



- ii) Pod Control Module; Fitted on the front bulkhead in the engine bay (unit has similar appearance to X180 module, but the two units are NOT interchangeable). Purpose is to control the up and down feeds to the headlamp motors, using electronic switches which sense current draw.
- iii) Headlamp Lift Motors; One reversing motor operates each headlamp pod via a rotary link and connecting rod.
- iv) Full Pod Travel Microswitch; Fitted only on cars with the 'fold back' type headlamp mechanism. One mounted on each headlamp motor mounting bracket, and operated by the rotary link. The contacts of these switches are normally closed to ground, and are opened only when the pods are fully open. Their purpose is to ensure that the headlamps are not switched on until the pods are in their fully raised position so as to avoid dazzle to other road users as the pods operate.
- v) Main Beam Relay; Fitted beneath binnacle access panel.
- vi) Dip Beam Relay; Fitted beneath binnacle access panel.

Sequence of Operation - Refer to Circuit Diagram Sheet 6

When the headlamps are switched on, the following sequence occurs; a 12 volt supply is applied via the 'U' cable from the lighting switch to delay module pin 6. This switches on the delay module, which then outputs a 12 volt supply from pin 9 via the 'UR' cable to the dip beam relay, and to input pin A of the pod control module. The pod control module then operates the headlamp lift motors as follows:

		'fold back' headlamps	single pivot headlamps
L.H. motor	green cable slate cable	12V from module pin C earth via module pin D	earth via module pin D 12V from module pin C
R.H. motor	green cable slate cable	earth via module pin B 12V from module pin A	12V from module pin A earth via module pin B

Once the pods are fully raised, the control module senses the motor stall, and switches off the 12 volt supply. On early cars with 'fold back' headlamps, when both the pod microswitches are opened (pods fully raised), the delay module provides an earth to the ULG and UG cables via pins 1 and 4 respectively. The dip beam relay is thus energised, and provides a 12 volt supply to both dip beam (outer) lamps, via fuses C5 and C6. If main beam is selected, a 12 volt supply is applied to pin 5 via the UW cable, and to the main beam relay. Because this relay is earthed through pod delay module pin 4 (UG cable), the relay will operate and provide a 12 volt supply to the main beam (inboard) headlamps, via fuses C7 and C8. The dip beam relay remains energised, and the dip beams remain lit in main beam mode.

On later cars with single pivot headlamp mechanisms where dazzle cannot occur during pod operation, delay module pins 1 and 4 are earthed as soon as 12 volts are supplied to terminals 6 or 5. i.e. the headlamps light before the pods are raised.

When the headlamps are switched off, the 12 volt supply to delay module pin 6 is removed, and the delay module switches off. This results in removal of the 12 volt supply to the dip beam relay and the pod control module, and disconnection of the two earth paths on pins 4 and 1. All four headlamps are switched off. The pod control module can now find an earth path through the dip beam bulb filaments via pin C and fuses C5 and C6 (due to the dip beam relay switching off and removing the 12 volt supply from the bulbs). The control module operates to close the headlamp pods:



		'fold back' headlamps	single pivot headlamps
L.H. motor	green cable slate cable	earth via module pin C 12V from module pin D	12V from module pin D earth via module pin C
R.H. motor	slate cable green cable	earth via module pin A 12V from module pin B	12V from module pin B earth via module pin A

Once the pods are fully lowered, the control module senses the motor stall, and switches off the 12 volt supply.

Headlamp Flash Operation

Operation of the headlamp flasher switch applies a 12 volt supply via the UW cable to pin 5 of the pod delay module. When there is no voltage at pin 6 (i.e. headlamps are switched off), a flash sequence is initiated by the pod delay module - a 12 volt supply from pin 9 to the dip beam relay and pod control module causes the same sequence of operation as described above. However, 2 seconds after the dip beam lamps have switched on, the pod delay module will switch off the lamps and lower the pods. If at any time during this sequence, the flasher switch is again operated, the headlamp main beams will light in addition to the dip beams, and all four lamps will remain lit with the pods up until 2 seconds after the flasher control is released.

