

DC ELECTRICAL LOAD DISTRIBUTION - ADJUSTMENT/TEST

EFFECTIVITY: ALL

1. General

- A. This section gives the procedures to do the operational check of the electrical emergency transfer circuit and operational check of the ELEC EMERG ABNORM Alarm.
- B. 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
24-60-00-700-801-A ◆	ELECTRICAL EMERGENCY TRANSFER CIRCUIT - OPERATIONAL CHECK	ALL
24-60-00-700-802-A ◆	ELEC EMERG ABNORM ALARM - OPERATIONAL CHECK	ALL

TASK 24-60-00-700-801-A

EFFECTIVITY: ALL

2. ELECTRICAL EMERGENCY TRANSFER CIRCUIT - OPERATIONAL CHECK

A. General

- (1) The function of this check is to make sure that the electrical emergency transfer circuit operates correctly.

B. References

REFERENCE	DESIGNATION
AMM MPP 06-41-01/100	-
AMM SDS 24-60-00/1	
AMM SDS 27-36-00/1	
AMM SDS 32-63-00/1	

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
113	113DL	LH Forward Fuselage

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	Cockpit

I. Preparation

SUBTASK 841-002-A

NOTE: Do not operate the APU and the engines.

- (1) Make sure that BATT 1 and BATT 2 switches, on the electrical control panel, on the overhead panel, are set to the OFF position.
- (2) Make sure that the Avionics Master 1 and 2 pushbuttons, on the electrical control panel, are set to the ON position.
- (3) Make sure that the electrical system has a minimum load.

- (4) Open access door 113DL (AMM MPP 06-41-01/100).
- (5) Open the AUTO ESS and ESS SIGNAL circuit breakers on the Main Battery 1 Relay Box (AMM SDS 24-60-00/1).

J. Operationally Check Electrical Emergency Transfer Circuit (Figure 501)

SUBTASK 710-002-A

- (1) Do the check as follows:
 - (a) Set the BATT 1 and BATT 2 switches, on the electrical panel, on the overhead panel, to AUTO.
Result:
 - 1 The EICAS display, the MFDs, and the PFDs come on.
 - 2 The EICAS display shows the SHED BUS 1-2 OFF caution messages.
 - 3 The master CAUTION lights flash.
 - (b) Push a master CAUTION light.
Result:
 - 1 The master CAUTION lights go off.

NOTE: Make sure that the AOA sensors (AMM SDS 27-36-00/1) are in the middle position.
 - (c) Open the AIR/GND A, B, C, and D circuit breakers on the circuit breaker panel.
Result:
 - 1 The EICAS display shows the ELEC ESS XFER FAIL warning message (approximately two seconds of time delay).
 - 2 The master WARNING lights flash.
 - 3 On the EICAS display, the SHED BUS 1-2 OFF caution messages stay in view.
 - (d) Push a master WARNING light.
Result:
 - 1 The master WARNING lights go off.
 - (e) Set the ESSENTIAL POWER pushbutton, on the electrical panel, on the overhead panel, to ON.
Result:
 - 1 On the ESSENTIAL POWER pushbutton, the striped bar comes on and goes off.
 - 2 On the EICAS display, the ELEC ESS XFER FAIL warning message goes out of view.
 - 3 The MFDs and PFDs go off.
 - 4 The EICAS display shows the DC BUS 1-2 OFF caution messages.
 - 5 On the EICAS display, the SHED BUS 1-2 OFF caution messages stay in view.
 - 6 The master CAUTION lights flash.
 - (f) Push a master CAUTION light.

Result:

- 1 The master CAUTION lights go off.

CAUTION: WHEN YOU ARE TO CLOSE THE AIR/GND A, B, C, AND D CIRCUIT BREAKERS, THE TIME NECESSARY FOR YOU TO CLOSE ALL THE FOUR CIRCUIT BREAKERS MUST NOT BE MORE THAN 10 SECONDS (AMM SDS 32-63-00/1).

- (g) Close the AIR/GND A, B, C, and D circuit breakers.
- (h) Set the ESSENTIAL POWER pushbutton to AUTO.

Result:

- 1 The MFDs and PFDs come on.
- 2 On the EICAS display, the DC BUS 1-2 OFF caution messages go out of view.
- 3 On the EICAS display, the SHED BUS 1-2 OFF caution messages stay in view.

- (i) Set the BATT 1 and BATT 2 switches to OFF.
- (j) Close the AUTO ESS and ESS SIGNAL circuit breakers.
- (k) Set the BATT 1 and BATT 2 switches to AUTO.

