TO 1300i-2-10JG-60-1

TECHNICAL MANUAL

JOB GUIDE
ORGANIZATIONAL MAINTENANCE

GROUND HANDLING SERVICING EQUIPMENT POSITIONS
(10-60-00 THROUGH 10-64-01)

USAF SERIES
300i
AIRCRAFT

MCDONNELL DOUGLAS CORPORATION
MILITARY TRANSPORT AIRCRAFT
F33657-81-C-2108
FA8526-21-D-0001

THIS MANUAL INCORPORATES INTERIM SAFETY SUPPLEMENT TO 1300i-2-10JG-60-1SS-1, DATED 16 MAY 2024.

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1 AUGUST 2024

TO 1300i-2-10JG-60-1

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T-2 **1 AUGUST 2024**

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Dates of issue for original and changed pages are:

Original . . . . . 0 . . . . . 1 Aug 24

TOTAL NUMBER OF PAGES IN THIS PUBLICATION IS 284 CONSISTING OF THE FOLLOWING:

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A	0		
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iii thru viii	0		
1-1	0		
1-2 blank	0		
2-1 thru 2-8	0		
2-9 blank	0		
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2-47 blank	0		
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TABLE OF CONTENTS

INTRODUCTION

SCOPE.

This manual contains maintenance procedures specifically related to connecting and disconnecting external electrical power, ground air conditioning, external hydraulic power, and external pneumatic air.

MODEL(S) COVERED.

All

ABBREVIATIONS.

The following is a list of non-standard abbreviations used throughout this manual:

BDHI	Bearing Distance Heading Indictor
CAWS	Central Aural Warning System
CCU	Communications Control Unit
CIP	Core Integrated Processors
CIU	Control Indicator Unit
HCC	High Capacity Cards
ICS	Intercommunication Control Set
IRCM	Infrared Countermeasures
IRU	Inertial Reference Unit
LS	Line Select
MUDM	Maintenance User Data Module
OBIGGS	On Board Inert Gas Generation System
PLCS	Places
RPC	Remote Power Controller
SAI	Standby Attitude Indicator
SDS	Safety Data Sheet
UDM	User Data Module
WACS	Warning and Caution System

WAP	Warning and caution Annunciator Panel
WCC	Warning and Caution Computer

CHANGE REQUEST.

Recommended changes to this manual shall be submitted in accordance with TO 00-5-1.

300i TO INFORMATION.

General 300i TO/eTO, TO Manager, Supplement and finalized Recommended Change (RC) information can be found in the Enhanced Technical Information Management System (ETIMS), System of Record.

LIST OF TIME COMPLIANCE TECHNICAL ORDERS (TCTO).

This list of TCTO's contains all current TCTO's that affect the technical content of text or illustrations found in this manual.

TCTO NUMBER	TITLE	TCTO DATE	APPLICABILITY
1300i-1616	Installation of Extended Range Fuel Containment System (System 28), and Modification of On-Board Inert Gas Generation System - OBIGGS II (System 47), 300i Aircraft	25 APR 13	〈AA〉 → 〈CX〉
1300i-1617	Modification of On-Board Inert Gas Generation System - OBIGGS II (System 47), 300i Aircraft	12 AUG 09	〈CY〉 → 〈FW〉

TCTO NUMBER	TITLE	TCTO DATE	APPLICABILITY
1300i-2362	Modification of Large Aircraft Infrared Countermeasures (LAIRCM) Processor Part No. 001-007722-3061 to Processor Part No. 001-008702-1001-11 (Ref Des 9314CM001) and Control Indicator Unit Part No. 001-007678-103 to Part No. 001-008684-0101 (Ref Des 9314CT001), 300i Aircraft	06 MAR 20	⟨AH⟩ ⟨AK⟩ ⟨AY⟩ → ⟨BA⟩ ⟨BE⟩ → ⟨BH⟩ ⟨BK⟩ ⟨BM⟩ → ⟨BS⟩ ⟨BU⟩ ⟨BV⟩ ⟨BX⟩ → ⟨CB⟩ ⟨CD⟩ ⟨CF⟩ ⟨CG⟩ ⟨CK⟩ ⟨CM⟩ → ⟨CS⟩ ⟨DG⟩ → ⟨EQ⟩ ⟨ET⟩ ⟨EV⟩ → ⟨FD⟩ ⟨FF⟩ → ⟨FP⟩ ⟨FR⟩ ⟨FS⟩ ⟨FU⟩ ⟨FX⟩ → ⟨GF⟩ ⟨GH⟩ → ⟨GK⟩ ⟨GR⟩ → ⟨GT⟩ ⟨GV⟩ → ⟨HA⟩ ⟨HC⟩ → ⟨HE⟩ ⟨HG⟩ ⟨HH⟩ ⟨HK⟩ ⟨HL⟩ ⟨HS⟩ ⟨HT⟩ ⟨HV⟩ → ⟨JA⟩ ⟨JL⟩ ⟨JT⟩ → ⟨KB⟩ ⟨KD⟩ → ⟨KG⟩ ⟨KJ⟩ → ⟨KM⟩ ⟨KX⟩ ⟨LE⟩ ⟨LM⟩

TCTO NUMBER	TITLE	TCTO DATE	APPLICABILITY
1300i-2363	Replacement of Large Aircraft Infrared Countermeasures Processor Part No. 001-007722-3181, with Processor Part No. 001-008702-1001-11 (Ref Des 9314CM001) and Control Indicator Unit Part No. 001-007678-103 with Part No. 001-008684-0101 (Ref Des 9314CT001). 300i Aircraft	03 JAN 22	⟨AA⟩ → ⟨AG⟩ ⟨AJ⟩ ⟨AL⟩ → ⟨AX⟩ ⟨BB⟩ → ⟨BD⟩ ⟨BJ⟩ ⟨BL⟩ ⟨BT⟩ ⟨BW⟩ ⟨CC⟩ ⟨CE⟩ ⟨CH⟩ ⟨CJ⟩ ⟨CL⟩ ⟨CT⟩ → ⟨CZ⟩ ⟨DD⟩ ⟨ER⟩ ⟨ES⟩ ⟨EU⟩ ⟨FE⟩ ⟨FQ⟩ ⟨FT⟩ ⟨FV⟩ ⟨FW⟩ ⟨GG⟩ ⟨GL⟩ → ⟨GQ⟩ ⟨JB⟩ → ⟨JK⟩ ⟨JS⟩ ⟨KC⟩ ⟨KN⟩ ⟨KP⟩ ⟨KS⟩ ⟨KW⟩ ⟨KY⟩ → ⟨LA⟩ ⟨LF⟩ ⟨LL⟩ ⟨LN⟩ ⟨LP⟩ ⟨LS⟩

TCTO NUMBER	TITLE	TCTO DATE	APPLICABILITY
1300i-2452	Replacement of On-Board Inert Gas Generation System Butterfly Valve from Part No. 1003814-1 to Part No. 1003819-1 (Ref Des 4761FV001 and 4761FV002) and Installation of Electrical Relay Part No. 5D0005-1 (Ref Des 4761KK512 and 4761KK513), 300i Aircraft		〈AH〉 〈AK〉 〈AU〉 〈BE〉 〈BN〉 〈BV〉 〈BZ〉 〈CC〉 〈CH〉 〈CJ〉 〈CV〉 〈CW〉 〈DB〉 → 〈DG〉 〈DT〉 → 〈DY〉 〈EA〉 〈EC〉 〈EK〉 〈EP〉 〈FG〉 〈FH〉 〈FX〉 → 〈MM〉

SECTION 1

GENERAL INFORMATION (10-60-00)

1-1. GENERAL INFORMATION.

1-2. This section provides general information that is essential for ensuring complete and safe maintenance procedures contained throughout this manual.

1-3. All adhesive sealants, sealants, and compounds used in this manual are listed with a primary part number and/or primary specification number. Any suitable substitutes and/or interchangeable adhesive sealants, and compounds may be used unless otherwise specified. Suitable substitutes and/or interchangeable adhesive sealants, sealants, and compounds are listed in the system peculiar corrosion control manual (Refer to TO 1300i-23, Chapter 1, Section III).

1-4. GENERAL WARNINGS, CAUTIONS, AND NOTES.

WARNING

Hazardous noise levels are produced by ground power units. Wearing of ear protection is required in accordance with AFOSHSTD 48-20. Failure to comply may result in injury to personnel.

SECTION 2

EXTERNAL ELECTRICAL POWER (10-61-01)

GENERAL MAINTENANCE INPUT CONDITIONS:

Applicability:

Task

01-1

〈AA〉 → 〈AG〉 〈AJ〉 〈AL〉 → 〈AX〉 〈BB〉 → 〈BD〉 〈BJ〉
〈BL〉 〈BT〉 〈BW〉 〈CC〉 〈CE〉 〈CH〉 〈CJ〉 〈CL〉
〈CT〉 → 〈CZ〉 〈DD〉 〈ER〉 〈ES〉 〈EU〉 〈FE〉 〈FQ〉 〈FT〉
〈FV〉 〈FW〉 〈GG〉 〈GL〉 → 〈GQ〉 〈JB〉 → 〈JK〉 〈JS〉 〈KC〉
〈KN〉 〈KP〉 〈KS〉 〈KW〉 〈KY〉 → 〈LA〉 〈LF〉 〈LL〉 〈LN〉
〈LP〉 〈LS〉 BEFORE 2363 〈AH〉 〈AK〉 〈AY〉 → 〈BA〉
〈BE〉 → 〈BH〉 〈BK〉 〈BM〉 → 〈BS〉 〈BU〉 〈BV〉
〈BX〉 → 〈CB〉 〈CD〉 〈CF〉 〈CG〉 〈CK〉 〈CM〉 → 〈CS〉
〈DG〉 → 〈EQ〉 〈ET〉 〈EV〉 → 〈FD〉 〈FF〉 → 〈FP〉 〈FR〉
〈FS〉 〈FU〉 〈FX〉 → 〈GF〉 〈GH〉 → 〈GK〉 〈GR〉 → 〈GT〉
〈GV〉 → 〈HA〉 〈HC〉 → 〈HE〉 〈HG〉 〈HH〉 〈HK〉 〈HL〉 〈HS〉
〈HT〉 〈HV〉 → 〈JA〉 〈JL〉 〈JT〉 → 〈KB〉 〈KD〉 → 〈KG〉
〈KJ〉 → 〈KM〉 〈KX〉 〈LE〉 〈LM〉 BEFORE 2362 〈DB〉 〈DC〉
〈DE〉 〈DF〉 〈GU〉 〈HB〉 〈HF〉 〈HJ〉 〈HM〉 → 〈HR〉 〈HU〉
〈JM〉 → 〈JR〉 〈KH〉 〈KQ〉 〈KR〉 〈KT〉 → 〈KV〉
〈LB〉 → 〈LD〉 〈LG〉 → 〈LK〉 〈LQ〉 〈LR〉 〈LT〉 →

	Task
⟨AA⟩ → ⟨AG⟩ ⟨AJ⟩ ⟨AL⟩ → ⟨AX⟩ ⟨BB⟩ → ⟨BD⟩ ⟨BJ⟩ ⟨BL⟩ ⟨BT⟩ ⟨BW⟩ ⟨CC⟩ ⟨CE⟩ ⟨CH⟩ ⟨CJ⟩ ⟨CL⟩ ⟨CT⟩ → ⟨CZ⟩ ⟨DD⟩ ⟨ER⟩ ⟨ES⟩ ⟨EU⟩ ⟨FE⟩ ⟨FQ⟩ ⟨FT⟩ ⟨FV⟩ ⟨FW⟩ ⟨GG⟩ ⟨GL⟩ → ⟨GQ⟩ ⟨JB⟩ → ⟨JK⟩ ⟨JS⟩ ⟨KC⟩ ⟨KN⟩ ⟨KP⟩ ⟨KS⟩ ⟨KW⟩ ⟨KY⟩ → ⟨LA⟩ ⟨LF⟩ ⟨LL⟩ ⟨LN⟩ ⟨LP⟩ ⟨LS⟩ AFTER 2363 ⟨AH⟩ ⟨AK⟩ ⟨AY⟩ → ⟨BA⟩ ⟨BE⟩ → ⟨BH⟩ ⟨BK⟩ ⟨BM⟩ → ⟨BS⟩ ⟨BU⟩ ⟨BV⟩ ⟨BX⟩ → ⟨CB⟩ ⟨CD⟩ ⟨CF⟩ ⟨CG⟩ ⟨CK⟩ ⟨CM⟩ → ⟨CS⟩ ⟨DG⟩ → ⟨EQ⟩ ⟨ET⟩ ⟨EV⟩ → ⟨FD⟩ ⟨FF⟩ → ⟨FP⟩ ⟨FR⟩ ⟨FS⟩ ⟨FU⟩ ⟨FX⟩ → ⟨GF⟩ ⟨GH⟩ → ⟨GK⟩ ⟨GR⟩ → ⟨GT⟩ ⟨GV⟩ → ⟨HA⟩ ⟨HC⟩ → ⟨HE⟩ ⟨HG⟩ ⟨HH⟩ ⟨HK⟩ ⟨HL⟩ ⟨HS⟩ ⟨HT⟩ ⟨HV⟩ → ⟨JA⟩ ⟨JL⟩ ⟨JT⟩ → ⟨KB⟩ ⟨KD⟩ → ⟨KG⟩ ⟨KJ⟩ → ⟨KM⟩ ⟨KX⟩ ⟨LE⟩ ⟨LM⟩ AFTER 2362	01-1
All	01-2

Additional information:

This procedure consists of the following tasks:

01-1. Connect external electrical power. ⟨AA⟩ → ⟨AG⟩ ⟨AJ⟩ ⟨AL⟩ → ⟨AX⟩ ⟨BB⟩ → ⟨BD⟩ ⟨BJ⟩ ⟨BL⟩ ⟨BT⟩ ⟨BW⟩ ⟨CC⟩ ⟨CE⟩ ⟨CH⟩ ⟨CJ⟩ ⟨CL⟩ ⟨CT⟩ → ⟨CZ⟩ ⟨DD⟩ ⟨ER⟩ ⟨ES⟩ ⟨EU⟩ ⟨FE⟩ ⟨FQ⟩ ⟨FT⟩ ⟨FV⟩ ⟨FW⟩ ⟨GG⟩ ⟨GL⟩ → ⟨GQ⟩ ⟨JB⟩ → ⟨JK⟩ ⟨JS⟩ ⟨KC⟩ ⟨KN⟩ ⟨KP⟩ ⟨KS⟩ ⟨KW⟩ ⟨KY⟩ → ⟨LA⟩ ⟨LF⟩ ⟨LL⟩ ⟨LN⟩ ⟨LP⟩ ⟨LS⟩ BEFORE [2363] ⟨AH⟩ ⟨AK⟩ ⟨AY⟩ → ⟨BA⟩ ⟨BE⟩ → ⟨BH⟩ ⟨BK⟩ ⟨BM⟩ → ⟨BS⟩ ⟨BU⟩ ⟨BV⟩ ⟨BX⟩ → ⟨CB⟩ ⟨CD⟩ ⟨CF⟩ ⟨CG⟩ ⟨CK⟩ ⟨CM⟩ → ⟨CS⟩ ⟨DG⟩ → ⟨EQ⟩ ⟨ET⟩ ⟨EV⟩ → ⟨FD⟩ ⟨FF⟩ → ⟨FP⟩ ⟨FR⟩ ⟨FS⟩ ⟨FU⟩ ⟨FX⟩ → ⟨GF⟩ ⟨GH⟩ → ⟨GK⟩ ⟨GR⟩ → ⟨GT⟩ ⟨GV⟩ → ⟨HA⟩ ⟨HC⟩ → ⟨HE⟩ ⟨HG⟩ ⟨HH⟩ ⟨HK⟩ ⟨HL⟩ ⟨HS⟩ ⟨HT⟩ ⟨HV⟩ → ⟨JA⟩ ⟨JL⟩ ⟨JT⟩ → ⟨KB⟩ ⟨KD⟩ → ⟨KG⟩ ⟨KJ⟩ → ⟨KM⟩ ⟨KX⟩ ⟨LE⟩ ⟨LM⟩ BEFORE [2362] ⟨DB⟩ ⟨DC⟩ ⟨DE⟩ ⟨DF⟩ ⟨GU⟩ ⟨HB⟩ ⟨HF⟩ ⟨HJ⟩ ⟨HM⟩ → ⟨HR⟩ ⟨HU⟩ ⟨JM⟩ → ⟨JR⟩ ⟨KH⟩ ⟨KQ⟩ ⟨KR⟩ ⟨KT⟩ → ⟨KV⟩ ⟨LB⟩ → ⟨LD⟩ ⟨LG⟩ → ⟨LK⟩ ⟨LQ⟩ ⟨LR⟩ ⟨LT⟩ →

