CHAPTER - 24 HIGHLIGHTS
(Summary of Changes)

Revision No. TR24-12 Sep 09/19

TO: HOLDERS OF THE AIRCRAFT MAINTENANCE MANUAL (06-117751)

Pages that have been added or revised are summarized below. Remove and insert the affected pages as listed, and enter the above revision number with issue date into the Record of Revisions sheet.

This Temporary Revision incorporates and supersedes previously released temporary revisions for the chapters listed below.

Do not remove this page. Keep it in place as a record of previous changes.

CH/SE/SU Page Block No.	Description of Change
24-60-00 PgBlk 1 (A)	Description and Operation - Config A, Revised effectivity. Supersedes TR24-10.
24-60-00 PgBlk 1 (B)	Description and Operation. - Config B., Added task AMM-24-60-00 Pitot/AOA Probe Auxiliary Heaters Fuse Assembly. Supersedes TR24-10.
24-60-00 PgBlk 1 (C)	Description and Operation – Config C., Added Independent Pitot/AOA Auxiliary Heaters. Supersedes TR24-11.
24-60-00 PgBlk 501 (B)	Adjustment/Test - Config B, Updated procedure.
24-60-00 PgBlk 501 (C)	Adjustment/Test - Added Config C.
24-60-13 PgBlk 401-Rem	Updated effectivity to include MB 500-34-028. Supersedes TR24-10 and TR24-11.
24-60-13 PgBlk 401-Inst	Updated effectivity to include MB 500-34-028. Supersedes TR24-10 and TR24-11.

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DC ELECTRICAL LOAD DISTRIBUTION - DESCRIPTION AND OPERATION

AMM-24-60-00-081-A-801

1. Introduction

A. When the engines are running, power is supplied to the aircraft from a Starter Generator (SG) attached to each engine. Power is supplied to the left and right electrical buses through a Forward and an Aft Power Distribution Center. Refer to Fig. 1, Sheet 1.

(1) The DC electrical load distribution system has the components that follow:

- One Forward Power Distribution Center (FPDC)
- One Aft Power Distribution Center (APDC)
- Two Electronic Circuit Breaker Units (ECBU)

2. Description

SUBTASK AMM-24-60-00-081-871-001

A. Forward Power Distribution Center (FPDC)

(1) The FPDC LRU is located in the forward section of the aircraft inside the pressure bulkhead, behind the instrument panel.

B. Aft Power Distribution Center (APDC)

(1) The APDC is installed in the aft left side of the aircraft inside the pressure bulkhead.

C. Electronic Circuit Breaker Unit (ECBU)

(1) Two identical ECBUs are installed in the forward section of the aircraft inside the pressure bulkhead behind the instrument panel.

3. Operation

SUBTASK AMM-24-60-00-081-871-002

A. Forward Power Distribution Center:

(1) The FPDC contains the power distribution components for the left (ECBU1) and right (ECBU2) buses. The ECBUs are separate Line Replaceable Units (LRU). The FPDC contains the components that follow:

- ECBU3
- Left Battery Bus Contactor (LBBC)
- Right Battery Bus Contactor (RBBC)
- Systems Battery current reporting and ground fault detection circuitry
- Start Battery current reporting and ground fault detection circuitry

(2) The Left Battery Bus Contactor (LBBC) is used to electrically connect or separate the left forward and battery buses. the LBBC is controlled by the ACS through a RS-485 data bus.

(3) The left forward bus is supplied from the Left Forward Remote Electronic Circuit Breaker (LFRECB) in the APDC. This bus uses ECBU No. 1 and ECBU No. 3 to supply power to the aircraft equipment in normal operation.

(4) The right forward bus is supplied from the Right Forward Remote Electronic Circuit Breaker (RFRECB) in the APDC. This bus uses ECBU2 to supply power to the aircraft equipment in normal operation. The Right Battery Bus Contactor (RBBC) is used to electrically connect or separate the right forward and battery bus. The RBBC is controlled by the Aircraft Computer System (ACS) through a RS-485 data bus.

(5) The systems battery ground fault protection function is provided by a current sensor in the Battery Bus Contactor (BBC) and a detection and logic function in the FPDC. The BBC monitors systems battery current and provides a current source output signal that is proportional to the systems battery current. The FPDC measures the amplitude of that signal and senses a ground fault if the current is more than a specified maximum. The systems battery ground fault status is reported to the ACS through the RS-485 data bus.

(6) The start battery ground fault protection function is provided by a current sensor in the Start Battery Contactor/Lighting Controller (SBCLC or SBC/LC) and a detection and logic function in the FPDC. The SBCLC monitors start battery current and provides a current source output signal that is proportional to the start battery current. The FPDC measures the amplitude of that signal and senses a ground fault if the current more than a specified maximum. The start battery ground fault status is reported to the ACS through the RS-485 data bus.

(7) ECBU3 monitors the left forward, battery, and right forward bus voltages, and the ECB current for equipment connected to these buses. The ECBs are programmable within a specified range of current. Each ECB contains a solid-state switch, current protection and built-in test functions, and voltage and current monitoring capabilities. The ECBs have immediate and I2T current protection features.

(8) Refer to Table 1 for ECB Quantity by Programmable Range.

Table 1. ECBU3 ECB Quantity by Programmable Range

ECBU No. 3	ECB Program Values
4	2.5A
5	2.5, 5.0, 7.5A
1	7.5, 10, 15A

B. Aft Power Distribution Center:

(1) The APDC contains the power distribution components for the left and right aft buses. The buses are separated by a barrier in the APDC. A Bus Tie Contactor (BTC) is used to electrically connect and separate the buses.

(2) The APDC contains the components that follow for the left aft bus:

- ECBU4
- BTC
- Left Forward Remote Electronic Circuit Breaker (LFRECB)
- Left feeder current sensor and differential ground fault detector

(3) The APDC contains the components that follow for the right aft bus:

- ECBU5
- Right Forward Remote Electronic Circuit Breaker (RFRECB)
- Right feeder current sensor and differential ground fault detector

(4) The left aft bus uses ECBU4 to supply power to the aircraft equipment.

(5) The right aft bus uses ECBU5 to supply power to utilization equipment.

(6) The LFRECB controls power to the left forward bus and RFRECB controls power to the right forward bus. The ACS controls each Remote Electronic Circuit Breaker (RECB) through the RS-485 data bus. The BTC is used to electrically tie together or separate the left and right aft buses. The BTC is controlled by the ACS through the RS-485 data bus when the BUS TIE switch on the Instrument Panel, Left (IPL), is in the AUTO position. When the BUS TIE switch is in the OPEN position, the BTC is open and can not be closed by the ACS.

(7) ECBU4 and ECBU5 monitor the left aft and right aft bus voltages, and the ECB current for equipment connected to these buses. The ECBs are programmable within a specified range of current. Each ECB contains a solid-state switch, current protection and built-in test functions, and voltage and current monitoring capabilities. The ECBs have immediate and I2T current protection features.

Refer to Table 2 for ECB Quantity by Programmable Range.

Table 2. ECBU4 & ECBU5 ECB Quantity by Programmable Range

ECBU4	ECBU5	ECB Program Values
14	14	2.5A
9	10	2.5, 5.0, 7.5A
5	7	7.5, 10, 15A
5	2	15, 20, 25A
2	1	25, 30A

C. Electronic Circuit Breaker Units:

(1) ECBU1 distributes power to the aircraft equipment connected to the left forward bus. It receives power from the LFRECB, located in the APDC.

(2) ECBU2 distributes power to the aircraft equipment connected to the right forward bus. It receives power from the RFRECB, located in the APDC.

(3) ECBU1 and ECBU2 contain ECBs that are programmable within a specified range of current. Each ECB contains a solid-state switch, current protection and built-in test functions, and voltage and current monitoring capabilities. The ECBs have immediate and I2T current protection features. Refer to Table 3 for ECB Quantity by Programmable Range.

(4) There are five ECBUs. Each ECBU is associated with one of the following five buses in the aircraft.

- ECBU1: Left forward bus
- ECBU2: Right forward bus
- ECBU3: Battery bus
- ECBU4: Left aft bus
- ECBU5: Right aft bus

(5) Each ECBU contains a number of ECBs. The ECBs supply power to individual systems or loads. Each ECB provides fault protection for the load circuit wiring that is supplied by that ECB. The ECB will automatically trip in the event of a wiring fault or overload. Reset may be attempted by way of pilot input at the Multifunction Display (MFD). The ECBs will trip in the event of circuit fault regardless of the presence of a command to close from the pilot. Automatic reset after a fault is cleared is not allowed. In addition, the ACS controls the ECBUs as necessary to control systems operation and load shedding. ECBU control by the ACS is by way of dual RS-485 data buses. The ACS controls required load shedding in the event of loss of one or both SGs.

