

USA Ground Operations CIL Sheet

AUG 23 1999

Critical Item: Switch

NASA Part No: None

Mfg/Part No: C&K Components, Inc / 7205K12CWZBE

System: Facility Water System

Criticality Category: 1S

Total Quantity: 17

Find No.	Qty	Area	PMN	Baseline	Drawing / Sheet
0325B3A3, module 1, switch S1	1	Pad-A	U72-1193	007.00	79K09211 / 95F
0325B3A3, module 1, switch S2	1	Pad-A	U72-1193	007.00	79K09211 / 95F
0325B3A3, module 1, switch S3	1	Pad-A	U72-1193	007.00	79K09211 / 95F
0325B3A3, module 2, switch S1	1	Pad-A	U72-1193	007.00	79K09211 / 95F
0325B3A3, module 2, switch S2	1	Pad-A	U72-1193	007.00	79K09211 / 95G
0325B3A3, module 2, switch S3	1	Pad-A	U72-1193	007.00	79K09211 / 95G
0325B3A3, module 3, switch S1	1	Pad-A	U72-1193	007.00	79K09211 / 95G
0325B3A3, module 3, switch S2	1	Pad-A	U72-1193	007.00	79K09211 / 95H
0325B3A3, module 3, switch S3	1	Pad-A	U72-1193	007.00	79K09211 / 95H
0325B3A3, module 4, switch S1	1	Pad-A	U72-1193	007.00	79K09211 / 95J
0325B3A3, module 4, switch S2	1	Pad-A	U72-1193	007.00	79K09211 / 95J
0325B3A3, module 4, switch S3	1	Pad-A	U72-1193	007.00	79K09211 / 95J
0325B3A3, module 5, switch S1	1	Pad-A	U72-1193	007.00	79K09211 / 95K
0325B3A3, module 5, switch S2	1	Pad-A	U72-1193	007.00	79K09211 / 95K
0325B3A3, module 5, switch S3	1	Pad-A	U72-1193	007.00	79K09211 / 95K
0325B3A3, module 6, switch S2	1	Pad-A	U72-1193	007.00	79K09211 / 95K
0325B3A3, module 6, switch S3	1	Pad-A	U72-1193	007.00	79K09211 / 95L

Function:

Provides remote capability to open associated RSS water valve(s).

Failure Mode No. Failure Mode	Failure Cause Failure Effect	Detection Method Time to Effect	Crit Cat
09SY03A-001.024 Fail open	Corrosion, contamination, or failure of internal piece part Loss of remote capability to open associated water valve(s). Possible loss of life and/or vehicle during a hazardous condition.	Backup Panel Valve position indication Immediate	1S
09SY03A-001.025 Short to ground	Corrosion, contamination, or failure of internal piece part Loss of remote capability to open associated water valve(s). Possible loss of life and/or vehicle during a hazardous condition.	Backup Panel Valve position indication Immediate	1S

ACCEPTANCE RATIONALE

Design:

- Double pole double throw.
- Locking lever.
- Solder lug with gold contacts.

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- Epoxy seal and splashproof bushing.
- Electrical life of 40,000 make-and-break cycles at full load.
- Contact rating 5 amps @ 28 VDC.

Test:

- OMI M2067 requires cycling of FSS/RSS water valves to verify proper operation.
- OMRSD, File VI requires verification of the operational function of water valves in all modes of operation semiannually and at replacement. (Verifies switch has not failed.)

Inspection:

NA

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	Timeframe
There is no action which can be taken to mitigate the failure effect.	Since no correcting action is available, timeframe does not apply.