A New Era in Diagnostic Observation

- 20% Increase in Overall Optical Efficiency
- 20% Increase in Light Transmission
- 15% Expanded Field of View
- 14% Increase in Depth of Focus
WHAT’S SO DIFFERENT ABOUT THE MARCO ULTRA SERIES?

In a word, everything. The Ultra Series from Marco changes the slit-lamp picture forever. First, we incorporated the very latest in materials, design and lens-coating technologies to create a new era in optical resolution and efficiency. Then we improved the ergonomics to make the Ultra Series the most convenient-to-use slit lamps in the industry. Finally, we designed the Ultra Series to be manufactured using up-to-the-minute production techniques, reducing assemblies that used to require as many as fifteen parts down to one single part. The result is higher quality, reduced maintenance and exceptional value.

THE NEXT GENERATION IN OPTICS

With a new, modernized optical design, the Ultra Series utilizes a multi-layered, multi-coated system which transmits light more efficiently, producing a measurable 20% increase in optical resolution and clarity. The breakthrough optical quality of the Ultra Series also results in a 20% increase in light transmission, a 15% expanded field of view and a 14% increase in depth of field. A single look through the optics of any Ultra Series slit lamp is enough to tell you that a new age in diagnostic observation has arrived.

QUITE SIMPLY...THERE IS NO OTHER OPTICAL SYSTEM LIKE ULTRA OPTICS...TRULY REVOLUTIONARY.

The Galilean optics of our G-series (models G2, G4 and G5) feature a 6-degree inward convergence angle for the binocular tubes, an excellent angle for improving physician comfort by reducing optical fatigue. The G-series optical system is also optimized for today's digital imaging.

THE ADVANCED OPTICS OF THE ULTRA SERIES IMPROVE EFFICIENCY BY AN AVERAGE OF 20% OVER CONVENTIONAL SLIT LAMPS.
A FULL RANGE OF ADVANTAGES.

**EYEPICES**
- Newly designed high-eyepoint eyepieces (G-Models) help create a field of view 1.3 times wider than conventional slit lamps.
- Threaded, locking eyepieces eliminate the problem of slipping and feature individual dioptric rings that are adjustable for neutralizing refractive error.
- PD adjustment is synchronized over a wide range by manually positioning the right or left ocular section.
- The comfortable, fatigue-free 6-degree convergence angle remains constant regardless of PD adjustment.

**MAGNIFICATION KNOB**
- A flattened area on the magnification knob (G-models) allows the operator to adjust power by feel, without looking at the markings.
- With the flat position on top, powers are high; with the flat position on bottom, powers are low.

**BASE**
- A newly designed ergonomic joystick with its adjacent rheostat allows adjustment of elevation, all lateral movements and light intensity without removing your hand from the joystick.
- The joystick top button instantly increases illumination to its maximum intensity. Or...
- The joystick top button can also be instantly converted to a capture button for digital imaging.
- An increased X-Y base range of motion expands the observation area for more efficient 90D or similar auxiliary-lens examinations.
- Finer-pitched gears and metal tracks create smoother, more precise movement.
- More secure metal rack covers lock into position for enhanced stability.
- Sleek, curved lines designed to complement today's styling.
- For ease of maintenance, the rheostat is easily replaceable and the entire slit-lamp base is interchangeable between all Ultra models.

**HEADREST**
- The standard Y-shaped patient headrest comfortably accommodates most patients.
- An LED fixation light eliminates bulb replacement and assures a virtually unlimited life.
- The optional large patient headrest was specifically designed to accommodate larger patients, and easily mounts on any Ultra model slit lamp.
**Transformer/Table Top**

- The transformer is more compact to reduce the possibility of patients’ bumping it with their knees.
- The rheostat is located adjacent to the joystick for more convenient adjustment and a more compact transformer box.
- The slide base offers a more positive feel and better control with the joystick, while offering increased X-Y motion.
- The curved bumper guards of the table are safer, prevent damage, and more attractive.
- For ease of maintenance, the transformer/table top is interchangeable between all Ultra models.