01-1. Connect external electrical power. ⟨AA⟩ → ⟨AG⟩ ⟨AJ⟩ ⟨AL⟩ → ⟨AX⟩ ⟨BB⟩ → ⟨BD⟩ ⟨BJ⟩ ⟨BL⟩ ⟨BT⟩ ⟨BW⟩ ⟨CC⟩ ⟨CE⟩ ⟨CH⟩ ⟨CJ⟩ ⟨CL⟩ ⟨CT⟩ → ⟨CZ⟩ ⟨DD⟩ ⟨ER⟩ ⟨ES⟩ ⟨EU⟩ ⟨FE⟩ ⟨FQ⟩ ⟨FT⟩ ⟨FV⟩ ⟨FW⟩ ⟨GG⟩ ⟨GL⟩ → ⟨GQ⟩ ⟨JB⟩ → ⟨JK⟩ ⟨JS⟩ ⟨KC⟩ ⟨KN⟩ ⟨KP⟩ ⟨KS⟩ ⟨KW⟩ ⟨KY⟩ → ⟨LA⟩ ⟨LF⟩ ⟨LL⟩ ⟨LN⟩ ⟨LP⟩ ⟨LS⟩ AFTER 2363 ⟨AH⟩ ⟨AK⟩ ⟨AY⟩ → ⟨BA⟩ ⟨BE⟩ → ⟨BH⟩ ⟨BK⟩ ⟨BM⟩ → ⟨BS⟩ ⟨BU⟩ ⟨BV⟩ ⟨BX⟩ → ⟨CB⟩ ⟨CD⟩ ⟨CF⟩ ⟨CG⟩ ⟨CK⟩ ⟨CM⟩ → ⟨CS⟩ ⟨DG⟩ → ⟨EQ⟩ ⟨ET⟩ ⟨EV⟩ → ⟨FD⟩ ⟨FF⟩ → ⟨FP⟩ ⟨FR⟩ ⟨FS⟩ ⟨FU⟩ ⟨FX⟩ → ⟨GF⟩ ⟨GH⟩ → ⟨GK⟩ ⟨GR⟩ → ⟨GT⟩ ⟨GV⟩ → ⟨HA⟩ ⟨HC⟩ → ⟨HE⟩ ⟨HG⟩ ⟨HH⟩ ⟨HK⟩ ⟨HL⟩ ⟨HS⟩ ⟨HT⟩ ⟨HV⟩ → ⟨JA⟩ ⟨JL⟩ ⟨JT⟩ → ⟨KB⟩ ⟨KD⟩ → ⟨KG⟩ ⟨KJ⟩ → ⟨KM⟩ ⟨KX⟩ ⟨LE⟩ ⟨LM⟩ AFTER 2362

01-2. Disconnect external electrical power.

Additional data:

	Task
TO 00-20-1	01-1
TO 00-25-172	01-1
TO 1-1A-14	01-1
TO 1300i-2-00GV-00-1	All
TO 1300i-2-23FI-00-1 TO	01-2
1300i-2-29JG-20-1 TO	All
1300i-2-34FI-00-1	01-2

Personnel recommended:

	Task
One	All

Safety conditions:

	Task
WARNING	
• Prior to applying electrical power, be sure no conditions exist which would prohibit application of power. Failure to comply may cause injury to personnel and damage to aircraft.	All
• The AN/ALE-47 countermeasures dispensing system shall be properly safed prior to applying electrical power. Failure to comply may cause injury to personnel and damage to aircraft.	All
• **(FOR IRCM AIRCRAFT ONLY)** On Infrared Countermeasures (IRCM) equipped aircraft, the IRCM system shall be safed prior to applying electrical power and during electrical power use. This requires the removal of the User Data Module (UDM) or Maintenance User Data Module (MUDM) card and system switches in OFF position. Failure to comply may cause injury to personnel and damage to aircraft.	All
CAUTION	
• Portable 100 pound Halon or Purple-K fire extinguisher or equivalent shall be available. Failure to comply may cause damage to aircraft.	All

Task

CAUTION - Continued

- 〈AA〉 → 〈CX〉 AFTER 1616 All
  〈CY〉 → 〈FW〉 AFTER 1617 〈FX〉 → Electrical power shall be **ON** while external pneumatic air pressure is being supplied to the aircraft, unless left and right On Board Inert Gas Generation System (OBIGGS) shutoff valves and left and right air conditioning flow control valves are manually locked closed (TO 1300i-2-00GV-00-1, Chapter 13). When there is an aircraft electrical power interruption during pneumatic air supply operation, immediately shutdown pneumatics to aircraft. Failure to comply may cause damage to aircraft.

- During complete fuselage jacking, all main landing gear weight on wheel sensors will transition to air mode. Aircraft avionics bus power will not shut down and warning horns will not sound during avionics overheat condition. External air conditioning source shall be supplied when aircraft is complete fuselage jacked, electrical power will be applied for more than five minutes, and ambient air temperature is above 65 °F. Failure to comply may cause damage to aircraft. All

Support equipment:

Nomenclature	PN	Specification	Qty	Task
Generator Set, Diesel	8126369-90	--	1	01-1
Motor-Generator	18889	--	1	01-1

Supplies:

Nomenclature	PN	Specification	Qty	Task
NA	--	--	--	--

01-1. CONNECT EXTERNAL ELECTRICAL POWER. 〈AA〉 → 〈AG〉 〈AJ〉 〈AL〉 → 〈AX〉 〈BB〉 → 〈BD〉 〈BJ〉 〈BL〉 〈BT〉 〈BW〉 〈CC〉 〈CE〉 〈CH〉 〈CJ〉 〈CL〉 〈CT〉 → 〈CZ〉 〈DD〉 〈ER〉 〈ES〉 〈EU〉 〈FE〉 〈FQ〉 〈FT〉 〈FV〉 〈FW〉 〈GG〉 〈GL〉 → 〈GQ〉 〈JB〉 → 〈JK〉 〈JS〉 〈KC〉 〈KN〉 〈KP〉 〈KS〉 〈KW〉 〈KY〉 → 〈LA〉 〈LF〉 〈LL〉 〈LN〉 〈LP〉 〈LS〉 **BEFORE** [2363] 〈AH〉 〈AK〉 〈AY〉 → 〈BA〉 〈BE〉 → 〈BH〉 〈BK〉 〈BM〉 → 〈BS〉 〈BU〉 〈BV〉 〈BX〉 → 〈CB〉 〈CD〉 〈CF〉 〈CG〉 〈CK〉 〈CM〉 → 〈CS〉 〈DG〉 → 〈EQ〉 〈ET〉 〈EV〉 → 〈FD〉 〈FF〉 → 〈FP〉 〈FR〉 〈FS〉 〈FU〉 〈FX〉 → 〈GF〉 〈GH〉 → 〈GK〉 〈GR〉 → 〈GT〉 〈GV〉 → 〈HA〉 〈HC〉 → 〈HE〉 〈HG〉 〈HH〉 〈HK〉 〈HL〉 〈HS〉 〈HT〉 〈HV〉 → 〈JA〉 〈JL〉 〈JT〉 → 〈KB〉 〈KD〉 → 〈KG〉 〈KJ〉 → 〈KM〉 〈KX〉 〈LE〉 〈LM〉 **BEFORE** [2362] 〈DB〉 〈DC〉 〈DE〉 〈DF〉 〈GU〉 〈HB〉 〈HF〉 〈HJ〉 〈HM〉 → 〈HR〉 〈HU〉 〈JM〉 → 〈JR〉 〈KH〉 〈KQ〉 〈KR〉 〈KT〉 → 〈KV〉 〈LB〉 → 〈LD〉 〈LG〉 → 〈LK〉 〈LQ〉 〈LR〉 〈LT〉 →

1. Review ″Section 1 (General Information)″ of this TO for system general warnings, cautions, and notes.

2. Review task ″General Maintenance Input Conditions″ page for task specific safety conditions.

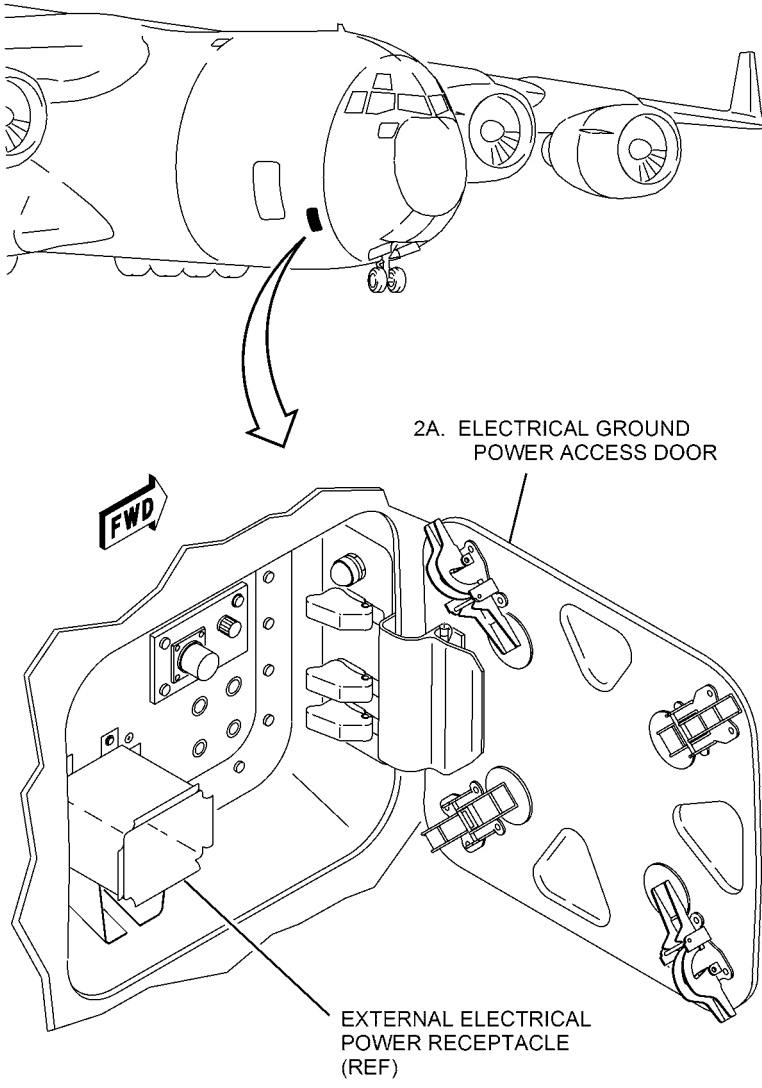
WARNING

The auxiliary hydraulic system (pumps) shall be deactivated (disconnected) prior to applying external electrical power during any of the maintenance actions/conditions addressed in step 3. When deactivation is not feasible, electrical power shall not be applied to the aircraft. A defective auxiliary hydraulic pump remote control circuit breaker may cause uncommanded operation of the pump(s) with electrical power applied. Failure to comply may cause injury/death to personnel and/or damage to aircraft.

NOTE

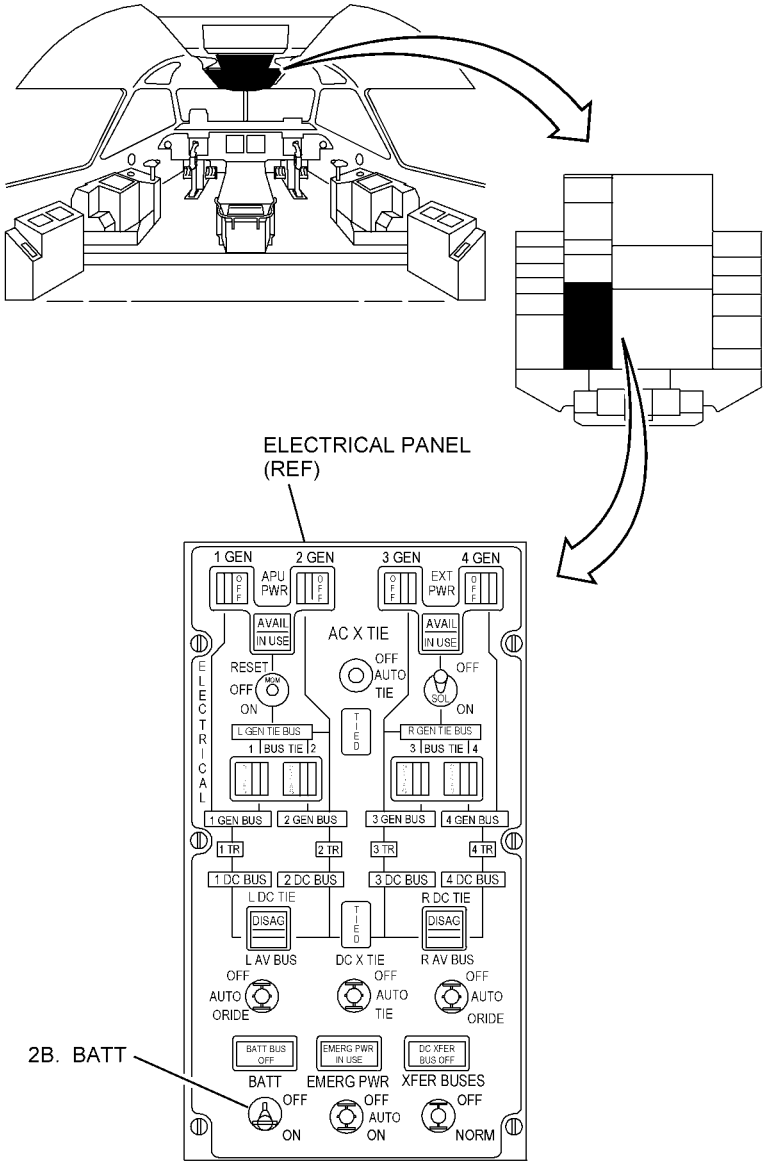
- When auxiliary hydraulic pump deactivation is not feasible, safe aircraft electrical power by preforming steps 2A and 2B below.
- Remove warning tags upon completion of the actions/conditions identified in step 3 that required safing of the electrical power system.

2A. Unlatch and open electrical ground power access door (122ARD); attach warning tag to external electrical power receptacle, as required.



ICN-88277-G1061130-001-01

2B. Ensure **BATT** switch on **ELECTRICAL** panel is **OFF** and attach warning tag, as required.



