

# Post Insertion

## STS-115

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**Mission Operations Directorate  
Operations Division**

**Final, Rev C  
August 8, 2006**

National Aeronautics and  
Space Administration

**Lyndon B. Johnson Space Center**  
Houston, Texas



***United Space Alliance***

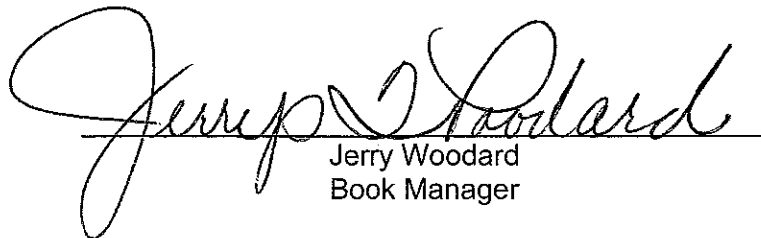


MISSION OPERATIONS DIRECTORATE

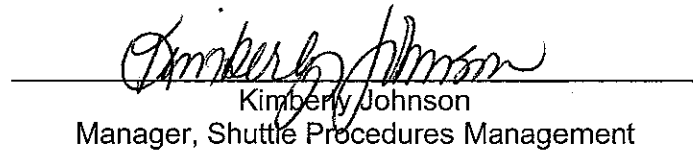
**POST INSERTION  
STS-115**

FINAL, REVISION C  
August 8, 2006

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POST INSERTION  
STS-115

**LIST OF EFFECTIVE PAGES**

FINAL 03/07/03  
REV C 08/08/06

Sign Off .....	*	115/FIN C	1-17 .....	115/FIN C
ii.....	*	115/FIN C	1-18 .....	115/FIN C
iii.....	*	115/FIN C	1-19 .....	115/FIN C
iv.....	*	115/FIN C	1-20 .....	115/FIN C
v .....		115/FIN C	1-21 .....	115/FIN C
vi.....		115/FIN C	1-22 .....	115/FIN C
1-1 .....		115/FIN C	1-23 .....	115/FIN C
1-2.....		115/FIN C	1-24 .....	115/FIN C
1-3.....		115/FIN C	1-25 .....	115/FIN C
1-4.....		115/FIN C	1-26 .....	115/FIN C
1-5.....		115/FIN C	2-1 .....	115/FIN C
1-6.....		115/FIN C	2-2 .....	115/FIN C
1-7.....		115/FIN C	2-3 .....	115/FIN C
1-8.....		115/FIN C	2-4 .....	115/FIN C
1-9.....		115/FIN C	3-1 .....	* 115/FIN C
1-10.....		115/FIN C	3-2 .....	* 115/FIN C
1-11.....		115/FIN C	CC 3-3 .....	* 115/FIN C
1-12.....		115/FIN C	CC 3-4 .....	* 115/FIN C
1-13.....		115/FIN C	CC 3-5 .....	* 115/FIN C
1-14.....		115/FIN C	CC 3-6 .....	* 115/FIN C
1-15.....		115/FIN C		
1-16.....		115/FIN C		

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/115/O/C
(Back) .....	CC 3-4	PI-1b/115/O/B
MIDDECK RECONFIGURATION (Front).....	CC 3-5	PI-2a/115/O/C
(Back) .....	CC 3-6	PI-2b/115/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-115 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-115 flight phases are conducted using the Ascent Checklist, Flight Plan, Deorbit Prep Book, Entry Checklist, EVA Checklist, and Rendezvous Book.



# POST INSERTION PROCEDURES



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

00:40  
00:45  
00:50  
00:55  
A1(B1)  
AUTO  
PRI  
RT 0.2  
DB 5.0  
01:00

C L4:B,Q,R All cbs closed  
L4:D,E All cbs open  
L4:J cb AC3 φA SIG CONDR HUM SEP - cl  
B SIG CONDR IMU FAN - cl

MS **SPECIALIST SEAT EGRESS**

C,P **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

P **PL BUS ACTIVATION**  
R1 PL CAB - MNA  
AUX - ON

MS **PRELIM MIDDECK CONFIG** (MID Cue Card) [2], 1-15

MS **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 BFS, GNC, OPS 000 PRO  
CRT3 [3: BFS, BFS MEMORY]  
C3 BFC CRT DISP - OFF  
√All IDPs deassigned from BFS

O6 GPC MODE 5 - STBY (tb-RUN)

C2 8. RECONFIG MEDs  
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 06 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 22S 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

