

Post Insertion

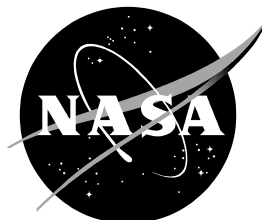
STS-126

**Mission Operations Directorate
Operations Division**

**Basic
March 28, 2008**

National Aeronautics and
Space Administration

Lyndon B. Johnson Space Center
Houston, Texas



STS-126 POST INSERTION

BASIC (Mar 28, 2008)

PCN-3 (Oct 17, 2008) Sheet 1 of 1

List of Implemented Change Requests (482s):

PI-0843
PI-0844
PI-0845
PI-0847

Incorporate the following:

1. Replace iii and iv
2. Replace 1-5 and 1-6, 1-17 and 1-18, 1-25 thru 1-28

Prepared by:

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Encl: 10 pages

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STS-126 POST INSERTION

BASIC (Mar 28, 2008)

PCN-2 (Sept 18, 2008) Sheet 1 of 1

List of Implemented Change Requests (482s):

PI-0837

PI-0839

PI-0841

Incorporate the following:

1. Replace iii and iv
2. Replace 1-5 thru 1-10, 1-15 and 1-16, 1-25 and 1-26
3. Replace CC 3-5 and CC 3-6

Prepared by: Andrew Simon 9/25/08
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Accepted by: (Signature)
FDF Manager

Encl: 14 pages

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BASIC (March 28, 2008)

PCN-1 (July 14, 2008) Sheet 1 of 1

List of Implemented Change Requests (482s):

PI-0835

Incorporate the following:

1. Replace Signoff thru iv (4 pages)
2. Replace 1-5 & 1-6, 1-13 & 1-14
3. Replace CC 3-3 & CC 3-4

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Encl: 10 pages

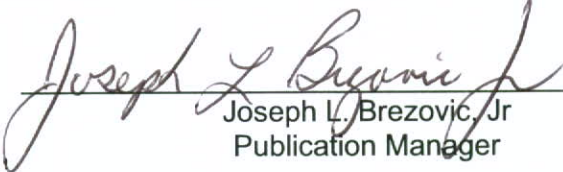
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MISSION OPERATIONS DIRECTORATE

**POST INSERTION
STS-126**

BASIC
March 28, 2008

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Incorporates the following:
482#: NONE – Establishes baseline

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POST INSERTION
STS-126

LIST OF EFFECTIVE PAGES

BASIC	03/28/08	PCN-2	09/18/08
PCN-1	07/14/08	PCN-3	10/17/08

Sign Off.....*	126/BAS	1-17	126/BAS
ii.....*	126/BAS 1	1-18	126/BAS 3
iii.....*	126/BAS 3	1-19	126/BAS
iv.....*	126/BAS	1-20	126/BAS
v	126/BAS	1-21	126/BAS
vi.....	126/BAS	1-22	126/BAS
1-1	126/BAS	1-23	126/BAS
1-2	126/BAS	1-24	126/BAS
1-3	126/BAS	1-25	126/BAS 3
1-4	126/BAS	1-26	126/BAS 2
1-5	126/BAS 3	1-27	126/BAS 3
1-6	126/BAS 2	1-28	126/BAS
1-7	126/BAS 2	2-1	126/BAS
1-8	126/BAS	2-2	126/BAS
1-9	126/BAS 2	2-3	126/BAS
1-10	126/BAS	2-4	126/BAS
1-11	126/BAS	3-1	* 126/BAS
1-12	126/BAS	3-2	* 126/BAS
1-13	126/BAS 1	CC 3-3	* 126/BAS 1
1-14	126/BAS	CC 3-4	* 126/BAS
1-15	126/BAS	CC 3-5	* 126/BAS
1-16	126/BAS 2	CC 3-6	* 126/BAS 2

POST INSERTION CUE CARDS

<u>Title</u>	<u>Ref. Page</u>	<u>Card No.</u>
AFT FLIGHT DECK RECONFIGURATION (Front).....	CC 3-3	PI-1a/126/O/B
(Back).....	CC 3-4	PI-1b/126/O/A
MIDDECK RECONFIGURATION (Front).....	CC 3-5	PI-2a/126/O/A
(Back).....	CC 3-6	PI-2b/126/O/B

* – Omit from flight book

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CONTENTS

PAGE

POST INSERTION PROCEDURES	1-1
ON-ORBIT SWITCH LIST	1-17
ORBIT 5/6 DEORBIT	2-1
CUE CARD CONFIG	3-1

NOTE

The STS-126 Post Insertion contains the nominal procedures from:

MET (DAY/HR:MIN)
000/00:51 TO 000/02:30 – POST INSERTION (Section 1)

The remaining STS-126 flight phases are conducted using the Ascent Checklist, Flight Plan, Deorbit Prep Book, Entry Checklist, EVA Checklist, and Rendezvous Book.

POST INSERTION PROCEDURES

CONFIG GPCs FOR OPS 2 1

* For single PASS GPC failure, build PASS set as follows: *

FAILED GPC	1	2	3	4
1	X	G2	FD	SM
2	G2	X	FD	SM
3	G2	FD	X	SM
4	G2	SM	FD	X

* In step 1:
* Assign strings 1,3 to one GPC and
* strings 2,4 to other GPC
*

NOTE

No keyboard entries or sw throws 10 sec:
Before and after moding PASS GPCs to RUN
Before OPS transition or set expansion/contraction
requests until new OPS base page is displayed

C,P

1. REASSIGN G2FD STRING TO ANOTHER GPC IN MC 1

GNC 0 GPC MEMORY

CONFIG – ITEM 1 +1 EXEC

Modify MC 1 per table

BFC CRT DISP – OFF

GNC, OPS 106 PRO

GNC 0 GPC MEMORY

CONFIG GPC	1	12340
STR 1	1	
2	2	
3	2	
4	4	
PL 1/2	1	
CRT 1	1	
2	2	
3	2	
4	0	
L 1	1	
2	2	
MM 1	1	
2	2	

CAUTION

If BFS is standalone (BFC It flash):
BFC CRT DISP – ON
BFS, GNC I/O RESET
BFC CRT DISP – OFF

C3

O6

CRTX

2. MODE G2FD GPC TO OPS 0
GPC MODE G2FD – STBY (tb-bp)
– RUN (tb-RUN)

3. LOAD MC 2 INTO G2FD GPC
PL, GPC/CRT G2FD GPC/X EXEC
X: PL GPC MEMORY
CONFIG – ITEM 45 +2 EXEC
GPC – ITEM 46 +(G2FD) EXEC
STORE – ITEM 47 EXEC
Store complete when MC = 02

* If no MC = 02 after 30 sec: *

- a. On MCC GO, cycle pwr on MMU 1,2
- b. Retry GPC FREEZE DRY (step 3)
- c. If FD successful, continue with step 4
If not successful and:
NO GPCs FAILED: go to step 1, delete GPC 3
from TGT SET, restring 1,3 to GPC 1, and
restring 2,4 to GPC 4, try to FD GPC 2 with
steps 2,3; then go to step d
ONE GPC FAILED: go to step 1, delete
attempted FD GPC from TGT SET, restring all
strings to lowest ID GPC, try to FD other GPC
with steps 2,3; then go to step d
- d. If FD successful, continue with step 4
If not successful: consider both MMUs failed;
on MCC GO, perform transition to OPS 3

4. TRANSITION TO GNC OPS 2

GNC 0 GPC MEMORY

CONFIG – ITEM 1 +2 EXEC
Modify MC 2 per table

GNC UNIV PTG

CONFIG GPC	DUAL G2	SINGLE G2
	2	2
STR 1	1	1
2	2	1
3	1	1
4	2	1
PL 1/2	0	0
CRT 1	1	1
2	2	1
3	0	0
4	2	1
L 1	0	0
2	0	0
MM 1	1	1
2	2	1

C3
C2
F2,F4
C3

5. TURN OFF BFC LT
BFC CRT DISP – ON
BFS, MSG RESET
√BFC It – off
CRT DISP – OFF

MET
DAY 000
00:30
TRANS
DAP
AUTO
RT 0.5
DB 3.5

00:35

Ref ASC for activities from 00:00-00:50 MET

MEMORY CONFIGURATION TABLE				
CONFIG	1	2	3	4(5)
OPS	G1, G6	G2	G3	SM
GPC SEL	1,2,3,4	1,2	1,2,3,4	4
STR	1 1 2 2 3 3 4 4	1 1 2 2 1 1 2 2	1 1 2 2 3 3 4 4	0 0 0 0
P/L	1/2 1	0	1	4
CRT	1 1 2 2 3 3 4 0	1 1 2 2 0 0 2 0	1 1 2 2 3 3 0 0	4 4 0 4
L	1 1 2 2	0 0	0 0	4 0
MM	1 1 2 2	1 1 2 2	1 1 2 2	4 4