**Light Source**

- The halogen illumination is transmitted more efficiently through an optically enhanced light source, producing a crisper, clearer image and improving video imaging quality.
- With the redesigned optical system, 20% less light is required for normal examinations.
- A 20% increase in aperture (10mm on models G5, 5 and 2B; 14mm on models G2 and G4) produces a wider field of illumination.
- The halogen bulb is easily accessible for replacement.
- Engraved scales are located on both right- and left-hand slit adjustment knobs.
- The redesigned light source produces more even illumination distribution throughout the entire field of view, resulting in better clarity.
- The “knife-edge” slit aperture mechanism produces a slit of unsurpassed sharpness.
- The filter-identification scale has been enlarged for simplified use and is individually labeled for easier recognition.
- All controls are made of anodized and bead-blasted metal for a high-precision feel, enhanced comfort and reduced maintenance.

**Accessories**

Ultra series slit lamps accommodate a complete range of accessories, including applanation tonometers, assistantscopes, and beamsplitters for full camera equipment. The Marco idoc® (integrated digital ophthalmic camera) seamlessly blends digital still images and live streaming video into one simple component. The inclined oculars provide unlimited adjustability (0-60 degrees) which helps eliminate head and neck strain associated with lengthy examinations.
THE ULTIMATE IN VERSATILITY, POWER AND VALUE

- Exceptionally natural and comfortable view is created by a parallel optical system with 6° converging binocular tubes, incorporating high-eyepoint, extremely wide-field eyepieces and Galilean magnification changer.
- G2 offers 10x, 16x and 25x magnification.
- G4 offers 6x, 10x, 16x, 25x and 40x powers.
- Designed for today’s video imaging.
- Halogen illumination standard.
- Slit angle, width and height as well as filter placement, slit decenteration and slit rotation are all controlled within a single hand’s spread.
- Slit height is continuously adjustable from 1mm to 14mm.
- Slit height also has premeasured, fixed aperture diaphragms of 0.3, 3, 5, 8 and 14mm.
- Slit width is continuously variable from 0 to 14mm—the largest slit aperture in the industry.
- Built-in cobalt-blue, red-free and heat-absorbing filters can be easily dialed in as desired.
- Single joystick controls both elevation and horizontal positioning for enhanced ease of use.
- Rheostat conveniently located next to joystick.
- Adjustments are simple, fast and precise.
- Options include tonometer mount, camera attachments, assistant scope, patient handrests, large patient chinrest, inclined oculars.

### Microscope

<table>
<thead>
<tr>
<th>Type</th>
<th>Galilean converging-binocular microscope</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magnification</td>
<td>G4: Five position rotating drum</td>
</tr>
<tr>
<td>Changing System</td>
<td>G2: Three position rotating drum</td>
</tr>
<tr>
<td>Eyepieces</td>
<td>16x</td>
</tr>
<tr>
<td>Total Magnifications</td>
<td>6.3x* 10x 16x 25x 40x* (*G4 only)</td>
</tr>
<tr>
<td>Real Fields of View</td>
<td>35mm* 23mm 14mm 8.7mm 5.6mm* diameters (*G4 only)</td>
</tr>
<tr>
<td>Interpupillary Adjustment</td>
<td>47mm – 85mm</td>
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</table>

### Slit Lamp

<table>
<thead>
<tr>
<th>Slit Projection</th>
<th>1x</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slit Width</td>
<td>0 – 14mm, continuously variable</td>
</tr>
<tr>
<td>Slit Length</td>
<td>1 – 14mm, continuously variable</td>
</tr>
<tr>
<td>Aperture Diaphragms</td>
<td>14mm, 8mm, 5mm, 3mm, 0.3mm</td>
</tr>
<tr>
<td>Filters</td>
<td>Heat absorbing, red-free, &amp; cobalt blue</td>
</tr>
</tbody>
</table>

### Chinrest

<table>
<thead>
<tr>
<th>Fixation Lamp</th>
<th>LED (red)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vertical Movement</td>
<td>78mm</td>
</tr>
</tbody>
</table>

### Power

<table>
<thead>
<tr>
<th>Input Voltage</th>
<th>AC110V, 120V, 220V, and 240V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Power</td>
<td>40VA</td>
</tr>
<tr>
<td>Consumption</td>
<td></td>
</tr>
</tbody>
</table>