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

<b>MET</b>		1: GNC UNIV PTG	2: SM PL BAY DOORS
DAY 000		4: SM PL BAY DOORS	
01:30			
A6(B1)			
AUTO			
ALT			
RT 0.2			
DB 5.0			
01:35	<b>MCC &amp; CREW:</b>	GO for orbit ops	
	C	O6 UHF MODE sel – OFF	
	MS	<b>KU-BD ANT DEPLOY</b> (ORB OPS, COMM/INST)	
		<b>KU-BD ANT ACTIVATION</b> (ORB OPS, COMM/INST)	
	C,P	<b>SEAT EGRESS</b>	
01:40	C,P	<b>CLOTHING CONFIG</b> 9	
	MS	<b>CLOTHING CONFIG</b> (MID,AFT Cue Cards) 10, 1-14, 1-15	
01:45	ALL	<b>QUICKDON MASKS SETUP</b> 19	
		If time permits: <b>OCAC SETUP</b> (ORB OPS, CREW SYS)	
01:50	C	<b>POST PLBD OPS RAD CONFIG</b> 11	
	MS	<b>SPECIALIST SEAT REMOVAL/STOWAGE</b>	
01:55	C	<b>STAR TRKR ACTIVATION/DOOR OPEN</b> 12, 1-6	
	MS	<b>ESCAPE POLE STOWAGE</b> (MID Cue Card) 13, 1-16	
	P	<b>SUPPLY WATER CONFIG</b> 14, 1-6	
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	<b>AIRLOCK SETUP FOR INGRESS</b> <span style="border: 1px solid black; padding: 0 5px;">15</span> , 1-16	
A6 (B1)	P	<b>W/B STEAM VENT HTR ACT</b>	
AUTO		R2	√BLR CNTLR/HTR (three) – A
ALT			PWR (three) – ON
RT 0.2			
DB 5.0			
02:05	C	<b>CONFIG VERNIER CONTROL</b>	
A6 (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	<b>CONFIG CONTROLS FOR ON-ORBIT</b>	
		Perform actions on 1-17 thru 1-26	
		Unstow, install HUD covers (two)	
02:15		L2	Remove, stow (on PNL L2/FDF FD locker)
			NWS sw flex extension
	P	<b>HYD THERMAL CONDITIONING-ENABLE</b>	
		R2	HYD CIRC PUMP (three) – GPC
02:20			
	MS	<b>RESET C/W</b> (AFT Cue Card) <span style="border: 1px solid black; padding: 0 5px;">16</span> , 1-14	
02:25			
	MS	<b>FUEL CELL VI PERFORMANCE PLOT</b> (ORB OPS, <u>EPS</u> )	
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 <span style="border: 1px solid black; padding: 2px;">BFS, SM 63 PL BAY DOORS</span> |
|    |      |     | <span style="border: 1px solid black; padding: 2px;">4: SM PL BAY DOORS</span>                         |
|    | 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   |
|    |      |     | <b>POST-PLBD OPENING CLEANUP</b>   |
|    | 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)   |
|    |      |     | <span style="border: 1px solid black; padding: 2px;">4: SM ANTENNA</span>                              |
|    | A7U  | 10. | After floodlights ON > 10 min:<br>PL BAY FLOOD (all) – OFF   |

**MANUAL PLBD OPENING PROCEDURE**

- |    |      |     |  |
|----|------|-----|--|
| MS | CRT4 | 1.  | SM, OPS 202 PRO or <span style="border: 1px solid black; padding: 2px;">BFS, SM 63 PL BAY DOORS</span> |
|    |      |     | <span style="border: 1px solid black; padding: 2px;">4: SM PL BAY DOORS</span>                         |
|    | 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   |
|    |      |     | <b>OPEN C/L LATCHES</b>  |
|    |      | 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 *)   |
|    |      |     | <b>OPEN STBD FWD,AFT LATCHES &amp; DOOR</b>  |
|    |      | 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 *)   |
|    |      |     | <b>OPEN PORT FWD,AFT LATCHES &amp; DOOR</b>  |
|    |      | 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 *)   |
|    |      |     | <b>POST-PLBD OPENING CLEANUP</b>   |
|    | 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)   |
|    |      |     | <span style="border: 1px solid black; padding: 2px;">4: SM ANTENNA</span>                              |
|    | A7U  | 31. | After floodlights ON > 10 min:<br>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, 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

#### FDI 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

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

Unstow VW Bags

MET	MS AFT ACTIONS
00:53	<b>SPECIALIST SEAT EGRESS</b>
00:57	<b>PRELIM MIDDECK CONFIG <span style="border: 1px solid black; padding: 0 2px;">2</span></b>
01:07	<b>WCS CONFIG/ACT <span style="border: 1px solid black; padding: 0 2px;">5</span></b>
01:08	<b>SWITCH CONFIG/GALLERY ACT <span style="border: 1px solid black; padding: 0 2px;">6</span></b>
01:41	<b>CLOTHING CONFIG <span style="border: 1px solid black; padding: 0 2px;">10</span></b>
01:45	<b>QUICKDON MASKS SETUP <span style="border: 1px solid black; padding: 0 2px;">19</span></b>
01:54	<b>SPECIALIST SEAT REMOVAL/STOWAGE</b>
01:59	<b>ESCAPE POLE STOWAGE <span style="border: 1px solid black; padding: 0 2px;">13</span></b>
02:01	<b>AIRLOCK SETUP FOR INGRESS <span style="border: 1px solid black; padding: 0 2px;">15</span></b>