1: GNC OMS 2 MNVR COAST | 2: GNC OMS 2 MNVR COAST
3: BFS, SYS SUMM 2

C
L4:B,Q,R
L4:D,E
L4:J
00:50
MS
C,P
00:55
P
A1(B1)
AUTO
PRI
RT 0.2
DB 5.0
MS
MS
01:00

All cbs closed
All cbs open
cb AC3 φA SIG CONDR HUM SEP – cl
B SIG CONDR IMU FAN – cl
SPECIALIST SEAT EGRESS
CONFIG GPCs FOR OPS 2 [1], 1-2
(USE DUAL G2 CONFIG)
If two PASS GPCs failed, √MCC
If BFS engaged: Go to MAL, DPS, GPC FRP-4
PL BUS ACTIVATION
PL CAB – MNA
AUX – ON
AFT MNB – ON
MNC – ON
PRELIM MIDDECK CONFIG (MID Cue Card) [2], 1-15
AFT STATION CONFIG (AFT Cue Card) [3], 1-13

CRTX 6. TRANSITION TO SM OPS 201(401)
SM, GPC/CRT SM GPC/X EXEC
X: SM GPC MEMORY
CONFIG – ITEM 1 +4(5) EXEC
Modify MC 4(5) per table →

CONFIG	4(5)
GPC	00040
STR	1 0 2 0 3 0 4 0
PL	1/2 4
CRT	1 4 2 4 3 0 4 4
L	1 4 2 0
MM	1 4 2 4

C3 √UPLK – ENA
SM 1 DPS UTILITY
UL CNTL AUTO – ITEM 35 EXEC
C3 7. SECURE BFS
BFC CRT DISP – ON
C3 CRT3 BFS, GNC, OPS 000 PRO
3: BFS, BFS MEMORY
C3 BFC CRT DISP – OFF
√All IDPs deassigned from BFS
O6 GPC MODE 5 – STBY (tb-RUN)
8. RECONFIG MEDs
C2 GPC/CRT 0/3 EXEC
IDP/CRT 3 PWR – OFF
√4 PWR – ON

F6,F7,F8 GPC/CRT SM GPC/4 EXEC
Power off MDUs as desired
C3 9. LOAD ORBIT TFLs
√OI PCMMU FORMAT – GPC
SM 62 PCMMU/PL COMM
FORMAT:
CRT FXD – ITEM 1 EXEC (*)
SEL ID – ITEM 3 +1 8 8 EXEC
LOAD – ITEM 4 EXEC
– √RUN, CPLT
SEL ID – ITEM 3 +1 0 3 EXEC
LOAD – ITEM 4 EXEC
– √RUN, CPLT
PGM – ITEM 2 EXEC
SM ANTENNA

10. RECONFIG GPCs

O6 GPC MODE 5 – HALT (tb-bp)
 OUTPUT 5 – NORM (tb-bp)
 OUTPUT (SM GPC) – TERM (tb-bp)

If no failed GPC:

√All IDPs deassigned from FD GPC
 GPC MODE (FD GPC) – STBY (tb-bp)
 – HALT (tb-bp)
 – STBY (tb-RUN)
 – HALT (tb-bp)

If single G2 reqd:

IDP/CRTX MAJ FUNC – PL
 GPC/CRT 2/X EXEC

X: PL GPC MEMORY

CONFIG – ITEM 45 +2 EXEC
 GPC – ITEM 46 +2 EXEC
 STORE – ITEM 47 EXEC
 Store complete when MC = 2 (~30 sec)

√All IDPs deassigned from FD GPC
 GPC MODE 2 – STBY (tb-bp)
 – HALT (tb-bp)
 – STBY (tb-RUN)
 – HALT (tb-bp)

Perform ERR LOG RESET

GNC 0 GPC MEMORY

ITEM 48 EXEC

SM 0 GPC MEMORY

ITEM 48 EXEC

If PASS GPC failed from ASCENT and dual
 G2 reqd, use G2FD to form G2 RS:

GNC 0 GPC MEMORY

CONFIG – ITEM 1 +2 EXEC

Modify MC 2 per table

GNC, OPS 201 PRO

GNC UNIV PTG

If PASS GPC failed from ASCENT and single
 G2 reqd:

√All IDPs deassigned from FD GPC
 GPC MODE (FD GPC) – STBY (tb-bp)
 – HALT (tb-bp)
 – STBY (tb-RUN)
 – HALT (tb-bp)

If GPC failed from ASCENT,
 Perform MAL, DPS, GPC FRP-1 as time permits

CONFIG	GPC	2	XY
STR	1	X	
	2	Y	
	3	X	
	4	Y	
PL	1/2	0	
CRT	1	X	
	2	Y	
	3	0	
	4	Y	
L	1	0	
	2	0	
MM	1	X	
	2	Y	

C2
 CRTX

CRT

PI LOCKER

When all GPC switch configuration complete,
 unstow, install GPC MODE switchguard

STAR TRKR ACTIVATION/DOOR OPEN 12

C O6 S TRK PWR (two) – ON
GNC I/O RESET

S TRK DR CNTL SYS (two) – OP (start timer)
√POS tb (two) – bp
When both tb – OP (8-24 sec), or either tb – bp for > 24 sec,
CNTL SYS (two) – OFF

* If tb – bp > 8 sec, notify MCC *

1: GNC 22 S TRK/COAS CNTL
STAR TRK – ITEM 3,4 EXEC
1: GNC 21 IMU ALIGN
RESUME

SUPPLY WATER CONFIG 14

NOTE

Do not perform until blocks 5 and 6 are performed

L1 FLASH EVAP CNTLR PRI A – OFF

R11L SPLY H2O DUMP ISOL VLV – OP (tb-OP)
√XOVR VLV – CL (tb-CL)
TKB INLET – CL (tb-CL)
TKA OUTLET – OP (tb-OP)

ML86B:A cb MNB SPLY H2O TKB INLET – op
MNC SPLY H2O XOVR VLV – op

SM SYS SUMM 2

CRT If FREON EVAP OUT TEMP > 41 and ≤ 47 degF:
L1 RAD CNTLR OUT TEMP – HI
CRT When FREON EVAP OUT TEMP > 50 degF,
L1 RAD CNTLR OUT TEMP – NORM, then immediately:
FLASH EVAP CNTLR PRI B – ON
CRT If FREON EVAP OUT TEMP ≤ 41 or > 47 degF:
L1 FLASH EVAP CNTLR PRI B – ON

MET	1: GNC UNIV PTG	2: SM PL BAY DOORS
DAY 000	4: SM PL BAY DOORS	
01:30		
A5(B1)		
AUTO		
ALT		
RT 0.2		
DB 5.0		
01:35	MCC & CREW:	GO for orbit ops
	C O6	UHF MODE sel – OFF
	MS	KU-BD ANT DEPLOY (ORB OPS, COMM/INST)
		KU-BD ANT ACTIVATION (ORB OPS, COMM/INST)
	C,P	SEAT EGRESS
01:40	C,P	CLOTHING CONFIG 9
	MS	CLOTHING CONFIG (MID,AFT Cue Cards) 10, 1-14, 1-15
01:45	ALL	QUICKDON MASKS SETUP 19
		If time permits: OCAC SETUP (ORB OPS, CREW SYS)
01:50	C	POST PLBD OPS RAD CONFIG 11
	MS	SPECIALIST SEAT REMOVAL/STOWAGE
01:55	C	STAR TRKR ACTIVATION/DOOR OPEN 12, 1-6
	MS	ESCAPE POLE STOWAGE (MID Cue Card) 13, 1-16
02:00		

CLOTHING CONFIG 9

Doff, stow:
 Harness, Boots, LES
 Stow gloves in Helmet
 Remove radiation dosimeter from LES and insert in inflight garments

Doff, stow in Wet Trash:
 UCD (clamp if used)
 Emesis Bag, if used (unstow new bag)

