



NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

APOLLO 17

ALL LAUNCH DATES

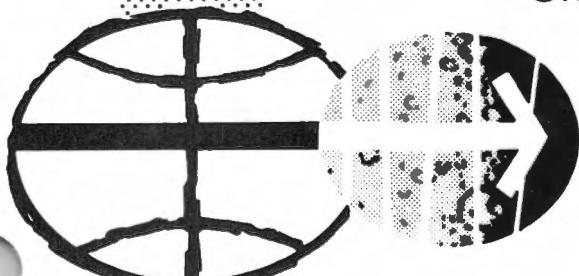
BASIC

CSM
SYSTEMS DATA

PREPARED BY

FLIGHT PLANNING BRANCH
CREW PROCEDURES DIVISION

MANNED SPACECRAFT CENTER
HOUSTON, TEXAS



AUGUST 31, 1972

APOLLO 17

CSM SYSTEMS DATA

AUGUST 31, 1972

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APOLLO 17
CSM SYSTEMS DATA BOOK

Basic 8/31/72

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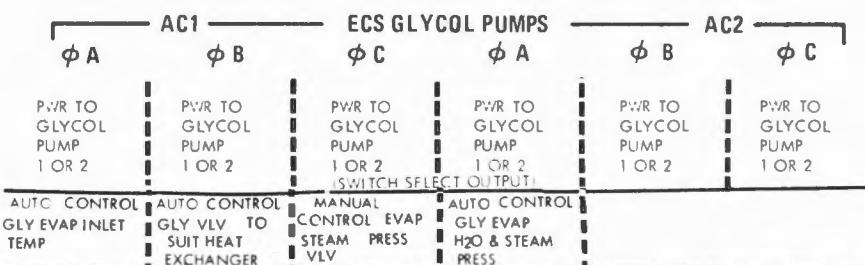
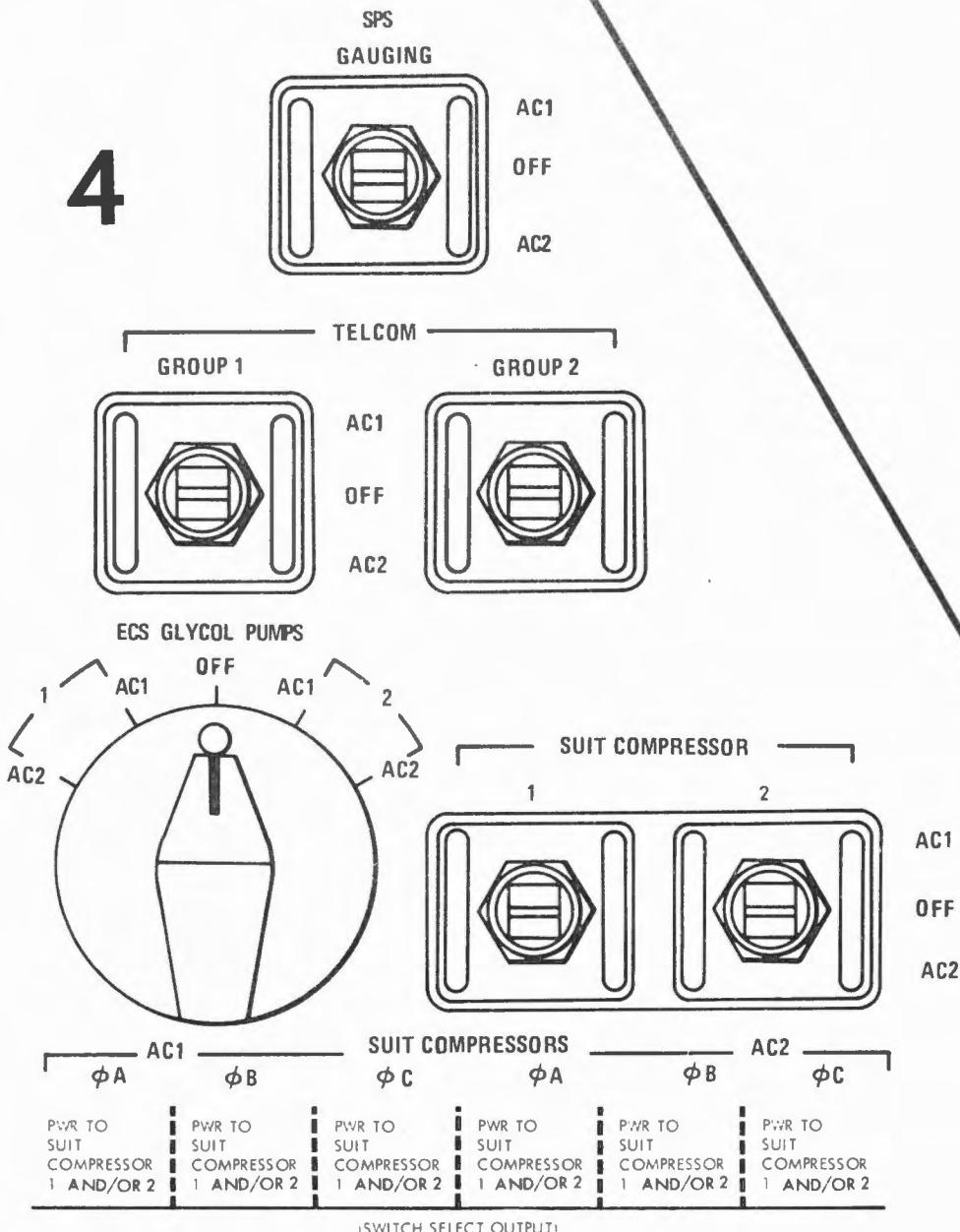
** Schematic dates shown are the sign-off dates.

*** Date shown is the publication date of the CSM Systems Handbook from which these drawings were taken.

PNL 4

FUNCTIONS POWERED THRU CB

4



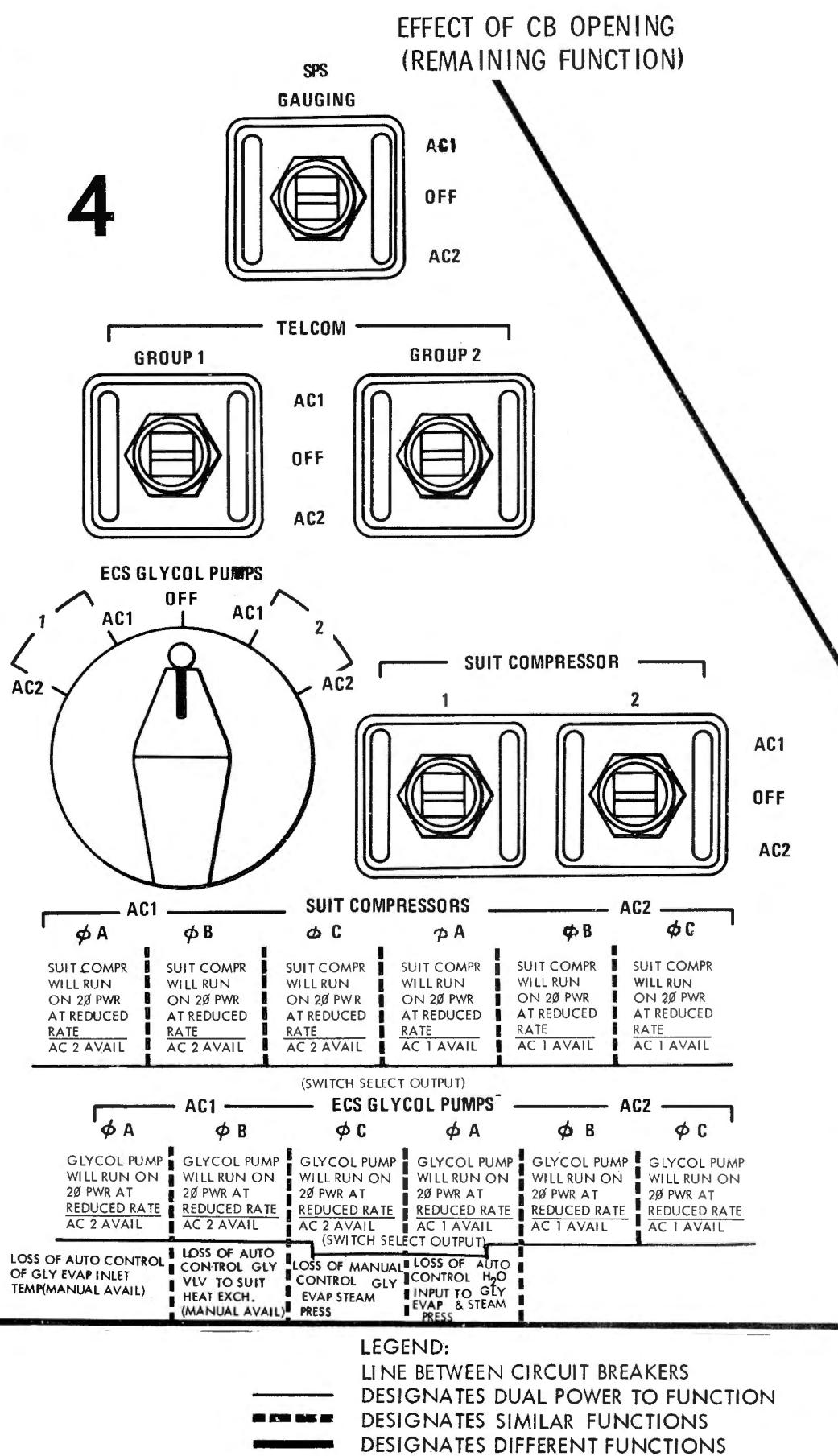
LEGEND:

LINE BETWEEN CIRCUIT BREAKERS

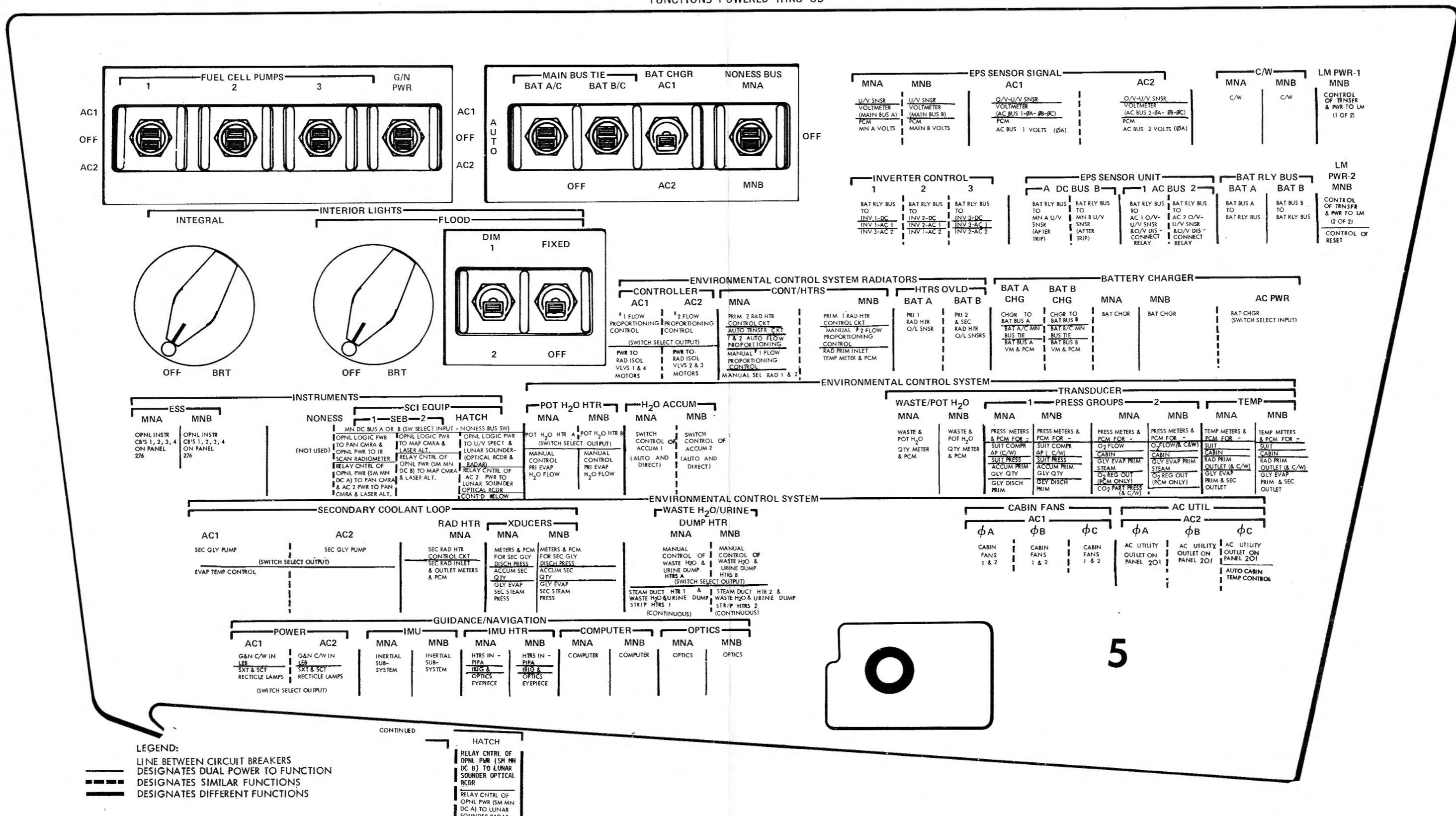
— DESIGNATES DUAL POWER TO FUNCTION

- - - DESIGNATES SIMILAR FUNCTIONS

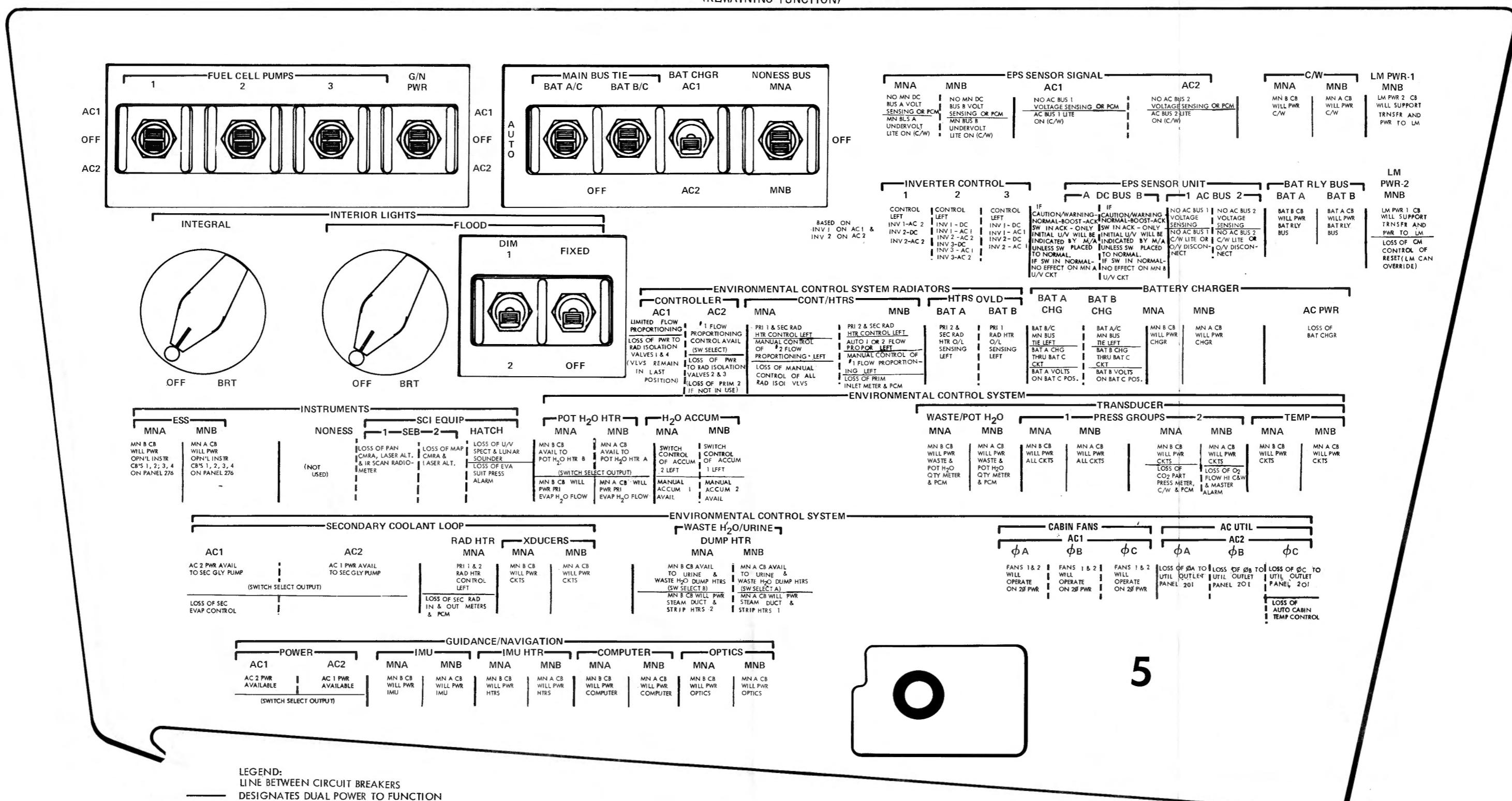
— — — DESIGNATES DIFFERENT FUNCTIONS



FUNCTIONS POWERED THRU CB

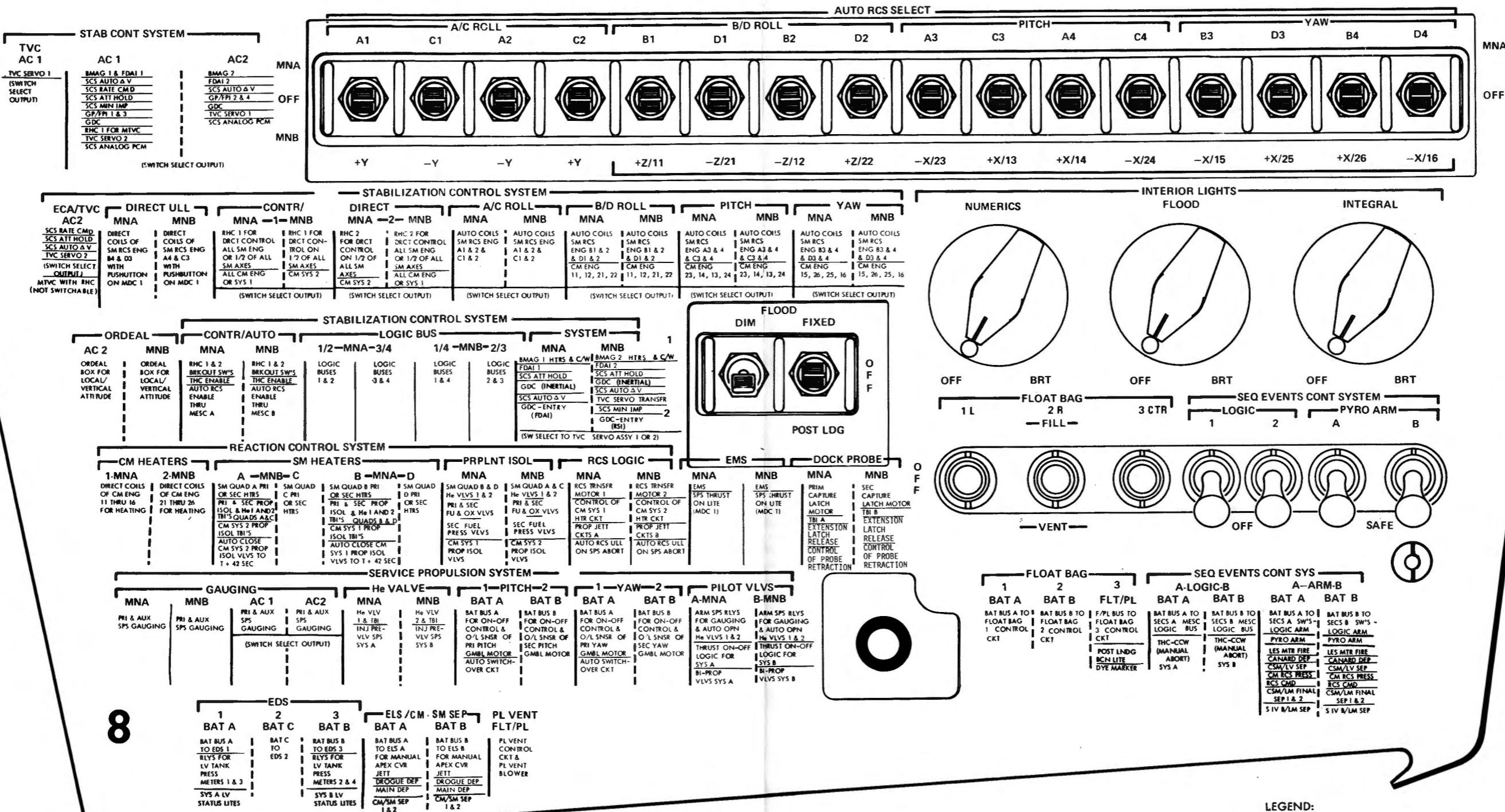


EFFECT OF CB OPENING
(REMAINING FUNCTION)

