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PREPARE FOR MORE



Extended User Manual
Irix 15 mm f/2.4 Blackstone



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Thank you for choosing our product. What you hold in your hand is a fruit of work and experience brought by combined forces of engineers and photographers. Using the best available materials, technologies and solutions, we have created an excellent tool for professionals and photography enthusiasts.

Irix 15 mm f/2.4 Blackstone is an ultra-wide angle rectilinear manual lens dedicated for full-frame DSLR cameras.

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FRONT LENS CAP



The front lens cap protects front lens elements against possible contamination and mechanical defects. The cap should be put on always when the lens is not used. To put the cap on or remove it, you should hold the lens body with one hand and grasp the grip, placed in front of the cap, with your second hand.

Additional lens caps can be purchased separately at Irix Online Store **www.irixlens.com**.

FRONT FILTER THREAD



The lens design is compatible with 95 mm screw-in filters. Due to the wide angle of view which comes with the lens, it is advised to use „slim” type filters with a low profile frame (up to 5.3 mm) and outer diameter smaller than 99 mm. Thicker filters or combined kits of filters can cause vignetting effect. It is highly recommended to use original Irix Edge filters that are compatible with the lens design. Filters should be screwed in clockwise, looking from the front lens side. Before you tighten the filter, make sure that the lens does not come into contact with the filter’s glass surface, as this may damage both elements.

When screwing the filter on, remember that it should be screwed effortlessly and centrally. Any misaligned and too forceful efforts may hinder the unscrewing process and damage the filter and the lens.

LENS HOOD



The lens hood reduces the access of sidelight which may decrease contrast and invite light reflexes. It not only protects against the sunlight, but also against powerful sources of artificial light – during the night or in the case of indoor use.

In order to put the lens hood on, you should attach it, placing the indication lines (white lines) next to each other. Later you should twist the lens hood clockwise, looking from the front lens – until you hear a sharp „click sound. To remove the lens hood you should twist it anti-clockwise. When transporting your camera, you can mount the lens hood in a reversed position.

The lens hood also secures the front lens element against mechanical damages, water splashes, raindrops and snowflakes. Therefore, it is always good to have the lens hood on when shooting photos.

FILTER WINDOW



The filter window simplifies rotation of filters with the same characteristics – polarizing and graduated ND filters in particular. This ensures comfortable access to the filter frame when the lens hood is attached.

To open the filter window, move the blind stopper up, by hiding it in the housing until you hear a distinctive „click” sound. When filter window is not used, it is recommended to close it down by lowering the blind stopper down to its starting position.

FOCUS SCALE CALIBRATION



Irix engineers have designed high quality equipment, but in some cases the infinity mark on the lens may not correspond to the actual infinity distance. This problem does not render it impossible to take technically correct photos, however, as the rotation range of the focus ring allows to rotate it beyond the infinity mark. If you notice that the infinity point moves against the indicator line, you can adjust it yourself or ask Irix support team for help.

To calibrate the focus ring, please follow the steps below:

1. Remove calibration window cover, by unscrewing torx bolt (T6 size).
2. Move focus ring at infinity position and set the focus ring lock in the lock position. Make sure that the flathead bolts and internal calibration ring are visible.
3. Using flat screwdriver loosen the calibration ring, by unscrewing flathead bolts inside
4. Turn the camera's LiveView mode on and using the same screwdriver rotate the calibration ring to set a proper focus against a distant subject (farther than 50 meters).
5. Lock calibration ring with flat bolts again and retract the window cover back.

Be careful while unscrewing the flathead bolts and do not let them fall into the lens housing. It is highly recommended to use a flat screwdriver with a magnetic tip.

FOCUS RING LOCK



Focus ring lock allows for locking the focus ring in a selected position. In the world of photography, focus ring lock is an innovative solution which gives a user a possibility of convenient and stress-free work with the lens.

