



Telescope ·

NightExplorer 80/400

EN Instruction manual



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www.bresser.de/warranty\_terms

## Contents

1	Imprint	4
2	Validity note	4
3	About this Instruction Manual	4
4	Intended Use	4
5	General safety instructions	5
6	Parts overview & scope of delivery	6
7	Site location	7
8	Setting up the tripod	7
9	Moving the tripod head	7
10	Mounting the OTA on the tripod	8
11	Installing accessories	8
12	Using eyepieces	9
13	Using the diagonal mirror	9
14	Smartphone holder installation	9
15	Before starting an observation	10
16	Observation	10
17	Troubleshooting	10
18	Cleaning and maintenance	10
19	Disposal	11
20	Warranty	11

### 1 Imprint

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For any warranty claims or service enquiries, please refer to the information on "Warranty" and "Service" in this documentation. We apologize for any inconvenience caused by the fact that we cannot process enquiries or submissions sent directly to the manufacturer's address.

Errors and technical changes excepted.

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The designations and brand names of the respective companies used in this documentation are generally protected by trade, trademark and/or patent law in Germany, the European Union and/or other countries.

## 2 Validity note

This documentation is valid for the products with the following article numbers:

9621800

**Manual version:** 0921 **Manual designation:** 

Manual 9621800 NightExplorer-80-400 en BRESSER v092021a

Always provide information when requesting service.

### 3 About this Instruction Manual



#### **NOTICE**

These operating instructions are to be considered a component of the device.

Read the safety instructions and the operating manual carefully before using this device.

Keep this instruction manual in a safe place for future reference. When the device is sold or given to someone else, the instruction manual must be provided to the new owner/user of the product.

### 4 Intended Use

- This device is not intended for use by persons (including children) with impaired physical, sensory or mental abilities, or for lack of experience and/or knowledge, unless they are supervised by or have received instructions from a person responsible for their safety on how to use this device.
- · This device is for personal use only.
- · It was developed for an magnified representation of nature observations.

## 5 General safety instructions



#### **A** DANGER

#### Risk of blindness!

Never look directly at, or near the sun with this device. There is a RISK OF BLINDNESS!



#### **A** DANGER

#### Danger of suffocation!

Improper use of this product may result in suffocation, especially for children. It is therefore imperative that you observe the following safety information.

- Keep packaging materials (plastic bags, rubber bands, etc.) away from children! There is a danger of choking!
- · This product contains small parts that can be swallowed by children! Choking hazard!



#### **⚠** CAUTION

#### Fire hazard!

Improper use of this product may result in fire. It is essential that you observe the following safety information in order to avoid fires.

 Do not place the device, particularly the lenses, in direct sunlight. The concentration of light could cause a fire.



#### **NOTICE**

#### Danger of material damage!

Improper handling may result in damage to the unit and/or accessories. Therefore, use the device only in accordance with the following safety information.

- Do not disassemble the device! In the event of a defect, please contact the after sales support number listed below.
- · Do not subject the device to excessive vibrations.
- Do not expose the components to direct sunlight for a longer time.
- Do not expose the device to high temperatures and protect it from water and high humidity.



#### **NOTICE**

#### **Privacy Protection**

Respect the privacy of your fellow human beings - do not look into flats with this device, for example!

