

## Scandinavian Airlines System

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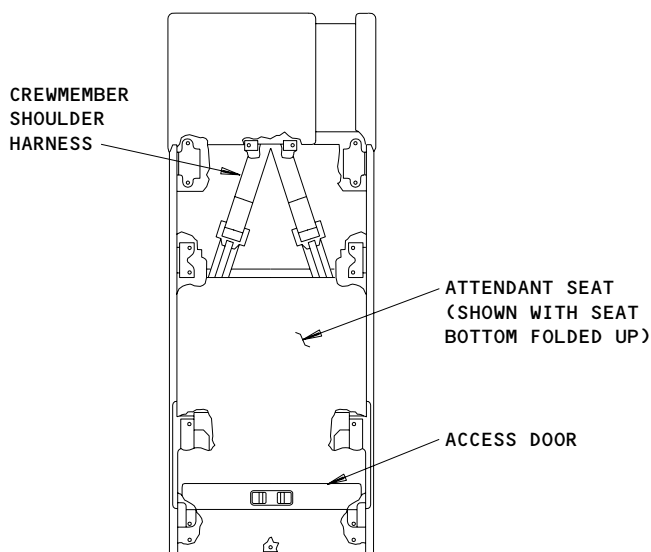
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25-25-1 FLIGHT ATTENDANT SEAT ASSEMBLY - MAINTENANCE PRACTICES

- SAS  
SAS  
SAS 1. General  
SAS A. 25-25-1 Flight Attendant Seat Assembly (Single or Dual position)  
SAS B. Put an 'INOPERATIVE' placard on the seat.  
SAS C. Put a 'FOR FLIGHT ATTENDANT USE ONLY' placard on the passenger seat(s) to  
SAS be used.  
SAS  
SAS TASK 02-25-25-042-003  
SAS 2. Maintenance  
SAS A. Procedure  
SAS  
SAS S 492-002  
SAS (1) Safety the specified seat in the stowed position.



ATTENDANT SEAT (EXAMPLE)

Flight Attendant Seat Assembly  
(Single or Dual Position)  
Figure 201

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SAS 29-31-1 HYDRAULIC LOW SYS PRESS LIGHTS – MAINTENANCE PRACTICES

SAS

1. General

A. 29-31-1 Hydraulic Low SYS PRESS Lights

SAS

SAS

SAS

SAS

SAS

SAS

SAS

SAS TASK 02-29-31-802-003-001

SAS 2. Maintenance

SAS

A. Procedure

SAS

SAS

S 012-004-001

SAS

- (1) Open the access door, 119AL, for the main equipment center (AMM 06-41-00/201).

SAS

SAS

S 032-005-001

SAS

- (2) Do the steps that follow on the miscellaneous equipment panel, P37:

SAS

- (a) Disconnect the wire from terminal block 192, terminal Z17 and wire 20C-20.

SAS

- (b) Put a cap on the terminal block 192.

SAS

- (c) Put the wire from terminal block 192, in a safe location.

SAS

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ENHANCEMENT SYSTEM (PES)

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29-31-2 PUMP LOW PRESS LIGHTS - MAINTENANCE PRACTICES

1. General

A. 29-31-2 Pump Low PRESS Lights

B. Put a placard 'INOP' on the applicable Low PRESS light(s) for the hydraulic pump.

TASK 02-29-31-042-004-002

2. Maintenance

A. Procedure

S 712-005-002

**WARNING:** KEEP PERSONS AND EQUIPMENT AWAY FROM ALL CONTROL SURFACES WHEN HYDRAULIC POWER IS SUPPLIED. AILERONS, ELEVATORS, RUDDER, FLAPS, SLATS, SPOILERS, AND STABILIZER ARE FULLY POWERED SURFACES. INJURIES TO PERSONS OR DAMAGE TO EQUIPMENT CAN OCCUR WHEN HYDRAULIC POWER IS SUPPLIED.

**CAUTION:** DO NOT OPERATE THE PUMPS WITHOUT A MINIMUM QUANTITY OF FUEL IN THE FUEL TANKS. IF THERE IS NOT A MINIMUM QUANTITY OF FUEL IN THE FUEL TANKS, THE HYDRAULIC PUMP CAN BECOME TOO HOT.

(1) To do the check for operation of the applicable pump, do the steps that follow:

**NOTE:** When you do the test for the pump, it must be the only pump in operation in its applicable hydraulic system.

(a) For the air driven pump, do these steps:

- 1) Make sure that all persons are away from the flight controls.
- 2) Make sure electrical power is supplied to the airplane (AMM 24-22-00/201).
- 3) Make sure the pneumatic system is pressurized (AMM 36-00-00/201).
- 4) Turn the switch for the air pump to AUTO or ON.
- 5) Make sure the C HYD PRESS, on the EICAS display, shows 2900 - 3200 psig.
- 6) Put the airplane back to its usual condition.

(b) For the engine driven pump, do these steps:

- 1) Make sure that all persons are away from the flight controls.
- 2) With the applicable engine in operation, turn the switch for the ENG pump to ON.

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SAS
- 3) Make sure the HYD PRESS, on the EICAS display, shows 2900-3200 psig.
  - 4) Put the airplane back to its usual condition.
- (c) For the alternating current motor pump, do these steps:
- 1) Make sure that all persons are away from the flight controls.
  - 2) With the electrical power supplied to the airplane, push the switch for the applicable ELEC pump.
  - 3) Make sure the HYD PRESS, on the EICAS display, shows 2900-3200 psig.
  - 4) Put the airplane back to its usual condition.

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29-32-1 PUMP OVHT LIGHTS - MAINTENANCE PRACTICES

1. General

A. 29-32-1 Pump OVHT Lights

B. Put a placard 'INOP' on the applicable hydraulic pump OVHT light(s) on the hydraulic control panel.

NOTE: The hydraulic control panel is found on the Pilot's overhead panel, P5.

TASK 02-29-32-042-001

2. Maintenance (M)

A. Procedure

S 972-002

(1) Put a note in the logbook which says the hydraulic overheat indication in EICAS does not operate.

S 712-003

(2) Do these steps to do a check of the operation for the applicable pump:

NOTE: When you do the test for the pump, it must be the only pump in operation in its applicable hydraulic system.

CAUTION: DO NOT OPERATE THE PUMPS UNLESS YOU HAVE A MINIMUM QUANTITY OF FUEL IN THE FUEL TANK. IF YOU DO NOT HAVE A MINIMUM QUANTITY OF FUEL THE PUMP CAN OVERHEAT AND CAN CAUSE DAMAGE TO THE EQUIPMENT.

(a) Do these steps for the air driven pump:

WARNING: KEEP PERSONS AND EQUIPMENT AWAY FROM ALL CONTROL SURFACES WHEN HYDRAULIC POWER IS SUPPLIED. AILERONS, ELEVATORS, RUDDER, FLAPS, SLATS, SPOILERS, AND STABILIZER ARE FULLY POWERED SURFACES. INJURIES TO PERSONS OR DAMAGE TO EQUIPMENT CAN OCCUR WHEN HYDRAULIC POWER IS SUPPLIED.

1) Make sure all persons are away from the flight controls.

2) With the electrical power supplied to the airplane and the pneumatic system pressurized, put the air pump switch to AUTO or ON.

a) On EICAS, the C HYD PRESS must show 2900 to 3200 psig.

b) After the temperature becomes stable, the C HYD TEMP must show less than 80°C on EICAS.

3) Put the airplane back to its usual condition.

(b) Do these steps for the engine driven pump:

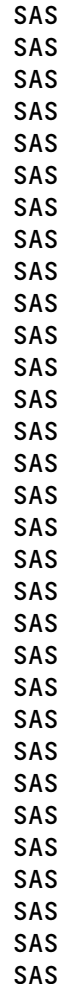
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**WARNING:** KEEP PERSONS AND EQUIPMENT AWAY FROM ALL CONTROL SURFACES WHEN HYDRAULIC POWER IS SUPPLIED. AILERONS, ELEVATORS, RUDDER, FLAPS, SLATS, SPOILERS, AND STABILIZER ARE FULLY POWERED SURFACES. INJURIES TO PERSONS OR DAMAGE TO EQUIPMENT CAN OCCUR WHEN HYDRAULIC POWER IS SUPPLIED.

- WARNING:** KEEP PERSONS AND EQUIPMENT AWAY FROM ALL CONTROL SURFACES WHEN HYDRAULIC POWER IS SUPPLIED. AILERONS, ELEVATORS, RUDDER, FLAPS, SLATS, SPOILERS, AND STABILIZER ARE FULLY POWERED SURFACES. INJURIES TO PERSONS OR DAMAGE TO EQUIPMENT CAN OCCUR WHEN HYDRAULIC POWER IS SUPPLIED.

