

ATA AIRLINES, INC.

#1 ENGINE PRSOV FUNCTIONAL CHECK

PAGE 1 / 6

CHECK BEING PERFORMED: Custom

ZONES: 119 400
A/C NUMBER:
REV. DATE: 04/21/99
FREQUENCY: 1C

W/C NUMBER: 241F3602 DATE:
W/O:
JAC CODE:

NITROGEN OR AIR SOURCE (0-100 PSIG)
GROUND AIR SOURCE OR APU
TWO PRESSURE GAGE, 0-60 PSIG
28 VDC POWER SUPPLY (OPTIONAL)
UNION FITTINGS-MS-4 (2 REQUIRED)

PANELS

443LL

REFERENCES

FIGURES 1 THRU 4

MECH INSP

-
1. FUNCTIONALLY CHECK THE ENGINE 1 PRESSURE REGULATING AND SHUTOFF VALVE (PRSOV) AND PRSOV REGULATOR.
 - A. THIS TASK WILL PERFORM AN OPERATIONAL TEST OF THE PRSOV WHILE THE PRSOV IS INSTALLED ON THE ENGINE.
 2. OPERATIONAL TEST OF THE PRESSURE REGULATING AND SHUTOFF VALVE (PRSOV) AND PRSOV REGULATOR.
 - A. PREPARE FOR THE OPERATIONAL TEST .

WARNING: RELEASE THE PRESSURE IN THE PNEUMATIC DUCT BEFORE YOU REMOVE A PNEUMATIC SYSTEM COMPONENT. THE HOT, HIGH PRESSURE AIR CAN CAUSE INJURY TO PERSONS.

- _____ XXXXX (1) REMOVE PNEUMATIC POWER (REF 36-00-00/201).
- _____ XXXXX (2) SUPPLY ELECTRICAL POWER (REF 24-22-00/201).
- _____ XXXXX (3) OPEN THE ACCESS DOOR FOR THE PRSOV ON THE NACELLE STRUT (REF 06-41-00/201).

NOTE: THE REVERSER HALVES MAY NEED TO BE CLOSED TO ACCESS THE PRSOV.

- (4) THERE ARE TWO METHODS THAT YOU CAN USE TO ELECTRICALLY ENABLE THE PRSOV. METHOD 1 WILL JUMPER THE RFCC AND USE THE AIRPLANES ELECTRICAL POWER. METHOD 2 USES THE MANUAL ON/OFF SOLENOID ON THE PRSOV.
- _____ XXXXX (5) DO THESE STEPS FOR METHOD 1:

REVISION DATE: 04/21/99

ATA AIRLINES, INC. B757 FLEET

W/C #: 241F3602

DATE WORK CARD COMPLETE ___/___/___

#1 ENGINE PRSOV FUNCTIONAL CHECK

PAGE:2 /6

A/C NUMBER:

CHECK BEING PERFORMED: Cust

W/C NUMBER: 241F3602 (continued)

MECH: INSP:

(a) OPEN THE APPLICABLE CIRCUIT BREAKER, ON THE P11 PANEL:

1) 11B31 L ENG SPEED CARD

2) 11B32 R ENG SPEED CARD

3) 11Q10 L ENG BLEED

4) 11Q19 R ENG BLEED

(b) REMOVE THE ELECTRICAL CONNECTOR FROM THE RFCC (FIG. 4).

(c) INSTALL A JUMPER BETWEEN PINS 1 AND 2 ON THE SHIPS WIRING.

(d) PUSH THE L (R) ENG BLEED OFF SWITCH-LIGHT ON THE P5 PANEL TO THE ON POSITION.

(e) CLOSE THE APPLICABLE CIRCUIT BREAKERS:

1) 11Q10 L ENG BLEED

2) 11Q19 R ENG BLEED

_____ XXXXX (6) DO THESE STEPS FOR METHOD 2:

(a) PULL THE ON/OFF SOLENOID PIN ON THE PRSOV TO THE EXTENDED POSITION.