POST PLBD OPS RAD CONFIG 11

C 1: SM 88 APU/ENVIRON THERM

NOTE
 FREON LOOP RAD OUT temps will not drop to normal operating range (< 60 deg) until ~15 min after doors are opened

L1 NH3 CNTLR B(A) – OFF
 √RAD BYP VLV tb (two) – RAD
 H2O LOOP 2 BYP MODE – AUTO

CRT1 When FREON LOOP RAD OUT T < 60 deg:
 L1 HI LOAD EVAP – OFF

1: GNC UNIV PTG

QUICKDON MASKS SETUP 19

Connect QDM COMM to HIU
 Connect QDM O2 to LEH hose
 Verify operation
 Temp stow QDM/HIU assembly

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MET		1: GNC UNIV PTG	2: SM ANTENNA
DAY 000		4: SM ANTENNA	
02:00	MS	AIRLOCK SETUP FOR INGRESS (MID Cue Card) 15 , 1-16	
A5(B1)	P	W/B STEAM VENT HTR ACT	
AUTO		R2	√BLR CNTLR/HTR (three) – A
ALT			PWR (three) – ON
RT 0.2			
DB 5.0			
02:05	C	CONFIG VERNIER CONTROL	
A5(B1)	O16:F	√MCC GO for vernier control	
AUTO		RJD MANF L5/F5/R5 DRIVER – ON, wait 5 sec	
VERN		DAP: A/AUTO/VERN	
RT 0.05			
DB 1.0			
02:10			
	ALL	CONFIG CONTROLS FOR ON-ORBIT	
		Perform actions on 1-17 thru 1-27	
		Unstow, install HUD covers (two)	
02:15		L2	Remove, stow (on pnl L2/FDF FD locker) NWS sw flex extension
	P	HYD THERMAL CONDITIONING-ENABLE	
		R2	HYD CIRC PUMP (three) – GPC
02:20	P	SUPPLY WATER CONFIG 14 , 1-6	
02:25	MS	RESET C/W (AFT Cue Card) 16 , 1-14	
	MS	FUEL CELL VI PERFORMANCE PLOT (ORB OPS, EPS)	
02:30		Stow POST INSERTION, go to FLIGHT PLAN, <u>FLT DAY 1</u>	

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DETAILED PLBD OPENING PROCEDURES 18

- R13L * If no motion determined visually or 'OP/CL' not blank within 10 sec *
 * after cmd, *
 * PL BAY DR – STOP, perform MAL, MECH, 9.1a *
 * If latch not 'OP' in single mtr time, *
 * PL BAY DR – STOP, perform MAL, MECH, 9.1d *
 * If door motion stops and not 'OP', *
 * PL BAY DR – STOP, perform MAL, MECH, 9.1f *
 * If SM GPC fails during this operation, *
 * PL BAY DR SYS (two) – DSBL *
 * – STOP *
 * Perform PASS SM GPC FAIL (ORB PKT, DPS) *

CAUTION

Use MANUAL mode for subsequent BFS PLBD ops if BFS AUTO sequence has been interrupted by reversing latch/door drive direction or if MANUAL mode has already been used during mission

NOTE

Note any single mtr operations (continue ops) (single mtr times = 2X listed dual motor times).
 If one mtr in each of two separate latch gangs fails:
 PL BAY DR – STOP
 √MCC

AUTO PLBD OPENING PROCEDURE

- MS** CRT4 1. SM, OPS 202 PRO or BFS, SM 63 PL BAY DOORS
4: SM PL BAY DOORS
- R13L √PL BAY DR – STOP
 CRT4 √PBD SW – STOP
 √MAN SEL (ten) – (no *)
 √PBD SW BYPASS – (no *)
2. AC POWER ON – ITEM 1 EXEC (*)
 3. AUTO MODE SEL – ITEM 3 EXEC (*)
- R13L 4. PL BAY DR SYS (two) – ENA
 CRT4 √OP/CL STATUS (ten) – CL
 R13L 5. PL BAY DR – OP
 CRT4 √CENTER LATCHES 5-8,9-12 (two) – blank,OP (~20 sec)
 √1-4,13-16 (two) – blank,OP (~20 sec)
 √STBD FWD,AFT LATCHES (two) – blank,OP (~30 sec)
 √DOOR – RDY,blank,OP (~63 sec)
 √PORT FWD,AFT LATCHES (two) – blank,OP (~30 sec)
 √DOOR – RDY,blank,OP (~63 sec)
- R13L 6. PL BAY DR – STOP
- POST-PLBD OPENING CLEANUP**
- CRT4 7. PL BAY DOOR SYS (two) – DSBL
 √OP/CL STATUS (ten) – OP
8. AC POWER OFF – ITEM 2 EXEC (*)
 9. SM, OPS 201 PRO (if PASS SM)
4: SM ANTENNA
10. After floodlights ON > 10 min:
 A7U PL BAY FLOOD (all) – OFF

MANUAL PLBD OPENING PROCEDURE

- MS** CRT4 1. SM, OPS 202 PRO or BFS, SM 63 PL BAY DOORS
4: SM PL BAY DOORS
- R13L √PL BAY DR – STOP
 CRT4 √PBD SW – STOP
 √MAN SEL (ten) – (no *)
 √PBD SW BYPASS – (no *)
2. AC POWER ON – ITEM 1 EXEC (*)
 √AUTO MODE SEL – (no *)
- R13L 3. PL BAY DR SYS (two) – ENA
 CRT4 √OP/CL STATUS (ten) – CL
- OPEN C/L LATCHES**
4. Select CENTER LATCHES 5-8,9-12 – ITEM 4,5 EXEC (*)
 R13L 5. PL BAY DR – OP
 CRT4 √CENTER LATCHES 5-8,9-12 (two) – blank,OP (~20 sec)
 R13L 6. PL BAY DR – STOP
 CRT4 7. Deselect CENTER LATCHES 5-8,9-12 – ITEM 4,5 EXEC (no *)
 8. Select CENTER LATCHES 1-4,13-16 – ITEM 6,7 EXEC (*)
- R13L 9. PL BAY DR – OP
 CRT4 √CENTER LATCHES 1-4,13-16 (two) – blank,OP (~20 sec)
 R13L 10. PL BAY DR – STOP
 CRT4 11. Deselect CENTER LATCHES 1-4,13-16 – ITEM 6,7 EXEC (no *)
- OPEN STBD FWD,AFT LATCHES & DOOR**
12. Select STBD FWD,AFT LATCHES – ITEM 8,9 EXEC (*)
 R13L 13. PL BAY DR – OP
 CRT4 √STBD FWD,AFT LATCHES (two) – blank,OP (~30 sec)
 R13L 14. PL BAY DR – STOP
 CRT4 15. Deselect STBD FWD,AFT LATCHES – ITEM 8,9 EXEC (no *)
 16. Select STBD DOOR – ITEM 10 EXEC (*)
- R13L 17. PL BAY DR – OP
 CRT4 √STBD DOOR – RDY,blank,OP (~63 sec)
 R13L 18. PL BAY DR – STOP
 CRT4 19. Deselect STBD DOOR – ITEM 10 EXEC (no *)
- OPEN PORT FWD,AFT LATCHES & DOOR**
20. Select PORT FWD,AFT LATCHES – ITEM 11,12 EXEC (*)
 R13L 21. PL BAY DR – OP
 CRT4 √PORT FWD,AFT LATCHES (two) – blank,OP (~30 sec)
 R13L 22. PL BAY DR – STOP
 CRT4 23. Deselect PORT FWD,AFT LATCHES – ITEM 11,12 EXEC (no *)
 24. Select PORT DOOR – ITEM 13 EXEC (*)
- R13L 25. PL BAY DR – OP
 CRT4 √PORT DOOR – RDY,blank,OP (~63 sec)
 R13L 26. PL BAY DR – STOP
 CRT4 27. Deselect PORT DOOR – ITEM 13 EXEC (no *)
- POST-PLBD OPENING CLEANUP**
- R13L 28. PL BAY DR SYS (two) – DSBL
 CRT4 √OP/CL STATUS (ten) – OP
29. AC POWER OFF – ITEM 2 EXEC (*)
 30. SM, OPS 201 PRO (if PASS SM)
4: SM ANTENNA
- A7U 31. After floodlights ON > 10 min:
 PL BAY FLOOD (all) – OFF

