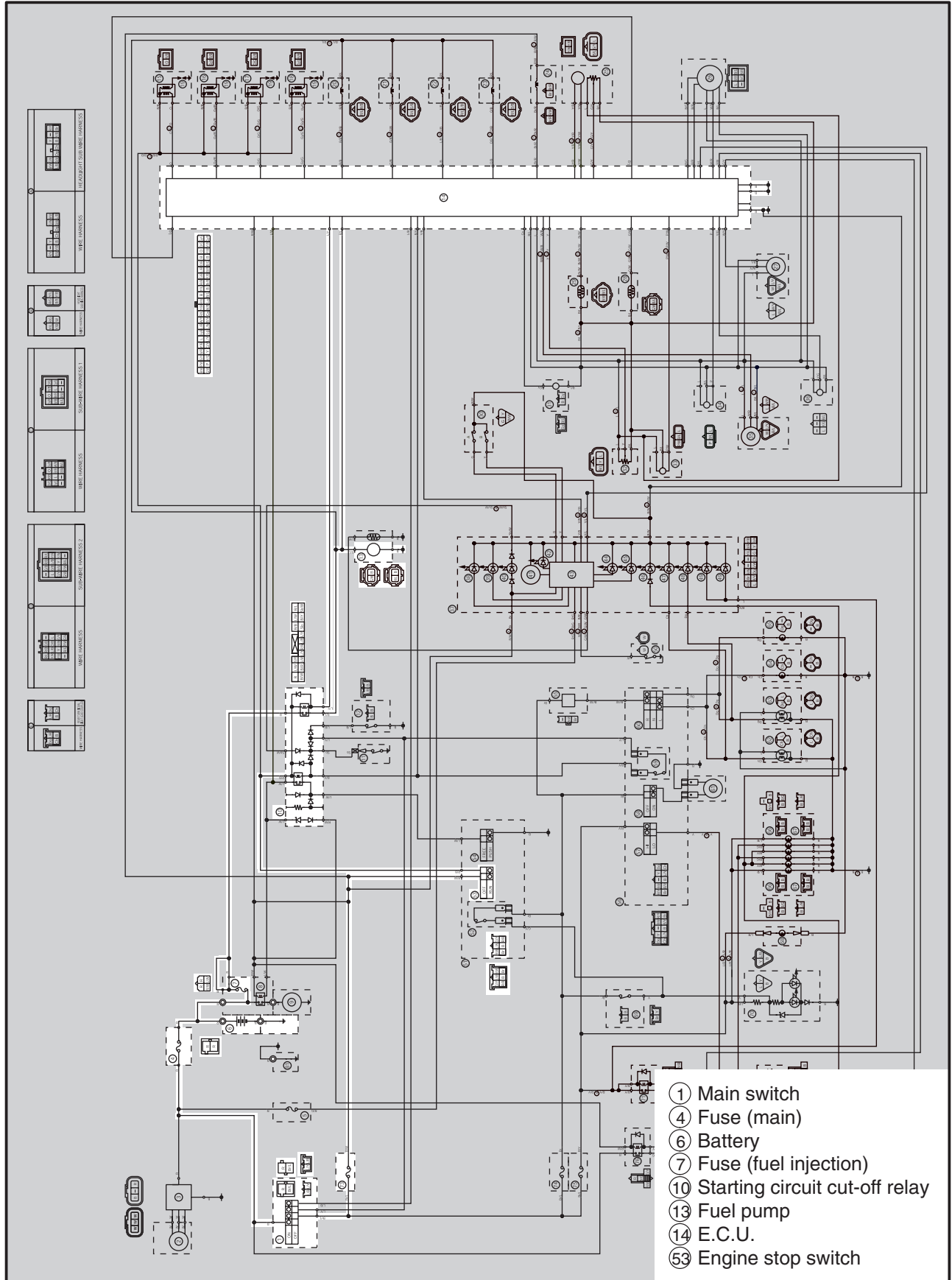




EAS00814

**FUEL PUMP SYSTEM
CIRCUIT DIAGRAM**



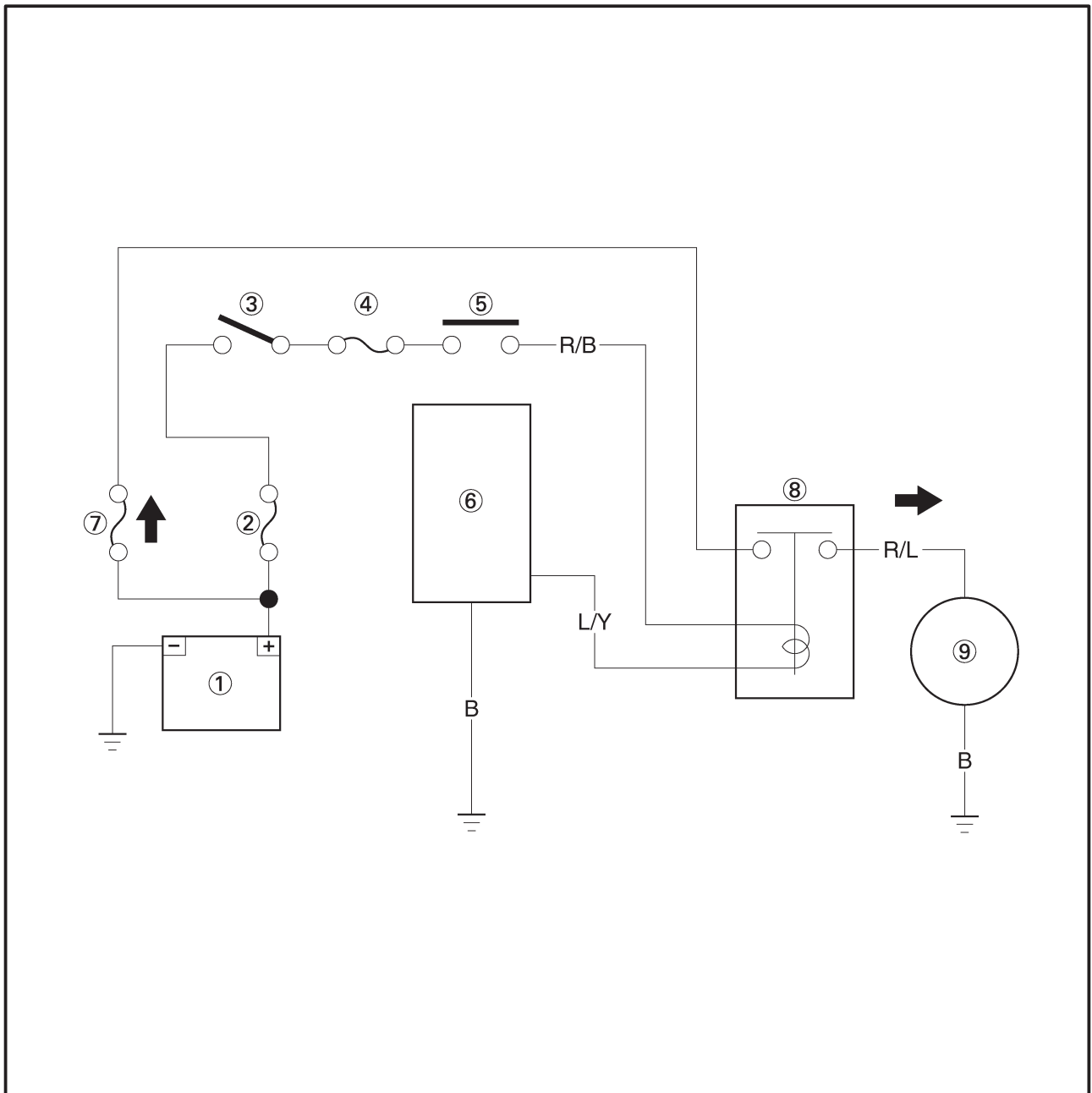
- ① Main switch
- ④ Fuse (main)
- ⑥ Battery
- ⑦ Fuse (fuel injection)
- ⑩ Starting circuit cut-off relay
- ⑬ Fuel pump
- ⑭ E.C.U.
- ⑤③ Engine stop switch

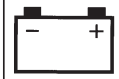
EAS00815

FUEL PUMP SYSTEM

The ECU includes the control unit for the fuel pump.

- ① Battery
- ② Fuse (main)
- ③ Main switch
- ④ Fuse (ignition)
- ⑤ Engine stop switch
- ⑥ ECU
- ⑦ Fuse (fuel injection)
- ⑧ Starting circuit cut-off relay (fuel injection system relay)
- ⑨ Fuel pump





EAS00816

TROUBLESHOOTING

If the fuel pump fails to operate.

