

3.3 QUICK DIAGNOSTIC TEST

STAGES WITHIN TEST

Stage A

LCD / Icon display.

Stage B

Auto Sensor inputs.

Stage C

Manual Solenoid actuation test.

Stage D

Fan and Fan control.

Stage E

A/C PBR / air Mix motor.

AMB

Entry (when used with off button) to step from stage to stage, may also be used to select subsequent stages if required.

RED TEMPERATURE BUTTON

Used to move forward from sub test to sub test within each test stage.

BLUE TEMPERATURE BUTTON

Used to move backward from sub test to sub test within each test stage.

OFF

Exit (also entry when used with AMB button).

Conditions

- a. Auto selected.
- b. Temperature ' C ' max cooling selected.
- c. Manual fan speed 2.
- d. A/C on.
- e. Run engine to operating temperature.
- f. Thermometer in face outlet.
- g. Output temperature stabilised at low value.
- h. Record reading.

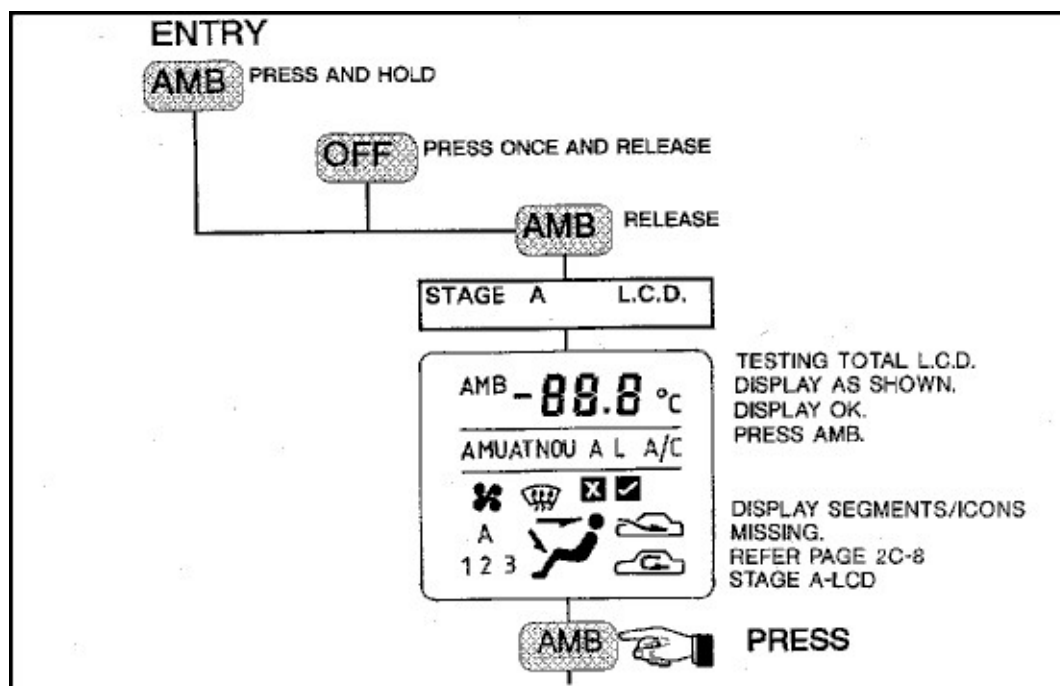


Figure 2C-11

STAGE B AUTO

SENSOR INPUTS

AMBIENT TEMP. SENSOR

EXAMPLE
25 °C
AUTO
1

SENSOR TEMP CORRECT
COMPARE WITH
THERMOMETER HELD NEAR
AMBIENT SENSOR. (Prolonged
engine operation may increase
this reading).
TICK ICON DISPLAYED
PRESS RED ARROW BUTTON
INCORRECT DISPLAY
CROSS ICON DISPLAYED
REFER PAGE 20-28
SUB TEST 1



IN CAR TEMP SENSOR

EXAMPLE
20 °C
AUTO
2

SENSOR TEMP CORRECT.
COMPARE WITH
THERMOMETER HELD
NEAR E.C.C. MODULE AIR
ASPIRATOR GRILLE
TICK ICON DISPLAYED
PRESS RED
ARROW BUTTON
INCORRECT DISPLAY
CROSS ICON DISPLAYED
REFER 20-29
SUB TEST 2



