

**MERCEDES BENZ
A/C AND HEATING SYSTEMS
1990-96**

PROCEDURES FOR SELF DIAGNOSTICS

TAU 2.1

READING ACTUAL VALUES

1. Remove the operating console from the TAU
2. At the upper side of the operating consol there is a display.
3. Ignition ON : Position 1
4. The fan speed selector NOT on position 1
5. The display alternates between the sensor/component number and the value of that sensor/component. Example:
"OP E" : Open circuit or "CL O" : Closed circuit.

COMPONENT UNDER TEST

Number	Component
02	Interior Temperature Sensor
04	Exterior Temperature Sensor
06	Evaporator Temperature Sensor
08	Left Heater Core Temperature Sensor
10	Right Heater Core Temperature Sensor
12	Engine Coolant Temperature Sensor (ECT)
14	Left Temperature Selector Wheel Setting (Degree C)
16	Right Temperature Selector Wheel Setting (Degree C)
18	Vehicle Speed Signal(km/h)
20	Soft Top OPEN : "U", Soft Top CLOSED : "O"
22	Power Supply Voltage
83	OFF/ON (Not Used)
84	Blower Motor Voltage "050" (0.5v) - "600" (6.0v)

FAULT DIAGNOSIS

- 1 Turn temperature selector wheel into the white area.
- 2 Place the air speed selector at position 0 and the air direction to "DOWN"
- 3 IGNITION = ON : Position 1
- 4 Within the next 10 sec., press the "RECIRCULATE AIR" and "REST" button simultaneously for 3 sec.
- 5 Press the AUTO button until all error numbers are read and recorded.

FAULT CODES - TAU 2.1		
DTC Readout	Description	Cause
1	No DTC's Stored in System Memory.	No faults
2	In-Car Temperature Sensor (B10/4)	Short Circuit
3	In-Car Temperature Sensor (B10/4)	Open Circuit
4	Outside Temperature Sensor (B10/5)	Short Circuit
5	Outside Temperature Sensor (B10/5)	Open Circuit
6	Evaporator Temperature Sensor (B10/6)	Short Circuit
7	Evaporator Temperature Sensor (B10/6)	Open Circuit
8	Heater Core Temperature Sensor (B10/1))	Short Circuit
9	Heater Core Temperature Sensor (B10/1)	Open Circuit
10	Heater Core Temperature Sensor (Right)	Short Circuit
11	Heater Core Temperature Sensor(Right)	Open Circuit
12	Engine Coolant Temperature Sensor (B10/8)	Short Circuit
13	Engine Coolant Temperature Sensor (B10/8)	Open Circuit
16	Center Air Vent Control Module (N18/2r2)	Short Circuit
17	Center Air Vent Control Module (N18/2r2)	Open Circuit
18	Center Air Vent Feedback Potentiometer (R23/3)	Short Circuit
19	Center Air Vent Feedback Potentiometer (R23/3)	Open Circuit
20	Left Air Vent Control Module (N18/2r1)	Short Circuit
21	Left Air Vent Control Module (N18/2r1)	Open Circuit
22	Left Air Vent Feedback Potentiometer (R23/1)	Short Circuit
23	Left Air Vent Feedback Potentiometer (R23/1)	Open Circuit
24	Right Air Vent Control Module (N18/2r3)	Short Circuit
25	Right Air Vent Control Module (N18/2r3)	Open Circuit
26	Right Air Vent Feedback Potentiometer (R23/2)	Short Circuit
27	Right Air Vent Feedback Potentiometer (R23/2)	Open Circuit
30	Auxiliary Coolant Pump	Short Circuit
31	Automatic A/C Monovalve (Left)	Short Circuit
32	Automatic A/C Monovalve (Right)	Short Circuit
33	A/C Compressor Signal	Short Circuit
34	Auxiliary Fan Signal 2 Stage	Short Circuit
35	Auxiliary Fan Signal 1 Stage	Short Circuit
50	Switchover Valve Block Signal	Short Circuit

FAULT CODES - TAU 2.1

DTC Readout	Description	Cause
70	Auxiliary Coolant Pump	Open Circuit
71	Automatic A/C Monovalve (Left)	Open Circuit
72	Automatic A/C Monovalve (Right)	Open Circuit
73	A/C Compressor Signal	Open Circuit
74	Auxiliary Fan Signal 2nd Stage	Open Circuit
75	Auxiliary Fan Signal 1st Stage	Open Circuit

129 Chassis to 8/95

READING ACTUAL VALUES

1. IGNITION ON : Position 1
2. Press the REST button and within 1 second press blower speed button 4.
3. The temperature window (upper left) will alternately display the test step number (ex. "02" In-car Temp) or "0P E" for Open Circuit or "Cl 0" for Closed Circuit.
4. Press "F" button to go to higher test.
5. Press "C" button to go to a lower test.
6. To end this test mode turn IGNITION OFF : Position 0 for longer then 5 seconds.

COMPONENT UNDER TEST

Number	Component
02	In-Car Temperature Sensor
04	Outside Temperature Sensor
06	Evaporator Temperature Sensor
08	Heater Core Temperature Sensor
12	Engine Coolant Temperature (ETC) Sensor
14	Temperature Selector Wheel Setting
18	Vehicle Speed Signal(km/h)
20	Soft Top OPEN : "U" ; Soft Top CLOSED : "O"
22	Power Supply Voltage
83	OFF/ON (Not Used)
84	Blower motor voltage "050" (0,5V) - "600" (6,0V)

FAULT DIAGNOSIS

1. Turn temperature selector wheel into the white area.
2. IGNITION ON : Position 1
3. Within the next 10 sec., press the "F", "RECIRCULATE AIR" and "REST" buttons simultaneously for 2 to 4 seconds.
4. The display will show the permanent DTC's stored. press the "RECIRCULATE AIR" button after each is displayed until the display reads "END"
5. Press "RECIRCULATE AIR" button again and the intermittent DTC's will be shown. A SQUARE is shown after each DTC to indicate that it is intermittent. Press the "RECIRCULATE AIR" button again to see the next DTC. Until "END" is shown.
6. To erase the DTC's : IGNITION ON : Position 1 Press the "RECIRCULATE AIR", "REST" and "UP" buttons simultaneously until --- is displayed in the window.

