Delanair III Air Conditioning Flap Adjustment

Models: XJ6 & XJ-S

AIR CONDITIONING AND CLIMATE CONTROL
TEMPERATURE REGULATION ADJUSTMENT

Symptom: Temperature difference between temperature switch setting and in-car temperature excessive.
Temperature difference between upper level and lower level excessive.

CHECK IN-CAR TEMPERATURE

— Set temperature differential thumbwheel to center.
— Select 75° and "AUTO".
— Run engine and allow system to stabilize (minimum 10 minutes).
— Measure in-car temperature at 75° selected, "AUTO" mode measured at in-car sensor should be 75°.
— If out of tolerance adjust amplifier potentiometer.

CHECK DIFFERENCE BETWEEN UPPER SIDE VENT
AND LOWER FOOTWELL VENT TEMPERATURE

Production Set-Up Tolerance

Temperature set at 75°F, mode switch set at "AUTO", system stabilized.

— Adjust temperature selector until footwell outlet duct measures 90°F.
— With temperature differential thumbwheel fully left, upper duct temperature should measure 60°F ± 3°.
— With temperature differential thumbwheel fully right, upper duct temperature should measure 80°F ± 3°.

In Service Check

Temperature set at 75°F, mode switch at "AUTO", temperature differential thumbwheel in center and system stabilized.

— Measure outlet duct temperatures.
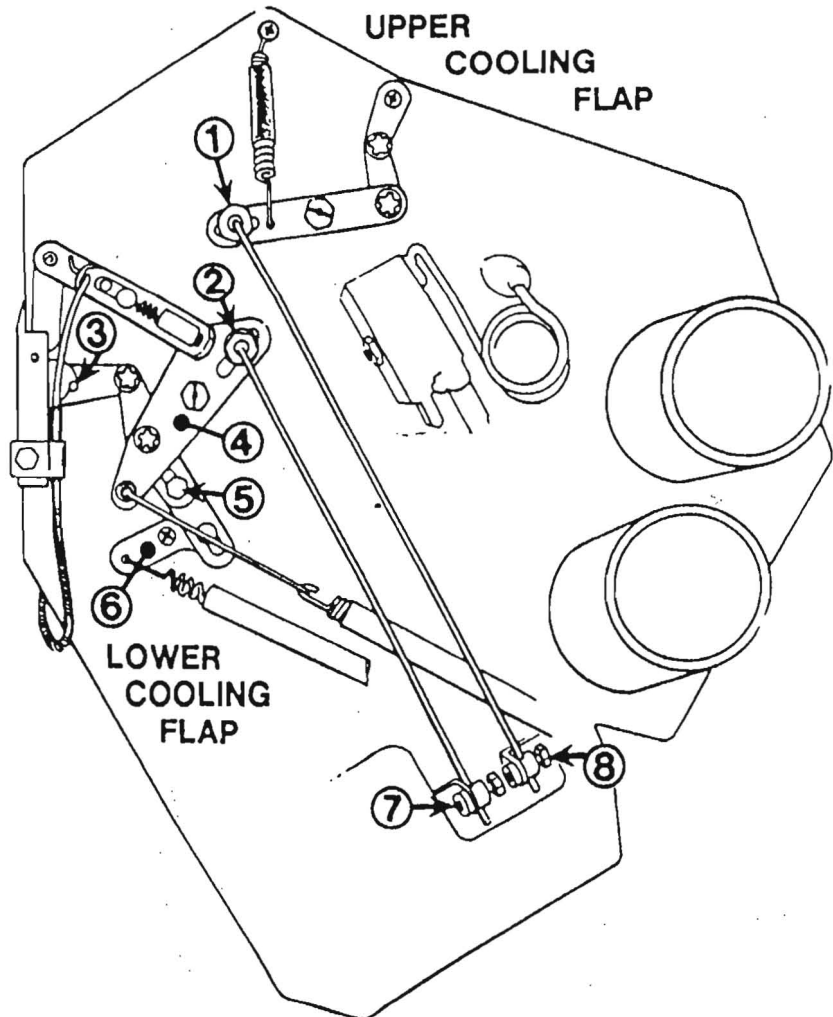— Maximum temperature difference between upper and lower = ± 4°F.

If Incorrect

— Remove R/H kick panel and duct trim.
— Remove glove box.
— Remove R/H lower outlet duct.

ADJUSTMENT PROCEDURE

— Connect a vacuum supply to the A/C vacuum supply hose.
— Select "DEFROST" and turn on ignition. Servo will move to full hot limit.
— Turn off ignition and select "HIGH".

BASIC ADJUSTMENT

1. Loosen nut (1), center in slot and retighten. Loosen nut (2), center in slot and retighten.

2. Hold servo lever (8) up and loosen clamp bolt (8).

   Push rod up to firmly close upper cooling flap, then tighten clamp bolt (8).

3. Loosen bolt (5), it must be free to slide.

4. Loosen clamp bolt (7). While holding servo lever up, turn bellcrank (4) clockwise until peg (3) touches cam.

   Tighten clamp bolt (7).

