Space Shuttle Program
FLIGHT DATA FILE

JSC-48067-120

Post Insertion

STS-120

Mission Operations Directorate
Operations Division

Final, Rev A
September 5, 2007

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

United Space Alliance

Verify this is the correct version for the pending operation (training, simulation or flight).
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STS-120 POST INSERTION	FINAL, REV A (Sept 5, 2007)

PCN-1 (Oct 1, 2007) Sheet 1 of 1

List of Implemented Change Requests (482s):

PI-813

Incorporate the following:

1. Replace iii & iv
2. Replace 1-5 & 1-6

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Encl: 4 pages

File this PCN immediately behind the front cover as a permanent record

MISSION OPERATIONS DIRECTORATE

POST INSERTION
STS-120

FINAL, REV A
September 5, 2007

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Incorporates the following:		
482#:	PI-798	PI-808
	PI-803	PI-809
	PI-804	PI-810
	PI-806	PI-811
	PI-807	PI-812

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POST INSERTION
STS-120

LIST OF EFFECTIVE PAGES

FINAL	05/23/07
REV A	09/05/07
PCN-1	10/01/07

Sign Off	*	120/FIN A	1-17		120/FIN A
ii	*	120/FIN A	1-18		120/FIN A
iii	*	120/FIN A,1	1-19		120/FIN A
iv	*	120/FIN A	1-20		120/FIN A
v		120/FIN A	1-21		120/FIN A
vi		120/FIN A	1-22		120/FIN A
1-1		120/FIN A	1-23		120/FIN A
1-2		120/FIN A	1-24		120/FIN A
1-3		120/FIN A	1-25		120/FIN A
1-4		120/FIN A	1-26		120/FIN A
1-5		120/FIN A,1	2-1		120/FIN A
1-6		120/FIN A	2-2		120/FIN A
1-7		120/FIN A	2-3		120/FIN A
1-8		120/FIN A	2-4		120/FIN A
1-9		120/FIN A	3-1	*	120/FIN A
1-10		120/FIN A	3-2	*	120/FIN A
1-11		120/FIN A	CC 3-3	*	120/FIN A
1-12		120/FIN A	CC 3-4	*	120/FIN A
1-13		120/FIN A	CC 3-5	*	120/FIN A
1-14		120/FIN A	CC 3-6	*	120/FIN A
1-15		120/FIN A			
1-16		120/FIN A			

POST INSERTION CUE CARDS

Title	Ref. Page	Card No.
AFT FLIGHT DECK RECONFIGURATION (Front)	CC 3-3	PI-1a/120/O/C
(Back)	CC 3-4	PI-1b/120/O/C
MIDDECK RECONFIGURATION (Front)	CC 3-5	PI-2a/120/O/A
(Back)	CC 3-6	PI-2b/120/O/C

* – 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-120 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-120 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	GPC 2	GPC 3	GPC 4
1		G2	FD	SM
2	G2		FD	SM
3	G2	FD		SM
4	G2	SM	FD	

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
C3 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 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

2. MODE G2FD GPC TO OPS 0
O6 GPC MODE G2FD – STBY (tb-bp)
– RUN (tb-RUN)

3. LOAD MC 2 INTO G2FD GPC
CRTX 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 2 12000	SINGLE G2 2 10000
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
C3 BFC CRT DISP – ON
C2 BFS, MSG RESET
F2,F4 √BFC It – off
C3 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	1	1	0
	2	2	2	2	0
	3	3	1	3	0
	4	4	2	4	0
P/L	1/2	1	0	1	4
CRT	1	1	1	1	4
	2	2	2	2	4
	3	3	0	3	0
	4	0	2	0	4
L	1	1	0	0	4
	2	2	0	0	0
MM	1	1	1	1	4
	2	2	2	2	4

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

00:40

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

00:50

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

00:55

P **PL BUS ACTIVATION**
R1 PL CAB – MNA
AUX – ON
AFT MNC – ON

A1(B1)
AUTO
PRI
RT 0.2
DB 5.0

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

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

01:00

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

CONFIG GPC		4(5) 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

7. SECURE BFS
C3 BFC CRT DISP – ON
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
GPC/CRT 0/3 EXEC
C2 IDP/CRT 3 PWR – OFF
√4 PWR – ON

GPC/CRT SM GPC/4 EXEC
F6,F7,F8 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 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:

C2
CRTX

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:

CRT

GNC 0 GPC MEMORY
CONFIG – ITEM 1 +2 EXEC
Modify MC 2 per table →
GNC, OPS 201 PRO
GNC UNIV PTG

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

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

MET DAY 000	1: GNC UNIV PTG	2: SM ANTENNA

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

MS **CONFIG FOR PLBD OPERATIONS** (AFT Cue Card) [4], 1-14

01:05

MS **WCS CONFIG/ACT** (MID Cue Card) [5], 1-16
MS **SWITCH CONFIG/GALLEY ACT** (MID Cue Card) [6], 1-16
C,P **DON/CONFIG COMM**
O5 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 (BIASED -ZLV, +YVV)
CRT1 √TGT ID +2
BODY VECT +3
√P +90
√Y +0.0
OM +280

DAP: A/AUTO/ALT
Initiate TRK

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

C **RAD ACT** [7]

RAD/PLBD OPS NO-GO FOR FOLLOWING FAILURES

OMS/RCS	GNC	ECLS/EPS	MECH
2 OMS Engs	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 WINDOW PANE FAILURE
1 OMS Inlet line	3 AAs	Both Cab Fans	**DPS**
OMS Prop Tk Leak	3 ADTAs	3 of 6 Av Bay Fans	3 GPCs
Aft RCS He or Prop Leak	3 Elevon or BF Pos Fdbks (same surface)	2 FCs	2 PL MDMs
COMM	2 FCS Ch (same surface)	Any MN or 3Φ AC Bus	2 FF or FA MDMs
No Voice and No CMD		Any CNTL or MPC Bus	**APU/HYD**
		3 IMU Fans	2 APU/HYD/WSB

