



AIR COND/PRESS/VENT
CARGO

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SEQ 001	REV 07

GENERAL

The system provides ventilation and heating to the cargo compartments. It is controlled by the ventilation controller which has two channels. Channel 2 is a backup in case of channel 1 failure.

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SYSTEM OPERATION

BULK CARGO COMPARTMENT

VENTILATION

Due to extract fan suction, air from the cabin discharge, mixed with air from Cabin Zone 8, goes via the inlet isolation valve to the bulk cargo compartment. Air is controlled by the outlet isolation valve, goes to the bilge, then through the aft outflow valve.

– Normal operation

The cargo ventilation controller controls the inlet and outlet isolation valves and the extraction fan. The ventilation system operates when the isolation valves are open. To open the isolation valves, set the BULK ISOL VALVE pushbutton to ON.

The controller closes the isolation valves and stops the extract fan, when :

- The flight crew sets the BULK ISOL VALVE pushbutton to OFF, or
- The bulk cargo smoke detection unit detects smoke.

The outlet valve closes and the extract fan stops, when the flight crew sets the DITCHING pushbutton to ON. In case of overheat, the extract fan stops and the OVHT COND FANS RESET FAULT light, on the maintenance panel comes on.

– On ground operation

For ground operation, the duct heater's fan is used. The ventilation system is activated by a toggle switch located on the cargo compartment service panel. Provided the toggle switch is in the ON position, the ventilation system operates when the aircraft is on ground, the bulk cargo compartment door is fully closed, the bulk cargo smoke detection unit is not triggered, the (BULK) HOT AIR pushbutton is in the ON position, and the isolation valve is fully open.

HEATING

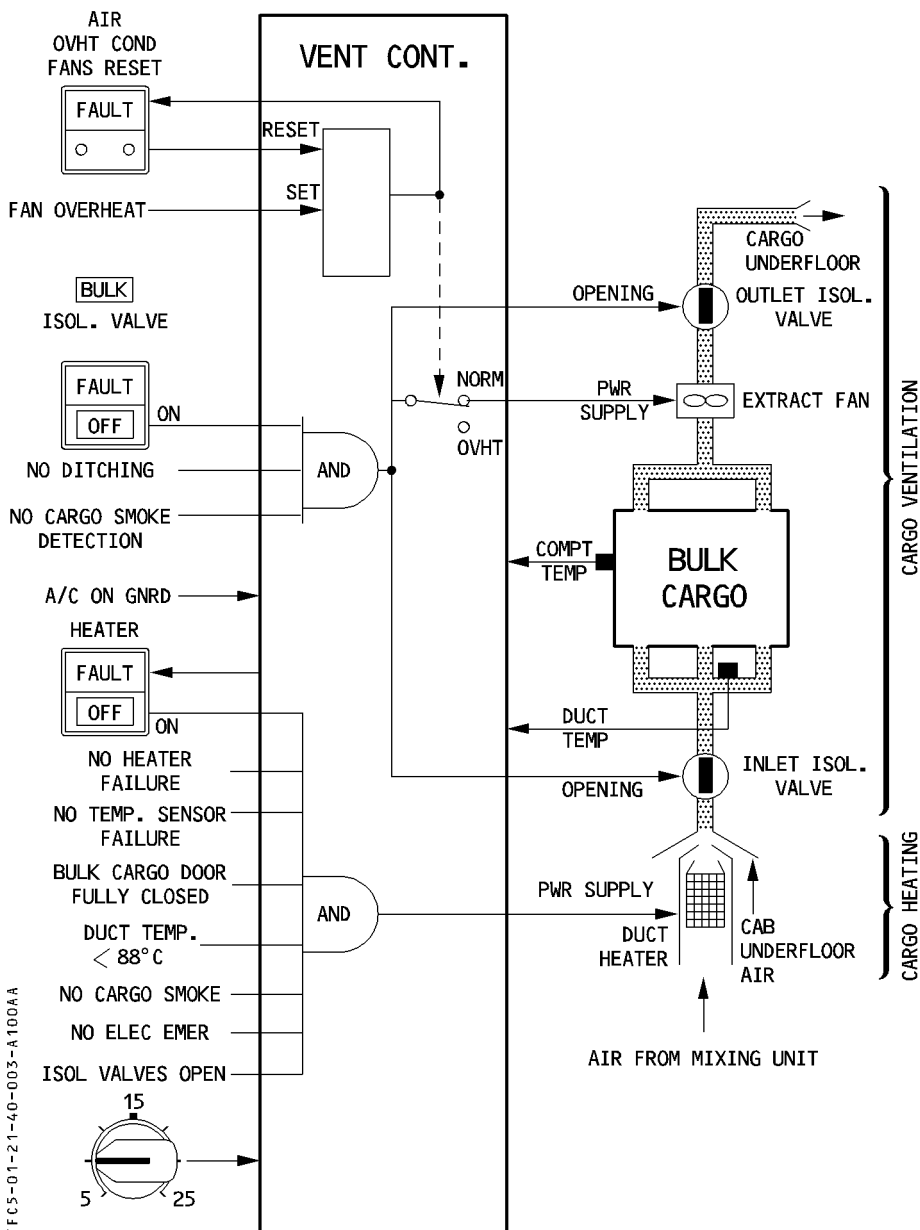
Bulk cargo compartment heating is performed by an electrical duct heater. Air from Cabin zone 8 goes through a heating element, is mixed with air from the cabin discharge, and goes via the inlet isolation valve to the bulk cargo compartment. The temperature demand is selected from the cockpit.

