

Post Insertion

STS-114

**Mission Operations Directorate
Operations Division**

**Final, Rev C
November 23, 2004**

National Aeronautics and
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Lyndon B. Johnson Space Center
Houston, Texas



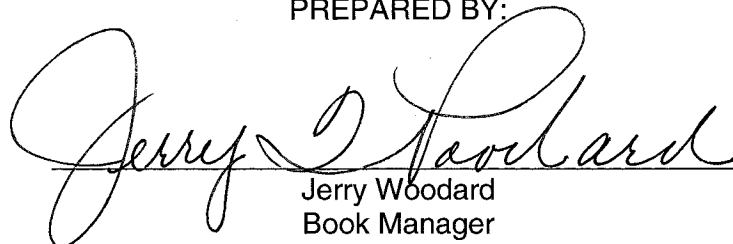
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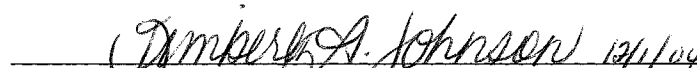
**POST INSERTION
STS-114**

FINAL, REVISION C
November 23, 2004

PREPARED BY:


Jerry Woodard
Book Manager

APPROVED BY:


Kimberly Johnson
Manager, Shuttle Procedures
Management


Michael T. Hurt
FDF Manager

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POST INSERTION
STS-114

LIST OF EFFECTIVE PAGES

FINAL 10/24/03
REV C 11/23/04

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* – Omit from flight book

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NOTE

The STS-114 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-114 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	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

Do not perform any keyboard item entries or switch throws 10 sec before and after moding PASS GPCs to RUN or making OPS transition requests

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

CAUTION

If BFS is standalone (BFC It flash):

BFC, CRT DISP – ON

BFS, GNC I/O RESET

BFC CRT DISP – OFF

CONFIG	1
GPC	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

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; wait 34 sec *
- * *
- * 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, OPS 201 PRO

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

5. TURN OFF BFC LT

BFC CRT DISP – ON

BFS, MSG RESET

√BFC It – off

CRT DISP – OFF

C3
C2
F2,F4
C3

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

00:35

00:40

00:45

00:50

00:55

A1(B1)
AUTO
PRI
RT 0.2
DB 5.0

01:00

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 2 3 4	1 2 1 2	1 2 3 4	0 0 0 0
P/L	1/2	1 0	1	4
CRT	1 2 3 4	1 2 0 2	1 2 3 0	4 4 0 4
L	1 2	1 2 0	0 0	4 0
MM	1 2	1 2	1 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 All cbs closed
L4:D,E All cbs open
L4:J cb AC3 φA SIG CONDR HUM SEP – cl
φB SIG CONDR IMU FAN – cl
- MS,PS **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
- MS1 **PRELIM MIDDECK CONFIG** (MID Cue Card) **2**, 1-15
- MS2 **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

SM, OPS 201(401) PRO

SM ANTENNA

C3 √UPLK – ENA

SM 1 DPS UTILITY

UL CNTL AUTO – ITEM 35 EXEC

C3 7. **SECURE BFS**
BFC CRT DISP – ON
CRT3 BFS, GNC, OPS 000 PRO
3: BFS, BFS MEMORY

C3 BFC CRT DISP – OFF
√All CRTs deassigned from BFS

O6 GPC MODE 5 – STBY (tb-RUN)

8. **RECONFIG MEDs**

GPC/CRT 0/3 EXEC

C2 IDP/CRT 3 PWR – OFF
√4 PWR – ON

F6,F7,F8 GPC/CRT SM GPC/4 EXEC
Power off MDUs as desired

9. **LOAD ORBIT TFLs**

C3 √OI PCMMU FORMAT – GPC
SM 62 PCMMU/PL COMM

FORMAT:

CRT FXD – ITEM 1 EXEC (*)
SEL ID – ITEM 3 +1 8 4 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

O6 10. RECONFIG GPCs
 GPC MODE 5 - HALT (tb-bp)
 OUTPUT 5 - NORM (tb-bp)
 OUTPUT (SM GPC) - TERM (tb-bp)

If no failed GPC:
 √All CRTs 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

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

CONFIG	2
GPC	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

RAD ACT 7

NOTE
 Expect 'S88 EVAP OUT T 1(2)' msg

L1 FLASH EVAP CNTLR PRI A - OFF
 B - ON

NOTE
 If RAD flow has been initiated manually, delay RAD
 ACT until MCC call or until RAD OUT T low

RAD BYP VLV MODE (two) - AUTO
 CNTLR LOOP (two) - AUTO A
 Wait 90 sec
 √RAD BYP VLV tb (two) - RAD

```

* If RAD BYP VLV 1(2) tb - BYP:
*   RAD CNTLR LOOP 1(2) - AUTO B
*   Wait 90 sec
*   √RAD BYP VLV 1(2) tb - RAD
*
* If RAD BYP VLV 1(2) tb still BYP or bp:
*   RAD BYP VLV MODE 1(2) - MAN
*   MAN SEL 1(2) - RAD FLOW
*   Hold 3 sec or until tb - RAD
*
* If RAD BYP VLV 1(2) tb - bp:
*   RAD BYP VLV MODE 1(2) - MAN
*   CNTLR LOOP 1(2) - AUTO B
*   After 10 sec, RAD BYP VLV MODE 1(2) - AUTO
*   Wait 90 sec
*   RAD BYP VLV 1(2) tb - RAD
*
* If RAD BYP VLV 1(2) tb - bp:
*   RAD BYP VLV MODE 1(2) - MAN
*   MAN SEL 1(2) - RAD FLOW
*   Hold 3 sec or until tb - RAD
*
* If RAD BYP VLV 1(2) tb - bp:
*   √MCC
*

