**ON A/C ALL

TASK 24−20−00−810−806
R AC BUS (Caution) − Fault Isolation

1. General

A. The fault isolation procedure is for when the R AC BUS caution light on the Caution and Warning Panel (CAWP) is on.

B. The R AC BUS caution light on the CAWP comes on for the conditions that follow:

(1) If the related AC Generator Control Unit (GCU) senses an overcurrent condition for more than seven seconds.

NOTE: The R AC BUS caution light on the CAWP will go off if the AC GEN 2 toggle switch is set to the OFF position.

(2) If the generator line contactor K2 is in the center position while the generator switch is in the ON position, the generator frequency is not less than 300 Hz and the engine rpm value is more than 600 rpm.

C. There are no related Central Diagnostic System (CDS) or Electrical Power Control Unit (EPCU) Continuous Built−In Test (CBIT) fault review status messages.

D. Refer to the Fault Tree for the overview of the task (Refer to Figure 206).

2. Job Set−Up Information

Subtask 24−20−00−946−008

A. Reference Information

REFERENCE	DESIGNATION
AMM20−30−11−760−801	Electrical Test of the Aircraft Wiring
AMM24−00−00−910−801	Electrical/Electronic Safety Precautions
AMM24−21−00−710−801	Operational Test of the AC Variable Frequency Generation System
AMM24−21−01−000−801	Removal of the AC Generator
AMM24−21−01−400−801	Installation of the AC Generator
AMM24−21−06−000−801	Removal of the AC Generator Control Unit
AMM24−21−06−400−801	Installation of the AC Generator Control Unit
AMM24−21−21−000−801	Removal of the AC Contactor Box Contactors
AMM24−21−21−400−801	Installation of the AC Contactor Box Contactors
AMM24−31−11−742−801	Retrieval of Data from the Electrical Power Control Unit (EPCU)
FIM24−20−00−810−804	#2 AC GEN (Caution) − Fault Isolation
FIM24−20−00−810−808	R AC BUS, indication discrepancy (Caution) − Fault Isolation

REFERENCE	DESIGNATION
WM24−21−00	AC Variable Frequency System
WM24−21−01	AC Variable Frequency System (with Galley AC Outlet Options)

3. Job Set−Up

Subtask 24−20−00−910−008

A. Obey all the electrical/electronic safety precautions (Refer to AMM24−00−00−910−801).

Subtask 24−20−00−810−029

B. Before you carry out the Fault Isolation procedure inspect all the related connectors for the recessed pins, signs of pitting or arching, corrosion, discoloration (heat damage), fluid contamination or presence of foreign material and physical damage. If damage is found, repair the damage.

4. Fault Confirmation

Subtask 24−20−00−810−011

A. Do the fault confirmation as follows:

(1) Do an operational test of the AC variable frequency system (Refer to AMM24−21−00−710−801).

(2) If the #1 or #2 AC generator energizes the R AC bus, do the Fault Isolation procedure for the R AC BUS indication discrepancy (Refer to FIM24−20−00−810−808).

(3) If the #1 or 2 AC generator does not energize the R AC bus, retrieve the data from the Electrical Power Control Unit (EPCU) (Refer to AMM24−31−11−742−801).

(4) If there is an EPCU fault code, carry out the specific Fault Isolation procedure. Do the Close Out.

(5) If the R AC BUS caution light does not come on, no maintenance is necessary. Do the Close Out.

(6) If the R AC BUS caution light comes on, do the Fault Isolation.

5. Fault Isolation

Subtask 24−20−00−810−012

NOTE: When you do a check for the ground faults, you must do the check with the airframe ground and the connector backshell shield ground points.

A. If the #2 AC GEN caution light comes on, carry out the Fault Isolation procedure for the #2 AC GEN caution light (Refer to FIM24−20−00−810−804). Do the Close Out.

B. If the fault still continues, do a detailed visual inspection of the #2 AC Contractor Box (ACCB), relay K2 and its mounting base.

C. If any damage is found in the #2 ACCB, repair the damage. Do the Close Out.

D. Check the wiring for continuity, ground faults and the isolation resistance between the #2 ACCB and the #2 AC GCU (Refer to WM24−21−00 or WM24−21−01 and AMM20−30−11−760−801).

2421−P1−2 (#2 ACCB)	2421−P15−2 (#2 AC GCU)
36	T
37	P
73	F−
79	G−

E. Check the wiring for continuity, ground faults and the isolation resistance between the #1 ACCB and the #2 AC GCU (Refer to WM24−21−00 or WM24−21−01 and AMM20−30−11−760−801).

