Turbo Temp Monitor Kit Installation Instructions

Part Number 590585

Unpacking

Immediately upon receiving the kit, it should be unpacked, and an inventory taken. See Figure 1 for a list of items that should be included. Report any missing items to Allied Systems Company (503.625.2560) immediately.

Required Tools
Drill
Flat and Phillips screw drivers with magnetic tips
Small drill bit set
Wire cutters
Wire strippers
Wire crimp

Table 1 *Required Tools List*

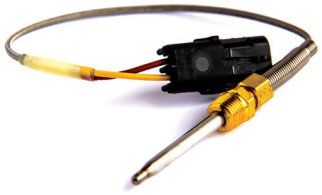
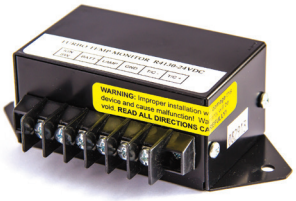
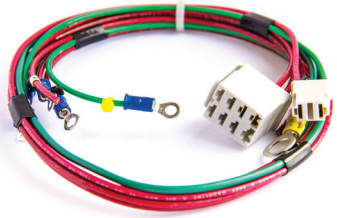
 PN: 254310 Desc: Probe, Thermocouple Qty: 1	 PN: 254309 Desc: Monitor, Turbo Temp Qty: 1	 PN: 590973 Desc: Wire Harness Qty: 1
 PN: 254311 Desc: Wire Harness, Thermocouple Qty: 1	 PN: 45017 Desc: Fitting Qty: 1	 PN: 237688 Desc: Switch, 24V Qty: 1
 PN: 576690 Desc: Decal, Off/On Qty: 1	 PN: 584017 Desc: Decal, Turbo Delayed Shutdown Qty: 1	 PN: 237346 Desc: Lens, Yellow Qty: 1
 PN: Y87G-(1024)12 Desc: Capscrew Qty: 2	 PN: R13809543 Desc: Nut, Lock Qty: 2	 PN: 00103338 Desc: Washer Qty: 4

Figure 1 *Turbo Temp Monitor Kit 590585*

Description

The Turbo Temperature Monitor (TTM) is an engine run/stop controller, which keeps the engine operating until a safe exhaust temperature for the turbocharger bearings has been reached. Temperature is sensed by using a “K” type thermocouple installed in the exhaust pipe AFTER the turbocharger.

Operation

In the event of the exhaust temperature being above the safe limit when the ignition switch is turned off, the TTM will maintain a high voltage level at the ignition switch, disallowing the engine to shut off until a safe temperature has been reached. NOTE: Once the TTM has shut off, there will be no power drain on the electrical system.

Installation

Step 1. Locate the exhaust elbow on the turbo. See **Figure 2**. Drill 0.50 diameter hole through one wall in the location shown. Remove all metal shavings.

