

A74750-1, A74750-3, B44731-1, Flight deck cooling systems

A flight deck cooling system aids in reducing flight crew fatigue – a major factor and concern in the extremely intense operations associated with fire-bombing with the Canadair CL-215.



SPECIFICATIONS

Applicability	Manufacturing	Certification	Delivery
<ul style="list-style-type: none"> > CL-215-1A10 and CL-215-6B11 (Keith Products A/C mod) > CL-215-6B11 (Casey Copter to Keith A/C mod) > CL-215-1A10 (Improved Ram-air ventilation system) 	<p>Rockwell Collins is a Transport Canada approved AWM 561 manufacturer and AWM 573 AMO</p>	<p>CL-215 (CL-215-1A10)</p> <ul style="list-style-type: none"> > Transport Canada: SA99-227 > FAA: ST01425NY <p>CL-215T (CL-215-6B11)</p> <ul style="list-style-type: none"> > Transport Canada: Pending > FAA: Pending 	<p>F.O.B. Winnipeg, Canada</p>

FEATURES & BENEFITS

- > Reduced crew fatigue
- > Increased crew comfort
- > All wiring data, electrical connectors, and other components provided (installer provides wire)
- > Full air conditioning and Ram-air ventilation includes addition of a cabin air outlet – allows passengers to be carried with retardant foam (equivalent to Canadair SB215-469)

KIT OPTIONS

- A74750-1** – Flight Deck Cooling System kit, CL-215 (CL-215-1A10);
- A74750-3** – Flight Deck Cooling System kit, CL-215T (CL-215-6B11);
- B44731-1** – Air conditioning Upgrade kit, CL-215T (CL-215-6B11); Includes:
 - > Bulk aluminum tubing, end fittings and materials for refrigerant line fabrication
 - > Compressor/condenser installation shelf, air inlet duct and exhaust shroud
 - > Fresh air and recirculated air plenum assembly and control handle
 - > Fresh air inlet scoop and distribution ducting
 - > Four flight deck eyeball vents and distribution ducting
 - > One passenger compartment eyeball vent and installation components
 - > Structural provision kit for fuselage penetrations
 - > Anchor relocation kit
 - > Electrical connectors, relays and other components, including soft-start kit

- > Bombardier supplied compressor/condenser, evaporator/blower, and control panel
 - > Installation drawings, system charging/testing procedures and maintenance instructions
 - > Transport Canada approved FMS allowing passengers with retardant foam on board
- D04731-1** – Improved Ram-air Ventilation kit, CL-215 (CL-215-1A10); Includes:
- > Fresh air inlet scoop and distribution ducting
 - > Four flight deck eyeball vents and distribution ducting
 - > One passenger compartment eyeball vent and installation components
 - > Structural provision kit for fuselage penetrations
 - > Installation drawings
 - > Transport Canada approved FMS allowing passengers with retardant foam on board

INSTALLATION

CL-215 – Full air-conditioning and

CL215T – Full air-conditioning

A Keith Products Inc, CL-415 type, compressor/condenser (Bombardier P/N 215T95645-4, modified by installer) is mounted to the airframe at RH FS 352 to FS 371, inside the cabin.

