

Proposed Bagging Plan for MTM/TTM

On completion of the thermal testing at RAL, fit a tight inner bag onto the instrument, taped such that just the leg attachment points, cable tie down points, external accelerometer attachment points (both Marshall and AWE), nitrogen purge connector and QCM connector are accessible. The alignment cube should also be accessible together with any witness plates that are to be fitted. A sketch for all these positions will be provided by BU. At each accelerometer position a roughly square area of Kapton tape must be fitted on the structure to allow for the gluing of the accelerometers. This area of tape must be large enough to enable the inner bag to be taped to it, to adequately seal the bag.

Fit the Marshall accelerometers and secure their cables to the cable tie downs (outside the inner bag). NOTE: the cables should be fitted with their own individual bag.

Before removing the instrument from the RAL clean room to go to Southampton, fit a second looser bag over the whole instrument, but make it as gas tight as possible. Transport the instrument to Southampton with the nitrogen purge operational.

Test at Southampton with both bags fitted and with the nitrogen purge operating continuously.

On return to the RAL cleanroom, the outer bag will need to be discarded and a new one fitted for transportation to AWE.

At AWE the outer bag will need to be removed so that the AWE accelerometers can be fitted. The outer bag should be immediately refitted and taped up to provide the best possible seal. Purging should continue at all times including during the testing, if this is practical.

On return to the RAL cleanroom, both bags will need to be discarded, as the internal accelerometers have to be removed before shipment to Japan.

For transporting to Japan, the instrument shall be fitted with a tight inner bag taped such that just the leg attachment points, cable attachment points, external accelerometer attachment points and nitrogen purge connector are accessible and a looser outer one fitted so that just the Nitrogen purge connector is accessible. Purging shall continue at all times.

Purging will not be possible on the aeroplane, but purging shall be started at the earliest opportunity at ISAS.

At ISAS, in the cleanroom anti-room, remove the outer bag and fit the instrument to the spacecraft with the inner bag undisturbed (see separate procedure). Maintain the nitrogen purge during this operation.