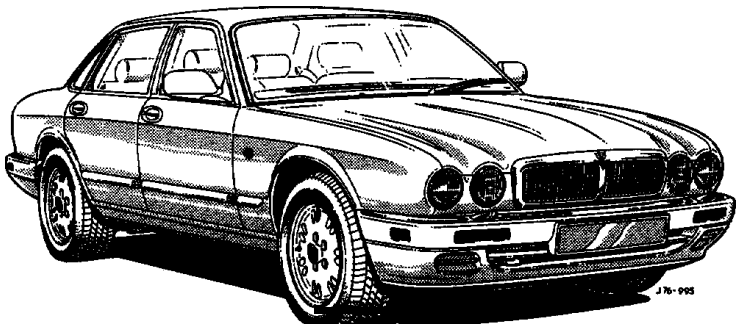
BY APPOINTMENT TO
HER MAJESTY QUEEN ELIZABETH II
MANUFACTURERS OF DAIMLER AND JAGUAR CARS
JAGUAR CARS LIMITED COVENTRY

BY APPOINTMENT TO
HER MAJESTY QUEEN ELIZABETH
THE QUEEN MOTHER
MANUFACTURERS OF DAIMLER AND JAGUAR CARS
JAGUAR CARS LIMITED COVENTRY

BY APPOINTMENT TO
HIS ROYAL HIGHNESS THE PRINCE OF WALES
MANUFACTURERS OF DAIMLER AND JAGUAR CARS
JAGUAR CARS LIMITED COVENTRY

JAGUAR

Sedan Range 1995
Electrical Guide



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JTP476

CONTROL MODULE PIN OUT INFORMATION

AIR CONDITIONING CONTROL MODULE

▽	Pin	Description	Active	Inactive
I	CC28-1	COMPRESSOR CLUTCH ON SIGNAL	B+	GROUND
O	CC28-6	DEFROST VENT SERVO MOTOR	B+	GROUND
O	ccm-7	CENTER VENT SERVO MOTOR	B+	GROUND
O	CC28-8	LH RECIRCULATIONVENT SERVO MOTOR	B+	GROUND
O	CC28-9	RH RECIRCULATIONVENT SERVO MOTOR	B+	GROUND
O	CC28 12	FOOTWELL VENT SERVO MOTOR	B+	GROUND
O	CC28-13	COOL AIR BY-PASSVENT SERVO MOTOR	B+	GROUND
O	CC28 19	DEFROST VENT SERVO MOTOR	B+	GROUND
O	CC28-20	CENTER VENT SERVO MOTOR	B+	GROUND
O	CC28-21	LH RECIRCULATIONVENT SERVO MOTOR	B+	GROUND
O	CC28-22	RH RECIRCULATIONVENT SERVO MOTOR	B+	GROUND
O	CC28-25	FOOTWELL VENT SERVO MOTOR	B+	GROUND
O	CC28-26	COOL AIR BY-PASS VENT SERVO MOTOR	B+	GROUND
I	CC29-1	SOLAR SENSOR FEEDBACK VOLTAGE	0.75 - 4.75 V, INCREASING WITH LAMP BRIGHTNESS	
I	CC29-2	CENTER VENT POTENTIOMETER FEEDBACK VOLTAGE	> 3.5 V (OPEN)	< 1 V (CLOSED)
I	CC29-3	RH RECIRCULATIONPOTENTIOMETER FEEDBACK VOLTAGE	> 3.5 V (OPEN)	< 1 V (CLOSED)
I	CC29-5	COOL AIR BY-PASS POTENTIOMETER FEEDBACK VOLTAGE	> 3.5 V (OPEN)	< 1 V (CLOSED)
I	CC29-6	COOLANT TEMPERATURE SIGNAL	2.5 V @ 90° C. INCREASING WITH TEMPERANRE	
I	CC29-9	TEMPERATURE DIFFERENTIAL POTENTIOMETER FEEDBACK	0.75V = RED; 4.75V = BLUE	
I	CC29-10	DEFRDSTVENTPOTENTIDMETER FEEDBACK	> 3.5 V (OPEN)	< 1 V (CLOSED)
I	CC29-11	LH RECIRCULATIONPOTENTIOMETER FEEDBACK	> 3.5 V (OPEN); < 1 V (CLOSED)	
I	CCB-13	FOOTWELL VENT POTENTIOMETER FEEDBACK	> 3.5 V (OPEN); < 1 V (CLOSED)	
O	ccm-1	AIR CONDITIONING ELECTRICAL LOAD SIGNAL	B+	GROUND
O	CCM-2	CLOCK	5+ 11.46 KHz)	B+
D	CC30-3	SERIAL DATA OUTPUT TO CONTROL PANEL		
I	CC30-5	AMBIENT TEMPERATURE SENSOR FEEDBACK	2.18 V @ 25° C, INCREASING WITH TEMPERATURE	
I	CCM-6	HEATER MATRIX AIR TEMPERATURE SENSOR FEEDBACK	2.25 V @ 20° C, INCREASING WITH TEMPERATURE	
D	CC30-7	SERIAL DATA INPUT FROM CONTROL PANEL		
O	CC30-8	START	B+	GROUND
I	CCM-11	IN CAR TEMPERATURE SENSOR FEEDBACK	3.25 V @ 0° C INCREASING WITH TEMPERATURE	
I	CCM-12	EVAPORATOR TEMPERATURE SENSOR FEEDBACK	3.25 V @ 0° C. INCREASING WITH TEMPERATURE	
I	CC31-3	IGNITION SWITCHED GROUND	GROUND	B+
O	CC31-4	IGNITION SWITCHED POWER SUPPLY TO CONTROL PANEL	B+	GROUND
I	CC31 6	ENGINE SPEED SIGNAL	5 V @ 1000 RPM = 45 Hz, 2000 RPM = 90 Hz	
O	CC31-8	SERVO POTENTIOMETER COMMON REFERENCE VOLTAGE	5V	5 V
O	CC31-9	COMPRESSOR CLUTCH REDUEST	GROUND	B+
D	CC31-10	SERIAL COMMUNICATION INPUT		
O	CC31-12	BATTERY POWER SUPPLY TO CONTROL PANEL	B+	B+
O	CC31 15	AIR CONDITIONING ISOLATE RELAY	B+	GROUND
I	CC31-16	VEHICLE SPEED SIGNAL	5+ @ 10 MPH (16 KPHI = 20 Hz, 20 MPH 132 KPHI = 40 Hz	
I	CC31-17	REFRIGERANT TRIPLE PRESSURE SWITCH - 4.0L REFRIGERANT DUAL PRESSURE SWITCH - V12	GROUND	B+
O	CC31-18	ASPIRATOR MOTOR	B+	GROUND
SG	CC31-19	SERVO POTENTIOMETER COMMON REFERENCE GROUND	GROUND	GROUND
D	CC31-21	SERIAL COMMUNICATION OUTPUT		