01:20

01:25
UPLINK
VAR
PARAM
TMBU
(IF
REQD)

If NO-GO for RAD/PLBD OPS, go to **ORB 3 DEORBIT** [8]
MS **OPEN PLBDs**, AUTO MODE, [18] 1-11
NOTE: CAUTION BLOCK on 1-11

MS **ELBOW CAMR PICTURE** [20], 1-6

01:30

RAD ACT [7]

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

L1 FLASH EVAP CNTLR PRI A – OFF
PRI 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

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 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

ELBOW CAMR PICTURE 20

Document Elbow Camr position via DSC760 photo from W10 per the following:
Lens, 28-70 mm set at 70 mm (stowed in Vol 3B)
Exp Mode – P
√Meter – Matrix
Sun(Earth)shine reqd
Video from Camr A acceptable as backup

MET		
DAY 000	1: GNC UNIV PTG	2: SM PL BAY DOORS
	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
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 DAY 000		1: GNC UNIV PTG / 2: SM ANTENNA / 4: SM ANTENNA	
02:00	MS	**AIRLOCK SETUP FOR INGRESS** [15], 1-16	
A5 (B1) AUTO ALT RT 0.2 DB 5.0	P	**W/B STEAM VENT HTR ACT**	
	R2	√BLR CNTLR/HTR (three) – A PWR (three) – ON	
02:05	C	**CONFIG VERNIER CONTROL**	
A5 (B1) AUTO VERN RT 0.05 DB 1.0		√MCC GO for vernier control	
	O16:F	RJD MANF L5/F5/R5 DRIVER – ON, wait 5 sec DAP: A/AUTO/VERN	
02:10			
	ALL	**CONFIG CONTROLS FOR ON-ORBIT** Perform actions on 1-17 thru 1-25 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			
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, FLT DAY 1		

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DETAILED PLBD OPENING PROCEDURES 18

```
              *  If no motion determined visually or 'OP/CL' not blank within 10 sec   *
R13L          *    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
              7.  PL BAY DOOR SYS (two) – DSBL
      CRT4        √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 PROCUDURE

```
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

AFT FLIGHT DECK RECONFIGURATION

AFT STATION CONFIG 3

POST SEAT EGRESS

O14:D cb MNA CAB VENT – op
ISOL – op

A14 RCS/OMS HTR FWD RCS – A AUTO
L POD (two) – A AUTO, B OFF
R POD (two) – A AUTO, B OFF
OMS CRSFD LINES (two) – A AUTO, B OFF
√FWD,AFT RCS JET (ten) – AUTO

PDIP 1 KU BAND RATE – Low

A12 APU HTR LUBE OIL LN (three) – A AUTO

ON-ORBIT CONFIG

Don headset (if reqd)
If WCCS flown, perform STD WCCS CONFIG (ORB OPS, COMM/INST)
If flight deck handheld mic/speaker operation:

R10 MS AUD PWR – AUD/TONE
A/G1 – T/R, tw – 2
A/G2 – RCV, tw – 2
A/A – RCV, tw – 2
ICOM A – T/R, tw – 2
B – RCV, tw – 2
XMIT/ICOM MODE sel – PTT/PTT

A11 MS COMM CCU PWR – OFF
Connect HHMIC to MHA
MS COMM CCU PWR – ON

R6, L5 CCU PWR – OFF

A13 OS AUD SPKR PWR sel – SPKR
MSTR SPKR VOL sel – as reqd

R6, L5 HIU VOL (two) – minimum, full ccw

A1L S-BD PM MODE – TDRS DATA
NSP DATA RATE RCV – HI
XMIT – HI
CODING (two) – ON

A1R S-BD FM DATA SOURCE sel – MMU 2 (rot)
AUD CTR VOICE RCD SEL CH 1 sel – OFF
2 sel – OFF

R14:C cb MNB KU ANT HTR – cl
UHF EVA (two) – cl
:D Close left to right all cbs
:E Close left to right all cbs

R11L IDP/CRT 4 PWR – ON
R12 VPU PWR – ON (LED on)
AFD 1 – ON (if desired)

L10 Remove, stow VIP, VTR covers

A15 cb CNTL PWR PTU 1,2 (two) – cl
PTU/MAIN BUS A,B (two) – ON (tb-ON)
OPCU 1,2 V-ADJ (two) – CMD

O17:A ATVC (four) – OFF
:B EIU (three) – OFF
:D MEC 1 – OFF, wait 2 sec, then
2 – OFF

√PL BUS ACTIVATION complete

L12
SSP1 cb PDIP 1 PWR 2/KU BAND RLY – cl
PDIP 1 PWR 1 – cl
SW PWR 1 – cl
SSP2 cb PDIP 2 PWR 2 – cl
PDIP 2 PWR 1 – cl
R12 (OPP) cb OBSS SW PWR – cl
OBSS SW PWR – ON
(OBSS) RSC PWR – ON

Unstow, deploy reqd FDF

MET	MS AFT ACTIONS
00:53	SPECIALIST SEAT EGRESS
00:59	AFT STATION CONFIG 3
01:03	CONFIG FOR PLBD OPERATIONS 4
01:41	CLOTHING CONFIG 10
01:54	SPECIALIST SEAT REMOVAL/STOWAGE
02:01	AIRLOCK SETUP FOR INGRESS 15
02:24	RESET C/W 16

AFT FLIGHT DECK RECONFIGURATION

CONFIG FOR PLBD OPERATIONS 4

SET UP LIGHTS

A6U 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) – 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)
Config Minicam for PLBD Rec: install new Tape, fresh Batt

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 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

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	**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

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 AC3 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 lt – on
Stow hose in cradle
√WCS ON lt – off
Unstow,install WCS Container, Bag & Hose, Mirror, Elbow Bag Dispenser, First Day Clothing
√Ventline mated in aux Wet Trash
Perform URINE PRETREAT SETUP
(Cue Card, URINE PRETREAT CHANGEOUT)

