

Post Insertion

STS-116

**Mission Operations Directorate
Operations Division**

**Final
October 18, 2006**

National Aeronautics and
Space Administration

Lyndon B. Johnson Space Center
Houston, Texas

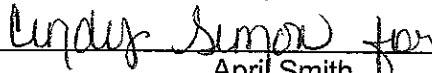


MISSION OPERATIONS DIRECTORATE

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STS-116**


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PREPARED BY:

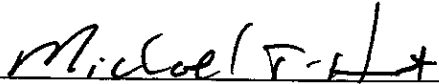


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	PI-751	
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POST INSERTION
STS-116

LIST OF EFFECTIVE PAGES

	FIN	10/18/06	
Sign Off	* 116/FIN	1-17	116/FIN
ii.....	* 116/FIN	1-18	116/FIN
iii.....	* 116/FIN	1-19	116/FIN
iv.....	* 116/FIN	1-20	116/FIN
v	116/FIN	1-21	116/FIN
vi.....	116/FIN	1-22	116/FIN
1-1.....	116/FIN	1-23	116/FIN
1-2.....	116/FIN	1-24	116/FIN
1-3.....	116/FIN	1-25	116/FIN
1-4.....	116/FIN	1-26	116/FIN
1-5.....	116/FIN	2-1	116/FIN
1-6.....	116/FIN	2-2	116/FIN
1-7.....	116/FIN	2-3	116/FIN
1-8.....	116/FIN	2-4	116/FIN
1-9.....	116/FIN	3-1	* 116/FIN
1-10.....	116/FIN	3-2	* 116/FIN
1-11.....	116/FIN	CC 3-3	* 116/FIN
1-12.....	116/FIN	CC 3-4	* 116/FIN
1-13.....	116/FIN	CC 3-5	* 116/FIN
1-14.....	116/FIN	CC 3-6	* 116/FIN
1-15.....	116/FIN		
1-16.....	116/FIN		

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/116/O/B
(Back).....	CC 3-4	PI-1b/116/O/B
MIDDECK RECONFIGURATION (Front).....	CC 3-5	PI-2a/116/O/B
(Back).....	CC 3-6	PI-2b/116/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 CONFIGURATION	3-1

NOTE

The STS-116 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-116 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: *

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

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

CAUTION

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

CONFIG GPC	1
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 *
- * *
- * 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

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 2 3 4	1 2 1	1 2 3	0 0 0
P/L	1/2	1	1	4
CRT	1 2 3 4	1 2 0	1 2 3	4 4 0
L	1 2	1 2	0 0	4 0
MM	1 2	1 2	1 2	4 4

00:40

00:45

00:50

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
.J cb AC3 φA SIG CONDR HUM SEP - cl
φB SIG CONDR IMU FAN - cl

MS,PS **SPECIALIST SEAT EGRESS**

00:55

A1(B1)
AUTO
PRI
RT 0.2
DB 5.0

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

P **PL BUS ACTIVATION** [5a], 1-5

MS2 **AFT STATION CONFIG** (AFT Cue Card) [3], 1-13

01:00

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

NOTE

Expect multiple msgs, Master Alarm, SM Alert

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

BFS, GNC, OPS 000 PRO

[3: BFS, BFS MEMORY]

C3

BFC CRT DISP - OFF

√All IDPs deassigned from BFS

NOTE

Expect '214 SH PPO2 2' and '215 SH H2O LN HTR' msgs, Master Alarm, SM Alert

O6

GPC MODE 5 - STBY (tb-RUN)

8. RECONFIG MEDs

GPC/CRT 0/3 EXEC

IDP/CRT 3 PWR - OFF

√4 PWR - ON

C2

GPC/CRT SM GPC/4 EXEC

F6,F7,F8

Power off MDUs as desired

9. LOAD ORBIT TFLs

√OI PCMMU FORMAT - GPC

[SM 62 PCMMU/PL COMM]

FORMAT:

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]

CRT

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 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

C2
 CRTX

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

CRT

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

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	

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

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**)

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

01:05
A5(B1)
AUTO
PRI
RT 0.2
DB 5.0

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**
05,09 **AUD A/G 2 – RCV, tw 2**
 XMIT/ICOM MODE – PTT/VOX (recommended)
P **LOAD DAP A5**

01:10
A5(B1)
AUTO
PRI
RT 0.2
DB 5.0

MNVR TO PLBD OPENING ATT (-ZLV, +YVV)
CRT1 √TGT ID +2
 BODY VECT +3
 √P +90
 √Y +0.0
 OM +270

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

01:15
A5(B1)
AUTO
ALT
RT 0.2
DB 5.0

C **RAD ACT** **7**, 1-4

RAD/PLBD OPS NO-GO FOR FOLLOWING FAILURES			
OMS/RCS	GNC	ECLS/EPS	MECH
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 FAILURE
OMS Prop Tk Leak	3 ADTAs	3 of 6 Av Bay Fans	
Aft RCS He or Prop Leak	3 Elevon or BF Pos Fdbks (same surface)	2 FCs	DPS
COMM	2 FCS Ch	Any MN or 3Φ AC Bus	3 GPCs
No Voice and No CMD	(same surface)	Any CNTL or MPC Bus	2 PL MDMs
		3 IMU Fans	2 FF or FA MDMs
			APU/HYD
			2 APU/HYD/WSB

