

RECIRCULATION FAN - REMOVAL/INSTALLATION

EFFECTIVITY: ALL

1. General

- A. This section gives the procedures to remove, install, deactivate and reactivate the recirculation fans.
- B. The two recirculation fans are under the passenger cabin floor, attached to supports by clamps. The removal/installation procedure is applicable to the two recirculation fans.
- C. The procedures in this section are given in the sequence below. The tasks identified with (♦) are part of the Scheduled Maintenance Requirements Document (SMRD).

TASK NUMBER	DESCRIPTION	EFFECTIVITY
21-24-01-000-801-A	RECIRCULATION FAN - REMOVAL	ALL
21-24-01-400-801-A	RECIRCULATION FAN - INSTALLATION	ALL
21-24-01-040-801-A	RECIRCULATION FAN - DEACTIVATION PROCEDURES	ALL
21-24-01-440-801-A	RECIRCULATION FAN - REACTIVATION PROCEDURES	ALL

TASK 21-24-01-000-801-A

EFFECTIVITY: ALL

2. RECIRCULATION FAN - REMOVAL

A. General

(1) This task gives the procedures to remove the recirculation fan.

B. References

REFERENCE	DESIGNATION
AMM MPP 06-41-02/100	-
AMM TASK 53-01-02-000-802-A/400	-

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
241	241DF (as applicable)	Passenger cabin floor
251	251BF (as applicable)	Passenger cabin floor
252	252AF	Passenger cabin floor

D. Tools and Equipment

Not Applicable

E. Auxiliary Items

Not Applicable

F. Consumable Materials

Not Applicable

G. Expandable Parts

Not Applicable

H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Under the passenger cabin floor

I. Preparation

SUBTASK 841-002-A

- (1) On the overhead circuit breaker panel, open and safety the circuit breaker(s), as applicable:
 - CABIN RECIRC (RH recirculation fan).
 - COCKPIT RECIRC (LH recirculation fan).
- (2) Remove the floor access panel (AMM MPP 06-41-02/100 and AMM TASK 53-01-02-000-802-A/400), as applicable:
 - 251BF or 241DF (LH recirculation fan).

– 252AF (RH recirculation fan).

- (3) For Velcro-attached insulation, loosen the Velcro fastener of the insulation blankets of the recirculation fan(s).

For adhesive tape-attached insulation, remove the tape from the insulating blankets of the recirculation fan(s).