2421−P1−1 (#1 ACCB)	2421−P15−2 (#2 AC GCU)
71	L
58	K

F. If the wiring is unserviceable, repair the wiring. Do the Close Out.

G. Check the continuity between the #2 ACCB connector 2421−P1−2 (pin 19) and the ground.

H. If the wiring is unserviceable, repair the wiring. Do the Close Out.

I. Check the resistance value of the current transformers of the #2 AC generator (Refer to WM24−21−00 or WM24−21−01):

2421−P15−2 (#2 AC GCU)	2421−P15−2 (#2 AC GCU)
V	E−
D−	C−
B−	A−

J. If the resistance value is not within the limits, remove and replace the #2 AC generator (Refer to AMM24−21−01−000−801 and AMM24−21−01−400−801). Do the Close Out.

K. If the fault still continues, remove and replace the relay K2 (Refer to AMM24−21−21−000−801 and AMM24−21−21−400−801). Do the Close Out.

L. If the fault still continues, remove and replace the #2 AC GCU (Refer to AMM24−21−06−000−801 and AMM24−21−06−400−801). Do the Close Out.

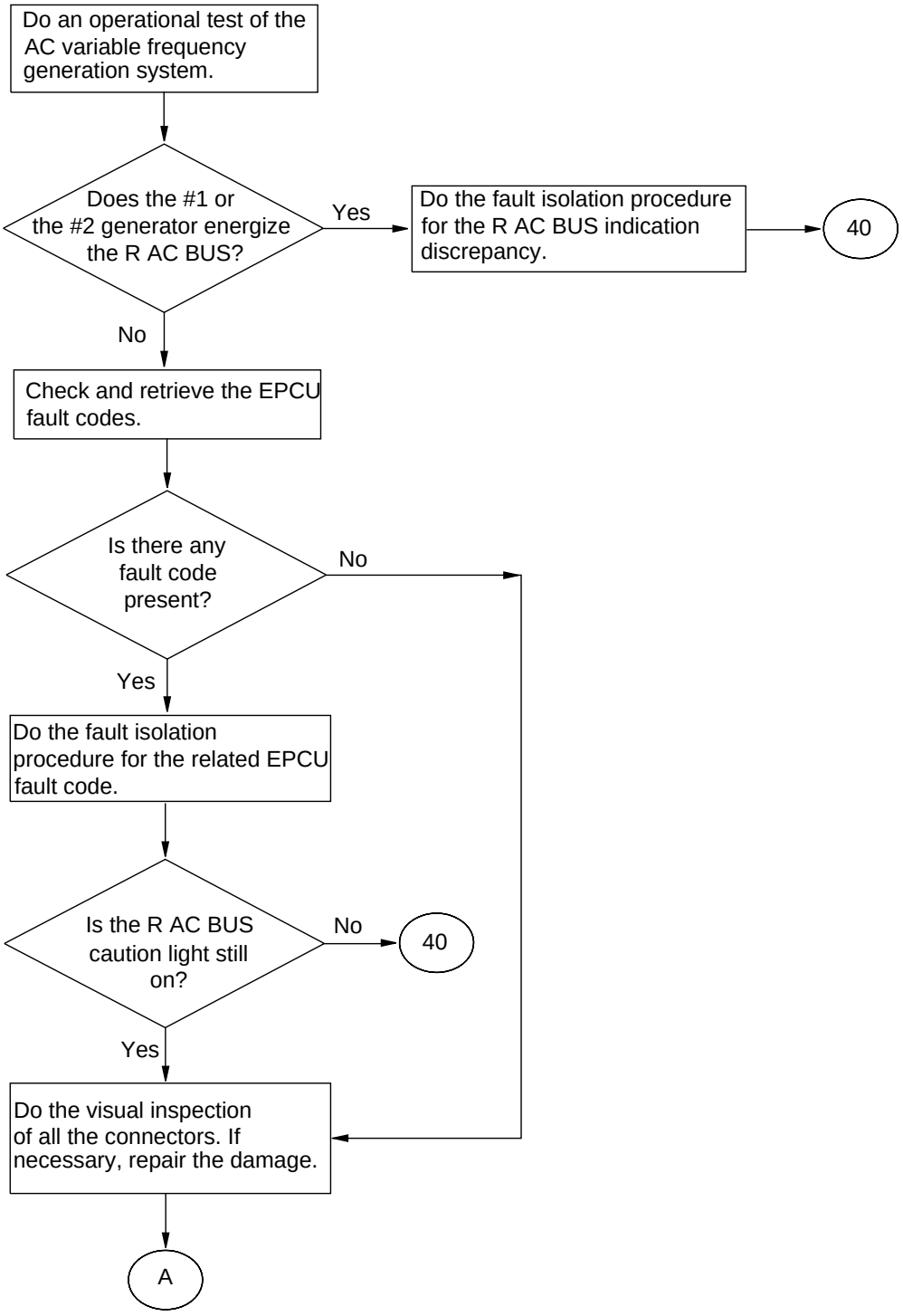
6. Close Out

Subtask 24−20−00−941−008

A. Do an operational test of the AC variable frequency generation system (Refer to AMM24−21−00−710−801).

