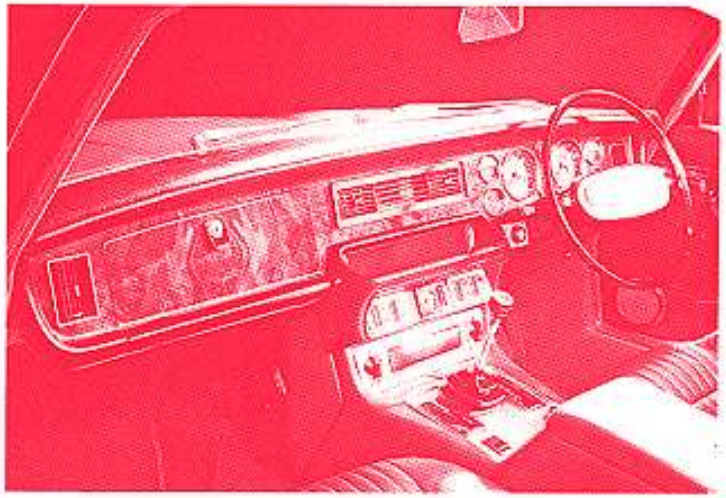
For the new Series Two JAGUAR and DAIMLER saloons

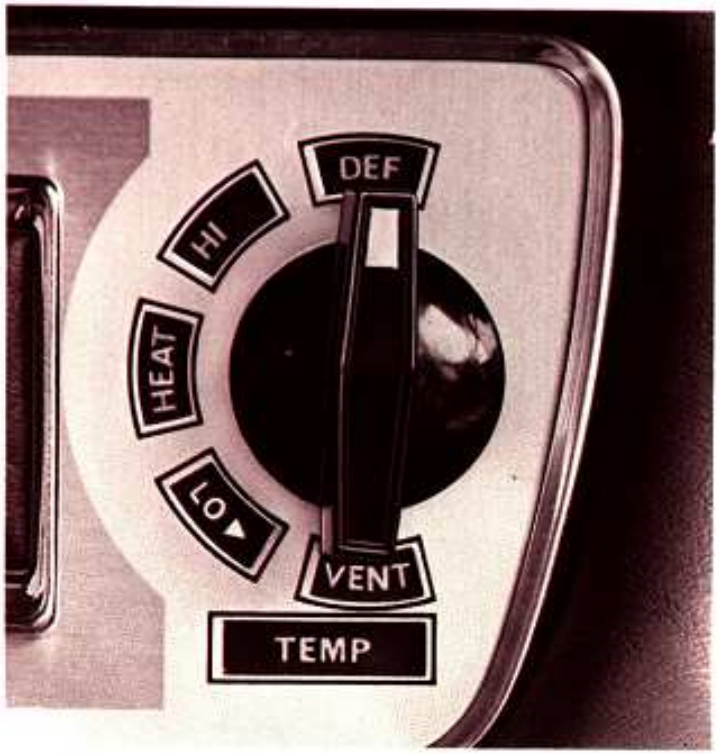
a new Heating, Ventilation and optional Air Conditioning system



During the development of Series-Two Jaguar and Daimler cars, the Company's engineers worked closely with Delanair producing an advanced heating and ventilation system with the option of a highly sophisticated, fully automatic air conditioning system.

The new heating and ventilation system is standard on all Series Two cars. Air conditioning is standard on the Jaguar XJ12C, the Daimler Double-Six Two door, the Daimler Double-Six Vanden Plas and optional on all other models in the Series Two range.

SIMPLICITY OF CONTROLS
Whether your Series Two Jaguar or Daimler is fitted with the standard heating system or with the fully automatic air conditioning equipment, selection of temperature and control of the system is by two rotary switches, one on each side of the central radio housing.