- ### EFFECTIVITY-

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SAS                    29-33-1 HYDRAULIC SYSTEM LOW QTY LIGHTS - MAINTENANCE PRACTICES

SAS

1. General

SAS            A. 29-33-1 Hydraulic System Low QTY Lights

SAS            B. Put a placard 'INOP' on the applicable hydraulic low quantity light.

SAS

SAS            TASK 02-29-33-042-001-001

SAS    2. Maintenance (M)

SAS            A. Procedure

SAS

SAS                    S 862-002-001

SAS            (1) Do these steps to examine the quantity indication:

SAS                    (a) Compare the quantity of hydraulic fluid shown on the EICAS display, HYD QTY, to the quantity in the applicable reservoir.

SAS                    (b) If it is necessary, do the Hydraulic Servicing (AMM 12-12-01/301).

SAS

SAS                    S 862-003-001

SAS            (2) Do these steps to examine the reservoir quantity:

SAS                    (a) Use the fill indicator at the fill station to examine the quantity of hydraulic fluid in the applicable reservoir.

SAS

SAS                    NOTE: If the fill indicator at the fill station does not operate, you can use the sight gage which is installed on each reservoir.

SAS

SAS                    (b) If it is necessary, do the Hydraulic Servicing (AMM 12-12-01/301).

SAS

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### 1. Maintenance (M)

(1) 29-33-2 HYD QTY Indications

- ## B. Procedure

(1) Use the fill indicator at the fill station to examine the quantity of hydraulic fluid in the applicable reservoir.

- NOTE:** The bottom sight gage tells you to "refill" the reservoir. The top sight gage tells you the reservoir is "overfull". The correct quantity of hydraulic fluid is between the two sight gages.

- ### EFFECTIVITY:

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SAS 32-31-1 LANDING GEAR LATCH SOLENOID – MAINTENANCE PRACTICES

SAS

SAS

SAS 1. General

SAS

A. 32-31-1 Landing Gear Latch Solenoid

B. Put a placard 'LATCH SOLENOID INOP' near the landing gear lever.

SAS

SAS TASK 02-32-31-042-001

SAS 2. Maintenance

A. Procedure

SAS

S 862-002

SAS

(1) Do the steps that follow to make sure the override mechanism operates correctly:

SAS

(a) Make sure these circuit breakers on the overhead circuit breaker panel, P11, are closed:

SAS

1) 11C30, LANDING GEAR POSITION AIR/GND SYS 1

SAS

2) 11U20, LANDING GEAR LEVER LOCK

SAS

3) 11U24, LANDING GEAR POSITION AIR/GND SYS 2

SAS

(b) Do the steps that follow to make sure the LOCK OVRD switch, for the landing gear lever, operates correctly:

SAS

1) Supply electrical power (AMM 24-22-00/201).

SAS

2) Pressurize the center hydraulic system (AMM 29-11-00/201).

SAS

**WARNING:** USE THE PROCEDURE IN AMM 32-00-15/201 TO INSTALL THE DOOR LOCKS. THE DOORS OPEN AND CLOSE QUICKLY AND CAN CAUSE INJURIES TO PERSONS OR DAMAGE TO EQUIPMENT.

SAS

SAS

3) Make sure the downlocks are installed on the nose and main landing gear (AMM 32-00-20/201).

SAS

4) Make sure the landing gear lever cannot be put to the UP position unless the LOCK OVRD switch is pushed.

SAS

a) Push the LOCK OVRD switch and make sure the landing gear lever will go to the UP position.

SAS

5) Put the landing gear lever to the DN position.

SAS

a) Make sure the green NOSE, LEFT, and RIGHT lights on the First Officer's instrument panel, P3, come on.

SAS

6) Remove the pressure from the center hydraulic system if it is not necessary (AMM 29-11-00/201).

SAS

7) Remove the electrical power if it is not necessary (AMM 24-22-00/201).

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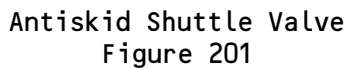
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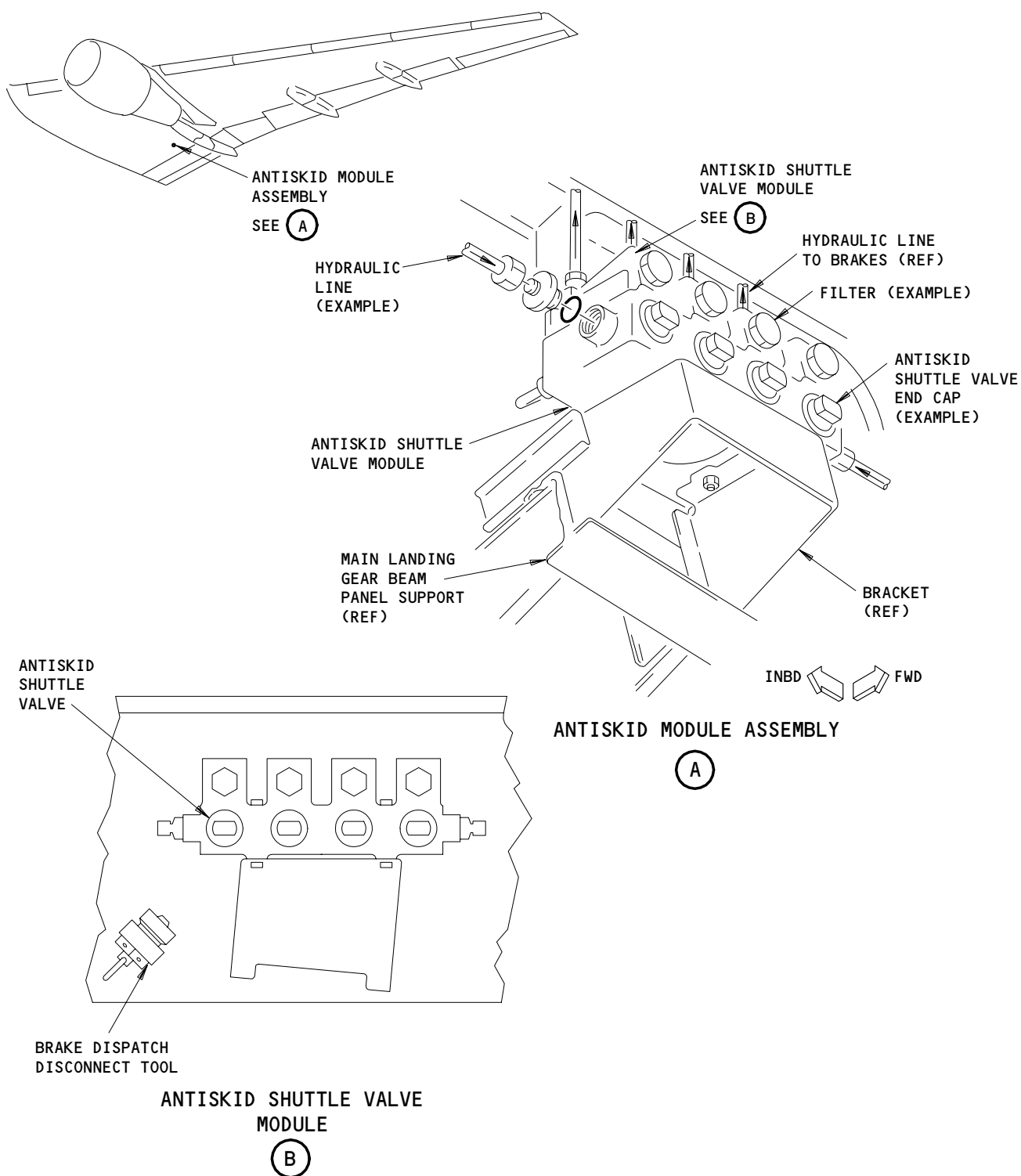
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- NOTE:** When the pressure is out of the brake accumulator, the brake pressure gage will stop its down movement.



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**NOTE:** THE INSTALLATION OF THE ANTISKID SHUTTLE VALVE MODULE ON THE LEFT WING IS SHOWN, THE INSTALLATION FOR THE RIGHT WING IS EQUIVALENT.