_____ XXXXX (7) FOR THE PRSOV ON THE RIGHT ENGINE, REMOVE THE 450 TEMPERATURE SENSOR SENSE LINE AT THE 450 TEMPERATURE SENSOR (VIEW C, FIG. 3).

_____ XXXXX (8) FOR THE PRSOV ON THE LEFT ENGINE, REMOVE THE 450 TEMPERATURE SENSOR SENSE LINE AT THE PRSOV (VIEW A, FIG. 2).

_____ XXXXX (9) INSTALL A COVER ON ALL OPEN SENSE LINES OR FITTINGS TO KEEP OUT UNWANTED MATERIALS.

#1 ENGINE PRSOV FUNCTIONAL CHECK

A/C NUMBER:

CHECK BEING PERFORMED: Cust

W/C NUMBER: 241F3602 (continued)

MECH: INSP:

XXXXX (10) FOR THE PRSOV ON THE RIGHT ENGINE, INSTALL THE NITROGEN SOURCE, NEEDLE VALVE AND CONTROL PRESSURE GAGE Pc (0-60 PSIG) TO THE SENSE LINE FOR THE 450 TEMPERATURE SENSOR.

XXXXX (11) FOR THE PRSOV ON THE LEFT ENGINE, INSTALL THE NITROGEN SOURCE, NEEDLE VALVE AND CONTROL PRESSURE GAGE Pc (0-60 PSIG) TO THE PRSOV.

XXXXX (12) THE TABLE BELOW SHOWS THE PRESSURES YOU WILL SEE DURING THE TEST OF THE PRSOV.

	Ps	Pc
PRSOV MINIMUM OPENING PRESSURE	NA	<5 Psi
PRSOV FULLY OPEN PRESSURE	NA	<8 Psi
PRSOV CONTROL PRESSURE	30 Psi MIN	22-27 Psi

B. FUNCTIONAL TEST OF THE PRSOV.

NOTE: DURING THE TEST YOU WILL BE ASKED SOME QUESTIONS. EACH QUESTION WILL HAVE A YES OR NO ANSWER. EACH YES OR NO ANSWER GIVES A RECOMMENDED ACTION, FOR EXAMPLE:NO REPLACE THE PRSOV (REF 36-11-09/201). YOU CAN CONTINUE WITH THE TEST WITHOUT DOING THE ACTION IF YOU WANT TO SEE OTHER CHARACTERISTICS OF THE TEST. HOWEVER YOU SHOULD DO THE RECOMMENDED ACTION AFTER YOU COMPLETE THE TEST.

CAUTION: WHEN YOU BEGIN TO INCREASE THE SUPPLY PRESSURE, DO NOT EXCEED THE PRESSURE LIMITS THAT ARE GIVEN. DAMAGE TO THE COMPONENTS CAN OCCUR.

XXXXX (1) SLOWLY INCREASE Pc TO 15 PSIG. MONITOR WHEN THE PRSOV BEGINS TO OPEN AND WHEN THE PRSOV IS FULLY OPEN.

NOTE:YOU WILL NEED A MIRROR AND FLASHLIGHT TO SEE THE POSITION INDICATOR ON THE MANUAL OVERRIDE NUT ON THE TOP

#1 ENGINE PRSOV FUNCTIONAL CHECK

PAGE:4 /6

A/C NUMBER:

CHECK BEING PERFORMED: Cust

W/C NUMBER: 241F3602 (continued)

MECH: INSP:

OF THE LEFT PRSOV.

Pc SHOULD BE LESS THAN 5 PSIG WHEN THE PRSOV BEGINS TO OPEN AND Pc SHOULD BE LESS THAN 8 WHEN THE PRSOV IS FULLY OPEN.

YOU MAY HEAR NITROGEN FROM THE PRSOV REGULATOR. THIS IS FROM AN HONEST ORFICE AND IS NOT ABNORMAL.

_____ XXXXX (2) DID THE PRSOV BEGIN TO OPEN BEFORE Pc = 5 PSIG ?

(a) NO, REPLACE THE PRSOV (REF 36-11-09/201).