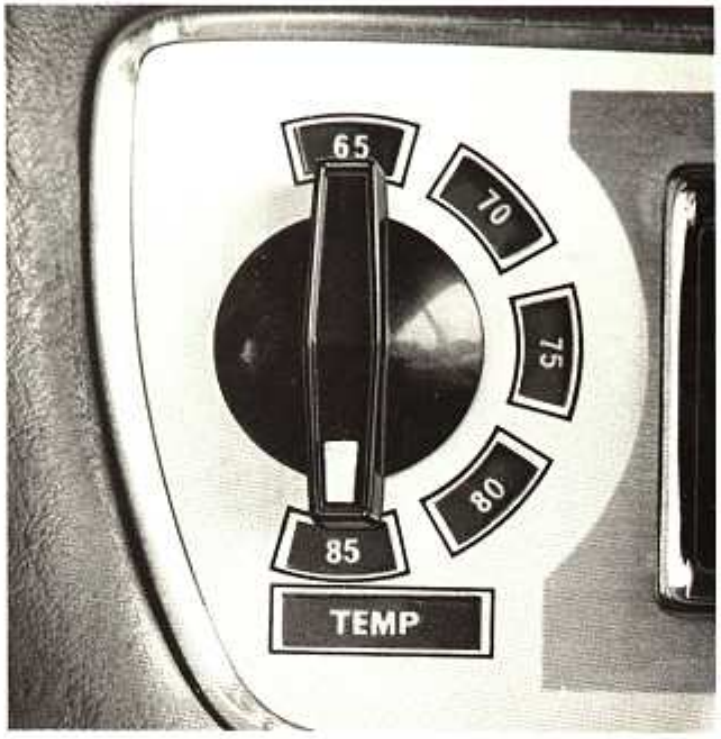


HEATING AND VENTILATION CONTROLS

For Series Two cars not fitted with air conditioning the temperature selector, TEMP, provides the following settings. "DEF" when, apart from a small bleed to the footwells most of the hot air is directed to the windscreen to give maximum and high speed demisting. The vents at each end of the facia can be opened and swivelled to demist the side windows or kept closed for maximum windscreen demist: "HI" when most of the hot air is directed to the footwells (approx 75%) and a small amount to the face level: "HEAT" which is a medium temperature blend of hot and cold (regulated) air at face and foot level: "LO" when warm air is directed mostly to face levels, "VENT" which supplies air at its ambient temperature, the central vent being open during this mode of operation.

The air flow control, "AIR FLO" can be rotated from "OFF" through "RAM" which depends on the pace of the car to force air in, or any one of three fan speeds — "LO", "MED", and "HI".

Whichever operating mode the heating system is set at, the rear passengers have a central multi-directional vent with an "OFF" position. They also have individual "volume" controls for left and right hand rear footwell supply. With or without the main system switched on, the driver and front passenger have an ON/OFF control for a separate supply of fresh air to the footwells, air for which is channelled from intakes above the outer headlamps.