The concept of focus lock assumes that focus is preliminarily set in a chosen position and the risk of any accidental shift is eliminated. This accidental shifting may for example happen when you take the lens out from the backpack or mount the lens onto a camera. This feature is also appreciated by landscape photographers working with the infinity distance as well as by reporters who should have their tool ready always in any situation to deftly capture all the important scenes unwinding before their eyes.

Whenever you forcefully twist the focus ring locked by a „focus lock“, you expose your lens to the risk of a permanent damage.

FOCUS RING



To set a focus on a chosen subject, first you will need to look at the subject through a viewfinder or the camera screen, and later adjust the setting manually by rotating the focus ring. You can also use a distance scale marked in meters or feet on the lens body, and estimate the distance of a selected background.

When rotating the focus ring to the infinity position, you can hear a sharp „click” sound. This makes it easy to find the infinity position without even looking.

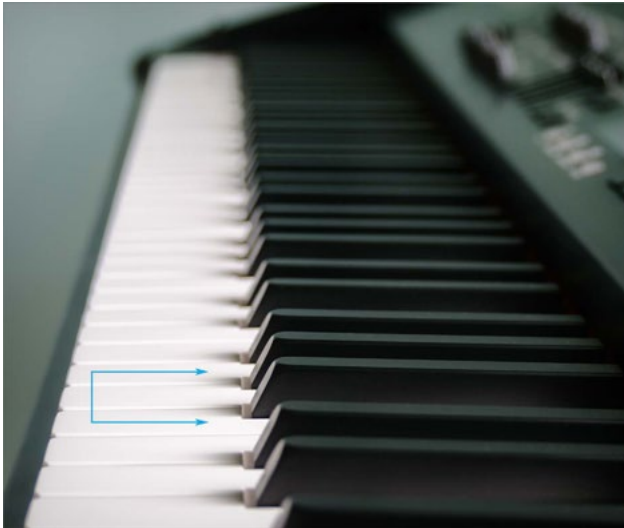
DEPTH OF FIELD SCALE



When adjusting the focus, the plans and backgrounds neighbouring to the selected one – become sharp as well, and the wider aperture, the more plans are in focus. The depth of field (DOF) scale allows for precise adjustment of the plans boundaries. Practice is the best way to learn how to use hyperfocal scale..

Working with the depth of field requires aperture control, so you will have to pre-select the camera's aperture mode or manual mode.

DEPTH OF FIELD SCALE



EXAMPLE NO 1

We adjust the focus distance at the eighth key looking from the side of lens. We choose F2.4 (F2.5 on Canon camera) aperture (this value is known as “open aperture”). The focus will cover only few neighbouring keys, and there will be no value on the DOF scale for this aperture, because such small depth of field renders it impossible to legibly mark the figures on the scale. Thus, we can use DOF scale only from the lowest aperture on a given scale. In our case it will be F/8.

DEPTH OF FIELD SCALE



EXAMPLE NO 2

Without changing the focus distance, adjust the aperture value to F8. Look for the positions with numbers “8” on the DOF scale. These numbers set the planes distance which will be in focus. Everything on the left side from the left “8” and everything on the right side from the right “8” will be blurry and out of focus.

Notice how far the focus distance changed in comparison to the previous shot. Now it covers majority of the piano keys.

DEPTH OF FIELD



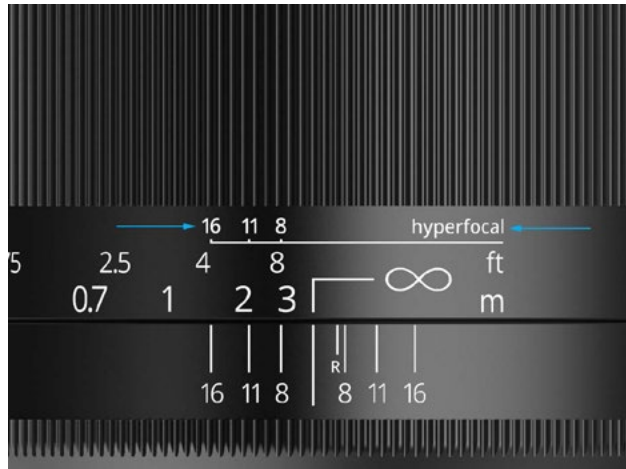
PRZYKŁAD 3

Still without changing the focus distance, we adjust aperture to F16. This value increases the range of planes distance which are in focus in comparison to previous examples. Now all the piano keys are sharp.

