YETS Maintenance Update

January 19, 2023

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On behalf of TileCal maintenance team

Interventions

1. **LBC 24**
   Problem: Trips on MB side; Harting connector pins were burned (pin 33) and had been soldered improperly
   Intervention: Replaced the Harting connector, burnt wire, and LVPS damaged
   Status: Drawer closed and ready for DVS tests
2. **LBC 55**
   Problem: Towers 1-3 dead in L1Calo; confirmed with MobiDick Adder test (no signal from these towers)
   Intervention: Extracted drawer and repaired broken (loose/cut) wires on the trigger cables.
   Status: Drawer closed; tested with MobiDick after insertion of drawer

Interventions

3. **LBA 33**
   Problem: Trips on MB side
   Intervention: Tested drawer with external power supply and MobiDick from USA15; Passed all digital tests
   Status: Drawer closed and ready for DVS tests; MB trip seen on 19.01 at 12:17
4. **LBA 35**
   Problem: Trips on the HV side of the module
   Intervention: Checked all HV pins and found that the 5V wire was not well soldered. All pins were crimped.
   Status: Drawer closed and ready for DVS tests

Interventions

5. **LBA 48**
   Problem: Per Filipe's suggestion, HV wires in Harting connector needed to be checked
   Intervention: Opened drawer and saw no visible damage; Pins were crimped for good measure; Cooling problem was observed after intervention but then solved
   Status: Drawer closed
6. **LBA 29**
   Problem: Modules in Loop 11 started to overheat
   Intervention: Cooling water flow was increased
   Status: All modules in Loop 11 are running (with exception of LBA 30 which was previously excluded as a suspicious module with a leak)

Interventions

7. **LBC 64**
   Problem: Cooling investigation due to possible leak
   Intervention: Internal part of HV side of drawer had already been excluded from the cooling loop
   Status: Drawer closed
8. **EBA 07, LBA 30, LBA 45, LBA 58, LBC 38, EBC 30**
   Problem: Possible leak
   Intervention: Excluded from cooling loops. Only EBA 07 shows a temperature increase on internal HV_OPTO board compared to its neighbors
   Status: Ongoing cooling investigation, LVPS will not be started there

