# Binocular Selection Guidebook

IMAGE STABILIZER

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BINOC

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Canon

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Product features

Photos used in this guidebook are for descriptive purposes only, and may differ from actual views.

# Binoculars – Basic Knowledge

#### Main names and functions



\*POWERED IS is only available on the 14 $\times$ 32 IS, 12 $\times$ 32 IS and 10 $\times$ 32 IS.

#### IMAGE STABILIZER



#### IS = Image Stabilizer

The higher the magnification factor of a pair of binoculars is, the more prominent image shaking appears, resulting in loss of image clarity, and preventing long periods of use.

All Canon binoculars are equipped with image stabilization functions using technology in the development and manufacture of camera lenses. This feature provides a clear, stable field of view in all scenes.

#### Types of Binoculars

There are various models of binoculars available with different combinations of magnification, objective lenses, and effective diameters to fit any situation and use.

[Meaning of numbers and letters in the model name]



#### Canon binocular models and categories



# How to Use Binoculars

#### Adjust eyecups for users with or without glasses.









Adjusting the eyecup height makes it easier to see when wearing glasses.

Folding type

Rotating type

#### Adjust the L/R eye width of the ocular lens.







The L/R field of view should overlap to form a single circle. This reduces eye strain.

#### Adjust the focus with the left eye only.





First, look into the left side only and turn the focus adjustment knob until the object is in focus.

#### Point

Because Canon binoculars are equipped with an IS function, the image is stable, making it easy to focus.

#### Adjust the diopter with the right eye only.





Look into the right side only.

Next, look into the right side only and turn the dioptric correction ring until the object focused with the left eye looks sharp.

You're ready to use the binoculars!

How much you can prevent shaking is an important point for comfortable binocular use. See the following points for how to reduce shaking.



## Keep both arms against your body.

Firmly hold the binoculars with both hands and keep both arms against your body. Holding them too tightly can cause blurring, so make sure to relax your shoulders and hold the binoculars steady.





#### Lean against a tree or railing.

Find a nearby tree, railing, or wall to lean against. This will keep your body from shaking, and prevent the binoculars from moving too much.





#### Use binoculars with an image stabilizer function.

The most effective method for preventing shaking is to use binoculars with an IS function. This feature is particularly useful for high magnification binoculars, and for preventing eye strain when using binoculars for long periods of time, such as at concerts.





Non-Canon products may not have an IS button.

# Choose by magnification



There are various models of binoculars available with different combinations of magnification, objective lenses, and effective diameters to fit any situation and use.

#### Difference between binocular magnification and camera zoom magnification

The magnification of binoculars means that images appear the same when the actual distance is reduced to 1/[magnification]. For example, images will appear the same size when the same object is viewed at a distance of 10 m with the naked eye, and at a distance of 100 m when viewed at 10x with binoculars. Remember that the 10x and 15x zoom factor on a camera indicates the zoom factor of the lens' wide angle base point, making the criteria different than the magnification of binoculars.

### Ex. 10x binoculars m



#### 10 m

#### Comparison with camera lens focal length

When a 50mm standard lens (35mm equivalent), which is the closest angle of view to the human eye, is assumed to be 1x, the value multiplied by the magnification of the binoculars is equivalent to the focal length of a 35mm camera lens. For example, a 10x binocular magnification is equivalent to a 500mm super-telephoto lens. The longer the focal length, the more likely camera shake becomes, making use more comfortable with an IS function.



Note that these are merely estimates and figures will differ depending on the type and model of binoculars.

# Choose by objective lens effective diameter



Effective diameter of 25 mm and lower Greater portability for travel, concerts, and spectator sports.



Effective diameter in 30 mm range Standard type with a balance of portability and brightness.



Greater light collection ability

Effective diameter of 40 mm and higher Eocus on brightness for use

Focus on brightness for use in dark scenes such as dawn and dusk.



#### Objective lens effective diameter and IS effect

At the same magnification, the larger the objective lens effective diameter, the easier it is to see in dark locations.

Select a model that fits your intended use.

#### **Relationship between** effective diameter and size

Just as on a camera, at the same magnification, the larger the diameter of the lens, which serves as the entry point of light for the binoculars, the easier it is to see in dark locations. Large diameter binoculars with an objective lens effective diameter of 40mm or more are recommended for dim locations such as star observation, and birdwatching in early morning hours when the light is weak.

Small



The photos showing comparison of brightness to diameter size are for visualization purposes only.

#### Images are easy to see even in dim situations when binoculars are equipped with an IS function

At the same effective diameter, binoculars with an image stabilization function provide a more stable, easy to view image, making them easier and more enjoyable to use in dim situations. A large diameter model with IS function makes images even clearer.



# Choose by pupil diameter (brightness)



The larger the pupil diameter, the brighter the image appears.

#### Binocular brightness

Square of pupil diameter

The pupil diameter is calculated by dividing the objective lens effective diameter by the magnification factor. The brightness of the binoculars is shown by the square of the pupil diameter.



As long as the pupil diameter is approximately the same as a human pupil in a bright location (approximately 2-3 mm), images will not appear dark during normal observation.

If the pupil diameter is greater than or equal to a human pupil, the same brightness can be obtained with the naked eye, however, if the pupil diameter less than a human pupil, the image will appear darker than the naked eye. Let's check the optimal pupil diameter for the intended use.

#### Relation between the pupil diameter and the diameter of a human pupil

The human pupil diameter changes size depending on the brightness. Normally in a bright location during the daytime it is open to about 2 to 3 mm, however, in a dark location at nighttime it is around 7 mm.



#### Canon binoculars and pupil diameter ranking

The larger the effective diameter and smaller the magnification, the larger the pupil diameter is, and the brighter images appear.