01:20
A5(B1)
AUTO
ALT
RT 0.2
DB 5.0

If NO-GO for RAD/PLBD OPS, go to **ORB 3 DEORBIT** **8**, 1-6
MS1,2 **OPEN PLBDs**, AUTO MODE **18**, 1-11

01:25
UPLINK
VAR
PARAM
TMBU
(IF
REQD)

01:30

PL BUS ACTIVATION **5a**

R1 PL CAB – MNA (MNB)
 PRI MNC – ON (tb-ON)

NOTE
Expect Master Alarm, SM Alert, multiple SH msgs

PL AUX – ON
AFT MNB – ON

SM 214 SPACEHAB ACT/DEAC
√BUS EMER VOLTS > 24 and < 32
 √AUX A AMPS > 0 and < 7
 √AFT B AMPS > 0 and < 7
√H2O PUMP 2 ORB, ITEM 73 – (*)
 √2 ON/1 OFF, ITEM 75 – (*)

MA73C:E cb AC3 PL 3Φ – cl
CRT √H2O PUMP OUT P > 40 and < 105
 √IN P > 30 and < 80
 √HX H2O FLOW ARS > 75
 √HX H2O FLOW CABIN > 250

* If HX H2O FLOW ARS < 75 and HX H2O FLOW CABIN < 250: *
* C3 H2O LN HTRS – ON *
* SSP1 cb SW PWR 2 – cl *
* ORB H2O LN HTR PWR A – ON *
* √B – OFF (A ENA) *
* **SM 215 SPACEHAB ECS** *
* √H2O LN HTR HAB STATUS – 1 *
* √ORB AMPS > 1 *

NOTE
MCC must configure PL comm
before Item 65 command can be sent

On MCC GO:
√FANS ARS ON, ITEM 67 – (*)
 √INV, ITEM 63 – (*)
 ORB – ITEM 65 EXEC (*)
 √ΔP 1,2 (two) > 0.2 and < 5.5

SSP2 cb SW PWR 4 – cl
 SMOKE SENSOR A – ENA (tb-gray)
 B – ENA (tb-gray)
 SS DC BUS – ON (tb-gray)

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

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

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 – OP (tb-OP)

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	
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		
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	
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

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			
02:00		4: SM ANTENNA	
A5(B1) AUTO ALT RT 0.2 DB 5.0	MS	AIRLOCK SETUP FOR INGRESS 15 , 1-16	
	P	R2	W/B STEAM VENT HTR ACT √BLR CNTLR/HTR (three) – A PWR (three) – ON
02:05	C	O16:F	CONFIG VERNIER CONTROL √MCC GO for vernier control RJD MANF L5/F5/R5 DRIVER – ON, wait 5 sec DAP: A/AUTO/VERN
A5(B1) AUTO VERN RT 0.05 DB 1.0			
02:10	ALL		CONFIG CONTROLS FOR ON-ORBIT Perform actions on 1-17 thru 1-26 Unstow, install HUD covers (two)
		L2	Remove, stow (on pnl L2/FDF FD locker) NWS sw flex extension
02:15	P	R2	HYD THERMAL CONDITIONING-ENABLE HYD CIRC PUMP (three) – GPC
02:20			
	MS		RESET C/W (AFT Cue Card) 16 , 1-14
02:25			
	MS		FUEL CELL VI PERFORMANCE PLOT (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**

- * 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 (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 <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 (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 |
| | | | <u>POST-PLBD OPENING CLEANUP</u> |
| | | 7. | PL BAY DR SYS (two) – DSBL |
| CRT4 | | | √OP/CL STATUS (ten) – OP |
| | | 8. | AC POWER OFF – ITEM 2 EXEC (*) |
| | | 9. | SM, OPS 201 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 202 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 (two) – ENA |
| CRT4 | | | √OP/CL STATUS (ten) – CL |
| | | | <u>OPEN C/L LATCHES</u> |
| | | 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 *) |
| | | | <u>OPEN STBD FWD,AFT LATCHES & DOOR</u> |
| | | 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 *) |
| | | | <u>OPEN PORT FWD,AFT LATCHES & DOOR</u> |
| | | 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 *) |
| | | | <u>POST-PLBD OPENING CLEANUP</u> |
| 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)
<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

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) – ON
 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)
 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 O2 FLOW 2	24	4.65V/4.65 LBM/HR

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

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 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 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

ML86B: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
01:40	CLOTHING CONFIG 10
01:54	SPECIALIST SEAT REMOVAL/STOWAGE
01:59	ESCAPE POLE STOWAGE 13
02:00	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)

MIDDECK RECONFIGURATION

WCS CONFIG/ACT 5

WCS SWITCH CONFIGURATION

ML86B:A cb MNA H2O LINE HTR A – cl
 :B WASTE H2O DUMP ISOL – cl
 MNA,MNB VAC VENT ISOL VLV (two) – cl
 WCS CNTLR (two) – cl
 MNB VAC VENT NOZ HTR – cl
 :F MNA FLOODS WMC/MO13Q – cl

MA73C:E All cbs closed except:
 cb AC2 PL 3Φ – op

ML31C WASTE H2O DUMP ISOL VLV – OP (tb-OP)
 √VAC VENT ISOL VLV BUS SEL – MNA
 NOZ HTR – ON
 ISOL VLV CNTL – OP (tb-OP)

* If VAC VENT ISOL VLV CNTL tb – CL or bp: *
 * VAC VENT ISOL VLV BUS SEL – MNB *
 * CNTL – OP (tb-OP) *
 * If VAC VENT ISOL VLV CNTL tb still CL or bp: *
 * √MCC for further actions *