Result:

- 1 The EICAS display shows the SHED BUS 1-2 OFF caution messages.
- 2 The master CAUTION lights flash.

- (l) Push a master CAUTION light.

Result:

- 1 The master CAUTION lights go off.

- (m) Open the AIR/GND A, B, C, and D circuit breakers.

Result:

- 1 The MFDs and PFDs go off.
- 2 The EICAS display shows the DC BUS 1-2 OFF caution messages.
- 3 On the EICAS display, the SHED BUS 1-2 OFF caution messages stay in view.
- 4 The master CAUTION lights flash.

- (n) Push a master CAUTION light.

Result:

- 1 The master CAUTION lights go off.

CAUTION: WHEN YOU ARE TO CLOSE THE AIR/GND A, B, C, AND D CIRCUIT BREAKERS, THE TIME NECESSARY FOR YOU TO CLOSE ALL THE FOUR CIRCUIT BREAKERS MUST NOT BE MORE THAN 10 SECONDS (AMM SDS 32-63-00/1).

- (o) Close the AIR/GND A, B, C, and D circuit breakers.

Result:

- 1 On the EICAS display, the DC BUS 1-2 OFF caution messages stay in view.

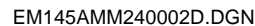
- 2 On the EICAS display, the SHED BUS 1-2 OFF caution messages stay in view.
- (p) Set the BATT 1 and BATT 2 switches to OFF and then to AUTO.
Result:
 - 1 On the EICAS display, the DC BUS 1-2 OFF caution messages go out of view.
 - 2 On the EICAS display, the SHED BUS 1-2 OFF caution messages stay in view.

K. Follow-on

SUBTASK 842-002-A

- (1) Set the BATT 1 and BATT 2 switches to OFF.
- (2) Close access door 113DL (AMM MPP 06-41-01/100).

Figure 501



TASK 24-60-00-700-802-A

EFFECTIVITY: ALL

3. ELEC EMERG ABNORM ALARM - OPERATIONAL CHECK

A. General

- (1) The function of this check is to make sure that the EICAS display shows the ELEC EMERG ABNORM caution message correctly.

B. References

REFERENCE	DESIGNATION
AMM MPP 06-41-01/100	-
AMM SDS 24-60-00/1	
AMM TASK 20-40-01-860-801-A/200	ENERGIZATION OF THE AIRCRAFT WITH AN EXTERNAL POWER SOURCE

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
113	113DL	LH Forward Fuselage

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	Cockpit

I. Preparation

SUBTASK 841-003-A

NOTE: Do not operate the APU and the engines.

- (1) Open access door 113DL (AMM MPP 06-41-01/100).
- (2) Open AUTO ESS and ESS SIGNAL circuit breakers on the Main Battery 1 Relay Box ([AMM SDS 24-60-00/1](#)).
- (3) Make sure that the Avionics Master 1 and 2 pushbuttons, on the electrical control panel, are set to the ON position.

- (4) Make sure that the BACKUP pushbutton, on the electrical control panel, on the overhead panel, is set to the AUTO position.
- (5) Energize the aircraft with the External DC Power Supply ([AMM TASK 20-40-01-860-801-A/200](#)).

J. Operationally Check ELEC EMERG ABNORM Alarm ([Figure 502](#)) ([Figure 503](#))

SUBTASK 710-003-A

- (1) Do the check as follows:
 - (a) Set the BATT 1 and BATT 2 switches, on the electrical panel, on the overhead panel, to AUTO.
 - (b) Set the ESSENTIAL POWER pushbutton, on the electrical panel, on the overhead panel, to ON.

Result:

 - 1 On the ESSENTIAL POWER pushbutton, the striped bar comes on and goes off.
 - 2 The EICAS display shows the SHED BUS 1-2 OFF, DC BUS 1-2 OFF and ELEC EMERG ABNORM caution messages.
 - 3 The MFDs and PFDs go off.
 - 4 The master CAUTION lights flash.
 - (c) Push a master CAUTION light.

Result:

 - 1 The master CAUTION lights go off.
 - (d) Set the ESSENTIAL POWER pushbutton to AUTO.

