

Photo/TV Checklist

STS-128 Flight Supplement

**Mission Operations Directorate
Operations Division**

**Final
May 15, 2009**

National Aeronautics and
Space Administration

Lyndon B. Johnson Space Center
Houston, Texas



Verify this is the correct version for the pending operation (training, simulation or flight).
Electronic copies of FDF books are available. URL: <http://mod.jsc.nasa.gov/do3/FDF/index.html>

PHOTO/TV C/L, STS-128 Flt Suppl

FINAL (May 15, 2009)

PCN-2 (July 31, 2009) Sheet 1 of 1

List of Implemented Change Requests (482s):

P/TV_FS-0105

Incorporate the following:

1. Replace FS iii thru FS x
2. Replace FS 1-3 and FS 1-4, FS 1-15 and FS 1-16, FS 1-19 and FS 1-20, FS 1-25 and FS 1-26, FS 1-29 and FS 1-30, FS 1-33 thru FS 1-38, FS 1-41 and FS 1-42, FS 1-47 thru FS 1-50
After FS 1-50, add FS 1-50a and FS 1-50b
Replace FS 1-51 and FS 1-52, FS 1-57 thru FS 1-60, FS 1-69 and FS 1-70
3. Replace FS 2-7 and FS 2-8, FS 2-11 and FS 2-12, FS 2-15 thru FS 2-18, FS 2-23 thru FS 2-28
After FS 2-28, add FS 2-29 and FS 2-30
4. Replace FS CC 3-3 and FS CC 3-4, FS CC 3-17 and FS CC 3-18, FS CC 3-23 and FS CC 3-24

Prepared by:

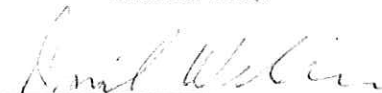


Mission Lead



Publication Manager

Approved by:



Lead, Shuttle Photo/TV Group



Manager, Flight Procedures

Accepted by:



FDF Manager

Encl: 62 pages

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

PHOTO/TV C/L, STS-128 Flt Suppl

FINAL (May 15, 2009)

PCN-1 (June 22, 2009) Sheet 1 of 1

List of Implemented Change Requests (482s):

P/TV_FS-0104

Incorporate the following:

1. Replace FS iii thru FS viii
2. Replace FS 1-3 thru FS 1-8, FS 1-13 and FS 1-14, FS 1-23 and FS 1-24, FS 1-27 and FS 1-28, FS 1-41 and FS 1-42, FS 1-45 thru FS 1-52, FS 1-61 thru FS 1-64
3. Replace FS 2-1 and FS 2-2, FS 2-11 thru FS 2-18, FS 2-21 and FS 2-22
4. Replace FS CC 3-3 and FS CC 3-4, FS CC 3-11 and FS CC 3-12, FS CC 3-15 thru FS CC 3-18, FS CC 3-23 and FS CC 3-24

Prepared by:


Mission Lead
Publication Manager

Approved by:


Lead, Shuttle Photo/TV Group
Manager, Flight Procedures

Accepted by:


BDF Manager

Encl: 54 pages

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

MISSION OPERATIONS DIRECTORATE

**PHOTO/TV CHECKLIST
STS-128 FLIGHT SUPPLEMENT**

FINAL
May 15, 2009

PREPARED BY:



Paul A. Reichert
Mission Lead



Tanya Vaughan
Publication Manager

APPROVED BY:



David L. Williams
Technical Lead, Shuttle Photo/TV Group



Kimberly A. Johnson
Manager, Flight Procedures

ACCEPTED BY:



Michael T. Hurt
FDF Manager

This document is under the configuration control of the Crew Procedures Control Board (CPCB). All proposed changes must be submitted via Change Request Workflow (CRW) to DO3/FDF Manager.

Additional distribution of this book, for official use only, may be requested in writing to DO3/PMO Administrator. The request must include justification and requester's name, organization, position, and phone number. Contractor requests are made through the NASA or DOD organization supported. Deletions, reduction in quantity, or change of address may be submitted to DO3/FDF Management Office, 281-244-1184.

Incorporates the following:
482#: P/TV_FS-00097

AREAS OF TECHNICAL RESPONSIBILITY

Publication Manager	DO35/T. Vaughan	281-483-4180
Alternate Publication Manager	DO35/L. Giles	281-244-9068
Mission Lead	DX46/P. Reichert	281-483-1827
Backup Mission Lead	DX46/D. Williams	281-244-7882
Technical Lead, Shuttle Photo/TV Group	DX46/D. Williams	281-244-7882

PHOTO/TV CHECKLIST
STS-128 FLIGHT SUPPLEMENT

LIST OF EFFECTIVE PAGES

FINAL 05/15/09
PCN-1 06/22/09
PCN-2 07/31/09

Sign Off	*	128/FIN	FS 1-37	128/FIN 2
FS ii	*	128/FIN	FS 1-38	128/FIN
FS iii	*	128/FIN 2	FS 1-39	128/FIN
FS iv	*	128/FIN 2	FS 1-40	⊗ 128/FIN
FS v	*	128/FIN 2	FS 1-41	⊗ 128/FIN 2
FS vi	*	128/FIN 2	FS 1-42	128/FIN 1
FS vii	*	128/FIN 2	FS 1-43	128/FIN
FS viii	*	128/FIN 2	FS 1-44	128/FIN
FS ix		128/FIN 2	FS 1-45	128/FIN 1
FS x		128/FIN 2	FS 1-46	128/FIN
1-i		generic	FS 1-47	128/FIN
1-ii		generic	FS 1-48	⊗ 128/FIN 2
FS 1-1		128/FIN	FS 1-49	128/FIN 1
FS 1-2		128/FIN	FS 1-50	128/FIN 2
FS 1-3		128/FIN	FS 1-50a	128/FIN 2
FS 1-4	⊗	128/FIN 2	FS 1-50b	128/FIN 2
FS 1-5		128/FIN	FS 1-51	128/FIN
FS 1-6		128/FIN 1	FS 1-52	⊗ 128/FIN 2
FS 1-7		128/FIN 1	FS 1-53	128/FIN
FS 1-8		128/FIN	FS 1-54	128/FIN
FS 1-9		128/FIN	FS 1-55	128/FIN
FS 1-10		128/FIN	FS 1-56	128/FIN
FS 1-11		128/FIN	FS 1-57	128/FIN
FS 1-12		128/FIN	FS 1-58	128/FIN 2
FS 1-13		128/FIN	FS 1-59	128/FIN 2
FS 1-14	⊗	128/FIN 1	FS 1-60	128/FIN 2
FS 1-15		128/FIN	FS 1-61	128/FIN
FS 1-16		128/FIN 2	FS 1-62	⊗ 128/FIN 1
FS 1-17		128/FIN	FS 1-63	128/FIN 1
FS 1-18		128/FIN	FS 1-64	128/FIN
FS 1-19		128/FIN 2	FS 1-65	128/FIN
FS 1-20		128/FIN	FS 1-66	128/FIN
FS 1-21		128/FIN	FS 1-67	128/FIN
FS 1-22		128/FIN	FS 1-68	128/FIN
FS 1-23		128/FIN	FS 1-69	128/FIN 2
FS 1-24	⊗	128/FIN 1	FS 1-70	128/FIN
FS 1-25		128/FIN	FS 2-1	128/FIN 1
FS 1-26		128/FIN 2	FS 2-2	128/FIN
FS 1-27		128/FIN	FS 2-3	128/FIN
FS 1-28		128/FIN 1	FS 2-4	128/FIN
FS 1-29		128/FIN 2	FS 2-5	128/FIN
FS 1-30		128/FIN	FS 2-6	128/FIN
FS 1-31		128/FIN	FS 2-7	128/FIN
FS 1-32		128/FIN	FS 2-8	128/FIN 2
FS 1-33		128/FIN	FS 2-9	128/FIN
FS 1-34	⊗	128/FIN 2	FS 2-10	128/FIN
FS 1-35		128/FIN 2	FS 2-11	128/FIN
FS 1-36		128/FIN 2	FS 2-12	⊗ 128/FIN 2

* – Omit from flight book

⊗ – Flight copies of this page contain color

FS 2-13	128/FIN 1	4-11	† generic
FS 2-14	128/FIN 1	4-12	† generic
FS 2-15	128/FIN 2	4-13	† generic
FS 2-16	128/FIN 2	4-14	† generic
FS 2-17	128/FIN	4-15	† generic
FS 2-18	128/FIN 2	4-16	† generic
FS 2-19	128/FIN	4-17	† generic
FS 2-20	128/FIN	4-18	† generic
FS 2-21	128/FIN	4-19	† generic
FS 2-22	⊗ 128/FIN 1	4-20	† generic
FS 2-23	⊗ 128/FIN 2	4-21	† generic
FS 2-24	128/FIN 2	4-22	†⊗ generic
FS 2-25	128/FIN 2	4-23	†⊗ generic
FS 2-26	128/FIN 2	4-24	†⊗ generic
FS 2-27	128/FIN 2	4-25	†⊗ generic
FS 2-28	⊗ 128/FIN 2	4-26	†⊗ generic
FS 2-29	128/FIN 2	4-27	†⊗ generic
FS 2-30	128/FIN 2	4-28	†⊗ generic
FS 3-1	128/FIN	4-29	† generic
FS 3-2	128/FIN	4-30	† generic
FS CC 3-3	128/FIN 1	4-31	† generic
FS CC 3-4	128/FIN 2	4-32	† generic
FS CC 3-5	128/FIN	5-1	† generic
FS CC 3-6	⊗ 128/FIN	5-2	† generic
FS CC 3-7	128/FIN	5-3	† generic
FS CC 3-8	128/FIN	5-4	† generic
FS CC 3-9	128/FIN	5-5	† generic
FS CC 3-10	128/FIN	5-6	† generic
FS CC 3-11	⊗ 128/FIN	5-7	†⊗ generic
FS CC 3-12	128/FIN 1	5-8	†⊗ generic
FS CC 3-13	128/FIN	5-9	†⊗ generic
FS CC 3-14	⊗ 128/FIN	5-10	† generic
FS CC 3-15	⊗ 128/FIN	5-11	† generic
FS CC 3-16	⊗ 128/FIN 1	5-12	† generic
FS CC 3-17	⊗ 128/FIN	5-13	†⊗ generic
FS CC 3-18	⊗ 128/FIN 2	5-14	†⊗ generic
FS CC 3-19	128/FIN	5-15	†⊗ generic
FS CC 3-20	⊗ 128/FIN	5-16	†⊗ generic
FS CC 3-21	⊗ 128/FIN	5-17	† generic
FS CC 3-22	128/FIN	5-18	† generic
FS CC 3-23	128/FIN 2	5-19	† generic
FS CC 3-24	⊗ 128/FIN	5-20	† generic
FS 3-25 (4 pgs)	Δ 128/FIN	5-21	† generic
FS 3-26 (4 pgs)	Δ 128/FIN	5-22	† generic
4-i	generic	5-23	† generic
4-ii	generic	5-24	† generic
4-1	† generic	6-1	† generic
4-2	† generic	6-2	† generic
4-3	† generic	6-3	† generic
4-4	† generic	6-4	† generic
4-5	†⊗ generic	6-5	†⊗ generic
4-6	†⊗ generic	6-6	†⊗ generic
4-7	†⊗ generic	6-7	† generic
4-8	† generic	6-8	† generic
4-9	† generic	6-9	† generic
4-10	† generic	6-10	† generic

⊗ – Flight copies of this page contain color

Δ – Replace with blue K-10 card stock in flight book only

† – May be replaced with CD in flight book only

6-11	†	generic	10-13	†	generic
6-12	†	generic	10-14	†	generic
6-13	†	generic	10-15	†	generic
6-14	†	generic	10-16	†	generic
6-15	†	generic	10-17	†	generic
6-16	†	generic	10-18	†	generic
6-17	†	generic	10-19	†	generic
6-18	†	generic	10-20	†	generic
7-1	†	generic	10-21	†	generic
7-2	†	generic	10-22	†	generic
7-3	†	generic	10-23	†	generic
7-4	†	generic	10-24	†	generic
7-5	†	generic	10-25	†	generic
7-6	†	generic	10-26	†	generic
7-7	†⊗	generic	11-1	†	generic
7-8	†	generic	11-2	†	generic
7-9	†	generic	11-3	†	generic
7-10	†	generic	11-4	†	generic
7-11	†	generic	11-5	†	generic
7-12	†	generic	11-6	†	generic
7-13	†	generic	11-7	†	generic
7-14	†	generic	11-8	†	generic
7-15	†⊗	generic	11-9	†	generic
7-16	†	generic	11-10	†	generic
7-17	†	generic	11-11	†⊗	generic
7-18	†	generic	11-12	†	generic
7-19	†	generic	12-1	†	generic
7-20	†	generic	12-2	†	generic
7-21	†	generic	12-3	†	generic
7-22	†	generic	12-4	†	generic
7-23	†⊗	generic	12-5	†	generic
7-24	†⊗	generic	12-6	†	generic
8-1	†	generic	12-7	†	generic
8-2	†	generic	12-8	†	generic
8-3	†	generic	12-9	†	generic
8-4	†	generic	12-10	†	generic
8-5	†	generic	12-11	†	generic
8-6	†	generic	12-12	†	generic
9-1	†	generic	12-12a	†	generic
9-2	†	generic	12-12b	†	generic
9-3	†	generic	12-13	†	generic
9-4	†⊗	generic	12-14	†⊗	generic
9-5	†⊗	generic	12-15	†	generic
9-6	†	generic	12-16	†	generic
10-1	†	generic	12-17	†	generic
10-2	†	generic	12-18	†	generic
10-3	†	generic	12-19	†	generic
10-4	†	generic	12-20	†	generic
10-5	†	generic	13-1	†	generic
10-6	†⊗	generic	13-2	†	generic
10-7	†	generic	13-3	†	generic
10-8	†	generic	13-4	†⊗	generic
10-9	†	generic	13-5	†⊗	generic
10-10	†	generic	13-6	†⊗	generic
10-11	†	generic	13-7	†⊗	generic
10-12	†	generic	13-8	†⊗	generic

† – May be replaced with CD in flight book only

⊗ – Flight copies of this page contain color

13-9	†	generic	20-7	†	generic
13-10	†	generic	20-8	†	generic
13-11	†	generic	20-9	†	generic
13-12	†	generic	20-10	†	generic
14-1	†	generic	20-11	†	generic
14-2	†	generic	20-12	†	generic
14-3	†	generic	20-13	†	generic
14-4	†	generic	20-14	†	generic
15-1	†	generic	20-15	†⊗	generic
15-2	†	generic	20-16	†	generic
15-3	†	generic	20-17	†	generic
15-4	†	generic	20-18	†⊗	generic
15-5	†	generic	20-19	†	generic
15-6	†	generic	20-20	†	generic
15-7	†	generic	20-21	†	generic
15-8	†	generic	20-22	†	generic
15-9	†	generic	21-1	†	generic
15-10	†	generic	21-2	†	generic
15-11	†	generic			
15-12	†	generic			
15-13	†	generic			
15-14	†	generic			
15-15	†	generic			
15-16	†	generic			
16-1	†	generic			
16-2	†	generic			
16-3	†	generic			
16-4	†	generic			
16-5	†	generic			
16-6	†	generic			
17-1	†	generic			
17-2	†	generic			
18-1	†	generic			
18-2	†	generic			
18-3	†	generic			
18-4	†	generic			
18-5	†	generic			
18-6	†	generic			
19-1	†	generic			
19-2	†	generic			
19-3	†	generic			
19-4	†	generic			
19-5	†	generic			
19-6	†	generic			
19-7	†	generic			
19-8	†	generic			
19-9	†	generic			
19-10	†	generic			
19-11	†	generic			
19-12	†	generic			
20-1	†	generic			
20-2	†	generic			
20-3	†	generic			
20-4	†	generic			
20-5	†	generic			
20-6	†	generic			

† – May be replaced with CD in flight book only

⊗ – Flight copies of this page contain color

PHOTO/TV CUE CARDS

	<u>Title</u>	<u>Ref. Page</u>	<u>Card No.</u>
TV			
	(Front).....	FS CC 3-3	P/TV-1a/128/O/B
	(Back).....	FS CC 3-4	P/TV-1b/128/O/C
ANALOG PLAYBACK			
	(Front).....	FS CC 3-5	P/TV-2a/128/O/A
	(Back).....	FS CC 3-6	P/TV-2b/128/O/A
ET PHOTO			
	(Front).....	FS CC 3-7	P/TV-3a/128/O/B
	(Back).....	FS CC 3-7	P/TV-3b/128/O/A
WVS			
	(Front).....	FS CC 3-8	P/TV-5a/128/O/B
	(Back).....	FS CC 3-9	P/TV-5b/128/O/A
PLBD VTR RECORDING			
	(Front).....	FS CC 3-10	P/TV-6a/128/O/A
	(Back).....	FS CC 3-11	P/TV-6b/128/O/A
LDRI/ITVC			
	(Front).....	FS CC 3-12	P/TV-7a/128/O/B
	(Back).....	FS CC 3-13	P/TV-7b/128/O/A
LCS			
	(Front).....	FS CC 3-14	P/TV-8a/128/O/A
	(Back).....	FS CC 3-15	P/TV-8b/128/O/A
IDC			
	(Front).....	FS CC 3-16	P/TV-9a/128/O/B
	(Back).....	FS CC 3-17	P/TV-9b/128/O/A
VIDEO SETUP			
	(Front).....	FS CC 3-18	P/TV-10a/128/O/D
	(Back).....	FS CC 3-19	P/TV-10b/128/O/A
D2Xs SETUP			
	(Front).....	FS CC 3-20	P/TV-11a/128/O/A
	(Back).....	FS CC 3-21	P/TV-11b/128/O/A
LDRI/ITVC A7 PLACARD			
	(Front).....	FS CC 3-22	P/TV-12a/128/O/A
	(Back).....	FS CC 3-22	P/TV-12b/128/O/A
DIGITAL PLAYBACK			
	(Front).....	FS CC 3-23	P/TV-13a/128/O/C
	(Back).....	FS CC 3-24	P/TV-13b/128/O/A

This Page Intentionally Blank

TABLE OF CONTENTS

	<u>PAGE</u>
<u>FLIGHT SPECIFIC</u>	
<u>SCENES</u>	FS 1-1
P/TV01 VIDEO SETUP	FS 1-4
P/TV02 DOCK.....	FS 1-14
P/TV03 UNDOCK.....	FS 1-24
P/TV04 INGRESS/EGRESS	FS 1-34
P/TV05 ISS INTERNAL OPS (HC)	FS 1-40
P/TV06 ROBOTICS OPERATIONS	FS 1-48
P/TV07 EVA	FS 1-52
P/TV08 EXTERNAL SURVEY	FS 1-58
P/TV09 MIDDECK PAYLOADS	FS 1-66
 <u>REFERENCED PROCEDURES</u>	 FS 2-1
 <u>CUE CARD CONFIGURATION</u>	 FS 3-1
 <u>GENERIC</u>	
 <u>NIKON D2Xs</u>	 4-1
 <u>D2Xs EVA CAMR</u>	 5-1
 <u>EVA IR CAMR</u>	 6-1
 <u>CANON G1</u>	 7-1
 <u>SONY V10</u>	 8-1
 <u>PORTABLE MONITORS</u>	 9-1
 <u>CCTV</u>	 10-1
 <u>CENTERLINE (C/L) CAMR</u>	 11-1
 <u>DTV</u>	 12-1
 <u>BPSMU</u>	 13-1
 <u>MINI-CAM</u>	 14-1
 <u>WIRELESS VIDEO SYSTEM (WVS)</u>	 15-1
 <u>SEQUENTIAL STILL VIDEO (SSV)</u>	 16-1
 <u>BINOCULARS</u>	 17-1
 <u>FIBERSCOPE</u>	 18-1
 <u>LASER DYNAMIC RANGE IMAGER (LDRI)</u>	 19-1
 <u>LASER CAMR SYSTEM (LCS)/INTEGRATED SENSOR INSPECTION SYSTEM</u> <u>DIGITAL CAMR (IDC)</u>	 20-1
 <u>BATTS & FUSES</u>	 21-1

This Page Intentionally Blank

SCENES

	<u>PAGE</u>
P/TV01 VIDEO SETUP.....	FS 1-4
P/TV02 DOCK	FS 1-14
P/TV03 UNDOCK	FS 1-24
P/TV04 INGRESS/EGRESS.....	FS 1-34
P/TV05 ISS INTERNAL OPS (HC).....	FS 1-40
P/TV06 ROBOTICS OPERATIONS	FS 1-48
P/TV07 EVA.....	FS 1-52
P/TV08 EXTERNAL SURVEY	FS 1-58
P/TV09 MIDDECK PAYLOADS.....	FS 1-66

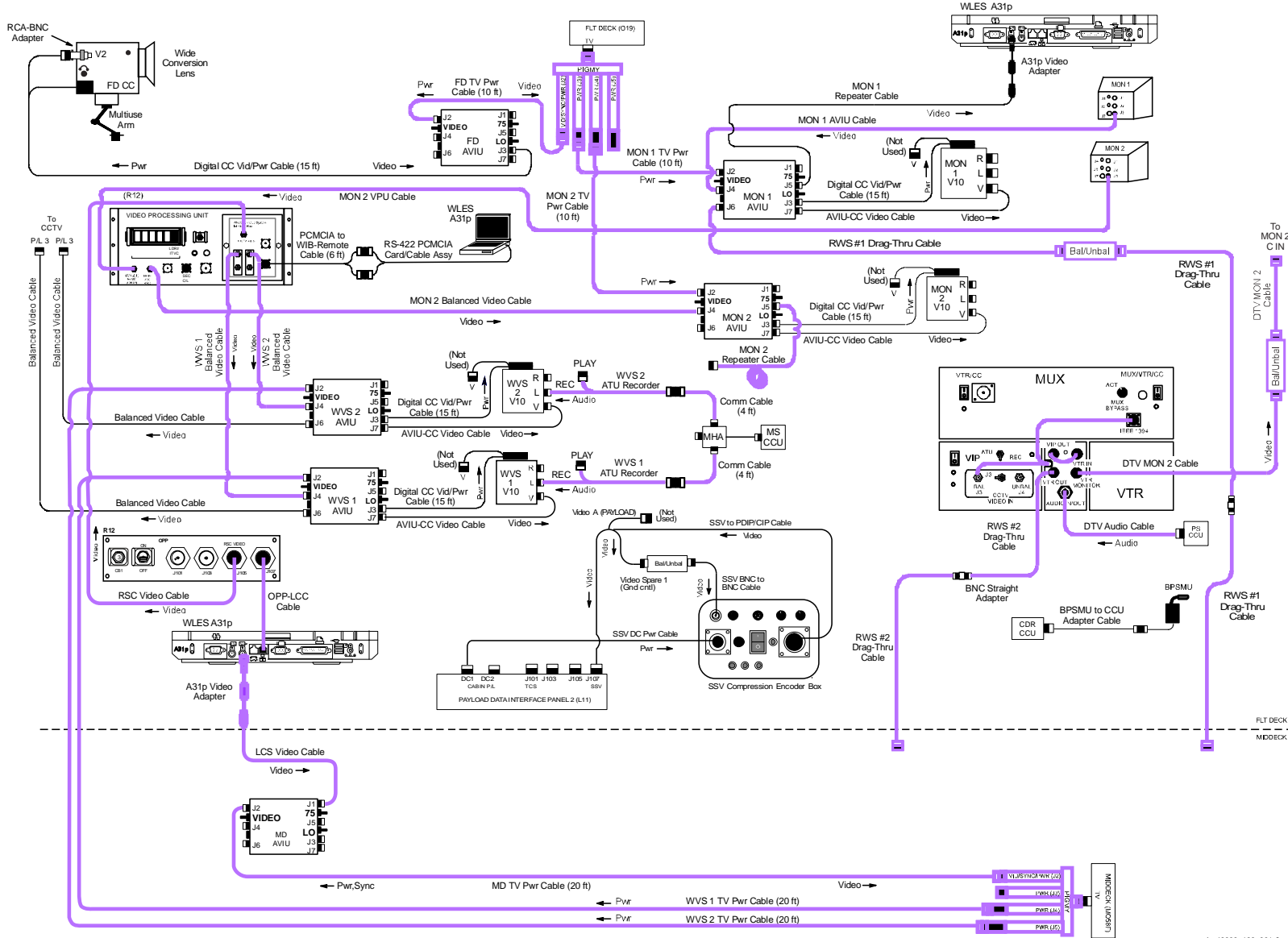
This Page Intentionally Blank

This Page Intentionally Blank

P/TV01 VIDEO SETUP

P/TV01 VIDEO SETUP

H/W SUMMARY



js048038_128_001r3.cvx

P/TV01 VIDEO SETUP (Continued)

SETUP

NOTE

Steps 1-7 minimum rqmt for OBSS RCC Inspection (focused and post undocked)

1. Perform ACTIVATION, OPERATION (Cue Card, TV) as reqd
2. Perform DTV Setup

O19 TV PWR – OFF

L10:A1 Unstow AVIU and disconnect following cables:
ASC/ENT/FD TV Pwr Cable from J2
AVIU Adapter Cable from J5
ASC/ENT FD V10 Cable from J1

A15 Connect DTV Audio Cable to PS CCU
Config DTV H/W per H/W SUMMARY, FS 1-4

L10 (MUX) Config Panels
√VTR/CC PWR – on (LED on)
If dnk:
MUX/VTR/CC PWR – on (LED on)
√MUX BYPASS – ACT

(VIP) √ATU – REC
√CCTV VIDEO IN – J3
√PWR – on (LED on)

(VTR) √ON/STANDBY LED – green
√Switches set to White Dot (seven)
√COUNTER SELECT – COUNTER (TC)

MON 2 Config Video
L9 SOURCE – C
Config PS ATU per Comm Plan

P/TV01 VIDEO SETUP (Continued)

SETUP (Continued)