WCS ACTIVATION

WCS
 Foot/Toe Restraints – down,locked
 VAC VLV – OP
 Unstow urinal hose from Velcro strap, install hose in cradle
 √CRADLE – AUTO
 √MODE – AUTO
 FAN SEP SEL sw – 1
 Unstow hose from cradle (√Airflow)
 √WCS ON It – on
 Stow hose in cradle
 √WCS ON It – off
 Unstow,install WCS Container, Bag & Hose, Mirror, Elbow Bag
 Dispenser, First Day Clothing
 √Ventline mated in aux Wet Trash

SWITCH CONFIG/GALLEY ACT 6

MA73C:G cb AC3 GALLEY FAN (three) – cl
 :F cb AC1 MAR 3Φ – cl

ML86B:A All cbs closed except MNB H2O LINE HTR B – op
 :B All cbs closed
 :E All cbs closed except: FC PCM – op
 FLOOD TUNNEL ADAPTER (three) – op
 :F All cbs closed
 :G All cbs closed except: FLOOD TUNNEL ADAPTER – op

R11L:G SPLY H2O GALLEY SPLY VLV – OP (tb-OP)

GALLEY H2O HTRS (two) – ON
 OVEN/RHS – ON

Unstow,install Personal Hygiene Hose

ESCAPE POLE STOWAGE 13

Remove large Port Pin
 Slide back – Safing Latch
 Retract,hold Locking Pin (Ring)
 Remove Large Pin
 Release Locking Pin (Ring)
 Remove STBD Pip Pin
 Stow Pole
 Reinstall Large Pin

AIRLOCK SETUP FOR INGRESS 15

Inner Hatch	1. Equal vlv caps (two) – remove 2. Open hatch per decal 3. Equal vlv (two) – OFF, install caps
EXT A/L	4. Remove cap from Airlock Fan outlet and stow
MDDK	5. Remove diffuser cap from aft middeck floor fitting and install on Airlock Fan outlet
EXT A/L	6. Unstow bypass duct from Tunnel extension wall 7. Attach free end to aft middeck floor fitting
MO13Q	8. AIRLK 2 – ON/OFF
AW18A	9. LTG FLOOD 1(3,4) – ON (as reqd)
	10. √Airflow at top of external airlock halo
	11. √NEG CAB PRESS RELIEF vlv cover (two) – CL (pushed in)