Antiskid Shuttle Valve Module  
Figure 202

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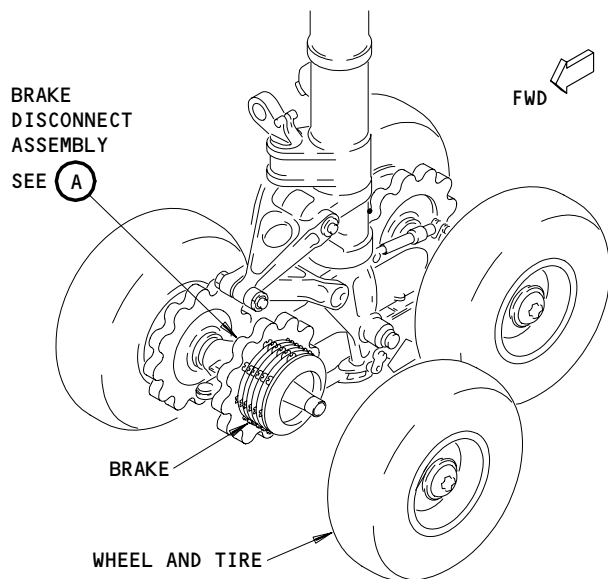
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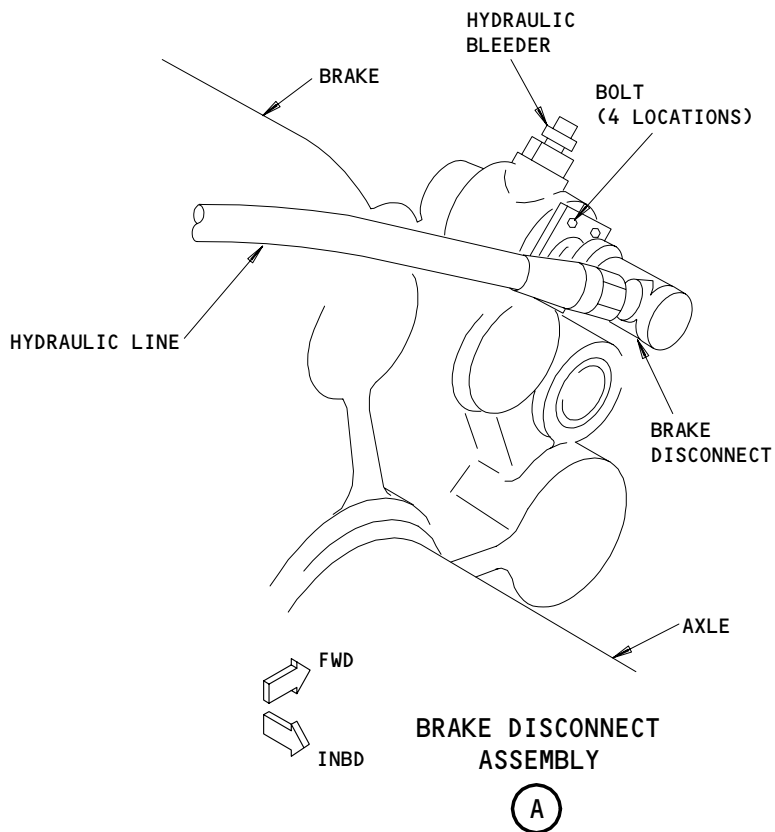
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MAIN LANDING GEAR



Main Landing Gear Brake Disconnect Installation  
Figure 203

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- SAS 9) Open these access panels to get access to the antiskid  
SAS shuttle valve module (AMM 06-44-00/201):  
SAS a) 551TB, Left Hand Lower Wing Structure  
SAS b) 651TB, Right Hand Lower Wing Structure  
SAS  
SAS **CAUTION:** DO NOT REMOVE MORE THAN THE END CAP OF THE SHUTTLE  
SAS VALVE. IF YOU REMOVE MORE THAN THE END CAP OF THE  
SAS SHUTTLE VALVE, YOU CAN CAUSE THE END VALVE TO EJECT.  
SAS  
SAS 10) Remove the end cap from the applicable antiskid shuttle  
SAS valve module (Table 201 and Fig. 201-203).  
SAS  
SAS **NOTE:** Table 201 identifies which shuttle valve end cap  
SAS deactivates which brake.  
SAS

Table 201	
LEFT ANTISKID SHUTTLE VALVE MODULE	LEFT GEAR WHEEL BRAKE
*[1] VALVE "BRK A"	No.1 (FWD OUTBD)
*[1] VALVE "BRK B"	No.2 (FWD INBD)
*[1] VALVE "BRK C"	No.5 (AFT OUTBD)
*[1] VALVE "BRK D"	No.6 (AFT INBD)
RIGHT ANTISKID SHUTTLE VALVE MODULE	RIGHT GEAR WHEEL BRAKE
VALVE "BRK A"	No.7 (AFT INBD)
VALVE "BRK B"	No.8 (AFT OUTBD)
VALVE "BRK C"	No.3 (FWD INBD)
VALVE "BRK D"	No.4 (FWD OUTBD)

SAS \*[1] IDENTIFICATION IS MARKED ON MODULE

- SAS 11) Install the brake dispatch disconnect tool at the location  
SAS for the shuttle valve end cap.  
SAS a) Tighten the brake dispatch disconnect tool to 50  
SAS pound-inches.  
SAS b) Install a lockwire on the tool.

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- SAS 12) Get access to the antiskid/autobrake control unit, located  
SAS at E1-1 in the left miscellaneous electrical equipment  
SAS center, P36.  
SAS a) Put the brake test disable selector to the position for  
SAS the brake which is deactivated.  
SAS 13) Do these steps to make sure the brake is deactivated.  
SAS a) Supply pressure to the right hydraulic system.  
SAS b) Push and release the Captain's or the First Officer's  
SAS brake pedals.  
SAS c) Make sure the brake wear indicator pins for the  
SAS deactivated brake (or pistons and adjustors) do not  
SAS move or change position.

NOTE: The brakes that are not deactivated will move.

- 14) Put the airplane back to its usual condition.

S 042-004-001

- (3) To deactivate the brakes with a cap on the brake line, do these steps:  
(a) Install plug (MS21913-6) on the hydraulic brake hose and cap (BACC14AD06) on the brake disconnect fitting as follows:  
(b) Make sure the downlocks are installed on the nose and main landing gear (AMM 32-00-20/201).  
(c) Put chocks at the landing gear wheels.  
(d) Remove the pressure from the right and center hydraulic systems.  
(e) Supply electrical power (AMM 24-22-00/201).  
(f) Fully push the two brake pedals and then release them to release the parking brakes.

NOTE: You can use the Captain's or the First Officer's brake pedals to release the parking brake.

- 1) Make sure the PARK BRAKE light on the quadrant stand, P10, is OFF.

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CONFIG 1

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(g) To remove the hydraulic pressure from the parking brake accumulator, fully push and release the two brake pedals.

1) Do the push and release cycle a minimum of 7 times.

(h) Isolate the brake hose from the brake disconnect fitting.

1) Install the plug (MS21913-6) on the brake hose.

a) Attach the brake hose to the truck of the landing gear.

(i) Install a cap on the brake disconnect fitting.

(i) Turn the brake bleed fitting approximately 1-1/2 turns.

- 1) Attach a lockwire to keep the brake bleed fitting in the open position.

**NOTE:** If the brake bleed fitting is open, it will prevent brake drag because of thermal effect.

(k) Get access to the antiskid/autobrake control unit, located at E1-1 in the left miscellaneous electrical equipment center, P36.

- 1) Put the brake test disable selector to the position for the brake which is deactivated.

(l) Supply pressure to the right hydraulic system.

- 1) Push the brake pedal to apply brake pressure.

a) Do a check for leaks.

(m) Put the airplane back to its usual condition.

ALL

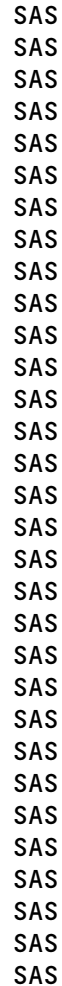
CONFIG 1

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[illegible]



- 7) Remove the pressure from the right hydraulic system.
- NOTE: Do not push the brake pedals to remove the pressure.
- a) Make sure the R SYS PRESS light comes on.
- 8) Push and release the Captain's or the First Officer's brake pedals.
- a) Make sure the BRAKE PRESS gage, on the First Officer's instrument panel, P3, does not go down when you push the brakes.
- b) Make sure the center system pressure (shown on the EICAS ELEC/HYD page) momentarily goes to 2000-2500 psig each time you push the brakes.
- 9) Make sure the BRAKE PRESS gage, on the First Officer's instrument panel, P3, shows 2850-3500 psig.
- 10) Remove the pressure from the center hydraulic system.
- NOTE: Do not push the brake pedals to remove the pressure.
- 11) Push and release the Captain's or the First Officer's brake pedals a minimum of 7 times.
- a) Make sure the BRAKE PRESS gage, on the First Officer's instrument panel, P3, shows a lower value each time you push the brake pedals.
- b) The last time you push the brake pedals the BRAKE PRESS gage must show 850-1200 psig.
- NOTE: If these items are true, the brake accumulator is serviced correctly.
- 12) Put the airplane back to its usual condition.