```

L2 FREON ISOL MODE - AUTO

MET
DAY 000

1: GNC UNIV PTG 2: SM ANTENNA

01:00
A1(B1)
AUTO
PRI
RT 0.2
DB 5.0

P **PGSC UNSTOW/SETUP/ACTIVATION**
PGSC ACTIVATION (ORB OPS, PGSC)

P **PL BUS ACTIVATION**
R1 PL CAB - MNA
 AUX - ON
 PRI MNC - ON (tb-ON)

01:05 **MS2** **CONFIG FOR PLBD OPERATIONS** (AFT Cue Card) **4**, 1-14

MS1,3 **WCS CONFIG/ACT** (MID Cue Card) **5**, 1-16
MS1,3 **SWITCH CONFIG/GALLEY ACT** (MID Cue Card) **6**, 1-16
C,P **DON/CONFIG COMM**
XX AUD A/G 2 - RCV, tw 2
 XMIT/ICOM MODE - PTT/VOX (recommended)

01:10 **P** **LOAD DAP A6**

MNVR TO PLBD OPENING ATT (-ZLV, +YVV)

CRT1 √TGT ID +2
 BODY VECT +3
 √P +90
 √Y +0.0
 OM +270

01:15 **C** DAP: A/AUTO/ALT
 (01:12) Initiate TRK

RAD ACT **7**

RAD/PLBD OPS NO-GO FOR FOLLOWING FAILURES			
<u>OMS/RCS</u>	<u>GNC</u>	<u>ECLS/EPS</u>	<u>MECH</u>
2 OMS Eng	2 IMUs	1 H2O or Freon Lp	2 LG DPY METHODS
1 OMS Eng & 1 +X RCS jet	3 RGAs	Both RFCAs	PRES or REDNT
1 OMS Inlet line	3 AAs	Both Cab Fans	WINDOW PANE
OMS Prop Tk Leak	3 ADTAs	3 of 6 Av Bay Fans	FAILURE
Aft RCS He or Prop Leak	3 Elevon or BF Pos Fdbks (same surface)	2 FCs	<u>DPS</u>
<u>COMM</u>	2 FCS Ch (same surface)	Any MN or 3Φ AC Bus	3 GPCs
No Voice and No CMD		Any CNTL or MPC Bus	2 PL MDMs
		3 IMU Fans	2 FF or FA MDMs
			<u>APU/HYD</u>
			2 APU/HYD/WSB

01:25
UPLINK
VAR
PARAM
TMBU
(IF
REQD)

If NO-GO for RAD/PLBD OPS, go to **ORB 3 DEORBIT** **8**

MS1,2 **OPEN PLBDs**, AUTO MODE, 1-11

01:30

ORB 3 DEORBIT **8**

If NO-GO for RAD/PLB OPS due to 2 FCs failed:
Go to CONT DEORB, **LOSS OF 2 FC ORB 2 OR 3**,
at TIG-1:30

If NO-GO due to any other failure:
Go to CONT DEORB, **LAUNCH DAY ORBIT 3**,
at TIG-2:00

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

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

MET		1: GNC UNIV PTG	2: SM PL BAY DOORS
DAY 000		4: SM PL BAY DOORS	
01:30			
A1(B1)			
AUTO			
PRI			
RT 0.2			
DB 5.0			
01:35	MCC & CREW:	GO for orbit ops	
	C O6	UHF MODE sel – OFF	
	MS2,1	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	MS	QUICKDON MASKS SETUP	
		Unstow, install, verify operation	
		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	
	MS1,3	ESCAPE POLE STOWAGE (MID Cue Card) 13, 1-16	
	P	SUPPLY WATER CONFIG 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

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MET		1: GNC UNIV PTG	2: SM ANTENNA
DAY 000			
02:00		4: SM ANTENNA	
A6(B1) AUTO ALT RT 0.2 DB 5.0	MS	<u>AIRLOCK SETUP FOR INGRESS</u> 15 , 1-16	
	P	<u>APU STEAM VENT HTR ACT</u>	
	R2	√BLR CNTLR/HTR (three) – A PWR (three) – ON	
02:05			
A6(B1) AUTO ALT RT 0.05 DB 1.0	C	<u>CONFIG VERNIER CONTROL</u>	
	O16:F	√MCC GO for vernier control RJD MANF L5/F5/R5 DRIVER – ON, wait 5 sec DAP: A/AUTO/VERN	
02:10			
	ALL	<u>CONFIG CONTROLS FOR ON-ORBIT</u> 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	<u>HYD THERMAL CONDITIONING-ENABLE</u>	
	R2	HYD CIRC PUMP (three) – GPC	
02:20			
	MS	<u>RESET C/W</u> (AFT Cue Card) 16 , 1-14	
02:25			
	MS	<u>FUEL CELL VI PERFORMANCE PLOT</u> (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

- * If no motion determined visually or 'OP/CL' not blank within 10 sec *
- * after cmd, *
- R13L * 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 1,2 (two) – DSBL *
- * – STOP *
- * Perform PASS SM GPC FAIL (ORB PKT, DPS) *
- * If BFS AUTO sequence has been interrupted by reversing latch/door *
- * drive direction or if MANUAL has been used at any time during the *
- * mission, use MANUAL mode for all subsequent BFS PLBD OPS *

