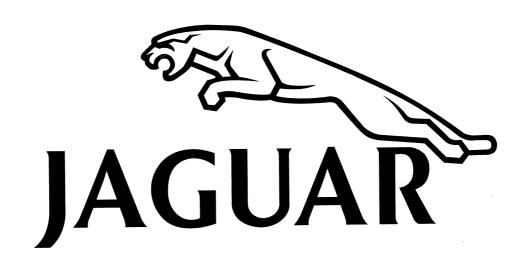


XJ6 3.6 MODEL YEAR

# U P D A T E

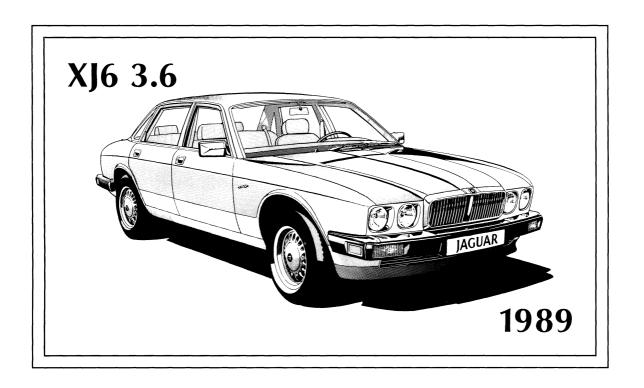
1989





(藏)





Publication number S-63

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### **INTRODUCTION**

The 1989 XJ6 and Vanden Plas 3.6 incorporate new features and many refinements. Several changes introduced during the previous year are also described in this publication.

1989 MY	VIN 556851-ON
CLOCK*	VIN 521288-ON
high compression engine	VIN 521298-ON
Brake lining material	VIN 533361-ON
fuel tank purge system	VIN 538526-ON
1988 FEATURE CHANGES DRIVER'S SEAT ADJUSTMENT DOOR GUARD LIGHTS TURN SIGNALS INSTRUMENT ILLUMINATION DIMICLOCK*	VIN 542406-ON MER
ALTERNATOR DUMP MODULE INSTRUMENT PACK**	VIN 547922-ON VIN 554843-ON

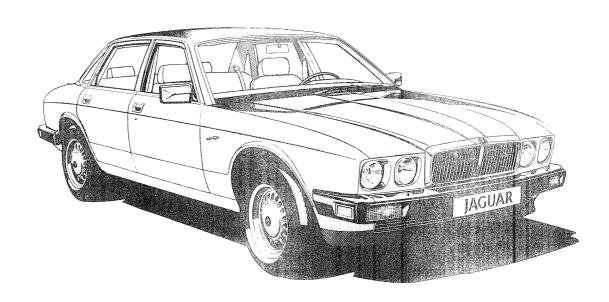
<sup>\*</sup>The clock changes are described on pages 22–23 with the 1989 MY changes.

### Wiring color code

Ν	Brown	Y	Yellow
В	Black	O	Orange
W	White	S	Slate
K	Pink	L	Light
G	Green	U	Blue
R	Red	Р	Purple

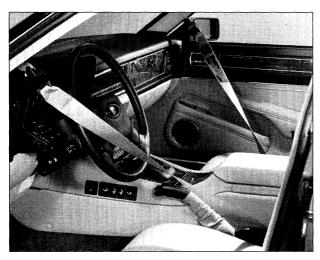
When a wire has two or more color code letters, the first letter indicates the main color and the subsequent letter(s) indicate the tracer color(s).

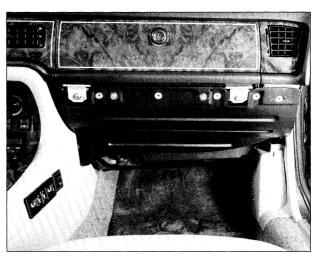
<sup>\*\*</sup>The instrument pack changes are described on pages 24–25 with the 1989 MY changes.



#### PASSIVE RESTRAINT SEAT BELT SYSTEM

All 1989 MY XJ6 and VDP 3.6 cars have a system similar to the XJ-S. The front seats incorporate automatically operating diagonal seat belts. The belts move to the restrained position when the respective door is closed and the ignition is in position 2 or 3. Knee protection for the front seat occupants has been provided between the lower dash panels and the components. Additionally, the front bulkhead structure has been modified in conjunction with the passive restraint system.





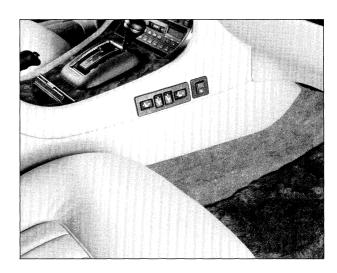
#### REMOTE CENTRAL LOCKING

The infrared remote locking system will lock all four doors, the trunk, and the fuel filler flap.



### FRONT SEAT ADJUSTMENT

Both the driver's and passenger's seats can be adjusted before entering the car.



#### **CHILD SAFETY LOCKS**

Child safety locks are provided on both rear doors.



#### **REAR VIEW MIRRORS**

New aerodynamic mirrors enhance appearance and streamlining.



#### **REAR TRIM**

The rear bright trim and emblems have been revised.



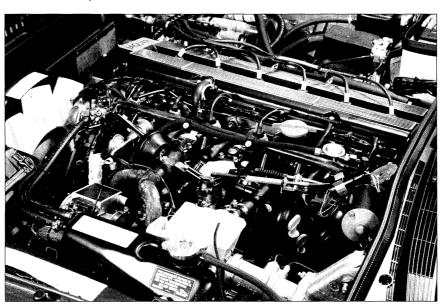
#### **WINDSHIELD TRIM**

The lower finisher has been revised to improve appearance.



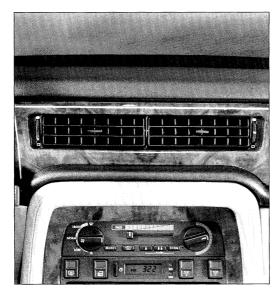
### EMISSIONS CONTROL; REAR AXLE AND TORQUE CONVERTER

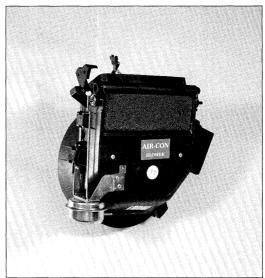
A revised emissions control specification is used on 1989 models. The air injection pump has been removed and a revised engine management ECU is used. The rear axle ratio has been changed to 3.58:1 and the torque converter specification has been changed to 207 Nm. These changes improve acceleration and driveability.



