



2650-1877-77 Rev. A

INSTALLATION INSTRUCTIONS PYROMETER EXTENSION MODULE 0-5V OUTPUT MODEL 6054



This Pyrometer Extension Module (PEM) has been design to provide a 0 to 5V signal over the 0 to 2000 F range of a standard type K thermocouple EGT probe. The PEM can be used in most any vehicle application, including applications where the distance from the engine and the driver is longer than normal (i.e. rear engine motor homes and coaches).

The PEM is comprised of two components: a thermocouple amp (TCA - black case), and a harness containing a signal shunt module (shunt). The TCA has been designed to be placed near the engine compartment, but inside the vehicle away from the elements. The TCA will convert the signal generated by a K-type thermocouple (EGT probe) mounted in the exhaust of the engine to a proportional output current that ranges from near 0 to 20mA. This current can be delivered over a pair of wires up to 75' to the

shunt. The output of the shunt can be connected to the 0-5V input of a Sensor Module.

A Sensor Module is a device that the pyrometer extension module kit connects to such as an Auto Meter Race Dash, Sportsman Dash Expansion Module, or an AirDrive Gauge Dongle. It can not be used to operate any of the standard pyrometers gauges.

The dynamic operating range of the TCA limits the lowest temperature signal to approximately 160°F. This is a design limitation. All temperatures measured by the EGT probe at or below this limit will result in a minimum reading of approximately 160°F.

The connections to the PEM are made through the terminal strip on the TCA. The following table describes the connections:

Terminal	Signal	Description
1	Loop Output	Signal to Shunt Module (Orange)
2	Loop Ground	Signal Return from Shunt Module (Black)
3	12V	Switched power from vehicle
4	Ground	Vehicle ground
5	TC+ (Yellow)	Thermocouple + (Yellow)
6	TC- (Red)	Thermocouple - (Red)

Installation, TCA Module (black case)

The TCA (black case) should be mounted securely on the interior of the vehicle, in a location for convenient connections to the exhaust gas thermocouple being used. The TCA is not to be mounted where it is exposed to the outside elements. Looking at the terminal strip on the TCA from the side the wires are inserted, and the screws up, the terminals are numbered from left to right, 1 to 6.

1. The thermocouple wires from the pyrometer probe are to be connected to terminals #5 and #6. Connect the Yellow wire to #5, and the Red wire to #6.
2. Connect terminal #4 to a good engine ground.
3. Connect terminal #3 to a switched (12V) power supply.
4. Connect the Shunt Module extension wires as detailed on next page.