To sum up, the DOF scale helps to determine which planes on the picture will become sharp and which of them will be blurry. By adjusting the aperture, we can choose the quantity of these plans.

The depth of field scale is connected with pixels size and with their quantity. In this lens the scale for modern full frame image sensors with dozens of megapixels is used. When we choose any lower resolution or shoot with older equipment, the focus boundaries shift so that the aperture value seems to be bigger than it really is. Practical experience will help you establish the size of this shift.

HYPERFOCAL SCALE



In many photographic situations the focusing distance should cover as many plans with the infinity as possible. This is especially true for the landscape and travel photography and in photojournalism. The most convenient way of adjusting the focus ring to such purposes is to set it according to hyperfocal scale which is a transformation of the DOF scale.

Working with hyperfocal scale requires aperture control and that is why you should pre-select the camera's aperture mode or a manual mode.

HYPERFOCAL SCALE



The hyperfocal scale consists of three positions: 8, 11 and 16. When working with the hyperfocal scale, the focus ring sets itself in aforementioned position and you should set this aperture number in your camera. Depending on a chosen position, your photo will be in focus according to the below scheme:

- position 8 – plans between 2.8 m (9.2 ft) and infinity
- position 11 – plans between 2.1 m (6.9 ft) and infinity
- position 16 – plans between 1.5 m (4.9 ft) and infinity

This aperture value was set for the example photo, and the focus area covers all the plans.

If you work with the hyperfocal scale for a longer time, consider using the focus ring lock.

REAR GELATIN FILTER SLOT



The lens design enables using gelatin filters which are inserted into a rear slot of the lens. The template which will facilitate cutting the filters from the film after printing is presented on the last page.

Most of all, gelatin filters allows for the simultaneous use of ND and CPL filters in strong light conditions when a photographer wants to work with large aperture and when photos can be overexposed. Combined sets of filter threads can cause vignetting. You will solve this problem by replacing the screw-in ND filter with a gelatin filter.

Caution is advised when putting the filter on. Moreover, it is forbidden to touch the lens or electronic contacts which are placed around the bayonet. We do not recommend to use filter dimensions other than those described in this user manual.

HOW TO ATTACH THE LENS TO THE CAMERA



The mounting method is described in the camera's manual and depends on a given system solution. The marker on the body of the lens facilitates mounting the lens to the camera.

Caution is advised when attaching the lens to the camera - the lens must not be deadlocked. Before dismounting the lens from the camera, release the lock located on the camera's bayonet first. Its exact position is described in the camera's user manual.

REAR LENS CAP



The rear lens cap secures the lens during transportation, and should be put on always when the lens is removed from the camera.

A spare cap comes with the kit, but in case you need any additional lens caps, visit Irix Online Store at www.irixlens.com and purchase them separately.

Do not leave the lens faced downwards on any surface and with the bayonet part attached, if the rear lens cap is removed.

APERTURE CONTROL



The lens aperture is adjusted electronically through the camera. Detailed information about adjusting the aperture are described in the camera manual and they depend on a system solution.

It is worth to remember that the aperture value and the depth of field not only influence the image aesthetics, but they are also important when it comes to a photo's technical quality. With very small aperture (more than F16), the phenomenon of diffraction will make the captured image less sharp. It is not a technical disadvantage, but a natural optical phenomenon rather. Additionally, with wide aperture values the risk of contaminated image sensor is higher than in the case of narrow aperture values.

The maximum aperture value in some of the cameras amounts to F2.5, and it is connected with technical limitations of particular systems.

HARD LENS CASE



In order to protect the lens against dust and scratches, keep it stored in the hard lens case.

The hard lens case is not waterproof, and does not ensure resistance against fall and strong impacts.