#### **CLIMATE CONTROL**

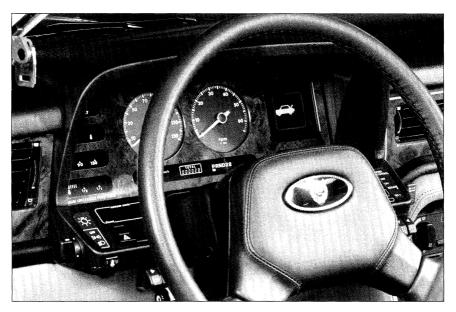
The recirculation/fresh air flap mechanisms on the blower housings have been modified to a system of linkages and gears to prevent interference with adjacent components.





#### **INSTRUMENT PACK**

The operation of the vehicle condition monitor (VCM) has been revised.



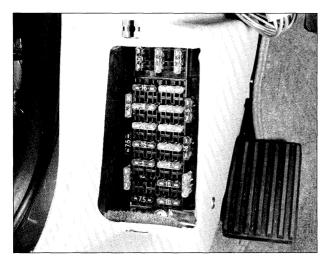
### **CRUISE CONTROL AND CLOCK**

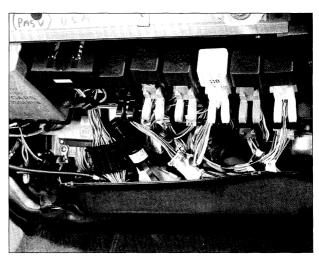
The operation of the cruise control has been revised. A liquid crystal display (LCD) clock replaces the previous vacuum fluorescent type clock.



#### WIRING HARNESS AND FUSES

The wiring harness and fuse panels have been revised to accommodate the new features and incorporate circuits that were previously protected by inline fuses. An accessory fuse panel has been added as a dealer installed option.





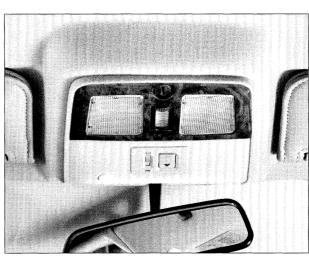
#### **HEADLIGHT POWER WASH**

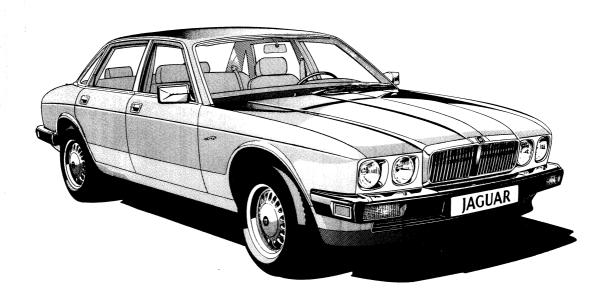
The power wash jets have a single orifice that should be aimed at the low beam.



#### **INTERIOR LIGHT DELAY**

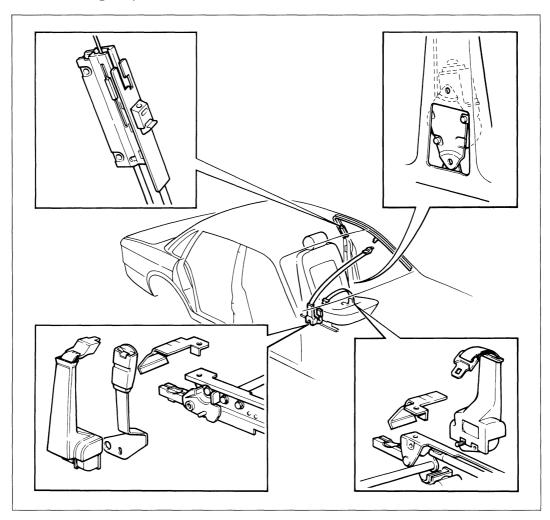
The interior light delay circuit in the central microprocessor has been changed to provide a twenty second delay after the door is closed.





#### PASSIVE RESTRAINT SEAT BELT SYSTEM

The passive belt is a single two position adjustable diagonal seat belt fed from an inertia reel assembly mounted on the inside seat slide and connecting to a motorized runner mounted on the upper door opening. A quick release emergency buckle attaches at the runner.



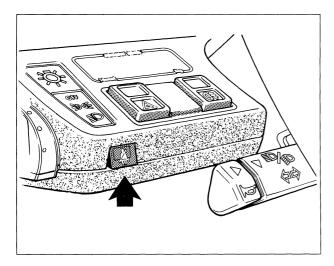
A second independent lap belt is fed from an inertia reel assembly mounted on the outside seat slide. It connects manually to the anchor on the inside seat slide.

Two visual warnings and one audible warning are provided.

WARNING: THE DIAGONAL BELT MUST BE CONNECTED BEFORE OPERATING THE VEHICLE.

The system is actuated when the respective front door is closed and the ignition is turned to position 2 or 3.

**Warnings** Both the seat belt warning light and the VCM belt warning will remain on for approximately six seconds. The audible warning will switch off when the driver's belt is in the restrained position, or after approximately six seconds.





**Restrained position** Both the driver and passenger passive belts will travel to the restrained position simultaneously, even when the passenger's seat is unoccupied. This arrangement prevents the passenger's door mirror from being obstructed by the belt.

**Unrestrained position** When the ignition is turned to position 1 or OFF, both passive belts will travel to the unrestrained position.

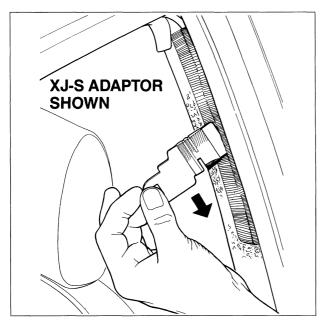
**Individual operation** If one of the front doors is opened with the ignition in position 2, only the adjacent passive belt will travel to the unrestrained position.

**Reverse gear** If reverse is selected and the driver's door is opened with the ignition in position 2 or 3, the passive belt remains in the restrained position to prevent the driver from being caught by the moving belt if he or she wishes to lean out the door while backing up.

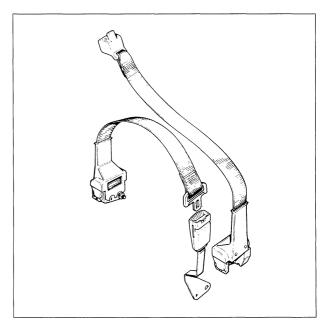
**Inertia switch** If the inertia switch is tripped with the ignition on, the passive belts will remain in the restrained position and the doors will unlock.