SWITCH CONFIG/GALLEY ACT 6

MA73C:F	cb AC1 MAR 3Φ – cl
:G	cb AC3 GALLEY FAN (three) – cl
ML86B:A	All cbs closed except: MNB H2O LINE HTR B – op
:B	All cbs closed
:E	All cbs closed except: FLOOD TUNNEL ADAPTER (three) – op FC PCM – op
:F	All cbs closed
:G	All cbs closed except: ESS1BC FLOOD TUNNEL ADAPTER 1 – 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
MDDK	4.	Remove diffuser from aft middeck floor fitting and temp stow
EXT A/L	5.	Unstow bypass duct from Tunnel extension wall
	6.	Attach free end to aft middeck floor fitting
MO13Q	7.	AIRLK 2 – ON/OFF
AW18A	8.	LTG FLOOD 1(3,4) – ON (as reqd)
	9.	√Airflow at top of external airlock halo
	10.	√NEG CAB PRESS RELIEF vlv cover (two) – CL (pushed in)

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

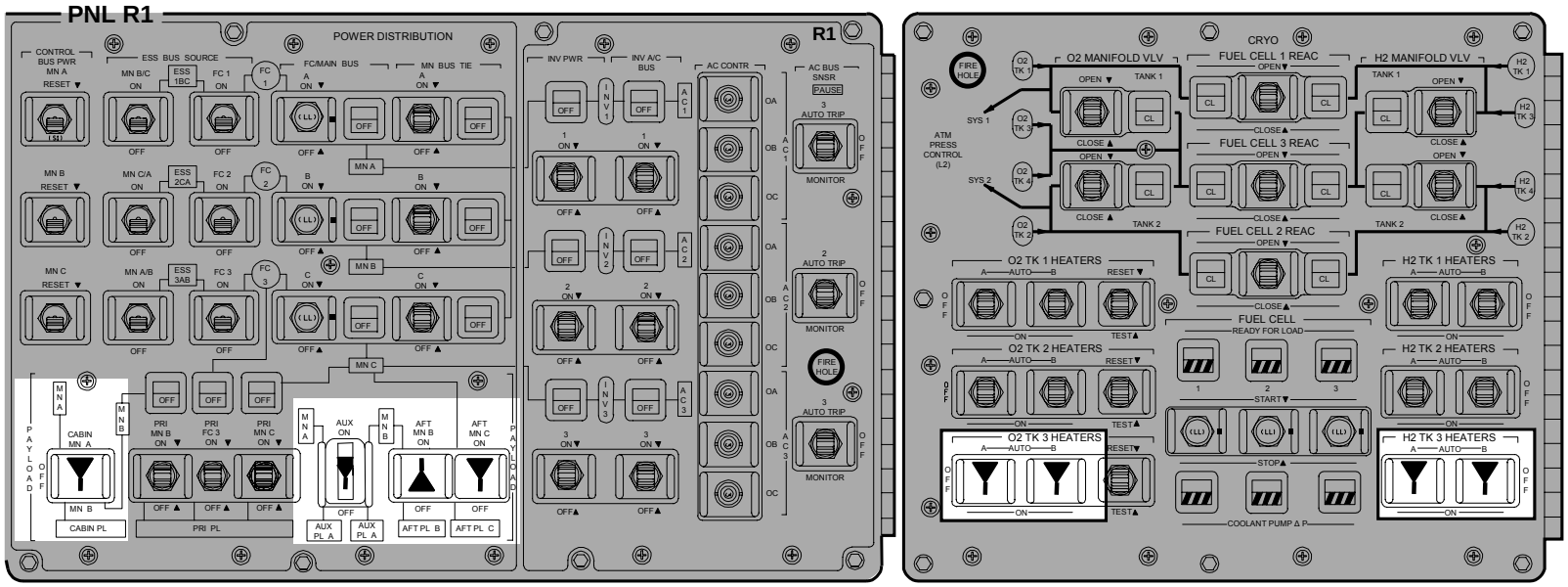
MIDDECK-AFT
MA73C 1-25
MO32M 1-24
MO69M 1-24

▼ – Up
R – As reqd
◆ – Center
● – cb close
▲ – Down
○ – cb open
▭ – Boxed items indicate switch configured during ON-ORBIT CONFIGURATION
▭ – 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

CIRCUIT BREAKER SNAP RING COLOR CODES

COLOR	CONFIGURATION
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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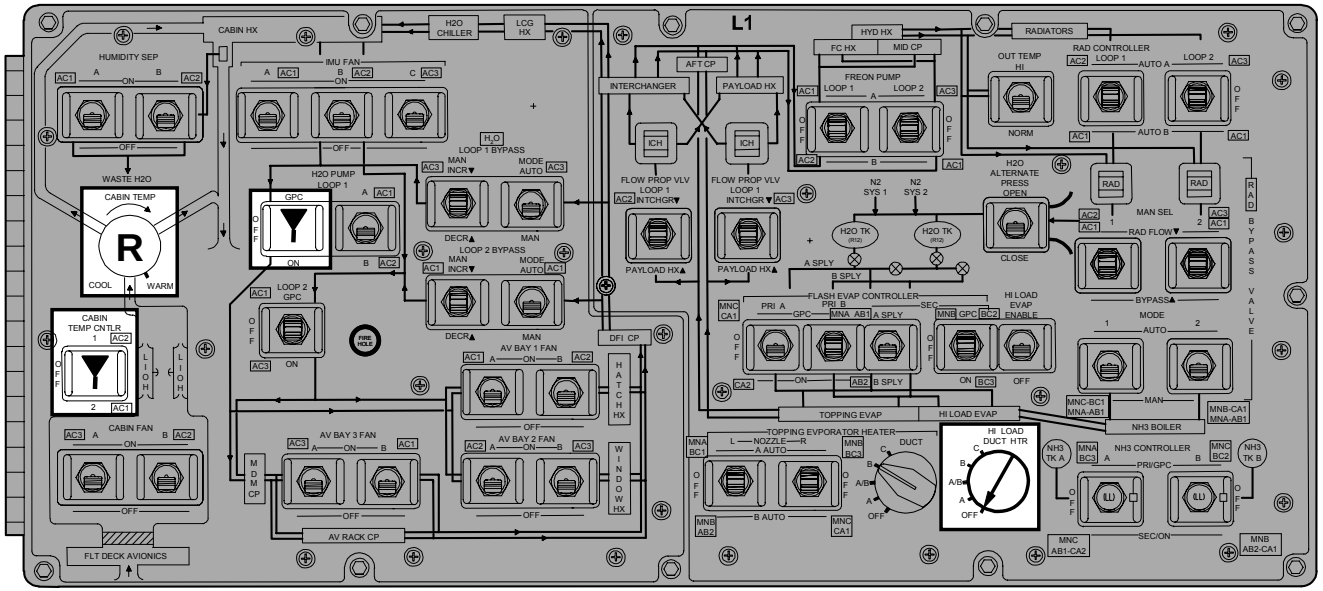
ALL VEH



