

# walimex

## Copy of Instruction Manual



## 500/8,0 Tele Mirror Lens T2

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Your new catadioptric lens or Reflex Mirror lens is a highly developed computer designed product, using the merits of both reflex optics and refraction optics. This gives you very sharp picture quality with less color aberration, which is considered the most harmful factor in the field of telephoto photography. Each lens comes with interchangeable rear insert filters. Optional filters are exclusively designed for the Reflex Mirror lenses.

## 1. Mounting your lens

Your Lens utilizes a universal mounting ring (T2) which allows your lens to fit practically all SLR cameras manufactured since 1960. Simply attach the specific T2 adapter for your style camera to the actual lens and then mount to your camera body in the same way as your existing lens, which your camera is equipped. Also remove your lens the same way as your existing lens and consult your camera introduction manual for further details. After mounting your T2 adapter to the lens, you may have to adjust the T-mounts so that the top of the lens faces upward. If this is necessary, loosen the 3 small screws located on the T-mounts and turn the lens until it is in the proper usable position. Make sure to retighten the 3 screws after you make the adjustments.

## 2. Focusing the lens

Focusing is accomplished while viewing the subject through the viewfinder of your camera and rotating the focusing ring. Since the aperture is preset, you will find under certain light conditions a shadow appearance on the split-image section of your focusing screen. In this case, simply focus on the edges of your subject with the outer center of your fresnel prism.

***NOTE:** In order to compensate focusing when normal focusing position may differ due to extreme temperature change, the focusing ring has been designed to allow rotation beyond the fixed engraved marks of the distance scale. To avoid errors, focusing should always be made while looking through the viewfinder.*

***NOTE:** No adjustment of focusing is necessary when taking infrared photography, as is required with normal lenses.*

## 3. Light and contrast control

Since the reflex lens is not equipped with a diaphragm system, the use of filters plays an important factor in the control of light and contrast.

## 4. Filters

**Normal (IA Skylight):** This filter should be used whenever no other filter is necessary.

**ND 2X and ND 4X (Neutral Density):** These filters control the light passage since no diaphragm system is provided in the reflex lens. Exposure factor is 4 times with a ND4X, i.e., the light in-take through the lens is decreased similarly as it, stopping-down a normal lens with an aperture, by 2 stops.

***NOTE:** ND filters reduce light passage only, and the depth of field cannot be changed.*

**Y52 (Yellow):** This filter is used when taking black and white pictures. It makes a blue background darker. Quite effective when taking shots of clouds on a blue horizon.

**056 (Orange):** This filter makes blue or green color lines darker and yellow or red color lines lighter than seen with the human eye. Quite effective when stronger contrast is desired.

**R60 (Red):** Used to express day-time scenery as a night scene, or emphasis and strengthen contrast exceptionally. Also necessary when taking infrared black and white exposures.

***NOTE :** In case the subject to be taken indicates too much light or overexposure as indicated by an exposure meter reading, or LED warning signal of the camera, adjustment of the light in-take is controlled by using one of the ND filters. When using a R60 filter with an aperture preferred camera, an aperture adjustment to the camera between +0.5 to +1.0 is required.*

## 5. Exposure or aperture adjustment with TTL- cameras

Since the aperture of the reflex lens cannot be changed, the exposure is controlled entirely upon the shutter-speed being used. The shutter speed is set according to your TTL reading. Both aperture and shutter priority automatic cameras will automatically set the right speed with its auto exposure mechanism, except a few models, on which it is necessary to operate on a manual function.

In aperture priority or manual operation of a camera, appropriate shutter speed must be adjusted using 3 neutral density filter in case of overexposure readings or the camera's LED warning light is activated.

If your camera is a manual TTL system, then simply follow the exposure indicator in the viewfinder by compensating with the shutter speed. In case of excessive light beyond the shutter speed capability, attach a Neutral Density filter to reduce the overall light passage.