(b) YES, CONTINUE.

_____ XXXXX (3) WAS THE PRSOV FULLY OPEN BEFORE Pc = 8 PSIG ?

(a) NO, REPLACE THE PRSOV (REF 36-11-09/201).

(b) YES, CONTINUE.

_____ XXXXX (4) DECREASE Pc TO 0 PSIG.

_____ XXXXX (5) PRESSURIZE THE PNEUMATIC DUCT TO A MINIMUM OF 30 PSIG WITH A GROUND SOURCE OR APU (REF 36-00-00/201).

(a) IF THE APU IS USED, MAKE SURE THE APU SWITCH IS IN THE ON POSITION AND OPEN CIRCUIT BREAKER 11Q22 APU BLEED PWR- AFTER THE PNEUMATIC SYSTEM IS PRESSURIZED.

NOTE: THIS WILL KEEP THE APU VALVE OPEN WHEN THE PRSOV OPENS.

_____ XXXXX (6) INCREASE Pc TO 10-15 PSIG UNTIL THE PRSOV IS OPEN.

_____ XXXXX (7) CLOSE THE NEEDLE VALVE.

_____ XXXXX (8) FULLY BACK OFF THE REGULATOR ON THE NITROGEN SOURCE TO DECREASE THE NITROGEN PRESSURE TO 0 PSIG.

#1 ENGINE PRSOV FUNCTIONAL CHECK

PAGE:5 /6

A/C NUMBER:

CHECK BEING PERFORMED: Cust

W/C NUMBER: 241F3602 (continued)

MECH: INSP:

NOTE: THE CONTROL PRESSURE GAGE (Pc) FOR THE NITROGEN
WILL NOT SHOW 0 PSIG.

_____ XXXXX (9) MAKE SURE THE APU OR GROUND SOURCE PRESSURE IS AT LEAST
30 PSIG (Pc = 30 PSIG).

_____ XXXXX (10) MAKE SURE THE PRSOV IS IN THE FULL OPEN POSITION.

_____ XXXXX (11) DOES THE SUPPLY PRESSURE GAGE SHOW Pc = 22-27 PSIG ?

(a) NO, REPLACE THE PRSOV (REF 36-11-09/201).

(b) YES, CONTINUE.

_____ XXXXX (12) DO A CHECK OF THE DOWN STREAM PRESSURE SENSE LINE
FROM THE PRSOV TO THE START DUCT FOR NITROGEN LEAKS.

_____ XXXXX (13) REPAIR ALL LEAKAGE.

_____ XXXXX (14) MAKE SURE THE "OFF" LIGHT, ON THE P5 PANEL, IS NOT ON.

_____ XXXXX (15) REMOVE PNEUMATIC POWER (REF 36-00-00/201).

(a) IF THE APU WAS USED, CLOSE CIRCUIT
BREAKER 11Q22- APU BLEED PWR, THEN PUT THE APU
SWITCH TO THE OFF POSITION.

_____ XXXXX (16) MAKE SURE THE PRSOV IS IN THE CLOSED POSITION AND THE
"OFF" LIGHT ON THE P5 PANEL , IS ON.

C. PUT THE AIRPLANE BACK TO ITS USUALL CONDITION.

_____ XXXXX (1) FOR THE PRSOV ON THE RIGHT ENGINE, REMOVE THE NITROGEN
SOURCE, SUPPLY PRESSURE GAGE, HOSES AND FITTINGS AT THE
SENSE LINE FOR THE 450 TEMPERATURE SENSOR.

_____ XXXXX (2) FOR THE PRSOV ON THE LEFT ENGINE , REMOVE THE NITROGEN
SOURCE , SUPPLY PRESSURE GAGE, HOSES AND FITTINGS AT
THE PRSOV.

_____ XXXXX (3) REMOVE ANY COVERS THAT WERE INSTALLED ON THE OPEN SENSE
LINES OR FITTING.

#1 ENGINE PRSOV FUNCTIONAL CHECK

A/C NUMBER:

CHECK BEING PERFORMED: Cust

W/C NUMBER: 241F3602 (continued)

MECH: INSP:

-
- _____ XXXXX (4) APPLY ANTI-SEIZE COMPOUND TO THE THREADS OF THE SENSE LINE FITTING.

