

Jaguar / Daimler



AFR-17

AC / FreshAir Mod Control

For

Delanair MKII

Climate Control System

Jaguar 1974-1987

Models

XJ6, XJ12, XJS

Climate Control Operational Summary

The Delanair Mark II air conditioning / heating system fitted to Series II & III Jaguar models XJ-6, XJ-6L, XJ-12, XJ-S and Daimler luxury cars is a climatic control type using two manual controls. One selects the desired temperature; the other selects mode of operation.

The system was designed to automatically maintain any temperature selected at the temperature selector (65°F - 85°F) by comparing the car's interior temperature with that selected at the manual selector.



The difference in temperature at these two points produces an electronic signal which, through an amplifier to a motor driven camshaft (Servo), which driven in either direction, operates various relays, micro-switches, vacuum switches, linkage and flaps; programming the unit to automatically cause hot or cold air to flow to the car's interior, depending upon the temperature selector setting.

The air temperature entering the interior may be hot or cold or an infinitely variable mixture of the two. The air is first passed through the evaporator, to be cooled and dried, then through a series of blending flaps which temper it by varying the amount of air passing through the heater core and finally introduced into the interior by two four-speed fans.

If quick or slow air distribution of heating or cooling is desired, the automatic fan speed functions can be overridden to provide high or low fan speed. The low speed fan operates in Auto and LO positions automatically; however, if high or low speed fan is selected, all other functions still remain automatic.

The fresh-air / recirculation flaps are open/closed by a vacuum diaphragm controlled via a vacuum switch activated by either the Mode Control switch or the servo. The Recirc flaps are only closed in two conditions, Climate control system OFF or Full Cooling by energizing the electric vacuum solenoid switch.

The AC compressor in Jaguar cars is designed to run constantly, only being shut down by the Ranco Thermostat when the evaporator begins to ice.

The Jag-Aire, LLC Manual Control Switch assembly is designed to by-pass the amplifier and the sensing system, however, the operations of the servo unit, including flap operation and fan speeds, remain intact.

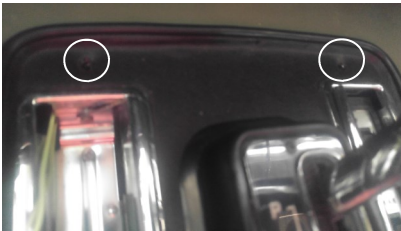
The Jag-Aire, LLC MOD unit is designed to provide the driver full control of the recirculation flaps or the AC compressor by modifying the factory control circuits.

Installation

1. Disconnect the battery.
2. Remove the left & right side cheek/vent panels along the sides of the center console by removing the two screws in the vent and sliding the panel slightly toward, the front of the car to disengage the retaining clip.



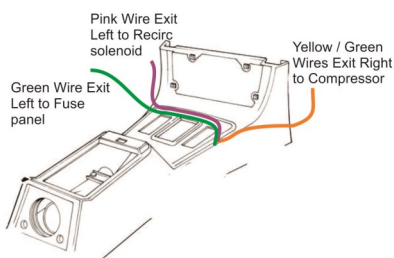
3. Remove the Left/ & Right hand side under-dash closing panel by removing 4 retaining screws.
4. Remove the desired ashtray insert from the center console ski-slope by reaching in with your fingers and pulling up.
5. Remove the 3 screws securing the ski-slope panel, 2 at the front and 1 at rear. Position may vary between XJ-S and XJ6





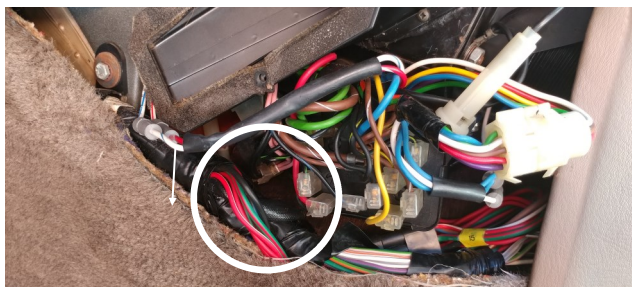
6. Lift the ski-slope panel from around the shift assembly. It is not necessary to disconnect any wires. Lift the panel up enough to gain access to the underside of desired ashtray.
7. Feed the wires from the AC Mod switch unit thru the opening of the ashtray mount on side opposite of hinged ashtray lid.
8. Install AC Mod switch assembly into ashtray base unit taking care to feed wires during installation to avoid damage. Press firmly to seat switch assembly into bottom of ashtray base.

Installation—Continued

9. Using a stiff guide wire, feed the wires thru the center console and exiting the front corners of the ski-slope panel with ***Pink and Green wires exiting at the left*** cheek panel and ***Yellow/Green wires exiting at the right*** cheek panel.



