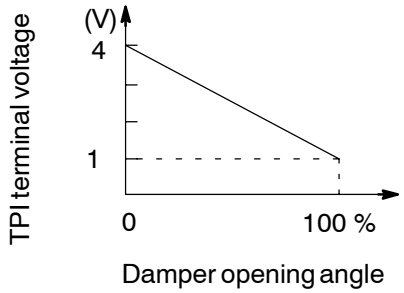
DI90W–01

DTC	RrDEF, LO	Air Inlet Damper Position Sensor Circuit

DTC	RrDEF, M2	Air Inlet Damper Position Sensor Circuit

DTC	32, 42	Air Inlet Damper Position Sensor Circuit

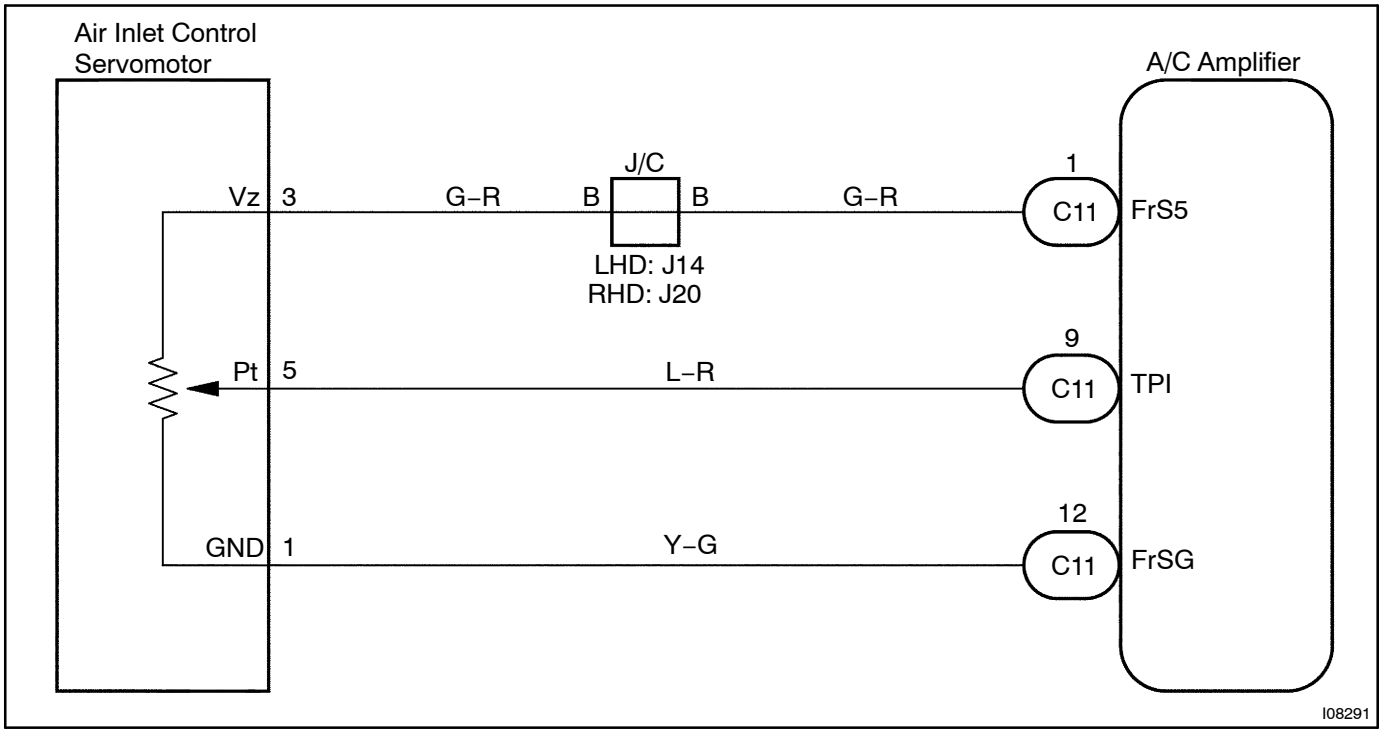
CIRCUIT DESCRIPTION



This sensor detects the position of the air inlet damper and sends the appropriate signals to the A/C amplifier.
The position sensor is built into the air inlet damper control servomotor assembly.