ON-ORBIT SWITCH LIST

LEFT SEAT

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

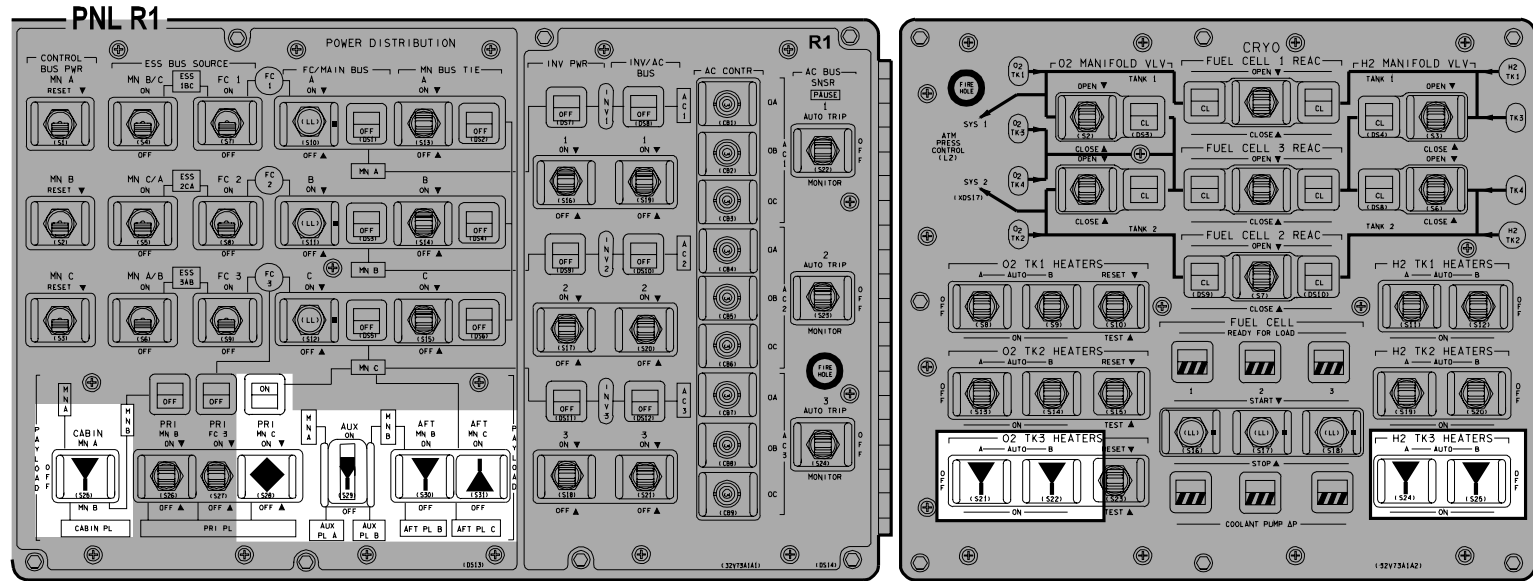
MIDDECK-AFT

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

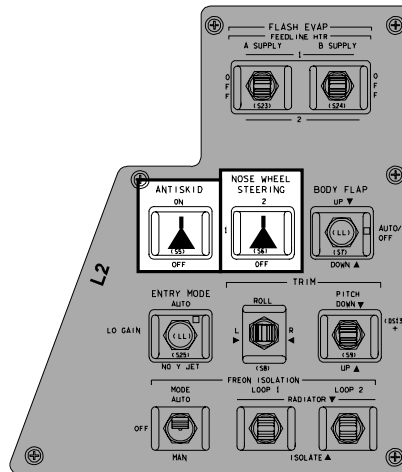
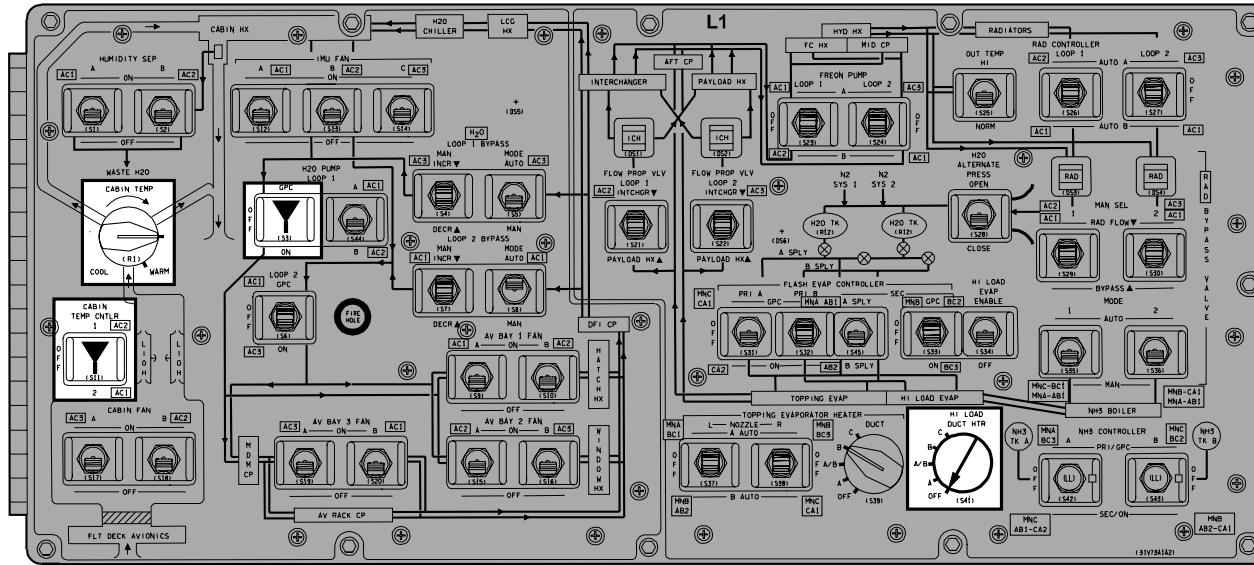
<p> – Up</p> <p> – Center</p> <p> – Down</p> <p> – Boxed items indicate switch configured during ON-ORBIT CONFIGURATION</p>	<p>R – As reqd</p> <p> – cb close</p> <p> – cb open</p> <p> – White area indicates switch verified during ON-ORBIT SWITCH CONFIGURATION</p>	<p> – Indicates switch/display not checked 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>
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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

ALL VEH

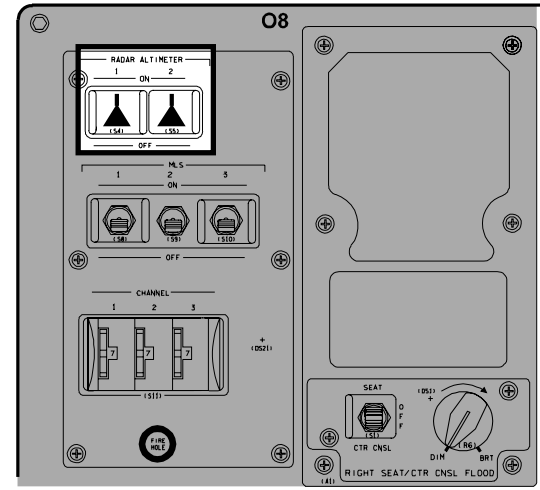
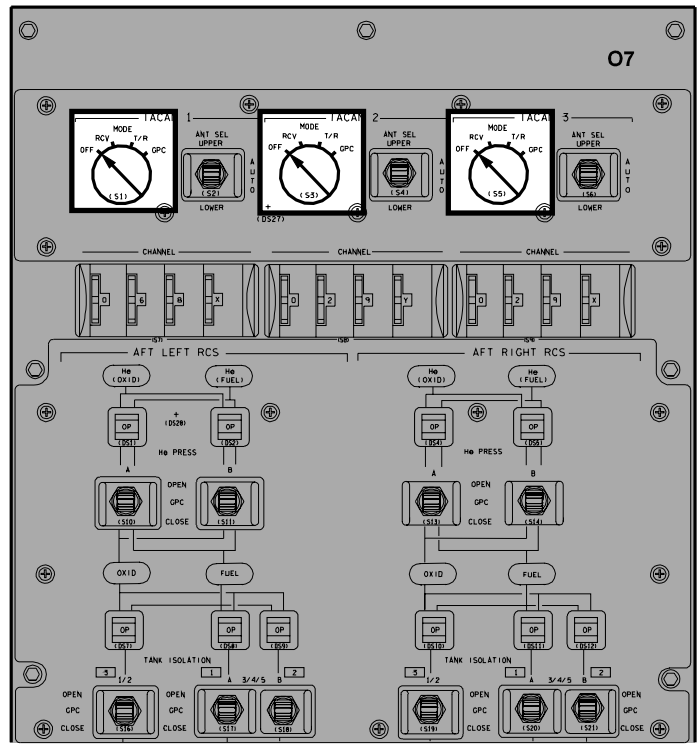