### 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..... 1-20  
  
 O14..... 1-21  
 O15..... 1-22

### RIGHT SEAT

O16..... 1-22  
 O8 ..... 1-20  
  
 R1 ..... 1-18

### AFT









C5 ..... 1-22  
 C6 ..... 1-22  
 C7 ..... 1-22  
  
 A11..... 1-23

### MIDDECK-FWD

ML86B..... 1-25

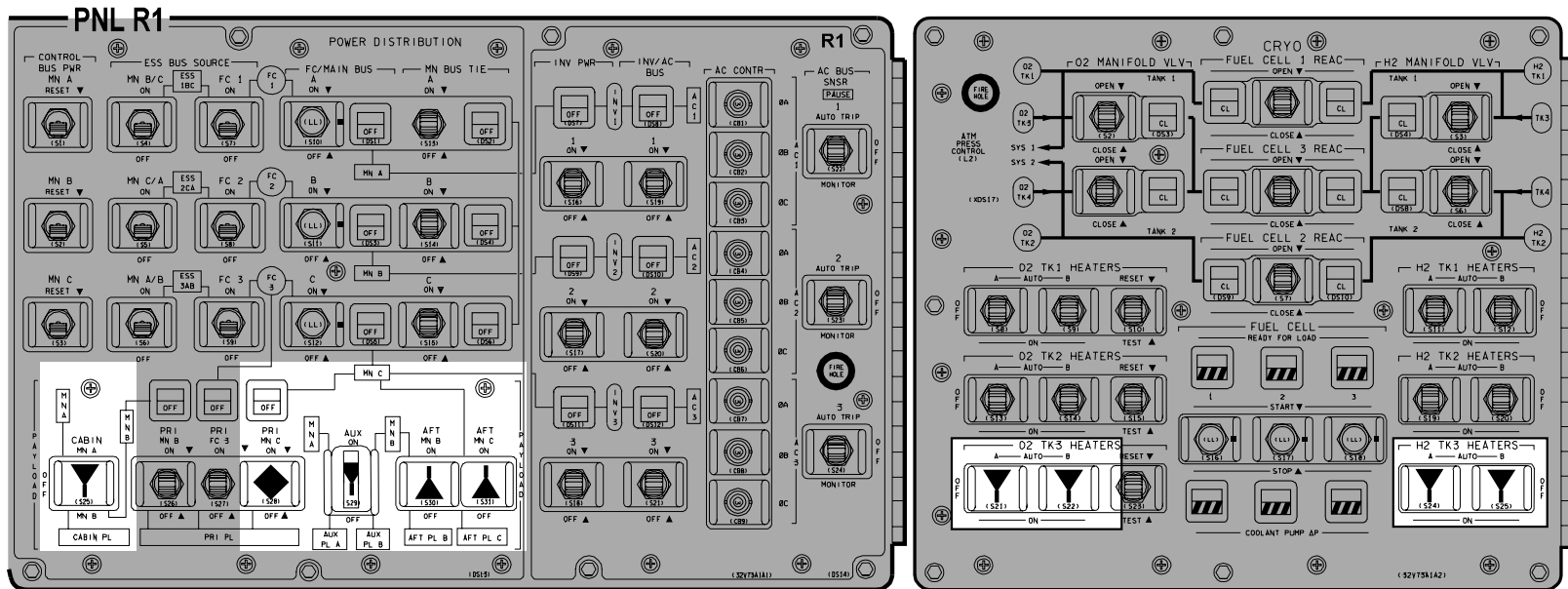
### MIDDECK-AFT

MA73C ..... 1-25  
 MO32M ..... 1-24  
 MO69M ..... 1-24

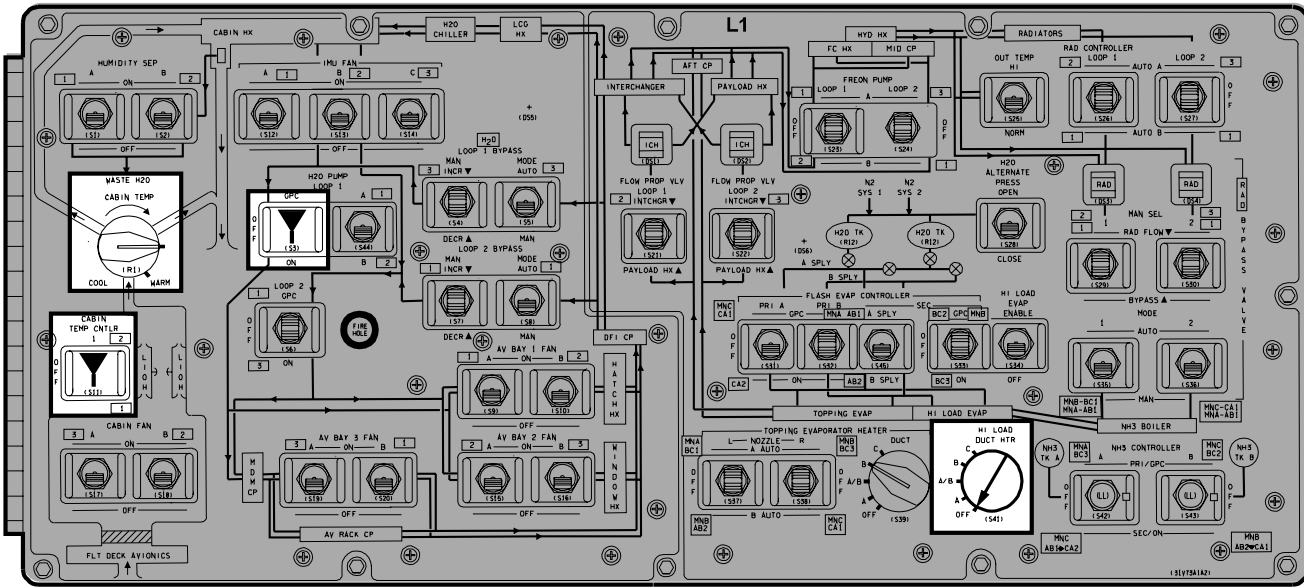
 - Up	<b>R</b> - As reqd	 - Indicates switch/display not checked during ON-ORBIT SWITCH/VERIF
 - Center	 - cb close	Switch/display pictorials are generic representations and are not intended to depict actual switch position. Check MCC if clarification reqd
 - Down	 - cb open	
 - Boxed items indicate switch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