ICN-88277-G1061131-001-01

NOTE

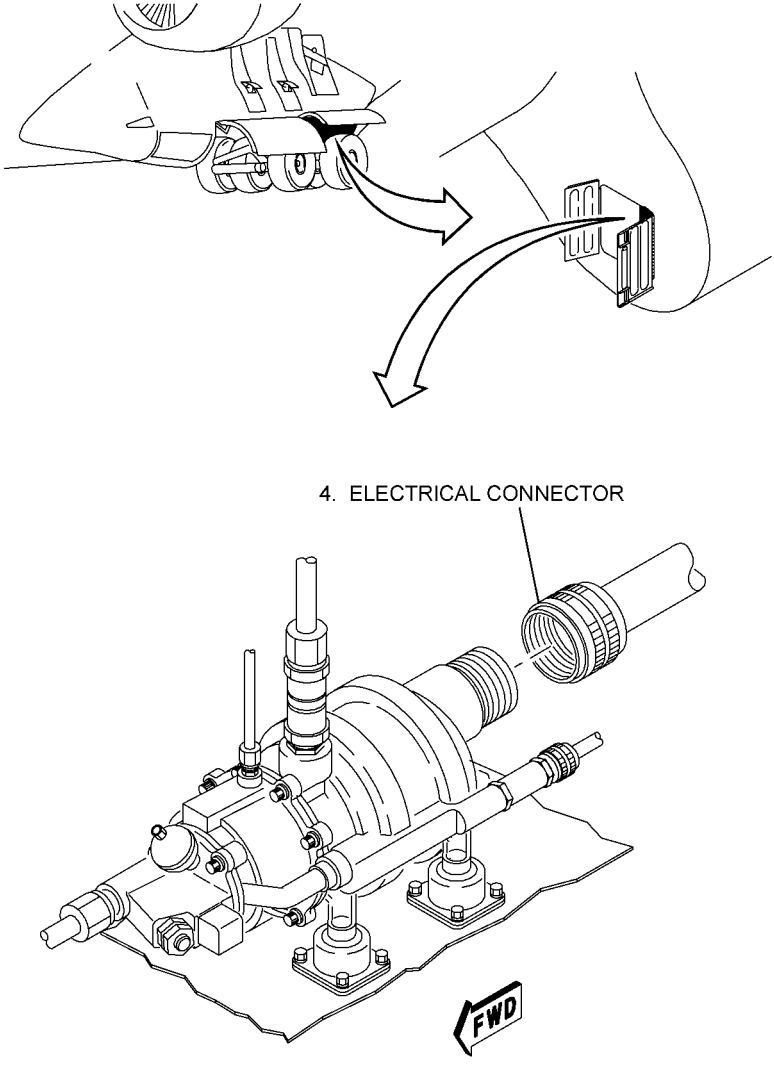
Perform step 3 thru 5 when the maintenance actions/ conditions addressed in the table of step 3 will be accomplished with electrical power on. When these actions/conditions will not be accomplished or hydraulics will be applied concurrently, omit step 3 thru step 5.

3. Perform alternating current motor pump assembly disconnection preparation on REF DES 2921FP001, 2921FP002, 2921FP003 and 2921FP004 (29-21-10, task 2-1, steps 1 thru 6 and task 2-2, steps 1 thru 6) for the following actions/conditions:

ACTIONS/CONDITIONS	
1.	Any task that instructs the opening of Auxiliary Hydraulic Pump Circuit Breakers [# 1 (LEPC LL/68), # 2 (LEPC LL/69), # 3 (REPC LL/11), and/or # 4 (REPC LL/10)].
2.	Any Hydraulic System is open or maintenance will be performed on any hydraulic system.
3.	Personnel are working near any flight controls surfaces (i.e., aileron, elevator, rudder, flap, slat, spoilers).
4.	During Home Station Check or Depot Maintenance operations, when hydraulic power is not in use or not being monitored.
5.	For any maintenance that does not require the use of hydraulic pressure and where an uncommanded application of pressure may pose a danger.

4. Disconnect electrical connector and install protective cap IAW TO 1-1A-14.

5. Document aircraft forms, that the auxiliary hydraulic system has been deactivated for maintenance, IAW TO 00-20-1.



(TYPICAL)

ICN-88277-G1061128-002-01

6. Deleted.

7. Deleted.

8. Deleted.

9. Deleted.

10. Deleted.

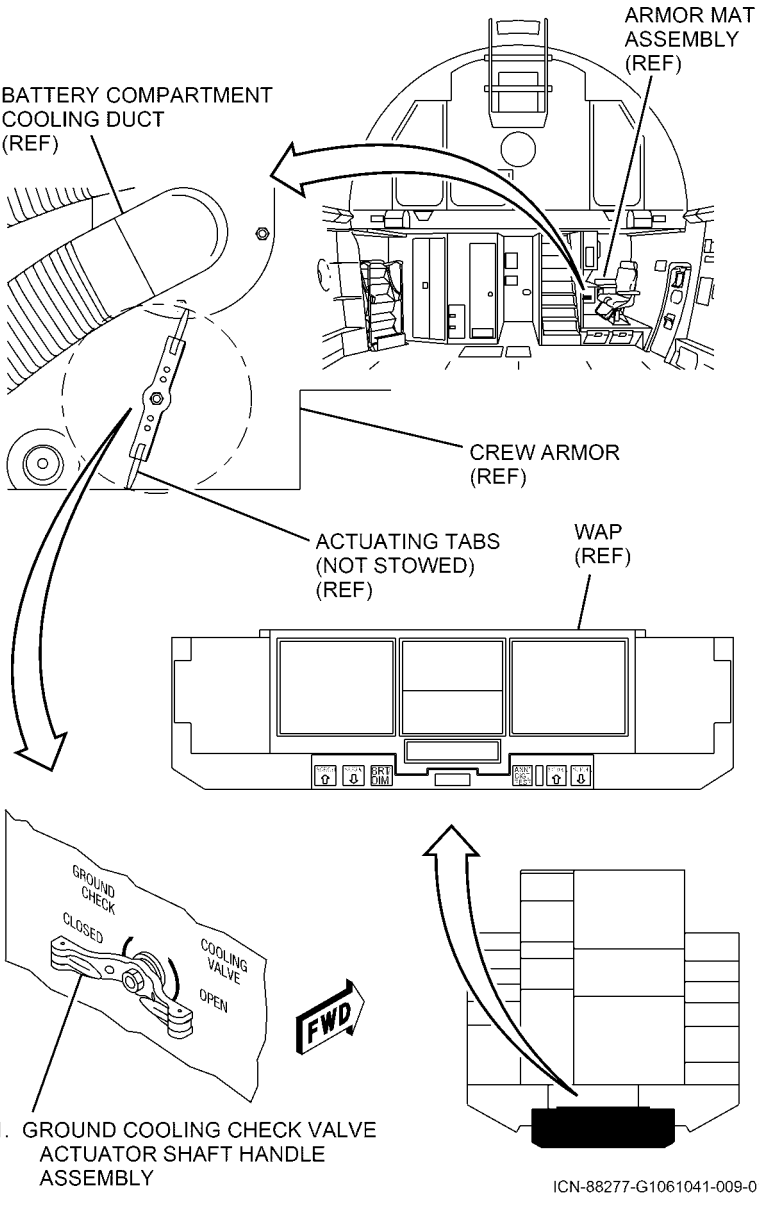
WARNING

Steps 11 thru 32E shall be followed in sequence. Failure to comply may cause injury to personnel and damage to aircraft.

CAUTION

The ground cooling check valve actuator shaft handle assembly may be impeded by the armor mat assembly, the Battery Compartment Cooling Duct or the duct's mounting bolt. These potential obstructions may cause the handle to stop rotation, resulting in an Avionics Overheat alarm message appearing on the Warning and caution Annunciator Panel (WAP). Failure to comply may cause damage to aircraft.

11. Ensure the ground cooling check valve actuator shaft handle actuating tabs are stowed.



11. GROUND COOLING CHECK VALVE ACTUATOR SHAFT HANDLE ASSEMBLY

ICN-88277-G1061041-009-01

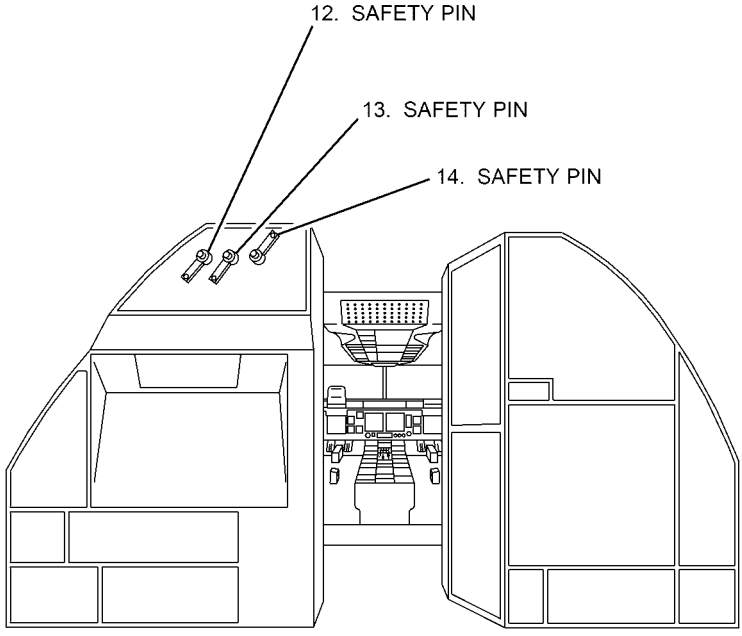
NOTE

Safety pin shall be inserted completely into safety pin switch.

12. Ensure safety pin is installed in **CMDS SAFETY SWITCH GP1**.

13. Ensure safety pin is installed in **CMDS SAFETY SWITCH GP2**.

14. Ensure safety pin is installed in **CMDS SAFETY SWITCH GP3**.

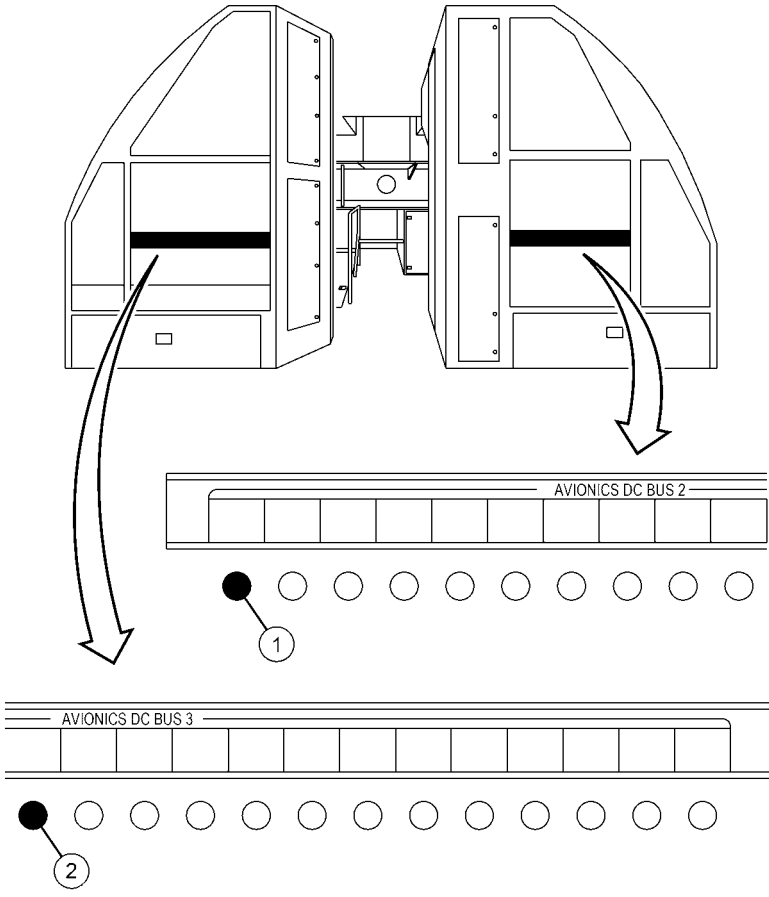


ICN-88277-G1061078-007-01

NOTE

RADAR ALTIMETER circuit breakers being pulled will generate a fault on Avionics Fault List. Ground personnel should disregard **RADAR ALTIMETER** faults unless performing system maintenance.

15. Ensure that **RADAR ALTIMETER** circuit breakers on electrical power center are pulled when not required for aircrew.



15.

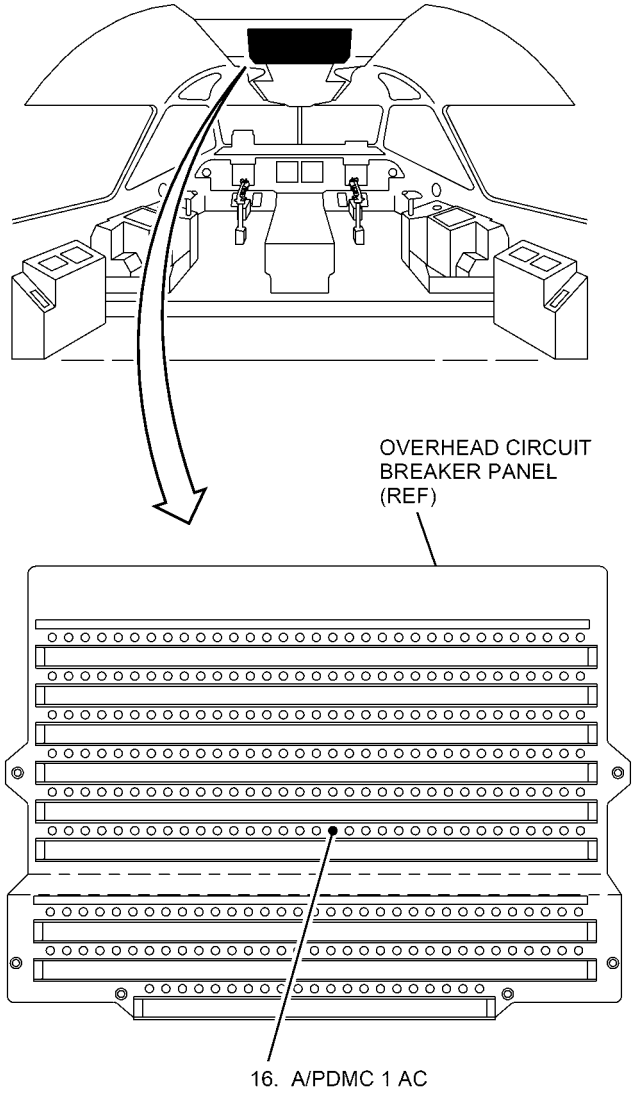
INDEX NO.	CIRCUIT BREAKER	ROW/COLUMN
1	RADAR ALTIMETER 1	T/40
2	RADAR ALTIMETER 2	T/27

ICN-88277-G1061119-004-01

WARNING

Grounding of aircraft shall be required when using hangar electrical power source. This requirement does not apply to the use of portable ground power units in the hangar (TO 00-25-172). Failure to comply may cause injury to personnel and damage to aircraft.

16. Open **A/PDMC 1 AC** circuit breaker on overhead circuit breaker panel, row **F**, column **18.**



ICN-88277-G1061072-005-01

17. Unlatch and open electrical access door (221AZD).

18. Raise guard and ensure **CMDS WOW MAINT ORIDE** switch is set to **NORMAL**; lower guard.

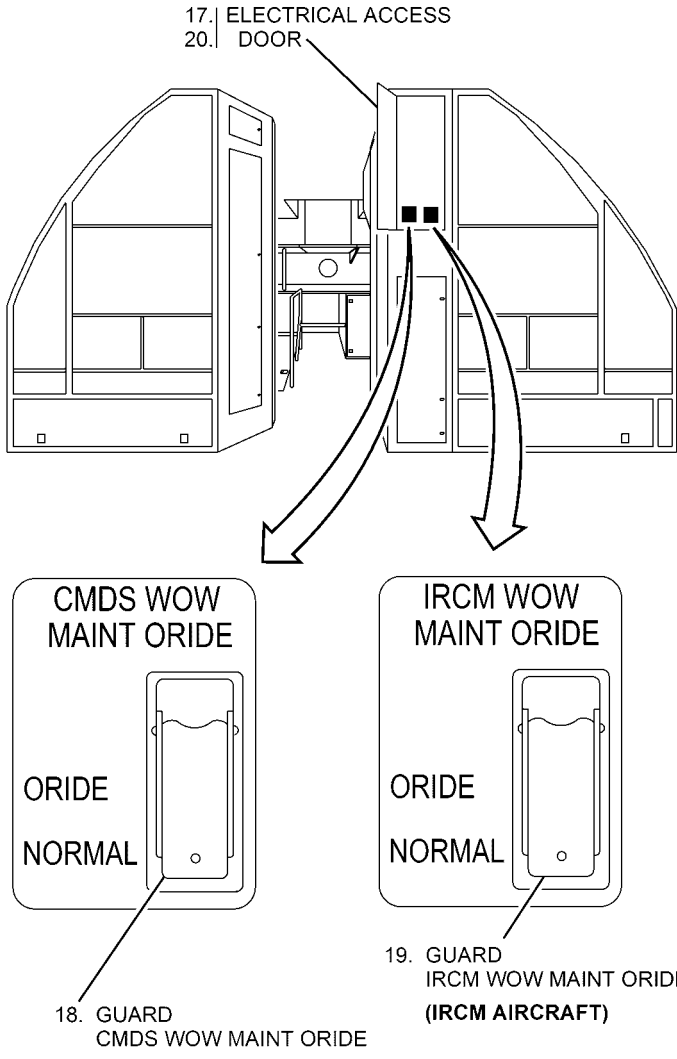
WARNING

(FOR IRCM AIRCRAFT ONLY) On Infrared Countermeasures (IRCM) equipped aircraft, the IRCM system controls shall be positioned/checked per the step(s) below. Failure to comply could cause injury to personnel or damage to equipment.