### **PASSIVE RESTRAINT SEAT BELTS**

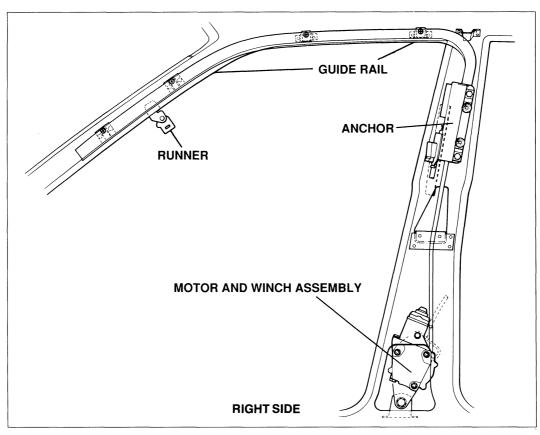
**Emergency anchor adaptors** If the system fails to deploy, two emergency anchor adaptors are provided.

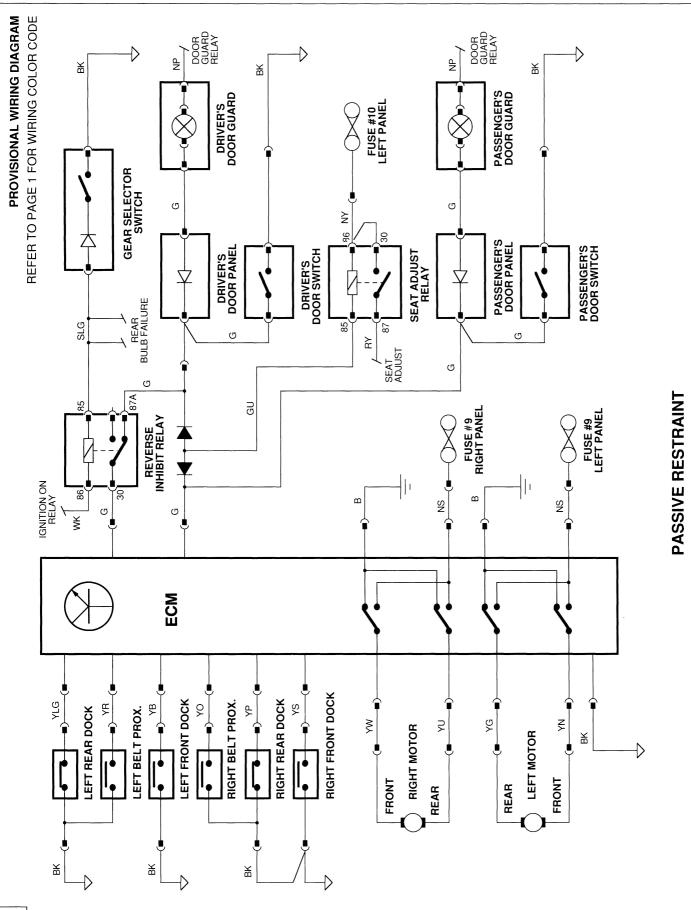


Passive belt emergency release To release the passive belt in an emergency, press the red button marked PRESS at the shoulder end.

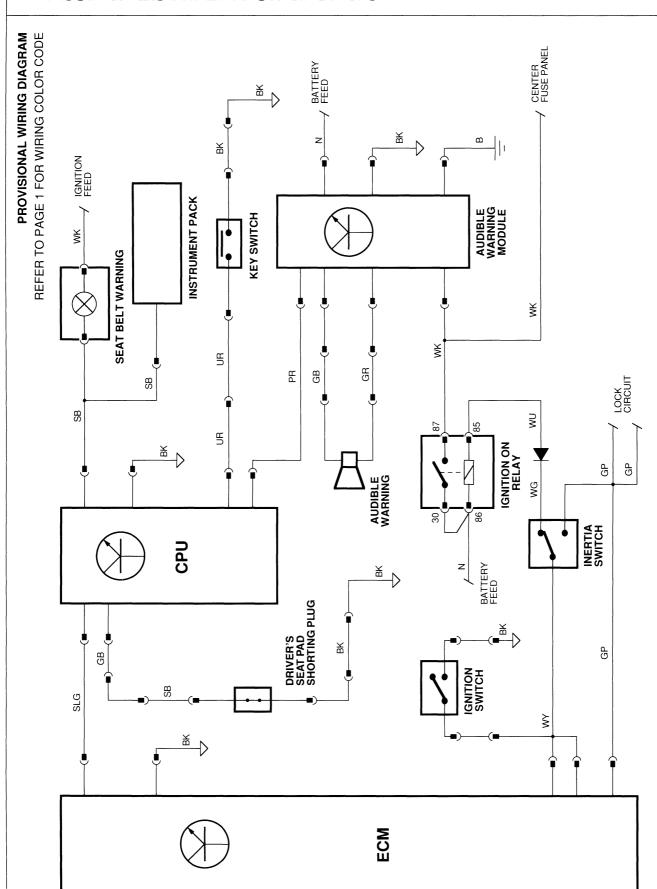


**System layout** The passive belt is driven by a motor and winch assembly mounted in the BC post—one on the left side and one on the right side.

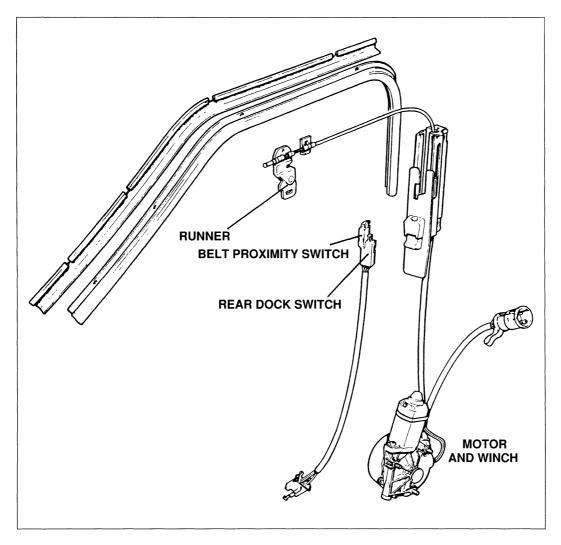




### **PASSIVE RESTRAINT SEAT BELTS**



**PASSIVE RESTRAINT WARNING** 



#### Motor and winch assemblies

**Location** In left and right B/C posts.

**Function** Drives the runners during passive belt deployment. Each winch contains a front dock switch to limit forward travel.

