

Guide Book of  
**Japanese  
Optical  
and  
Precision  
Instruments**



1959/60

Compiled by:  
Japan Optical  
and Precision  
Instruments  
Manufacturers'  
Association

Supervised by:  
Ministry of  
International  
Trade and  
Industry

## 6 INCH EQUATORIAL REFRACTOR

Objective aperture 150 mm  
 Focal length 2250 mm  
 Eyepieces Huygenian 40 mm, 25 mm and 18 mm  
 Orthoscopic 9 mm and 7 mm  
 Main Drive Arizona 20 lbs.  
 German style Equatorial  
 Model Telescope

Magnification  
 Accessories

Objective aperture 150 mm  
 Focal length 2250 mm  
 Eye field of view 1.45  
 German style equatorial  
 1 Sun glasses  
 1 Moon glasses  
 1 Star diagonal  
 1 Sun prism (Mertzel type)  
 1 Sun projecting screen  
 (jack for main and finder telescope)  
 Carrying case (for above mentioned accessories)  
 Fasten mercury Astro Camera, Moon filter  
 etc. Finder telescope etc. are available on order



NIPPON KOGAKU K. K.

## JUPITER

Magnification 25x  
 Diameter of Objective 50 mm  
 Focal length 500 mm  
 Weight  
 Telescope 275 (1475 g)  
 Tripod 275 (1450 g)  
 Length 25" (635 mm)  
 Height 15 1/2" (390 mm)  
 Accessories 5 mm eyepiece, Mercury filter, etc.



ASAHI OPTICAL CO., LTD.



Telescopes, . .

## 2 1/2 INCH ASTRONOMICAL TELESCOPE

Magnification 25x, 40x, 55x, 100x  
 Diameter of Objective 50 mm  
 Focal length 500 mm  
 Weight  
 Telescope 275 (1475 g)  
 Tripod 275 (1450 g)  
 Length 25" (635 mm)  
 Height 15 1/2" (390 mm)  
 Accessories Tripod with simplified equatorial mount and 1/4  
 inch control driven by hand, Sun glass, or  
 projecting screen, wooden case (for travel)  
 with 24 inch scope



NIPPON KOGAKU K. K.

## MENAN TELESCOPE

Magnification	35
Diameter of Objective	55 mm
Focal Length	650 mm
Weight	
Telescope	2 1/2 lb (1100 g)
Tripod	1 1/2 lb (700 g)
Length	25 1/2" (650 mm)
Height	17 1/2" (450 mm)



MEIJI SEIKO CO.

## 4 INCH ASTRONOMICAL TELESCOPE



Magnification	45 - 80 - 140 x
Diameter of Objective	100 mm
Focal Length	1130 mm
Weight	
Telescope	6 1/2 lb (3.7 kg)
Tripod	3 7/8 lb (1.7 kg)
Length	46" (1170 mm)
Height	20 1/2" (520 mm)
Accessories	Sun glass, Sun projecting screen
Automatic moving by synchronous motor	
Equatorial mount with motor-driven sidereal rotation of polar axis	

SOKKISHA LTD.  
(Address page 108)



lescopes

## 12 CM OBSERVATION BINOCULAR TELESCOPE



Magnification	20 -
Diameter of Objective	120 mm
Real Field of View	3°
Exit Pupil	6 mm
Diaper Adjustment	- 2 - 4
Length	22" (565 mm)
Width	14 1/2" (368 mm)
Weight	53 lbs (24 kg) with mount
Mount	Azimuth fork-type mount with horizontal and vertical circles

NIPPON KOGAKU K. K.

## 8 CM OBSERVATION BINOCULAR TELESCOPE

Magnification	15 -
Diameter of Objective	80 mm
Real Field of View	3°
Exit Pupil	5.3 mm
Diaper Adjustment	- 2 - 4
Length	19 1/2" (500 mm)
Width	13 1/2" (348 mm)
Weight	38 1/2 lb (17.5 kg) with mount
Mount	Azimuth fork-type mount with horizontal and vertical circles

NIPPON KOGAKU K. K.



## 12 CM OBSERVATION BINOCULAR TELESCOPE



Aperture of Objective	120 mm
Magnification	20 -
Real Field of View	3°
Exit Pupil	6 mm
Width	12 1/2" (318 mm)
Height	22 1/2" (578 mm)
Weight	40 lb (18 kg)
Mount	Azimuth fork-type mount with horizontal and vertical circles

TOKYO OPTICAL CO., LTD. Tokyo Kogaku Kikai K. K.



### COIN-OPERATED TELESCOPE PROMINAR-12 B

Magnification 20x  
 Diameter of Objective 120 mm  
 Real Field of View 3°  
 Exit Pupil 6 mm  
 Illuminants 36  
 Weight 16 2/3 lb (7.4 kg)  
 Length 34 1/2" (880 mm)  
 Width 17 1/2" (450 mm)

After the coin is deposited, the shutter opens automatically and will remain open for the pre-adjusted time interval.

KOFUKU SANGYO CO., LTD.  
KOWA OPTICAL WORKS

### PROMINAR SPOTTING SCOPE

Type 45° offset type  
 Magnification 75x  
 Diameter of Objective 60 mm  
 Real Field of View 1.9°  
 Exit Pupil 2.4 mm  
 Illuminants 18  
 Weight 2 1/2 lb (1.150 kg)  
 Length 16 1/2" (425 mm)  
 Width 3 1/2" (82.5 mm)  
 Interchangeable eyepiece lenses 15x, 20x, 40x, 60x

KOFUKU SANGYO CO., LTD.  
KOWA OPTICAL WORKS



### PROMINAR RIFLE SCOPE

Type	4X	6X	Type
Magnification	4x	6x	Magnification
Field of View	3.50°	3.10°	Field of View
Aperture of Objective	31.8 mm	41 mm	Aperture of Objective
Exit Pupil	7.9 mm	7 mm	Exit Pupil
Dia. of Tube	1.004"	1.004"	Dia. of Tube
Overall Length	11 1/2" (298 mm)	13 1/2" (343 mm)	Overall Length
Weight	3/4 lb (270 g)	1 lb (320 g)	Weight

KOFUKU SANGYO CO., LTD.  
KOWA OPTICAL WORKS

### COIN-OPERATED TELESCOPE

Objective-Diaphragm-Aperture 80 mm  
 Magnification 15x  
 Real Field of View 4°  
 Primary-Electric Source 100 V, 50/60 cycles A.C.  
 Cover of Coin to be Used 23.5 mm in dia., 1.5 mm thick  
 Limit of Viewing Duration 2 min.  
 Aiming Range in Elevation -50° ~ +22°  
 Range in Azimuth 45°  
 Length of Telescope 500 mm  
 Weight 1.3 kg  
 Telescope only 5 kg  
 with Mount 35 kg  
 Illumination eyepiece Maximum consumption of power 25 W. Provided with a red and a green light lamp, the former indicating the telescope is in use and the latter showing that it is ready for operation. Automatic coin or token counter.

NIPPON KOGAKU K. K.



### MENAN SPOTTING SCOPE

(Extra wide field)

Magnification 20x  
 Diameter of Objective 50 mm  
 Real Field of View 3.18°  
 Exit Pupil 2.5 mm  
 Diaphragm Adjustments -4 ~ +35  
 Weight 1 1/4 lb (620 g)  
 Length 12 1/4" (320 mm)  
 Width 10 1/2" (273 mm)

MEIJI SEIKO CO.



## Rifle Scope



### VISTA RIFLE SCOPE

Type	4X	6X
Magnification	4x	6x
Field of View	5.70°	4°
Aperture of Objective	32	32
Exit pupil	7 mm	6 mm
Overall Length	292 mm	275 mm
Weight	360 g	340 g
Dia. of Tube	1.004"	1.004"

OKAYA OPTICAL CO., LTD.

# Rifle Scopes



## MUM RIFLE SCOPE

	4X	9X
Barrel	4x	9x
Length	100 mm	325 mm
Objective Length	31 mm	40 mm
Exit Pupil	5.0 mm	4.6 mm
Slide piece	36 mm	36 mm
Weight	270 g	320 g
Height	100 mm	155 mm
Width	33 mm	33 mm

Types: 2.5x, 6x, 7x, Var. Power (3x ~ 7x)  
**MORI SOGO KOGAKU KOGYO CO., LTD.**



## PROMINAR 20x60 coated

Focusing	Individual or Central focusing
Magnification	20x
Diameter of Objective	60 mm
Field of View	3° 30'
Exit Pupil	3 mm
Relative Brightness	9
Weight	3 lb (1360 g)
Height	8 1/2" (222 mm)
Width	8" (203 mm)

**KOFUKU SANGYO CO., LTD.**  
**KOWA OPTICAL WORKS**



## MAGNA 10x50 coated

[Extra wide field]	
Focusing	Individual focusing
Magnification	10x
Diameter of Objective	50 mm
Field of View	7° 6'
Relative Brightness	25
Weight	2 1/4 lb (1280 g)
Height	6 1/2" (175 mm)
Width	7 1/4" (200 mm)

**TOKYO OPTICAL CO., LTD.**  
**Tokyo Kogaku Kikai K. K.**

# Binoculars



## MENAN 10x30 coated

Design patent No. 145301  
 (Extra wide field)

Focusing	Central focusing
Magnification	10x
Diameter of Objective	30 mm
Field of View	6.5
Exit Pupil	3 mm
Relative Brightness	9
Weight	1 1/2 lb (350 g)
Height	4 1/2" (120 mm)
Width	4 1/2" (120 mm)

**MEIJI SEIKO CO.**



## MIKRON 9x35 coated

Focusing	Central focusing
Magnification	9x
Diameter of Objective	35 mm
Field of View	7° 25'
Exit Pupil	3.9 mm
Relative Brightness	15.2
Weight	1 1/4 lb (345 g)
Height	5 1/4" (132 mm)
Width	5 1/4" (134 mm)

**NIPPON KOGAKU K. K.**

## MEIBO 8x40 WF coated

Focusing	Individual or Central focusing
Magnification	8x
Diameter of Objective	40 mm
Field of View	8° 30'
Exit Pupil	5 mm
Relative Brightness	25
Weight	IF opp 2 1/4 lb (991 g) CF opp 2 1/4 lb (1104 g)
Height	4 1/2" (115 mm)
Width	6 1/2" (166 mm)

**FUJI PHOTO FILM CO., LTD.**  
 (Address page 101)



**MIKRON**  
8 × 35 coated

Focusing	Central focusing
Magnification	8x
Diameter of Objective	35 mm
Field of View	7°
Exit Pupil	4.4 mm
Relative Brightness	19.4
Weight	1 <sup>1</sup> / <sub>2</sub> lb (525 g)
Height	5 <sup>1</sup> / <sub>4</sub> " (133 mm)
Width	2 <sup>1</sup> / <sub>2</sub> " (118 mm)

NIPPON KOGAKU K. K.



**CANON**  
8 × 30 coated

Focusing	Central focusing
Magnification	8x
Diameter of Objective	30 mm
Field of View	7.5°
Exit Pupil	3.75 mm
Relative Brightness	14
Weight	1 <sup>1</sup> / <sub>4</sub> lb (400 g)
Height	5" (128 mm)
Width	5 <sup>1</sup> / <sub>2</sub> " (150 mm)

CANON CAMERA CO., INC.

(Address page 107)

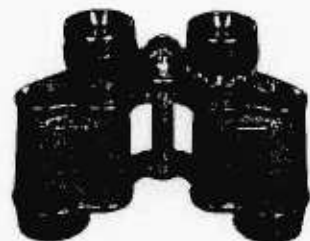


**VISTA**  
8 × 30 coated

Focusing	Individual or Central focusing	
Magnification	8x	
Diameter of Objective	30 mm	
Field of View	7.5°	
Exit Pupil	3.75 mm	
Relative Brightness	14	
	IF	CF
Weight	1 <sup>3</sup> / <sub>8</sub> lb (515 g)	1 <sup>1</sup> / <sub>2</sub> lb (545 g)
Height	4 <sup>7</sup> / <sub>8</sub> " (118 mm)	4 <sup>1</sup> / <sub>2</sub> " (115 mm)
Width	6 <sup>1</sup> / <sub>2</sub> " (168 mm)	6 <sup>7</sup> / <sub>8</sub> " (168 mm)

OKAYA OPTICAL CO., LTD.

**MAGNA**  
8 × 30 coated



Focusing	Central focusing
Magnification	8x
Diameter of Objective	30 mm
Field of View	7.30°
Exit Pupil	3.75 mm
Relative Brightness	14.1
Weight	1 <sup>1</sup> / <sub>4</sub> lb (500 g)
Height	4 <sup>7</sup> / <sub>8</sub> " (113 mm)
Width	6 <sup>1</sup> / <sub>2</sub> " (163 mm)

TOKYO OPTICAL CO., LTD.  
Tokyo Kogaku Kikai K. K.

**CANON**  
7 × 50 coated

Focusing	Central focusing
Magnification	7x
Diameter of Objective	50 mm
Field of View	7.1°
Exit Pupil	7.14 mm
Relative Brightness	51
Weight	2 <sup>3</sup> / <sub>8</sub> lb (1130 g)
Height	7 <sup>1</sup> / <sub>2</sub> " (185 mm)
Width	6 <sup>7</sup> / <sub>8</sub> " (175 mm)

CANON CAMERA CO., INC.

(Address page 101)



**LICHTER**  
7 × 50 coated

Focusing	Individual or Central focusing	
Magnification	7x	
Diameter of Objective	50 mm	
Field of View	7.1°	
Exit Pupil	7.14 mm	
Relative Brightness	51	
Weight	2 <sup>3</sup> / <sub>8</sub> lb (1130 g)	
Height	6 <sup>1</sup> / <sub>2</sub> " (163 mm)	
Width	7 <sup>1</sup> / <sub>2</sub> " (200 mm)	

KUROKI  
OPTICAL INSTRUMENT  
CO., LTD.



### MAGNA 7×50 coated

Focusing	Individual focusing
Magnification	7 x
Diameter of Objective	50 mm
Field of View	7.6°
Exit Pupil	7.14 mm
Relative Brightness	51
Weight	2 <sup>3</sup> / <sub>16</sub> lb (1100 g)
Height	6 <sup>3</sup> / <sub>16</sub> " (173 mm)
Width	7 <sup>1</sup> / <sub>4</sub> " (200 mm)

TOKYO OPTICAL CO., LTD.  
(Tokyo Kogaku Kikai K. K.)

### MAGNA 7×50 coated

Focusing	Individual focusing
Magnification	7 x
Diameter of Objective	50 mm
Field of View	7.18°
Exit Pupil	7.14 mm
Relative Brightness	51
Weight	2 <sup>3</sup> / <sub>16</sub> lb (1135 g)
Height	7 <sup>3</sup> / <sub>16</sub> " (186 mm)
Width	7 <sup>1</sup> / <sub>4</sub> " (199 mm)

TOKYO OPTICAL CO., LTD.  
(Tokyo Kogaku Kikai K. K.)

### MIKRON 7×50 coated

Focusing	Central focusing
Magnification	7 x
Diameter of Objective	50 mm
Field of View	7.18°
Exit Pupil	7.1 mm
Relative Brightness	50.4
Weight	2 <sup>1</sup> / <sub>2</sub> lb (960 g)
Height	7 <sup>1</sup> / <sub>4</sub> " (184 mm)
Width	7 <sup>1</sup> / <sub>4</sub> " (200 mm)

NIPPON KOGAKU K. K.



# B inoculars

### CANON 7×35 coated

Focusing	Central focusing
Magnification	7 x
Diameter of Objective	35 mm
Field of View	7.5°
Exit Pupil	5 mm
Relative Brightness	25
Weight	1 <sup>1</sup> / <sub>2</sub> lb (675 g)
Height	5 <sup>3</sup> / <sub>4</sub> " (146 mm)
Width	4 <sup>1</sup> / <sub>4</sub> " (115 mm)

CANON CAMERA CO., INC.  
(Address page 101)

### PROMINAR 7×35 W coated

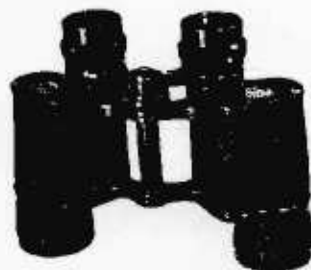
Focusing	Central focusing
Magnification	7 x
Diameter of Objective	35 mm
Field of View	10°
Exit Pupil	5 mm
Relative Brightness	25
Weight	1 <sup>3</sup> / <sub>4</sub> lb (790 g)
Height	5 <sup>1</sup> / <sub>4</sub> " (135 mm)
Width	7 <sup>1</sup> / <sub>2</sub> " (190 mm)

KOFUKU SANGYO CO., LTD.  
KOWA OPTICAL WORKS

### MIKRON 7×35 coated

Focusing	Central focusing
Magnification	7 x
Diameter of Objective	35 mm
Field of View	7.18°
Exit Pupil	5 mm
Relative Brightness	25
Weight	1 <sup>3</sup> / <sub>8</sub> lb (535 g)
Height	7 <sup>1</sup> / <sub>4</sub> " (180 mm)
Width	7 <sup>1</sup> / <sub>4</sub> " (180 mm)

NIPPON KOGAKU K. K.





## ZUIHO 7×35 coated

(Wide angle)

Focusing	Central focusing
Magnification	7x
Diameter of Objective	35 mm
Field of View	10.5°
Exit Pupil	5 mm
Relative Brightness	25
Weight	2 1/8 lb (950 g)
Height	5 1/2" (138 mm)
Width	7 1/2" (195 mm)

ZUIHO OPTICAL INSTRUMENT  
CO., LTD.

(Address page 168)



## MENAN 7×30 coated

(Design patent No. 145301)

Focusing	Central focusing
Magnification	7x
Diameter of Objective	30 mm
Field of View	7°
Exit Pupil	4.3 mm
Relative Brightness	18.5
Weight	1 1/8 (450 g)
Height	5" (125 mm)
Width	4 1/2" (110 mm)

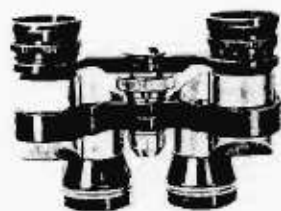
MEIJI SEIKO CO.



## COMET 7×25 coated

Focusing	Individual focusing
Magnification	7x
Diameter of Objective	25 mm
Exit Pupil	3.75 mm
Relative Brightness	12.75
Weight	7/8 lb (400 g)
Height	3 1/4" (80 mm)
Width	2 1/4" (55 mm)

TOA OPTICAL CO., LTD.



## MENAN 7×23 coated

(Design patent No. 145301)  
(Extra wide field)

Focusing	Central focusing
Magnification	7x
Diameter of Objective	23 mm
Field of View	9.5°
Exit Pupil	3.3 mm
Relative Brightness	10.9
Weight	1 1/8 lb (320 g)
Height	3 1/4" (82 mm)
Width	4 1/2" (110 mm)

MEIJI SEIKO CO.



## COMET 7×18 coated

Focusing	Central focusing
Magnification	7x
Diameter of Objective	18 mm
Field of View	7°
Exit Pupil	2.57 mm
Relative Brightness	6.6
Weight	1 1/2 lb (225 g)
Height	2 1/4" (58 mm)
Width	1 3/4" (40 mm)

TOA OPTICAL CO., LTD.

## MIKRON 7×15 coated



Focusing	Central focusing
Magnification	7x
Diameter of Objective	15 mm
Field of View	8°
Exit Pupil	2.1 mm
Relative Brightness	4.4
Weight	5/8 lb (170 g)
Height	1 3/4" (45 mm)
Width	4" (102 mm)

NIPPON KOGAKU K. K.



**CANON**  
6 × 30 coated



Focusing	Central focusing
Magnification	6x
Diameter of Objective	30 mm
Field of View	7.5° (300 ft at 1000 yds)
Exit Pupil	5 mm
Relative Brightness	25
Weight	1 1/8 lb (480 g)
Height	5 1/2" (130 mm)
Width	3 1/2" (87 mm)

**CANON CAMERA CO., INC.**  
(Address page 101)

Focusing	Central focusing
Magnification	6x
Diameter of Objective	30 mm
Field of View	8-25'
Exit Pupil	5 mm
Relative Brightness	25
Weight	1 1/8 lb (480 g)
Height	4 1/2" (114 mm)
Width	4 1/2" (114 mm)

**MIKRON**  
6 × 30 coated



**NIPPON KOGAKU K. K.**

Focusing	Individual focusing
Magnification	6x
Diameter of Objective	30 mm
Field of View	8-30'
Exit Pupil	5 mm
Relative Brightness	25
Weight	1 1/8 lb (480 g)
Height	4 1/2" (114 mm)
Width	4 1/2" (114 mm)

**MAGNA**  
6 × 30 coated

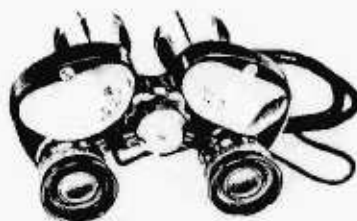


**TOKYO OPTICAL CO., LTD.**  
Tokyo Kogaku Kikai K. K.



**Binoculars**

**JUPITER**  
6 × 25 coated



Focusing	Central focusing
Magnification	6x
Diameter of Objective	25 mm
Field of View	9°
Exit Pupil	4.1 mm
Relative Brightness	27
Weight	1 1/8 lb (510 g)
Height	2 1/2" (64 mm)
Width	4 1/2" (114 mm)

**ASAHI OPTICAL CO., LTD.**

**MIKRON**  
6 × 18 coated



Focusing	Central focusing
Magnification	6x
Diameter of Objective	18 mm
Field of View	7°
Exit Pupil	3 mm
Relative Brightness	9
Weight	1/2 lb (225 g)
Height	2 1/2" (64 mm)
Width	4" (102 mm)

**NIPPON KOGAKU K. K.**

**VISTA**  
6 × 15 coated



Focusing	Individual or Central focusing
Magnification	6x
Diameter of Objective	15 mm
Field of View	8-4
Exit Pupil	2.5 mm
Relative Brightness	4-25
Weight	1/2 lb (225 g)
Height	3" (76 mm)
Width	3 1/2" (89 mm)

**OKAYA OPTICAL CO., LTD.**

Focusing	Individual focusing
Magnification	6x
Diameter of Objective	15 mm
Field of View	7'
Exit Pupil	2.5 mm
Relative Brightness	6.25
Weight	$\frac{3}{8}$ lb. (150 g)
Height	$1\frac{1}{2}$ " (49 mm)
Width	$1\frac{1}{2}$ " (32 mm)

**COMET**  
6x15 coated



TOA OPTICAL CO., LTD.

Focusing	Central focusing
Magnification	3x
Diameter of Objective	15 mm
Field of View	9-30'
Exit Pupil	2 mm
Relative Brightness	9
Weight	$\frac{1}{4}$ lb. (120 g)
Height	2" (50 mm)
Width	4" (102 mm)

**MIKRON**  
5x15 coated



NIPPON KOGAKU K. K.

Focusing	Central focusing
Magnification	3x
Diameter of Objective	30 mm
Field of View	10'
Weight	$\frac{3}{4}$ lb. (200 g)
Height	$2\frac{1}{4}$ " (57 mm)
Width	4" (102 mm)

**MEIBO SPORTS GLASS**  
3x coated



FUJI PHOTO FILM CO., LTD.  
(Address page 101)

**opera glasses**

**PROMINAR**  
2x20 coated

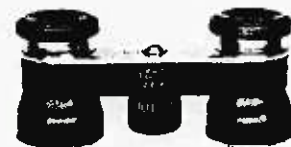


Focusing	Central focusing
Magnification	2x
Diameter of Objective	20 mm
Field of View	12'
Weight	$\frac{1}{2}$ lb. (140 g)
Height	$1\frac{1}{4}$ " (31 mm)
Width	$4\frac{1}{4}$ " (103 mm)

KOFUKU SANGYO CO., LTD.  
KOWA OPTICAL WORKS

Focusing	Central focusing
Magnification	2.5x
Diameter of Objective	24.5 mm
Field of View	14.6'
Weight	$\frac{1}{4}$ lb. (125 g)
Height	$1\frac{3}{8}$ " (43 mm)
Width	$3\frac{1}{16}$ " (90 mm)

**VISTA**  
2.5x24.5 coated



OKAYA OPTICAL CO., LTD.

Focusing	Central focusing
Magnification	3x
Diameter of Objective	30 mm
Relative Brightness	100
Weight	$\frac{1}{2}$ lb. (180 g)
Height	$2\frac{1}{8}$ " (58 mm)
Width	$4\frac{1}{8}$ " (108 mm)

**VISTA**  
3x30 coated



OKAYA OPTICAL CO., LTD.

## GIANT TURTLE

Shinko Collapsible Opera Glass  
(Patented)

Magnification: 5x  
Aperture of Objective: 34 mm  
Measurement:  
Length: 3 $\frac{1}{8}$ " (79.5 mm)  
Width: 5" (127.5 mm)  
Thickness: 7 $\frac{1}{8}$ " (122.0 mm)  
Weight: 7 $\frac{1}{8}$  lb (260 g)  
Specifications: Body finished with goat-hide  
Colours: Black, Brown, Tan, Green, Navy & Red



SHINKO SEISAKUSHO, INC.

## TURTLE

Shinko Collapsible Opera Glass  
(Patented)



Magnification: 1.5x  
Aperture of Objective: 26 mm  
Measurement:  
Length: 2 $\frac{3}{4}$ " (60 mm)  
Width: 4 $\frac{3}{4}$ " (118 mm)  
Thickness: 7 $\frac{1}{4}$ " (117 mm)  
Weight: 3 $\frac{1}{2}$  lb (160 g)  
Specifications: Body finished with goat-hide  
Colours: Black, Brown, Tan, Green, Navy & Red

SHINKO SEISAKUSHO, INC.

## TURTLE JUNIOR

Shinko Collapsible Opera Glass  
(Patented)



Magnification: 3x  
Aperture of Objective: 24 mm  
Measurement:  
Length: 2 $\frac{1}{8}$ " (60 mm)  
Width: 4 $\frac{3}{8}$ " (110 mm)  
Thickness: 7 $\frac{1}{4}$ " (117 mm)  
Weight: 5 $\frac{1}{2}$  lb (140 g)  
Specifications: Body finished with pig-skin  
Colours: Black, Brown, Tan, Green, Navy & Red

SHINKO SEISAKUSHO, INC.

# Trade Marks of Manufacturers



AIRES CAMERA IND. CO., LTD.

**B.S.D**

BUNSHODO CO., LTD.

**Canon**

CANON CAMERA CO., INC. KOBE



CHIYODA KOGAKU SEIKO K. K.



EIKI INDUSTRIAL CO., LTD.



ELMO CO., LTD. KONIS



FUJI PHOTO FILM CO., LTD.



FUJI OPTICAL CO., LTD.



FUJI SOKURYOKI SEIZO K. K.  
FUJI SURVEYING INST. MFG. CO., LTD.



FUJI TRADING CO., LTD.



FUJITA OPTICAL INDUSTRIES, LTD.

*Hokushin*

HOKUSHIN ELECTRIC WORKS, LTD.



IBIGAWA ELECTRIC INDUSTRY  
CO., LTD.
















ICHIZUKA OPTICAL INDUSTRIAL  
CO., LTD.



KEIHAN OPTICAL INSTRUMENTS  
MFG. CO., LTD.  
PROSKAR OPTICAL CO., LTD.

# Trade Marks of Manufacturers

n		 <p>KOFUKU SANGYO CO., LTD. KOWA OPTICAL WORKS</p>	 <p>KOMITZ INDUSTRIAL CO., LTD.</p>
!	 <p>ISHIROKU PHOTO IND. CO., LTD.</p>	 <p>KURIBAYASHI CAMERA INDUSTRY, IN.</p>	 <p>KUROKI OPTICAL INST. CO., LTD.</p>
K LTD.	 <p>KYOWA OPTICAL CO., LTD.</p>	 <p>LEOTAX CAMERA CO., LTD.</p>	 <p>MAMIYA CAMERA CO., LTD.</p>
L LTD.	 <p>MEIJI SEIKO CO., LTD.</p>	 <p>MINICAM RESEARCH CORP.</p>	 <p>NEOCA CO., LTD.</p>
NTS LTD.	<p><b>NICCA</b></p> <p>NICCA CAMERA CO., LTD.</p>	<p><i>Nikolet</i></p> <p>NIHON KOGEI CO., LTD.</p>	 <p>NIHON SEIKO KENKYUSHO, LTD.</p>

# Trade Marks of Manufacturers



NIPPON DENKI KOGYO CO., LTD.



NIPPON KOGAKU K. K.



NIPPON MICROSCOPE WORKS, LTD.



NOMURA INDUSTRY CO., LTD.



OKAYA OPTICAL CO., LTD.



OLYMPUS OPTICAL CO., LTD.



OMORI SUGO KOGAKU KOGYO  
CO., LTD.



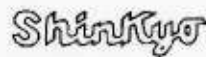
RIKEN OPTICAL INDUSTRIES, LTD.



SANKYO KOHKI OPTICAL CO., LTD.



SHIMADZU SEISAKUSHO LTD.



SHINKYO ELECTRIC INDUSTRIAL  
CO., LTD.



SHIN-YASHIMA OPTICAL CO., LTD.



SHOWA OPTICAL CO., LTD.



SOKUEISHA CO., LTD.



TAMA SOKKI CO., LTD.

# Trade Marks of Manufacturers

LTD.	 TAMAYA & CO., LTD.	 TERAOKA SEIKO CO., LTD.	 TIYODA OPTICAL CO., LTD.
TD.	 TOA OPTICAL CO., LTD.	 TOKYO OPTICAL CO., LTD. (TOKYO KOGAKU KIKAI K. K.)	 TOKYO OPTICAL MFG. CO., LTD.
LTD.	 TOKYO SOKKI CO., LTD.	 TOKYO SURVEYING INSTITUTE (TOKYO SOKURYOJUTSU KENKYUSHO)	 UCHIDA YOKO CO., LTD.
LTD.	 UNION OPTICAL CO., LTD.	 USHIKATA MFG. CO., LTD.	 VICTOR COMPANY OF JAPAN, LTD.
D.	 YAMABOSHI CO., LTD.	 YAMANO SEISAKUSHO	 YASHICA CO., LTD.

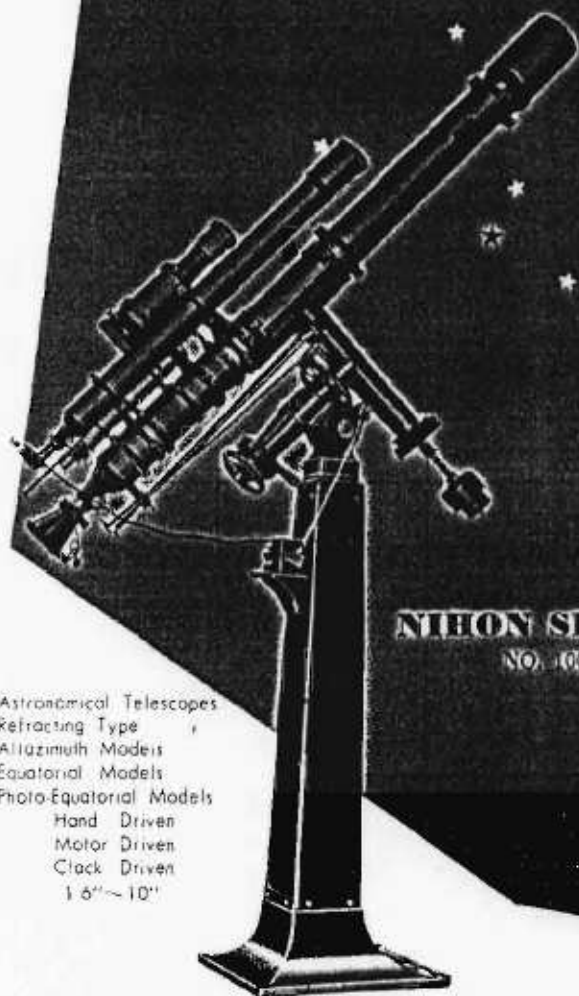
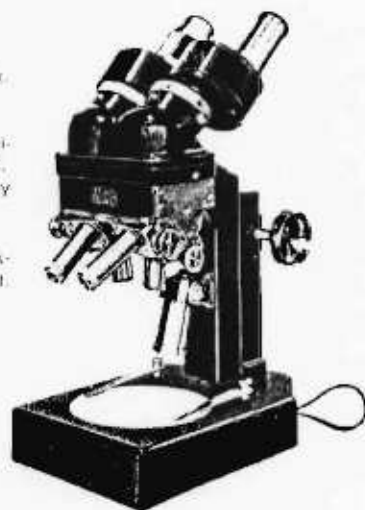




**SEIKO  
SCOPE**

Stereoscopic  
Microscope  
Medical  
Industrial

Eyepieces: 4x, 8x, 12x.  
Objectives: 1x, 4x.  
Parallel exit rays.  
Illuminated lamp, automati-  
cally turned on and off.  
Field of vision readily  
adjustable.  
Easy alignment.  
Objectives (2 pairs) work-  
able at equal focal point.



Astronomical Telescopes  
Refracting Type  
Altazimuth Models  
Equatorial Models  
Photo-Equatorial Models  
Hand Driven  
Motor Driven  
Clock Driven  
1.5"~10"

**NIHON SEIKO KENKYUSHO, LTD.**

NO. 60, KOFU-5, NOZAWA-CHO, SETAGAYA-KU,  
TOKYO, JAPAN

CABLE ADDRESS: SEIKOSCOPE TOKYO



IF YOU WANT THE BEST.  
DECIDE ON "LORD SE".

HIGH-QUALITY LENS  
30 mm. F. 1.9  
SEIKOSHI-MXL

Equipped with light valve meter, Built-in  
-counter.  
Self-wicking one stroke film winding lever.  
Automatic parallax compensation.



# Lord SE



VISTA BINOCULARS

## VISTA BINOCULARS



6x30 IF. CF  
8x30 IF. CF



6x15 IF. CF



2x30

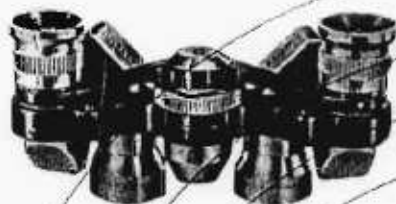


2x27

GINZA, TOKYO, JAPAN  
HATTORI TRADING CO., LTD.  
Export Agents

GINZA, TOKYO, JAPAN  
OKAYA OPTICAL CO., LTD.  
Manufacturer

## MICRO BINOCULAR



6 × 15    6 × 18    7 × 15  
 7 × 18    8 × 20    9 × 20  
 10 × 20    7 × 25  
 (WIDE ANGLE)

Type: Individual or  
 Central focusing

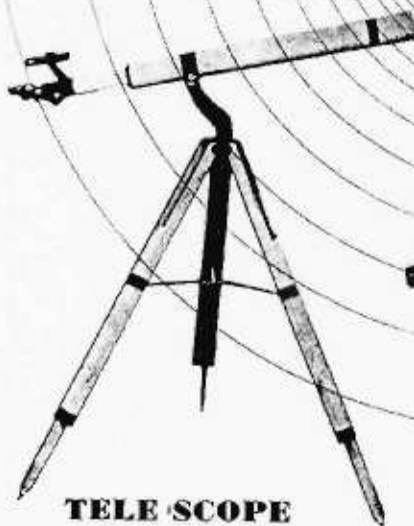


## RIFLE SCOPE



2.5 × 20    4 × 31  
 6 × 31    7 × 31  
 9 × 40    3 × ~7 × 31

*Plum*



## TELE SCOPE

Obj. Objective: 60 mm	Weight:
Magnification: 100x	Telescope: 1.75 kg
75x	Tripod: 3.3 kg
50x	Wooden case: 5.5 kg
Dist. Exit Pupil: 0.5 mm	Accessories:
0.8 mm	Sun glass
1.2 mm	Diagonal Prism
Field of View (at 1000 yds)	Wooden Cabinet
20 ft (100x)	Finder, Magnification: 4x
26.6 ft (75x)	
26.6 ft (50x)	



## SPOTTING SCOPE

Magnification: 15x 20x 30x 40x 60x  
 Aperture of Objective: 60 mm  
 Field of View at 1000 yds:  
 32 ft (15x 20x) 61 ft (30x) 49 ft (40x)  
 32 ft (60x)  
 Exit Pupil: 4 mm 3 mm 2 mm 1.5 mm 1 mm  
 Length: 380 mm  
 Width: 100 mm  
 Height: 300 mm  
 Weight: 1.4 kg (with tripod)

**OMORI SOGO KOGAKU KOGYO CO., LTD.**

No. 102, Ikegami-honcho, Ota-ku, Tokyo, Japan

Tel.: Ikegami (75) 0929, 3929



The Miranda 35mm automatic single-lens reflex camera permits the use of lenses of Exakta, Leica, Praktica, Praktina, Minon, and other SLR cameras with adapters. Adapt to take Exakta, Leica, Nikon and Contax lenses for close-up.

Interchangeable pentaprism viewfinder also provides a 1.7 image in focal plane mirror with speeds from 1/30 to 1/2000 sec., angle-act film transport, shutter locking, built-in flash and electronic flash synchronization, an interchangeable lens mount and a rapid reload lever. The back of the body is hinged for easy film loading and unloading.

A complete line of Miranda accessories including a vertical focusing device, chest-level finder, extension tubes, bellows extension, Eyeball, microscope adapter, flash bracket, accessories cabinet, adapters for the popular movie lenses, a 15mm f/1.5 wide angle lens, a 135mm f/2.8 long focus lens and other items are available.

**35<sup>m</sup>/m**

MIRANDA  
CAMERA CO., LTD.  
Sales Office: 30, Sakuragawa-cho, Nishikubo, Shiba  
Moto-ku, Tokyo  
Cable add: MIRANDACAMERA TOKYO

# Miranda

## Single Lens Reflex



**THE FINEST PRISMATIC BINOCULARS  
& SATELLITE TELESCOPE**



16 x 50,  
12 x 50,  
10 x 50,  
8 x 30,  
7 x 50,  
7 x 35,  
7 x 18,  
6 x 30,  
6 x 18.



Magnification 7.5 x  
Diameter of objective 47mm  
Field of View 7.1°  
Exit Pupil 6.3mm  
Eyepiece Focal length 20mm  
Objective Focal length 197mm  
Eyepiece Diameter 20mm

**KUROKI OPTICAL INSTRUMENT CO., LTD.**

1088, Shimura Maeno-cho, Hachioji-shi, Tokyo, Tel: (26) 0885-6  
Cable Address "BLACKWOOD"

# SHOWA OPTICAL CO., LTD.

296, 2-chome, Shinmachi, Setagaya-ku, Tokyo

## ORIENT BINOCULARS (Aluminium body & Magnesium body)



"B L" Type

5 - 30 mm (AL) 7 - 50 mm (AL)  
7 - 35 mm (AL, Mg) 8 - 30 mm (AL)  
7 - 40 mm (AL, Mg) 8 - 40 mm (Mg)



Patented "ORIENT" Type

7 - 35 mm (AL)  
7 - 40 mm (AL)  
8 - 40 mm (AL, Mg)



"Z" Type

7 - 35 mm (Mg)  
7 - 50 mm (AL)

## INDUSTRIAL PERISCOPES

for isotope treatment



## "PAMIAN" 8 mm Cine Lenses



WIDEANGLE  
45 mm F1.8



STANDARD  
42 mm F1.8



TELEPHOTO  
38 mm F1.8

## "PAMIAN" Telescopes "PAMIAN" Golf Range-Finders



20 - 50 mm  
length 477 mm



6 - 11 mm  
length 140 mm







# ZUIHO



Z type or B type,  
and central focus or  
individual focus.  
4 x 30, 8 x 30, 7 x 35,  
6 x 40, 7 x 50, 10 x  
50, 12 x 50, 16 x 50,  
etc.  
Special Wide Angle  
Binoculars,  
Opera Glasses,  
Vari-power Telescopes.

## PRISM BINOCULARS



## GUN-SCOPES

4 x 31mm (dia. of tube 1 inch)  
6 x 31mm (4 x 2 1/2 x 1 1/2)



## "HONOR" 35 MM Camera.

Lenses: "HONOR" f/2.50 mm.  
"HEXANON" f/1.9 50 mm.  
coated (Leica mount)  
Shutter: Focal-plane shutter,  
10 speeds from 1 to 1/500,  
sec., T and B.  
Special features: FP, X synchronization,  
interchangeable lens, completely removable  
back plate.



## MICROSCOPES

Model ZK-M 1500 x  
" ZK 1500 x  
" ZN 900 x  
" ZA 600 x



ZK-F



## BINOCULAR MICROSCOPES

2000 x 1500 x

## SURVEYING INSTRUMENTS

6 inch Transits. 15 x Dumpy-Levels.  
5 x Transits. 12 x Dumpy-Levels.  
4 x Transits. 15 x Wye-Levels.  
18 x Dumpy-Levels. 12 x Wye-Levels.

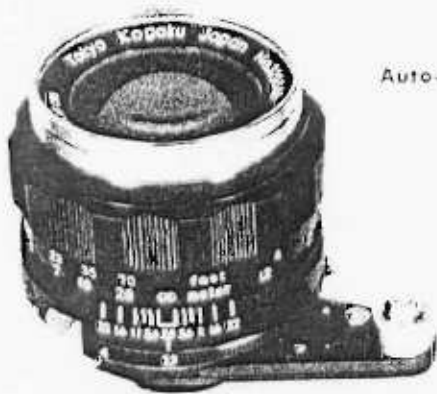


MANUFACTURERS & EXPORTERS

## ZUIHO OPTICAL INSTRUMENT CO., LTD.

OFFICE: No. 7, 3-Chome, Kyobashi, Chuo-ku, Tokyo, Japan.  
Tel. (56) 0603, 8098 Cable Address: "ZUIOPTIC" TOKYO  
FACTORY: NO. 519, Nishiachiai, 2-Chome, Shinjuku-ku, Tokyo, Japan.  
Tel. (95) 5815, 6411

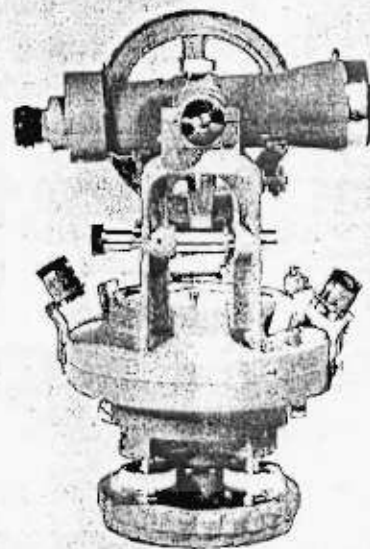
# Top lenses for transit



Auto-Topcon f/2.8 10 cm



Auto-Topcon f/2.8 3.5 cm





CAMERA, LENS, MICROSCOPE, LENSMETER,  
EYE-REFRACTOMETER, VISION-TESTER, SURVEYING  
INSTRUMENT, BINOCULAR  
AND OTHER  
PRECISION OPTICAL INSTRUMENTS

Tokyo Optical Co., Ltd. (Tokyo Kogaku Kikai K. K.) was established in 1937.

One of the main reasons for the optical industry of Japan being of the highest standard in the world today is due to the fact that the industry was shut off from the outside world during the recent world war. In order to supply the heavy demand for high quality precision optical instruments, the company was forced to utilize the world's best manufacturing equipment plus the best in measuring and testing equipment, while stepping up its technical research in this field.

Based on valuable experience gained during the above years, the company is now producing cameras and various other optical instruments for the domestic and foreign markets, specializing only in goods of the highest quality.

At present, the company has 320,000 square feet of land in use for the head office and factory, 265,000 square feet of buildings, head office and factory, 330,000 square feet of land for employee's housing projects and 142,000 square feet of company paid employee's housing units. There are 350 or more machine tools for polishing and finishing lenses, prisms, etc., 330 or more machine tools for processing of metal parts, plus numerous other precision measuring and testing equipments, besides which new machines and equipments are constantly added as they are developed. At present about 1,000 persons are employed by the company.



Head office and factory

**TOKYO OPTICAL CO., LTD.**

(TOKYO KOGAKU KIKAI K. K.)

180, Shimura Motohasunuma, Itabashi-ku, Tokyo, Japan

Cable Address: "TOPTCO" Tokyo

# Products of Nippon Kogaku



Nikon SP

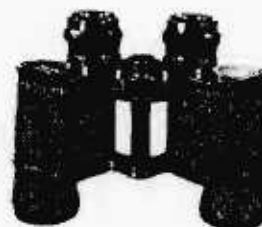


Nikon S3

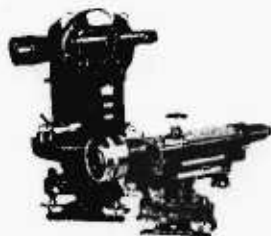


Astronomical Telescopes

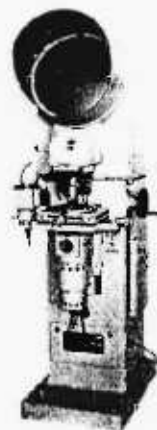
Nikkor Lenses



Mikron Binoculars



Transit and Level



Shadowgraph III



Microscope Model H

**NIPPON KOGAKU K. K.**  
Oi, Shinagawa, Tokyo, Japan