It is a great pleasure to have received your inquiry for our telescopes and to send our latest catalogue to you.

In recent years we have seen remarkable progress in the pursuit of space science. It has attracted more and more people, both amateurs and professionals, increasing the demand for more advanced equipment used in astronomical observation.

Mikage Optical Laboratory specializes in producing the most excellent telescopes based on our long-standing experience and professional technique. The excellence in function, as well as in design, is the key to the popularity. Mikage has been enjoying over the nation of Japan and also abroad.

Our craftsmen spirit provides the wide range of variety for your telescopes to meet all your requirements.

According to your budget, space and plans, we will be happy to present you with the most suitable telescope.

In an ever-advancing world of space science, our determination is to invite ourselves to further sophisticated telescopes in the future. We hope that we can help you a great deal with our products on your journey into the fantastic world of space.

Toshiaki Ishizuka
President & Owner
Mikage Optical Laboratory
### Model 430 Optical Capability

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
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<tbody>
<tr>
<td>Effective Diameter</td>
<td>432 mm (E6)</td>
</tr>
<tr>
<td>Focal Length</td>
<td>150 mm (straight), 70 mm (diagonal)</td>
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<tr>
<td>Resolving Power</td>
<td>0.27&quot;</td>
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<tr>
<td>Light Gathering Power</td>
<td>3,809 times</td>
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<tr>
<td>Limiting Magnitude</td>
<td>14.95</td>
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<tr>
<td>Finder</td>
<td>10 x 70</td>
</tr>
<tr>
<td>Eyepieces in Revolver</td>
<td>Or7 (750X), Or6 (500X), Or9 (333X), Or12.5 (240X), Or25 (120X), Or40 (75X)</td>
</tr>
<tr>
<td>Drawtube Screw</td>
<td>66 mm, 32 threads/revolution</td>
</tr>
<tr>
<td>Cylinder Weight</td>
<td>140 kg</td>
</tr>
</tbody>
</table>

(Cylinder with rotating system)

### Model 430 Equatorial Mounting

**Polar Driving:**
- Driving System: Quartz sidereal plate motor
  - Electric remote control operation
  - Clockwise or counter-clockwise rotation at 1X, 2X, 7X, 15X of sidereal speed
- Clamp: Electromagnetic remote control
- Graduated Circle: 2 mm/graduation

**Declination Driving:**
- Driving System: Speed control motor
  - Electric remote control
  - Gradual speed change from 0X to 15X of sidereal speed
- Clamp: Electromagnetic remote control
- Graduated Circle: 0.5 mm/graduation

**Outline**
- Equipped with direction and height adjustment
- Height to declination and polar axis intersection
- Eyepiece height at maximum extension
- Base circumference
- Equatorial mounting weight
- Gross weight
- Mounting load capacity
Model 350 Optical Capability

- **Effective Diameter**: 350 mm (pyrex), 80 mm (diagonal)
- **Focal Length**: 2,100 mm (F: 6)
- **Resolving Power**: 0.3°
- **Light Gathering Power**: 2,500 times
- **Limiting Magnitude**: 14.5
- **Finder**: 7 x 50
- **Eyepieces in Revolver**:
  - Or6 (350X), Or6 (233X), Or6 (168X), Or6 (84X)
- **Drawtube Screw**: 66 mm, 32 threads/inch
- **Cylinder Weight**: 80 kg (Cylinder with rotating system)

Model 350 Equatorial Mounting

- **Polar Driving**:
  - **Driving System**: Quartz sidereal pulse motor
  - **Electric remote control operation**
- **Clamp**:
  - **Electromagnetic remote control**
  - **Graduated Circle**: 2 min./graduation
  - (with sidereal driving system)
- **Declination Driving**:
  - **Speed control motor**
  - **Electric remote control operation**
  - **Gradual speed change from 0X to 15X of sidereal speed**
  - **Clamp**:
    - **Electromagnetic remote control**
    - **Graduated Circle**: 0.5°/graduation

Outline

- **Compared with direction and height adjustment**
- **Height to declination and polar axes intersection**: 1,100 mm
- **Eye piece height at maximum extension**: 1,900 mm
- **Base circumference**: NS 1,800 mm X ES 520 mm
- **Equatorial mounting weight**: 530 kg
- **Gross weight**: 610 kg
- **Mounting loading capacity**: 150 kg
Model 310 Optical Capability