19. **(FOR IRCM AIRCRAFT ONLY)** Raise guard and ensure **IRCM WOW MAINT ORIDE** switch is set to **NORMAL**; lower guard.

19. **(FOR NON-IRCM AIRCRAFT ONLY)** No action required.

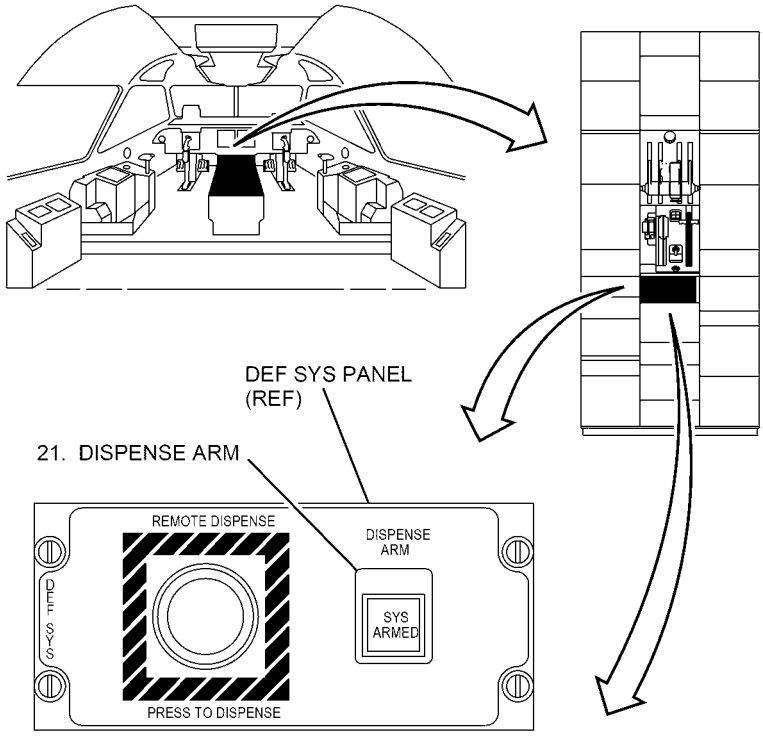
20. Close and latch electrical access door (221AZD).



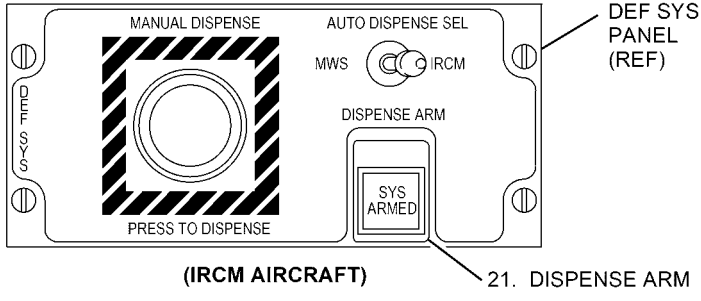
ICN-88277-G1061024-014-01

21. Ensure **DISPENSE ARM** switchlight on **DEF SYS** panel is off.

    - **DISPENSE ARM** switchlight is in raised position.



(NON-IRCM AIRCRAFT)



(IRCM AIRCRAFT)

ICN-88277-G1061025-014-01

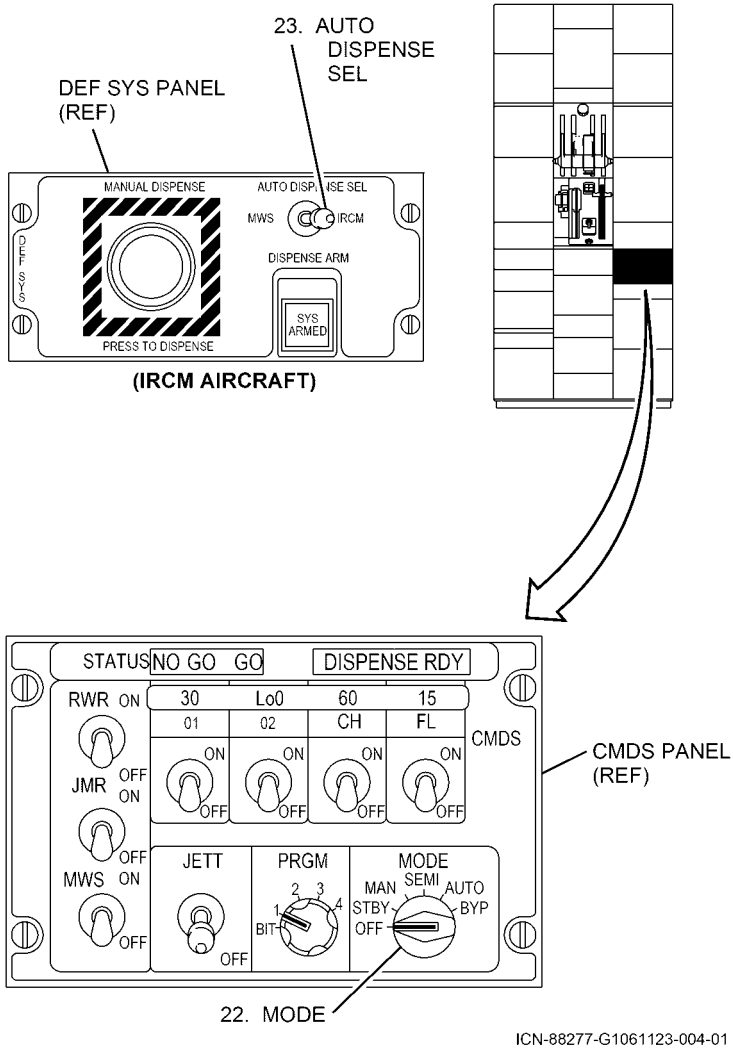
22. Ensure **MODE** switch on **CMDS** panel is set to **OFF**.

WARNING

(FOR IRCM AIRCRAFT ONLY) On IRCM equipped aircraft, the IRCM system controls shall be positioned/checked per the step(s) below. Failure to comply could cause injury to personnel or damage to equipment.

23. **(FOR IRCM AIRCRAFT ONLY)** Ensure **AUTO DISPENSE SEL** switch on **DEF SYS** panel is set to **IRCM**.

23. **(FOR NON-IRCM AIRCRAFT ONLY)** No action required.



ICN-88277-G1061123-004-01

WARNING

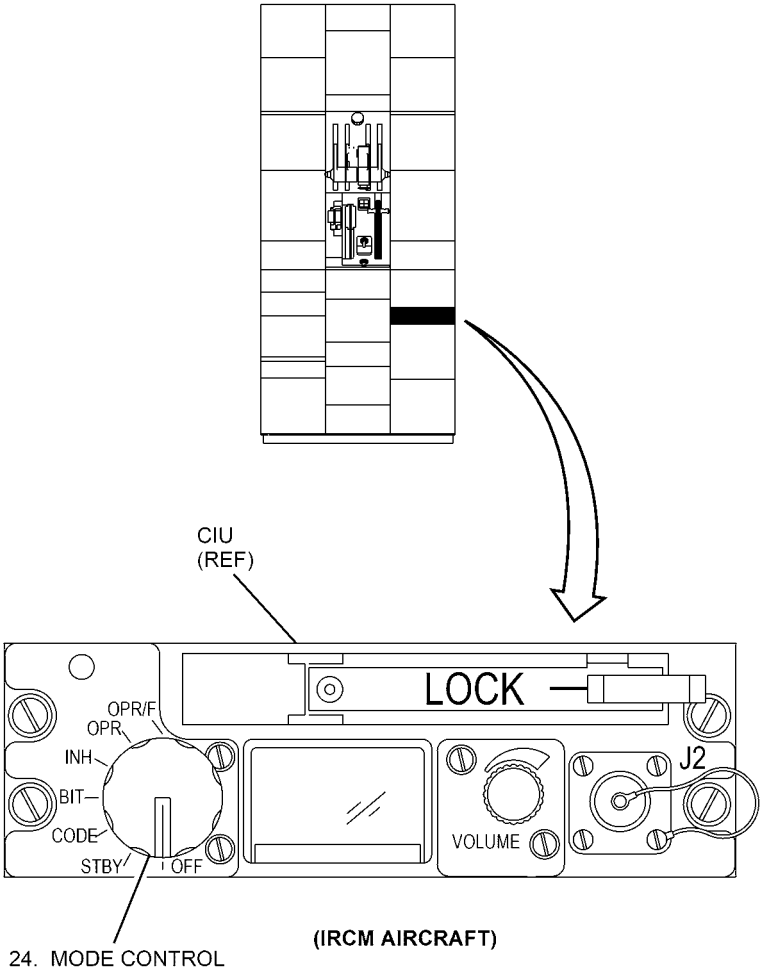
(FOR IRCM AIRCRAFT ONLY) On IRCM equipped aircraft, the IRCM system controls shall be positioned/checked per the step(s) below. Failure to comply may cause injury to personnel or damage to equipment.

NOTE

Control Indicator Unit (CIU) control knob must be pushed down to move from **OFF** position or to select **OFF**.

24. **(FOR IRCM AIRCRAFT ONLY)** Ensure mode control knob on CIU is set to **OFF**.

24. **(FOR NON-IRCM AIRCRAFT ONLY)** No action required.



(IRCM AIRCRAFT)

ICN-88277-G1061029-012-01

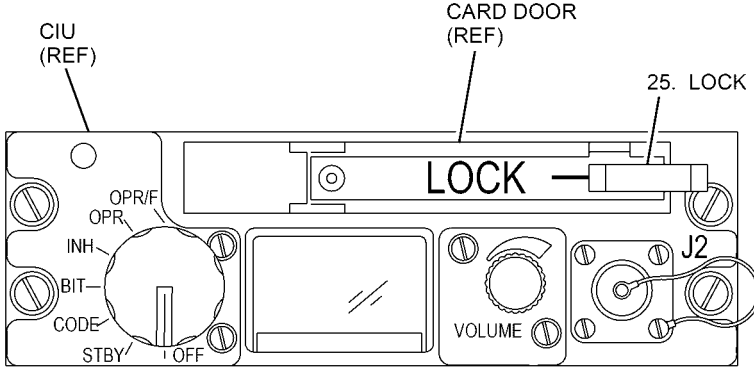
WARNING

- **(FOR IRCM AIRCRAFT ONLY)** On IRCM equipped aircraft, the IRCM system controls shall be positioned/checked per the step(s) below. Failure to comply could cause injury to personnel or damage to equipment.

- **(FOR IRCM AIRCRAFT ONLY)** Power shall not be applied to the aircraft with the User Data Module (UDM) or Maintenance User Data Module (MUDM) card installed in the card door slot of CIU. Failure to comply may cause injury to personnel and damage to aircraft.

25. **(FOR IRCM AIRCRAFT ONLY)** Rotate lock counterclockwise and open card door.

25. **(FOR NON-IRCM AIRCRAFT ONLY)** No action required.



(IRCM AIRCRAFT)

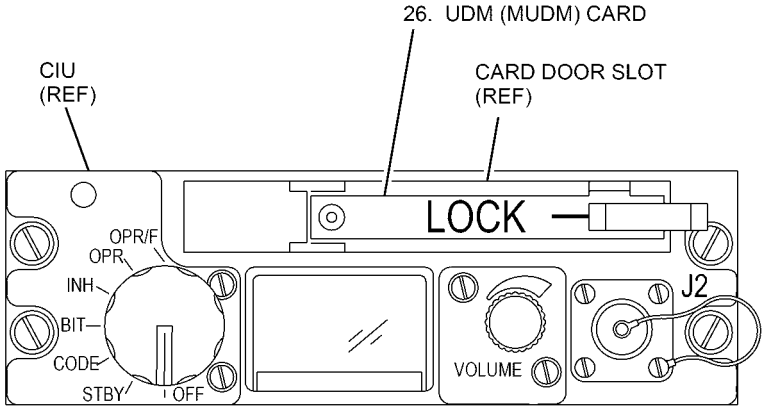
ICN-88277-G1061032-012-01

NOTE

Contact flight operations when UDM card is found in CIU. UDM card is classified. Aircraft shall not be left unsecured until flight operations retrieves UDM card.

26. **(FOR IRCM AIRCRAFT ONLY)** Ensure UDM (MUDM) card is not installed in the card door slot of the CIU.

26. **(FOR NON-IRCM AIRCRAFT ONLY)** No action required.

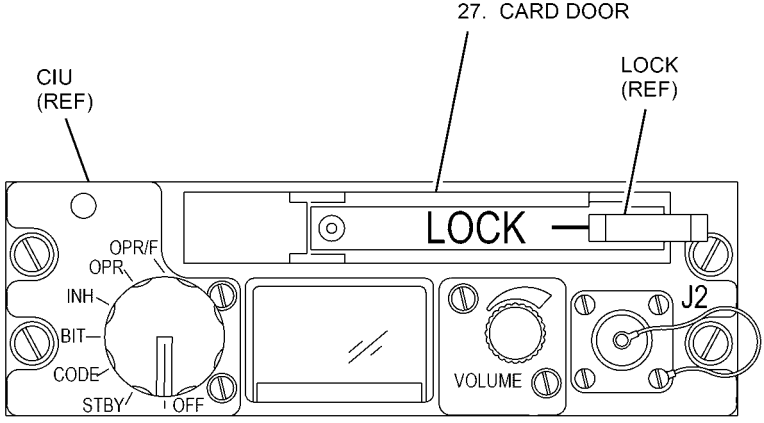


(IRCM AIRCRAFT)

ICN-88277-G1061133-002-01

27. **(FOR IRCM AIRCRAFT ONLY)** Close card door and rotate lock clockwise.

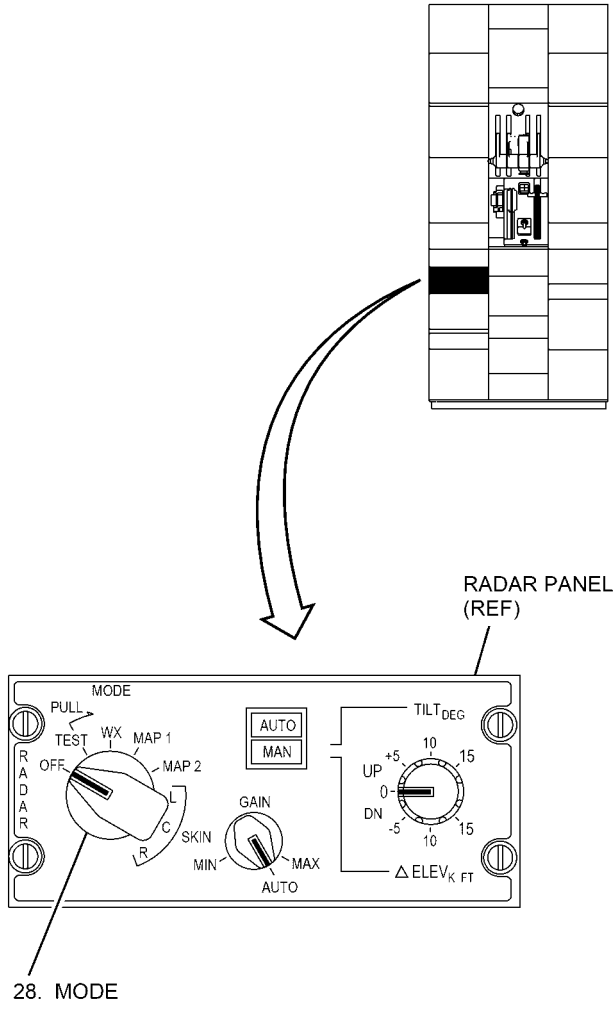
27. **(FOR NON-IRCM AIRCRAFT ONLY)** No action required.