#### Rear dock switches

**Location** Passive belt anchors.

**Function** Limits the rearward travel of the runner.

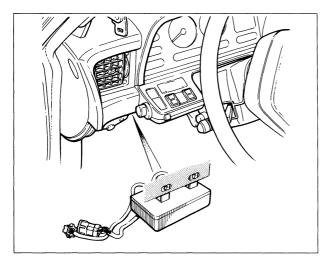
### **Belt proximity switches**

**Location** Passive belt anchors.

**Function** This "reed" switch senses passive belt connection in the restrained position.

### **PASSIVE RESTRAINT SEAT BELTS**

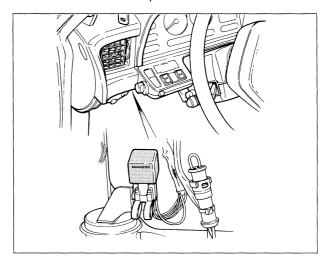
### **Electronic control module (ECM)**



**Location** Under instrument panel—driver's side.

**Function** Provides logic and control for the system.

### Reverse inhibit relay



**Location** Under instrument panel—driver's side.

**Function** Provides an ECM signal when reverse is selected to prevent system activation when the driver's door is opened.

#### **Fuses**

	15	1	6	17	_		
	30A	3	Α	3 <b>A</b>			
1	15A			25A	8		
2	3 <b>A</b>			20A	9		
3	20 <b>A</b>			25A	10		
4	15A			20A	11		
5	5 <b>A</b>			3A	12		
6	3A			15 <b>A</b>	13		
7	7.5A			10A	14		
LEFT FUSE PANEL							

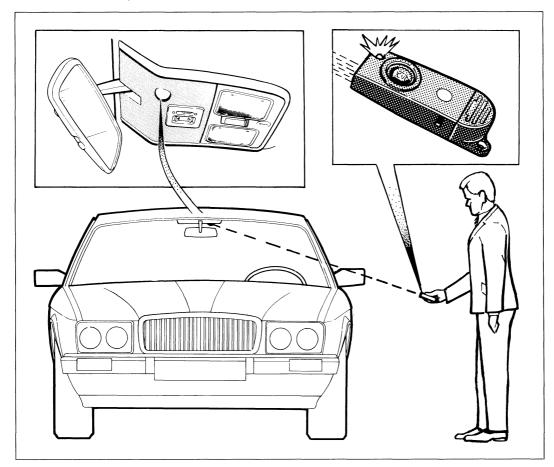
	15	1	6	17	
	30A	10A		30A	
1	15 <b>A</b>	15A		20A	
2	15 <b>A</b>		20A		9
3	20A			20A	10
4	15A		15A		11
5	5 <b>A</b>		3 <b>A</b>		12
6	20A		15 <b>A</b>		13
7	10A	10A		14	
RIGHT FUSE PANEL					

#### REMOTE CENTRAL LOCKING

All four doors, the trunk, and the fuel filler flap can be locked or unlocked simultaneously by one of the following:

- Infrared remote transmitter
- Central locking manual switch
- Driver's or front passenger's door lock button
- Driver's or front passenger's key

To lock with the remote transmitter, first ensure that all doors, the trunk, and the fuel filler flap are closed. Then aim the transmitter through the lower portion of the side window in a direct line to the receiver dome. Press the transmitter button for approximately one second. All door locking buttons should move down to the locked position. Note that the locks will operate with the doors open.

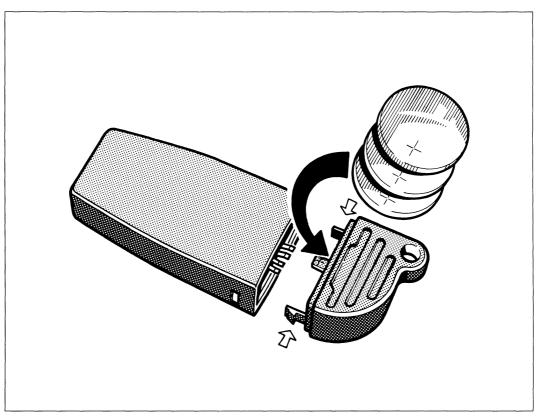


When the transmitter button is pressed, only one signal is sent to the receiver. The infrared signal will not pass through solid objects such as door posts or clothing. If the transmitter does not operate the locks, adjust the aim and press the button again. After the doors are locked, the next time the transmitter button is pressed they will unlock.

To ensure optimum performance, use the transmitter three feet from the vehicle and aim through the lower portion of the side or rear windows.

### REMOTE CENTRAL LOCKING

The transmitter incorporates a battery low indicator. When the batteries near their discharged state, the indicator will flash when the button is pressed. Replace the batteries as soon as possible when the indicator flashes to maintain full usable range.

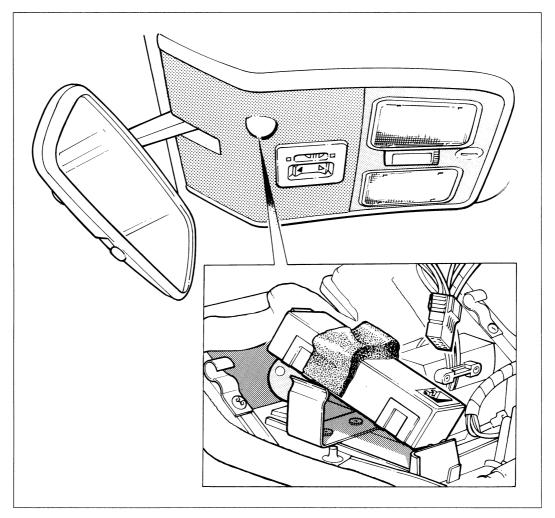


**Battery replacement** The batteries must be replaced every twelve months to ensure reliability. Carefully release the spring clips through the openings in the case and separate the battery compartment from the transmitter body. Install three new batteries observing the correct order of polarity. When reinstalling the battery compartment onto the body, note that the spring clips are offset to prevent incorrect installation.

#### **SYSTEMS DESCRIPTION** PROVISIONAL WIRING DIAGRAM REFER TO PAGE 1 FOR WIRING COLOR CODE TRUNK М 폿 RIGHT REAR DOOR ¥ LEFT REAR DOOR 폿 Ы DRIVER'S DOOR ¥ 8 Ю X <u>B</u>||1 PASS. DOOR ᇫ 8 INFRARED CENTRAL LOCKING DOOR LOCK CONTROL UNIT DRIVER'S SWITCH 9 В NG 8 ВП $\stackrel{\underline{\mathbb{P}}}{\longrightarrow}$ FUSE #2 RIGHT PANEL INFRARED RECEIVER A S 9 PASS. SWITCH ď A $\xrightarrow{\underline{\mu}} \rangle$ 2 2 9 Ŋ GO 86 CENTRAL MICROPROCESSOR FILLER FLAP INTERFACE FILLER FLAP RELAY INERTIA SWITCH GP IGNITION SWITCH GP <u>B</u> ⋛ Ь BK CENTRAL SWITCH GР GP WG IGNITION ON RELAY FUSE #13 LEFT PANEL SN 18

### REMOTE CENTRAL LOCKING

#### Infrared receiver



**Location** Inside roof console (retained by a spring clip). **Function** Receives transmitter signals and provides an electrical signal to the door lock control unit for lock and unlock.