- Effective Diameter: 310 mm (pyrex), 70 mm (diagonal)
- Focal Length: 2,000 mm (F: 6.5)
- Resolving Power: 0.37".
- Light Gathering Power: 1,960 times
- Limited Magnitude: 14.2
- Finder: 7 x 50
- Eyepieces in Revolver: Or6 (333X), Or9 (222X), Or12.5 (600X), Or25 (800X)
- Drawtube Screw: 66 mmδ, 32 threads/inch
- Cylinder Weight (Cylinder with rotating system): 60 kg

Model 310 Equatorial Mounting

- Polar Driving: Quartz sidereal pulse motor
- Electric remote control operation
- Clockwise or counter-clockwise rotation at 1X, 2X, 7X, 15X of sidereal speed
- Clamp: Electromagnetic remote control
- Graduated Circle: 4 min./graduation

Declination Driving: Speed control motor
- Electric remote control operation
- Gradual speed change from 0X to 15X of sidereal speed
- Clamp: Electromagnetic remote control
- Graduated Circle: 17/graduation

Outline

- Equipped with direction and height adjustment
- Height to declination and polar axes intersection: 950 mm
- Eyepiece height at maximum extension: 1,720 mm
- Base circumference: 700mm KEW650mm X 40mm
- Equatorial mounting weight: 370 kg
- Gross weight: 430 kg
- Mounting loading capacity: 120 kg

Option

- Polar Graduated Circle: Driven by sidereal synchronous motor 2 min./graduation

Price: ¥120,000. --extra
**Model 260 Optical Capability**
- Effective Diameter: 260 mm (pyrex), 60 mm (diagonal)
- Focal Length: 1,800 mm (F 6.9)
- Resolving Power: 0.45" 
- Light Gathering Power: 1,380 times
- Limiting Magnitude: 13.8
- Finder: 7 x 30
- Eyepieces in Revolver: 6, 9 (300x), 9 (200x), Or 12.5 (144x), Or 25 (72x)
- Drawtube Screw: 66 mm, 32 threads/inch
- Cylinder Weight: 40 kg (Cylinder with rotating system)

**Model 260 Equatorial Mounting**
- Polar Driving:
  - Driving System: Quartz sidereal pulse motor
  - Electric remote control
  - Clockwise or counter-clockwise rotation at 1X, 2X, 7X, 15X of sidereal speed
- Clamp:
  - Manual Graduated circle: 4 mins./graduation (driven by sidereal synchronous motor)

**Declination Driving**
- Driving System: Speed control motor
- Electric remote control
- Gradual speed change from 0X, to 15X of sidereal speed
- Clamp:
  - Manual Graduated Circle: 1°/graduation

**Outline**
- Equipped with direction and height adjustment
- Height to declination and polar axes
- Intersection: 1,030 mm
- Eyepiece height at maximum extension: 1,860 mm
- Rise circumference: NS 580 mm X EW 550 mm
- X 40 mm
- Anchor bolt hole center distance: NS 470 mm
- Equatorial mounting distance: 285 mm
- Gross weight: 325 kg
- Mounting loading capacity: 80 kg
Model 210 Optical Capability

- Effective Diameter: 210 mm (pyrex), 55 mm (disposal)
- Focal Length: 1,470 mm (F 7)
- Resolving Power: 0.5"
- Light Gathering Power: 900 times
- Limiting Magnitude: 13.4
- Finder: 7 X 50
- Eyepieces in Revolver: Or6 (245X), Or1 (163X), Or12.5 (118X), Or25 (59X)
- Drawtube Screw: 46 mm, 32 thread (machined)
- Cylinder Weight: 22 kg

Model 210B Movable Equatorial Mounting

- Polar Driving: Driving System: Two speeds sidereal synchronous motor Electric remote control operation Clockwise or counter clockwise rotation at 1X, 2X of sidereal speed
- Clamp: Manual Graduated Circle: 4 mm/graduation
- Declination Driving: Driving System: Speed control motor Electric remote control operation Gradual speed change from 0C to 15X of sidereal speed
- Clamp: Manual Graduated Circle: 17/graduation
- Balance weight: 197 kg

Outline

- Equipped with directions and height adjustment
- Height to declination and polar axis intersection: 1,050 mm
- Eyepiece height at maximum extension: 1,675 mm
- Base circumference: 525 mm X EW 450 mm X 445 mm
- Anchor bolt hole center distance: 450 mm X EW 300 mm X 16.5 mm
- Equatorial mounting weight: 175 kg
- Gross weight: 197 kg
- Mounting loading capacity: 45 kg
- With balance-weight covered: up to 45 kg
- With balance-weight exposed: up to 60 kg