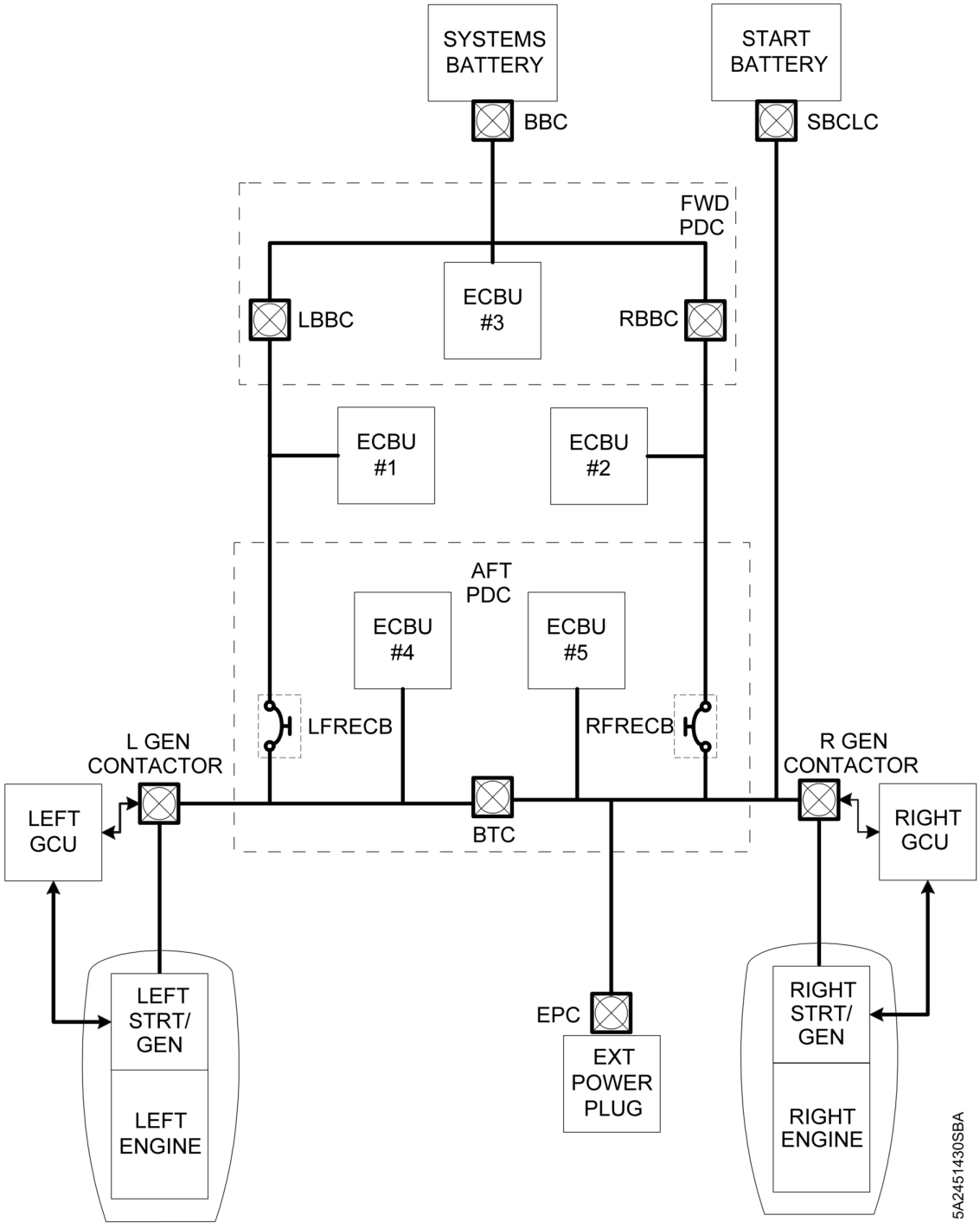
Table 3. ECBU1 & ECBU2 ECB Quantity by Programmable Range

ECBU1	ECBU2	ECB Program Values
13	13	2.5A
7	7	2.5, 5.0, 7.5A
4	4	7.5, 10, 15A

D. ECBs:

Circuit protection is provided by 127 ECBs that are controlled by the ACS. Each of the ECBs contains an independent microprocessor that detects over-current conditions and is programmed to operate the same way a mechanical breaker operates (trips faster if a larger ratio of over-current occurs). Each ECB is also monitored by the adjacent microprocessor, so that the reliability of the ECB is higher than the mechanical circuit breaker it replaces. The status of each ECB may be displayed on the Multifunction Display (MFD) and is remembered by the ECB in non-volatile memory. Thus, when the aircraft is powered down and then back up, the prior state of the ECB is returned. All circuits that were turned on at the time the power was removed are again turned on when power is reapplied. Two mechanical circuit breakers supply power to the left PFD and left ACS to make sure that no transitory event can cause all the ECBs to turn off and thus remove all computer control to turn them back on.

(1) Each ECBU contains a number of ECBs. The ECBs supply power to individual systems or loads. Each ECB provides fault protection for the load circuit wiring that is supplied by that ECB. The ECB will automatically trip in the event of a wiring fault or overload. Reset may be attempted by way of pilot input at the MFD. The ECBs will trip in the event of circuit fault regardless of the presence of a command to close from the pilot. Automatic reset after a fault is cleared is not allowed. In addition, the ACS controls the ECBUs as necessary to control systems operation and load shedding. ECBU control by the ACS is by way of dual RS-485 data buses. The ACS controls require load shedding in the event of loss of one or both SGs.



DC Electrical Load Distribution - Description and Operation
Figure 1 (Sheet 1 of 1)

DC ELECTRICAL LOAD DISTRIBUTION - DESCRIPTION AND OPERATION

AMM-24-60-00-081-B-801

1. Introduction

A. When the engines are running, power is supplied to the aircraft from a Starter Generator (SG) attached to each engine. Power is supplied to the left and right electrical buses through a Forward and an Aft Power Distribution Center. Refer to Fig. 1, Sheet 1.

(1) The DC electrical load distribution system has the components that follow:

- One Forward Power Distribution Center (FPDC)
- One Aft Power Distribution Center (APDC)
- Two Electronic Circuit Breaker Units (ECBU)
- One Fuse Assembly for the Pitot/AOA Probe Auxiliary Heaters. Refer to Fig. 1, Sheet 2.

2. Description

SUBTASK AMM-24-60-00-081-B-871-001

A. Forward Power Distribution Center (FPDC)

(1) The FPDC LRU is located in the forward section of the aircraft inside the pressure bulkhead, behind the instrument panel.

B. Aft Power Distribution Center (APDC)

(1) The APDC is installed in the aft left side of the aircraft inside the pressure bulkhead.

C. Electronic Circuit Breaker Unit (ECBU)

(1) Two identical ECBUs are installed in the forward section of the aircraft inside the pressure bulkhead behind the instrument panel.

D. Fuse Assembly for the Pitot/AOA Probe Auxiliary Heaters

(1) The Fuse Assembly for the Pitot/AOA Probe Auxiliary Heaters is located below the Aft Power Distribution Center (APDC), connected to electrical connector 24A04P01.

3. Operation

SUBTASK AMM-24-60-00-081-B-871-002

A. Forward Power Distribution Center:

(1) The FPDC contains the power distribution components for the left (ECBU1) and right (ECBU2) buses. The ECBUs are separate Line Replaceable Units (LRU). The FPDC contains the components that follow:

- ECBU3
- Left Battery Bus Contactor (LBBC)
- Right Battery Bus Contactor (RBBC)

- Systems Battery current reporting and ground fault detection circuitry
- Start Battery current reporting and ground fault detection circuitry

(2) The Left Battery Bus Contactor (LBBC) is used to electrically connect or separate the left forward and battery buses. the LBBC is controlled by the ACS through a RS-485 data bus.

(3) The left forward bus is supplied from the Left Forward Remote Electronic Circuit Breaker (LFRECB) in the APDC. This bus uses ECBU No. 1 and ECBU No. 3 to supply power to the aircraft equipment in normal operation.

(4) The right forward bus is supplied from the Right Forward Remote Electronic Circuit Breaker (RFRECB) in the APDC. This bus uses ECBU2 to supply power to the aircraft equipment in normal operation. The Right Battery Bus Contactor (RBBC) is used to electrically connect or separate the right forward and battery bus. The RBBC is controlled by the Aircraft Computer System (ACS) through a RS-485 data bus.

(5) The systems battery ground fault protection function is provided by a current sensor in the Battery Bus Contactor (BBC) and a detection and logic function in the FPDC. The BBC monitors systems battery current and provides a current source output signal that is proportional to the systems battery current. The FPDC measures the amplitude of that signal and senses a ground fault if the current is more than a specified maximum. The systems battery ground fault status is reported to the ACS through the RS-485 data bus.

(6) The start battery ground fault protection function is provided by a current sensor in the Start Battery Contactor/Lighting Controller (SBCLC or SBC/LC) and a detection and logic function in the FPDC. The SBCLC monitors start battery current and provides a current source output signal that is proportional to the start battery current. The FPDC measures the amplitude of that signal and senses a ground fault if the current more than a specified maximum. The start battery ground fault status is reported to the ACS through the RS-485 data bus.

(7) ECBU3 monitors the left forward, battery, and right forward bus voltages, and the ECB current for equipment connected to these buses. The ECBs are programmable within a specified range of current. Each ECB contains a solid-state switch, current protection and built-in test functions, and voltage and current monitoring capabilities. The ECBs have immediate and I2T current protection features.

(8) Refer to Table 1 for ECB Quantity by Programmable Range.

Table 1. ECBU3 ECB Quantity by Programmable Range

ECBU No. 3	ECB Program Values
4	2.5A
5	2.5, 5.0, 7.5A
1	7.5, 10, 15A

B. Aft Power Distribution Center:

(1) The APDC contains the power distribution components for the left and right aft buses. The buses are separated by a barrier in the APDC. A Bus Tie Contactor (BTC) is used to electrically connect and separate the buses.

(2) The APDC contains the components that follow for the left aft bus:

- ECBU4
- BTC
- Left Forward Remote Electronic Circuit Breaker (LFRECB)
- Left feeder current sensor and differential ground fault detector

(3) The APDC contains the components that follow for the right aft bus:

- ECBU5
- Right Forward Remote Electronic Circuit Breaker (RFRECB)
- Right feeder current sensor and differential ground fault detector

(4) The left aft bus uses ECBU4 to supply power to the aircraft equipment.

(5) The right aft bus uses ECBU5 to supply power to utilization equipment.

(6) The LFRECB controls power to the left forward bus and RFRECB controls power to the right forward bus. The ACS controls each Remote Electronic Circuit Breaker (RECB) through the RS-485 data bus. The BTC is used to electrically tie together or separate the left and right aft buses. The BTC is controlled by the ACS through the RS-485 data bus when the BUS TIE switch on the Instrument Panel, Left (IPL), is in the AUTO position. When the BUS TIE switch is in the OPEN position, the BTC is open and can not be closed by the ACS.

