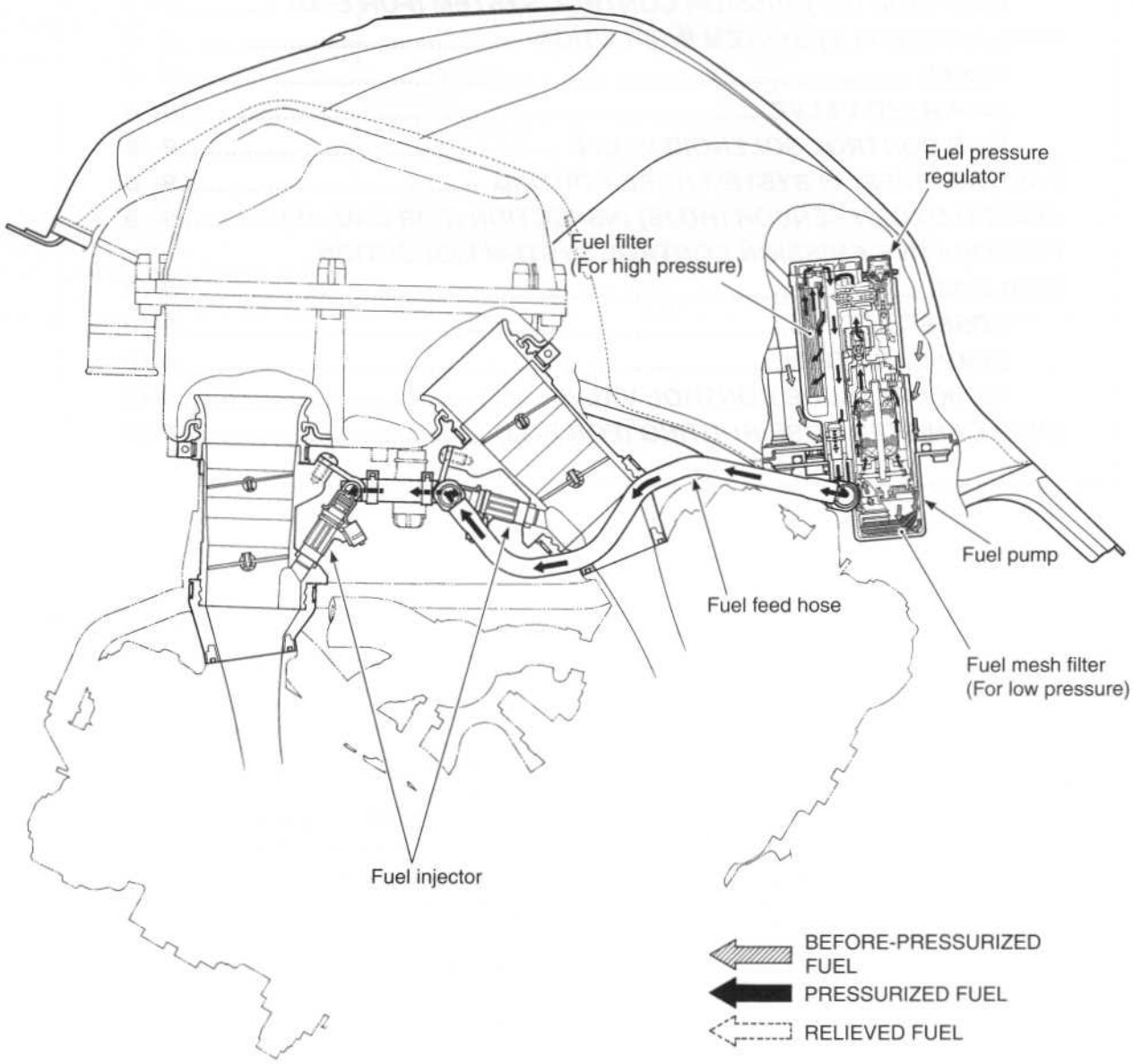
EMISSION CONTROL INFORMATION

CONTENTS

EMISSION CONTROL SYSTEMS

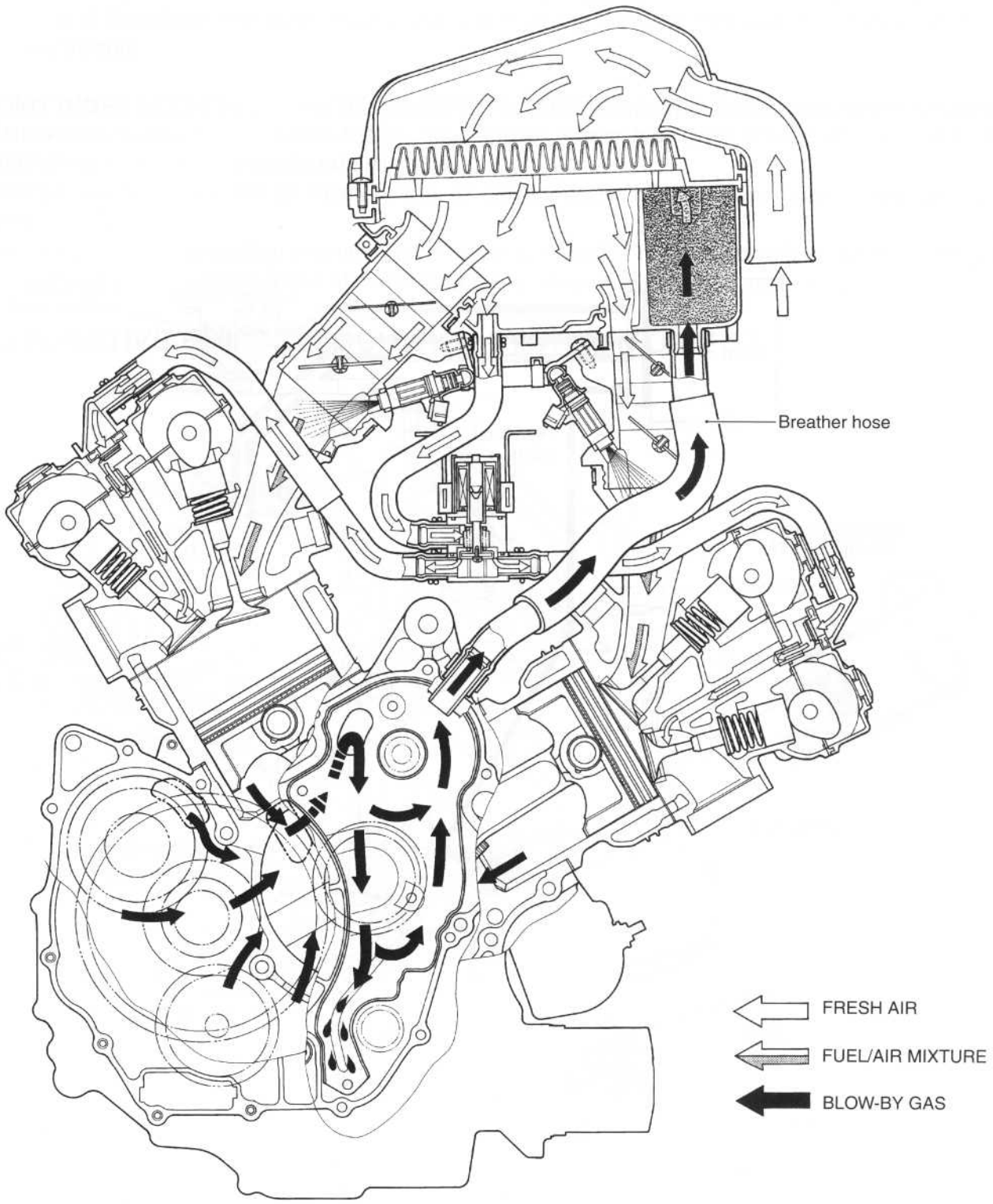
FUEL INJECTION SYSTEM

SV1000S motorcycles are equipped with a fuel injection system for emission level control.
This fuel injection system is precision designed, manufactured and adjusted to comply with the applicable emission limits.



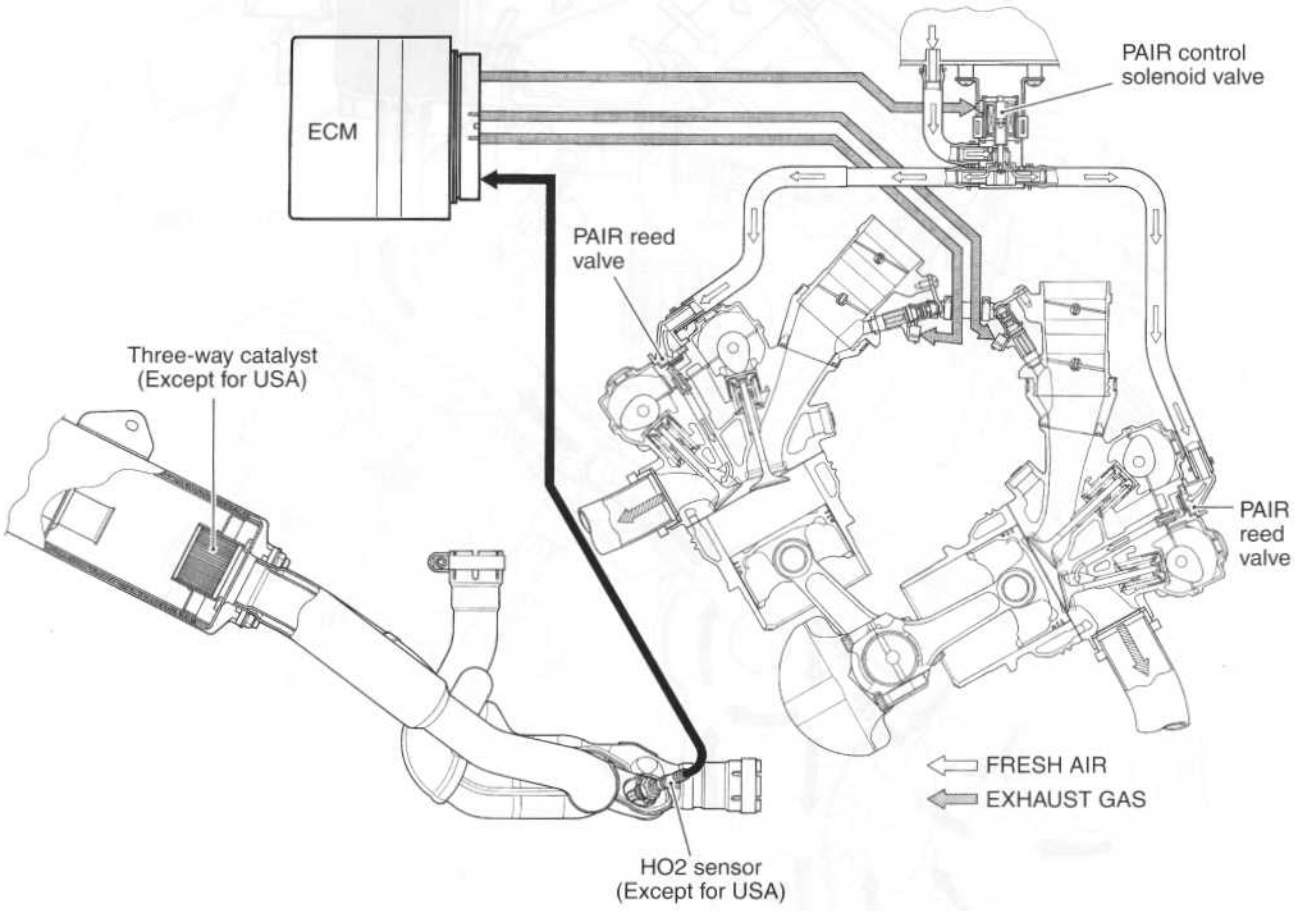
CRANKCASE EMISSION CONTROL SYSTEM

The engine is equipped with a PCV system. Blow-by gas in the engine is constantly drawn into the crankcase, which is returned to the combustion chamber through the breather hose, air cleaner and throttle body.



EXHAUST EMISSION CONTROL SYSTEM (PAIR SYSTEM)

The exhaust emission control system is composed of the PAIR system and THREE-WAY CATALYST system. The fresh air is drawn into the exhaust port with the PAIR solenoid valve and PAIR reed valve. The PAIR solenoid valve is operated by the ECM, and the fresh air flow is controlled according to the TPS, ECTS, IATS, IAPS and CKPS.



