

USA Ground Operations CIL Sheet **AUG 23 1995**

Critical Item: Switch
NASA Part No: None
Mfg/Part No: C&K Components, Inc / 7205K12CWZBE
System: Facility Water System

Criticality Category: 1S
Total Quantity: 1

Find No.	Qty	Area	PMN	Baseline	Drawing / Sheet
0325B3A1, module 1, switch S1	1	Pad-A	U72-1193	007.00	79K09211 / 91

Function:

Provides capability to energize parallel relays 5259A3K5, 5259A12K6, and 5259A28K7 when Hardwire Backup Panel 0325B3A1, module 1, switch S1 is placed in the on position to provide Hardwire Backup Panel command power and also provides capability to energize parallel relays 5259A10K2 and 5259A12K7 to disable Hardwire Backup Panel command power when Hardwire Backup Panel 0325B3A1, module 1, switch S1 is placed in the off position.

Failure Mode No. Failure Mode	Failure Cause Failure Effect	Detection Method Time to Effect	Crit Cat
09SY03A-001.021 Fail open	Corrosion, contamination, or failure of internal piece part Since RSS firex water valves have no CCS command capability, switch failure would result in loss of the only remote capability to operate all RSS firex water valves in the event of a hazardous situation. Possible loss of life and/or vehicle during a hazardous condition.	Backup Panel Command Power indication Immediate	1S
09SY03A-001.022 Fail closed	Corrosion, contamination, or failure of internal piece part Since RSS firex water valves have no CCS command capability, switch failure would result in loss of the only remote capability to operate all RSS firex water valves in the event of a hazardous situation. Possible loss of life and/or vehicle during a hazardous condition.	Backup Panel Command Power indication Immediate	1S
09SY03A-001.023 Short to ground	Corrosion, contamination, or failure of internal piece part Since RSS firex water valves have no CCS command capability, switch failure would result in loss of the only remote capability to operate all RSS firex water valves in the event of a hazardous situation. Possible loss of life and/or vehicle during a hazardous condition.	Backup Panel Command Power indication Immediate	1S

ACCEPTANCE RATIONALE

Design:

- Double pole double throw.
- Locking lever.
- Solder lug with gold contacts.
- Epoxy seal and splashproof bushing.
- Electrical life of 40,000 make-and-break cycles at full load.
- Contact rating 5 amps @ 28 VDC.

Test:

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- OMI M2067 requires cycling of FSS/RSS water valves to verify proper operation.
- OMI M2088 requires cycling of perimeter area water valves to verify proper operation.
- OMRSD, File VI requires verification of the operational function of the water valve in all modes of operation semiannually (service structure), annually (perimeter area), and at replacement. (Verifies switch has not failed).

Inspection:

- None

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.