(7) ECBU4 and ECBU5 monitor the left aft and right aft bus voltages, and the ECB current for equipment connected to these buses. The ECBs are programmable within a specified range of current. Each ECB contains a solid-state switch, current protection and built-in test functions, and voltage and current monitoring capabilities. The ECBs have immediate and I2T current protection features.

Refer to Table 2 for ECB Quantity by Programmable Range.

Table 2. ECBU4 & ECBU5 ECB Quantity by Programmable Range

ECBU4	ECBU5	ECB Program Values
14	14	2.5A
9	10	2.5, 5.0, 7.5A
5	7	7.5, 10, 15A
5	2	15, 20, 25A
2	1	25, 30A

C. Electronic Circuit Breaker Units:

(1) ECBU1 distributes power to the aircraft equipment connected to the left forward bus. It receives power from the LFRECB, located in the APDC.

(2) ECBU2 distributes power to the aircraft equipment connected to the right forward bus. It receives power from the RFRECB, located in the APDC.

(3) ECBU1 and ECBU2 contain ECBs that are programmable within a specified range of current. Each ECB contains a solid-state switch, current protection and built-in test functions, and voltage and current monitoring capabilities. The ECBs have immediate and I2T current protection features. Refer to Table 3 for ECB Quantity by Programmable Range.

(4) There are five ECBUs. Each ECBU is associated with one of the following five buses in the aircraft.

- ECBU1: Left forward bus
- ECBU2: Right forward bus
- ECBU3: Battery bus
- ECBU4: Left aft bus
- ECBU5: Right aft bus

(5) Each ECBU contains a number of ECBs. The ECBs supply power to individual systems or loads. Each ECB provides fault protection for the load circuit wiring that is supplied by that ECB. The ECB will automatically trip in the event of a wiring fault or overload. Reset may be attempted by way of pilot input at the Multifunction Display (MFD). The ECBs will trip in the event of circuit fault regardless of the presence of a command to close from the pilot. Automatic reset after a fault is cleared is not allowed. In addition, the ACS controls the ECBUs as necessary to control systems operation and load shedding. ECBU control by the ACS is by way of dual RS-485 data buses. The ACS controls required load shedding in the event of loss of one or both SGs.

Table 3. ECBU1 & ECBU2 ECB Quantity by Programmable Range

ECBU1	ECBU2	ECB Program Values
13	13	2.5A
7	7	2.5, 5.0, 7.5A
4	4	7.5, 10, 15A

D. ECBs:

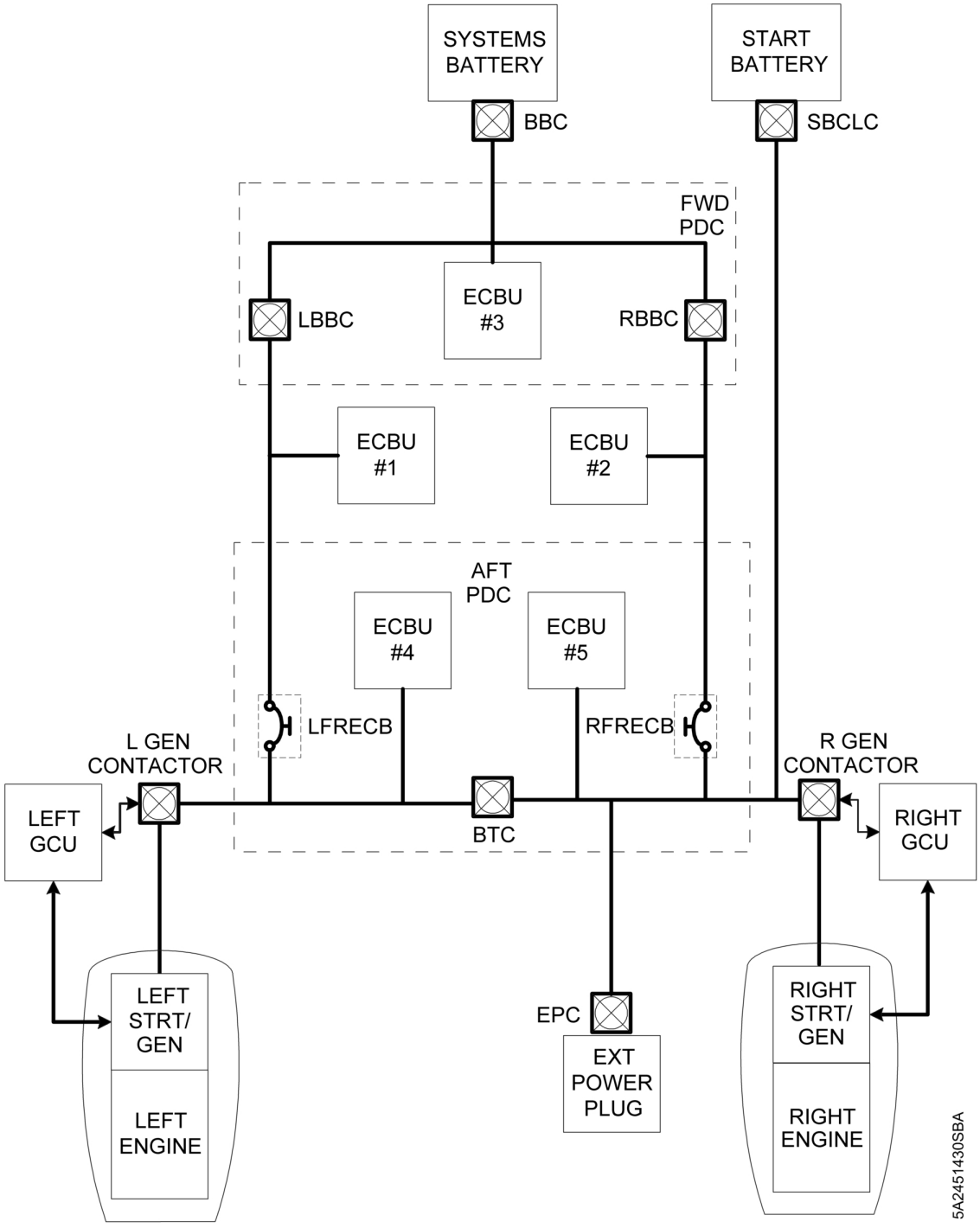
Circuit protection is provided by 127 ECBs that are controlled by the ACS. Each of the ECBs contains an independent microprocessor that detects over-current conditions and is programmed to operate the same way a mechanical breaker operates (trips faster if a larger ratio of over-current occurs). Each ECB is also monitored by the adjacent microprocessor, so that the reliability of the ECB is higher than the mechanical circuit breaker it replaces. The status of each ECB may be displayed on the Multifunction

Display (MFD) and is remembered by the ECB in non-volatile memory. Thus, when the aircraft is powered down and then back up, the prior state of the ECB is returned. All circuits that were turned on at the time the power was removed are again turned on when power is reapplied. Two mechanical circuit breakers supply power to the left PFD and left ACS to make sure that no transitory event can cause all the ECBs to turn off and thus remove all computer control to turn them back on.

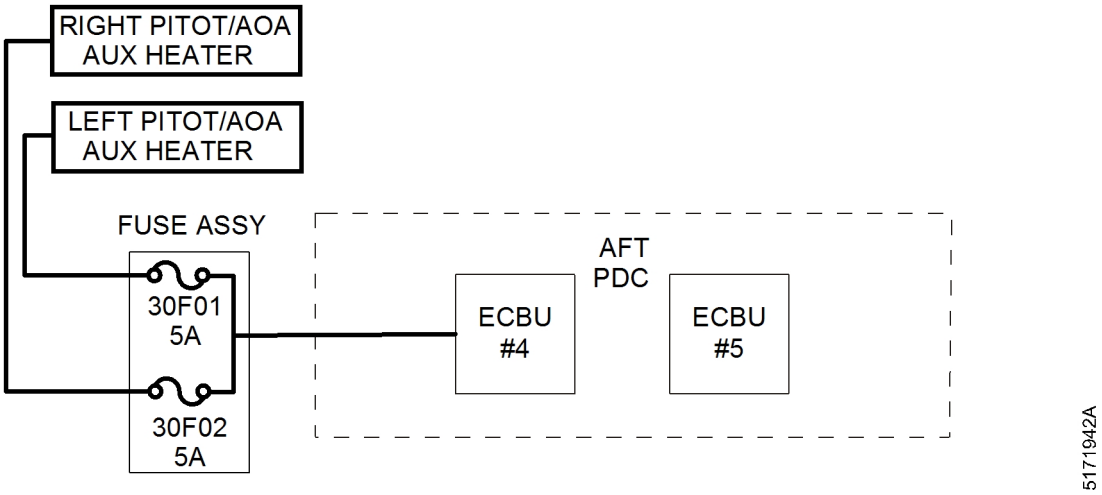
(1) Each ECBU contains a number of ECBs. The ECBs supply power to individual systems or loads. Each ECB provides fault protection for the load circuit wiring that is supplied by that ECB. The ECB will automatically trip in the event of a wiring fault or overload. Reset may be attempted by way of pilot input at the MFD. The ECBs will trip in the event of circuit fault regardless of the presence of a command to close from the pilot. Automatic reset after a fault is cleared is not allowed. In addition, the ACS controls the ECBUs as necessary to control systems operation and load shedding. ECBU control by the ACS is by way of dual RS-485 data buses. The ACS controls require load shedding in the event of loss of one or both SGs.

E. Pitot/AOA Probe Auxiliary Heaters Fuse Assembly :

(1) The Pitot/AOA Probe Auxiliary Heaters Fuse Assembly provides circuit protection for the Pitot/AOA Auxiliary Heaters. Power is received from the APDC and is protected by two five amp fuses and routed to the left and right Pitot/AOA Probe Auxiliary Heaters.