 - _____ XXXXX (5) INSTALL THE SENSE LINE FOR THE 450 TEMPERATURE SENSOR.

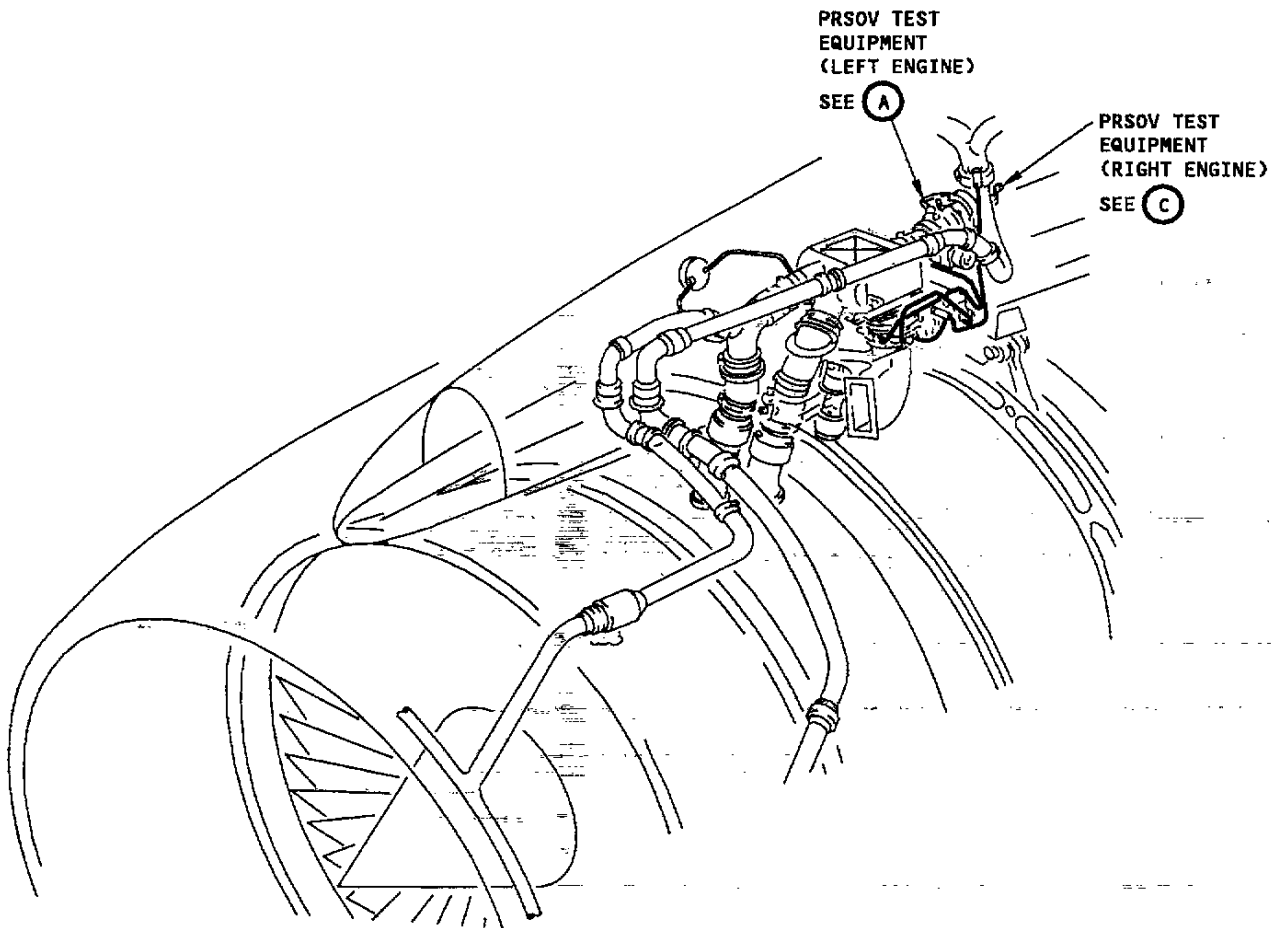