AIR CONDITIONING CONTROL PANEL

▽	Pin	Description	Active	Inactive
I	CC2-1	CLOCK	5+ 11.45 KHz)	B+
I	CC2-2	START	B+	GROUND
D	CC2-3	SERIAL DATA DUTPUT TO A/C CONTROL MODULE		
D	CC2-4	SERIAL DATA INPUT FROM A/C CONTROL MODULE		
I	CC2-5	IGNITION SWITCHED POWER SUPPLY	B+	GROUND
I	CC2-6	BATTERY POWER SUPPLY	B+	B+

The following symbols are used to represent values for Control Module Pin Out data.

I	Input	B+	Battery voltage
O	Output	V	Voltage (DC)
SG	Signal Ground	Hz	Frequency
D	Serial and *encoded* communications	KHz	Frequency x 1000
		MS	Milliseconds
		MV	Millivolts

CAUTION: The information on this data page is furnished to aid the user in understanding circuit operation. THIS INFORMATION SHOULD BE USED FOR REFERENCE ONLY.

NOTE: The values listed are approximately those that can be expected at the control module connector pins with all circuit connections made and all components connected and fitted. 'Active" means a load is applied or a switch is ON; 'Inactive" means a load is not applied or a switch is OFF.

Fig. 12.1

COMPONENTS

Component	Connector / Type / Color	Location / Access
AIR CONDITIONING CONTROL MODULE	CC28 126-WAY MULTILOCK47 / SLATE CC29 / 16-WAY MULTILOCK47 / SLATE CC30 112-WAY MULTILOCK 47 / SLATE CC31 122-WAY MULTILOCK47 / SLATE	A/C UNIT. RH SIDE / RH UNDERSCUTTLE
AIR CONDITIONING CONTROL PANEL	CC2 (FLY LEAD) 112-WAY MULTILOCK040 / BLUE	CENTER CONSOLE
AMBIENT TEMPERANRE SENSOR	BL6 (FLY LEAD) 12-WAY ECONOSEAL 111 LC1 BLACK	LH FRONTWHEEL ARCH LINER / SPOILER TRAY
ASPIRATOR MOTOR	FC40 (FLY LEAD) 14-WAY MULTILOCK 070 / WHITE	DRIVERS UNDERSCUTTLE
COOL AIR BYPASS SERVO	CC34 (FLY LEAD) 12-WAY MULTILOCK040 / BLACK	AJC UNIT, LH SIDE; /LH UNDERSCUTTLE
DEFROST SERVO	FC42 (FLY LEAD) 112-WAY MULTILOCK040 / BLACK	AJC UNIT. RH SIDE; FASCIA
DIFFERENTIAL CONTROL POTENTIOMETER	FC20 (FLY LEAD) / 3-WAY MULTILOCK070 / WHITE	A/C UNIT, LH SIDE; FASCIA
EVAPORATOR TEMPERATURE SENSOR	CC34 (FLY LEAD)/ 12-WAY MULTILOCK040 / BLACK	A/C UNIT, LH SIDE / LH UNDERSCUTTLE
FOOTWELL SERVO	CC34 (FLY LEAD) / 12-WAY MULTILOCK040 / BLACK	A/C UNIT, LH SIDE / LH UNDERSCUTTLE
FRESH / RECIRCULATION SERVO - LH	CC32 (FLY LEAD)/ 15-WAY SUMITOMO 90 / GREEN	BLOWER HOUSING
FRESH / RECIRCULATION SERVO - RH	CC33 (FLY LEAD) / 15-WAY SUMITOMO 90 / GREEN	BLOWER HOUSING
HEATER MATRIX TEMPERATURE SENSOR	CC34 (FLY LEAD) / 12-WAY MULTILOCK040 / BLACK	A/C UNIT. LH SIDE / LH UNDERSCUTTLE
IN-CAR TEMPERATURE SENSOR	FC40 (FLY LEAD) / 4-WAY MULTILOCK040 / WHITE	DRIVERS UNDERSCUTTLE
SOLAR SENSOR	FC34 (FLY LEAD) 12-WAY MULTILOCK040 / BLACK	FASCIA, TOP FRONT
VENT SERVO	FC42 (FLY LEAD) / 12-WAY MULTILOCK040 / BLACK	A/C UNIT, LH SIDE / LH UNDERSCUTTLE

RELAYS

Relay	Color / Stripe	Connector / Color	Location / Access
AIR CONDITIONING ISOLATE RELAY	BLACK / BLUE	CA57 / BLUE	RH HEELBOARD