Result:

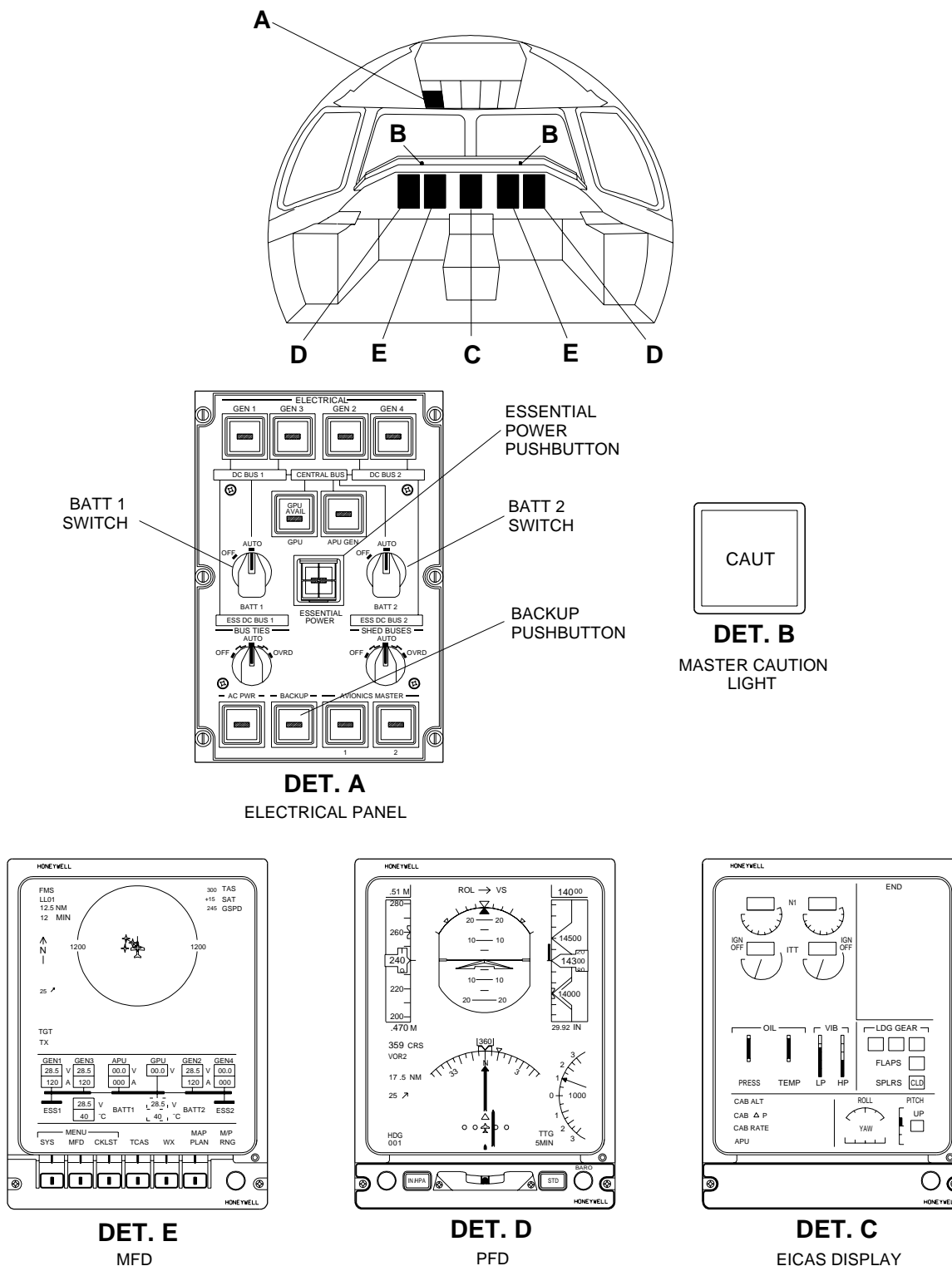
 - 1 On the EICAS display, the DC BUS 1-2 OFF, SHED BUS 1-2 OFF and ELECTRICAL EMERGENCY ABNORMAL caution messages go out of view.
 - 2 The MFDs and PFDs come on.

K. Follow-on

SUBTASK 842-003-A

- (1) Set the BATT 1 and BATT 2 switches to OFF.
- (2) Deenergize the aircraft ([AMM TASK 20-40-01-860-801-A/200](#)).
- (3) Close the AUTO ESS and ESS SIGNAL circuit breakers.
- (4) Close access door 113DL (AMM MPP 06-41-01/100).

EFFECTIVITY: FOR AIRCRAFT WITH AC STATIC INVERTER INSTALLED
ELECTRICAL EMERGENCY ABNORMAL Alarm Check
Figure 502



EM145AMM240003C.DGN

EFFECTIVITY: FOR AIRCRAFT WITH AC STATIC INVERTER NOT INSTALLED

ELECTRICAL EMERGENCY ABNORMAL Alarm Check

Figure 503