Option

- Polar driving pulse motor: ¥110,000
- Extra Quartz sidereal pulse motor
- Electric remote control
- Clockwise or counter-clockwise rotation at 1X, 2X, 2X, 15X of sidereal speed
**Model 210 Optical Capability**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
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<tbody>
<tr>
<td>Effective Diameter (mm)</td>
<td>210 (pyrex), 35 (diagonal)</td>
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<tr>
<td>Focal Length (mm)</td>
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<tr>
<td>Resolving Power (arcsec)</td>
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<tr>
<td>Light Gathering Power</td>
<td>900 times</td>
</tr>
<tr>
<td>Limiting Magnitude (mag)</td>
<td>13.4</td>
</tr>
<tr>
<td>Finder</td>
<td>7 X 50</td>
</tr>
<tr>
<td>Eyepieces in Revolver (mm)</td>
<td>Or6 (24X), Or9 (16X), Or12.5 (11X), Or25 (5X)</td>
</tr>
<tr>
<td>Drawtube Screw (mm)</td>
<td>46, 32 threads/inch</td>
</tr>
<tr>
<td>Cylinder Weight (kg)</td>
<td>22</td>
</tr>
</tbody>
</table>

**Model 210 Equatorial Mounting**

- **Polar Driving:**
  - Driving System: One speed sidereal synchronous motor
  - Polar fine motion devices (±5°)
  - Graduated Circle: 4 mins/graduation

- **Declination Driving:**
  - Driving System: Manual
  - Partial fine motion devices (±5°)
  - Graduated Circle: 2°/graduation

**Outline**

- Equipped with direction and height adjustment
- Height to declination and polar axes
- Intersection: 1,090 mm
- Eyepiece height at maximum extension: 1,623 mm
- Base circumference: NS 500mm X EW 400mm X 400mm
- Anchor bolt hole center distance: NS 430 mm X EW 330 X 16.5mm
- Equatorial mounting weight: 125 kg
- Gross weight: 147 kg
- Mounting loading capacity: up to 35 kg
- with balance-weight covered: up to 45 kg

**Option**

- **Polar Driving System:**
  - Two speed sidereal synchronous motor: ¥10,000 extra
  - Electric remote control
  - Clockwise rotation at 1X, 2X, of sidereal speed
  - Quartz sidereal pulse motor: ¥110,000 extra
  - Electric remote control
  - Clockwise or counter-clockwise rotation at 1X, 2X, 7X, 15X of sidereal speed
MIKAGE
OPTICAL LABORATORY

#3-1, ONG, NISHIMAKIGUN, HYOGO, 677 JAPAN

PHONE: 07952-3-3417
反射望遠鏡及び部品価格表

<table>
<thead>
<tr>
<th>品名</th>
<th>価格</th>
<th>送料</th>
<th>買取</th>
<th>備考</th>
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<tr>
<td>完成望遠鏡MK-160</td>
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<td>430</td>
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鏡筒完成品MK-160 | 新トン | 198,000円 | 60,000円 | 静音ブレーキ、ファインダー付、鏡筒鏡面、鏡筒鏡面
| 210 | 250,000円 | 80,000円 | | 30%取付 |
| 260 | 500,000円 | 12,000円 | | |
| 310 | 750,000円 | 16,000円 | | |
| 430 | 2,500,000円 | 25,000円 | | |

赤道儀の総合台(脚付)MK-160 | 2,800,000円 |  |
| 160 | 360,000円 | 12,000円 |  |
| 210 | 360,000円 | 18,000円 |  |
| 260 | 610,000円 | 22,000円 |  |
| 310 | 1,800,000円 |  |
| 430 | 3,100,000円 | | |

赤道儀マウント(赤経・赤緯)MK-160 | 330,000円 | 8,000円 |
| 210 | 390,000円 | 4,000円 |  |
| 310 | 580,000円 | 4,000円 |  |
| 430 | 580,000円 |  |

自走用オートマチックスチャート(赤経・赤緯)MK-160 | 28,000円 | 4,000円 |  |
| 310 | 580,000円 | 4,000円 |  |

モータードライブ(恒時速達35km)MK-160 |  |
| シンクロノス(トルク10k) | 8 RPM | 16,000円 | 1,000円 |
| 2波 | 220,000円 | 2,000円 | 2,000円 |
| パルスモーター |  |

反射鏡及の鏡筒価格

<table>
<thead>
<tr>
<th>品名</th>
<th>価格</th>
<th>送料</th>
<th>買取</th>
<th>備考</th>
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</thead>
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斜鏡遮具

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接眼器(ラックビニオン式)用

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接眼器、ファインダー用

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</table>

上の価格は標準型のものです。仕様を変更される場合に別途文書にて申し換様下さい。

ミカガ光器 〒677 兵庫県西脇市大野403-1 ☎(07952)3-3417