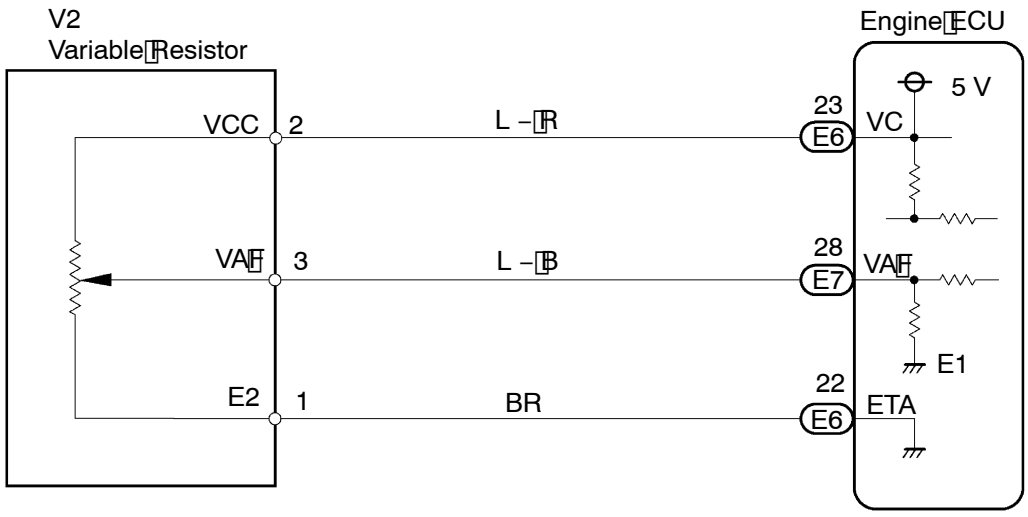
DI8BE–01

Variable Resistor Circuit (Only for vehicles w/o TWC)

CIRCUIT DESCRIPTION

This resistor is used to change the air–fuel ratio of the air–fuel mixture.
The idle mixture is adjusted using this resistor.
Turning the idle mixture adjusting screw clockwise moves the contacts inside the resistor, raising terminal VAF voltage. Conversely, turning the screw counterclockwise lowers the terminal VAF voltage.
When the terminal VAF voltage rises, the engine ECU increases the injection volume slightly, making the air–fuel mixture a little richer.

WIRING DIAGRAM



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INSPECTION PROCEDURE

NOTICE:
Always use a CO meter when adjusting the idle mixture. If a CO meter is not available, DO NOT ATTEMPT TO ADJUST IDLE MIXTURE.

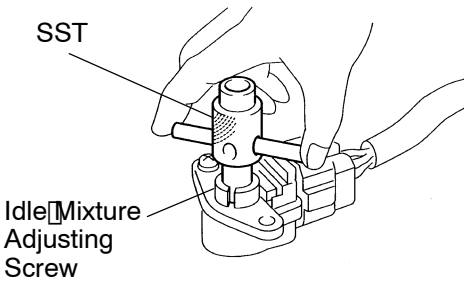
1	**Check CO concentration (See page EM–1).**

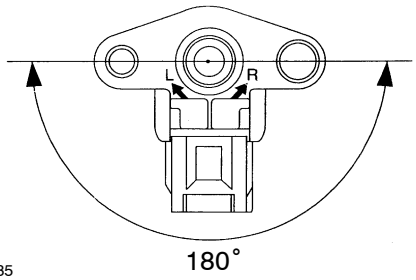
OK

**CO concentration is normal.
Proceed to next circuit inspection shown problem symptom tables (See page DI–25).**

NG

2	Adjust CO concentration.





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PREPARATION:

Same condition as step 1 of this chart.

CHECK:

Using SST, adjust the mixture by turning the idle mixture adjusting screw in the variable resistor.

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RESULT:

OK	CO concentration: 1.0 ± 0.5
NG type I	Change in CO concentration
NG type II	No change in CO concentration

HINT:

Always check idle speed after turning the idle mixture adjusting screw. If it is incorrect, readjust idle speed.

Adjustable range of the idle mixture adjust to turn this screw is 260 degrees. Do not turn this screw more than it.

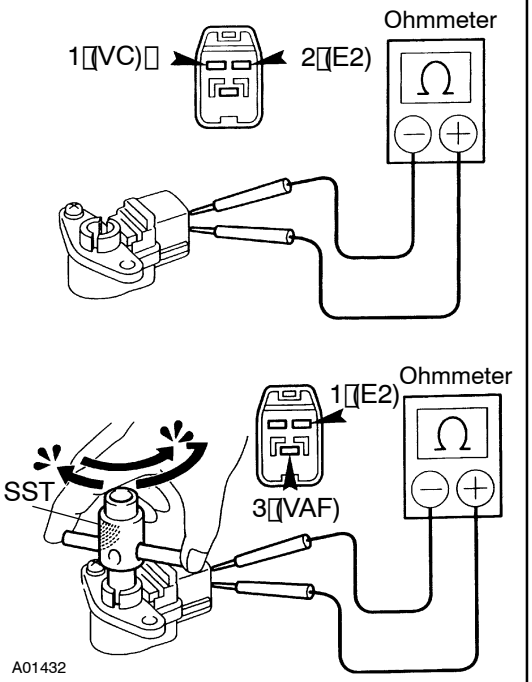
Type I → **See page EM–1 and go on troubleshooting.**

Type II → **Go to step 3.**

OK

Adjustment is complete.

3	Check resistance of variable resistor.



Check Resistance Between 1 and 2:

PREPARATION:

Disconnect the variable resistor connector.

CHECK:

Measure resistance between terminals 1 and 2 of the variable resistor.

OK:

Resistance: 4 – 6 kΩ

Check Resistance Between 1 and 3:

CHECK:

Measure resistance between terminals 1 and 3 when turning the idle mixture adjusting screw fully clockwise and counter-clockwise using SST.

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OK:

Resistance: Change from about 5 kΩ to 0 kΩ accordingly

NG → **Replace variable resister.**

OK ↓

4	Check POWER OUTPUT OF VARABLE RESISTER (See page FI–72).

OK → **Check and replace engine ECU.**

NG ↓

5	Check for open and short in harness and connector between variable resistor and engine ECU (See page IN–35).

NG → **Repair or replace harness or connector.**

NG ↓

Check and replace engine ECU.