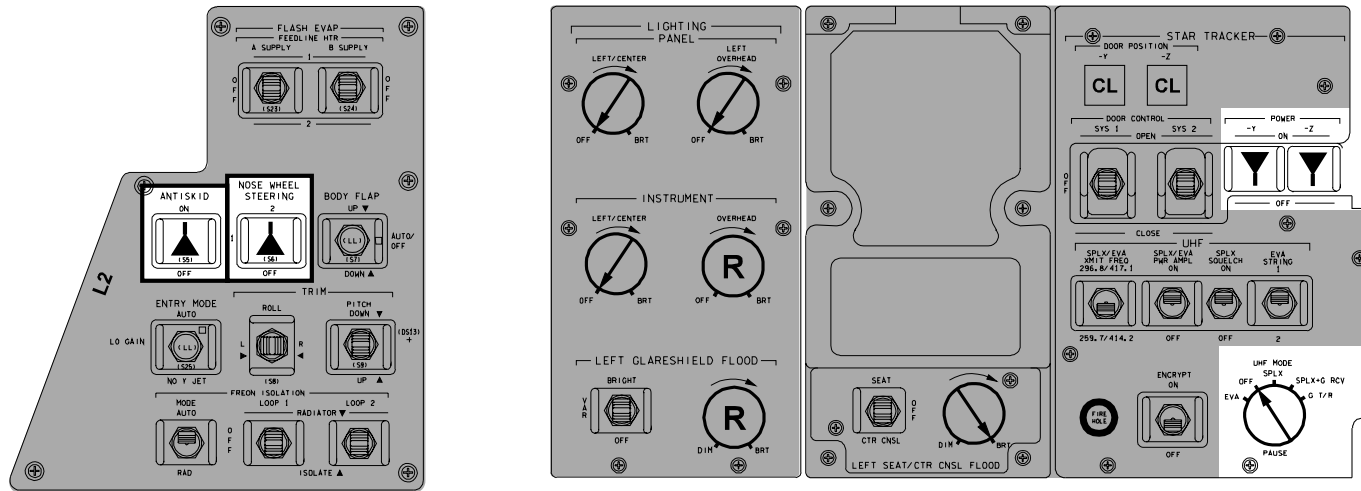
# ALL VEH



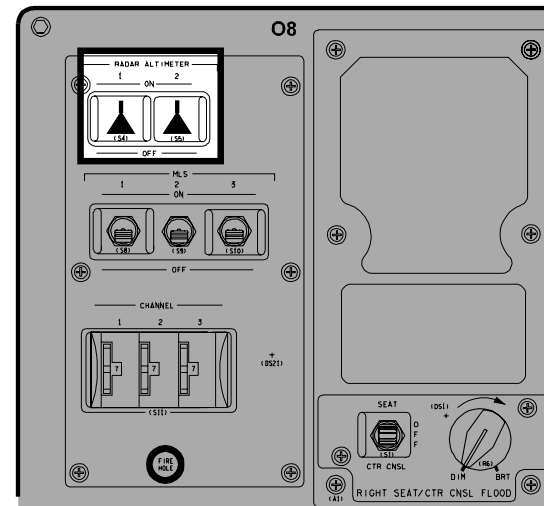
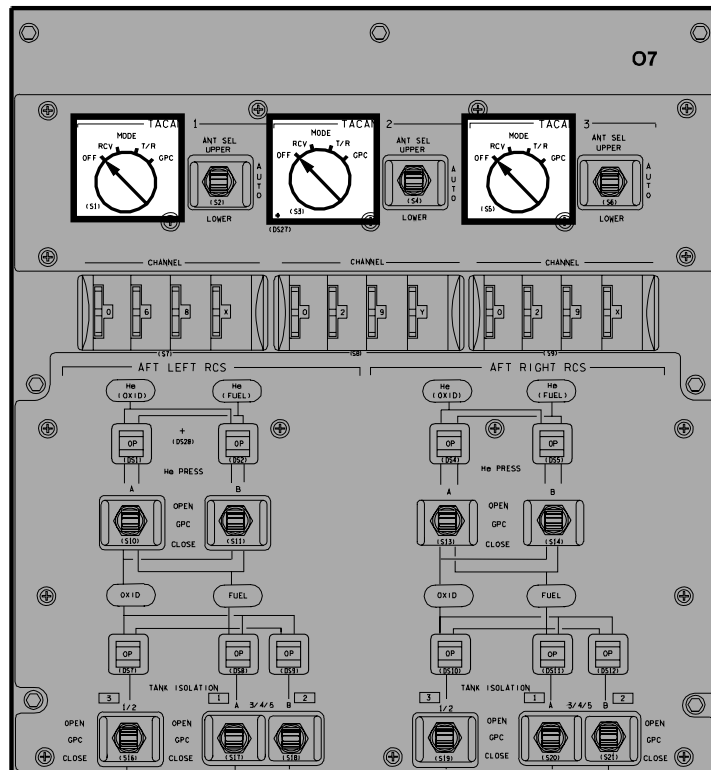
ALL VEH



