PYROTACH

EXHAUST TEMPERATURE /TACH GAUGE

Before you begin, read these instructions and check to be sure all parts and tools are accounted for. Please retain these installation instructions for future reference and parts ordering information.

Kit Components:

Qty.	Part Description	Part No.
1	PYRO TACH-meter only With case harness	**PYRO-2001-MT**
1	HARDWARE KIT-INCL.NUTS WASHERS, U-CLAMP	**PYRO-2001 MOUNT-KIT**
1	POWER LEAD KIT INCL. 2 WIRES (Red/Black) WITH RING TERMINALS, 2 SPLICE CONNECTORS	**PYRO-2001 POWER-KIT**
1	THERMOCOUPLE WIRE HARNESS WITH REMOTE SWITCH	**PYRO-2001 R-HARNESS**
1	INSTRUCTIONS	**PYRO-2001 INSTRUCTIONS**

Required Components sold seperately:

2	THERMOCOUPLES INSULATED ***(SOLD SEPARATELY)***	**3018C-72-R-R10 Standard Probes** **4018C-72-R-R10 Exposed Tip probes, Fast response.**

Installation Supplies:

Phillips Screwdriver	Standard Screw Driver
2” Hole Saw	19/32” Open End Wrench
Drill	8mm Wrench
3/16” Drill Bit	Pliers
1/4” Drill Bit	Wire Cutter
Crimper	Info for # of Electrical pulses for 1 RPM (see dealer)

IMPORTANT: Perform all steps correctly and completely.

INSTALLATION INSTRUCTIONS (IN DASH)

1. Disconnect the positive post on the battery, if so equipped.
2. Remove the headlight/intake shroud from the inside of the hood.

NOTE: If the machine is already equipped with an accessory gauge on the left side, remove the accessory gauge and relocate it on the right side. This will allow installation of the exhaust temperature gauge on the left side. Follow the instructions to install the gauge on the left side.

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3. Locate the center of the accessory hole on the left hand side of the instrument panel. Using a scratch awl or a center punch, push through the hood from the inside to the outside.

4. With a 2” hole saw, drill through the hood from the outside using the hole made with the center punch as a guide.

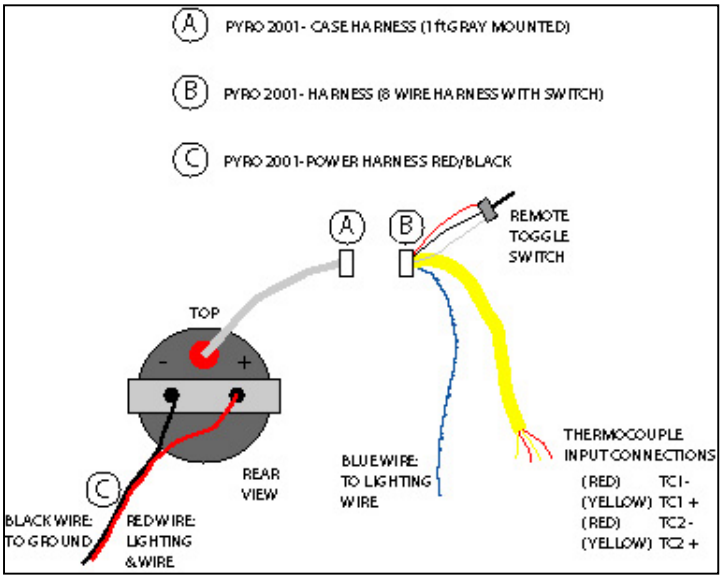
5. Using a file or deburring tool, trim the hole until the body of the gauge slides easily into the hole. Set the gauge aside.

6. Route thermocouple wires along the existing wire harness from the gauge mounting area to the exhaust manifold. **IMPORTANT:** Do not put the thermocouple wires inside the convoluted tubing. This will result in electrical interference and cause inaccurate readings.

7. Loosely install the thermocouple clamps onto the manifold in the proper location. **NOTE**: the thermocouples should be 2 – 3 inches from the cylinder. Make certain the thermocouples are in the same location relative to each other**.**

Diagram 1

ELECTRICAL



8. Remove the nut and the crush sleeve from the thermocouple clamps.

9. Using a 3/16” drill bit, transfer drill through the thermocouple mount, into the exhaust manifold.

10. Remove the thermocouple clamp and enlarge the holes in the manifold to 1/4”.

11. Reinstall the clamps, crush sleeves and nuts removed earlier. Remove the protective cap and insert the thermocouple leads into the clamps. Tighten the clamps onto the manifold so the clamp is seated into the hole. **IMPORTANT:** Do not over–tighten or the clamps will fail prematurely.