DC Electrical Load Distribution - Description and Operation
Figure 1 (Sheet 1 of 2)



DC Electrical Load Distribution - Description and Operation
Figure 1 (Sheet 2 of 2)

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DC ELECTRICAL LOAD DISTRIBUTION - DESCRIPTION AND OPERATION

AMM-24-60-00-081-C-801

1. Introduction

A. When the engines are running, power is supplied to the aircraft from a Starter Generator (SG) attached to each engine. Power is supplied to the left and right electrical buses through a Forward and an Aft Power Distribution Center. Refer to Fig. 1, Sheet 1.

(1) The DC electrical load distribution system has the components that follow:

- One Forward Power Distribution Center (FPDC)
- One Aft Power Distribution Center (APDC)
- Two Electronic Circuit Breaker Units (ECBU)
- One Fuse Assembly for the Pitot/AOA Probe Auxiliary Heaters. Refer to Fig. 1, Sheet 2.

2. Description

SUBTASK AMM-24-60-00-081-C-871-001

* * * ALL POST MB 500-34-028

A. Forward Power Distribution Center (FPDC)

(1) The FPDC LRU is located in the forward section of the aircraft inside the pressure bulkhead, behind the instrument panel.

B. Aft Power Distribution Center (APDC)

(1) The APDC is installed in the aft left side of the aircraft inside the pressure bulkhead.

C. Electronic Circuit Breaker Unit (ECBU)

(1) Two identical ECBUs are installed in the forward section of the aircraft inside the pressure bulkhead behind the instrument panel.

D. Fuse Assembly for the Pitot/AOA Probe Auxiliary Heaters

(1) The Fuse Assembly for the Pitot/AOA Probe Auxiliary Heaters is located below the Aft Power Distribution Center (APDC), connected to electrical connector 24A04P01.

3. Operation

SUBTASK AMM-24-60-00-081-C-871-002

* * * ALL POST MB 500-34-028

A. Forward Power Distribution Center:

(1) The FPDC contains the power distribution components for the left (ECBU1) and right (ECBU2) buses. The ECBUs are separate Line Replaceable Units (LRU). The FPDC contains the components that follow:

- ECBU3

- Left Battery Bus Contactor (LBBC)
- Right Battery Bus Contactor (RBBC)
- Systems Battery current reporting and ground fault detection circuitry
- Start Battery current reporting and ground fault detection circuitry

(2) The Left Battery Bus Contactor (LBBC) is used to electrically connect or separate the left forward and battery buses. the LBBC is controlled by the ACS through a RS-485 data bus.

(3) The left forward bus is supplied from the Left Forward Remote Electronic Circuit Breaker (LFRECB) in the APDC. This bus uses ECBU No. 1 and ECBU No. 3 to supply power to the aircraft equipment in normal operation.

(4) The right forward bus is supplied from the Right Forward Remote Electronic Circuit Breaker (RFRECB) in the APDC. This bus uses ECBU2 to supply power to the aircraft equipment in normal operation. The Right Battery Bus Contactor (RBBC) is used to electrically connect or separate the right forward and battery bus. The RBBC is controlled by the Aircraft Computer System (ACS) through a RS-485 data bus.

(5) The systems battery ground fault protection function is provided by a current sensor in the Battery Bus Contactor (BBC) and a detection and logic function in the FPDC. The BBC monitors systems battery current and provides a current source output signal that is proportional to the systems battery current. The FPDC measures the amplitude of that signal and senses a ground fault if the current is more than a specified maximum. The systems battery ground fault status is reported to the ACS through the RS-485 data bus.

(6) The start battery ground fault protection function is provided by a current sensor in the Start Battery Contactor/Lighting Controller (SBCLC or SBC/LC) and a detection and logic function in the FPDC. The SBCLC monitors start battery current and provides a current source output signal that is proportional to the start battery current. The FPDC measures the amplitude of that signal and senses a ground fault if the current more than a specified maximum. The start battery ground fault status is reported to the ACS through the RS-485 data bus.

(7) ECBU3 monitors the left forward, battery, and right forward bus voltages, and the ECB current for equipment connected to these buses. The ECBs are programmable within a specified range of current. Each ECB contains a solid-state switch, current protection and built-in test functions, and voltage and current monitoring capabilities. The ECBs have immediate and I2T current protection features.

(8) Refer to Table 1 for ECB Quantity by Programmable Range.

Table 1. ECBU3 ECB Quantity by Programmable Range

ECBU No. 3	ECB Program Values
4	2.5A
5	2.5, 5.0, 7.5A
1	7.5, 10, 15A

B. Aft Power Distribution Center:

(1) The APDC contains the power distribution components for the left and right aft buses. The buses are separated by a barrier in the APDC. A Bus Tie Contactor (BTC) is used to electrically connect and separate the buses.

(2) The APDC contains the components that follow for the left aft bus:

- ECBU4
- BTC
- Left Forward Remote Electronic Circuit Breaker (LFRECB)
- Left feeder current sensor and differential ground fault detector

(3) The APDC contains the components that follow for the right aft bus:

- ECBU5
- Right Forward Remote Electronic Circuit Breaker (RFRECB)
- Right feeder current sensor and differential ground fault detector

(4) The left aft bus uses ECBU4 to supply power to the aircraft equipment.

(5) The right aft bus uses ECBU5 to supply power to utilization equipment.

(6) The LFRECB controls power to the left forward bus and RFRECB controls power to the right forward bus. The ACS controls each Remote Electronic Circuit Breaker (RECB) through the RS-485 data bus. The BTC is used to electrically tie together or separate the left and right aft buses. The BTC is controlled by the ACS through the RS-485 data bus when the BUS TIE switch on the Instrument Panel, Left (IPL), is in the AUTO position. When the BUS TIE switch is in the OPEN position, the BTC is open and can not be closed by the ACS.

(7) ECBU4 and ECBU5 monitor the left aft and right aft bus voltages, and the ECB current for equipment connected to these buses. The ECBs are programmable within a specified range of current. Each ECB contains a solid-state switch, current protection and built-in test functions, and voltage and current monitoring capabilities. The ECBs have immediate and I2T current protection features.

Refer to Table 2 for ECB Quantity by Programmable Range.

Table 2. ECBU4 & ECBU5 ECB Quantity by Programmable Range

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9	10	2.5, 5.0, 7.5A
5	7	7.5, 10, 15A
5	2	15, 20, 25A
2	1	25, 30A

C. Electronic Circuit Breaker Units:

(1) ECBU1 distributes power to the aircraft equipment connected to the left forward bus. It receives power from the LFRECB, located in the APDC.

(2) ECBU2 distributes power to the aircraft equipment connected to the right forward bus. It receives power from the RFRECB, located in the APDC.

(3) ECBU1 and ECBU2 contain ECBs that are programmable within a specified range of current. Each ECB contains a solid-state switch, current protection and built-in test functions, and voltage and current monitoring capabilities. The ECBs have immediate and I2T current protection features. Refer to Table 3 for ECB Quantity by Programmable Range.

(4) There are five ECBUs. Each ECBU is associated with one of the following five buses in the aircraft.

- ECBU1: Left forward bus
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- ECBU3: Battery bus
- ECBU4: Left aft bus
- ECBU5: Right aft bus

(5) Each ECBU contains a number of ECBs. The ECBs supply power to individual systems or loads. Each ECB provides fault protection for the load circuit wiring that is supplied by that ECB. The ECB will automatically trip in the event of a wiring fault or overload. Reset may be attempted by way of pilot input at the Multifunction Display (MFD). The ECBs will trip in the event of circuit fault regardless of the presence of a command to close from the pilot. Automatic reset after a fault is cleared is not allowed. In addition, the ACS controls the ECBUs as necessary to control systems operation and load shedding. ECBU control by the ACS is by way of dual RS-485 data buses. The ACS controls required load shedding in the event of loss of one or both SGs.