INTAKE TEMP SENSOR

EXAMPLE
10 °C
AUTO
12

SENSOR TEMP CORRECT.
COMPARE READING WITH
EVAPORATOR TEMPERATURE
SHOULD BE WITHIN APPROX.
4 °C OF EVAP. TEMP.
TICK ICON DISPLAYED
PRESS RED ARROW BUTTON
INCORRECT DISPLAY
CROSS ICON DISPLAYED
REFER PAGE, 20-30
SUB TEST 12



EVAPORATOR TEMP SENSOR

EXAMPLE
50
AUTO
3

Displayed in %
Range 0 to 99 %
MUST BE CONVERTED.
SENSOR TEMP CORRECT.
CONVERTED TO DEGREES
BETWEEN 2 °C AND 12 °C
REFER GRAPH PAGE 20-32
TICK ICON DISPLAYED
PRESS RED ARROW BUTTON
INCORRECT DISPLAY
CROSS ICON DISPLAYED
REFER PAGE 20-31
SUB TEST 3



WATER TEMP SENSOR

EXAMPLE
20
AUTO
1 3

Displayed in %
Range 0 to 99 %
CORRECT IS 42 % OR
LOWER. WITH HEATER CORE
HOT I. TO TURN ON
HEATER, REMOVE VAC LINE
AT WATER VALVE.
SENSED VALUE O.K.
TICK ICON DISPLAYED
PRESS RED ARROW BUTTON
INCORRECT DISPLAY
CROSS ICON DISPLAYED
REFER PAGE 20-32
SUB TEST 13



SUN LOAD SENSOR

EXAMPLE
2
AUTO
23

RANGE 0 TO 50 %
0 = DARKNESS
50 = BRIGHT SUN LIGHT
CORRECT IS WITHIN
AND CHANGEABLE WITH
VARIED LIGHT INTENSITY.
PRESS RED ARROW BUTTON
INCORRECT, NO CHANGE
CROSS ICON DISPLAYED
REFER PAGE 20-33
SUB TEST 23



PBR FEED BACK VALUE

EXAMPLE
0
AUTO
123

RANGE 0 TO 99 %
CORRECT IS WITHIN
RANGE
TICK ICON DISPLAYED
PRESS RED ARROW BUTTON
INCORRECT
REFER PAGE 20-34
SUB TEST 123