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[illegible]

- A. 32-42-1 ANTISKID System
- B. Put the applicable placard 'ANTISKID INOP' or 'ONE BRAKE INOP' on the ANTISKID switch or the ANTISKID light (the switch or the light is on the Pilots' overhead panel, P5).
- C. Put the placard 'AUTOBRAKE INOP' on the Captains instrument panel, P1, if you do one of these steps:
  - (1) Use the antiskid switch to put the ANTISKID to OFF.
  - (2) Use the four circuit breakers to put the ANTISKID to OFF.

TASK 02-32-42-042-001-001

### A. Procedure

- (1) Do the steps that follow if one brake is deactivated (paragraph 2 of the MMEL):
  - (a) Use the procedure in the MEL, item 32-41-1, to deactivate the brake.
  - (b) If the status message ALTN ANTISKID is shown, do the steps that follow to make sure the alternate manual brakes operate:
    - 1) Supply electrical power (AMM 24-22-00/201).
    - 2) Put chocks at the landing gear wheels.
    - 3) Release the parking brake.
    - 4) Remove the pressure from the right hydraulic system (AMM 29-11-00/201).
    - 5) Supply pressure to the center hydraulic system (AMM 29-11-00/201).
    - 6) Push the brake pedals to release the brakes.

7) If the brakes do not operate when you push the brake pedals, it is not necessary to deactivate the applicable alternate antiskid valve (Ref MEL, item 32-42-2).

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[illegible]

- A. 32-42-2 Alternate Antiskid Valves
- B. Put a placard 'ALT ANTISKID VALVE INOP' on the ANTISKID light.

## 2. Maintenance (M)

S 862-002-002

- S 862-003-002

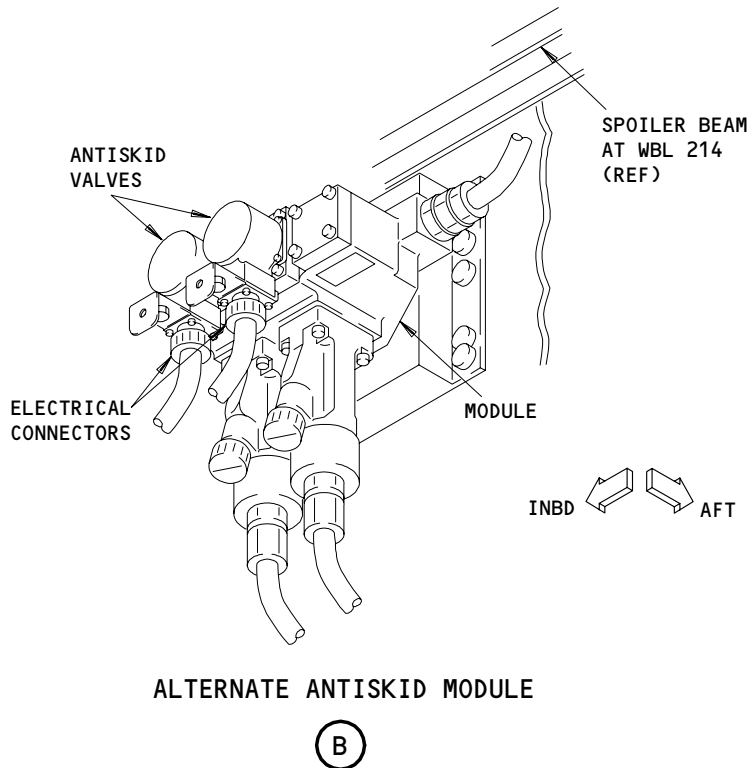
- | WHEELS | VALVE NO. | VALVE LOCATION   |
|--------|-----------|------------------|
| 1 & 2  | V37       | L WING, OUTBOARD |
| 3 & 4  | V39       | R WING, OUTBOARD |
| 5 & 6  | V38       | L WING, INBOARD  |
| 7 & 8  | V40       | R WING, INBOARD  |

- 1) Put the electrical connector in a safe location.
- (b) Push and release the brake pedals.
  - 1) Look at the wear indicator pins for the brake units to make sure all of the brakes are applied and released.

ALL

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**SAS**



EFFECTIVITY
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32-42-3 ANTISKID LIGHT - MAINTENANCE PRACTICES

SAS

SAS

SAS 1. General

SAS A. 32-42-3 ANTISKID Light

SAS B. Put a placard 'LITE INOP' on the antiskid light on the pilots' overhead panel, P5.

SAS

SAS TASK 02-32-42-042-001-003

SAS 2. Maintenance (M)

SAS A. Procedure

SAS

SAS S 712-002-003

SAS (1) If the ANTISKID light on the pilots' overhead panel, P5, does not operate, do these step to make sure the antiskid system operates:

SAS (a) Supply electrical power (AMM 24-22-00/201).

SAS (b) Put the chocks at the landing gear wheels.

SAS (c) Release the parking brake.

SAS (d) Do these steps on the antiskid/autobrake control unit:

SAS

SAS NOTE: You will find the antiskid/autobrake control unit on  
SAS the E1-1 shelf in the electrical equipment center. You  
SAS can get access the electrical equipment center through  
SAS the access door, 119AL.

SAS

SAS 1) Push the BIT switch until the control unit shows TEST END,  
SAS to get all of the faults.

SAS a) Make sure there is no PARK BRAKE message shown.

SAS

SAS NOTE: If a PARK BRAKE message is shown, the  
SAS parking brake control/valve does not agree.

SAS

SAS b) Push the RESET switch to erase the memory.

SAS c) To make sure no other faults are shown, push the BIT  
SAS switch until TEST END is shown.

SAS (e) Put the airplane back to its usual condition.

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CONFIG 3

SAS

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[illegible]

- A. 32-42-4 Autobrake system
- B. Put a placard 'INOP' on the autobrake system.

## 2. Maintenance (M)

S 862-002-004

- NOTE:** The brake pressure will not change when you apply the brakes.

- 1) Put the AUTOBRAKES light out of view before you send the airplane.

- (e) If the AUTOBRAKES light (on the Captains instrument panel, P1) goes out, the solenoid valve is open.

- a) Remove the pressure from the right hydraulic system (AMM 29-11-00/201).

- b) Make sure the downlocks are installed on the nose and main landing gear (AMM 32-00-20/201).

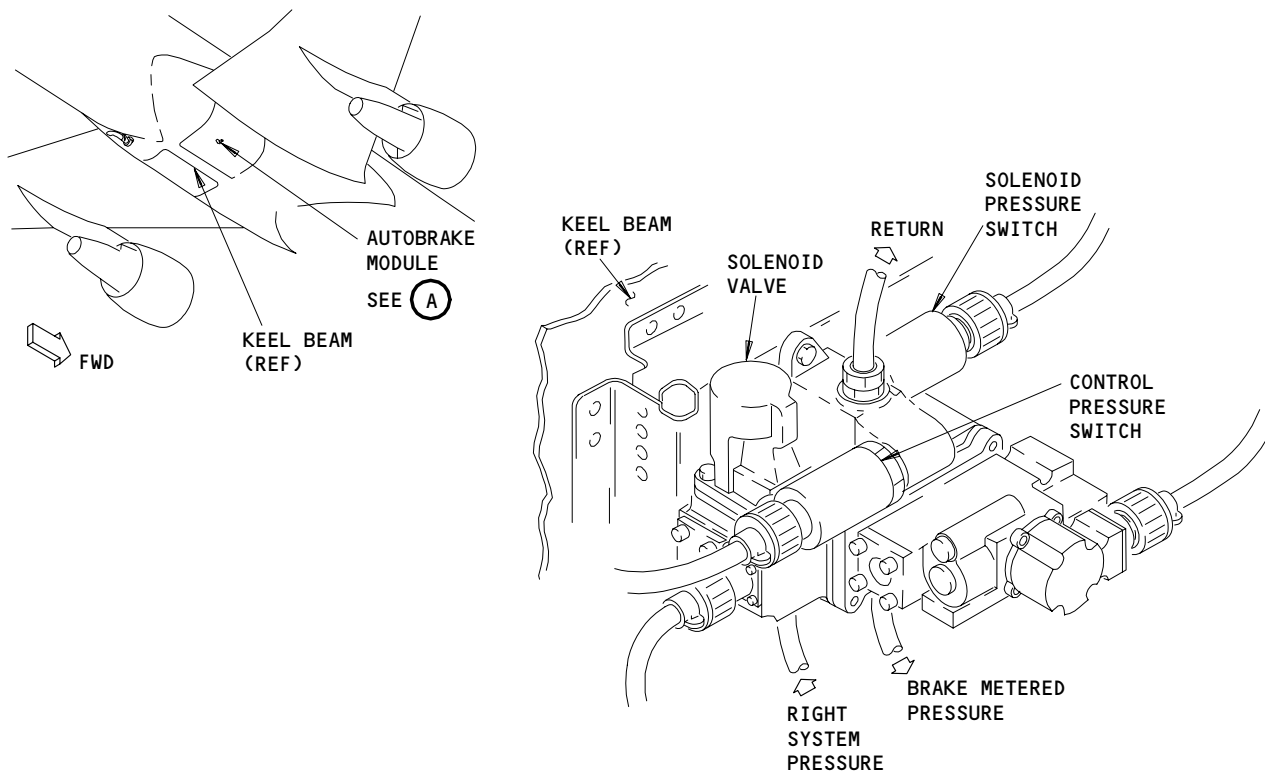
c) Open the doors for the landing gear and install the door locks (AMM 32-00-15/201).

