

PHANTOM TETH-AIRTM

Ski-Doo XM/XP (E-TEC) 2016 Phantom Teth-Air Install



1. Using foam tape; stick to the back of the Upper Control Unit. Position against the front of the throttle block as shown.



2. Use the medium 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 black control cable to the handle bar but leave some slack on the top end to allow for movement.



4. Position the Proximity Sensor at a 45 degree angle above the hand grip. Warming the Sensor with a blow dryer makes shaping and positioning easier.



5. Remove the multifunction gauge. Inset a small screwdriver in the 2 slots at the top while pulling the gauge forward. Unplug the gauge and the counsel wiring harness.

6. Remove the hood to access the engine compartment. The air box and sensor will need to be disconnected. Also the ECM hose must be removed on the muffler side. Slide the hood forward to remove.

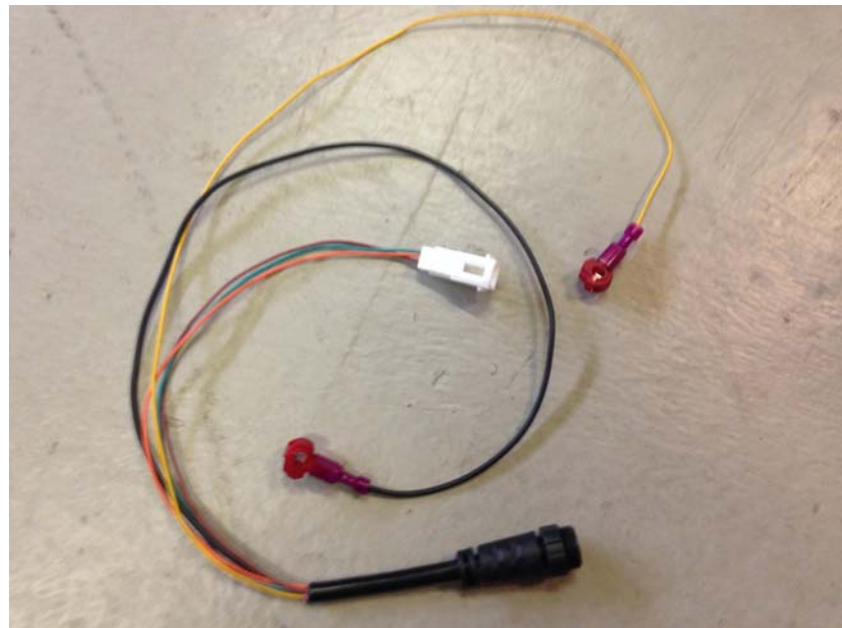


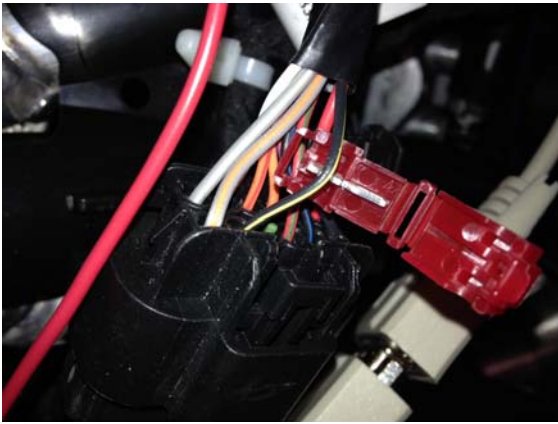
7. Mount the Lower Control Unit beneath the aluminum over-structure with the 2 wire ties provided. Be sure to keep adequate clearance from the exhaust system or moving parts to prevent damage. Position where the wires will reach the kill switch wiring (Black /Yellow) and the power plug.. (above ECM side). And the Yellow phantom wire must reach to the ignition coils.



8. Using the Custom Ski-Doo harness, connect the White Phantom connector to the Ski-Doo power plug located above the ECM.

9. The snowmobile's Red/Yellow Wire is Positive and the Black Wire is Ground (12 volts DC system). Connect the Brown Wire from the Phantom to the Red/Yellow from the harness. Then connect the Orange Wire AND the Green Wire from the Phantom to the Black Wire of the snowmobile harness. For those making up your own harness, using the Universal Wiring, the Orange and Green Wires are to be crimped into the same connector pin. Carefully soldering into the pins is also acceptable if the installer is confident with this procedure.





10. The Black Wire from the Phantom must now be connected to the Black/Yellow kill switch wire that is fed down from the steering post harness. Use the T-Tap connector (found in the optional E-Tec install kit) to make this connection. It is recommended that this connector be taped over to protect from moisture after the blade connector is inserted.