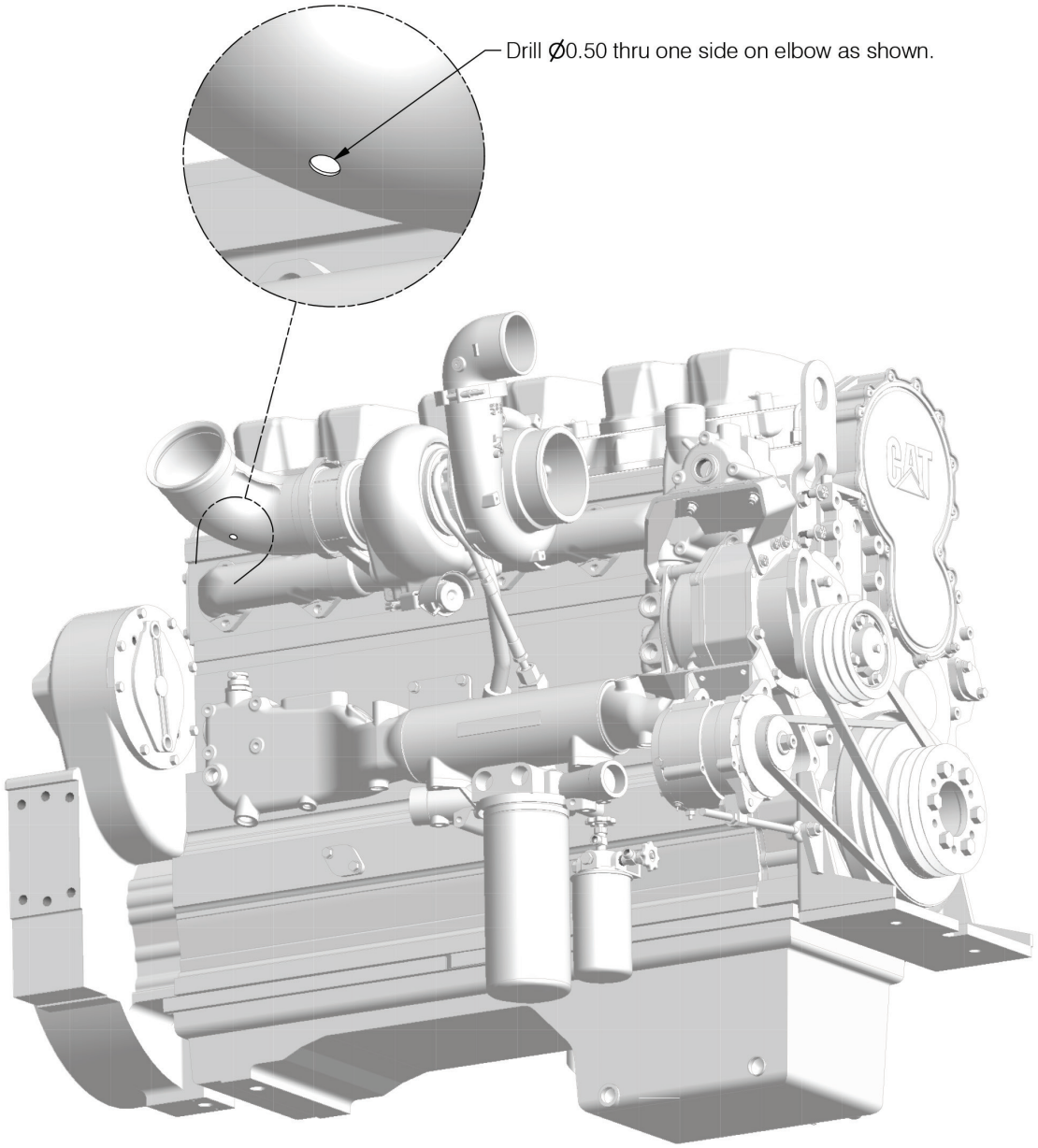


Figure 2 *Drill hole as shown. Note: Tier III CAT engine shown...your installation may vary.*

Step 2. Weld fitting to elbow as shown in **Figure 3**. Ensure that the weld creates an air tight seal.

Step 3. Install the Thermocouple into the fitting as shown in **Figure 3**.