AIR MIX MOTOR SUPPLY

EXAMPLE
74
AUTO
A

RANGE 0 TO 99 %
CORRECT IS 60 TO 80 %
PRESS AMB.
INCORRECT
CROSS ICON DISPLAYED
REFER PAGE 20-34
SUB TEST A

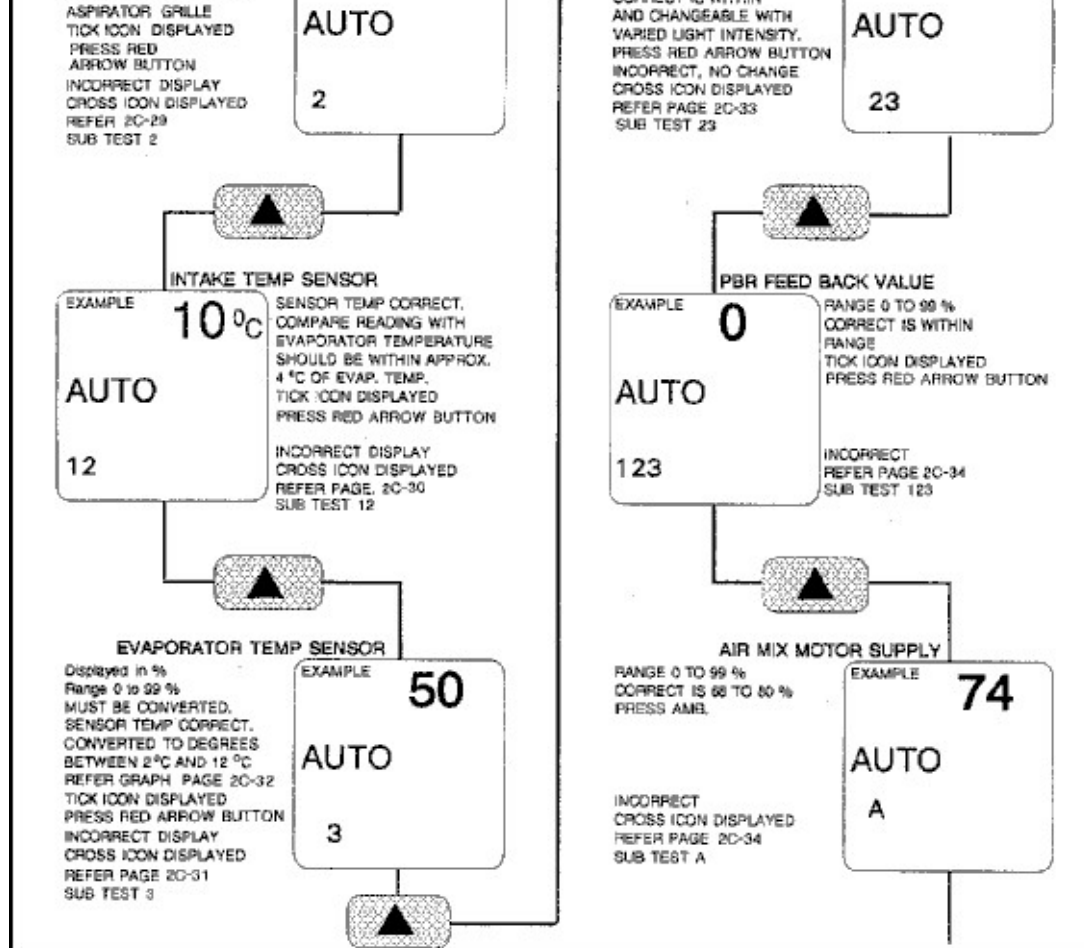


Figure 2C-12

STAGE C MANUAL

SOLENOID ACTUATION

AMB

FRESH/RECIRC

0
MANUAL
1

NO SOLENOID OPERATION
FLAP IN RECIRC POSITION
CONFIRM.
PRESS RED ARROW



1
MANUAL
1

CLICK- SOLENOID
ENERGIZED.
FLAP IN FRESH POSITION
CONFIRM PRESS RED ARROW
IF INCORRECT
REFER PAGE 2C-35
SUB TEST 1



DEMIST OUTLET

0
MANUAL
2

NO SOLENOID OPERATION
NO DEMIST AIR
