

1A



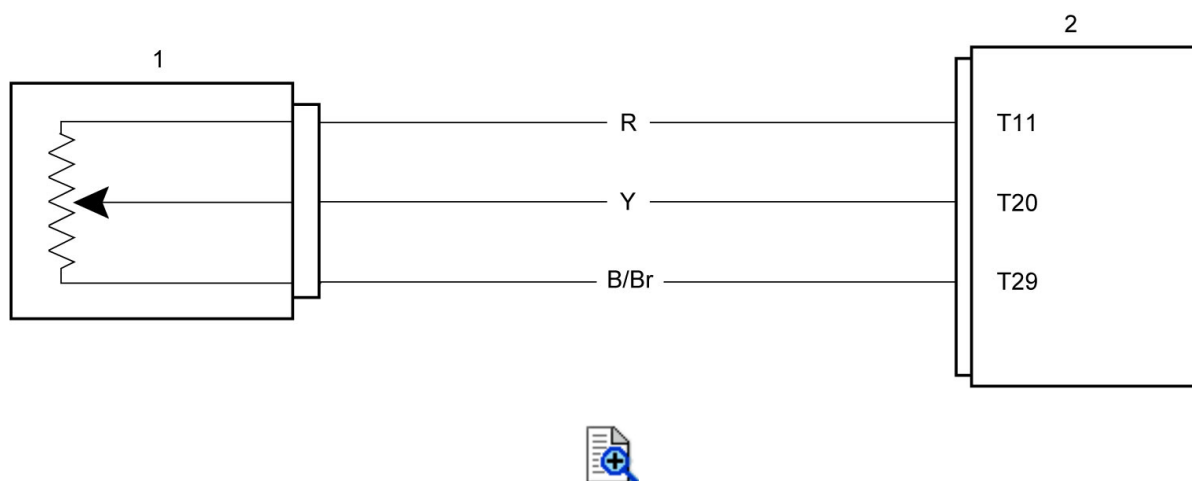
DTC P1654-H / P1654-L (C29)

DTC Detecting Condition and Trouble Area

DTC detecting condition	Trouble area
P1654-H: STP Sensor Circuit High Voltage The sensor output voltage is higher than the specified value.	<ul style="list-style-type: none">• STP sensor• STP sensor circuit• ECM
P1654-L: STP Sensor Circuit Low Voltage The sensor output voltage is lower than the specified value.	
C29: STP Sensor Circuit Malfunction The sensor output voltage is not within 0.10 – 4.80 V.	


Wiring Diagram

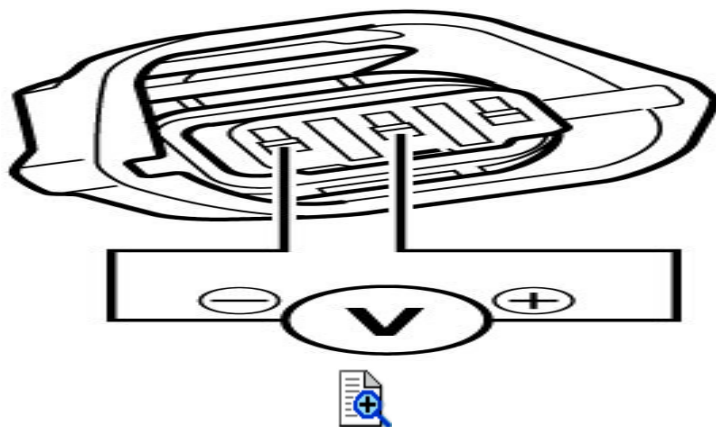
Refer to [FI System Wiring Diagram](#).



1.	STP sensor	2.	ECM
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Troubleshooting

Step	Action	Yes	No
1	STP sensor power supply circuit check 1) Turn the ignition switch OFF. 2) Disconnect the STP sensor coupler.  3) Check for proper terminal connection to the STP sensor coupler. 4) If connections are OK, turn the ignition switch ON. 5) Measure the voltage between the R wire and B/Br wire.	Go to Step 3.	Go to Step 2.

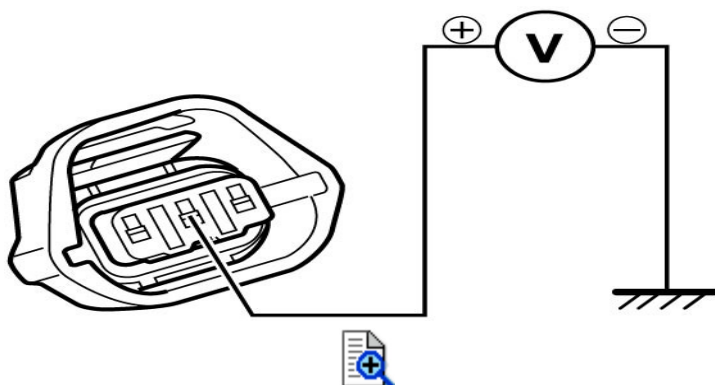


Is voltage 4.5 – 5.5?

2

STP sensor ground circuit check

- 1) Measure the voltage between the R wire and ground.




Is voltage 4.5 – 5.5 V?