ALL

CONFIG 4

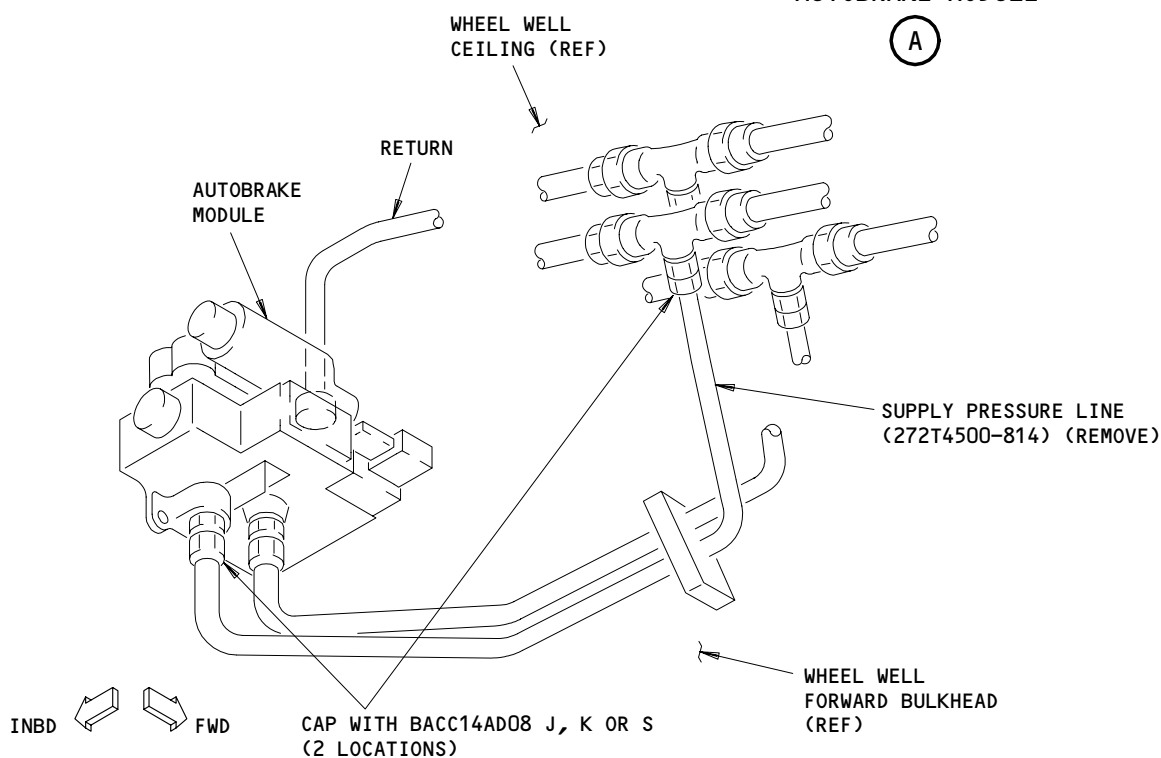
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[illegible]

## AUTOBRAKE MODULE

A



Autobrake Module  
Figure 201

## EFFECTIVITY

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CONFIG 4

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- d) Get access to the autobrake module through the wheel well for the right main landing gear.

NOTE: The autobrake module is found on the web support bracket for the keel beam, near the forward bulkhead.

- e) Disconnect the supply pressure line (272T4500-814) at the first tee on the autobrake module.  
f) Remove the supply pressure line.  
g) Install 2 caps on the openings at the autobrake module and at the tee (Use BACC14AD08J, K or S caps).  
h) Pressurize the right hydraulic system (AMM 29-11-00/201).  
i) Examine the hydraulic system for leaks.

- 2) Put the airplane back to its usual condition.

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SAS

32-44-2 PARKING BRAKE VALVE - MAINTENANCE PRACTICES

SAS

SAS

SAS 1. General

SAS

A. 32-44-2 Parking Brake Valve

SAS

B. Put a placard 'PARK BRK VLVE CLOSED' near the parking brake.

C. Put a placard 'INOP' on the parking brake light on the aisle stand.

SAS

D. Tell the flight crew that the antiskid system does not operate when the parking brake valve is in the closed position.

SAS

SAS TASK 02-32-44-042-001-001

SAS 2. Maintenance (M)

SAS

A. Procedure

SAS

S 862-002-001

SAS

(1) Do the steps that follow to make sure the parking brake valve is in the fully closed position:

SAS

(a) Supply electrical power to the airplane (AMM 24-22-00/201).

SAS

(b) Put chocks at the landing gear wheels.

SAS

(c) Release the parking brake.

SAS

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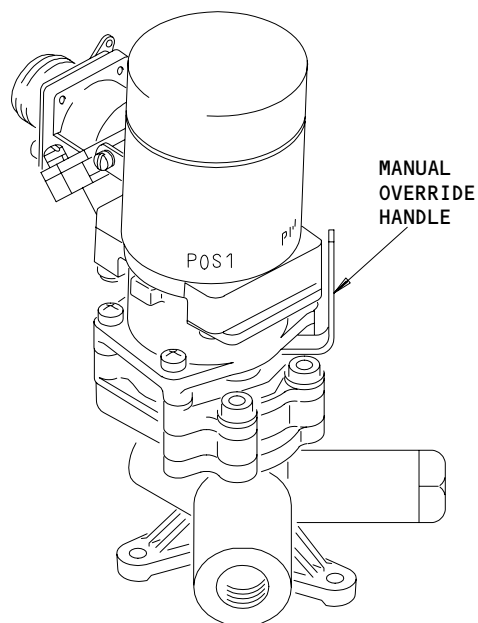
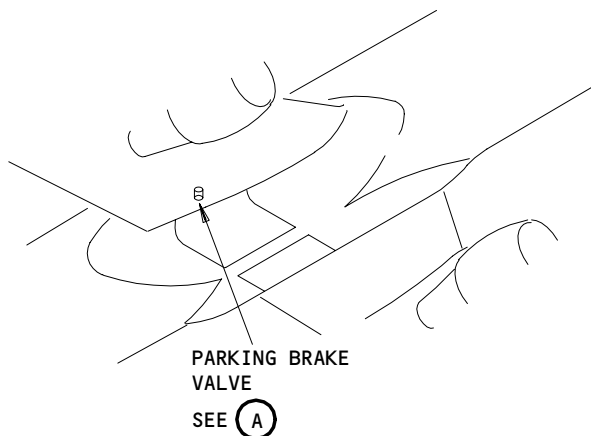
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PARKING BRAKE VALVE

(A)

Parking Brake Valve  
Figure 201

EFFECTIVITY

ALL

02-32-44

CONFIG 1

SAS

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- SAS (d) Open this circuit breaker on the main power distribution panel,  
SAS P6, and attach a DO-NOT-CLOSE tag:  
SAS 1) 6F04, PARKING BRAKE VLV  
SAS (e) Make sure the downlocks are installed on the nose and main  
SAS landing gear (AMM 32-00-20/201).

**WARNING:** USE THE PROCEDURE IN AMM 32-00-15/201 TO INSTALL THE DOOR  
LOCKS. THE DOORS OPEN AND CLOSE QUICKLY AND CAN CAUSE  
INJURIES TO PERSONS OR DAMAGE TO EQUIPMENT.

- SAS (f) Open the doors for the landing gear and install the door locks  
SAS (AMM 32-00-15/201).  
SAS (g) Get access to the parking brake valve through the wheel well  
SAS for the right main landing gear.  
SAS (h) Manually put the position indicator for the parking brake valve  
SAS to the fully closed position (POS 2).

S 862-003-001

- (2) With the parking brake released, do the steps that follow:  
(a) Make sure the antiskid switch is in the ON position.  
(b) Make sure the antiskid light is on.  
(c) Make sure the EICAS message, ANTISKID OFF, is on.  
(d) Keep the antiskid switch in the ON position.