FAULT CODES - 129 Chassis to 8/95		
DTC Readout	Description	Cause
1	No DTC's Stored in System Memory.	No Faults
2	In-Car Temperature Sensor (B10/4)	Short Circuit
3	In-Car Temperature Sensor (B10/4)	Open Circuit
4	Outside Temperature Sensor (B10/5)	Short Circuit
5	Outside Temperature Sensor (B10/5)	Open Circuit
6	Evaporator Temperature Sensor (B10/6)	Short Circuit
7	Evaporator Temperature Sensor (B10/6)	Open Circuit
8	Heater Core Temperature Sensor (B10/1)(Left)	Short Circuit
9	Heater Core Temperature Sensor (B10/1)(Left)	Open Circuit

FAULT CODES - 129 Chassis to 8/95

DTC Readout	Description	Cause
10	Heater Core Temperature Sensor (Right)	Short Circuit
11	Heater Core Temperature Sensor(Right)	Open Circuit
12	Engine Coolant Temperature Sensor (B10/8)	Short Circuit
13	Engine Coolant Temperature Sensor (B10/8)	Open Circuit
16	Center Air Vent Control Module (N18/2r2)	Short Circuit
17	Center Air Vent Control Module (N18/2r2)	Open Circuit
18	Center Air Vent Feedback Potentiometer (R23/3)	Short Circuit
19	Center Air Vent Feedback Potentiometer (R23/3)	Open Circuit
20	Left Air Vent Control Module (N18/2r1)	Short Circuit
21	Left Air Vent Control Module (N18/2r1)	Open Circuit
22	Left Air Vent Feedback Potentiometer (R23/1)	Short Circuit
23	Left Air Vent Feedback Potentiometer (R23/1)	Open Circuit
24	Right Air Vent Control Module (N18/2r3)	Short Circuit
25	Right Air Vent Control Module (N18/2r3)	Open Circuit
26	Right Air Vent Feedback Potentiometer (R23/2)	Short Circuit
27	Right Air Vent Feedback Potentiometer (R23/2)	Open Circuit
30	Auxiliary Coolant Pump (M13)	Short Circuit
31	Automatic A/C Monovalve (Y19)	Short Circuit
32	Automatic A/C Monovalve (Right)	Short Circuit
33	A/C Compressor Signal	Short Circuit
34	Auxiliary Fan Signal, 2nd Stage	Short Circuit
35	Auxiliary Fan Signal, 1st Stage	Short Circuit
50	Switchover Valve Block Signal (Y11)	Short Circuit
70	Auxiliary Coolant Pump (M13)	Open Circuit
71	Automatic A/C Monovalve (Y19)	Open Circuit
72	Automatic A/C Monovalve (Right)	Open Circuit
73	A/C Compressor Signal	Open Circuit
74	Auxiliary Fan Signal, 2nd Stage	Open Circuit
75	Auxiliary Fan Signal, 1st Stage	Open Circuit

129 Chassis from 9/95

READING ACTUAL VALUES

1. IGNITION : Position 1
2. Set temperature selector to 72 degrees F.
3. Press the REST button for more than 6 seconds.
4. The left display will alternately show the number "01" and the in-car temperature.
5. Press the FAN button and the next component number and its value will be displayed.
6. Press the REST button to end the test program.

COMPONENT UNDER TEST

Number	Component
01	In-Car Temperature Sensor with Aspirator Blower (B10/4)
02	Outside Temperature Sensor (B14)
03	Left Heater Core Temperature Sensor (B10/2)
05	Evaporator Temperature Sensor (B10/6)
06	Engine Coolant Temperature Sensor (ECT) (B11/4)
07	Refrigerant Pressure in Bar
08	Refrigerant Temperature Sensor (B12/1)
09	Not Used
10	Blower Control Voltage
20	Control Current for Auxiliary Fan exp. : 7 = 7 mA
21	Engine RPM. example 00..99 (x100) = 9900
22	Vehicle Speed
23	PIN 58D exp. 99.0 = 99% of Battery Voltage
24	Battery Voltage : 12.8 = 12,8 Volt
40	A/C Controller Software Version Coding
41	A/C Controller Hardware Version
42	Variant code 1
43	Variant code 2
50	Not Used
51	Not Used
52	Not Used
54	ON/OFF A/C Compressor emergency off signal from engine control module.
60	Roof "OPE" = OPEN, "CLO" = CLOSED
61	Left Air Outlet, Potentiometer Voltage
62	Vacuum Actuator 46, Feedback Potentiometer Voltage
63	Center Air Outlet, Potentiometer Voltage
64	Vacuum Actuator 47, Feedback Potentiometer Voltage
65	Right Air Outlet, Potentiometer Voltage
66	Vacuum Actuator 47, Feedback Potentiometer Voltage

FAULT DIAGNOSIS

1. IGNITION : Position 1
2. Temperature selector wheel : "LO"
3. Within 20 seconds press the REST and DEFROST buttons simultaneously for more than 5 seconds.
4. The LED in the RECIRCULATE button flashes and "dI A" appears on the display.
5. Press the AUTO button until all DTC's are displayed and recorded.
6. The current faults are displayed first, then the intermittent faults. "END" is displayed when all codes have been displayed.
7. To erase codes press AUTO again, "dEL" will be displayed. Press v and ^ simultaneously for more than 5 seconds. The display will then show "---". Press AUTO to cancel the erase.
8. IGNITION : OFF to end the test program.

FAULT CODES - 129 Chassis from 9/95	
DTC Readout	Description
026	CAN Bus Communication
226	In-Car Air Temperature Sensor (B10/4)
227	Outside Air Temperature Sensor (B14)
228	Heater Core Temperature Sensor (B10/2)
230	Evaporator Temperature Sensor (B10/6)
231	Engine Coolant Temperature Sensor (B11/4)
232	Refrigerant Pressure Sensor (B12)
233	Refrigerant Temperature Sensor (B12/1)
241	Refrigerant Level
416	Coolant Circulation Pump (A31m1)
417	Automatic A/C Monovalve (Y19)
419	A/C Compressor Electromagnetic Clutch (A9k1)
420	Closed (Idle) Throttle Speed Increase
421	Auxiliary Fan Control Module (N65/1)
422	Serial Interface Connection (K1) to Instrument Cluster (IC)
423	Switchover Valve Block (15 connection multiplex) (Y11)
459	Serial Interface Connection (K2) to Instrument Cluster (IC)

140 Chassis to 8/95

READING ACTUAL VALUES

1. Turn temperature selector wheel into the white area.
2. IGNITION = ON : Position 1
3. Press the left and right "AUTO" buttons.
4. Within 20 seconds press the "REST" button for more than 5 sec.
5. LEFT DISPLAY = Component Number
RIGHT DISPLAY = Actual Component Value or "HI" for a short circuit or "LO" for an open circuit
6. Press the left "AUTO" button to monitor the next component.
7. Press the "REST" button to end the test mode.