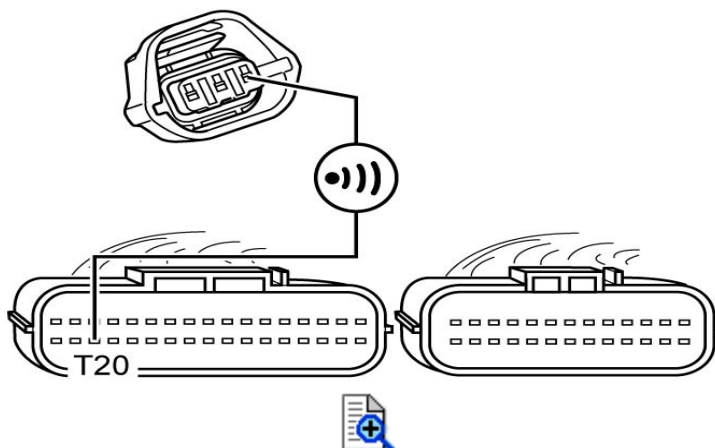
Repair or replace the B/Br wire.

Repair or replace the R wire.

3

STP sensor signal circuit check

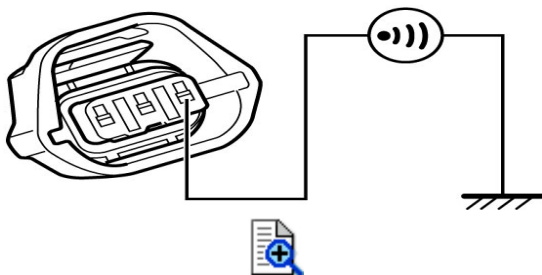
- 1) Turn the ignition switch OFF.
- 2) Disconnect the ECM couplers. 
- 3) Check for proper terminal connection to the ECM couplers.
- 4) If connections are OK, check the following points.
 - Resistance
 - Y wire: less than 1 Ω



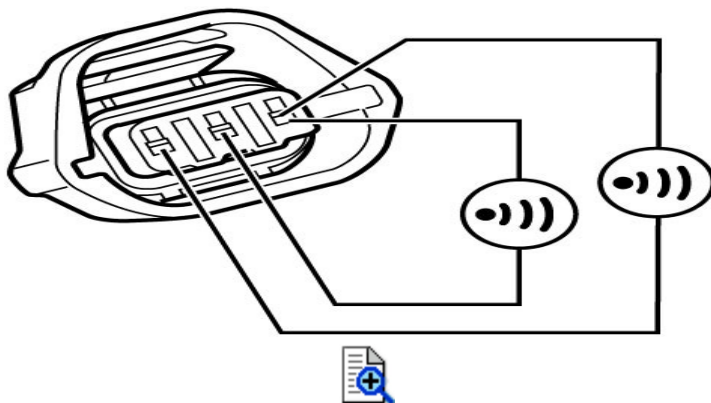
Go to Step 4.

Repair or replace the Y wire.

- Between Y wire and ground: infinity



- Between Y wire terminal and other terminal at STP sensor coupler: infinity



- Voltage
 - Turn the ignition switch ON.
 - Y wire: approx. 0 V



Is check result OK?

4

STP sensor output voltage check

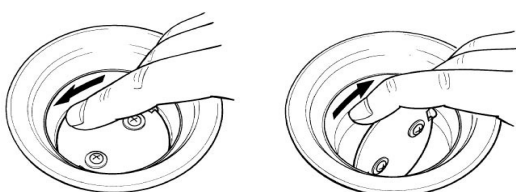
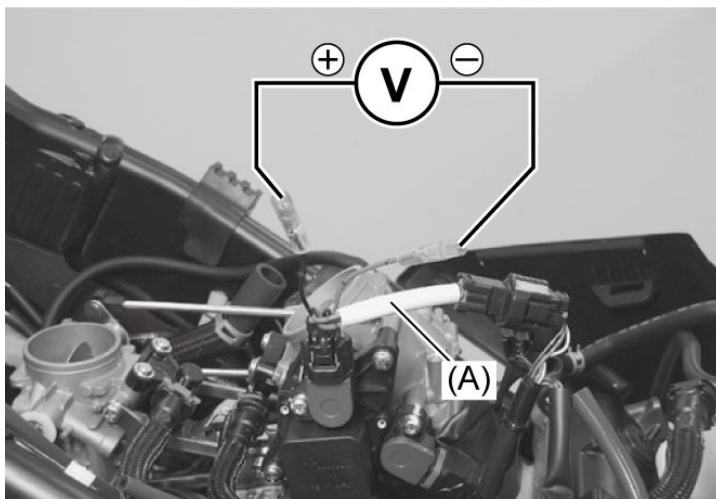
- 1) Turn the ignition switch OFF.
- 2) Remove the air cleaner box.
- 3) Connect the ECM couplers.
- 4) Connect the special tool between the STP sensor and its coupler.
- 5) Disconnect the STVA coupler. Refer to [Throttle Body Disassembly and Reassembly](#).
- 6) Turn the ignition switch ON.
- 7) Measure the STP sensor voltage between the Y wire and B/Br wire with turning the secondary throttle valve close and open with your finger.

Special Tool

(A): 09900-28630

Replace the ECM with a known good one, and inspect it again.

Replace the STP sensor with a new one.



Is voltage approx. 0.6 V (at secondary throttle valve is closed) and approx. 4.5 V (at secondary throttle valve is opened)?