(IRCM AIRCRAFT)

ICN-88277-G1061134-002-01

28. Ensure **MODE** switch on **RADAR** panel is **OFF**.



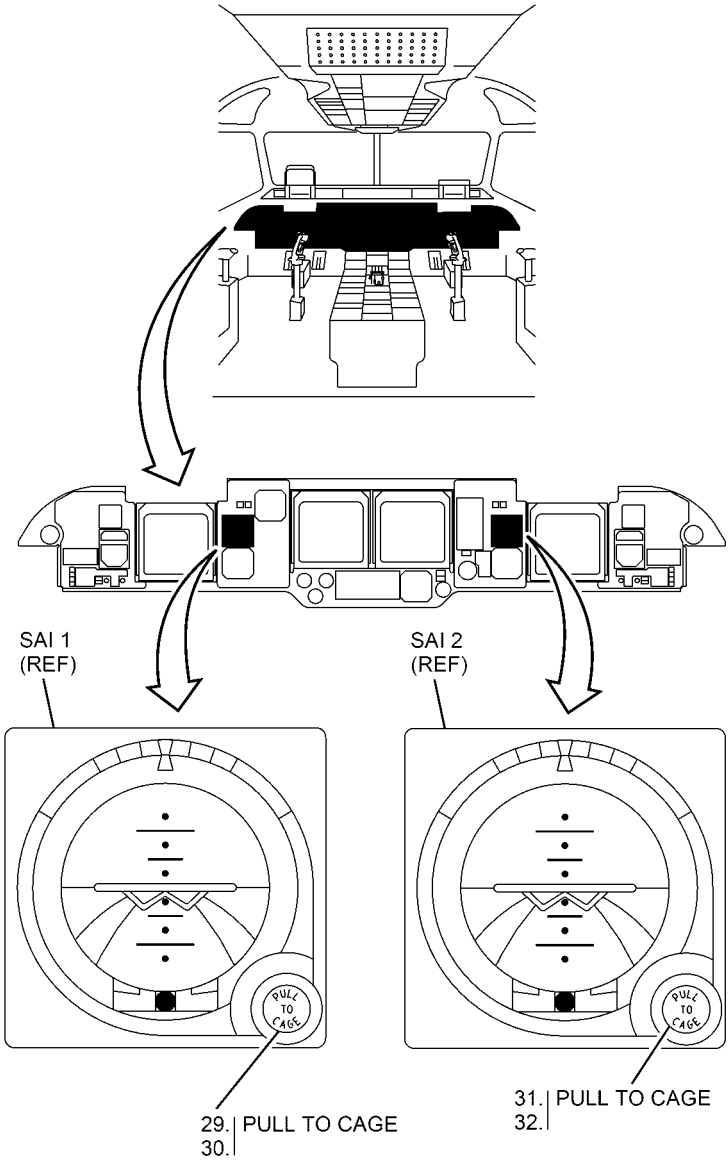
ICN-88277-G1061042-008-01

29. Pull and hold **PULL TO CAGE** knob on Standby Attitude Indicator (SAI) 1 until horizon lines stabilize.

30. Rotate **PULL TO CAGE** knob to full clockwise position.

31. Pull and hold **PULL TO CAGE** knob on SAI 2 until horizon lines stabilize.

32. Rotate **PULL TO CAGE** knob to full clockwise position.



ICN-88277-G1061016-012-01

CAUTION

Power generator set shall be positioned far enough from aircraft to ensure full extension of power cable with tow bar facing away from aircraft. Failure to comply may cause damage to aircraft.

32A. Position generator set.

32B. Unlatch and open electrical ground power access door assembly (122ARD).

32C. Ensure circuit breakers on external ground power panel assembly are closed.

CAUTION

When connecting external power cable plug do not twist or force plug. Failure to comply may cause damage to aircraft.

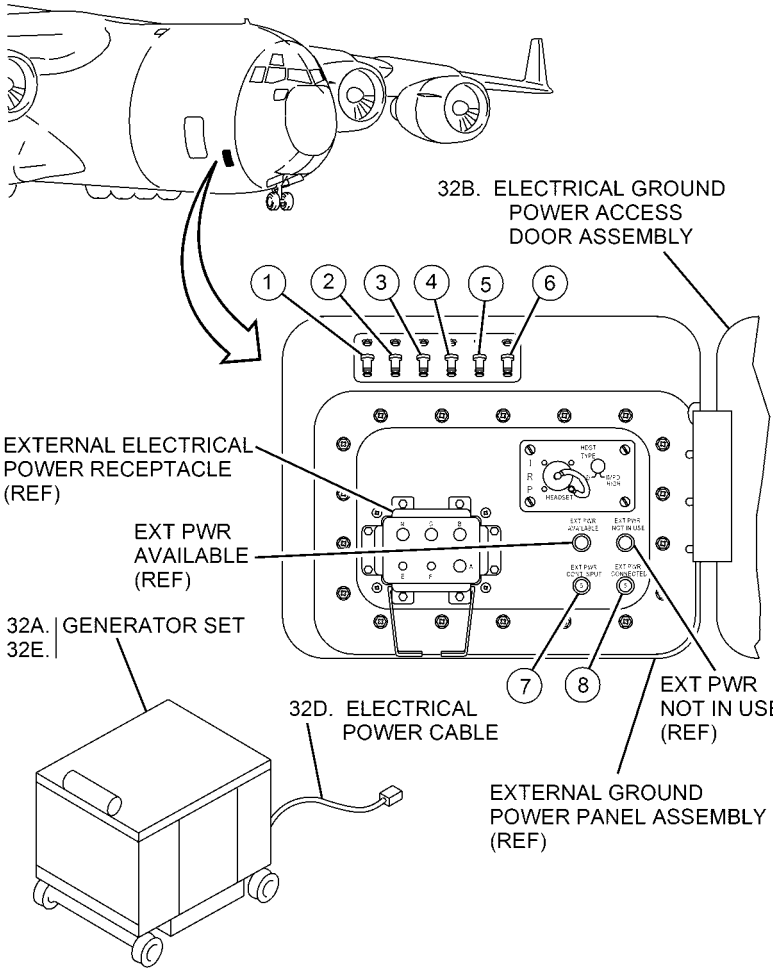
32D. Connect electrical power cable to external electrical power receptacle on external ground power panel assembly.

WARNING

Do not connect electrical power at aircraft external electrical power receptacle while power generator set is supplying power. Failure to comply may cause injury to personnel and damage to aircraft.

32E. Start generator and apply power.

- **EXT PWR AVAILABLE** light on external ground power panel assembly comes on.
- **EXT PWR NOT IN USE** light comes on.



32C.

INDEX NO.	CIRCUIT BREAKER	INDEX NO.	CIRCUIT BREAKER
1	ØC 250A	5	ØA 250A
2	ØC 250A	6	ØA 250A
3	ØB 250A	7	EXT PWR CONT INPUT
4	ØB 250A	8	EXT PWR CONNECTED

ICN-88277-G1061234-001-01

33. Verify **EXT PWR AVAIL** light on **ELECTRICAL** panel is on.

34. Set **L AV BUS** switch to **AUTO**.

35. Set **R AV BUS** switch to **AUTO**.

36. Set **BATT** switch to **ON**.

    - **BATT BUS OFF** light stays off.

37. Set **EMERG PWR** switch to **ON**.

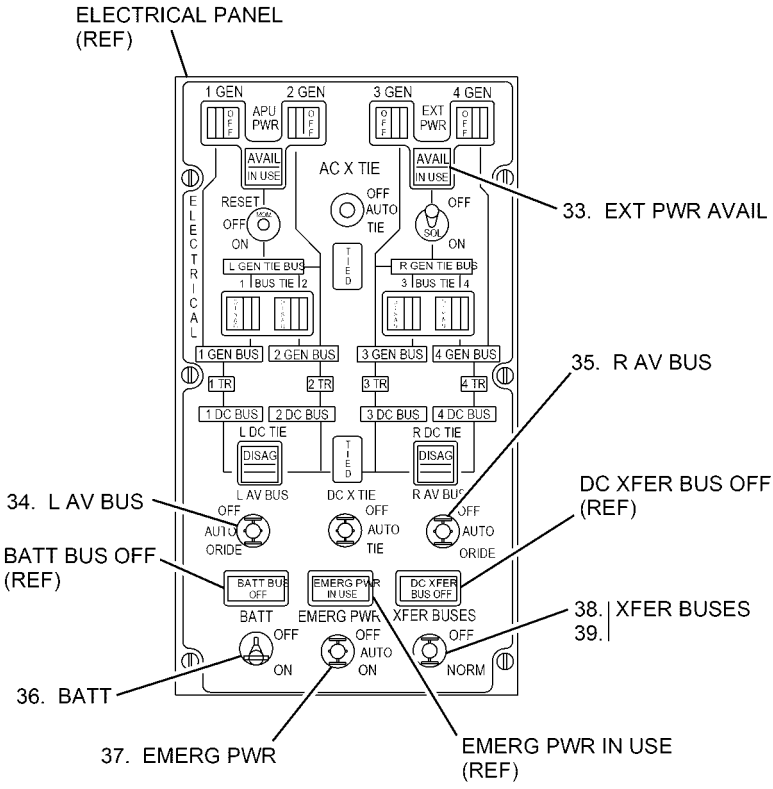
    - **EMERG PWR IN USE** light comes on.

38. Ensure **XFER BUSES** switch is **OFF**.

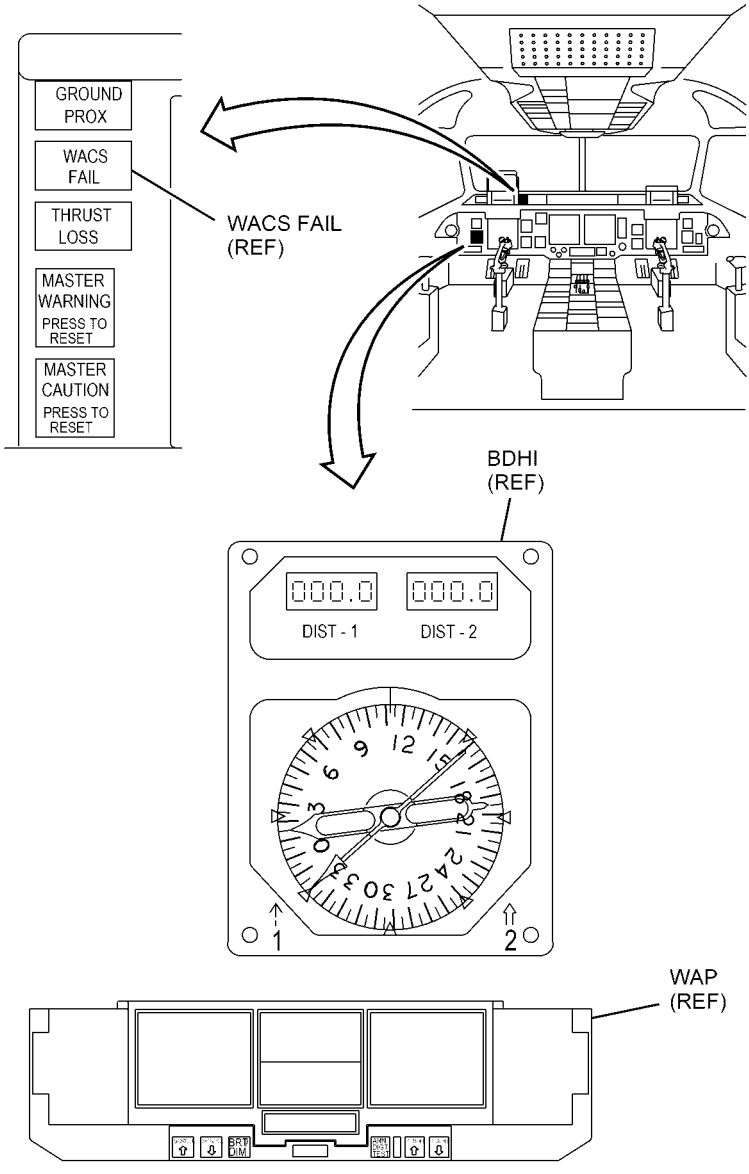
    - **DC XFER BUS OFF** light comes on.
    - Bearing Distance Heading Indicator (BDHI) window is blank.
    - WAP goes blank.
    - Warning and Caution System (WACS) Fail sounds on Central Aural Warning System (CAWS).
    - WACS Fail light on glareshield comes on.

39. Set **XFER BUSES** switch to **NORM**.

    - **DC XFER BUS OFF** light goes off.
    - Characters display in either BDHI window.
    - WAP comes on.
    - WACS Fail stops sounding on CAWS.
    - WACS Fail light on glareshield goes off.



ICN-88277-G1061003-015-01



ICN-88277-G1061034-004-01

40. Press cue reset bar on WAP until cue is clear.

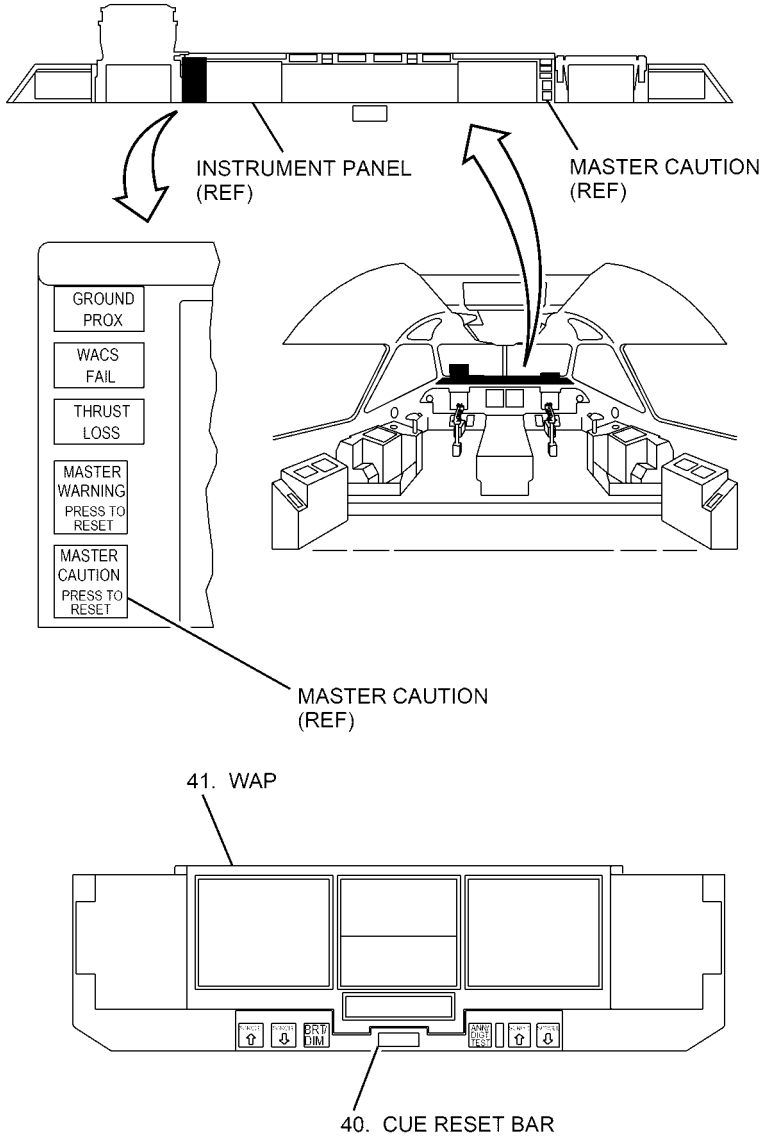
    - **MASTER CAUTION** switchlights on instrument panel go off.