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
BL1	13 WAY ECONOSEAL 111 LC1 BLACK	LH FRONTWHEEL ARCH LINER / SPOILER AND SPOILER TRAY
CC5	20-WAY MULTILOCK040 / GREEN	CENTER CONSOLE/ CENTER CONSOLE GLOVE BOX
CC18	20-WAY MULTILOCK040 / BLUE	CENTER CONSOLE/ CENTER CONSOLE
FC5	THROUGH-PANEL (48 MICRO/ 6) / BLACK	LH FASCIA END PANEL / OUTER AIR VENT
FC6	THROUGH-PANEL (48 MICRO/ 6) / BLACK	RH FASCIA END PANEL / OUTER AIR VENT
FC7	THROUGH-PANEL (48 MICRO/ 6) / BLACK	PASSENGERS UNDERSCUTTLE
FC16	20-WAY MULTILOCK040 / BLACK	PASSENGERS UNDERSCUTTLE
LS3	THROUGH-PANEL (48 MICRO/ 6) / BLACK	LH 'A' POST/ 'A' POSTPANEL
PI63	20 WAY MULTILOCK040 / BLACK	RH 'A' POST/ 'A' POSTTRIM

GROUNDS

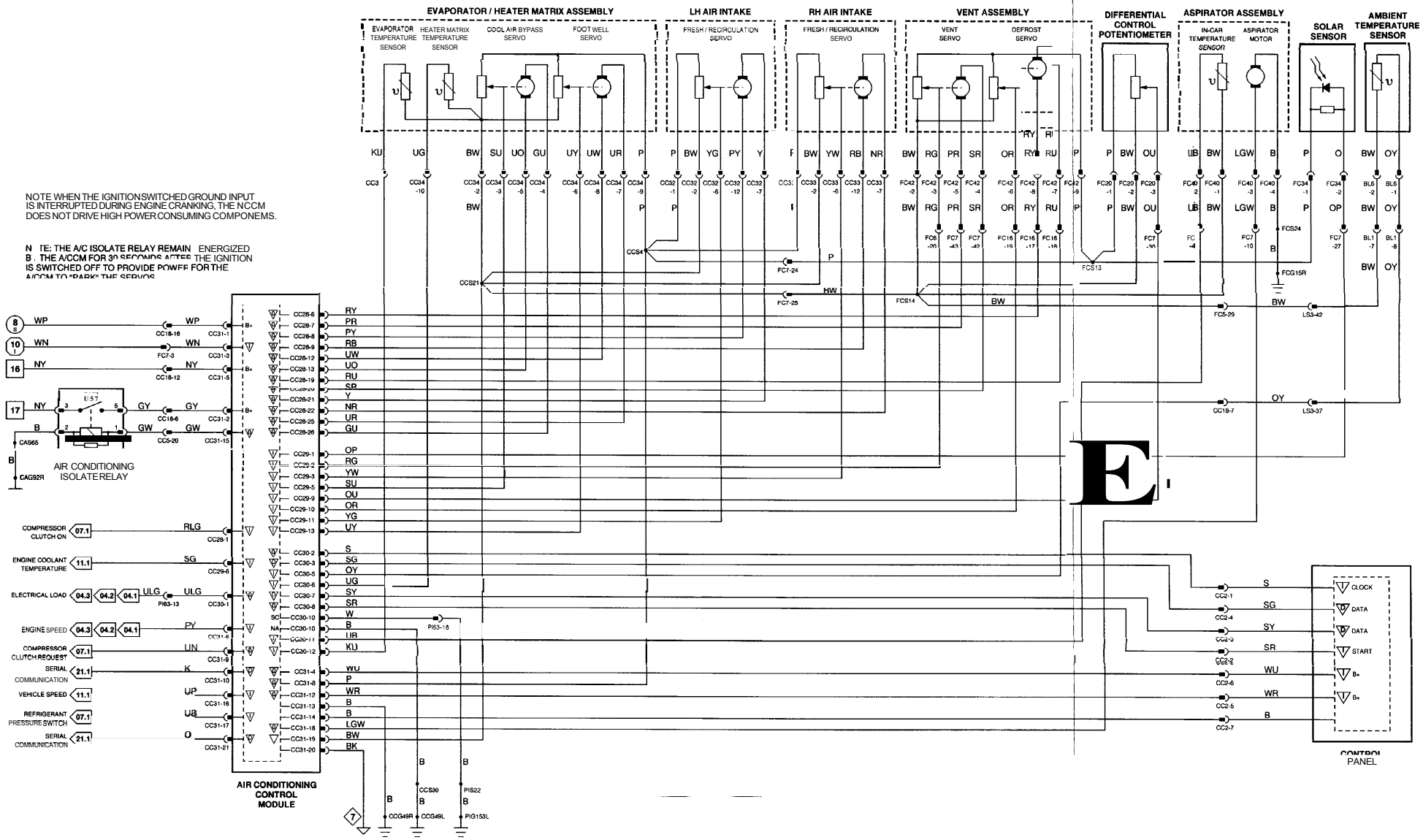
Ground	Location / Type
CAG92R	RH HEELBOARD GROUND SCREW
CCG49L	RH CONSOLE GROUND STUD
CCG49R	RH CONSOLE GROUND STUD
FCG15R	LH CONSOLE GROUND STUD
PIG153L	RH BULKHEAD GROUND STUD

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

DATE OF ISSUE: JANUARY 1995

AJ16 Climate Control System, Part 1



1 — 6 Fig. 01.1	7 — 65 Fig. 01.2	66 — 109 Fig. 01.3	I II Fig. 01.4	I II Fig. 02.1	Fig. 02.2	Input	Output	Serial and Encoded Communications	Signal Ground (SG)

