2G
QUICK REFERENCE GUIDE

Layout
- Center lens using manufacturer's SEG location for bifocals.
- Non-decentered progressives center through dot below cross.
- Decentered progressives move dot in and down as specified by manufacturer.
- Put cylinder axis line through lens geometric center.
- Put prism axis line through lens geometric center and draw arrow point.
- Tape lens.
- Block lens.

Prism Arrow Location
- Base - Arrow on prism base (thick)
- Apex - Arrow on prism apex (thin)
- None - No prism arrow at layout
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Lens Chucking Orientation
- Apex - Arrow positioned up
- Base - Arrow positioned up
- None - Bifocal down

Ranges
- Lens Back Base = +6.00 D. to -30.00 D
- Cylinder = 15.00 D
- Prism = 15.00 D
- Laps = -6.00 D. to +30.00 D

Pad Thickness
- 0.018 inches = 0.45 mm
- 0.022 inches = 0.55 mm
- 0.028 inches = 0.70 mm
- 0.032 inches = 0.80 mm

MAINTENANCE

Daily
- Clean the interior.
- Check air pressure.
- Drain air filter.
  NOTE: USE "MOVE CARRIAGES FOR CLEANING" WHEN CLEANING INTERIOR.

Weekly
- Clean collet.

Bi-weekly
- Clean electronics enclosure fan filter.

Cycles
- Every 200-300 cycles, change vacuum bag.

As Needed
- Change cutter and recalibrate.

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NATIONAL OPTRONICS

2G
CALIBRATION CHECKLIST & SUMMARY

Pre-Calibration
- Correct blade radius on Setup screen.
- Verify thickness carriage stop is set.
- Verify blade is set correctly in motor.
- Review Blank Material screen.
- Verify end mill flute length.

Use Calibration Plus Procedure to "Rough-In" the Lens Curve Bias

Calibrate Lens Curve Bias
A.   Cut a -6.00 lens and check SAG consistently across entire surface.
- (+) Adjustment to lens curve bias if lens is flat in the center.
- (-) Adjustment to lens curve bias if lens is steep in the center.
- Adjust in increments of +/- 0.05mm and recut 0.5mm thinner to check.
- -6.00 SAG reading not necessary; adjust to get curve spherical.

Calibrate Thickness With The Thickness Bias
A.   Verify that the correct block diameter for SAG is entered.
B.   Cut a plano (+6.00 base curve, -6.00 back curve) and check cut thickness against desired thickness.
- (+) Adjustment to thickness bias if lens is too thick.
- (-) Adjustment to thickness bias if lens is too thin.
C.   Recut -6.00 lens until thickness is correct; verify with another curve.

Calibrate Curves With The Curve Correction
A.   Bring a -6.00 lens to the proper SAG with the -6.00D correction.
- (+) Adjustment to -6.00D correction if curve is steep.
- (-) Adjustment to -6.00D correction if curve is flat.
- Adjust in increments of +/-0.05mm and recut 0.5mm thinner to check.
B.   Bring a -12.00 lens to the proper SAG with the -12.00D correction.
- (+) Adjustment if too steep, (-) adjustment if too flat.
- Adjust in increments of +/-0.5mm and recut 0.5mm thinner to check.
C.   Bring a -1.00 lens to the proper SAG with the -1.00D correction.
- (+) Adjustment if too steep, (-) adjustment if too flat.
- Adjust in increments of +/-0.5mm and recut 0.5mm thinner to check.
NOTE: THESE ADJUSTMENTS ARE NON-LINEAR AND MAY NOT CHANGE ON FIRST ADJUSTMENT. CONTINUE TO ADJUST UNTIL CURVE READS CORRECTLY ON GAUGE.

Calibrate Axis Bias (Set at factory; should not vary.)
A.   Use internal axis calibration test to preset axis.
B.   To check axis, first verify cylinder machine axis.
C.   Using a +4.00/+8.00 tool (verify tool accuracy), cut a lens -4.00/-8.00 at axis 180.
D.   Fine lens for 10 seconds. Look for generator marks at upper right and lower left, or upper left and lower right.
E.   If marks are seen upper right and lower left, make a (-) negative adjustment to the Axis Bias and a (+) positive adjustment for the opposite.
F.   Adjust until lens fines evenly after 10 seconds and completely after one minute.

Lap Calibration - Refer to Manual

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