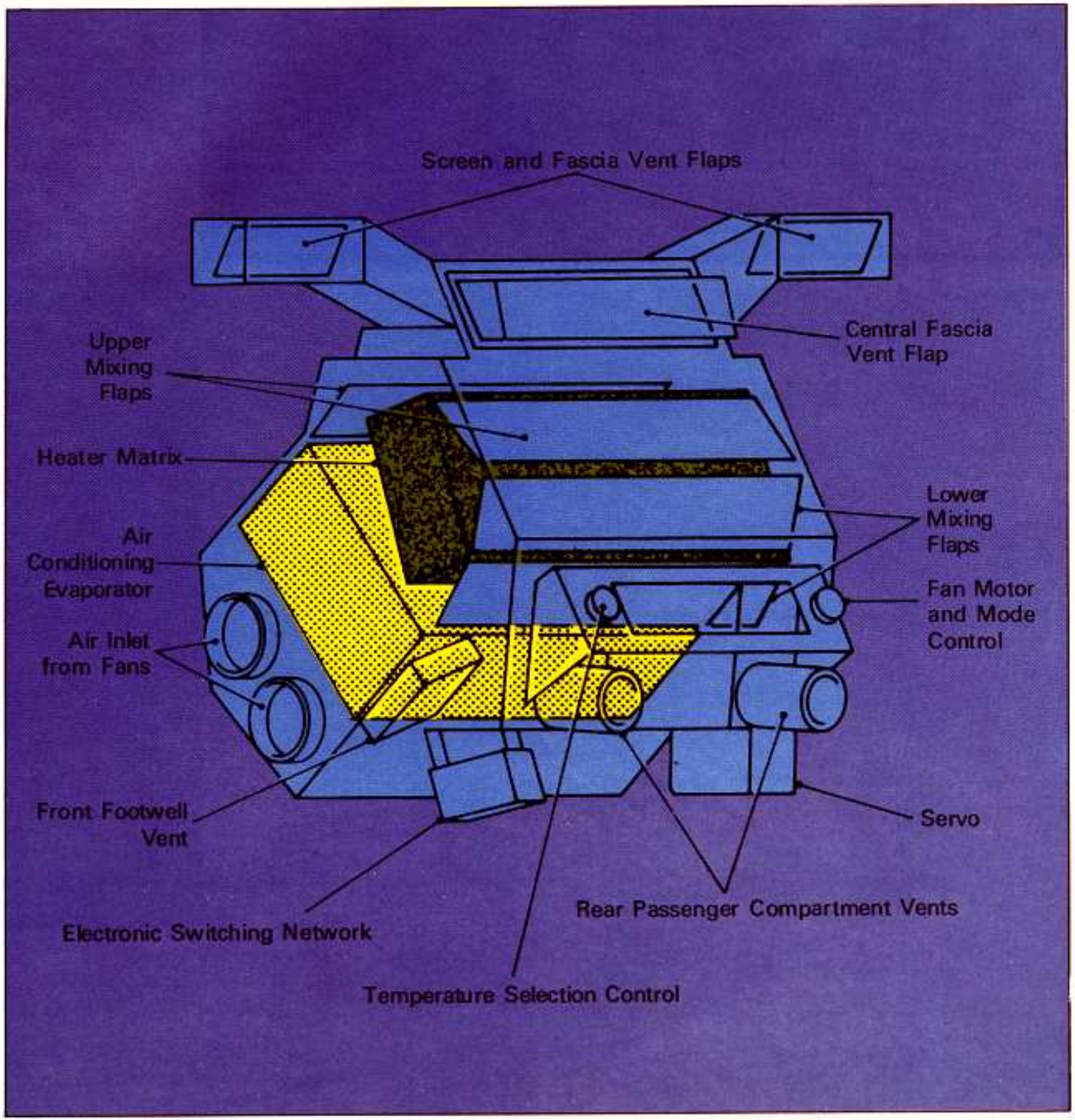
AIR CONDITIONING CONTROLS

for cars fitted with fully automatic air conditioning the two rotary switches are as follows.

The temperature selector "TEMP" can be set to the required interior temperature in a range of 20 deg. F (11 deg.C).

The operational control "AIR FLO" can be set to "OFF" — the system being switched off and the fresh air intake closed; "AUTO" — the system operates automatically with no further adjustment required to maintain the selected temperature; "HI" and "LO" — these positions select a fixed high or low fan speed independantly from that selcted by the automatic control. The temperature selected is still retained; "DEF" which overides set temperatures and directs full heating to the windscreen for maximum demisting. For maximum defrost the vents at each end of the facia can be closed.

As in the normally heated cars, there is a separate supply of fresh air to the front footwells with individual controls for driver and front passenger.

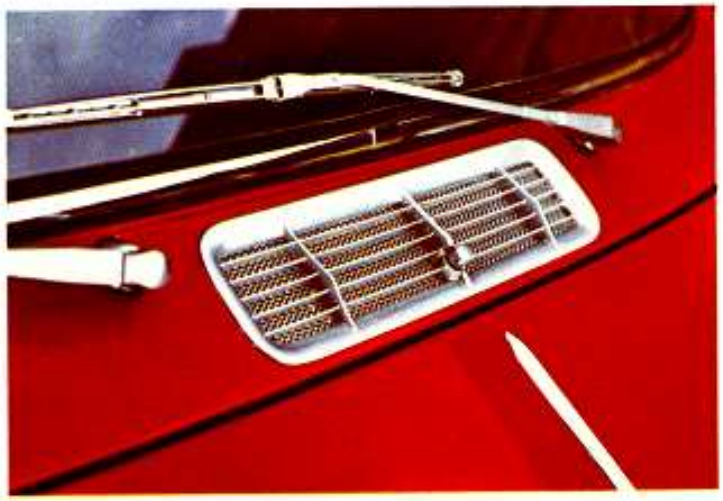


THE AIR CONDITIONING UNIT

Although sophisticated in its operation, the entire system, with heating matrix, cooling matrix, servo control unit and mixing flaps, forms a single compact assembly housed in the scuttle behind the Facia.

AIR BLENDING

The main air inlet vent is located at the base of the windscreen. All air entering the car through this vent is ducted to the air conditioning and heater unit.
All air entering the unit passes through the evaporator matrix where it is cooled and de-humidified. After leaving the evaporator, its direction is automatically controlled by the four blending flaps. Depending on the difference in the temperature of the interior and the temperature selected on the control dial, sensing thermistors automatically operate a servo motor which in turn operates a series of flaps and switches via a camshaft. These determine the heating or cooling effect of the system, providing either full cooling, maximum heating or a blend of heated and cooled air. When the selected temperature is attained, the control unit then maintains it automatically, regardless of ambient conditions.



COLOUR REF

AMBIENT

SEPARATE
FOOTWELL SUPPLY
FROM HEADLAMP - IN BOTH STD &
AIR COND CARS

"VENT" MODE IN STD CARS

(NOTE: IN STD CARS THE COOL AIR IS ONLY AS COOL AS THE OUTSIDE AIR (AMBIENT), THERE BEING NO REFRIGERATION AS IN CASE OF AIR COND)