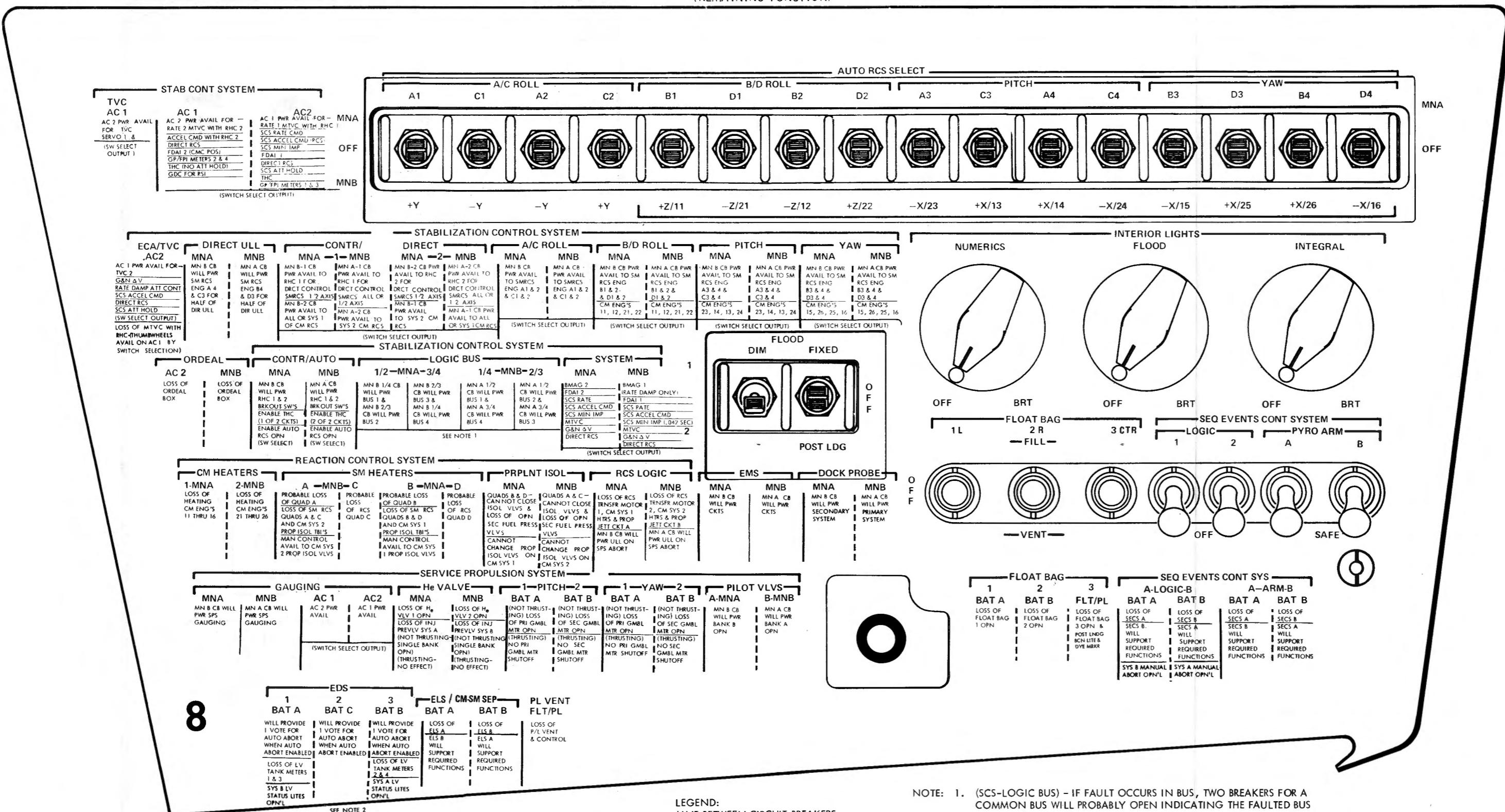


5

FUNCTIONS POWERED THRU CB



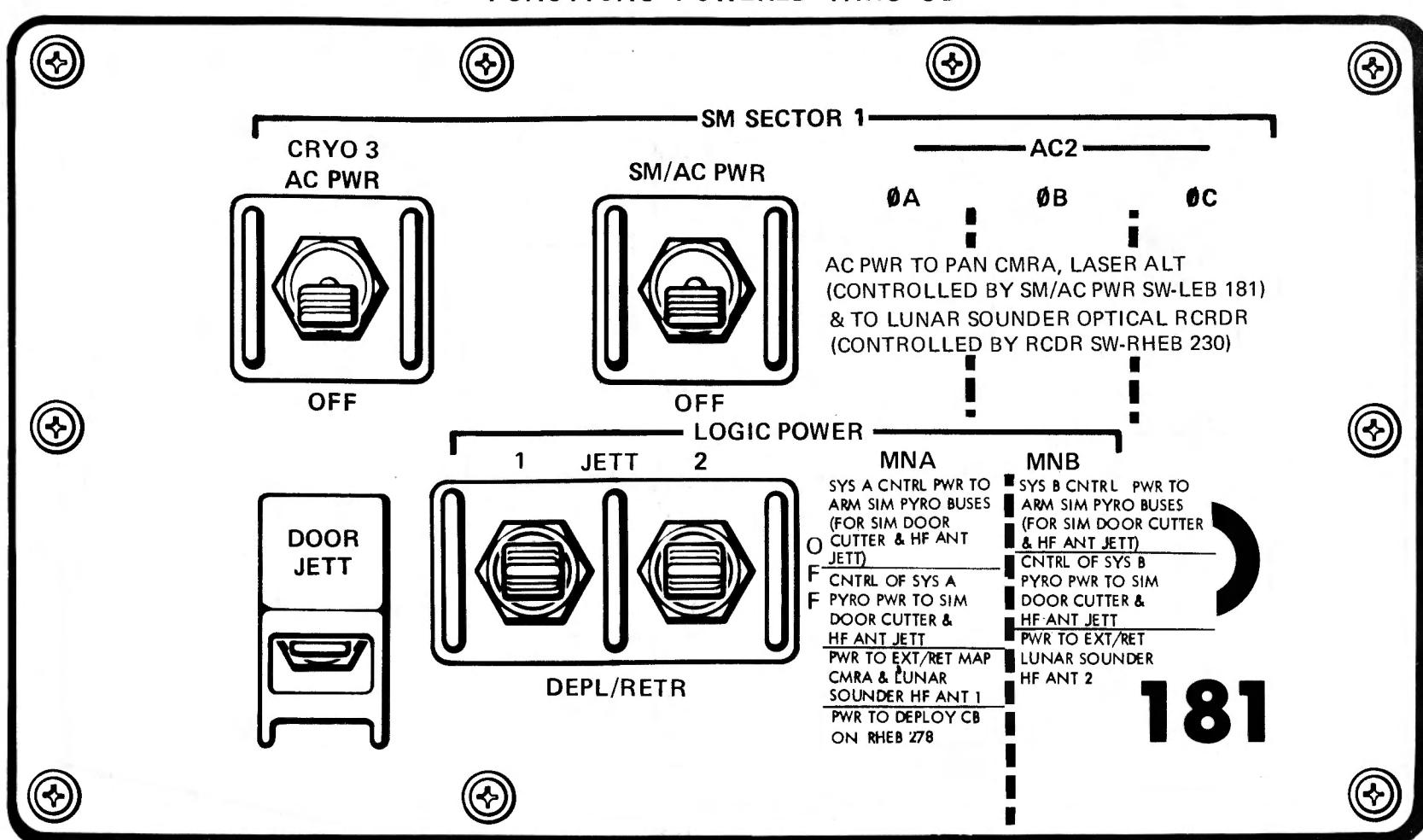
LEGEND:
 LINE BETWEEN CIRCUIT BREAKERS
 DESIGNATES DUAL POWER TO FUNCTION
 — — — DESIGNATES SIMILAR FUNCTIONS
 — — — — — DESIGNATES DIFFERENT FUNCTIONS

EFFECT OF CB OPENING
(REMAINING FUNCTION)

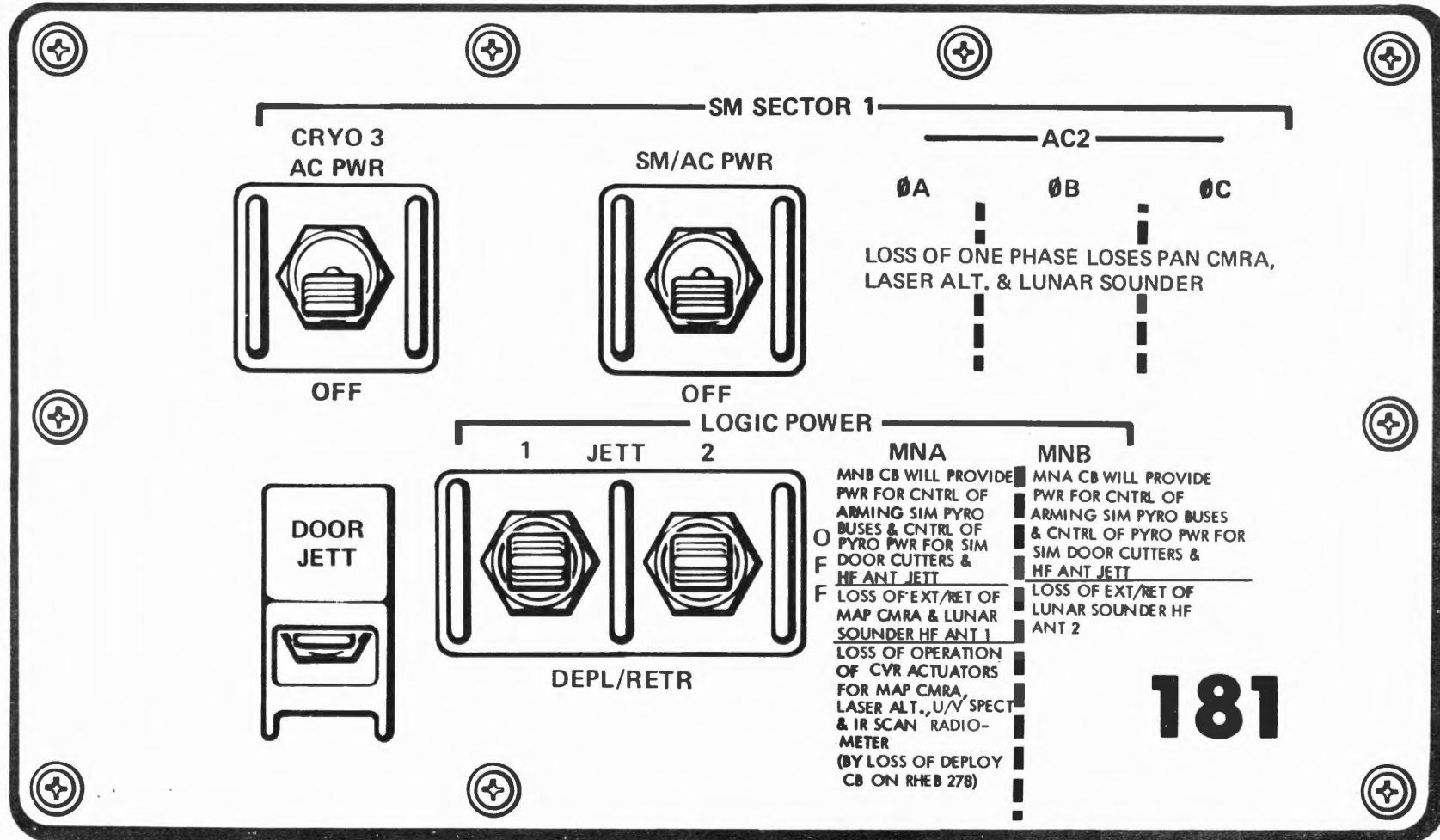
NOTE: 1. (SCS-LOGIC BUS) - IF FAULT OCCURS IN BUS, TWO BREAKERS FOR A COMMON BUS WILL PROBABLY OPEN INDICATING THE FAULTED BUS