10. **Fresh-Air/ Recirc:** On the left hand side of the transmission tunnel, disconnect the **Pink** wire spade connector Route from the vacuum solenoid and tape it off with electrical tape (it will no longer be used in this MOD). Connect the Pink “Mod Switch” wire to the vacuum solenoid switch spade terminal.
- 
- 



11. Route the Green "Mod Switch" wire along the underside of the dashboard to the Main Fuse Panel.

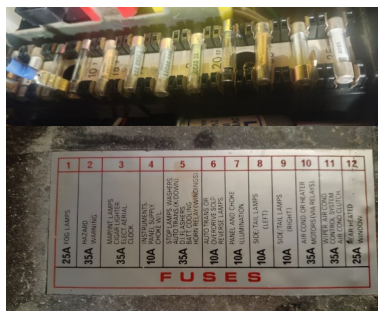
12. Install the glass fuse tap connector provided in the kit under the fuse for the Climate control system to provide "ignition" switched power to the Recirculation Flap switch in the Mod Unit.

Note: The climate control system fuse in the fuse panel is activated via a 'LOAD' or "Ignition Protection Relay" when the ignition switch is turned on. This relay powers both the windscreen wipers and the climate control system.

In the XJ6 Series II and XJS it should be fuse #11 in the main fuse panel and listed on the fuse panel door as "Air Con Controls"

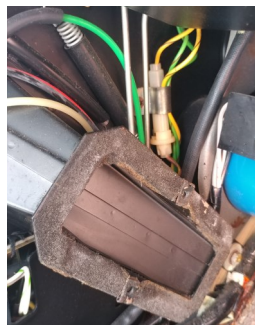
The XJ6 Series III does not appear to list the air con controls in the main fuse panel...but all technical diagrams indicate Climate Control is Fuse #6 in the main panel. Often simply listed as "Wipers"

If in doubt, confirm ignition control power to your fuse tap using a multimeter.



Installation—Continued

1. **AC Compressor control:** On the right hand side of the transmission tunnel, locate the Ranco Thermostat (he silver box with Yellow/Brown and Green/Brown wires) above the inline fuse and remove the Yellow/Brown wires from the spade connector.
2. Connect one of the Yellow/Green wires from the “Mod Switch” to the Ranco Thermostat spade terminal and the other to the Yellow/Brown wires previously disconnected.
3. Reconnect battery
4. Test operation of AC Mod controls.



Reference Material

Fresh Air / Recirculate VACUUM SOLENOID

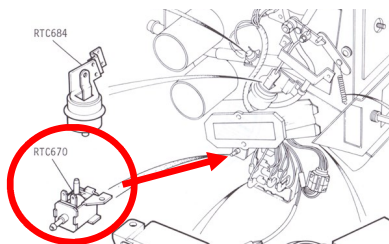
Function: Controls vacuum to blower motor flap actuators.

Switch energized in recirculation mode
Switch de-energized in fresh air mode.

The solenoid is energized in only two conditions:

- (a) With air conditioning system off (ign. on)
- (b) Full cooling mode

Location: Behind L/H console kick panel and in front of main air conditioning relay. **RTC670**



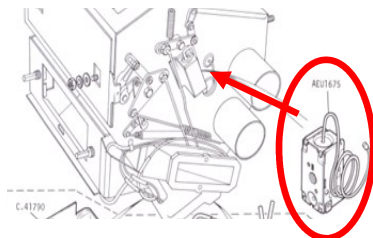
AC Compressor On/Off RANCO THERMOSTAT

Function: To sense temperature of the system at the evaporator preventing evaporator freeze-up.

The thermostat is conductive in all modes and functions except when evaporator temperature falls below 2°C (36° F) or when overridden by Ranco override switch in high ambient situations.

When this occurs, the electrical feed is disconnected to the compressor clutch eliminating the refrigeration cycle until the evaporator warms to above 2°C - then the refrigeration cycle will restart.

Location: Behind R/H console kick panel and dash under-panel. **AEU1675**



Warranty

Thank you for your interest in the products and services of Jag-Aire, LLC

This Limited Warranty applies to the physical goods, and only for physical goods, purchased from Jag-Aire, LLC, (the "Product").

What does this Limited warranty cover?

This limited warranty covers any defects in material or workmanship under normal use during the Warranty Period. During the Warranty Period, Jag-Aire, LLC will repair or replace, at no charge, products (or parts of a product) that proves defective because of improper material or workmanship, under normal use and maintenance.

What will we do to correct problem(s)?

Jag-Aire, LLC will either repair or replace the product at no charge, using new or refurbished replacement parts.

How long does the coverage last?

The Warranty Period for Products purchased from Jag-Aire, LLC is 180 days from date of purchase. A replacement Product or part assumes the remaining warranty of the original Product; or 180 days from the date of replacement or repair, whichever is longer.

What does this warranty not cover?

This Limited Warranty does not cover any problem that is caused by:

- Conditions, malfunctions, or damage not resulting from defects in material or workmanship such as damage to the product as a result of failure to perform the pre-installation tests of in-car equipment.

What do you have to do?

To obtain warranty service, you must first contact us to determine the problem and the most appropriate solution for you.



1916 Olive Street, Highland, IL 62249 Phone: 1-636-875-0418 E-Mail: Sales@Jag-Aire.com