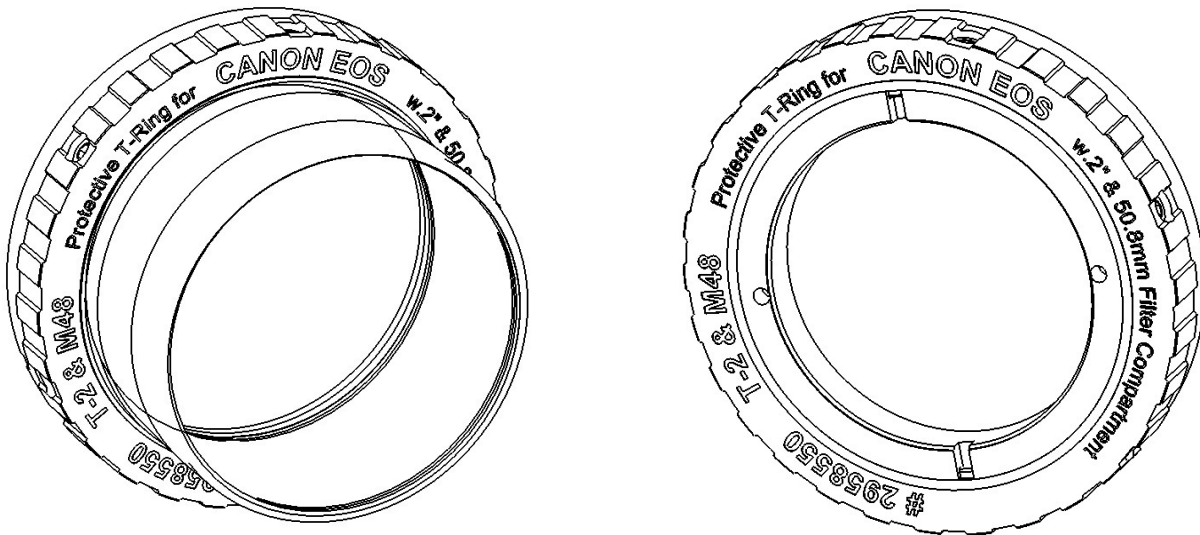# Protective T-Ring for CANON EOS

#2958550 (basic version: T-Ring without filter)

(scope of delivery e.g. version 2958550C – with built-in clear protective filter
with Phantom Group™ multi-coating

Instructions for use:

as of 11/11

The **Protective T-ring** for the Canon EOS allows Baader filters to be used with a T-ring, providing the largest possible free aperture of 47.3mm (M48 thread), and protecting the camera body from dust and humidity. To allow optimal use of the **Protective T-ring**, several versions of it are now available with a built-in 50.8mmx3mm or 50.4mmx 3mm Baader filter.

The **Protective T-ring** not only offers exposures free from vignetting with extremely short focal length telescopes, it can also be universally connected. Four different types of telescope connection are included. The adapters of our Astro T-2 system can be used for many other types of mounting onto a large range of telescopes.

After carefully examining the CANON bayonet fitting we have optimized the fit and tolerances between the camera bayonet and T-ring. The result is the **Protective T-ring**, which is wobble-free and has no lateral play thus always guaranteeing a stable image platform, even for long exposures or when the telescope slews.

The **Protective T-ring** replaces other built-in camera filters which are installed directly into the camera body. All unmounted 50.8mm or 50.4mm Baader filters, and Baader 2" filters mounted in low-profile filter cells (LPFC) may be used with the Protective T-ring. (LPFC describes all Baader filter mountings where the effective overall height of the filter cell is not more than 6 mm).
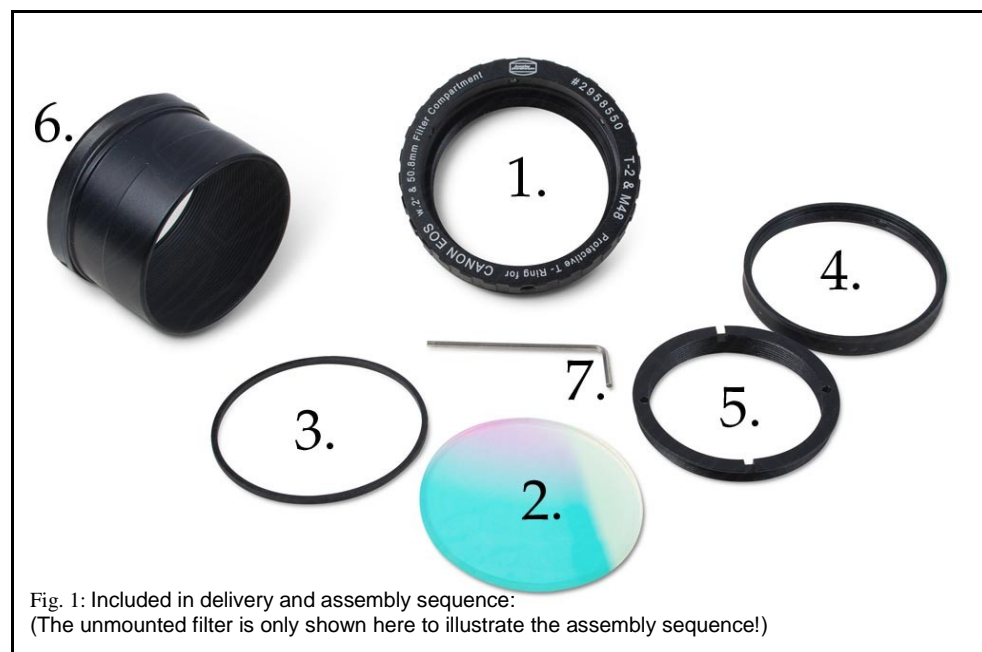
Instructions
Protective T-Ring CANON EOS

