

## 2009-2011 RX-8 Gauge Pod Kit Installation Instructions

Part No. 11819

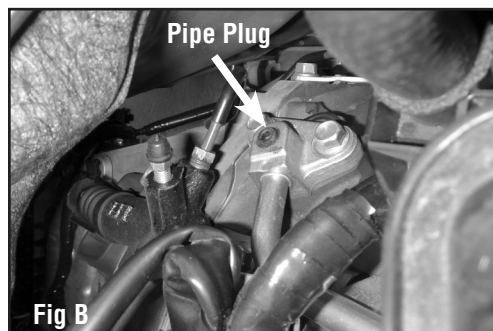
<b>Time Required: 2 Hrs</b>	<b>People required: 1</b>
<b>Tools Required:</b> <ul style="list-style-type: none"><li>• 1/4" or 3/8" Drive Ratchet</li><li>• 10mm deep socket</li><li>• Silicone sealant (RTV)</li></ul>	<ul style="list-style-type: none"><li>• Small flat screwdriver</li><li>• Short Phillips screwdriver</li><li>• 14mm or 9/16" open end wrench</li><li>• 11/16" open end wrench</li><li>• 3/4" open end wrench</li><li>• 23mm open end wrench</li></ul>

**Note:** This kit is not compatible for use on cars equipped with Racing Beat RX-8 Oil Cooler Lines - PN 11912.

Installation Note: To prevent damage to the surface of the fiberglass gauge pod, be careful when pushing the pod into position and when attaching the mounting legs.

### SENSOR INSTALLATIONS

- 1. Water Temperature Sensor** - Locate the Racing Beat Water Temperature Sensor Adaptor and brass adaptor fitting - **Fig A**. Install both the brass adaptor fitting and the water gauge temperature sensor into the Racing Beat adaptor using a small amount of silicone sealant on the threads. Install the adaptor assembly in the water line according to the instructions supplied with the adaptor.
- 2. Oil Pressure Sensor** - At the top of the rear engine housing, driver's side, there is a fitting that supplies oil from the front cover to the rear of the engine (earlier rotaries had the oil filter mounted in this location) - **Fig B**. Wipe off the fitting and the area around it with a rag to prevent dirt from entering the oil system during this assembly. Using the 5mm Allen key wrench supplied, remove the pipe plug located at the top of the fitting. Locate the pressure sender and remove the two knurled nuts plus all the washers from the studs. Put a small amount of silicone sealant on the threads of the pressure sensor and install it in the fitting.
- 3.** Pull the emergency brake handle firmly. Place the front of the car on jack stands with sufficient room under the car to allow access to the transmission tunnel area. Turn the steering all the way to the right.
- 4. Oil Temperature Sensor** - Remove the right front wheel inner fender panel enough to allow access to the oil cooler. A small amount of oil will be lost in the next operation, so place a rag under the cooler fittings. Locate the fluid bolt supplied with the kit and install the gauge oil temperature sensor into the threaded hole on the bolt with a small amount of sealant on the threads. - **Fig C**. Remove the inboard fluid bolt and washers and replace them with the fluid bolt/sensor assembly and new washers supplied.



## POD INSTALLATION

5. Remove the shift knob from the lever. Shift the transmission into 4th gear. Slide the center console lid rearward as shown in **Fig D**.