MAINTENANCE



All lens elements are covered with anti-reflective coatings ensuring the increased resistance to contamination.

For cleaning purposes, you should only use products and methods intended for cleaning the optics. Any more severe contaminations should be removed with a tool called „air blower“ or with a clean, soft brush.

SAFETY PRECUTIONS

The lens is equipped with seals protecting its interior from dust and water splashes. However, the device is not fully water resistant. That is why it is forbidden to dip it in the water or keep it for longer time in humid places. For a better efficacy of leakage, it is recommended to use protective front filter thread.

The lens should be protected against any impacts, falls and excessive vibrations.

Do not leave the lens exposed to the sun, because any focused rays of light may cause fire.

Do not expose the lens to high temperatures. It is forbidden to look through the lens directly at the sun and towards the sun, as it may permanently damage your eyesight.

The lens and additional accessories should be kept in a place out of the reach of children, because they have small elements which create a choking hazard when ingested.

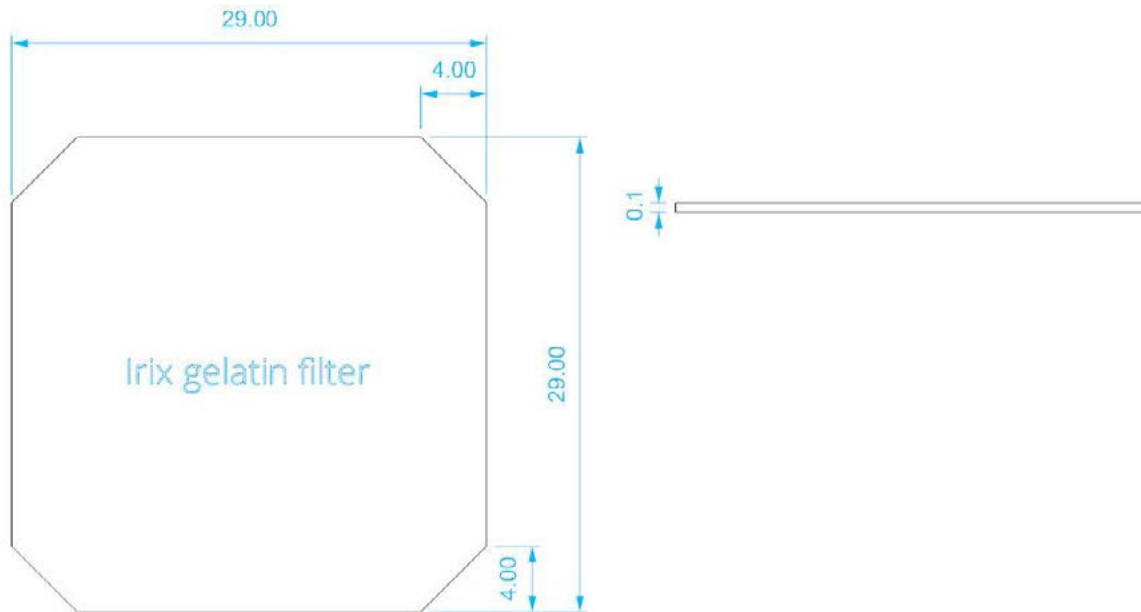
Untwisting the lens independently and adding modifications different than those described in this user manual, may result in permanent damage or could void your warranty.

Should you find any irregularities during the lens operation, please contact the seller or the authorised Irix service.

TECHNICAL SPECIFICATION

Focal Length	15 mm
Maximum aperture value	f/2.4
Minimum aperture value	f/22
Number of aperture blades	9
Image size	36 x 24 mm
Angle of view	110°
Minimal focusing distance	28 cm (0.91 ft)
Number of lenses	15 (11 grup)
Front filter thread size	95 mm
Rear gelatin filter slot	30x30 mm
Dimensions	100 x 100 mm
Weight	685 g (1.51lbs)

TEMPLATE FOR CUTTING GELATINE FILTERS





VER. 1.1

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