If the flasher control is held in the 'on' position, the same sequence of operation will occur, with all four lamps being lit until 2 seconds after the control is released.

Pod Microswitch Failure (Cars with 'fold back' headlamps)

If one of the pod microswitches should fail in the permanently grounded condition, this will prevent both the headlamps from lighting. In such an eventuality, a temporary repair can be effected by disconnecting the faulty microswitch. This action will not affect the operation of an otherwise correctly working headlamp system.

MJ.11 - HEATED MIRROR TIMER MODULE (See Circuit Diagram Sheet 21)

The heated mirror timer module is located in the relay block adjacent to the steering column, and supplies 12 volts to the heated mirrors for a 15 minute period when activated by the heated mirror switch. The timer will be stopped and reset if the ignition is switched off, and will only restart if the heated mirror switch is pushed again.

There are 4 cables for the module:

- Black - ground.
- Green - 12 volt input to the module (with ignition on).
- Lt.Green/Blue - 12 volt trigger from the mirror heater switch. Will only register a voltage whilst the mirror heater switch is depressed.
- Red/Lt.Green - 12 volt output to the mirror heaters for 15 minutes after the module has been activated.

MJ.12 - WIPER/WASHER SWITCH & INTERMITTENT WIPE/WASH MODULE (Circuit Diagram 8)

The windscreen wiper/washer operation is controlled by the steering column RH lever switch, which functions electrically as follows:

OFF	OU - ON	cables connected	(terminals 53 - 53e)
SLOW	O - OU	cables connected	(terminals 53a - 53)
FAST	O - OG	cables connected	(terminals 53a - 53b)
INTERMITTENT	O - OP	cables connected	(terminals 53a - J)

The intermittent wash/wipe module is located in the relay blocks adjacent to the steering column, and is provided with 6 cables as follows:

Orange/Purple	Pin 1	12 volt supply to module from wiper switch when intermittent wipe is selected.
Orange/Brown	Pin 2	12 volt output from module to wiper motor via wiper switch.
Black	Pin 4	Ground.
Orange/Black	Pin 5	12 volt input to module from wiper motor limit switch.
Yellow/Lt.Green	Pin 6	12 volt input to module from washer switch.
Orange	Pin 8	12 volt supply to module from fuse A17.

MJ.13 - PANEL LAMPS DIMMER SWITCH & MODULE (see Circuit Diagram Sheet 22)

The brightness of the panel lamp illumination is controlled by a fascia mounted rheostat switch, and a dimmer module located in the relay blocks adjacent to the steering column.

The 6 cables connected to the dimmer module function as follows:

Pink/Black	Pin 4	To panel lamps rheostat.
Black	Pin 5	Ground.
Red/White	Pin 6	12 volt supply from sidelamps switch.
Pink/Brown	Pin 7	To panel lamps rheostat.
Red/Pink	Pin 8	Output from module to panel lamps; 2.2 V - rheostat fully counterclockwise 6.5 V - rheostat at mid position 11.6 V - rheostat fully clockwise
Pink/Lt.Green	Pin 9	To panel lamps rheostat.

The voltages on the three cables connected to the rheostat switch, should be as follows:

Rheostat turned fully counterclockwise (i.e. panel lamps off);
Pink/Brown 6.6 V; Pink/Black 10.25 V; Pink/Green 10.25 V
Rheostat at mid-position;
Pink/Brown 6.5 V; Pink/Black 8.45 V; Pink/Green 10.6 V
Rheostat turned fully clockwise (i.e. maximum brightness);
Pink/Brown 6.42 V; Pink/Black 6.43 V; Pink/Green 10.04 V

MJ.14 - INSTRUMENT CLUSTER

All the instruments in the main cluster, with the exception of the speedometer, are electrically operated. The main instrument cluster may be removed as a complete assembly via the access panel in the top of the fascia.