NOISE EMISSION CONTROL SYSTEM

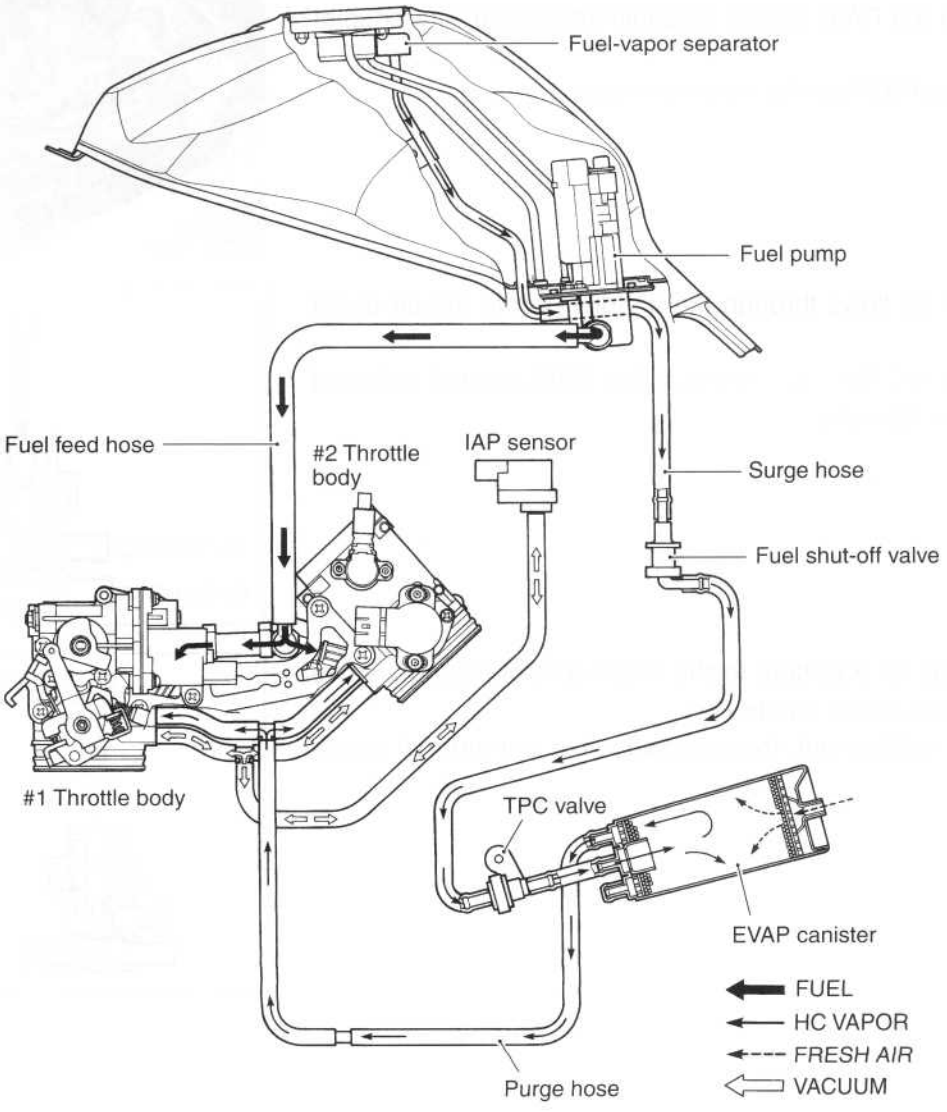
TAMPERING WITH THE NOISE CONTROL SYSTEM PROHIBITED: Federal law prohibits the following acts or the causing thereof:

1. The removal or rendering inoperative by any person, other than for purposes of maintenance, repair or replacement, of any device or element of design incorporated into any new vehicle for the purpose of noise control prior to its sale or delivery to the ultimate purchaser or while it is in use, or
2. The use of the vehicle after such device or element of design has been removed or rendered inoperative by any person.

AMONG THOSE ACTS PRESUMED TO CONSTITUTE TAMPERING ARE THE ACTS LISTED BELOW:

- Removing or puncturing the muffler, baffles, header pipes, screen type spark arrester (if equipped) or any other component which conducts exhaust gases.
- Removing or puncturing the air cleaner case, air cleaner cover, baffles or any other component which conducts intake air.
- Replacing the exhaust system or muffler with a system or muffler not marked with the same model specific code as the code listed on the Motorcycle Noise Emission Control Information label.

EVAPORATIVE EMISSION CONTROL SYSTEM (FOR E-33)



PAIR (AIR SUPPLY) SYSTEM INSPECTION

HOSES

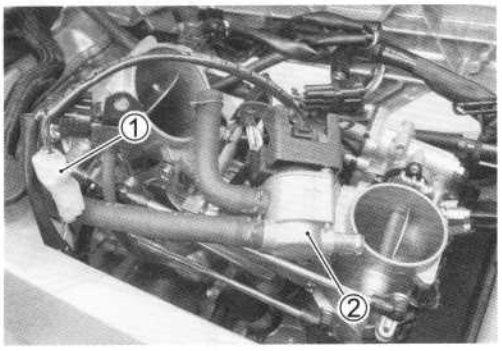
- Inspect the hoses for wear or damage.
- Inspect that the hoses are securely connected.

PAIR REED VALVE

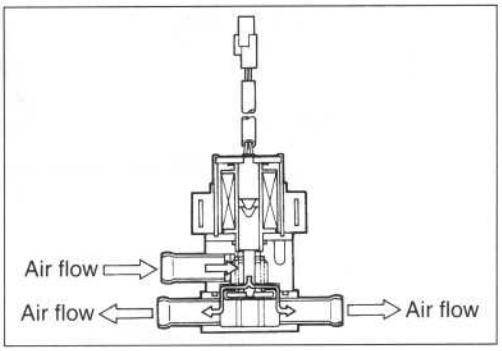
- Remove the PAIR reed valve cover. (☞3-34)
- Inspect the reed valve for the carbon deposit.
- If the carbon deposit is found in the reed valve, replace the PAIR reed valve with a new one.

PAIR CONTROL SOLENOID VALVE

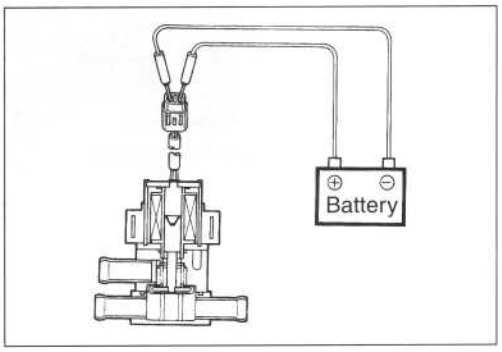
- Remove the air cleaner box. (☞4-75)
- Disconnect the PAIR control solenoid valve lead wire coupler ①.
- Remove the PAIR control solenoid valve ②.



- Check that air flows through the air inlet port to the air outlet ports.
- If air does not flow out, replace the PAIR control solenoid valve with a new one.



- Connect the 12 V battery to the PAIR control solenoid valve terminals and check the air flow.
- If air does not flow out, the solenoid valve is in normal condition.

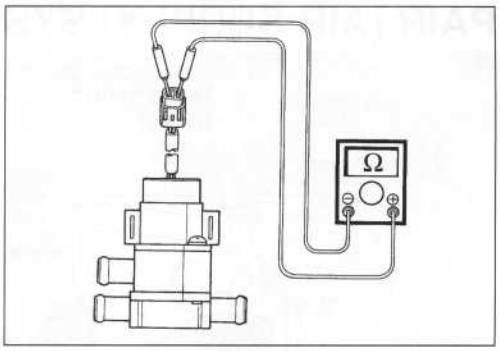


- Check the resistance between the terminals of the PAIR control solenoid valve.

DATA Resistance: 20 – 24 Ω (at 20 °C/68 °F)

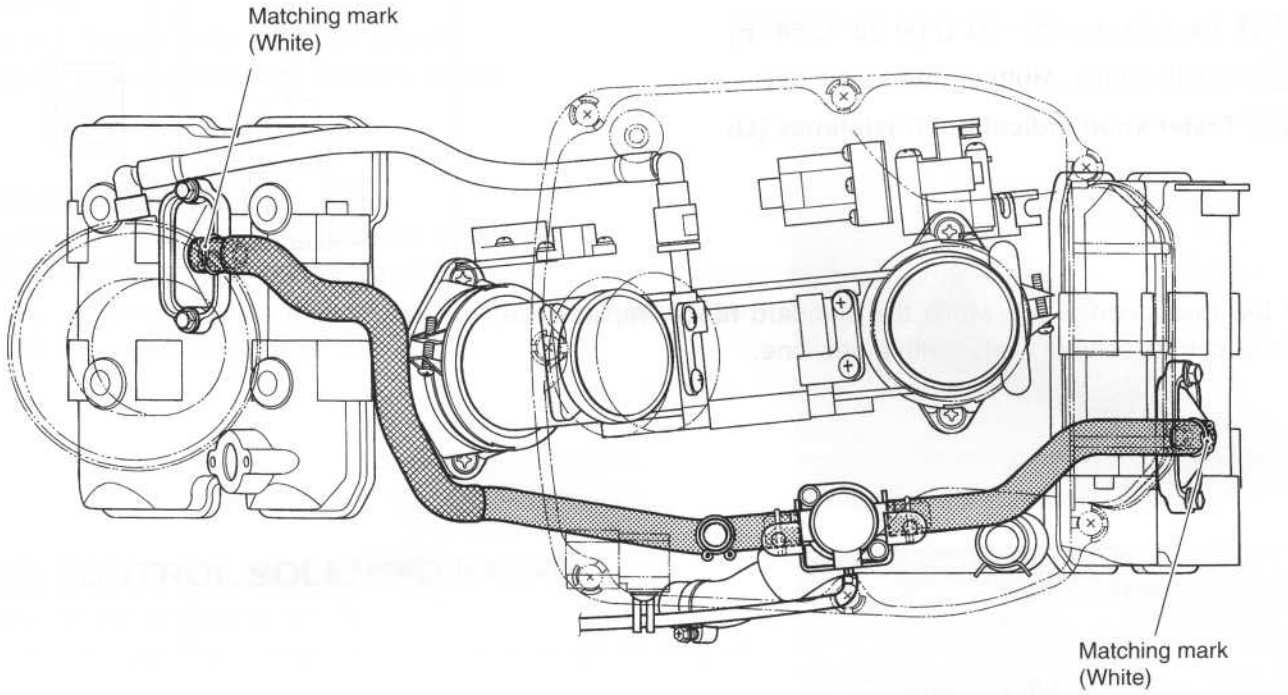
TOOL 09900-25008: Multi circuit tester set

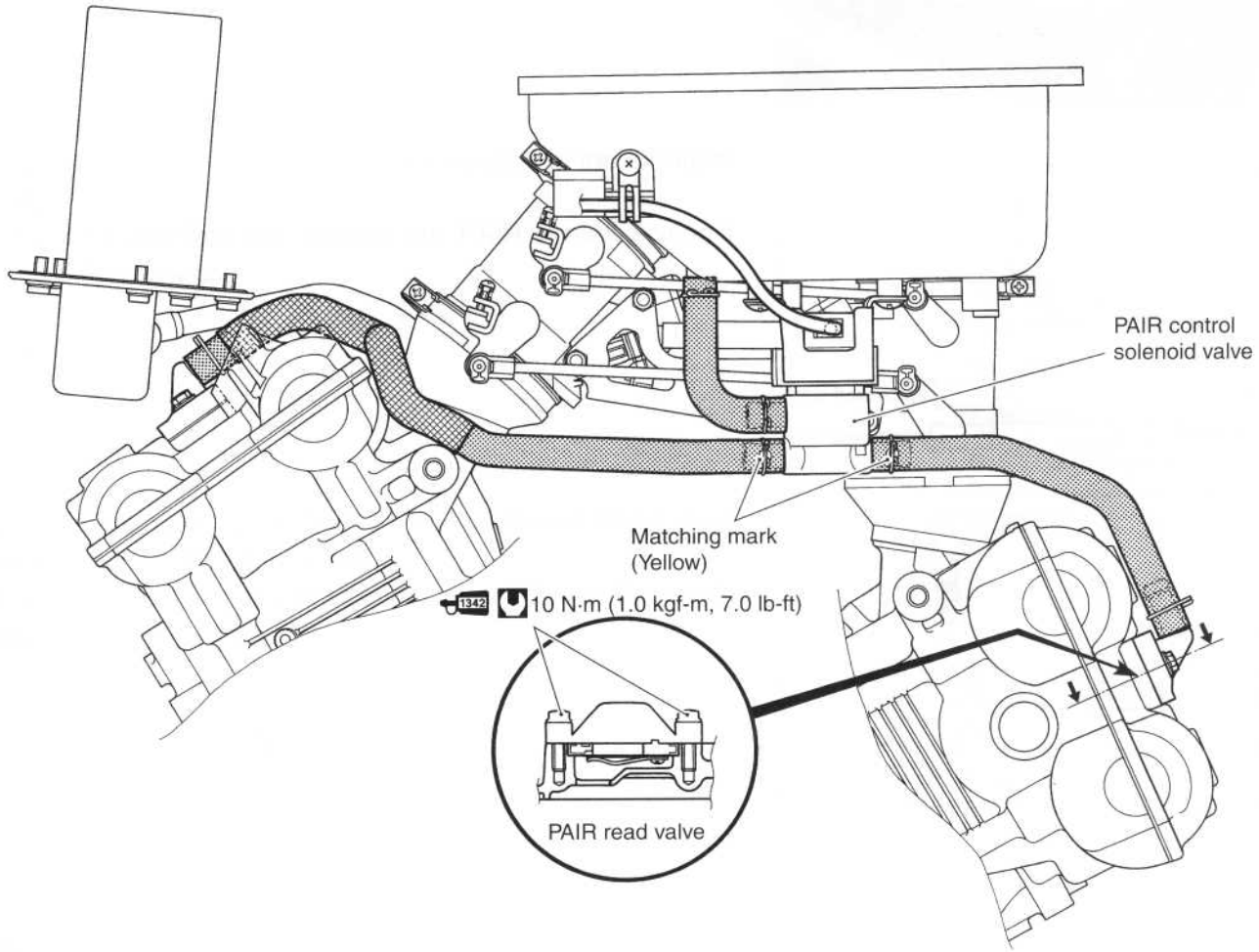
Tester knob indication: Resistance (Ω)



If the resistance is not within the standard range, replace the PAIR control solenoid valve with a new one.