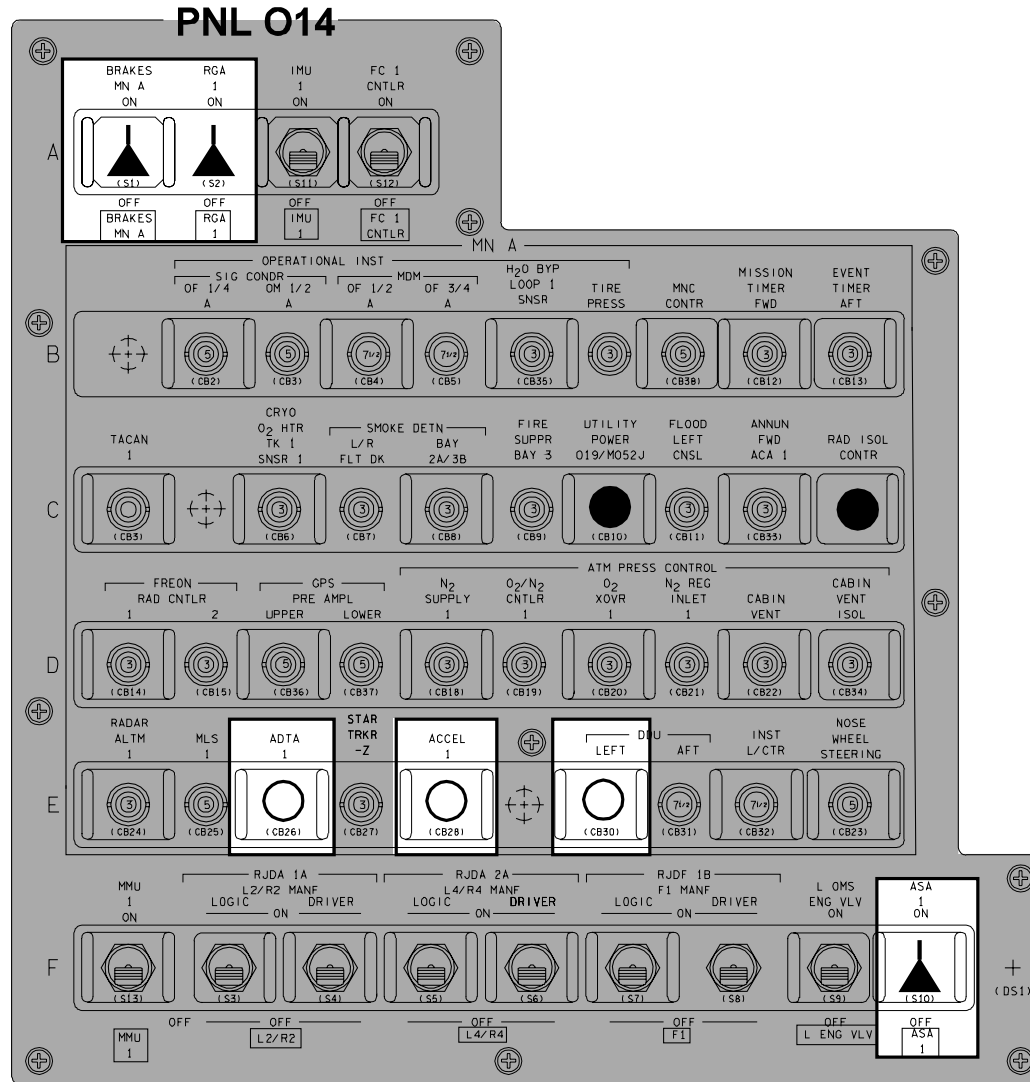
PNL O6



# OV103,4



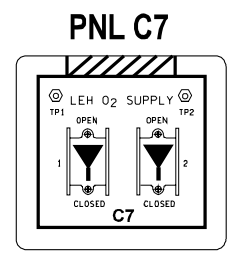
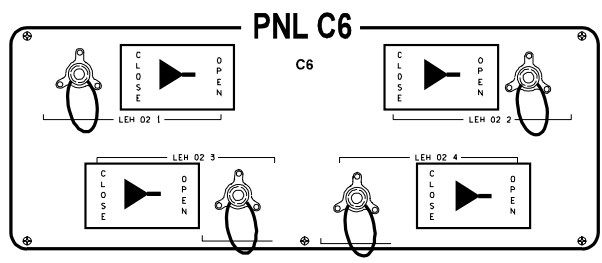