NOTE

Emergency power function can be checked by ensuring that the BUS OFF messages are not displayed.

41. Observe WAP.

    - **AC EMER BUS** is not displayed.
    - **AC XFER BUS** is not displayed.
    - **DC EMERG BUS** is not displayed.
    - **BATT DIR BUS** is not displayed.



ICN-88277-G1061030-010-01

42. Ensure **AC X TIE** switch on **ELECTRICAL** panel is set to **AUTO**.

    - **AC X TIE TIED** light is off.

43. Set **DC X TIE** switch to **TIE**.

    - **DC X TIE TIED** light comes on.

44. Adjust **OVERHEAD PANEL FLOW LINE** knob on **LIGHTS** panel until overhead panel flowlines come on.

45. Adjust **OVERHEAD PANEL DIGIT FLOW LINE** knob on **LIGHTS** panel until overhead panel digit flowlines come on.

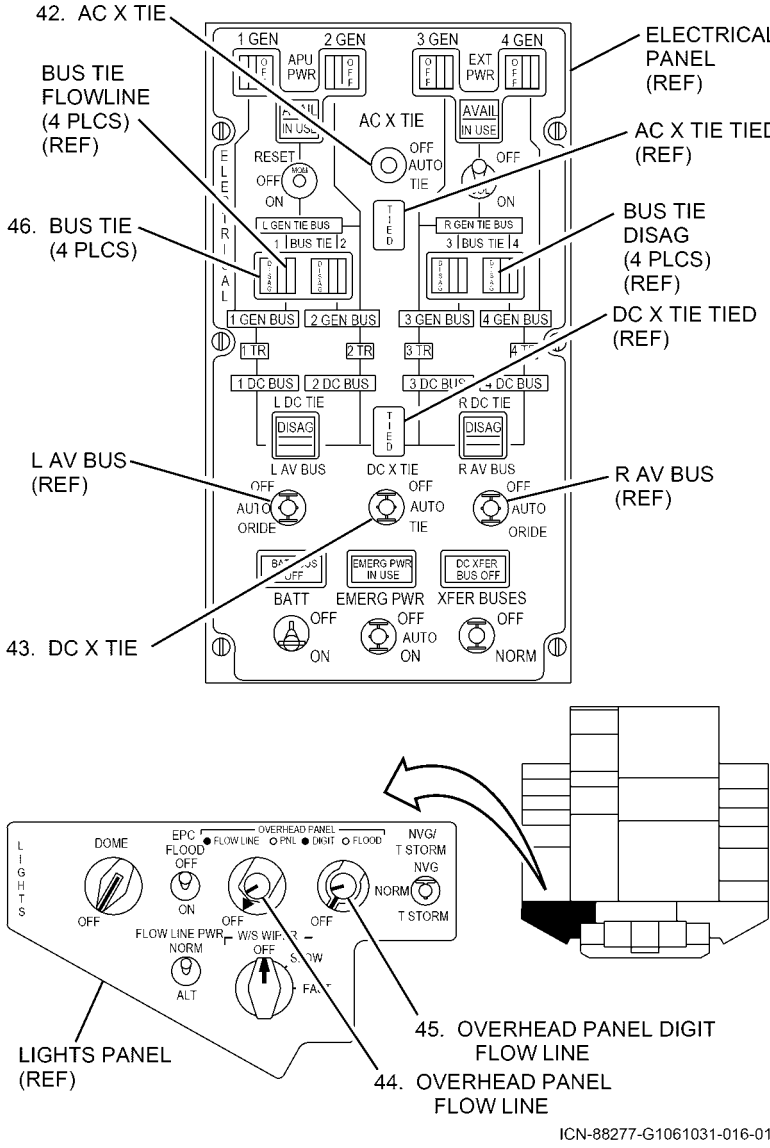
NOTE

The avionics load shedding relays do not automatically reset after being tripped by an over temperature condition. The **L AV BUS** and **R AV BUS** switches must be moved to **ORIDE** momentarily and back to **AUTO** to reset the load shedding relays or electrical power must be removed and reapplied.

46. Ensure **BUS TIE 1, 2, 3**, and **4** switchlights on **ELECTRICAL** panel are on.

    - **BUS TIE DISAG** lights are off.

    - **BUS TIE** flowlines are on.



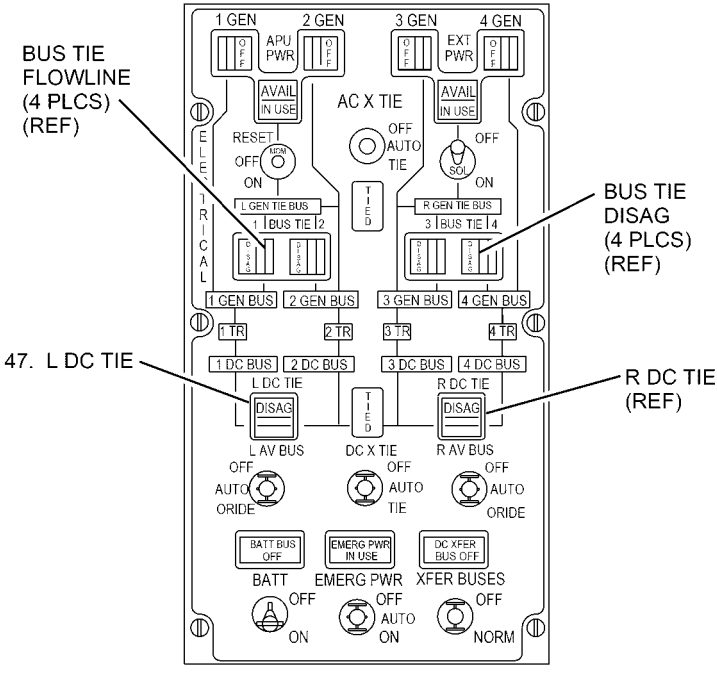
ICN-88277-G1061031-016-01

NOTE

The left or right DC Tie Remote Power Controller (RPC) may trip when electrical power is applied, left or right DC Tie disagree is noted on the electrical power panel. If an RPC I observed in a tripped condition after electrical power is applied, reset the RPC by pushing in or pull and reset the left or right DC Tie CB on the overhead CB panel. Replace any RPC which does not function normally.

47. Ensure **L** and **R DC TIE** switchlights are on.

    - **BUS TIE DISAG** lights are off.
    - **BUS TIE** flowlines are on.



ICN-88277-G1061118-004-01

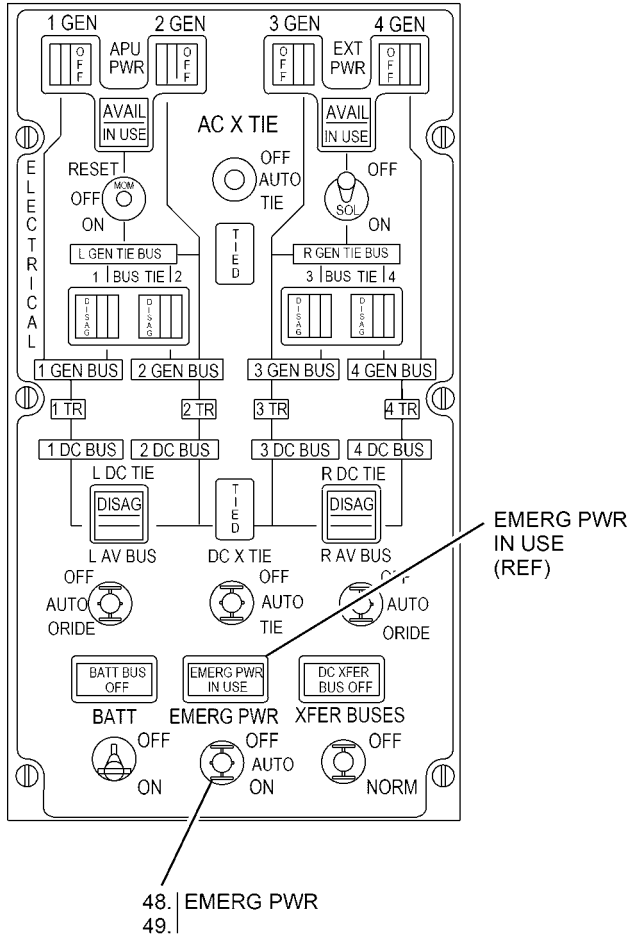
48. Set **EMERG PWR** switch to **OFF**.

    - **EMERG PWR IN USE** light goes off.

After completing of step 48, wait 5 seconds before accomplishing step 49 to prevent Core Integrated Processors (CIP) lockup. Failure to comply may cause damage to equipment.

49. Set **EMERG PWR** switch to **AUTO**.

    - **EMERG PWR IN USE** light stays off.



ICN-88277-G1061116-005-01

CAUTION

When ambient air temperature is above 90 °F and external electrical power will be applied for more than five minutes, ground air conditioning shall be applied. Failure to comply may cause damage to aircraft or equipment.

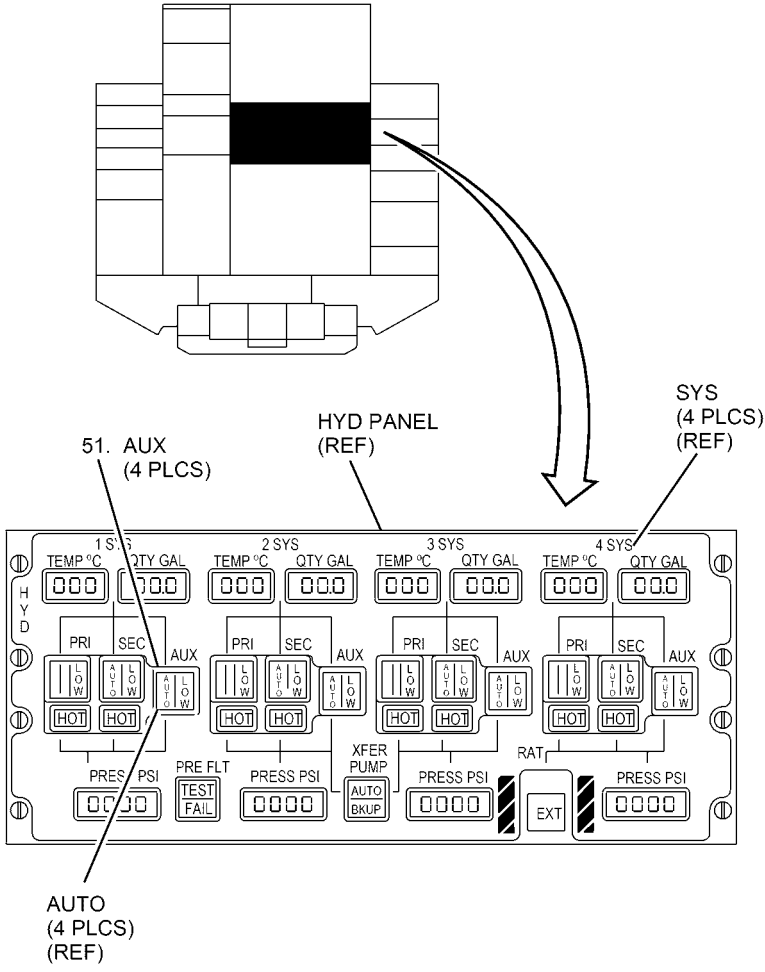
NOTE

- Auxiliary power unit may be used as an alternate source of cooling air.
- Warning horn will sound when avionics rack temperature exceeds 90 °F for more than five minutes.
- Avionics bus power will automatically shut down five minutes after warning horn sounds if cooling air is not applied to aircraft.

50. Connect ground air conditioning (10-62-01, task 01-1), when required.

51. Ensure **1**, **2**, **3**, and **4 SYS AUX** switchlights on **HYD** panel are off.

    - **AUX** switchlights are in raised position.
    - **AUTO** lights are off.



ICN-88277-G1061015-013-01

52. Ensure **FUEL DUMP L R** switchlight on **FUEL** panel is off.

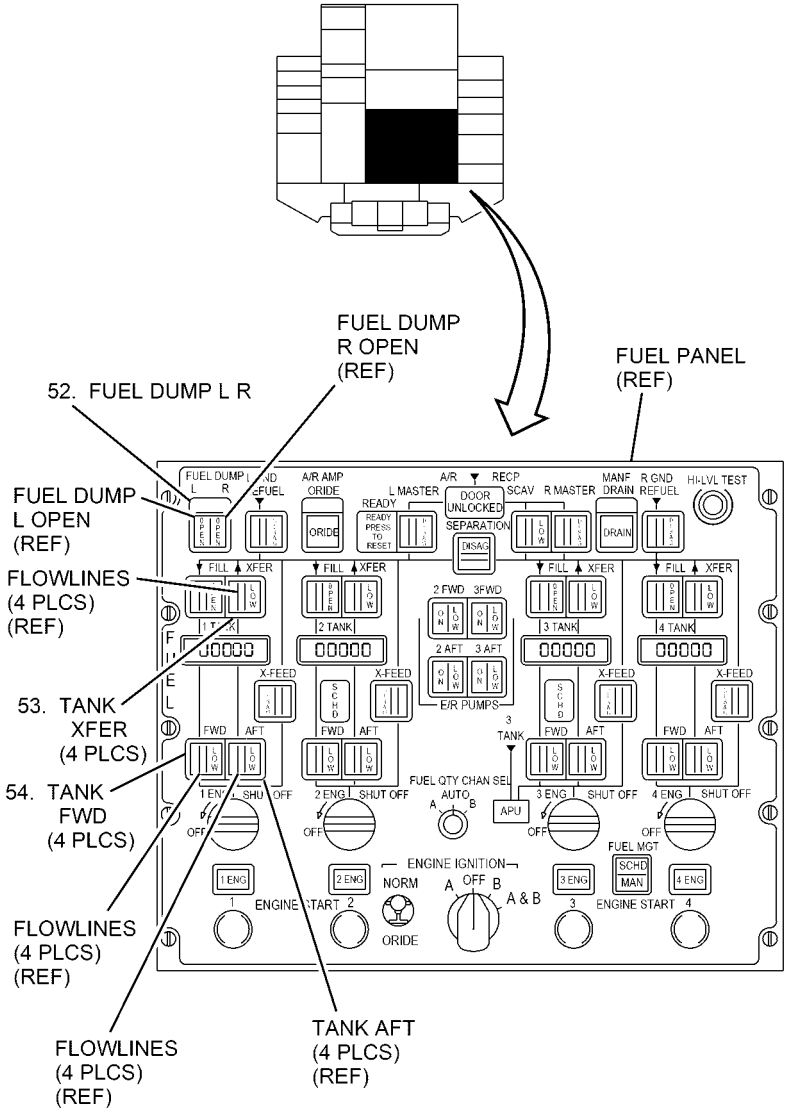
    - **FUEL DUMP L R** switchlight is in raised position.
    - **FUEL DUMP L OPEN** and **FUEL DUMP R OPEN** lights are off.

53. Ensure **1**, **2**, **3**, and **4 TANK XFER** switchlights are off.

    - **XFER** switchlights are in raised position.
    - Flowlines are off.

54. Ensure **1**, **2**, **3**, and **4 TANK FWD** and **TANK AFT** switchlights are off.

    - **FWD** switchlights are in raised position.
    - **AFT** switchlights are in raised position.
    - Flowlines are off.