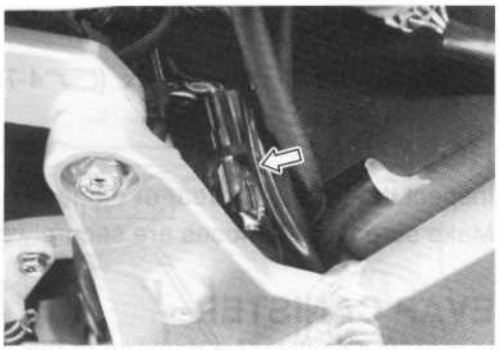
PAIR (AIR SUPPLY) SYSTEM HOSE ROUTING





HEATED OXGEN SENSOR (HO2S) INSPECTION (FOR E-02, 19)

- Disconnect the HO2 sensor lead wire coupler. (☞4-61)
- Inspect the HO2 sensor and its circuit referring to flow table of the malfunction code (C44).

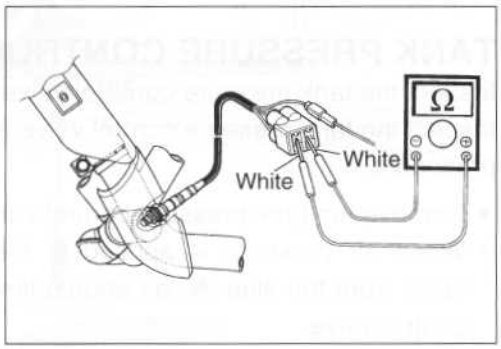


- Check the resistance between the terminals of the HO2 sensor.

DATA Resistance: 4 – 5 Ω (at 23 °C/73.4 °F)

TOOL 09900-25008: Multi circuit tester set

Tester knob indication: Resistance (Ω)



If the resistance is not within the standard range, replace the HO2 sensor with a new one.

NOTE:

** Temperature of the sensor affects resistance value largely.*

** Make sure that the sensor heater is at correct temperature.*

⚠ WARNING

Do not remove the HO2 sensor while it is hot.

CAUTION

Be careful not to expose it to excessive shock.
Do not use an impact wrench while removing or installing the HO2 sensor unit.
Be careful not to twist or damage the sensor lead wire.

EVAPORATIVE EMISSION CONTROL SYSTEM INSPECTION (FOR E-33)

- Remove the air cleaner box. (☞4-75)

HOSES

Inspect the hoses for wear or damage.
Make sure that the hoses are securely connected.

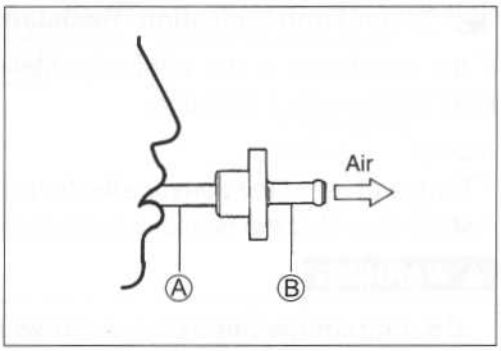
EVAP CANISTER

Inspect the canister for damage to the body.

TANK PRESSURE CONTROL VALVE

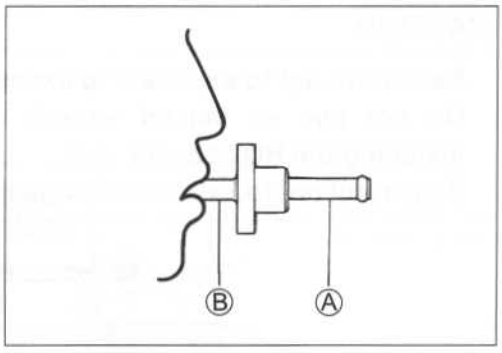
Inspect the tank pressure contorol valve body for damage.
Inspect the tank pressure control valve operation in the following procedure.

- Remove the tank pressure control valve.
- When air pressure is applied to the tank pressure control valve from the side Ⓐ, air should flow out through the purge control valve.
- When air pressure is applied to the tank pressure control valve from the side Ⓑ, air should not flow through the purge valve.
- If the tank pressure control valve operates otherwise, it must be replaced.