FUNCTION	PLBD CONTROL								PLBD DISPLAY MDM								
	Ref: MA73C:C&D for MCA cbs																
	MTR 1				MTR 2				C	C	O	O	C	R	R	R	O
	AC/ MCA	CNTL	MDM	SYS	AC/ MCA	CNTL	MDM	SYS	A	B	A	B	A	B	C		
LATCH																	
5-8	1/MID3	AB3/AB2	PL1	2	3/MID2	CA3/CA1	PL2	1	1	2	1	2					
9-12	1/MID1	AB3/AB1	PL1	1	3/MID4	CA3/CA2	PL2	2	1	2	1	2					
1-4	1/MID3	AB3/AB2	PL1	2	3/MID2	CA3/CA1	PL2	1	1	2	1	2					
13-16	3/MID4	CA3/CA2	PL2	2	2/MID2	BC3/BC1	PL1	1	2	1	2	1					
S FWD	1/MID1	AB3/AB1	PL1	1	2/MID4	BC3/BC2	PL2	2	1	2	1	2					
S AFT	3/MID4	CA3/CA2	PL2	2	2/MID2	BC3/BC1	PL1	1	2	1	2	1					
S DOOR	1/MID1	AB3/AB1	PL1	1	2/MID4	BC3/BC2	PL2	2					1	1	2	2	1
													2	1	2	2	2
P FWD	1/MID1	AB3/AB1	PL1	1	2/MID4	BC3/BC2	PL2	2	1	2	1	2					
P AFT	1/MID3	AB3/AB2	PL1	2	3/MID2	CA3/CA1	PL2	1	1	2	1	2					
													2	1	1	2	2
P DOOR	3/MID4	CA3/CA2	PL2	2	2/MID2	BC3/BC1	PL1	1					1	1	1	2	1

MIDDECK RECONFIGURATION

PRELIM MIDDECK CONFIG 2

WARNING
Eye and skin damage can occur in as little as 10 sec

INSTALL FILTERS

Don Sunglasses

Unstow,install: Side Hatch UV Filter and Locking Device, and Pyro Box Safing Pin

PRESS H2O TKA

ML26C SPLY H2O GN2 TK VENT vlv – PRESS
A SPLY vlv – OP

NOTE

Disregard possible 'S66 WASTE H2O PRES' fault msg

COMM CONFIG

Unstow: headsets, handheld mic, and/or wireless comm.
(see WCCS Cue Card), if flown

If WCCS flown, perform STD WCCS CONFIG (ORB OPS, COMM/INST)

If middeck handheld mic/speaker ops:

MO42F MIDDECK SPKR AUD A/G 1 – T/R, tw-2
A/G 2 – RCV, tw-2
A/A – RCV, tw-2
ICOM A – T/R, tw-2
B – RCV, tw-2
XMIT/ICOM MODE – PTT/PTT
SPKR PWR – SPKR
MSTR SPKR VOL – 8

MO39M MIDDECK COMM CCU PWR – OFF
Connect HHMIC to CCU
MIDDECK COMM CCU PWR – ON

ML86B:C cb MNA EXT ARLK HTR LINE ZN1,2 (two) – cl
STRUC Z1/2/3 – cl
:E cb MNA FC PCM – op

PDF CONFIG

Stow in Helmet Bag: ASCENT Cue Cards, ASC, ASC PKT, SYS AOA
Unstow Jettison Stowage Bag, mark "Return to Houston"
Place Helmet Bag in Return to Houston Bag

Unstow VW Bags

MET	MS AFT ACTIONS
00:53	<u>SPECIALIST SEAT EGRESS</u>
00:57	<u>PRELIM MIDDECK CONFIG</u> 2
01:07	<u>WCS CONFIG/ACT</u> 5
01:08	<u>SWITCH CONFIG/GALLEY ACT</u> 6
01:41	<u>CLOTHING CONFIG</u> 10
01:45	<u>QUICKDON MASKS SETUP</u> 19
01:54	<u>SPECIALIST SEAT REMOVAL/STOWAGE</u>
01:59	<u>ESCAPE POLE STOWAGE</u> 13
02:01	<u>AIRLOCK SETUP FOR INGRESS</u> 15

CLOTHING CONFIG 10

Doff, stow:

Harness, Boots, LES

Stow gloves in Helmet

Remove radiation dosimeter from LES and insert in inflight garments

Doff, stow in Wet Trash:

UCD (clamp if used)

Emesis Bag, if used (unstow new bag)

QUICKDON MASKS SETUP 19

Connect QDM COMM to HIU

Connect QDM O2 to LEH hose

Verify operation

Temp stow QDM/HIU assembly

ON-ORBIT SWITCH LIST

LEFT SEAT

L1..... 1-19
 L2..... 1-19

 O6..... 1-19
 O7 1-20
 O8..... 1-21

 O14..... 1-22
 O15..... 1-23

RIGHT SEAT

O16..... 1-23
 O8 1-21

 R1 1-18

AFT

C5 1-23
 C6 1-23
 C7 1-23









 A11..... 1-24

MIDDECK-FWD

ML86B..... 1-26

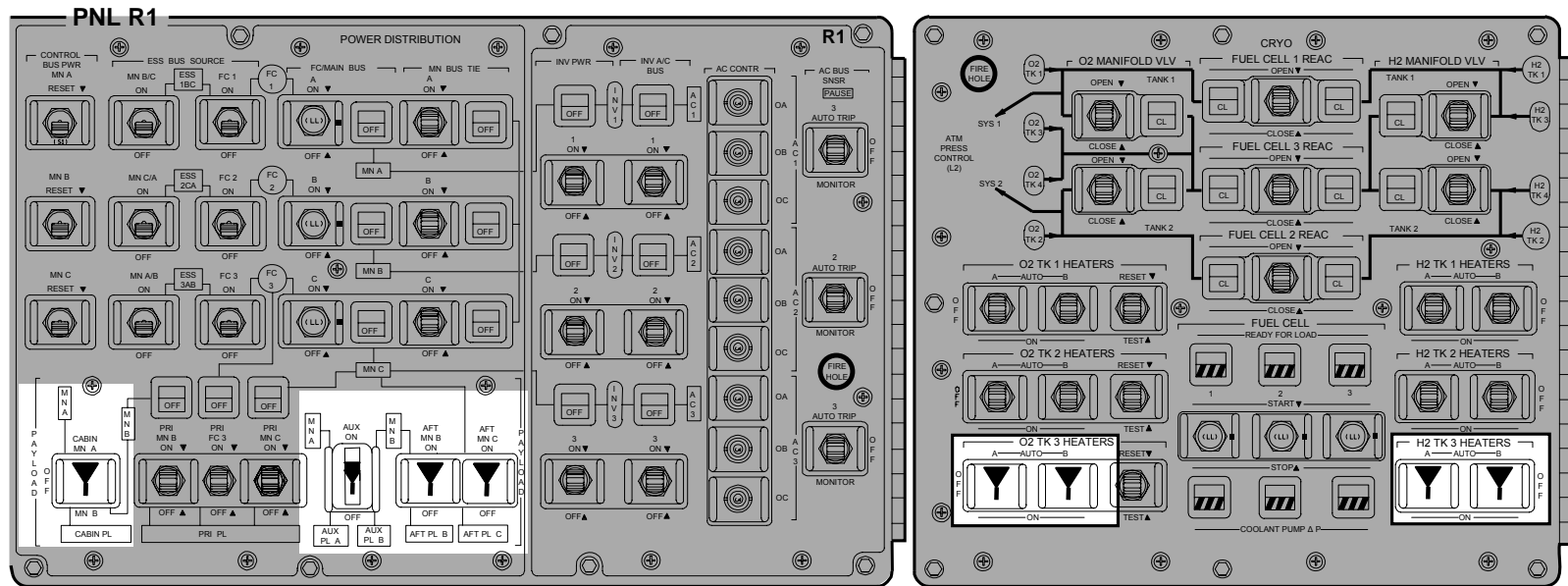
MIDDECK-AFT

MA73C 1-26
 MO32M 1-25
 MO69M 1-25
 MO63P 1-27

 - Up  - Center  - Down  - Boxed items indicate switch configured during ON-ORBIT CONFIGURATION	R - As reqd  - cb close  - cb open	 - Indicates switch/display not checked during ON-ORBIT SWITCH/VERIF Switch/display pictorials are generic representations and are not intended to depict actual switch position. Check MCC if clarification reqd  - White area indicates switch verified during ON-ORBIT SWITCH CONFIGURATION
---	--	--