– Normal operation

Provided the cargo door is closed, the heater operates when the temperature sensors indicate that the compartment air temperature is less than the selected one.

– On ground operation

When the bulk cargo door is open, electrical power no longer supplies the heating element of the duct heater. Compartment heating is unavailable, as long as cargo door remains open.



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AFT CARGO COMPARTMENT

VENTILATION

NOT APPLICABLE



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FWD CARGO COMPARTMENT

VENTILATION

NOT APPLICABLE



AIR COND/PRESS/VENT
CARGO

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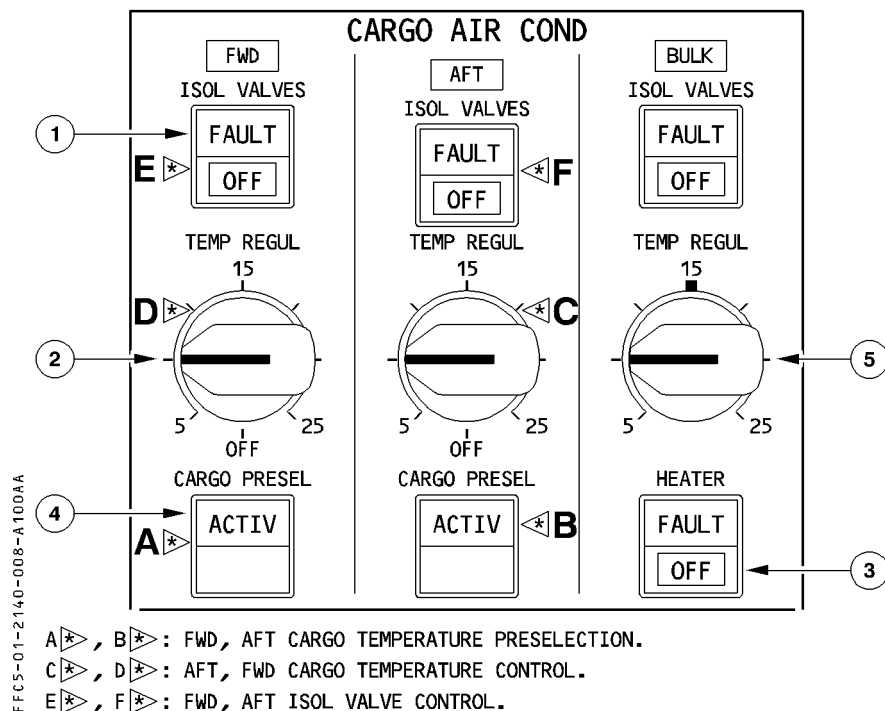
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CONTROLS AND INDICATORS