S 862-004-001

- (3) Put the airplane back to its usual condition.

S 862-005-001

- (4) Tell dispatch the antiskid system does not operate.

EFFECTIVITY

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CONFIG 1

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[illegible]

- A. 32-44-3 PARK BRAKE Light
- B. Put a placard 'LIGHT INOP' on the PARK BRAKE indicator light on the Quadrant Stand, P10.

**Maintenance (M)**

S 862-002-002

- (1) You can fly the airplane when the PARK BRAKE indicator does not operate if you do these steps:
  - (a) If it is installed, put the antiskid switch to ON.
  - (b) Make sure the ANTISKID indicator light monitors the operation of the parking brake valve as follows:
    - 1) Supply electrical power to the brake system and the parking brake system (AMM 24-22-00/201).
    - 2) Supply pressure to the right hydraulic system (AMM 29-11-00/201).
    - 3) Close this circuit breaker on the main power distribution panel, P6:
    - 4) 6F04, PARKING BRAKE VLV
    - 5) Close this circuit breaker on the overhead circuit breaker panel, P11:
      - a) 11A35, IND LIGHTS 3
    - 6) Do the steps that follow at the same time to set the parking brake:
      - a) Pull the PARK BRAKE handle, on the quadrant control stand, P10.
      - b) Push the Captain's 2 brake pedals fully and then release them.
    - 7) Make sure the ANTISKID indicator light, on the Pilots' overhead panel, P5, is not on.
    - 8) Open the circuit breaker 6F04, PARKING BRAKE VLV.
      - a) After approximately 3 seconds, make sure the ANTISKID indicator light comes on.
      - b) Close the circuit breaker 6F04, PARKING BRAKE VLV.
      - c) Make sure the ANTISKID indicator light goes off.

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- 9) Push and hold the configuration test switch on the right side panel, P61, in the T/O position.  
  
NOTE: The warning indications (siren, master warning, CONFIG light) will come on when you push the configuration test switch.
- 10) Make sure the takeoff warning message for the PARKING BRAKE comes on.
- 11) Release the parking brakes.
- 12) Make sure the takeoff warning message for the PARKING BRAKE goes off.
- 13) Make sure the ANTISKID light is not on.
- 14) Open the circuit breaker, 6F04, PARKING BRAKE.
  - a) After approximately 3 seconds, make sure the ANTISKID light does not come on.
- (c) Put the airplane back to its usual condition.

ALL

SAS

32-44-5 BRAKE PRESS GAGE (FLIGHT DECK) - MAINTENANCE PRACTICES

1. General

- A. 32-44-5 BRAKE PRESS Gage (Flight Deck)
- B. Put a placard 'GAGE INOP" ON THE BRAKE PRESS pressure gage on the First Officers' instrument panel, P3.

TASK 02-32-44-042-001-003

2. Maintenance (M)

A. Procedure

S 862-002-003

- (1) You can fly the airplane when the BRAKE PRESS pressure gage does not operate, if you do these steps:

- (a) Make sure the brake system and the brake accumulator operate correctly.

- 1) Make sure the downlocks are installed on the nose and main landing gear (AMM 32-00-20/201).
- 2) Make sure chocks are at the landing gear wheels.
- 3) Remove the pressure from the right and center hydraulic systems (AMM 29-11-00/201).
  - a) Make sure the R SYS PRESS indicator light on the Pilot's overhead panel, P5, is on.
- 4) Supply electrical power to the brake system (AMM 24-22-00/201).
- 5) Pressurize the right hydraulic system.
  - a) Make sure the R SYS PRESS indicator light on the Pilot's overhead panel, P5 is off.
- 6) Make sure the downlocks are installed on the nose and main landing gear (AMM 32-00-20/201).

**WARNING:** USE THE PROCEDURE IN AMM 32-00-15/201 TO INSTALL THE DOOR LOCKS. THE DOORS OPEN AND CLOSE QUICKLY AND CAN CAUSE INJURIES TO PERSONS OR DAMAGE TO EQUIPMENT.

- 7) Open the doors for the landing gear and install the door locks (AMM 32-00-15/201).
- 8) Get access to the accumulator on the aft inboard side of the wheel well for the right main landing gear (Fig. 201).
- 9) Make sure the pressure gage shows 3000 to 3500 psig.

**NOTE:** The pressure gage is located forward of the accumulator.

- 10) Put the hydraulic pump to the OFF position.

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**02-32-44**

CONFIG 3

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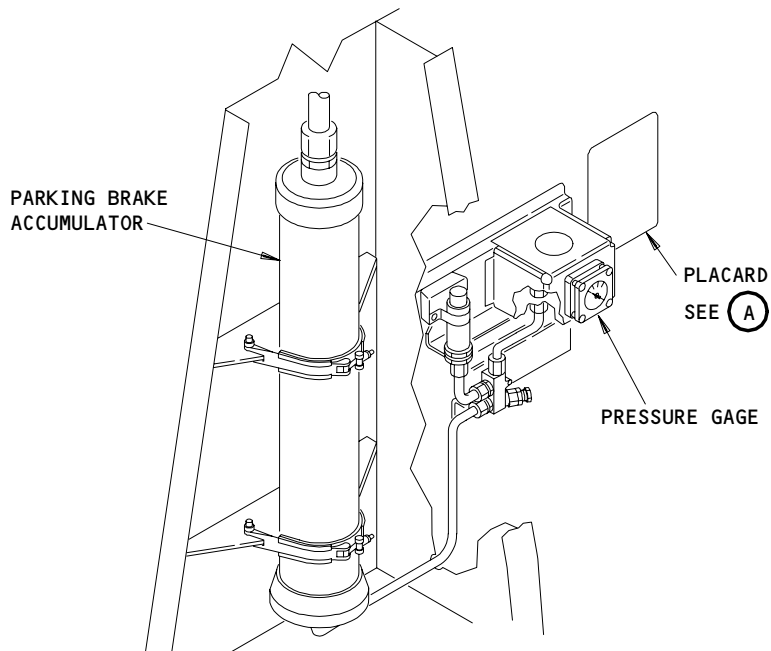
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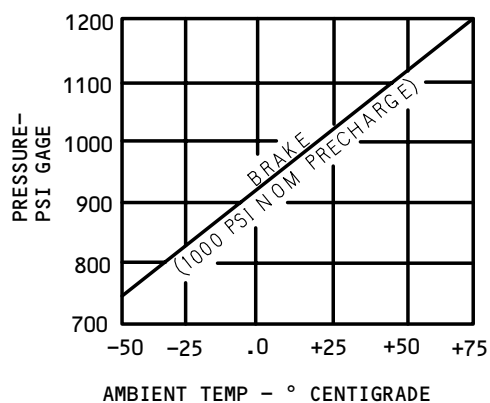
## 767

### MAINTENANCE MANUAL



#### CHARGING INSTRUCTIONS- HYDRAULIC ACCUMULATOR.

WITH SYSTEM DEPRESSURIZED,  
CHARGE WITH DRY NITROGEN  
TO APPLICABLE PRESSURE PER  
CHART BELOW  $\pm 100$  PSI



PLACARD

(A)

Brake Press Gage  
Figure 201

EFFECTIVITY

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02-32-44

CONFIG 3

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01



11) Do these steps to remove the pressure from the parking brake accumulator:

**NOTE:** You can use the 2 Captain's or the 2 First Officer's brake pedals.

a) Fully push and release the Captain's or the First Officer's brake pedals a minimum of 10 times.

**NOTE:** There must be a minimum of 5 seconds between each brake application.

b) Make sure the R SYS PRESS indicator light on the Pilot's overhead panel, P5 comes on.

12) Make sure the accumulator pressure is 850 to 1200 psig.

**NOTE:** On a day when the temperature is less than 68°F (20°C), the correct accumulator pressure is less than 1000 psi. The correct pressure changes with the ambient temperature. The pressure is shown on a placard near the accumulator.

13) Put the airplane back to its usual condition.

ALL

## CONFIG 3

# SAS

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SAS 32-51-1 RUDDER PEDAL NOSE WHEEL STEERING - MAINTENANCE PRACTICES

SAS

SAS

SAS 1. General

SAS

A. 32-51-1 Rudder Pedal Nose Wheel Steering

SAS

B. Put a placard 'RUDDER PEDAL NWS INOP' near the Pilot's and the First Officer's airspeed indicators.

SAS

SAS TASK 02-32-51-042-001

SAS 2. Maintenance (M)

SAS

A. Procedure

SAS

S 282-002

SAS

(1) Examine the rudder pedal interconnect mechanism which is below the floor of the flight compartment.

