ENTERTAINMENT ELECTRICAL SAFETY ASSOCIATION

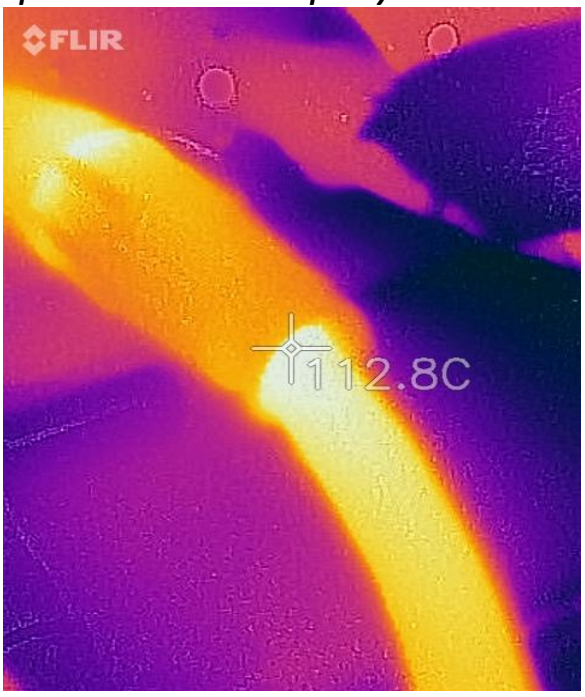
# Correct Mating of Cam-lok Connectors

These connectors, utilised correctly, are intended to provide a robust electrical connection for portable power distribution.

The cam-lok is a single-pole separable locking connector designed to carry its rated ampacity when rotated fully , after insertion into its counterpart connector, either in-line, panel mount, or other device. All manufacturers intend that their connectors be FULLY rotated to lock. That means they should be rotated as far as possible once inserted. A cam-lok connection may be difficult to insert and require significant force to rotate to full engagement.

Any connector not fully rotated results in a poor connection which can heat, and may also lead to separation of the connection, both of which are improper and unsafe conditions, causing the connector and cable to exceed its' rated operating temperature and in extreme circumstances, cause a fire, coupled with an inability to achieve its' rated ampacity. Non-invasive tooling made for the purpose may be necessary to make the desired rotation on the connector. While the rotation may vary, it is essential that the connectors be firmly rotated, as far as possible.

***Cam-lok connections must be <u>FULLY</u> rotated to ensure a solid electrical connection which can operate to its rated ampacity .***




Infra-red scan of a poor cam-lok connection under load.
Rated temperature of the connector lug is 90°C
Note that the temperature of the jacket is 112.8°C, and the internal temperature will be higher, exceeding the temperature rating of both lug and cable. Measured load is 225A.

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