COMPONENTS UNDER TEST

Number	Component
01	In-Car Temperature Sensor with Aspirator Blower (B10/4)
02	Outside Temperature Sensor (B10/5)
03	Left Heater Core Temperature Sensor (B10/2)
04	Right Heater Core Temperature Sensor (B10/3)
05	Evaporator Temperature Sensor (B10/6)
06	Engine Coolant Temperature (ECT) Sensor (A/C) (B10/8)
07	Refrigerant Pressure in Bar : Ex. 06'4 = 6.4 Bar
08	Blower Control Voltage from 8(min) - 60(max)
09	Software Status, A/C Pushbutton Control Module(N22) Mfg.
10	Left rear heater core temperature sensor (B10/9)
11	Right rear heater core temperature sensor (B10/10)
12	Rear Evaporator Temperature Sensor (B10/11)
13	Software Status, Rear A/C Pushbutton Control Module(N22) Mfg.
16	Control Module Applicable for Charcoal Filter : "A"=YES "0"=NO

FAULT DIAGNOSIS

1. Turn the left selector wheel into the red area.
2. Turn the right selector wheel into the blue area.
3. IGNITION = ON : Position 1.
4. Press the "AUTO" button.
5. Within 20 seconds, press the "REST" and "O" button for more than 2 seconds.
6. The display will show the permanent DTC's stored. Left window "E0" or "E1", right window "01", "02"...etc. Record each DTC and press the right "AUTO" button to display the next code. Continue until "END" is displayed.
7. To erase the DTC's : Turn IGNITION OFF, Then turn IGNITION ON : Position 1. Press the left "AUTO" button. A "d" (delete) is displayed in the left window. By pressing the right "AUTO" button the DTC will be deleted. Alternate left and right "AUTO" buttons until all DTCs are erased and "E0 00" is displayed.

FAULT CODES - 140 Chassis to 8/95			
DTC Readout	Description	Cause	Fault Type
001	No DTC's Stored in System Memory.		
002	A/C Pushbutton Control Module (N22)		
003	Rear A/C Pushbutton Control Module (N22/3)		
006	Connection to the Switchover Valve Block (Y11)		
007	Data Exchange (CAN B)	Short Circuit.	
008	Data Exchange (CAN A)	Short Circuit.	
009	Data Exchange (CAN A and CAN B)	Short Circuit.	
010	Make the Diagnosis Again.		
011	Data Exchange (CAN B)	Open Circuit.	
012	Data Exchange (CAN A)	Open Circuit.	
013	Connection with the Rear A/C Pushbutton Control Module		
014	Data Exchange (CAN B) : Rear A/C Control Module	Open Circuit.	
015	Data Exchange (CAN A) : Rear A/C Control Module	Open Circuit.	
016	In-Car Air Temperature Sensor (B10/4)	Short Circuit	CONTINUOUS
017	In-Car Air Temperature Sensor (B10/4)	Short Circuit	INTERMITTENT
018	In-Car Air Temperature Sensor (B10/4)	Short or Open Circuit	CONTINUOUS
019	In-Car Air Temperature Sensor (B10/4)	Short or Open Circuit	INTERMITTENT
024	Left Heater Core Temperature Sensor (B10/2)	Short Circuit	CONTINUOUS
025	Left Heater Core Temperature Sensor (B10/2)	Short Circuit	INTERMITTENT
026	Left Heater Core Temperature Sensor (B10/2)	Short or Open Circuit	CONTINUOUS
027	Left Heater Core Temperature Sensor (B10/2)	Short or Open Circuit	INTERMITTENT
028	Right Heater Core Temperature Sensor (B10/3)	Short Circuit	CONTINUOUS
029	Right Heater Core Temperature Sensor (B10/3)	Short Circuit	INTERMITTENT
030	Right Heater Core Temperature Sensor (B10/3)	Short or Open Circuit	CONTINUOUS
031	Right Heater Core Temperature Sensor (B10/3)	Short or Open Circuit	INTERMITTENT
032	Outside Air Temperature Sensor (B10/5)	Short Circuit	CONTINUOUS
033	Outside Air Temperature Sensor (B10/5)	Short Circuit	INTERMITTENT
034	Outside Air Temperature Sensor (B10/5)	Short or Open Circuit	CONTINUOUS

FAULT CODES - 140 Chassis to 8/95

DTC Readout	Description	Cause	Fault Type
035	Outside Air Temperature Sensor (B10/5)	Short or Open Circuit	INTERMITTENT
036	Evaporator Temperature Sensor (B10/6)	Short Circuit	CONTINUOUS
037	Evaporator Temperature Sensor (B10/6)	Short Circuit	INTERMITTENT
038	Evaporator Temperature Sensor (B10/6)	Short or Open Circuit	CONTINUOUS
039	Evaporator Temperature Sensor (B10/6)	Short or Open Circuit	INTERMITTENT
040	Engine Coolant Temperature Sensor (B10/8)	Short Circuit	CONTINUOUS
041	Engine Coolant Temperature Sensor (B10/8)	Short Circuit	INTERMITTENT
042	Engine Coolant Temperature Sensor (B10/8)	Short or Open Circuit	CONTINUOUS
043	Engine Coolant Temperature Sensor (B10/8)	Short or Open Circuit	INTERMITTENT
044	Refrigerant Pressure Sensor (B12)	Short Circuit	CONTINUOUS
045	Refrigerant Pressure Sensor (B12)	Short Circuit	INTERMITTENT
046	Refrigerant Pressure Sensor (B12)	Short or Open Circuit	CONTINUOUS
047	Refrigerant Pressure Sensor (B12)	Short or Open Circuit	INTERMITTENT
048	Left Temperature Wheel	Short Circuit	CONTINUOUS
049	Left Temperature Wheel	Short Circuit	INTERMITTENT
050	Left Temperature Wheel	Short or Open Circuit	CONTINUOUS
051	Left Temperature Wheel	Short or Open Circuit	INTERMITTENT
052	Right Temperature Wheel	Short Circuit	CONTINUOUS
053	Right Temperature Wheel	Short Circuit	INTERMITTENT
054	Right Temperature Wheel	Short or Open Circuit	CONTINUOUS
055	Right Temperature Wheel	Short or Open Circuit	INTERMITTENT
072	Heater Supply Unit Coolant Circulation Pump (A31m1)	Short Circuit	CONTINUOUS
073	Heater Supply Unit Coolant Circulation Pump (A31m1)	Short Circuit	INTERMITTENT
074	Coolant Circulation Pump (A31m1)	Short or Open Circuit	CONTINUOUS
075	Coolant Circulation Pump (A31m1)	Short or Open Circuit	INTERMITTENT
076	Coolant Circulation Pump (A31m1)	Overload	CONTINUOUS
077	Coolant Circulation Pump (A31m1)	Overload	INTERMITTENT
080	Left Duovalve (Water Valve) (A31y1)	Short Circuit	CONTINUOUS
081	Left Duovalve (Water Valve) (A31y1)	Short Circuit	INTERMITTENT
082	Left Duovalve (Water Valve) (A31y1)	Short or Open Circuit	CONTINUOUS
083	Left Duovalve (Water Valve) (A31y1)	Short or Open Circuit	INTERMITTENT
084	Right Duovalve (Water Valve) (A31y2)	Short Circuit	CONTINUOUS
085	Right Duovalve (Water Valve) (A31y2)	Short Circuit	INTERMITTENT
086	Right Duovalve (Water Valve) (A31y2)	Short or Open Circuit	CONTINUOUS
087	Right Duovalve (Water Valve) (A31y2)	Short or Open Circuit	INTERMITTENT
088	A/C Compressor Ground Activation		CONTINUOUS