J. Removal ([Figure 401](#))

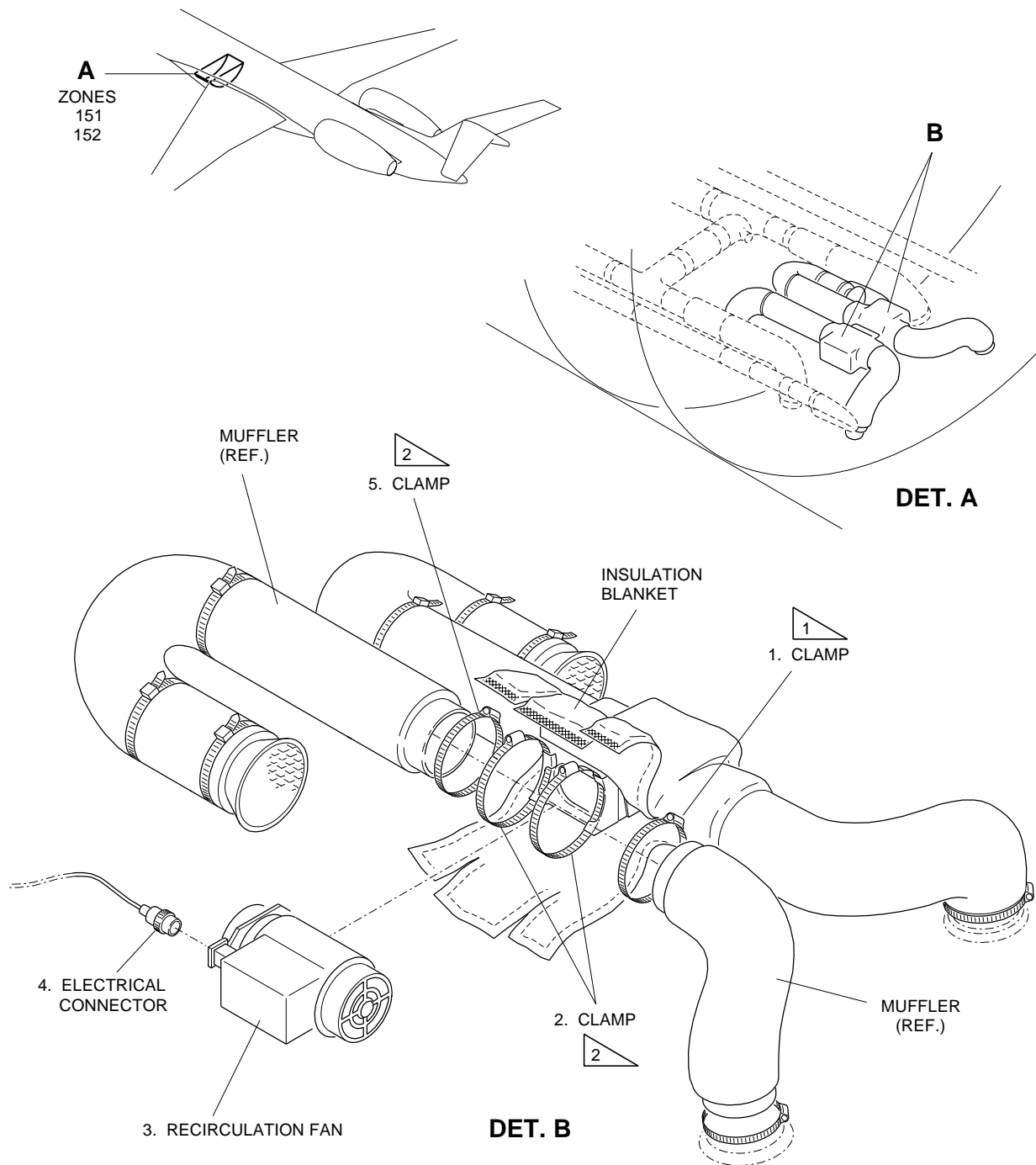
SUBTASK 020-002-A

- (1) Disconnect the electrical connector (4).
- (2) Remove the clamps (1) and (5) that attach the recirculation fan to the inlet and outlet mufflers.
- (3) Cut the lockwire and loosen the clamps (2) that attach the recirculation fan (3) to its support.
- (4) Remove the recirculation fan (3).

EFFECTIVITY: ALL

Recirculation Fan - Removal/Installation

Figure 401



1 TORQUE: 5.6 – 6.8 N.m (50 – 60 lb.in).

2 TORQUE: 2.0 N.m (18 lb.in).

EM145AMM210013D.DGN

TASK 21-24-01-400-801-A
EFFECTIVITY: ALL

3. RECIRCULATION FAN - INSTALLATION

A. General

(1) This task gives the procedures to install the recirculation fan.

B. References

REFERENCE	DESIGNATION
AMM MPP 06-41-02/100	-
AMM TASK 21-20-00-700-801-A/500	CONDITIONED AIR DISTRIBUTION SYSTEM - OPERATIONAL CHECK
AMM TASK 28-41-00-200-801-A/600	-
AMM TASK 53-01-02-400-802-A/400	-

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
241	241DF (as applicable)	Passenger cabin floor
251	251BF (as applicable)	Passenger cabin floor
252	252AF	Passenger cabin floor

D. Tools and Equipment

ITEM	DESCRIPTION	PURPOSE	QTY
Torque wrench	Torque wrench - range: 3.4 - 16.9 N.m (30 - 150 lb.in)	To tighten the clamp(s)	
Torque wrench	Torque wrench - range: 1.1 - 5.6 N.m (10 - 50 lb.in)	To tighten the clamp(s)	

E. Auxiliary Items

Not Applicable

F. Consumable Materials

SPECIFICATION (BRAND)	DESCRIPTION	QTY
MS20995C20	Safety wire	AR
KB42/75	Adhesive Tape	AR

G. Expandable Parts

Not Applicable

H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Under the passenger cabin floor

I. Preparation

SUBTASK 841-003-A

- (1) On the overhead circuit breaker panel, make sure that the applicable circuit breaker(s) below is (are) open and with a DO-NOT-CLOSE tag attached to it (them):
 - CABIN RECIRC (RH recirculation fan).
 - COCKPIT RECIRC (LH recirculation fan).

J. Installation (Figure 401)

SUBTASK 420-002-A

- (1) Put the recirculation fan (3) in the installation position.
- (2) Attach the recirculation fan to its support with the clamps (2).
- (3) With a torque wrench, apply a torque of 2.0 N.m (18 lb.in) to the clamps (2).
- (4) Lockwire the clamps (2).
- (5) Install the clamps (1) and (5) to attach the recirculation fan (3) to the inlet and outlet mufflers.
- (6) With a torque wrench, apply a torque of 2.0 N.m (18 lb.in) to the clamp (5).
- (7) With a torque wrench, apply a torque of 5.6 – 6.8 N.m (50 – 60 lb.in) to the clamp (1).
- (8) Connect the electrical connector (4).