VARIANT: AJ16 Vehicles
VINRANGE All
DATE OF ISSUE JANUARY 1995

CONTROL MODULE PIN OUT INFORMATION

AIR CONDITIONING CONTROL MODULE

▽	Pin	Description	Active	Inactive
I	CC28-1	COMPRESSOR CLUTCH ON SIGNAL	B+	GROUND
O	CC28-6	DEFROST VENT SERVO MOTOR	B+	GROUND
O	CC28-7	CENTER VENT SERVO MOTOR	B+	GROUND
O	CC28-8	LH RECIRCULATION VENT SERVO MOTOR	B+	GROUND
O	CC28-9	RH RECIRCULATION VENT SERVO MOTOR	B+	GROUND
O	CC28-12	FOOTWELL VENT SERVO MOTOR	B+	GROUND
O	CC28-13	COOL AIR BY-PASS VENT SERVO MOTOR	B+	GROUND
O	CC28-19	DEFROST VENT SERVO MOTOR	B+	GROUND
O	CC28-20	CENTER VENT SERVO MOTOR	B+	GROUND
O	CC28-21	LH RECIRCULATION VENT SERVO MOTOR	B+	GROUND
O	CC28-22	RH RECIRCULATION VENT SERVO MOTOR	B+	GROUND
O	CC28-25	FOOTWELL VENT SERVO MOTOR	B+	GROUND
O	CC28-26	COOL AIR BY-PASS VENT SERVO MOTOR	B+	GROUND
I	CC29-1	SOLAR SENSOR FEEDBACK VOLTAGE	0.75 - 4.75 V, INCREASING WITH LAMP BRIGHTNESS	
I	CC29-2	CENTER VENT WTENTIOMETER FEEDBACK VOLTAGE	> 3.5 V (OPEN)	< 1 V (CLOSED)
I	CC29-3	RH RECIRCULATION POTENTIOMETER FEEDBACK VOLTAGE	> 3.5 V (OPEN)	< 1 V (CLOSED)
I	CC29-5	COOL AIR BY-PASS POTENTIOMETER FEEDBACK VOLTAGE	> 3.5 V (OPEN)	< 1 V (CLOSED)
I	CC29-6	COOLANT TEMPERATURE SIGNAL	2.5 V @ 90° C. INCREASING WITH TEMPERATURE	
I	CC29-9	TEMPERATURE DIFFERENTIAL POTENTIOMETER FEEDBACK	0.75V = RED; 4.75V = BLUE	
I	CC29-10	DEFROST VENT POTENTIOMETER FEEDBACK	> 3.5 V (OPEN)	< 1 V (CLOSED)
I	CC29-11	LH RECIRCULATION WTENTIOMETER FEEDBACK	> 3.5 V (OPEN); < 1 V (CLOSED)	
I	CC29-13	FOOTWELL VENT POTENTIOMETER FEEDBACK	> 3.5 V (OPEN); < 1 V (CLOSED)	
O	CC30-1	AIR CONDITIONING ELECTRICAL LOAD SIGNAL	B+	GROUND
O	CCM-2	CLOCK	B+ (1.45 KHz)	B+
D	CCM-3	SERIAL DATA OUTPUT TO CONTROL PANEL		
I	CC30-4	COMPRESSOR LOCK SIGNAL (V12 ONLY)	0.43 V	GROUND
I	CCM-5	AMBIENT TEMPERATURE SENSOR FEEDBACK	2.18 V @ 25° C, INCREASING WITH TEMPERANRE	
I	CC30-6	HEATER MATRIX AIR TEMPERATURE SENSOR FEEDBACK	2.26 V @ 20° C. INCREASING WITH TEMPERANRE	
D	CCM-7	SERIAL DATA INPUT FROM CONTROL PANEL		
O	CC30-8	START	B+	GROUND
I	CC30-11	IN CAR TEMPERANRE SENSOR FEEDBACK	3.25 V @ 0° C, INCREASING WITH TEMPERATURE	
	CC30-12	EVAPORATOR TEMPERATURE SENSOR FEEDBACK	3.25 V @ 0° C, INCREASING WITH TEMPERANRE	
I	CC31-3	IGNITION SWITCHED GROUND	GROUND	B+
O	CC31-4	IGNITION SWITCHED POWER SUPPLY TO CONTROL PANEL	B+	GROUND
I	CC31-6	ENGINE SPEED SIGNAL	5 V @ 1000 RPM = 45 Hz, 2000 RPM = 90 Hz	
	CC31-7	LOAD INHIBIT (V12 ONLY)	GROUND	B+
O	CC31-8	SERVO POTENTIOMETER COMMON REFERENCE VOLTAGE	5V	5 v
O	CC31-9	COMPRESSOR CLUTCH REQUEST	GROUND	B+
D	CC31-10	SERIAL COMMUNICATION INPUT		
O	CC31-12	BATTERY POWER SUPPLY TO CONTROL PANEL	B+	B+
O	CC31-15	AIR CONDITIONING ISOLATE RELAY	B+	GROUND
I	CC31-16	VEHICLE SPEED SIGNAL	B+ @ 10 MPH (16 KPH) = 20 Hz, 20 MPH (32 KPH) = 40 Hz	
	CC31-17	REFRIGERANT TRIPLE PRESSURE SWITCH - 4.0L REFRIGERANT DUAL PRESSURE SWITCH - V12	GROUND	B+
O	CC31-18	ASPIRATOR MOTOR	B+	GROUND
SG	CC31-19	SERVO POTENTIOMETER COMMON REFERENCE GROUND	GROUND	GROUND
D	CC31-21	SERIAL COMMUNICATION OUTPUT		