FAULT CODES - 140 Chassis to 8/95

DTC Readout	Description	Cause	Fault Type
089	A/C Compressor Ground Activation		INTERMITTENT
090	A/C Compressor Ground Activation	Short or Open Circuit	CONTINUOUS
091	A/C Compressor Ground Activation	Short or Open Circuit	INTERMITTENT
096	Auxiliary Fan, 1ST Stage Activation	Short Circuit	CONTINUOUS
097	Auxiliary Fan, 1ST Stage Activation	Short Circuit	INTERMITTENT
098	Auxiliary Fan, 1ST Stage Activation	Short or Open Circuit	CONTINUOUS
099	Auxiliary Fan, 1ST Stage Activation	Short or Open Circuit	INTERMITTENT
100	Auxiliary Fan, 2ND Stage Activation	Short Circuit	CONTINUOUS
101	Auxiliary Fan, 2ND Stage Activation	Short Circuit	INTERMITTENT
102	Auxiliary Fan, 2ND Stage Activation	Short or Open Circuit	CONTINUOUS
103	Auxiliary Fan, 2ND Stage Activation	Short or Open Circuit	INTERMITTENT
104	Auxiliary Fan, 3RD Stage Activation	Short Circuit	CONTINUOUS
105	Auxiliary Fan, 3RD Stage Activation	Short Circuit	INTERMITTENT
106	Auxiliary Fan, 3RD Stage Activation	Short or Open Circuit	CONTINUOUS
107	Auxiliary Fan, 3RD Stage Activation	Short or Open Circuit	INTERMITTENT
108	Auxiliary Coolant Pump Control Relay Module (K30), Power Supply	Short Circuit	CONTINUOUS
109	Auxiliary Coolant Pump Control Relay Module (K30), Power Supply	Short Circuit	INTERMITTENT
110	Auxiliary Coolant Pump Control Relay Module (K30), Power Supply	Short or Open Circuit	CONTINUOUS
111	Auxiliary Coolant Pump Control Relay Module (K30), Power Supply	Short or Open Circuit	INTERMITTENT
112	Engine RPM Increase Diode Matrix (V2)	Short Circuit	CONTINUOUS
113	Engine RPM Increase Diode Matrix (V2)	Short Circuit	INTERMITTENT
114	Engine RPM Increase Diode Matrix (V2)	Short or Open Circuit	CONTINUOUS
115	Engine RPM Increase Diode Matrix (V2)	Short or Open Circuit	INTERMITTENT
116	Activated Charcoal Filter Actuator (A32m2) : (OPEN)	Short Circuit	CONTINUOUS
117	Activated Charcoal Filter Actuator (A32m2) : (OPEN)	Short Circuit	INTERMITTENT
118	Activated Charcoal Filter Actuator (A32m2) : (OPEN)	Short or Open Circuit	CONTINUOUS
119	Activated Charcoal Filter Actuator (A32m2) : (OPEN)	Short or Open Circuit	INTERMITTENT
120	Activated Charcoal Filter Actuator (A32m2) : (CLOSED)	Short Circuit	CONTINUOUS
121	Activated Charcoal Filter Actuator (A32m2) : (CLOSED)	Short Circuit	INTERMITTENT
122	Activated Charcoal Filter Actuator (A32m2) : (CLOSED)	Short or Open Circuit	CONTINUOUS

