

TEGA Cover Retract with Ion Pump

Objectives:

This procedure checks that the instrument is still in good operational condition. It will also get a background measurement at the end. Block duration written not to exceed 4 hours.

Configuration: Landed Operations: Surface Phase Characterization. Checkout I & Checkout II_Puncture should have been executed and instrument nominal.

Assumptions: TEGA can not be turned on below -50C

Gas(es) used: Calibration and Carrier Gas Tanks have been punctured. No gases used during this activity.

Filaments used: 0

SW Version (386): V513

SW Version (EGA): V321

Sweep and hop mode version(s): **V111**

Super modes and Sweep modes used: SM 3, Sweep Modes 37

Sequences used: 30A,26A

- 1) Turn TEGA ON – tega_power_on
 - a) Add preheat pause as pass in duration determined by thermal environment
 - b) Increase Bus A&B current collection rates to 1/sec
- 2) Turn EGA ON, tega_ega_on 0 (restoring modes from EEPROM 0)
 - a) EGA Transmit time 5 sec. (done within tega_ega_on)
 - b) Run Sweep Mode 37 dark. (done within tega_ega_on)
- 3) Call tega_ega_prep (filament 0)
 - Sets Jplate 1 to -92V
 - Start SM 1 pause 1 sec
 - Set MV 2800V Pause 1 sec
 - Ion Pump ON Pause 1 sec
 - Emission ON

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Pause 2 Minutes

Stop SM 1

- 4) Call tega_ega_calibration_scans 2, 3200
 - a) Calibrates all 4 channels
 - b) Resumes MV at 3200V
- 5) Wait 5 minutes for calibration scans to complete
- 6) Start SM 3
- 7) Change SGV Power to Ramp 1
- 8) Open Cover – Default is 50 Cycles
 - a) GV time out is 3 hours 45 minutes
- 9) Stop SM 3
 - a) Wait 60 seconds for SM to stop
- 10) EGA OFF – Call tega_ega_off
- 11) TEGA OFF – Call tega_power_off