3. Perform MON 1,2 V10 Setup

MA9F Remove MON 1,2 Desk Assy Hardware from Stow-n-Go CTB

O19 TV PWR – OFF

Config MON 1,2 V10s and Cables per H/W SUMMARY, FS 1-4

Retrieve MON 1 V10 from MS1 Saddlebag

Connect:

MON 1,2 Digital CC Vid/Pwr Cables to MON 1,2 V10s

MON 1,2 AVIU-CC Video Cables to MON 1,2 V10s

Multiuse Brkt to desk

RWS #1 Drag-Thru Cable to MON 1 AVIU J6

MON 1 AVIU Cable to MON 1 AVIU J4

MON 2 Balanced Video Cable to MON 2 AVIU J4

MON 1,2 TV PWR Cable to MON 1,2 AVIU J2

MON 1 Repeater Cable string to A31p Vid In port

Multiuse Brkt to wall

AVIU (MON 1,2) √SYNC/VIDEO – VIDEO

√HI-Z/75 – 75

√PWR SELECT – LO

R12 (VPU) VPU PWR – ON (LED on)

O19 TV PWR – ON

V10 (MON 1,2) PWR – ON

DISPLAY pb – toggle to display tape counter

√Tape installed

4. √RSC Video Cable connected between R12/OPP-RSC Video (J105) and R12/WIB-CCTV PL3

P/TV01 VIDEO SETUP (Continued)

SETUP (Continued)

5. Perform Analog Camcorder Setup for FD per H/W SUMMARY, FS 1-4, as reqd

O19 TV PWR – OFF |

AVIU SYNC/VIDEO – VIDEO |
HI-Z/75 – 75
PWR SELECT – LO

O19,MO58F TV PWR – ON

CC Install Wide Conversion lens
√ND FILTER – OFF
√OUTPUT – CAM
√.. -
√STANDBY/LOCK – STANDBY
PWR dial – “green”
√Tape installed
√Viewfinder (LCD) displays “green” •||
Install Audio Muting Plug (optional)
Install Multiuse Brkt

6. Perform LCS Cable Connections per H/W SUMMARY, FS 1-4, as reqd

Unstow MD AVIU from L10:A1 Locker

Middeck AVIU (MD) Connect MD TV Pwr Cable to MD AVIU J2
Connect end of LCS Video Cable to MD AVIU J1 |

Flt Deck √HI-Z/75 – 75
Connect other end of LCS Video Cable (A31p Video Adapter) to A31p Video Out port via PGSC Usage Chart
Connect OPP-LCC Cable to A31p RJ45 Ethernet port via PGSC Usage Chart

P/TV01 VIDEO SETUP (Continued)

SETUP (Continued)

7. Perform SSV Setup

MA16N

Unstow:

- SSV Compression Encoder Box
- SSV BNC-BNC Cable
- SSV to PDIP/CIP Cable
- SSV DC Pwr Cable
- Bal/Unbal Xfmr

Config SSV H/W per H/W SUMMARY, FS 1-4

NOTE

Video Spare 1 controlled by MCC instead of pnl A7

L12 (SSP 2)
L11 (PDIP 2)

√PDIP 2 PWR 1 (CB3) – cl
DC PWR 1 – ON

SSV

Config SSV settings

IN SEL – NTSC

Mode – 3

OUTRATE – 4

SSV Pwr – on

√Pwr LED illum

√ENC DATA LED flickering

√FRM DATA LED flickering

√FILL FRM pulsing

Inform MCC when SSV SETUP complete

P/TV01 VIDEO SETUP (Continued)

SETUP (Continued)

8. Perform WVS Setup

a. Activate WVS System

A7 WIRELESS VID HTR – ON
PWR – ON

MO58F TV PWR – OFF

MA9F b. Remove WVS Hardware from Stow-n-Go CTB

Config WVS 1,2 V10s and Cables per H/W SUMMARY, FS 1-4

Connect:

WVS 1,2 Digital CC Vid/Pwr Cables to WVS 1,2 V10s

WVS 1,2 AVIU-CC Vid Cables to WVS 1,2 V10s

Multiuse Brkt to desk

Pre-routed WVS 1,2 Balanced Video Cables from R12/VPU XCVR 1,2 BAL to WVS 1,2 AVIU J4

Pre-routed WVS TV Pwr Cables to WVS 1,2 AVIU J2

Balanced Video Cables stowed on WVS Stow-n-Go desk to WVS 1,2 AVIU J6

ATU Recorder Cables to left (white) port per H/W SUMMARY, FS 1-4

Multiuse Brkt to wall

PCMCIA-to-WIB Remote Cable to R12/WIB J701

RS-422 PCMCIA Card/Cable Assy and PCMCIA-to-WIB Remote Cable to bottom PCMCIA slot on A31p per

PGSC Usage Chart

AVIU (WVS 1,2) √SYNC/VIDEO – VIDEO
√HI-Z/75 – 75
√PWR SELECT – LO

MO58F V10 (two)
TV PWR – ON
V10 (WVS 1,2) PWR – ON
√Tape installed
√WVS Test Pattern displayed (color bars w/“No WVS Video”)
PWR – OFF

R10 Config MS ATU/CCU per Comm Plan

P/TV01 VIDEO SETUP (Continued)

SETUP (Continued)

8. Perform WVS Setup (Continued)

c. WVS PGSC Prep

PGSC

PGSC Pwrup and Application Opening

√Pwr – ON

Sel Shuttle Apps icon

Sel WVS icon

Sel 'No' at 'Restore To Previous Settings:' window

If 'Comm Port Configuration' error displayed:

Remove Quatech RS-422 Card

Sel 'Start' > 'Shut Down' > 'Shut Down' > 'OK'

Reinstall Quatech RS-422 Card in bottom PCMCIA slot

Pwr – ON

Sel Shuttle Apps icon

Sel WVS icon

RF Camera page will appear

Application Setup

If 'Static XCVR' ('Bad Camera ID', 'Temp Alert', 'Temp Caution') alert msg:

| Perform ALERT MSG TROUBLESHOOTING (Cue Card, WVS)

If 'Static RF Camera' alert msg:

Disregard

Sel 'File' → 'Assign Camera ID'

Verify following:

Camr Address	S/N	In Use	Label
16	1010	1	EV1
18	1007	1	EV2

If Camr IDs not correct:

Sel 'Delete Entry' until all deleted

Perform CAMR ID ASSIGNMENT (Cue Card, WVS) as reqd

When complete, sel 'OK'

P/TV01 VIDEO SETUP (Concluded)

SETUP (Concluded)

8. Perform WVS Setup (Concluded)

c. WVS PGSC Prep (Concluded)

Application Setup (Concluded)

Sel 'File' → 'Advanced Controls'

On XVCR tab:

√IF – selected

√Other options not selected

Sel RF Camera tab:

√Power Selections – selected

√Automatic Gain Control – selected

√S-Band Level – selected

√Other options not selected

When complete, sel 'OK'

d. PWRDN

Sel 'File' → 'Exit'

WIRELESS VID PWR – OFF

HTR – OFF

A7

MA16N

9. Unstow, set up BPSMU w/BPSMU to CCU Adapter Cable at CDR CCU
Connect BPSMU Batt

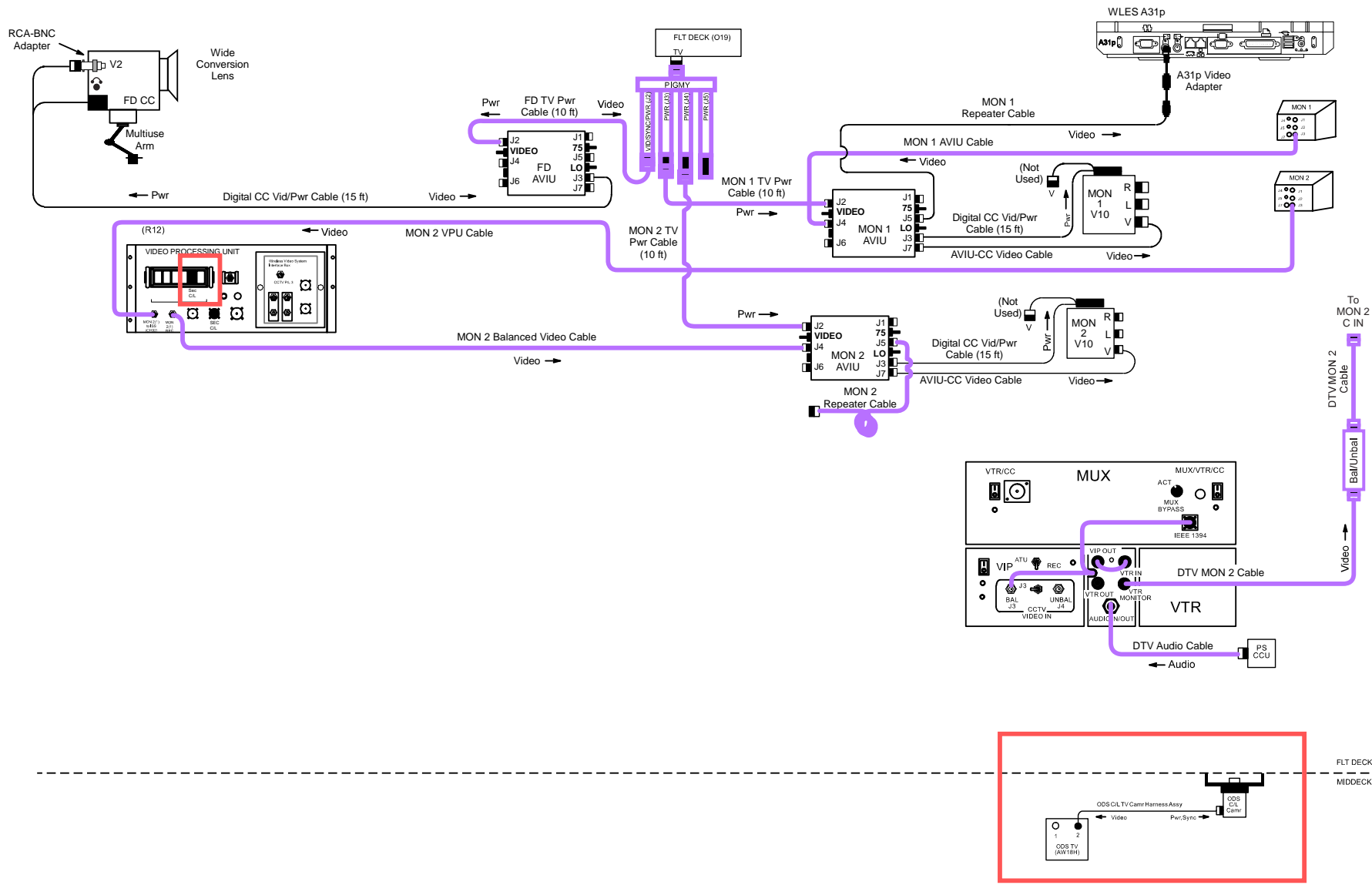
This Page Intentionally Blank

This Page Intentionally Blank

P/TV02 DOCK

P/TV02 DOCK

H/W SUMMARY



P/TV02 DOCK (Continued)

SCENE SYNOPSIS

Scene contains procedures for obtaining video, still photos of ISS rndz, docking

SETUP

1. Perform ACTIVATION, OPERATION (Cue Card, TV) as reqd
2. Perform D2Xs PROGRAM w/FLASH for in-cabin imagery

Lens – 12-24mm

Aperture – Min, locked

Body Focus Mode – S

√Batt installed


√Flash Card installed

Pwr – ON

Top LCD:

√Batt

√Frames remaining sufficient

Exp Comp () – 0.0

Exp Mode – P

Meter – Matrix ()

Diopter – Adjust

Frame Rate – S

√BKT disabled – 0 F

Rear LCD:

√ISO – 100

√QUAL – RAW

√WB – 0,A

AF Area Mode – [[]]

√Focus Area – Center

√Focus Selector Lock – L

SB-800 Flash Settings:

ON/OFF pb – ON

√Diffuser Dome installed

√MODE –  TTL BL

√Exp Comp – 0 EV

Tilt – 45° (Direct)

P/TV02 DOCK (Continued)

SETUP (Continued)

3. Perform D2Xs MANUAL for docking/external imagery

Remove ovhd window shields

Lens – 400mm(80-200mm)

If 400mm:

Focus Limit – ∞ -6m

Lens Focus Mode – A

If 80-200mm:

Focus Limit – full

Lens Focus Mode – M/A

Aperture – Min, locked

Body Focus Mode – S

√Batt installed


√Flash Card installed

Pwr – ON

Top LCD:

√Batt


√Frames remaining sufficient

Exp Comp () – 0.0

Exp Mode – M:

SS – 500

f/stop – 8

Meter – Matrix ()

Diopter – Adjust

Frame Rate – S

√BKT disabled – 0 F

Rear LCD:

√ISO – 100

√QUAL – RAW

√WB – 0,A

AF Area Mode – [[]]

√Focus Area – Center

√Focus Selector Lock – L

SB-800 Flash Settings:

ON/OFF pb – OFF

P/TV02 DOCK (Continued)

SETUP (Continued)

4. Perform Hardware Verification for V10s, FD CC, DTV

O19,MO58F √TV PWR – ON

R12 (VPU) √VPU PWR – ON (LED on)
 √Green Jumper – SEC C/L
 √SEC C/L Cap installed

V10
(MON 1,2) PWR – ON

 √Tape installed
 DISPLAY pb – Toggle to display tape counter

CC For in-cabin views:
 √Wide Conversion lens installed
 √ND FILTER – OFF
 √OUTPUT – CAM
 √ .. -
 √STANDBY/LOCK – STANDBY
 PWR dial – “green”
 √Tape installed
 Open LCD:
 √“green” •|| displayed
 Install Audio Muting Plug (optional)

P/TV02 DOCK (Continued)

SETUP (Concluded)

4. Perform Hardware Verification for V10s, FD CC, DTV (Concluded)

For sunlit ISS views:

Remove Wide Conversion Lens

Install fresh Batt as reqd

√ND FILTER – OFF

AF/M – M

AGC – OFF

GAIN – L

√OUTPUT – CAM

√AWB – ON

√..-

√STANDBY/LOCK – STANDBY

PWR dial – M

√Tape installed

Open LCD:

√“green” •|| displayed

SS – 1/500

√GAIN – 0dB

f/stop – F8.0

√FOCUS – M ∞- (adjust as reqd)

Install Audio Muting Plug (optional)

MON 2
L10 (MUX)

(VIP)
(VTR)

SOURCE – C

VTR/CC PWR – on (LED on)

If dnk, MUX/VTR/CC PWR – on (LED on)

PWR – on (LED on)

ON/STANDBY LED – green

√Tape installed

A31p

Double click ‘Shuttle Apps’ > ‘NASA Video Overlay’

√‘NASA Video Overlay’ window displayed

Sel ‘Full Screen’

Press ‘ESC’ or ‘W’ key to minimize display as reqd

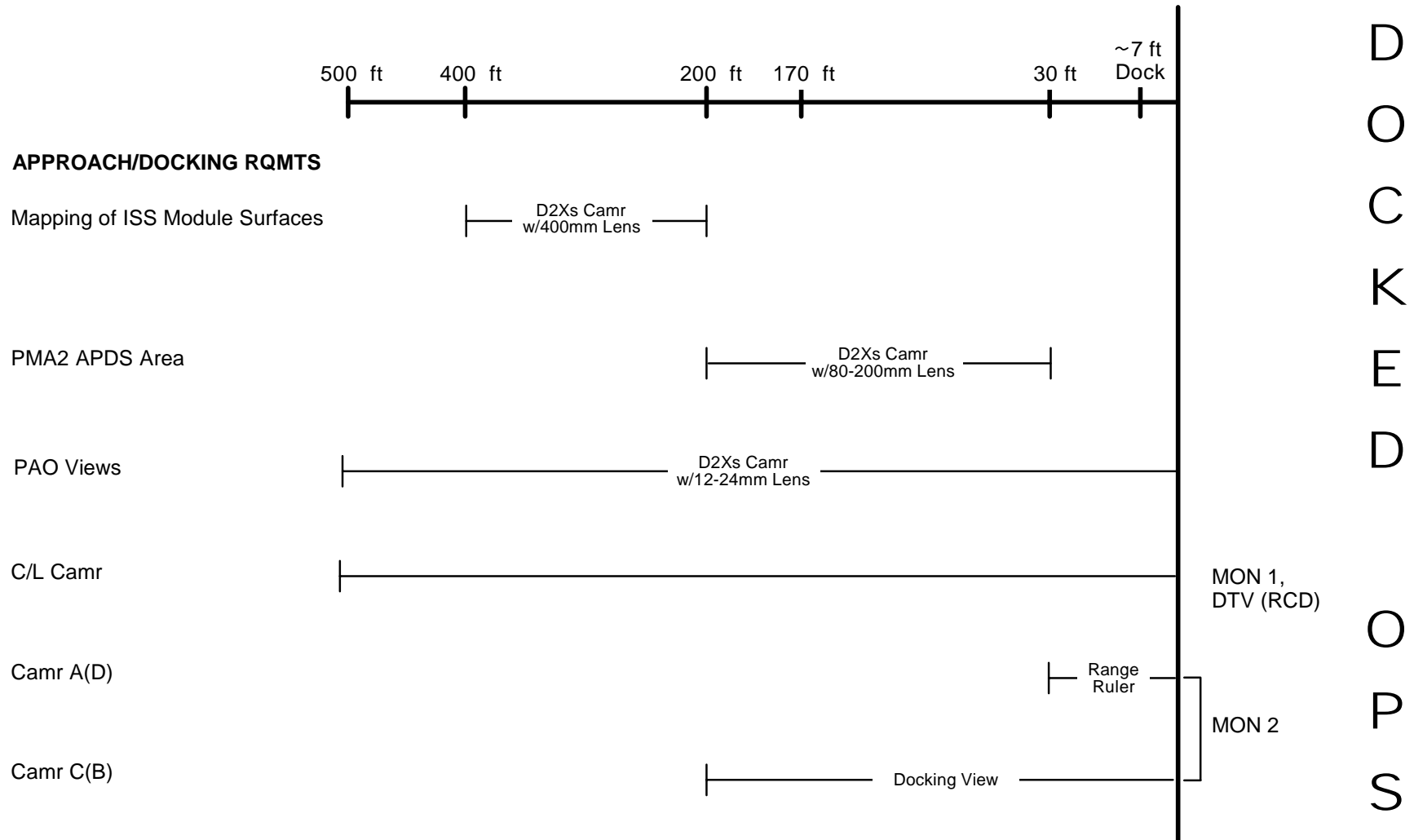
P/TV02 DOCK (Continued)

OPS

√	Item # Track #	Rqmts	Still Imagery	Video			Notes
				PLB	CC	Drnk	
	1. 17A-7	PAO Coverage	<u>D2Xs</u> 12-24mm If exterior: Flash ON/OFF – OFF	As desired	<u>G1</u> Tape installed	LIVE (if avail)	Plan for end of day crew choice video,DCS
	2. 17A-4	Rendezvous <ul style="list-style-type: none"> • Overall • Closeup • Damage • Deterioration 	<u>D2Xs</u> 400mm(80-200mm) Flash ON/OFF – OFF	<u>A(B,C,D), ELB</u>	<u>G1</u> As desired		Map ISS surfaces w/30% overlap
	3. 17A-22	Approach,Dock <ul style="list-style-type: none"> • PMA2 Docking Target • PMA2 Mating Surfaces • PMA2 TCS Planar and Hemispherical Retro Reflectors 	<u>D2Xs (Shutter)</u> 400mm(80-200mm) Flash ON/OFF – OFF	<u>C/L</u> Per RNDZ <u>A(D)</u> Per RNDZ <u>C(B)</u> Docking view	<u>G1</u> As desired		Rcd C/L Camr video thru hard dock on DTV Continually √focus sharpness

P/TV02 DOCK (Continued)

OPS (Continued)



jsc48037_128_003.cvx

P/TV02 DOCK (Concluded)

OPS (Concluded)

If OPS temporarily suspended, perform DEACTIVATION as reqd
If OPS completed, go to DEACTIVATION

DEACTIVATION

1. D2Xs
 - √Exp Mode – P
 - Pwr – OFF
 - √Flash ON/OFF – ON

2. TV System
 - √Green Jumper – SEC C/L
 - √SEC C/L Cap installed
 - √VPU PWR – ON (LED on)
 - A7 VID OUT MON 1 pb – push
 - IN PL2(VPU) pb – push
 - L12 (SSP 2) CAMR CMD IRIS – CL
 - C/L CAM PWR – OFF
 - ODS Remove, stow C/L camr, Harness Assy, Bridge
 - Go to DEACTIVATION (Cue Card, TV) as reqd

3. G1
 - √PWR dial – “green”
 - Install Wide Conversion Lens

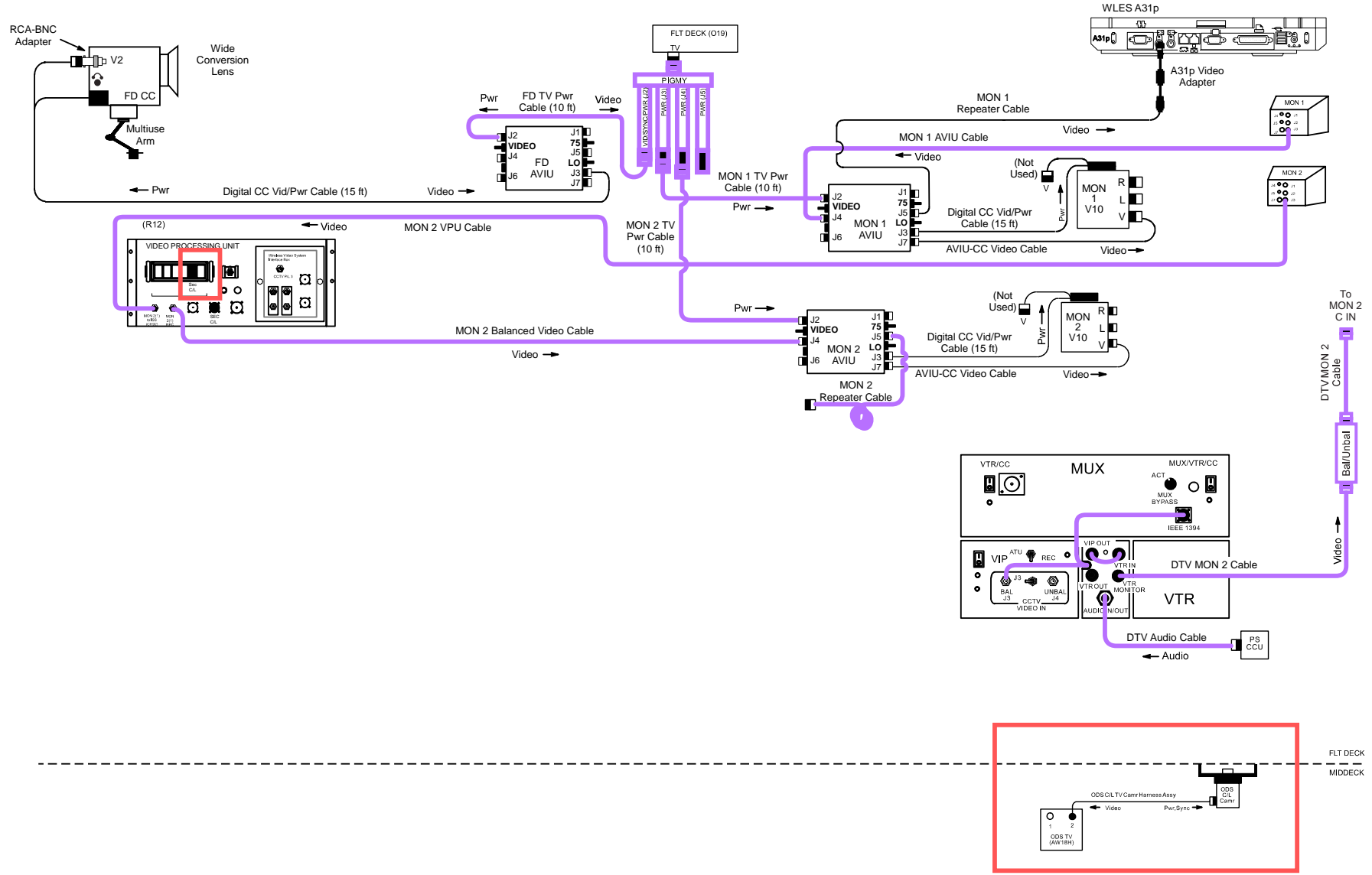
This Page Intentionally Blank

This Page Intentionally Blank

P/TV03 UNDOCK

P/TV03 UNDOCK

H/W SUMMARY



P/TV03 UNDOCK (Continued)



SCENE SYNOPSIS


Scene contains procedures for obtaining video, still photos of ISS undocking, flyaround

SETUP

1. Perform ACTIVATION, OPERATION (Cue Card, TV) as reqd
2. Perform D2Xs PROGRAM w/FLASH for in-cabin imagery

Lens – 12-24mm
Aperture – Min, locked
Body Focus Mode – S
√Batt installed
√Flash Card installed
Pwr – ON
Top LCD:
√Batt
√Frames remaining sufficient

Exp Comp () – 0.0
Exp Mode – P
Meter – Matrix ()
Diopter – Adjust
Frame Rate – S
√BKT disabled – 0 F
Rear LCD:
√ISO – 100
√QUAL – RAW
√WB – 0,A
AF Area Mode – [[]]
√Focus Area – Center
√Focus Selector Lock – L

SB-800 Flash Settings:
ON/OFF pb – ON
√Diffuser Dome installed
√MODE –  TTL BL
√Exp Comp – 0 EV
Tilt – 45° (Direct)

P/TV03 UNDOCK (Continued)

SETUP (Continued)

3. Perform D2Xs MANUAL for undocking/external imagery

Remove ovhd window shields

Lens – 400mm(80-200mm)

If 400mm:

Focus Limit – ∞ -6m

Lens Focus Mode – A

If 80-200mm:

Focus Limit – full

Lens Focus Mode – M/A

Aperture – Min, locked

Body Focus Mode – S

√Batt installed


√Flash Card installed

Pwr – ON

Top LCD:

√Batt


√Frames remaining sufficient

Exp Comp () – 0.0

Exp Mode – M:

SS – 500

f/stop – 8

Meter – Matrix ()

Diopter – Adjust

Frame Rate – S

√BKT disabled – 0 F

Rear LCD:

√ISO – 100

√QUAL – RAW

√WB – 0,A

AF Area Mode – [[]]

√Focus Area – Center

√Focus Selector Lock – L

SB-800 Flash Settings:

ON/OFF pb – OFF

P/TV03 UNDOCK (Continued)

SETUP (Continued)

4. Perform Hardware Verification for V10s, FD CC, DTV

- O19 √TV PWR – ON
- R12 (VPU) √VPU PWR – ON (LED on)
 √Green Jumper – SEC C/L
 √SEC C/L Cap installed
- V10
(MON 1,2) PWR – ON

 √Tape installed
 DISPLAY pb – Toggle to display tape counter
- CC For in-cabin views:
 √Wide Conversion lens installed
 √ND FILTER – OFF
 √OUTPUT – CAM
 √..-
 √STANDBY/LOCK – STANDBY
 PWR dial – “green”
 √Tape installed
 Open LCD:
 √“green” •|| displayed
 Install Audio Muting Plug (optional)

P/TV03 UNDOCK (Continued)

SETUP (Concluded)

4. Perform Hardware Verification for V10s, FD CC, DTV (Concluded)

CC	<p>For sunlit ISS views:</p> <ul style="list-style-type: none">Remove Wide Conversion LensInstall fresh Batt as reqd√ND FILTER – OFFAF/M – MAGC – OFFGAIN – L√OUTPUT – CAM√AWB – ON√<input type="checkbox"/>..<input type="checkbox"/>-<input type="checkbox"/>√STANDBY/LOCK – STANDBYPWR dial – M√Tape installedOpen LCD:<ul style="list-style-type: none">√“green” • displayedSS – 1/500√GAIN – 0dBf/stop – F8.0√FOCUS – M ∞- (adjust as reqd)Install Audio Muting Plug (optional)	I
MON 2 L10 (MUX) (VIP) (VTR)	<ul style="list-style-type: none">SOURCE – CVTR/CC PWR – on (LED on)If dnlk, MUX/VTR/CC PWR – on (LED on)PWR – on (LED on)ON/STANDBY LED – green√Tape installed	
A31p	<ul style="list-style-type: none">Double click ‘Shuttle Apps’ > ‘NASA Video Overlay’√‘NASA Video Overlay’ window displayedSel ‘Full Screen’Press ‘ESC’ or ‘W’ key to minimize display as reqd	

P/TV03 UNDOCK (Continued)

OPS

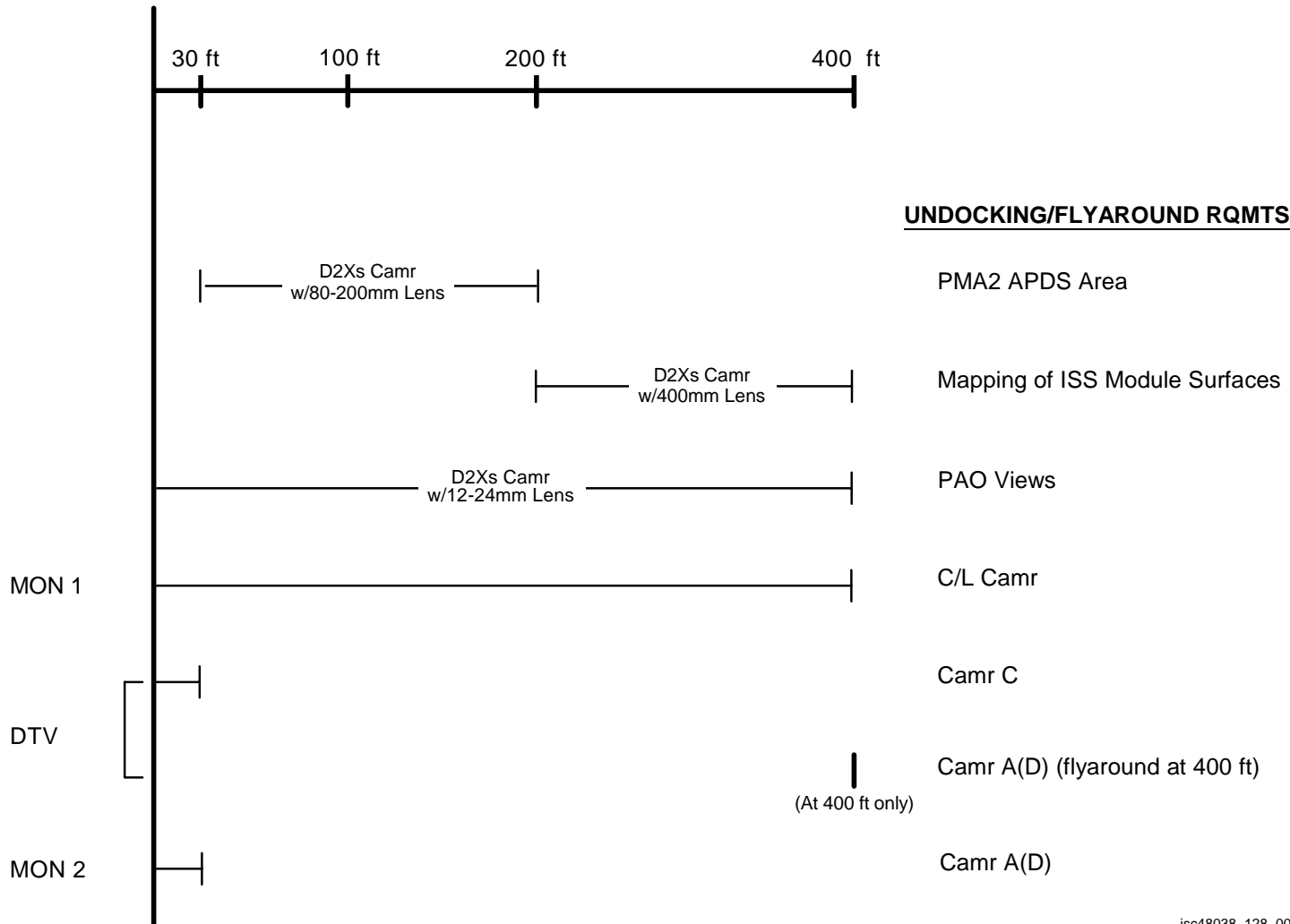
√	Item # Track #	Rqmts	Still Imagery	Video			Notes
				PLB	CC	Dnlk	
	1. 17A-7	PAO Coverage	<u>D2Xs</u> 12-24mm If exterior: Flash ON/OFF – OFF	As desired	<u>G1</u> Tape installed	LIVE (if avail)	Plan for end of day crew choice video,DCS
	2. 17A-2 17A-23 17A-16	Undock and Flyaround <ul style="list-style-type: none"> • Docking Tgt/Mating Surfaces • TCS Planar, Hemispherical Retro Reflectors • Surfaces • Solar Panels • Handrails • SM Thrusters on Zenith, near aft end • Trusses including rads/baseplates and SAWs (in/outboard SABB insulation degradation) 	<u>D2Xs</u> 80-200mm(400mm) Flash ON/OFF – OFF	<u>A(D)</u> Per RNDZ <u>C/L</u> Docking tgt and PAO view	<u>G1</u> Tape installed	LIVE (if avail)	Map ISS surfaces w/30% overlap

P/TV03 UNDOCK (Continued)

OPS (Continued)

D
O
C
K
E
D

O
P
S



jsc48038_128_004.cvx

P/TV03 UNDOCK (Concluded)

OPS (Concluded)

If OPS temporarily suspended, perform DEACTIVATION as reqd
If OPS completed, go to DEACTIVATION

DEACTIVATION

1. D2Xs
 - √Exp Mode – P
 - Pwr – OFF
 - √Flash ON/OFF – ON

2. TV System
 - R12 (VPU) √Green Jumper – SEC C/L
 - √SEC C/L Cap installed
 - √VPU PWR – ON (LED ON)
 - A7U VID OUT MON 1 pb – push
 - IN PL2(VPU) pb – push
 - CAMR CMD IRIS – CL
 - L12 (SSP 2) C/L CAM PWR – OFF

 - ODS Remove, stow C/L Camr, Harness Assy
 - Go to DEACTIVATION (Cue Card, TV) as reqd

3. G1
 - PWR dial – “green”
 - Install Wide Conversion Lens

This Page Intentionally Blank

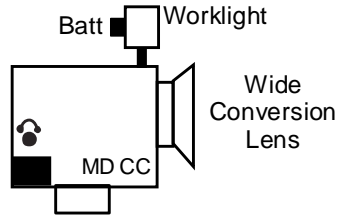
This Page Intentionally Blank

**P/TV04
INGR/EGR**

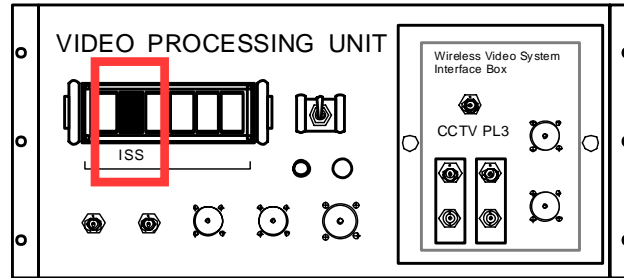
P/TV04 INGRESS/EGRESS

H/W SUMMARY

INGRESS TV CONFIG



(R12)



jsc48038 128 005r1.cvx

P/TV04 INGRESS/EGRESS (Continued)

SCENE SYNOPSIS

Scene contains procedures for documenting ISS ingress/egress w/video and still photos

SETUP

1. Config ISS Video

R12 (VPU) Perform ACTIVATION (Cue Card, TV) for DNLK OPS of ISS signal as reqd
Green Jumper – ISS
√VPU PWR – ON

A7 VID OUT DNLK pb – push
IN PL2(VPU) pb – push

2. Perform Ingress Camcorder Setup

Obtain two Batts, one for CC and one spare
Install Batt

CC Install Wide Conversion lens
√ND FILTER – OFF
√OUTPUT – CAM
√... -
√STANDBY/LOCK – STANDBY
PWR dial – “green”
√Tape installed
√Viewfinder (LCD) displays “green” •||
Install Audio Muting Plug (optional)
Install Multiuse Brkt

CAUTION

Due to temp constraints, worklights at full pwr for 45 min; half pwr for unlimited time



Worklights Install fresh Batts
Mount light on CC
PWR – as reqd



P/TV04 INGRESS/EGRESS (Continued)

SETUP (Concluded)

3. Perform D2Xs PROGRAM w/FLASH

- Lens – 12-24mm
- √Aperture – Min, locked
- Body Focus Mode – S
- √Batt installed
- √Flash Card installed
- Pwr – ON
- Top LCD:
 - √Batt
 - √Frames remaining sufficient

- Exp Comp () – 0.0
- Exp Mode – P
- Meter – Matrix ()
- Diopter – Adjust
- Frame Rate – S
- √BKT disabled – 0 F
- Rear LCD:
 - √ISO – 100
 - √QUAL – RAW
 - √WB – 0,A
- AF Area Mode – [[]]
- √Focus Area – Center
- √Focus Selector Lock – L

- SB-800 Flash Settings:
 - √Diffuser Dome installed
 - ON/OFF pb – ON
 - √MODE –  TTL 
 - √Exp Comp – 0 EV
 - Tilt – 45° (Direct)

P/TV04 INGRESS/EGRESS (Concluded)

OPS

√	Item # Track #	Rqmts	Still Imagery	Video			Notes
				PLB	CC	Dnlk	
	1. 17A-7	Hatch Opening, Ingress Hatch Close, Egress	<u>D2Xs</u> 12-24mm		<u>G1</u>	LIVE (if avail)	

If OPS temporarily suspended, perform DEACTIVATION as reqd
If OPS completed, go to DEACTIVATION

DEACTIVATION

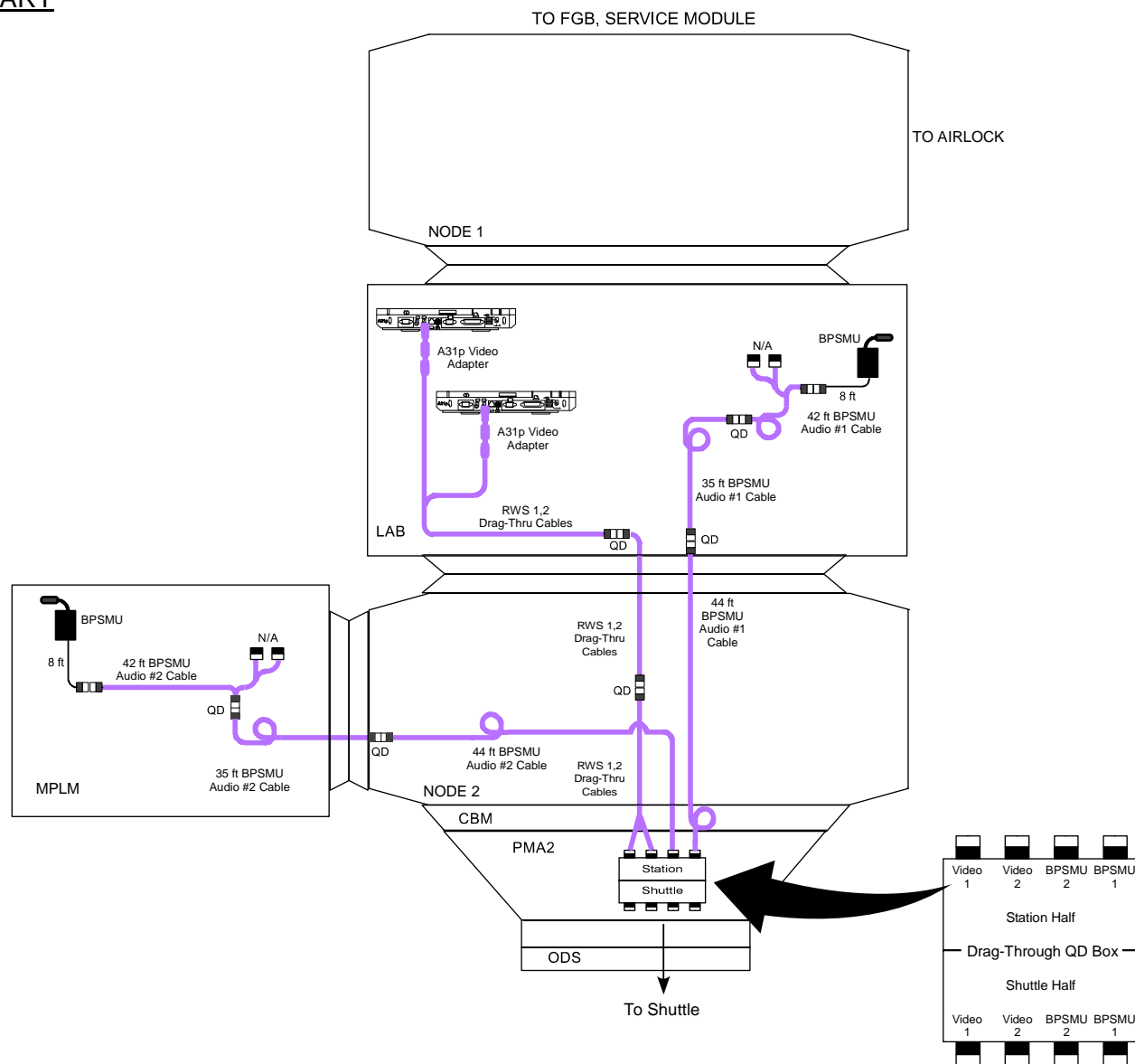
1. D2Xs
Pwr – OFF
2. TV System
Go to DEACTIVATION (Cue Card, TV) as reqd

This Page Intentionally Blank

This Page Intentionally Blank

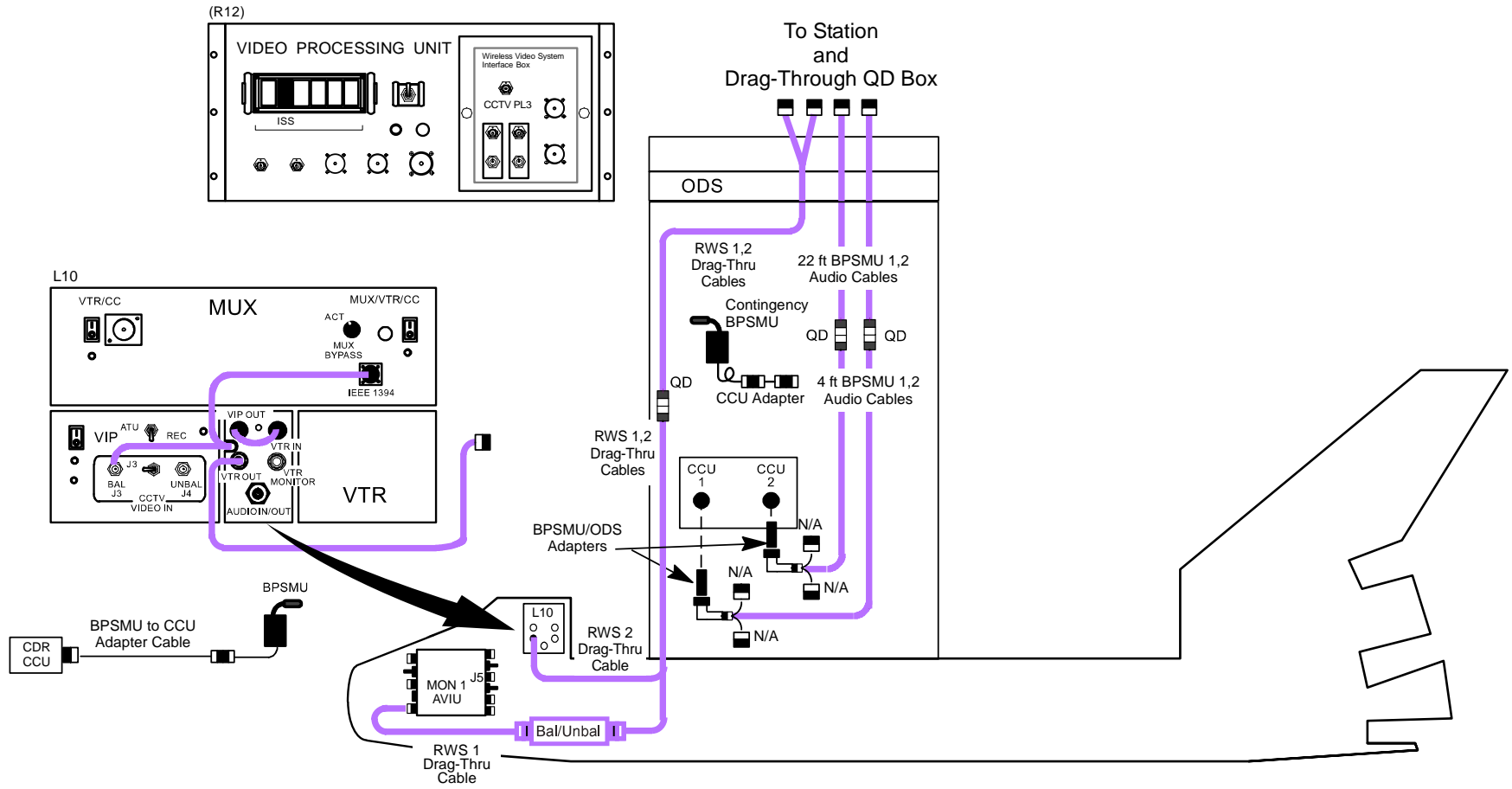
P/TV05 ISS INTERNAL OPS

H/W SUMMARY



P/TV05 ISS INTERNAL OPS (Continued)

H/W SUMMARY (Concluded)



jsc48038_128_006br2.cvx

P/TV05 ISS INTERNAL OPS (Continued)

SCENE SYNOPSIS

Scene contains procedures for setup, documenting ISS internal ops (surveys, PAO events, logistics, transfers, closeouts) w/video, still photos

SETUP

WARNING

Locate QDs at hatches for ease in locating, disconnecting during hatch closure.
Route, restrain cables to prevent loose cable lengths which could entrap crew

BPSMU AND RWS CABLES

1. Config H/W per H/W SUMMARY, FS 1-40 and FS 1-41

MF43E Retrieve second BPSMU, connect internal battery, temp stow in ODS for contingency use

Config RWS Vid Cables:

MON 1,2
(Stow-n-Go)
L10:A1 √RWS 1 Drag-Thru Cable connected to MON 1 AVIU J6

√RWS 2 Drag-Thru Cable connected to DTV VTR OUT connector

Config BPSMU and RWS Cables:

ODS/PMA2 Connect orbiter RWS 1,2 Cables to Drag-Through QD Box
 Connect BPSMU Cables to orbiter A/L CCU 1,2 and Drag-Through QD Box
 Config A/L ATU per Comm Plan

If V10:

ISS | √Pwr configured per P/TV121 DOCKED OPERATIONS, dwg USOS 120VDC –V10 VTRs (SODF: ISS PTV: SCENES)
V10 (RWS 1,2) | PWR – ON

~

P/TV05 ISS INTERNAL OPS (Continued)

SETUP (Continued)

BPSMU AND RWS CABLES (Concluded)

- ~
|
If A31p:
- A31p If A31p w/‘NASA Video Monitor’ under Station Apps:
 √Drag-Thru Cable connected to A31p Video Adapter
 √PWR – ON
 Sel ‘Station Apps: NASA Video Monitor’
 √‘NASA Video Monitor 1.0.0.0’ window displayed
 Sel ‘Settings’
 √‘Configuration’ window displayed
 Video Input Standard: – NTSC
 √Input – ‘Composite (RCA)’
 Control – press ‘Set to defaults’ pb
 Commit Changes – ‘OK’
 Sel ‘Full Screen’
 Press ‘ESC’ to minimize display as reqd
- A31p If A31p w/‘COSS Apps: Video Converter’ under Station Apps:
 √Drag-Thru Cable connected to A31p Video Adapter
 √PWR – ON
 Sel ‘Station Apps: COSS Apps: Video Converter’
 √‘Video Converter’ window displayed
 Sel ‘Set Properties’
 √‘Video Settings’ window displayed
 Format: – NTSC
 Close ‘Video Settings’ window
 Sel ‘Full Screen’
 Press ‘ESC’ or ‘W’ to minimize display as reqd

PAO EVENT

1. Config VPU
R12 (VPU) √Green Jumper – ISS
 √VPU PWR – ON (LED on)
2. Config Shuttle Video
A7 VID OUT DNLK pb – push
 IN PL2(VPU) pb – push

P/TV05 ISS INTERNAL OPS (Continued)

SETUP (Concluded)

STILL CAMR

1. Perform D2Xs PROGRAM w/FLASH

Lens – 12-24mm

√Aperture – Min, locked

Body Focus Mode – S

√Batt installed


√Flash Card installed

Pwr – ON

Top LCD:

√Batt

√Frames remaining sufficient

Exp Comp () – 0.0

Exp Mode – P

Meter – Matrix ()

Diopter – Adjust

Frame Rate – S

√BKT disabled – 0 F

Rear LCD:

√ISO – 100

√QUAL – RAW

√WB – 0,A

AF Area Mode – [[]]

√Focus Area – Center

√Focus Selector Lock – L

SB-800 Flash Settings:

√Diffuser Dome installed

ON/OFF pb – ON

√MODE –  TTL BL

√Exp Comp – 0 EV

Tilt – 45° (Direct)

P/TV05 ISS INTERNAL OPS (Concluded)

OPS

√	Item # Track #	Rqmts	Still Imagery	Video			Notes
				PLB	CC	Dnlk	
	1.	General ISS IVA Activity <ul style="list-style-type: none"> • PAO Scenes of Interest • Crew Photo 	<u>D2Xs</u> 12-24mm For Crew Photo: Perform D2Xs CREW PHOTO (Cue Card, <u>D2Xs</u> <u>SETUP</u>)		<u>ISS G1</u>	LIVE (if avail)	Plan for end of day crew choice video

If OPS temporarily suspended, perform DEACTIVATION as reqd
 If OPS completed, go to DEACTIVATION

DEACTIVATION

1. D2Xs
Pwr – OFF
2. Drag-Through QD Box
Disconnect:
RWS Cables (two) from orbiter side Video 1,2 ports. Stow cables on orbiter
BPSMU Cables from orbiter side BPSMU 1,2 and ODS CCU ports; stow cables on orbiter
Transfer Drag-Through QD Box and remaining attached cables to ISS
3. Temp Stowed BPSMU
Remove temp-stowed BPSMU from ODS location. Stow in MF43E
4. TV System
Go to DEACTIVATION (Cue Card, TV) as reqd