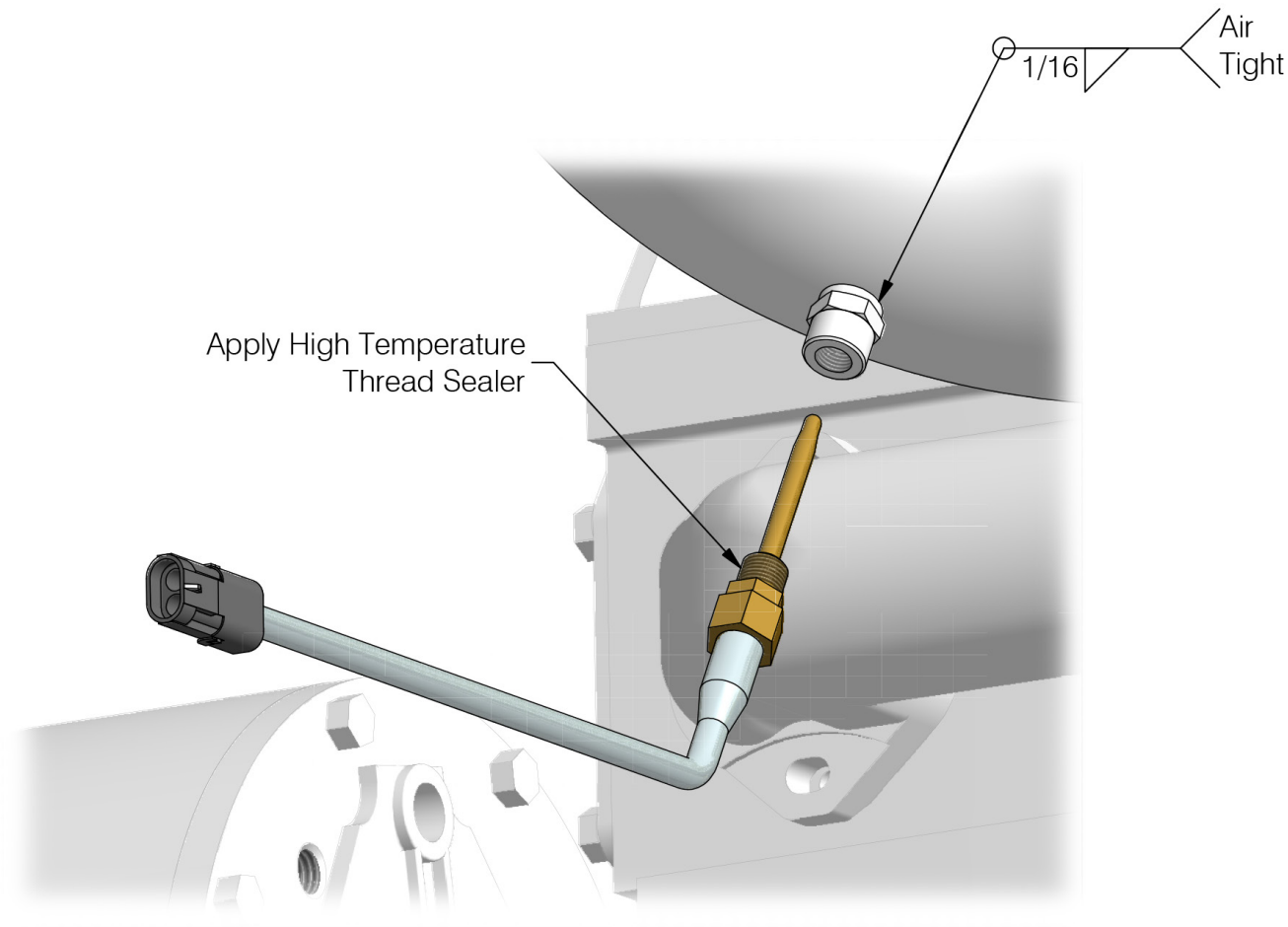


Figure 3 *Weld fitting, and install Thermocouple*

Step 4. Install the turbo temp monitor inside the left hand console as shown in **Figure 4**. Use the supplied hardware. Drill mounting holes if necessary.

Step 5. Install the switch, light, and decals as shown in **Figure 5**. Remove existing blank for the switch as available on your machine.

NOTICE

Note: Installation shown is on a Chipdozer. This kit may be installed on a Logstacker as well. Your installation may vary.

