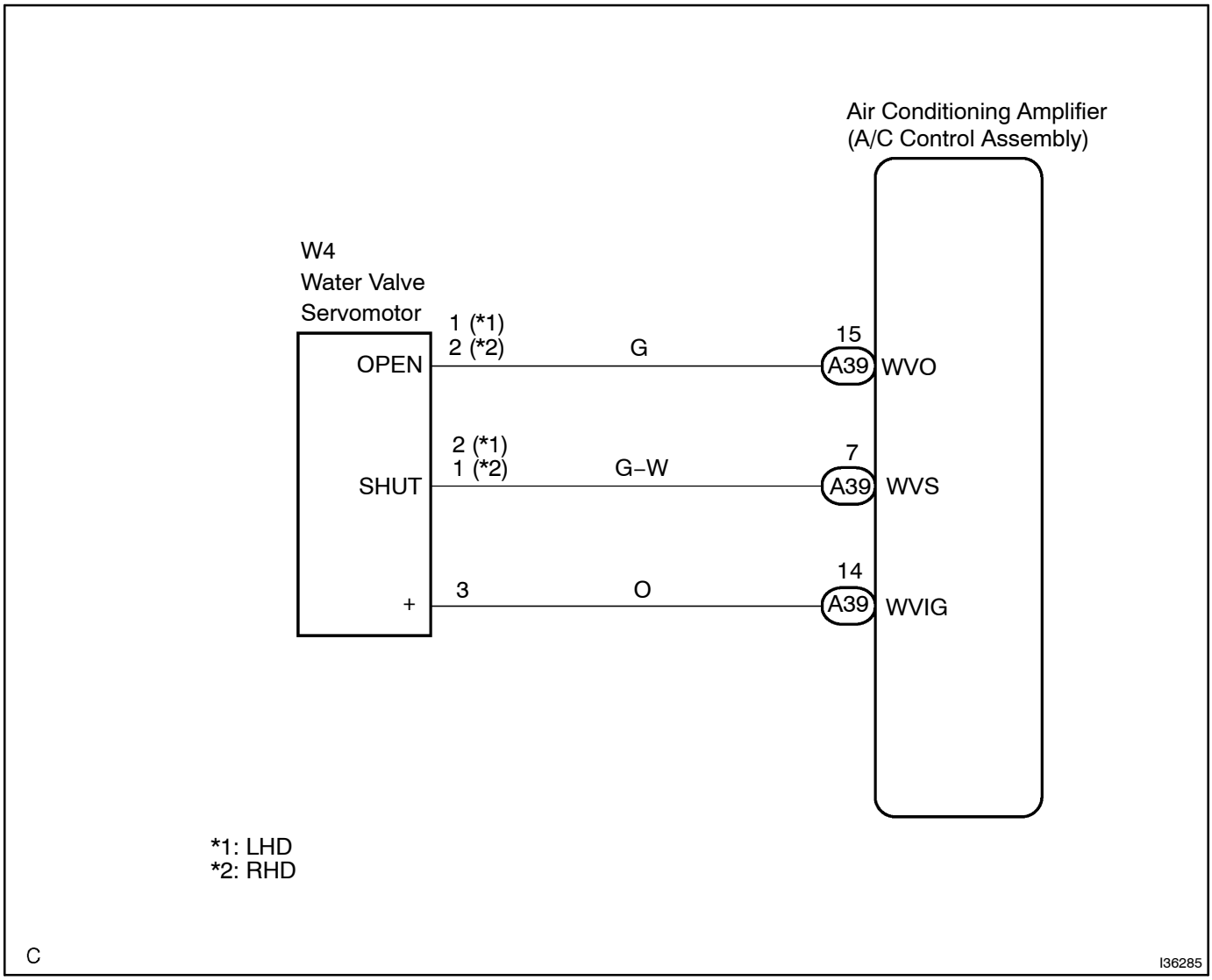
WATER VALVE CONTROL SERVOMOTOR CIRCUIT

CIRCUIT DESCRIPTION

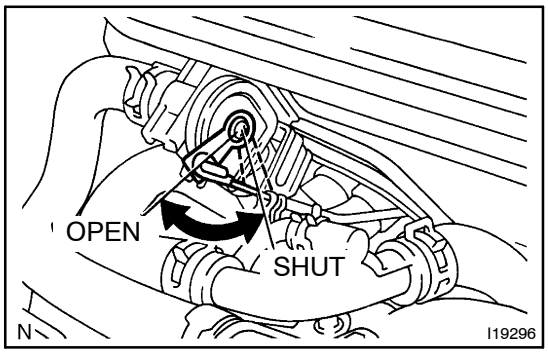
This circuit controls the amount of the coolant flowing to the heater core by a signal from the A/C amplifier, and adjusts the temperature at the air outlets.