ALL VEH



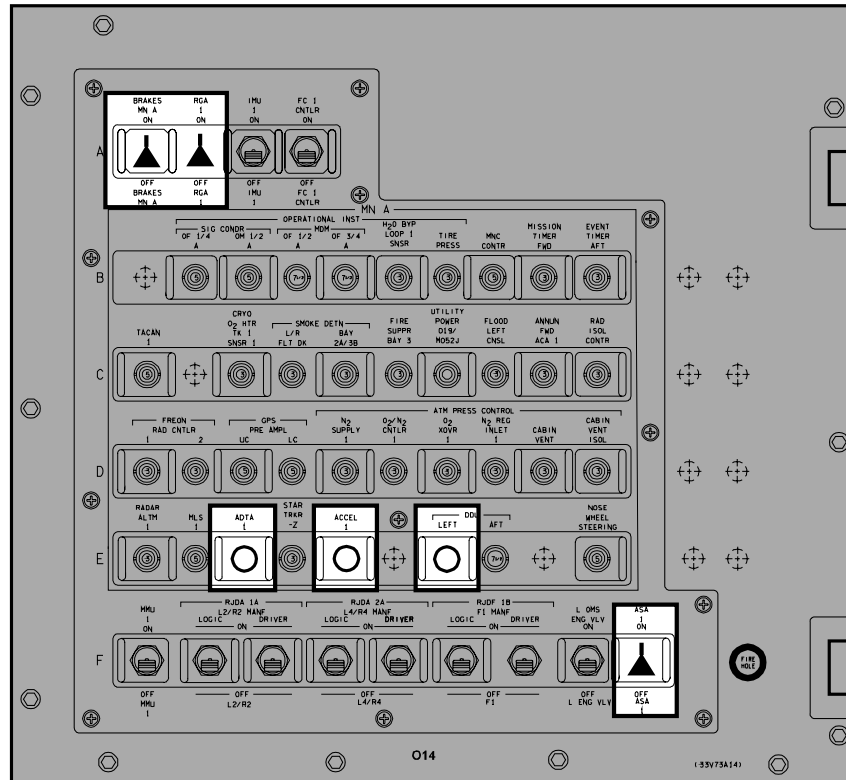
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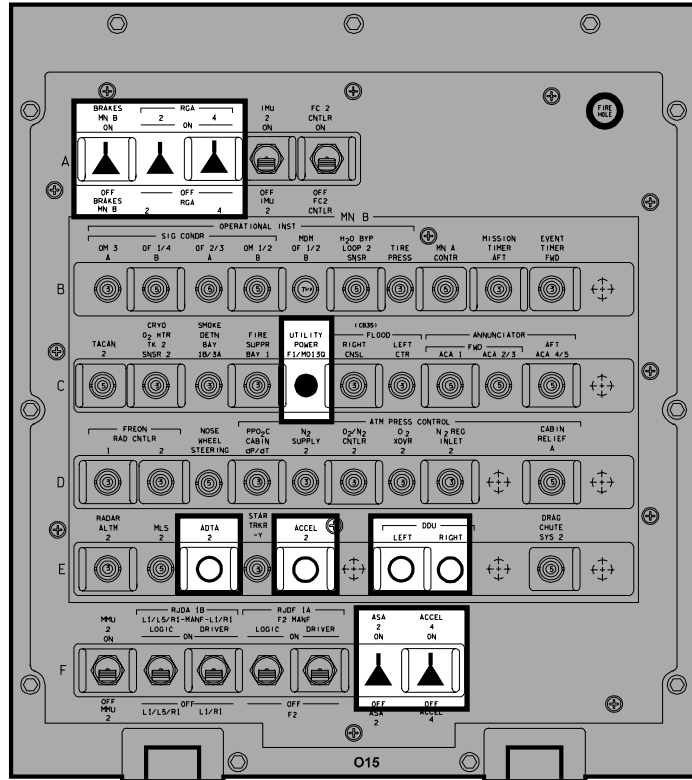
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PNL O14