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 X02 PRO or <u>BFS, SM 63 PL BAY DOORS</u>
<u>4: SM PL BAY DOORS</u> |
| | 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 1,2 (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 1,2 (two) – DSBL
√OP/CL STATUS (ten) – OP |
| | | 8. | AC POWER OFF – ITEM 2 EXEC (*) |
| | | 9. | SM, OPS X01 PRO (if PASS SM)
<u>4: SM ANTENNA</u> |
| | A7U | 10. | After floodlights ON > 10 min:
PL BAY FLOOD (all) – OFF |

MANUAL PLBD OPENING PROCEDURE

- | | | | |
|---|------|-----|--|
| MS | CRT4 | 1. | SM, OPS X02 PRO or <u>BFS, SM 63 PL BAY DOORS</u>
<u>4: SM PL BAY DOORS</u> |
| | 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 1,2 (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 1,2 (two) – DSBL |
| | CRT4 | | √OP/CL STATUS (ten) – OP |
| | | 29. | AC POWER OFF – ITEM 2 EXEC (*) |
| | | 30. | SM, OPS X01 PRO (if PASS SM)
<u>4: SM ANTENNA</u> |
| | 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

INSTALL FILTERS

Unstow,install: Side Hatch UV Filter and Locking Device 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 Microphone, 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 AUDA/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

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	<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/GALLERY ACT</u> 6
01:40	<u>CLOTHING CONFIG</u> 10
01:54	<u>SPECIALIST SEAT REMOVAL/STOWAGE</u>
01:59	<u>ESCAPE POLE STOWAGE</u> 13
02:00	<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)