OVERHEAD CARGO AIR COND PANEL



① ISOL VALVE pb

- ON** :
- The inlet and outlet isolation valves are open, and the extract fan runs. If smoke is detected in the cargo compartment, or DITCHING is selected, the valves close and the fan stops.
- OFF** :
- The inlet and outlet isolation valves close and the extract fan stops.
- FAULT It** :
- The amber light and associated ECAM caution come on, when either the inlet or outlet valve is not in the selected position.

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② FWD (AFT) CARGO TEMP REGUL pb ◀

- Min : 5°C (41°F)
- Max : 25°C (79°F)
- OFF : The temperature regulation is stopped.

③ HEATER pb ◀

- ON : The heater operates, provided the BULK cargo compartment temperature is below the selected one and the BULK cargo door is closed.
- OFF : The heater operation is stopped. Inlet air is not heated.
- FAULT It : The amber light, and associated ECAM message, come on when :
 - Heater failure
 - Temperature sensor failure
 - BULK cargo door not fully closed
 - Ventilation system failure
 - Duct overheat (above 88°C).

The FAULT light goes off, when the temperature drops below 70°C, and OFF is selected.
Fan heater operation is stopped.

④ FWD (AFT) CARGO PRESEL pb ◀

- On : The ACTIV light comes on.
Temperature can be preselected on the forward (aft) cargo compartment service panel.
- ACTIV It : The light comes on green, when FWD (AFT) CARGO PRESEL is switched to the on position, or the cargo compartment service panel's ON/OFF toggle is momentarily switched to ON.

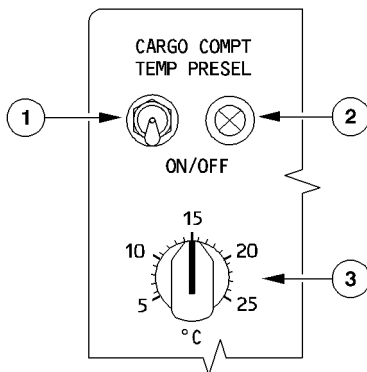
Note : The preselection system is automatically set to OFF, when the forward (aft) cargo door is opened after a flight.

⑤ BULK CARGO TEMP REGUL pb

- Min : 5°C (41° F).
- Max : 25°C (79° F).

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FWD (AFT) CARGO COMPARTMENT SERVICE PANEL ◀



① CARGO COMPT TEMP PRESEL toggle sw

- OFF : Temperature is selected from the cockpit panel.
ON : The light comes on green, and the temperature can be preselected from service panel.

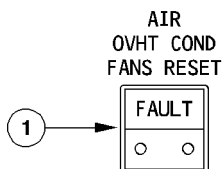
② Indication It

The light comes on green when the toggle switch is momentarily activated, or the FWD PRESEL pushbutton on the cockpit panel is switched to the on position.

③ Temperature sel

Allows any temperature between 5°C and 25°C to be selected.