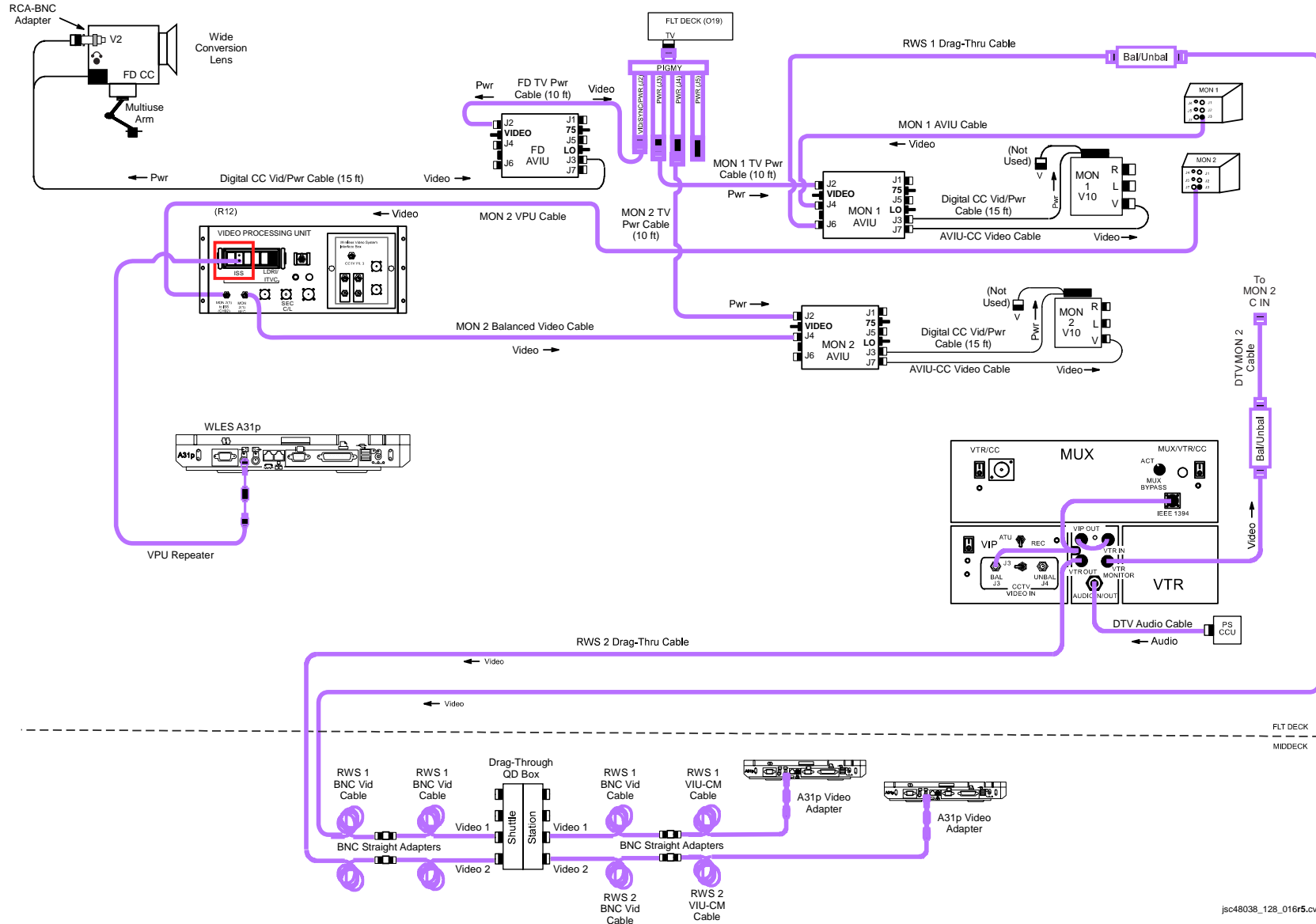
ODS

This Page Intentionally Blank

This Page Intentionally Blank

P/TV06 ROBOTICS OPERATIONS

H/W SUMMARY



jsc48038_128_016r5.cvx

P/TV06 ROBOTICS OPERATIONS (Continued)

SCENE SYNOPSIS

Scene contains procedures for obtaining video of SSRMS activities

SETUP

1. Perform ACTIVATION, OPERATION (Cue Card, TV) as reqd
2. Perform Hardware Verification for V10s, FD CC, DTV, Keel Camr

O19 √TV PWR – ON

R12 (VPU) √VPU PWR – ON (LED on)
 Green Jumper – LDRI/ITVC

 √Drag-Thru Cables configured as reqd

V10
(MON 1,2) PWR – ON
 √Tape installed
 DISPLAY pb – Toggle to display tape counter

CC √Wide Conversion lens installed
 √ND FILTER – OFF
 √OUTPUT – CAM
 √..-

 √STANDBY/LOCK – STANDBY
 PWR dial – “green”

 √Tape installed
 √Viewfinder (LCD) displays “green” •||
 Install Audio Muting Plug (optional)
 Install Multiuse Brkt

MON 2
L10 (MUX) SOURCE – C
 VTR/CC PWR – on (LED on)
 If dnk, MUX/VTR/CC PWR – on (LED on)

 (VIP) PWR – on (LED on)

 (VTR) ON/STANDBY LED – green
 √Tape installed

P/TV06 ROBOTICS OPERATIONS (Continued)

SETUP (Concluded)

- R12 (VPU) 3. MPLM Reberth:
 - √VPU PWR – ON
 - Green Jumper – KEEL 1
- (SSP 2)
 - √cb SW PWR 3 – cl
 - √MPLM KEEL CAM HTR/ILLUM PWR – ON
 - PWR – ON

OPS

√	Item # Track #	Rqmts	Still Imagery	Video			Notes
			DCS	PLB	CC	Dnlk	
	1. 17A-7	PAO Coverage	D2Xs 12-24mm If exterior: Flash ON/OFF – OFF	As desired	G1 Tape installed	LIVE (if avail)	Plan for end of day crew choice video,DCS
	2. 17A-20	MPLM XFER TO ISS <ul style="list-style-type: none"> • SSRMS Grapple,Release • ROEU Disconnect • PRLA,Keel Latch Release • Unberth,Hover • Positioning Mnvr for CBM Seal Inspection • Premate Mnvr of MPLM to Node 2 • Matings • Capture • Securing MPLM to NODE 2 • SSRMS Release • Still Photo of RWS Monitor w/CBCS Overlay and CBCS Camr View of MPLM Target 	D2Xs 28-70mm EXP Mode – S SS: 1/30 sec Flash ON/OFF – ON	Per SODF: ROBO FS			Rcd video

P/TV06 ROBOTICS OPERATIONS (Concluded)

OPS (Concluded)

√	Item # Track #	Rqmts	Still Imagery	Video			Notes
			DCS	PLB	CC	Drnk	
	3. 17A-20	MPLM XFER to PLB <ul style="list-style-type: none"> • Removal • Berthing • PRLA Latching • ROEU Connect 		Per SODF: ROBO FS			Rcd video

If OPS temporarily suspended, perform DEACTIVATION as reqd
 If OPS completed, go to DEACTIVATION

DEACTIVATION

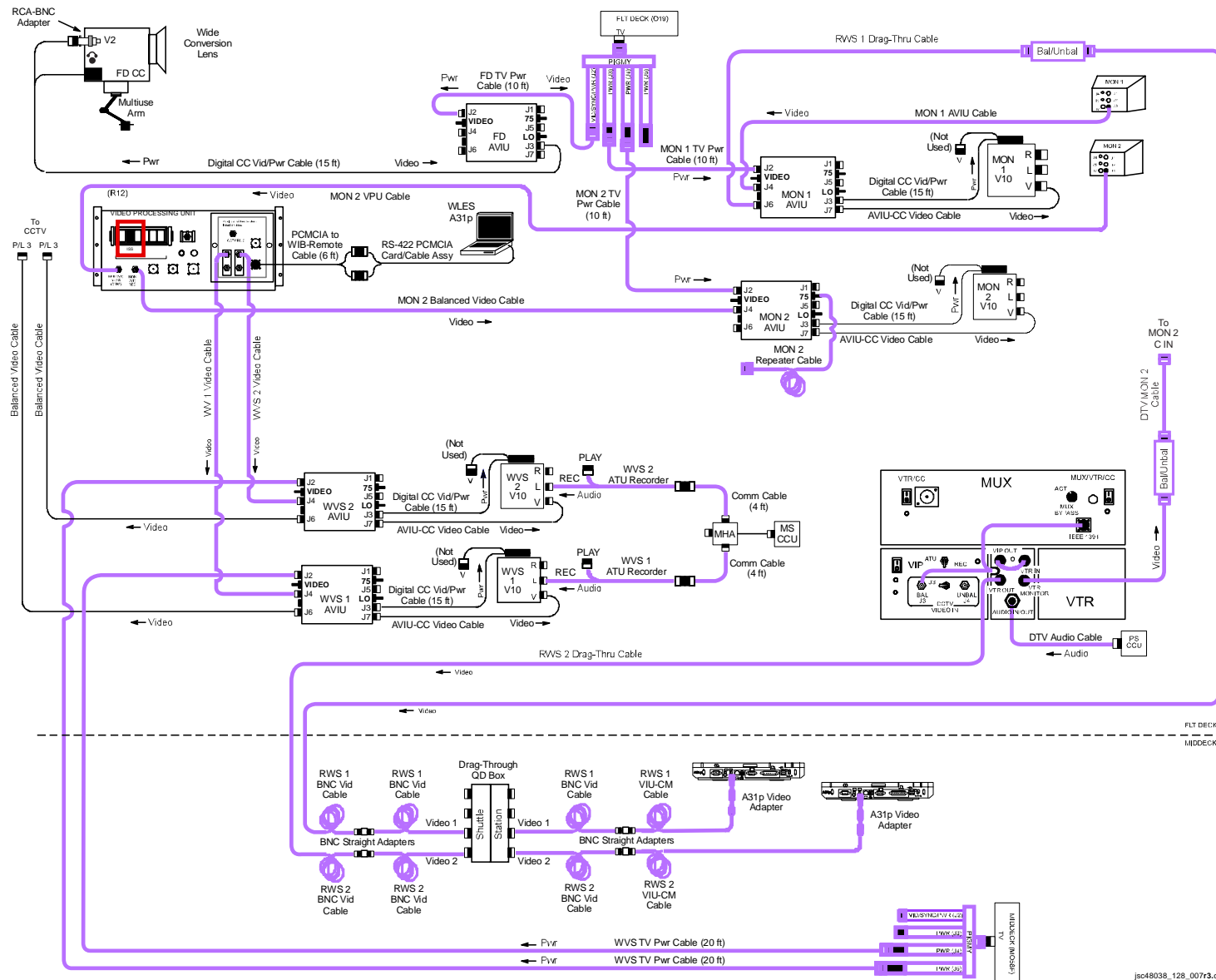
- L12 (SSP2)
1. TV System
 MPLM KEEL CAM PWR – OFF
 √HTR/ILLUM PWR – ON
- Go to DEACTIVATION (Cue Card, TV) as reqd

This Page Intentionally Blank

This Page Intentionally Blank

P/TV07 EVA

H/W SUMMARY



jsa48038_128_007r3.cvx

P/TV07 EVA (Continued)

SCENE SYNOPSIS

Scene contains procedures for documenting ISS EVA and IVA ops w/video, still photos

SETUP

FOR ALL EVAs:

1. Perform ACTIVATION, OPERATION (Cue Card, IV) as reqd

2. Perform D2Xs PROGRAM w/FLASH

Lens – 12-24mm

√Aperture – Min, locked

Body Focus Mode – S

√Batt installed


√Flash Card installed

Pwr – ON

Top LCD:

√Batt

√Frames remaining sufficient

Exp Comp () – 0.0

Exp Mode – P

Meter – Matrix ()

Diopter – Adjust

Frame Rate – S

√BKT disabled – 0 F

Rear LCD:

√ISO – 100

√QUAL – RAW

√WB – 0,A

AF Area Mode – [[]]

√Focus Area – Center

√Focus Selector Lock – L

SB-800 Flash Settings:

√Diffuser Dome installed

ON/OFF pb – ON

√MODE –  TTL 

√Exp Comp – 0 EV

Tilt – 45° (Direct)

P/TV07 EVA (Continued)

SETUP (Continued)

3. Perform Hardware Verification for V10s, FD CC, DTV

O19	√TV PWR – ON
R12 (VPU)	√VPU PWR – ON (LED on) √Green Jumper – ISS
V10 (MON 1,2, WVS 1,2)	PWR – ON √Tape installed DISPLAY pb – Toggle to display tape counter
CC	Install Wide Conversion lens √ND FILTER – OFF √OUTPUT – CAM √ <input type="checkbox"/> .. <input type="checkbox"/> - <input type="checkbox"/> √STANDBY/LOCK – STANDBY PWR dial – “green” <input type="checkbox"/> √Tape installed √Viewfinder (LCD) displays “green” • Install Audio Muting Plug (optional) Install Multiuse Brkt
MON 2 L10 (MUX) (VIP) (VTR)	SOURCE – C VTR/CC PWR – on (LED on) If dnk, MUX/VTR/CC PWR – on (LED on) PWR – on (LED on) ON/STANDBY LED – green √Tape installed

P/TV07 EVA (Concluded)

OPS

√	Item # Track #	Rqmts	Still Imagery	Video			Notes
				PLB	CC	Dnlk	
	1. 17A-7	PAO Coverage	IVA D2Xs 12-24mm If exterior: Flash ON/OFF – OFF	As desired <u>WVS</u>	G1 As desired	LIVE (if avail)	Plan for end of day crew choice video, DCS stills

If OPS temporarily suspended, perform DEACTIVATION as reqd
 If OPS completed, go to DEACTIVATION

DEACTIVATION

1. IVA D2Xs
 Pwr – OFF
 √Flash ON/OFF – ON
 Download images

2. TV System
 Perform PWRDN (Cue Card, WVS)
 Go to DEACTIVATION (Cue Card, TV) as reqd

This Page Intentionally Blank

**P/TV08
EXT SURVEY**

P/TV08 EXTERNAL SURVEY

SCENE SYNOPSIS

Scene contains procedures for documenting STS,ISS external structures w/still photos during general survey activities

SETUP

1. D2Xs Camr Configuration for OMS Pod Survey

Remove aft window shields

If Sunlit OMS Pod, config D2Xs Manual Mode:

Lens – 80-200mm at 200mm

Focus Limit – full

Lens Focus Mode – M/A

Aperture – Min,locked

Body Focus Mode – S

√Batt installed

√Flash Card installed

Pwr – ON

Top LCD:

√Batt

√Frames remaining sufficient

Exp Comp () – 0.0

Exp Mode – M:

SS – 1000

f/stop – F8

Meter – Matrix ()

Diopter – Adjust

Frame Rate – S

√BKT disabled – 0 F

Rear LCD:

√ISO – 100

√QUAL – RAW

√WB – 0,A

AF Area Mode – [[]]

√Focus Area – Center

√Focus Selector Lock – L

SB-800 Flash Settings:

ON/OFF pb – OFF

P/TV08 EXTERNAL SURVEY (Continued)

SETUP (Continued)

1. D2Xs Camr Configuration for OMS Pod Survey (Concluded)

↑
If Earthshine OMS Pod, config D2Xs Program Mode:

Lens – 80-200mm at 200mm

Focus Limit – full

Lens Focus Mode – M/A

√Aperture – Min, locked

Body Focus Mode – S

√Batt installed


√Flash Card installed

Pwr – ON

Top LCD:

√Batt

√Frames remaining sufficient

Exp Comp () – 0.0

Exp Mode – P

Meter – Matrix )

Diopter – Adjust

Frame Rate – S

√BKT disabled – 0 F

Rear LCD:

√ISO – 100

√QUAL – RAW

√WB – 0,A

AF Area Mode – [[]]

√Focus Area – Center

√Focus Selector Lock – L

SB-800 Flash Settings:

ON/OFF pb – OFF

P/TV08 EXTERNAL SURVEY (Continued)

SETUP (Continued)

2. D2Xs Camr Config for ISS Still Survey (D2Xs Shutter Priority Mode)

Lens – 50mm(80-200mm @ 200mm)

If 80-200mm:

Focus Limit – full

Lens Focus Mode – M/A

√Aperture – Min, locked

Body Focus Mode – S

√Batt installed


√Flash Card installed

Pwr – ON

Top LCD:

√Batt

√Frames remaining sufficient

Exp Comp () – 0.0

Exp Mode – S:

SS – 500

Meter – Matrix ()

Diopter – Adjust

Frame Rate – S

√BKT disabled – 0 F

Rear LCD:

√ISO – 100

√QUAL – RAW

√WB – 0,A

AF Area Mode – [[]]

√Focus Area – Center

√Focus Selector Lock – L



SB-800 Flash Settings:

ON/OFF pb – OFF

P/TV08 EXTERNAL SURVEY (Continued)

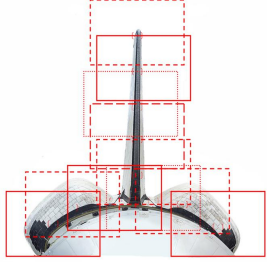
SETUP (Concluded)

3. D2Xs Camr Config for SEITE(SIMPLEX) (D2Xs Shutter Priority Mode)

- Lens – 28mm
 - √Aperture – Min, locked
 - Body Focus Mode – S
 - √Batt installed
 - √Flash Card installed
 - Pwr – ON
 - Top LCD:
 - √Batt
 - √Frames remaining sufficient
 - Exp Comp () – 0.0
 - Exp Mode – S:
 - SS – 500
 - Meter – Matrix ()
 - Diopter – Adjust
 - Frame Rate – S
 - √BKT disabled – 0 F
 - Rear LCD:
 - √ISO – 100
 - √QUAL – RAW
 - √WB – 0,A
 - AF Area Mode – [[]]
 - √Focus Area – Center
 - √Focus Selector Lock – L
- Accessory Equipment:
- Shutter Release Cable – install
 - Multiuse Base – install in W9/10
 - Multiuse Brkt – install on Base
- SB-800 Flash Settings:
- ON/OFF pb – OFF

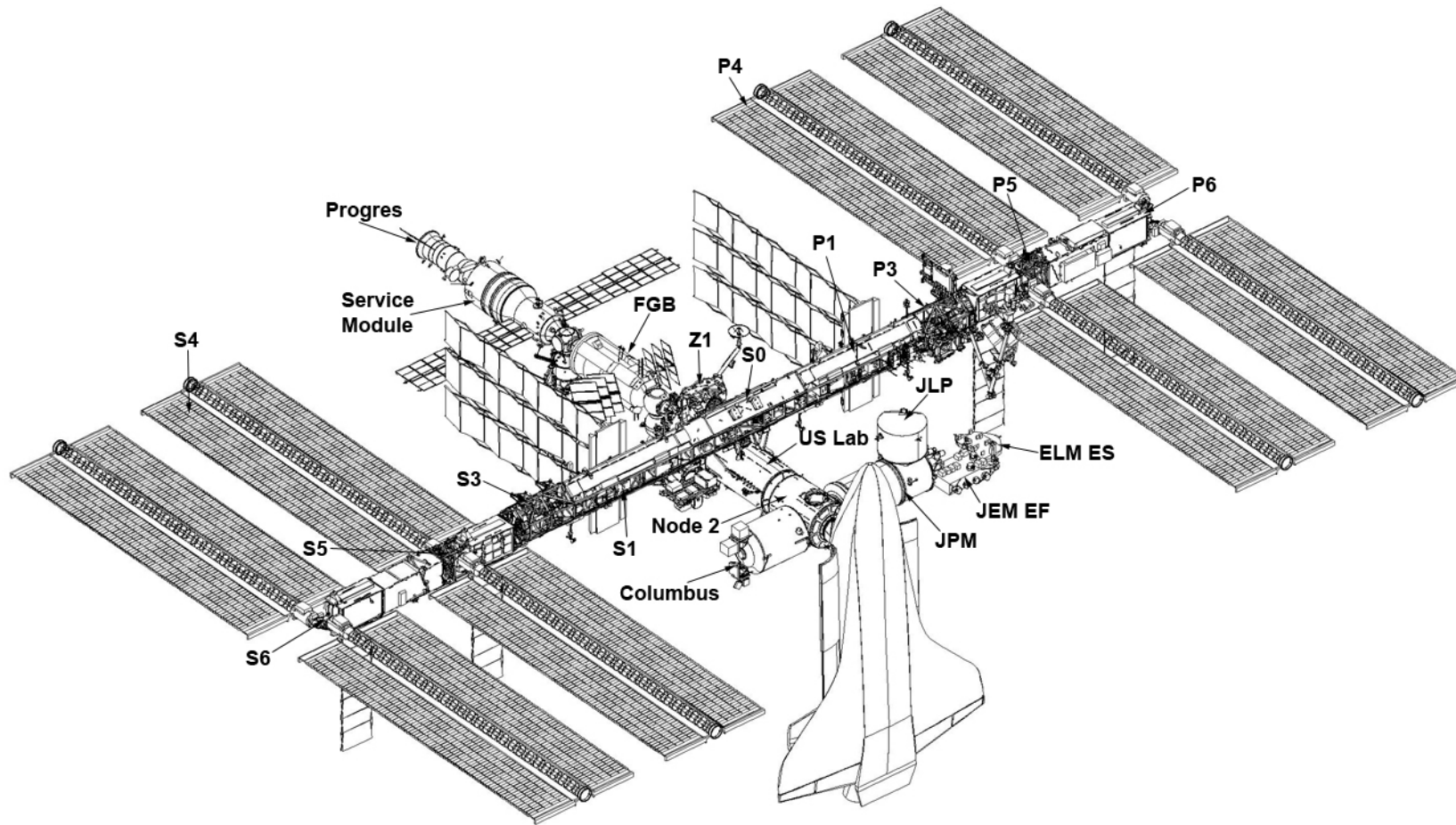
P/TV08 EXTERNAL SURVEY (Continued)

OPS

√	Item # Track #	Rqmts	Still Imagery	Video			Notes
				PLB	CC	Dnlk	
	1.	<u>OMS Pod Survey</u> <ul style="list-style-type: none"> • No shadows on OMS pod tiles • Remove window shields • 50 percent overlap mapping of both OMS pods and vertical stabilizer w/emphasis on Black Tile areas • Repeat thru other window 	<u>D2Xs</u> 80-200mm @ 200mm				Download images to MCC once complete 
	2. 17A-4	<u>ISS Still Survey</u> <ul style="list-style-type: none"> • Surfaces • Solar Panels • Handrails • MISSE • Plasma Arcing • S0,S1,S3,S4,S5,P1,P3,P4, P5,P6 Truss Radiators/ Baseplates, SAWs • ESP-2 • P6 Fwd PVR Base Bubble 	<u>D2Xs</u> 50mm (80-200mm @ 200mm)				Map ISS surfaces w/30% overlap from all Flt Deck windows
	3. 17A-5	<u>SEITE(SIMPLEX)</u> <ul style="list-style-type: none"> • Obtain minimum of one photo at beginning, middle, end of OMS Burn 	<u>D2Xs</u> 28mm				Initial photo within 5 sec of burn

P/TV08 EXTERNAL SURVEY (Continued)

OPS (Continued)



Priority of ISS Photographic Targets During Docked Phase:

1. P6, P5, P3/P4, ESP 3, P1, JEM, JLP, Columbus, S1, S3/S4, S5, S6, Solar Arrays – W1, W6
2. Node 2, Columbus, JEM, JLP – W7, W8
3. PMA2 – W9, W10

P/TV08 EXTERNAL SURVEY (Concluded)

OPS (Concluded)

If OPS temporarily suspended, perform DEACTIVATION as reqd
If OPS completed, go to DEACTIVATION

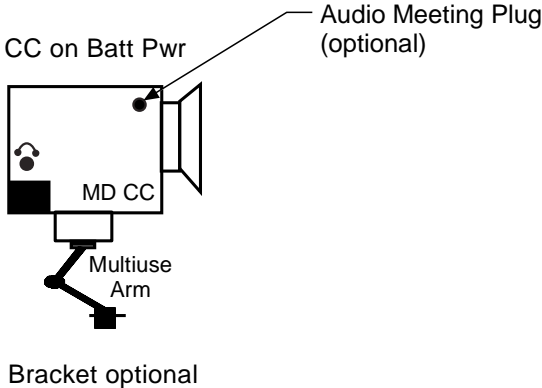
DEACTIVATION

1. D2Xs
√Exp Mode – P
PWR – OFF
Flash ON/OFF – ON

This Page Intentionally Blank

P/TV09 MIDDECK PAYLOADS

H/W SUMMARY



jsc48038_128_017r1.cvx

P/TV09 MIDDECK PAYLOADS (Continued)

SCENE SYNOPSIS

Scene contains procedures for obtaining in-cabin video conducted within orbiter/ISS

SETUP

1. Perform Camcorder Setup for MD per H/W SUMMARY, FS 1-66, as reqd



CC


- √Batt installed
- Install Wide Conversion lens
- √ND FILTER – OFF
- √OUTPUT – CAM
- √..-
- √STANDBY/LOCK – STANDBY
- PWR dial – “green”
- √Tape installed
- √Viewfinder (LCD) displays “green” •||
- Install Audio Muting Plug (optional)
- Install Multiuse Brkt
- PWR dial – OFF

P/TV09 MIDDECK PAYLOADS (Continued)

SETUP (Concluded)

2. Perform D2Xs PROGRAM w/FLASH

- Lens – 12-24mm
- Aperture – Min, locked
- Body Focus Mode – S
- √Batt installed
- √Flash Card installed
- Pwr – ON
- Top LCD
 - √Batt
 - √Frames remaining sufficient
- Exp Comp () – 0.0
- Exp Mode – P
- Meter – Matrix ()
- Diopter – Adjust
- Frame Rate – S
- √BKT disabled – 0 F
- Rear LCD
 - √ISO – 100
 - √QUAL – RAW
 - √WB – 0,A
- AF Area Mode – [[]]
- √Focus Area – Center
- √Focus Selector Lock – L

- SB-800 Flash Settings
 - √Diffuser Dome installed
 - ON/OFF pb – ON
 - √MODE –  TTL BL
 - √Exp Comp – 0 EV
 - Tilt – 45° (Direct)

P/TV09 MIDDECK PAYLOADS (Concluded)

OPS

√	Item # Track #	Rqmts	Still Imagery	Video			Notes
			DCS	PLB	CC	Dnlk	
	1. 17A-11	GLACIER Video, Still Photography <ul style="list-style-type: none"> • Wide-angle video, photos showing crew interaction • Medium-angle video, photos showing stowage location • Closeup video, photos of front panel after activation for gnd verification 	<u>D2Xs</u> 12-24mm		<u>G1</u>	PLAYBACK desired	

If OPS temporarily suspended, perform DEACTIVATION as reqd
 If OPS completed, go to DEACTIVATION

