COLD FUSION NITROUS

EXHAUST GAS TEMPERATURE SAFETY SWITCH

(U.S. patent pending 60/865,147)

Finally, a safe effective way to prevent engine damage without sacrificing performance.

- **Prevent catastrophic engine damage by controlling EGT temperatures**
- **Never worry about burning pistons**
- **Finally a safe effective way to save the racers engine without sacrificing power**
- **Set high and low limits**
- **Turn off or on any accessory when high EGT limits are reached**
- **By setting a high and low EGT limit the racer can continue racing without burning up a engine when the limits are set correctly**
- **The EGT Safety Switch can turn off the nitrous kit, turn on a step retard to your ignition box, activate a fuel enrichment, dump boost with a wastegate ,or simply turn off or on any accessory when limits are set properly**
- **Super fast EGT sensors**
- **Real time EGT readings**
- **Stores Min. and Max. EGT readings**
- **Easy to install and program**

EXHAUST GAS TEMPERATURE SAFETY SWITCH

(*U.S. patent pending 60/865,147*)

Congratulations, you have just purchased the world's only exhaust gas temperature safety switch from a leader in high performance technology products. When used correctly the EGT SS can prevent catastrophic engine damage and save you time and thousands of dollars in repairs while optimizing your engines peak performance.

KIT INCLUDES THE FOLLOWING

1- Exhaust gas temperature safety switch
2- Exhaust gas temperature probes and fittings for each
2- 40 amp relays
2- Weather pack connectors
1- Electrical connector assortment pack

Programming and wiring configuration are suggestions user can determine the best schematic to use for their application and temperature setting. There are no preset exhaust gas temperature values. The EGT SS can read exhaust gas values from 0-1800* F. Fittings provided can be welded to header pipes that are too thin to be drilled and tapped. Please read entire instructions before beginning the installation process.

TECHNICAL SUPPORT AND CONTACT US

Technical support opens 8am to 5 pm Central Standard Time
Phone number: 281-304-1515
E-mail: sales@coldfusionnitrous.com
Address: COLD FUSION NITROUS
16411 Dundee rd
Cypress, TX. 77429

WIRING *1*

The wiring of the EGT sensor and safety switch controller is to be connected as follows.

12 v – Switched power ignition
BC – This should be connected to a good ground source
SP– This is a normally open circuit to ground, which can switch 2 amps to ground to control a relay.
SG-This is a normally closed circuit to ground, which can switch 2 amps to ground to control a relay.

EGT SENSOR WIRING

The wiring of the sensor is to be connected as follows. **Note: sensors are shipped unassembled so that the installer can feed wiring though grommets. Don't assemble until wires are routed. A tool to disassemble terminals can be purchased.**

RED - is pushed into terminal housing terminal **A** until a click is heard.

YELLOW- is pushed into terminal housing **B** until a click is heard.

Both leads should be assembled in this manner. Any other will cause false readings.

CONTROL PANEL AND DISPLAY

Chan. 1- When this LED is on the display will show all information for EGT SENSOR 1.

Chan. 2- When this LED is on the display will show all information for EGT SENSOR 2.

MAX. - When the LED is on this displays maximum EGT temperature.

MIN. – When the LED is on this displays minimum EGT temperature.

HI SET – User sets this parameter and will be displayed when the LED is on. This is the maximum temperature the user doesn't want to exceed.

LOW SET- User sets this parameter and will be displayed when the LED is on. This is the low setting user would like the EGT SS to return to normal operation.

ARROW UP – Pressing the arrow up scrolls through all the display information for both channels.

ARROW DOWN- Pressing the arrow down scrolls through all the display information for both channels.

CONTROL PANEL AND DISPLAY (cont.) *2*

S – This touch key used to program settings.

R – This touch key is used to reset **MAX** and **MIN** stored values.

PROGRAMMING

When you first turn on EGT SS current the temperature of channel 1 is displayed. If you press the arrow key up or down until the **CHAN 2** led is on then the current temperature of channel 2 is displayed.

To set the **HI SET** setting press the arrow up until the LED is on above the **HI SET** lettering and then press the **S** touch key until the LED blinks and then proceed to use the arrow up or down the set the desired maximum temperature not to be exceeded once that's set press the **S** touch key again until LED is steady and the **HI SET** is programmed.

To set the **LOW SET** setting press the arrow up until the LED is on above the **LOW SET** lettering and then press the **S** touch key until the LED blinks and then proceed to use the arrow up or down the set the desired minimum temperature to return to normal operation once that's set press the **S** touch key again until LED is steady and the **LOW SET** is programmed.