Bright ness	Model	Pupil diameter 🗕	Effective diameter	- Magnification
	10×42 <b>L</b> IS WP	<b>4.2</b> mm	<b>42</b> mm	10 x
	$15 \times 50$ is all weather	<b>3.3</b> mm	50 mm	15 x
	10×32 IS	<b>3.2</b> mm	32 mm	10 x
	12 $ imes$ 36 IS III	3.0 mm	<b>36</b> mm	12 x
	10×30 IS II	3.0 mm	30 mm	10 x
	$18 \times 50$ is all weather	<b>2.8</b> mm	50 mm	18 x
	12×32 IS	2.7 mm	32 mm	12 x
	<b>8×20 IS</b>	2.5 mm	20 mm	8 x
	14×32 IS	<b>2.3</b> mm	32 mm	14 x
	10×20 IS	2.0 mm	20 mm	10 x

# Choose by lens performance

Pay attention to the following points when comparing binocular image quality.



On binoculars with poor lens performance, Light resolving power is poor and images are blurry, lacking sharpness.



On binoculars with poor lens performance image quality deteriorates near the edges, appearing blurred and distorted.

Shapes of point light sources are maintained without bleeding



On binoculars with poor lens performance, it is difficult to accurately form light into images, resulting in distorted points of light.

#### Lens performance and IS effects

Canon binoculars features unstinting use of cutting edge optical technology cultivated in the development of the EOS series SLR camera lenses. Furthermore, all models are equipped with image stabilization to maximize the performance of the lenses.

#### Common lens technologies in Canon binoculars

#### Achieving a high level of sharpness and reducing loss of light

All models use a Porro prism design that prioritizes resolution and brightness.

### High permeability and high contrast

A Canon-original multi-layer coating reduces flares and ghosts.

#### IMAGE STABILIZER

All models are quipped with an image stabilization function to maximize lens performance.

#### Curvature of field is corrected to deal with blurring at the edges of the field of vision

A high-performance field flattener element is utilized on all models.

#### Clear imaging performance that suppresses color bleeding

Special optical anomalous dispersion lenses and UD lenses rea used on high-end models.



#### The same family as the high-performance EF and RF lens L series

The L series is a lineup of ultra highperformance lenses that stand out even among EF and RF lenses for their image performance, controls, and weather resistance. The highest Canon lens technology is applied not only the 10 X 42L IS WP, but to the development and manufacturing of all our other binoculars as well for the best imaging.



# Choose by waterproof performance

# Water-Proof Waterproof specs so you can wash your binoculars in water

10×42L IS WP

Canon offers true waterproof and antifogging binoculars that can be used without worry even in the harshest environments. Never worry while stargazing even during sudden changes in temperature in the mountains and when using your binoculars among ocean spray on the water.

Cannot be used underwater.

All weather performance for worry free use even in sudden rain

> These binoculars feature a splash-proof construction that keeps water droplets such as morning dew, condensation caused by temperature changes, and raindrops, etc. out of the binoculars. This construction means you can use them anywhere in the field without worry.

All Weather

C

15×50 IS AUL WEATHER

Cannot be submerged in water.



#### Taking care of binoculars

If the binoculars become wet from rain or water droplets, immediately dry them off with a soft cloth. Even for waterproof binoculars, wipe off any water and store them in a safe place when not in use.

#### Waterproof performance and taking care of binoculars

The worst enemy of binoculars is rainwater or seawater finding its way inside, causing mold or electrical problems. When using them outside where they could be wet by rain, be sure to select highly waterproof binoculars.

#### Difference in waterproof specs and all weather performance

"All Weather" refers to waterproof performance that can deal with wetting the binoculars for five minutes with a watering can from a height of 50 cm without water entering the binoculars, and is useful for sudden rain storms.

On the other hand, "waterproof specs" refers to performance that will keep water out of the binoculars even when submerged in water 1 meter deep for 30 minutes, and is equivalent to JIS protection class 7. This construction is intended for worry-free use in harsh environments.

#### Lens protection accessories

Canon large diameter binoculars can be fitted with optical filters. Attaching protective filters or UV reduction filters can keep the lenses clean and protect them from scratches.

Optional Anti-Fog Eyepiece AE-B1 can be attached to the eyecup to prevent ocular lens fogging.

## Waterproof specs can protect the lens from mold

Just as on camera lenses, a binocular's worst enemy is mold growing on the lens or prism. Mold reduces the binocular's contrast, and can degrade the delicate optical performance. Because waterproof spec binoculars are designed to keep water out, they can prevent mold from growing on the lens, reducing maintenance during storage.

#### Waterproof specs





JIS protection class

18×50 IS 15×50 IS ALL WEATHER ALL WEATHER

All weather specs

Functions even after being wet from a height of 50 cm for 5 minutes





# Birdwatching

For situations when there are physical limitations to approaching birds, such as those on the water, a high magnification pair of binoculars is best. For observing birds from a relatively close distance who tend to move quickly, a wide field of view around 10x is best.

### Lakes and marshes, Mountains

### Walks in the forest

### Urban areas and parks

Recommended



 $12 \times 32$  IS

IS modes can be selected for appropriate use: Normal IS is good for birds flitting around and Powered IS is good for birds sitting in trees.

10×32 IS

 $14 \times 32$  IS

**Binocular series equipped with Powered IS** 

From a distance, a high magnification of 10x or more is recommended. Because shaking is obvious on 8x or higher binoculars, make sure to choose a pair with an IS function.

Check

## With Powered IS you can use the mode appropriate to the scene

Powered IS delivers more powerful image stabilization than normal IS for strong shaking or body movements. This feature makes longer observations more comfortable by providing a more stable image when focusing on a single point that does not move much, such as a bird perched on a tree.

On the other hand, normal IS mode is easy for tracking birds who move around. Use the best IS for the most comfortable and enjoyable birdwatching experience.