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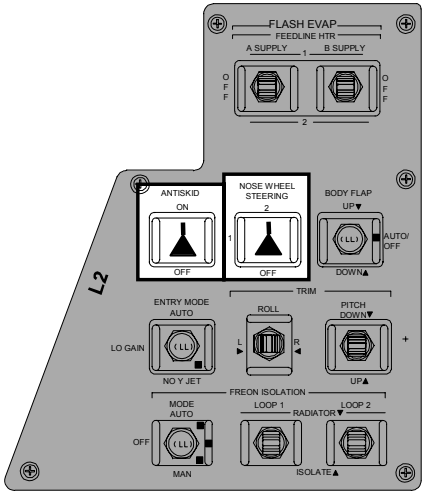

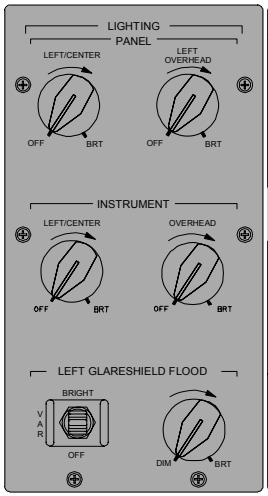

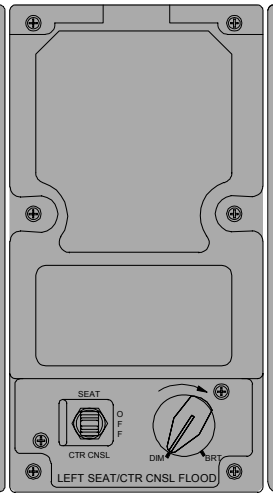

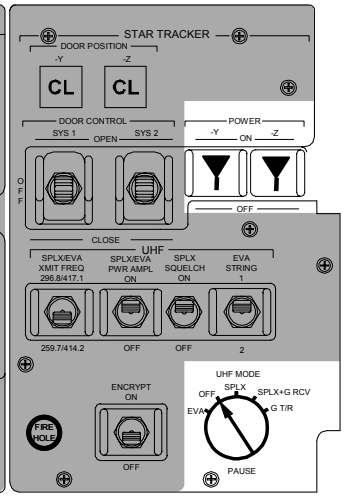

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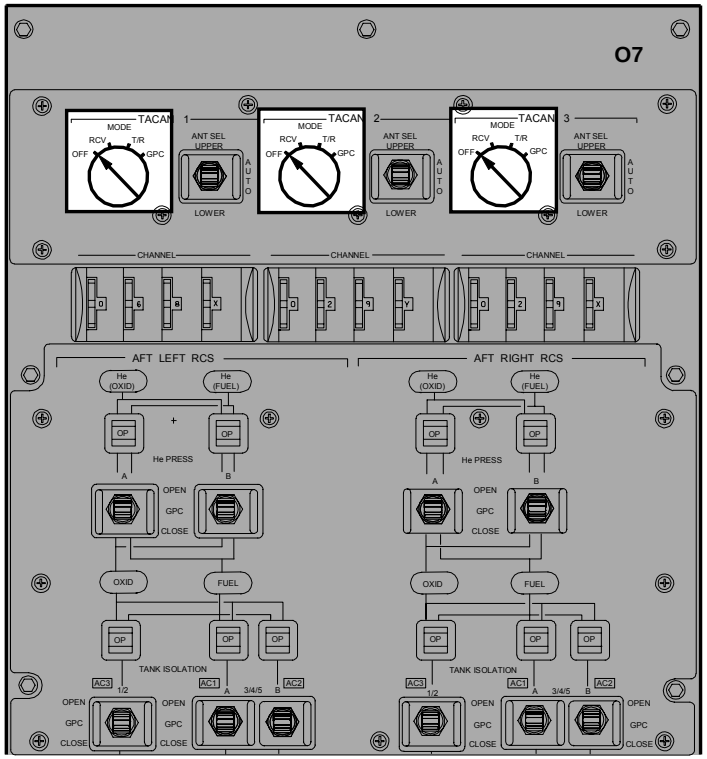
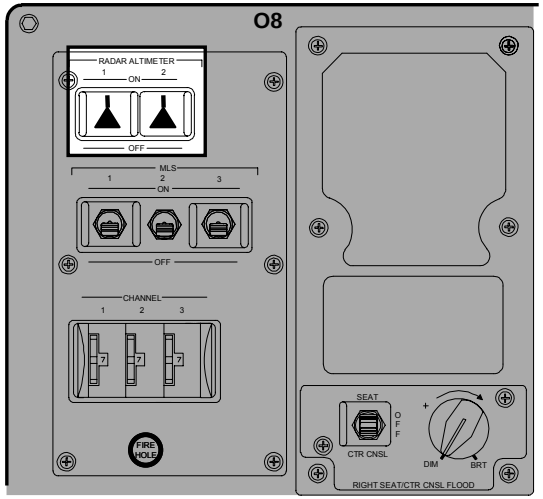
OV103, OV104