Check:

1. main, ignition and fuel injection fuses
2. battery
3. main switch
4. engine stop switch
5. starting circuit cut-off relay
(the fuel injection system relay)
6. fuel pump
7. wiring connections
(the entire fuel system)

NOTE:

- Before troubleshooting, remove the following part(s):

1. seat
2. fuel tank
3. side cowlings

Troubleshoot with the following special tool(s).



Pocket tester
90890-03112, YU-3112

EAS00738

1. Main, ignition and fuel injection system fuses

- Check the main, ignition and fuel system fuses for continuity. Refer to "CHECKING THE FUSES" in chapter 3.

- Are the main, ignition and fuel injection system fuses OK?

↓ YES

↓ NO

Replace the fuse(s).

EAS00739

2. Battery

- Check the condition of the battery. Refer to "CHECKING AND CHARGING THE BATTERY" in chapter 3.



Minimum open-circuit voltage
12.8 V or more at 20°C (68°F)

- Is the battery OK?

↓ YES

↓ NO

- Clean the battery terminals.
- Recharge or replace the battery.

EAS00749

3. Main switch

- Check the main switch for continuity. Refer to "CHECKING THE SWITCHES".

- Is the main switch OK?

↓ YES

↓ NO

Replace the main switch.

EAS00750

4. Engine stop switch

- Check the engine stop switch for continuity. Refer to "CHECKING THE SWITCHES".

- Is the engine stop switch OK?

↓ YES

↓ NO

Replace the right handlebar switch.



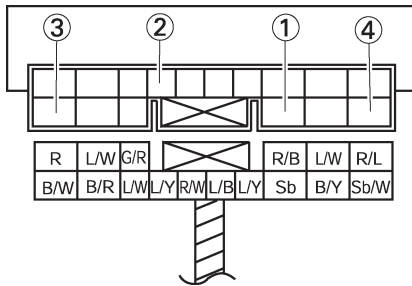
EAS00759

5. Starting circuit cut-off relay (fuel injection system relay)

- Disconnect the starting circuit cut-off relay coupler from the wire harness.
- Connect the pocket tester ($\Omega \times 1$) and battery (12 V) to the starting circuit cut-off relay coupler as shown.

Positive battery lead → red/black ①
Negative battery lead → blue/yellow ②

Positive tester probe → red ③
Negative tester probe → red/blue ④



- Does the starting circuit cut-off relay have continuity between red and red/blue?

↓ YES

↓ NO

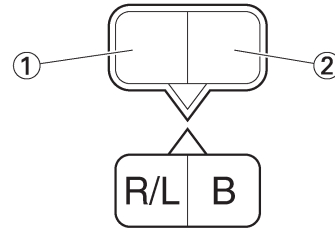
Replace the starting circuit cut-off relay.

EAS00817

6. Fuel pump resistance

- Disconnect the fuel pump coupler from the wire harness.
- Connect the pocket tester ($\Omega \times 1$) to the fuel pump coupler as shown.

Positive tester probe → red/blue ①
Negative tester probe → black ②



- Measure the fuel pump resistance.



Fuel pump resistance
 0.2 ~ 3.0 Ω at 20°C (68°F)

- Is the fuel pump OK?

↓ YES

↓ NO

Replace the fuel pump.

EAS00818

7. Wiring

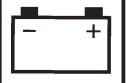
- Check the entire fuel pump system's wiring. Refer to "CIRCUIT DIAGRAM".
- Is the fuel system's wiring properly connected and without defects?

↓ YES

↓ NO

Replace the ECU.

Properly connect or repair the fuel system's wiring.



SELF-DIAGNOSIS

The YZF-R1(S) features a self-diagnosing system for the following circuit(-s):

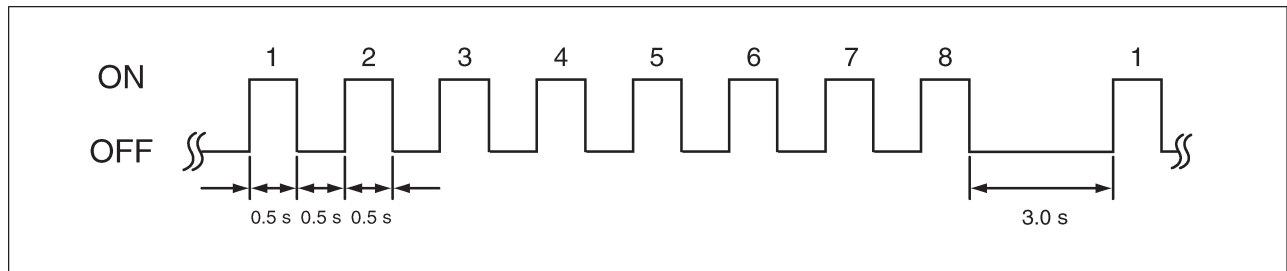
- Fuel pump thermistor
- Oil level switch

If any of these circuits are defective, their respective condition codes will be displayed on the warning light when the main switch is turned “ON” (irrespective of whether the engine is running or not).

