Frame Adjustment Workshop

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To Take This:

End up with This:
Standard Alignment

Horizontal Alignment
- Make sure lens is not rotated in frame

Horizontal Alignment
- Verify that the bridge is not skewed causing one lens to be higher than the other
Vertical Alignment

• Check for X-ing of Bridge

Open Temple Alignment

• Temple angle should be around 90 degrees

Open Temple Alignment

Temple Spread Too Narrow

Temple Spread Too Wide
Flat Surface Touch Test

- Position glasses upside-down make sure temples are parallel & touching surface equally

Temple Bend

- Temple Bend should be equal both downward & inward

Temple Fold Angle

- Temples should cross evenly when temples are in closed position
Nosepad Angles
• Amount of space between eyewires and pads should be equal
• Both pads should be about 1mm from eyewire & the same height

Nosepad Frontal Angle
• Vertical position of the pads when viewed from the frame front
• Top of the pads should be closer together than the bottom
• Pads should angle toward each other about 20 degrees

Nosepad Splay Angle
• Difference between the front and back edges of the pad
• Splay Angle should be 25-30 degrees
Nosepad Vertical Angle

- Most frames are fitted with pantoscopic tilt, so the pads should be inclined so the bottoms are closer to the front than the tops
- For standard alignment the nosepads should have a 10-15 degree vertical angle

Tools of the Trade


Double Nylon Jaw Pliers

• Bend Endpiece
• Bend Temple
• Brace Frame & Lens when adjusting rimless groove
• Reduced chance of damaging frame

Half Padded Pliers

• Bend Endpiece
• Brace Frame when adjusting rimless groove
Temple Angling Pliers

- Pantoscopic Angle
- Bend Temple
- Close Temple Fold
- Supports Hinge

Pad Angling Pliers

- Frontal Angle
- Splay Angle
- Vertical Angle

Needle Nose Pliers

- Bend Nosepad Arms
- Placement of Tiny Screws
- Great for Tight Spaces
Round Flat Pliers

• Bend Temples
• Bend Nosepad Arms
• Great for Tight Spaces

Finger Piece Pliers

• Adjust Temple Fold Angle

Rimless Bracing Pliers

• Stabilize Lens Mounting During Adjustment
Frame Warmers

- Heat frame to make it easier for adjustment

Frame Adjustments

Fitting Triangle

- Pressure should be exerted on only three points (Nose and side of head above ears)
Face Form

- Front of frame is slightly curved to the form of the face
- Improves frame appearance and aligns both surfaces of the lenses with line of sight when directed straight ahead

Adjusting Face Form

Adjusting Face Form
Pantoscopic Tilt

- Angle that the frame front makes with the frontal plane of the wearer's face with lower eyewires are closer to the face than upper eyewires
- Allows line of sight to pass through optical center
- Angle is usually 4 to 18 degrees

Adjusting Pantoscopic Angle

Adjusting Pantoscopic Angle
Unequal Vertex Distances

To Move One Lens Closer to the Face (IN with IN, OUT with OUT)

- If left lens is IN (and) If right lens is OUT, Bring left temple IN
- Bring right temple OUT
- If right lens is IN (and) If left lens is OUT, Bring right temple IN
- Bring left temple OUT

Adjusting Temples
Adjusting Temples

To Move One Lens Higher on the Face
(UP with UP, DOWN with DOWN)

If left lens is UP (and)
If right lens is DOWN
Bring left temple UP
Bring right temple DOWN

If right lens is UP (and)
If left lens is DOWN
Bring right temple UP
Bring left temple DOWN

Adjusting Temples Up or Down
Adjusting Temples Up or Down

Temple Bend Adjustment

• Temple Bend is too far forward – can cause irritation behind the ears
• Fix by heating temple, straightening it and moving bend to proper position

Temple Bend Adjustment

Is this a correct adjustment?
Temple Bend Adjustment

• Temple Bend is too far back – can cause glasses to slip down nose
• Fix by heating temple and bending temple down to proper position
• Never bend temple to a complete 90 degree angle (occurs frequently with kids)

Nose Pad Adjustment

• Pads should rest halfway between crest of nose and inner corner of eye
• Full surface of pad should rest evenly on the nose

Nose Pad Adjustment

Frame sitting too low on patient:
• Cause seg height to be low
• Lashes rub against back of lens

Solution:
Bring Nosepads Closer Together
Nose Pad Adjustment

Frame sitting too high on patient:
• Cause seg height to be high
• Lenses too far from the eyes

Solution:
Bring Nosepads Farther Apart

PRACTICE MAKES PROGRESS