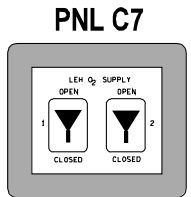
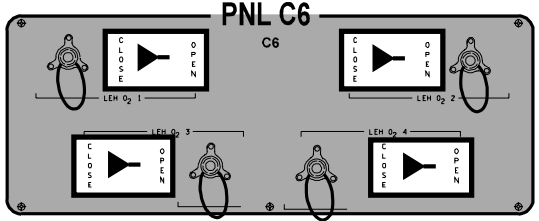
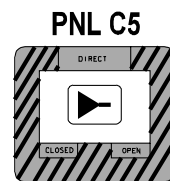
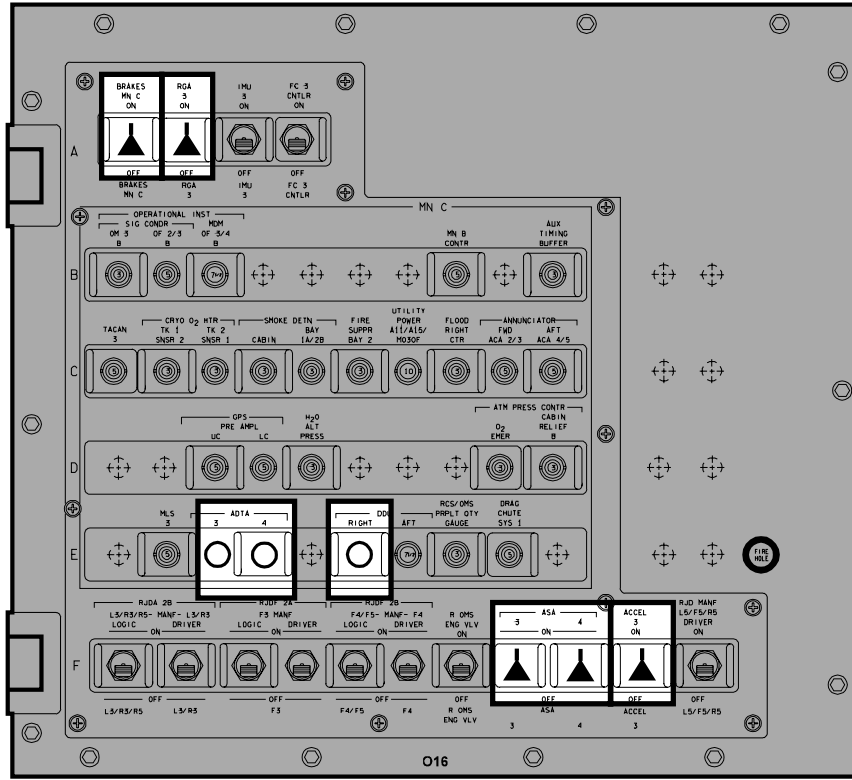


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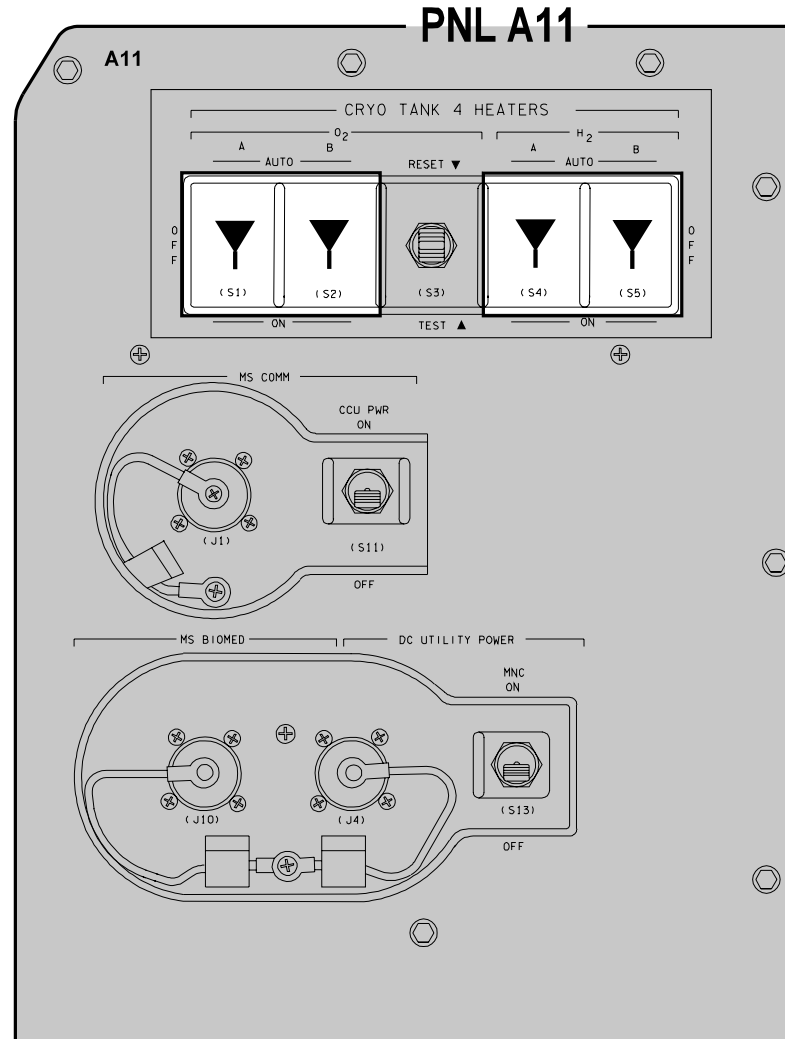
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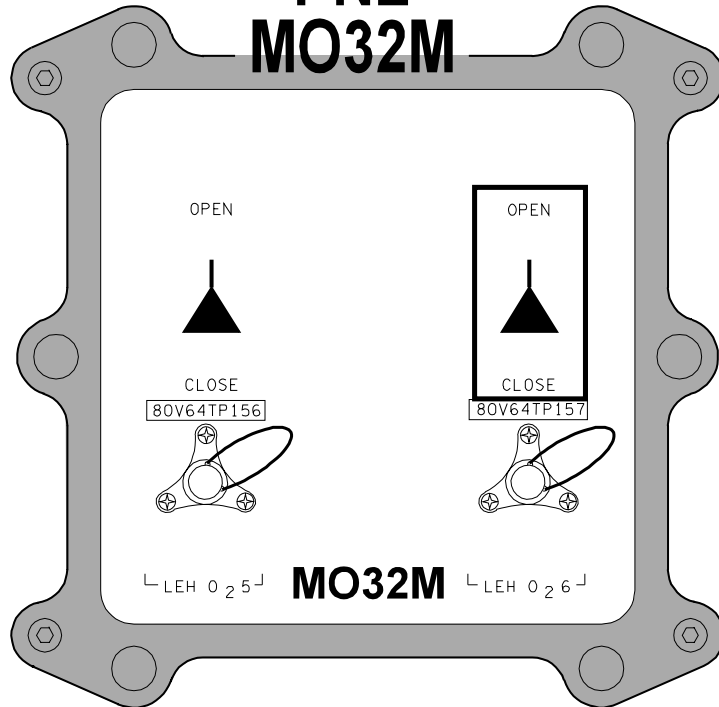