ON-ORBIT SWITCH LIST

LEFT SEAT

L11-19
 L21-19

 O71-20
 O81-20

 O141-21
 O151-22

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

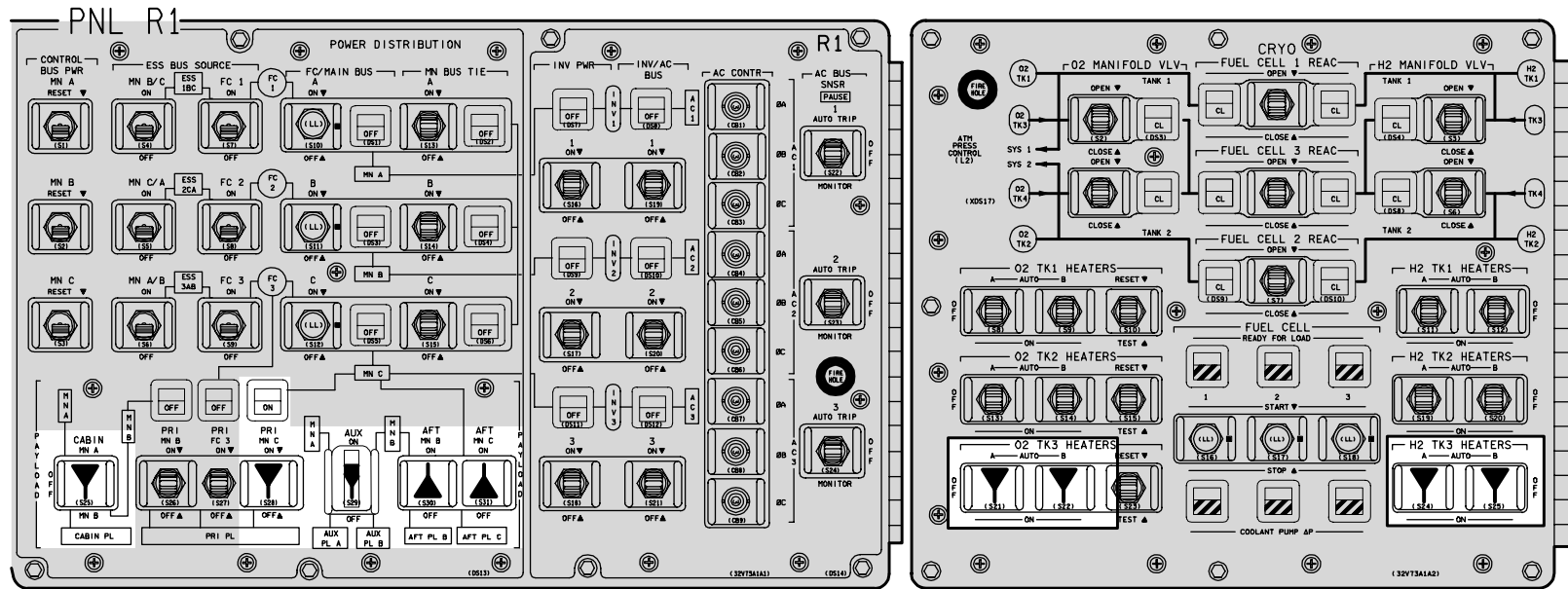
MIDDECK-AFT

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

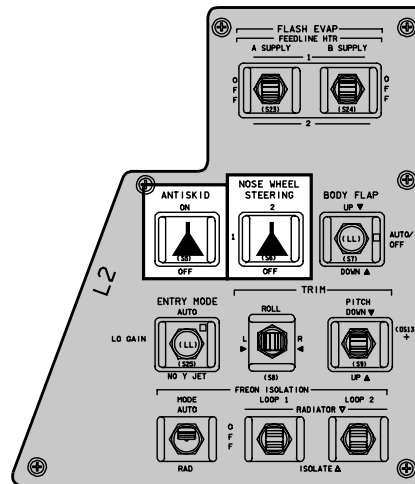
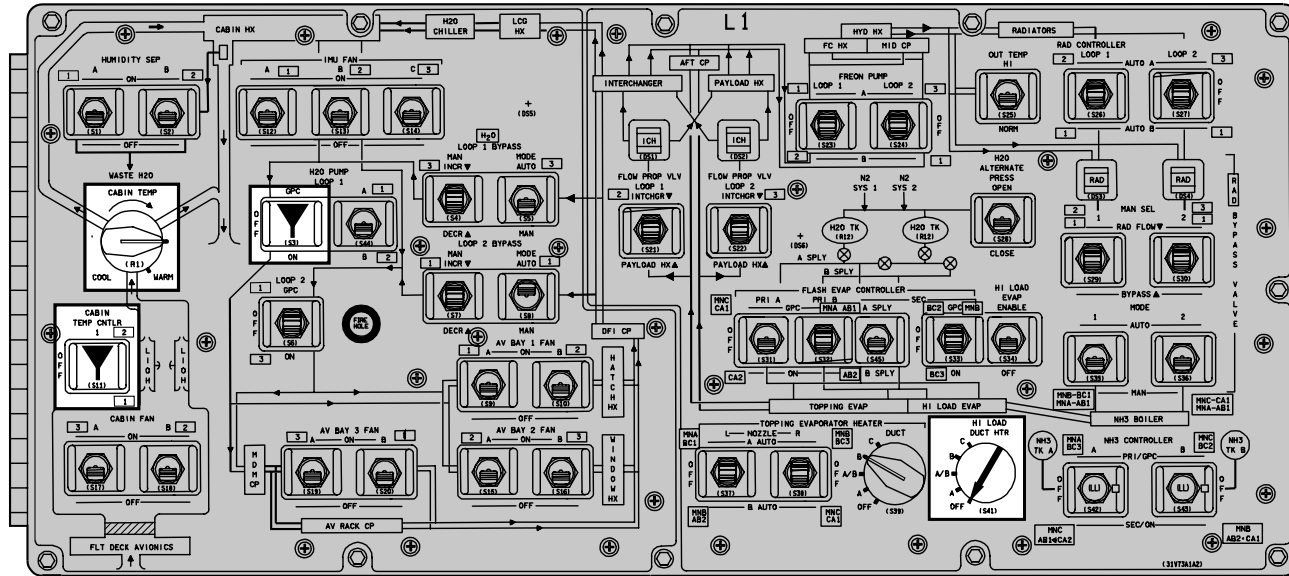
<p> - Up</p> <p> - Center</p> <p> - Down</p> <p> - Boxed items indicate switch configured during ON-ORBIT CONFIGURATION</p>	<p>R - As reqd</p> <p> - cb close</p> <p> - cb open</p>	<p> - Indicates switch/display not checked during ON-ORBIT SWITCH/VERIF</p> <p>Switch/display pictorials are generic representations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

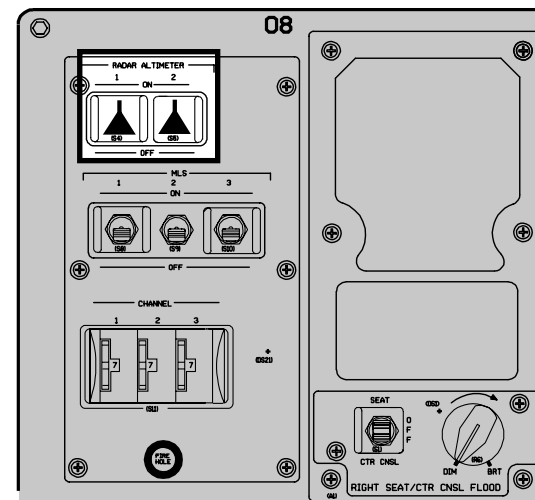
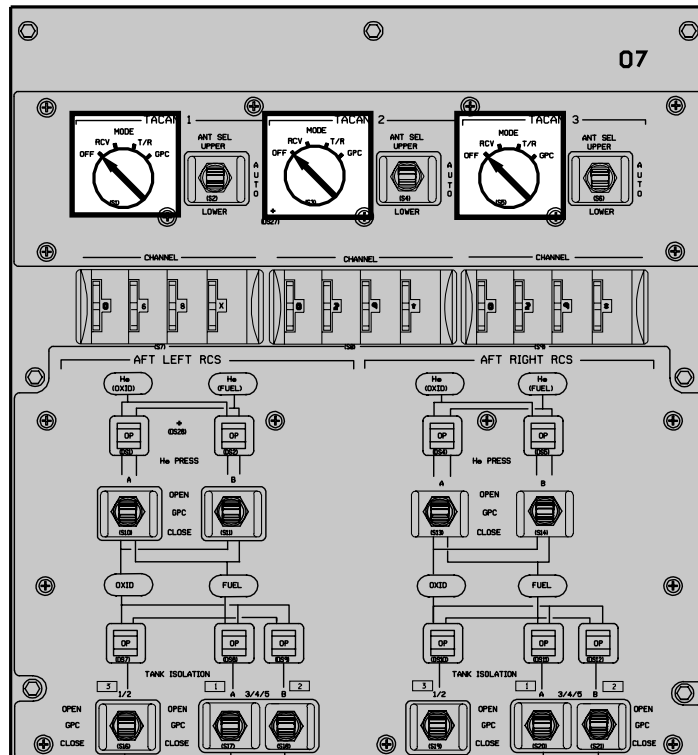
OV103, OV104



