

# *Spectral Products* Repair Summary

<b>Customer:</b> BYU	<b>RGA #</b> SP1724
<b>Contact:</b> Dr. John Colton	<b>Phone:</b>
<b>Date In:</b> 9 May 2016	<b>Serial #</b> 10570

Non-Warranty

**Equipment Returned:** DK240 only

**Reason for Return:** Electronic Upgrade

**Evaluation:** Originally manufactured in Jan 1996. Has one piece turret with gobs of grease applied (most likely when manufactured). Bilateral slits – exit slit stuck open. Looks like RH thread and nut damaged. Slits also had grease applied (again when manufactured). Optics look to be in good shape even though a high power source has been used (anodize burned off both slits), and the amount of grease used within. Grating #3 must have been added by BYU (I didn't have record of it in Novram).

**Summary of Repair:** 1. Replace all electronics. 2. Rebuild turret – (replaced one piece shaft & worm, lapped in gears). 3. Rebuilt both slits – (replaced drive screws and nuts. 4. Align & calibrate.

**Notes:** Prior to upgrade, turret was programmed as ½ step (.10nm precision max). Turret is now programmed microstep (.01nm precision).

**Firmware Version:** 3690

**Technician:** *Steve Mong*

**Date out:** 5/12/2016