Table 3. ECBU1 & ECBU2 ECB Quantity by Programmable Range

ECBU1	ECBU2	ECB Program Values
13	13	2.5A
7	7	2.5, 5.0, 7.5A
4	4	7.5, 10, 15A

D. ECBs:

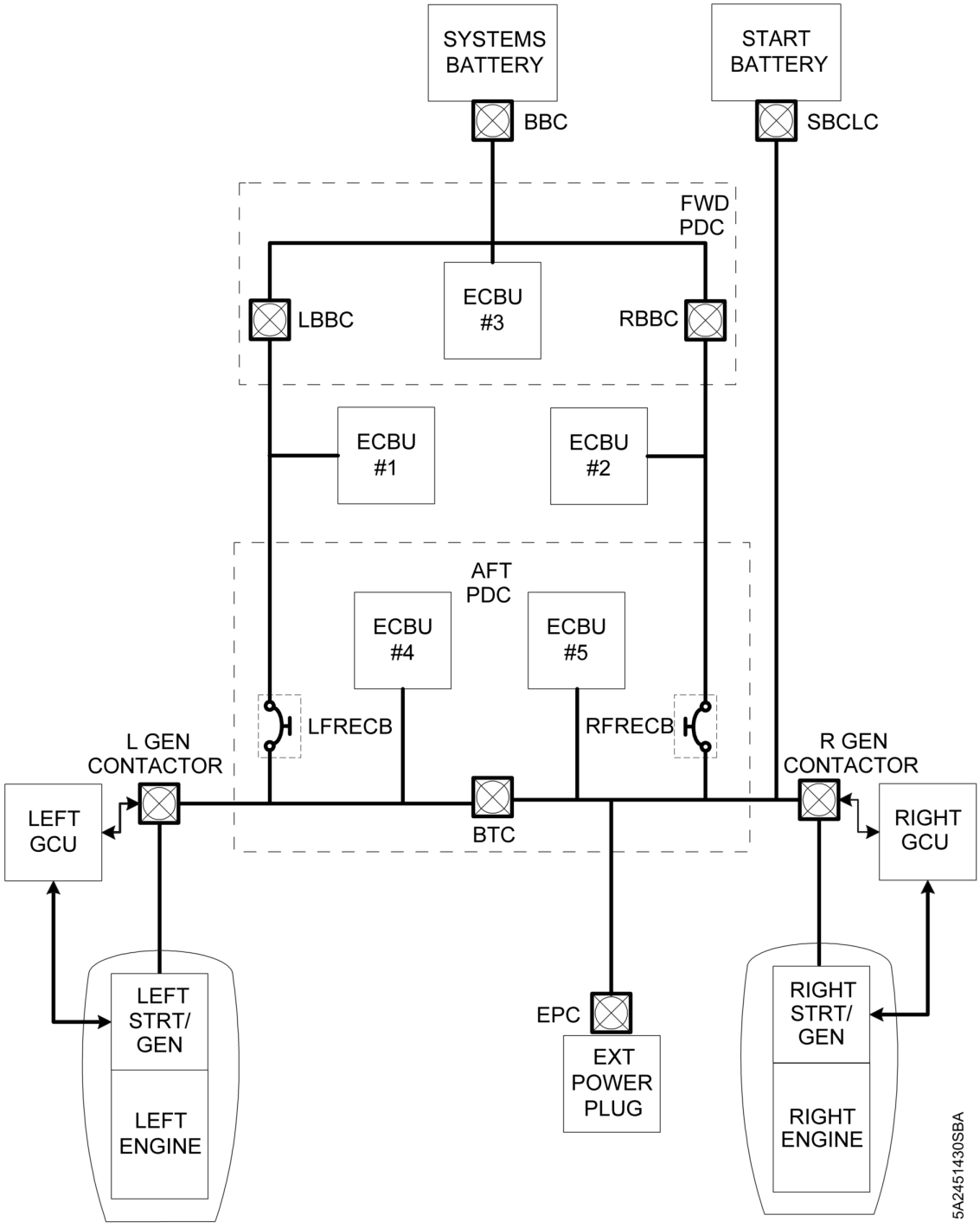
Circuit protection is provided by 127 ECBs that are controlled by the ACS. Each of the ECBs contains an independent microprocessor that detects over-current conditions and is programmed to operate the same way a mechanical breaker operates (trips faster if a larger ratio of over-current occurs). Each ECB is also monitored by the adjacent microprocessor, so that the reliability of the ECB is higher than the mechanical circuit breaker it replaces. The status of each ECB may be displayed on the Multifunction

Display (MFD) and is remembered by the ECB in non-volatile memory. Thus, when the aircraft is powered down and then back up, the prior state of the ECB is returned. All circuits that were turned on at the time the power was removed are again turned on when power is reapplied. Two mechanical circuit breakers supply power to the left PFD and left ACS to make sure that no transitory event can cause all the ECBs to turn off and thus remove all computer control to turn them back on.

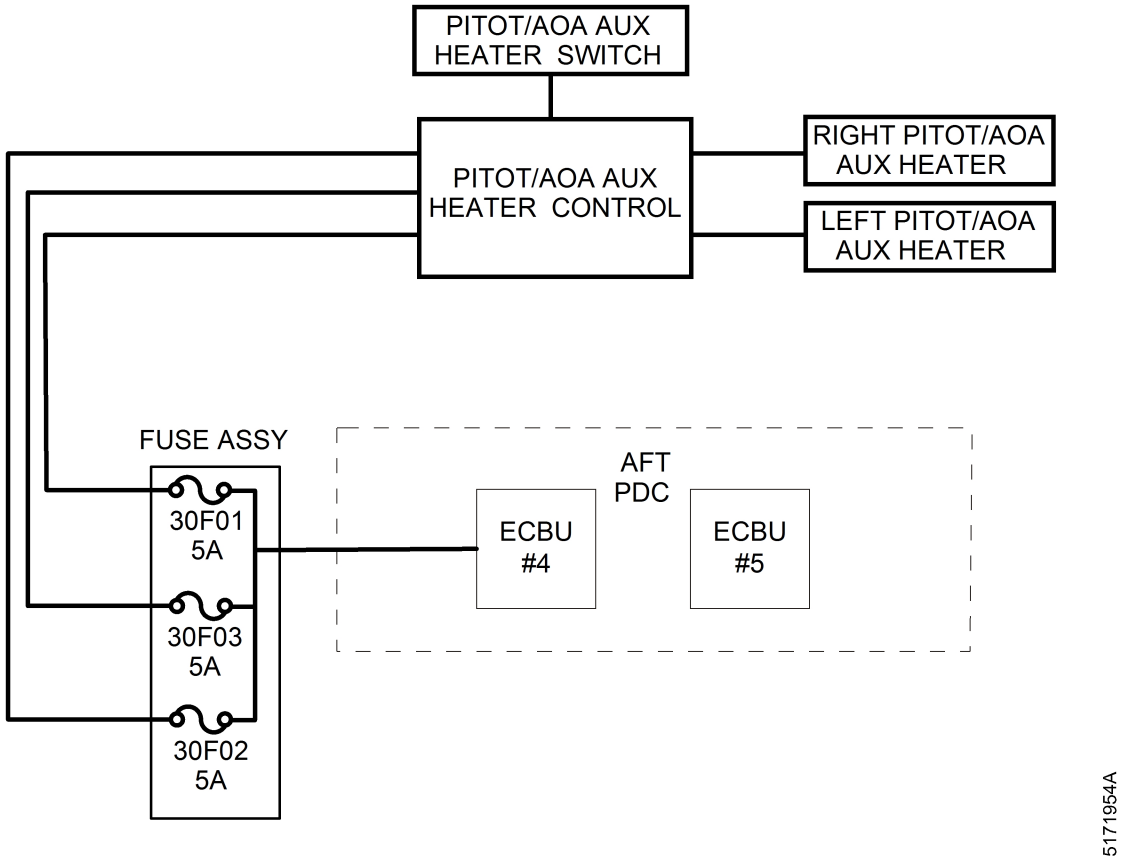
(1) Each ECBU contains a number of ECBs. The ECBs supply power to individual systems or loads. Each ECB provides fault protection for the load circuit wiring that is supplied by that ECB. The ECB will automatically trip in the event of a wiring fault or overload. Reset may be attempted by way of pilot input at the MFD. The ECBs will trip in the event of circuit fault regardless of the presence of a command to close from the pilot. Automatic reset after a fault is cleared is not allowed. In addition, the ACS controls the ECBUs as necessary to control systems operation and load shedding. ECBU control by the ACS is by way of dual RS-485 data buses. The ACS controls require load shedding in the event of loss of one or both SGs.

E. Pitot/AOA Probe Auxiliary Heaters Fuse Assembly :

(1) The Pitot/AOA Probe Auxiliary Heaters Fuse Assembly provides circuit protection for the Pitot/AOA Auxiliary Heaters. Power is received from the Aft Power Distribution Center (APDC), ECBU #4 (L AFT Bus) through three 5 Amp fuses, one fuse for each heater and one fuse for the Pitot/AOA Auxiliary Heater Switch and Fail Indicator and Auxiliary Heater Controller. Power for each Pitot/AOA Auxiliary Heater is switched on and off by the Auxiliary Heater Controller.



DC Electrical Load Distribution - Description and Operation
Figure 1 (Sheet 1 of 2)



DC Electrical Load Distribution - Description and Operation
Figure 1 (Sheet 2 of 2)

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ELECTRICAL POWER DISTRIBUTION SYSTEM MODES - ADJUSTMENT/TEST

AMM-24-60-00-071-B-801

1. General

A. This task gives the procedure to do an operational check of the Dual Generator Load Shed mode and Electrical Smoke and Clearing mode of the DC Electrical Power Distribution System.

NOTE: This procedure covers AVIO NG 1.5, AVIO NG 1.7, and iFMS 2.06/2.08 configurations.

2. Job Set-Up

SUBTASK AMM-24-60-00-071-B-921-001

A. Make the aircraft safe for maintenance. Refer to AMM-20-00-01-051-801 – Make Safe For Maintenance.

B. EPDS Modes Operational Check Setup:

(1) Apply external power to the aircraft. Refer to AMM-24-40-00-051-801 – External Power - Maintenance Practices.

(2) Remove the pitot tube and static port covers.

(3) Connect the Weight On Wheels (WOW) Box. Refer to AMM-20-00-04-051-801 – Weight On Wheels (WOW) Box - Connect/Disconnect.

(4) Verify the GEAR handle is in the DOWN position.

(5) On the Instrument Panel, Left (IPL), set the switches to the following:

- SYS BATT to the ON position
- START BATT to the ON position
- BUS TIE to the AUTO position
- LEFT GEN to the AUTO position
- RIGHT GEN to the AUTO position

(6) On the Multi-function Display (MFD), select the PROCEED Line Select Key (LSK).

(7) On the MFD, use the lower LH/RH knob to scroll to the ECB synoptic page.

(8) On the MFD ECB synoptic page, use the inner Dual Concentric Knob (DCK) to select the ICE PROT system, and the outer DCK to highlight the ECBs.

(9) On the MFD ECB synoptic page, make sure each of the ECBs that follow do not show as PULLED or COLLARED:

- ECB - L PITOT HEAT (L FWD Bus)
- ECB - R PITOT HEAT (R FWD Bus)
- ECB - L STATIC HEAT (BATT Bus)
- ECB - L STATIC HEAT (R FWD Bus)
- ECB - R STATIC HEAT (L FWD Bus)
- ECB - R STATIC HEAT (R FWD Bus)
- ECB - STBY PITOT HEAT (BATT Bus)

(10) Start the left and right engines.
Refer to AMM-71-00-00-071-801 – Powerplant - Adjustment/Test, (SUBTASK AMM-71-00-00-071-701-002 – Initial Engine Start).