11. The Yellow Wire from the Phantom must now be connected to the upper ignition coil on the low voltage side. Use the T-Tap to connect to the center Orange/Blue wire, of the 3 coil wires. It is recommended that this connector be taped over to protect from moisture after the blade connector is inserted.

12. Make sure the connector is firmly snapped back into the coil connector after plugging the blade connector on the Yellow Wire in to the T-Tap.



13. Align the male/female aligning bosses in the connectors and join the Upper and Lower Control Units by firmly plugging together after running the upper cable down to the engine compartment along with the existing steering post cables. Make sure securing ring is turned to tighten. Repeat with the connection of the custom harness to the Lower Control Unit.



14. Replace the hood and multifunction gauge; install the decal on a clean dry surface. Please read all the safety documentation and enjoy the Phantom Teth-Air.

Recommended settings: Proximity delay: 4
 Roll-over delay: 3
 Tachometer Setpoint: 3200 RPM 3200 RPM.



Infrared 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

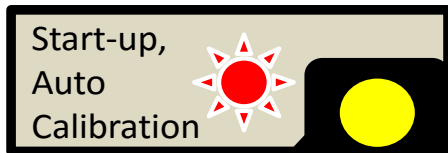
The Phantom Teth-Air is a safety tool to make your power sport more enjoyable and safer. Source Innovations Ltd. strongly recommends that you take ample time to familiarize yourself with the functions and features so that you can set up the product to best suite your riding style. Failure to do so may 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

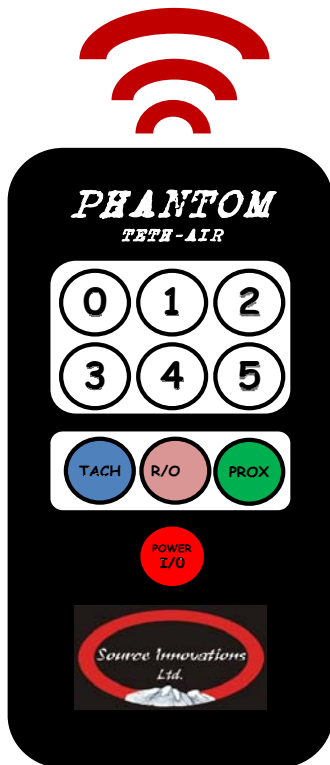
This device is protected under the following patent(s): **Patent License US 7,034,696 B**



Phantom Teth-Air



Quick Programming Guide



User Options:

Press TACH with LED red (hand not present) to set current RPM x 1.8.
Press TACH with LED green (hand present) to set current RPM.
Press TACH with no tachometer input and LED will flash blue.

Press R/O to flash out current Roll-Over delay setting (0.5 -3 seconds).
Each violet flash = button pressed (0-5). Wait for solid violet LED for next entry. Press 0-5 to enter desired R/O delay or press R/O to exit saving last setting or press POWER I/O to disable this sensor. (see manual)
Unit returns to Run Mode.



0 to 5 or R/O or POWER I/O

Press PROX to flash out current PROX delay setting (0.5-3 seconds).
Each yellow flash = button pressed (0-5). Wait for solid yellow LED for next entry. Press 0-5 to enter desired proximity delay or press PROX to exit and save last Setting or press POWER I/O to disable this sensor. (see manual)
Unit returns to Run Mode.

0 to 5 or PROX or POWER I/O



Press POWER I/O to put Phantom into Sleep Mode. Red LED will flash periodically and unit will not function.
This button can be held during engine start to adjust incorrect settings that can cause immediate engine shut down. (see manual)

In Sleep Mode: The following sub-menu settings /options are available.



or



or



or



Power Up Delay - Press TACH, LED glows solid blue. Enter number 0-5 to select (100 - 500 ms) . Factory setting is 0. This mode is only used to prevent shutdowns during engine starting. (unstable / noisy power at startup)
Unit returns to Run Mode.

Relay Active Option - Press PROX , LED glows White (may appear Pink). Press 0 or 1. 0 = Demo Mode. (Engine kill relay deactivated).
1 = Normal Run Mode. (With engine kill relay active).
Unit returns to Run Mode.

Exit - Press POWER I/O. Unit returns to Run Mode, and returns the unit to the last saved user settings.

High Value Escape Mode - TACH and PROX will temporarily be set to high factory values to over come stalling on start, due to accidental low TACH set-point. Unit returns to Run Mode. Followed by: PROX , R/O or TACH allows new setting to be entered . (see manual)

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