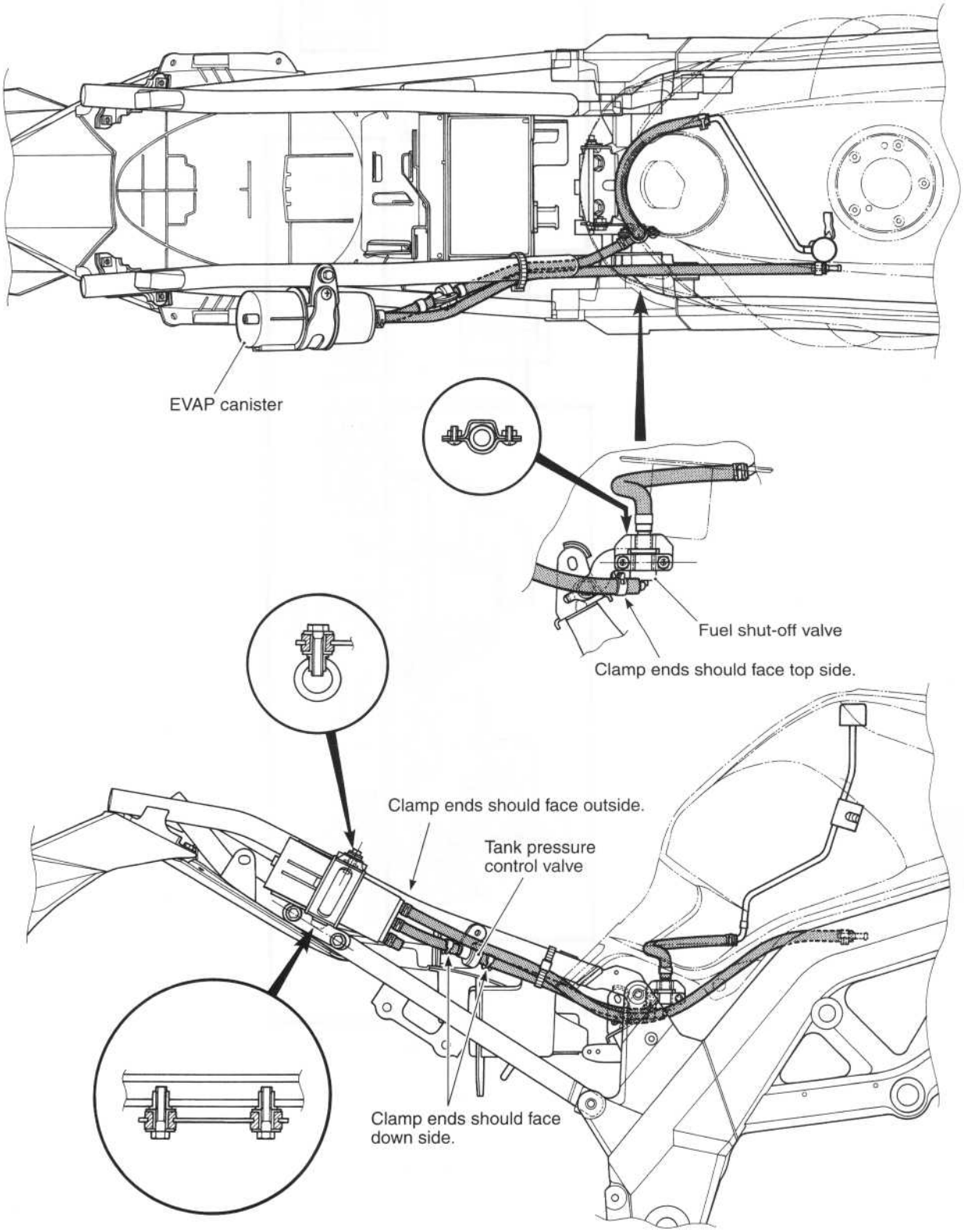
⚠ WARNING

Gasoline and gasoline vapor is toxic. A small amount of fuel remains in the tank pressure control valve when checking it.
Do not swallow the fuel when blowing the tank pressure control valve.