FAULT CODES - 140 Chassis to 8/95

DTC Readout	Description	Cause	Fault Type
123	Activated Charcoal Filter Actuator (A32m2) : (CLOSED)	Short or Open Circuit	INTERMITTENT
128	Left Rear Heater Core Temperature Sensor (B10/9)	Short Circuit	CONTINUOUS
129	Left Rear Heater Core Temperature Sensor (B10/9)	Short Circuit	INTERMITTENT
130	Left Rear Heater Core Temperature Sensor (B10/9)	Short or Open Circuit	CONTINUOUS
131	Left Rear Heater Core Temperature Sensor (B10/9)	Short or Open Circuit	INTERMITTENT
132	Right Rear Heater Core Temperature Sensor (B10/10)	Short Circuit	CONTINUOUS
133	Right Rear Heater Core Temperature Sensor (B10/10)	Short Circuit	INTERMITTENT
134	Right Rear Heater Core Temperature Sensor (B10/10)	Short or Open Circuit	CONTINUOUS
135	Right Rear Heater Core Temperature Sensor (B10/10)	Short or Open Circuit	INTERMITTENT
136	Left Temperature Selector wheel	Short Circuit	CONTINUOUS
137	Left Temperature Selector wheel	Short Circuit	INTERMITTENT
138	Left Temperature Selector wheel	Short or Open Circuit	CONTINUOUS
139	Left Temperature Selector wheel	Short or Open Circuit	INTERMITTENT
140	Right Temperature Selector wheel	Short Circuit	CONTINUOUS
141	Right Temperature Selector wheel	Short Circuit	INTERMITTENT
142	Right Temperature Selector wheel	Short or Open Circuit	CONTINUOUS
143	Right Temperature Selector wheel	Short or Open Circuit	INTERMITTENT
144	Rear Evaporator Temperature Sensor (B10/11)	Short Circuit	CONTINUOUS
145	Rear Evaporator Temperature Sensor (B10/11)	Short Circuit	INTERMITTENT
146	Rear Evaporator Temperature Sensor (B10/11)	Short or Open Circuit	CONTINUOUS
147	Rear Evaporator Temperature Sensor (B10/11)	Short or Open Circuit	INTERMITTENT
148	Coolant Circulation Pump (A31/1m1)	Short Circuit	CONTINUOUS
149	Coolant Circulation Pump (A31/1m1)	Short Circuit	INTERMITTENT
150	Coolant Circulation Pump (A31/1m1)	Short or Open Circuit	CONTINUOUS
151	Coolant Circulation Pump (A31/1m1)	Short or Open Circuit	INTERMITTENT
152	Coolant Circulation Pump (A31/1m1)	Overload	CONTINUOUS
153	Coolant Circulation Pump (A31/1m1)	Overload	INTERMITTENT
156	Left Duovalve (Water Valve) (A31/1y1)	Short Circuit	CONTINUOUS
157	Left Duovalve (Water Valve) (A31/1y1)	Short Circuit	INTERMITTENT
158	Left Duovalve (Water Valve) (A31/1y1)	Short or Open Circuit	CONTINUOUS
159	Left Duovalve (Water Valve) (A31/1y1)	Short or Open Circuit	INTERMITTENT
160	Right Duovalve (Water Valve) (A31/1y2)	Short Circuit	CONTINUOUS

FAULT CODES - 140 Chassis to 8/95

DTC Readout	Description	Cause	Fault Type
161	Right Duovalve (Water Valve) (A31/1y2)	Short Circuit	INTERMITTENT
162	Right Duovalve (Water Valve) (A31/1y2)	Short or Open Circuit	CONTINUOUS
163	Right Duovalve (Water Valve) (A31/1y2)	Short or Open Circuit	INTERMITTENT
164	Rear Refrigerant Shut-Off Valve (Y67)	Short Circuit	CONTINUOUS
165	Rear Refrigerant Shut-Off Valve (Y67)	Short Circuit	INTERMITTENT
166	Rear Refrigerant Shut-Off Valve (Y67)	Short or Open Circuit	CONTINUOUS
167	Rear Refrigerant Shut-Off Valve (Y67)	Short or Open Circuit	INTERMITTENT
168	Rear Tunnel Flap Vacuum Valve (Y67/1)	Short Circuit	CONTINUOUS
169	Rear Tunnel Flap Vacuum Valve (Y67/1)	Short Circuit	INTERMITTENT
170	Rear Tunnel Flap Vacuum Valve (Y67/1)	Short or Open Circuit	CONTINUOUS
171	Rear Tunnel Flap Vacuum Valve (Y67/1)	Short or Open Circuit	INTERMITTENT

140 Chassis from 9/95

READING ACTUAL VALUES

1. IGNITION : Position 1
2. Press the AUTO button
3. Set both temperature selectors to 72 degrees F.
4. Press the REST button for more than 5 seconds.
5. The left display will alternately show the number "1" and the in-car temperature.
6. Press the AUTO button and the next component number and its value will be displayed.
7. Press the REST button to end the test program.

COMPONENT UNDER TEST

Number	Component
01	In-Car Temperature Sensor with Aspirator Blower (B10/4)
02	Outside Temperature Sensor (B10/5) 1996, (B14) as of 1997
03	Left Heater Core Temperature Sensor (B10/2)
04	Right Heater Core Temperature Sensor (B10/3)
05	Evaporator Temperature Sensor (B10/6)
06	Engine Coolant Temperature (ECT) Sensor (A/C) (B11/4)
07	Refrigerant Pressure in Bar
08	Refrigerant Temperature Sensor (B12/1)
10	Blower Control Voltage
11	Emissions (Refrigerant Leak) Sensor (B31)
12	Sun (Excessive Heat) Sensor (B32)
20	Control Current for Auxiliary Fan example : 7 = 7 mA
21	Engine RPM. example 00..99 (x100) = 9900
22	Vehicle Speed
23	PIN 58D example. 99.0 = 99% of Battery Voltage
24	Battery Voltage : 12.8 = 12,8 Volt
30	Left Rear Heater Core Temperature Sensor (B10/9)
31	Right Rear Heater Core Temperature sensor (B10/10)
32	Rear Evaporator Temperature Sensor (B10/11)
33	Rear Blower Control Voltage
34	Left Rear Temperature Sensor version
35	Right Rear Temperature Sensor
38	Rear A/C Controller Software Version Coding
39	Rear A/C Controller Hardware Version
40	Front A/C Controller Software Version Coding
41	Front A/C Controller Hardware Version
42	Variant code 1
43	Variant code 2

FAULT DIAGNOSIS

1. IGNITION : Position 1
2. Left Temperature selector wheel : HI
Right Temperature selector wheel : LO
3. Within 20 seconds press the REST and EC buttons simultaneously for more than 5 seconds.
4. The LED in the RECIRCULATE button flashes and "OFF" appears on the display.
5. Press the right AUTO button until all DTC's are displayed and recorded.
6. To erase all codes must be read out. Press both AUTO buttons simultaneously for more than 2 seconds. "d" will be displayed on the left and "FF" is displayed on the right. The erase can be canceled by pressing the AUTO button.
7. Reset temperature selector to normal setting.
8. IGNITION : OFF to end the test program.