2. TWO CB'S OPEN WILL INITIATE AN AUTO ABORT (WHEN EDS AUTO ENABLED)

FUNCTIONS POWERED THRU CB



EFFECT OF CB OPENING (REMAINING FUNCTION)

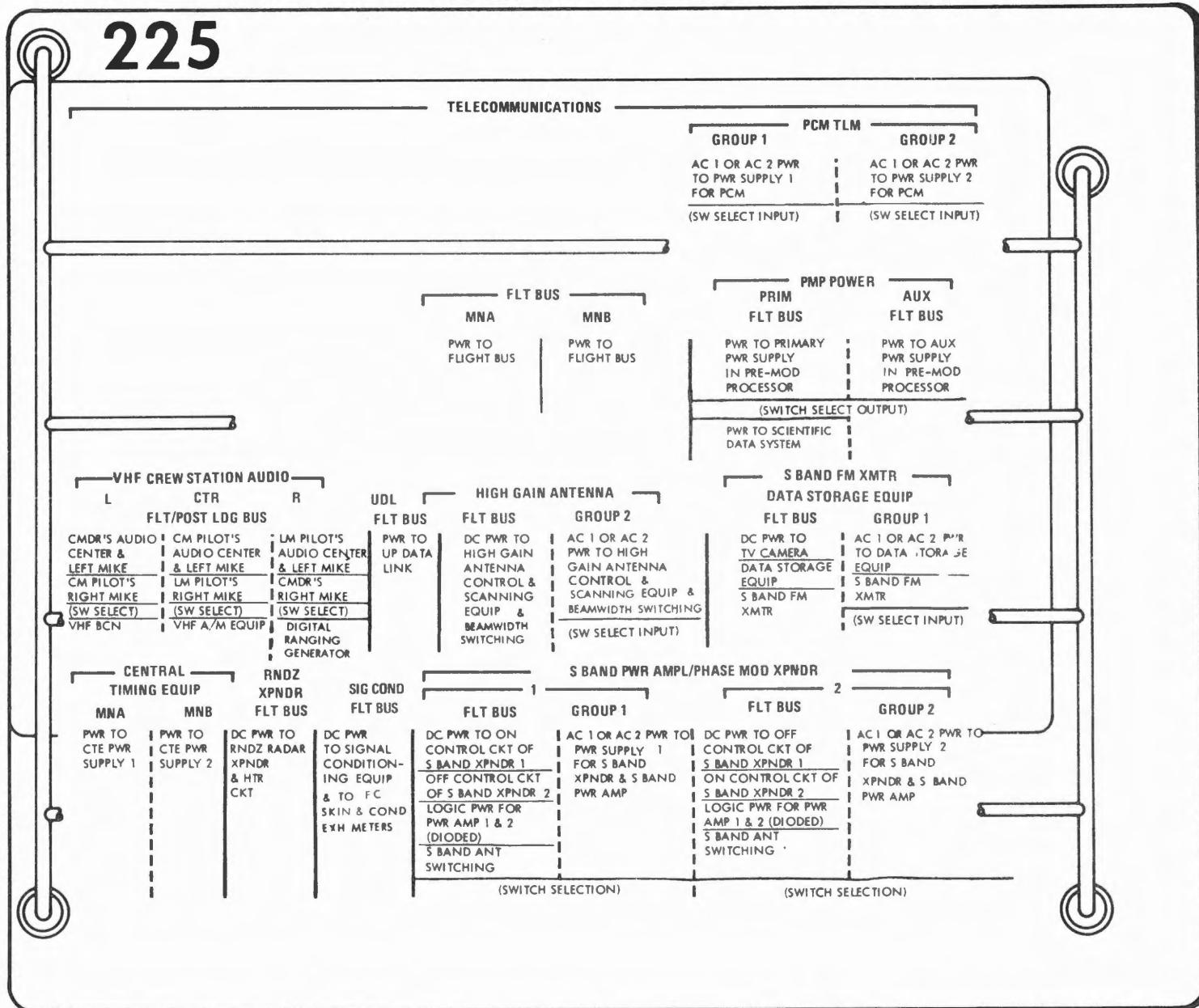


LEGEND:

- DESIGNATES DUAL POWER TO FUNCTION
- - - - - DESIGNATES SIMILAR FUNCTIONS
- — — — — DESIGNATES DIFFERENT FUNCTIONS

FUNCTIONS POWERED THRU CB

225



LEGEND:

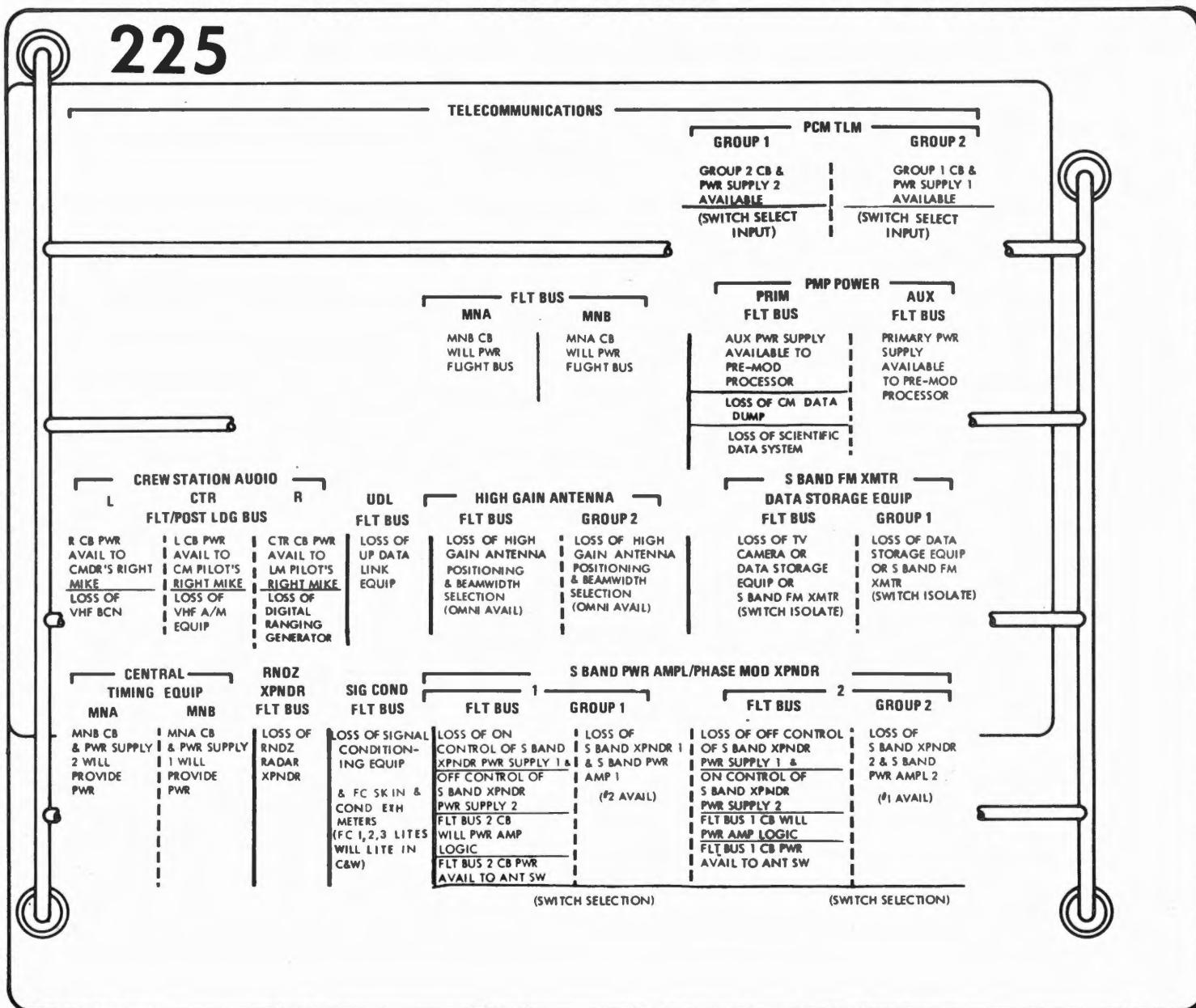
- LINE BETWEEN CIRCUIT BREAKERS
- DESIGNATES DUAL POWER TO FUNCTION
- DESIGNATES SIMILAR FUNCTIONS
- DESIGNATES DIFFERENT FUNCTIONS

DATE 8/31/72

EFFECT OF CB OPENING
(REMAINING FUNCTION)