ALL VEH

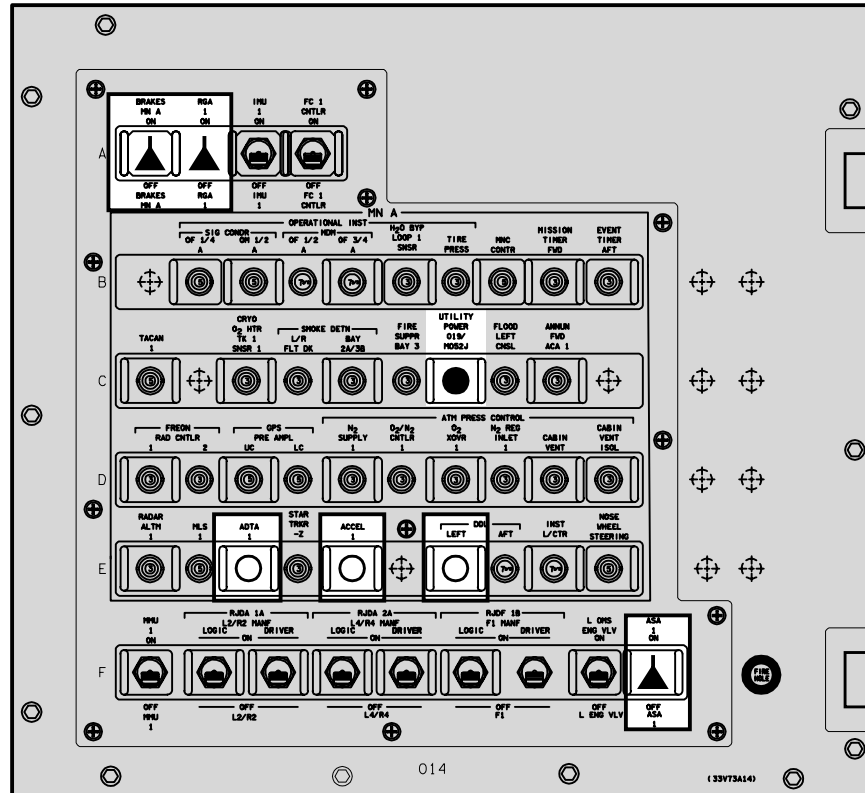


ALL VEH



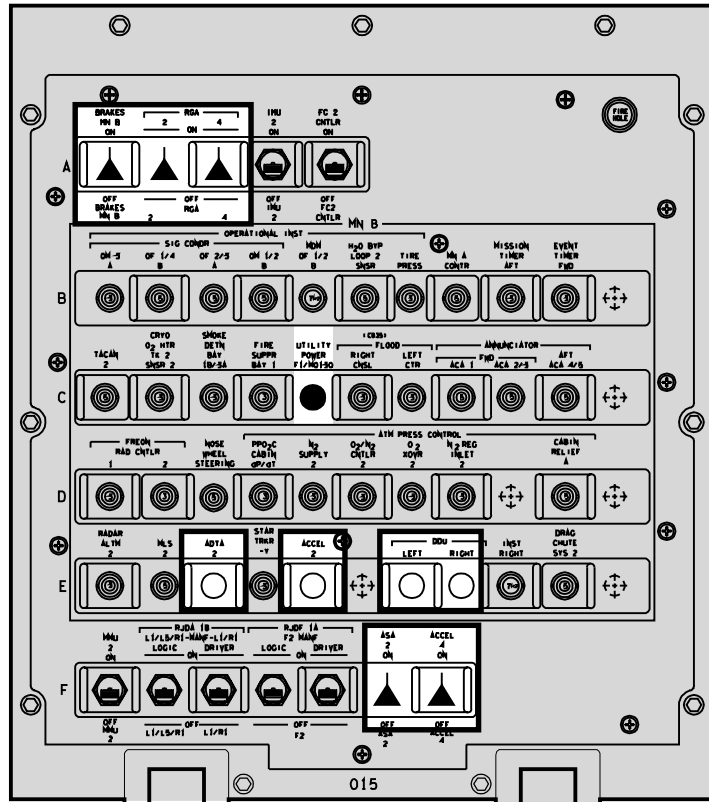
0V103

PNL 014

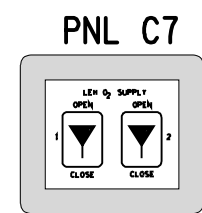
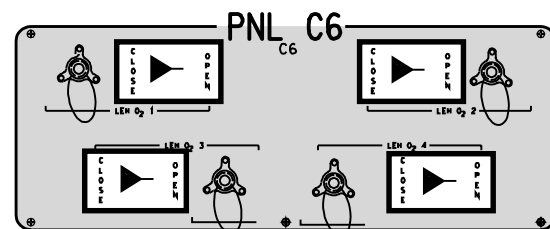
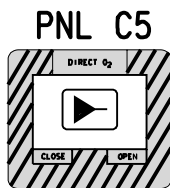
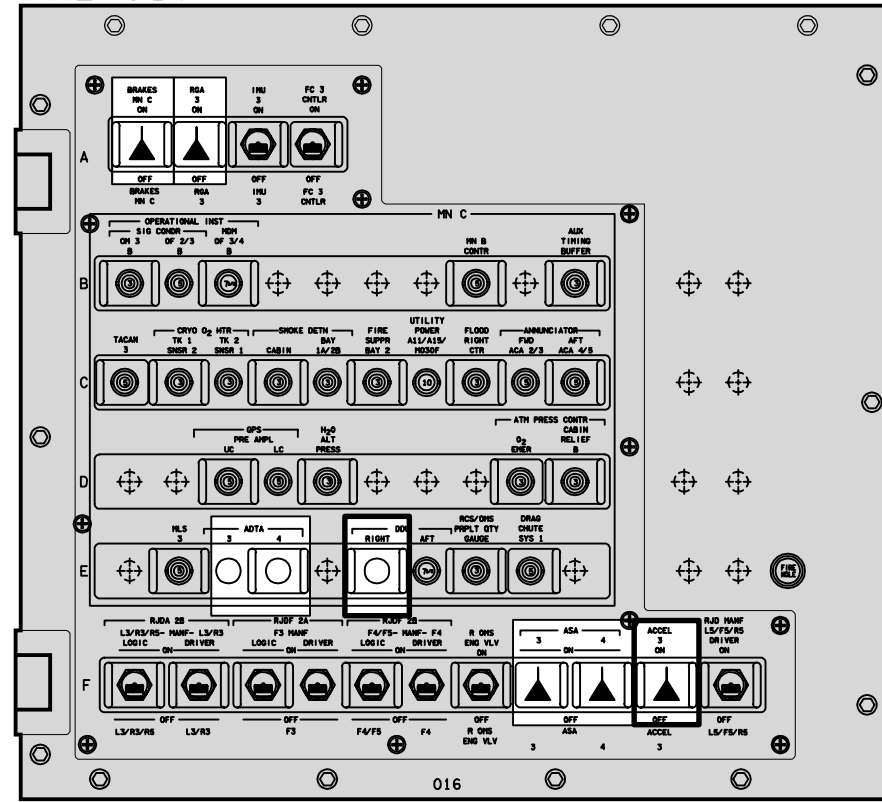