REFRIGERATED

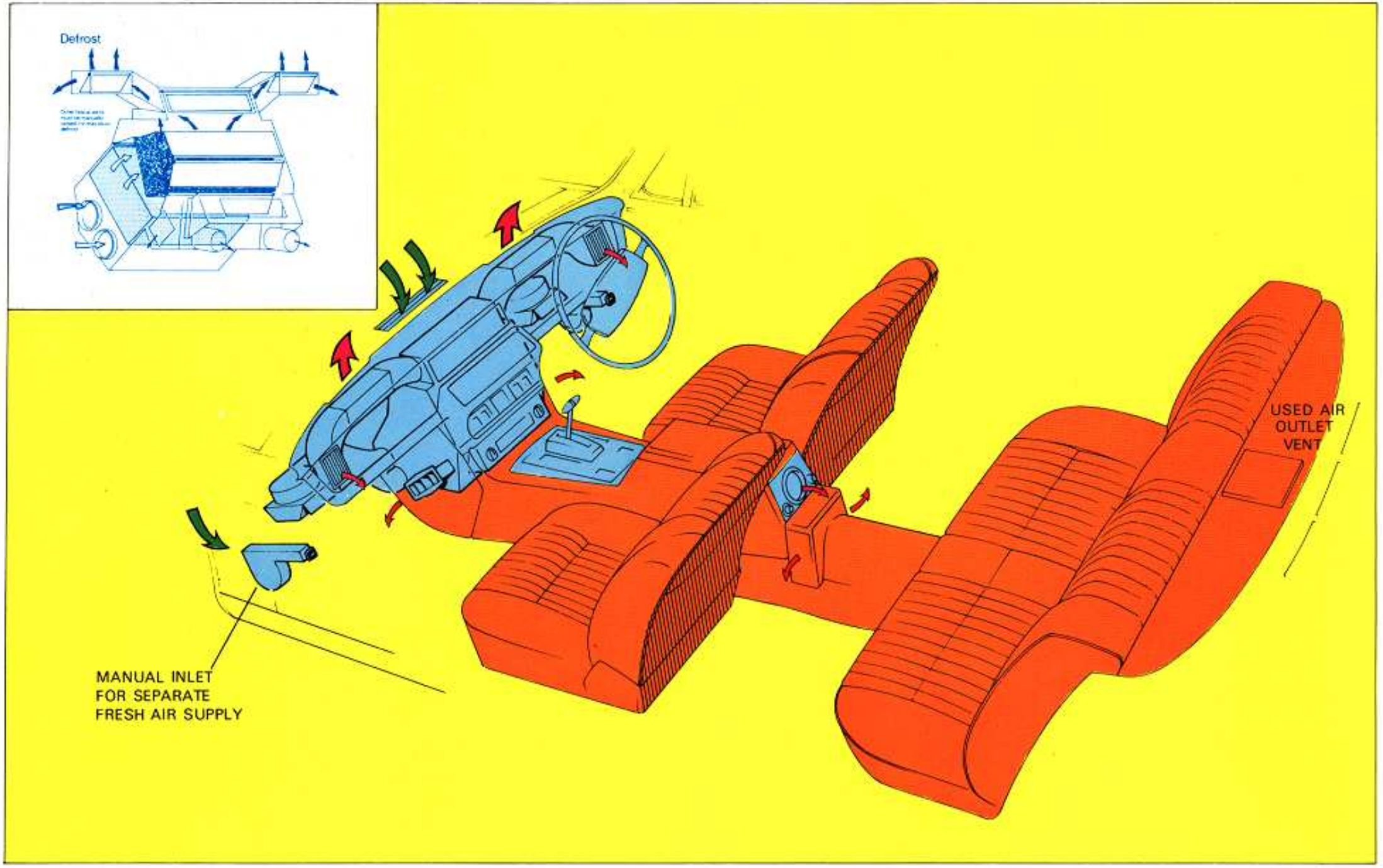
AIR COND CARS ONLY — AND ON MAX COOLING