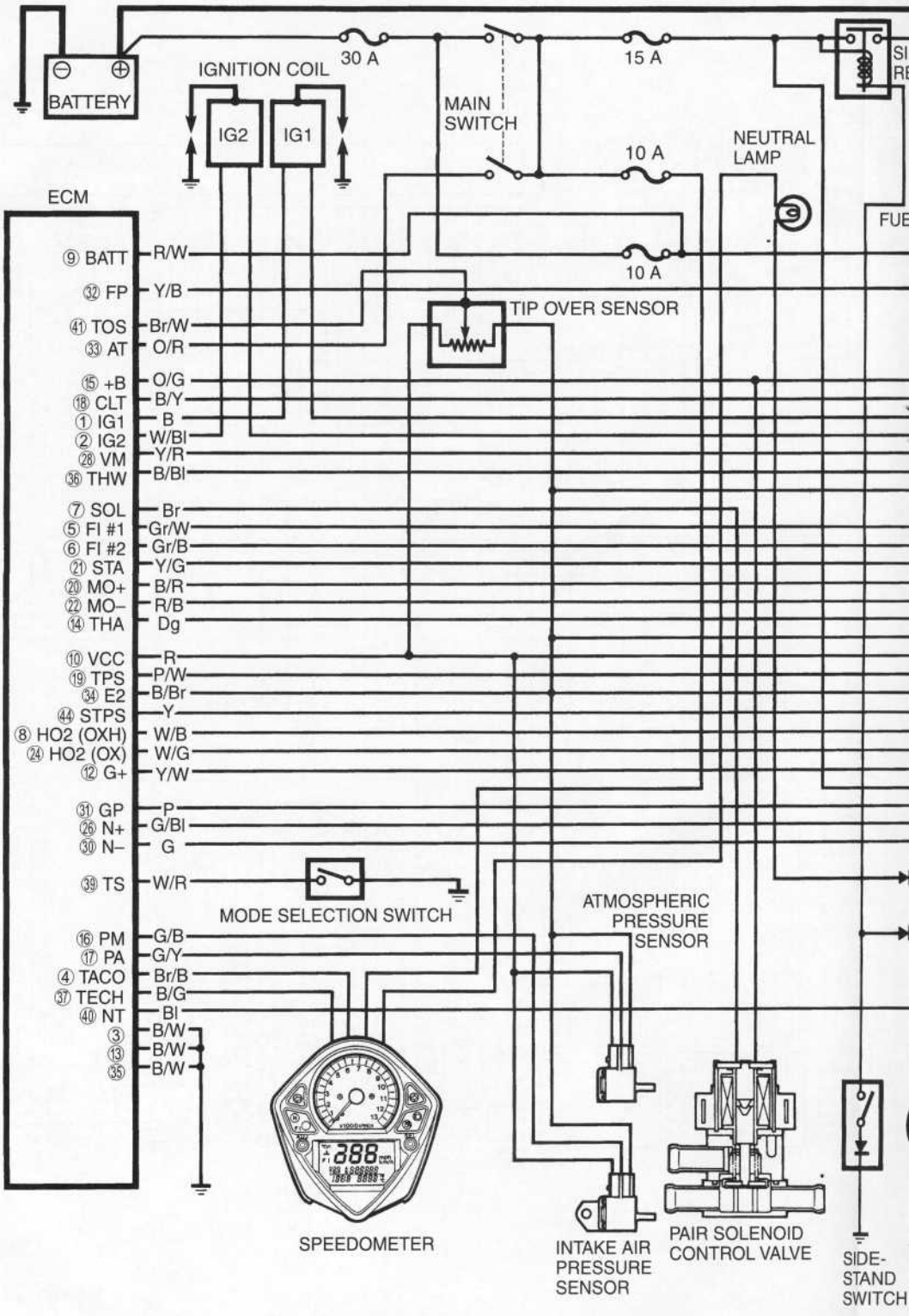


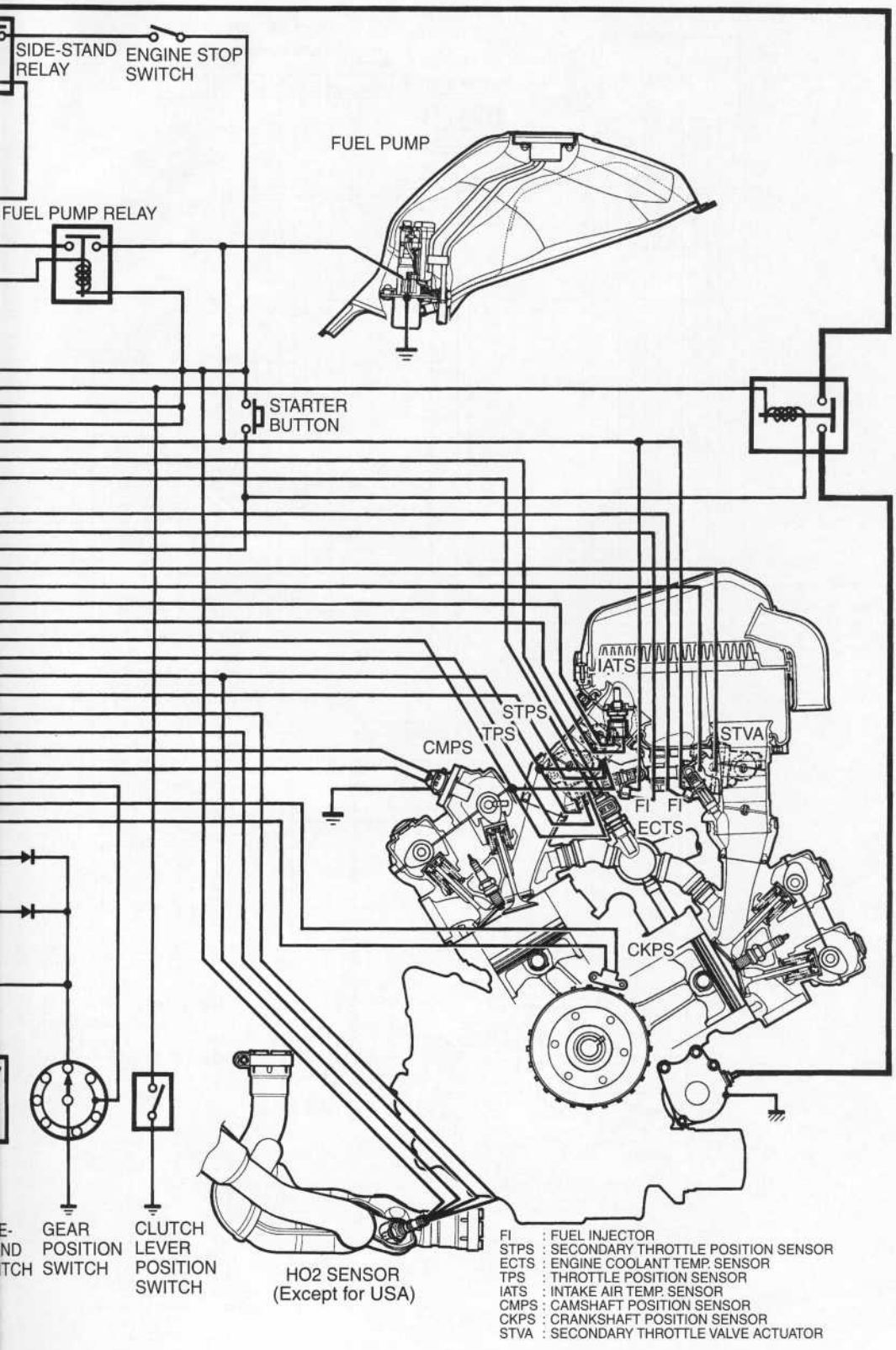
NOTE:
When connecting the tank pressure control valve to the hose, the side Ⓑ should face toward the fuel shut-off valve side, and the side Ⓐ should face toward the canister side.

EVAP CANISTER HOSE ROUTING (FOR E-33)



