

1A



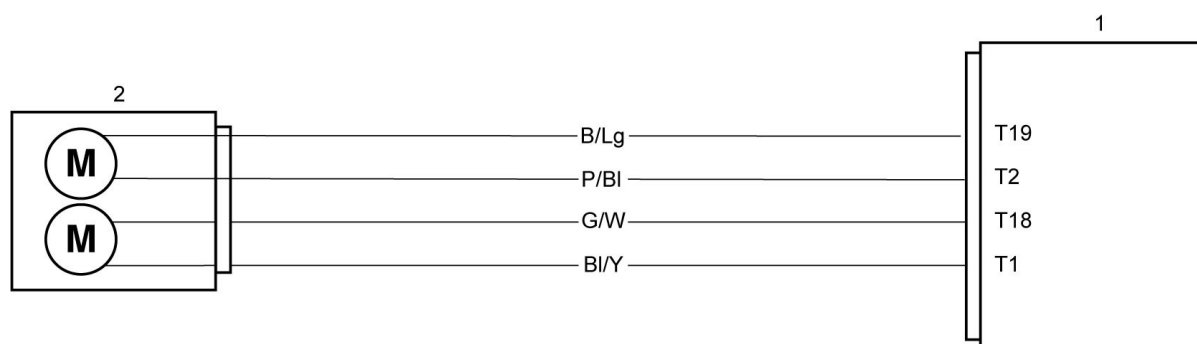
DTC P1655 (C28)

DTC Detecting Condition and Trouble Area

DTC detecting condition	Trouble area
P1655 (C28): STVA Circuit Malfunction The operation voltage does not reach the STVA. ECM does not receive communication signal from the STVA. STVA can not operate properly.	<ul style="list-style-type: none">STVA malfunctionSTVA circuitECM

Wiring Diagram

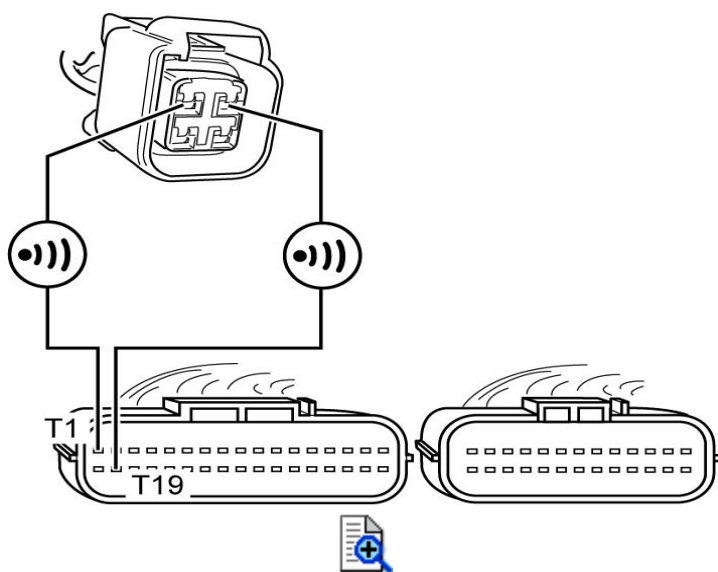
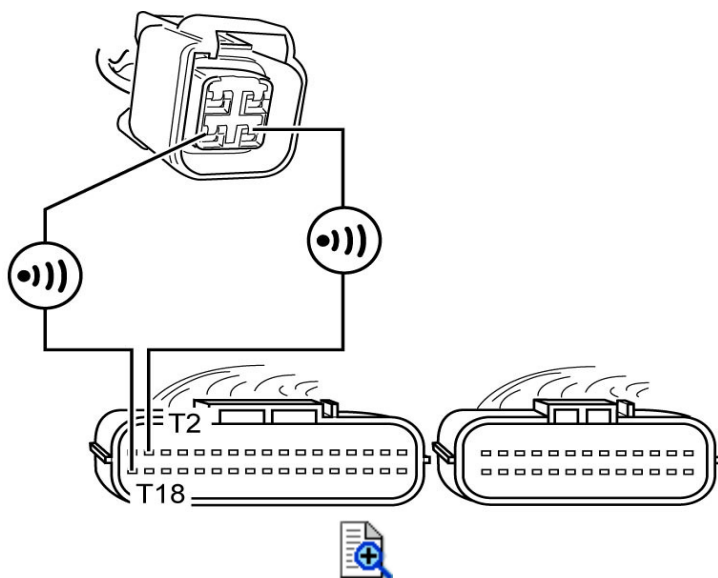
Refer to [FI System Wiring Diagram](#).