## 6. Camera without TTL- system

When using a camera without a TTL system and filters, except of the normal filter, the exposure must be stopped down as indicated in the following table to the shutter speed indicated by a exposure meter reading, i.e., with the 300mm F5.6 Reflex lens, the setting would be F5.6. If a Y52 filter under daylight conditions is used, the stop-down would be 1. That is, if the appropriate shutter speed is metered as 1/1000 seconds using a single exposure meter with a f stop of 5.6, then, the shutter speed setting must be 1/500 seconds.

### 6.1 Filter utilization chart (Exposure Adjustment)

		<b>Under Daylight</b>		<b>Under Tungstenlight</b>	
<b>Kind of Filter</b>	<b>Color</b>	<b>Exposure</b>	<b>Shutter Stop-down</b>	<b>Exposure</b>	<b>Shutter Stop-down</b>
Normal	Clear	1	No adjustment	1	No adjustment
Y52	Yellow	2	1	1,5	1/2"
O56	Orange	2	1	1,5	1/2"
R60	Red	6	2	4	2
ND2X	Grey	2	1	2	1
ND4X	Grey	4	2	4	2
ND6X	Grey	8	3	8	3

**NOTE:** If a 1/2 shutter speed adjustment is indicated, generally to negative film, a full one stop should be taken. When a reversal film is being used, disregard the half-stop setting and use a normal shutter speed.

## 7. Depth of field

The area in acceptable sharpness in front of and behind the subject in focus is called Depth of Field. The aperture selected and the distance of the subject as well as the focal length of a lens determines such Depth of Field.

Because of the longer focal length of your Reflex lens the depth of field is acutely narrow, for example, with a 500mm f8.0 lens, at a distance of 6 feet, the depth of field is only 1/2 inch wide. Therefore, it is recommended to first practice focusing with your lens before taking any serious pictures, especially in close-up photography. It is suggested that a focus magnifier be used to help determining the depth of field sharpness under such extreme conditions.

## 8. Cleaning and maintenance

The lens should always be capped when not in use. Like other precision optics, it should never be simply wiped with a tissue since this may abrade the surface with any dust clinging to it or on the lens.

Any accumulated dust should occasionally be blown off with a syringe or available blower brush designed for this purpose. To remove fingerprints or smears, shred the edge of a lens tissue and roll it to make a swab: dampen it with a lens cleaner specially made for photographic optics and gently wipe the surface without exercising any pressure. Repeat the procedure if necessary using a new swab. To clean, start at the center of the lens, using a circular motion and working to the edge of the lens for best results.

When the lens is not in use, it should be stored in a cool dry place, however, if this is not possible, a leather case with a silicate gel packet will afford the same protection as an aluminum case with polyfoam liner.

## 9. Fault finding

Phenomena	Causes	Measures
A lens can't be attached to the camera	The lens ring mount and the camera mount are not aligned.	Align the lens ring mount and the camera mount.
A lens can't be detached from the camera	Incorrect rotation direction for detaching. If the user turns the lens while holding the camera, it may cause damage to the lens.	Press the lens release button on the camera, and lightly turn the lens to the lens attaching and detaching reference points, in the direction as marked on the camera and then pull the lens forward.
Dark Image	Incorrect focusing. Insufficient shutter speed or camera shake	Turn the focus ring while checking the indication or checking an object visually, set the focus until it reaches a clear point and then press the shutter. Steady the camera and take a photograph at a shutter speed of 1/125 sec.
Autofocus failure	Autofocus failed with manual control focus lens	Set focus by turning the focus ring.
Dark or too bright pictures	Inappropriate exposure	Adjust the aperture size by turning the lens or adjust the shutter speed

## 10. Technical specifications

Lens speed	F8.0
Lens group/Lenses	6/7
Image angle	5°
Closest focusing distance	1,7m
Bayonet diameter	30,5mm
Front diameter	76mm
Overall length	approx. 86,5mm
Weight	approx. 320g

## 11. Included in delivery

- 1 x Lens
- 1 x Lens cap
- 1 x Lens bag