

6-18 OIL INJECTION

OVERHEAT WARNING SYSTEM TROUBLESHOOTING CHART

SYMPTOM	SUZUKI MONITOR					POSSIBLE CAUSE
	BUZZER	OIL	FLOW	WATER	LIMIT	
The buzzer and light do not come on after starting the engine.						<ul style="list-style-type: none"> • Poor operating or defective cooling water sensor. • Disconnected cooling water sensor lead wires. • Defective buzzer. • Defective monitor. • Malfunction of ignition switch. • Defective reset unit.
The buzzer keeps sounding for 10 to 13 seconds after starting the engine and the water light stays on. <ul style="list-style-type: none"> • No water coming from the discharge hole. • Water is coming from the discharge hole. 	ON			ON		<ul style="list-style-type: none"> • Blockage of water intake. • Damaged water pump. • Blocked cooling water circuit. • Poor operating or defective cooling water sensor. • Blocked water passage. • Defective cooling water sensor.
While running engine above 3000 RPM, buzzer sounds and cooling water light come on. After 2 or 3 seconds over-rev control comes on.	ON			ON	ON	<ul style="list-style-type: none"> • Blocked water intake. • Damaged water pump. • Defective cooling water sensor. • Blocked water passage.
Over-rev control does not release despite reset switch having been pushed.						<ul style="list-style-type: none"> • Defective reset switch. • Defective reset unit.
Oil level-OK Recommended RPM range. No buzzer. Over-rev control-ON					ON	<ul style="list-style-type: none"> • Defective reset unit. • Defective CDI unit.
Buzzer sounds and cooling water is normal. Over-rev control-ON	ON			ON	ON	<ul style="list-style-type: none"> • Poor operating or defective cooling water sensor.
Engine speed is reduced after 10 seconds of uneven engine running.					ON	<ul style="list-style-type: none"> • Engine is over-revving.
Engine smooths out if the throttle is slightly backed-off from the full-open position.					ON / OFF	<ul style="list-style-type: none"> • Engine is over-revving.
While operating engine at over 3000 RPM, engine speed is reduced after the buzzer sounds for 10 seconds.	ON	ON			ON	<ul style="list-style-type: none"> • Oil level in the oil tank is lower than safety level (1.0 lit).
The buzzer sounds and the water light is on even though the engine speed has been reduced to below 3000 RPM.	ON			ON		<ul style="list-style-type: none"> • Blocked water intake. • Damaged water pump. • Defective cooling water sensor. • Blocked water passage.

Overheat Sensor

REMOVAL & INSTALLATION

Water Level Switch

1. Turn the battery switch off and/or disconnect the negative battery cable.
2. Remove the engine cover.
3. Locate the overheat sensor on the cylinder head.
4. Label and disconnect the switch harness.
5. Remove overheat sensor attaching bolts.
6. Using pliers, grab the tongue of the sensor and twist slightly to remove.

To install:

7. Check the O-ring on the end of the sensor for damage and replace as necessary.
8. Lubricate the O-ring and install the sensor in the cylinder head.
9. Install overheat sensor attaching bolts and tighten them securely.
10. Connect the switch harness.
11. Turn the battery switch on and/or connect the negative battery cable.
12. Test the overheat system for proper operation.
13. Install the engine cover.

Heat Sensing Switch

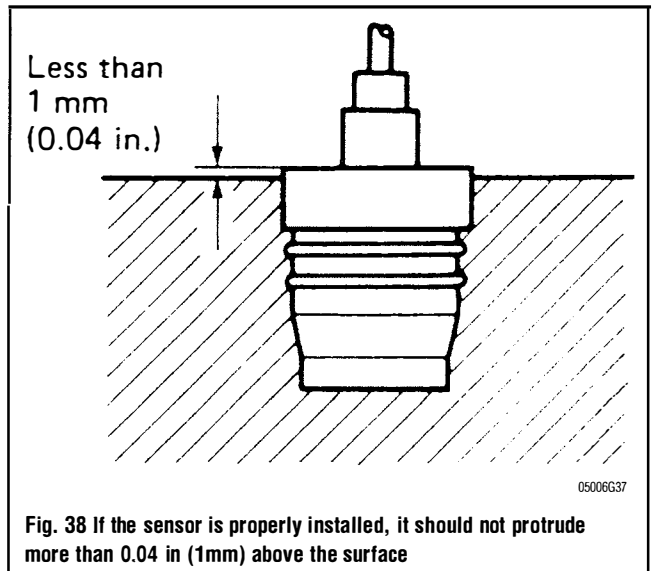
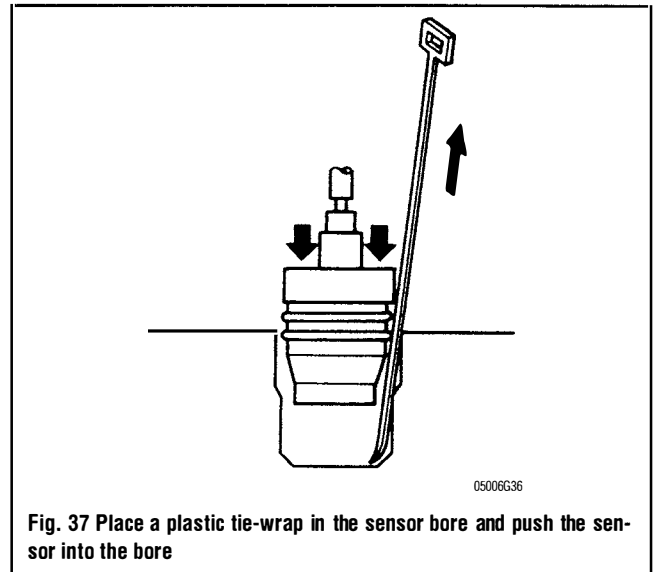
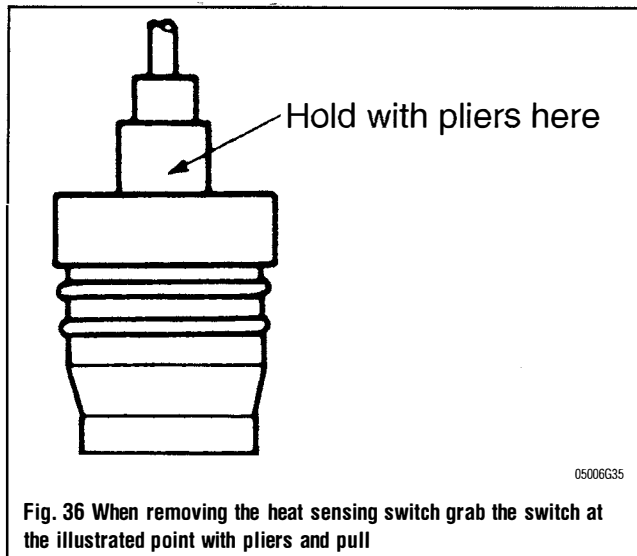
▶ See Figures 36, 37 and 38