OV103

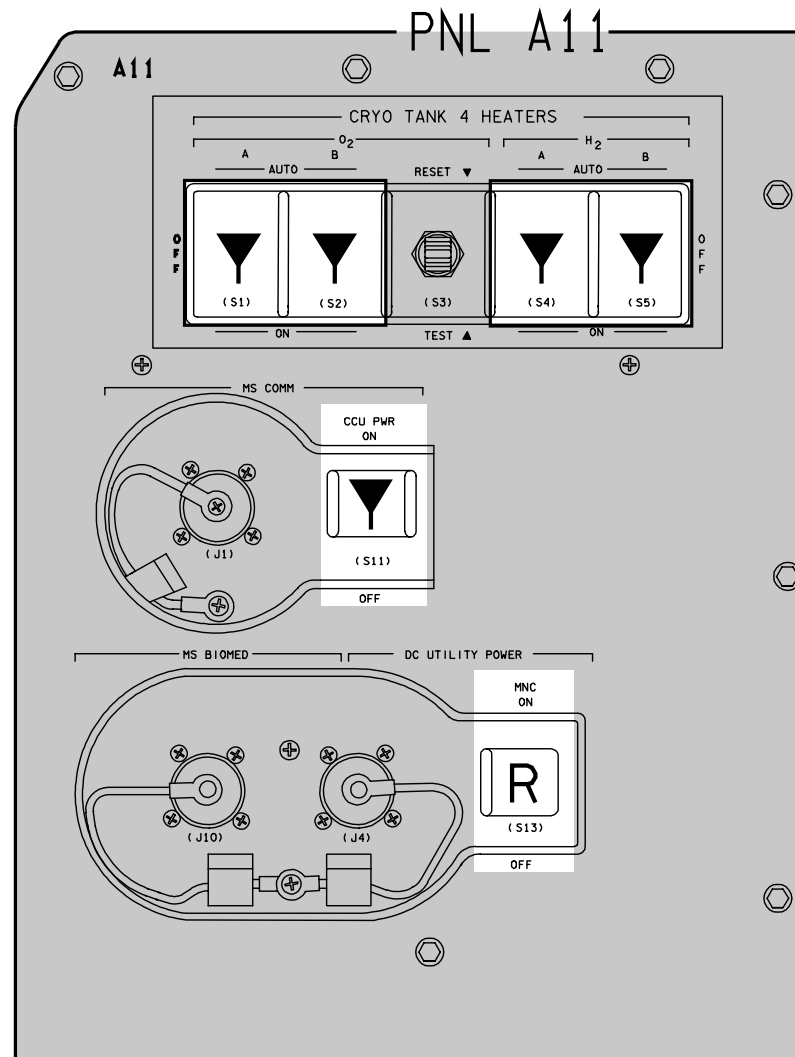
PNL 015



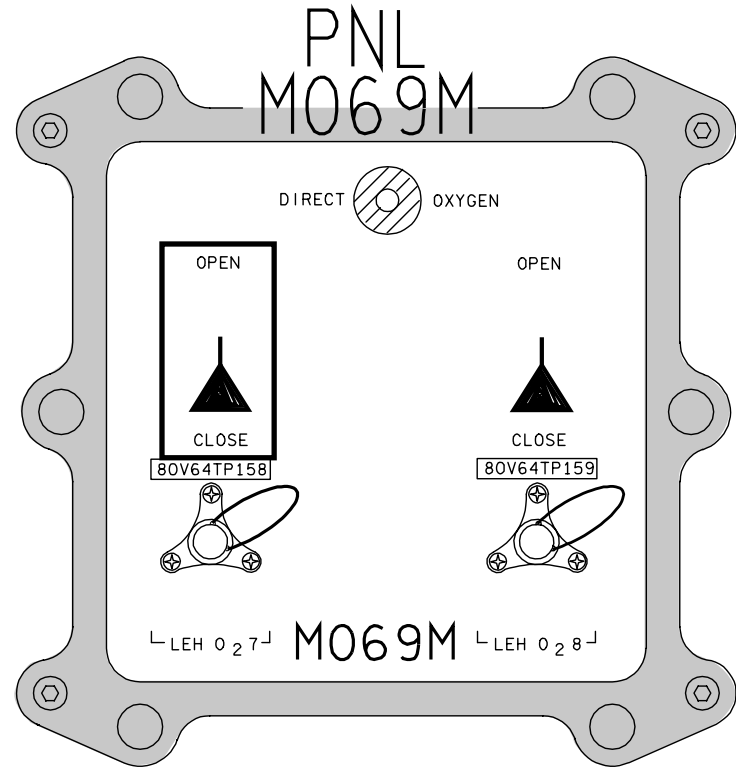
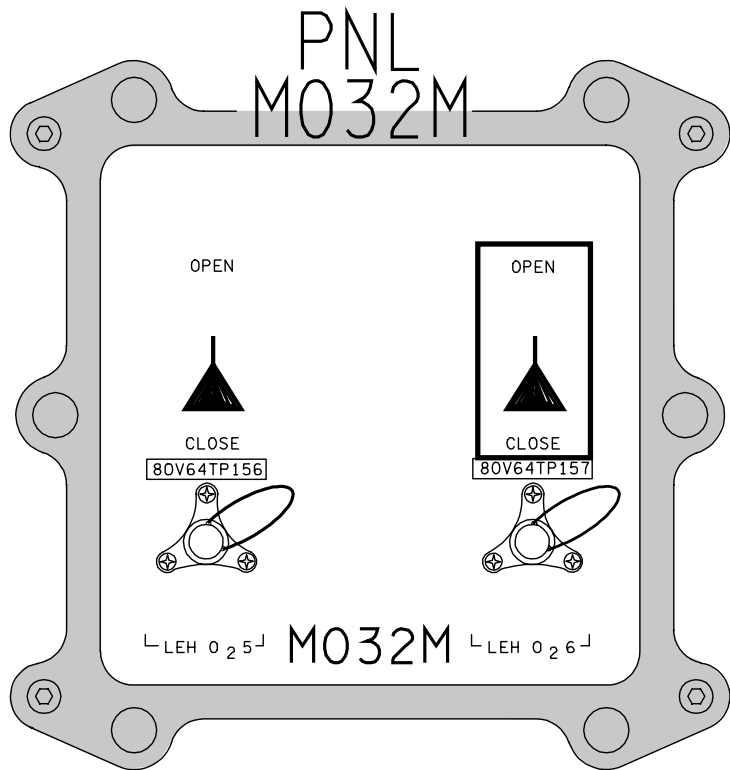