For flying birds: Normal IS For still birds: Powered IS

Check

#### Check how to best use for long periods of time



#### IS button for less fatigue

A single push of a button activates IS for five minutes on the  $14 \times 32$  IS /  $12 \times 32$  IS /  $10 \times 32$  IS. Because you don't need to hold the button you won't tire as easily, letting you focus on viewing.

#### Design with a superb grip

The non-slip finger grips make the binoculars easy to hold for a stable, easy viewing experience.

# Star watching

Because the light from far-off stars is faint and star gazing is done in the dark, choose binoculars for their brightness rather than magnification.

## Planet and comet watching

## Moon surface watching

## Star watching

Photos are for descriptive purposes only, and may differ from actual views.



#### High-performance, large diameter binoculars



Superb optical performance and bright, largediameter lenses. This model also features powerful waterproof performance for sudden rain showers and temperature changes. This is the perfect partner for a night of stargazing. Because starlight is extremely weak, a large diameter 40mm or higher type is best for the brightest images.

Choose a magnification suited to your target and use a tripod or model of binoculars with an IS function.



#### Binoculars with a large effective diameter of 40mm or more, and a large pupil diameter are recommended

Just as on a camera, the larger the diameter of the lens, which serves as the entry point of light for the binoculars, the clearer images appear. Large diameter binoculars with an objective lens effective diameter of 40mm or more are recommended for dim locations such as star observation when the light is weak.





Large effective diameter



#### Choose binoculars with high optical performance

Poor optical performance result in lens aberrations and color fringing, making it impossible to accurately view the true shape and color of stars. The  $10 \times 42L$  IS WP with optical anomalous dispersion UD lenses feature excellent optical performance, making this a great model for seeing the correct colors and shapes of celestial objects while stargazing.



Optical performance: Low Color fringe: High



Optical performance: High Color fringe: LOW

Check

#### Attach a tripod or choose binoculars with image stabilization

Because starlight is so weak, a tripod should be used to minimize binocular shaking. Shaking can be reduced on binoculars with an image stabilization function, making it possible to enjoy handheld star gazing easily.



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# Nature watching

A high-magnification pair of binoculars is convenient for observing wild animals when it is not physically possible to get closer such as in the ocean, and for highly wary animals. Binoculars with image stabilization can stabilize even high magnification images for a natural view.

#### Wild animals and safaris watching

Flower and insect observation Whale and dolphin

**Small animal** observation

#### Large diameter, high magnification binocular series

Recommended



ALL WEATHER



ALL WEATHER

The IS function provides a more comfortable view even at high magnification. All weather and waterproof models deliver peace of mind when using on the ocean and outdoors.

#### Points to remember when choosing binoculars

10x magnification or higher is necessary for nature observation when you cannot get close to the subject. Because a higher magnification results in more significant image shake, one can say that an image stabilization is necessary.

Check

## An IS function is necessary when viewing from an unstable location

When observing nature, many situations result in unstable footing, such as whale watching and safaris. An IS function can suppress shaking due to a vehicle, etc., providing a more comfortable viewing experience.

Without IS

With IS

Check

## Continuous IS operation reduces fatigue during long periods of usage

The  $18 \times 50 / 15 \times 50$  IS ALL WEATHER delivers continuous image stabilization with a single push of a button. Image stabilization remains on for 5 minutes, relieving fatigue and making long periods of observation more comfortable. IS remains on for 5 min. with a single push

# Check

## Reliable waterproof construction for sudden rain showers and temperature changes

Outdoor conditions often turn bad, with sudden weather and temperature changes, and violent fluctuations in humidity. Binoculars with a waterproof construction keep out water and dust for worry-free use even outdoors.



# Travel

The compact, almighty 8 to 10x binoculars are the best companion for keeping your load light while traveling. Make your travels more fun with binoculars in every kind of situation.

### World Heritage Sites and historical buildings

### Stage performances



Compact binocular series

Recommended

 $12 \times 36$  IS III

S III 10 $\times$ 30 IS II 10 $\times$ 20 IS

IS 8×20 IS

These handy, portable sizes are the perfect magnification for use in a wide variety of situations.

#### Points to remember when choosing binoculars

The main thing to remember is the importance of portability because you move so frequently during travel. A compact, well-balanced pair of binoculars is best.

These are attractive because of their easy-to-use magnification and brightness.

Check

#### IS function for more fun on your travels

Binoculars with an IS function make images clearer, especially when seeing surprising scenery for the first time, for a more realistic, vivid travel experience.



Without IS

With IS



## Compact, lightweight binoculars for superb portability

Size and weight are important factors in travel binoculars. For Canon binoculars, the 8x20 IS and 10x20 IS are compact enough to easily fit inside a small bag, and are equipped with an image stabilization function.



Check

## Choose binoculars with a pupil diameter greater than the human pupil diameter

A pupil diameter of 2 to 3 mm or higher is approximately the same as a human pupil diameter during the daytime, and delivers a comfortable level of brightness. The Canon compact binocular series has a pupil diameter greater than the human pupil diameter, making them perfect for travel.



# Sports and concerts

About 10x is good for nearby indoor sports and viewing in smaller halls. A highmagnification model is best for viewing in stadiums when the action is far away. A high magnification is recommended for zooming in close on artists and athletes.

### Zoom in on artists and athletes

### Viewing from stadium or a large hall Viewing indoor competitions or small halls

#### Compact, lightweight series



 $10 \times 20$  IS





These compact, lightweight models reduce fatigue when using the binoculars for long periods of time, such as at concerts and sporting events.

#### Binocular series equipped with Powered IS

Recommended



IS modes can be selected for appropriate use: Normal IS is good for tracking moving subjects and Powered IS is good for still subjects. Select a magnification that fits the venue size, type of competition, and play style. Because sporting events and concerts entail long periods of use, make sure to choose a pair of binoculars with an IS function.