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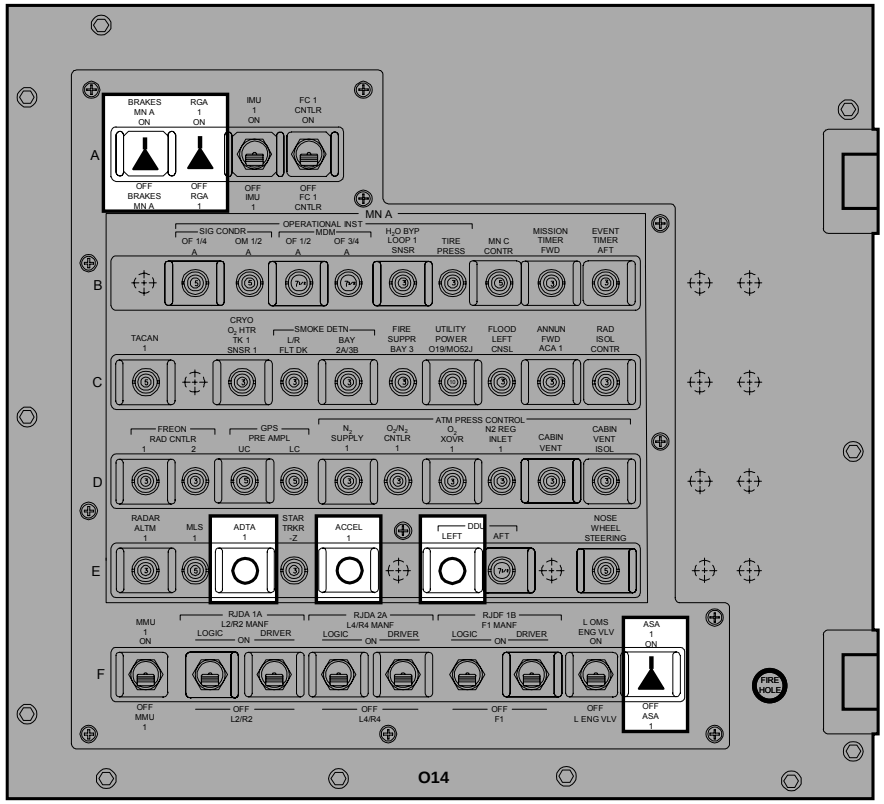
OV103

PNL O14



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OV103

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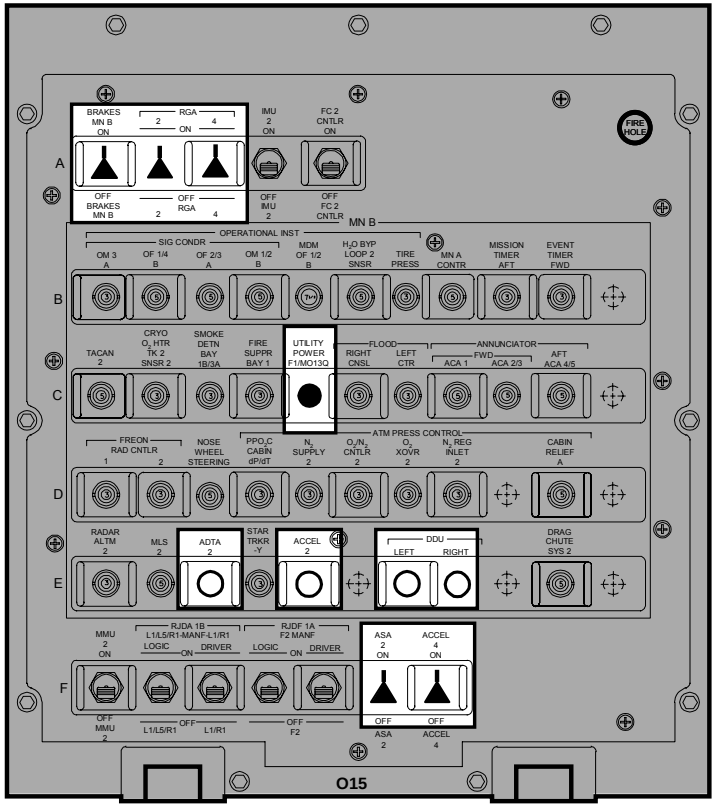

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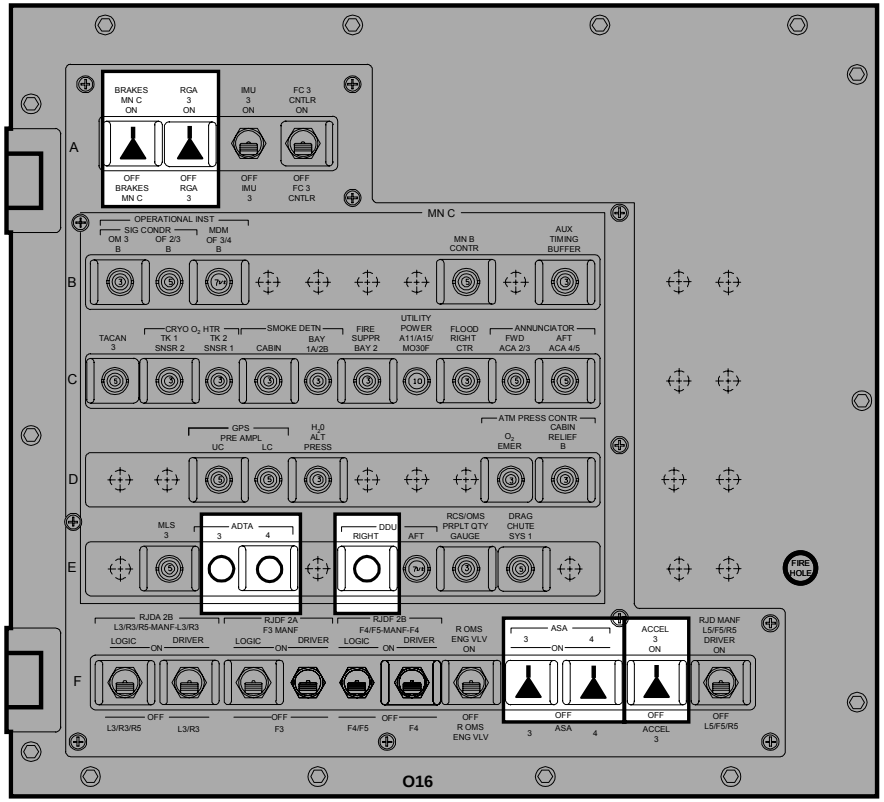

