

PHANTOM TETH-AIRTM

Ski-Doo P-Tek Phantom Teth-Air Install



1. Using 2 sided adhesive foam tape; stick the Upper Control Unit to the front of the throttle block as shown. Additional tape can be used as a spacer to provide movement of the throttle block independent of the factory kill switch.



2. Use the medium length plastic wire ties to secure through the end holes and around the handle bars. Avoid having any wires directly under the ties or they could break if the throttle block is rotated. **MAKE SURE THAT THE WIRE TIES DO NOT INTERFERE WITH THE THROTTLE MOVEMENT.**
3. Use the smaller wire ties to attach the grey control cable to the handle bar but leave some slack on the top end to allow for movement.



4. Remove the multi-function gauge by inserting a small crew driver in the 2 slots at the top of the gauge while gently pulling the gauge out of the mounting hole. Disconnect the connector from the back of the gauge.

5. For easier access, remove the hood to access the engine compartment. The air box and air box sensor will need to be disconnected after removing all screws and side panels.



6. Mount the Lower Power Supply board beneath the aluminum over-structure with the 2 wire ties provided. We recommend this be done on the exhaust side but be sure to keep adequate clearance from the exhaust system to prevent damage.

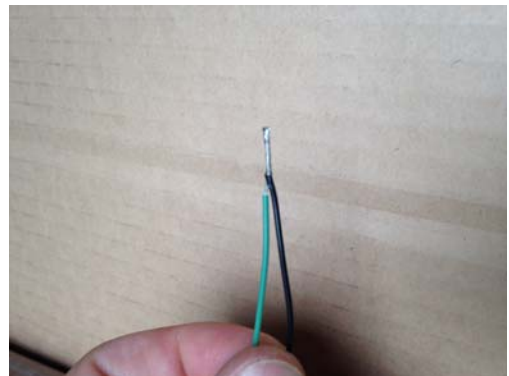
7. Be careful to secure the wiring so it will not touch hot or moving parts and that the connector is accessible.

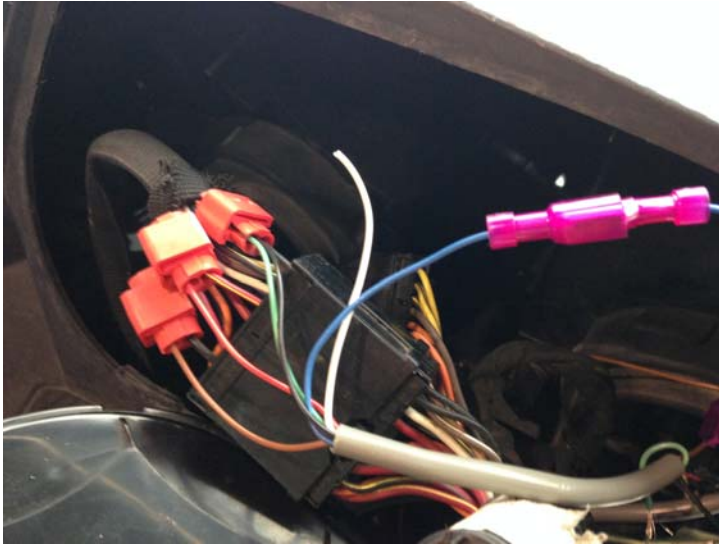


8. Feed the hook up cable from the Lower Control Unit up to behind the gauge mounting hole. Here you will find the steering post connector that runs from the handlebars. The Red/Yellow (pin 4) wire is Positive and is to be connected to the Phantom Teth-Air Red wire. The Black wire (pin 1) is Ground (12 volts DC system) and the Black AND Green wires from the Phantom Teth-Air are to be connected here. The Black/Yellow wire (pin 6) is the Kill Switch wire and is to be connected to the Brown wire of the Phantom Teth-Air.



The picture to the right shows how to prepare the Black and Green wires before connecting to the Black (Pin 1) using the Scotchlok connectors provided.





9. An extension wire is required for the Blue Tachometer input wire. This extension wire is to be long enough to feed back down to the main plug that attaches to the ECM. Approx. 12" long

10. Remove the main ECM plug by pushing on the release tab and gently pull out of the ECM mating connector. Pull back the rubber boot to expose the Grey ECM plug. The plug hinges open after removing the wire tie at the cable end.