This Page Intentionally Blank

REFERENCED PROCEDURES

	<u>PAGE</u>
<u>CENTERLINE (C/L) CAMR</u>	
C/L CAMR INSTALL	FS 2-4
<u>DTV</u>	
VTR CLOCK SET	FS 2-8
<u>D2Xs</u>	
DATE/TIME SET	FS 2-10
<u>CANON G1</u>	
ANALOG (SD) CC REC,DNLK	FS 2-12
HD CC DNLK	FS 2-14
<u>FCS CHECKOUT CAMR SETUP</u>	
SETUP	FS 2-18
DEACTIVATION	FS 2-19
<u>MINI-CAM</u>	
ENTRY VIDEO SETUP	FS 2-22
<u>LASER CAMR SYSTEM (LCS)/INTEGRATED SENSOR INSPECTION SYSTEM DIGITAL CAMR (IDC)</u>	
LCS/IDC (HEATER ONLY MODE)/(OPERATIONAL PWR MODE) DATA AND PWR INTERFACES	FS 2-26
PTU 2/MAIN BUS B SYSTEM DETAILS	FS 2-27

This Page Intentionally Blank

This Page Intentionally Blank

C/L CAMR

CENTERLINE (C/L) CAMR

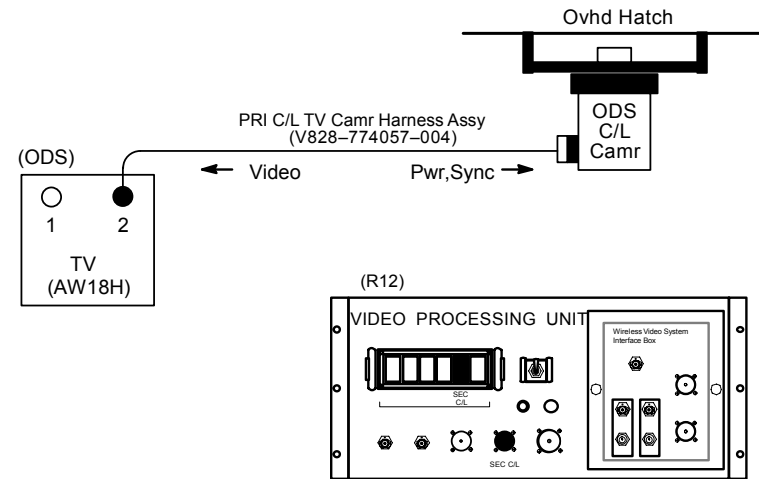
C/L CAMR INSTALL

1. ODS C/L Camr Config
- L12 (SSP 2) ✓C/L CAM PWR – OFF
- R12 (VPU) ✓SEC C/L Cap installed
 ✓Green Jumper – SEC C/L
 ✓VPU PWR – ON (LED on)
- ML60B Unstow PRI C/L Camr, PRI C/L TV Camr Harness Assy

NOTE

When connecting ODS C/L TV Camr Harness Assy, ✓pins to socket connection

- ODS ✓ODS C/L Camr Brkt mounted securely
 Mount PRI C/L Camr to ODS C/L Camr Brkt
 ✓Flex Duct attached to Camr brkt
 Config cable per dwg at right
- C/L Camr ✓SSF/STS sw – STS
- L12 (SSP 1) ✓cb SSP2 SEC C/L CAM – cl
 (SSP 2) C/L CAM PWR – SEC ON

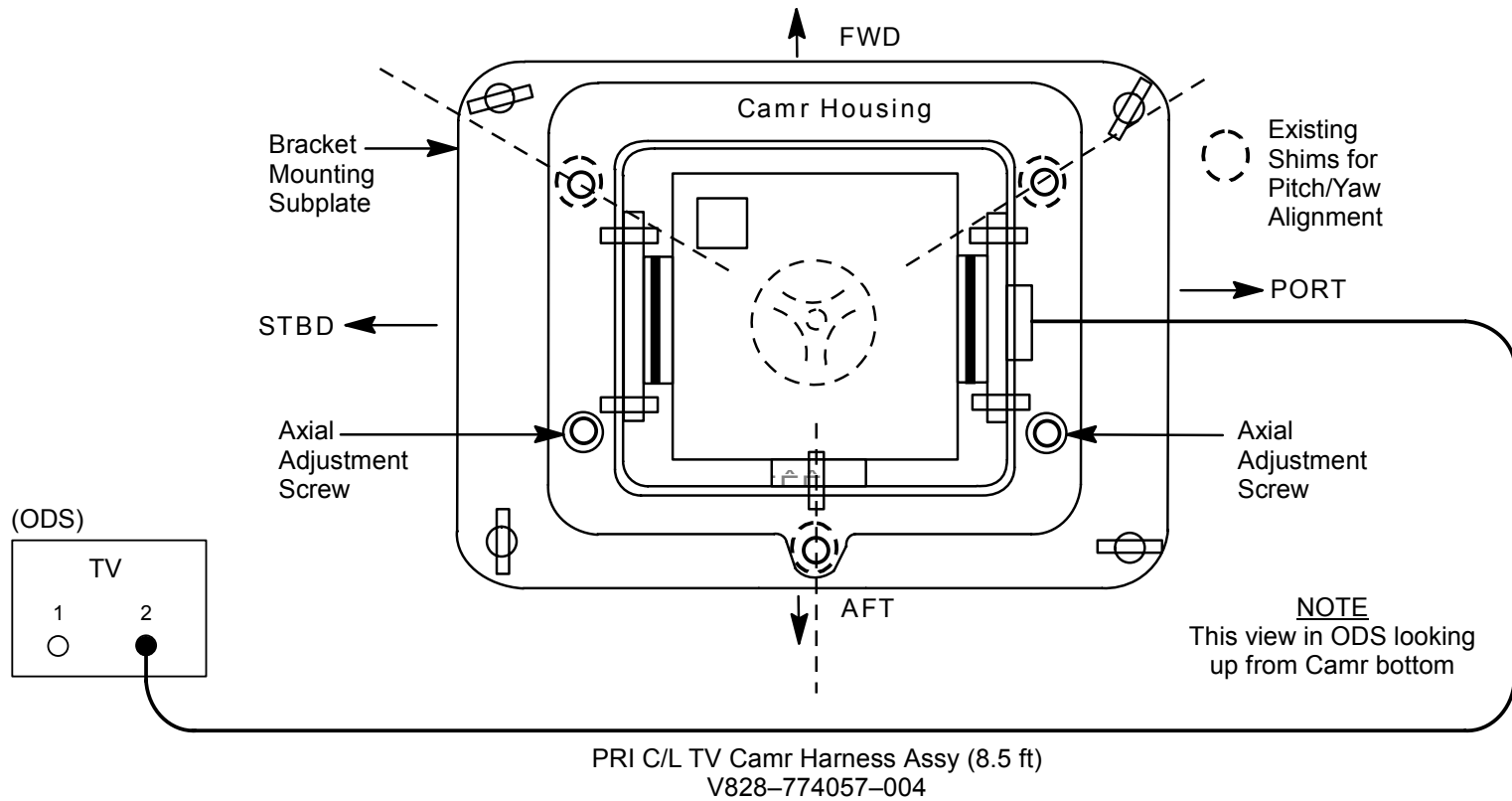


jsc48037_048r2.cvx

CENTERLINE (C/L) CAMR (Continued)

C/L CAMR INSTALL (Continued)

2. Camr Position Verification



jsc48037_049r2.cvx

CENTERLINE (C/L) CAMR (Concluded)

C/L CAMR INSTALL (Concluded)

3. ODS C/L Camr Alignment Check
Perform ACTIVATION (Cue Card, TV) as reqd

A7 VID OUT MON 1(2) pb – push
IN PL2(VPU) pb – push
ALC pb – push
AVG pb – push

MON 1(2) LDATA – ON
CDATA – GRN
XHAIR – GRN

A7 Zoom to $10^\circ \pm 0.5^\circ$
Focus to see Xhair target

NOTE

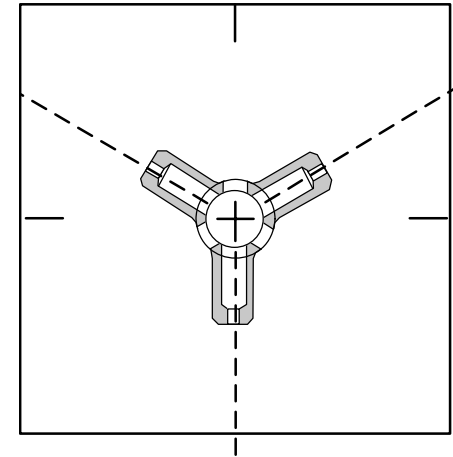
Green xhairs on monitor may move off center in calibration target when zooming in,out. Xhair will be closest to center at full zoom in position

MON 1(2) ✓ Vertical xhairs coincide w/vertical alignment wire and are parallel. If xhair marks overlay each other, no yaw(axial) alignment needed (see dwg above)

✓ Intersection of monitor vertical, horizontal xhair falls within target circular opening from ~10-40° zoom range of Camr

Report results of both alignment verifications (at 10° and 40°) to MCC

4. Deactivation
A7 CAMR CMD IRIS – CL
L12 (SSP 2) C/L CAM PWR – OFF
Go to DEACTIVATION (Cue Card, TV) as reqd



jsc48037_050.cnv

This Page Intentionally Blank

DTV

DTV

VTR CLOCK SET

1. Activate VTR

R1 √PL AUX – ON

L10 (MUX) VTR/CC PWR – on (LED on)
(VTR) √ON/STANDBY LED – green

2. Set VTR clock to GMT

DISPLAY SELECT – MENU

↓ pb – ETC, EXEC pb – push

↓ pb – CLOCK SET, EXEC pb – push

Use ↑,↓,EXEC to set Y,M,D,hr,min to GMT

DISPLAY SELECT – DATA

3. Deactivate VTR,VIP as reqd

(VIP) ON/STANDBY pb – push (red LED on)
 PWR – off (LED off)

|

|

This Page Intentionally Blank

D2Xs

D2Xs

DATE/TIME SET

1. MENU pb – press
2. Navigate pad – sel Menu icon **Y** setup menu
 - press (right)
 - sel WORLD TIME (up,down)
 - press (right)
 - sel DATE (up,down)
 - press (right)
3. Set TIME/DATE to GMT
 - Navigate pad – sel desired field (left,right)
 - sel desired setting (up,down)
4. ENTER pb – press
5. MENU pb – press twice

This Page Intentionally Blank

CANON G1

ANALOG (SD) CC REC.DNLK

Config H/W per dwg at right

AVIU SYNC/VIDEO – VIDEO
 HI-Z/75 – 75
 PWR SELECT – LO

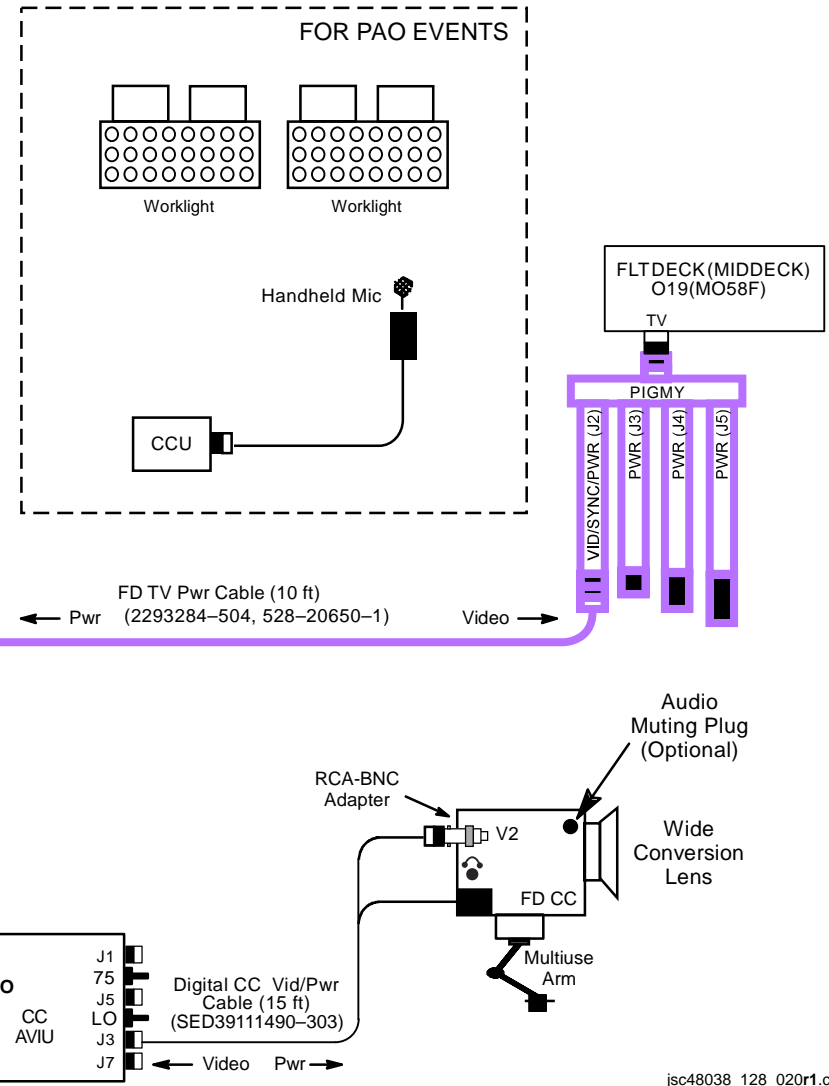
O19(MO58F) √TV PWR – ON

CC √Wide Conversion lens installed
 √ND FILTER – OFF
 Install Audio Muting Plug (optional)
 √OUTPUT – CAM
 √A/V1/V2 – V2
 √ [] .. [] - []
 √STANDBY/LOCK – STANDBY
 PWR dial – “green” []
 If rec to tape:
 Tape – Install
 √Viewfinder (LCD) displays “green” •||
 Multiuse Brkt, Clamp

CAUTION
 Due to temp constraints, worklights at full pwr for 45 min; half pwr for unlimited time

Worklights Install fresh Batts
 Mount light(s) w/brkts (Velcro/tape)
 PWR – as reqd

Cabin Lts Flt Deck – ON
 Lts in FOV – OFF as reqd
 Lt Shades – install as reqd
 Window Shades – install as reqd



jsc48038_128_020r1.cvx

CANON G1 (Continued)

ANALOG (SD) CC REC.DNLK (Concluded)

- CC √Scene composition
 Adjust Camr angle for best framing
- CCU CCU PWR – ON
- ATU PWR – AUD
 A/G 1(2) – T/R
 All Other Loops – OFF
 XMIT/ICOM MODE SEL – PTT/PTT
 MSTR SPKR VOL SEL – as reqd
- A7 When ready for dnlk:
 √TV DNLK – ENA
 PWR CNTL – PNL
 CONTR UNIT – MNA(B)
 CNTL – CMD (wait 10 sec for system initialization)
- If Analog, on MCC GO:
 | VID OUT DNLK pb – push
 | VID IN FLT DECK(MIDDECK) pb – push
 If Digital, on MCC GO:
- L10 √Cables connected
(MUX) MUX/VTR/CC PWR – on (LED on)
 √MUX BYPASS – ACT
(VIP) PWR – on (LED on, DATA FLOW LED flashes twice)
(VTR) √ON/STANDBY LED – green
 √INPUT SELECT – VIDEO
- A7 VID OUT DTV pb – push
 IN FLT DECK(MIDDECK) pb – push
- L10 (MUX) √CH 3 DATA LED – on
- When dnlk complete:
CC PWR dial – OFF
Worklights PWR – off
L10 (MUX) MUX/VTR/CC PWR – off (LED off)
- Go to DEACTIVATION (Cue Card, TV) as reqd

CANON G1 (Continued)

HD CC DNLK




Notify MCC, configuring for HD TV dnlk

Config H/W per dwg at right

CC For cable strain relief attach MPC-to-G1 Cable Velcro strap to CC strap

AVIU SYNC/VIDEO – VIDEO
HI-Z/75 – 75
PWR SELECT – LO

O19 ✓TV PWR – ON

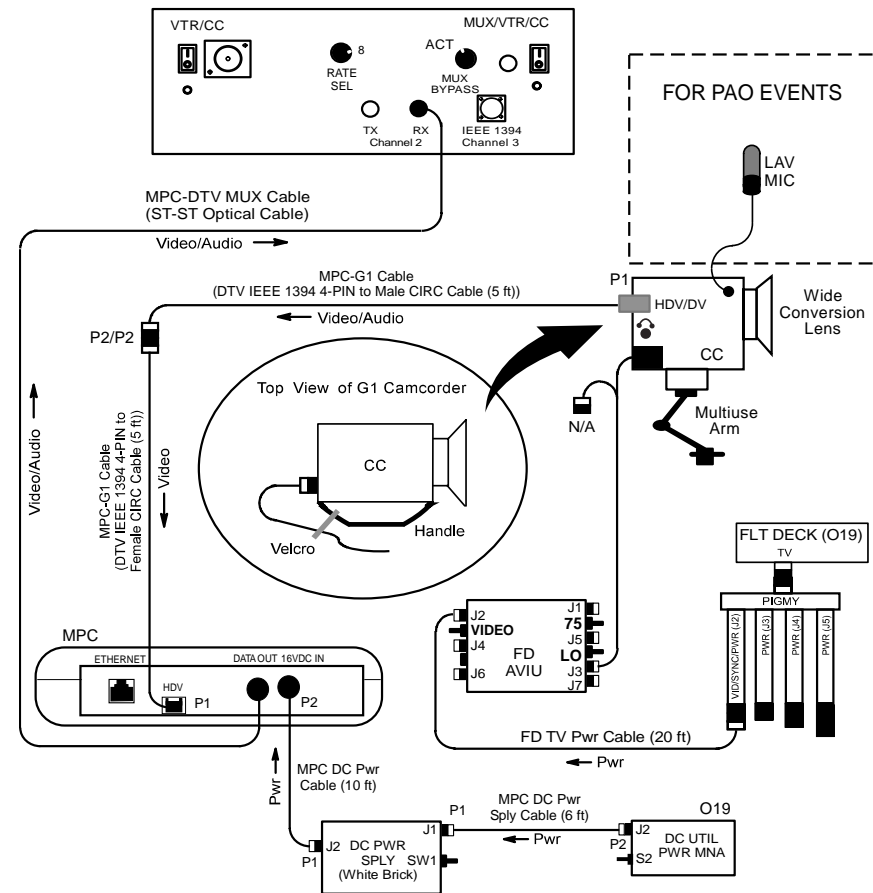
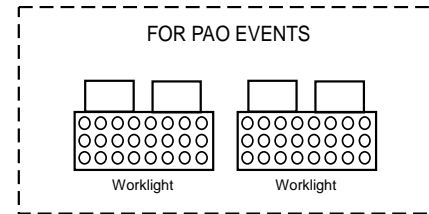
CC ✓Wide Conversion Lens installed
Install LAV MIC
✓ND FILTER – OFF
✓OUTPUT – CAM
✓ – 
✓STANDBY/LOCK – STANDBY
PWR dial – “green” 
Mount Camcorder

L10 (MUX) ✓MUX/VTR/CC PWR – on (LED on)
✓MUX BYPASS – ACT
✓CH 0,1 RATE SEL – 1
✓2 RATE SEL – 8

(VTR) ON/STBY pb – push (LED red)
(VIP) PWR – off (LED off)

O19 DC UTIL PWR MNA – ON
MPC PWR DC PWR SPLY PWR SW1 – ON

MPC PWR SPLY PWR SW1 – ON
MPC PWR – ON (HDV, TAXI, 5V, 3V green LEDs on)



jsc4803_128_021.cvx

CANON G1 (Continued)

HD CC DNLK (Continued)

L10 (MUX) ✓CH 2 F/O OK, DATA LEDs on

<p><u>CAUTION</u> Due to temp constraints, worklights at full pwr for 45 min; half pwr for unlimited time</p>
--

Worklights Install fresh Batts
Mount light(s) w/brkts (Velcro/tape)
PWR – as reqd

Cabin Lts Flt Deck – ON
Lts in FOV – OFF as reqd
Lt Shades – install as reqd
Window Shades – install as reqd

CC ✓Scene composition

Adjust Camr angle for best framing

LAV MIC PWR – ON (talk), OFF (listen)

✓MCC if Black video and color bars reqd
If reqd:
 PWR dial – Av
 Aperture – close
 ✓Av CLOSE displayed on top left of LCD
 AGC – OFF
 ✓GAIN sw – L
 ✓±0dB displayed on LCD
 OUTPUT – BARS

When MCC says done w/bars:
 OUTPUT – CAM

When MCC says done w/black screen test:
 PWR dial – “green”

CANON G1 (Concluded)

HD CC DNLK (Concluded)

CC	When dnlk complete: PWR dial – OFF
Worklights	PWR – OFF
O19	TV PWR – OFF as reqd
MPC	PWR – OFF
PWR SPLY	DC PWR SPLY PWR SW1 – OFF
O19	DC UTIL PWR MNA – OFF
L10 (MUX)	MUX/VTR/CC PWR – off (LED off)
(VIP)	PWR – on (LED on, DATA FLOW LED flashes twice)
(VTR)	ON/STANDBY pb – push (LED green)

Notify MCC, returned to SD TV dnlk

Go to DEACTIVATION (Cue Card, TV) as reqd

This Page Intentionally Blank

FCS CHECKOUT CAMR SETUP

SETUP

1. D2Xs

Lens – 400mm

NOTE

If auto focus unachievable:
Lens Focus Mode – M

Aperture – Min, locked

Lens Focus Limit – ∞ -6m

Lens Focus Mode – A

Body Focus Mode – S

√Batt installed

√Flash Card installed

Pwr – ON

Top LCD:

√Batt

√Frames remaining sufficient

Exp Comp – 0.0

Exp Mode – M:

SS – 500

f/stop – f/8

Meter – Matrix

Diopter – Adjust

Frame Rate – S

√BKT disabled – 0 F

Rear LCD:

√ISO – 100

√QUAL – RAW

√WB – 0,A

AF Area Mode – [[]]

√Focus Area – Center

√Focus Selector Lock – L

SB-800 Flash Settings:

ON/OFF pb – OFF

FCS CHECKOUT CAMR SETUP (Concluded)

SETUP (Concluded)

2. G1 CC

Remove Wide Conversion Lens

Install Batt

√ND FILTER – OFF

AF/M – M

AGC – OFF

GAIN – L

√OUTPUT – CAM

√AWB – ON

√..-

√STANDBY/LOCK – STANDBY

PWR dial – M

√Tape installed

Open LCD:

√'green' •|| displayed

SS – 1/500

√GAIN – 0dB

f/stop – F8.0

√FOCUS – M ∞-

DEACTIVATION

1. D2Xs

Lens focus mode – A

EXP Mode – P

Pwr – OFF

2. G1

Install Wide Conversion Lens

AF/M – AF

AGC – ON

Pwr dial – OFF

Remove Batt

Connect Dig/CC Vid Pwr Cable

PWR dial – 'green'