Check

## Compact, lightweight binoculars for minimal fatigue when used for long periods of time

Compact, lightweight models are best for concerts and sporting events when looking through binoculars for long periods of time. The 8X20 IS and 10x20 IS offer 5 minutes of continuous IS operation with the single press of a button so there is no need to hold the button down, making comfortable single-handed operation possible.



Check

## With Powered IS you can use the mode appropriate to the play style

Powered IS is a mode that delivers more powerful image stabilization than normal IS for strong shaking or body movements. It is particularly useful when the subject is in a fixed location. Select the best IS mode for the play style and player movements so you can enjoy close-up action without worrying about shaking.



Following the action  $\rightarrow$  Normal IS

Fixed location  $\rightarrow$  Powered IS

Check

#### Guidelines for selecting magnification

There are various recommended magnifications depending on the venue size and type of competition, however, here we will talk about the correct magnification for viewing players 100 m away. With10x binoculars as the base, if your seat is far from the ground or you want to see the expressions on players' faces, choose a higher magnification.



Note that these are merely reference values, and actual values will change depending on the venue size and how close you want to zoomin.

# 10×42L IS WP

Clear viewing and excellent waterproof performance. The flagship IS binocular model bearing the "L" name.



- Equipped with optical image stabilization mechanism
  - (5 minute continuous operation with a single push)
- Water washable waterproof specs (JIS protection class 7 equivalent)\*
- UD lens used in ocular lens and objective lens assembly
- Doublet Field flattener element incorporated
- Super Spectra Coating for preventing flares and ghosts
- Compatible with filters (UV/ND, etc.)
- High eye relief of 16.0mm

\*Waterproof performance that will keep water out of the binoculars even when submerged in water 1 meter deep for 30 minutes. Cannot be used underwater.

Actual size

#### **Recommended scenes**

All-around type bright, 10x binoculars with waterproof specs and the high optical performance of L lenses. Perfect for clear stargazing and birdwatching, marine sports, and outdoor activities.





Magnification	10 x
Objective lens effective diameter	42 mm
Real field of view	6.5° (114 m field of v iew at 1000 m)
Apparent field of view	59.2°
Pupil diameter	4.2 mm
Eyerelief	16 mm
Closest focusing distance	Approx. 8.2 ft. / 2.5 m
L/R dioptric difference adjustment range	±3.0 dpt
Eye width adjustment range	57 - 75 mm
Image stabilizer function	Av ailable (5 minute continuous operation with a single push)
Image stabilization system	Variangle prism (VAP)
Powersource (when using IS)	2 AA batteries At normal temperature: (25°C): Approx. 8 hours for lithium batteries, approx. 8 hours for alkaline batteries At low temperature: (-10°C): Approx. 3.5 hours for lithium batteries, approx. 10 minutes for alkaline batteries
Prism type	Porro II type prism
UDlens	• (2)
Super Spectra Coating	
Field flattener element	• (2)
Waterproof construction	<ul> <li>(Waterproof specs)</li> </ul>
Tripod socket	Available
WxLxH	Approx. 5.4x 6.9 x 3.4 in. /137 × 175.8 × 85.4 mm
Weight (Except for batteries)	Approx. 39.2 oz. / 1,110 g
Package contents	Soft case, strap, ocular lens cap
Optional accessories	Filter 52mm diameter)



All weather specs perfect for outdoor use. This is a full-spec model with Canon's highest magnification and largest diameter.



- Equipped with optical image stabilization mechanism (5 minute continuous operation with a single push)
- UD lens used in objective lens assembly
- Superb splash-resistant performance with all weather construction
- Doublet Field flattener element incorporated
- Super Spectra Coating for preventing flares and ghosts
- Rubber coating for superb grip
- Compatible with filters (UV/ND, etc.)

Actual size

# Phoose by purpos

#### **Recommended scenes**

The amazing, ultra high-magnification 18x brings the far-away world right up close. These are the perfect binoculars for those who want the real deal, for everything from astronomical observation to wild animals, hobbies and work.





Magnification	18 x
Objective lens effective diameter	50 mm
Real field of view	3.7° (64.6 m field of view at 1000 m)
Apparent field of view	60.3°
Pupil diameter	2.8 mm
Eyerelief	15 mm
Closest focusing distance	Approx. 19.7 ft. / 6.0 m
L/R dioptric difference adjustment range	±3.0 dpt
Eye width adjustment range	58 - 76 mm
Image stabilizer function	Av ailable (5 minute continuous operation with a single push)
Image stabilization system	Variangle prism (VAP)
Power source (when using IS)	2 AA batteries At normal temperature: (25°C): Approx. 2.5 hours for alkaline batteries, approx. 8 hours for lithium batteries At low temperature: (-10°C): Approx. 10 minutes for alkaline batteries, approx. 3.5 hours for lithium batteries
Prism type	Porro II type prism
UDlens	•
Super Spectra Coating	•
Field flattener element	• (2)
Waterproofconstruction	• (All weather)
Tripod socket	Available
WxLxH	Approx. 6.0 x 7.6 x 3.2 in. / 152 × 193 × 81 mm
Weight (Except for batteries)	Approx. 41.6 oz. / 1,180 g
Package contents	Soft case, strap, ocular lens cap
Optional accessories	Anti-Fog Eyepiece AE-B1, filter (58mm diameter)



All weather specs perfect for outdoor use. This is a bright, large-diameter, high-performance model.



- Equipped with optical image stabilization mechanism (5 minute continuous operation with a single push)
- UD lens used in objective lens assembly
- Superb splash-resistant performance with all weather construction
- Doublet Field flattener element incorporated
- Super Spectra Coating for preventing flares and ghosts
- Rubber coating for superb grip
- Compatible with filters (UV/ND, etc.)

Actual size

# Choose by purpose

#### **Recommended scenes**

The amazing, ultra high-magnification 18x brings the far-away world right up close. These are the perfect binoculars for those who want the real deal, for everything from astronomical observation to wild animals, hobbies and work.





Magnification	15 x
Objective lens effective diameter	50 mm
Real field of view	4.5° (78.6 m field of view at 1000 m)
Apparent field of view	61.0°
Pupil diameter	3.3 mm
Eyerelief	15 mm
Closest focusing distance	Approx. 19.7 ft. / 6.0 m
L/R dioptric difference adjustment range	±3.0 dpt
Eye width adjustment range	58 - 76 mm
Image stabilizer function	Av ailable (5 minute continuous operation with a single push)
Image stabilization system	Variangle prism (VAP)
Power source (when using IS)	2 AA batteries At normal temperature: (25°C): Approx. 2.5 hours for alkaline batteries, approx. 8 hours for lithium batteries At low temperature: (-10°C): Approx. 10 minutes for alkaline batteries, approx. 3.5 hours for lithium batteries
Prism type	Porro II type prism
UDlens	•
Super Spectra Coating	•
Field flattener element	• (2)
Waterproofconstruction	• (All weather)
Tripod socket	Available
WxLxH	Approx. 6.0 x 7.6 x 3.2 in. / 152 × 193 × 81 mm
Weight (Except for batteries)	Approx. 41.6 oz. / 1,180 g
Package contents	Soft case, strap, ocular lens cap
Optional accessories	Anti-Fog Eyepiece AE-B1, filter (58mm diameter)

# $14 \times 32$ IS

Powered IS provides powerful image stabilization. This high-spec model delivers a high 14x magnification and approx. 2.0m closest focusing distance.





- The first binoculars to be equipped with Powered IS, a feature that provides powerful image stabilization for stronger shaking and body shaking
- The first binoculars to be equipped with a shift type image stabilization mechanism
- IS mechanism that operates continuously for 5 minutes with a single button push, and up to 10 hours\*
- Doublet Field flattener element incorporated
- Super Spectra Coating for preventing flares and ghosts
- Improved grip with finger rests
- Closest focusing distance of approx. 2.0 m

\*At a temperature of 25°C. Based on Canon testing standards. Usage time varies depending on the brand of batteries.

Actual size

# Choose by purpos

#### **Recommended scenes**

For a pair of binoculars with image stabilization and 14x magnification, these have a slim, portable size. These are recommended for everyday scenes, and for those who want to see expressions and details up close.





Magnification	14 x
Objective lens effective diameter	32 mm
Real field of view	4.3° (75.1 m field of view at 1000 m)
Apparent field of view	55.5°
Pupildiameter	2.3 mm
Eyerelief	14.5 mm
Closest focusing distance	Approx. 6.6 ft. / 2.0 m
L/R dioptric difference adjustment range	±3.0 dpt
Eye width adjustment range	55 - 76 mm
Image stabilizer function	Av ailable (5 minute continuous operation with a single push) (with Powered IS)
Image stabilization system	Lens shift
Power source (when using IS)	2 AA batteries At normal temperature: (25°C): Approx. 10 hours (NiMH batteries can also be used) At low temperature: (-10°C): Approx. 2 hours (NiMH batteries can also be used)
Prism type	Porro II type prism
UDlens	-
Super Spectra Coating	
Field flattener element	• (2)
Waterproofconstruction	-
Tripod socket	_
WxLxH	Approx. 5.6 x 6.8 x 3.1 in. / 142 × 171 × 77 mm
Weight (Except for batteries)	Approx. 27.4 oz. / 775 g
Package contents	Soft case, strap, ocular lens cap
Optional accessories	Anti-Fog Eyepiece AE-B1

## $12 \times 32$ IS

Powered IS provides powerful image stabilization. This is the perfect 12x model for your first pair of high magnification binoculars.



#### **Main Features**

- The first binoculars to be equipped with Powered IS, a feature that provides powerful image stabilization for stronger shaking and body shaking
- The first binoculars to be equipped with a shift type image stabilization mechanism
- IS mechanism that operates continuously for 5 minutes with a single button push, and up to 10 hours\*
- Doublet Field flattener element incorporated
- Super Spectra Coating for preventing flares and ghosts
- Improved grip with finger rests
- Closest focusing distance of approx. 2.0 m

\*At a temperature of  $25^{\circ}$ C. Based on Canon testing standards. Usage time varies depending on the brand of batteries.

Actual size

# Choose by purposi

#### **Recommended scenes**

This pair of 12x binoculars is one level above standard models. It is recommended for travel and daily use, and for those who want to look at details and expressions up close.





Magnification	12 x
Objective lens effective diameter	32 mm
Real field of view	5.0° (87.3 m field of view at 1000 m)
Apparent field of view	55.3°
Pupildiameter	2.7 mm
Eyerelief	14.5 mm
Closest focusing distance	Approx. 6.6 ft. / 2.0 m
L/R dioptric difference adjustment range	±3.0 dpt
Eye width adjustment range	55 - 76 mm
Image stabilizer function	Av ailable (5 minute continuous operation with a single push) (with Powered IS)
Image stabilization system	Lens shift
Power source (when using IS)	2 AA batteries At normal temperature: (25°C): Approx. 10 hours (NiMH batteries can also be used) At low temperature: (-10°C): Approx. 2 hours (NiMH batteries can also be used)
Prism type	Porro II type prism
UDlens	-
Super Spectra Coating	•
Field flattener element	• (2)
Waterproofconstruction	-
Tripod socket	-
WxLxH	Approx. 5.6x 6.8x 3.1 in. / 142 × 171 × 77 mm
Weight (Except for batteries)	Approx. 27.6 oz. / 780 g
Package contents	Soft case, strap, ocular lens cap
Optional accessories	Anti-Fog Eyepiece AE-B1

# $10 \times 32$ IS

Powered IS provides powerful image stabilization. This is a standard 10x model that is bright and easy to handle.



Actual size

# hoose by purpose

### 000001

#### **Recommended scenes**

This almighty 10x pair of binoculars is useful for a wide variety of scenes. These are recommended for those who enjoy a wide variety of activities including looking at landscapes while traveling, animals, spectator sports, and stargazing.





Magnification	10 x
Objective lens effective diameter	32 mm
Real field of view	6.0° (105 m field of view at 1000 m)
Apparent field of view	55.3°
Pupildiameter	3.2 mm
Eyerelief	14.5 mm
Closest focusing distance	Approx. 6.6 ft. / 2.0 m
L/R dioptric difference adjustment range	±3.0 dpt
Eye width adjustment range	55 - 76 mm
Image stabilizer function	Av ailable (5 minute continuous operation with a single push) (with Powered IS)
Image stabilization system	Lens shift
Power source (when using IS)	2 AA batteries At normal temperature: (25°C): Approx. 10 hours (NiMH batteries can also be used) At low temperature: (-10°C): Approx. 2 hours (NiMH batteries can also be used)
Prism type	Porro II type prism
UDlens	-
Super Spectra Coating	•
Field flattener element	• (2)
Waterproof construction	-
Tripod socket	-
WxLxH	Approx. 5.6x 6.8x 3.1 in. / 142 × 171 × 77 mm
Weight (Except for batteries)	Approx. 27.6 oz. / 780 g
Package contents	Soft case, strap, ocular lens cap
Optional accessories	Anti-Fog Eyepiece AE-B1

Medium diameter binoculars

# 12×36 IS III

Equipped with a microcomputer controlled IS system. Delivers excellent image stabilization in a compact, lightweight size.



- Covers a wide range of shaking from slow to small, quick shaking
- Up to 9 hours\* of image stabilization
- Doublet Field flattener element incorporated
- Super Spectra Coating for preventing flares and ghosts
- Curved surface for a superb grip

\*At a temperature of 25°C. Based on Canon testing standards. Usage time varies depending on the brand of batteries.



# Phoose by purpos

#### These 12x binoculars deliver a bright field of view in a portable, compact, lightweight size that is easy to handle outdoors. These are recommended for those who enjoy looking at landscapes



**Recommended scenes** 



Magnification	12 x
Objective lens effective diameter	36 mm
Real field of view	5.0° (87.3 m field of view at 1000 m)
Apparent field of view	55.3°
Pupildiameter	3.0 mm
Eyerelief	14.5 mm
Closest focusing distance	Approx. 19.7 ft. / 6.0 m
L/R dioptric difference adjustment range	±3.0 dpt
Eye width adjustment range	55 - 75 mm
Image stabilizer function	Available
Image stabilization system	Variangle prism (VAP)
Power source (when using IS)	2 AA batteries At normal temperature: (25°C): Approx. 9 hours (NiMH batteries can also be used) At low temperature: (-10°C): Approx. 1 hour (NiMH batteries can also be used)
Prism type	Porro II type prism
UDIens	-
Super Spectra Coating	•
Field flattener element	• (2)
Waterproof construction	-
Tripod socket	-
WxLxH	Approx. 5.0 × 6.9 × 2.8 in. / 127 × 174 × 70 mm
Weight (Except for batteries)	Approx. 23.3 oz. / 660 g
Package contents	Soft case, strap, ocular lens cap
Optional accessories	-

Medium diameter binoculars

# $10 \times 30$ IS II

All-around, lightweight, easy-to-handle, compact 10x model for various uses.



## Main Features

- Covers a wide range of shaking from slow to small, quick shaking
- Up to 9 hours\* of image stabilization
- Doublet Field flattener element incorporated
- Super Spectra Coating for preventing flares and ghosts
- Curved surface for a superb grip

\*At a temperature of 25 °C. Based on Canon testing standards. Usage time varies depending on the brand of batteries.



# Choose by purpose

#### **Recommended scenes**

These standard, easy-to-use size 10x binoculars are perfect for taking with you. These are recommended for those who enjoy looking at landscapes while traveling, animals, spectator sports, and want a compact model.





Magnification	10 x
Objective lens effective diameter	30 mm
Real field of view	6.0° (105 m field of view at 1000 m)
Apparent field of view	55.3°
Pupildiameter	3.0 mm
Eyerelief	14.5 mm
Closest focusing distance	Approx. 13.8 ft. / 4.2 m
L/R dioptric difference adjustment range	±3.0 dpt
Eye width adjustment range	55 - 75 mm
Image stabilizer function	Available
Image stabilization system	Variangle prism (VAP)
Power source (when using IS)	2 AA batteries At normal temperature: (25°C): Approx. 9 hours (NiMH batteries can also be used) At low temperature: (-10°C): Approx. 1 hour (NiMH batteries can also be used)
Prism type	Porro II type prism
UDlens	-
Super Spectra Coating	•
Field flattener element	• (2)
Waterproof construction	-
Tripod socket	-
WxLxH	Approx. 5.0 $ imes$ 5.9 $ imes$ 2.8 in. / 127 $ imes$ 150 $ imes$ 70 mm
Weight (Except for batteries)	Approx. 21.2 oz. / 600 g
Package contents	Soft case, strap, ocular lens cap
Optional accessories	-

# $10 \times 20$ IS

Compact, lightweight series for convenient portability. A 10x model for versatile use in a wide variety of scenes.



#### **Main Features**

- Compact, multipurpose 10x
- Shift method image stabilization mechanism incorporated
- IS mechanism that operates continuously for 5 minutes with a single button push, and up to 12 hours\*
- Equipped with a field flattener element for clear images to the edges of the visual field
- Super Spectra Coating for preventing flares and ghosts
- Improved grip with finger rests
- Closest focusing distance of approx. 2.0 m

\*At a temperature of 23°C. Based on Canon testing standards. Usage time varies depending on the brand of batteries.