### **Lock operation**

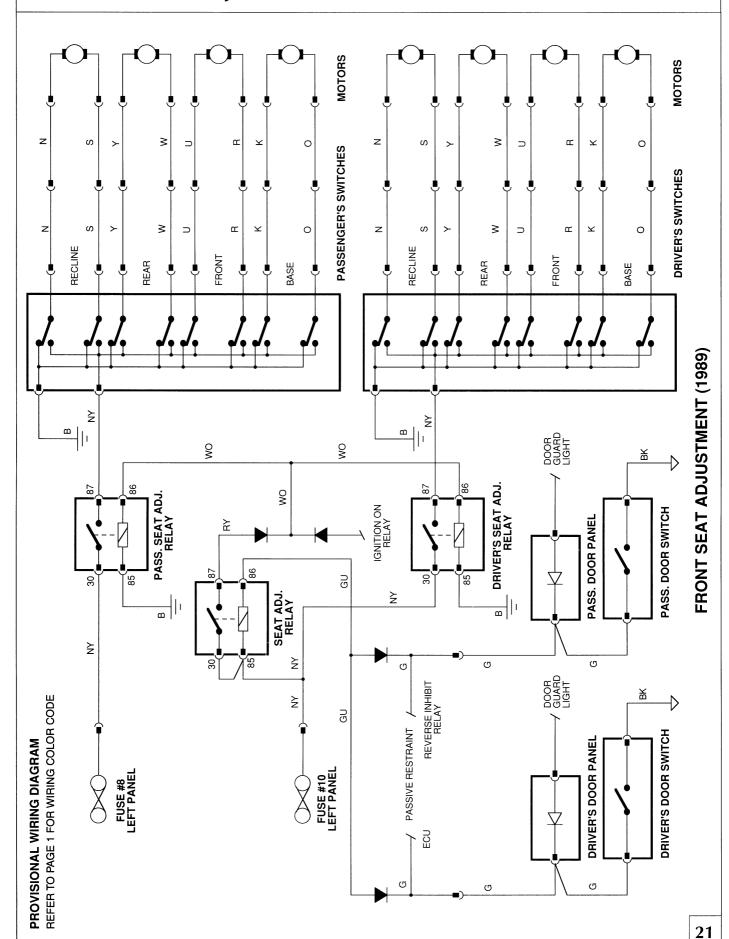
- If a front door interior locking button is pressed while the door is open, all door locks will be activated.
- If one or more of the door locks becomes out of sequence with the others, operate the infrared transmitter or manually reset each door lock button to regain sequence.
- If the trunk is manually locked, it will remain locked when the central system is activated.
- If the doors and the trunk are locked when the inertia switch is tripped, all the doors and the trunk will unlock; the fuel filler flap will lock or remain locked.

### FRONT SEAT ADJUSTMENT

The front seat adjustment circuit has been changed to allow both front seats to be adjusted before entering the car. The adjustment circuit is no longer linked to the door guard light circuit, as described on page 35. The seat adjust relays are activated through the respective door switches allowing seat adjustment as long as the door is open.



### **FRONT SEAT ADJUSTMENT**



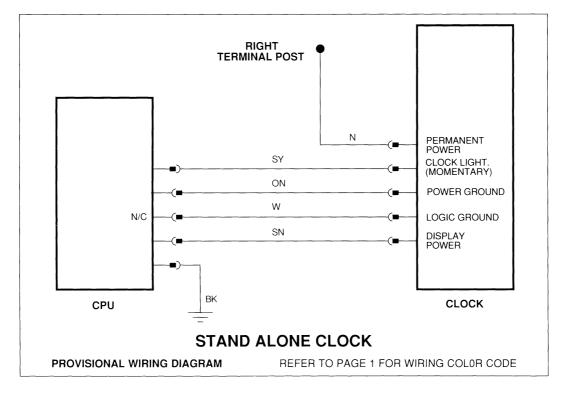
### **CLOCK**

The clock circuit was changed twice during the 1988 MY, at VIN 521288 and VIN 542406. The clock circuit was further changed for the 1989 MY.



### Changes starting at VIN 521288

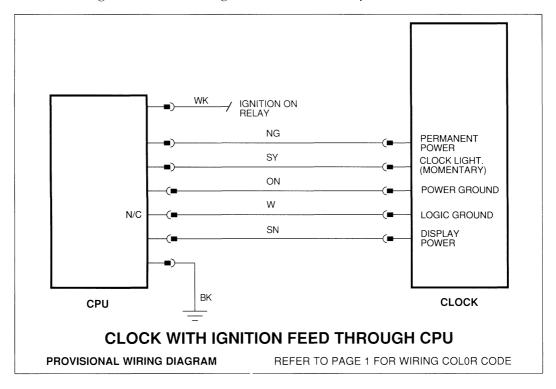
Stand alone clock with a direct battery feed from the right terminal post.





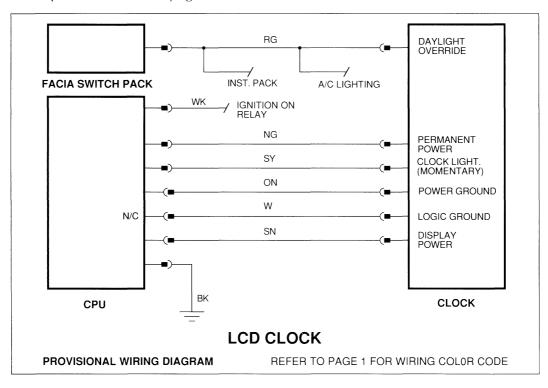
### Changes starting at VIN 542406

Clock with ignition feed through the central microprocessor.



#### Changes starting at 1989 MY

LCD (liquid crystal display) clock with ignition feed through the central microprocessor and daylight override.



#### **INSTRUMENT PACK**

The instrument pack construction and operation was changed during the 1988 MY starting at VIN 554843. The operation is further changed for the 1989 MY.



### **Changes starting VIN 554843**

- A new instrument pack microprocessor provides more memory and faster operation.
- Four open doors are displayed on one screen instead of one screen for each door.
- The VCM warning square no longer flashes.
- The trip computer distance will go up to 9999.9 miles before reset.