### General

<table>
<thead>
<tr>
<th>Weight</th>
<th>37.4 lbs. (17 kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stock #</td>
<td>G2: #1180, G4: #1140</td>
</tr>
<tr>
<td>Lamp</td>
<td>12V/30W halogen bulb</td>
</tr>
<tr>
<td>Tabletop Dimensions</td>
<td>21.5” x 13.5” (550mm x 350mm)</td>
</tr>
<tr>
<td>Color/Finish</td>
<td>Misty Grey with durable Hammernet finish</td>
</tr>
</tbody>
</table>

### Accessories

<table>
<thead>
<tr>
<th>Standard</th>
<th>Spot fixation light, 16x eyepieces, table top, low-profile mounting bracket, chinrest tissues, spare illumination bulb, fuses, and maintenance kit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Optional</td>
<td>Tonometer mount, patient handrests, beam-splitter, assistant scope, camera adapter, and heavy joystick spring, large patient chinrest, inclined oculars</td>
</tr>
</tbody>
</table>
Microscope

Type: Galilean converging-binocular microscope

Magnification Changing System: Five position rotating drum

Eyepieces: 16x

Total Magnifications: 6.3x, 10x, 16x, 25x, 40x

Real Fields of View: 35mm, 23mm, 14mm, 8.7mm, 5.6mm diameters

Interpupillary Adjustment: 47mm – 85mm

Slit Lamp

Slit Projection: 0.8x

Slit Width: 0 – 10mm, continuously variable

Slit Length: 1 – 10mm, continuously variable

Aperture Diaphragms: 10mm, 5mm, 3mm, 2mm, 1mm, 0.2mm

Filters: Heat absorbing, UV, red-free, & cobalt blue

Cross-Slide Base

Longitudinal Movement: 90mm

Lateral Movement: 110mm

Vertical Movement: ±15mm

Horizontal Fine Movement: ±7.5mm

Chinrest

Fixation Lamp: LED (red)

Vertical Movement: 78mm

Power

Input Voltage: AC110V, 120V, 220V, and 240V

Maximum Power Consumption: 40VA

General

Weight: 33 lbs. (15 kg)

Stock #: #1150

Lamp: 12V/30W halogen bulb

Tabletop Dimensions: 21.5" x 13.5" (550mm x 350mm)

Color/Finish: Misty Grey with durable HammerNet finish

Accessories

Standard: Focusing fixation light, 16x eyepieces, full and half mirrors, table top, patient hand rests, low-profile mounting bracket, chinrest tissues, spare illumination bulb, fuses, and maintenance kit

Optional: Tonometer mount, beam-splitter, assistantscope, camera adapter, heavy joystick spring, large patient chinrest, inclined oculars

- Exceptionally natural and comfortable view is created by a parallel optical system with 6˚ converging binocular tubes, incorporating high-eyepoint, extremely wide-field eyepieces and Galilean magnification changer.
- Five-step magnification range from 6.3x to 40x with the twist of a single knob and no change of eyepiece.
- Fingertip millimeter slit-width control provides highly precise adjustment.
- Single-handed elevation system.
- Easy-to reach tilt mechanism for gonioscopy.
- Dial-in, and continuously variable aperture setting from 10mm to 0.2mm. Ideal for measuring ocular structures to 0.1mm.
- Focusing fixation light is adjustable to each patient.
- Halogen illumination standard.
- Five built-in filters (two cobalt).
- Rheostat conveniently located next to joystick.
- Patient handrests standard.
- Superb depth of field is ideal for today’s technically advanced imaging systems. An available beamsplitter featuring an “in-out” prism system allows full illumination to the practitioner during observation and maximum illumination to the imaging system when in position.
- Dual port beamsplitter also allows an assistantscope to be attached.
- Options include tonometer mount, camera attachments, assistantscope, large patient chinrest, inclined oculars.
ULTRA G5 ZOOM SLIT LAMP

- Unprecedented high resolution motorized zoom optical system.
- Adjustable fingertip switches control motorized zoom/focus and illumination intensity.
- Incorporates the proprietary, advanced light-gathering Ultra Optics.
- “Flip-up” magnification display mirror.
- Illuminated magnification power display window.
- Specially-coated reflection mirror reflects harmful UV rays.
- Accommodates a complete range of accessories, including assistantscopes, beamsplitters, and video cameras.
- Quick-adjust elevation base spring for heavier mounted accessories.
- Built-in tonometer mount.