Maintenance Team 16.1-19.1

Irakli
Stan
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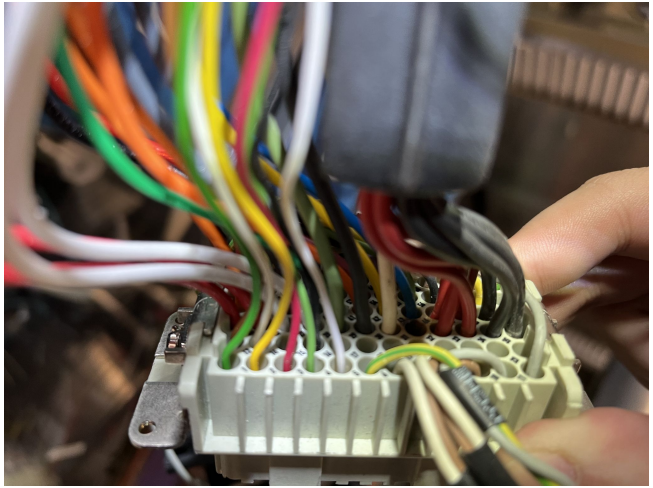
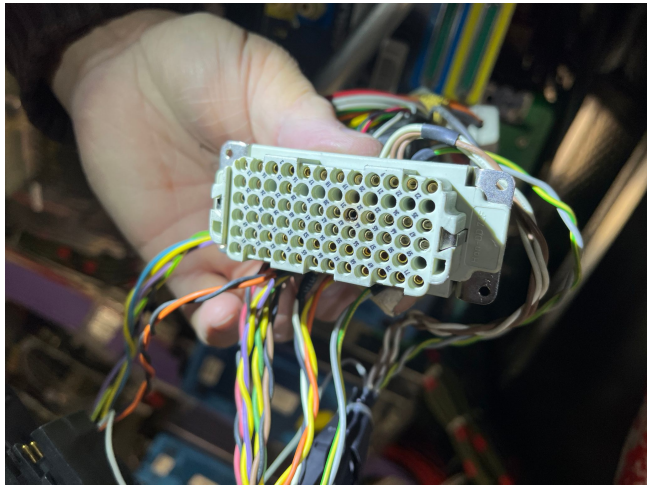
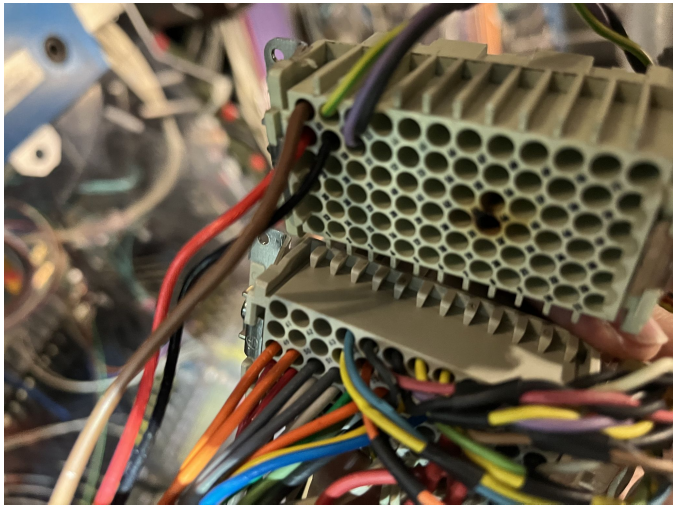
Appendix

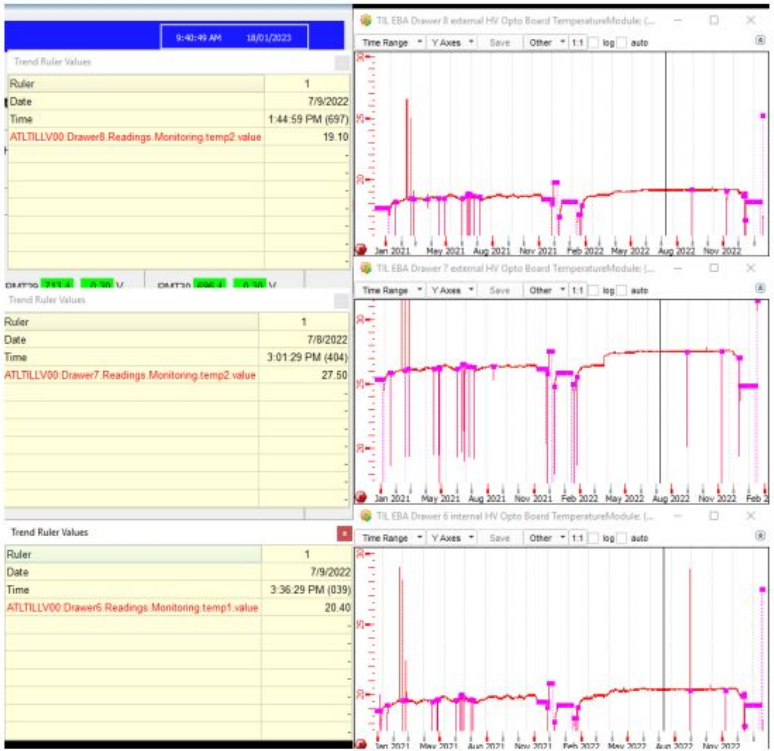






LBC 24: Burnt Harting connector and wire

EBA07 HV_Opto-ext “7 deg higher” than in neighbor EBA08, EBA06



EBA07

Monitored temperature HV_Opto-ext in EBA07
Jumped Up in 2022 by ~ 1 degree
Compare to 2021