Circuit	Defect(-s)	System response	Condition code
Fuel pump thermistor	<ul style="list-style-type: none"> • Open-circuit • Short-circuit 	• The fuel level warning light indicate the condition code.	Refer to *1
Oil level switch	<ul style="list-style-type: none"> • Open-circuit • Short-circuit 	• The oil level warning light indicate the condition code.	Refer to *2

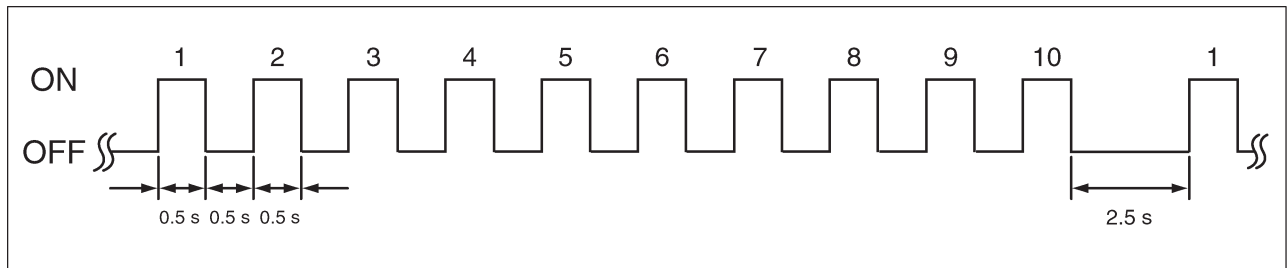
*1 Condition code

Fuel level warning light



*2 Condition code

Oil level warning light





TROUBLESHOOTING

The warning light starts to indicate the self-diagnosis sequence.

Check:

1. fuel pump thermistor
2. oil level switch

NOTE:

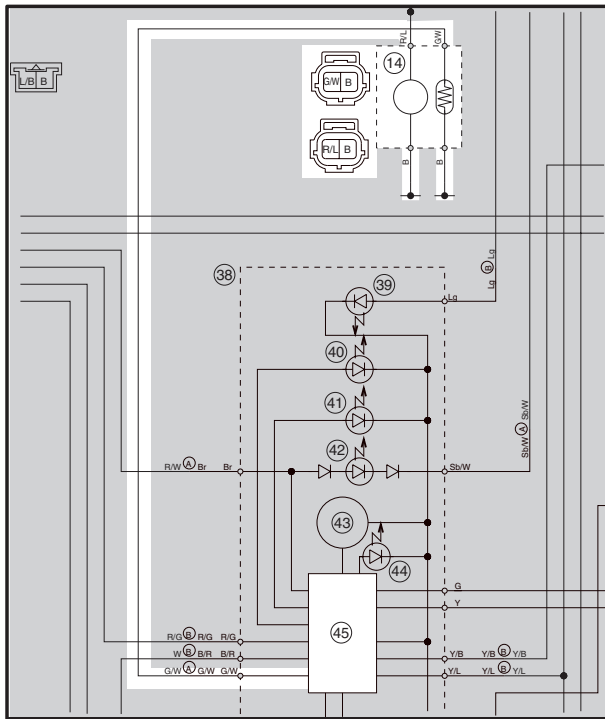
- Before troubleshooting, remove the following part(-s):
 1. seat
 2. fuel tank
- Troubleshoot with the following special tool(-s).



Pocket tester
90890-03112, YU-3112

1. Fuel pump thermistor

CIRCUIT DIAGRAM



- ⑭ Fuel pump
- ⑮ Multi-function meter

1. Wire harness

- Check the wire harness for continuity. Refer to "CIRCUIT DIAGRAM".
- Is the wire harness OK?



Repair or replace the wire harness.

2. Fuel pump thermistor

- Check the fuel pump thermistor for continuity. Refer to "The fuel level warning light fails to come on".
- Is the fuel pump thermistor OK?



Replace the multi-function meter.

Replace the fuel pump.