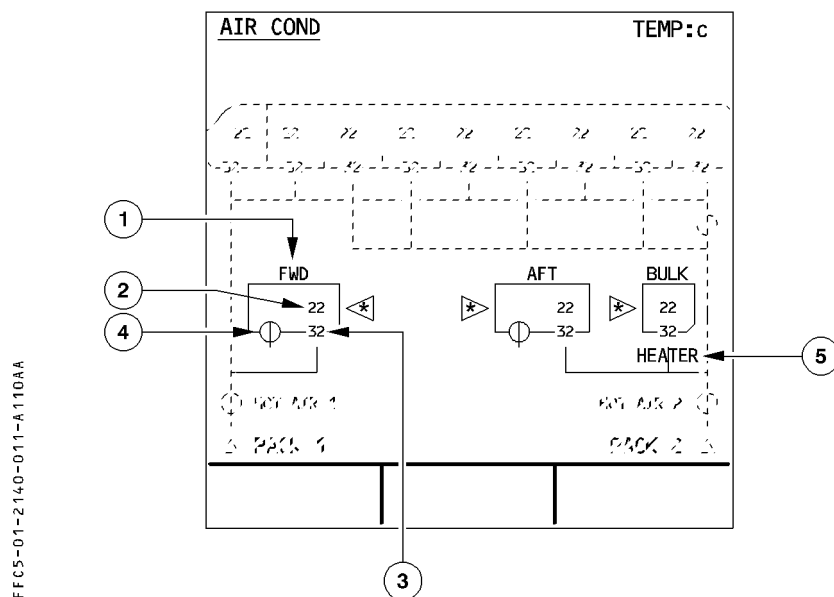
OVERHEAD MAINTENANCE PANEL



① OVHT COND FANS RESET pushbutton

- FAULT It : The light comes on amber when an extraction fan overheat occurs. The fan is stopped. To resume fan operation, press the OVHT COND FANS RESET pushbutton (FAULT light goes out).

ECAM COND PAGE



①Compartment indication

This indication is displayed in grey.

②Forward Cargo Temperature

This indication is displayed in green.

③Forward Cargo Duct Temperature

It is normally green. It becomes amber, in case of a duct overheat (when the temperature is above 88°C for 5 seconds).

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④ Forward Cargo Cold Air valve

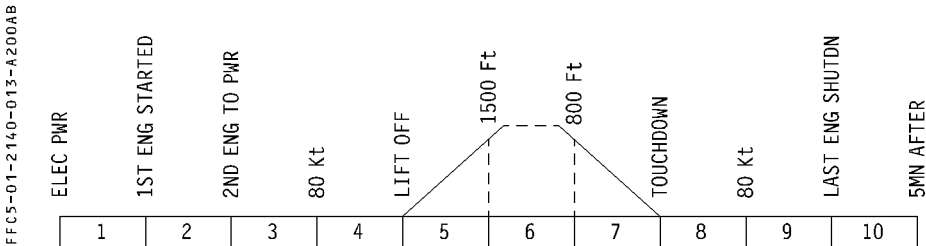
In line - Green	:	Valve is fully closed.
In line - Amber	:	Valve is failed closed.
In transit - Green	:	Valve is partially closed.
In transit - Amber	:	Valve is failed partially open or in transit.
Cross line - Green	:	Valve is fully closed.
Cross line - Amber	:	Valve is failed open.

Nothing appears, if the cold air valve is fully closed, or if the Pack 1 flow control valve is fully closed.
Otherwise, it is green.

⑤ HEATER indication

This indication is displayed in amber, if the heater system is failed.

WARNINGS AND CAUTIONS



E/WD : FAILURE TITLE conditions	AURAL WARNING	MASTER LIGHT	SD PAGE CALLED	LOCAL WARNING	FLT PHASE INHIB
BULK CRG HEAT FAULT	NIL	NIL	COND	NIL	3,4,5,7,8
BULK (FWD) (AFT) CRG ISOL FAULT Cargo isolation valve disagreement.			NIL	ISOL VALVE FAULT It	
BULK (FWD) (AFT) CRG VENT FAULT Ventilation system failure.				NIL	
BULK CRG DUCT OVHT Duct temp > 88°C or above 80°C 4 times in one flight.	SINGLE CHIME	MASTER CAUT	COND	HOT AIR FAULT It	
CAB REST ISOL FAULT Cargo rest isolation valve disagreement.	NIL	NIL	NIL	NIL	NONE
FWD (AFT) CRG REGUL FAULT Regulation System failure.			COND		
CRG TEMP REGUL DEGRADED Cargo temperature regulation failure.			SINGLE CHIME		MASTER CAUT
FWD (AFT) (BULK) LDF HEATER FAULT Lower Deck Facilities heater failure.					