### **Changes starting 1989 MY**

- The VCM operation is changed.
- The "FUELING FAILURE" message is changed.

### **INSTRUMENT PACK**

#### **VCM** operation

Two or more simultaneous failures The warning display and message for each fault will flash alternately every two seconds. In addition, an asterisk (\*) will appear at the side of the message to indicate that more than one fault exists.

If one of the faults is a brake failure, a red border will be displayed for all warning symbols except in the case of an anti-lock failure. The border will remain amber if an anti-lock failure occurs.

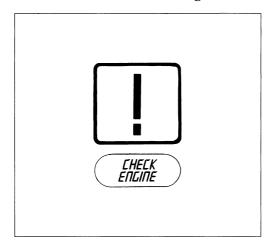
**Trip computer information message** To enable the trip computer information to be displayed on the message screen, press the CLEAR button to temporarily remove the VCM message.

If the CLEAR button is pressed while the COOLANT LEVEL LOW, BULB FAILURE, CIRCUIT FAILURE, or WASHER FLUID LOW warnings are displayed, both the warning symbol and the message will be removed. An asterisk(\*) will appear to indicate that a fault exists.

Pressing the VCM button when a fault exists will override all trip computer messages and redisplay the fault warning symbol and message.

If a fault occurs while trip computer information is being displayed on the message screen, the fault warning will override the trip computer message. The trip computer information can be recalled by pressing the CLEAR button.

#### **FUELING FAILURE message**



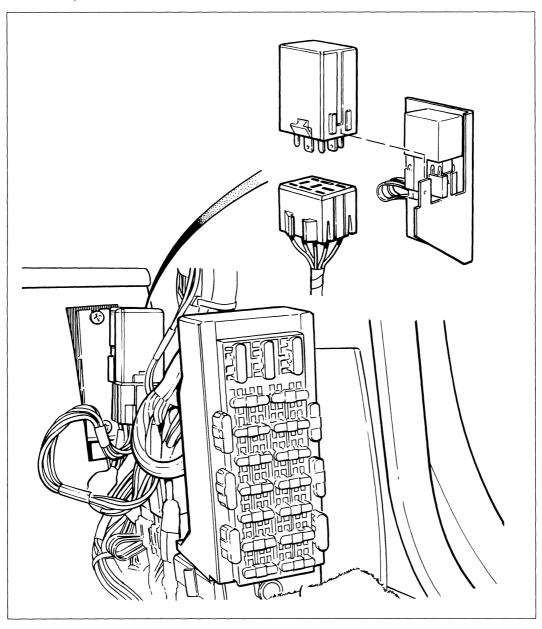
The message accompanying the exclamation symbol has been changed to CHECK ENGINE. An amber border will be displayed around the symbol.

#### **CRUISE CONTROL**

The cruise control system has been revised to allow operation in three gear positions—D, 2, and 3. A continuity unit replaces the previous relay to allow operation in any of the three gears. All other cruise control functions remain the same as the previous system.

When cruise control is activated in any of the three gears, normal system operation occurs. The system remains engaged when the gear selector is moved between D, 2, and 3.

#### **Continuity unit**



**Location** Beside right fuse panel (in previous relay location). **Function** Provides interface between the gear selector switch

**Function** Provides interface between the gear selector switch and the cruise control system.

### **CRUISE CONTROL** VACUUM PUMP AND CONTROL PG PG PG Ж ≿ **DUMP VALVE** PG SHORTING PLUG GEAR SELECTOR SWITCH NG NOT USED CRUISE CONTROL Μ ECM CONTINUITY UNIT $\frac{\mathbb{R}}{\mathbb{R}}$ $\supset$ SR S INST. Ы В ¥ IGNITION ON RELAY NOT USED PROVISIONAL WIRING DIAGRAM REFER TO PAGE 1 FOR WIRING COLOR CODE BRAKE LIGHT SWITCH CRUISE CONTROL SWITCHES **BRAKE SWITCH** RESUME SET N O FUSE #3 CENTER PANEL WARN. - | | I R RB ¥ LOCATE LIGHTING 8 $\stackrel{\underline{\underline{\mathsf{m}}}}{\longrightarrow}$ **27**

### **LEFT FUSE PANEL**

Number	Color	Value	Circuit(s)
1	Lt. blue	15A	Left front door: window, guard light, mirrors
2	Violet	3A	Instrument pack
3	Yellow	20A	Left blower
4	Lt. blue	15A	Left high beam
5	Tan	5A	Left front lights: side, marker, turn signal
6	Violet	3A	Ride leveling, power brakes
7	Brown	7.5A	Left rear lights: brake, reverse, turn signal, fog
8	White	25A	Right seat: movement, heater
9	Yellow	20A	Left passive restraint
10	White	25A	Left seat: movement, heater
11	Yellow	20A	Windshield wiper, horns
12	Violet	3A	Left rear lights: tail, license plate, marker
13	Lt. blue	15A	Left rear door: window, guard light, fuel filler flap, reading light (VDP)
14	Red	10A	Left low beam, left front fog light
15	Lt. green	30A	Accessory fuse panel
16	Violet	3A	Spare position
17	Violet	3A	Spare position

### **RIGHT FUSE PANEL**

MOIII	RIGHT 103E I/MNEE					
Number	Color	Value	Circuit(s)			
1	Lt. blue	15A	Right front door: window, guard light			
2	Lt. blue	15A	Central locking: doors, trunk, fuel filler flap			
3	Yellow	20A	Right blower			
4	Lt. blue	15A	Right high beam			
5	Tan	5A	Right front lights: side, marker, turn signal			
6	Yellow	20A	Heated rear window, trunk light, antenna, door mirror heaters, reading light (VDP)			
7	Red	10A	Right rear lights: brake, reverse, turn signal, fog, high mounted brake			
8	Yellow	20A	Cigar lighters: front, rear (VDP)			
9	Yellow	20A	Right passive restraint			

### WIRING HARNESS AND FUSES

### **RIGHT FUSE PANEL (cont'd.)**

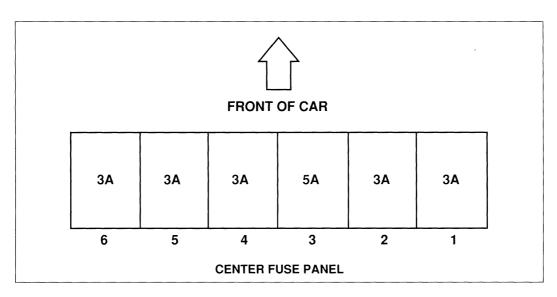
Number	Color	Value	Circuit(s)
10	Yellow	20A	Radio, sun roof, door lock heaters, glove compartment light, map light, headrest lights, "state" illumination
11	Lt. blue	15A	Cooling fan, a/c comp. clutch, hood lights
12	Violet	3A	Right rear lights: tail, license plate, marker
13	Lt. blue	15A	Right rear door: window, guard light
14	Red	10A	Right low beam, right front fog light
15	Lt. green	30A	Trailer
16	Red	10A	Windshield washer
17	Lt. green	30A	Headlight washer