FAULT CODES - 140 Chassis from 9/95	
DTC Readout	Description
026	CAN Bus Communication
226	In-Car Air Temperature Sensor (B10/4)
227	Outside Air Temperature Sensor (B10/5) to 1996, (B14) as of 1997
228	Left Heater Core Temperature Sensor (B10/2)
229	Right Heater Core Temperature Sensor (B10/3)
230	Evaporator Temperature Sensor (B10/6)
231	Engine Coolant Temperature Sensor (B11/4) DFI or IFI models Right Engine Coolant Temperature Sensor (B11/10) to 1996
232	Refrigerant Pressure Sensor (B12)
233	Refrigerant Temperature Sensor (B12/1)
234	Sun Sensor (B32)
235	Emissions (Refrigerant Leak) Sensor (B31)
241	Refrigerant Level
416	Coolant Circulation Pump (A31m1)
417	Left Duovalve (Water Valve) (Y21y1)
418	Right Duovalve (Water Valve) (Y21y2)
419	A/C Compressor Electromagnetic Clutch (A9k1)
420	Closed (Idle) Throttle Speed Increase
421	Pulse Module (N65)
422	Serial Interface Connection (K1) to Instrument Cluster (IC)
423	Switchover Valve Block (Y11)
424	Activated Charcoal Filter Actuator (A32m2) : OPEN
425	Activated Charcoal Filter Actuator (A32m2) : CLOSE
432	Maximum Heat
459	Serial Interface Connection (K2) to Instrument Cluster (IC)
460	LED - Center Air Outlet "Warm"
461	LED - Center Air Outlet "Cold"
462	Wide Open Throttle (WOT) Position Signal - Diesel Engine Only

202 Chassis to 8/95

READING ACTUAL VALUES

1. IGNITION : Position 1
2. Set temperature selection to 72 degrees F (Press v and ^ simultaneously).
3. Press the AUTO button.
4. Press the REST button for more than 5 seconds.
5. The display will alternately show the number "01" and the in-car temperature or "LO" if there is an open circuit or "HI" if there is a short circuit.
6. Press the "Top Air Outlet" button to increase the component tested and the "Bottom Air Outlet" button to decrease the component number tested.
7. Press the REST button to end the test program.

COMPONENT UNDER TEST

Number	Component
01	In-Car Temperature Sensor with Aspirator Blower (B10/4)
02	Outside Temperature Sensor (B10/5)
03	Heater Core Temperature Sensor (B10/1)
05	Evaporator Temperature Sensor (B10/6)
06	Engine Coolant Temperature (ECT) Sensor (A/C) (B10/8)
07	Refrigerant Pressure in Bar
08	Blower Control Voltage
09	Software Status of A/C Pushbutton Control Module
15	Selected In-Car Temperature
20	Version Code
21	Engine Speed in RPM
22	A/C Compressor Speed in RPM
23	Vehicle Speed in km/h
50	Not Used
51	Number of Current Poly-V Belt Slip Recognitions
52	Number of Stored Poly-V Belt Slip Recognitions

FAULT DIAGNOSIS

1. IGNITION : Position 1
2. Press the V button until "LO" appears on the display.
3. Within 20 seconds press the REST and BLOWER buttons simultaneously for more then 2 seconds.
4. The LED in the RECIRCULATE button flashes and "dI R" appears on the display
5. Press the AUTO button until all DTC's are displayed and recorded. Continuous faults are displayed first. if no faults are stored, "En d" is displayed. Press AUTO again to retrieve intermittent faults. If no intermittent faults are stored, "En d" is displayed.
6. Press the AUTO button until "dE L" is displayed. To erase codes press both V and ^ simultaneously for at least 5 seconds. The display will show "---"
7. IGNITION : OFF to end the test program.

FAULT CODES - 202 Chassis to 8/95

DTC Readout	Description	Cause	Fault Type
01	No ERROR Stored	No Faults	
02	A/C Pushbutton Control Module (N22).	Power failure or damaged computer	
03	In-Car Temperature Sensor with Aspirator Blower (B10/4)	Short circuit	CONTINUOUS
04	In Car Temperature Sensor with Aspirator Blower (B10/4)	Short circuit	INTERMITTENT
05	In-Car Temperature Sensor with Aspirator Blower (B10/4)	Short or Open circuit	CONTINUOUS
06	In-Car Temperature Sensor with Aspirator Blower (B10/4)	Short or Open circuit	INTERMITTENT
07	Outside Air Temperature Sensor (B10/5)	Short circuit	CONTINUOUS
08	Outside Air Temperature Sensor (B10/5)	Short circuit	INTERMITTENT
09	Outside air Temperature Sensor (B10/5)	Short or Open circuit	CONTINUOUS
10	Outside air Temperature Sensor (B10/5)	Short or Open circuit	INTERMITTENT
11	Heater Core Temperature Sensor (B10/1)	Short circuit	CONTINUOUS
12	Heater Core Temperature Sensor (B10/1)	Short circuit	INTERMITTENT
13	Heater Core Temperature Sensor (B10/1)	Short or Open circuit	CONTINUOUS
14	Heater Core Temperature Sensor (B10/1)	Short or Open circuit	INTERMITTENT
19	Evaporator Temperature Sensor (B10/6)	Short circuit	CONTINUOUS
20	Evaporator Temperature Sensor (B10/6)	Short circuit	INTERMITTENT
21	Evaporator Temperature Sensor (B10/6)	Short or Open circuit	CONTINUOUS
22	Evaporator Temperature Sensor (B10/6)	Short or Open circuit	INTERMITTENT
23	Engine Coolant Temperature Sensor (ETC) (B10/8)	Short circuit	CONTINUOUS
24	Engine Coolant Temperature Sensor (ETC) (B10/8)	Short circuit	INTERMITTENT
25	Engine Coolant Temperature Sensor (ETC) (B10/8)	Short or Open circuit	CONTINUOUS
26	Engine Coolant Temperature Sensor (ETC) (B10/8)	Short or Open circuit	INTERMITTENT
27	Refrigerant Pressure Sensor (B12)	Short circuit	CONTINUOUS
28	Refrigerant Pressure Sensor (B12)	Short circuit	INTERMITTENT
29	Refrigerant Pressure Sensor (B12)	Short or Open circuit	CONTINUOUS
30	Refrigerant Pressure Sensor (B12)	Short or Open circuit	INTERMITTENT
31	A/C Compressor RPM Sensor (A9I1)	Bad Sensor	
32	Poly-V Belt Slip Recognition	Slipping Belt	
47	Auxiliary Coolant Pump (M13)	Unknown	
48	Auxiliary Coolant Pump (M13)	Short circuit	INTERMITTENT
49	Auxiliary Coolant Pump (M13)	Short or Open circuit	CONTINUOUS
50	Auxiliary Coolant Pump (M13)	Short or Open circuit	INTERMITTENT