225

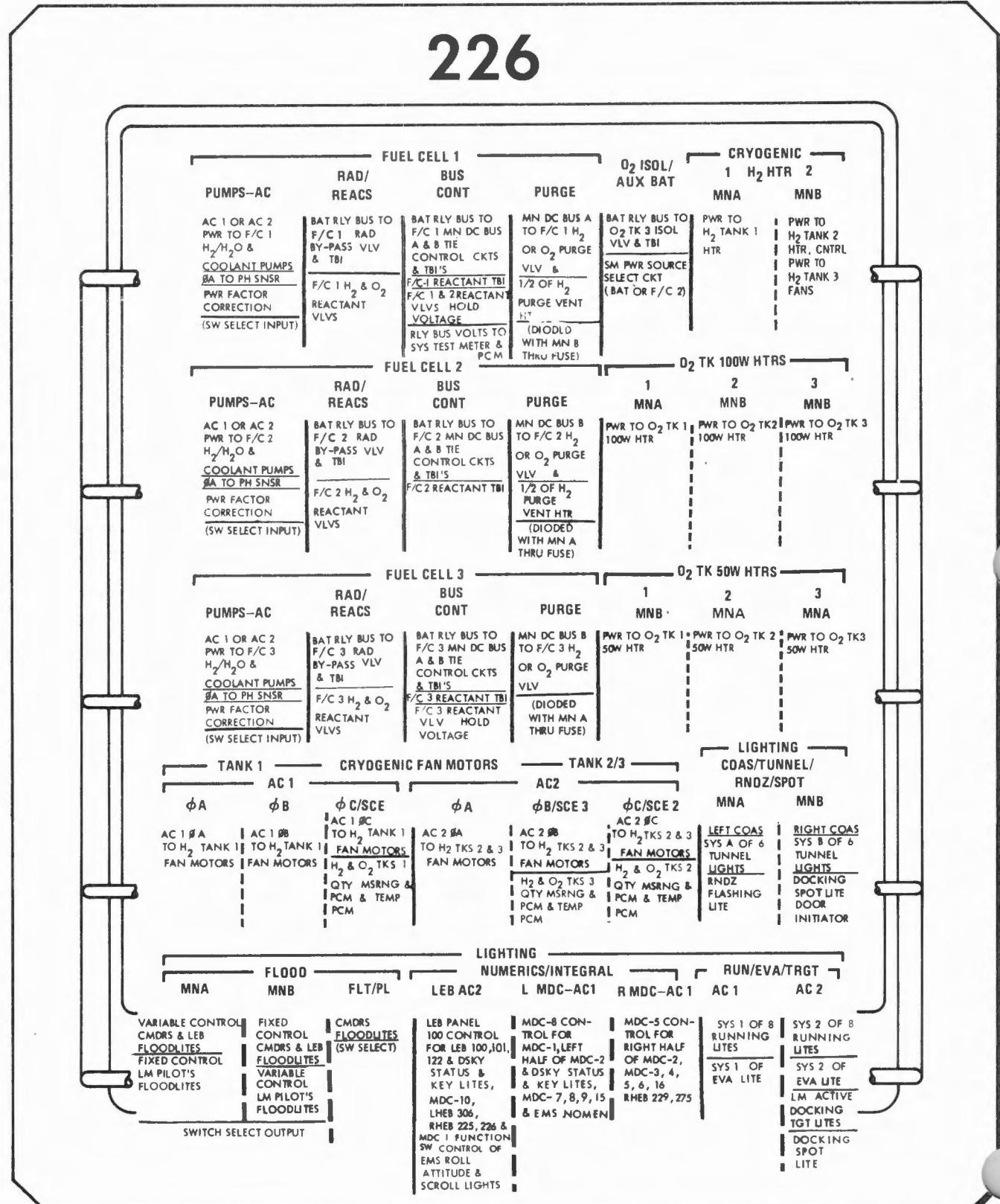
DATE 8/31/72



LEGEND:
 — LINE BETWEEN CIRCUIT BREAKERS
 - - - DESIGNATES DUAL POWER TO FUNCTION
 - - - - DESIGNATES SIMILAR FUNCTIONS
 - - - - - DESIGNATES DIFFERENT FUNCTIONS

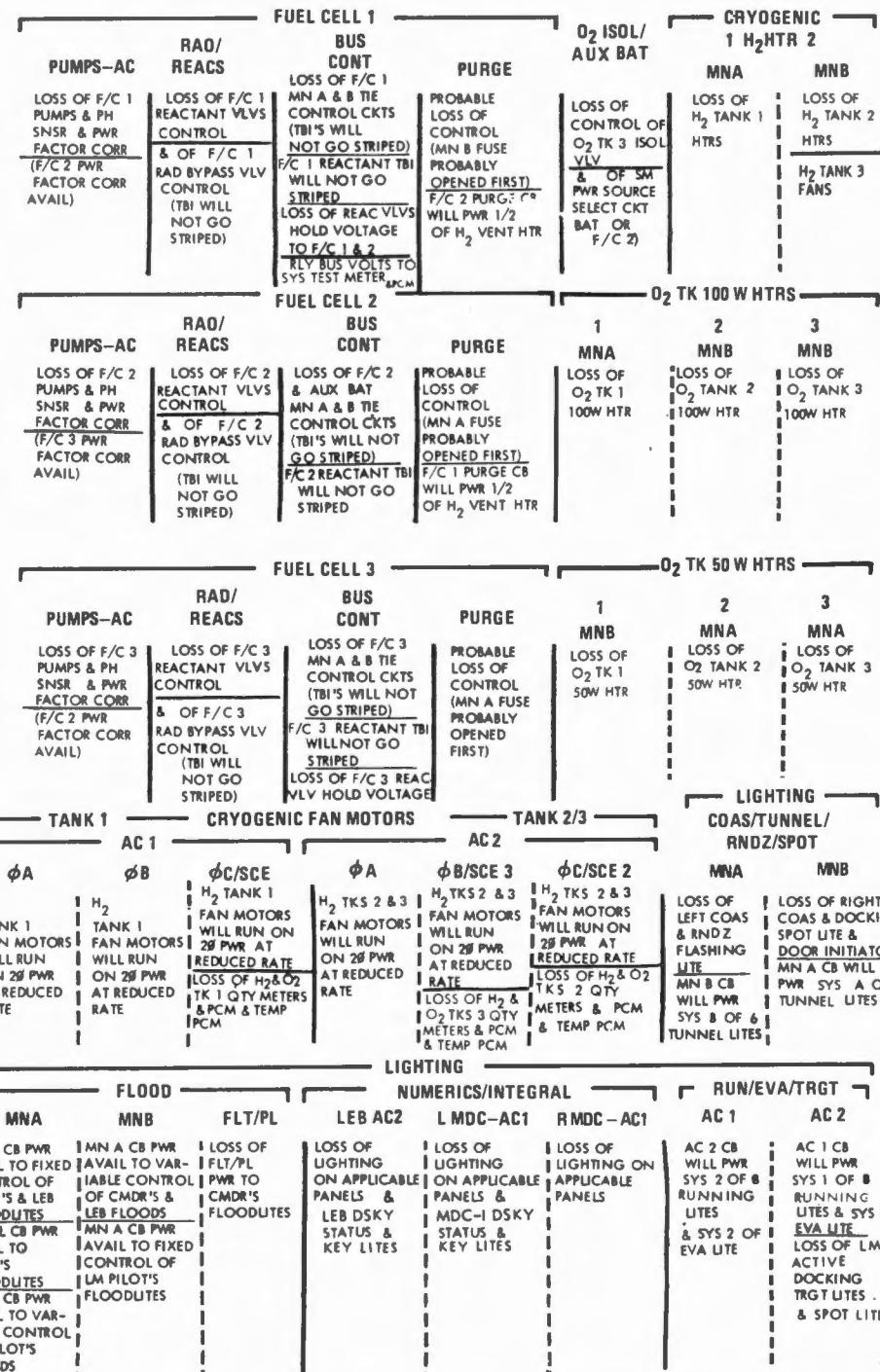
FUNCTIONS POWERED THRU CB

226



EFFECT OF CB OPENING
(REMAINING FUNCTION)

226



LEGEND:
 ————— LINE BETWEEN CIRCUIT BREAKERS
 - - - DESIGNATES DUAL POWER TO FUNCTION
 - - - DESIGNATES SIMILAR FUNCTIONS
 - - - DESIGNATES DIFFERENT FUNCTIONS