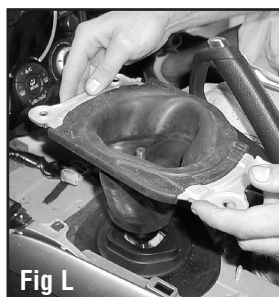
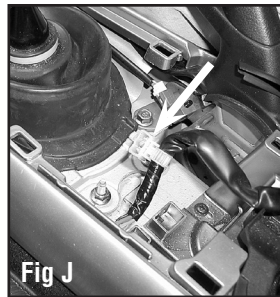
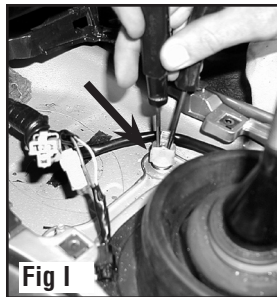
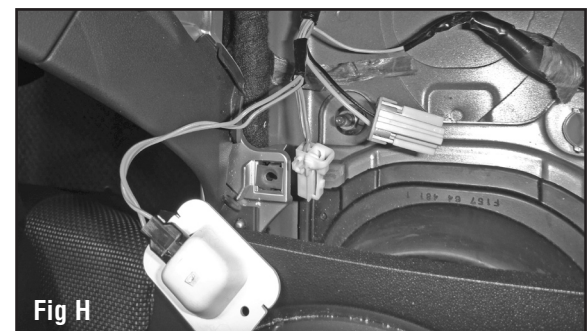
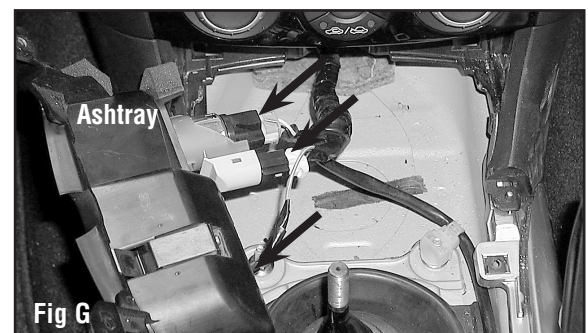
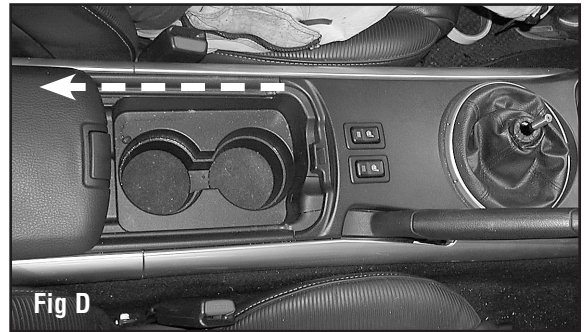
6. Grab the plastic shift boot outer lip from the inside as in **Fig E** and pull up with moderate effort until the plastic retaining clips under the panel pull free. If this pulling does not release the rear clips, remove them individually, making sure to pull directly upward to prevent breaking the clips. NOTE: If your car is equipped with seat warmers do not pull the panel off completely as there are wires connected to the underside. Remove the felt cone from the shift lever.

7. Remove the two Phillips head screws holding the ash tray in position (**Fig F**) and retain for re-use. Pull the ash tray rearward and slightly up to release it from the console. DO NOT PULL OUT COMPLETELY! There are three (3) wire connections on the back side - **Fig G**.

8. Using needle nose pliers, carefully disconnect the three (3) electrical connectors from the ashtray - **Fig H**.

9. Remove the white plastic wire-retaining clips attached to the passenger's side front and driver's side rear shift boot studs - **Fig I & J**.

10. Remove the four nuts that hold the shift boot flange in place (**Fig K**) and pull it up (**Fig L**), pulling it inside out to obtain the necessary room to work (**Fig M**). Do not remove it from the shift lever.



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11. The following steps are intended to prevent the gauge wires from being crushed:

Take the 3-3/4" long adhesive foam strip provided and place it directly between the front shift boot studs with the adhesive side down (**Fig N** - see arrow). Next, place the three 5-1/2" long foam pieces directly behind the 3-3/4" long piece, leaving no gap between the pieces. The last piece of foam, which is 2-3/4" long, should be placed on the bottom edge of the shift boot flange (**Fig O**), between the mounting holes.

12. Install the three red plastic electrical connectors on the yellow, the black/red, and one (1) of the blue/green wires (**Fig P, Q and R**). These connectors allow easy powering of the gauge pod.