HEATED

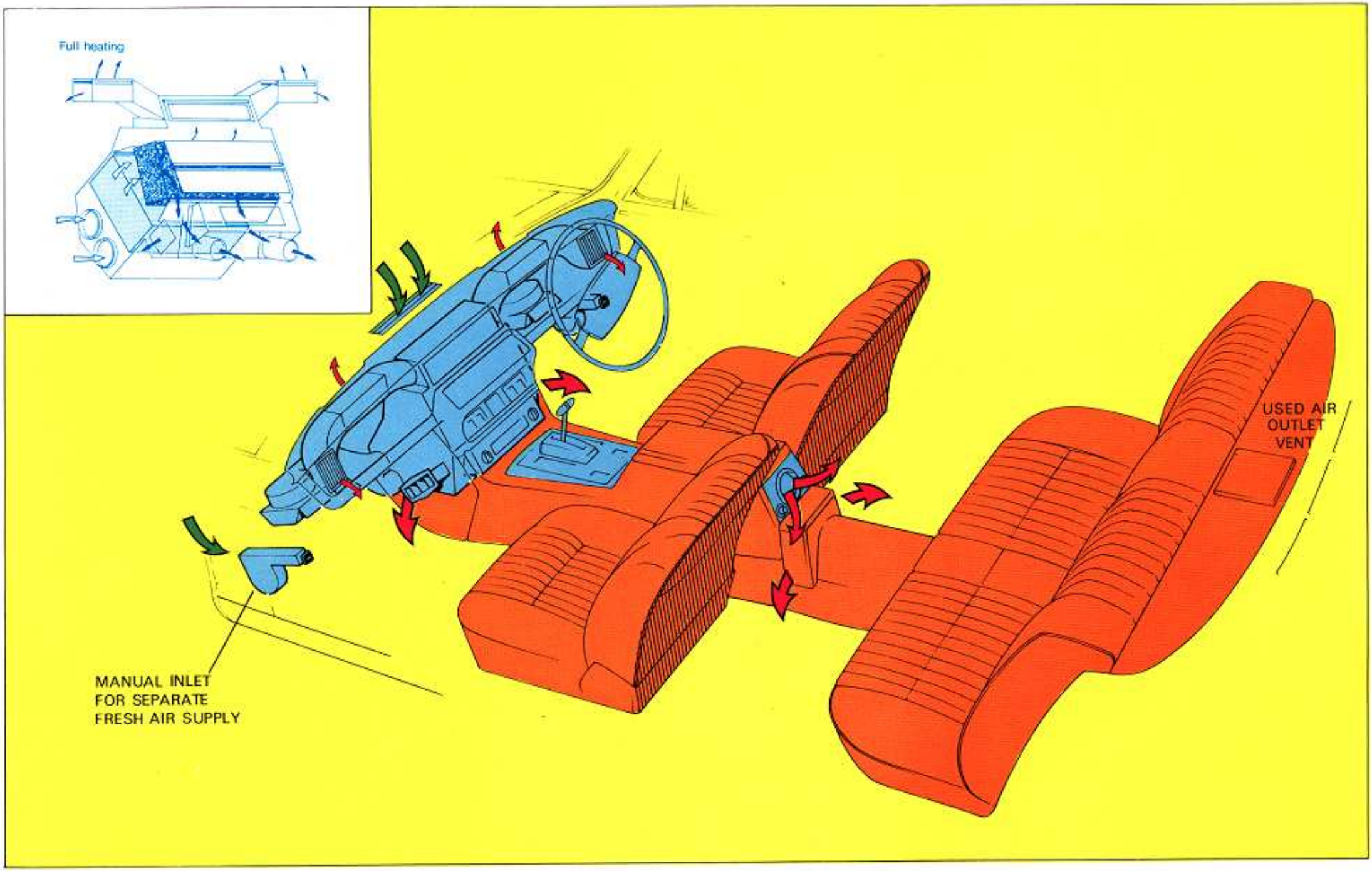
STD & AIR COND CARS ON MAX HEAT

REGULATED
(BLENDED)