<u>CIRCUIT BREAKER SNAP RING COLOR CODES</u>	
<u>COLOR</u>	<u>CONFIGURATION</u>
Red	Open at all times
Green	Open on-orbit only
Yellow	Open ascent, close per procedure
Orange	Open orbit through entry
Blank (no ring)	Always closed or as required

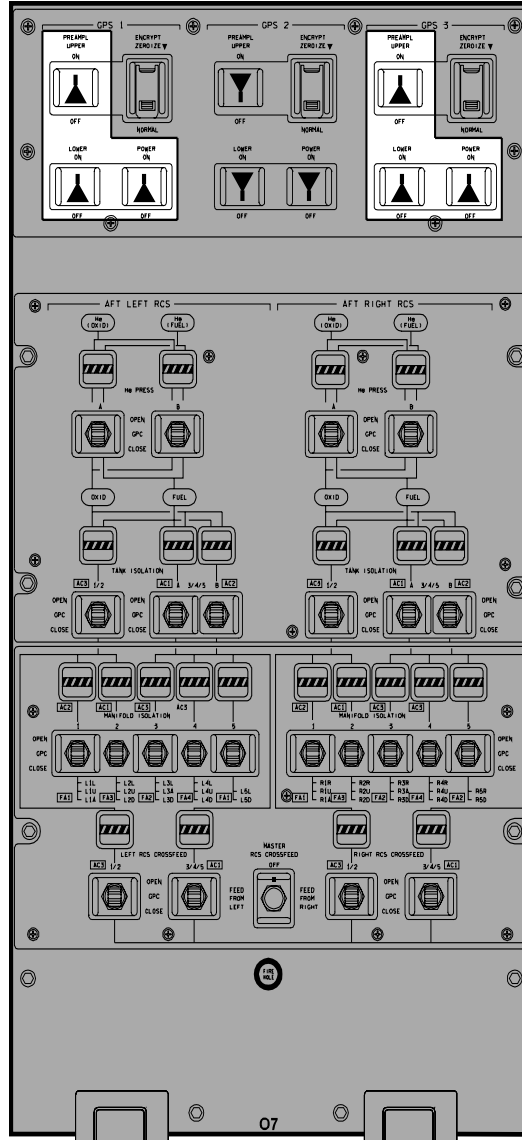
ALL VEH



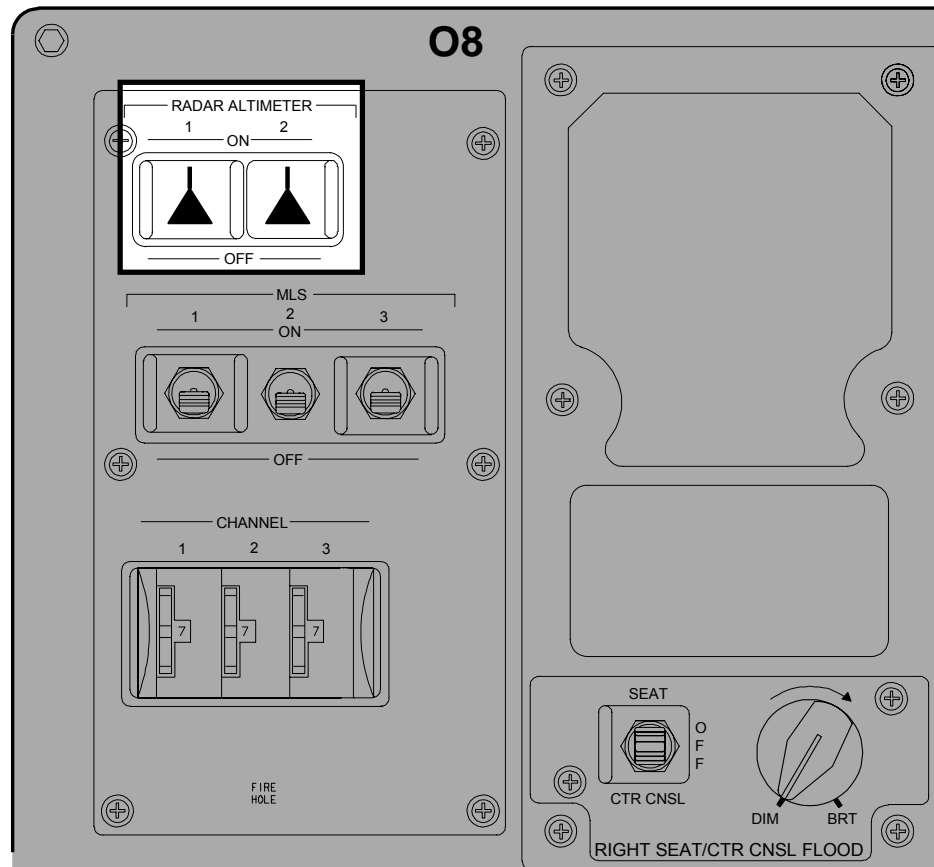
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OV105