SAS

(a) Make sure the failure of the interconnect mechanism will not touch the other system controls.

SAS

SAS

SAS

S 712-003

SAS

(2) To do the test for the tiller steering system, do these steps:

SAS

(a) Make sure the downlocks are installed on the nose and main landing gear (AMM 32-00-20/201).

SAS

(b) Put the towing lever, located on the steering metering valve module, to the TOW POSITION.

SAS

1) Install the lockpin for the towing lever.

SAS

(c) Use the Captain's tiller to operate the steering fully left and right.

SAS

1) Make sure the steering system moves freely.

SAS

(d) Put the airplane back to its usual condition.

SAS

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ALL

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SAS

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SAS                    32-61-1 LANDING GEAR DOORS LIGHT SYSTEM – MAINTENANCE PRACTICES

SAS

SAS

SAS 1. General

SAS

A. 32-61-1 Landing Gear DOORS Light System

SAS

B. Put a placard 'LITE INOP' of the landing gear doors light.

SAS

SAS

TASK 02-32-61-042-001-001

SAS 2. Maintenance (M)

SAS

A. Procedure

SAS

SAS

S 492-002-001

SAS

- (1) Make sure the downlocks are installed on the nose and main landing gear (AMM 32-00-20/201).

SAS

SAS

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S 492-003-001

SAS

SAS

**WARNING:** USE THE PROCEDURE IN AMM 32-00-15/201 TO INSTALL THE DOOR LOCKS. THE DOORS OPEN AND CLOSE QUICKLY AND CAN CAUSE INJURIES TO PERSONS OR DAMAGE TO EQUIPMENT.

SAS

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SAS

- (2) Open the doors for the landing gear and install the door locks (AMM 32-00-15/201).

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SAS

- (a) After 35 seconds, make sure the advisor level message, GEAR DOORS, is shown.

SAS

S 092-004-001

SAS

**WARNING:** USE THE PROCEDURE IN AMM 32-00-15/201 TO REMOVE THE DOOR LOCKS. THE DOORS OPEN AND CLOSE QUICKLY AND CAN CAUSE INJURIES TO PERSONS OR DAMAGE TO EQUIPMENT.

SAS

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- (3) Remove the door locks from the landing gear doors and close the doors (AMM 32-00-15/201).

SAS

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**02-32-61**

CONFIG 1

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SAS 32-61-2 MLG DOOR LATCH ACTUATOR PROXIMITY SENSOR - MAINTENANCE PRACTICES

SAS

SAS

SAS 1.

General

SAS

A. 32-61-2 MLG Door Latch Actuator Proximity Sensor

SAS

B. Put a placard '(NO. 1) (NO. 2) (L) (R) MLG DR SENSOR INOP' near the applicable EICAS screen.

SAS

SAS TASK 02-32-61-042-001-002

SAS 2.

Maintenance (M)

SAS

A. Procedure

SAS

SAS

SAS

NOTE: If one of the 2 MLG door latch sensors on one of the doors does not operate, the EICAS message 'LDG GEAR MONITOR' is shown.

SAS

SAS

S 712-002-002

SAS

(1) Do the steps that follow to make sure the MLG door latch sensor does not operate:

SAS

SAS

(a) Find the Proximity Switch Electronics Unit (PSEU) in the main E/E equipment center.

SAS

SAS

(b) Do the BITE check.

SAS

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NOTE: The sensor that does not operate will be shown on the PSEU instruction placard as 'L LATCH LOCKED' or 'R LATCH LOCKED'.

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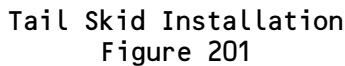
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(6) If the tail skid is not fully extended, do these steps:

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(11) Close the applicable shutoff valves for the galley, lavatory sink, and the drinking fountain, if they are installed.

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SAS                    32-71-2 TAILSKID POSITION LIGHT (767-300) - MAINTENANCE PRACTICES

SAS

1. General

SAS            A. 32-71-2 TAILSKID Position Light (767-300)

B. For the first part of the MEL (EICAS message operates correctly), put a placard, 'TAILSKID LIGHT INOP' on the TAILSKID light.

SAS            C. For the second part of the MEL, refer to 32-71-1 for the applicable placards.

SAS

SAS            TASK 02-32-71-042-001-002

SAS    2. Maintenance (M)

SAS            A. Procedure

SAS

SAS                            S 862-002-002

SAS            (1) Refer to 32-71-1, TAILSKID, for the procedure to safety the tail skid in the fully extended position.

SAS

EFFECTIVITY

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**02-32-71**

CONFIG 2

SAS

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36-11-2 ENGINE HIGH STAGE BLEED VALVES – MAINTENANCE PRACTICES

1. General

- A. 36-11-2 Engine High Stage Bleed Valves
- B. Put a placard 'HI PRESS S/O VLV INOP' near the BLEED indicator light on the pilots overhead panel, P5.

TASK 02-36-11-042-001-002

2. Maintenance (M)

A. General

- (1) The high pressure shutoff valve (HPSOV) is found on the left side of the high pressure compressor (HPC) case. To deactivate the HPSOV, it is necessary to remove the positioning screw in the valve actuator then release the actuator pressure. The positioning screw is then installed in the switch actuating lever to lock the valve in the CLOSED position. It is necessary to open the left thrust reverser to get access to the HPSOV.

B. Procedure

S 862-002-002

- (1) Do these steps to keep the HPSOV in the CLOSED position.
  - (a) Tell dispatch the HPSOV is locked closed.

NOTE: When the HPSOV is in the locked closed position, it can change the flight operation.

- (b) Remove the pressure from the pneumatic system (AMM 36-00-00/201).

WARNING: DO THE DEACTIVATION PROCEDURE FOR THE THRUST REVERSER TO PREVENT THE OPERATION OF THE THRUST REVERSER. ACCIDENTAL OPERATION OF THE THRUST REVERSER CAN CAUSE INJURIES TO PERSONS OR DAMAGE TO EQUIPMENT.

- (c) Do the deactivation procedure for the thrust reverser for ground maintenance (AMM 78-31-00/201).
- (d) Open the left fan cowl panel (AMM 71-11-04/201).
- (e) Open the left core cowl panel (AMM 71-11-06/201).

WARNING: OBEY THE INSTRUCTIONS IN THE PROCEDURE TO OPEN THE THRUST REVERSERS. IF YOU DO NOT OBEY THE INSTRUCTIONS WHEN YOU OPEN THE THRUST REVERSERS, INJURIES TO PERSONS OR DAMAGE TO EQUIPMENT CAN OCCUR.

- (f) Open the left thrust reverser (AMM 78-31-00/201).

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- (g) Remove the positioning screw from the actuator cap.  
1) Do not disconnect the retaining cable from the positioning screw.
- (h) To lock the HPSOV in the CLOSED position, install the positioning screw in the switch actuating lever.
- WARNING:** OBEY THE INSTRUCTION IN THE PROCEDURE TO OPEN THE THRUST REVERSERS. IF YOU DO NOT OBEY THE INSTRUCTIONS WHEN YOU OPEN THE THRUST REVERSERS, INJURIES TO PERSONS OR DAMAGE TO EQUIPMENT CAN OCCUR.
- (i) Close the left thrust reverser (AMM 78-31-00/201).  
(j) Close the left core cowl panel (AMM 71-11-06/201).  
(k) Close the left fan cowl panel (AMM 71-11-04/201).  
(l) Do the activation procedure for the thrust reverser (AMM 78-31-00/201).

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SAS      36-11-3 INTERMEDIATE PRESSURE CHECK VALVES – MAINTENANCE PRACTICES

SAS

1. General

SAS      A. 36-11-3 Intermediate Pressure Check Valves (LOW)

SAS      B. Put a placard 'HI PRESS S/O VLV INOP' near the BLEED indicator light on  
SAS      the pilots overhead panel, P5.

SAS

SAS      TASK 02-36-11-042-001-003

SAS      2. Maintenance (M)

SAS      A. Procedure

SAS

SAS      S 712-002-003

SAS      (1) Tell dispatch that the high pressure shutoff valve does not operate  
SAS      correctly.

SAS

SAS      NOTE: Flight operations can change when the high pressure  
SAS      shutoff valve does not operate.

SAS

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SAS      S 862-003-003

SAS      (2) Lock the applicable high stage bleed valve (HPSOV) to the CLOSED  
SAS      position (AMM 02-36-11/201).