ICN-88277-G1061028-010-01

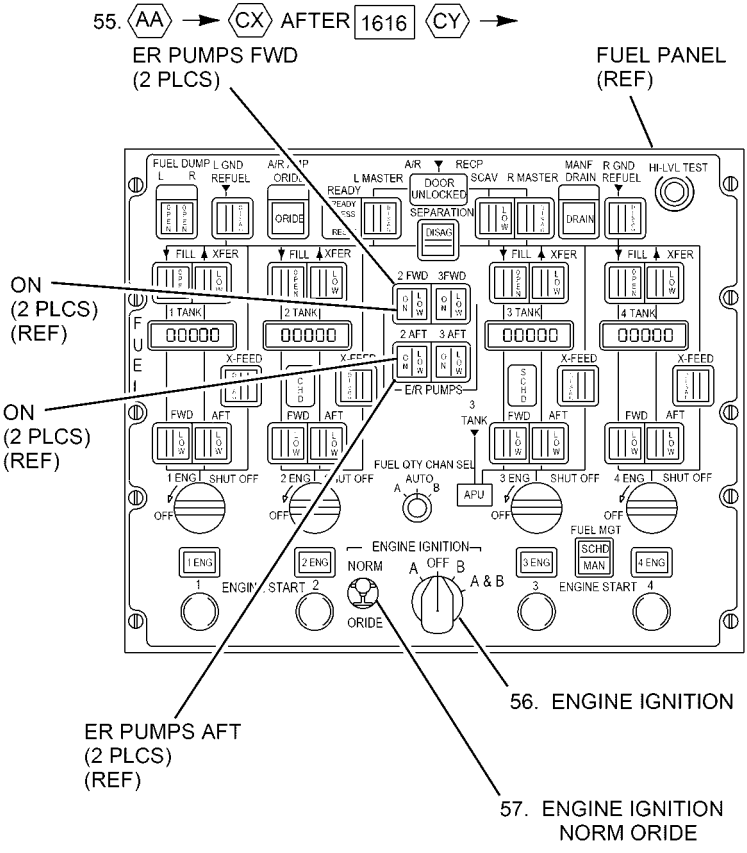
AA → CX BEFO RE 1616 No action required.

55. ⟨AA⟩ → ⟨CX⟩ AFTER 1616 ⟨CY⟩ → Ensure **ER PUMPS 2** and **3 FWD** and **AFT** switchlights are off.

    - **FWD** switchlights are in raised position.
    - **AFT** switchlights are in raised position.
    - **ON** lights are off.

56. Ensure **ENGINE IGNITION** switch is set to **OFF**.

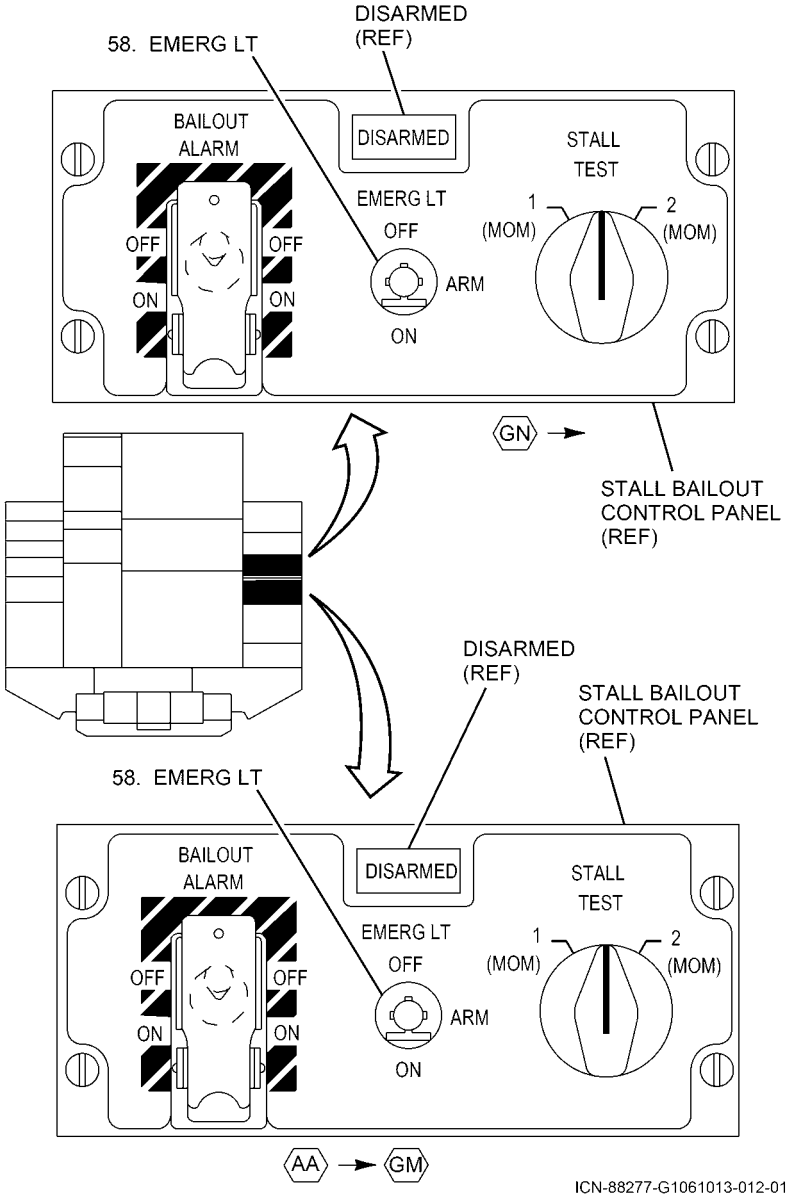
57. Ensure **ENGINE IGNITION NORM ORIDE** switch is set to **NORM**.



ICN-88277-G1061038-009-01

58. Set **EMERG LT** switch on stall bailout control panel to **ARM**.

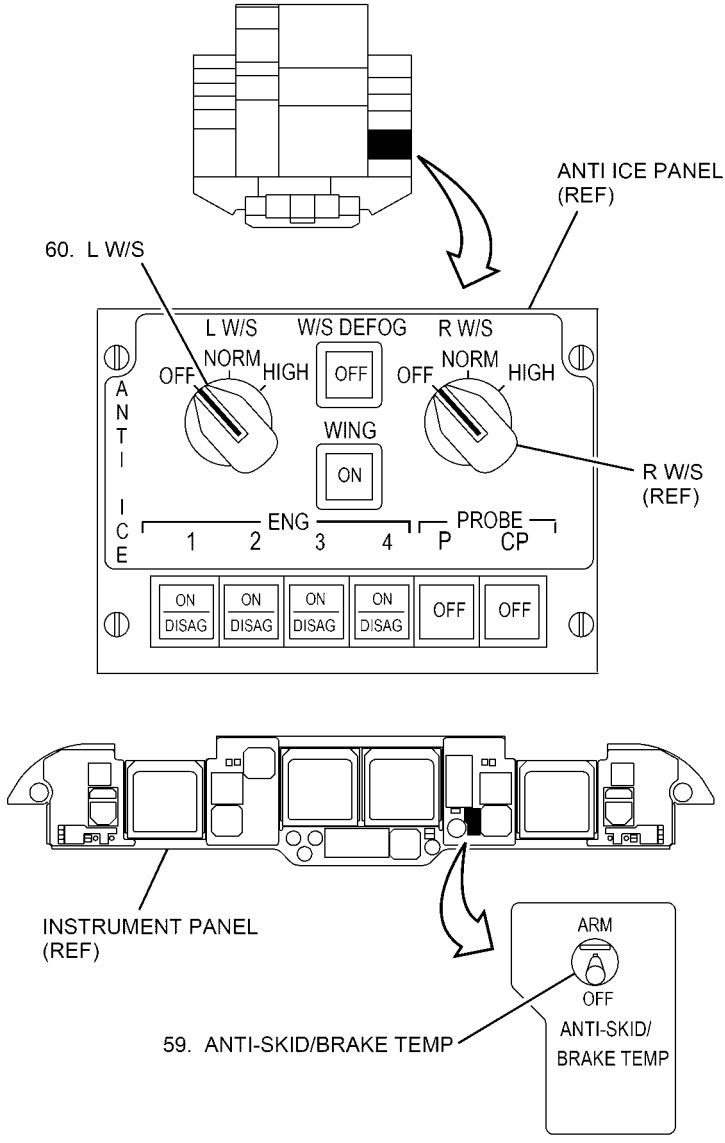
    - **DISARMED** light goes off.



ICN-88277-G1061013-012-01

59. Ensure **ANTI-SKID/BRAKE TEMP** switch on instrument panel is set to **OFF**.

60. Ensure **L** and **R W/S** switches on **ANTI ICE** panel are set to **OFF**.



ICN-88277-G1061004-014-01

61. Ensure **PROBE P** and **CP** switchlights on **ANTI ICE** panel are off.

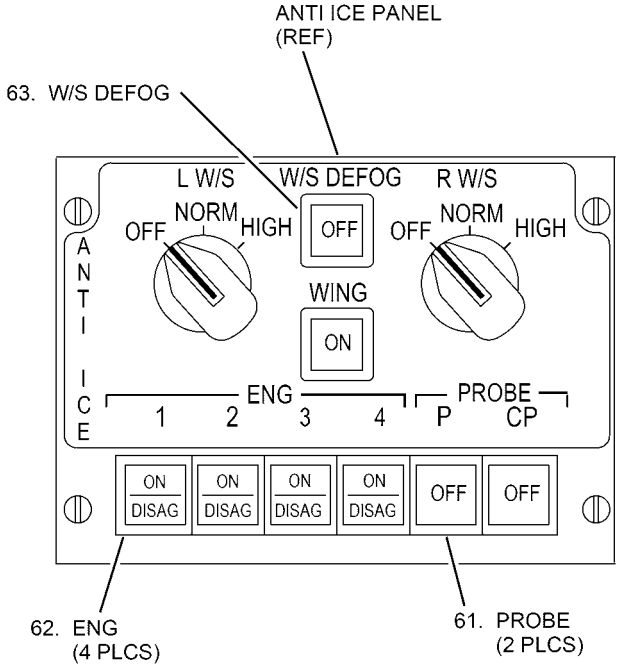
    - **PROBE P** and **CP** switchlights are in raised position.

62. Ensure **ENG 1**, **2**, **3**, and **4** switchlights are off.

    - **ENG 1**, **2**, **3**, and **4** switchlights are in raised position.

63. Ensure **W/S DEFOG** switchlight is off.

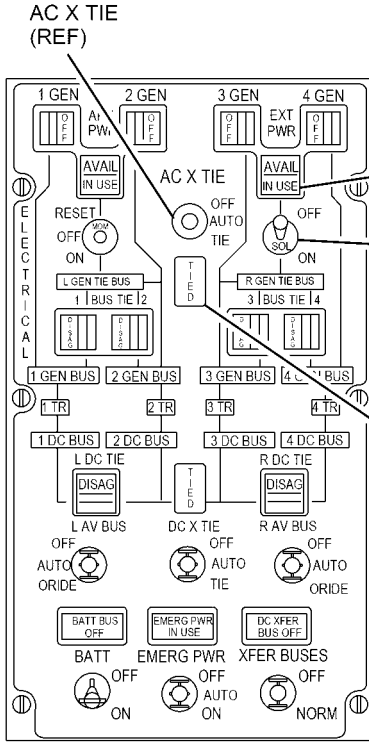
    - **W/S DEFOG** switchlight is in raised position.



ICN-88277-G1061112-005-01

64. Set **EXT PWR** switch on **ELECTRICAL** panel to **ON**.

- **EXT PWR IN USE** light comes on.
- **AC X TIE TIED** light comes on.



ICN-88277-G1061011-017-01

65. Ensure **PROBE P** and **CP** switchlights on **ANTI ICE** panel are off.

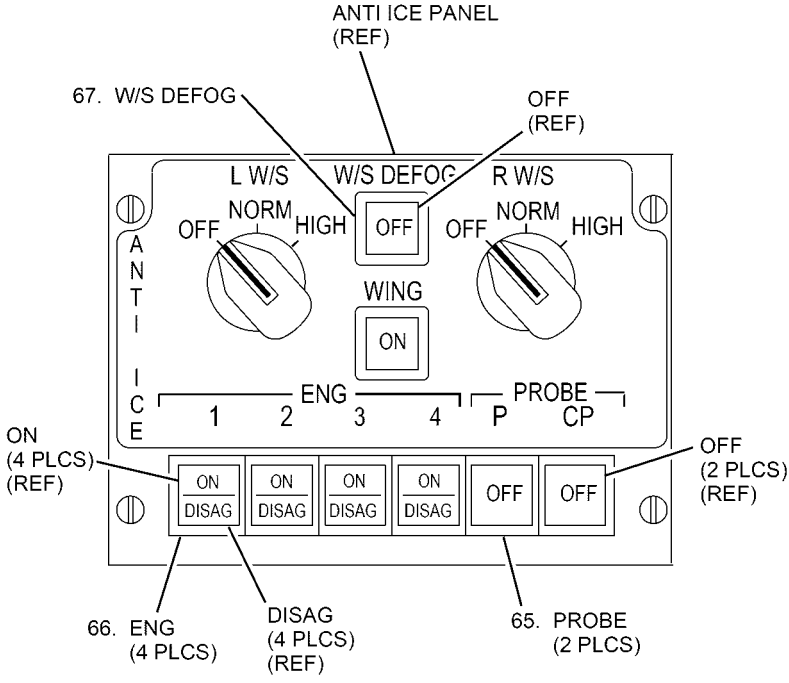
    - **OFF** lights are on.

66. Ensure **ENG 1**, **2**, **3**, and **4** switchlights are off.

    - **ENG 1**, **2**, **3**, and **4** switchlights are in raised position.
    - **ON** lights are off.
    - **DISAG** lights are off.

67. Ensure **W/S DEFOG** switchlight is off.

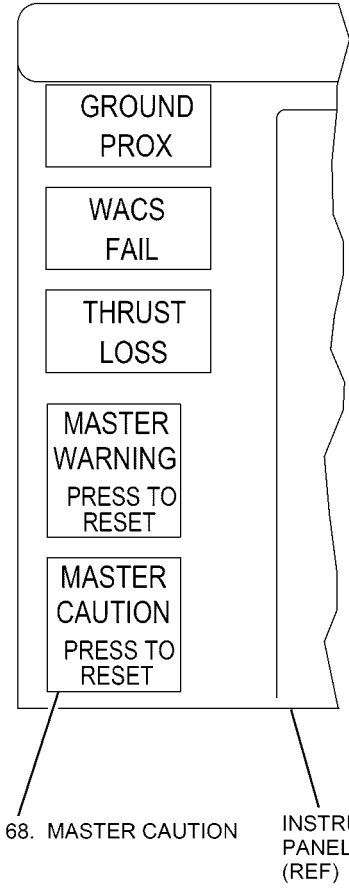
    - **OFF** light is on.



ICN-88277-G1061036-010-01

68. Press **MASTER CAUTION** switchlight on instrument panel to clear faults that appear during power up.

    - Faults disappear.



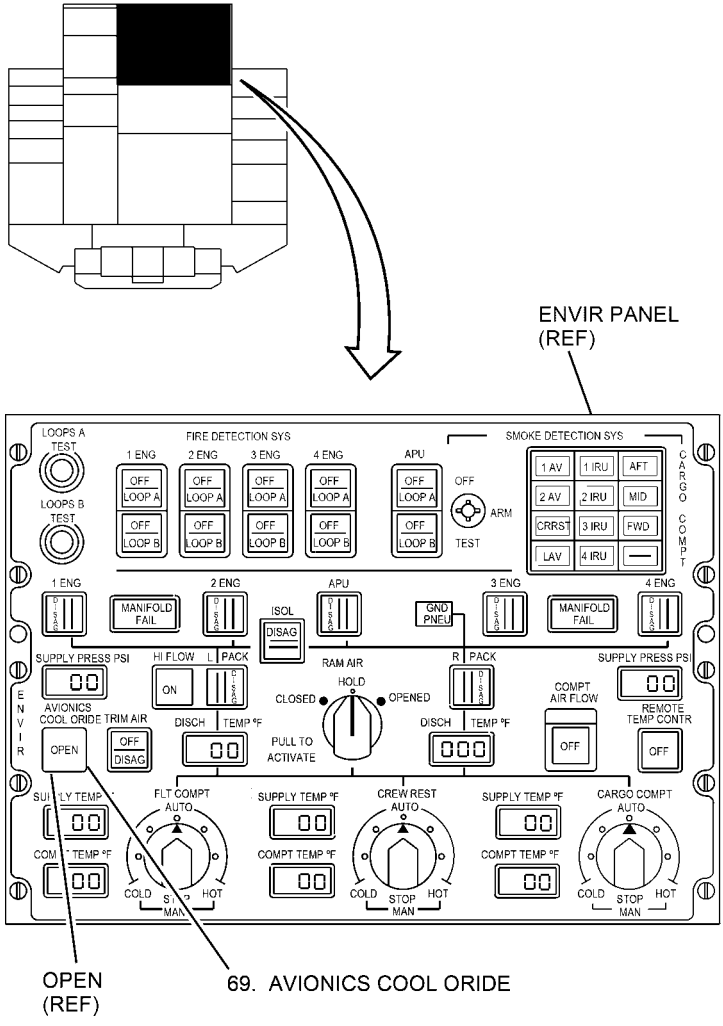
ICN-88277-G1061113-004-01

NOTE

When ground air conditioning is applied proceed to step 70.