# 6 Parts overview & scope of delivery

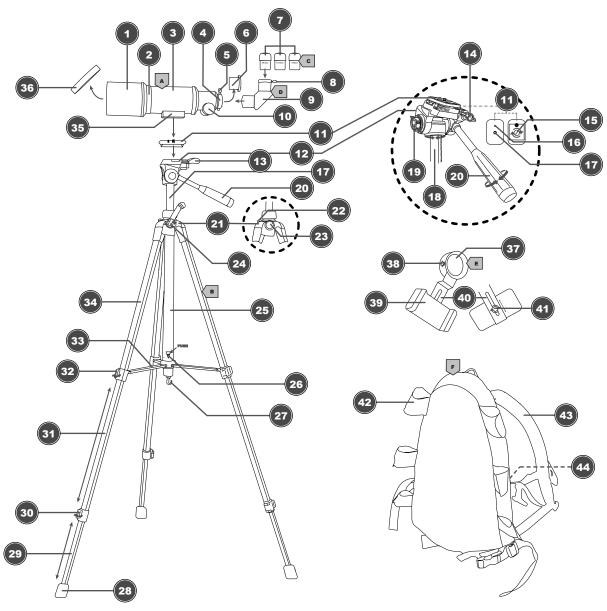


Illustration 1: All parts of the telescope

1 Dew protection cap	2 Objective lens (Inside)
3 Optical Tubes	4 Eyepiece holder
5 Fixing screw (Eyepiece connection)	6 Dust cap (Eyepiece connection)
7 Eyepieces	8 Fixation screw (Diagonal mirror)
9 Diagonal mirror	10 Focus wheel
11 Tripod head plate	12 Tripod head with tilting mechanism
13 Locking lever (tripod head plate)	14 Fixing screw (tripod head tilt 90°)
15 Fixing screw (tripod head plate)	16 Fixing spigot
17 Threaded screw (tripod head plate)	18 Height adjustable tripod rod
19 Fixing screw (horizontal adjustment)	20 Manual guidance (vertical adjustment)
21 Tripod head	22 Circular level
23 Fixing screw (height adjustment)	24 Crank (height adjustment)
25 Tripod center rod	26 Push button
27 Hook	28 Tripod foot

29 Tripod leg lower part	30 Lower locking clip
31 Tripod leg center section	32 Upper locking clip
33 Tripod cross	34 Tripod leg upper part
35 Mounting base	36 Dust cap (lens)
37 Mounting ring	38 Fixing screw (mounting ring)
39 Bracket	40 Guide rail
41 Fixing screw (bracket)	42 Velcro fasteners
43 Carrying strap	44 Zipper (back)

#### Scope of delivery:

Optical tube (A), tripod (B), 3 eyepieces: SR-4mm, H-12.5mm, H-20mm (C), diagonal mirror (D), smartphone holder (E), backpack (F), user manual

### 7 Site location

Choose a dark location to avoid an interference of dark adaption throughout lights. A flat and stable surface is recommended.

Do not observe from closed rooms. Approx. 30 minutes before starting an observation, position the telescope and the accessories on the desired location to allow a temperature compensation.

## 8 Setting up the tripod

- 1. Press the push button on the tripod center rod and at the same time slowly pull the tripod legs outwards until the tripod cross is fully extended.
- 2. Open the upper locking clips one after the other and pull out the tripod leg middle parts completely.
- 3. Open the lower locking clips one after the other and extend the tripod leg lower parts to the desired height.
- 4. Make sure that the air bubble of the circular level is centered in the circle to ensure a level stand. If necessary, readjust the lower parts of the tripod leg.
- 5. Close the locking clips.
- 6. Loosen the fixing screw for the height adjustment.
- 7. Extend the tripod head to the desired height using the crank.
- 8. Hand-tighten the fixing screw for the height adjustment.

### 9 Moving the tripod head



#### **NOTICE**

#### Tighten locking screws/rings only by hand.

Tighten locking screws/rings only by hand. Rings and threads can break when overtighten them!

- 1. Loosen the fixing screw for horizontal movement to move the tripod head to the right or to the left.
- 2. Tighten the fixing screw by hand to set the tripod in current horizontal position.
- 3. Loosen the fixation for vertical movement by turning the handle counterclockwise. Tilt the tripod head up and down.
- 4. Turn the handle clockwise to to set the tripod head in current vertical position.
- 5. Loosen the fixing screw for the tripod tilt plate to tilt the the attached optics sidewards for a viewing position up to 90 degrees.

Tilt the tilt plate to the right and tighten the fixing screw by hand to set the tilt plate in current position.

## 10 Mounting the OTA on the tripod



#### **NOTICE**

#### Save the OTA when installing it.

Save the OTA always with one hand when installing it! It can cause serious damage if the device is falling down.

- 1. Push the locking lever on the tripod head to the FREE position and simultaneously remove the tripod head plate from the holder.
- Screw the threaded screw of the tripod head plate into the thread of the mounting base of the optical tube to fix the tripod head plate to the optical tube. Make sure that the fixing pin engages in the corresponding hole.
- Push the locking lever on the tripod head to the FREE position and insert the optical tube with the mounted tripod head plate into the holder. Make sure that the objective lens points in the opposite direction to the guide handle.
- 4. Push the locking lever into the LOCK position.