(11) Remove external power from the aircraft. Refer to AMM-24-40-00-051-801 – External Power - Maintenance Practices.

(12) Set the WOW box to W-OFF-W.

(13) On the L PFD, use the lower RH knob to scroll to the XPDR page.

(a) On the L PFD XPDR page, select the MODE LSK until the MODE box shows STBY.

C. Wait one minute.

3. Dual Generator Load Shed Mode Test

SUBTASK AMM-24-60-00-071-B-701-001

WARNING: OBEY ALL SAFETY PRECAUTIONS WHEN DOING MAINTENANCE ON OR NEAR ELECTRICAL EQUIPMENT. OBEY THESE INSTRUCTIONS OR INJURY TO PERSONS AND OR DAMAGE TO EQUIPMENT CAN OCCUR.

A. Dual Generator Load Shed Mode Test

(1) Set L and R WSHLD to NORM.

(2) Set AIR COND to AUTO.

(3) Set Cockpit and Cabin temperature to MAX COOL.

(4) Set Cockpit and Cabin fans to AUTO.

(5) Make sure there is an increase in RIGHT generator load when the Air Conditioning System (VCS) cycles ON.

(6) Set LEFT generator switch to OFF.

(7) Make sure there is a decrease in TOTAL generator load (indicating the VCS has load shed).

(8) Set RIGHT generator switch to OFF.

(9) Make sure the EPDS enters dual generator fail load shed mode:

(a) BATTERY POWER ONLY warning CAS message shows on the MFD.

(b) L and R windshield heat is OFF.

(c) Cockpit and Cabin fans are OFF.

(d) VCS is OFF.

(e) LEFT PFD and MFD are ON and functioning.

(f) RIGHT PFD is OFF.

(g) MFD Standby Attitude indicator source shows BASIC MODE (if ATT3 is installed).

(h) LEFT PFD ISS source is AHRS1 and ADC1 (there should be no source indication on the PFD).

(10) Make sure the functions that follow stay operative:

(a) COMM1

(b) MMDR1 and GPS1

(c) Trims (pitch, roll, and yaw)

(d) L and R engine control

(11) Set L and R generator switches to ON.

(12) Set transponder mode to STANDBY.

(13) Make sure RIGHT PFD is ON.

(14) Make sure PFD and MFD ISS source indications are correct:

(a) L and R PFD should NOT show a source indication.

(b) MFD Standby Attitude indicator should show AHRS2 and ADC2 if ATT3 is NOT installed.

(c) MFD Standby Attitude indicator should show ATT3 if ATT3 IS installed.

B. If Left Side and/or Right Side Smoke Clearing Tests will be done, go to step 4. – Electrical Smoke and Clearing Mode Test.

C. Set the WOW box to W-ON-W.

D. Wait one minute.

E. Stop the L and R engines.

4. Electrical Smoke Clearing Mode Test

SUBTASK AMM-24-60-00-071-B-701-002

WARNING: OBEY ALL SAFETY PRECAUTIONS WHEN DOING MAINTENANCE ON OR NEAR ELECTRICAL EQUIPMENT. OBEY THESE INSTRUCTIONS OR INJURY TO PERSONS AND OR DAMAGE TO EQUIPMENT CAN OCCUR.

A. Electrical Smoke Clearing Mode Test – Right Side

NOTE: During this procedure the test side bleed air will be ON in high flow. The bleed air temperature can get too hot if the test is continued for too long.

(1) Set L and R WSHLD to NORM.

(2) Set RIGHT generator switch to OFF.

(3) Set START BAT switch to OFF.

(4) Set BUS TIE switch to OPEN.

(5) Make sure the RIGHT FWD BUS and RIGHT AFT BUS show OFF.

(6) Make sure the MFD and RIGHT PFD are OFF.

(7) Set LEFT PFD to Composite mode.

(8) Make sure the RIGHT ACS is OFF using the conditions that follow:

(a) On the FUEL page, the RIGHT fuel values show dashes.

(b) On the ECB page, the ECBs that follow show dashes:

1 L ENG FADEC CH B

2 R ENG FADEC CH B

(c) On the ENV page, the Cockpit temperature value shows dash.

(d) On the FLCS page, the RIGHT PITCH trim and RUDDER trim values show dashes.

(e) On the PRESS page, the RIGHT PYLON and RIGHT BLEED temperature values show dashes.

(f) On the ICE page, RIGHT windshield and RIGHT static port show AMBER.

(9) Make sure COMM1 transmits and receives on HEADSET.

(10) Make sure engine parameter values on the LEFT PFD show for the L and R engines.

(11) Make sure L and R engine response to throttle movement is normal.

(12) Make sure LEFT PITCH trim operation is normal. Return LEFT PITCH trim to the original position.

(13) Set the START BAT switch to ON.

(14) Set the RIGHT generator switch to ON.

(15) Set the BUS TIE switch to AUTO.

(16) Set the transponder mode to STANDBY.

(17) Make sure the RIGHT FWD BUS and RIGHT AFT BUS show ON.

(18) Make sure the RIGHT ACS is ON using the conditions that follow:

(a) On the FUEL page, the RIGHT fuel values show.

(b) On the ECB page, the ECBs that follow show AUTO/ON:

1 L ENG FADEC CH B

2 R ENG FADEC CH B

(c) On the ENV page, the Cockpit temperature value shows.

(d) On the FLCS page, the RIGHT PITCH trim and RUDDER trim values show.

(e) On the PRESS page, the RIGHT PYLON and RIGHT BLEED temperature values show.

(f) On the ICE page, the RIGHT windshield and RIGHT static port show WHITE.

B. Electrical Smoke Clearing Mode Test – Left Side

(1) Set L and R WSHLD to NORM.

(2) Set LEFT generator switch to OFF.

(3) Set SYS BAT switch to OFF.

(4) Set BUS TIE switch to OPEN.

(5) Make sure the LEFT FWD BUS, LEFT AFT BUS, and BATT BUS show OFF.

(6) Make sure the LEFT PFD is OFF.

(7) Make sure the MFD and RIGHT PFD are ON.

(8) Make sure the LEFT ACS is OFF using the conditions that follow:

(a) On the FUEL page, the LEFT fuel values show dashes.

(b) On the ECB page, the ECBs that follow show dashes:

1 L ENG FADEC CH A

2 R ENG FADEC CH A

(c) On the ENV page, the Cabin temperature value shows dash.

(d) On the FLCS page, the LEFT PITCH trim and AILERON trim values show dashes.

(e) On the PRESS page, the LEFT PYLON and LEFT BLEED temperature values show dashes.

(f) On the ICE page, the LEFT windshield and LEFT static port show AMBER.

(9) Make sure engine parameter values on the MFD show for the L and R engines.

(10) Make sure L and R engine response to throttle movement is normal.

(11) Make sure RIGHT PITCH trim operation is normal. Return RIGHT PITCH trim to the original position.

(12) Set the SYS BAT switch to ON.

(13) Set the LEFT generator switch to ON.

(14) Set the BUS TIE switch to AUTO.

(15) Set the transponder mode to STANDBY.

(16) Make sure the LEFT FWD BUS, LEFT AFT BUS, and BATT BUS show ON.

(17) Make sure the LEFT ACS is ON using the conditions that follow:

(a) On the FUEL page, the LEFT fuel values show.

(b) On the ECB page, the ECBs that follow show AUTO/ON:

1 L ENG FADEC CH A

2 R ENG FADEC CH A

(c) On the ENV page, the Cabin temperature value shows.

(d) On the FLCS page, the LEFT PITCH trim and AILERON trim values show.

(e) On the PRESS page, the LEFT PYLON and LEFT BLEED temperature values show.

(f) On the ICE page, the LEFT windshield and LEFT static port show WHITE.

C. Set the WOW box to W-ON-W.

D. Wait one minute.

E. Stop the L and R engines.

5. Job Close-Up

SUBTASK AMM-24-60-00-071-B-921-002

A. Disconnect the Weight On Wheels (WOW) box or Aircraft Maintenance Computer (AMC). Refer to AMM-20-00-04-051-801 – Weight On Wheels (WOW) Box - Connect/ Disconnect.

B. Remove all tools, equipment and unwanted material from work area.

C. Wait for the pitot tubes and static ports to cool, then install the pitot tube and static port covers.

D. If all other maintenance is complete, return the aircraft to service. Refer to AMM-20-00-02-051-801 – Return To Service (After Maintenance).

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ELECTRICAL POWER DISTRIBUTION SYSTEM MODES - ADJUSTMENT/TEST

AMM-24-60-00-071-C-801

1. General

A. This task gives the procedure to do an operational check of the Dual Generator Load Shed mode and Electrical Smoke and Clearing mode of the DC Electrical Power Distribution System.

NOTE: iFMS 2.5 and above configuration.

2. Job Set-Up

SUBTASK AMM-24-60-00-071-C-921-001

A. Make the aircraft safe for maintenance. Refer to AMM-20-00-01-051-801 – Make Safe For Maintenance.

B. EPDS Modes Operational Check Setup:

(1) Apply external power to the aircraft. Refer to AMM-24-40-00-051-801 – External Power - Maintenance Practices.

(2) Remove the pitot tube and static port covers.

(3) Connect the Weight On Wheels (WOW) Box. Refer to AMM-20-00-04-051-801 – Weight On Wheels (WOW) Box - Connect/Disconnect.

(4) Verify the GEAR handle is in the DOWN position.

(5) On the Instrument Panel, Left (IPL), set the switches to the following:

- SYS BATT to the ON position
- START BATT to the ON position
- BUS TIE to the AUTO position
- LEFT GEN to the AUTO position
- RIGHT GEN to the AUTO position

(6) On the Multi-function Display (MFD), select the PROCEED Line Select Key (LSK).

(7) On the MFD, use the lower LH/RH knob to scroll to the ECB synoptic page.