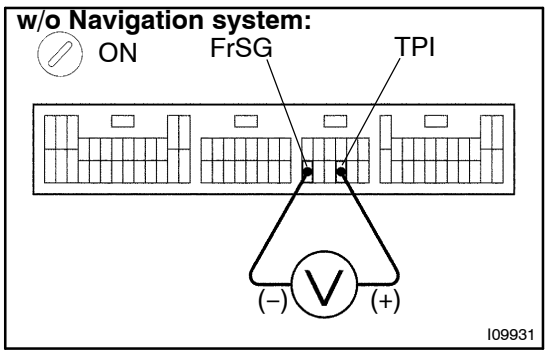
Blinking light	Detection Item	Trouble Area
RrDEF LO	Short to ground or power source circuit in air inlet damper position sensor circuit.	• Air inlet damper position sensor • Harness or connector between air inlet damper control servomotor assembly and A/C amplifier • A/C amplifier
RrDEF M2	Air inlet damper position sensor value does not change even if A/C amplifier operates air inlet damper control servomotor.	
DTC No.	Detection Item	Trouble Area
32	Short to ground or power source circuit in air inlet damper position sensor circuit.	• Air inlet damper position sensor • Harness or connector between air inlet damper control servomotor assembly and A/C amplifier • A/C amplifier.
42	Air inlet damper position sensor value does not change even if A/C amplifier operates air inlet damper control servomotor.	

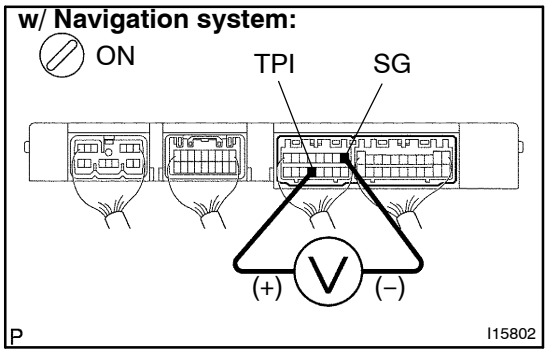
WIRING DIAGRAM



INSPECTION PROCEDURE

1	**Check voltage between terminals TPI and FrSG (or SG) of A/C amplifier connector.**





PREPARATION:

Remove A/C amplifier with connectors still connected.

CHECK:

(a) Turn ignition switch to ON.

(b) Press REC/FRS switch to change air inlet between fresh and recirculation air, and measure voltage between terminals TPI and FrSG (or SG) of A/C amplifier when the air inlet damper control servomotor operates.

OK:

FRS–REC Switch	Voltage
REC	3.5 – 4.5 V
FRS	0.5 – 1.5 V

HINT:

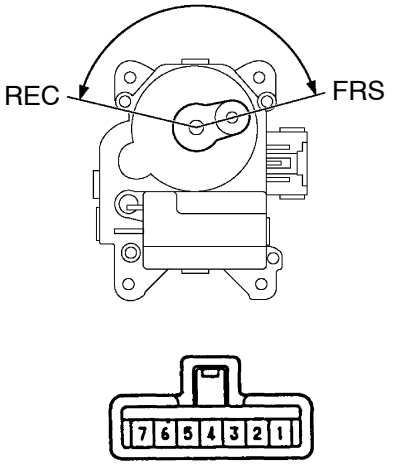
As the air inlet damper control servomotor is moved form REC side to FRS side, the voltage decreases.

NG	**Go to step 2**

OK

Proceed to next circuit inspection shown on problem symptoms table (See page DI–130). However, if RrDEF and LO or RrDEF and M2 indicators light up (or DTC 32 or 42 is displayed), check and replace A/C amplifier.

2	**Check air inlet damper position sensor.**



PREPARATION:

Remove air inlet servomotor.

CHECK:

Measure resistance between terminals 1 and 5 of air inlet damper control servomotor assembly connector.

OK:

Resistance: 4.2 – 7.8 kΩ

CHECK:

While operating air inlet damper control servomotor, following the procedure on page DI–177, measure resistance between terminals 1 and 5 of air inlet damper control servomotor assembly connector.

OK:

Resistance

Damper Position	Resistance
REC side	3.1 – 5.8 kΩ
FRS side	0.8 – 1.6 kΩ

HINT:

As the air inlet damper control servomotor moves from REC side to FRS side, the resistance decreases.

NG	**Replace air inlet damper control servomotor assembly.**

OK

3	Check harness and connectors between A/C amplifier and air inlet damper control servomotor assembly (See page IN–34).

NG → Repair or replace harness or connector.

OK

Check and replace A/C amplifier.