Place G1 on brkt

This Page Intentionally Blank

This Page Intentionally Blank

FS 2-21

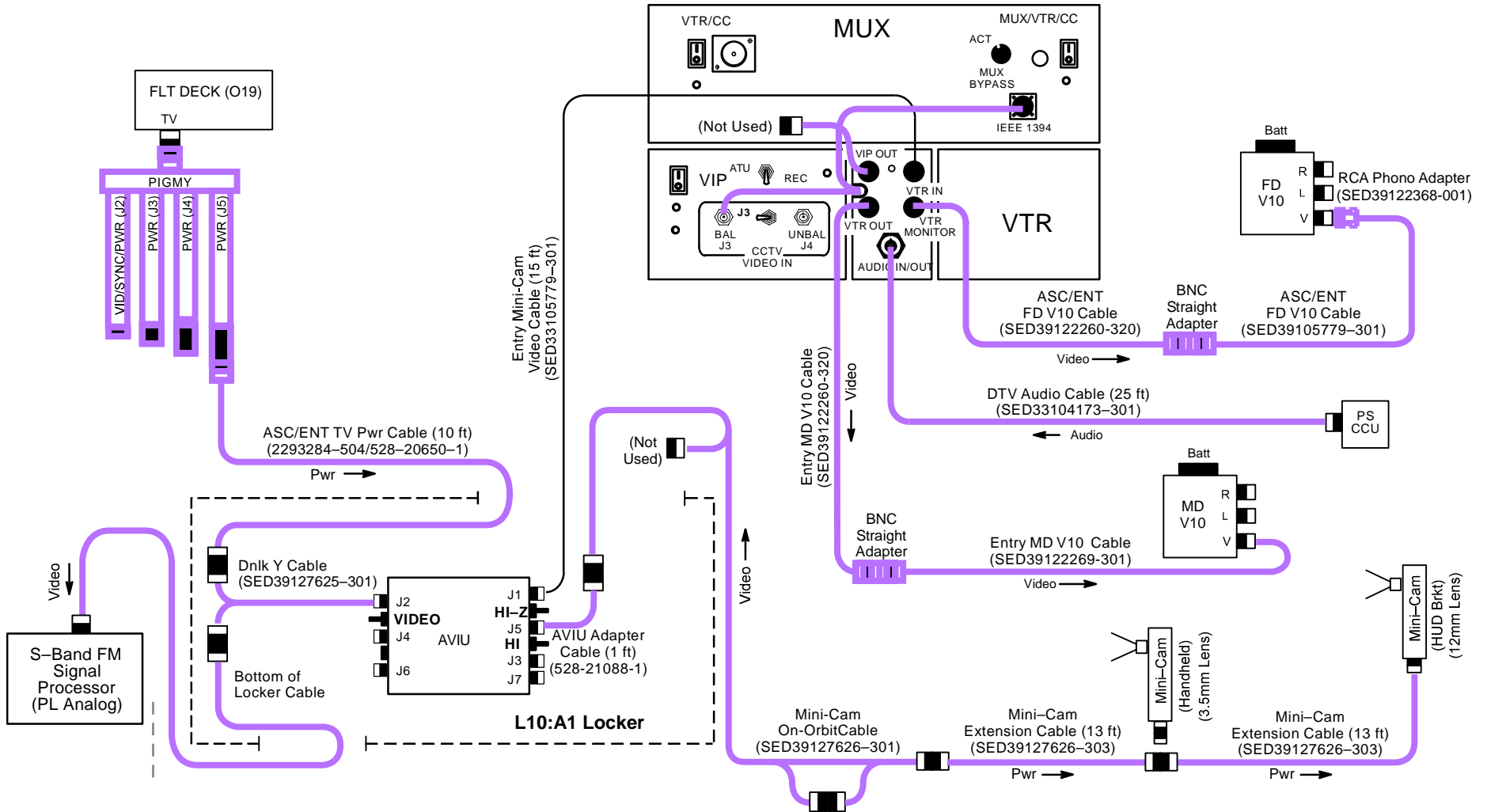
P/TV/128/FIN

MINI-CAM

MINI-CAM

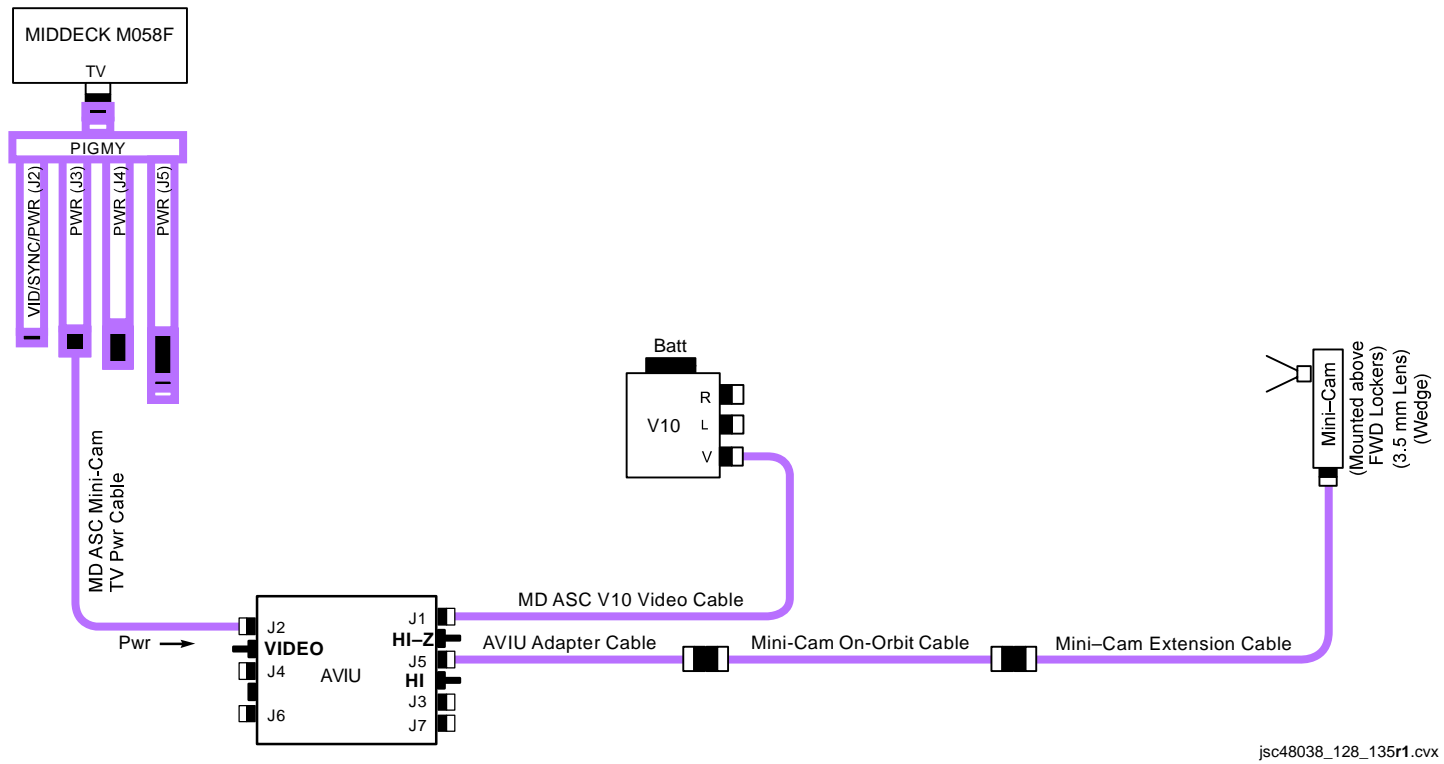
MINI-CAM

ENTRY VIDEO SETUP



jsc48038_128_008r3.cvx

MINI-CAM (Continued)



MINI-CAM (Continued)

ENTRY VIDEO SETUP (Continued)

1. Remove "Entry" Ziplock bag from DTV Bag
2. Config Mini-Cam, VTR for Audio, Video Recording
Config H/W per dwgs, FS 2-22 and FS 2-23
 - a. Config HUD Mini-Cam w/12mm Lens
Using two (2) captive screws, attach HUD Brkt to installation holes for protective cover w/ HUD Brkt tab pointing up
Attach Tie Wrap thru holes on captive screws to prevent screw from coming loose; cut off extra length on Tie Wrap
Attach Mini-Cam Extension Cable to Mini-Cam

12mm Lens Focus – ∞
 Aperture – f/5.6

Velcro Mini-Cam w/12mm Lens to HUD Brkt. (Top of black Velcro on front of Camr should be at top edge of HUD Brkt.
Only yellow Velcro should be visible above HUD Brkt)
 - b. Config in-cabin and MD Mini-Cam w/3.5mm Lens

3.5mm Lens Aperture – f/1.8
 - c. Config additional Mini-Cam H/W

L10:A1 AVIU
 SYNC/VIDEO – VIDEO
 HI-Z/75 – HI-Z
 PWR SELECT – HI
 - O19,MO58F √TV PWR – ON
 - PS ATU Config audio as reqd for entry audio
 - L10 (MUX)
 (VTR) VTR/CC PWR – on (LED on)
 √ON/STANDBY LED – green

MINI-CAM (Concluded)

ENTRY VIDEO SETUP (Concluded)

Acquire two (2) V10 Li-ION batts

NOTE

One Batt will be used on V10 for system c/o. Second Batt is spare. Batt will be removed after c/o and used for Entry

- V10 (FD,MD) Install fresh Batt
Install fresh tape in MD V10 w/MD Camera view
PWR – ON
√HUD 12mm Lens/Mini-Cam producing good video

Change config to in-cabin 3.5mm Lens/Mini-Cam
√In-cabin 3.5mm Lens/Mini-Cam producing good video
√MD Camera view

PWR – OFF
- L10 (VTR)
(MUX) ON/STANDBY pb – push (red LED off)
VTR/CC PWR – off (LED off)
- O19,MO58F TV PWR – OFF

NOTE

TV,VTR pwr will be re-enabled per ENT AFT FLT DECK
CONFIG 15 (DEORB, NOMINAL DEORBIT PREP); recording
will be initiated via ENTRY C/L

Start w/3.5mm Lens/Mini-Cam video in-cabin and reconfig for 12mm Lens/Mini-Cam when exterior scene available

When exterior avail:

- Focus – Adjust per V10
- Aperture – Adjust per V10
- If needed, turn down brightness on HUD display

Turn off V10 when not needed

This Page Intentionally Blank

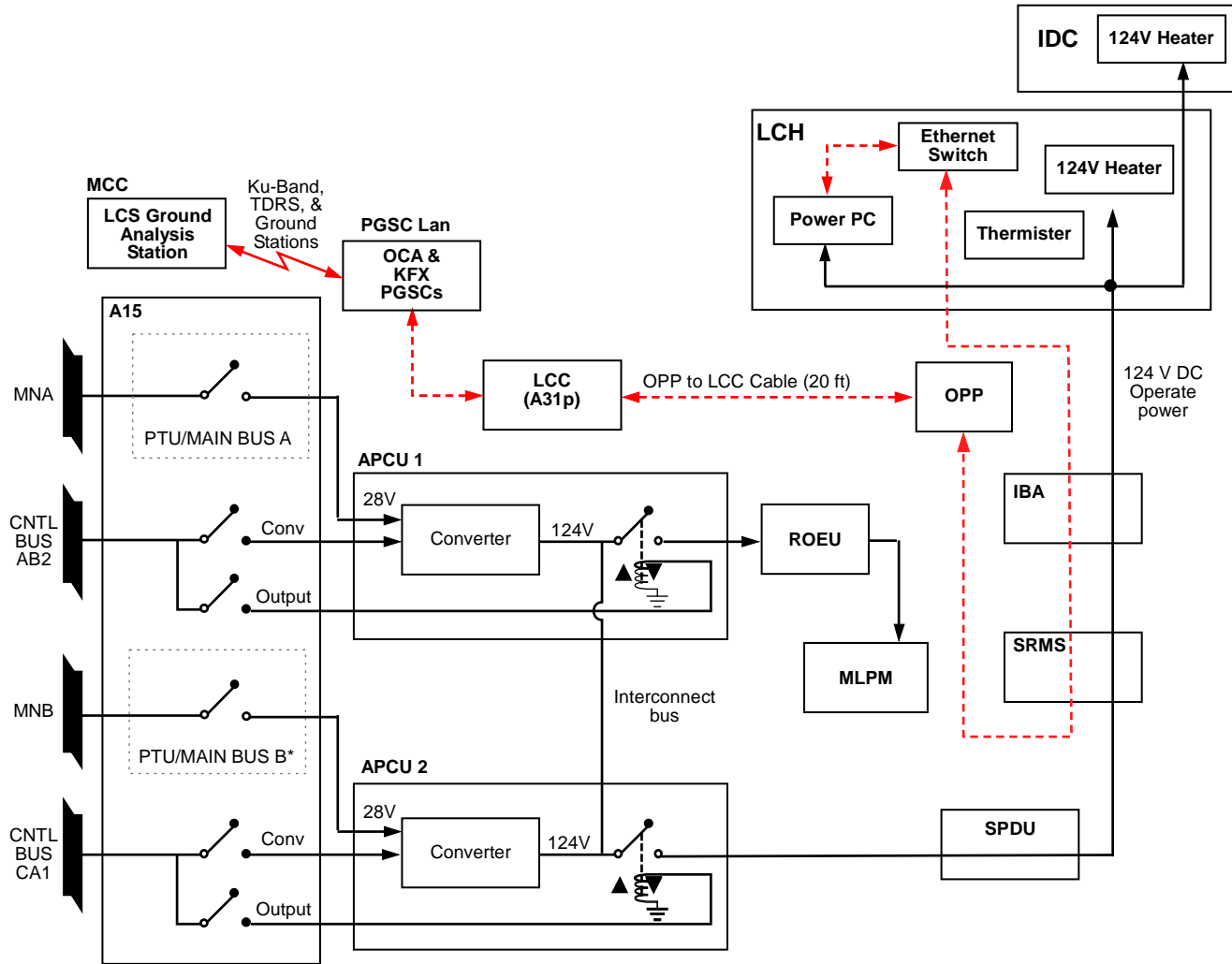
|

This Page Intentionally Blank

LCS/IDC

LASER CAMR SYSTEM (LCS)/INTEGRATED SENSOR INSPECTION SYSTEM DIGITAL CAMR (IDC)

LCS/IDC (HEATER ONLY MODE)/(OPERATIONAL PWR MODE) DATA AND PWR INTERFACES

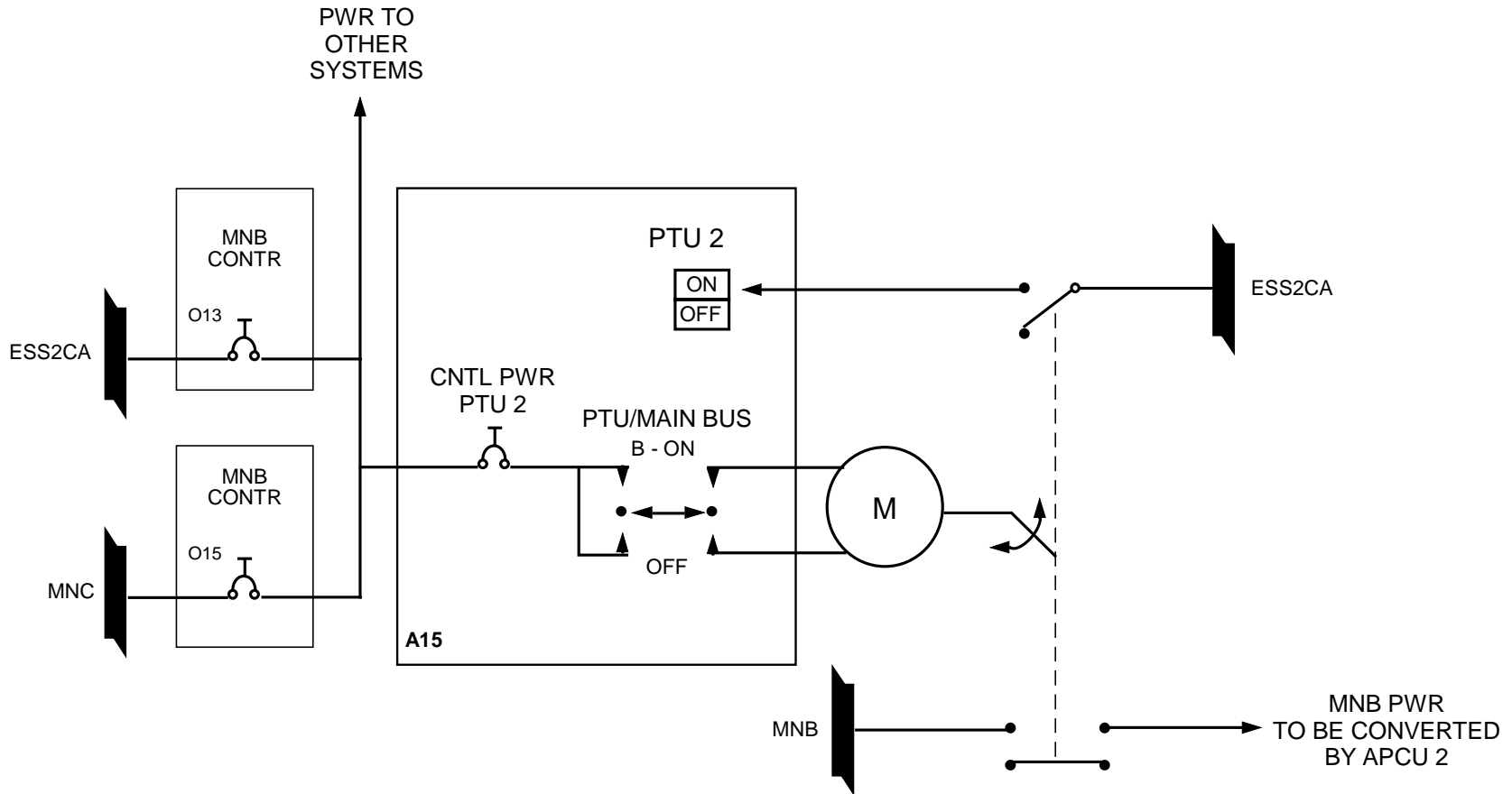


*See PTU 2/MAIN BUS B for detailed system dwg

jsc48038_128_134c.cvx

LASER CAMR SYSTEM (LCS)/INTEGRATED SENSOR INSPECTION SYSTEM DIGITAL CAMR (IDC) (Concluded)

PTU 2/MAIN BUS B SYSTEM DETAILS



jsc48037_PTU2_134e.cvx

This Page Intentionally Blank

CUE CARD CONFIGURATION

	<u>PAGE</u>
TV	FS CC 3-3
ANALOG PLAYBACK.....	FS CC 3-5
ET PHOTO	FS CC 3-7
WVS.....	FS CC 3-8
PLBD VTR RECORDING	FS CC 3-10
LDRI/ITVC	FS CC 3-12
LCS.....	FS CC 3-14
IDC.....	FS CC 3-16
VIDEO SETUP.....	FS CC 3-18
D2Xs SETUP	FS CC 3-20
LDRI/ITVC A7 PLACARD	FS CC 3-22
DIGITAL PLAYBACK.....	FS CC 3-23

CUE CARDS

This Page Intentionally Blank

HOOK
VELCRO

TV

ACTIVATION

A3 MON 1(2) PWR – ON (LED ON)
 A7 √TV DNLK – ENA
 PWR CONTR UNIT – MNA(B)
 CNTL – PNL, wait 10 sec for system initialization, CMD

OPERATION**Auto Ops (Auto Exposure)**

A7 √MCC has commanded sync config
 TV CAMR PWR A(B,C,D,RMS) – ON (tb-ON)
 VID OUT MON 1(2) pb – push
 IN pb – as reqd
 If CTVC:
 ALC pb – push
 AVG pb – push
 If ITVC:
 If MAN GAIN pb not illuminated:
 TV CAMR PWR A(B,C,D,RMS) – OFF, wait 10 sec, ON
 Repeat until MAN GAIN pb illuminated
 LT LEVEL pb – push
 DAY(NIGHT) pb – push
 ALC pb – push
 AVG pb – push

Dnlk Ops

Coordinate dnlk and sync config w/MCC
 Config audio as reqd

A7 If analog, on MCC GO:
 VID OUT DNLK pb – push
 IN pb – as reqd
 If DTV, on MCC GO:
 √Cables connected
 L10 (MUX) MUX/VTR/CC PWR – on (LED on)
 √MUX BYPASS – ACT
 (VIP) PWR – on (LED on, DATA FLOW LED flashes twice)
 (VTR) √ON/STANDBY LED – green
 √INPUT SELECT – VIDEO
 A7 VID OUT DTV pb – push
 IN pb – as reqd

L10 (VIP) √DATA FLOW LED – on
 (MUX) √CHANNEL 3 DATA LED – on

DEACTIVATION

If Illuminator ON:
 Refer to Illuminator Ops and perform Illuminator OFF

A7 PORT RMS CAMR – WRIST
 TV CAMR PWR A(B,C,D,RMS) – OFF (tb-OFF), wait 10 sec
 PORT RMS CAMR – ELBOW
 TV CAMR PWR RMS – ON (tb-on), wait 10 sec, OFF (tb-OFF)
 If Keel:
 L12 MPLM KEEL CAM PWR – OFF
 (SSP 2B) √HTR/ILLUM PWR – ON
 A7 TV PWR CNTL – PNL
 CONTR UNIT – OFF
 CNTL – CMD
 A3 MON 1,2 PWR – OFF

If DTV:
 L10 (VTR) ON/STANDBY pb – push (red LED on)
 (VIP) PWR – off (LED off)
 (MUX) MUX/VTR/CC PWR – off (LED off)
 VTR/CC PWR – off (LED off)

Manual Ops – CTVC/ITVC (Manual Exposure)

CAUTION
 DO NOT LEAVE CAMRS UNATTENDED IN MANUAL
 MODE. DIRECT SUNLIGHT WILL DAMAGE CAMRS

Manual Exposure ON

A7 MAN GAIN pb – push
 0(+12,+24) dB pb – push
 CAMR CMD IRIS – OP,CL

Return to Auto Exposure

ALC pb – push
 AVG pb – push

MUX Ops

NOTE
 Although dnlk/red is in color, MON
 will display MUX in B&W

A7 VID OUT MON pb – as reqd
 IN MUX 1(2) pb – push
 OUT MUX 1(2) L pb – push
 IN pb – As reqd
 OUT MUX 1(2) R pb – push
 IN pb – as reqd

For RSC ops:
 Go to LDR/ITVC Cue Card

Keel Camr

L12 √cb SW PWR 3 – cl
 (SSP 2B) √MPLM KEEL CAM HTR/ILLUM PWR – ON
 PWR – ON

P/TV-1a/128/O/B

(reduced copy)

FS CC 3-3

P/TV/128/FIN 1

TOP
BACK OF 'TV'

HOOK
VELCRO

Illuminator Ops

Illuminator ON

L12 (SSP 2B) If MPLM Keel Illuminator:
 \cb CB2 - cl
 \MPLM KEEL CAM PWR - ON
 HTR/ILLUM PWR - OFF, ON for
 HI (repeat for MED, LOW, OFF)

R14:D(E) If Wrist Illuminator:
 \cb TV RMS CAMR/PTU - cl
 \WRIST ILLUM/CAMR HTR - cl
 - op, cl

If Elbow Illuminator
 \cb TV RMS CAMR/PTU - cl
 \ELB ILLUM/PTU HTR - cl
 - op, cl

If A(B,C,D,ELB) Illuminator:
 \cb TV A(B,C,D,RMS,ELB) CAMR/PTU - cl
 \ILLUM/PTU HTR - cl
 - op, cl

Illuminator OFF

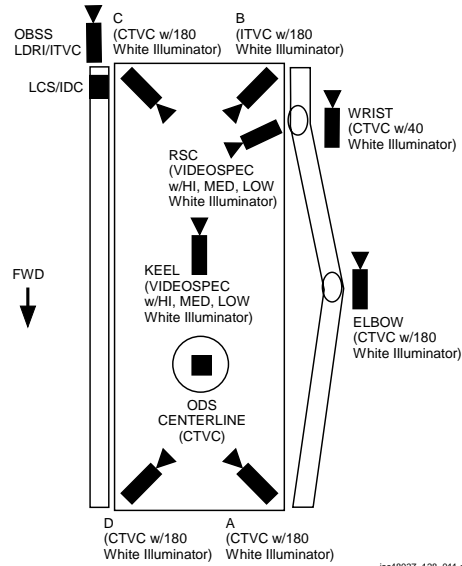
L12 (SSP 2B) If MPLM Keel Illuminator:
 MPLM KEEL CAM HTR/ILLUM PWR - toggle until
 Illuminator OFF (leave sw in ON posn)

R14:D(E) If Wrist Illuminator:
 cb TV RMS WRIST ILLUM/CAMR HTR - op, cl

If Elbow Illuminator:
 cb TV RMS ELB ILLUM/PTU HTR - op, cl

If A(B,C,D) Illuminator:
 cb TV A(B,C,D) ILLUM/PTU HTR - op, cl

If RSC Illuminator:
 Go to LDR/ITVC (Cue Card)



jsc48037_128_011.cvx

P/TV-1b/128/O/C

(reduced copy)

FS CC 3-4

P/TV/128/FIN 2

HOOK
VELCRO

ANALOG PLAYBACK

ANALOG VIA CC

NOTE

Analog Playback from CC only possible for CC Video recordings

ACTIVATION

CC Setup per diagram (back of cue card)
 A7 Perform ACTIVATION (Cue Card, TV), as reqd
 O19 √TV PWR – ON

AVIU SYNC/VIDEO – VIDEO
 HI-Z/75 – 75
 PWR SELECT – LO

CC PWR – VTR/PLAY
 √A/V1/V2 – V2

OPERATIONS

PLBK or DNLK VIDEO

CC Install tape, if reqd

If audio reqd:
 CCU If MHA, COMM PWR – ON
 ATU PWR – AUD
 Desired Loops – T/R
 Other Loops – RCV(OFF)
 XMIT/ICOM Mode – VOX/VOX
 VOX SENS – MAX

CC Speaker Vol Max

A7 VID OUT MON pb – as reqd
 IN FLT DECK(MIDDECK) pb – push

CC VTR pb – REW(FF) to cue tape

If Dnlk

A7 √MCC has commanded async config
 √TV DNLK – ENA
 VID OUT DNLK pb – push
 IN FLT DECK(MIDDECK) pb – push

CC PLAY pb – push (green ► displayed)

If PLBK(DNLK) complete:
 | STOP pb – push
 If CC ops complete, go to DEACTIVATION

DEACTIVATION

CC Remove, mark, stow tape as reqd
 PWR – OFF

ATU Reconfig as desired
 O19 TV PWR – OFF, as reqd
 Go to DEACTIVATION (Cue Card, TV), as reqd

ANALOG VIA VTR

ACTIVATION

Setup per diagram (back of cue card)
 Disconnect CC Video input from AVIU J3
 Perform ACTIVATION (Cue Card, TV) as reqd
 O19 √TV PWR – ON

AVIU SYNC/VIDEO – VIDEO
 HI-Z/75 – 75
 PWR SELECT – LO

L10 (MUX) √VTR/CC PWR – on (LED on)
 (VTR) √ON/STANDBY LED – green

OPERATIONS

PLBK or DNLK VIDEO

L10 (VTR) Install tape if reqd
 √DISPLAY SELECT – DATA

(VIP) If audio reqd:
 PWR – on (LED on, DATA FLOW LED
 flashes twice)

CCU ATU – PBK/KEY MIC (Amber LED on)
 If MHA, COMM PWR – ON
 PWR – AUD
 Desired Loops – T/R
 Other Loops – OFF
 XMIT/ICOM Mode – VOX/VOX
 VOX SENS – MAX

A7 VID OUT Desired MON pb – push
 IN FLT DECK pb – push

L10 (VTR) REW(FF),PLAY,PAUSE pb – push as reqd to
 cue tape

If Dnlk

A7 √MCC has commanded async config
 √TV DNLK – ENA
 VID OUT DNLK pb – push
 IN FLT DECK pb – push

L10 (VTR) PLAY pb – push (green • displayed)

If PLBK(DNLK) complete:
 | STOP pb – push
 If VTR ops complete, go to DEACTIVATION

DEACTIVATION

L10 (VTR) Connect CC video input to AVIU J3
 Remove, mark, stow tape as reqd

ATU Reconfig as desired
 O19 TV PWR – OFF, as reqd
 Go to DEACTIVATION (Cue Card, TV) as reqd