12. Position the end of the thermocouple so the tip is inserted between 1/3 and 1/2 the diameter of the manifold. Tighten the compression nut at the proper depth. **NOTE:** Only tighten the compression nut until the probe does not rotate in the clamp. If necessary, support the square portion of the fitting body with a 19/32 open-end wrench.

13. Route the ring terminal ends of the thermocouples through the accessory gauge hole. Using the terminal guide decal and the hardware supplied with the kit, secure the thermocouples wires to the terminals on harness B (Diagram 1). Connect Gray case harness A, to Wire harness B by inserting male/female connector together. **IMPORTANT:** Do not remove or loosen the existing nuts on the back of the meter. **NOTE:** The Top LCD is for the MAG side thermocouple TC1, and the bottom is for RPM or (optional) PTO side thermocouple. TC2

14. Using the Black wire, Harness C (Diagram 1) #10 terminal ring, and splice connector, run a wire from the brown wire located in the headlight wiring harness (GROUND) and connect it to the “-” negative post of terminals on meter. **NOTE:** With the terminals facing you, the negative terminal is on the left side and the positive is on the right.

15. Using the Red wire, Harness C (Diagram 1) #10 terminal ring, and splice connector, run a wire from the yellow wire located in the headlight wiring harness and connect it to the "+" positive post on the right side of the meter, rear view. Connect blue wire on harness "B" (Diagram 1) to same yellow wire.

16. Tighten all connections to 10 in. lbs. **IMPORTANT:** Make sure no leads are touching each other and do not turn the backing nuts while tightening.

17. Route the remote toggle switch Wire harness B (Diagram 1) to a convenient location on the dash plastic or front panel. Be sure not to route the cable in a way to interfere with the motor or clutch operation. Drill a ¼" hole to mount the toggle from the rear. Be sure not to drill into gas tank or any other electrical part. Push the toggle thru the back and tighten nut. The nuts on the Toggle can be adjusted for optimal height. This will be used to toggle meter options for Memory, Peak Temp/RPM and Alarms. (MODE/SET)

19. Start the engine and determine if the meter is working properly. The LCD will light up and show a temperature**. NOTE:** Only temperatures above 100 deg. F. will show on meter. "---" Will show below 100 deg. The bottom will indicate RPM x 10. Please verify RPM engine pulses per manufacturer.

20. Shut off the engine. If the gauge did not work properly, re-check the wiring and test again.

21. Insert the meter into the hole and secure with the u-clamp and remaining nuts. The u-clamp may need to be flared out or trimmed to allow for varying material thickness. Be sure no other metal is touching terminals to avoid shorting.

22. Reconnect the battery and reinstall the headlight/intake shroud to the underside of the hood.

How to use your PyroTach

Your PyroTach is designed to measure Exhaust Gas Temperature and RPM.(Default set-up) Care and maintenance will ensure trouble free operation of this product for years to come. The Standard PyroTach is designed to measure One (1) exhaust temperature reading and Engine RPM. The optional remote toggle switch wire harness enables you to do a lot more. The PyroTach will not only give you real time EGT temperature/RPM, but it can give you the peak reading, measure and play back 30 seconds of temperature/RPM, set up flash alarms for high temperature/RPM points. The PyroTach can also read 2 temps in dual temp mode. This feature will also allow you to record for 30 seconds and playback 2 EGT Temps. The memory in the PyroTach will remain as long as the power is present to the meter, once the power is off, the memory will be lost. Check your memory while the engine is running!

INSTRUCTIONS FOR TOGGLE USE

The PyroTach toggle has two (2) positions; **MODE/SET default setting is single Temperature/RPM reading**

Position your toggle switch for the correct left/right operation)

The Mode position will toggle thru different options for the PyroTach. The options are Peak reading, EGT Alarm set point, RPM Alarm set point (only in RPM mode only), Memory Record, Memory recall, Normal Read only. The default setting will read 1 EGT Temperature, RPM.

To set PyroTach in RPM mode for your engine: 1 temperature, 1 RPM

1.Shut off engine.