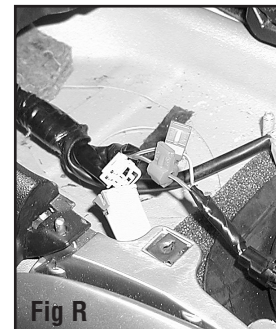
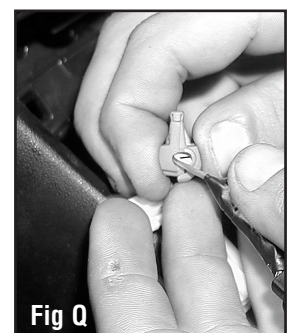
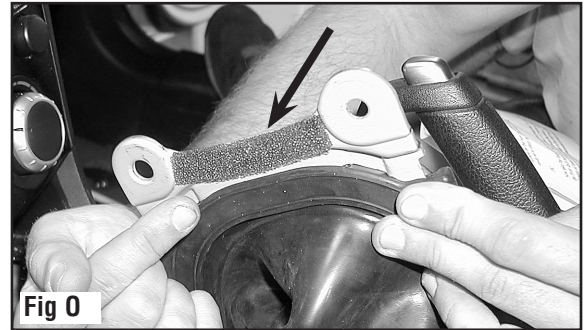
Connect the black wire from the gauge pod to the black/red wire connector, the white wire to the yellow wire connector, and the orange wire to the blue/green wire connector.

Look down the wire harness to the first set of connections (one black and one white wire) and ensure that the white wire does not contact any metal at this time. Verify that the connections are correct by turning on the ignition switch to the accessory position and observing that the gauges respond. Now turn on the headlights momentarily and see the lighting change. If you don't observe the correct results, check your wiring now and find the cause. Turn off the headlights and ignition switch.

13. Push the loose end of the wire harness down through the shifter hole. Locate the white tape on the wire harness (about 8" from the pod) and position it so it just disappears under the shift boot flange. Try to keep the wires "flat", that is, not crossing each other as they pass under the shift boot flange.

14. Tighten all four nuts that retain the shift boot flange moderately - not excessively. Re-install both white wire-retaining clips on their appropriate shift boot studs.

15. Carefully route all wires into the cavity behind the gauge pod and push the front two arms of the pod into their slots at the back of the ash-tray cavity. Push only on the location shown in **Fig S** - other locations may damage the pod. Once the pod is in correct position, the holes in the lower legs should line up with the appropriate mounting holes. Install the original mounting screws **Fig T**.



16. Under the vehicle, route the wire harness along the driver's side of the transmission, away from the exhaust (**Fig U**). Use two tie wraps to attach the harness to the clips. DO NOT FULLY CLOSE THE TIE WRAPS YET.

17. Route the harness up the center of the transmission to the oil pressure sender. Connect the black wire to the "WK" terminal (**Fig V**) and the white wire to the "G" terminal. Secure with flat washers, lock washers and thumb screws.

18. Route the harness around the passenger's side of the intake manifold to the water temperature sender. Assemble the bullet connectors.

19. Continue routing the harness forward and follow the oil lines into the right fender well, and on to the oil temperature sensor. Assemble the connectors. Now use the remaining tie wraps to secure the harness to the oil lines, water lines and other locations as appropriate.

20. Start the engine and observe that there are no oil or water leaks. Also observe the gauge readings. When you are sure that everything is correct, re-install the right front inner fender panel. Also install the felt piece, center console panel and shift knob.

22. Lower the car to the ground. When the gauge kit is completely installed and tested, peel away the clear plastic protective layer on each gauge face.

## RECOMMENDATIONS FOR OPERATION

Water thermostat operating range: 180 F to 189 F

Max water temp at high power (heavy throttle and high RPM): 200 F

Oil pressure at operating temperature: 15 ~ 80 psi

Oil temperature for high power: Min: 140 F - Max: 210 F

