FAILURE MODES AND EFFECTS ANALYSIS

REFERENCE DESIGNATOR:	4	PROJECT:	DTO 671 Program	SUBSYSTEM:	N/A
NAME / QUANTITY:	Push Lock Tether Tool	LRU NAME / QUANTITY:	Push Lock Tether Tool (PLTT) //	EFFECTIVITY:	ALL ORBITERS
DRAWING REFERENCE	SED30127417	LRU PART NUMBER:	SED30127417-301		

FAILURE MODE NUMBER	CRITICALITY
DTO671-64-4-6	1R/2

FUNCTION

The Push Lock Tether Tool (PLTT) is designed to attach and lock to a standard EVA tether loop. The PLTT tool is pressed onto a tether loop that actuates a link between two jaws. A sleeve slides over the captured tether loop which completes the locking action. The ratchet lock is released which allows the jaws to open and disengage the tether loop.

FAILURE MODE AND CAUSE

MODE

EVA change-out mechanism inadvertently actuates during translation with an attached ORU.

CAUSE(S)

1) Piece part failure of the locking mechanism.
2) Wear/galling.
3) Spring fails.

REDUNDANCY SCREENS	*REMAINING PATHS*
A - Pass B - N/A C - Pass	1) Remaining path is the second spring.

MISSION PHASE	CORRECTIVE ACTION TIMES	
	TIME TO EFFECT	TIME TO CORRECT
EVA	Minutes	Seconds

FAILURE EFFECT

END ITEM

Loose hardware in the payload bay during an EVA.

MISSION

None.

CREW / VEHICLE

Possible impact of an EMU from loose equipment.

INTERFACE

RT.

FAILURE DETECTION METHOD

FLIGHT

Visual.

GROUND

None.

CORRECTIVE ACTION

For APFR exercises, the crew must attach a secondary equipment tether from the installed PFR or Weight Block Assy. component tether loop to the EMU D-ring.

REMARKS

APFR must have the attached mass connected during all translation with the RT.

PREPARED BY: J. F. PARK REVISION: A SUPERSEDING DATE: NONE DATE: 5/30/85