

SAA09FT01-016

SEP 11 1995

B/L: 306.03

SYS: Up-Right

XL-19C Adjust-  
able Height  
Mobile Access  
Stand**Critical Item:** Joystick Control (1 Item Total)**Find Number:** C1**Criticality Category:** 2**SAA No:** 09FT01-016**System/Area:** Up-Right XL-19C Adjustable  
Height Mobile Access Stand/  
VAB and RPSF**NASA****Part No:** None**PMN/****Name:** A77-1214-02  
Up-Right XL-19C Adjustable  
Height Mobile Access Stand**Mfg/** PQ Controls**Part No:** M115-952**Drawing/****Sheet No:** B-0619 Rev. F  
1 of 1**Function:** Used to control lift/lower, forward/reverse, and right/left functions with speed control for lifting and driving.**Critical Failure Mode/Failure Mode No:**

High Output/09FT01-016.003

Erroneous Output/09FT01-016.004

**Failure Cause:** Short, Contamination, Internal Structural Failure.**Failure Effect:**

09FT01-016.003 - Drive and lift functions will operate at a faster speed than commanded. Possible contact with flight hardware. Possible loss (damage) of a vehicle system. Detection method is visual. Time to effect is immediate.

09FT01-016.004 - Drive and lift functions may inadvertently activate or continue to operate when stop is commanded. Possible contact with flight hardware. Possible loss (damage) of a vehicle system. Detection method is visual. Time to effect is immediate.

**ACCEPTANCE RATIONALE****Design:**

- The Pulse Width Modulated (PWM) board is designed switchless and uses transistors to perform the necessary switching functions. This limits failures of continuous mechanical micro-switch type PWM boards.

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- The PWM is also completely potted to improve resistance to exterior elements.
- Potentiometer leads are shrink wrapped to protect against shorting.
- Electrical system has a 15 Amp fuse to prevent overcurrent.
- In accordance with ANSI A92.6, American National Standard for Self Propelled Elevating Work Platforms.

**Test:**

- File VI requires that an operational check of all modes, including forward and reverse drive functions, prior to operational use in close proximity to flight hardware.
- An operational check of all modes, including forward and reverse drive functions are performed monthly in OMI B6231.

**Inspection:**

- Visual inspection for wear and missing or loose hardware is performed semiannually per OMI B6231.
- Visual inspection of the mobile access stand for damage or corrosion is performed monthly per OMI B6231.

**Failure History:**

- Current data on test failures, unexplained anomalies, and other failures experienced during ground processing activities can be found in the PRACA database. The PRACA database was researched and no failure data was found on this component in the critical failure mode.
- The GIDEP failure data interchange was researched and no failure data was found on this component in the critical failure mode.

**Operational Use:**

- Correcting Action:  
09FT01-016.003 - Joystick to Neutral, E-Stop, Deadman Switch  
09FT01-016.004 - E-Stop, Deadman Switch
- Timeframe:  
Seconds

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