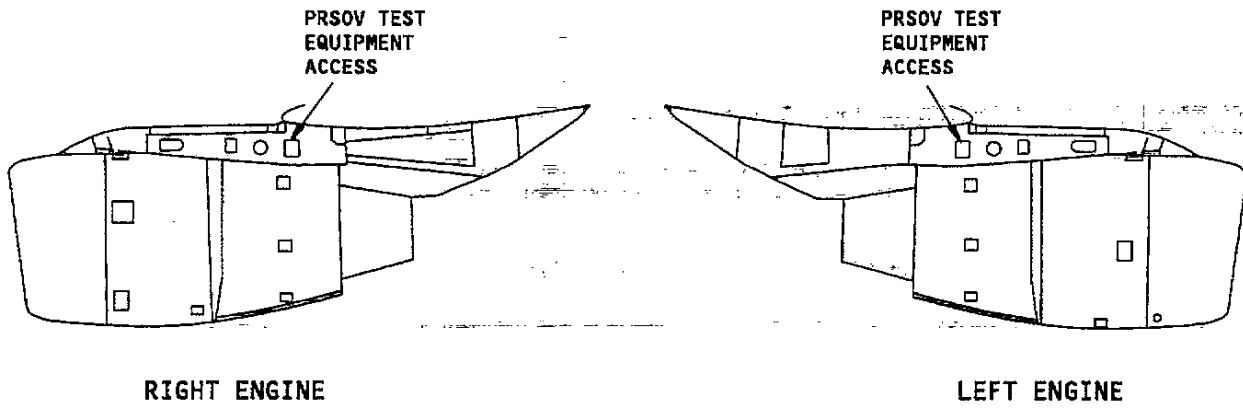
 - _____ XXXXX (6) CLOSE THE ACCESS DOOR FOR THE PRSOV ON THE NACELLE STRUT (REF 06-43-00/201).