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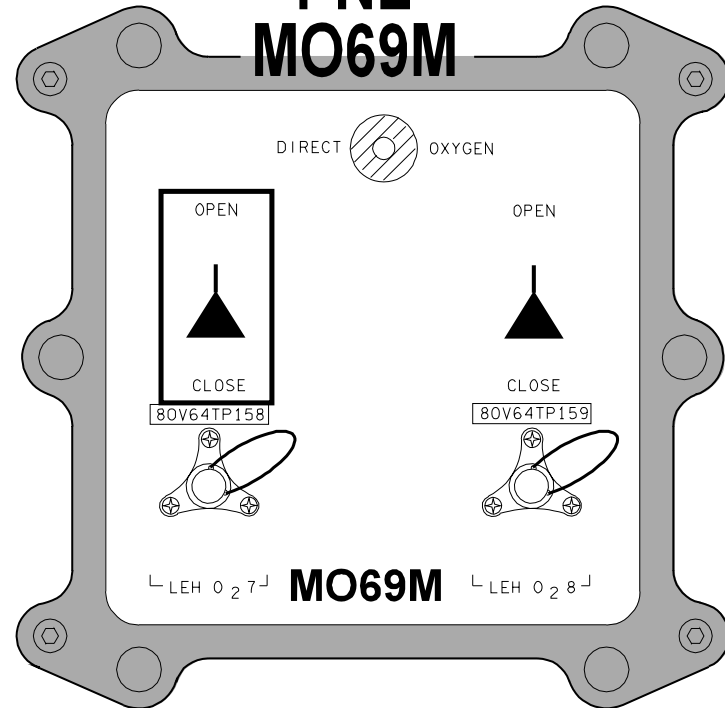


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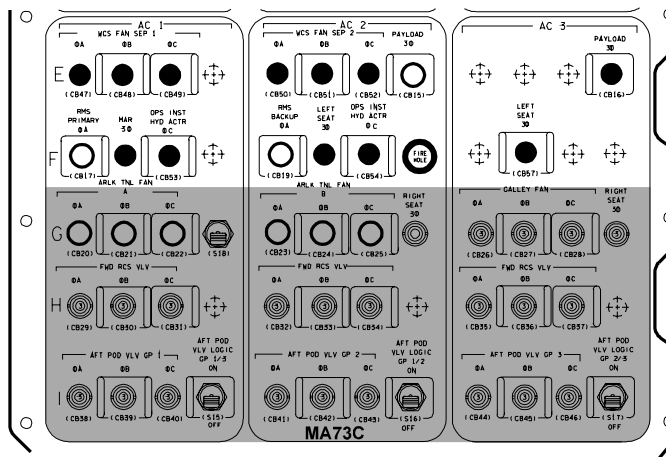
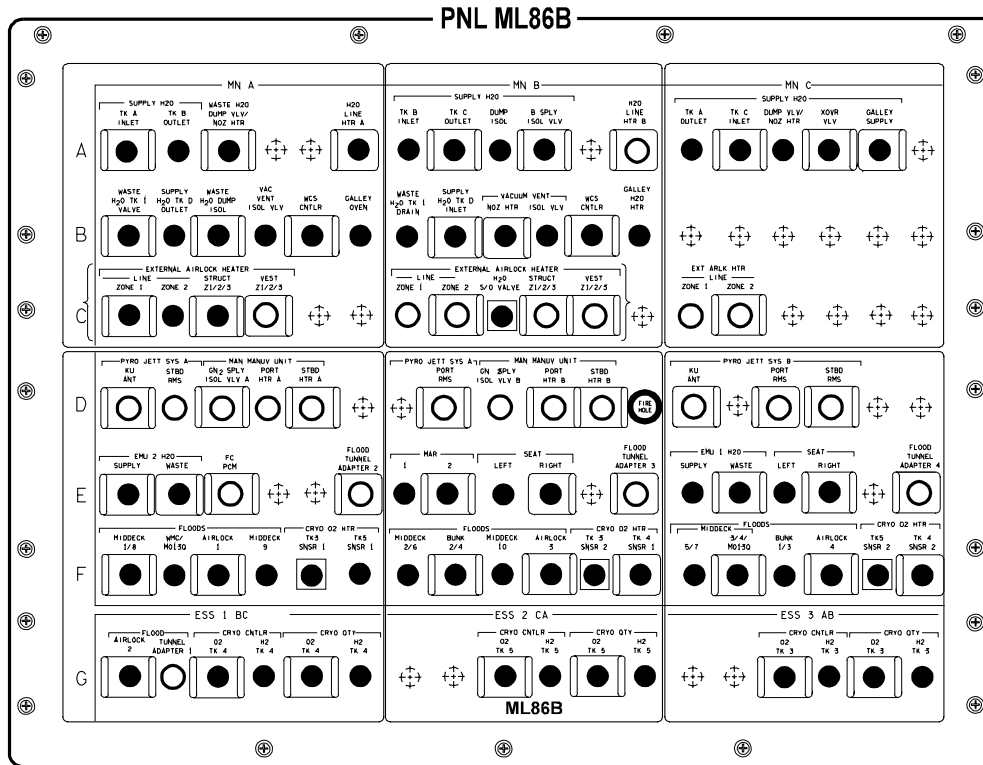
PNL MO32M



