charger on the battery as long as you like; the charger will not overcharge the battery. The battery will last for 4-hours with the box switch in the RUN position; it will last for 20-hours with the box switch set to TIME. Typically, charging the battery for a couple of hours the morning of the first day of qualifying will be enough to last the entire weekend, provided the box is switched OFF promptly at the end of each run.

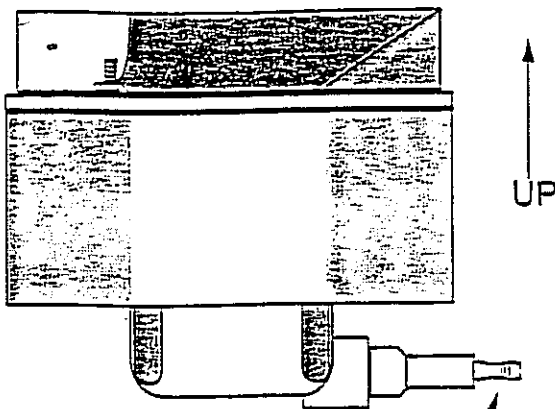
VERY IMPORTANT: DO NOT START THE ENGINE WITH THE CHARGER CONNECTED TO THE BOX!

It's fine to time the engine with the charger connected to the box, but starting the engine with the charger connected will very likely damage the box. It is not enough to just disconnect the charger from 120-volt power before starting; the charger **MUST** be disconnected from the box.

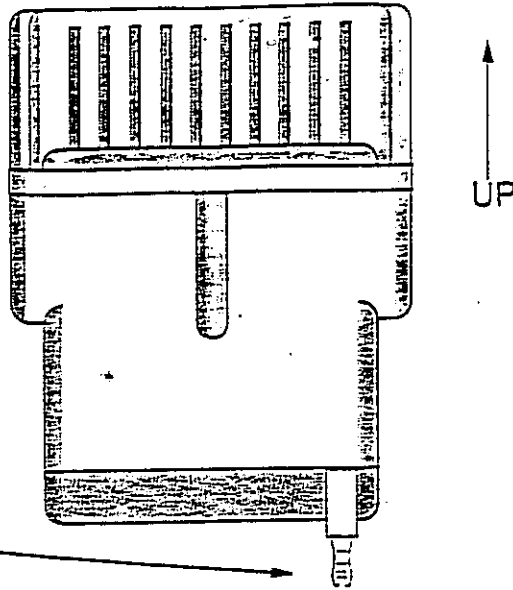
Battery warning lights:

When you flip the box switch to TIME or RUN, the battery light next to the charging socket should be either green or red. If it's green, the battery has plenty of charge. If it's red, the battery's low, but has enough for one pass. If the light is out completely, the battery must be charged or replaced before the engine can be started.

TRANSFORMER

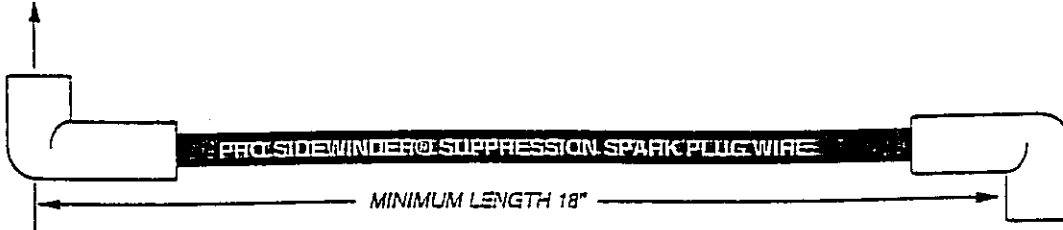


TRANSFORMER



TO PREVENT INTERNAL DAMAGE TO TRANSFORMERS, THE TRANSFORMER MUST BE MOUNTED WITH THE HIGH VOLTAGE TERMINAL COMING FROM THE BOTTOM AND POSITIONED SUCH THAT IT DOES NOT COME CLOSER THAN 2.5" FROM THE NEAREST METALLIC SURFACE.

TO TRANSFORMER HIGH VOLTAGE TERMINAL



SUGGESTION: RUN A CABLE TIE THROUGH THESE HOLES TO HOLD THE COIL WIRE FIRMLY

SPIRAL CORE SUPPRESSION SPARK PLUG WIRE MUST BE USED BETWEEN THE TRANSFORMER (COIL) AND THE DISTRIBUTOR CAP. MINIMUM LENGTH 18" REQUIRED. PRO SIDEWINDER® SPARK PLUG WIRE IS HIGHLY RECOMMENDED. WHEN RUNNING DUAL IGNITION SYSTEMS, BOTH TRANSFORMER (COIL) WIRES MUST BE SPIRAL CORE SUPPRESSION SPARK PLUG WIRE EVEN IF THE SECOND IGNITION IS NOT ELECTRONIC.

SUGGESTION: USE PRO SIDEWINDER® REPLACEMENT WIRE KIT PART NO. 919; 4 FT. LENGTH OF WIRE WITH EXTRA BOOTS AND TERMINALS.