PRESS RED ARROW



1
MANUAL
2

CLICK- SOLENOID
ENERGIZED
AIR FLOW FROM DEMISTER
OUTLETS PRESS RED ARROW
IF INCORRECT
REFER PAGE 2C-35
SUB TEST 2



FOOT OUTLET

0
MANUAL
12

NO SOLENOID OPERATION
NO FOOT OUTLET AIR
PRESS RED ARROW



1
MANUAL
12

CLICK- SOLENOID
ENERGIZED
AIR FLOW FROM FOOT
OUTLETS PRESS RED ARROW
IF INCORRECT
REFER PAGE 2C-36
SUB TEST 12



FACE OUTLET

0
MANUAL
3

NO SOLENOID OPERATION
NO FACE OUTLET AIR
PRESS RED ARROW



1
MANUAL
3

CLICK- SOLENOID
ENERGIZED
AIR FLOW FROM FACE
OUTLETS PRESS RED ARROW
IF INCORRECT
REFER PAGE 2C-36
SUB TEST 3



A/C CLUTCH RELAY

0
MANUAL
1 3

NO CLUTCH OPERATION.
PRESS RED ARROW



1
MANUAL
1 3

CLICK- COMPRESSOR
CLUTCH ENGAGED.
VISUALLY CONFIRM.
PRESS RED ARROW
IF INCORRECT
REFER PAGE 2C-36
SUB TEST 13



WATER VALVE

0
MANUAL
23

NO SOLENOID OPERATION
NO VACUUM TO WATER
VALVE ACTUATOR
(VALVE OPEN) PRESS RED ARROW



1
MANUAL
23

CLICK- SOLENOID
ENERGIZED
VACUUM SUPPLY TO
ACTUATOR.
WATER VALVE CLOSED.
PRESS AMB.
IF INCORRECT
REFER PAGE 2C-36

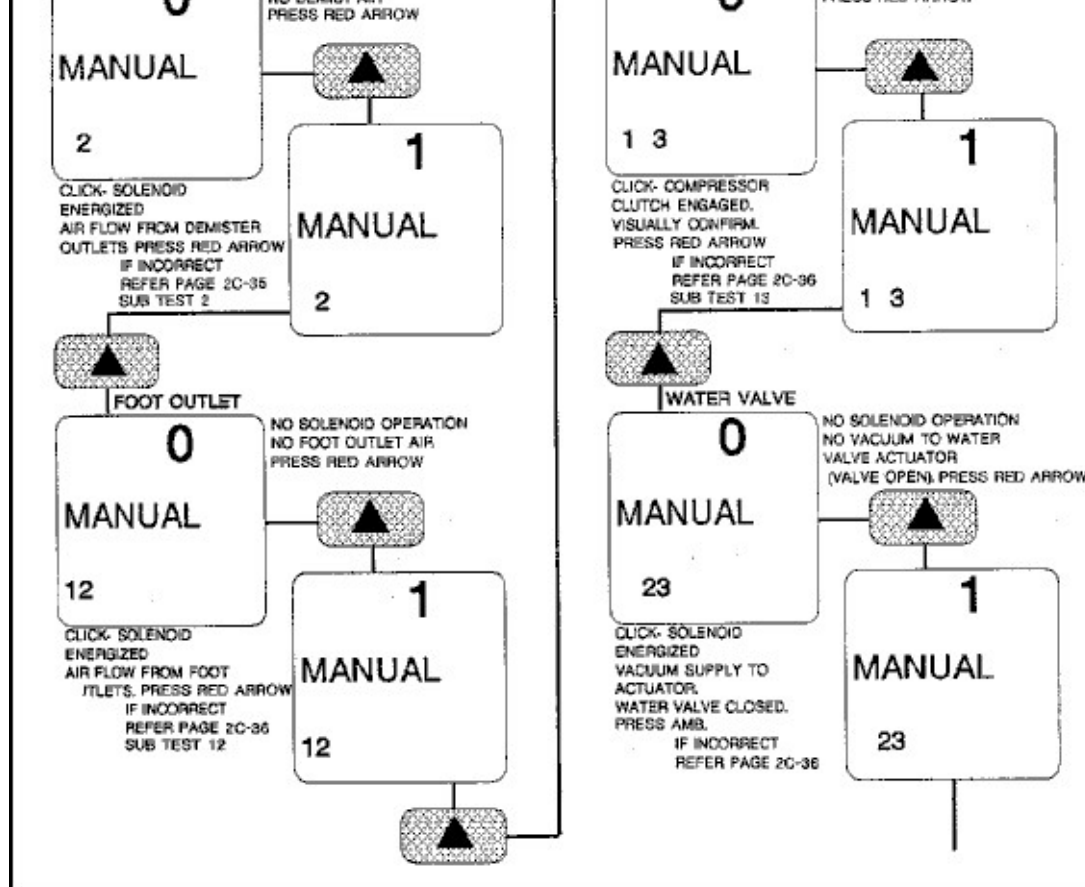
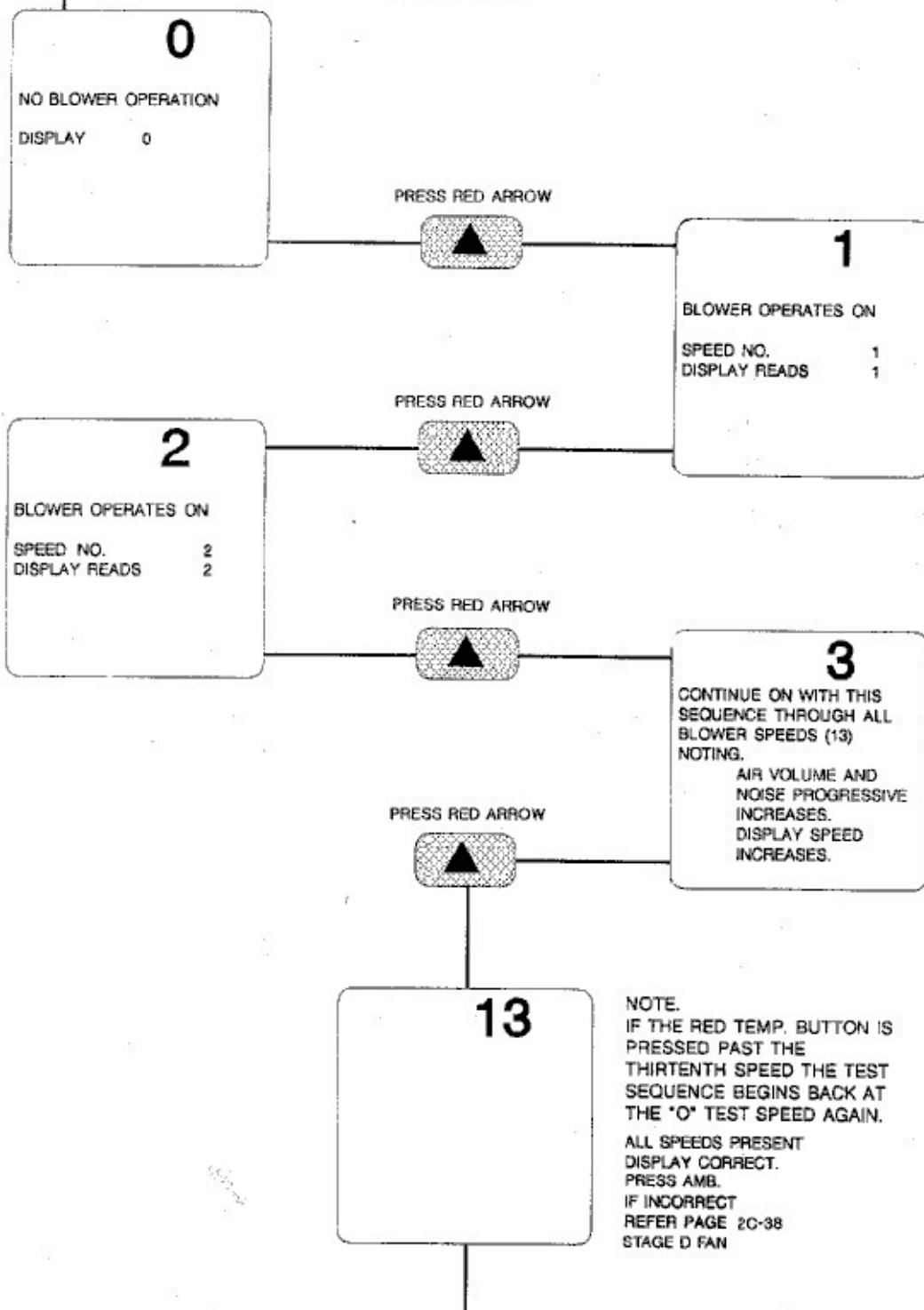