PNL 07

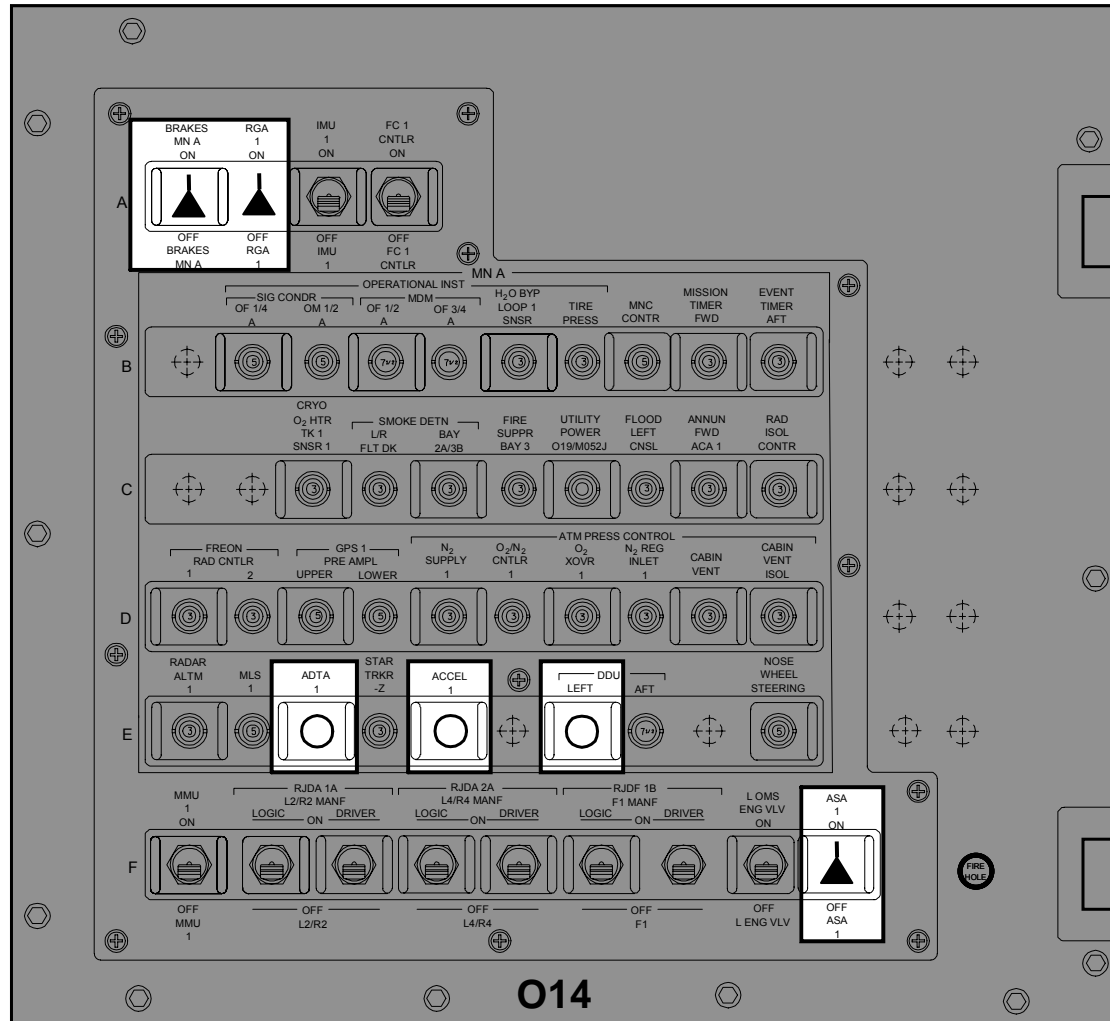


OV105



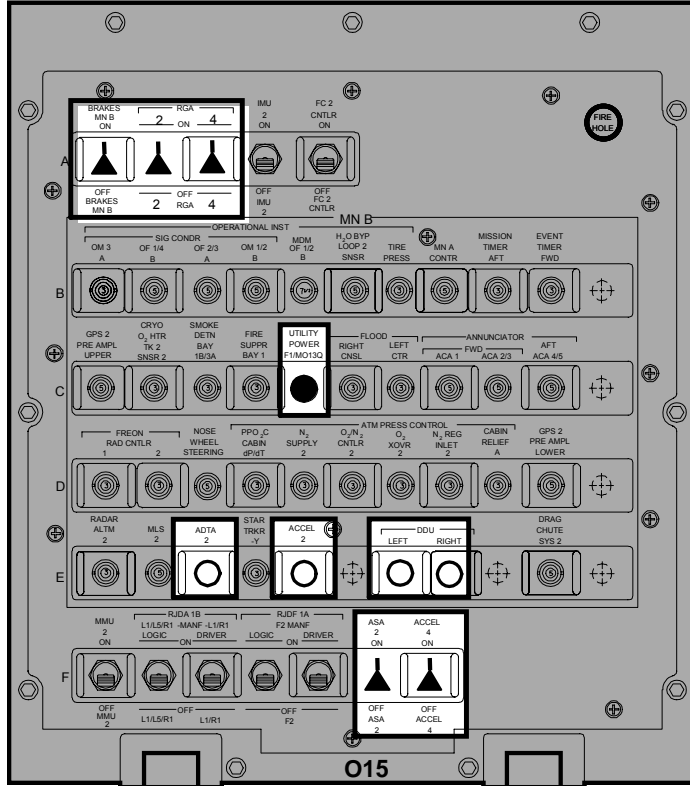
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PNL O14

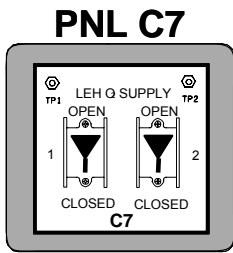
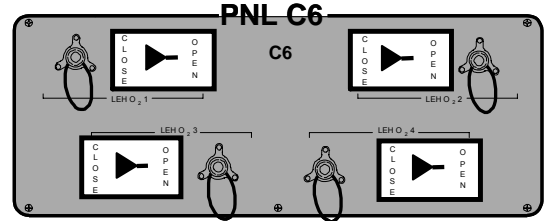
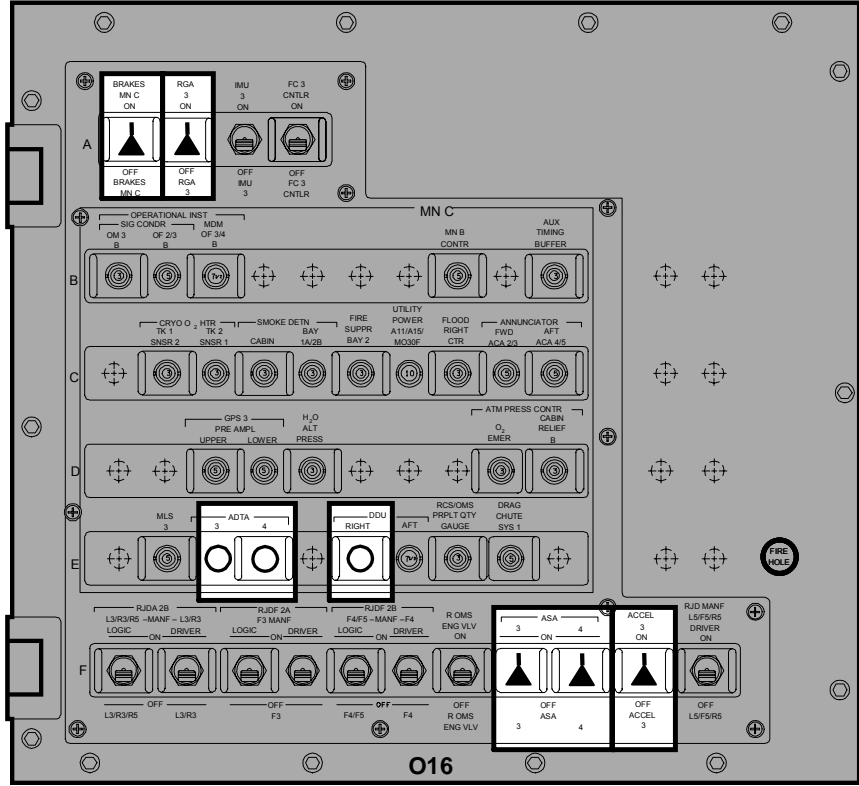


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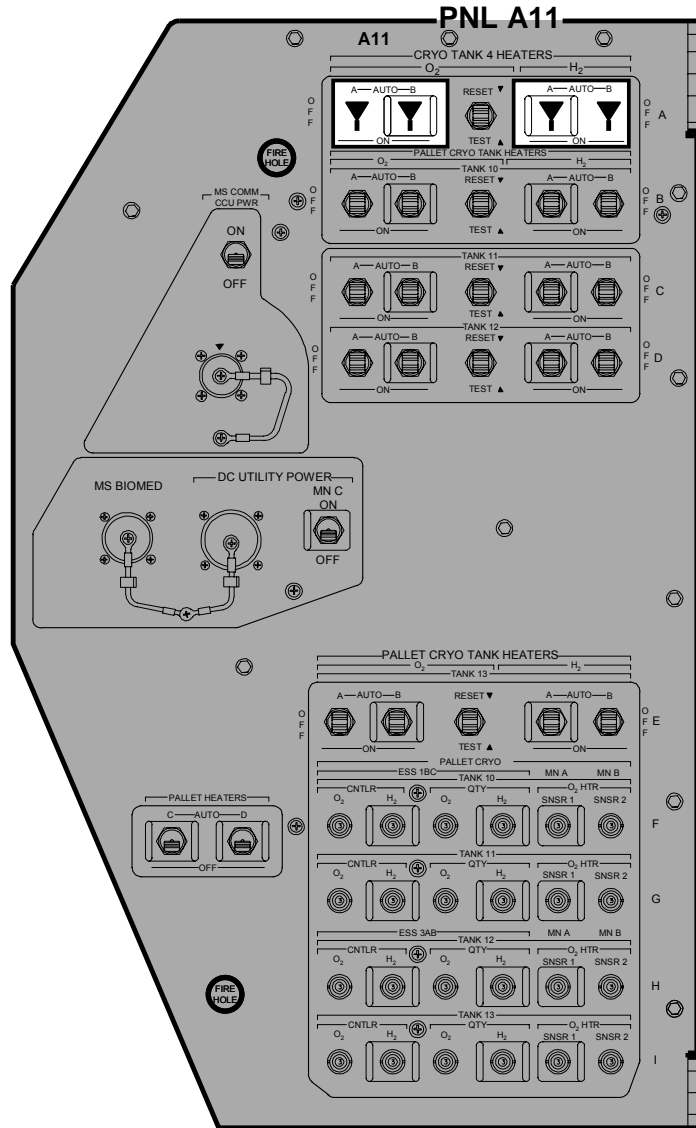
PNL O15



