



# Long Road Racing

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## Global MX-5 Cup Car Technical Service Bulletin #2-28-17B

### OPTIONAL: 2017 Global MX-5 Updates:

#### Engine Oil Pressure & Temperature Transmission Temperature

#### This TSB describes:

1. The addition of sensors to the AiM MXL2 data system on the Global MX-5 Cup car for the following: Engine Oil Pressure & Engine Oil Temperature, and Transmission Temperature monitoring.
2. Updating the Configuration for the AiM MXL2 to add the new sensors.

#### Installation: Oil Pressure and Oil Temperature Sensors

##### Hardware Needed:

Mazda kit part number = 0000-10-9567-KT contains:

- One PT-100 Temperature Sensor (0000-10-9306) with 3.5m MXL2 Patch Cable (0000-10-9305) for Oil Temp.
- One PRS-837 Pressure Sensor (0000-10-9307) with 3.5m MXL2 Patch Cable (0000-10-9305) for Oil Pressure.

1. Follow all safety standards and wear the appropriate safety gear.
2. Drain Engine Oil, locate sandwich adaptor plate at oil filter and remove two 1/8" NPT plugs from adaptor plate.
3. Install PT-100 Temperature Sensor and PRS-837 Pressure Sensors in place of the 1/8" NPT plugs in the adaptor plate. Use thread sealer to ensure no leaks.
4. Plug in 3.5m MXL2 Patch Cable to each sensor, be sure to label each cable so sensors are not mixed up.
  - a. Route cables around engine bay through the wiring harness pass through in the fire wall near the steering column, under the dash toward the center console to plug into the AiM MXL2 Harness.
  - b. Plug the cable for the PRS-837 (Oil Pressure) in to Channel 3 on the AiM MXL2 Harness.
  - c. Plug the cable for the PT-100 (Oil Temp) in to Channel 4 on the AiM MXL2 Harness.
  - d. Use cable ties to secure cable to avoid pinches, rubs and extreme high temperatures.



5. Refill Engine Oil, check for leaks at sensor connections on sandwich adaptor plate. Run engine briefly, check for leaks again and check fluid level.
6. Monitor sensor connections for leaks as with any oil line connection.

- Update Aim MXL2 configuration to add the oil pressure sensor to Channel 3 and the oil temperature sensor to Channel 4. An updated default configuration file is available from Long Road Racing.

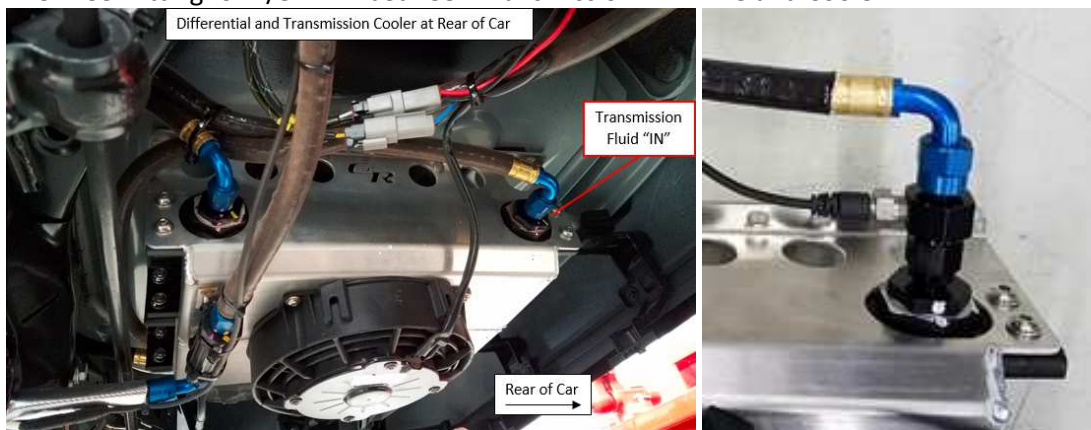
**Installation: Transmission Temperature Sensors.** Note that with this installation the temperature sensor will not read accurately unless Transmission cooling pump is running.