5. Turn bellcrank (6) firmly clockwise to close lower cooling flap. Hold in position, push down on bolt (5), then tighten bolt.
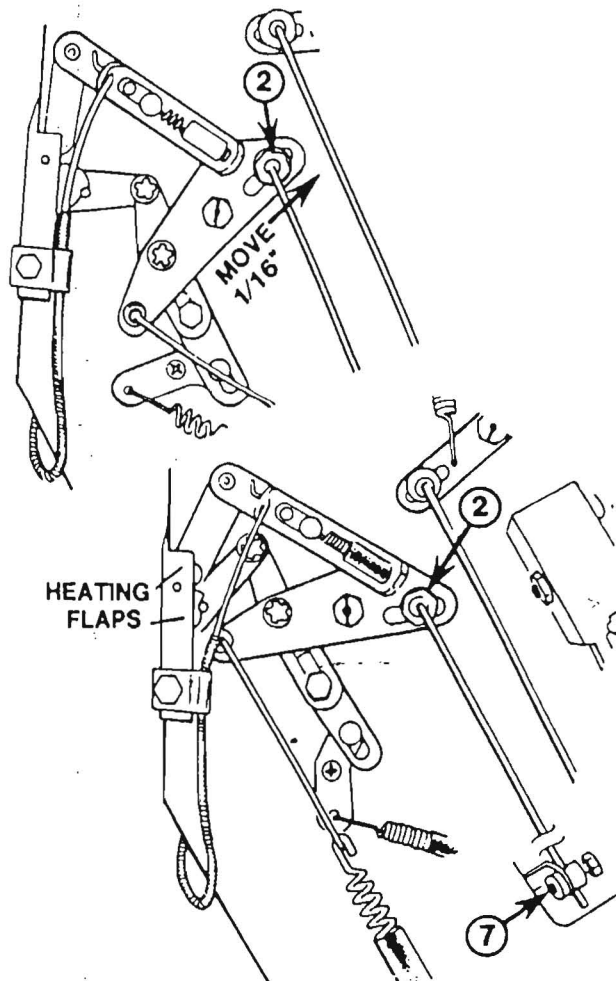
6. Select "AUTO" and "FULL COLD".

UPPER COOLING FLAP

LOWER COOLING FLAP

— SERVO SHOULD MOVE TO FULL COLD WITH NO EXCESSIVE LOAD. IF LOAD IS EXCESSIVE, IMMEDIATELY SWITCH TO DEFROST.

— Turn on ignition and watch servo operation.

> NOTE: If servo will not go to full cold, hold a heat source close to in-car temperature sensor opening, near glove box.

— Turn off ignition.

SERVO LOAD EXCESSIVE

— Move bolt (2) 1/16" away from bellcrank center.

— Then repeat basic adjustment procedure, leaving nut (2) in new position.

SERVO LOAD WAS OKAY

— Pull down servo lever (7) to make sure heating flaps are closed.

— If flaps are not fully closed, move bolt (2) 1/16" toward bellcrank center.

— Then repeat basic adjustment procedure leaving bolt (2) in new position.

TEMPERATURE DIFFERENTIAL ADJUSTMENT

— Select "DEFROST".
— Move temperature differential thumbwheel fully to the right.
— Turn on ignition. Servo will move to full hot limit.
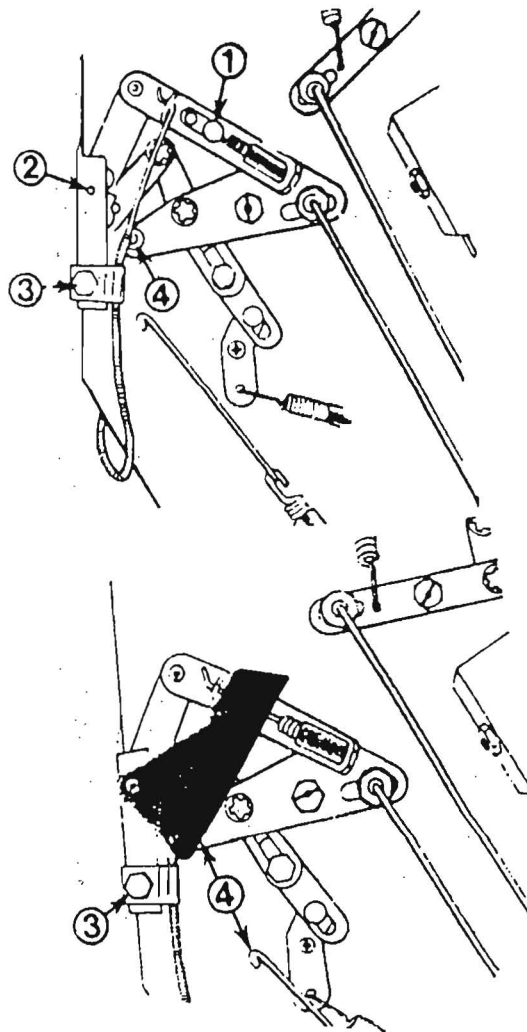— Turn off ignition.

1. Loosen cable clamp bolt (3). Disconnect link (4) by gently pulling.

2. Fit tool #12198. Tool arms should fit over flap arm (1).

   Thin peg in link hole (4). Thick peg in hole (2).

3. With tool installed, pull down on cable housing to remove slack and tighten clamp bolt (3).

   Remove tool and reconnect link (4).

Tool #12198

Optional Later Tool #'s: 412-021 and 18G 1363

RECHECKING TEMPERATURE DIFFERENTIAL

— Set temperature differential thumbwheel to center.
— Select 75° and "AUTO".
— Run engine and allow system to stabilize, maximum temperature difference ± 4°F.
— To reduce upper level temperature, move adjuster (2) away from pivot.
— To increase upper level temperature, move adjuster (2) toward pivot.

If upper level temperature is <u>still too high</u> and adjuster (2) is at limit, away from pivot, rod may be moved down at (8) by 1/16".

If upper level temperature is still too <u>low</u> and adjuster (2) is at limit toward pivot, recheck basic adjustments.