PNL O16

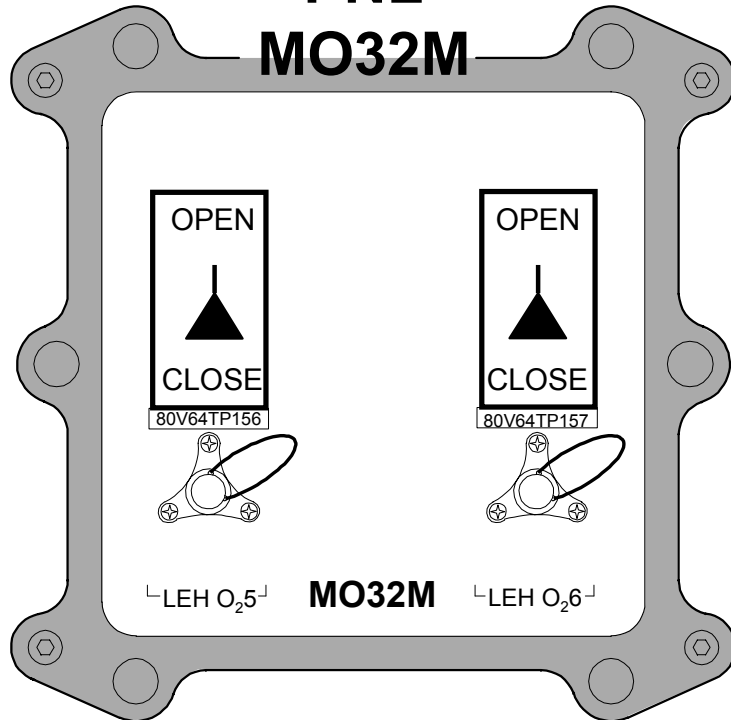


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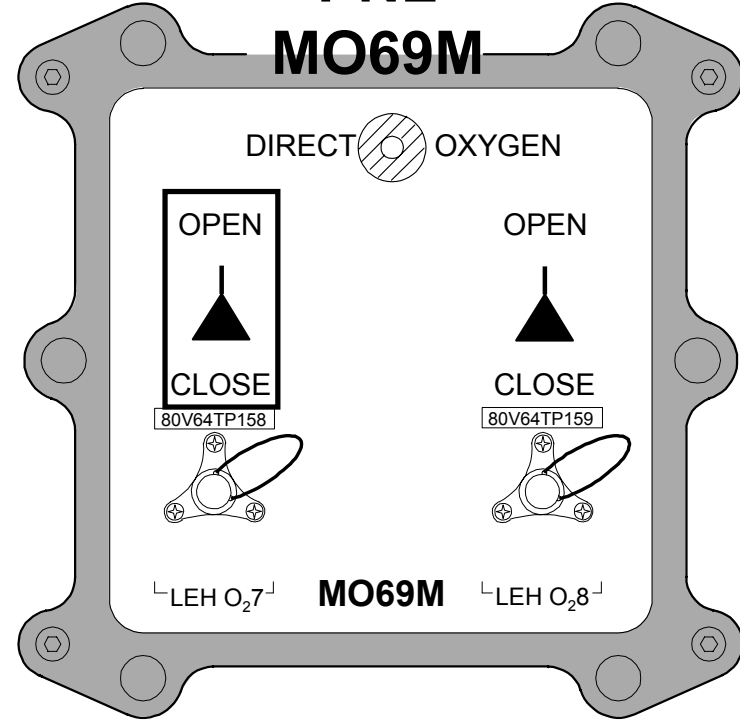


OV103,OV105

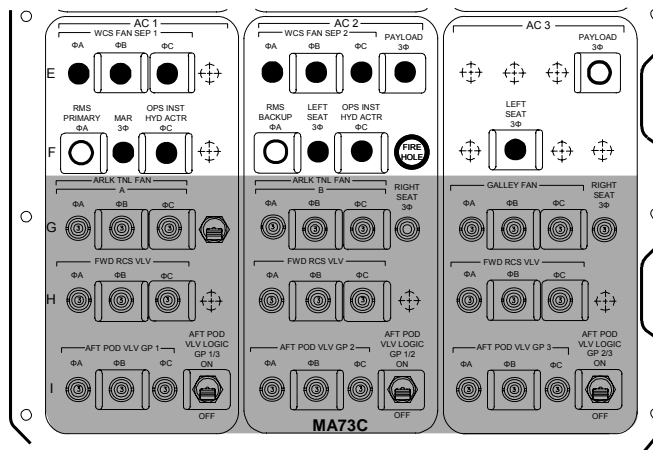
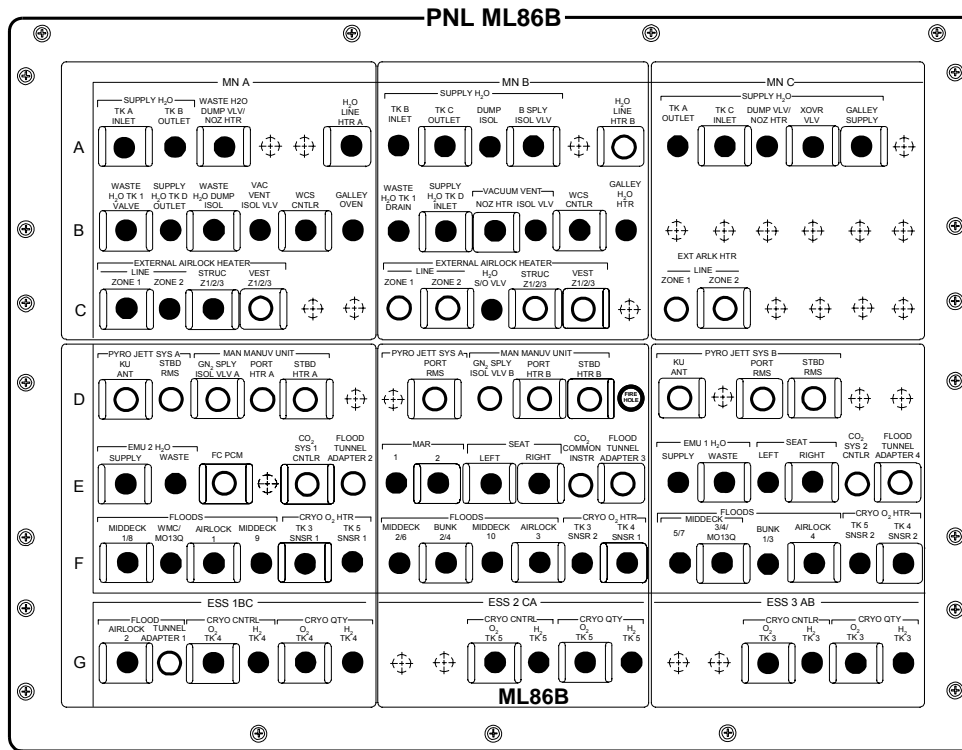
PNL MO32M



PNL MO69M

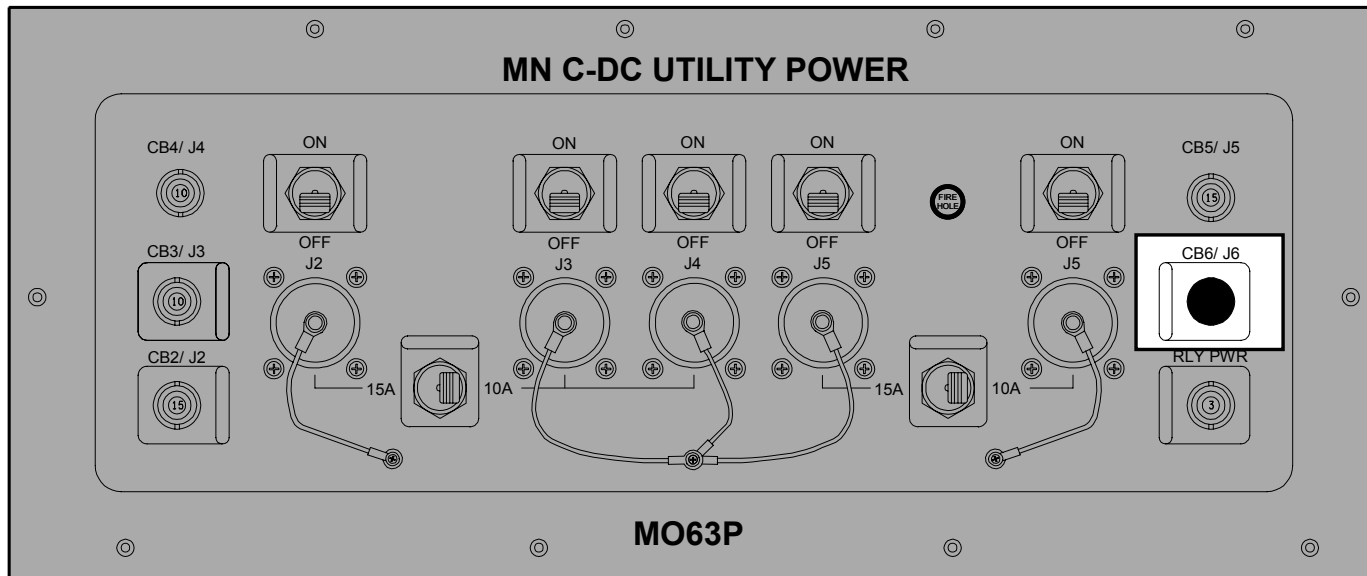


OV105



OV105

PNL MO63P



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ORBIT 5/6 DEORBIT

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**PEN AND INKS TO NOMINAL POST
INSERTION FOR ORBIT 5/6 DEORBIT**

WARNING

If AV BAY FIRE (ASC PKT, PWRDN or ORBIT PKT, PWRDN) has been completed and the associated AC BUS, FF MDM, or FMCA is not recovered, \sqrt{MCC} for Vent Door config. Certain failure combinations will cause multiple vent doors to remain open during entry