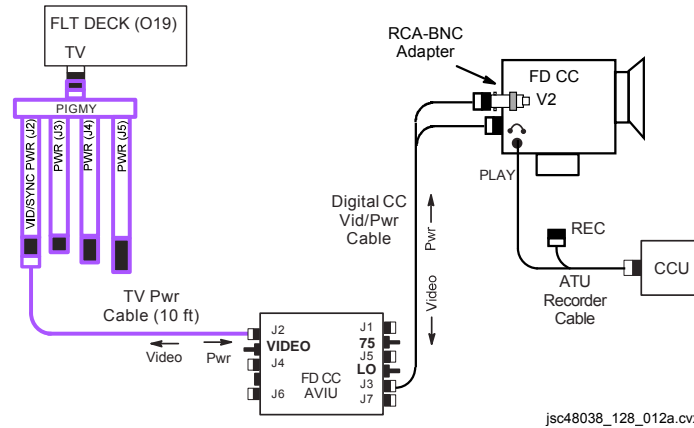
P/TV-2a/128/O/A

(reduced copy)

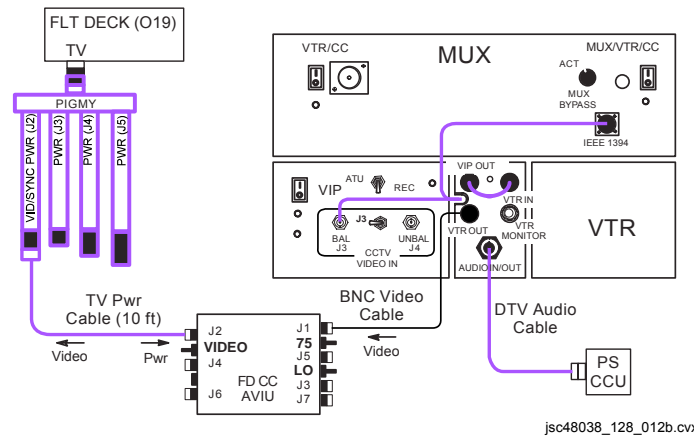
TOP
BACK OF 'ANALOG PLAYBACK'

HOOK
VELCRO

ANALOG VIA CC PLAYBACK



ANALOG VIA VTR PLAYBACK



P/TV-2b/128/O/A

(reduced copy)
FS CC 3-6

P/TV/128/FIN

TOP

HOOK
VELCRO

ET PHOTO

D2Xs D2Xs

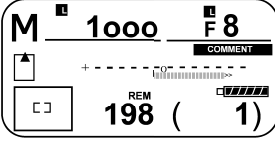
LENS SETTINGS:

- √APERTURE – MIN, LOCKED
- √LENS FOCUS MODE – A

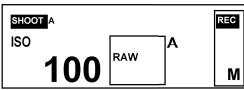
CAMR SETTINGS

PWR – ON
TOP LCD:

- √BATT
- √EXP MODE – M
- √SS – 1000
- √F/STOP – 8



DIOPTR – ADJUST
√FRAME RATE – S
√BODY FOCUS MODE-S



REAR LCD:

- √ISO – 100
- √QUAL – RAW

CRITICAL FOCUS REQD EACH FRAME

P/TV-3a/128/O/B

TOP
BACK OF 'ET PHOTO'

HOOK
VELCRO

ET PHOTO

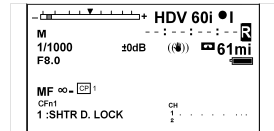
G1 CC G1 CC

LENS CAP – REMOVE
INSTALL MUTING PLUG

- √ND FILTER – OFF
- √AF/M – M
- √AGC – OFF
- √GAIN – L
- √OUTPUT – CAM
- √AWB – ON
- √POWER dial – M
- √LOCK (handle) – off (aft)
- STANDBY/LOCK – STANDBY

OPEN LCD

- √BATT SUFFICIENT
- √EXP MODE – M
- √SS – 1/1000
- √GAIN – ±0dB
- √F/STOP – F8.0
- √FOCUS MODE – MF ∞_



ZOOM – WIDE TO FIND TANK, THEN TIGHT

START RECORDING

- √LCD DISPLAYS RED DOT

P/TV-3b/128/O/A

TOP

HOOK
VELCRO

WVS

HOOK
VELCRO

CAMR ADJUSTMENTS

ADJUST BRIGHTNESS

Course Adjustment

PGSC Select Page – RF Camera
Lens Iris Control – cl(op)

Fine Adjustment

PGSC Select Page – RF Camera
Electronic Shutter – Manual
Brightness – Dec(Inc)
(# to right: 100 = brightest; 0 = darkest)

DARK SUBJECT

PGSC Select Page – RF Camera
√Advanced Controls displayed
Automatic Gain Control – Enabled
(Disabled preferred)

PWRDN

For all lens (three) on each RF Camera Assy:
PGSC Lens Iris Control – Close until view black

Sel RF Camr 1,2 – None (black "OFF")
V10 √Test Pattern displayed (color bars w/"No WVS
Video")

PGSC Select Page – XCVR
Transceiver 1(2) CMD Pwr – Off
(black CMD PWR:LVL-"OFF:Min")
Sel File → Exit

V10 STOP pb – push
Mark, stow tapes
PWR – OFF

A7 WIRELESS VID PWR – OFF
HTR – OFF

VIDEO SIGNAL PROBLEMS

For problem EMU TV:
EMU EMU TV Pwr pb – push (no LED), wait 10 sec, push
(green LED)

If no joy:
PGSC √Select Page – XCVR
√Advanced Controls displayed
For XCVR w/Video problem: IF – Narrow

If still no joy:
A7 WIRELESS VID PWR – OFF, wait 10 sec, ON

If still no joy:
PGSC For XCVR w/video problem: IF – Wide
For XCVR w/good video: Sel RF Camr – None (black 'OFF')
If video acceptable, other EMU TV interfering w/signal
Alternately sel EMU TVs to acquire video

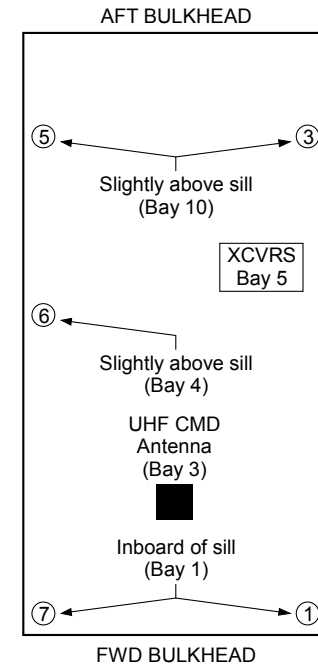
If still no joy:
For XCVR with good video:
Sel RF Camr – reselect original EVA crewmember
For XCVR w/video problem: Antenna – Manual
Sel desired antenna

If still no joy:
For XCVR w/video problem: Antenna – Auto
√MCC

COMMANDING PROBLEM (UHF)

If commanding of WVS not visually seen:
PGSC Select Page – XCVR
Sel Transceiver 2(1) CMD Pwr – On
(green CMD PWR:LVL-"ON:Min")

ANTENNA LOCATIONS



P/TV-5a/128/O/B

(reduced copy)

FS CC 3-8

P/TV/128/FIN

HOOK
VELCRO

HOOK
VELCRO

ALERT MSG TROUBLESHOOTING

STATIC XCVR

Condition: No comm between PGSC & PLB XCVR

- PGSC 1. √Cable connections between WIB and PGSC
- A7 2. WIRELESS VID PWR – OFF, wait 10 sec, ON

If no joy:

- PGSC 3. Sel 'Start' > 'Shut Down' > 'Restart' > 'OK'
- When reboot complete:
Sel Shuttle Apps icon > WVS icon
Sel 'Yes' at 'Restore To Previous Settings' window
RF Camera page will appear

If still no joy:

- 4. √MCC

STATIC RF CAMERA

Condition: No telemetry and video received by PLB XCVR from EMU TV

- EMU 1. √EMU TV Pwr pb pushed (green LED)

If no joy:

- PGSC 2. √Correct RF Camera selected via pulldown menu
√RF Camera (two) – ON (green "ON")
If not ON:
RF Camera (of static EMU TV) – sel "None" via
pulldown menu, then sel original EMU TV

If still no joy:

- 3. RF Camera 1(2) – sel 'None'
- Perform CAMR ID ASSIGNMENT
- Reattempt RF Camr selections

If still no joy:

- 4. √CMD PWR:LVL – green "ON:Min" for XCVR 1(2)
If not ON,
Select Page – XCVR
Transceiver 1(2) CMD Power – On
(green CMD PWR:LVL - "ON:Min")

If still no joy:

- EMU 5. EMU TV Pwr pb (of static EMU TV) – push (no LED),
wait 10 sec, push (green LED)

If still no joy:

- 6. √MCC

BAD CAMERA ID

Condition: Mismatch between EMU TV Camera ID and software camera ID

- PGSC 1. Select Page – XCVR:
Transceiver 1(2) CMD Power – On (green CMD PWR:LVL - "ON:Min")
Sel RF Camera 1,2 – None
Sel File > Assign Camera ID
√Camera IDs match data under CAMR ID ASSIGNMENT
If not a match,
Highlight entry, then sel 'Delete Entry' option
Perform CAMR ID ASSIGNMENT
Sel RF Camera 1,2 – EVA crewmembers

If still no joy:

- 2. √MCC

TEMP ALERT (blue text)

**Condition: EMU TV -35 °C to -30 °C OR 80 °C to 85 °C range
PLB XCVR -40 °C to -35 °C OR 80 °C to 85 °C range**

- Select Page – Telemetry
- Identify component w/temperature alert (blue text)
- √MCC

TEMP CAUTION (yellow text)

**Condition: EMU TV < -35 °C OR > 85 °C
PLB XCVR < -40 °C OR > 85 °C**

- Select Page – Telemetry
- Identify component w/temperature alert (yellow text)
- √MCC

CAMR ID ASSIGNMENT

- Sel File → Assign Camr ID
- √All EV crewmembers listed as options on pulldown 'Label' menu under CAMERA ID SETUP

If label entry reqd:

- Type label into space next to "Add Label" icon
- Sel "Add Label" icon to add to listing

Camr ID Data		
Camr Address	16	18
Serial Number	1010	1007
Label	EV1	EV2

Under CAMERA ID SETUP:

- Camera Address – As reqd via left/right arrows
- Serial Number – As reqd via left/right arrows
- Label – As reqd via pulldown menu
- "In Use" Box – Check via single click
- Sel "Save Entry" icon to right of Camr ID table (top)
- √Data entry visible in Camr ID table

Sel OK

P/TV-5b/128/O/A

(reduced copy)

TOP

HOOK
VELCRO

PLBD VTR RECORDING

- L10 √VIP,VTR covers removed
- R1 √PL AUX – ON
- MA73C:E cb AC2 PL3Φ – cl

- √Cables config'd per dwg (back of cue card)
- L10 √VTR/CC PWR – on (LED on)
- (MUX)
- (VIP) √ATU – REC
 √CCTV VIDEO IN – J3
 PWR – on (LED on, DATA FLOW flashes twice)
- (VTR) √ON/STANDBY LED – green

- √Switches set to white dot (seven)
- √COUNTER SELECT – COUNTER (TC)

- √Tape installed (tape icon LED on)

- Set GMT:
 DISPLAY SELECT – MENU
 ↓ pb – ETC, EXEC pb – push
 ↓pb – CLOCK SET, EXEC pb - push
 Use ↓, ↑,EXEC to set Y,M,D,hr,min to GMT
 DISPLAY SELECT – DATA

- L9 If Audio desired:
 PS AUD PWR – AUD
 Desired Loops – RCV, Vol tw 5
 Other Loops – OFF

- A7 VID OUT DTV pb – push
 IN pb – as reqd

- L10 REC pb – push, hold
(VTR) PLAY pb – push, simo (red dot displayed)

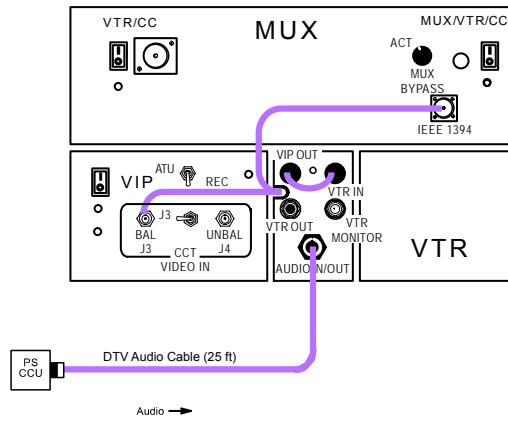
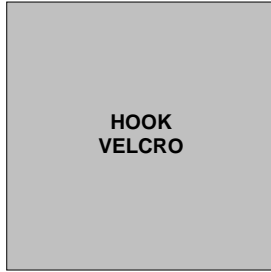
P/TV-6a/128/O/A

(reduced copy)

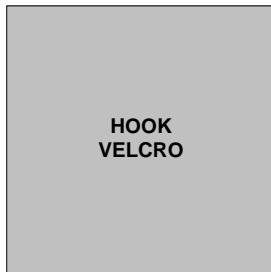
FS CC 3-10

P/TV/128/FIN

TOP
BACK OF 'PLBD VTR RECORDING'



jsc48037_128_019.cvx



P/TV-6b/128/O/A

(reduced copy)
FS CC 3-11

HOOK
VELCRO

LDRI/ITVC

HOOK
VELCRO

ACTIVATION

- Config CCTV Sys
 - A7 √ACTIVATION (Cue Card, TV) performed
 - L10 (MUX) √MUX/VTR/CC PWR – on (LED on)
 - √Cabling from VTR MON port to MON 2 C-IN
 - R12 (VPU) √VPU PWR – ON (LED on)
 - √Green Jumper – LDRI/ITVC
 - √RSC vid cable connected to WIB CCTV PL/3
 - MON 1,2 L-DATA – ON
 - C-DATA – GRN
 - X-HAIR – GRN
 - MON 2 SOURCE – C
- Apply SPEE Pwr
 - R12 (OPP) √cb OBSS SW PWR – cl
 - √OBSS SW PWR – ON
 - (OBSS) SPEE PWR – ON
 - A6U EVENT TIMER CNTL – STOP
 - RESET
 - CNTL – START
 - (15 min LDRI calibration warmup)
- Config RSC Illum to HI
 - A7 √VID OUT MON 1 pb – push
 - IN C pb – push
 - PAN/TILT – Adjust to see RSC Camr
 - R12 (OBSS) SPEE PWR – OFF, wait 10 sec, ON
 - MON 1 √RSC illum on HI (three rings)
- Enable ITVC
 - √MCC has commanded sync config
 - R12 (OBSS) ITVC ENA – ON
 - A7 √VID OUT DTV pb – push
 - IN PL 2(VPU) pb – push
 - If MAN GAIN pb not illuminated:
 - R12 (OBSS) ITVC ENA – OFF, wait 10 sec, ON
 - Repeat until MAN GAIN pb illuminated
 - A7 LT LEVEL pb – push
 - DAY (NIGHT) pb – push
 - ALC pb – push
 - AVG pb – push
 - MON 2 √ITVC video displayed
- Turn LDRI Laser On
 - A7 √VID OUT MUX 1 L pb – push
 - IN MIDDECK pb – push
 - LDRI MODE 2 pb – push
 - VID OUT DTV pb – push, to return to ITVC control

GENERAL LDRI CONTROL

- A7 VID OUT MUX 1 L pb – push
IN MIDDECK pb – push
- Mode 1 (default at pwrup)
A7 LDRI MODE 1 pb – push
MON 2 √ITVC video displayed
- Mode 2
A7 LDRI MODE 2 pb – push
MON 2 √ITVC video w/illum displayed
- Modes 3 (4,5,6)
A7 LDRI MODE 3(4,5,6) pb – push
MON 2 √LDRI w/rounded corners displayed
- To adjust brightness:
A7 CAMR CMD IRIS – OP,CL, as reqd

PAN/TILT OPS WITH LDRI ACTIVE

NOTE

When adjusting pan/tilt in Modes 3(4,5,6), ITVC FOCUS (ZOOM, IRIS) cntls functional

- A7 VID OUT MON 1 pb – push
IN PL2(VPU) pb – push
CAMR CMD PAN, TILT – as reqd
VID OUT MUX 1 L pb – push, to return to LDRI cntl

DEACTIVATION

- A7 VID OUT MUX 1 L pb – push
√IN MIDDECK pb – lt on
LDRI MODE 1 pb – push
- R12 (OBSS) ITVC ENA – OFF, pause 10 sec
SPEE PWR – OFF
- A6U EVENT TIMER MODE – UP
CNTL – START

LDRI MODE SUMMARY

Mode 1 – Standby

- ITVC video
- LDRI in standby

Mode 2 – Illuminator

- ITVC video w/illum
- LDRI laser active, LDRI camera inactive

Mode 3 – 2D

- LDRI 2D video
- Similar to ITVC video

Mode 4 – 2D Gamma

- LDRI 2D video w/Gamma Black Stretch
- Similar to ITVC video

Mode 5 – 3D

- LDRI 3D video
- Flicker on MON

Mode 6 – 3D Gamma

- LDRI 3D video w/Gamma Black Stretch
- Flicker on MON

P/TV-7a/128/O/B

(reduced copy)

FS CC 3-12

P/TV/128/FIN 1

TOP
BACK OF 'LDRI/ITVC'

HOOK
VELCRO

HOOK
VELCRO

RSC CAMR OPS

NOTE

Camr nominally pwr'd in Block 3 of PI C/L

R12 (OPP) cb OBSS SW PWR CB1 – cl
OBSS SW PWR – ON
(OBSS) RSC PWR – ON

RSC ILLUMINATOR OPS

NOTE

RSC illuminator OFF when SPEE PWR sw initially taken to ON. A cycle of the SPEE PWR sw takes RSC illuminator to HIGH. Subsequent pwr cycles take illuminator to MED, LOW, OFF and then back to HIGH. Config may req alt Camr view of RSC

R12 (OBSS) √SPEE PWR – ON
√RSC PWR – ON
ITVC ENA – OFF
A7 VID OUT MON 1 pb – push
IN A(B,C,D) pb – push
PAN,TILT – Adjust to see RSC Camr

NOTE

SPEE pwr cycle will reset LDRI/ITVC to Mode 1 and reset the PTU angles

R12 (OBSS) SPEE PWR – OFF, wait 10 sec, ON
MON 1 √RSC illum on

To cycle thru illuminator modes:
R12 (OBSS) SPEE PWR – OFF, wait 10 sec, ON

Perform LDRI/ITVC ACTIVATION, step 4

Return to original LDRI/ITVC Mode, continue OPS

CONTINGENCY LDRI CLEARANCE VIEW

NOTE

Do not apply RMS brakes

A8U AUTO SEQ – STOP (READY It on)

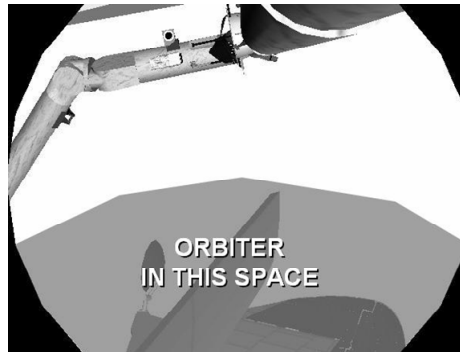
L10(VTR) STOP pb – push (no red •)

A7 VID OUT MUX 1 L pb – push (MIDDECK It on)
LDRI MODE 3(4) pb – push (steady LDRI video)

VID OUT MON 1 pb – push
IN PL2(VPU) pb – push

Record PTU Pan _____ and Tilt _____

CAMR CMD PAN/TILT – HI RATE
PAN: 0 (left, to hard stop)
TILT: 0 (up, to hard stop)



Note clearance thru LDRI FOV

Return PTU to Pan and Tilt values recorded above

VID OUT MUX 1 L pb – push (MIDDECK It on)
LDRI MODE 6 pb – push (flickering LDRI video)

VID OUT MON 1 pb – push
IN pb – as desired (not PL2)

L10(VTR) REC pb – push, hold
PLAY pb – push, simo (red dot)

A8U AUTO SEQ – PROCEED (IN PROG It on)

LDRI PAN/TILT RESET

Reset PTU

A7 VID OUT MON 1 pb – push
IN PL2(VPU) pb – push

CAMR CMD PAN/TILT – HI RATE
PAN – L (to hard stop)
TILT – UP (to hard stop)
PAN/TILT – RESET

SPEE PWR DEACT CLEANUP ACTIONS

Config RSC Illum to HI

R12 (OBSS) √SPEE PWR – OFF
ITVC ENA – OFF
RSC PWR – OFF, wait 10 sec, ON
SPEE PWR – ON, OFF, wait 10 sec, ON

Config ITVC

A7 ITVC ENA – ON
VID OUT DTV pb – push
IN PL2(VPU) pb – push
If MAN GAIN pb not illuminated:
R12 (OBSS) ITVC ENA – OFF, wait 10 sec, ON
Repeat until MAN GAIN pb illuminated
A7 LT LEVEL pb – push
DAY (NIGHT) pb – push
ALC pb – push
AVG pb – push

Reset PTU

A7 CAMR CMD PAN/TILT – HI RATE
PAN – L (to hard stop)
TILT – UP (to hard stop)
PAN/TILT – RESET
PAN and TILT ITVC to values needed for Survey

Return LDRI to Mode 6

A7 VID OUT MUX 1 L pb – push
IN MIDDECK pb – push
LDRI MODE 6 pb – push
VID OUT DTV pb – push, to return to ITVC control

P/TV-7b/128/O/A

(reduced copy)

FS CC 3-13

P/TV/128/FIN

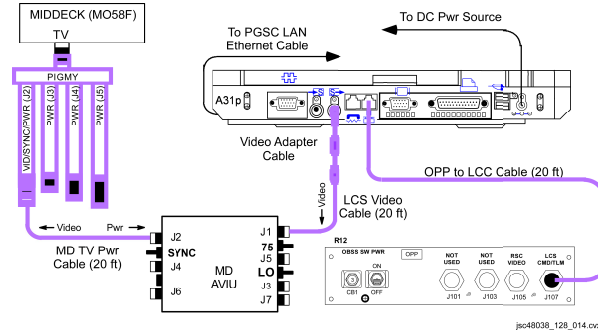
HOOK
VELCRO

LCH ACTIVATION

- A15 Activate SSPTS APCU 2
 - √PTU 2 tb – on
 - APCU 2 OUTPUT – ON
 - CONV – ON
- SM 179 POWER TRANSFER
 - √PTU 2 APCU OUT VOLTS: 123V to 126V
 - √OUTPUT – ON

LCC ACTIVATION

- 1. LCC Setup
 - √Hardware and cables configured per diagram below:



- 2. LCC Startup
 - A31p
 - √PGSC Pwr – ON
 - √Yellow 'RJ-45 Port Configured for LCS Ops' displayed on desktop crew patch
 - If yellow text not displayed, perform TROUBLESHOOTING, Yellow 'RJ-45 Port Configured for LCS Ops' Not Displayed on Desktop Crew Patch
 - If 'LCS Camera Controller' minimized on desktop taskbar, maximize window
 - If not minimized, sel 'Shuttle Apps' > 'LCC' (wait 2-3 min from APCU CONV – ON for GUI Status)
 - √Laser off – blue
 - √Comm – green
 - If Laser off and Comm status not correct: √MCC
- 3. Verify LCC Desktop Video
 - MO58F
 - √TV PWR – ON
 - AVIU
 - √HI-Z/75 – 75
 - CC
 - PWR SELECT – LO
 - PWR – OFF

(For SSPTS APCU 2 flights only)

TOP

LCS

HOOK
VELCRO

- 3. Verify LCC Desktop Video (Concluded)
 - A31p
 - Minimize all programs
 - Right click on ATI icon on system tray
 - Sel 'Schemes'
 - Sel 'ENABLE DESKTOP DOWNLINK', 'ATI Property Page' displayed
 - Sel 'Yes'
 - Maximize program windows as desired
 - A7
 - VID OUT MON1(2) pb – push
 - IN MIDDECK pb – push
 - A3
 - √LCC desktop displayed on MON1(2)
 - * If LCC Desktop not displayed *
 - * √MCC *
- 4. Verify GMT
 - A31p
 - √GMT on GUI lower right-hand side within 3 sec of SM-GPC GMT
 - * If GMT not within 3 sec of SM GPC: *
 - * Sel 'Tools' > 'Set GMT' *
 - * Adjust GMT as reqd *
 - * Sel 'Apply' > 'OK' *

OPERATION

NOTE
PDRS OPS will call for appropriate scan steps on LCC.
MCC may have limited insight if desktop dnk avail

- 1. Load Database (if reqd)
 - √MCC for desired LCS database
 - √'DB Name': Field on upper left-hand side of LCS GUI
 - * If 'DB Name' incorrect: *
 - * Sel 'Load Database...' from File menu *
 - * Sel MCC desired database file *
 - * Sel 'OK'
- 2. LCS System Status

LCS SYSTEM STATUS

Laser On/Off	Comm	LCS State
Laser ? (gray)	No Comm (yellow)	Unknown or Keep Alive Heater Only Mode (No LCC to LCH Network Connection)
Laser Off (blue)	Comm (green)	Configuration (Waiting for user command)
Laser On (green)	Comm (green)	Operational (Scan in progress)

While Scan in progress ('Scan Status' counter incrementing):
√Laser On – green
√Comm – green
√Scan Display – updating
√Temp – green
√Elec – green
Scan complete when 'Scan Status: Complete' displayed
If LCS system status out of config, perform appropriate TROUBLESHOOTING section of this cue card

P/TV-8a/128/O/A

(reduced copy)

FS CC 3-14

P/TV/128/FIN

HOOK
VELCRO

HOOK
VELCRO

LCC DEACTIVATION

NOTE

Shutting down LCC software also puts LCH in keep-alive heater mode. No LCH scans/insight or IDC ops available. APCU Converter pwr cycle reqd to reinitialize LCH for scanning and IDC ops

1. LCC Software Shutdown

- A31p Sel 'File' > 'Exit'
- When 'Shutdown' dialog box opens:
 - √Shutdown LCH and Exit LCC Software' selected
 - Sel 'OK'
- When 'Shutdown?' dialog box opens:
 - Sel 'OK'

2. A31p Screen Resolution Reset

- A31p Right click on ATI icon on system tray
- Sel 'Schemes'
- Sel 'DISABLE DESKTOP DOWNLINK, ATI Property Settings'
- Sel 'Yes'
- Arrange program windows as desired