AIR COND CARS ONLY MEDIUM TEMPERATURES

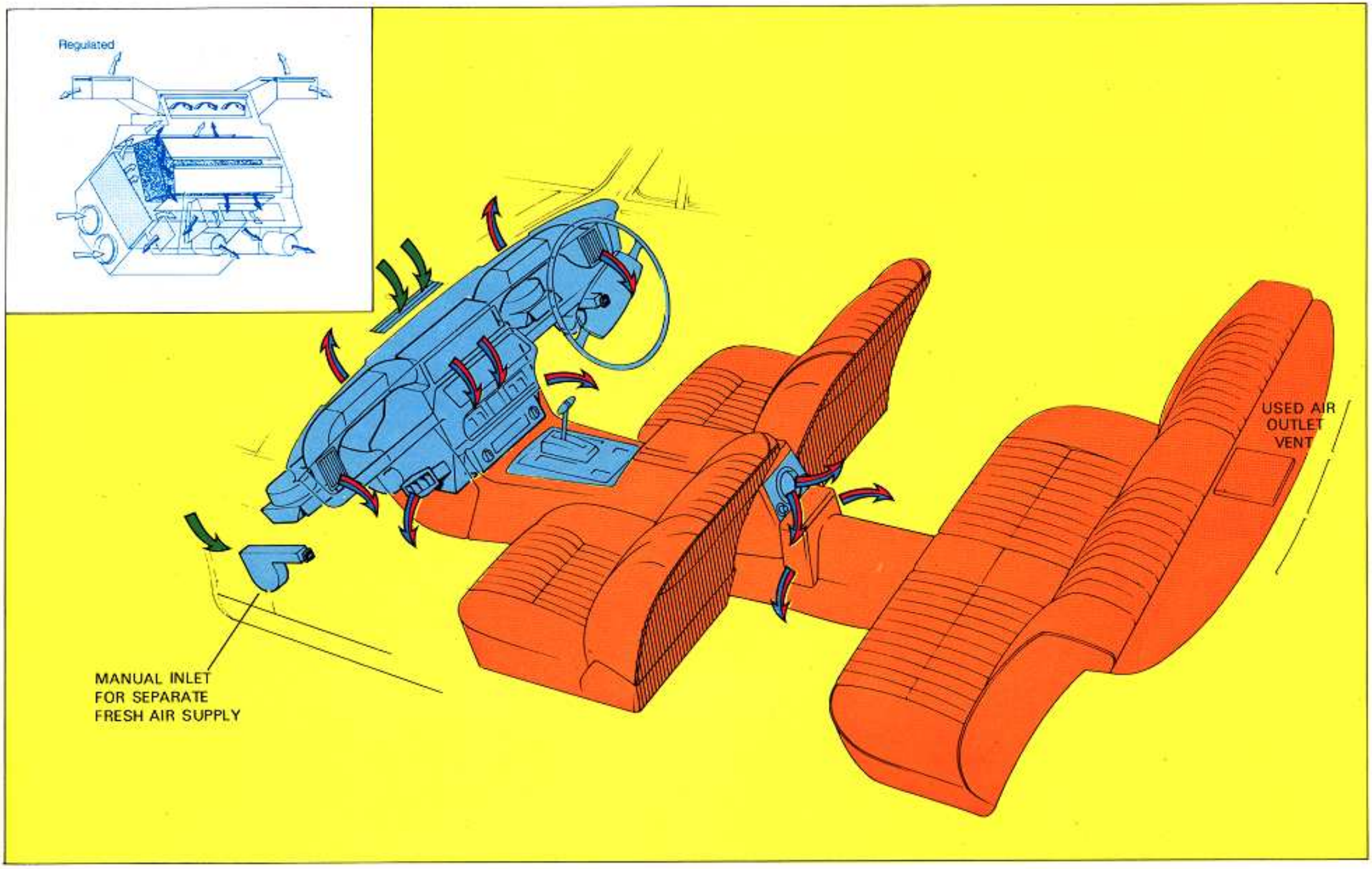


DEFROST
As previously mentioned in relation to the control dials, on DEFROST maximum hot air is channelled to the screen and outer facia vents regardless of the selected temperature.