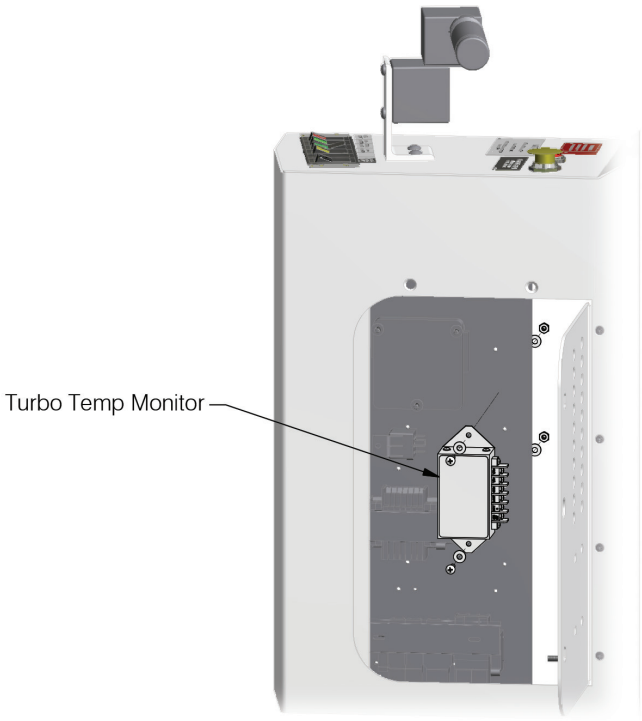


Figure 4 *Install Turbo Temp Monitor*

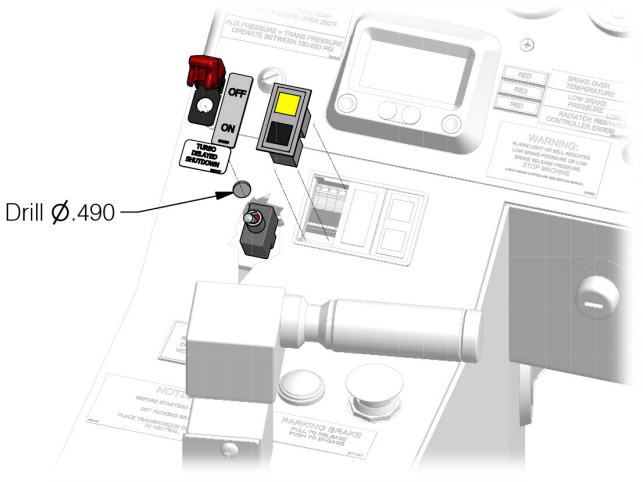


Figure 5 *Install Switch, Light, and Decals*

Step 6. Install Wire Harness 590973 between the Turbo Temp Monitor and the Switch as shown in **Figure 6**. Use cable ties provided in kit to restrain wiring as needed.