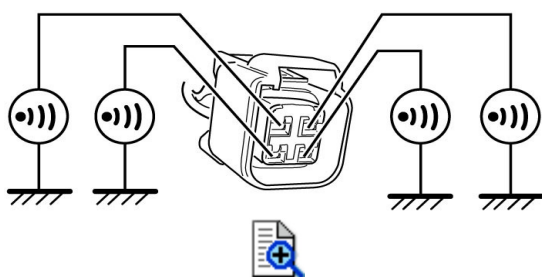
1. ECM	2. Secondary Throttle Valve Actuator (STVA)
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Troubleshooting

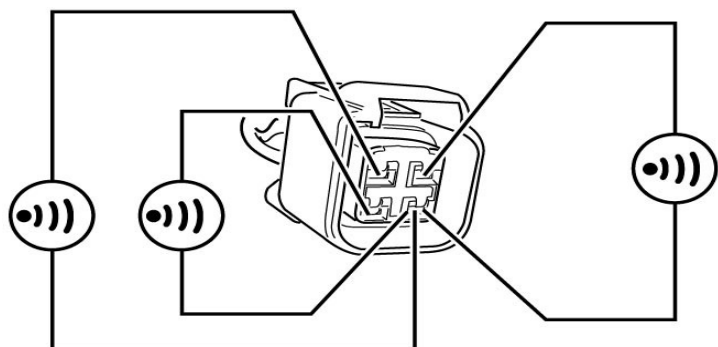
Step	Action	Yes	No
1	STVA circuit check 1) Turn the ignition switch OFF. 2) Disconnect the STVA coupler and ECM couplers. <ul style="list-style-type: none">STVA: ECM: 3) Check for proper terminal connection to the STVA coupler and ECM couplers. 4) If connections are OK, check the following points. <ul style="list-style-type: none">Resistance<ul style="list-style-type: none">P/Bl, G/W, B/Lg and Bl/Y wires: less than 1Ω	Go to Step 2.	Repair or replace the defective wire harness.



- Between each of P/BI, G/W, B/Lg and BI/Y wire and ground: infinity

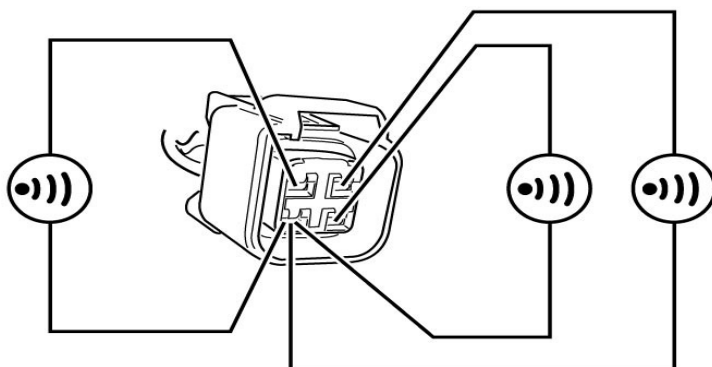


- Between P/BI wire terminal and other terminal at STVA coupler: infinity

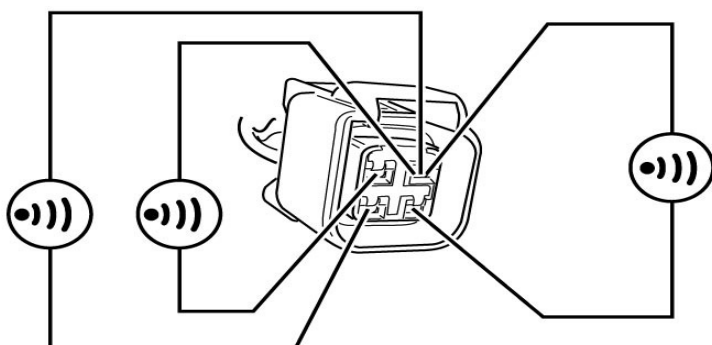




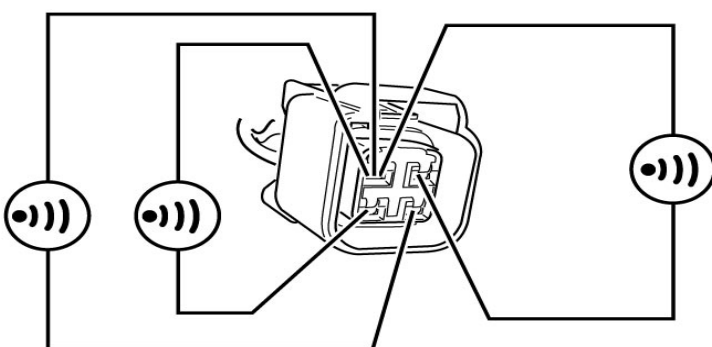
- Between G/W wire terminal and other terminal at STVA coupler: infinity



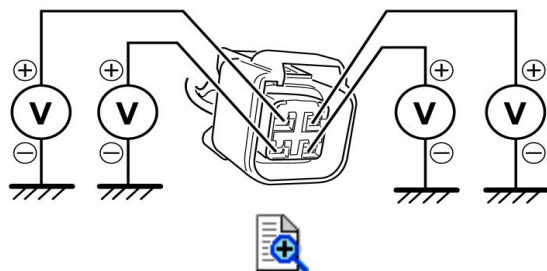
- Between B/Lg wire terminal and other terminal at STVA coupler: infinity



- Between Bl/Y wire terminal and other terminal at STVA coupler: infinity



- Voltage
 - Turn the ignition switch ON.
 - P/Bl, G/W, B/Lg and Bl/Y wires: approx. 0 V

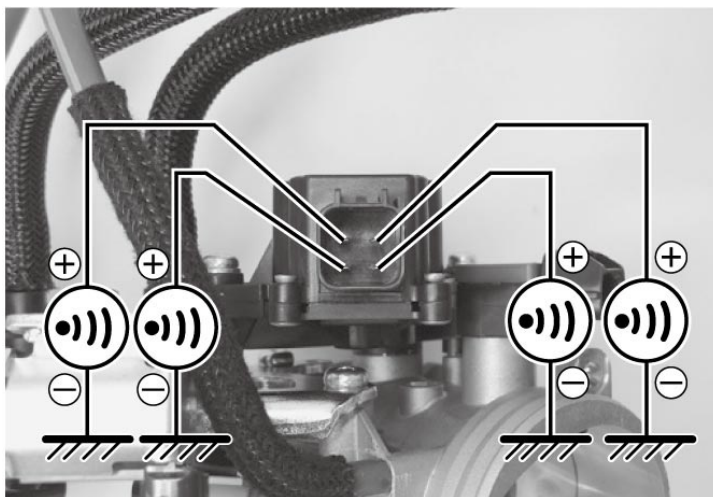


Is check result OK?

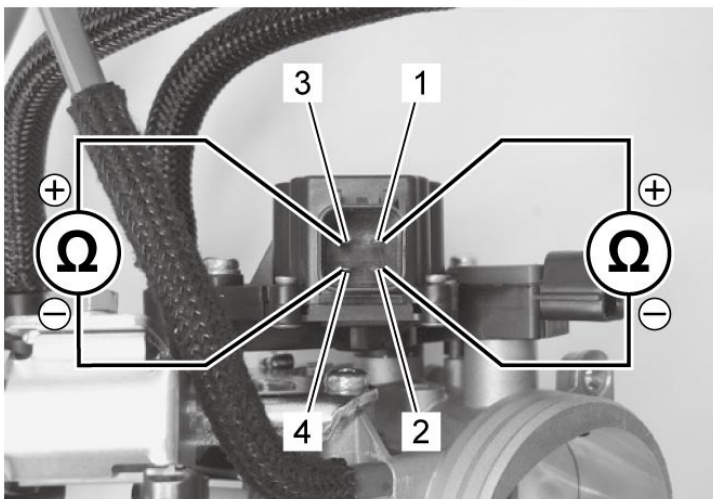
2

STVA check

- 1) Turn the ignition switch OFF.
- 2) Remove the throttle body.
- 3) Check the following points.
 - Continuity
 - Each terminal and ground: infinity



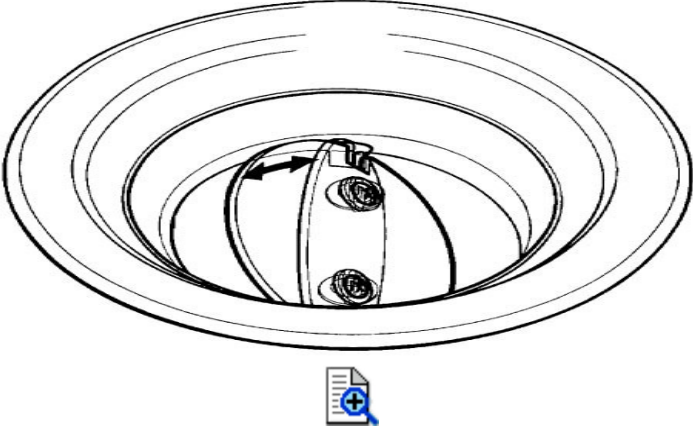




- Resistance
 - Terminal (1) and Terminal (2): approx. 7 Ω
 - Terminal (3) and Terminal (4): approx. 7 Ω



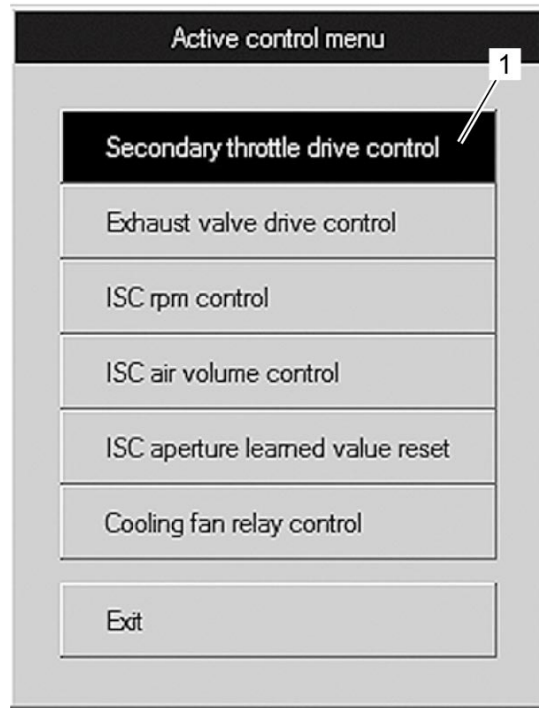
Replace the ECM with a known good one, and inspect it again.

Replace the throttle body with a new one.

			
	Is check result OK?		
3	STV operation check 1) Install the throttle body assembly.  . 2) Connect the STVA coupler and ECM coupler. 3) Check whether the STVs open by turning the ignition switch ON. 	Replace the ECM with a new one. 	Replace the throttle body assembly with a new one. 
	Is the operation OK?		

Active Control Inspection

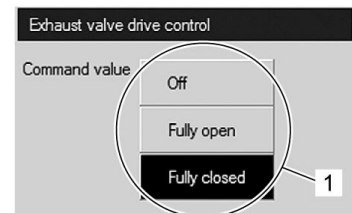
- 1) Set up the SDS tool referring to the SDS operation manual for further details.
- 2) Turn the ignition switch ON.
- 3) Click "Secondary throttle drive control" (1).



4) Click each button (1).

At this time, if an operation sound is heard from the STVA, the function is normal.

Item	Value	Unit	
<input type="checkbox"/> Manifold absolute pressure 2	102.2	kPa	
<input type="checkbox"/> Desired idle rpm	1205	rpm	
<input type="checkbox"/> O2 sensor (Bank 2-Sensor 2)	5.0	V	
<input type="checkbox"/> Secondary throttle actuator position sensor	0	%	
<input type="checkbox"/> Exhaust control valve actuator position sensor	92	%	



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