 - _____ XXXXX (7) IF METHOD 1 WAS USED TO ELECTRICALLY ENABLE THE PRSOV, DO THESE STEPS:
 - (a) PUSH THE L (R) ENG OFF SWITCH-LIGHT ON THE P5 PANEL TO THE OFF POSITION.
 - (b) OPEN THESE CIRCUIT BREAKERS ON THE P5 PANEL:
 - 1) 11Q10 L ENG BLEED
 - 2) 11Q19 R ENG BLEED
 - (c) REMOVE THE JUMPER.
 - (d) INSTALL THE ELECTRICAL CONNECTOR.
 - (e) REMOVE THE DO NOT CLOSE TAG AND CLOSE THE APPLICABLE CIRCUIT BREAKER, ON THE P11 PANEL:
 - 1) 11B31 L ENG SPEED CARD
 - 2) 11B32 R ENG SPEED CARD
 - 3) 11Q10 L ENG BLEED
 - 4) 11Q19 R ENG BLEED

 - _____ XXXXX (8) REMOVE ELECTRICAL POWER IF IT IS NOT NECESSARY (REF 24-22-00/201).

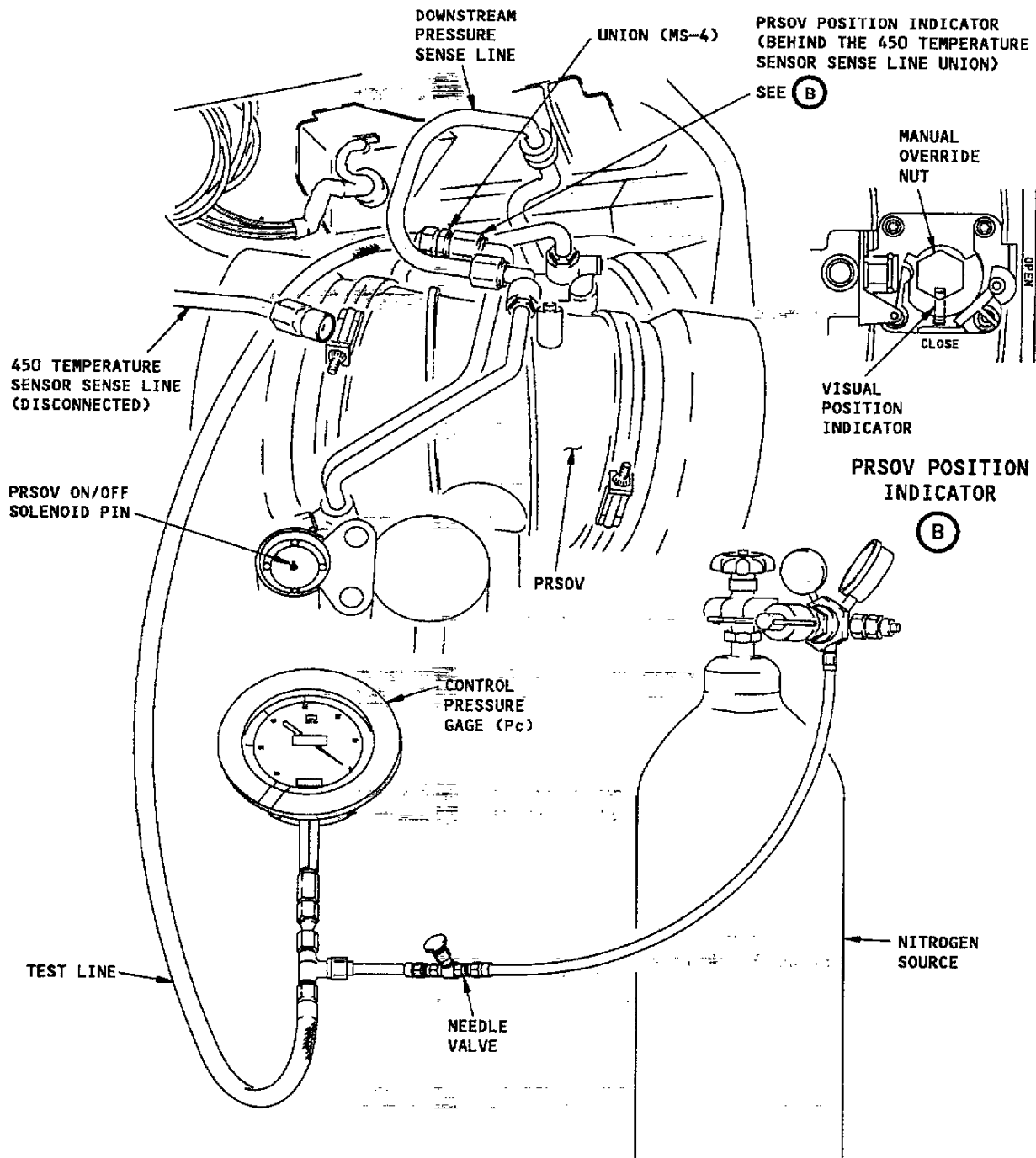
*****END OF WORKCARD*****

241F3602



PRSOV Test Equipment

241F3602

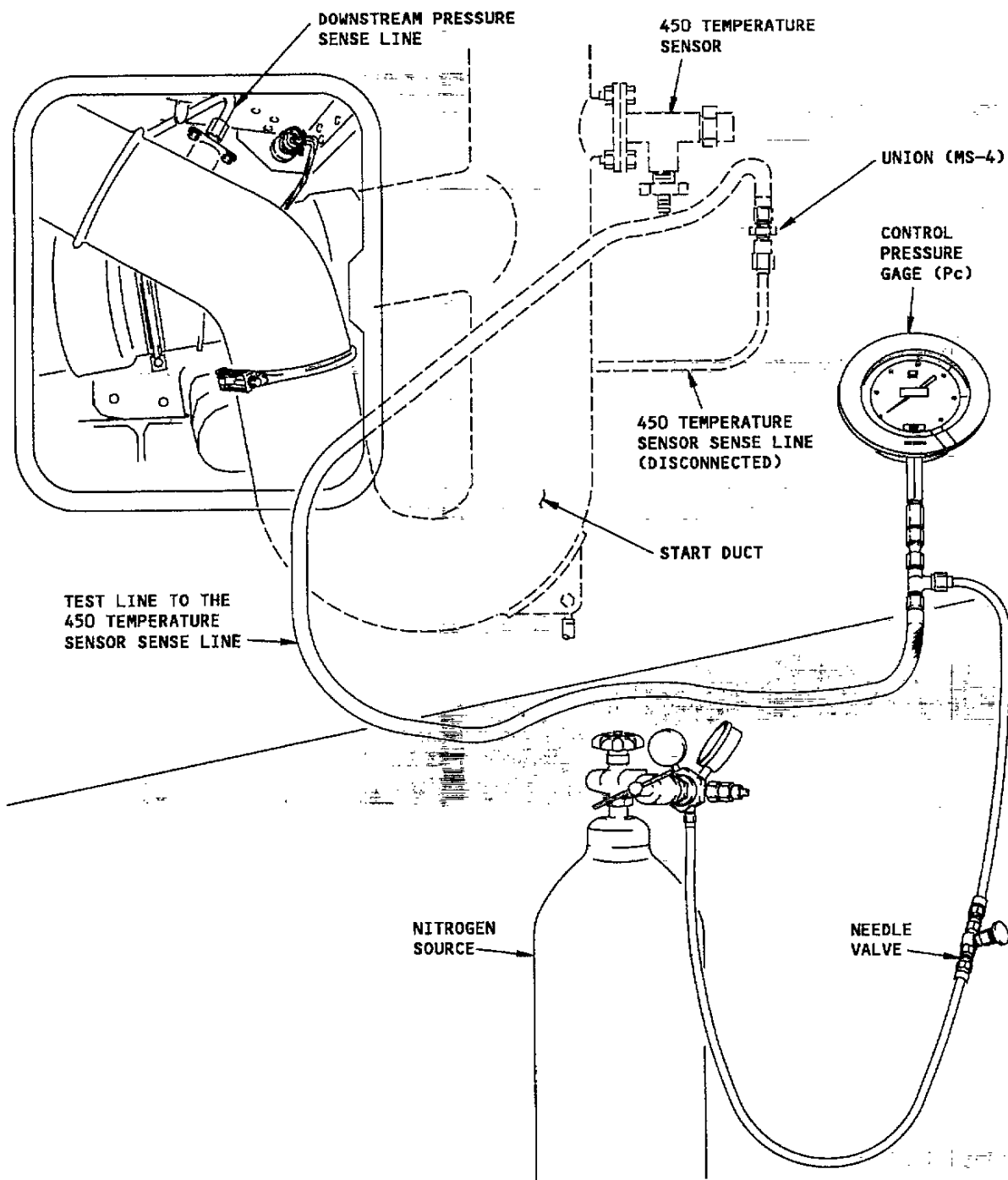


PRSOV TEST EQUIPMENT (LEFT ENGINE)

(A)