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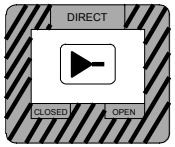

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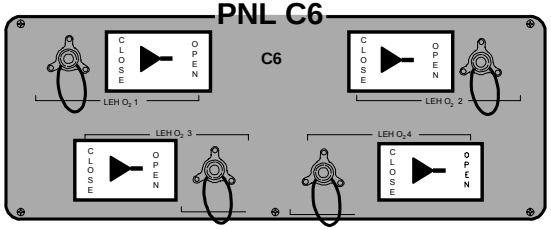

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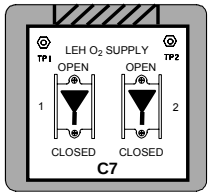

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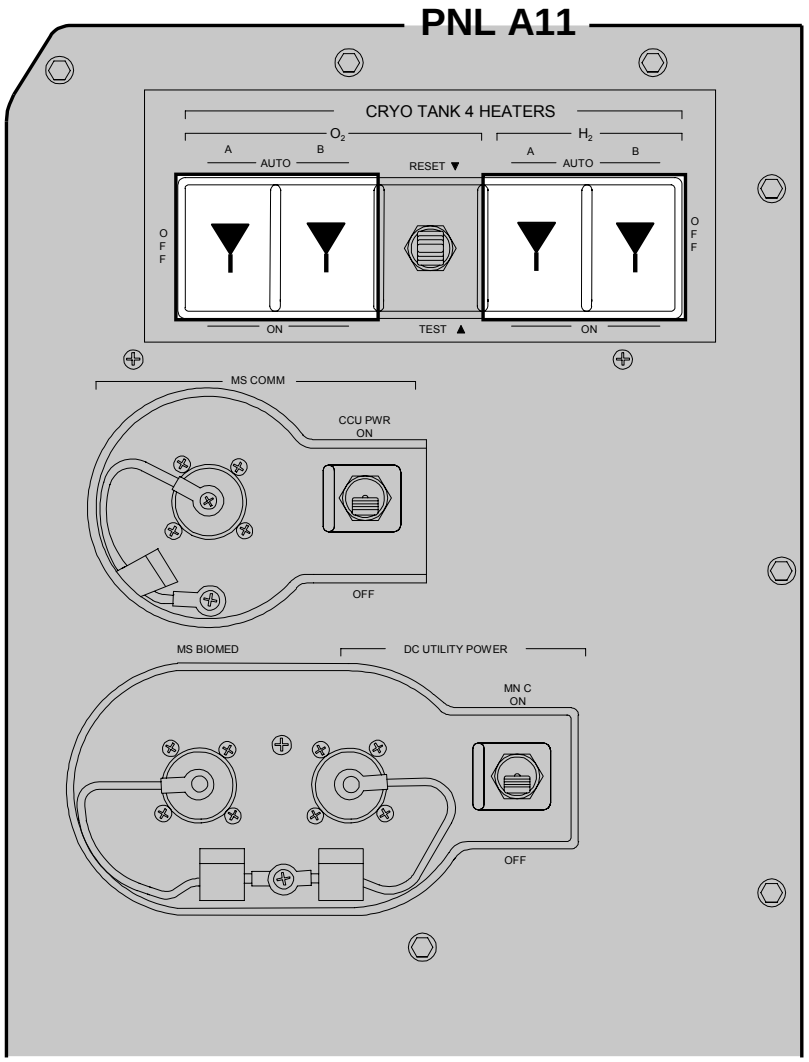

