SHUTTLE CRITICAL ITEMS LIST - ORBITER

SUBSYSTEM :EPD&C - ATCS/FCL FMEA NO 05-6WD-1001 -3 REV:06/10/8

ASSEMBLY :PANEL L1A2
P/N RI :ME452-0102-7105
P/N VENDOR:
QUANTITY :2 (TWO),
:ONE PER LOOP
:

CRIT. FUNC: 2
CRIT. HDW: 2

VEHICLE	102	103	104
EFFECTIVITY:	X	X	X

PHASE(S): PL LO OO X DO LS

REDUNDANCY SCREEN: A- B- C-

PREPARED BY:
DES J BROWN
REL M HOVE
QE J COURSEN

APPROVED BY:
DES
REL
QE

APPROVED BY (NASA):
SSM
REL
QE

ITEM:
SWITCH, TOGGLE. FLOW PROPORTIONING MODULE.

FUNCTION:
ACTIVATES THE FLOW PROPORTIONING VALVE TO CONTROL DIVISION OF FREON FLOW TO THE INTERCHANGER AND PAYLOAD HEAT EXCHANGER FOR FREON COOLANT LOOP (FCL) 1 OR 2. 31V73A1A2S21,S22.

FAILURE MODE:
FAILS CLOSED IN THE "INTERCHANGER" POSITION, POLE-TO-POLE SHORT I "INTERCHANGER" POSITION.

CAUSE(S):
PIECE PART STRUCTURAL FAILURE, MECHANICAL SHOCK, VIBRATION CONTAMINATION, PROCESSING ANOMALY

EFFECT(S) ON:
(A)SUBSYSTEM (B)INTERFACES (C)MISSION (D)CREW/VEHICLE

(A) LOSS OF ABILITY TO CONTROL ONE FCL FLOW PROPORTIONING MODULE.

(B) UNABLE TO TRANSFER ONE FCL FLOW PROPORTIONING MODULE TO PAYLOAD FLO POSITION.

(C) POSSIBLE LOSS OF MISSION OBJECTIVE IF PAYLOAD COOLING CANNOT B PROVIDED.

(D) NO EFFECT

DISPOSITION & RATIONALE:
(A)DESIGN (B)TEST (C)INSPECTION (D)FAILURE HISTORY (E)OPERATIONAL USE

(A-D) DISPOSTION AND RATIONALE
REFER TO APPENDIX A, ITEM NO. 1 - TOGGLE SWITCH.

(B) GROUND TURNAROUND TEST
SWITCH AND FLOW PROPORTIONING MODULE ARE VERIFIED PRIOR TO EACH FLIGHT.

(E) OPERATIONAL USE
POWERDOWN PAYLOAD AS REQUIRED.