INSTALLATION AND OPERATION

Operation: once **HI** and **LOW** settings have been established by user the **SG** and **SP** terminals will operate as follows.

SP- is a normally open circuit it switches closed to ground when **HI SET** temperature settings are reached and removes ground when **LOW SET** temperature is achieved. Switch to ground is 2 amps max.

SG- is a normally closed circuit it switches open to ground when **HI SET** temperature settings are reached and closes to ground when **LOW SET** temperature is achieved. Switch to ground is 2 amps max.

Installation: the EGT sensors need to be located within 3 inches of the cylinder head. If the exhaust manifold is still on the vehicle let the engine idle while you drill the manifold so that no metal chips enter combustion chamber by way of exhaust valve.

Be careful of hot gasses from the manifold. ***NOTE:*** ***TAP IS 1/8TH NPT, DRILL BIT "R" .339 DECIMAL INCHES.***

The EGT SS controller needs to be mounted in dry location and away from heat sources.

Do not assemble the lead connectors until all wires have been routed.

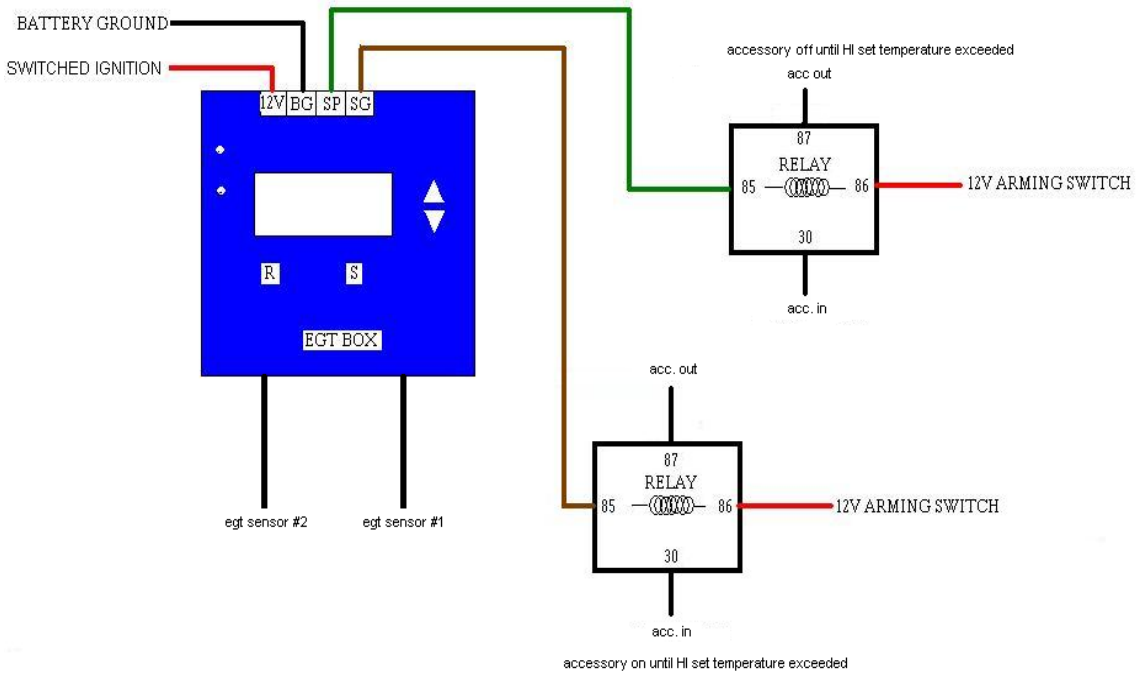
Tie all wires away from heat sources.

INSTALLATION AND OPERATION (cont.) 3

Base line: establish a base line first by making 3 hard runs 1/8 mile or ¼ mile and record the **MAX** and **MIN** reading for each sensor after each run then figure the average temperature for the runs and then program the **Hi set** slightly higher and this will be a good starting point.
User must also set the **Low set** temperature that returns the system back to normal operation. This should be slightly higher than the average low temperature recorded during the base line runs.