MET	ACTIVITY
ASAP	<p>Perform PRIORITY PWRDN GROUPS A & B (ORB PKT, <u>PRIOR PWRDN</u>) with following deltas:</p> <p style="padding-left: 40px;">DELETE: HI LOAD DUCT HTR OFF in Group A Pwrdn PRI RJDs DRIVER & LOGIC OFF in Group B Pwrdn</p> <p>When PRIORITY PWRDN is complete, return to Nominal Post Insertion, 1-5, completing all activities except the following:</p> <p style="padding-left: 40px;">MET 1:28 OPEN PLBDs MET 1:36 KU-BD ANT DEPLOY KU-BD ANT ACTIVATION MET 1:52 POST PLBD OPS RAD CONFIG MET 1:54 SPECIALIST SEAT REMOVAL/STOWAGE MET 1:57 ESCAPE POLE STOWAGE MET 2:01 AIRLOCK SETUP FOR INGRESS MET 2:05 CONFIG VERNIER DRIVERS</p>
1:00	<p><u>If Both Voice and Command Unavailable:</u> Perform GPS INCORPORATION (ORB OPS, <u>GNC</u>)</p>
2:12	<p><u>CONFIG CONTROLS FOR ON-ORBIT</u>, 1-17 thru 1-27 (SWITCH PICTORIALS) <u>NOTE:</u> Some of these switch throws will have been done during PRIORITY POWERDOWNS</p> <p>DELETE: HI LOAD DUCT HTR – OFF, on 1-19</p>
2:30	<p>Add following MNVR: <u>MNVR (TRK) –ZLV. +YVV</u> TG = 2 BV = 3 OM = 270</p>

**PEN AND INKS TO NOMINAL D/O
PREP FOR ORBIT 5/6 DEORBIT**

TIG-	ACTION	PROCEDURES
3:57	Delete	<u>COLDSOAK INITIATE</u> 2
3:35	Delete	<u>SPECIALIST SEAT INSTALLATION</u>
3:30	Move to TIG-2:30	<u>DPS CONFIG FOR D/O PREP</u> 4a
3:15	Move to TIG-2:20	<u>DED DISP ENT CONFIG</u> 6
3:00	Add	<u>GNC FRP-3</u> (MAL, <u>GNC FRPs</u>) to recover IMU 2
2:56	Delete	<u>RAD BYPASS/FES C/O</u> (ORB OPS, <u>ECLS</u>)
2:55	Delete	<u>CONFIG FOR PLBD CLOSING</u> 7
2:40	Delete	<u>PLBD CLOSING</u> 9
2:40	Add	<u>PWRDN BACKOUT</u> (Group A & B) (ORB PKT, <u>PRIOR PWRDN</u>) (Delete IMU 2 recovery step)
2:26	Delete	<u>POST CLOSING CONFIG</u> 10

CUE CARD CONFIG

**CUE CARD
CONFIG**

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TOP

AFT FLIGHT DECK RECONFIGURATION

CONFIG FOR PLBD OPERATIONS 4

A6U SET UP LIGHTS
ANNUN BUS SEL – MNC

NOTE

Minimum operating time for PLB Floodlights is 10 min.
Light must be OFF for minimum of 10 min UNBLOCKED,
16 min BLOCKED prior to reuse. ~3 min to full bright

A7U PL BAY FLOOD MID (two) – ON
FWD (two) – ON

Record MET: ____/____:____:____

- * If PLB Floodlight not ON to full bright within 5 min: *
- * (Aff) PL BAY FLOOD – OFF *

SET UP P/TV

Perform ACTIVATION, OPERATION (Cue Card, TV)

If PLBD video rec desired:

Perform PLBD VTR RECORDING (Cue Card)

RESET C/W 16

R13U		
PARAMETER NAME	C/W CH	UPPER LIMIT
FREON LOOP EVAP OUT T1	107	1.90V/64.8 deg
T2	117	1.90V/64.8 deg
CABIN PRESS	4	3.80V/15.22 psia

R13U		
PARAMETER NAME	C/W CH	ENA/INH
MPS He TK P C	9	INH
L	19	INH
R	29	INH
MPS He REG P C	39	INH
L	49	INH
R	59	INH
HYD P 1	99	INH
2	109	INH
3	119	INH

CLOTHING CONFIG 10

Doff, stow:

- Harness, Boots, LES
- Stow gloves in Helmet
- Remove radiation dosimeter from LES and insert in inflight garments

Doff, stow in Wet Trash:

- UCD (clamp if used)
- Emesis Bag, if used (unstow new bag)

PI-1b/126/O/A

(reduced copy)

CC 3-4

PI/126/BAS

HOOK
VELCRO

HOOK
VELCRO

HOOK
VELCRO

HOOK
VELCRO

HOOK
VELCRO

HOOK
VELCRO

TOP

MIDDECK RECONFIGURATION

PRELIM MIDDECK CONFIG 2

WARNING
Eye and skin damage can occur in as little as 10 sec

INSTALL FILTERS

Don Sunglasses
Unstow, install: Side Hatch UV Filter and Locking Device, and Pyro Box Safing Pin

PRESS H2O TKA

ML26C SPLY H2O GN2 TK VENT vlv - PRESS
A SPLY vlv - OP

NOTE

Disregard possible 'S66 WASTE H2O PRES' fault msg

COMM CONFIG

Unstow: headsets, handheld mic, and/or wireless comm.
(see WCCS Cue Card), if flown
If WCCS flown, perform STD WCCS CONFIG (ORB OPS, COMM/INST)

MO42F If middeck handheld mic/speaker ops:
MIDDECK SPKR AUD A/G 1 - T/R, tw-2
A/G 2 - RCV, tw-2
A/A - RCV, tw-2
ICOM A - T/R, tw-2
B - RCV, tw-2
XMIT/COM MODE - PTT/PTT
SPKR PWR - SPKR
MSTR SPKR VOL - 8

MO39M MIDDECK COMM CCU PWR - OFF
Connect HHMIC to CCU
MIDDECK COMM CCU PWR - ON

ML86B:C cb MNA EXT ARLK HTR LINE ZN1,2 (two) - cl
STRUC Z1/2/3 - cl
:E cb MNA FC PCM - op

FDF CONFIG

Stow in Helmet Bag: ASCENT Cue Cards, ASC, ASC PKT, SYS AOA
Unstow Jettison Stowage Bag, mark "Return to Houston"
Place Helmet Bag in Return to Houston Bag

Unstow VW Bags

MET	MS AFT ACTIONS
00:53	SPECIALIST SEAT EGRESS
00:57	PRELIM MIDDECK CONFIG 2
01:07	WCS CONFIG/ACT 5
01:08	SWITCH CONFIG/GALLEY ACT 6
01:41	CLOTHING CONFIG 10
01:45	QUICKDON MASKS SETUP 19
01:54	SPECIALIST SEAT REMOVAL/STOWAGE
01:59	ESCAPE POLE STOWAGE 13
02:01	AIRLOCK SETUP FOR INGRESS 15

CLOTHING CONFIG 10

DoFF, stow:
Harness, Boots, LES
Stow gloves in Helmet
Remove radiation dosimeter from LES and insert in inflight garments

DoFF, stow in Wet Trash:
UCD (clamp if used)
Emesis Bag, if used (unstow new bag)

QUICKDON MASKS SETUP 19

Connect QDM COMM to HIU
Connect QDM O2 to LEH hose
Verify operation
Temp stow QDM/HIU assembly

PI-2a/126/O/A

(reduced copy)

CC 3-5

PI/126/BAS



POST INSERTION **STS**
126