WIRING DIAGRAM



INSPECTION PROCEDURE

1	PERFORM ACTUATOR CHECK



(a) Warm up the engine.
(b) Set the actuator check mode (see page 05–774).
(c) Press the driver temperature up switch, and change to step operation.
(d) Press the driver temperature up switch, and check the operation of water valve.

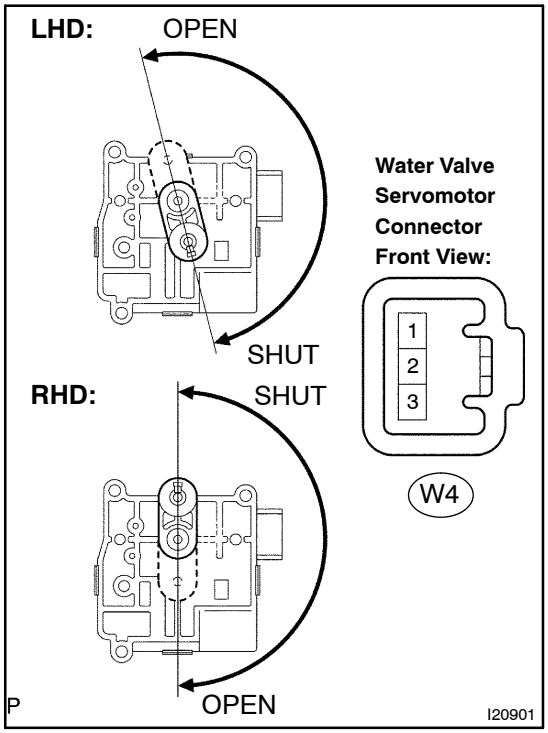
Display code	Air flow lever position
0	SHUT
1	SHUT
2	SHUT
3	OPEN
4	OPEN
5	OPEN
6	OPEN
7	OPEN
8	OPEN
9	OPEN

OK:
Water valve lever changes in accordance with each display code.

NG → **REPLACE AIR CONDITIONING AMPLIFIER (SEE PAGE 55–15)**

OK

2	INSPECT WATER VALVE SERVOMOTOR



(a) Remove the water valve servomotor.
(b) Connect the positive (+) lead from the battery to terminal 3 and negative (–) lead to terminal 1 (2), then check that the lever turns to the ”OPEN” position smoothly.
(c) Connect the positive (+) lead from the battery to terminal 3 and negative (–) lead to terminal 2 (1), then check that the lever turns to the ”SHUT” position smoothly.

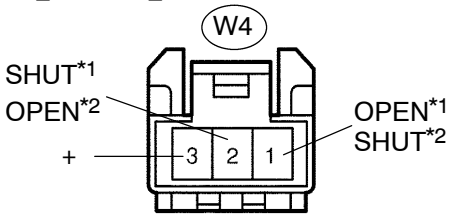
HINT:
( ): RHD models

NG → **REPLACE WATER VALVE SERVOMOTOR**

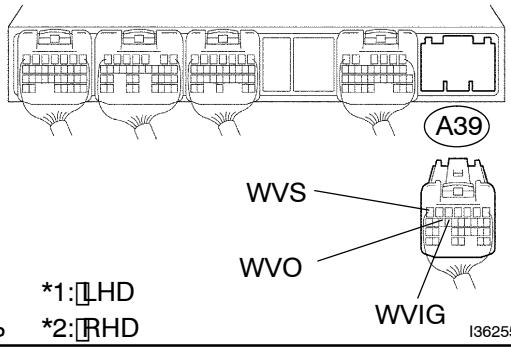
OK

3	CHECK HARNESS AND CONNECTOR(WATER VALVE SERVOMOTR – AIR CONDITIONING AMPLIFIER) (SEE PAGE 01–44)

Water Valve Servomotor Connector
Wire Harness View:



Air Conditioning Amplifier Connector
Wire Harness View:



(a) Measure the resistance according to the value(s) in the table below.

Standard:

Tester connection	Condition	Specified condition
A39–15 (WVO) – W4–1 (OPEN) *1	Always	Below 1 Ω
A39–15 (WVO) – W4–2 (OPEN) *2	Always	Below 1 Ω
A39–7 (WVS) – W4–2 (SHUT) *1	Always	Below 1 Ω
A39–7 (WVS) – W4–1 (SHUT) *2	Always	Below 1 Ω
A39–14 (WVIG) – W4–3 (+)	Always	Below 1 Ω
A39–15 (WVO) – Body ground	Always	10 kΩ or higher
A39–7 (WVS) – Body ground	Always	10 kΩ or higher
A39–14 (WVIG) – Body ground	Always	10 kΩ or higher

HINT:
*1: LHD
*2: RHD

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

OK →

REPLACE AIR CONDITIONING AMPLIFIER (SEE PAGE 55–16)