	15	1	6	17	
	30A	3.	A	3 <b>A</b>	
1	15A			25A	8
2	3A			20A	9
3	20A			25A	10
4	15A			20A	11
5	5A			3A	12
6	3 <b>A</b>			15 <b>A</b>	13
7	7.5 <b>A</b>			10A	14
	LEF	T FUS	SE PA	NEL	_

	15	1	6	17		
	30A	10	Α	30A		
1	15A			20A	8	
2	15 <b>A</b>			20A	9	
3	20A		20 <b>A</b>		10	
4	15A			15A	11	
5	5A			3 <b>A</b>	12	
6	20A			15 <b>A</b>	13	
7	10A			10A	14	
RIGHT FUSE PANEL						

### **CENTER FUSE PANEL**

Number	Color	Value	Circuit(s)
1	Violet	3A	Right front and right rear bulb failure modules, alternator control
2	Violet	3A	Left front and left rear bulb failure modules
3	Tan	5A	Cruise control
4	Violet	3A	Ride leveling, power brakes
5	Violet	3A	Cooling fan, washer jet heaters
6	Violet	3A	Radio lighting, breather heater

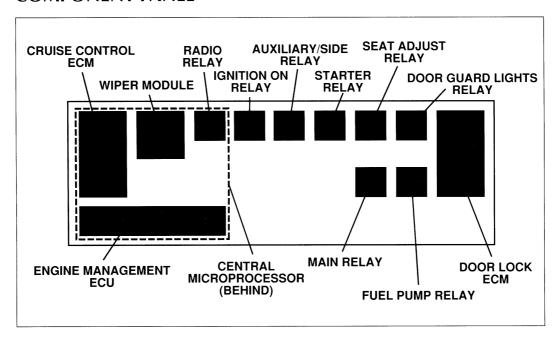


### **IN-LINE FUSES**

Circuit	Location	Color	Value
Fuel filler flap solenoid	Left front of trunk, beside solenoid	Gray	1A
Wiper logic unit	Adjacent to logic module	Brown	7.5A
Radio	Under center console		10A
Radio memory	Under center console		1A

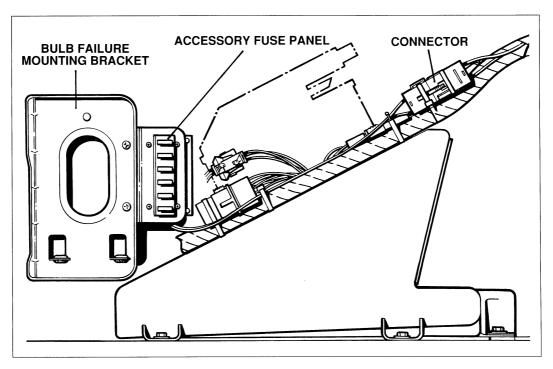
### **WIRING HARNESS AND FUSES**

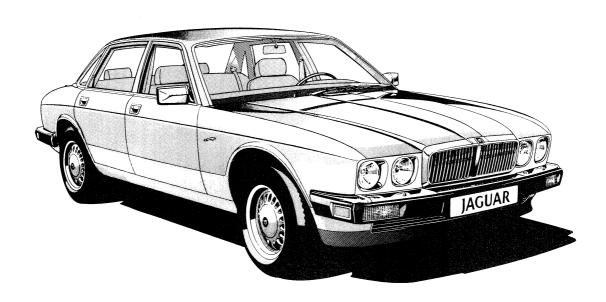
#### **COMPONENT PANEL**



#### **ACCESSORY FUSE PANEL**

A dealer installed accessory fuse panel is available as an option. The panel contains six fuse positions and is supplied with three amp fuses. Fuses #1–5 are direct battery feed circuits; fuse #6 is an ignition feed circuit via a relay in the panel harness. The maximum rating of the panel is 20 amps. Circuit identification should be listed on the accessory fuse panel chart and in the owner's handbook. The panel is supplied in a kit form for mounting on the left side of the trunk.





### HIGH COMPRESSION ENGINE/BRAKE LINING

#### HIGH COMPRESSION ENGINE

The high compression engine was introduced at VIN 521298. The engine management ECU was also changed at this time.



### **BRAKE LINING MATERIAL**

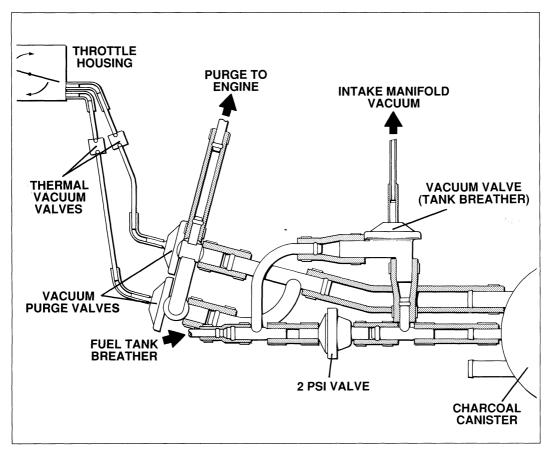
The brake pad lining material was changed to enhance performance and wear characteristics. The new pads were introduced at VIN 533361 and can be identified by the phrase Jurid 518.



### **FUEL TANK PURGE SYSTEM**

The fuel tank purge system was changed starting with VIN 538526. The revised system improved fuel vapor flow control to and from the charcoal canister by progressively purging the canister.

Two purge valves are used in parallel—each controlled by a different throttle edge signal. The result is two-stage purging. The first stage occurs at part throttle opening; the second at a wider throttle opening.



### 1988 FEATURE CHANGES

Starting at VIN 542406, the following changes were introduced:

### **DRIVER'S SEAT ADJUSTMENT**

The circuit was revised to allow the driver's seat to be adjusted before entering the car. When the driver's door is open, the seat adjustment switches are linked to the door guard light timer allowing driver's seat adjustment for approximately two minutes with the door open. Refer to the wiring diagram on page 36.

#### DOOR GUARD LIGHTS

The circuit was revised to control operation with the ignition off. With the ignition switch off, the door guard lights will stay on for only two minutes if any door is left open or ajar. Refer to the wiring diagram on page 36.