(8) On the MFD ECB synoptic page, use the inner Dual Concentric Knob (DCK) to select the ICE PROT system, and the outer DCK to highlight the ECBs.

(9) On the MFD ECB synoptic page, make sure each of the ECBs that follow do not show as PULLED or COLLARED:

- ECB - L PITOT HEAT (L FWD Bus)
- ECB - R PITOT HEAT (R FWD Bus)
- ECB - L STATIC HEAT (BATT Bus)
- ECB - L STATIC HEAT (R FWD Bus)
- ECB - R STATIC HEAT (L FWD Bus)
- ECB - R STATIC HEAT (R FWD Bus)
- ECB - STBY PITOT HEAT (BATT Bus)

(10) Start the left and right engines.
Refer to AMM-71-00-00-071-801 – Powerplant - Adjustment/Test, (SUBTASK AMM-71-00-00-071-701-002 – Initial Engine Start).

(11) Remove external power from the aircraft. Refer to AMM-24-40-00-051-801 – External Power - Maintenance Practices.

(12) Set the WOW box to W-OFF-W.

(13) On the L PFD, use the lower RH knob to scroll to the XPDR page.

(a) On the L PFD XPDR page, select the MODE LSK until the MODE box shows STBY.

C. Wait one minute.

3. Dual Generator Load Shed Mode Test

SUBTASK AMM-24-60-00-071-C-701-001

WARNING: OBEY ALL SAFETY PRECAUTIONS WHEN DOING MAINTENANCE ON OR NEAR ELECTRICAL EQUIPMENT. OBEY THESE INSTRUCTIONS OR INJURY TO PERSONS AND OR DAMAGE TO EQUIPMENT CAN OCCUR.

A. Dual Generator Load Shed Mode Test

(1) Set L and R WSHLD to NORM.

(2) Set AIR COND to AUTO.

(3) Set Cockpit and Cabin temperature to MAX COOL.

(4) Set Cockpit and Cabin fans to AUTO.

(5) Make sure there is an increase in RIGHT generator load when the Air Conditioning System (VCS) cycles ON.

(6) Set LEFT generator switch to OFF.

(7) Make sure there is a decrease in TOTAL generator load (indicating the VCS has load shed).

(8) Set RIGHT generator switch to OFF.

(9) Make sure the EPDS enters dual generator fail load shed mode:

(a) BATTERY POWER ONLY warning CAS message shows on the MFD.

(b) L and R windshield heat is OFF.

(c) Cockpit and Cabin fans are OFF.

(d) VCS is OFF.

(e) LEFT PFD and MFD are ON and functioning.

(f) RIGHT PFD is OFF.

(g) Left Standby Display Unit (SDU) is ON.

(h) Right SDU is OFF. (If installed)

(i) LEFT PFD ISS source is AHRS1 and ADC1 (there should be no source indication on the PFD).

(10) Make sure the functions that follow stay operative:

(a) COMM1

(b) MMDR1 and GPS1

(c) Trims (pitch, roll, and yaw)

(d) L and R engine control

(11) Set L and R generator switches to ON.

(12) Set transponder mode to STANDBY.

(13) Make sure RIGHT PFD is ON.

(14) Make sure PFD and MFD ISS source indications are correct:

(a) L and R PFD should NOT show a source indication.

(b) Both LEFT and RIGHT (if installed) SDUs are ON.

B. If Left Side and/or Right Side Smoke Clearing Tests will be done, go to step 4 – Electrical Smoke and Clearing Mode Test.

C. Set the WOW box to W-ON-W.

D. Wait one minute.

E. Stop the L and R engines.

4. Electrical Smoke Clearing Mode Test

SUBTASK AMM-24-60-00-071-C-701-002

WARNING: OBEY ALL SAFETY PRECAUTIONS WHEN DOING MAINTENANCE ON OR NEAR ELECTRICAL EQUIPMENT. OBEY THESE INSTRUCTIONS OR INJURY TO PERSONS AND OR DAMAGE TO EQUIPMENT CAN OCCUR.

A. Electrical Smoke Clearing Mode Test – Right Side

NOTE: During this procedure the test side bleed air will be ON in high flow. The bleed air temperature can get too hot if the test is continued for too long.

(1) Set L and R WSHLD to NORM.

(2) Set RIGHT generator switch to OFF.

(3) Set START BAT switch to OFF.

(4) Set BUS TIE switch to OPEN.

(5) Make sure the RIGHT FWD BUS and RIGHT AFT BUS show OFF.

(6) Make sure the MFD and RIGHT PFD are OFF.

(7) Right SDU is ON.

(8) Left SDU is OFF.

(9) Set LEFT PFD to Composite mode.

(10) Make sure the RIGHT ACS is OFF using the conditions that follow:

(a) On the FUEL page, the RIGHT fuel values show dashes.

(b) On the ECB page, the ECBs that follow show dashes:

1 L ENG FADEC CH B

2 R ENG FADEC CH B

(c) On the ENV page, the Cockpit temperature value shows dash.

(d) On the FLCS page, the RIGHT PITCH trim and RUDDER trim values show dashes.

(e) On the PRESS page, the RIGHT PYLON and RIGHT BLEED temperature values show dashes.

(f) On the ICE page, RIGHT windshield and RIGHT static port show AMBER.

(11) Make sure COMM1 transmits and receives on HEADSET.

(12) Make sure engine parameter values on the LEFT PFD show for the L and R engines.

(13) Make sure L and R engine response to throttle movement is normal.

(14) Make sure LEFT PITCH trim operation is normal. Return LEFT PITCH trim to the original position.

(15) Set the START BAT switch to ON.

(16) Set the RIGHT generator switch to ON.

(17) Set the BUS TIE switch to AUTO.

(18) Set the transponder mode to STANDBY.

(19) Make sure the RIGHT FWD BUS and RIGHT AFT BUS show ON.

(20) Make sure the MFD and RIGHT PFD are ON.

(21) Make sure the LEFT and RIGHT (if installed) SDUs are ON.

(22) Make sure the RIGHT ACS is ON using the conditions that follow:

(a) On the FUEL page, the RIGHT fuel values show.

(b) On the ECB page, the ECBs that follow show AUTO/ON:

1 L ENG FADEC CH B

2 R ENG FADEC CH B

(c) On the ENV page, the Cockpit temperature value shows.

(d) On the FLCS page, the RIGHT PITCH trim and RUDDER trim values show.

(e) On the PRESS page, the RIGHT PYLON and RIGHT BLEED temperature values show.

(f) On the ICE page, the RIGHT windshield and RIGHT static port show WHITE.

B. Electrical Smoke Clearing Mode Test – Left Side

(1) Set L and R WSHLD to NORM.

(2) Set LEFT generator switch to OFF.

(3) Set SYS BAT switch to OFF.

(4) Set BUS TIE switch to OPEN.

(5) Make sure the LEFT FWD BUS, LEFT AFT BUS, and BATT BUS show OFF.

(6) Make sure the LEFT PFD is OFF.

(7) Make sure the LEFT SDU is ON.

(8) Make sure the RIGHT SDU is OFF.

(9) Make sure the MFD and RIGHT PFD are ON.

(10) Make sure the LEFT ACS is OFF using the conditions that follow:

(a) On the FUEL page, the LEFT fuel values show dashes.

(b) On the ECB page, the ECBs that follow show dashes:

1 L ENG FADEC CH A

2 R ENG FADEC CH A

(c) On the ENV page, the Cabin temperature value shows dash.

(d) On the FLCS page, the LEFT PITCH trim and AILERON trim values show dashes.

(e) On the PRESS page, the LEFT PYLON and LEFT BLEED temperature values show dashes.

(f) On the ICE page, the LEFT windshield and LEFT static port show AMBER.

(11) Make sure engine parameter values on the MFD show for the L and R engines.

(12) Make sure L and R engine response to throttle movement is normal.

(13) Make sure RIGHT PITCH trim operation is normal. Return RIGHT PITCH trim to the original position.

(14) Set the SYS BAT switch to ON.

(15) Set the LEFT generator switch to ON.

(16) Set the BUS TIE switch to AUTO.

(17) Set the transponder mode to STANDBY.

(18) Make sure the LEFT FWD BUS, LEFT AFT BUS, and BATT BUS show ON.

(19) Make sure the LEFT PFD is ON.

(20) Make sure the LEFT and RIGHT (if installed) SDUs are ON.

(21) Make sure the LEFT ACS is ON using the conditions that follow:

(a) On the FUEL page, the LEFT fuel values show.

(b) On the ECB page, the ECBs that follow show AUTO/ON:

1 L ENG FADEC CH A

2 R ENG FADEC CH A

(c) On the ENV page, the Cabin temperature value shows.

(d) On the FLCS page, the LEFT PITCH trim and AILERON trim values show.

(e) On the PRESS page, the LEFT PYLON and LEFT BLEED temperature values show.

(f) On the ICE page, the LEFT windshield and LEFT static port show WHITE.

C. Set the WOW box to W-ON-W.

D. Wait one minute.

E. Stop the L and R engines.

5. Job Close-Up

SUBTASK AMM-24-60-00-071-C-921-002

A. Disconnect the Weight On Wheels (WOW) box or Aircraft Maintenance Computer (AMC). Refer to AMM-20-00-04-051-801 – Weight On Wheels (WOW) Box - Connect/ Disconnect.

B. Remove all tools, equipment and unwanted material from work area.

C. Wait for the pitot tubes and static ports to cool, then install the pitot tube and static port covers.

D. If all other maintenance is complete, return the aircraft to service. Refer to AMM-20-00-02-051-801 – Return To Service (After Maintenance).