WIRING DIAGRAM
FI SYSTEM WIRING DIAGRAM

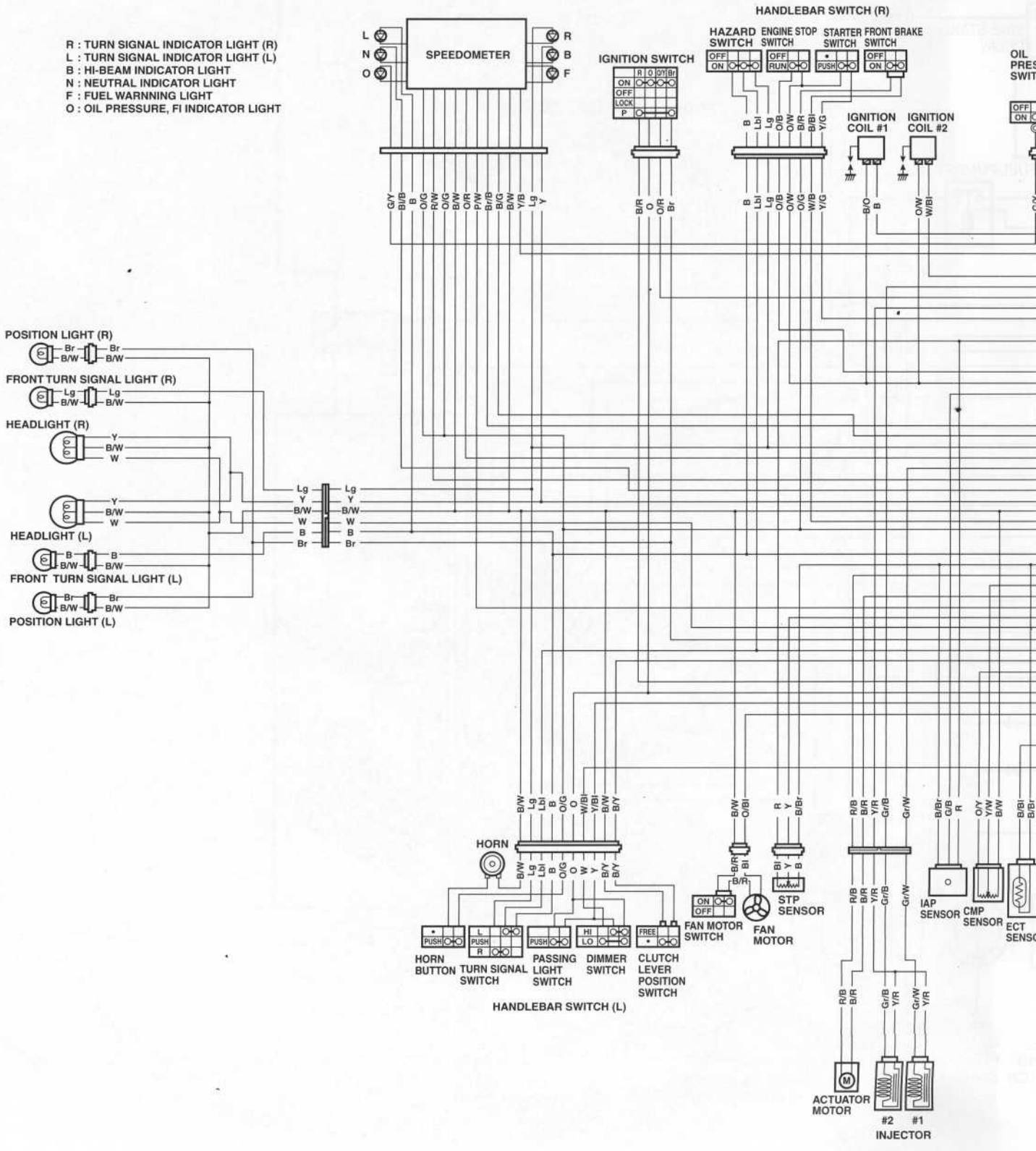


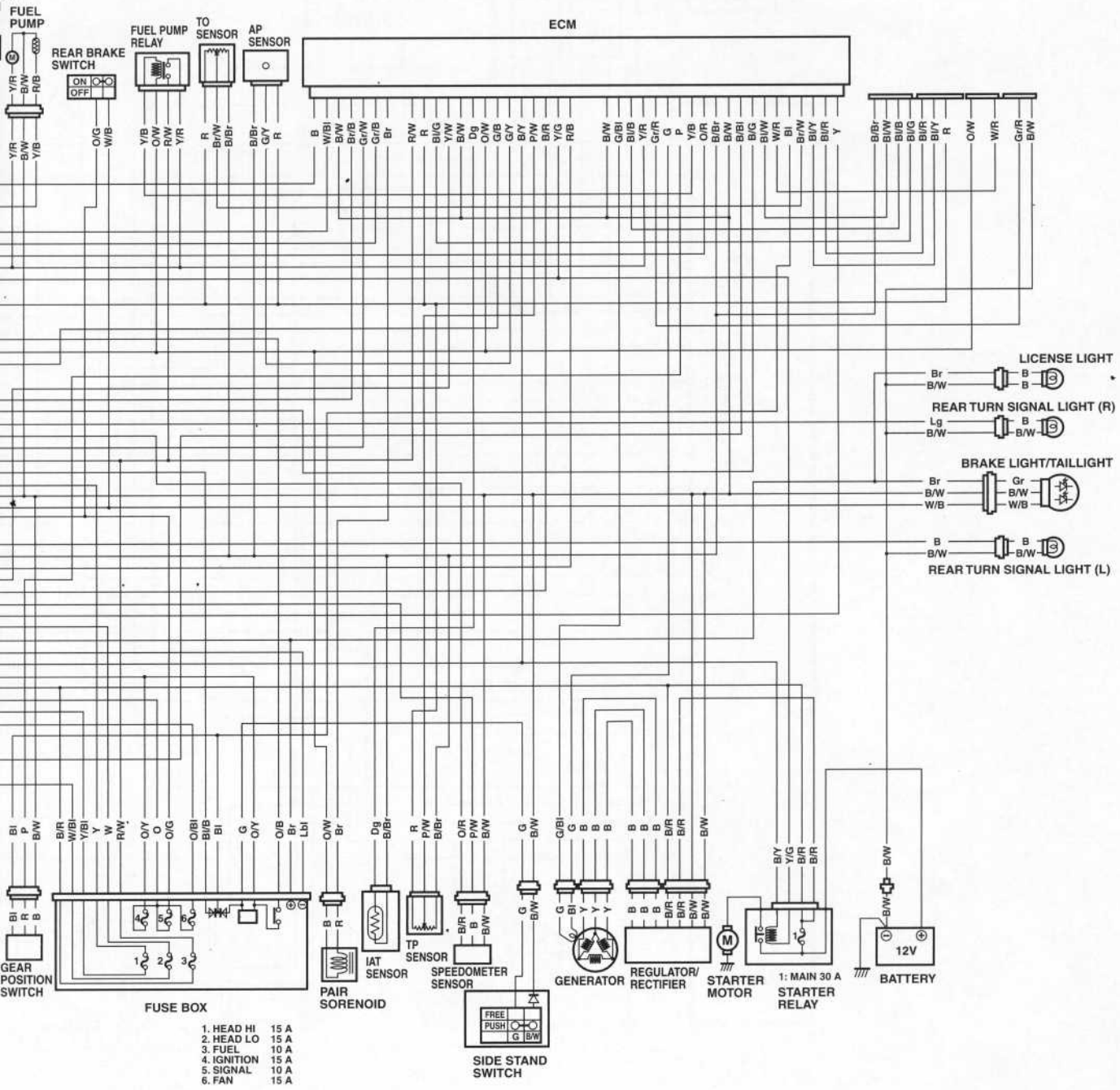


FI : FUEL INJECTOR
STPS : SECONDARY THROTTLE POSITION SENSOR
ECTS : ENGINE COOLANT TEMP. SENSOR
TPS : THROTTLE POSITION SENSOR
IATS : INTAKE AIR TEMP. SENSOR
CMPS : CAMSHAFT POSITION SENSOR
CKPS : CRANKSHAFT POSITION SENSOR
STVA : SECONDARY THROTTLE VALVE ACTUATOR

WIRING DIAGRAM

E-03, 24, 28, 33




FUEL PUMP
REAR BRAKE SWITCH
ON
OFF
FUEL PUMP RELAY
TO SENSOR
AP SENSOR
ECM
LICENSE LIGHT
REAR TURN SIGNAL LIGHT (R)
BRAKE LIGHT/TAILLIGHT
REAR TURN SIGNAL LIGHT (L)
GEAR POSITION SWITCH
FUSE BOX
1. HEAD HI 15 A
2. HEAD LO 15 A
3. FUEL 10 A
4. IGNITION 15 A
5. SIGNAL 10 A
6. FAN 15 A
PAIR SORENOID
IAT SENSOR
TP SENSOR
SPEEDOMETER SENSOR
SIDE STAND SWITCH
FREE
PUSH
GENERATOR
REGULATOR/ RECTIFIER
STARTER MOTOR
1: MAIN 30 A
STARTER RELAY
12V
BATTERY

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