LCH DEACTIVATION

CAUTION

Deactivating SSPTS APCU 2 will remove critical keep-alive pwr to LCH and IDC. Pwr must be reapplied within 105 min

1. Deactivate SSPTS APCU 2/LCH

- A15 APCU 2 CONV – OFF
- SM 179 POWER TRANSFER**
- √PTU 2 APCU OUT VOLTS: <10V
- APCU 2 OUTPUT – OFF

TROUBLESHOOTING

Temp or Elec Status Yellow

- A31p Sel 'System' page
- Report 'Elec' or 'Temp' values backlit in yellow to MCC

Comm Status Yellow and LAN2 Network cable unplugged (red X on A31p system tray)

NOTE

LCC GUI Comm status will be yellow and A31p Local Area Network status (w/red X on A31p system tray) cable unplugged tool tip will appear if LCH is in keep-alive heater mode

- A31p If unexpected red X w/Local Area Network Connection tool tip shown on A31p system tray:



- R12 √OPP to LCC Cable connected to LCS CMD/TLM(J107) port
- A31p √OPP to LCC Cable connected to LCC RJ45 port
- Exit LCC software and shut down Windows
- A15 APCU 2 CONV – OFF
- OUTPUT – OFF, wait 10 sec, ON
- CONV – ON
- SM 179 POWER TRANSFER**
- √PTU 2 APCU OUT VOLTS: 123V to 126V
- A31p LCC PGSC Pwr – ON
- √A31p internal RJ45 Network Interface Card LED green
- Perform LCC ACTIVATION, step 2
- √Local Area Network Connection status icon (with red X) in Windows system tray not displayed
- √MCC if LCC GUI Comm status still yellow

Message Area Entry

Report LCC GUI message area log entry(ies) to MCC

Yellow 'RJ-45 Port Configured for LCS Ops' Not Displayed on Desktop Crew Patch

- A31p Sel 'Shuttle Apps' > 'Network Configuration' > 'LCS RJ-45 Network Setup'
- Enter '1' in network window
- Sel 'OK'
- Sel 'OK' in LCS window
- Allow 20 sec for program to execute
- √Yellow text displayed on desktop
- Resume LCS Ops

(For SSPTS APCU 2 flights only)

(reduced copy)

P/TV-8b/128/O/A

HOOK
VELCROHOOK
VELCRO**IDC ACTIVATION**

- LCC Setup
√Hardware configured per LCC ACTIVATION steps 1,2 (Cue Card, LCS)
A31p √PGSC Pwr – ON
- IDC connectivity Check
A31p √A31p internal RJ45 Network Interface Card LED green
If RJ45 Network Interface Card LED not green:
A15 APCU 2 CONV – OFF
OUTPUT – OFF, wait 10 sec, ON
CONV – ON
SM 179 POWER TRANSFER
√PTU 2 APCU OUT VOLTS: 123V to 126V

IDC SOFTWARE ACTIVATION

- IDC Software Startup
A31p Sel 'Shuttle Apps' > 'IDC'
- Verify GMT
A31p √GMT within 3 sec of SM-GPC GMT
* If GMT not within 3 sec: *
* Double click on GMT box on GUI *
* Adjust GMT as reqd *
* Sel 'OK' on MTU Time dialogue box *
- IDC Pwr on and self test

CAUTION

Pwr off IDC when not imaging. Pointing IDC at Sun when pwr on will damage Camr

- A31p Sel 'Power On'
- √Black and White self-test image displayed
√'Waiting for User Command' displayed
- * If red backlit error msg displayed: *
* Perform appropriate TROUBLESHOOTING *
* steps on this cue card *

OPERATION**NOTE**

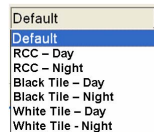
PDRS OPS will call for IDC image steps on LCC A31p. Limited MCC real-time insight avail if configured for desktop dnk

- Configure LDRI Illumination
R12 (VPU) √Green Jumper – LDRI/ITVC
A7 VID OUT MUX 1L pb – push
IN MIDDECK pb – push
LDRI MODE 2 pb – push
VID OUT MON 1(2) pb – push
IN PL2 (VPU) pb – push
CAMR CMD PAN/TILT – HI RATE
PAN – L (to hard stop)
TILT – UP (to hard stop)
PAN/TILT – RESET
– LO RATE within 10°
PAN: +85 (right)
TILT: -57 (down)

NOTE

If IDC GUI GMT does not update during Ops, an attempt to shut down/restart A31p should be made

- Auto Exposure (AE) Ops
A31p √'Use AE' checked
Sel 'Scan Lo-Res'
Resize and posn AE box as reqd (pause 2 sec)
√MCC for AOI FOV
Sel 'Scan Hi-Res'
If Scanning w/no RMS Motion:
| Sel 'Stop Scan' after 30 sec
If scanning w/RMS motion:
Move box to maintain RCC in AE box (using keyboard arrows)
Sel 'Stop Scan' at pause point
√'Waiting for User Command' displayed
- Scenario File Ops
A31p From Scenario File drop-list, sel appropriate lighting condition



- Sel 'Acquire Set'
√'Acquiring Set' displayed
√'Waiting for User Command' displayed after set
√MCC content w/data take

P/TV-9a/128/O/B

(For SSPTS APCU 2 flights only)

(reduced copy)

FS CC 3-16

P/TV/128/FIN 1

HOOK
VELCRO

HOOK
VELCRO

IDC DEACTIVATION

- IDC and Software Shutdown
A31p Sel 'Power off' on IDC GUI
IDC software > 'YES'
Close (X) IDC software > 'YES'
- A31p Screen Resolution Reset
A31p Right click on ATI icon on system tray
Sel 'Schemes'
Sel 'DISABLE DESKTOP DOWNLINK, ATI Property Settings'
Sel 'Yes'
Arrange program windows as desired

IDC HOT KEY COMMANDS

- | | |
|------------------------------------|-------------------------------|
| F5 – Toggle Summary View | F6 – Toggle Image Mode |
| F7 – Zoom In | F8 – Zoom Out |
| F9 – Reset Brightness and Contrast | F10 – Reset AE Box to Default |
| F11 – Toggle AE Box Visibility | F12 – Find AE Box |

IDC SOFTWARE ERROR MESSAGES

- Can't connect to LCH:** Perform TROUBLESHOOTING, steps 1,2
Condition: Possible heater only mode or Network failure
- Ipport probe failed:** Perform TROUBLESHOOTING, step 2
Condition: Ipport startup check failed
- Ipport not responding:** Perform TROUBLESHOOTING, step 2
Condition: Ipport connection lost
- Camera not responding:** Perform TROUBLESHOOTING, step 2
Condition: Camera connectivity lost
- Image acquisition failed:** Perform TROUBLESHOOTING, steps 1,2
Condition: Camera connectivity lost during imaging
- Network recovery failed:** Perform TROUBLESHOOTING, steps 1,2
Condition: LCH network switch connection lost
- Bad initialization file:** Perform TROUBLESHOOTING, step 3
Condition: Software will not launch due to severe ini file corruption

TROUBLESHOOTING

- LCC to LCH Connectivity Check
A31p If Local Area Network Connection (with red X) tool tip on system tray:



Reseat OPP to LCC Cable (20 ft) to LCC RJ45 port
√Local Area Network Connection Speed 10 mps
If no connection:
Perform LCH, LCC, and IDC Reset, step 2
Continue nominal ops

- LCH, LCC, and IDC Reset
A31p Exit IDC software and shut down Windows
√OPP to LCC Cable (20 ft) connected to LCC RJ45 port and LCS
CMD/TLM port
 - A15 APCU 2 CONV – OFF
OUTPUT – OFF, wait 10 sec, ON
CONV – ON
- SM 179 POWER TRANSFER**
√PTU 2 APCU OUT VOLTS: 123V to 126V
- A31p LCC PGSC Pwr – ON
√A31p internal RJ45 Network Interface Card LED green
- Perform IDC SOFTWARE ACTIVATION
Continue nominal ops
- LCC Swap
A31p Exit IDC software and shut down Windows
Swap LCC with other A31p
Perform IDC Activation
Perform IDC Software Activation
Continue nominal ops

(For SSPTS APCU 2 flights only)

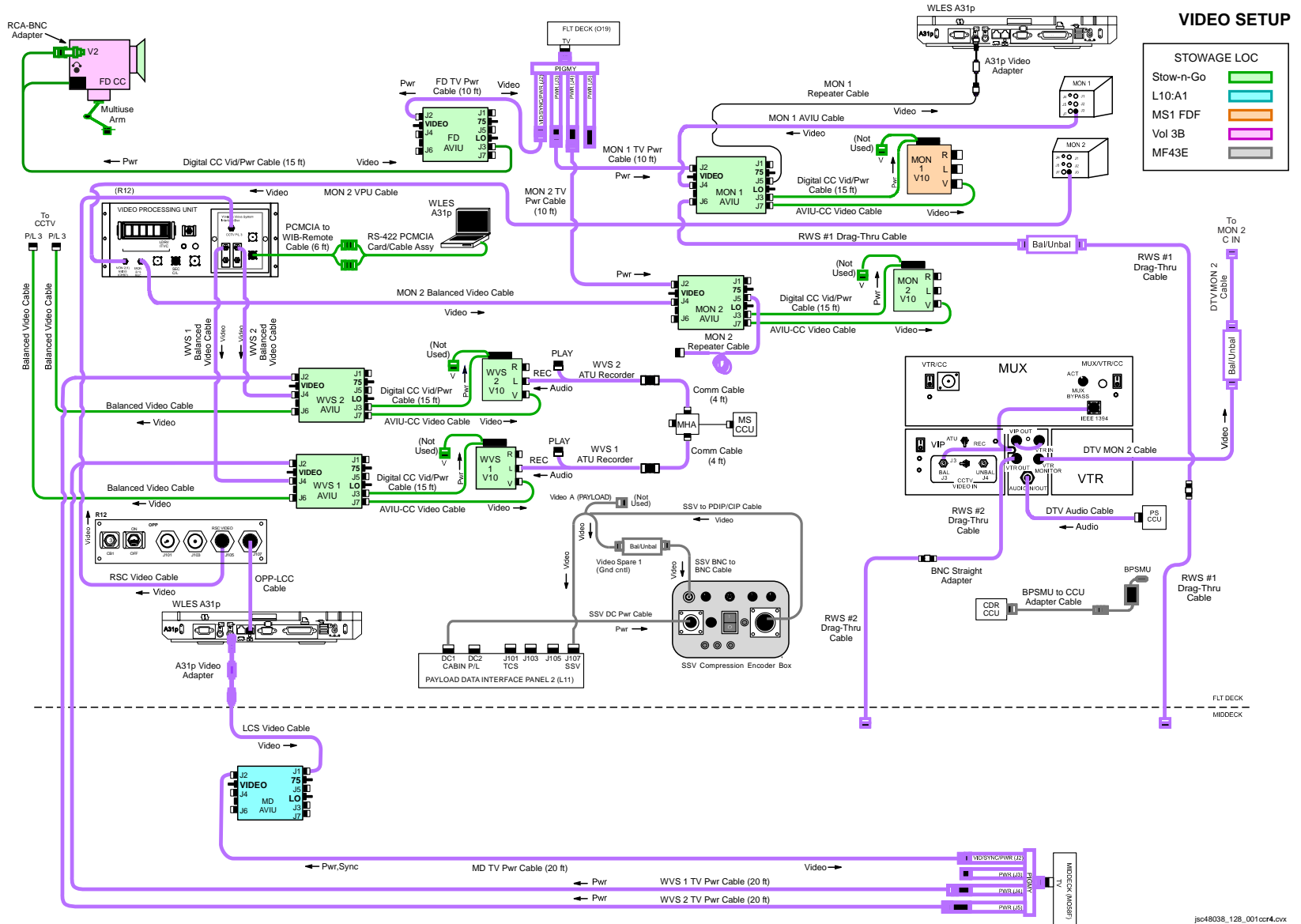
(reduced copy)

FS CC 3-17

P/TV-9b/128/O/A

P/TV/128/FIN

TOP



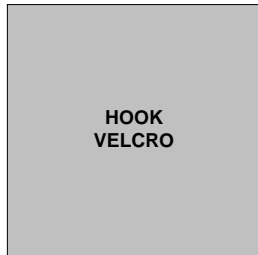
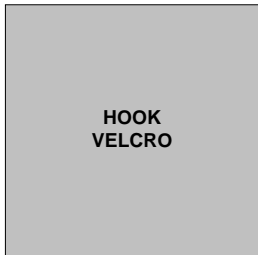
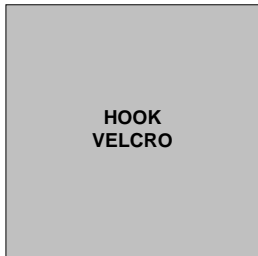
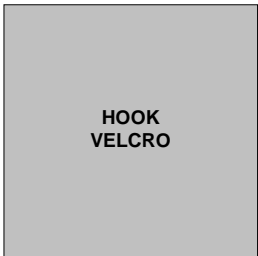
jsc48038_128_001ocr4.cvx

P/TV-10a/128/O/D

(reduced copy)
FS CC 3-18

P/TV/128/FIN 2

TOP
BACK OF 'VIDEO SETUP'



(reduced copy)
FS CC 3-19

P/TV-10b/128/O/A



P/TV/128/FIN

TOP

D2Xs SETUP

HOOK
VELCRO

D2Xs PROGRAM In Cabin	D2Xs Aperture Priority	D2Xs Shutter Priority "Earth Obs"
<p>Lens – as reqd Aperture – Min, locked Body Focus Mode – S √Batt installed √Flash Card installed Pwr – ON Top LCD: √Batt √Frames remaining sufficient Exp Comp (☑) – 0.0 Exp Mode – P Meter – Matrix (☼) Diopter – Adjust Frame Rate – S √BKT disabled – 0 F Rear LCD: √ISO – 100 √QUAL – RAW √WB – 0,A √Focus Area – Center √Focus Selector Lock – L AF Area Mode – [[]] SB-800 Flash Settings: √Diffuser Dome installed ON/OFF pb – ON √MODE - [☑] [TTL] [BL] √Exp Comp – 0 EV Tilt – 45° (Direct)</p>	<p>Lens – as reqd Aperture – Min, locked Body Focus Mode – S √Batt installed √Flash Card installed Pwr – ON Top LCD: √Batt √Frames remaining sufficient Exp Comp (☑) – 0.0 Exp Mode – A: f/stop – as reqd Meter – Matrix (☼) Diopter – Adjust Frame Rate – S √BKT disabled – 0 F Rear LCD: √ISO – 100 √QUAL – RAW √WB – 0,A AF Area Mode – [[]] √Focus Area – Center √Focus Selector Lock – L SB-800 Flash Settings: √Diffuser Dome installed ON/OFF pb – ON √MODE - [☑] [TTL] [BL] √Exp Comp – 0 EV Tilt – 45° (Direct)</p>	<p>Lens – as reqd Aperture – Min, locked Body Focus Mode – S √Batt installed √Flash Card installed Pwr – ON Top LCD: √Batt √Frames remaining sufficient Exp Comp (☑) – 0.0 Exp Mode – S: SS – 500 Meter – Matrix (☼) Diopter – Adjust Frame Rate – S √BKT disabled – 0 F Rear LCD: √ISO – 100 √QUAL – RAW √WB – 0,A AF Area Mode – [[]] √Focus Area – Center √Focus Selector Lock – L SB-800 Flash Settings: ON/OFF pb – OFF</p>

P/TV-11a/128/O/A













(reduced copy)

FS CC 3-20

P/TV/128/FIN

TOP
BACK OF 'D2Xs'

HOOK
VELCRO

D2Xs MANUAL "SUNLIT OBJECTS"	D2Xs EXPOSURE MATCH "HERO SHOT"	D2Xs CREW PHOTO
<p>Lens – as reqd</p> <p>NOTE If auto focus unachievable: Lens Focus Mode – M</p> <p>Lens Focus Mode – A Aperture – Min, locked Body Focus Mode – S √Batt installed √Flash Card installed Pwr – ON Top LCD: √Batt √Frames remaining sufficient</p> <p>Exp Comp () – 0.0 Exp Mode – M: SS – 500 f/stop – f/8</p> <p>Meter – Matrix () Diopter – Adjust Frame Rate – S √BKT disabled – 0 F Rear LCD: √ISO – 100 √QUAL – RAW √WB – 0,A AF Area Mode – [[]] √Focus Area – Center √Focus Selector Lock – L</p> <p>SB-800 Flash Settings: ON/OFF pb – OFF</p>	<p>Lens – 12-24mm @ 18mm Aperture – Min, locked Body Focus Mode – S √Batt installed √Flash Card installed Pwr – ON Top LCD: √Batt √Frames remaining sufficient</p> <p>Exp Comp () – 0.0 Exp Mode – P Meter – Matrix () Diopter – Adjust Frame Rate – S √BKT disabled – 0 F Rear LCD: √ISO – 100 √QUAL – RAW √WB – 0,A AF Area Mode – [[]] √Focus Area – Center √Focus Selector Lock – L</p> <p>SB-800 Flash Settings: √Diffuser Dome installed ON/OFF pb – ON √MODE –    √Exp Comp – 0 EV Tilt – 45° (Direct)</p> <p>Technique 1. Fill FOV w/sunlit subject 2. Activate D2Xs Camr 3. Auto Exp Lock – Depress,hold Expect values such as 250,f/11 4. Focus, Frame, Fire</p>	<p>Lens – 17-35mm @ 17mm Aperture – Min, locked Body Focus Mode – S √Batt installed √Flash Card installed Pwr – ON Top LCD: √Batt √Frames remaining sufficient</p> <p>Exp Comp () – 0.0 Exp Mode – A: f/stop – f/8</p> <p>Meter – Matrix () Diopter – Adjust Frame Rate – Selftimer √BKT disabled – 0 F Rear LCD: √ISO – 100 √QUAL – RAW √WB – 0,A AF Area Mode – [[]] √Focus Area – Center √Focus Selector Lock – L</p> <p>SB-800 Flash Settings: √Diffuser Dome installed ON/OFF pb – ON √MODE –    √Exp Comp – 0 EV Tilt – 45° (Direct)</p> <p>Accessory Equipment: Shutter Release Cable – Install Multiuse Brkt – Install Multiuse Brkt Clamp – Install as reqd</p> <p>Technique 1. Focus on crewmember 2. Body Focus Mode – M 3. Frame, Fire</p>

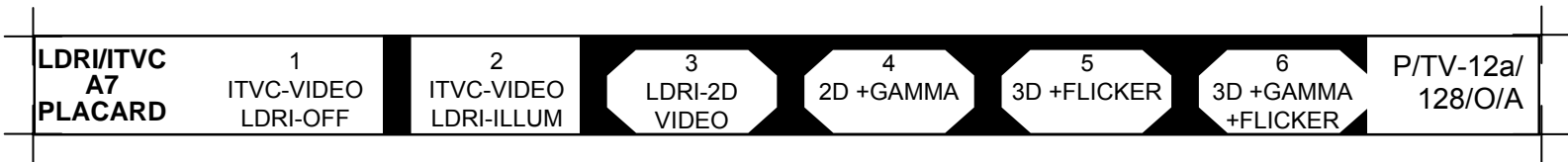
P/TV-11b/128/O/A

(reduced copy)

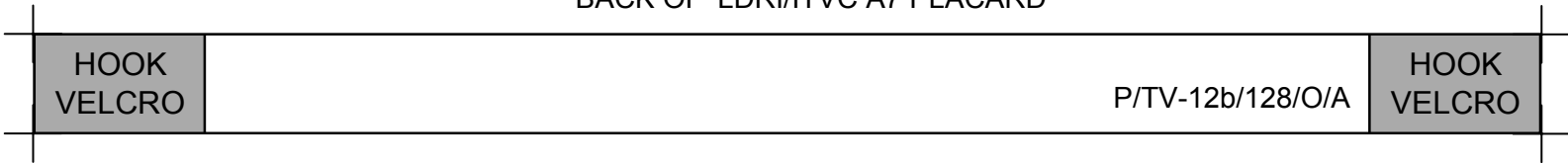
FS CC 3-21

P/TV/128/FIN

TOP



TOP
BACK OF 'LDRI/ITVC A7 PLACARD'



DIGITAL PLAYBACK

HOOK
VELCRO

HD DIGITAL VIA CC

DIGITAL VIA VTR

NOTE

Digital Playback from CC only possible for CC Video recordings

ACTIVATION

- CC Setup per diagram (back of cue card)
For cable strain relief, attach MPC-to-G1 Cable Velcro strap to CC strap
- AVIU SYNC/VIDEO – VIDEO
HI-Z/75 – 75
PWR SELECT – LO
- O19 √TV PWR – ON
- CC PWR dial – VCR/PLAY

- If DnIk** Notify MCC, configuring for HD TV dnIk
- L10 (MUX) √MUX/VTR/CC PWR – on (LED on)
√MUX BYPASS – ACT
√CH 0,1 RATE SEL – 1
√2 RATE SEL – 8
 - (VTR) ON/STANDBY pb – push (LED red)
 - (VIP) PWR – off (LED off)
 - O19 DC UTIL PWR MNA – ON
 - MPC PWR SPLY DC PWR SPLY PWR SW1 – ON
 - MPC PWR – ON (5V,3V green LEDs on)
 - L10 (MUX) √CH 2 F/O OK LED on

OPERATIONS

PLBK or DNLK VIDEO

- CC Install tape, if reqd
VTR pb – REW(FF),PLAY,PAUSE to cue tape

- If DnIk**
- MPC √HDV, TAXI LEDs – on
 - L10 (MUX) √CH 2 DATA LED – on

- CC PLAY pb – push (green ► displayed)
- If PLBK(DNLK) complete:
| STOP pb – push
If CC ops complete, go to DEACTIVATION

DEACTIVATION

- CC Remove, mark, stow tape as reqd
PWR dial – OFF
- O19 TV PWR – OFF, as reqd

- If DnIk**
- MPC PWR – OFF
 - MPC PWR SPLY DC PWR SPLY PWR SW1 – OFF
 - O19 DC UTIL PWR MNA – OFF
 - L10 (MUX) √VTR/CC PWR – on (LED on)
MUX/VTR/CC PWR – off (LED off)
 - (VIP) PWR – on (LED on, DATA FLOW LED flashes twice)
 - (VTR) ON/STANDBY pb – push (LED green)
- Notify MCC, returned to SD TV dnIk
Go to DEACTIVATION (Cue Card, TV), as reqd

ACTIVATION

- L10 (MUX) Setup per diagram (back of cue card)
√VTR/CC PWR – on (LED on)
(VTR) √ON/STANDBY LED – green

OPERATIONS

PLBK or DNLK VIDEO

- L10 (VTR) Install tape if reqd
√DISPLAY SELECT – DATA
- Remote If Index Search reqd:
√ID – VTR4
SEARCH MODE pb – push (INDEX SEARCH mode displayed)
| ◀▶ (▶▶) pb – push to move highlight bar to desired GMT start
When VTR auto-cue complete, green • displayed:
PAUSE pb – push
If playback time not displayed on DSR-25 LCD cycle "DATA CODE" repeatedly until time displayed
- L10 (VTR) REW(FF),PLAY,PAUSE pb – push as reqd to cue tape

- If DnIk**
- L10 (MUX) MUX/VTR/CC PWR – on (LED on)
√MUX BYPASS – ACT
√CH 3 DATA LED – on

- L10 (VTR) PLAY pb – push (green • displayed)
- If PLBK(DNLK) complete:
| STOP pb – push
If VTR ops complete, go to DEACTIVATION

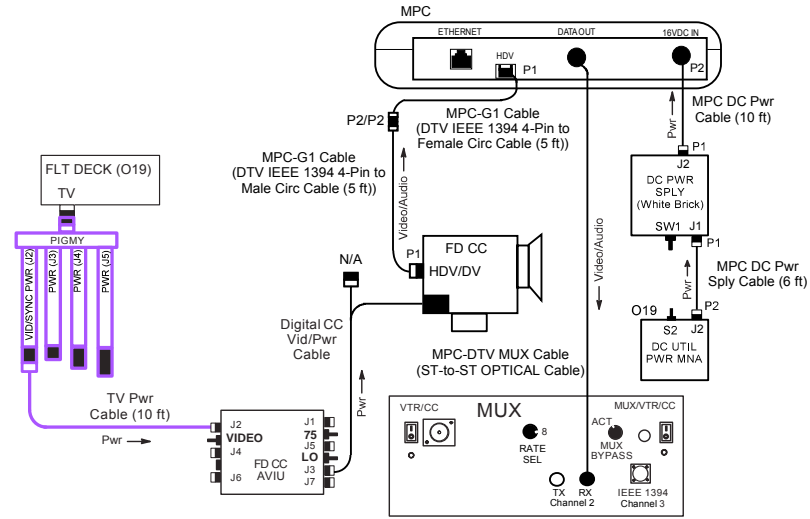
DEACTIVATION

- L10 (VTR) Remove, mark, stow tape as reqd
Go to DEACTIVATION (Cue Card, TV) as reqd

TOP
BACK OF 'DIGITAL PLAYBACK'

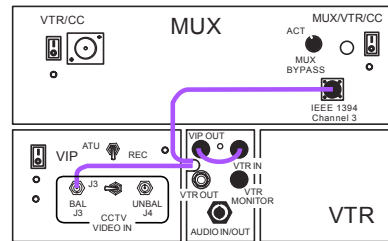
HOOK
VELCRO

HD DIGITAL VIA CC PLAYBACK



jsc48038_128_012e.cvx

DIGITAL VIA VTR PLAYBACK



jsc48038_128_012d.cvx

P/TV-13b/128/O/A

(reduced copy)
FS CC 3-24

P/TV/128/FIN

NOTE

Replace this page with four (4) sheets of blue
K-10 stock in crew copies only

NOTE

Replace this page with four (4) sheets of blue
K-10 stock in crew copies only



PHOTO/TV CHECKLIST

STS
128