SCHEMATICS

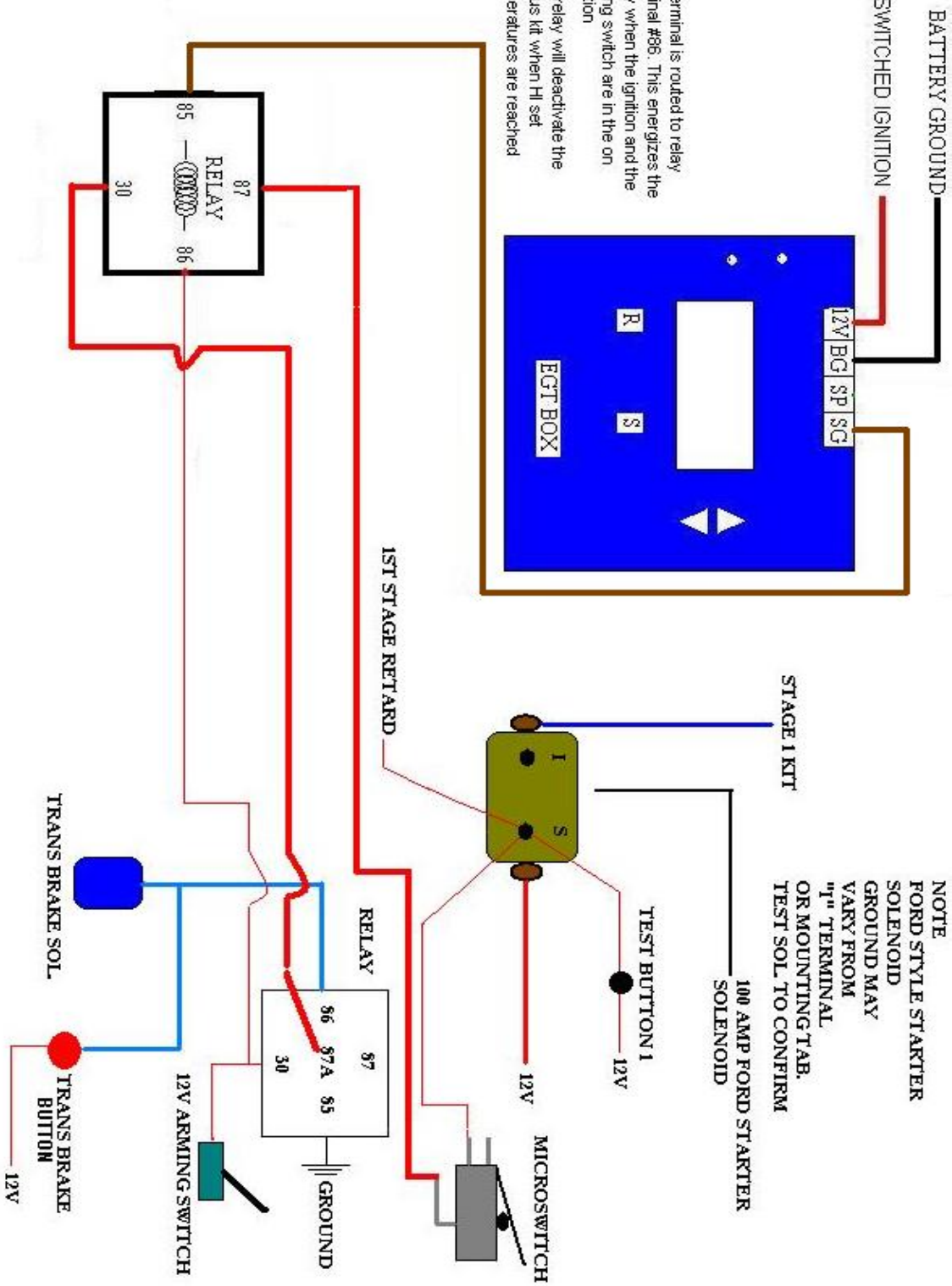
This schematic shows how you could use the relay to turn on and off accessories when exhaust temperatures exceed **HI SET** temperature.



NOTES:

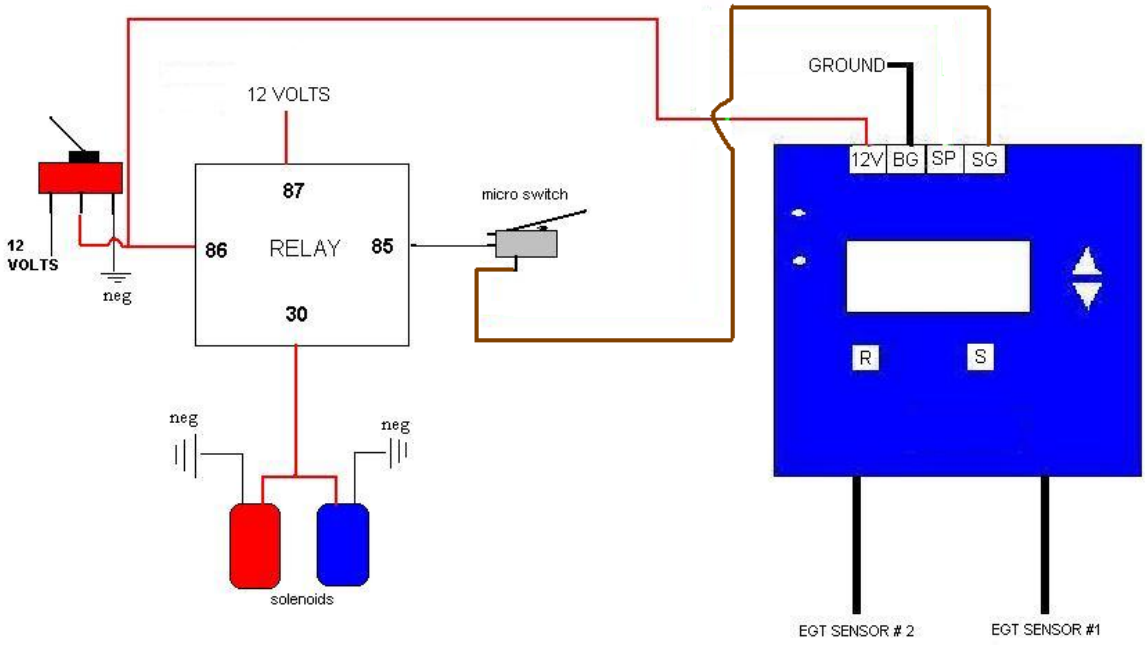
SCHEMATICS *4*

WIRING SCHEMATIC FOR NITROUS KIT WITH TRANS BRAKE SET TO TURN OFF KIT WHEN HI SET TEMPERATURE IS EXCEEDED.



SCHEMATICS *5*

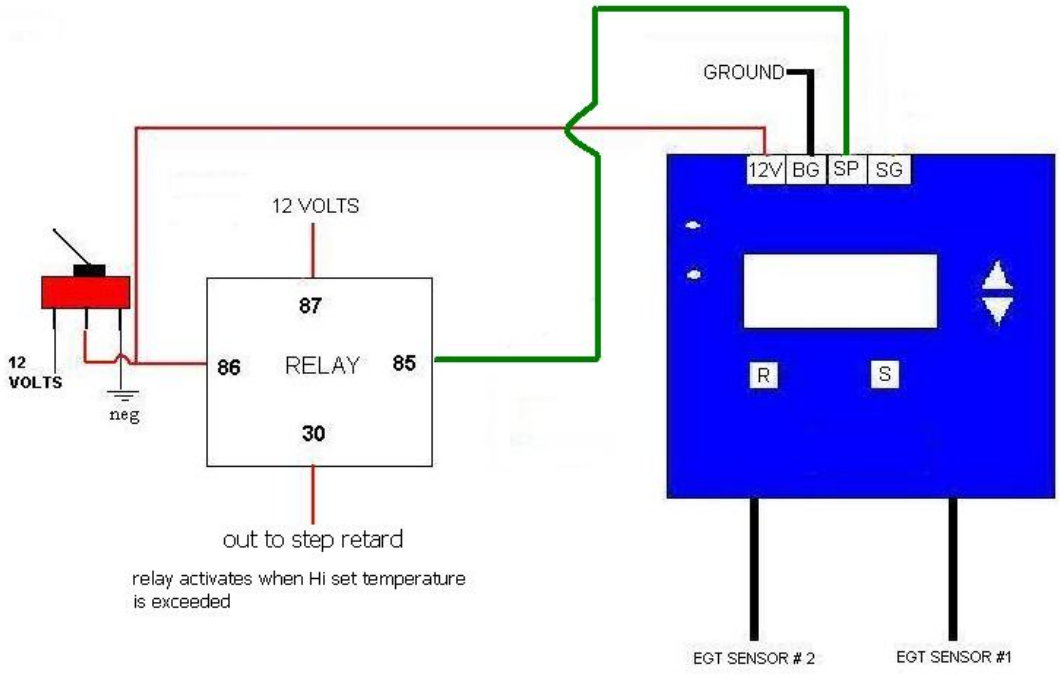
NITROUS WET KIT SET TO TURN OFF KIT WHEN HI SET TEMPERATURE IS EXCEEDED.



NOTES:

SCHEMATICS *6*

RELAY DIAGRAM SET TO ACTIVATE RELAY WHEN HI SET TEMPERATURE IS REACHED



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