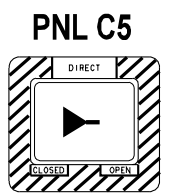
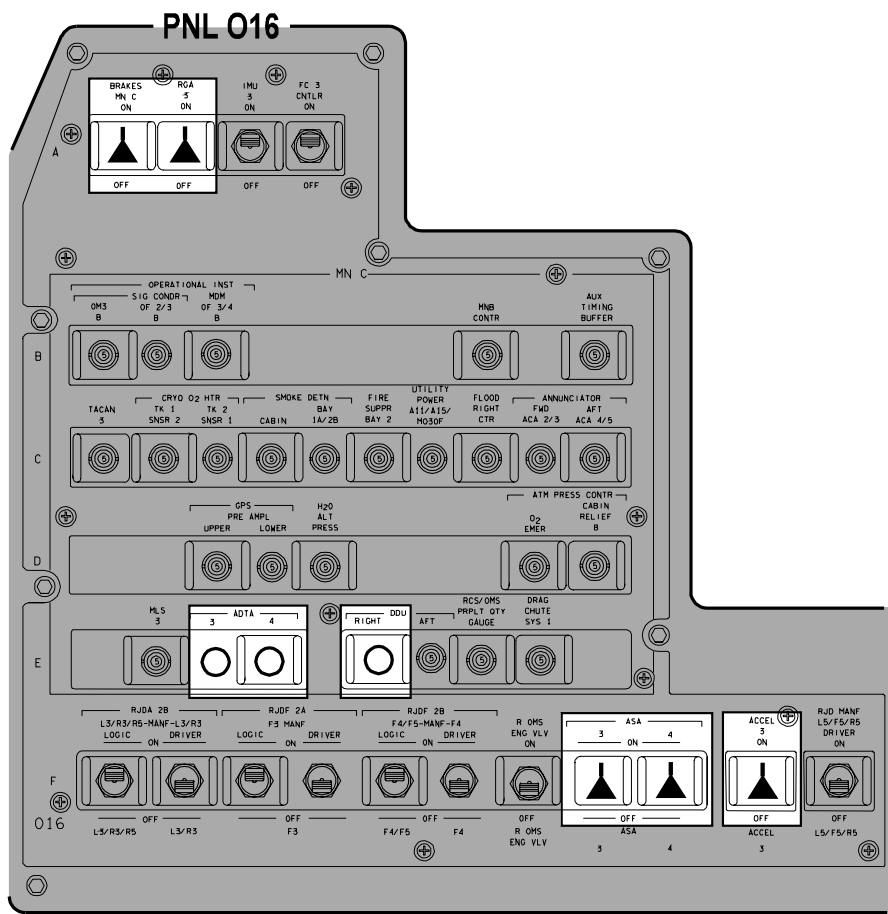
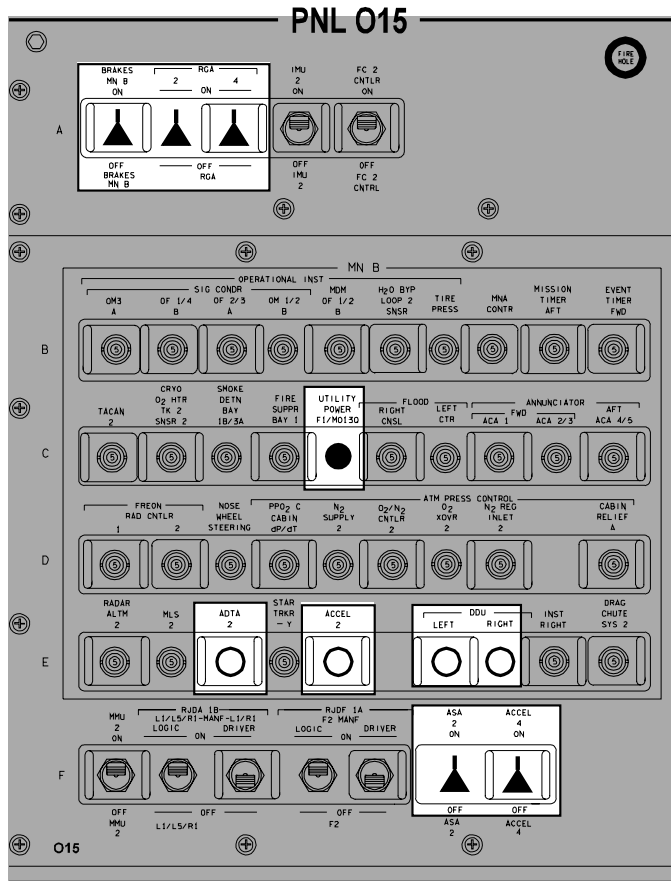
# OV104