69. Ensure **AVIONICS COOL ORIDE** switchlight on **ENVIR** panel is off.

- **AVIONICS COOL ORIDE** switchlight is in the raised position.
- **OPEN** light is off.

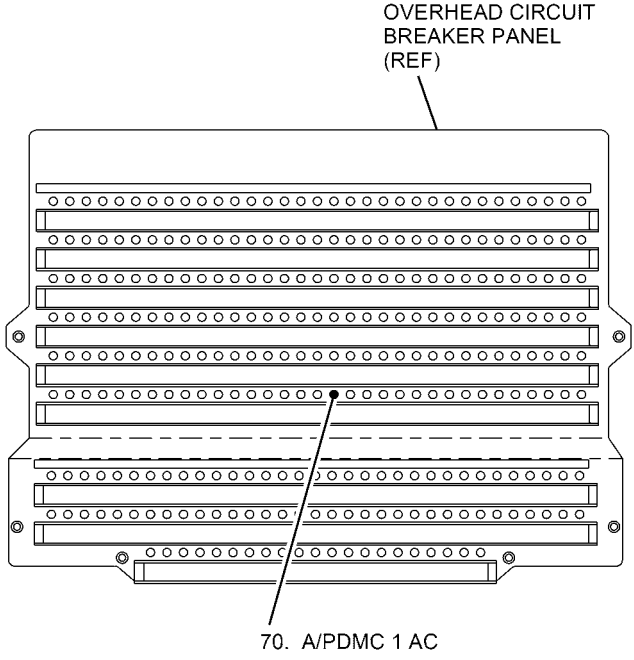


ICN-88277-G1061079-008-01

NOTE

Ground operation mode allows for extended operation of APU power system and/or external power system without operating avionics equipment.

70. Close **A/PDMC 1 AC** circuit breaker on overhead circuit breaker panel, row **F**, column **18.**



ICN-88277-G1061074-009-01

01-1. CONNECT EXTERNAL ELECTRICAL POWER. 〈AA〉 → 〈AG〉 〈AJ〉 〈AL〉 → 〈AX〉 〈BB〉 → 〈BD〉 〈BJ〉 〈BL〉 〈BT〉 〈BW〉 〈CC〉 〈CE〉 〈CH〉 〈CJ〉 〈CL〉 〈CT〉 → 〈CZ〉 〈DD〉 〈ER〉 〈ES〉 〈EU〉 〈FE〉 〈FQ〉 〈FT〉 〈FV〉 〈FW〉 〈GG〉 〈GL〉 → 〈GQ〉 〈JB〉 → 〈JK〉 〈JS〉 〈KC〉 〈KN〉 〈KP〉 〈KS〉 〈KW〉 〈KY〉 → 〈LA〉 〈LF〉 〈LL〉 〈LN〉 〈LP〉 〈LS〉 **AFTER** 2363 〈AH〉 〈AK〉 〈AY〉 → 〈BA〉 〈BE〉 → 〈BH〉 〈BK〉 〈BM〉 → 〈BS〉 〈BU〉 〈BV〉 〈BX〉 → 〈CB〉 〈CD〉 〈CF〉 〈CG〉 〈CK〉 〈CM〉 → 〈CS〉 〈DG〉 → 〈EQ〉 〈ET〉 〈EV〉 → 〈FD〉 〈FF〉 → 〈FP〉 〈FR〉 〈FS〉 〈FU〉 〈FX〉 → 〈GF〉 〈GH〉 → 〈GK〉 〈GR〉 → 〈GT〉 〈GV〉 → 〈HA〉 〈HC〉 → 〈HE〉 〈HG〉 〈HH〉 〈HK〉 〈HL〉 〈HS〉 〈HT〉 〈HV〉 → 〈JA〉 〈JL〉 〈JT〉 → 〈KB〉 〈KD〉 → 〈KG〉 〈KJ〉 → 〈KM〉 〈KX〉 〈LE〉 〈LM〉 **AFTER** 2362

1. Review ″Section 1 (General Information)″ of this TO for system general warnings, cautions, and notes.

2. Review task ″General Maintenance Input Conditions″ page for task specific safety conditions.

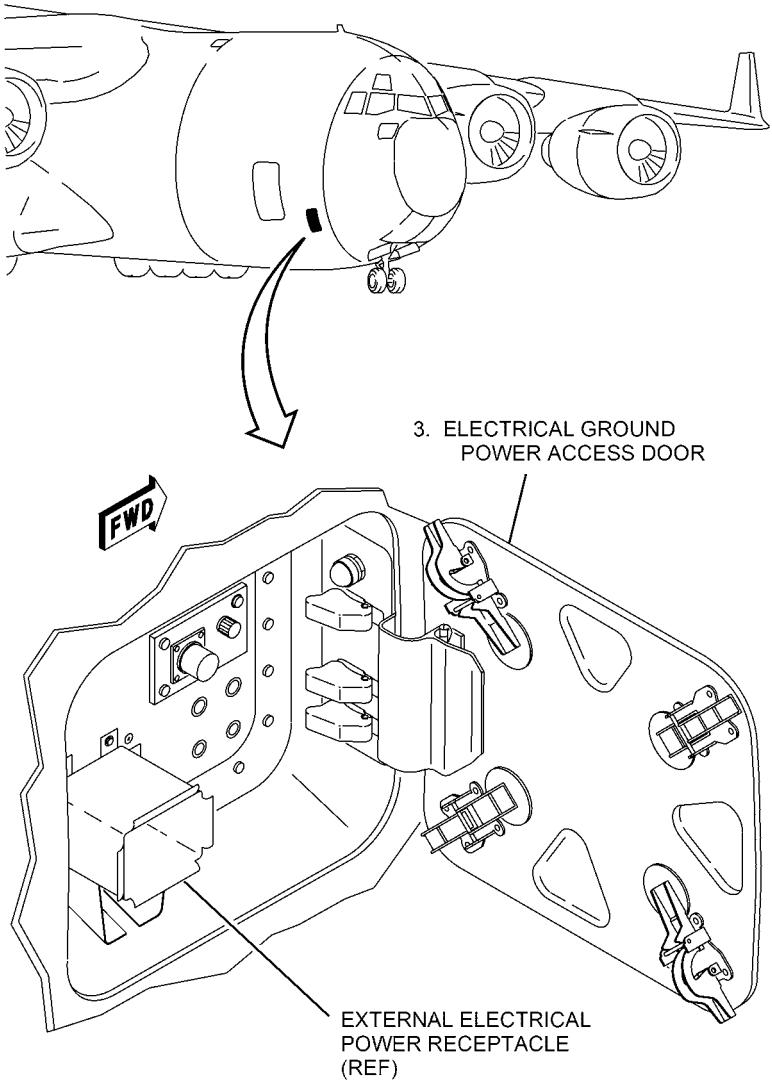
WARNING

The auxiliary hydraulic system (pumps) shall be deactivated (disconnected) prior to applying external electrical power during any of the maintenance actions/conditions addressed in step 5. When deactivation is not feasible, electrical power shall not be applied to the aircraft. A defective auxiliary hydraulic pump remote control circuit breaker may cause uncommanded operation of the pump(s) with electrical power applied. Failure to comply may cause injury/death to personnel and/or damage to aircraft.

NOTE

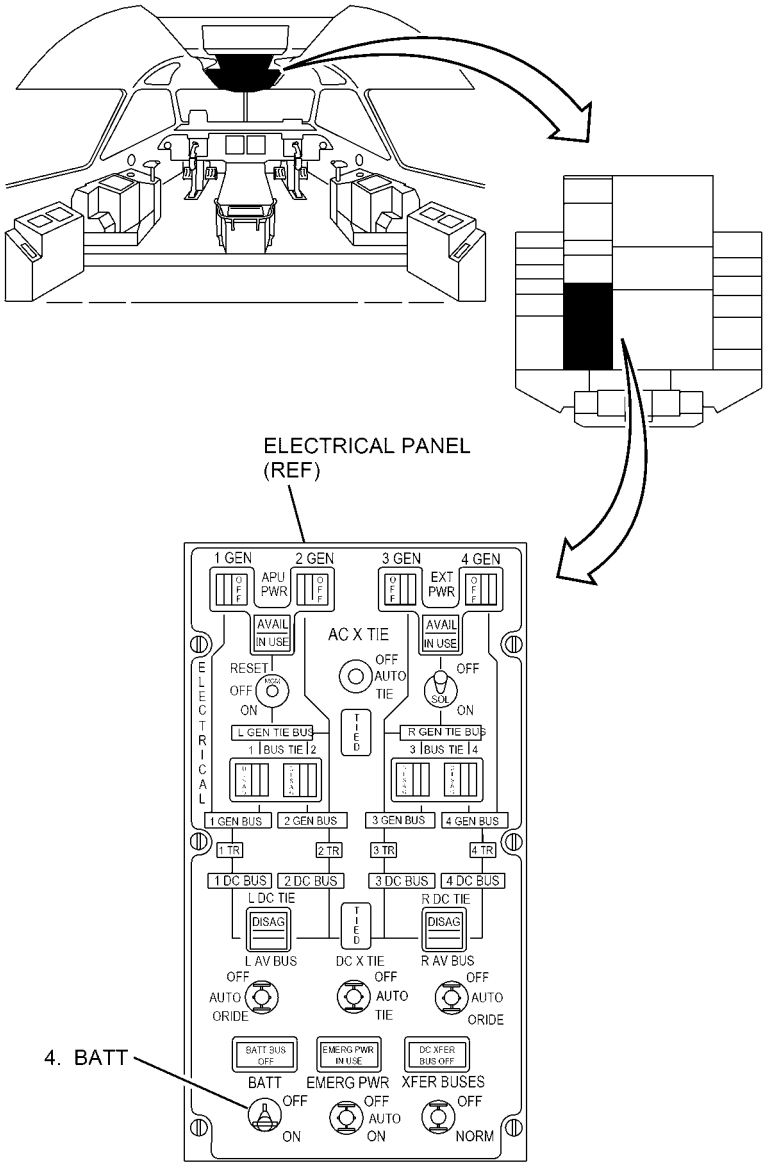
- When auxiliary hydraulic pump deactivation is not feasible, safe aircraft electrical power by preforming steps 3 and 4 below.
- Remove warning tags upon completion of the actions/conditions identified in step 5 that required safing of the electrical power system.

3. Unlatch and open electrical ground power access door (122ARD); attach warning tag to external electrical power receptacle, as required.



ICN-88277-G1061138-001-01

4. Ensure **BATT** switch on **ELECTRICAL** panel is **OFF** and attach warning tag as required.



ICN-88277-G1061139-001-01

NOTE

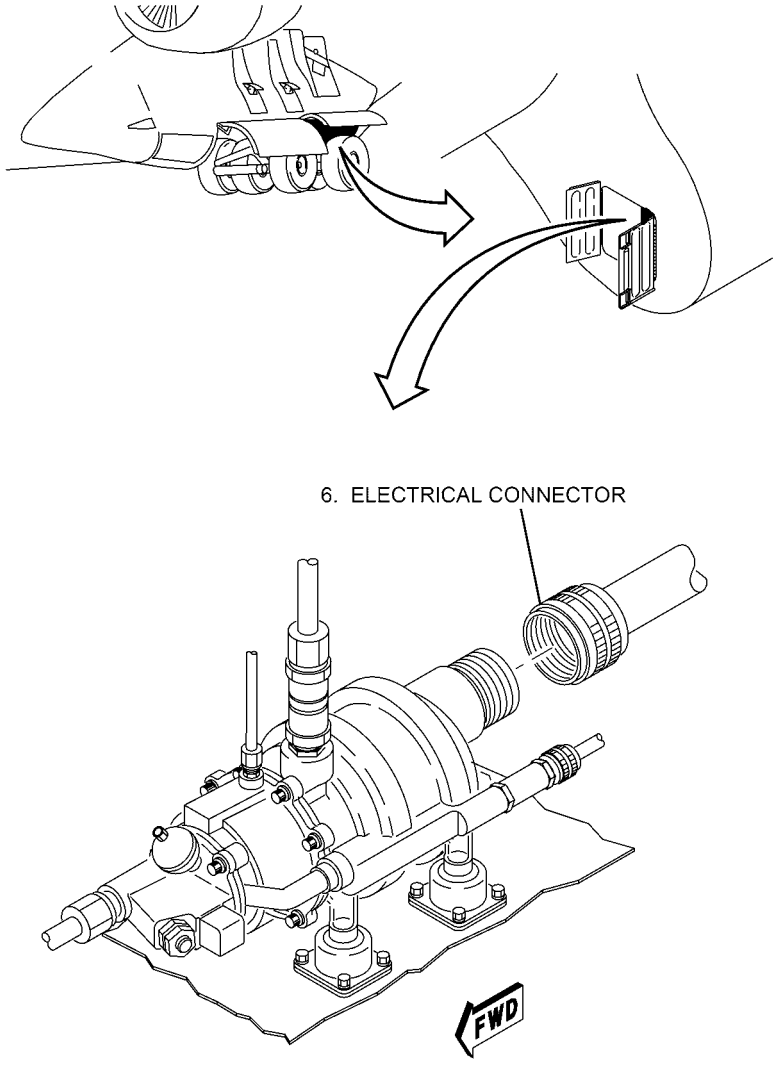
Perform step 5 thru 7 when the maintenance actions/ conditions addressed in the table of step 5 will be accomplished with electrical power on. When these actions/conditions will not be accomplished or hydraulics will be applied concurrently, omit step 5 thru step 7.

5. Perform alternating current motor pump assembly disconnection preparation on REF DES 2921FP001, 2921FP002, 2921FP003 and 2921FP004 (29-21-10, task 2-1, steps 1 thru 6 and task 2-2, steps 1 thru 6) for the following actions/conditions:

ACTIONS/CONDITIONS	
1.	Any task that instructs the opening of Auxiliary Hydraulic Pump Circuit Breakers [# 1 (LEPC LL/68), # 2 (LEPC LL/69), # 3 (REPC LL/11), and/or # 4 (REPC LL/10)].
2.	Any Hydraulic System is open or maintenance will be performed on any hydraulic system.
3.	Personnel are working near any flight controls surfaces (i.e., aileron, elevator, rudder, flap, slat, spoilers).
4.	During Home Station Check or Depot Maintenance operations, when hydraulic power is not in use or not being monitored.
5.	For any maintenance that does not require the use of hydraulic pressure and where an uncommanded application of pressure may pose a danger.

6. Disconnect electrical connector and install protective cap IAW TO 1-1A-14.

7. Document aircraft forms, that the auxiliary hydraulic system has been deactivated for maintenance, IAW TO 00-20-1.



(TYPICAL)

ICN-88277-G1061140-001-01

8. Deleted.

9. Deleted.

10. Deleted.

11. Deleted.

12. Deleted.

WARNING

Steps 13 thru 33E shall be followed in sequence. Failure to comply may cause injury to personnel and damage to aircraft.

CAUTION

The ground cooling check valve actuator shaft handle assembly may be impeded by the armor mat assembly, the Battery Compartment Cooling Duct or the duct's mounting bolt. These potential obstructions may cause the handle to stop rotation, resulting in an Avionics Overheat alarm message appearing on the Warning and caution Annunciator Panel (WAP). Failure to comply may cause damage to aircraft.

13. Ensure the ground cooling check valve actuator shaft handle actuating tabs are stowed.