11. Open the plug and locate the Green/Yellow wire on Pin 36. The Blue Phantom Tach wire must be connected to the Green/Yellow wire or one of the other timing pick-up wires (pins 17, 18 or 35)

12. Using a Scotchlok connector, connect the wire to the Green/Yellow wire and feed the extension wire back out the plug through a location that will not cut the wire. Carefully close up the connector and secure it with a new wire tie. Be sure to replace the rubber boot when re-installing the plug into the ECM



13. Carefully connect the Upper and Lower Control Units and slide the supplied shrink tubing centrally over the connectors. Use a heat gun to shrink the tubing to make a water tight seal. Be careful not to melt the wiring or other plastic parts.

Replace the hood, side panels and multi-function gauge. Please now refer to the Phantom Teth-Air manual for operation and safety information.

NOTE: Due to interference from the ignition coil on P-Tek engines, traditional connection to the coil wiring is not possible as is with the E-Tec and other manufacturer's snowmobiles. For this reason the connection to the pickup coil wiring is required as described in the previous installation instructions.

Recommended settings for a new installation.

Proximity Delay: #3 (1.5 seconds)

Roll-Over Delay: #2 (2seconds)

Tachometer Set Point: 3500 RPM (Some point below clutch engagement but above idle RPM)

Infrared Remote Control.



Remote Control.

Keep the Remote Control in a warm dry place. The shipping bag can be left in place to help protect it from moisture. The Remote Control will work through this protective bag.

See the Phantom Teth-Air Owners Manual for additional installation, safety, and operation information.

CAUTION

The Phantom Teth-Air is a safety tool to make your power sport more enjoyable and safer. Source Innovations Ltd. strongly recommends that you take ample time to familiarize yourself with the functions and features so that you can set up the product to best suite your riding style. Failure to do so may cause engine shut downs and Source Innovations Ltd. is not responsible for any damages caused by loss of control that could result. In addition improper setting could also cause the unit not to shut down the engine when it should.

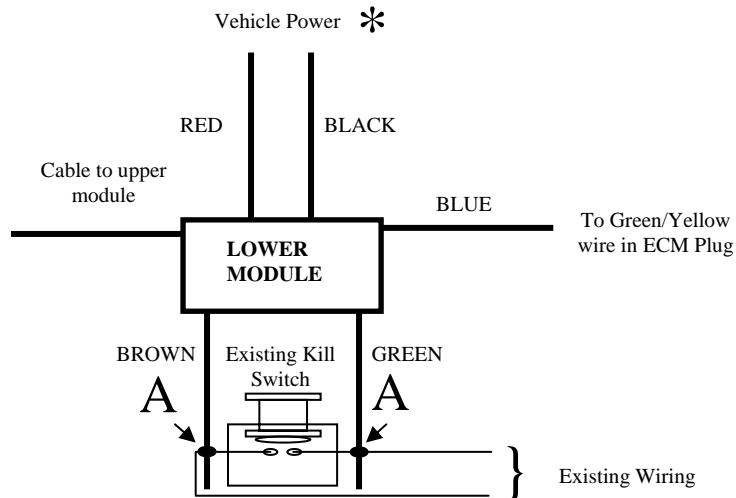
PATENT PROTECTION

This device is protected under the following patent(s): **Patent License US 7,034,696 B2**



WIRING DIAGRAM

Normally Open Configuration
e.g. Ski-doo P-Tek Engine



The installation above differs from this wiring diagram as the Kill Switch wiring on the P-Tek is grounded on one side. This allows the installer to connect the Black and Green wires together to reduce the number of connections to the snowmobile.

POWER (12V to 18V DC)

RED
BLACK

RELAY

WHITE (normally closed)
GREEN (common)
BROWN (normally open)

TACHOMETER INPUT

BLUE

NOTES:

A: INSTALLER CONNECTIONS

*****: THE POWER SUPPLY LOCATION MUST NOT SUPPLY POWER WHEN THE ENGINE IS OFF FOR VEHICLES WITHOUT IGNITION SWITCHES (**SEE INSTALLATION**). CONNECT **RED** TO POSITIVE AND **BLACK** TO NEGATIVE OF VEHICLES POWER. DO NOT CONNECT **RED** AND **BLACK** TOGETHER.