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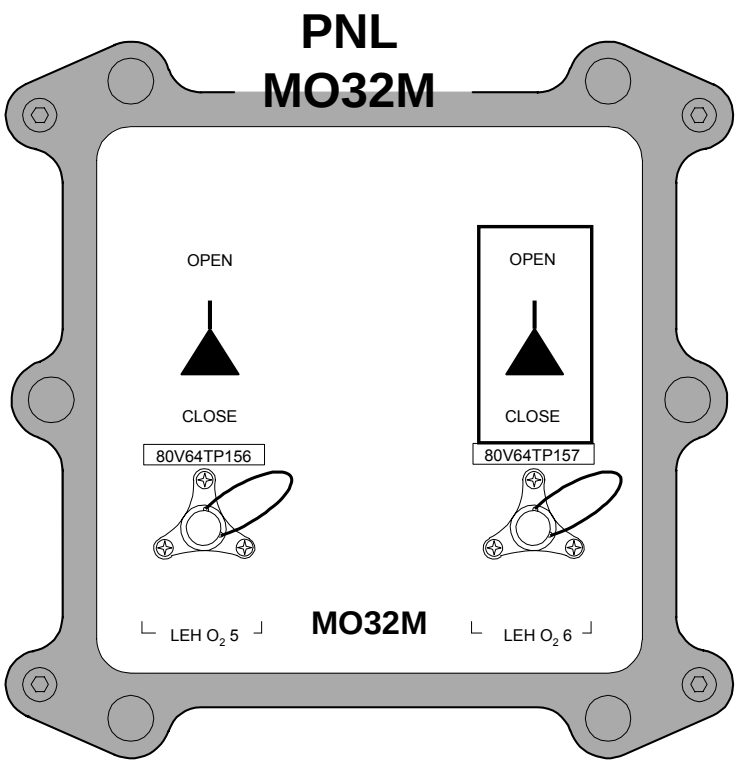
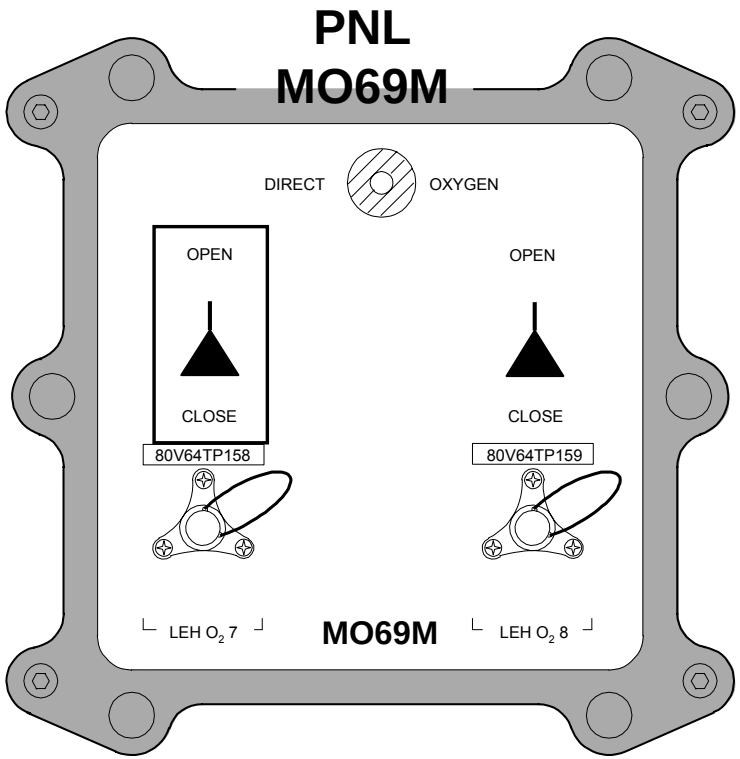
OV103,OV105





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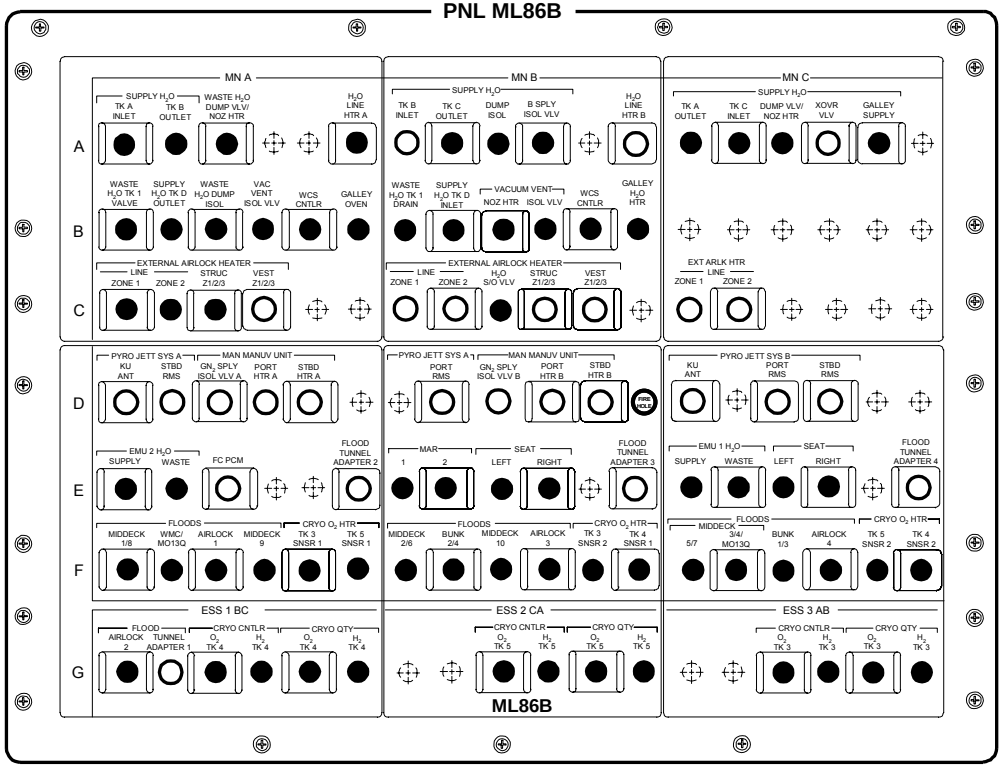

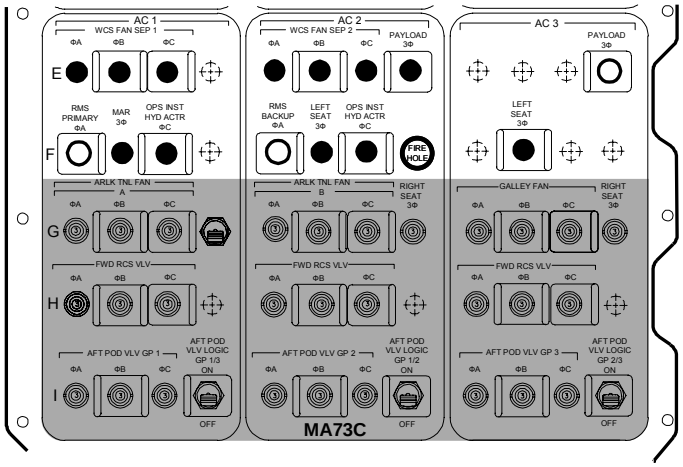

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ORBIT 5/6 DEORBIT

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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, 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 2:01 AIRLOCK SETUP FOR INGRESS MET 2:05 CONFIG VERNIER DRIVERS
1:00	If Both Voice and Command Unavailable: Perform GPS INCORPORATION (ORB OPS, GNC)
2:12	CONFIG CONTROLS FOR ON-ORBIT, 1-17 thru 1-26 (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 NOMINAL D/O PREP FOR ORBIT 5/6 DEORBIT

