

# Advanced LIGO Engineering Change Request (ECR)

**ECR Title: Beam Diverter Lubrication and Balance**      **DCC No: E1500184**

**Date: 19 March 2015**

**Requester: Richard Abbott,    Impacted Subsystem(s): ISC**

**Description of Proposed Change(s):** Move AA chassis serving ADC1 from U-height 10 to U-height 11. Move AA chassis serving ADC2 from U-height 9 to U-height 7. No change in cable connections required.

**Reason for Change(s):**

As described in BUG 713, certain AA chassis in the ISC-XC1 and ISC-XC2 racks have no spacing between the chassis. This results in a poor thermal situation that could result in premature failure. This ECR documents the change in location of the chassis to allow airflow and resulting passive cooling improvements

**Estimated Cost:** \$0 in materials. Estimated 30min per end station to physically make the changes.

**Schedule Impact Estimate:** There is no predicted impact to schedule other than freeing individuals from other tasks to participate in this mitigation.

**Nature of Change (check all that apply):**

- Safety
- Correct Hardware
- Correct Documentation

- Improve Hardware
- Improve/Clarify Documentation
- Change Interface
- Change Requirement

**Importance:**

- Desirable for ease of use, maintenance, safety
- Desirable for improved performance, reliability
- Essential for performance, reliability
- Essential for function
- Essential for safety

**Urgency:**

- No urgency
- Desirable by date/event: Whenever possible WRT commissioning activities
- Essential by date/event: \_\_\_\_\_
- Immediately (ASAP)

**Impacted Hardware (select all that apply):**

- Repair/Modify. List part & SNs: \_\_\_\_\_
- Scrap & Replace. List part & SNs: \_\_\_\_\_
- Installed units? List IFO, part & SNs: LLO S1102675, S1301310, S1102774, S1102792, LHO S1102781, S1102777, S1102764, S1102765
- Future units to be built

**Impacted Documentation** (list all dwgs, design reports, test reports, specifications, etc.): D1001459, S1202948, S1202955, S1301901, S1301918

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## Disposition of the proposed change(s):

The disposition of this proposed engineering change request is to be completed by Systems Engineering and indicated in the “Notes and Changes” metadata field in the DCC entry for this ECR. The typical dispositions are as follows:

- **Additional Information Required:** in which case the additional information requested is defined. The ECR requester then re-submits the ECR with the new information using the same DCC number for the ECR but with the next version number.
- **Rejected:** in which case the reason(s) for the rejection are to be given
- **Approved**
- **Approved with Caveat(s):** in which case the caveat(s) are listed
- **TRB:** the ECR is referred to an ad-hoc Technical Review Board for further evaluation and recommendation. It is the System Engineer’s (or designee’s) responsibility to organize the TRB. The System Engineer (or designee) then makes a technical decision based on the TRB’s recommendation. Links to the TRB’s documentation (charge, memos, final report, etc.) are to be added to the “Related Documents” field for this ECR.
- **CCB:** a change request for approval of additional funds or schedule impact is to be submitted to the Configuration Control Board. Links to the CCB’s documentation (CR, etc.) are to be added to the “Related Documents” field for this ECR.

## Concurrence by Project Management:

Acknowledgement/acceptance/approval of the disposition is to be indicated by the electronic “signature” feature in the DCC entry for this ECR, by one of the following personnel:

- Systems Scientist
- Systems Engineer
- Deputy Systems Engineer