

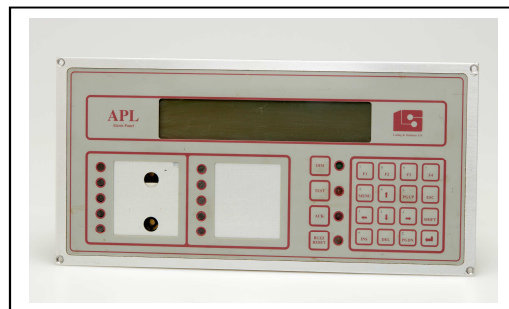
14th of November 2018

Service Bulletin

To: Whom it may concern.

From: JW

SUB: MEMAC system. APL Alarm Panel issues.



Dear Sirs,

Recently we have had issues with the repair of the APL Alarm Panels processor where we have not been able to repair these units due to total damage of the main PCB's. As the product is obsolete, we cannot ensure repair in the future if we do not make any countermeasures.

Battery issue:

Due to the fact that the APL processor modules is between 15 and 25 years old, there are some problems that may occur.

The two backup battery mounted inside the module is lithium battery, which has a lifetime of approx. 10 years. After 10-15 years, the battery will run out of voltage and then the processor will not be backed up anymore.

Furthermore and VERY IMPORTANT the batteries has a big chance of leaking and damage the boards so that they are not repairable. **See pictures on next pages for what happens when a battery is leaking.**

Worn out components:

There are also other components on the PCB, which are worn out due to age.

The power supply circuit and the communication circuit can be out of limit causing the APL to go into alarm even though it seems like the APL is working OK. This means that the communication from the APL to the main computers is defective.

To prevent that the APL processor replacement program is being obsolete soon, we will strongly recommend that the modules are being replaced with reconditioned modules.

If we have to be able to continue maintaining the systems years to come, it is very important that all the APL processor modules on board are being reconditioned.

If you decide to replace all the APL modules presently on board, we can offer you 25% discount.

For further information, please take contact to: memac@bcool.as

Kind regards

John Winther
Marine Superintendent

Pictures:

