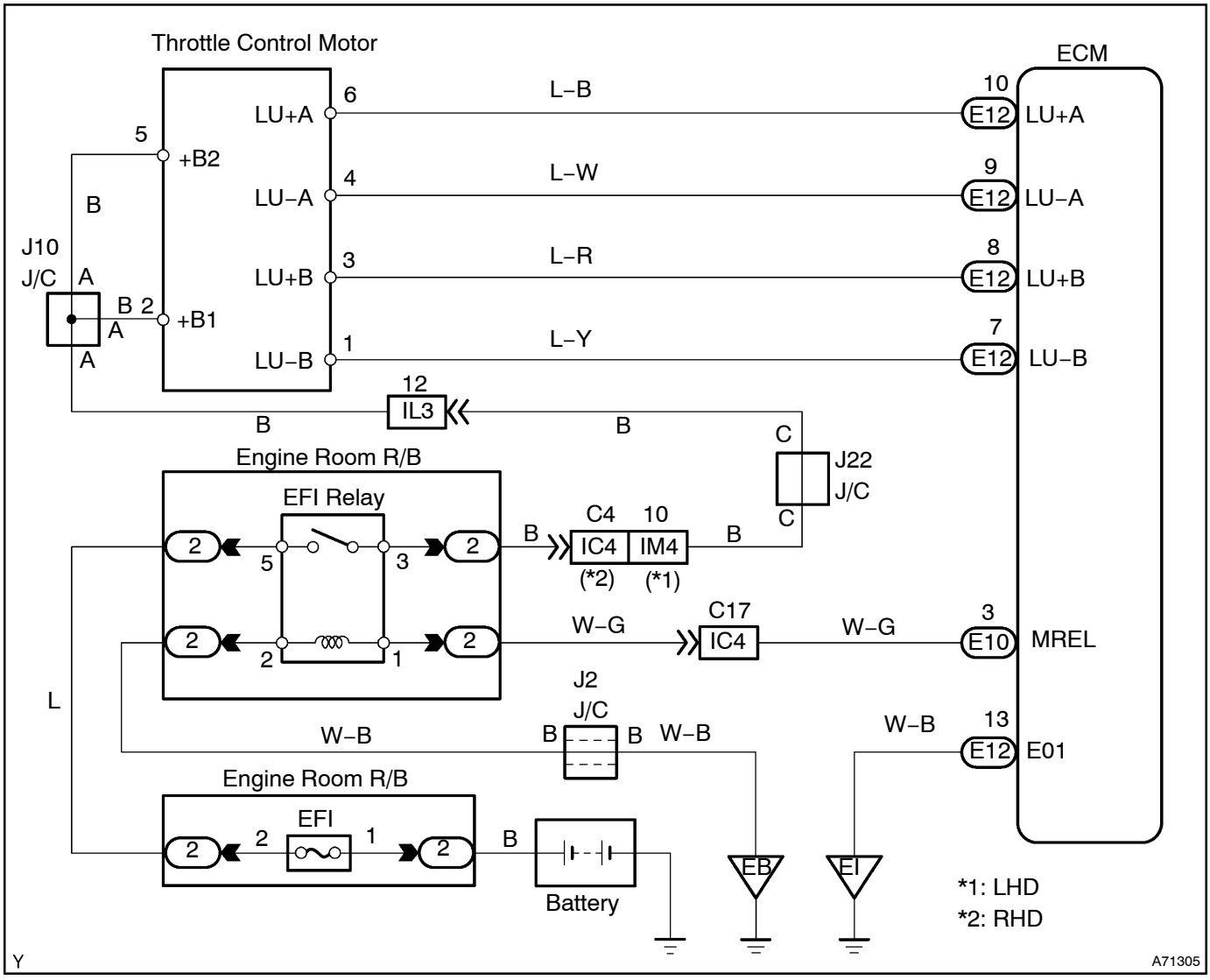
DTC	15	THROTTLE MOTOR CIRCUIT MALFUNCTION

CIRCUIT DESCRIPTION

Throttle control motor is operated by the ECM and it opens and closes the throttle valve.
The fully opening of the throttle valve is detected by the throttle fully open position switch which is mounted on the throttle body.
If this DTC is stored, the ECM shuts down the power for the throttle control motor.

DTC No.	DTC Detection Condition	Trouble Area
15	Open or short in throttle control motor circuit	• Open or short in throttle control motor circuit • Throttle control motor • Throttle valve • Venturi assy • ECM
	Open or short in throttle full switch circuit	

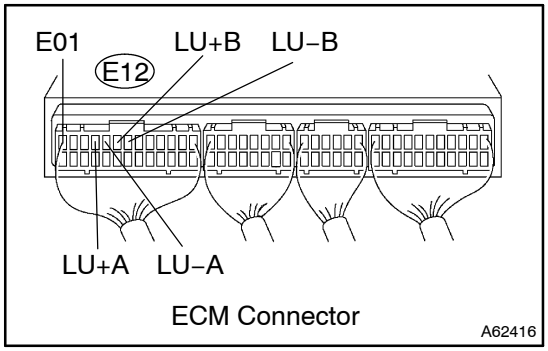
WIRING DIAGRAM



INSPECTION PROCEDURE

HINT:
Read freeze frame data using the hand–held tester. Because freeze frame records the engine conditions when a malfunction is detected. When troubleshooting, it is useful for determining whether the vehicle was running or stopped, the engine was warmed up or not, the air fuel ratio was lean or rich, etc. at the time of the malfunction.

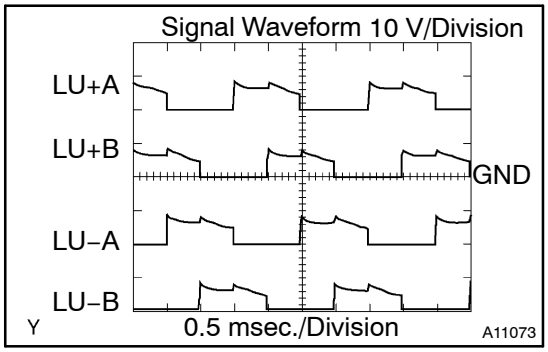
1 INSPECT ECM(THROTTLE CONTROL MOTOR CIRCUIT)



(a) Check the output waveform.

Item	Contents
Terminal	LU+A, LU–A, LU+B ,LU–B ⇔ E01
Equipment set	10 V/DIV, 0.5 ms/DIV
Condition	During engine racing

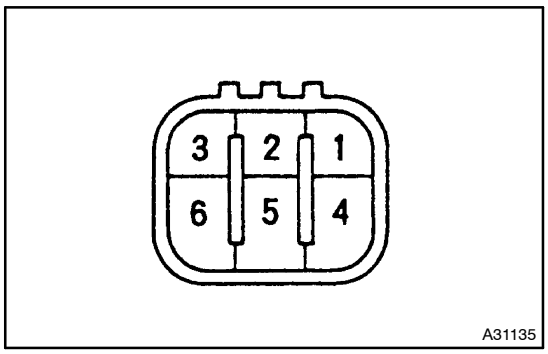
HINT:
The correct waveforms are as shown.



OK → CHECK AND REPLACE ECM

NG

2 INSPECT VENTURI ASSY(THROTTLE CONTROL MOTOR)



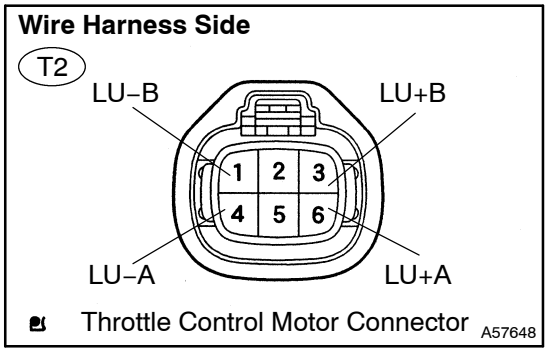
(a) Measure the resistance between each terminals.
Resistance:

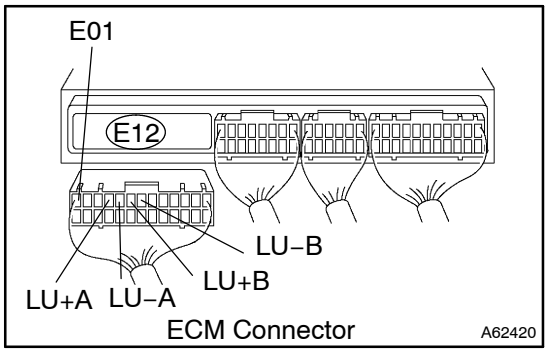
Terminals	Temperature	Resistance
2 – 1, 3	at 20°C (68°F)	18 – 22 Ω
5 – 4, 6	at 20°C (68°F)	18 – 22 Ω

NG → REPLACE VENTURI ASSY (See page 10–19)

OK

3 CHECK HARNESS AND CONNECTOR(THROTTLE CONTROL MOTOR – ECM)





(a) Disconnect the throttle control motor connector.
(b) Disconnect the ECM E12 connector.
(c) Check the continuity between the wire harness side connector.

Standard (Check for open):

Symbols (Terminal No.)	Specified condition
LU+A (T2 – 6) ⇔ LU+A (E12 – 10)	Continuity
LU–A (T2 – 4) ⇔ LU–A (E12 – 9)	
LU+B (T2 – 3) ⇔ LU+B (E12 – 8)	
LU–B (T2 – 1) ⇔ LU–B (E12 – 7)	

Standard (Check for short):

Symbols (Terminal No.)	Specified condition
LU+A (E12 – 10) ⇔ E01 (E12 – 13)	No continuity
LU–A (E12 – 9) ⇔ E01 (E12 – 13)	
LU+B (E12 – 8) ⇔ E01 (E12 – 13)	
LU–B (E12 – 7) ⇔ E01 (E12 – 13)	

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

CHECK AND REPLACE ECM