K. Follow-on

SUBTASK 842-002-A

- (1) Do the operational check of the air conditioning distribution system ([AMM TASK 21-20-00-700-801-A/500](#)).
- (2) For Velcro-attachable insulation, attach the Velcro fastener of the insulating blankets of the recirculation fan and apply several pieces of KB42/75 tape to assist in holding the ends the blanket together.

For adhesive tape-attachable insulation, put the insulating blanket in position and apply several pieces of KB42/75 tape to hold the ends the blanket together.
- (3) Do an inspection on the fuel quantity indication harness (AMM TASK 28-41-00-200-801-A/600).

NOTE: The inspection of fuel quantity indication harness is part of Critical Design Configuration Control Limitations (CDCCL) in the Airworthiness Limitations of the Aircraft Maintenance Program.

- (4) Install the floor access panel(s) (AMM MPP 06-41-02/100 and AMM TASK 53-01-02-400-802-A/400), as applicable:
 - 251BF or 241DF (LH recirculation fan).
 - 252AF (RH recirculation fan).
- (5) On the overhead circuit breaker panel, remove the DO-NOT-CLOSE tag(s) from the applicable circuit breaker(s) below and close it (them):
 - CABIN RECIRC (RH recirculation fan).
 - COCKPIT RECIRC (LH recirculation fan).

TASK 21-24-01-040-801-A

EFFECTIVITY: ALL

4. RECIRCULATION FAN - DEACTIVATION PROCEDURES

A. General

(1) This task gives the procedures to deactivate the Recirculation Fan.

(2) This task refers to item 21-24-01 - Recirculation Fan of the **DDPM**.

B. Zones and Accesses

Not Applicable

C. Tools and Equipment

Not Applicable

D. Auxiliary Items

Not Applicable

E. Consumable Materials

Not Applicable

F. Expandable Parts

Not Applicable

G. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Under the passenger cabin floor

H. Recirculation Fan - Deactivation Procedure

SUBTASK 040-002-A

(1) Airplanes equipped with conventional electromechanical standby instruments may be dispatched, provided:

- inoperative recirculation fans are deactivated, according to item (2).

(2) Airplanes equipped with Integrated Standby Instrument System (ISIS) may be dispatched as follows:

(a) Applicable to FAA, ANAC and IAC-AR certified aircraft:

1 With any recirculation fan inoperative, provided:

- a failed fan is deactivated.
- b remaining fan and its associated pack operate normally.
- c ambient temperature on the ground is below ISA + 25 °C.

(b) Applicable to FAA certified aircraft:

1 With both recirculation fans inoperative, provided:

- a failed fans are deactivated.
 - b pack 1 operates normally.
- (3) On the circuit breaker panel, open the affected recirculation fan circuit breaker, COCKPIT RECIRC (Location tip: SHED DC BUS 1/COCKPIT RECIRC) and/or CABIN RECIRC (Location tip: SHED DC BUS 2/CABIN RECIRC), and attach (a) DO-NOT-CLOSE tag(s) to it(them).
- (4) Write in the aircraft technical logbook that you did the Deactivation Procedure for the recirculation fan.

TASK 21-24-01-440-801-A

EFFECTIVITY: ALL

5. RECIRCULATION FAN - REACTIVATION PROCEDURES

A. General

- (1) This task gives the procedures to reactivate the Recirculation Fan.
- (2) This task refers to item 21-24-01 - Recirculation Fan of the DDPM.

B. References

REFERENCE	DESIGNATION
AMM 21-21-00/101	-
AMM 21-22-00/101	-

C. Zones and Accesses

Not Applicable

D. Tools and Equipment

Not Applicable

E. Auxiliary Items

Not Applicable

F. Consumable Materials

Not Applicable

G. Expandable Parts

Not Applicable

H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Under the passenger cabin floor

I. Recirculation Fan - Reactivation Procedure

SUBTASK 440-002-A

- (1) Do the troubleshooting and the applicable corrective maintenance procedure for the respective Recirculation fan.
- (2) On the circuit breaker panel, close the affected recirculation fan circuit breaker, COCKPIT RECIRC (Location tip: SHED DC BUS 1/COCKPIT RECIRC) and/or CABIN RECIRC (Location tip: SHED DC BUS 2/CABIN RECIRC), and remove (a) DO-NOT-CLOSE tag(s) to it(them).
- (3) Do the operational test of the cockpit recirculation fan as follows:
 - (a) Set the PACK 1 and RECIRC push-buttons to ON and make sure the air flows through the cockpit general outlets (AMM 21-21-00/101).
- (4) Do the operational test of the passenger cabin recirculation fan as follows:

- (a) Set the PACK 2 and RECIRC push-buttons to ON and make sure the air flows through the passenger cabin general outlets (AMM 21-22-00/101).
- (5) Write in the aircraft logbook that you did the Reactivation Procedure for the Recirculation Fan

