

FAILURE MODES AND EFFECTS ANALYSIS

ASSY NOMENCLATURE: RESUSCITATOR
ASSY P/N: 50M42100911-001

SYSTEM: Orbiter
SUBSYSTEM: Medical Kit

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NAME AND DRAWING	FUNCTION	FAILURE MODE AND CAUSE	MISSION PHASE	FAILURE EFFECT ON			FAILURE DETECTION	CORRECTIVE ACTION TIME AVAILABLE FOR REPAIR	CRIT. EFF.	HAZARDS/REMARKS
				END ITEM	MISSION	CREW/VEHICLE				
REFERENCE #0 Mask Attachment (1) 50M42100911-001	Provides interface between mask and regulator	A) Mode: Breaks Cause: • Defective material	Orbit	Unable to use mask	*N/A	Possible loss of crewmember	Visual	Perform CPR if needed Seconds Seconds	3/IR	* See ground rule
REFERENCE #5 Regulator Assy. (1) 50M42100901-001	Provides on/off control of oxygen to mask	A) Mode: Fails open Cause: • Defective component (spring)	Orbit	Unable to stop oxygen flow to mask, higher usage rate	None	None	Continuous Oxygen flow into facial cavity, audible sound	Supply oxygen to patient by connecting/disconnecting hose from inhibitor supply as required	3/3	The oxygen supply would have to be depleted before this failure mode becomes critical. The mission would be aborted prior to reaching a state of oxygen loss.
		B) Mode: Fails closed Cause: • Defective valve (spring)	Orbit	Unable to obtain oxygen for respiration	*N/A	Possible loss of crewmember	Visually, no audible sound	Perform CPR if needed Seconds Seconds	3/IR	
		C) Mode: Severe leakage Cause: • Defective component	Orbit	Reduced oxygen supply, higher usage rate	*N/A	Possible loss of crewmember	Audible sound	Perform CPR if needed Seconds Seconds	3/IR	The oxygen supply would have to be depleted before this failure mode becomes critical. The mission would be aborted prior to reaching a state of oxygen loss.

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FAILURE MODES AND EFFECTS ANALYSIS

ASSY NOMENCLATURE: RESPIRATOR
 ASSY P/N: 50042100913

SYSTEM: Orbiter
 SUBSYSTEM: Medical A/S

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NAME AND DRAWING	FUNCTION	FAILURE MODE AND CAUSE	MISSION PHASE	FAILURE EFFECT ON			FAILURE DETECTION	CORRECTIVE ACTION TAKEN AVAILABLE FOR MISSION	CRIT. EFF.	HAZARD/REMARKS
				END ITEM	MISSION	CREW/VEHICLE				
REFERENCE #6 Oxygen Hose (1), 50042100913-302	Supply hose for Orbiter oxygen	A) Mode: Severe leakage Cause: A defect free material	Orbit	Reduced oxygen supply, higher usage rate	*N/A	Possible loss of crewmembers	Visual, Audible	None	CR	The oxygen supply would have to be depleted by time if by failure mode becomes critical. The mission would be aborted prior to reaching a critical oxygen level.

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