PNL 016



OV103, OV104

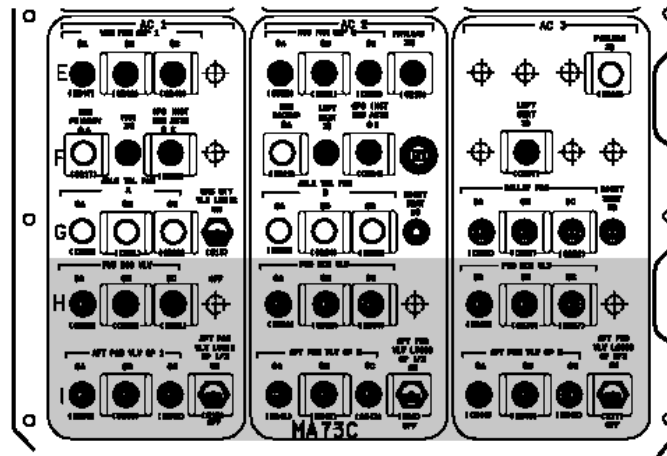
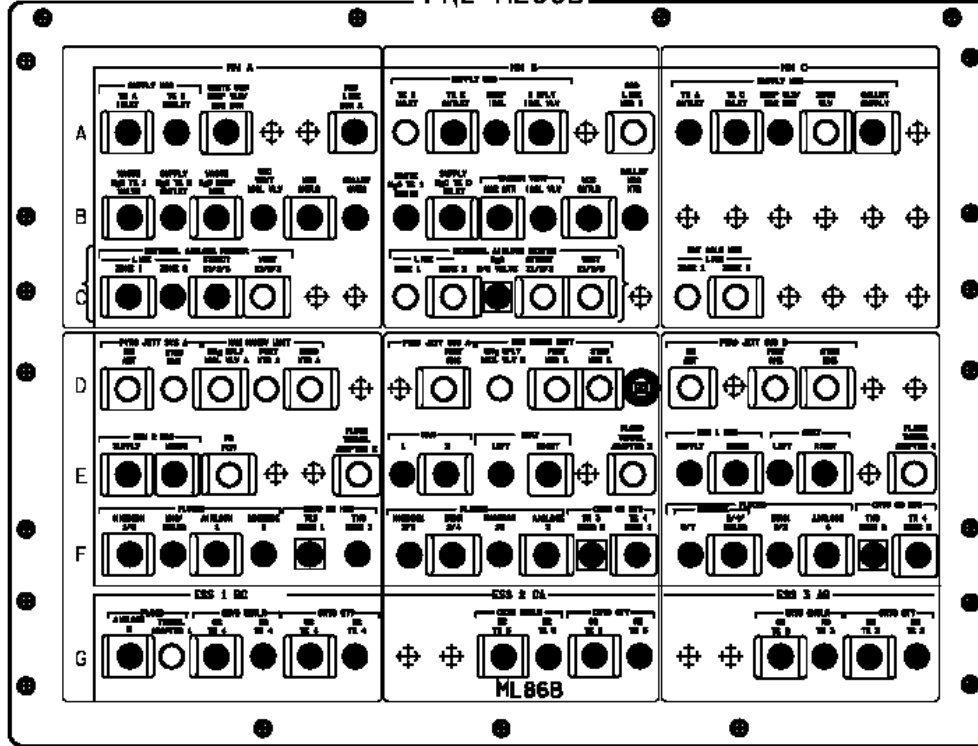