B. Make sure that the R AC BUS caution light on the CAWP is not on.

C. Remove all the tools, equipment and unwanted materials from the work area.



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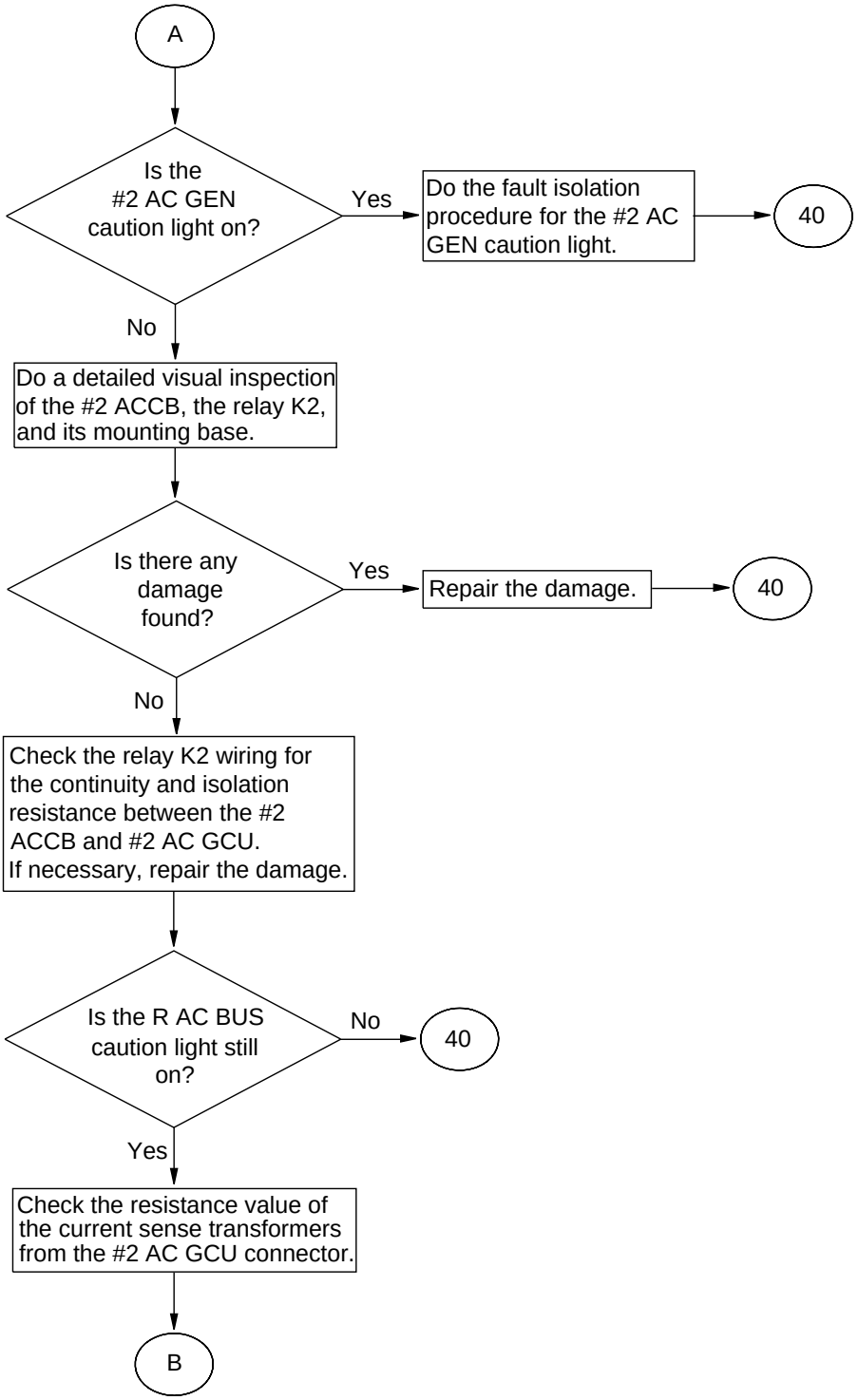
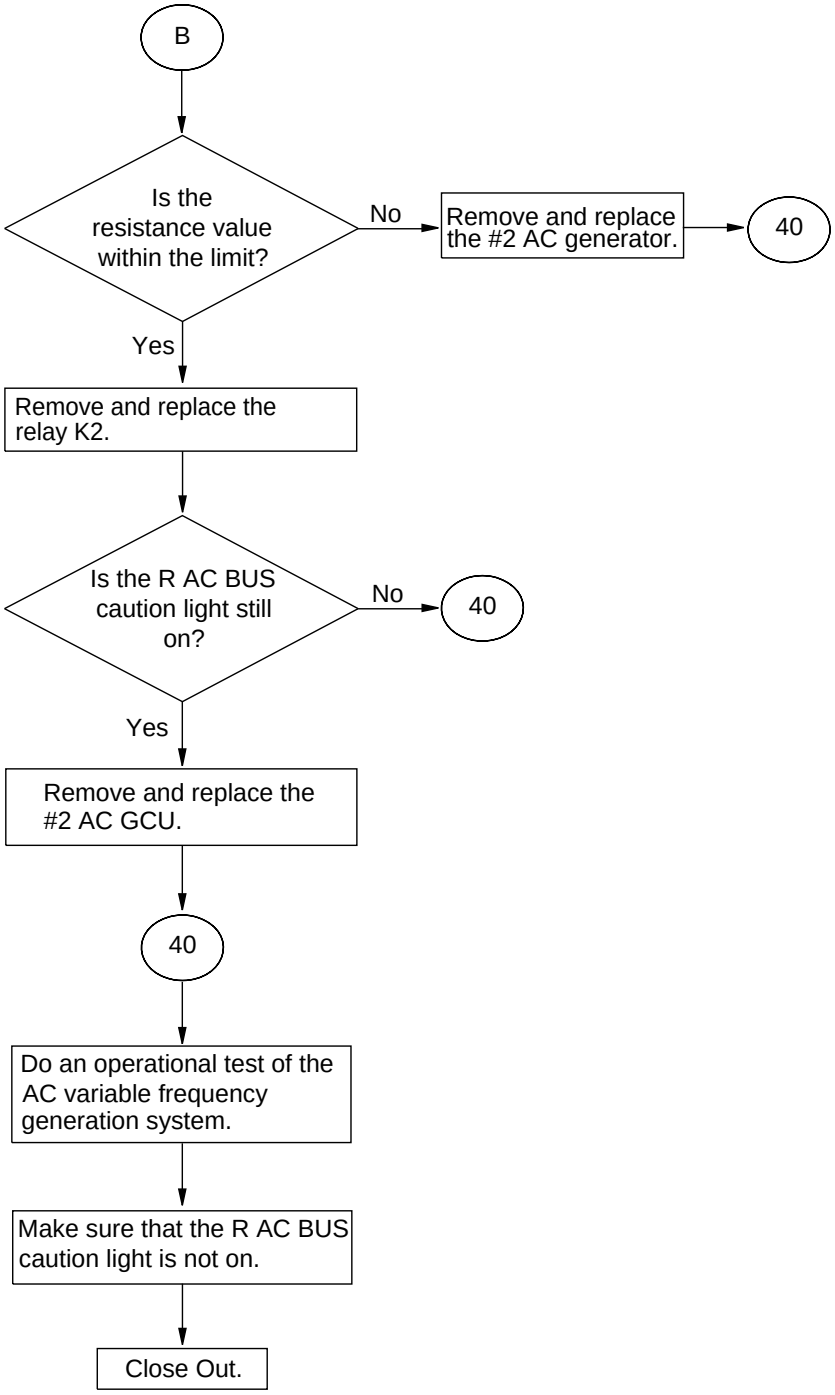
R AC BUS (Caution) − Fault Isolation
Figure 206 (Sheet 1 of 3)



R AC BUS (Caution) − Fault Isolation
Figure 206 (Sheet 2 of 3)



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R AC BUS (Caution) − Fault Isolation
Figure 206 (Sheet 3 of 3)