“Flip-up” illuminated magnification mirror instantly displays magnification power.
Adjustable, multi-directional fingertip switches control motorized zoom and illumination intensity.

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**Microscope**

<table>
<thead>
<tr>
<th>Type</th>
<th>Zoom type converging binocular microscope</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zoom ratio</td>
<td>6X</td>
</tr>
<tr>
<td>Eyepieces</td>
<td>12.5X</td>
</tr>
<tr>
<td>Objective</td>
<td>F=113mm</td>
</tr>
<tr>
<td>Total magnifications</td>
<td>5.9X-35X</td>
</tr>
<tr>
<td>Real fields of view</td>
<td>40mm-6.7mm</td>
</tr>
<tr>
<td>Working distance</td>
<td>104.6mm</td>
</tr>
<tr>
<td>Dioptric adjustment</td>
<td>+/-5D</td>
</tr>
<tr>
<td>Interpupillary adjustment</td>
<td>52mm-82mm</td>
</tr>
</tbody>
</table>

**SLIT LAMP**

| Slit projection | 0.8X                                    |
| Working distance | 80mm                                   |
| Slit width      | 0-10mm (becomes a circle at 10mm diameter) |
| Slit length     | 0.2mm, 1mm, 2mm, 3mm, 5mm, 10mm diameter |
| Filters         | Heat absorbing, UV, red-free and cobalt blue |
| Rotation of slit image | Laterally +/-90° from the vertical |
| Slit image scanning | Horizontally +/-7° in either direction |

**Bulb**

- 12V 30W halogen bulb

**Cross-Slide Base**

| Longitudinal Movement | 90mm |
| Lateral Movement     | 110mm |
| Vertical Movement    | ±15mm |
| Horizontal Fine Movement | ±7.5mm |

**Chinrest**

| Fixation Lamp | LED (red) |
| Vertical Movement | 78mm |

**Power**

| Input Voltage | AC110V, 120V, 220V, and 240V |
| Maximum Power Consumption | 40VA |

**General**

| Weight       | 33 lbs. (15 kg) |
| Stock #      | #1150-Z         |
| Lamp         | 12V/30W halogen bulb |
| Tabletop Dimensions | 21.5" x 13.5" (550mm x 350mm) |
| Color/Finish | Misty Grey with durable |

**Accessories**

**Standard**
- Focusing fixation light, 16x eyepieces, full and half mirrors, table top, patient hand-rests, low-profile mounting bracket, chinrest tissues, spare illumination bulb, fuses, and maintenance kit

**Optional**
- Beam-splitter, assistantscope, camera adapter and heavy joystick spring, large patient chinrest, inclined oculars

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CONVERGING ON POWER, PERFORMANCE AND PRICE

- Both the 2b and model 5 combine remarkable ease of use with high quality converging optics and the same precision construction found in other Ultra Series models.
- The model 2b is ideal for general examination procedures and contact lens work. It finds wide acceptance in satellite offices as well as in larger practices with multiple lanes. The model 5 is slightly more advanced and comes standard with many of the same features that are offered on our more sophisticated model G5.
- The model 5 has a dial-in, continuously variable aperture setting that is adjustable from 10mm to 0.2mm. An easy to reach light source tilting mechanism is also standard on the model 5.
- The model 2b has a more simplified light source with six, pre-set aperture positions.
- Five built-in filters, including two cobalt, are standard on the model 5. The model 2b comes standard with four built-in filters.
- The model 5 comes standard with a focusing fixation light while the 2b comes standard with a pencil-point fixation light.
- Halogen illumination standard.
- Rheostat conveniently located next to joystick.
- 0 to 10mm slit width.

Marco-Certified Quality assures you of the very finest vision products for your practice and it’s your mark of confidence.