

# FAILURE MODES AND EFFECTS ANALYSIS

REFERENCE DESIGNATOR:  
 NAME/QUANTITY: LBNP Controller 1  
 DRAWING REFERENCE: SED46105894-301

PROJECT: Orbiter  
 LRU NAME/QUANTITY: LBNPDS (1)  
 LRU PART NUMBER: SED46105885

SUBSYSTEM: LBNP  
 EFFECTIVITY: All Orbiters

FAILURE MODE NUMBER LBNP-3	CRITICALITY 3/1R	FAILURE EFFECT	FAILURE DETECTION METHOD
<b>FUNCTION</b> Regulates amount of vacuum applied to the crewmember's lower body.		<b>END ITEM</b> LBNP chamber will be exposed to higher vacuum, unknowingly	<b>FLIGHT</b> 1. Analog Pressure Meter 2. Blood Pressure Measurement 3. EKG 4. Relief valve opens
<b>FAILURE MODE AND CAUSE</b> Inaccurate reading or failure of electronic pressure meter Cause: Electronic part (Electronic)			
<b>REDUNDANCY SCREENS</b> A - PASS B - PASS C - PASS		<b>MISSION</b> Loss of DSO objective	<b>GROUND</b> Yes, EKG Measurement <b>CORRECTIVE ACTION</b> 1. Open manual relief valve 2. Manually separate waist seal 3. Disconnect any one of quick disconnects #1-4
<b>REMAINING PATHS</b> 1. Mechanical meter 2. Relief valve 3. Regulator 4. ABPM			
<b>MISSION PHASE</b> ORBIT		<b>CREW/VEHICLE</b> Possible crewmember injury if blood pressure and/or heart rate is reduced beyond acceptable limits.	<b>REMARKS</b>
<b>TIME TO EFFECT</b> IMMEDIATELY	<b>TIME TO CORRECT</b> MINUTES		
		<b>INTERFACE</b>	