The glass thickness (3mm) of the built-in 50.8x3mm filter is taken into account in the mechanical construction. The resulting effective overall optical length for each CANON EOS camera thus amounts to 55mm - precisely the overall optical length of standard T-rings.

If, instead of a 3mm thick filter, a normal Baader 2" Filter with a low profile filter cell is used, the effective overall height of 55mm deviates from the standard by just +0.3mm. This deviation is negligible.

Included in delivery:

1. Protective T-Ring for CANON EOS body
2. **Optional:** Baader clear protective filter, 50.8mm x 3mm (protective T-rings are available with a range of pre-assembled filters – see price list or the label on the product packaging)
3. Temperature compensation ring (to prevent filter damage at high temperatures)
4. S52/M48 adapter ring (M48 corresponds to the international 2" Astro filter thread)
5. M48/T-2 insert ring
6. S52/2" connector socket (with additional 2" M48 filter thread on the front side)
7. 1.5mm Allen key

Fig. 1: Included in delivery and assembly sequence:
(The unmounted filter is only shown here to illustrate the assembly sequence!)

When supplied with filter, a Baader clear protective 50.8mm filter is built in to the **Protective T-ring for the CANON EOS** for example. The S52/M48 adapter, as well as the M48/T-2 insert ring, are similarly pre-assembled – however, the M48/T-2 insert ring is only loosely screwed in.

As supplied:
(Fig. 2)

Fig. 3: Illustration: Protective T-Ring for Canon EOS with 2" socket (S52/2")

Changing the filter:

To change the filter, loosen the 6 grub screws on the side of the unit by means of the 1.5mm Allen key supplied. Then tilt the body of the **Protective T-ring** carefully forward and take out the built-in 50.8mm filter and the Delrin temperature compensation ring. Now insert another 50.8mm or 50.4mm filter and place the temperature compensation ring on top of it. Now put either the S52/M48 ring or the S52/2" connector socket into the body and fasten the unit together by means of the 6 Allen screws. Here, S52 is a description of the diameter of the retaining cone which is clamped in place by means of the 6 screws.

Alternatively, you can install a Baader 2" low profile filter. This is screwed in from the inside into the M48 thread in the main body of the T-ring. After this - as previously described - either the S52/M48 ring and the M48/T-2 or the S52/2" connector socket can be inserted and tightened up by means of the 6 Allen screws.

The FILTER SHOULD 'RATTLE'! This is not a defect. The slight looseness of the filter in the mounting is very small and serves to protect the filter against stress. This minimal play will not affect the image position.

Applications:

Fig. 4:
Protective T-Ring for CANON EOS, with 50.8mm clear protection filter,
Delrin temperature compensation ring, S52/M48 adapter and M48/T-2 insert ring

Fig. 5:
Protective T-Ring for CANON EOS with 50.8mm clear protection filter,
Delrin temperature compensation ring and S52/2" connector socket

Fig. 6:
Protective T-Ring for CANON EOS, shown with Baader 2" clear protection filter
in low profile filter mounting, S52/M48 adapter and M48/T-2 insert ring

Fig. 7:
Protective T-Ring for CANON EOS, shown Baader 2" clear protection filter
in low profile filter mounting and S52/M48 adapter ring

Fig. 8:
The **Protective T-ring** is supplied with inserted S52/M48 ring and with the M48/T-2 reducing ring screwed in. The connector socket S52/2" is separate.

To employ the M48 thread instead of the T-2 thread to attach the Protective T-ring to your setup, simply undo the loosely attached M48/T-2 insert ring by using two fingers in the slots provided and unscrew the insert ring anticlockwise.
If the M48/T-2 insert ring is screwed in too firmly after previous use, we recommend using a spanner with 2mm pins for disassembly (see Fig.8A). This spanner is available from tool shops.

Fig. 8A: Optional, adjustable 2mm face spanner (#2450062)

Fig. 9:
To use the 2" connector socket, loosen the 6 grub screws on the side that retain the S52/M48 ring with the 1.5mm Allen key supplied and remove it from the body.

Caution: When the 6 grub screws are loosened and the S52/M48 ring removed, the 50.8mm filter is no longer secure and can fall out of the front of the body of the Protective T-ring. To avoid this, do not tilt the base forward.

Removing the 2" connector socket:

Loosen the 6 grub screws on the side by means of 1.5mm Allen key supplied

Now insert the 2" connector socket and tighten the 6 Allen screws carefully and evenly. Sufficient tightness is achieved by using the long side of the Allen key.