## 11 Installing accessories

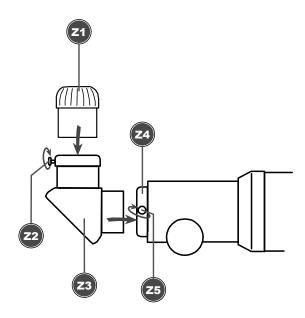


Illustration 2: Attach accessories to the optical tube

Z1 Eyepiece	Z2 Fixation screw (Diagonal mirror)
Z3 Diagonal mirror	Z4 Eyepiece holder
Z5 Fixing screw (Eyepiece connection)	

- 1. Loosen fixing screw.
- 2. Insert the desired accessory into the eyepiece holder.
- 3. Tighten the fixing screw by hand that the accessory ist fixed in a secure way.

### 12 Using eyepieces

The magnification depends on the focal length of the telescope and the eyepiece. By changing the eyepieces, the magnification can be varied.

#### Formula for calculating the magnification:

Focal length telescope : Focal length eyepiece = Magnification

#### Example calculation:

400 mm : 20 mm = 20x

Three eyepieces are included with this telescope. Always start observation with a high focal length eyepiece (= low magnification).

### 13 Using the diagonal mirror

The diagonal mirror is inserted into the eyepiece holder in front of the eyepiece. This allows a more comfortable view. It causes an image inversion to an upright but laterally inverted image.

### 14 Smartphone holder installation

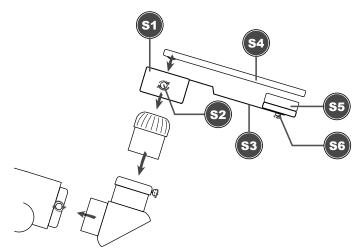


Illustration 3: Mounting the smartphone holder

S1 Mounting ring	S2 Fixing screw (mounting ring)
S3 Guide rail	S4 Smartphone*
S5 Clamping bolt	S6 Fixing screw (guide rail)

CAUTION! When inserting and subsequently using the smartphone holder, always ensure that the smartphone\* inserted is secured in the holder in such a way that it cannot slip or fall! The manufacturer accepts no responsibility for damage to the smartphone caused by improper or incorrect handling!

- 1. Insert an eyepiece into the diagonal mirror on the telescope and fix it in place.
- 2. Put the smartphone holder with the mounting ring (S1) over the inserted eyepiece and screw it tight with the fixing screw (S2).
- 3. Push the clamp bolts (S5) of the holder apart and clamp the smartphone\* between them. Position the smartphone lens exactly in the center of the eyepiece so that the image can be seen exactly in the center of the display. If necessary, use the zoom function to adjust the image to fill the display.
- 4. Launch the Camera app\* on the smartphone\*. In the Camera app\*, the image captured through the eyepiece is displayed.

- 5. If necessary, correct the position of the smartphone\* until the desired image section is displayed. To do this, loosen the fixing screw (S6) on the underside of the holder and move the smartphone up or down on the rail in the holder.
- 6. Use the shutter button of the camera app to take a picture of the observation object.

NOTICE! In order to be able to create an image that is as shake-free as possible, we recommend using a remote control\* (e.g. via Bluetooth) for the shutter release process.

\*not included with the purchase

### 15 Before starting an observation

The tube opening and the eyepiece holder are protected by fust protection caps. Remove the protection caps before starting the observation. Replace cap when storing the it.

### 16 Observation



#### **A** DANGER

#### Risk of blindness!

Never look directly at, or near the sun with this device. There is a RISK OF BLINDNESS!

- 1. Roughly align the telescope with the desired object (e.g. the moon) and look through the eyepiece.
- 2. By adjusting the telescope horizontally and vertically, bring the object into the center of the field of view.
- 3. The object is magnified through the eyepiece.
- 4. If necessary, adjust the focus with the focus wheel.
- 5. By changing from a high focal length eyepiece to a low focal length eyepiece, the magnification can be increased.

### 17 Troubleshooting

Problem/Error	Possible solution	
No image	Remove protective caps; Select eyepiece with lower magnification	
Blurred picture	Adjusting the focus using the focus wheel	
No focusing possible	Wait for temperature equalization	
Bad picture	Do not observe through glass panes	
"Crooked" image despite diagonal mirror	Aligning the eyepiece socket of the diagonal mirror vertically	

## 18 Cleaning and maintenance



#### **NOTICE**

Never take the objective out of its socket and do not modify its adjustment screws.