FAULT CODES - 202 Chassis to 8/95

DTC Readout	Description	Cause	Fault Type
51	Duovalve (Water Valve) (Y21)	Short circuit	CONTINUOUS
52	Duovalve (Water Valve) (Y21)	Short circuit	INTERMITTENT
53	Duovalve (Water Valve) (Y21)	Short or Open circuit	CONTINUOUS
54	Duovalve (Water Valve) (Y21)	Short or Open circuit	INTERMITTENT
59	A/C Compressor Electromagnetic Clutch (A9k1)	Short circuit	CONTINUOUS
60	A/C Compressor Electromagnetic Clutch (A9k1)	Short circuit	INTERMITTENT
61	A/C Compressor Electromagnetic Clutch (A9k1)	Short or Open circuit	CONTINUOUS
62	A/C Compressor Electromagnetic Clutch (A9k1)	Short or Open circuit	INTERMITTENT
63	Activation of Auxiliary Fan Stage 1	Short circuit	CONTINUOUS
64	Activation of Auxiliary Fan Stage 1	Short circuit	INTERMITTENT
65	Activation of Auxiliary Fan Stage 1	Short or Open circuit	CONTINUOUS
66	Activation of Auxiliary Fan Stage 1	Short or Open circuit	INTERMITTENT
67	Activation of Auxiliary Fan Stage 2	Short circuit	CONTINUOUS
68	Activation of Auxiliary Fan Stage 2	Short circuit	INTERMITTENT
69	Activation of Auxiliary Fan Stage 2	Short or Open circuit	CONTINUOUS
70	Activation of Auxiliary Fan Stage 2	Short or Open circuit	INTERMITTENT
71	Closed (Idle) Throttle Speed Increase	Short or Open circuit	CONTINUOUS
72	Closed (Idle) Throttle Speed Increase	Short or Open circuit	INTERMITTENT
73	Closed (Idle) Throttle Speed Increase	Short circuit	CONTINUOUS
74	Closed (Idle) Throttle Speed Increase	Short circuit	INTERMITTENT
75	Switchover Valve Block (Y11/3), Diverter Flap		CONTINUOUS
76	Switchover Valve Block (Y11/3), Diverter Flap		INTERMITTENT
77	Switchover Valve Block (Y11/3), Diverter Flap	Short or Open circuit	CONTINUOUS
78	Switchover Valve Block (Y11/3), Diverter Flap	Short or Open circuit	INTERMITTENT
79	Switchover Valve Block (Y11/3), Tempering Flap		CONTINUOUS
80	Switchover Valve Block (Y11/3), Tempering Flap		INTERMITTENT
81	Switchover Valve Block (Y11/3), Tempering Flap	Short or Open circuit	CONTINUOUS
82	Switchover Valve Block (Y11/3), Tempering Flap	Short or Open circuit	INTERMITTENT
83	Switchover Valve Block (Y11/3), Fresh/Recirculating Air Flap Long Stroke (80%)		CONTINUOUS
84	Switchover Valve Block (Y11/3), Fresh/Recirculating Air Flap Long Stroke (80%)		INTERMITTENT
85	Switchover Valve Block (Y11/3), Fresh/Recirculating Air Flap Long Stroke (80%)	Short or Open circuit	CONTINUOUS
86	Switchover Valve Block (Y11/3), Fresh/Recirculating Air Flap	Short or Open circuit	INTERMITTENT

FAULT CODES - 202 Chassis to 8/95

DTC Readout	Description	Cause	Fault Type
87	Switchover Valve Block (Y11/3), Fresh/Recirculating Air Flap Short Stroke (20%)		CONTINUOUS
88	Switchover Valve Block (Y11/3), Fresh/Recirculating Air Flap Short Stroke (20%)		INTERMITTENT
89	Switchover Valve Block (Y11/3), Fresh/Recirculating Air Flap Short Stroke (20%)	Short or Open circuit	CONTINUOUS
90	Switchover Valve Block (Y11/3), Fresh/Recirculating Air Flap Short Stroke (20%)	Short or Open circuit	INTERMITTENT
91	Switchover Valve Block (Y11/3), Defroster Flap Long Stroke (80%)		CONTINUOUS
92	Switchover Valve Block (Y11/3), Defroster Flap Long Stroke (80%)		INTERMITTENT
93	Switchover Valve Block (Y11/3), Defroster Flap Long Stroke (80%)	Short or Open circuit	CONTINUOUS
94	Switchover Valve Block (Y11/3), Defroster Flap Long Stroke (80%)	Short or Open circuit	INTERMITTENT
95	Switchover Valve Block (Y11/3), Defroster Flap Short Stroke (20%)		CONTINUOUS
96	Switchover Valve Block (Y11/3), Defroster Flap Short Stroke (20%)		INTERMITTENT
97	Switchover Valve Block (Y11/3), Defroster Flap Short Stroke (20%)	Short or Open circuit	CONTINUOUS
98	Switchover Valve Block (Y11/3), Defroster Flap Short Stroke (20%)	Short or Open circuit	INTERMITTENT
99	Switchover Valve Block (Y11/3), Footwell Flap Long Stroke (80%)		CONTINUOUS
100	Switchover Valve Block (Y11/3), Footwell Flap Long Stroke (80%)		INTERMITTENT
101	Switchover Valve Block (Y11/3), Footwell Flap Long Stroke (80%)	Short or Open circuit	CONTINUOUS
102	Switchover Valve Block (Y11/3), Footwell Flap Long Stroke (80%)	Short or Open circuit	INTERMITTENT
103	Switchover Valve Block (Y11/3), Footwell Flap Short Stroke (20%)		CONTINUOUS
104	Switchover Valve Block (Y11/3), Footwell Flap Short Stroke (20%)		INTERMITTENT
105	Switchover Valve Block (Y11/3), Footwell Flap Short Stroke (20%)	Short or Open circuit	CONTINUOUS
106	Switchover Valve Block (Y11/3), Footwell Flap Short Stroke (20%)	Short or Open circuit	INTERMITTENT

202 Chassis from 9/95

READING ACTUAL VALUES

1. IGNITION : Position 1
2. Set temperature selector to 72 degrees F.
3. Press the REST button for more than 6 seconds.
4. The left display will alternately show the number "01" and the in-car temperature.
5. Press the FAN button and the next component number and its value will be displayed.
6. Press the REST button to end the test program.