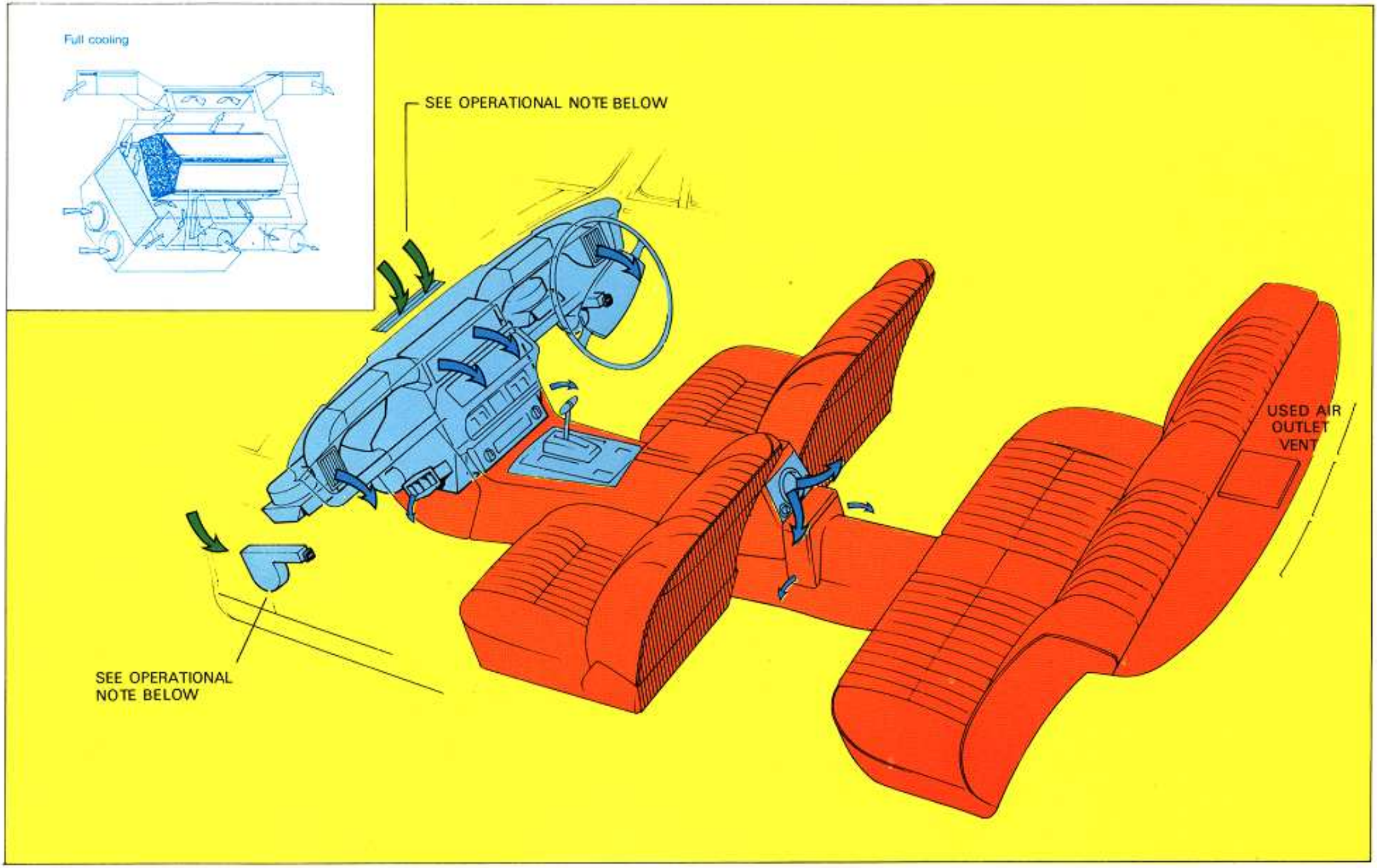
FULL HEATING

On full heating, the flaps direct the cooled air through the heater matrix and from there to the footwell vents, with a small proportion to the outer facia and screen vents. The central vent is closed in the heating mode.



REGULATED AIR

Intermediate temperatures are obtained by varying the mixture of cooled and heated air. In this operational mode the upper flaps control the air to the car interior at face level and the lower pair control the air passing to the footwells.