2.Hold toggle in mode position and start engine, release switch

3.Meter will show a number on the bottom LCD (0-12)

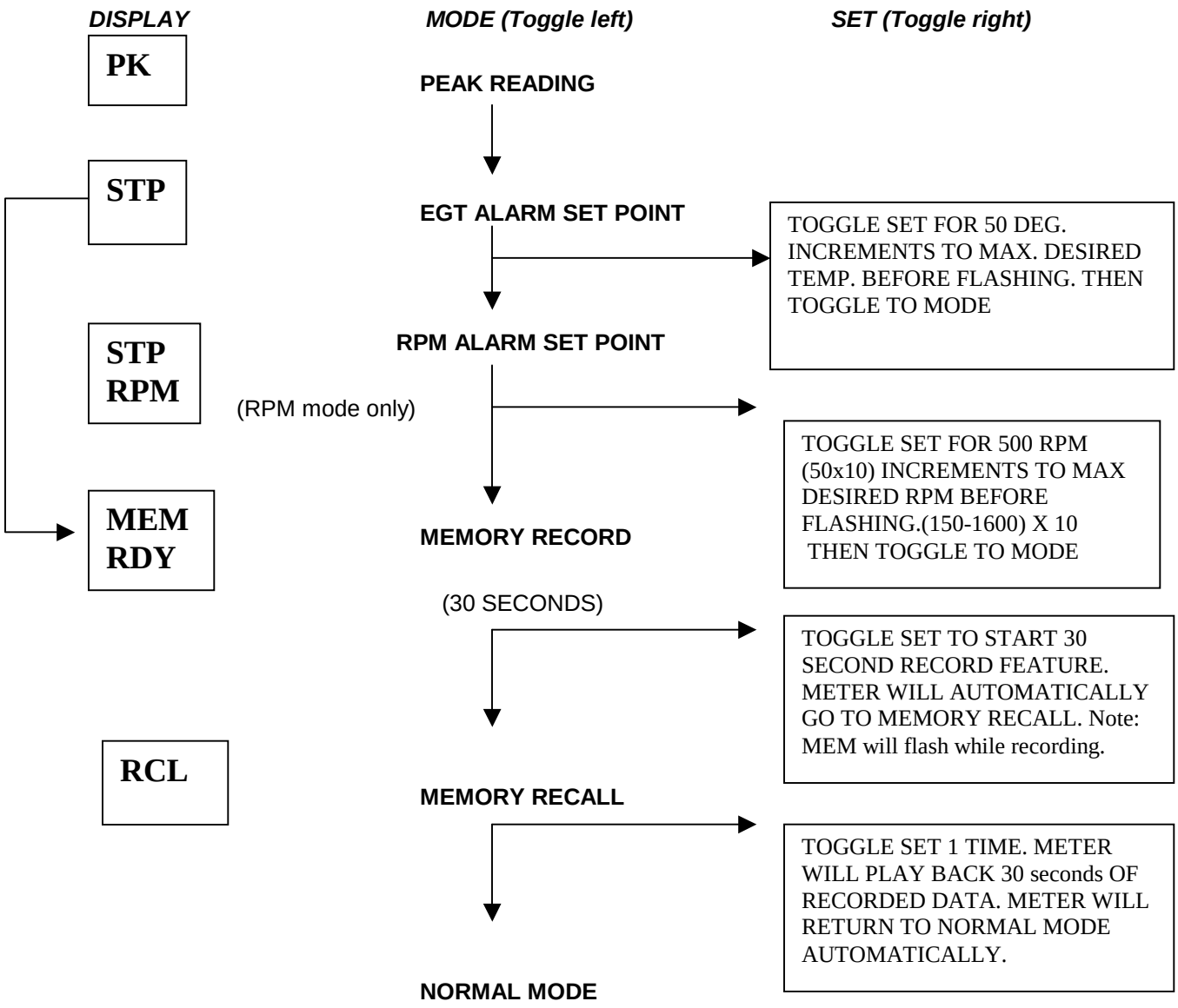
0= Dual Temp mode (optional to read Dual exhaust temperature readings)

1-12 will be **RPM mode**, 1-12 represents electrical pulses from magneto for different manufacturers. Example: Polaris is 6, set to 6 with set toggle, toggle mode to save. Shut off engine and restart. The factory default set up is on 6.

4.Upon restart, the PyroTach will be in RPM mode, 1 temperature reading, and 1 RPM reading. RPM will show 10-1600 x 10. If RPM does not seem right, contact your dealer to get correct pulses for your model and make. Reset as above. To return to Dual Temperature mode, Reset to "0" and restart

5.Toggle switch operation will be different for **Dual Temp vs. RPM Mode** see flow chart below.

TOGGLE SWITCH OPERATION



For Installation questions or warranty claims, contact your dealer.