

SUBSYSTEM CCTV
 UNIT IVC/PILA
 ASSY. OMNG. 2294819-506, 508/2294820-502
 QUANTITY/LOCATION 1/MULTIPLE (CARGO BAY STACK)

SHUTTLE CCTV FAILURE MODE
& EFFECTS ANALYSIS

PREPARED BY M. Kravitz
 DATE 8-19-85
 REVISED 7-17-87

FUNCTION: Provide a video output signal from the IVC to the VSO/IVM.

ITEM	FAILURE MODE	FAILURE CAUSE	FAILURE EFFECT ON END ITEM	FAILURE DETECT FLIGHT/GROUND	CORRECT ACTION TIME AVAIL/REQ	CRIT'Y	HAZARDS/REMARKS
2.1.2	A malfunction in the camera to cause total loss of the active video signal or video information that will provide degraded performance.	<u>IVC</u> <u>A2</u> Command Decode Logic. <u>A3</u> Command Execution Logic. <u>A4</u> Camera Timing Logic. <u>A5</u> Horizontal Deflection. <u>A6</u> Vertical Deflection. <u>A7</u> Focus Current. <u>A8</u> Horizontal Alignment. <u>A9</u> Vertical Alignment. <u>A10</u> Black/White Clipper. <u>A11</u> Gamma Correction. <u>A12</u> Aperture Correction. <u>A13</u> Shading Correction. <u>A14</u> Video Output Driver. <u>A15</u> Automatic Light Control. <u>A16</u> Automatic Gain Control. <u>A17</u> Dark Current Compensation. <u>A18</u> Output Voltage Regulator. <u>A19</u> Input Voltage Pre-Regulator. <u>A20</u> Primary Rectifier/Driver (sync loss). <u>A21</u> Secondary Rectifiers/Filters (change of voltage or loss of filtering).	(1) Unable to open lens iris. (2) Degradation of picture content. <u>Worst Case:</u> loss of mission critical video.	<u>ELT/GRD</u> (1) Monitor will display an all gray field with a high level of background noise. (2) Monitor display all white or all black. (3) IVM or monitor display exhibits unusual shading characteristic or picture definition.	None	2/2	
			<u>Worst Case:</u> If video is not mission critical, for B & C cameras only: Unable to verify PDU door aft bulkhead latches are closed.	Same as above	None.	3/1R	{Usage of EVA tools is available.}

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 ATTACHMENT -
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SUBSYSTEM CCTV
 UNIT TUC/PRA
 ASSY. DWG. 2294019-506, 508/2294020-502
 QUANTITY/LOCATION 1/MULTIPLE (CARGO BAY STACK)

SHUTTLE CCTV FAILURE MODE
 & EFFECTS ANALYSIS

PREPARED BY M. Kravitz
 DATE 8-19-86
 REVISED 2-17-87

FUNCTION: Provide a video output signal from the IVC to the VSU/IVM.

ITEM	FAILURE MODE	FAILURE CAUSE	FAILURE EFFECT ON END ITEM	FAILURE DETECT FLIGHT/GROUND	CORRECT ACTION TIME ANAII/REQ	CRIT'Y	HAZARDS/REMARKS
2.1.2							
Continued		:A8 High Voltage Power Supply.					
		:A9 Target Pre-amplifier.					
		:A10 Beam Current Regulator. Cathode Blanking.					
		:A12 Shading Uniform Generator.					
		:A14 SII Tube.					