4806722\_115, PNL, 7

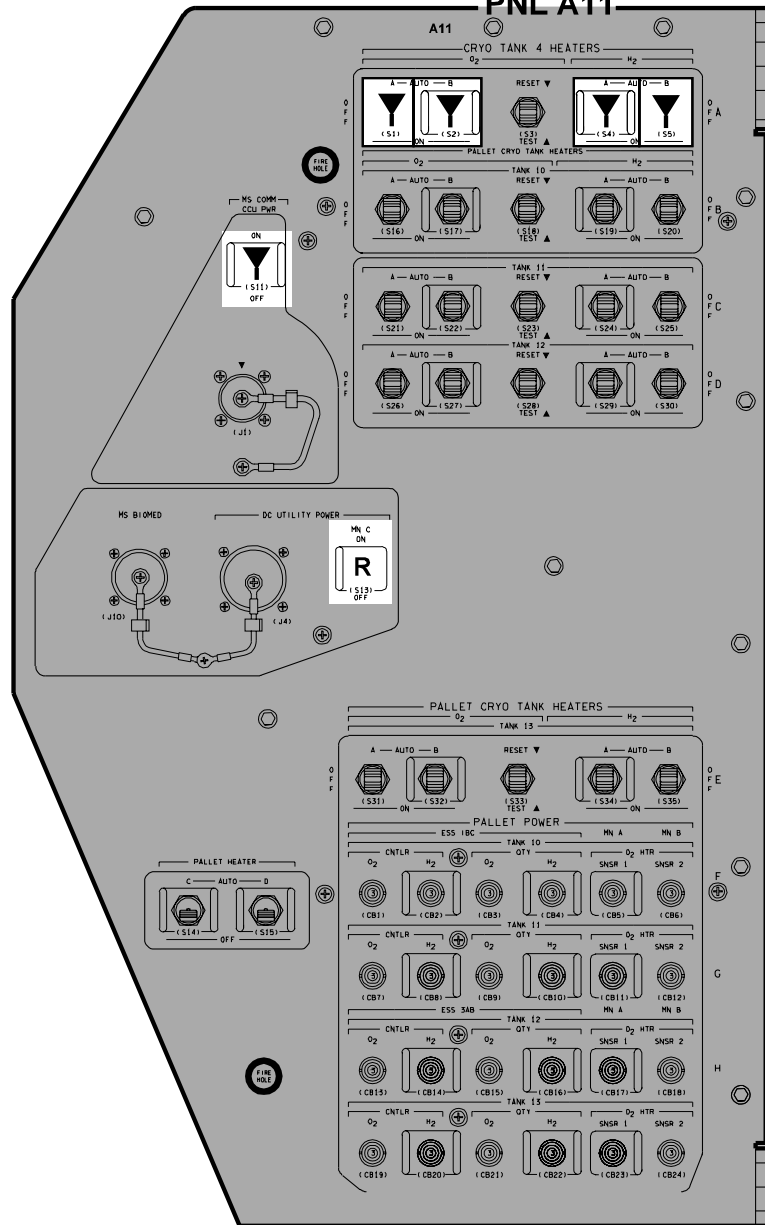
OV104/DATE 07/27/06

OV104



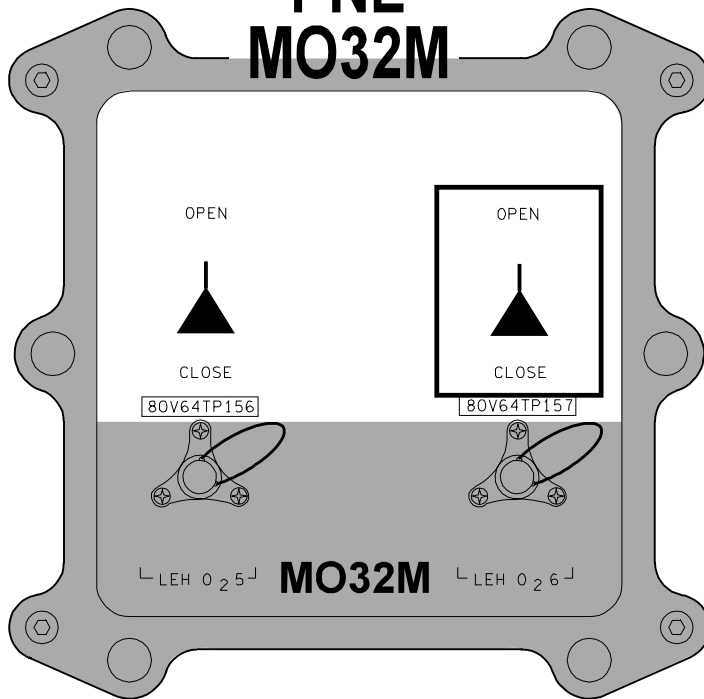
OV104

PNL A11

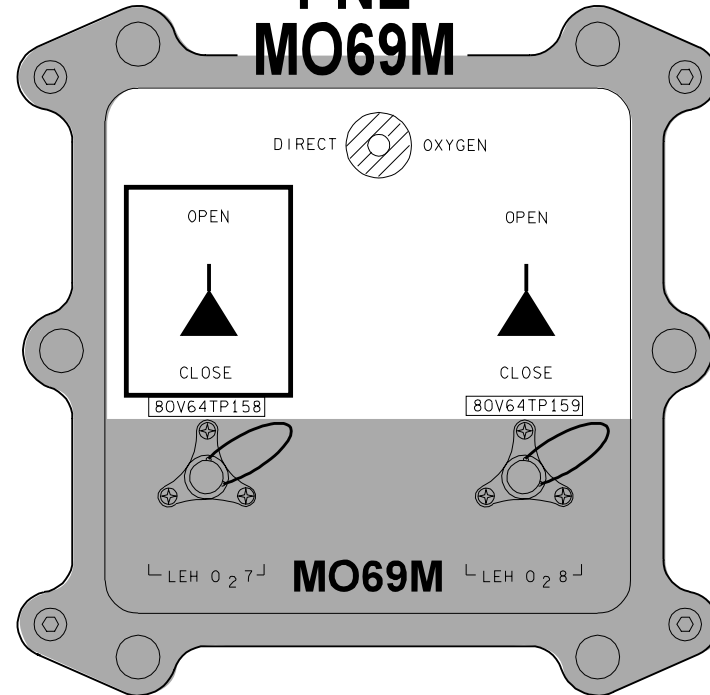


# OV104

## PNL MO32M



## PNL MO69M

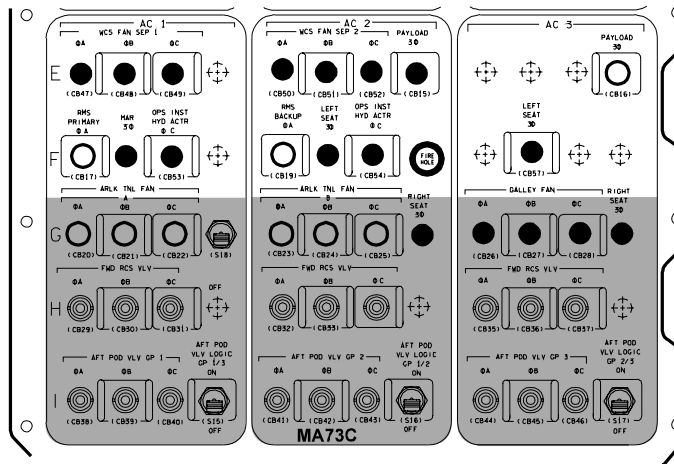
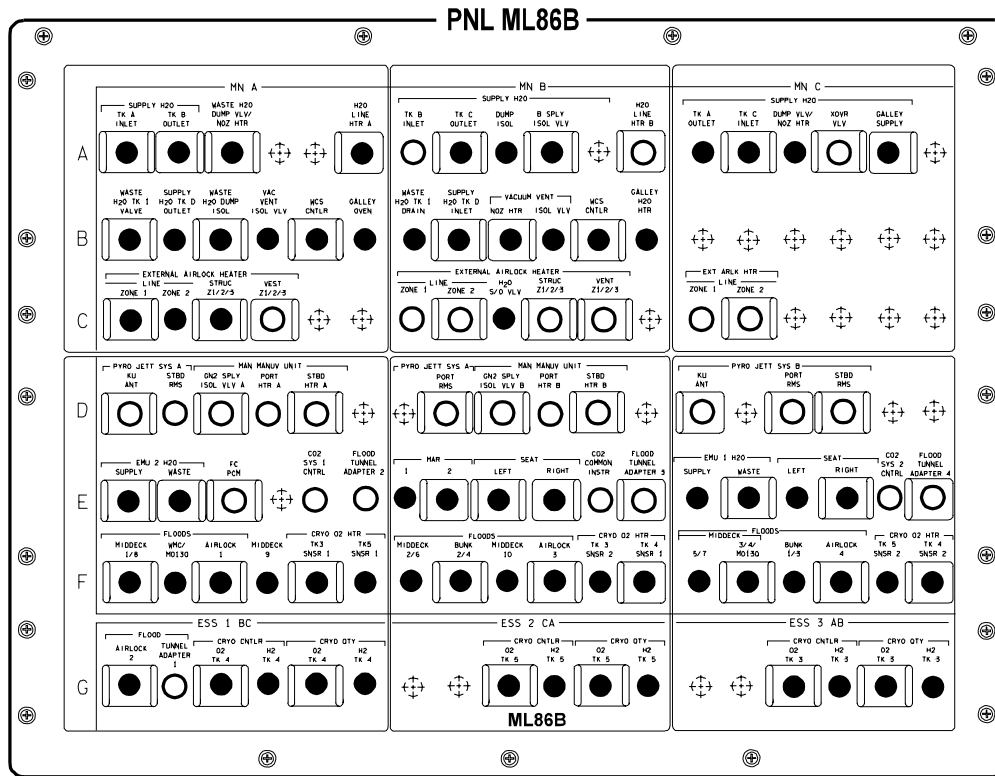


4806725\_115. PNL; 4

OV104/DATE 05/12/06



OV104



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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, √MCC for Vent Door config. Certain failure combinations will cause multiple vent doors to remain open during entry

<b>MET</b>	<b>ACTIVITY</b>
ASAP	<p>Perform PRIORITY PWRDN GROUPS A &amp; 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 &amp; 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 1-26 (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**

<b>TIG-</b>	<b>ACTION</b>	<b>PROCEDURES</b>
3:57	Delete	<u>COLDSOAK INITIATE</u> <b>2</b>
3:35	Delete	<u>SPECIALIST SEAT INSTALLATION</u>
3:30	Move to TIG-2:30	<u>DPS CONFIG FOR D/O PREP</u> <b>4a</b>
3:15	Move to TIG-2:20	<u>DED DISP ENT CONFIG</u> <b>6</b>
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	CONFIG FOR PLBD CLOSING <b>7</b>
2:40	Delete	<u>PLBD CLOSING</u> <b>9</b>
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> <b>10</b>

# 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 AFT (two) – OFF  
MID (two) – OFF  
FWD – OFF  
BKHD – 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)

#### 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)

#### 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	3.85V/15.33 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
O2 FLOW 1	14	INH
2	24	INH
N2 FLOW 1	54	INH
2	64	INH

PI-1b/115/O/B

(reduced copy)

CC 3-4

PI/115/FIN C

HOOK  
VELCRO

HOOK  
VELCRO

HOOK  
VELCRO

HOOK  
VELCRO

HOOK  
VELCRO

HOOK  
VELCRO

**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

ML26C **PRESS H2O TKA**  
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, 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/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

**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

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

Unstow VW Bags

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

**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/115/O/C

(reduced copy)





**POST INSERTION**

**STS  
115**