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PITOT/AOA PROBE AUXILIARY HEATER FUSE ASSEMBLY - REMOVAL

AMM-24-60-13-001-801

1. General

A. This task gives the procedures to remove the Auxiliary Heater Fuse Assembly.

2. Job Set-Up

SUBTASK AMM-24-60-13-001-921-001

A. Make the aircraft safe for maintenance. Refer to AMM-20-00-01-051-801 – Make Safe For Maintenance.

B. Remove the 231 HZ - APC/PDC Cover Panel. Refer to AMM-06-50-00-051-801 – Aircraft Access Panels.

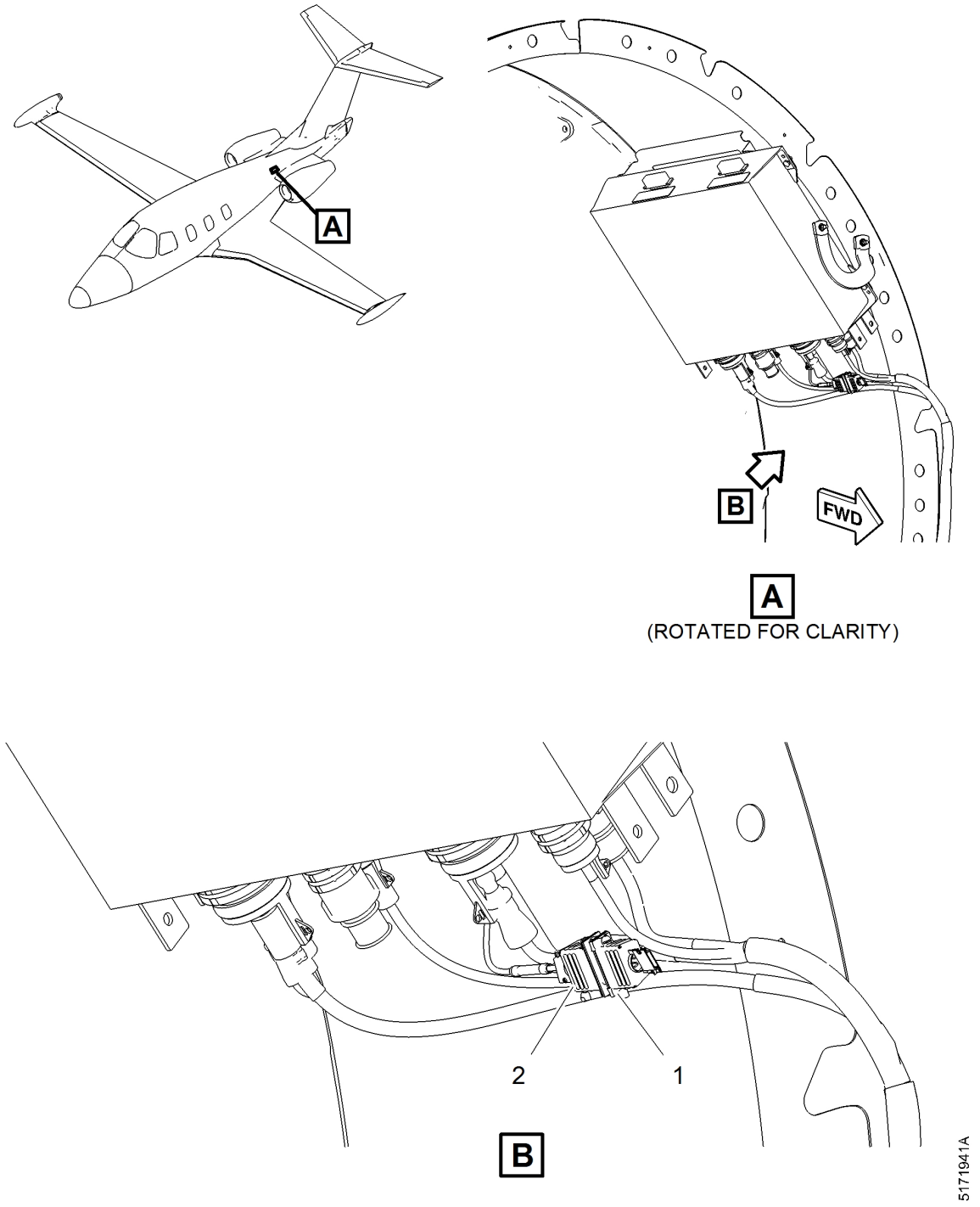
3. Procedure

SUBTASK AMM-24-60-13-001-011-001

(Refer to Fig. 401 .)

A. Remove tie straps from fuse assembly *(1)* .

B. Loosen two screws and remove fuse assembly *(1)* from electrical connector 30F01J01 *(2)* .



Pitot/AOA Probe Auxiliary Heater Fuse Assembly - Removal/Installation
Figure 401 (Sheet 1 of 1)

PITOT/AOA PROBE AUXILIARY HEATER FUSE ASSEMBLY - INSTALLATION

AMM-24-60-13-041-801

1. General

A. This task gives the procedures to install the Auxiliary Heater Fuse Assembly.

2. Job Set-Up

SUBTASK AMM-24-60-13-041-921-001

(Refer to Fig. 401, Sheet 1.)

A. Make sure aircraft is in the same configuration as it was when the removal task was completed. Refer to AMM-24-60-13-001-801 – Pitot/AOA Auxiliary Heater Fuse Assembly - Removal

3. Procedure

SUBTASK AMM-24-60-13-041-411-001

(Refer to Fig. 401, Sheet 1 and Fig. 401, Sheet 1.)

A. Install fuse assembly *(1)* on to electrical connector 30F01J01. *(2)*

B. Tighten two screws that secure fuse assembly *(1)* to electrical connector 30F01J01 *(2)* .

C. Secure fuse assembly *(1)* to wiring harness 39-108859 using tie straps

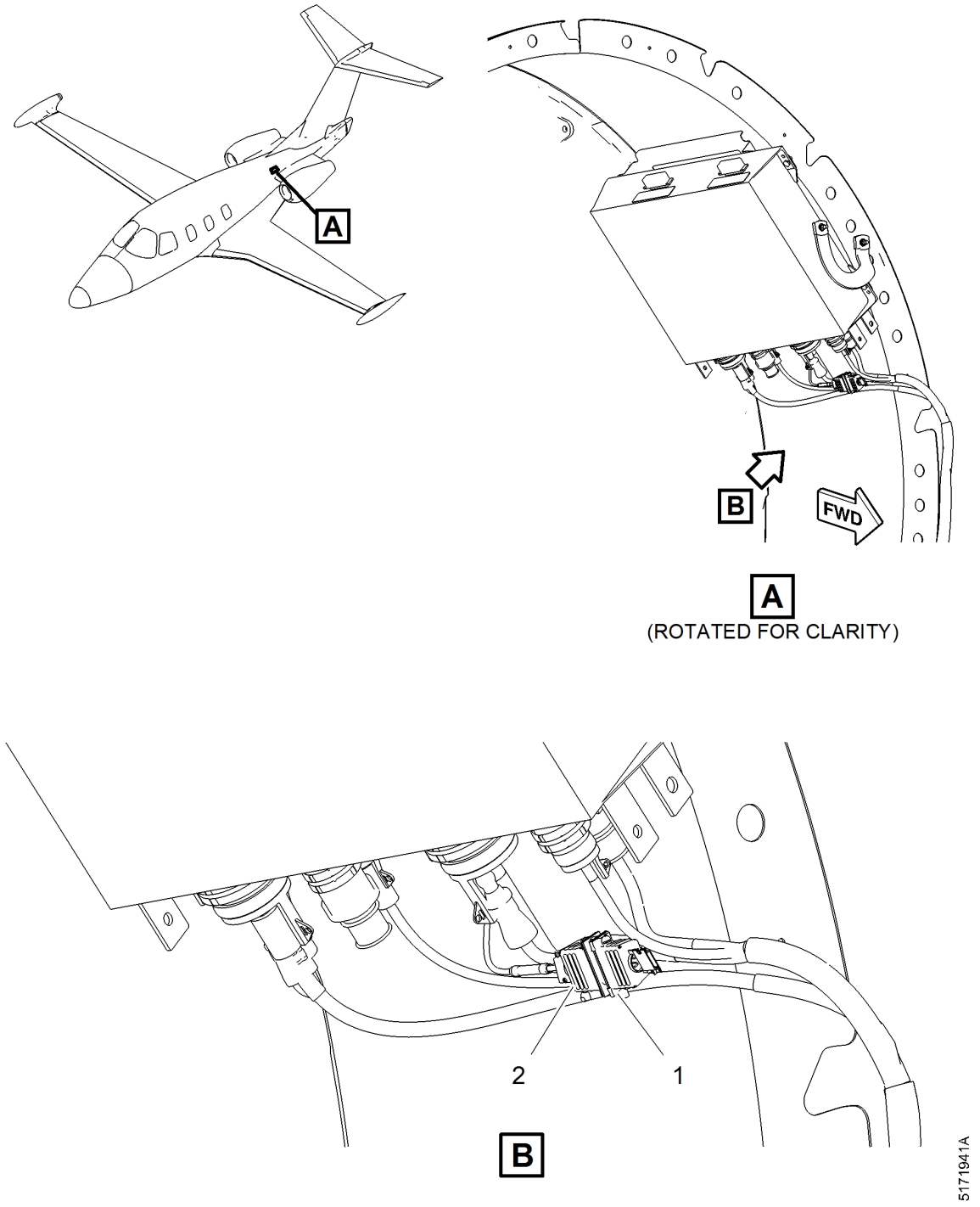
4. Job Close-Up

SUBTASK AMM-24-60-13-041-921-002

A. Install the 231 HZ - APC/PDC Cover Panel. Refer to AMM-06-50-00-051-801 – Aircraft Access Panels.

B. Remove all tools, equipment and unwanted material from the work area.

C. If all other maintenance is complete, return the aircraft to service. Refer to AMM-20-00-02-051-801 – Return To Service (After Maintenance).



Pitot/AOA Probe Auxiliary Heater Fuse Assembly - Removal/Installation
Figure 401 (Sheet 1 of 1)