229,250

229,250

229,250

229,250

229,250

229,250

229,250

229,250

229,250

229,250

229,250

229,250

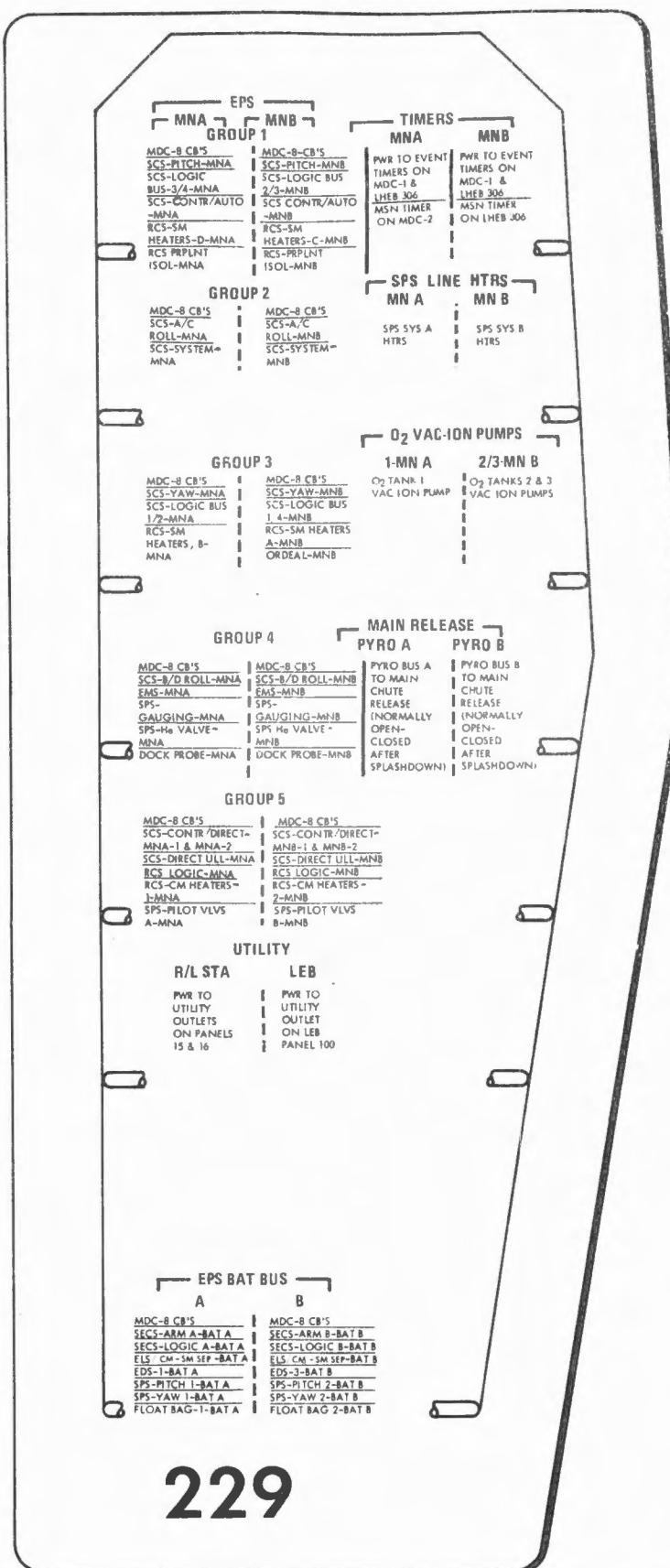
229,250

229,250

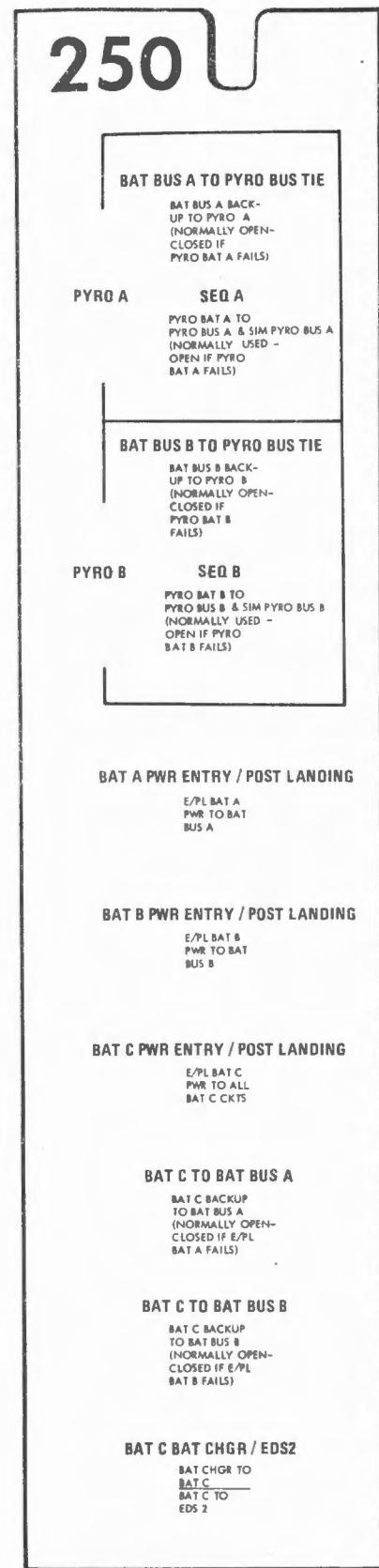
229,250

229,250

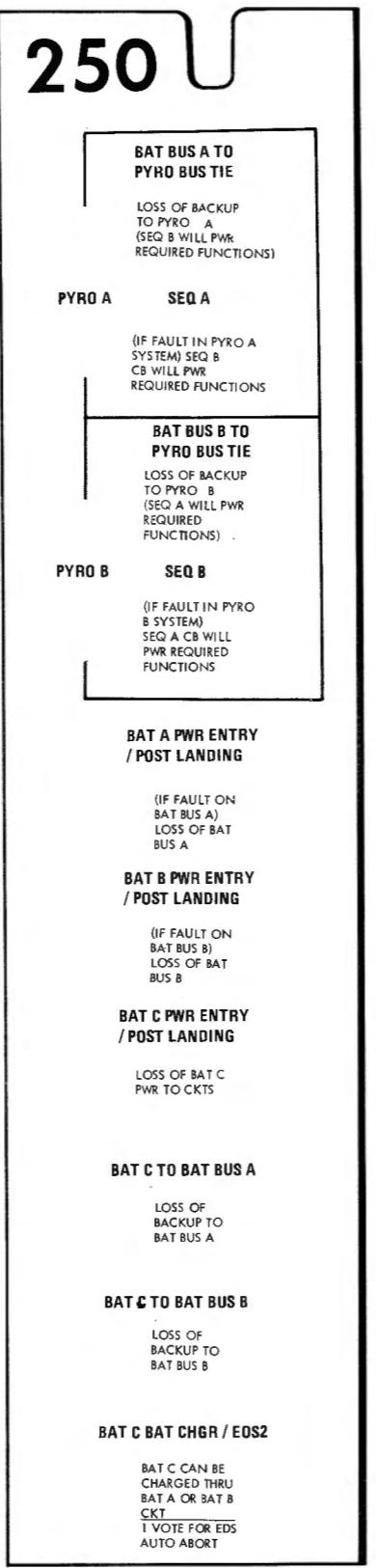
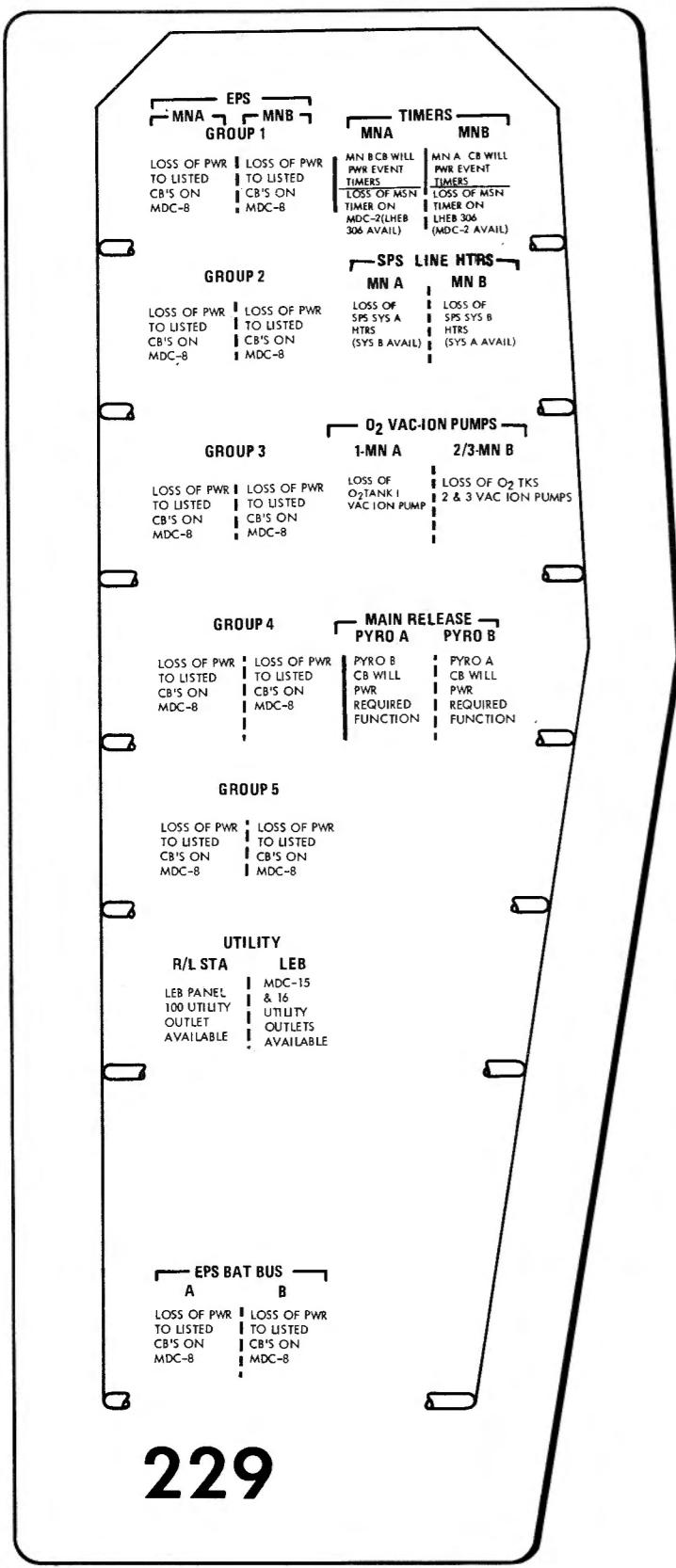
FUNCTIONS POWERED THRU CB



229

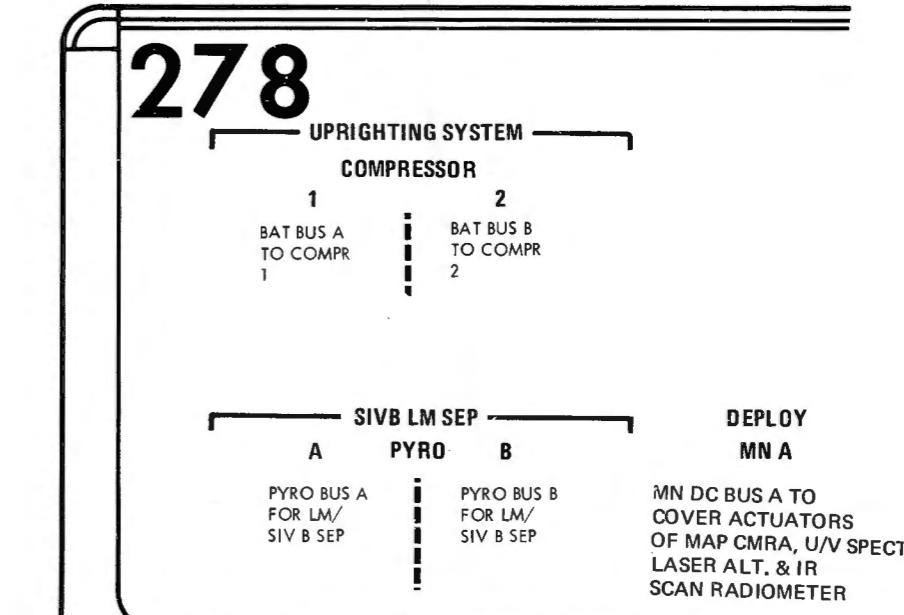
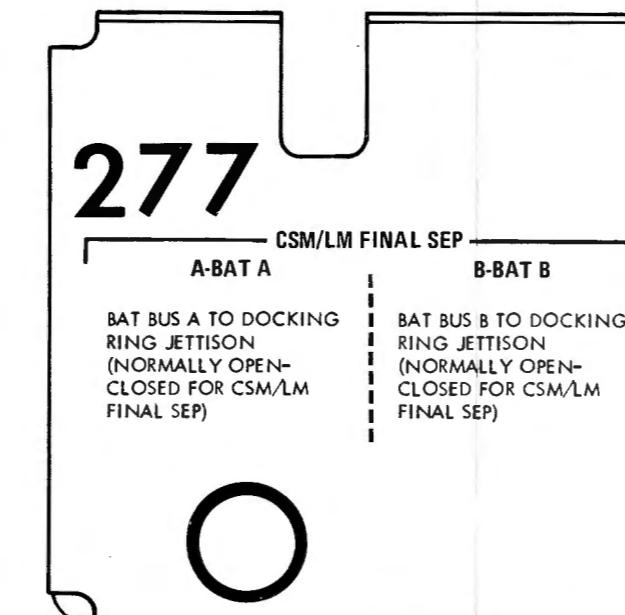
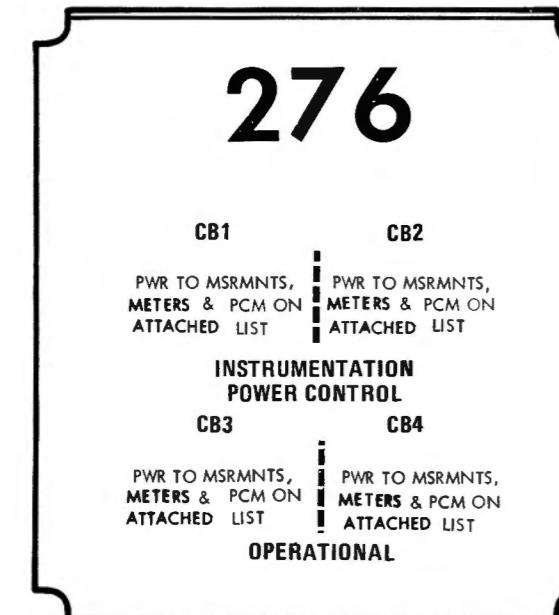
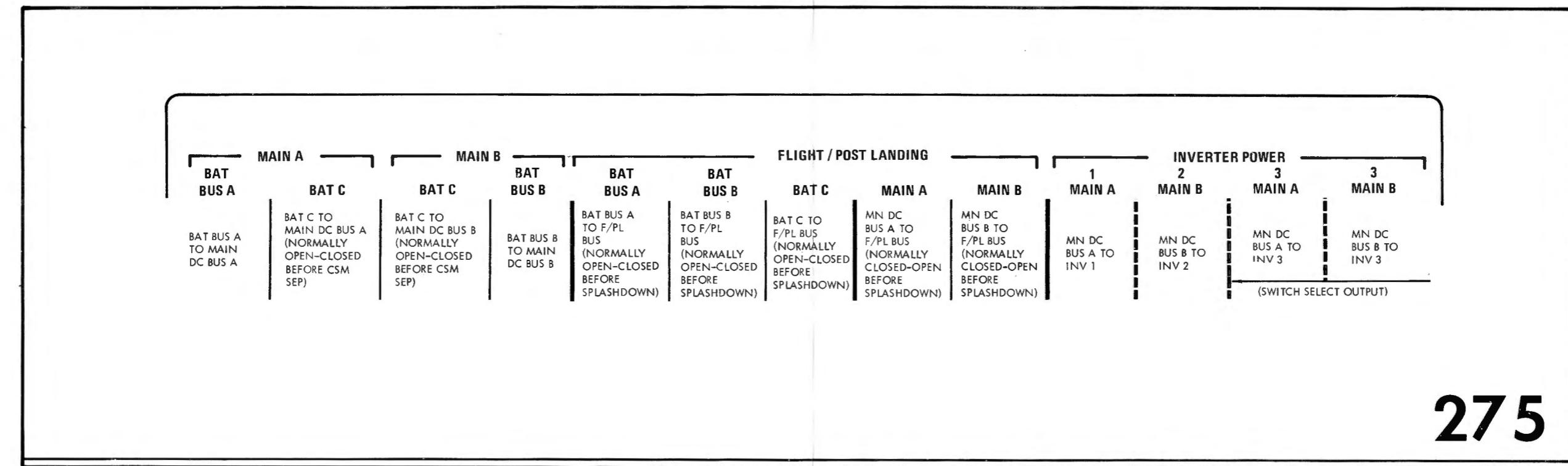


