SHUTTLE CRITICAL ITEMS LIST - ORBITER NUMBER: GO-AA-201000-02-000-X

SUBSYSTEM NAME:

REVISION : 1 89/08/09

	PART NAME VENDOR NAME	PART NUMBER VENDOR NUMBER
• SRU :	SIGNAL CONDITIONER WIRE BUNDLE	G073-770281

■ EXTENDED DESCRIPTION OF PART UNDER ANALYSIS:
WIRES PROVIDING SIGNAL CONDITIONER INTERNAL CONNECTIONS.

■ QUANTITY OF LIKE ITEMS: 1
ONE BUNDLE

■ FUNCTION:
WIRES PROVIDE NECESSARY ELECTRICAL/ELECTRONIC INTERCONNECTIONS INTERNAL TO THE GALILEO RPM TANK MONITOR SIGNAL CONDITIONER ASSEMBLY.

PRINT DATE: 08/28/89

SHUTTLE CRITICAL ITEMS LIST - ORBITER NUMBER: GO-AA-201000-02-000-01

REVISION# 1 89/08/25

SUBSYSTEM: GALLILEO RPM TANK MONITOR

ITEM NAME: SIGNAL CONDITIONER WIRE BUNDLE

CRITICALITY OF THIS FAILURE MODE:1S

■ FAILURE MODE:
ONE OR MORE WIRES IN THE BUNDLE FAIL TO CONDUCT. INADVERTENT DEMATE OF CONNE

MISSION PHASE:
LS LANDING SAFING

■ VEHICLE/PAYLOAD/KIT EFFECTIVITY: 104 ATLANTIS

■ CAUSE:
STRUCTURAL FAILURE, VIBRATION, MECHANICAL SHOCK, ~~CONTAMINATION~~ CONTAMINATION, Processing Anom

■ CRITICALITY 1/1 DURING INTACT ABORT ONLY? N

■ REDUNDANCY SCREEN A) N/A
■ B) N/A
■ C) N/A

PASS/FAIL RATIONALE:
■ A)

■ B)

■ C)

- FAILURE EFFECTS -

■ (A) SUBSYSTEM:
LOSS OF ONE OR MORE FUNCTIONS OF THE SIGNAL CONDITIONER. FAILURE TO DETECT AND DISPLAY POSSIBLE RUNAWAY TANK OVERPRESSURE.

■ (B) INTERFACING SUBSYSTEM(S):
POSSIBLE TANK RUPTURE, FIRE/EXPLOSION.

■ (C) MISSION:
POSSIBLE LOSS OF THE GALILEO/IUS PAYLOAD

■ (D) CREW, VEHICLE, AND ELEMENT(S):
POSSIBLE LOSS OF THE ORBITER, POSSIBLE LOSS OF LIFE

■ (E) FUNCTIONAL CRITICALITY EFFECTS:
FAILURE TO DETECT AND DISPLAY POSSIBLE RUNAWAY TANK OVERPRESSURE, POSSIBLE FIRE/EXPLOSION, POSSIBLE LOSS OF THE ORBITER, POSSIBLE LOSS OF LIFE.

- DISPOSITION RATIONALE -

(A) DESIGN
WIRE BUNDLE IS FABRICATED USING WIRE PER M22759116-20-9 AND M22759116-22-9. CONNECTORS ARE NLS7E10-35S AND NB7E16-20SOT3 PER ML0303-0046.

(B)TEST
THE WIRE HARNESSS ARE CONTINUITY TESTED PER WIRE LIST.

(C)INSPECTION
WIRE HARNESS ARE INSPECTED FOR WEIGHT, WORKMANSHIP, FINISH, DIMENSIONS, CONSTRUCTION, CLEANINESS, IDENTIFICATION MARKING AND CERTIFIED MATERIALS AND PROCESSES. ACCEPTANCE TEST PROCEDURE ARE APPROVED BY QUALITY ASSURANCE.

(D) FAILURE HISTORY
FAILURE HISTORY INDICATES NO GENERIC FAILURE MODES EXIST (APOLLO, MILITARY)

(E) OPERATIONAL USE
CONTINGENCY ONLY. INTERCONNECTS COMPONENTSIN THE SIGNAL CONDITIONING ASSEMBLY WHICH CONVERTS BATTERY VOLTAGE TO A REGULATED 10VDC, MONITORS AND TRANSMITS THE 10VDC INDICATION, SUPPLIES 10VDC TOTHE PRESSURE TRANSDUCERS AND CONNECTS THE TRANSDUCER OUTPUT TO THE TRANSMITTER. A SPARE UNIT WILL BE AVAILABLE AT THE ABORT SITE.

- APPROVALS -

RELIABILITY ENGINEERING	W. R. MARLOWE	
DESIGN ENGINEERING	L. COLEMAN	
QUALITY ENGINEERING	C. ROLLINS	
NASA RELIABILITY		
NASA SUBSYSTEM MANAGER		
NASA QUALITY ASSURANCE		