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16-004

03 February, 2016

PACKING/SHIPPING PROCEDURES FOR MODEL 602 Beta^{PLUS}

I. PURPOSE: To give instructions on how to properly pack and ship the Model 602 Beta^{PLUS} Particle Measurement System.

II. TOOLS:

- DU000007 Reference/Spy Filter Removal Tool
- Phillips Screw Driver#2

III. PARTS:

If using Factory authorized shipping carton:

- PA0000087 - FOAM, SHIPPING, 602
- PA0000088 - BOX, SHIPPING, 602
- Packing tape

If using original wooden crate:

- Wooden crate (original factory)
- Foam top and bottom inserts

IMPORTANT: Instrument **must** be shipped in original or authorized shipping container. If container is missing or damaged, contact T-API to order PA0000087 and PA0000088 shipping materials.



The electronics used in T-API analyzers are sensitive to Electrostatic Discharge (ESD). When working on any T-API device, please ensure that you are properly grounded prior to handling or touching any electronic circuitry in the analyzers! For more information on how to protect sensitive components from ESD during handling, please contact T-API customer service and ask for the ESD Service note number 03-022A.

PACKING/SHIPPING PROCEDURES FOR MODEL 602 Beta^{PLUS}

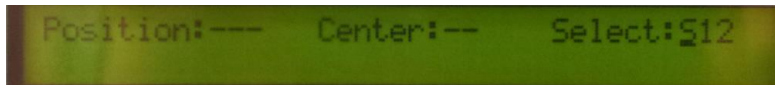
Service Note 16-004 Rev A (7193) 02/03/2016

Page 1 of 8

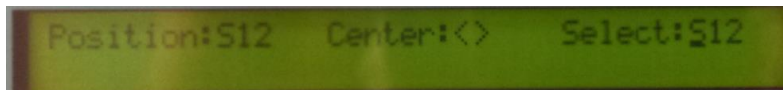
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PROCEDURE:

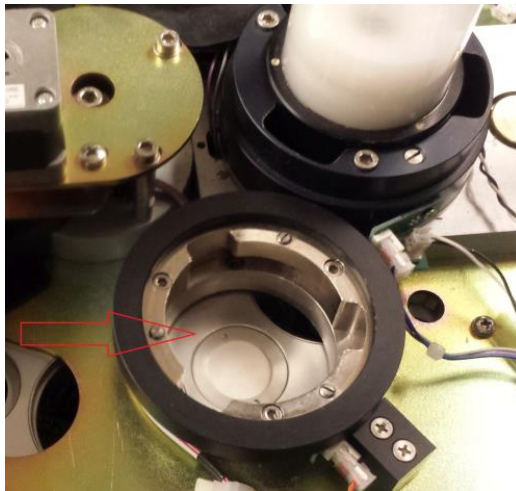
1. Remove all cartridge sampling filters from the instrument:
Go to: Main Menu->Instrument Tools->Mechanics Direct Control->Filters Unloading.
2. Remove R1/R2 Reference Membranes and the three (3) Spy Filters:
 - Make sure instrument is showing *Status: Ready* and the Date/Time on the screen.
 - Press “ESC” button on front panel continuously for 5 seconds.
 - In the Menu Code screen, using the arrows on front panel, enter “920” and the screen below will be shown:



- Press “ENTER” to move the rotating plate to the S12 (Spy Filter) position:



- Remove the Unloader from the instrument to reveal the Spy Filter on Position S12:



- Use DU0000007 removal tool to extract Spy Filter:

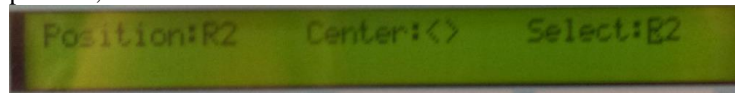
**PACKING/SHIPPING PROCEDURES FOR MODEL 602 Beta^{PLUS}**

NOTE 16-004 Rev A (DCN 7193)

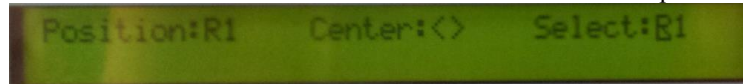
Page 2 of 8

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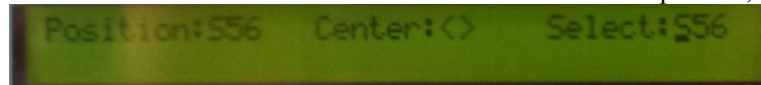
- Press the “UP” arrow (also marked “YES”) and then “ENTER” to advance to next position, which is R2:



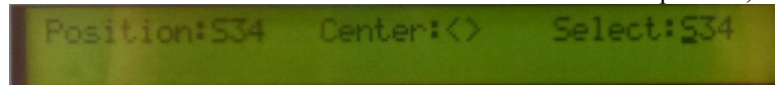
- Extract the R2 Spy Filter, being careful not to touch the aluminum membrane material.
- Press the “UP” arrow and then “ENTER” to advance to next position, which is R1:



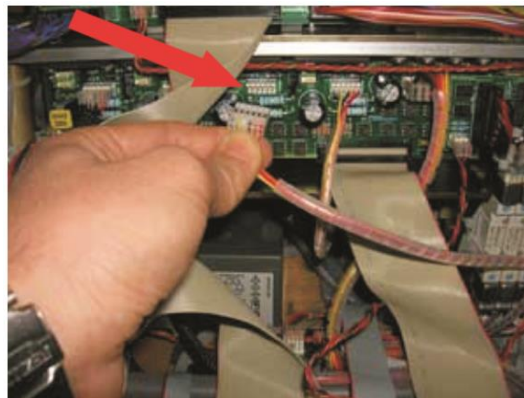
- Extract the R1 Spy Filter, being careful not to touch the aluminum membrane material.
- Press the “UP” arrow and then “ENTER” to advance to next position, which is S56:



- Extract the Spy Filter on Position S56
- Press the “UP” arrow and then “ENTER” to advance to next position, which is S34:



- Extract the Spy Filter on Position S34
 - Make sure you have extracted a total of two (2) reference membranes (marked R1/R2) and three (3) identical Spy Filters.
3. Power down instrument, making sure the top cover is correctly fastened with six screws.
 4. To engage the Mass Measurement Mechanical Safety lock, open the front panel and locate the connection marked “Geiger” on the MOTEV board. Remove the connector as shown:



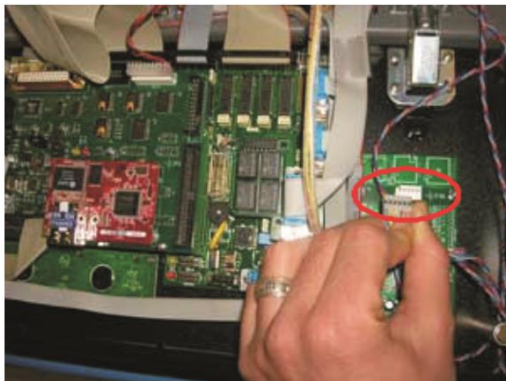
PACKING/SHIPPING PROCEDURES FOR MODEL 602 Beta^{PLUS}

NOTE 16-004 Rev A (DCN 7193)

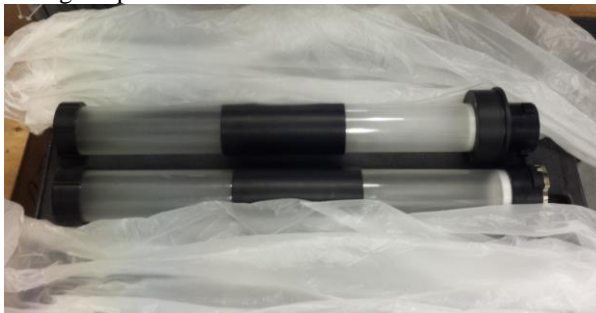
Page 3 of 8

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5. Connect the cable to the printed circuit board on the front panel right side, as shown:



6. Close front panel of the instrument. The Mass Measurement Mechanical Safety lock is now engaged and instrument is ready to be placed in its shipping container.
7. If shipping the Loader/Unloader, remove from instrument and individually wrap them in a plastic bag for protection:



8. If using Factory Authorized shipping carton:

- Make sure box is properly assembled and taped.
- Place box on floor with flaps open. –
- Insert bottom foam material in box, making sure the foam cutouts match the instrument's footprint/outline.
- We recommend wrapping the instrument inside a plastic bag to help keep debris out:



PACKING/SHIPPING PROCEDURES FOR MODEL 602 Beta^{PLUS}

NOTE 16-004 Rev A (DCN 7193)

Page 4 of 8

Printed Documents Are UNCONTROLLED

- Lift instrument using the side handles and carefully place it inside the box.

IMPORTANT: Two persons are required when lifting or moving the instrument.

- Place the upper foam insert on top of instrument as shown:



- If shipping the Loader and Unloader devices, place them as shown:



- Close box and seal it with tape. Mark box with Serial Number and RMA number (if applicable).
- Box needs to be palletized using straps or banding as shown:



PACKING/SHIPPING PROCEDURES FOR MODEL 602 Beta^{PLUS}

NOTE 16-004 Rev A (DCN 7193)

Page 5 of 8

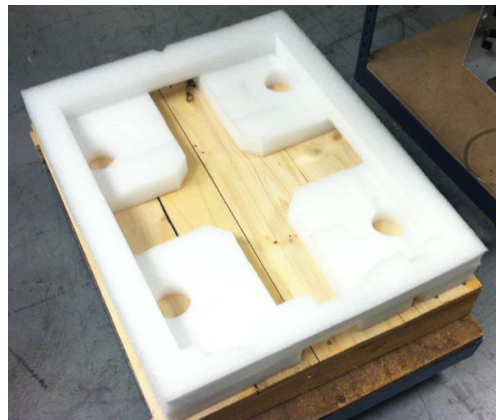
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- Alternatively, a set of ratchet tie downs can be used to secure instrument box to pallet:



These tie downs can be purchased from your local hardware store.

- We recommend a reputable Freight carrier be used.
9. If using the original wooden crate:
- With the bottom portion of crate on floor, place lower foam insert as shown:



PACKING/SHIPPING PROCEDURES FOR MODEL 602 Beta^{PLUS}

NOTE 16-004 Rev A (DCN 7193)

Page 6 of 8

Printed Documents Are UNCONTROLLED

- Lift the instrument using the side handles and carefully place it on top of the lower foam insert.

IMPORTANT: Two persons are required when lifting or moving the instrument.



- Place protective plastic on top of instrument, covering all inlets as shown:



PACKING/SHIPPING PROCEDURES FOR MODEL 602 Beta^{PLUS}

NOTE 16-004 Rev A (DCN 7193)

Page 7 of 8

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- Place upper foam insert on top of instrument.
- Insert bagged Loader and Unloader, if shipped with instrument, as shown:



- Extra padding must be placed on top of the instrument before crate is closed as shown:



- Instrument shown in wooden crate (fastened with screws) ready to ship:



- Mark container with Serial Number and RMA number (if applicable).
- We recommend a reputable Freight carrier be used

PACKING/SHIPPING PROCEDURES FOR MODEL 602 Beta^{PLUS}

NOTE 16-004 Rev A (DCN 7193)

Page 8 of 8

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