DATE 8/31/72

EFFECT OF CB OPENING
(REMAINING FUNCTION)PNLS
229,250PNLS
229,250PNLS
229,250PNLS
229,250PNLS
229,250PNLS
229,250

PNLS 275, 276
277 & 278

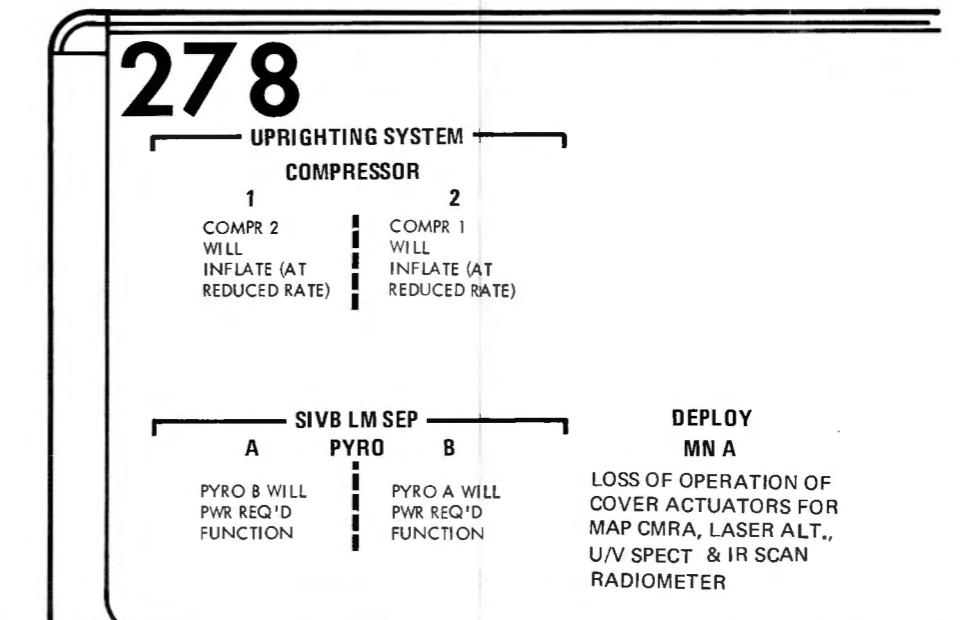
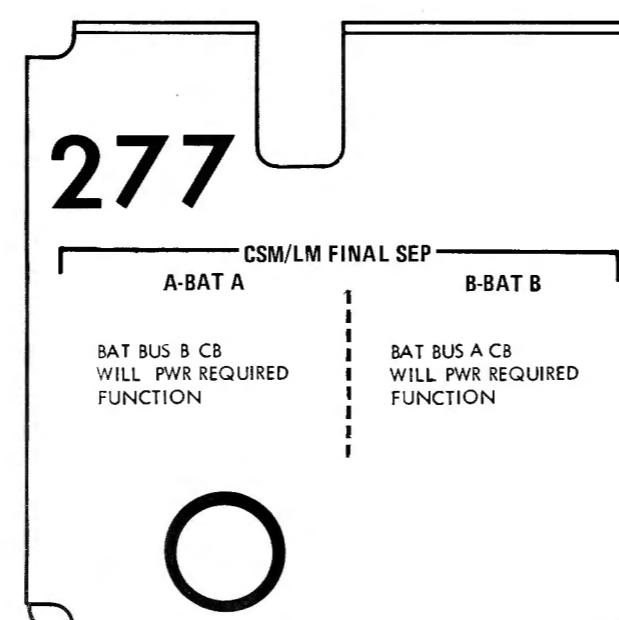
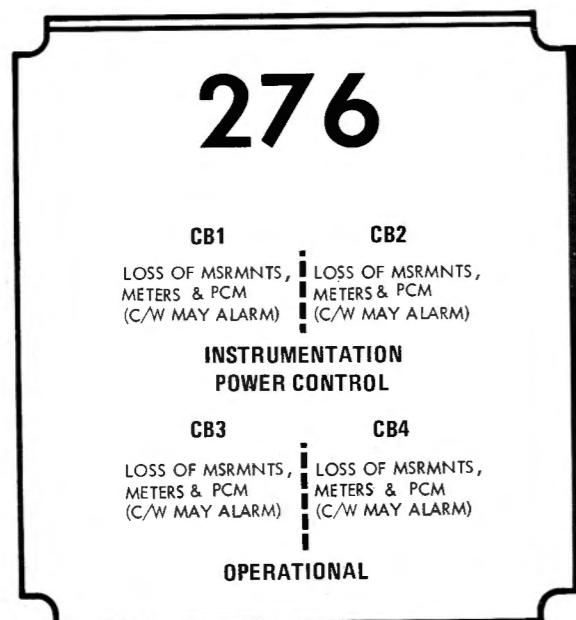
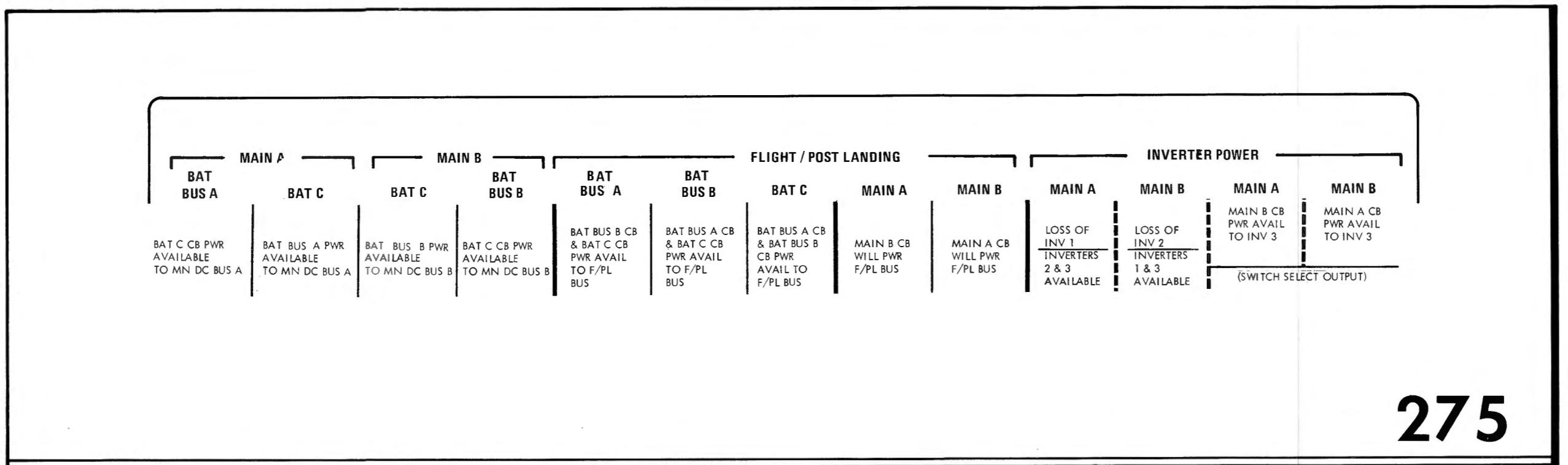
FUNCTIONS POWERED THRU CB



LEGEND:

- Line between circuit breakers designates dual power to function
- — Designates similar functions
- — — Designates different functions

EFFECT OF CB OPENING
(REMAINING FUNCTION)



LEGEND:

- LINE BETWEEN CIRCUIT BREAKERS DESIGNATES DUAL POWER TO FUNCTION
- - - DESIGNATES SIMILAR FUNCTIONS
- DESIGNATES DIFFERENT FUNCTIONS