Actual size

# Phoose by purpose

#### **Recommended scenes**

These standard, easy-to-use size 10x binoculars are perfect for taking with you. They are recommended for all types of scenes including travel and everyday use, and specifically for people who want a portable, easy model.





Magnification	10 x
Objective lens effective diameter	20 mm
Real field of view	5.3° (93 m field of view at 1000 m)
Apparent field of view	49.5°
Pupil diameter	2.0 mm
Eyerelief	13.5 mm
Closest focusing distance	Approx. 6.6 ft. / 2.0 m
L/R dioptric difference adjustment range	±3.0 dpt
Eye width adjustment range	56 - 72 mm
Image stabilizer function	Available
Image stabilization system	Lens shift
Power source (when using IS)	1 CR123Alithium battery Normal temperature (23°C): Approx. 12 hours Low temperature (-10°C): Approx. 8 hours
Prism type	Porro I type prism
UDlens	-
Super Spectra Coating	•
Field flattener element	• (1)
Waterproof construction	-
Tripod socket	-
WxLxH	Approx. 4.6 x 5.6 x 2.7 in. / 118 × 142 × 69 mm
Weight (Except for batteries)	Approx. 15.2 oz. / 430 g
Package contents	Soft case, strap, ocular lens cap
Optional accessories	-

# $8 \times 20$ IS

This is the smallest, most lightweight, easily portable, and easy to use 8x model in the IS binocular series.



#### **Main Features**

- Compact, multipurpose 8x
- Shift method image stabilization mechanism incorporated
- IS mechanism that operates continuously for 5 minutes with a single button push, and up to 12 hours\*
- Equipped with a field flattener element for clear images to the edges of the visual field
- Super Spectra Coating for preventing flares and ghosts
- Improved grip with finger rests
- Closest focusing distance of approx. 2.0 m

\*At a temperature of 23°C. Based on Canon testing standards. Usage time varies depending on the brand of batteries.

Actual size

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# noose by purpose

#### **Recommended scenes**

This is Canon's smallest, most lightweight pair of 8x binoculars.

They are recommended for all types of scenes including travel and everyday use, and specifically for people who want a portable, easy model.





Magnification	8x		
Objective lens effective diameter	20 mm		
Real field of view	6.6° (115 m field of view at 1000 m)		
Apparent field of view	49.5°		
Pupil diameter	2.5 mm		
Eyerelief	13.5 mm		
Closest focusing distance	Approx. 6.6 ft. / 2.0 m		
L/R dioptric difference adjustment range	±3.0 dpt		
Eye width adjustment range	56 - 72 mm		
Image stabilizer function	Available		
Image stabilization system	Lens shift		
Power source (when using IS)	1 CR123Alithium battery Normal temperature (23°C): Approx. 12 hours Low temperature (-10°C): Approx. 8 hours		
Prism type	Porro I type prism		
UDlens	-		
Super Spectra Coating	•		
Field flattenerelement	• (1)		
Waterproof construction	-		
Tripod socket	-		
WxLxH	Approx. 4.6 x 5.6 x 2.7 in. / 118 × 142 × 69 mm		
Weight (Except for batteries)	Approx. 14.8 oz. / 420 g		
Package contents	Soft case, strap, ocular lens cap		
Optional accessories	-		

	10×42L IS WP	18×50 IS ALL WEATHER	15×50 IS ALL WEATHER	14×32 IS
Magnification	10 x	18 x	15 x	14 x
Objective lens effective diameter	<b>42</b> mm	<b>50</b> mm	50 mm	32 mm
Optical filter attachment	(58mm diameter)	● (58mm diameter)	(58mm diameter)	_
Real field of view/ 1000 m field of view	6.5°/114m	3.7°/65 m	4.5°/79 m	4.3°/75 m
Apparent field of view	59.2°	60.3°	61.0°	55.5°
Pupil diameter	4.2 mm	2.8 mm	3.3 mm	2.3 mm
Eye relief	16.0 mm	15.0 mm	15.0 mm	14.5 mm
Closest focusing distance	Approx. 8.2 ft. / 2.5 m	Approx. 19.7 ft. / 6.0 m	Approx. 19.7 ft. / 6.0 m	Approx. 6.6 ft. / 2.0 m
L/R dioptric adjustment range	±3.0 dpt	±3.0 dpt	±3.0 dpt	±3.0 dpt
Eye width adjustment range	57 - 75 mm	58 - 76 mm	58 - 76 mm	55 - 76 mm
Image stabilizer	Available	Available	Available	Av ailable (w/Powered IS)
tunction	5 minut e continuous operation with a single push	5 minute continuous operation with a single push	5 minut e continuous operation with a single push	5 minute continuous operation with a single push
Image stabilization system	VAP	VAP	VAP	Lens shift
Power source (for IS)	2 AA batteries	2 AA batteries	2 AA batteries	2 AA batteries
Tripod socket	•	●	•	_
Prismtype	Porro II type prism	Porro II type prism	Porro II type prism	Porro II type prism
UD lens	● (2)	•	•	_
SuperSpectra Coating	•	٠	•	•
Field flattener element	(2)	• (2)	• (2)	(2)
W aterproof construction	• Waterproof specs	• All weather specs	All weather specs	_
WxLxH	Approx. 5.4 x 6.9 x 3.4 in. / 137 × 176 × 85 mm	Approx. 6.0 x 7.6 x 3.2 in. / 152 × 193 × 81 mm	Approx. 6.0 x 7.6 x 3.2 in. / 152 × 193 × 81 mm	Approx. 5.6 x 6.8 x 3.1 in. / 142 × 171 × 77 mm
Weight (Except for batteries)	Approx. 39.2 oz. / 1,110 g	Approx. 41.6 oz. / 1,180 g	Approx. 41.6 oz. / 1,180 g	Approx. 27.4 oz./775 g
MSRP (USD) (Tax excl.)	\$ 1999 Including soft case, strap, objective lens cap, ocular lens cap	\$ 1,999 Including soft case, strap, ocular lens cap	\$ 1699 Including soft case, strap, ocular lens cap	\$ 1,449 Including soft case, strap, ocular lens cap

12 × 32 IS	10 × 32 IS	12 × 36 IS III	10 × 30 IS II	10 × 20 IS	8×20 IS
12 x	10 x	12 x	10 x	10 x	8 x
<b>32</b> mm	<b>32</b> mm	<b>36</b> mm	<b>30</b> mm	<b>20</b> mm	<b>20</b> mm
_	_	_	_	_	_
5.0° / 87 m	6.0°/105m	5.0° / 87.5 m	6.0°/105m	5.3°/93 m	6.6°/115m
55.3°	55.3°	55.3°	55.3°	49.5°	49.5°
2.7 mm	3.2 mm	3.0 mm	3.0 mm	2.0 mm	2.5 mm
14.5 mm	14.5 mm	14.5 mm	14.5 mm	13.5 mm	13.5 mm
Approx. 6.6 ft. / 2.0 m	Approx. 6.6 ft. / 2.0 m	Approx. 19.7 ft./ 6.0 m	Approx. 13.8 ft./ 4.2 m	Approx. 6.6 ft. / 2.0 m	Approx. 6.6 ft. / 2.0 m
±3.0 dpt	±3.0 dpt	±3.0 dpt	±3.0 dpt	±3.0 dpt	±3.0 dpt
55 - 76 mm	55 - 76 mm	55 - 75 mm	55 - 75 mm	56 - 72 mm	56 - 72 mm
Av ailable (w/Powered IS) 5 minute continuous operation with a single push	Av ailable (w/Powered IS) 5 minute continuous operation with a single push	Available	Available	Available 5 minute continuous operation with a single push	Available 5 minute continuous operation with a single push
Lens shift	Lens shift	VAP	VAP	Lens shift	Lens shift
2 AA batteries	2 AA batteries	2 AA batteries	2 AA batteries	CR123A 1 Lithium-ion battery	CR123A 1 Lithium-ion battery
_	_	_	_	_	—
Porro II type prism	Porro II type prism	Porro II type prism	Porro II type prism	Porro I type prism	Porro I type prism
_	_	_	_	_	_
•	•	•	•	•	•
(2)	(2)	(2)	(2)	• (1)	• (1)
	_	_	_	_	_
Approx. 5.6 x 6.8 x 3.1 in. / 142 × 171 × 77 mm	Approx. 5.6 x 6.8 x 3.1 in. / 142 × 171 × 77 mm	Approx. 5.0 × 6.9 × 2.8 in. / 127 × 174 × 70 mm	Approx. 5.0 × 5.9 × 2.8 in. / 127 × 150 × 70 mm	Approx. 4.6 x 5.6 x 2.7 in. / 118 × 142 × 69 mm	Approx. 4.6 x 5.6 x 2.7 in. / 118 × 142 × 69 mm
Approx. 27.6 oz. / 780 g	Approx. 27.6 oz. / 780 g	Approx. 23.3 oz. / 660 g	Approx. 21.16oz. / 600 g	Approx. 15.2 oz. / 430 g	Approx. 14.8 oz. / 420 g
\$ 1,399 Including soft case, strap, ocular lens cap	\$ 1,349 Including soft case, strap, ocular lens cap	\$ 779 Including soft case, strap, ocular lens cap	\$ 509 Including soft case, strap, ocular lens cap	T.B.D. Including soft case, strap, ocular lens cap	T.B.D. Including soft case, strap, ocular lens cap

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#### Difference in prism types

Prism-type binoculars are split into two categories, Porro and roof types. Because our binoculars are designed with resolution and brightness in mind, all Canon binoculars use the Porro prism type for their superior optical performance. This type delivers a high level of sharpness and suppresses light loss, and delivers collected light directly to the eyepiece optics without any loss.





#### Field of view differences

Due to optical design and differences in construction, the area visible will differ even on binoculars with the same magnification. The area visible is called the 'field of view' and there are three expressions used for field of view in binoculars: real field of view, apparent field of view, and 1000 m field of view. In general, the wider the field of view, the easier it is to find objects, making binoculars more comfortable to use. In ISO standards and the new JIS standards for telescopes, an apparent field of view of  $60^{\circ}$  or more is called a wide field of view type, which is one way to choose binoculars.

Apparent

5.3°

field of view

100m



The area that can be seen without moving the binoculars.

1000 m field of view [Unit: m]

**Real field of view** 

[Unit: °]

1000m field of view

ε

02

Apparent field of view

The area 1,000 m ahead that can be seen without moving the binoculars.

The field of view visible through binoculars that appears at the same size as when looking with the naked eye.

Glossary

#### Image stabilization differences

#### Shift method

This construction moves a lens equipped with a vibration gyroscope mechanism vertically and horizontally in the correct direction to cancel shaking In addition to delivering sharp images with minimal color bleeding, it offers better power saving performance than the VAP method. Because the construction is simple, it offers the advantage of a better grip design.

#### VAP <u>method</u>

When two glass elements are arranged in a bellows shape within the lens barrel and filled with liquid, it is called a "liquid prism". The lens changes shape according to shaking, adapting to the direction of refraction to instantly stabilize the image. The left/right VAP units are connected and driven by a simple mechanism. This construction results in а compact size and precise conformity between the left/right optical axes, lessening the load on the drive actuator for reduced power consumption.





No shaking

#### Changes to bellows shape to correct optical axis



Image stabilization applied

#### Eye relief

This is the length where the image is visible without obstruction. Binoculars with a long eye relief (high eyepoint) are easy to look through, reduce fatigue when being used for long periods of time, and can be used while wearing glasses.

When using the binoculars while wearing glasses, we recommend reversing the eyecups.

