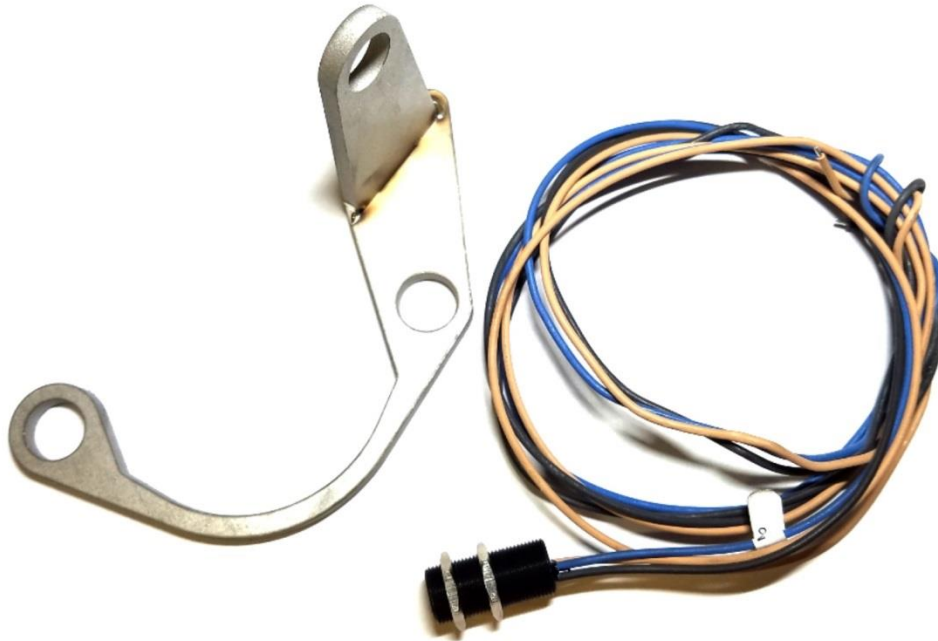


R32 GTR Speed Sensor Instructions

Items Included

- Mounting Bracket
- Speed Sensor with lock nuts and pig tail harness



Installation

1. Safely jack your car up and secure with jack stands
2. Bleed any 4WD pressure from the transfer case by breaking loose the bleed nipple on the transfer case actuator. Close this bleed quickly to ensure no air enters or you will need to bleed your ATTESSA system.
3. Remove the two bolts securing the transfer case actuator. If you have relieved the pressure the actuator will not fall out. If you are unsure simply remove only one bolt.

4. Install the speed sensor bracket as pictured and reinstall the actuator bolts. If you only removed one bolt, install the speed sensor bracket with the removed bolt, hand tighten, remove the remaining bolt, rotate the speed sensor bracket, and reinstall that bolt.
5. Put the car into neutral and relieve the parking brake if it is on (ensure the rear wheels are in the air). Rotate the driveshaft by hand until one of the four ends of the flange align with the sensor hole. Install the speed sensor with a lock nut on each side of the sensor mount. Do not tighten them. Leave about $\frac{1}{4}$ " between the end of the sensor and the driveshaft flange.



6. Due to casting differences in the driveshaft flange, all four edges will not be equal in length. Slowly spin the driveshaft by hand. Using the sensor as a guide (still $\frac{1}{4}$ " away at this time) determine which of the edges are longer and mark them. With a rasp or similar tool (an electric grinder is not recommended as not much material is needed to be removed) file down the long edges until they are equidistant from the sensor. Picture shows how much this particular car needed shaved; very little so take your time.



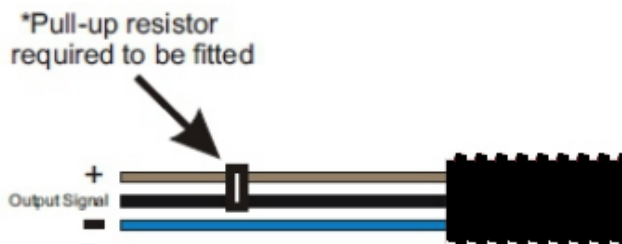
7. Wind the speed sensor in to set air gap. Air gap should be between 0.020"-0.040". I am using 0.040" without issue. A larger gap prevents possible damage to the sensor. Be sure to check the gap on all flange edges and file edges as needed.



8. Tighten the lock nuts. The sensor is thin wall aluminum. Simply make the nuts snug. **DO NOT OVERTIGHTEN.**
9. See below wiring instructions. Note that you will need to wire in a pull-up resistor if your ECU does not have the ability to turn one on in the programming. Haltech users will not need to wire in a resistor. I cannot speak for other ECUs.

Single Channel Hall Effect Sensor M12x1.0

| Termination | |
|-------------|-------------------|
| Wire Colour | Connection |
| BROWN | POWER (4.5-24VDC) |
| BLACK | SIGNAL |
| BLUE | GROUND |



Recommended air gap: 0.5 - 1 mm (0.020 - 0.040")

Pull up resistor must be fitted when using this sensor. This pull up resistor may be enabled on the ECU's input channel or wired between the Sensor signal wire and power supply.

Recommended pull-up resistor values (If wiring externally)

| | | | |
|------------|----|------|----|
| Volts (DC) | 5 | 12 | 15 |
| Ohms | 1K | 2.4K | 3K |

Please take care when wiring this sensor as incorrect wiring will damage this sensor!

Do NOT reverse the polarity of active sensors as sensor damage will occur.