1. Turn the battery switch off and/or disconnect the negative battery cable.
2. Remove the engine cover.
3. Locate the overheat sensor on the cylinder head.
4. Label and disconnect the switch harness.
5. Using pliers, switch grab the switch at the illustrated point with pliers and pull with a slight twist to remove.

To install:

6. Check the O-ring on the end of the sensor for damage and replace as necessary.
7. Lubricate the O-ring.
8. Place a plastic tie-wrap in the sensor bore and push the sensor into the bore.
9. When the sensor tip has reached the bottom of the bore, depress the sensor further and hold in that position.
10. Slowly remove the tie-wrap to release the trapped air at the bottom of the bore.
11. If the sensor is properly installed, it should not protrude more than 0.04 in (1mm) above the surface.

➡ If the sensor is not installed properly, it will not be seated at the bottom of the bore and will not give accurate temperature readings. This may lead to an overheat condition.



12. Connect the switch harness.
13. Turn the battery switch on and/or connect the negative battery cable.
14. Test the overheat system for proper operation.
15. Install the engine cover.

TESTING

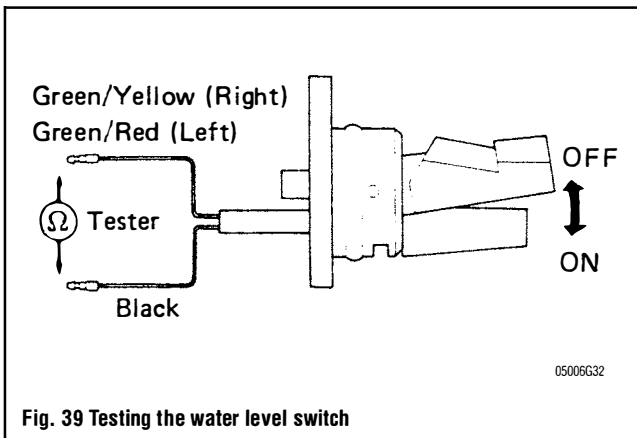
Water Level Switch

▶ See Figure 39

1. Remove the switch from the powerhead.
2. Connect a multimeter between the switch terminals and check for continuity.
3. With the float in the lower position, continuity should exist. With the float in the upper position, there should be no continuity.
4. If the sensor does not operate as specified, it may be faulty. Clean the sensor and retest.
5. Clean the sensor as follows:
 - a. Inspect the float to see if it move up and down smoothly.
 - b. If the action is stiff, disassemble the switch and flush thoroughly with fresh water to clean.

➡ Always remove the switch pin from the left and insert it into the right side of the switch.

6-20 OIL INJECTION

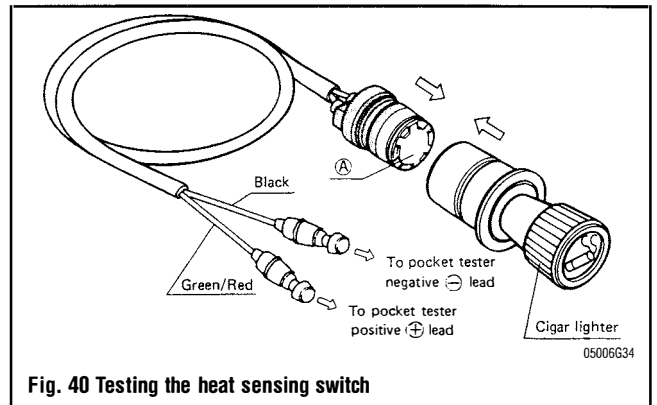


6. If the sensor functions properly, check the overheat warning electrical harness for opens or shorts.

Heat Sensing Switch

◆ See Figure 40

1. Remove the switch from the powerhead.
2. Connect a multimeter between the switch terminals and check for continuity.



3. With the switch at room temperature, there should be no continuity.
4. Using a cigar lighter from your vehicle, heat the end of the sensor.

➔ **Take care to not touch the sensor with the cigar lighter. Excessive heat will damage the sensor.**

5. As the sensor warms, continuity should exist.
6. If the sensor does not operate as specified, it may be faulty.
7. If the sensor functions properly, check the overheat warning electrical harness for opens or shorts.