COMPONENT UNDER TEST

Number	Component
01	In-Car Temperature Sensor with Aspirator Blower (B10/4)
02	Outside Temperature Sensor (B14)
03	Heater Core Temperature Sensor (B10/1)
05	Evaporator Temperature Sensor (B10/6)
06	Engine Coolant Temperature Sensor (ECT) (B11/4)
07	Refrigerant Pressure in Bar
08	Refrigerant Temperature Sensor (B12/1)
09	Not Used
10	Blower Control Voltage
20	Control Current for Auxiliary Fan exp. : 7 = 7 mA
21	Engine RPM. example 00..99 (x100) = 9900
22	Vehicle Speed
23	PIN 58D exp. 99.0 = 99% of Battery Voltage
24	Battery Voltage : 12.8 = 12,8 Volt
40	A/C Controller Software Version Coding
41	A/C Controller Hardware Version
42	Variant code 1
43	Variant code 2
50	Not Used
51	Not Used
52	Not Used
54	ON/OFF A/C Compressor emergency off signal from engine control module.

FAULT DIAGNOSIS

1. IGNITION : Position 1
2. Temperature selector wheel : "LO"
3. Within 20 seconds press the REST and DEFROST buttons simultaneously for more than 5 seconds.
4. The LED in the RECIRCULATE button flashes and "dl A" appears on the display.
5. Press the AUTO button until all DTC's are displayed and recorded.
6. The current faults are displayed first, then the intermittent faults. "END" is displayed when all codes have been displayed.
7. To erase codes press v and ^ simultaneously for more than 5 seconds. The display will then show "---". Press AUTO to cancel the erase.
8. IGNITION : OFF to end the test program.

FAULT CODES - 202 Chassis from 9/95	
DTC Readout	Description
026	CAN Bus Communication
226	In-Car Air Temperature Sensor (B10/4)
227	Outside Air Temperature Sensor (B14)
228	Heater Core Temperature Sensor (B10/1)
230	Evaporator Temperature Sensor (B10/6)
231	Engine Coolant Temperature Sensor (B11/4)
232	Refrigerant Pressure Sensor (B12)
233	Refrigerant Temperature Sensor (B12/1)
241	Refrigerant Level
416	Coolant Circulation Pump (A31m1)
417	Left Duovalve (Water Valve) (Y21y1)
418	Right Duovalve (Water Valve) (Y21y2)
419	A/C Compressor Electromagnetic Clutch (A9k1)
420	Closed (Idle) Throttle Speed Increase
421	Pulse Module (N65)
422	Serial Interface Connection (K1) to Instrument Cluster (IC)
451	Diverter Flap (Y11/3)
452	Blend Air Flap (Y11/3)
453	Fresh/Recirculated Air Flap (Y11/3) Long Stroke
454	Fresh/Recirculated Air Flap (Y11/3) Short Stroke
455	Defroster Outlet Flap (Y11/3) Long Stroke
456	Defroster Outlet Flap (Y11/3) Short Stroke
457	Footwell Flap (Y11/3) Long Stroke
458	Footwell Flap (Y11/3) Short Stroke
459	Serial Interface Connection (K2) to Instrument Cluster (IC)
462	Wide Open Throttle (WOT) Position Signal - Diesel Engine Only

210 Chassis from 9/95

READING ACTUAL VALUES

1. IGNITION : Position 1
2. Press the AUTO button
3. Set both temperature selectors to 72 degrees F.
4. Press the REST button for more than 5 seconds.
5. The left display will alternately show the number "1" and the in-car temperature.
6. Press the AUTO button and the next component number and its value will be displayed.
7. Press the REST button to end the test program.

COMPONENT UNDER TEST

Number	Component
01	In-Car Temperature Sensor with Aspirator Blower (B10/4)
02	Outside Temperature Sensor (B14)
03	Left Heater Core Temperature Sensor (B10/1)
04	Right Heater Core Temperature Sensor (B10/1)
05	Evaporator Temperature Sensor (B10/6)
06	Engine Coolant Temperature (ECT) Sensor (A/C) (B1/4)
07	Refrigerant Pressure in Bar
08	Refrigerant Temperature Sensor (B12/1)
10	Blower Control Voltage
11	Emissions (Refrigerant Leak) Sensor (B31)
12	Sun (Excessive Heat) Sensor (B32)
20	Control Current for Auxiliary Fan exp. : 7 = 7 mA
21	Engine RPM. example 00..99 (x100) = 9900
22	Vehicle Speed
23	PIN 58D exp. 99.0 = 99% of Battery Voltage
24	Battery Voltage : 12.8 = 12,8 Volt
40	Software Version Encoded
41	Hardware Version

FAULT DIAGNOSIS

1. IGNITION : Position 1
2. Left Temperature selector wheel : HI
Right Temperature selector wheel : LO
3. Within 20 seconds press the REST and EC buttons simultaneously for more than 5 seconds.
4. The LED in the RECIRCULATE button flashes and "dl R" appears on the display
5. Press the right AUTO button until all DTC's are displayed and recorded.
6. To erase all codes must be read out. Press both AUTO buttons simultaneously for more than 2 seconds. "d" will be displayed on the left and "FF" is displayed on the right. The erase can be canceled by pressing the AUTO.
7. Reset temperature selector to normal setting.
8. IGNITION : OFF to end the test program.

FAULT CODES - 210 Chassis from 9/95	
DTC Readout	Description
026	CAN - Communication
226	In-Car Air Temperature Sensor (B10/4)
227	Outside Air Temperature Sensor (B14)
228	Left Heater Core Temperature Sensor (B10/1)
229	Right Heater Core Temperature Sensor (B10/1)
230	Evaporator Temperature Sensor (B10/6)
231	Engine Coolant Temperature Sensor (B10/8)
232	Refrigerant Pressure Sensor (B12)
233	Refrigerant Temperature Sensor (B12/1)
234	Sun Sensor (B32)
235	Emissions (Refrigerant Leak) Sensor (B31)
241	Refrigerant Level
416	Coolant Circulation Pump (M13)
417	Left Duovalve (Water Valve) (Y21y1)
418	Right Duovalve (Water Valve) (Y21y2)
419	A/C Compressor Electromagnetic Clutch (A9k1)
420	Closed (Idle) Throttle Speed Increase
421	Pulse Module
422	Serial Interface Connection (K1) to Instrument Cluster (IC)
423	Switchover Valve Block (Y11)
424	Activated Charcoal Filter Actuator (A32m2) : OPEN
425	Activated Charcoal Filter Actuator (A32m2) : CLOSE
432	Maximum Heat
459	Serial Interface Connection (K2) to Instrument Cluster (IC)
462	Wide Open Throttle (WOT) Position Signal - Diesel Engine Only