AIR CONDITIONING CONTROL PANEL

▽	Pin	Description	Active	Inactive
I	CC2-1	CLOCK	B+ (1.45 KHz)	B+
I	CC2-2	START	B+	GROUND
D	CC2-3	SERIAL DATA OUTPUT TO A/C CONTROL MODULE		
D	CC2-4	SERIAL DATA INPUT FROM A/C CONTROL MODULE		
I	CC2-5	IGNITION SWITCHED POWER SUPPLY	B+	GROUND
I	CC2-6	BATTERY POWER SUPPLY	B+	B+

The following symbols are used to represent values for Control Module Pin Out *data:*

I	Input	B+	Battery voltage
O	Output	V	Voltage (DC)
SG	Signal Ground	Hz	Frequency
D	Serial and *encoded* communications	KHz	Frequency x 1000
		MS	Milliseconds
		MV	Millivolts

CAUTION: The information on this data page is furnished to aid the user in understanding circuit operation. THIS INFORMATION SHOULD BE USED FOR REFERENCE ONLY.

NOTE: The values listed are approximately those that can be expected at the control module connector pins with all circuit connections made and all components connected and fitted. "Active" means a load is applied or a switch is ON; 'Inactive" means a load is not applied or a switch is OFF.

Fig. 12.2

COMPONENTS

Component	Connector / Type / Color	Location / Access
AIR CONDITIONING CONTROL MODULE	CC28 126-WAY MULTILOCK 47 / SLATE CC29 116-WAY MULTILOCK 47 / SLATE CC30 112-WAY MULTILOCK 47 / SLATE CC31 / 22-WAY MULTILOCK 41 / SLATE	A/C UNIT, RH SIDE / RH UNDERSCUTTLE
AIR CONDITIONING CONTROL PANEL	CC2 (FLY LEAD) / 12-WAY MULTILOCK 040 / BLUE	CENTER CONSOLE
AMBIENT TEMPERATURE SENSOR	BL6 (FLY LEAD) 12-WAY ECONOSEAL III LC / BLACK	LH FRONT WHEEL ARCH LINER / SPOILER TRAY
ASPIRATOR MOTOR	FC40 (FLY LEAD) / 4-WAY MULTILOCK 070 / WHITE	DRIVERS UNDERSCUTTLE
COMPRESSOR LOCK SENSOR	PI57 (FLY LEAD) / 2-WAY ECONOSEAL III LC / BLACK	A/C COMPRESSOR
COOL AIR BYPASS SERVO	CC34 (FLY LEAD) / 12-WAY MULTILOCK 040 / BLACK	A/C UNIT, LH SIDE: /LH UNDERSCUTTLE
DEFROST SERVO	FC42 (FLY LEAD) / 12-WAY MULTILOCK 040 / BLACK	A/C UNIT, RH SIDE; FASCIA
DIFFERENTIAL CONTROL WTENTIOMETER	FC20 (FLY LEAD) 13-WAY MULTILOCK 070 / WHITE	A/C UNIT, LH SIDE: FASCIA
EVAPORATOR TEMPERATURE SENSOR	CC34 (FLY LEAD) / 12-WAY MULTILOCK 040 / BLACK	A/C UNIT, LH SIDE / LH UNDERSCUTTLE
FOOT WELL SERVO	CC34 (FLY LEAD) / 12-WAY MULTILOCK 040 / BLACK	A/C UNIT, LH SIDE / LH UNDERSCUTTLE
FRESH / RECIRCULATION SERVO - LH	CC32 (FLY LEAD) / 15-WAY SUMITOMO 90 / GREEN	BLOWER HOUSING
FRESH / RECIRCULATION SERVO - RH	CC33 (FLY LEAD) / 16-WAY SUMITOMO 90 / GREEN	BLOWER HOUSING
HEATER MATRIX TEMPERATURE SENSOR	CC34 (FLY LEAD) / 12-WAY MULTILOCK 040 / BLACK	A/C UNIT, LH SIDE / LH UNDERSCUTTLE
IN-CAR TEMPERATURE SENSOR	FC40 (FLY LEAD) / 14-WAY MULTILOCK M 0 / WHITE	DRIVERS UNDERSCUTTLE
SOLAR SENSOR	FC34 (FLY LEAD) / 12-WAY MULTILOCK 040 / BLACK	FASCIA, TOP FRONT
VENT SERVO	FC42 (FLY LEAD) / 12-WAY MULTILOCK 040 / BLACK	A/C UNIT, LH SIDE / LH UNDERSCUTTLE

RELAYS

Relay	Color / Stripe	Connector / Color	Location / Access
AIR CONDITIONING ISOLATE RELAY	BLACK / BLUE	CA57 / BLUE	RH HEELBOARD

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
BL1	13-WAY ECONOSEAL III LC / BLACK	LH FRONT WHEEL ARCH LINER / SPOILER AND SPOILER TRAY
CC5	20-WAY MULTILOCK M 0 / GREEN	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
CC18	20-WAY MULTILOCK 040 / BLUE	CENTER CONSOLE / CENTER CONSOLE
FC5	THROUGH-PANEL (48 MICRO / 6) / BLACK	LH FASCIA END PANEL / OUTER AIR VENT
FC6	THROUGH-PANEL (48 MICRO / 6) / BLACK	RH FASCIA END PANEL / OUTER AIR VENT
FC7	THROUGH-PANEL (48 MICRO / 6) / BLACK	PASSENGERS UNDERSCUTTLE
FC16	20-WAY MULTILOCK 040 / BLACK	PASSENGERS UNDERSCUTTLE
LS3	THROUGH-PANEL (48 MICRO / 6) / BLACK	LH 'A' POST / 'A' POST PANEL
PI1	13-WAY ECONOSEAL III L C / WHITE	RH AIR CLEANER
PI63	20-WAY MULTILOCK MO / BLACK	RH 'A' POST / 'A' POST TRIM