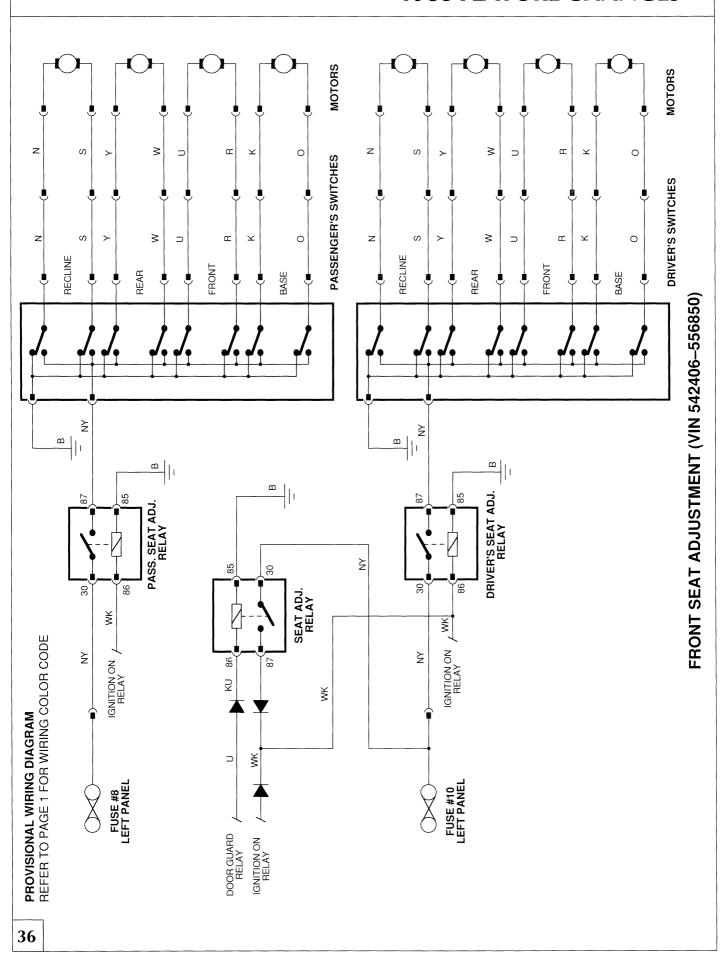
#### INSTRUMENT LIGHTING DIMMER

The circuit was revised to provide full brightness lighting at all times. If the dimmer is rotated past the click stop, the instruments and the climate control panel will have maximum brightness lighting. This occurs regardless of the position of the exterior lighting switch. Note that the climate control indicator lights (AUTO, MANUAL, AIR, and humidity) are not controlled by the dimmer. Refer to the wiring diagram on page 37.

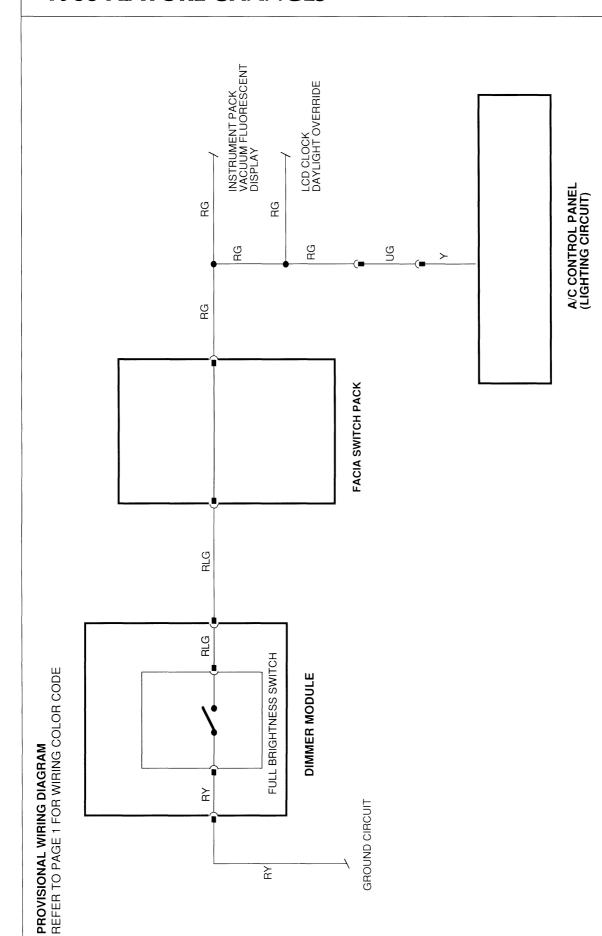
#### **TURN SIGNALS**

The timing of the turn signal circuit in the central microprocessor was changed. When changing lanes, the lever is held on for three seconds or more. The signals will automatically cancel when the lever is released.

### 1988 FEATURE CHANGES



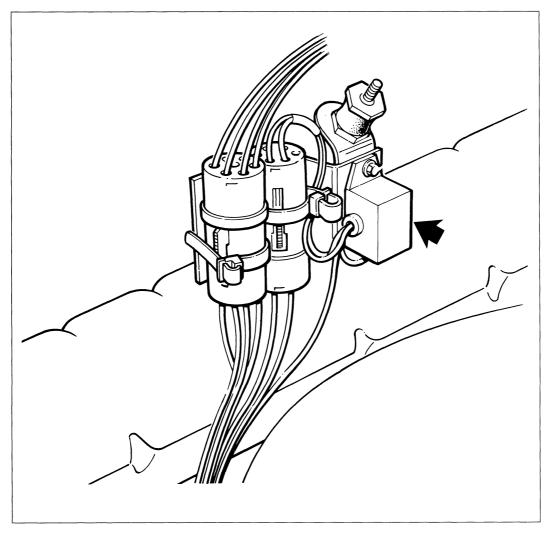
### 1988 FEATURE CHANGES

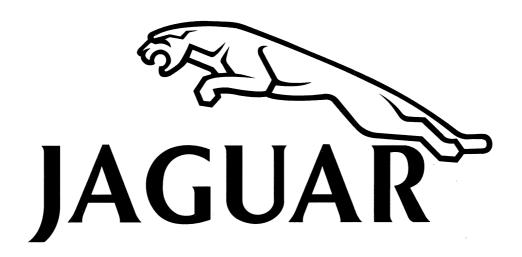


A/C CONTROL PANEL LIGHTING

### **ALTERNATOR DUMP MODULE**

The specification of the alternator dump module was changed starting with VIN 547922. The engine speed for alternator cut-in was reduced from approximately 950 rpm to 700 rpm. This change provides immediate alternator operation after starting.





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