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		Date 18/02/02	Référence H-P-ASPI-LT-876

SPIRE-ALC-COM-001165

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Subject : Instrument fixation / update of IID-A

Ref.1:

Dear Sirs,

We are about to update the rules for warm unit boxes fixation points) by producing a Change request. (ref IID-A section 5.6.3.2, which has to be revised as most of your warm units are heavier than 1.5kg

Before doing that, we would like to verify with you the fixation points on your warm units.

The calculation of Instruments fixation points will have to take into account the inserts strength to be defined / provided the SVM structure contractor.

In waiting for these data, each Instrument is requested to verify that the number of fixation points of their warm units complies with the following preliminary rule, based on fixation with **M4** insert in SVM panels.

This rule considers the ratio(r) between the Instrument mass (M) and the number of fixation bolts (n): $r = M/n$ expressed in Kg / insert:

1. $r < 1$ kg/insert: the number of fixation point is sufficient
2. $1 \text{ kg/insert} < r < 1.5 \text{ kg/insert}$: in principle, the number of fixation point is sufficient,

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but it is to be confirmed with rule to be established in IID-A

3. 1.5 kg/insert < r: a priori, the number of fixation point is not sufficient

From the information we have (IID's, plus drawings given during meeting), we anticipate fixation problems for the following warm units:

Herschel
 HIFI FHLCU (1.8kg/point)
 HIFI FHFCU (2kg/point)
 HIFI FHHRI (1.4kg/point)
 HIFI FHWOH (2kg/point)
 PACS BOLC (2.4kg/point)
 SPIRE (not enough information)

Planck:
 HFI REU (4kg/point)
 LFI BEU (not enough information)

In the last case, Instrument are requested since now to investigate the possibility to increase the number of fixation point to meet case 2, and even case 1 if possible.

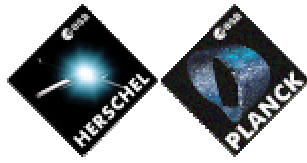
However, for heavy Instrument (e.g. $M > 20$ Kg), it could be envisaged to fix them by bolts / inserts M6 to reduce the number of fixation points and optimise the Instruments and Instruments support structure design. This kind of problem will have to be discussed case by case.

In a first time, Instruments are requested to verify their compliance wrt the preliminary rule defined here above, and to initiate recovery action when deviations are stated (ie update the number of fixation points to reach a safe status)

Looking to hearing from you.
 Best regards

Ph.Clavel

B.Collaudin



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