GROUNDS

Ground	Location / Type
CAG92R	RH HEELBOARD GROUND SCREW
CCG49R	RH CONSOLE GROUND S N D
FCG15R	LH CONSOLE GROUND S N D

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

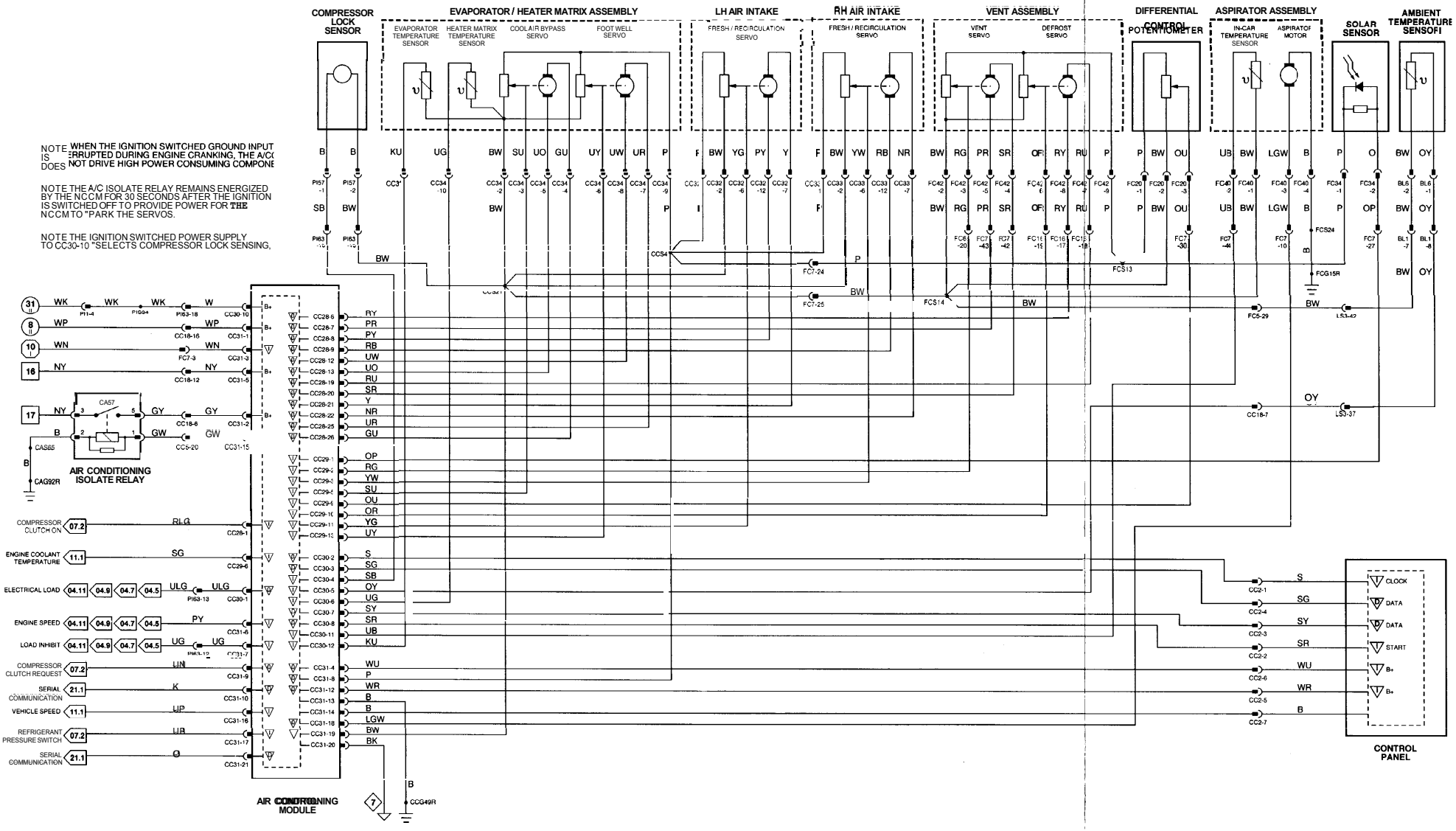
V12 Climate Control System, Part 1

Fig. 12.2

NOTE WHEN THE IGNITION SWITCHED GROUND INPUT IS ERRUPTED DURING ENGINE CRANKING, THE A/C DOES NOT DRIVE HIGH POWER CONSUMING COMPONE

NOTE THE A/C ISOLATE RELAY REMAINS ENERGIZED BY THE NCCM FOR 30 SECONDS AFTER THE IGNITION IS SWITCHED OFF TO PROVIDE POWER FOR THE NCCM TO "PARK THE SERVOS.

NOTE THE IGNITION SWITCHED POWER SUPPLY TO CC30-10 "SELECTS COMPRESSOR LOCK SENSING,



1 — 6 Fig. 01.1 | 7 — 65 Fig. 01.2 | 66 — 109 Fig. 01.3 | Fig. 01.4 | Fig. 02.1 | Fig. 02.2 | Input | Output | Serial and Encoded Communications | Signal Ground (SG