PNL MO69M



OV103



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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

MET

ACTIVITY

ASAP

Perform PRIORITY PWRDN GROUPS A & B (ORB PKT, PRIOR PWRDN) 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 1:36 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 2:00 AIRLOCK SETUP FOR INGRESS
MET 2:06 CONFIG VERNIER DRIVERS

1:00

If Voice or Command Unavailable:
Perform GPS INCORPORATION (ORB OPS, GNC)

2:12

CONFIG CONTROLS FOR ON-ORBIT, 1-17 thru 1-25 (SWITCH PICTORIALS)
NOTE: 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: MNVR (TRK) –ZLV, +YVV
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
3:35	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>)
2:46	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

CUE CARD CONFIGURATION

**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) – ON
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)
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 O2 FLOW 2	24	4.65/4.65 LBM/HR

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/116/O/B

(reduced copy)

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 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 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

ML86B: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
01:40	CLOTHING CONFIG 10
01:54	SPECIALIST SEAT REMOVAL/STOWAGE
01:59	ESCAPE POLE STOWAGE 13
02:00	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)

PI-2a/116/O/B

(reduced copy)

CC 3-5

PI/116/FIN

TOP

MIDDECK RECONFIGURATION

WCS CONFIG/ACT 5

WCS SWITCH CONFIGURATION

ML86B:A cb MNA H2O LINE HTR A - cl
 :B WASTE H2O DUMP ISOL - cl
 MNA,MNB VAC VENT ISOL VLV (two) - cl
 WCS CNTLR (two) - cl
 MNB VAC VENT NOZ HTR - cl
 :F MNA FLOODS WMC/MO13Q - cl

MA73C:E All cbs closed except:
 cb AC2 PL 3Φ - op

ML31C WASTE H2O DUMP ISOL VLV - OP (tb-OP)
 √VAC VENT ISOL VLV BUS SEL - MNA
 NOZ HTR - ON
 ISOL VLV CNTL - OP (tb-OP)

- * If VAC VENT ISOL VLV CNTL tb - CL or bp: *
- * VAC VENT ISOL VLV BUS SEL - MNB *
- * CNTL - OP (tb-OP) *
- * If VAC VENT ISOL VLV CNTL tb still CL or bp: *
- * √MCC for further actions *

WCS ACTIVATION

WCS Foot/Toe Restraints - down,locked
 VAC VLV - OP
 Unstow urinal hose from Velcro strap, install hose in cradle
 √CRADLE - AUTO
 √MODE - AUTO
 FAN SEP SEL sw - 1
 Unstow hose from cradle (√Airflow)
 √WCS ON It - on
 Stow hose in cradle
 √WCS ON It - off
 Unstow,install WCS Container, Bag & Hose, Mirror, Elbow Bag
 Dispenser, First Day Clothing
 √Ventline mated in aux Wet Trash

SWITCH CONFIG/GALLEY ACT 6

MA73C:G cb AC3 GALLEY FAN (three) - cl
 :F cb AC1 MAR 3Φ - cl

ML86B:A All cbs closed except MNB H2O LINE HTR B - op
 :B All cbs closed
 :E All cbs closed except: FC PCM - op
 FLOOD TUNNEL ADAPTER (three) - op
 :F All cbs closed
 :G All cbs closed except: FLOOD TUNNEL ADAPTER - op

R11L:G SPLY H2O GALLEY SPLY VLV - OP (tb-OP)

GALLEY H2O HTRS (two) - ON
 OVEN/RHS - ON

Unstow,install Personal Hygiene Hose

ESCAPE POLE STOWAGE 13

Remove large Port Pin
 Slide back - Safing Latch
 Retract,hold Locking Pin (Ring)
 Remove Large Pin
 Release Locking Pin (Ring)
 Remove STBD Pip Pin
 Stow Pole
 Reinstall Large Pin

AIRLOCK SETUP FOR INGRESS 15

- Inner Hatch 1. Equal vlv caps (two) - remove
 2. Open hatch per decal
 3. Equal vlv (two) - OFF, install caps
- EXT A/L 4. Remove cap from Airlock Fan outlet and stow
- MDDK 5. Remove diffuser cap from aft middeck floor fitting and install
 on Airlock Fan outlet
- EXT A/L 6. Unstow bypass duct from Tunnel extension wall
 7. Attach free end to aft middeck floor fitting
- MO13Q 8. AIRLK 2 - ON/OFF
- AW18A 9. LTG FLOOD 1(3,4) - ON (as reqd)
10. √Airflow at top of external airlock halo
11. √NEG CAB PRESS RELIEF vlv cover (two) - CL (pushed in)

PI-2b/116/O/B

HOOK
VELCRO

HOOK
VELCRO

HOOK
VELCRO

HOOK
VELCRO

HOOK
VELCRO

HOOK
VELCRO

(reduced copy)



POST INSERTION

**STS
116**