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PRINT DATE: 08/09/89

SHUTTLE CRITICAL ITEMS LIST - ORBITER NUMBER: GO-AA-103000-00-000-X

SUBSYSTEM NAME:

REVISION : 1 89/08/09

	PART NAME VENDOR NAME	PART NUMBER VENDOR NUMBER
■ LRU :	CABLE, GALILEO RPM MONITOR	V763-713738

■ EXTENDED DESCRIPTION OF PART UNDER ANALYSIS:
ORBITER-TO-GSE INTERCONNECT CABLE, STOWED ABOARD ORBITER.

■ QUANTITY OF LIKE ITEMS: 1
ONE

■ FUNCTION:
CABLE STOWED ABOARD ORBITER UNTIL NEEDED AFTER ORBITER LANDING.
CONNECTS R11A1 PANEL OUTPUT JACK TO GALILEO RPM MONITOR SIGNAL
CONDITIONER ASSEMBLY BOX ON GROUND.

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SHUTTLE CRITICAL ITEMS LIST - ORBITER

NUMBER: GO-AA-103000-00-000-01

SUBSYSTEM: GALLILEO RPM TANK MONITOR
LRU :CABLE, GALILEO RPM MONITOR
ITEM NAME: CABLE, GALILEO RPM MONITOR

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CRITICALITY OF THIS
FAILURE MODE: IS

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- FAILURE MODE:
FAILURE OF ONE OR MORE POWER OR SIGNAL PATHS IN CABLE TO CONDUCT. *INADVERTENT OR*
OF CONNECTOR
 - MISSION PHASE:
LS LANDING SAFING
 - VEHICLE/PAYLOAD/KIT EFFECTIVITY: 104 ATLANTIS STS-34
 - CAUSE:
STRUCTURAL FAILURE, CONTAMINATION, VIBRATION, MECHANICAL SHOCK, THERMAL
STRESS *Processing Anomaly*
 - CRITICALITY 1/1 DURING INTACT ABORT ONLY? N

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

PASS/FAIL RATIONALE:

- A)
- B)
- C)

- FAILURE EFFECTS -

- (A) SUBSYSTEM:
FAILURE OF ONE OR MORE SYSTEM FUNCTIONS, FAILURE TO DETECT AND DISPLAY
POSSIBLE RUNAWAY TANK OVERPRESSURES.
- (B) INTERFACING SUBSYSTEM(S):
POSSIBLE TANK RUPTURE, FIRE/EXPLOSION.
- (C) MISSION:
POSSIBLE LOSS OF THE GALILEO/IUS PAYLOAD

SHUTTLE CRITICAL ITEMS LIST - ORBITER NUMBER: GO-AA-103000-00-000-01

- (D) CREW, VEHICLE, AND ELEMENT(S):
POSSIBLE LOSS OF ORBITER, POSSIBLE LOSS OF LIFE.
- (E) FUNCTIONAL CRITICALITY EFFECTS:
FAILURE OF SYSTEM TO DETECT AND DISPLAY POSSIBLE RUNAWAY TANK
OVERPRESSURES. POSSIBLE FIRE/EXPLOSION IN ORBITER PAYLOAD BAY.
POSSIBLE LOSS OF ORBITER, POSSIBLE LOSS OF LIFE.

DISPOSITION RATIONALE-

- (A) DESIGN
THE WIRE HARNESSES AND CABLES ARE FABRICATED ACCORDING TO
APPROPRIATE WIRE LISTS FOR THEIR INTENDED USAGE. THE WIRE HARNESSES
AND CABLES ARE COMPOSED OF FFA TEFLON INSULATED WIRE PER
SPECIFICATIONS MB0150-001 AND -041, TETRAFLON INSULATED WIRE PER
SPECIFICATION MB0150-051, KAPTON INSULATED WIRE PER SPECIFICATION
MB0150-048, AND COAX CABLE PER SPECIFICATION MB0150-057, TERMINATED IN
CONNECTOR PER NASA SPECIFICATION 40M38277 AND 40M31589. ALL WIRE
HARNESS ARE FABRICATED IN ACCORDANCE WITH THE REQUIREMENTS OF
ML0303-0013 WITH CIRCUIT SEPARATION AS DEFINED IN MF0004-002.
- (B) TEST
QUALIFICATION, CERTIFICATION AND ACCEPTANCE TESTS ARE PERFORMED TO
SATISFY THE ENVIRONMENTAL, DESIGN AND PERFORMANCE REQUIREMENTS OF
THE DESIGN REQUIREMENTS DOCUMENT (STS88-0877) VERIFICATION MATRIX.
- (C) INSPECTION
WIRE HARNESS ARE INSPECTED FOR WEIGHT, WORKMANSHIP, FINISH,
DIMENSIONS, CONSTRUCTION, CLEANNESS, 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 TIME
NONE.

RELIABILITY ENGINEERING: W. R. MARLOWE : W. R. Marlowe

DESIGN ENGINEERING : L. COLEMAN : L. Coleman

QUALITY ENGINEERING : C. ROLLINS : C. Rollins

NASA RELIABILITY : : [Signature]

NASA SUBSYSTEM MANAGER : : [Signature]

NASA QUALITY ASSURANCE : : [Signature]