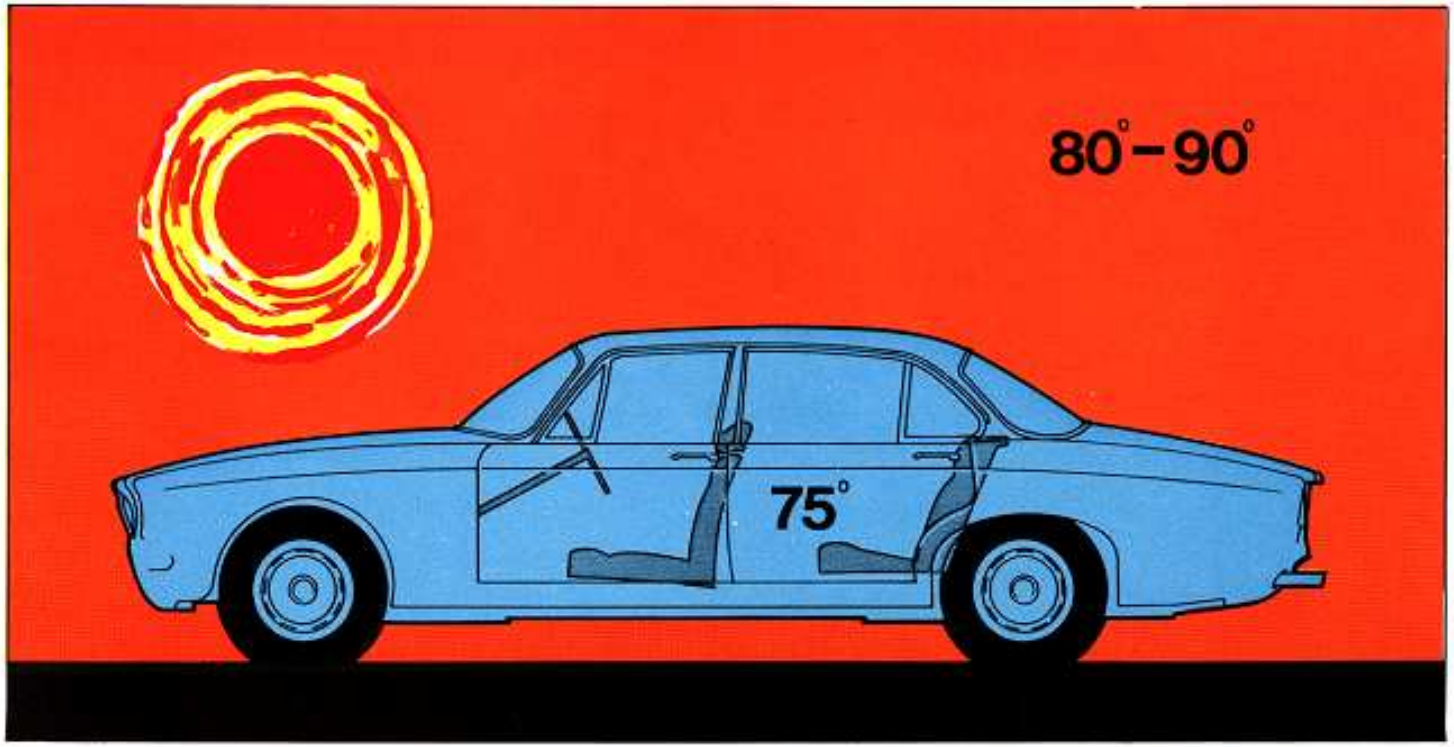
MAXIMUM COOLING

When maximum cooling is required (such as on a hot summers day) the cams cut off the intake of outside air to the system which then works only on recirculated air, this being passed through the cooling matrix over and over again until the desired low temperature is reached. The system in this mode also cuts off the hot water supply to the heater matrix.Recirculation is cut off and fresh air intake automatically resumed when the set level of temperature is reached.

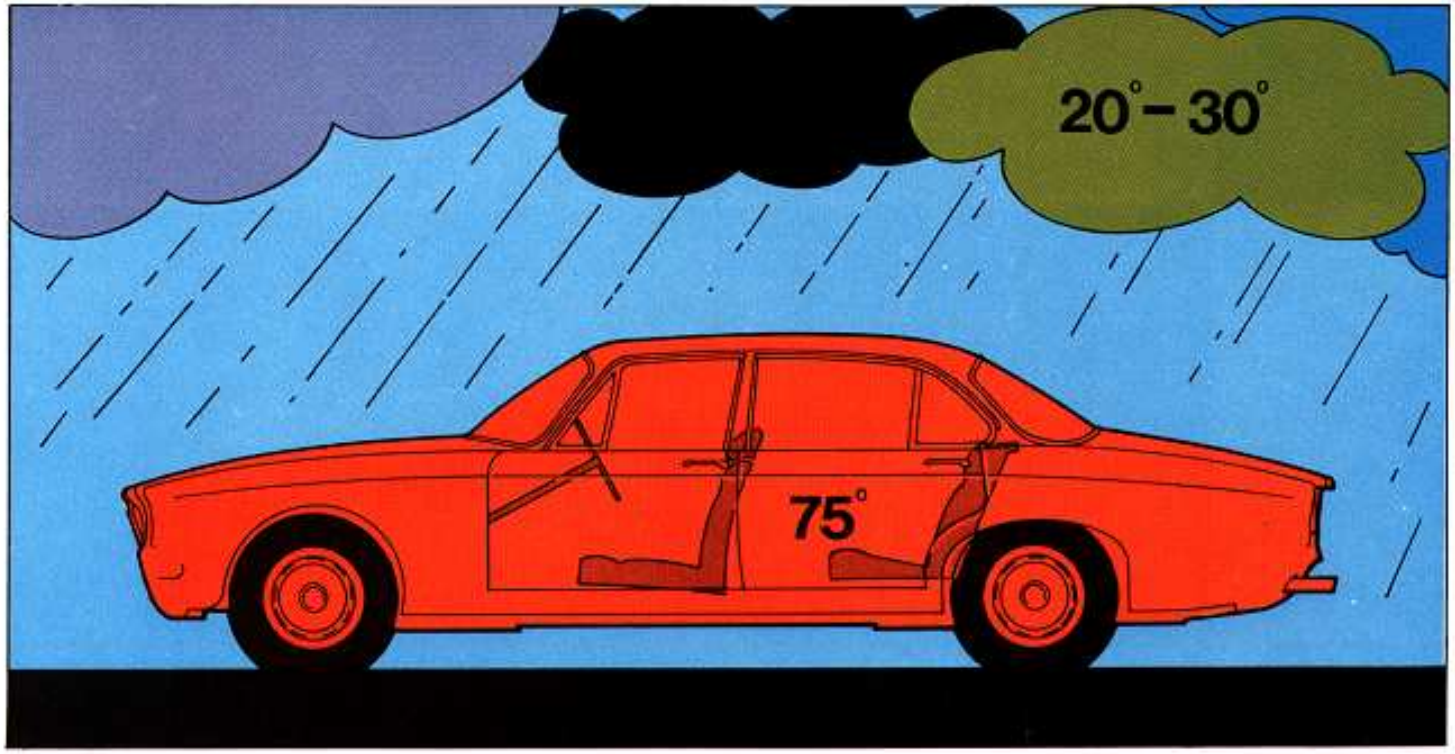
For efficient recycling of air, the car windows must remain closed and also the front footwell fresh air vents.

On full cooling the air by-passes the heater matrix, the greater part being distributed through the facia vents with the remainder discharged through the footwell outlets.

NOTE:
Whichever system is chosen, standard heating and ventilation or full air conditioning, the used air is extracted through a vent neatly situated below the rear window.



In this condition the automatic air conditioning system would select full cooling to bring temperature down to chosen level of say 75°



In this condition the automatic air conditioning system would select full heating to bring temperature up to chosen level.