RIGHT HAND EQUIPMENT BAY PANEL 276

Msrmnt Title	Msrmnt No.	O.B. Display	Msrmnt Title	Msrmnt No.	O.B. Display
<u>CB1</u> Main dc bus A&B power to following measurements: H_2O Dump Temp	CF 0461T		<u>CB 2 cont'd</u> Dosimeter 1 Radiation Dosimeter 2 Radiation Dosimeter Rate	CK 1051K CK 1052K CK 1053R	
CM He Tk 1 Press CM He Tk 1 Temp CM He Manif 1 Press CM He Manif 2 Press Temp 16 Eng Inj Sys 1 Temp 12 Eng Inj Sys 1	CR 0001P CR 0003T CR 0035P CR 0038P CR 2103T CR 2114T	SM SM * SM* SM SM	CM He Tk 2 Press CM He Tk 2 Temp CM He Manif 2 Press CM He Manif 1 Press Temp 14 Eng Inj Sys 1 Temp 24 Eng Inj Sys 2 Temp 25 Eng Inj Sys 2 Temp 21 Eng Inj Sys 2	CR 0002P CR 0004T CR 0036P CR 0037P CR 2100T CR 2110T CR 2116T CR 2119T	SM SM * SM* SM SM SM SM
<u>CB 2</u> Main dc bus A&B power to following measurements: Temp Crew Ablator Surf Loc 1A Temp Crew Ablator Surf Loc 4A Temp Crew Ablator Surf Loc 7A Temp Crew Ablator Surf Loc 10A	CA 1820T CA 1821T CA 1822T CA 1823T		Docking Probe Temp	CS 0220T	
Press Batt Comprtmt (Manif)	CC 0188P	SM	<u>CB 3</u> Main dc bus A&B power to following measurements: Skin Temp 1A Skin Temp 7A	SA 1830T SA 1832T	
Drogue Dep Relay A Drogue Dep Relay B Main Dep Relay A Main Dep Relay B Main Chute Disc Relay A Main Chute Disc Relay B	CE 0001X CE 0002X CE 0003X CE 0004X CE 0321X CE 0322X		O_2 Tk 2 Press H_2 Tk 2 Press H_2 Tk 3 Press O_2 Tk 3 Press O_2 Tk 2&3 Manif Press O_2 Tk 1 Htr Temp O_2 Tk 3 Htr Temp	SC 0038P SC 0040P SC 0052P SC 0053P SC 0069P SC 0070T SC 0072T	SM SM* SM SM * SM SM
Suit Cabin Delta Press Surge Tank Press H_2O Tank-Glycol Res Press Pri Glycol Flow Rate Pri Evap Inlet Temp Urine Dump Nozzle Temp	CF 0003P CF 0006P CF 0120P CF 0157R CF 0181T CF 0460T	M SM	FC 2 O_2 Press FC 3 O_2 Press FC 2 H_2 Press FC 3 H_2 Press FC 2 Rad Out Temp FC 3 Rad Out Temp	SC 2067P SC 2068P SC 2070P SC 2071P SC 2088T SMB* SC 2089T SMB*	SM SM SM SM SMB* SMB*
Astro 1 EKG Axis 1 Astro 2 EKG Axis 1 Astro 3 EKG Axis 1 Astro 1 Respir Astro 2 Respir Astro 3 Respir	CJ 0060J CJ 0061J CJ 0062J CJ 0200R CJ 0201R CJ 0202R		FC 2 Rad In Temp FC 3 Rad In Temp H_2 Flow H_2 Flow FC 2 O_2 Flow FC 3 O_2 Flow	SC 2091T SC 2092T SC 2140R SMB* SC 2141R SMB* SC 2143R SMB* SC 2144R SMB*	
CM X Axis Accel CM Y Axis Accel CM Z Axis Accel	CK 0026A CK 0027A CK 0028A				

Msrmnt Title	Msrmnt No.	O.B. Display	Msrmnt Title	Msrmnt No.	O.B. Display		
<u>CB 3 (Continued)</u>					<u>CB 3</u>		
He Tk Press	SP 0001P		(Experiments only)				
Ox Tks Press	SP 0003P	SM*	Pan Camera N ₂ Tk Press	SL 1043P			
Pos Fu/Ox Vlv 1 pot B	SP 0022H		UVS Electronic Temp	SL 1109T			
Pos Fu/Ox Vlv 3 pot B	SP 0024H		Sim Therm Env Shelf Temp	SL 1201T			
Pos Fu/Ox Vlv 2 pot A	SP 0027H	M	Sim Therm Env BM1 Temp	SL 1202T			
Pos Fu/Ox Vlv 4 pot A	SP 0029H	M	Sim Therm Env BM1 Temp	SL 1204T			
Temp Fuel Eng Feed Line	SP 0048T	M	Sim Therm Env BM6 Temp	SL 1205T			
Ox Line Temp	SP 0054T		Sim Therm Env BM6 Temp	SL 1206T			
Temp Bay 2 Ox Sump Tk Surf	SP 0055T		Pan Cam N ₂ Line in Temp	SL 1211T			
Temp Bay 5 Fuel Sump Tk Surf	SP 0056T		Pan Cam N ₂ Tk Temp	SL 1212T			
Fu Tks Press	SP 0066P	SM*	Mom Box Temp	SL 1215T			
SPS Prplnt Tks N ₂ A Press	SP 0600P	SM	Sim Therm Env BM6 Temp	SL 1217T			
Eng Chamber Press	SP 0661P	SM	Sim Therm Env Shelf Temp	SL 1220T			
Fuel SM/Eng Interface Press	SP 0930P		Sim Therm Env Shelf Temp	SL 1221T			
SM He Tk A Press	SR 5001P	SM	HF Ant Support Temp	SL 1223T			
SM He Tk C Press	SR 5003P	SM	TLM 2 Master Unit Temp	ST 0562T			
SM He Tk A Temp	SR 5013T	SM	TLM 2 Slave Unit Temp	ST 0563T			
SM He Tk C Temp	SR 5015T	SM	Power to Scientific Data				
Qty SM Propellant Sys A	SR 5025Q	SM	Buffer Amp				
Qty SM Propellant Sys C	SR 5027Q	SM	<u>CB 4</u>				
SM Eng Package A Temp	SR 5065T	SM*	Main dc bus A&B power to				
SM Eng Package C Temp	SR 5067T	SM*	following instrumentation:				
SM Ox Feed Line A Temp	SR 5069T		Skin Temp 4A	SA 1831T			
SM Ox Feed Line C Temp	SR 5071T		Skin Temp 10A	SA 1833T			
SM Pri Fuel Tk A Temp	SR 5073T						
SM Pri Fuel Tk C Temp	SR 5075T		O ₂ Tk 1 Press	SC 0037P	SM*		
SM He Manf Sys A Press	SR 5729P		H ₂ Tk 1 Press	SC 0039P	M*		
SM Ox Manf Sys A Press	SR 5733P		O ₂ Tk 2 Hr Temp	SC 0071T	SM		
SM Fuel Manf Sys A Press	SR 5737P	SM*	FC 1 O ₂ Press	SC 2066P	SM		
SM He Manf Sys C Press	SR 5817P		FC 1 H ₂ Press	SC 2069P	SM		
SM Ox Manf Sys C Press	SR 5820P		FC 1 Rad Out Temp	SC 2087T	SMB*		
SM Fuel Manf Sys C Press	SR 5822P	SM*	FC 1 Rad In Temp	SC 2090T			
Proton Ct Rate Chan 1	ST 0820K		FC 1 H ₂ Flow	SC 2139R	SM*		
Proton Ct Rate Chan 2	ST 0821K		FC 1 O ₂ Flow	SC 2142R	SM*		
Proton Ct Rate Chan 3	ST 0822K		<u>Fu Tks Press</u>				
Proton Ct Rate Chan 4	ST 0823K		Upper He Tk Surf Temp	SP 0006P	SM*		
Alpha Ct Rate Chan 1	ST 0830K		Position Fu/Ox Vlv 2	SP 0017T			
Alpha Ct Rate Chan 2	ST 0831K		Pot B	SP 0023H			
Alpha Ct Rate Chan 3	ST 0832K		Position Fu/Ox Vlv 4				
Proton Integ Ct Rate	ST 0838K		Pot B	SP 0025H			

PNL 276

Msrmnt Title	Msrmnt No.	O. B. Display
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CB 4 (Continued)

Position Fu/Ox Vlv 1 Pot A	SP 0026H	M
Position Fu/Ox Vlv 3 Pot A	SP 0028H	M
Ox Tks Press	SP 0033P	SM*
He Tk Press Display	SP 0035P	SM
Temp Eng Vlv Body	SP 0045T	
Temp Ox Eng Feed Line	SP 0049T	SM
Fuel Line Temp	SP 0057T	
Temp Bay 3 Ox St Tk Surf	SP 0058T	
Temp Bay 6 Fu St Tk Surf	SP 0059T	
SPS Vlv Act Press Sec	SP 0601P	SM
Ox SM/Eng Interface Press	SP 0931P	
SM He Tk B Press	SR 5002P	SM
SM He Tk D Press	SR 5004P	SM
SM He Tk B Temp	SR 5014T	SM
SM He Tk D Temp	SR 5016T	SM
Qty SM Propellant Sys B	SR 5026Q	SM
Qty SM Propellant Sys D	SR 5028Q	SM
SM Eng Package B Temp	SR 5066T	SM*
SM Eng Package D Temp	SR 5068T	SM*
SM Ox Feed Line B Temp	SR 5070T	
SM Ox Feed Line D Temp	SR 5072T	
SM Pri Fuel Tk B Temp	SR 5074T	
SM Pri Fuel Tk D Temp	SR 5076T	
SM He Manf Sys B Press	SR 5776P	
SM Ox Manf Sys B Press	SR 5780P	
SM Fuel Manf Sys B Press	SR 5784P	SM*
SM Ox Manf Sys D Press	SR 5821P	
SM Fuel Manf Sys D Press	SR 5823P	SM*
SM He Manf Sys D Press	SR 5830P	
Nuclear Part Det Temp	ST 0840T	
Nuclear Part Anal Temp	ST 0841T	

LEGEND:

O. B. Display	=	On Board Display
M	=	Meter
SM	=	Selectable Meter
B	=	Talk Back Indicator
*	=	Input to Caution/Warning

SYSTEMS SCHEMATICS
THE CONTENTS WILL CONSIST OF REPRINTS OF THE FOLLOWING
DRAWINGS FROM THE CSM SYSTEMS HANDBOOK

- 2.1 SEQUENTIAL OVERVIEW
- 2.2 SEQUENTIAL POWER DISTR
- 2.7 DOCKING PROBE
- 2.8 CSM-LM ELEC INTERFACE
- 2.9 CSM/EXPERIMENT INTERFACE
- 3.2 ELEC DC DIST & CONTROL
- 3.3 ELEC AC DIST & CONTROL
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- FIG. 3-2 PWR DIST - AC
- FIG. 3-3 PWR DIST - MISC
- 3.4 SCIENCE EXP. & UTILITY POWER DISTRIBUTION
- 4.2 SUIT & CABIN PRESS
- 4.3 PRIMARY GLYCOL LOOP
- 4.4 SECONDARY GLYCOL LOOP
- 4.5 WATER AND WASTE MGT
- 5.2 CRYO GAS STORAGE
- 5.3 FUEL CELL
- 6.1 COMM SYSTEM OVERVIEW
- 6.2 UNIFIED S-BAND SYS RF
- 6.3 VHF AM TRANSCIEVERS AND AUDIO EQUIP.
- 6.4 PREMOD PROCESSOR
- 7.1 INSTR PWR AND CONTROL
- 7.3 C&W SYSTEM
- 8.7 SCS POWER DISTRIBUTION
- 8.3 SCS OVERVIEW
- 8.4 G&N PWR DISTR
- 8.5 INERTIAL SUBSYSTEM
- 8.6 OPTICS SUBSYSTEM
- 8.9 CONTROL ELECTRONICS (ECA/TVC/GYROS)
- 8.10 AUTO/MANUAL RCS
- 9.1 SERVICE PROPULSION SYS
- 10.1 SM RCS
- 10.2 CM RCS
- 11.2 LIGHTING - INTERIOR AND EXTERIOR
- 12.1 PANORAMIC CAMERA
- 12.2 MAPPING CAMERA
- 12.5 FAR UV SPECTROMETER
- 12.6A LUNAR SOUNDER CSAR
- 12.6 LUNAR SOUNDER CSAR
- 12.7 LUNAR SOUNDER OPTICAL RECORDER
- 1.15 SIM BAY VIEWS
- 1.16 SIM BAY VIEWS