**Hardware Needed:**

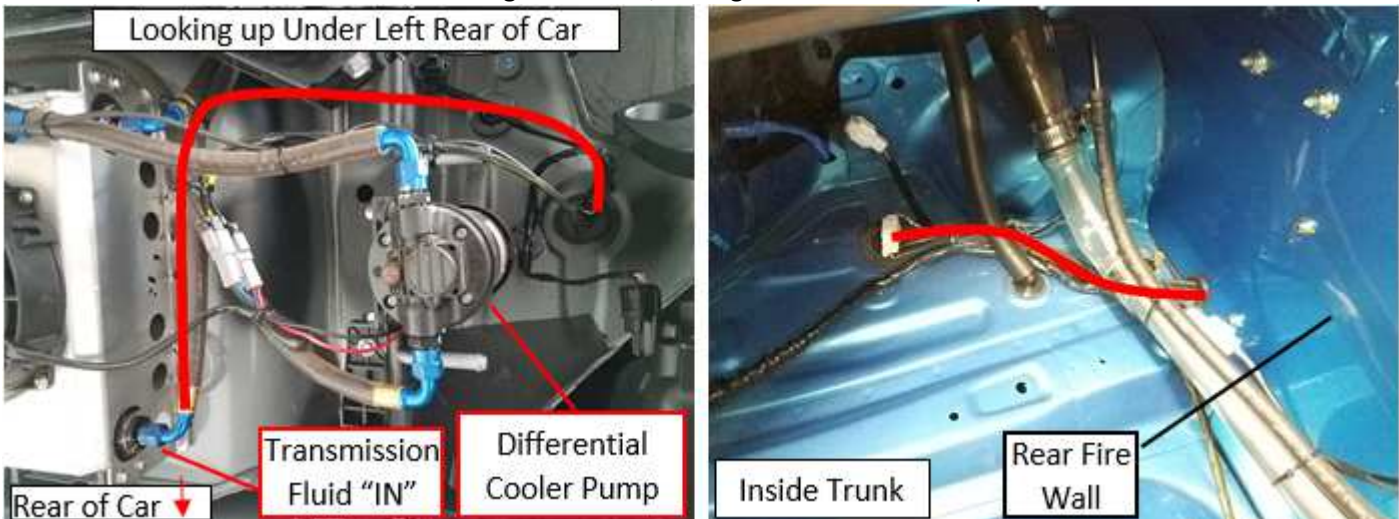
Mazda kit part number = 0000-10-9568-KT contains:

- One PT-100 Temperature Sensor (0000-10-9306) with 3.5m MXL2 Patch Cable (0000-10-9305)
- One Dash 6 Female Swivel to Dash 6 Male with 1/8 Port Fitting 0000-08-DASH-06

- Follow all safety standards and wear the appropriate safety gear.
- Drain Transmission Fluid as needed to Separate Transmission "IN" line from cooling unit at rear of car.
- Install PT-100 temperature sensor in the "Tee" Fitting's 1/8" NPT threaded hole; use thread seal to prevent leaks.
- Install inline "Tee" fitting for 1/8" NPT between Transmission "IN" Line and Cooler.



- Connect 3.5m MXL2 Patch cable to PT-100 Sensor and route cable to the AiM MXL2 Harness.
  - Recommended routing is to follow wiring harness connected to the Differential Cooler pump at left rear corner of the car in through the trunk, through the firewall and up the center console.





6. Plug the MXL2 patch cable into channel 2 on the AiM MXL2 harness.
7. Update Aim MXL2 configuration to add the transmission temperature sensor to channel 2. An updated default configuration file is available from Long Road Racing.

If you have any questions about this Technical Bulletin, please contact Glenn Long at:

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