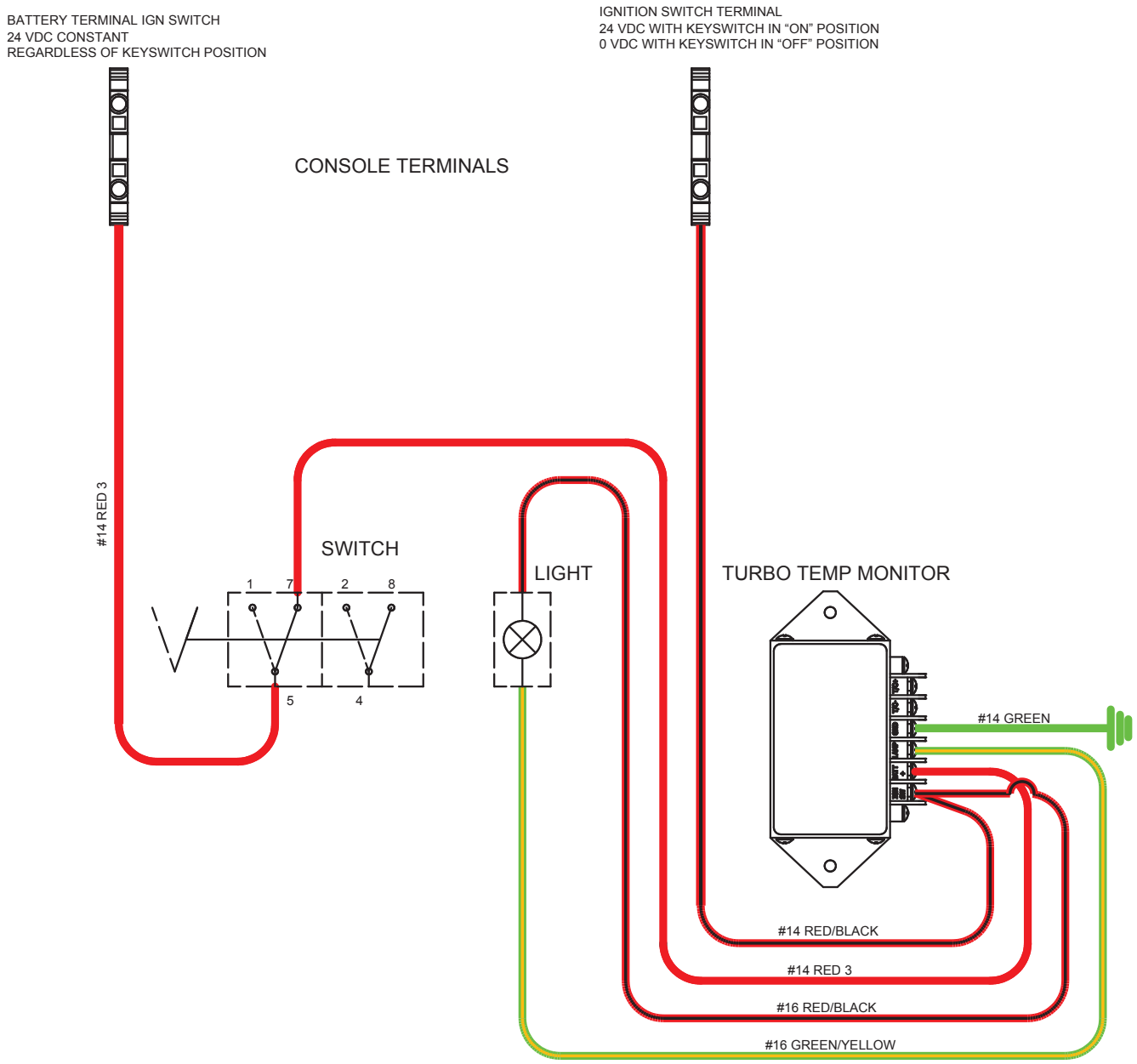


Figure 6 *Install Wire Harness 590973*

Step 7. Install Wire Harness 254311 between the Turbo Temp Monitor and the Thermocouple. See **Figures 7** and **8**. Route and secure the wire harness so that it will be out of the way and not damaged during normal machine operation or maintenance. Use wire loom to protect wire harness where it runs through the chassis into the cab.

Field Adjustment

If field adjustments become necessary, please contact the Allied Systems Company Service Department at 503-625-2560 or email service@alliedsystems.com

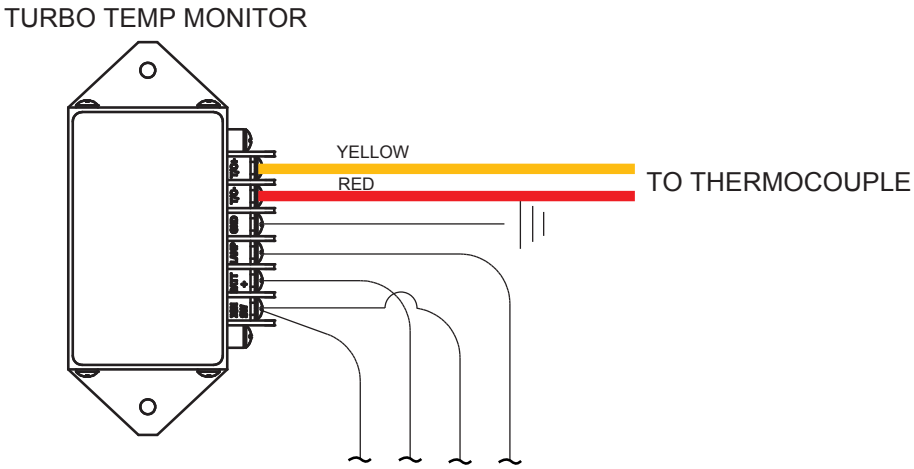


Figure 7 *Install Wire Harness 254311 at Turbo Temp Monitor*

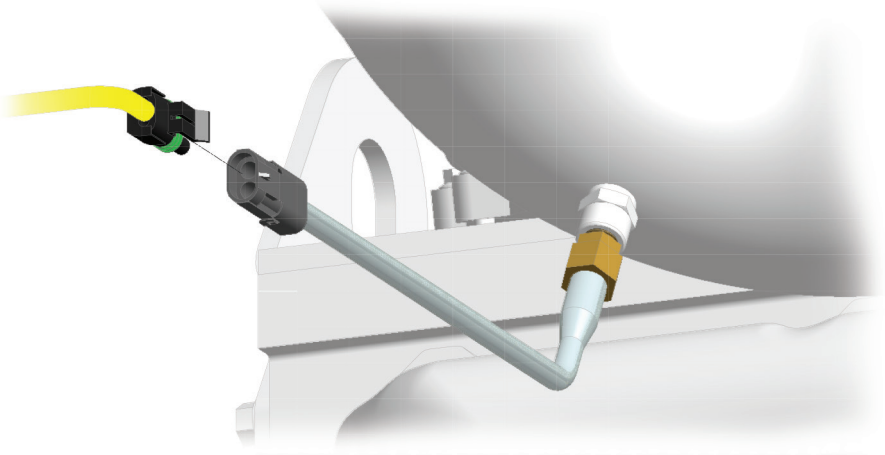


Figure 8 *Install Wire Harness 254311 at Thermocouple*

System Operation

When the engine is running, the Turbo Temp System is enabled, but not initially activated. Once the temperature rises above the factory pre-set temperature, the system is activated. At this point, the indicatior light is illuminated and the key switch will not immediately shut down the engine.

The system supplies battery power to the ignition and keeps the engine running until the turbo temperature falls below the pre-set factory temperature. At that point, the engine will shut down.

In an emergency situation where the engine must be shut down immediately, the override switch may be used. Lift the red switch cover and toggle the switch back. This will allow the engine to shut down immediately. Once the red cover is closed the switch will reset. This allows the system to enable the next time the engine is started.