PRSOV Test Equipment

241F3602

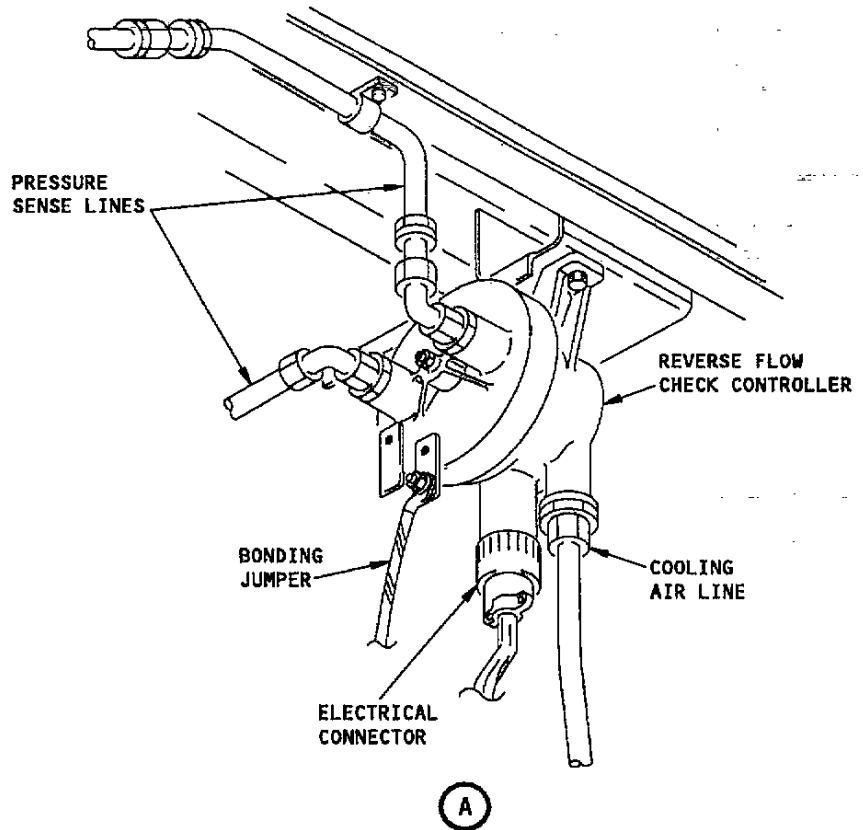
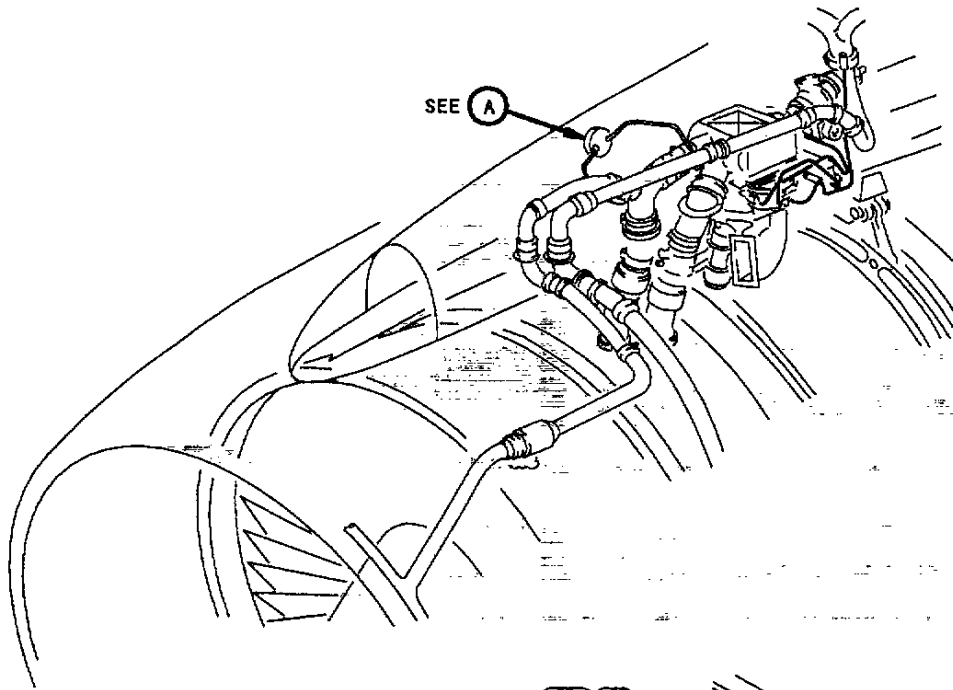


PRSOV TEST EQUIPMENT
(RIGHT ENGINE)

(C)

PRSOV Test Equipment

241F3602



Reverse Flow Check Controller