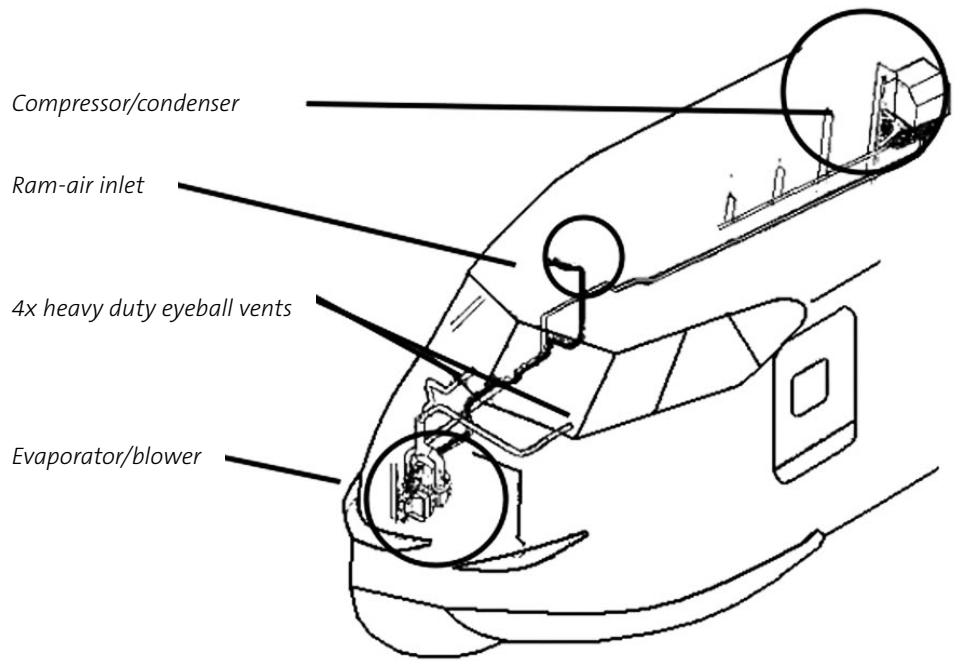
The shroud-enclosed assembly is attached between fuselage frames using braces from aluminum sheet metal components. Two cut-outs are made in the fuselage to facilitate cooling air inlet and exhaust ducts for the compressor/condenser.

A Keith Products Inc, CL-415 type, evaporator/blower (Bombardier P/N 215T95644-4) is bolted to the floor in the bow compartment, RH side. The existing anchor installation is relocated to the LH side of the bow compartment. A fiberglass plenum assembly attached to the evaporator/blower permits selection of fresh air or recirculated air by means of a pedestal mounted control knob.

An electrical control panel (Bombardier P/N 215T51538-2 (CL-215) or P/N 215T51523 (CL-215T), modified by installer) is mounted in the flight deck overhead panel for air conditioning system control and blower fan speed.

The aluminum tubing refrigerant lines running between the compressor/condenser and the evaporator/blower are attached with aluminum brackets and cushion clamps down the RH side of the cabin and beneath the flight deck floor.

A fiberglass air scoop is added to the fuselage skin just aft of the flight deck (RH side) to provide fresh ram air. Flexible fiberglass reinforced ducting, routed beneath the flight deck floor, attaches the air scoop to the evaporator/blower plenum. Rigid and flexible ducting



distributes air to four eye-ball type vents on the lower edge of the instrument panel, and one air outlet in the cabin.

A Keith “soft start” kit added to the compressor compensates for motor high starting current.

CL215T – Air-conditioning upgrade kit

Existing Casey Copter compressor/condenser and evaporator/blower are replaced with the Keith type, as installed on the CL-415. Four eyeball vents on the instrument panel replace existing ducting and outlets. Existing refrigerant lines are modified to connect to Keith type compressor/condenser and evaporator/blower. The existing electrical installation is modified to connect to CL-415 type compressor/condenser and evaporator/blower.

CL215 – Improved Ram-air ventilation

A fiberglass air scoop is added to the fuselage skin just aft of the flight deck (RH side) to provide fresh ram air. Flexible fiberglass reinforced ducting, routed beneath the flight deck floor, attaches the air scoop to rigid and flexible ducting, that distributes air to four eye-ball type vents on the instrument panel, and one air outlet in the cabin.

Building trust every day.

Rockwell Collins delivers innovative aviation and high-integrity solutions that transform commercial and government customers' futures worldwide. Backed by a global network of service and support, we are deeply committed to putting our solutions to work for you, whenever and wherever you need us. In this way, working together, we build trust. Every day.

For more information, contact:

Rockwell Collins
Lighting & Engineered Solutions
25 Dunlop Avenue,
Winnipeg, MB Canada R2X 2V2
ph: +1.204.783.5402
fax: +1.204.772.7568
rockwellcollins.com

**Rockwell
Collins**

Building trust every day