OV103, OV104



OV103

PNL ML86B



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OV103/DATE 11/11/04

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ORBIT 5/6 DEORBIT

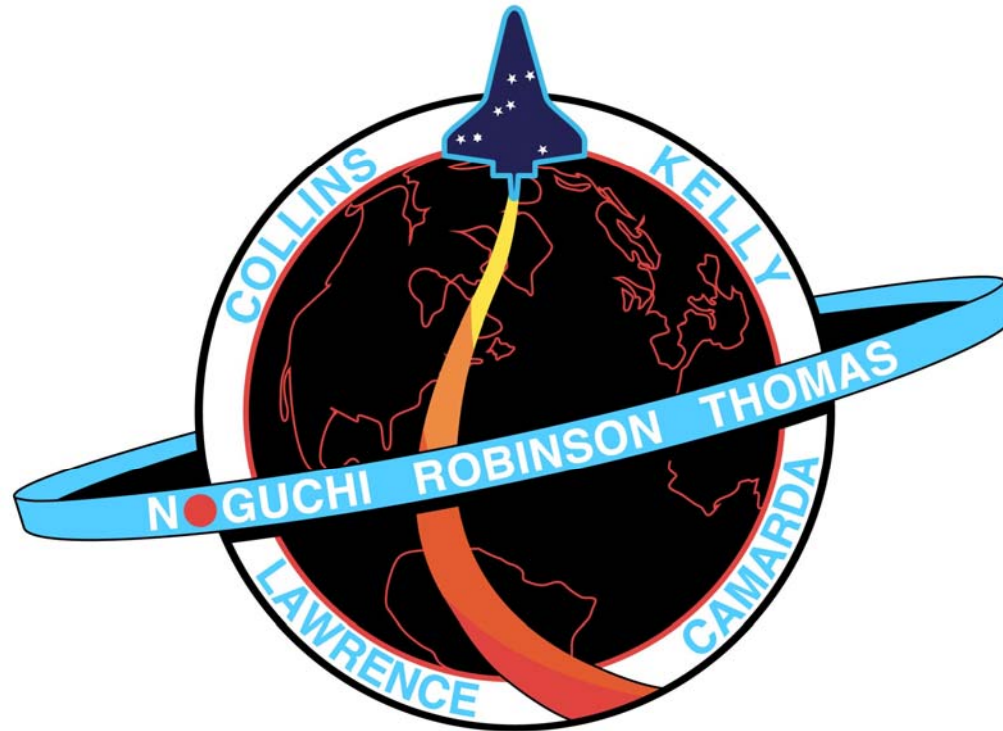
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**PEN AND INKS TO NOMINAL POST
INSERTION FOR ORBIT 5/6 DEORBIT**

MET	ACTIVITY
ASAP	Perform PRIORITY PWRDN GROUPS A & B (ORB PKT, <u>PRIOR PWRDN</u>) with following deltas: DELETE: HI LOAD DUCT HTR OFF in Group A Pwrdn PRI RJDs DRIVER & LOGIC OFF in Group B Pwrdn When PRIORITY PWRDN is complete, return to Nominal Post Insertion, 1-5, thru 1-9 completing all activities except the following: MET 1:28 OPEN PLBDs MET 1:52 POST PLBD OPS RAD CONFIG MET 1:54 SPECIALIST SEAT REMOVAL/STOWAGE MET 2:00 AIRLOCK SETUP FOR INGRESS MET 2:06 CONFIG VERNIER DRIVERS
1:00	If Voice or Command Unavailable: Perform GPS INCORPORATION (ORB OPS, <u>GNC</u>)
2:12	<u>CONFIG CONTROLS FOR ON-ORBIT</u> , 1-17 thru 1-25 (SWITCH PICTORIALS) <u>NOTE</u> : Some of these switch throws will have been done during PRIORITY POWERDOWNS DELETE: HI LOAD DUCT HTR – OFF, on 1-19
2:30	Add following MNVR: <u>MNVR (TRK) –ZLV, +YVV</u> TG = 2 BV = 3 OM = 270

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

TIG-	ACTION	PROCEDURES
3:57	Delete	<u>COLDSOAK INITIATE</u> 2
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>)
2:46	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



POST INSERTION

**STS
114**