Shunt Module Wiring

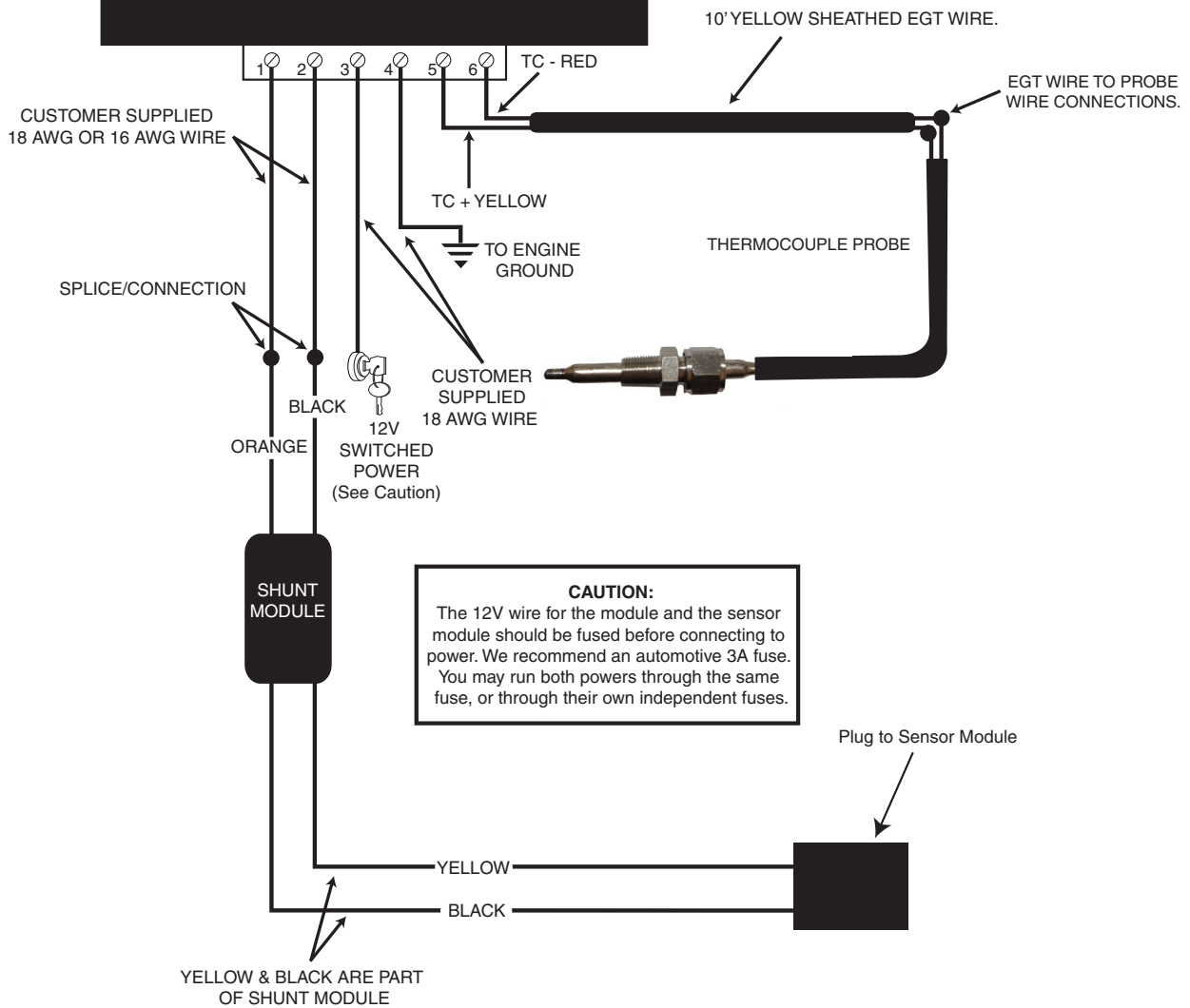
The Shunt Module will be located and connected to the 0-5V input of a Sensor Module. The Shunt Module comes with a connector pre-wired for use with a Sportsman Expansion Module, Race Dash and AirDrive Gauge Dongle.

The extension wires (user provided) used to connection the Shunt Module to the TCA need to be routed and secured along the vehicles'

chassis. The use of 18AWG or 16AWG wire is recommended. Two closed end crimp splices are provided to make the connections to the extension wire. It is recommended to use black and orange wire colors for the extension wires in order to be certain of the connections to the TCA are correct. If another wire color is used, be sure the connections to the TCA are the correct polarity.



PYROMETER EXTENSION MODULE (TCA)



SERVICE

For service send your product to Auto Meter in a well packed shipping carton. Please include a note explaining what the problem is along with your phone number. If you are sending product back for Warranty adjustment, you must include a copy (or original) of your sales receipt from the place of purchase.

12 MONTH LIMITED WARRANTY

AUTO METER Products, Inc. warrants to the consumer that all AUTO METER High Performance products purchased from an Authorized AUTO METER Reseller will be free from defects in material and workmanship for a period of twelve (12) months from date of the original purchase. Products that fail within this 12 month warranty period will be repaired or replaced at AUTO METER's option, when determined by AUTO METER that the product failed due to defects in material or workmanship. This warranty is limited to the repair or replacement of parts in the AUTO METER High Performance product and the necessary labor done by AUTO METER to effect the repair or replacement of the AUTO METER High Performance product. In no event shall AUTO METER's cost to repair or replace an AUTO METER High Performance Product under this warranty exceed the original purchase price of the AUTO METER High Performance Product. Nor shall AUTO METER Products, Inc. be responsible for special, incidental or consequential damages or costs incurred due to the failure of an AUTO METER High Performance Product. This warranty applies only to the original purchaser of the AUTO METER High Performance Product and is non-transferable. This warranty also applies only to AUTO METER High Performance Products purchased from an Authorized AUTO METER Reseller. All implied warranties shall be limited in duration to the said 12 month warranty period. Breaking the instrument seal, improper use or installation, accident, water damage, abuse, unauthorized repairs or alterations voids this warranty. AUTO METER disclaims any liability for consequential damages due to the breach of any written or implied warranty on all products manufactured by AUTO METER Products, Inc. For a comprehensive listing of Un-Authorized Auto Meter Resellers please visit www.autometer.com/autometerlocator/index/ unauthorized.

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