Figure 2C-13

AMB 

STAGE D

BLOWER AND BLOWER SPEED CONTROLLER



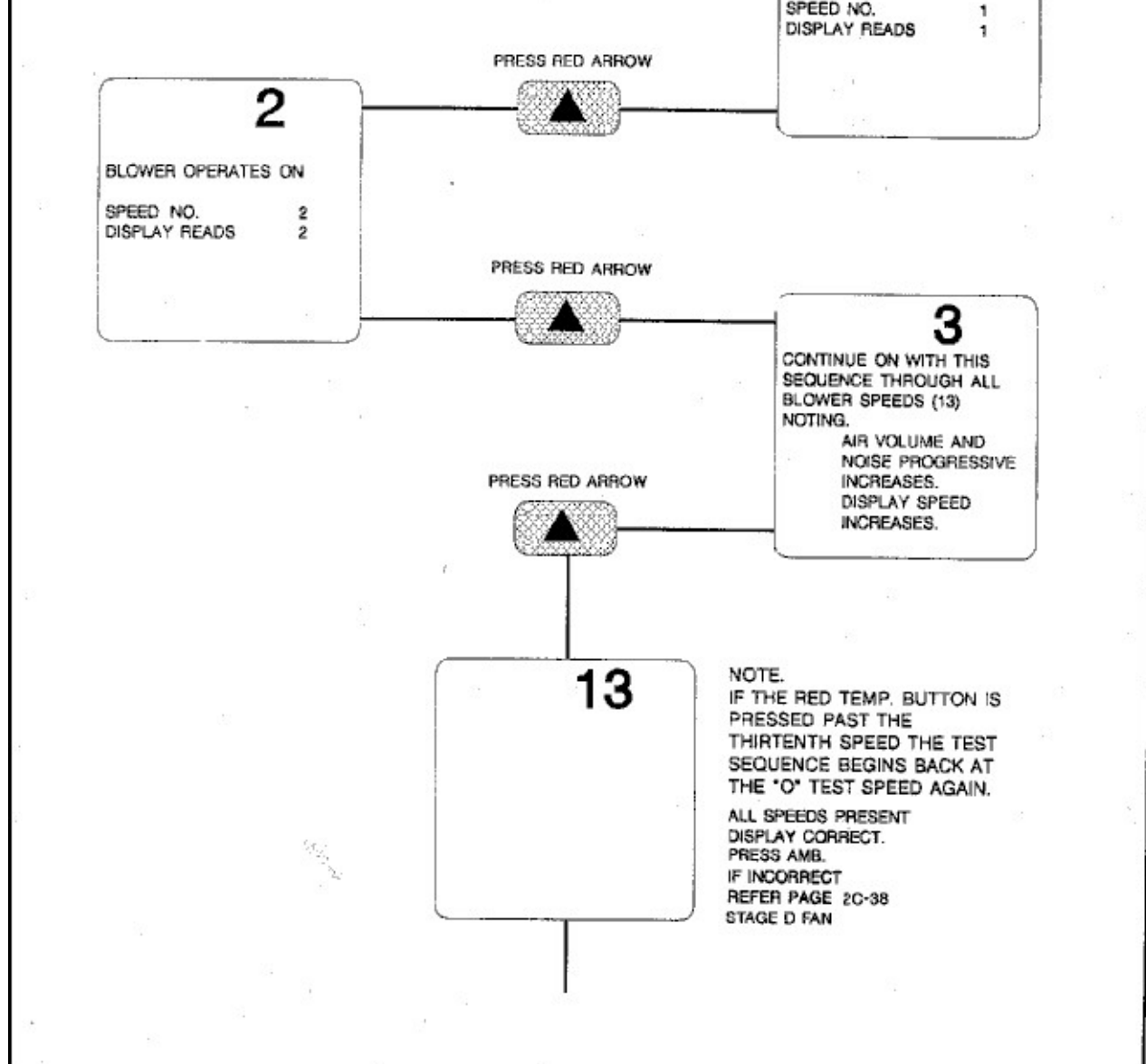
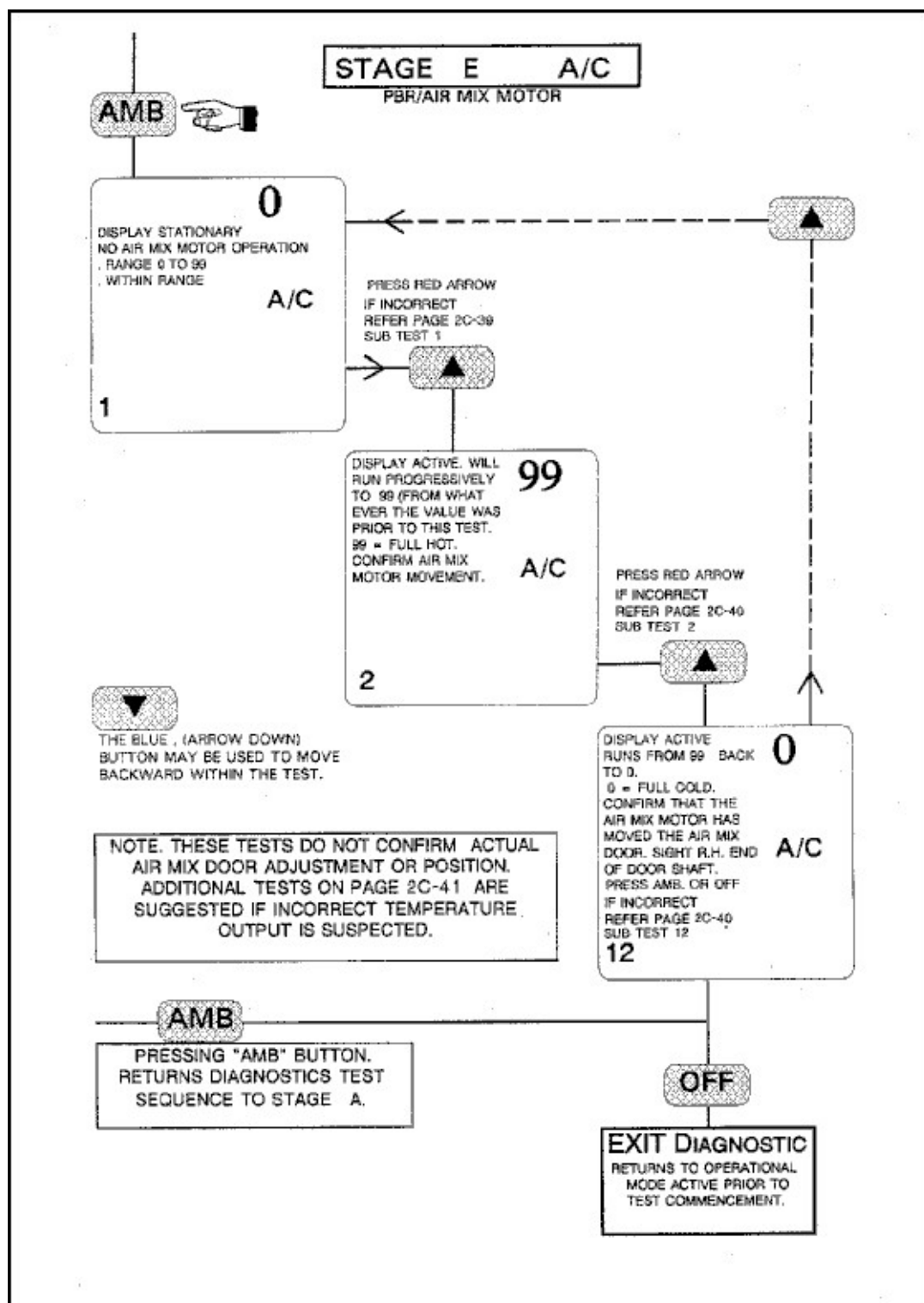


Figure 2C-14



BACKWARD WITHIN THE TEST.

NOTE. THESE TESTS DO NOT CONFIRM ACTUAL AIR MIX DOOR ADJUSTMENT OR POSITION. ADDITIONAL TESTS ON PAGE 2C-41 ARE SUGGESTED IF INCORRECT TEMPERATURE OUTPUT IS SUSPECTED.

TO D.
0 = FULL COLD.
CONFIRM THAT THE AIR MIX MOTOR HAS MOVED THE AIR MIX DOOR. SIGHT R.H. END OF DOOR SHAFT. PRESS AMB. OR OFF IF INCORRECT. REFER PAGE 2C-40 SUB TEST 12

A/C

12

AMB

PRESSING "AMB" BUTTON. RETURNS DIAGNOSTICS TEST SEQUENCE TO STAGE A.

OFF

EXIT DIAGNOSTIC

RETURNS TO OPERATIONAL MODE ACTIVE PRIOR TO TEST COMMENCEMENT.

Figure 2C-15