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36-11-8 ENGINE PRESSURE REGULATING VALVES (PRV) - MAINTENANCE PRACTICES

1. General

A. 36-11-8 Engine Pressure Regulating Valves (PRV)

B. Put a placard 'VLV INOP' on the applicable engine bleed switch.

TASK 02-36-11-042-001-007

2. Maintenance (M)

A. General

- (1) The PRV is found near the high pressure compressor (HPC) case at the 10:00 o'clock position. To deactivate the PRV, it is necessary to remove the positioning screw on the end of the PRV actuator. This will release the actuator pressure. The positioning screw is then installed in the switch actuating lever to lock the PRV in the CLOSED position. It is necessary to open the left thrust reverser half to get access to the PRV.
- (2) When the PRV is in the locked closed position, the fan air modulating valve will stay in the full open position. This will cause a performance penalty (Proviso j). A decreased performance penalty can be used (Provisio i) if the fan air modulating valve is locked in the intermediate position.

B. Procedure

S 862-002-007

- (1) Do these steps to lock the PRV in the closed position:
  - (a) Tell dispatch the PRV is in the locked closed position and these items are changed:
    - 1) Airplane operation
    - 2) Airplane procedures
    - 3) Flight planning
    - 4) Only one air conditioning pack will be used.
  - (b) Remove the pressure from the pneumatic system (AMM 36-00-00/201).
  - (c) Put the applicable ENGINE BLEED switch on the Pilots overhead panel, P5, to the OFF position.

WARNING: DO THE DEACTIVATION PROCEDURE FOR THE THRUST REVERSER TO PREVENT THE OPERATION OF THE THRUST REVERSER. ACCIDENTAL OPERATION OF THE THRUST REVERSER CAN CAUSE INJURIES TO PERSONS OR DAMAGE TO EQUIPMENT.

- (d) Do the deactivation procedure for the thrust reverser for ground maintenance (AMM 78-31-00/201).
- (e) Open the left fan cowl panel (AMM 71-11-04/201).
- (f) Open the left core cowl panel (AMM 71-11-06/201).

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**WARNING:** OBEY THE INSTRUCTION IN THE PROCEDURE TO OPEN THE THRUST REVERSERS. IF YOU DO NOT OBEY THE INSTRUCTIONS WHEN YOU OPEN THE THRUST REVERSERS, INJURIES TO PERSONS OR DAMAGE TO EQUIPMENT CAN OCCUR.

- (g) Open the left thrust reverser (AMM 78-31-00/201).
- (h) Remove the positioning screw from the actuator cap.
  - 1) Do not disconnect the retaining cable from the positioning screw.
  - 2) Install the positioning screw in the switch actuating lever to lock the PRV in the CLOSED position.

**WARNING:** OBEY THE INSTRUCTIONS IN THE PROCEDURE TO CLOSE THE THRUST REVERSERS. IF YOU DO NOT OBEY THE INSTRUCTIONS WHEN YOU CLOSE THE THRUST REVERSERS, INJURIES TO PERSONS OR DAMAGE TO EQUIPMENT CAN OCCUR.

- (i) Close the left thrust reverser (AMM 78-31-00/201).
- (j) Close the left core cowl panel (AMM 71-11-06/201).
- (k) Close the left fan cowl panel (AMM 71-11-04/201).
- (l) Do the activation procedure for the thrust reverser (AMM 78-31-00/201).

S 862-003-007

- (2) Do these steps to lock the fan air modulating valve in the intermediate position:

**WARNING:** DO THE DEACTIVATION PROCEDURE FOR THE THRUST REVERSER TO PREVENT THE OPERATION OF THE THRUST REVERSER. ACCIDENTAL OPERATION OF THE THRUST REVERSER CAN CAUSE INJURIES TO PERSONS OR DAMAGE TO EQUIPMENT.

- (a) Do the deactivation procedure for the thrust reverser for ground maintenance (AMM 78-31-00/201).
- (b) Open the right fan cowl panel (AMM 71-11-04/201).
- (c) Open the right core cowl panel (AMM 71-11-06/201).

**WARNING:** OBEY THE INSTRUCTIONS IN THE PROCEDURE TO OPEN THE THRUST REVERSERS. IF YOU DO NOT OBEY THE INSTRUCTIONS WHEN YOU OPEN THE THRUST REVERSERS, INJURIES TO PERSONS OR DAMAGE TO EQUIPMENT CAN OCCUR.

- (d) Open the right thrust reverser (AMM 78-31-00/201).
- (e) Remove the position screw from the actuator housing.
  - 1) Remove the O-ring.

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- SAS 2) Discard the O-ring.
- SAS 3) Do not disconnect the retaining cable from the positioning
- SAS screw.
- SAS (f) Turn the locking crank to the 45-degree position.
- SAS (g) Install the positioning screw in the locking crank until it is
- SAS engaged with the switch bracket. This will lock the valve in
- SAS the 45-degree position.
- SAS
- SAS **WARNING:** OBEY THE INSTRUCTIONS IN THE PROCEDURE TO CLOSE THE THRUST
- SAS REVERSERS. IF YOU DO NOT OBEY THE INSTRUCTIONS WHEN YOU
- SAS CLOSE THE THRUST REVERSERS, INJURIES TO PERSONS OR DAMAGE
- SAS TO EQUIPMENT CAN OCCUR.
- SAS
- SAS (h) Close the right thrust reverser (AMM 78-31-00/201).
- SAS (i) Close the right core cowl panel (AMM 71-11-06/201).
- SAS (j) Close the right fan cowl panel (AMM 71-11-04/201).
- SAS (k) Do the activation procedure for the thrust reverser
- SAS (AMM 78-31-00/201).

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36-12-1 PRECOOLERS - MAINTENANCE PRACTICES

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SAS

SAS 1. General

SAS A. 36-12-1 Precoolers

SAS B. Put a placard 'VLV INOP' at the applicable engine bleed switch.

SAS

SAS TASK 02-36-12-042-001-001

SAS 2. Maintenance (M)

SAS A. General

SAS (1) Damage to one precooler and/or the related duct can be permitted if  
SAS you can lock the PRV and PRSOV in the closed position. This  
SAS isolates the precooler from air sources to prevent bleed duct  
SAS leakage.

SAS (2) When the PRV and the PRSOV are closed, the fan air modulating valve  
SAS stays in the full open position. This can cause a performance  
SAS penalty (Provisio g). A decreased performance penalty can be used  
SAS (Provisio f) if the fan air modulating valve is locked in the  
SAS intermediate position.

SAS B. Procedure

SAS

SAS S 862-002-001

SAS (1) Do these steps to isolate the precooler and the related duct:

SAS (a) Tell dispatch these items are changed:

SAS 1) Airplane operation

SAS 2) Airplane procedures

SAS 3) Flight planning

SAS 4) Only one air conditioning pack will be used.

SAS (b) Use the procedure in the DDG item 36-11-1 to lock the PRSOV in  
SAS the closed position.

SAS (c) Use the procedure in the DDG item 36-11-8 to lock the PRV in  
SAS the closed position.

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(2) 'BLEED LITE INOP'

- (2) Use the procedure in the DDG item 36-11-2 to lock the applicable high stage bleed valve (high pressure shutoff valve) in the CLOSED position.

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A. 36-22-3 OVHT Lights

TASK 02-36-22-042-001-002

### A. Procedure

S 862-002-002

- (1) Tell dispatch there will be a change in flight operations.

S 862-003-002

- (2) Put the high stage bleed valve in the CLOSED position (AMM 02-36-11/201, High Stage Bleed Valve).

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**SAS**

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SAS      56-31-1 ENTRY/SERVICE DOOR VIEWPORT HEATED PANE - MAINTENANCE PRACTICES

SAS 1. General

SAS      A. 56-31-1 Entry/Service Door Viewport Heated Pane

SAS

SAS      TASK 02-56-31-422-001

SAS 2. Maintenance

SAS      A. Procedure

SAS

SAS      S 862-002

SAS      (1) Open this circuit breaker on the overhead circuit breaker panel,  
SAS      P11, and attach a DO-NOT-CLOSE tag:

SAS      (a) 11U32, DOOR WINDOW HEATER

SAS

SAS      S 232-003

SAS      (2) Remove the upper door lining from the entry/service door  
SAS      (Ref MM 52-11-02).

SAS

SAS      S 862-004

SAS      (3) Find the wire from the heated viewport pane to the connector at the  
SAS      top of the door structure (the wire is in a convoluted tube).

SAS      (a) Disconnect the connector from the heated viewport pane that  
SAS      does not operate.

SAS      (b) Put a cap on the connector.

SAS

SAS      S 432-006

SAS      (4) Install the upper door lining on the entry/service door  
SAS      (Ref MM 52-11-02).

SAS

SAS      S 862-005

SAS      (5) Close the circuit breaker on the overhead circuit breaker panel,  
SAS      P11, and remove the DO-NOT-CLOSE tag:

SAS      (a) 11U23, DOOR WINDOW HEATER

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