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

CUE CARD CONFIG

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HOOK VELCRO

AFT FLIGHT DECK RECONFIGURATION

AFT STATION CONFIG 3

POST SEAT EGRESS

O14:D cb MNA CAB VENT – op
ISOL – op

A14 RCS/OMS HTR FWD RCS – A AUTO
L POD (two) – A AUTO, B OFF
R POD (two) – A AUTO, B OFF
OMS CRSFD LINES (two) – A AUTO, B OFF
√FWD,AFT RCS JET (ten) – AUTO

PDIP 1 KU BAND RATE – Low

A12 APU HTR LUBE OIL LN (three) – A AUTO

ON-ORBIT CONFIG

Don headset (if reqd)
If WCCS flown, perform STD WCCS CONFIG (ORB OPS, COMM/INST)
If flight deck handheld mic/speaker operation:

R10 MS AUD PWR – AUD/TONE
A/G1 – T/R, tw – 2
A/G2 – RCV, tw – 2
A/A – RCV, tw – 2
ICOM A – T/R, tw – 2
B – RCV, tw – 2
XMIT/ICOM MODE sel – PTT/PTT

A11 MS COMM CCU PWR – OFF
Connect HHMIC to MHA
MS COMM CCU PWR – ON

R6, L5 CCU PWR – OFF

A13 OS AUD SPKR PWR sel – SPKR
MSTR SPKR VOL sel – as reqd

R6, L5 HIU VOL (two) – minimum, full ccw

A1L S-BD PM MODE – TDRS DATA
NSP DATA RATE RCV – HI
XMIT – HI
CODING (two) – ON

A1R S-BD FM DATA SOURCE sel – MMU 2 (rot)
AUD CTR VOICE RCD SEL CH 1 sel – OFF
2 sel – OFF

R14:C cb MNB KU ANT HTR – cl
UHF EVA (two) – cl
:D Close left to right all cbs
:E Close left to right all cbs

R11L IDP/CRT 4 PWR – ON
R12 VPU PWR – ON (LED on)
AFD 1 – ON (if desired)

L10 Remove, stow VIP, VTR covers

A15 cb CNTL PWR PTU 1,2 (two) – cl
PTU/MAIN BUS A,B (two) – ON (tb-ON)
OPCU 1,2 V-ADJ (two) – CMD

O17:A ATVC (four) – OFF
:B EIU (three) – OFF
:D MEC 1 – OFF, wait 2 sec, then
2 – OFF

√PL BUS ACTIVATION complete

L12
SSP1 cb PDIP 1 PWR 2/KU BAND RLY – cl
PDIP 1 PWR 1 – cl
SW PWR 1 – cl
SSP2 cb PDIP 2 PWR 2 – cl
PDIP 2 PWR 1 – cl
R12 (OPP) cb OBSS SW PWR – cl
OBSS SW PWR – ON
(OBSS) RSC PWR – ON

Unstow, deploy reqd FDF

MET	MS AFT ACTIONS
00:53	SPECIALIST SEAT EGRESS
00:59	AFT STATION CONFIG 3
01:03	CONFIG FOR PLBD OPERATIONS 4
01:41	CLOTHING CONFIG 10
01:54	SPECIALIST SEAT REMOVAL/STOWAGE
02:01	AIRLOCK SETUP FOR INGRESS 15
02:24	RESET C/W 16

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TOP

HOOK VELCRO

AFT FLIGHT DECK RECONFIGURATION

CONFIG FOR PLBD OPERATIONS 4

SET UP LIGHTS

A6U 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) – 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)
Config Minicam for PLBD Rec: install new Tape, fresh Batt

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

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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

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

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	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/120/O/A

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HOOK VELCRO

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 AC3 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 lt – on
Stow hose in cradle
√WCS ON lt – off
Unstow,install WCS Container, Bag & Hose, Mirror, Elbow Bag Dispenser, First Day Clothing
√Ventline mated in aux Wet Trash
Perform URINE PRETREAT SETUP
(Cue Card, URINE PRETREAT CHANGEOUT)

HOOK VELCRO

SWITCH CONFIG/GALLEY ACT 6

MA73C:F	cb AC1 MAR 3Φ – cl
:G	cb AC3 GALLEY FAN (three) – cl
ML86B:A	All cbs closed except: MNB H2O LINE HTR B – op
:B	All cbs closed
:E	All cbs closed except: FLOOD TUNNEL ADAPTER (three) – op FC PCM – op
:F	All cbs closed
:G	All cbs closed except: ESS1BC FLOOD TUNNEL ADAPTER 1 – 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
MDDK	4.	Remove diffuser from aft middeck floor fitting and temp stow
EXT A/L	5.	Unstow bypass duct from Tunnel extension wall
	6.	Attach free end to aft middeck floor fitting
MO13Q	7.	AIRLK 2 – ON/OFF
AW18A	8.	LTG FLOOD 1(3,4) – ON (as reqd)
	9.	√Airflow at top of external airlock halo
	10.	√NEG CAB PRESS RELIEF vlv cover (two) – CL (pushed in)

PI-2b/120/O/C

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Space Shuttle Program
FLIGHT DATA FILE

JSC-48067-120
FINAL, REV A

POST INSERTION

STS 120

Flight Cover (trim bottom to expose tabs)