VARIANT: V12 Vehicles
VIN RANGE: All
DATE OF ISSUE: APRIL 1995

CONTROL MODULE PIN OUT INFORMATION

AIR CONDITIONING CONTROL MODULE

▽	Pin	Description	Active	Inactive
O	CC28-2	HEATER VALVE SUPPLY	B+	GROUND
O	CC28-3	R/H BLOWER MOTOR RELAY	GROUND	B+
O	CC28-4	LH AND RH WINDSHIELD HEATER RELAYS	GROUND	B+
O	CC28-5	DOOR MIRROR HEATER RELAY	GROUND	B+
O	CC28-14	RH HIGH SPEED BLOWER RELAY	GROUND	B+
O	CC28-15	LH HIGH SPEED BLOWER RELAY	GROUND	B+
O	CC28-16	LH BLOWER MOTOR RELAY	GROUND	B+
O	CC28-17	HEATER PUMP RELAY	GROUND	B+
O	CC28-18	HEATED BACKLIGHT RELAY	GROUND	B+
I	CC29-7	RH BLOWER SPEED FEEDBACK	7.6 V = LOW SPEED; 0.83 V = HIGH SPEED	
O	CC29-8	RH BLOWER SPEED CONTROL DRIVE SIGNAL	1.3 V = LOW SPEED; 0V = HIGH SPEED	
I	CC29-15	LH BLOWER SPEED FEEDBACK	7.6 V = LOW SPEED; 0.83 V = HIGH SPEED	
O	CC29-16	LH BLOWER SPEED CONTROL DRIVE SIGNAL	1.3 V = LOW SPEED; 0 V = HIGH SPEED	
I	CC31-3	IGNITION SWITCHED GROUND	GROUND	B+
I	CC31-11	HEATER PUMP	GROUND	B+

The following symbols are used to represent values for Control Module Pin Out data:

I	Input	B+	Battery voltage
O	output	V	Voltage (DC)
SG	Signal Ground	Hz	Frequency
D	Serial and encoded communications	KHz	Frequency x 1000
		MS	Milliseconds
		MV	Millivolts

CAUTION: The information on this data page is furnished to aid the user in understanding circuit operation. THIS INFORMATION SHOULD BE USED FOR REFERENCE ONLY.

NOTE: The values listed are approximately those that can be expected at the control module connector pins with all circuit connections made and all components connected and fitted. "Active" means a load is applied or a switch is ON: 'Inactive" means a load is not applied or a switch is OFF.

Fig. 12.3

COMPONENTS

Component	Connector Type Color	Location Access
AIR CONDITIONING CONTROL MODULE	CC28 126-WAY MULTILOCK 47 SLATE CC29 / 16-WAY MULTILOCK 47 / SLATE CC30 / 12-WAY MULTILOCK 47 / SLATE CC31 / 22-WAY MULTILOCK 47 / SLATE	A/C UNIT, RH SIDE / RH UNDERSCUTTLE
BLOWER MOTOR - LH	CC32 (FLY LEAD) 115-WAY SUMITOMO 090 / GREEN	LH UNDERSCUTTLE
BLOWER MOTOR – RH	CC33 (FLY LEAD)/ 15-WAY SUMITOMO 090 / GREEN	RH UNDERSCUTTLE
HEATED BACKLIGHT	CA17 / LUCAR / BLACK CA42 / LUCAR / BLACK	BACKLIGHT LH 'E' POST TRIM BACKLIGHT / RH 'E' POST TRIM
HEATER PUMP	LS7 (FLYLEAD) I 2 WAY ECONOSEAL 111 LC / BLACK	ENGINE BAY, LH REAR
HEATERVALVE	LS15 (FLY LEAD) 12-WAY ECONOSEAL 111 LC / WHITE	ENGINE BAY. LH REAR
MIRROR - DRIVER	DD10 / 12 WAY MULTILOCK 040 / BLACK	MIRROR ASSEMBLY
MIRROR - PASSENGER	PD10 / 12 WAY MULTILOCK 040 / BLACK	MIRROR ASSEMBLY
WINDSHIELD HEATER - LH	SH4 / 2 WAY SERIES 187C / SLATE	WINDSHIELD / WINDSHIELD BASE. ENGINE BAY
WINDSHIELD HEATER - RH	SH5 / 2-WAY SERIES 187C / SLATE	WINDSHIELD / WINDSHIELD BASE. ENGINE BAY

RELAYS

Relay	Color Stripe	Connector / Color	Location / Access
BLOWER MOTOR RELAY – LH	BLACK BLUE	CA59 / BLUE	RH HEELBOARD
BLOWER MOTOR RELAY - RH	BLACK / BLUE	CA58 / BLUE	RH HEELBOARD
DOOR MIRROR HEATER RELAY	VIOLET	CA54 / BLUE	RH HEELBOARD
HEATED BACKLIGHT RELAY	BLACK / VIOLET	BT42 / YELLOW	TRUNK ELECTRICAL CARRIER
HEATER PUMP RELAY	BLACK	LS46 / BLACK	LH ENGINE BAY RELAYS
HIGH SPEED RELAY - LH	BLACK / BLUE	CA59 BLUE	RH HEELBOARD
HIGH SPEED RELAY - RH	BLACK / BLUE	CA58 / BLUE	RH HEELBOARD
WINDSHIELD HEATER RELAY – LH	LIGHT BLUE	SH2 BLACK	LH 'A POST
WINDSHIELD HCATER RELAY - RH	LIGHT BLUE	SH3 / BLACK	LH 'A POST

HARNESS-TO-HARNESS CONNECTORS

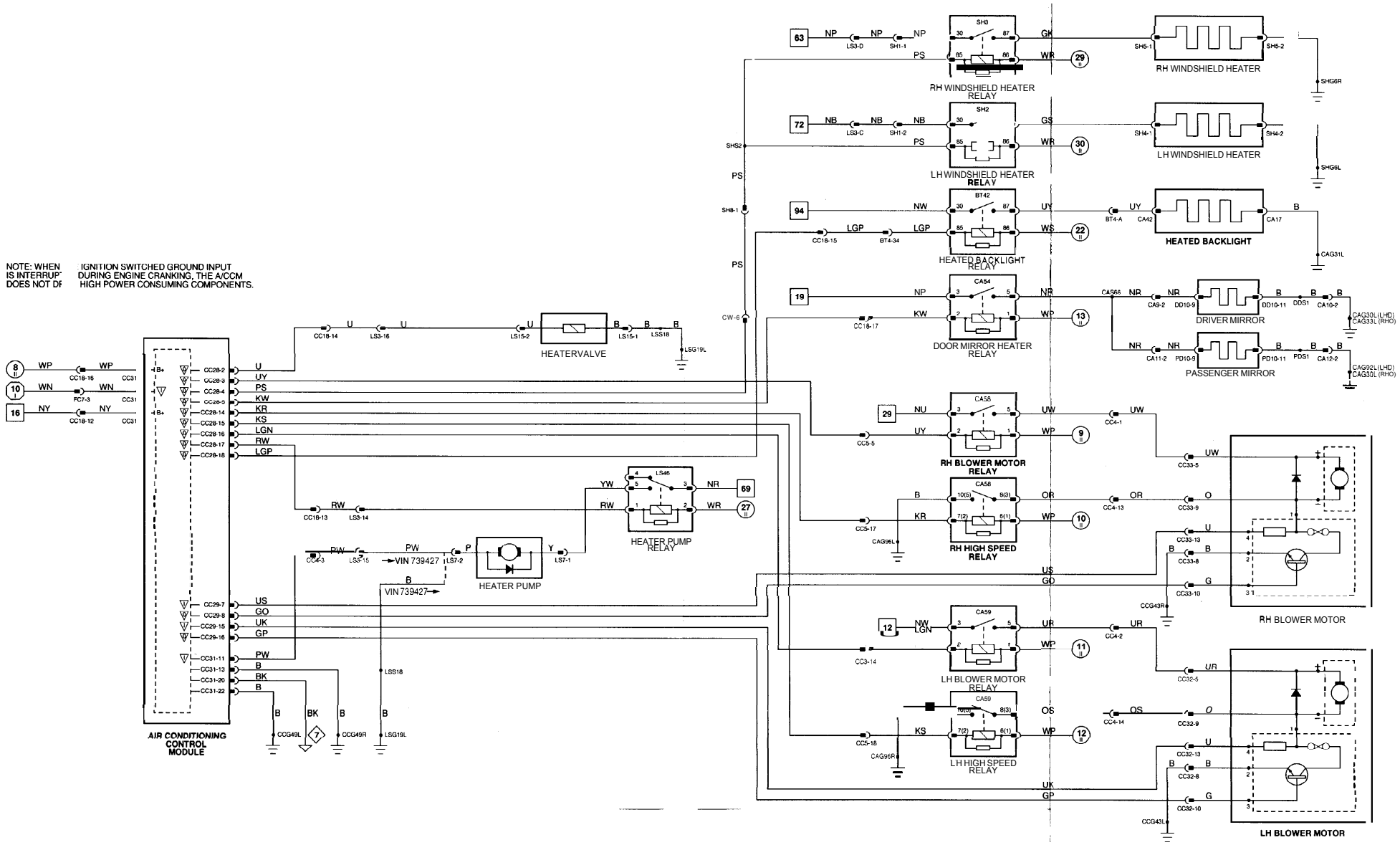
Connector	Type / Color	Location / Access
BT4	THROUGH-PANEL (48 MICRO / 6) / BLACK	PARCEL SHELF FUEL TANK TRIM
CA3	20 WAY MULTILOCK 040 / BLACK	DRIVER'S 'A POST 'A POST TRIM
CA10	8-WAY MULTILOCK 070 / WHITE	DRIVER'S UNDERSCUTTLE
CA11	20-WAY MULTILOCK 040 / BLACK	PASSENGER'S UNDERSCUTTLE / ECM
CA12	12-WAY MULTILOCK 070 I WHITE	PASSENGERS UNDERSCUTTLE / ECM
CC3	20-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE ICENTER CONSOLE GLOVE BOX
CC4	14 WAY MULTILOCK 070 WHITE	CENTER CONSOLE ICENTER CONSOLE GLOVE BOX
CC5	20-WAY MULTILOCK 040 / GREEN	CENTER CONSOLE / CENTER CONSOLE
FC7	THROUGH-PANEL 148 MICRO / 6) / BLACK	PASSENGERS UNDERSCUTTLE
LS3	THROUGH-PANEL (48 MICRO / 6) / BLACK	LH 'A' POST / 'A' POST PANEL
SH1	2-WAY SERIES 187C / SLATE	LH 'A POST I 'A POST PANEL
SH8	4-WAY MULTILOCK 070 / WHITE	LH 'A' POST / 'A' POST PANEL

GROUNDS

Ground	Location / Type
CAG30L	LH 'A POST GROUND SCREW
CAG31L	PARCEL SHELF GROUND SCREW
CAG33L	RH HEELBOARD GROUND SCREW
CAG92L	RH HEELBOARD GROUND SCREW
CAG96L	LH HEELBOARD GROUND SCREW
CAG96R	LH HEELBOARD GROUND SCREW
CCG43L	RH CONSOLE GROUND STUD
CCG43R	RH CONSOLE GROUND STUD
CCG49L	RH CONSOLE GROUND STUD
CCG49R	RH CONSOLE GROUND STUD
LSG19L	LH BULKHEAD GROUND STUD
SHG6L	LH BULKHEAD GROUND STUD
SHG6R	LH BULKHEAD GROUND STUD

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

REFER TO THE FROM OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.



1 — 6 Fig. 01.1 | 7 — 65 Fig. 01.2 | 66 — 109 Fig. 01.3 | I II Fig. 01.4 | I II Fig. 02.1 | Fig. 02.2 | Input | Output | Serial and Encoded Communications | Signal Ground (SG)

VARIANT All Vehicles
VINRANGE All
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