It is not possible to reinstall the objective in an accurate manner without specialist knowledge. A significant reduction of the optical performance is the result. In this case the warranty claims become void!



#### **NOTICE**

#### Do not use aggressive cleaning agents!

Do <u>not</u> use photographic lens cleaners and <u>no</u> perfume-impregnated, dyed or lotion-soaked cloths to clean optical surfaces. By the use the optics can take permanently damage!

- · Protect the device from dust and moisture!
- · Avoid fingerprints and similar contamination of the optical surfaces.
- The residual moisture must be completely degraded before use.
- Do not clean the optics too often! A little dust on the front of the lens or mirror surface will not significantly reduce the image quality. This is no reason for cleaning.
- If necessary, carefully remove dust on the front of the lens or mirror surface with a camel hair brush or blow away with compressed air.
- Remove organic soiling (e.g. fingerprints) with a cleaning liquid (mixing ratio: three parts distilled water, one part isopropyl alcohol). Add a small drop of biodegradable dishwashing detergent per half liter of cleaning liquid. Use soft, white face tissues and carefully clean surfaces with short, radial wiping movements. Replace the tissues as often as possible.
- If the air humidity is high, the glass may fog up and moisture may form. This is not a defect! In this case, allow the device to acclimatise at room temperature for some time so that the residual humidity can be reduced.
- Once the residual moisture has been completely removed, fit the dust caps and store the telescope in a closed container\* in a dry, mould-free place. It is recommended to store accessories in a closed container with desiccant.
- (Depending on the model, a case may already be included in the scope of delivery)

### 19 Disposal



Dispose of the packaging materials properly, according to their type, such as paper or cardboard. Contact your local waste-disposal service or environmental authority for information on the proper disposal.

Please take the current legal regulations into account when disposing of the device! Get more information on the proper disposal from the local waste-disposal service or environmental authority.

### 20 Warranty

The regular warranty period is 5 years and starts on the day of purchase. For full warranty terms and services, please visit **www.bresser.de/warranty\_terms**.

#### Service









Bei Fragen zum Produkt und eventuellen Reklamationen nehmen Sie bitte zunächst mit dem Service-Center Kontakt auf, vorzugsweise per E-Mail.

**E-Mail:** service@bresser.de Telefon\*: +49 28 72 80 74 310

BRESSER GmbH Kundenservice APD Gutenbergstr. 2 46414 Rhede Deutschland

\*Lokale Rufnummer in Deutschland (Die Höhe der Gebühren je Telefonat ist abhängig vom Tarif Ihres Telefonanbieters); Anrufe aus dem Ausland sind mit höheren Kosten verbunden.





Please contact the service centre first for any questions regarding the product or claims, preferably by e-mail.

e-mail: service@bresseruk.com Telephone\*: +44 1342 837 098

BRESSER UK Ltd Customer Support Suite 3G, Eden House Enterprise Way Edenbridge, Kent TN8 6HF United Kingdom

\*Number charged at local rates in the UK (the amount you will be charged per phone call will depend on the tariff of your phone provider); calls from abroad will involve higher costs.





Si vous avez des questions concernant ce produit ou en cas de réclamations, veuillez prendre contact avec notre centre de services (de préférence via e-mail).

e-mail: sav@bresser.fr Téléphone\*\*: 00 800 6343 7000

BRESSER France SARL Service après-vente Pôle d'Activités de Nicopolis 314 Avenue des Chênes Verts 83170 Brignoles France

\*\*Prix d'un appel local depuis la France ou Belgique

#### NL



Als u met betrekking tot het product vragen of eventuele klachten heeft kunt u contact opnemen met het service centrum (bij voorkeur per e-mail).

e-mail: info@bresserbenelux.nl

Teléfono\*: +31 528 23 24 76

BRESSER Benelux Klantenservice Smirnoffstraat 8 7903 AX Hoogeveen Nederland

\*Het telefoonnummer wordt in het Nederland tegen lokaal tarief in rekening gebracht. Het bedrag dat u per gesprek in rekening gebracht zal worden, is afhankelijk van het tarief van uw telefoon provider; gesprekken vanuit het buitenland zullen hogere kosten met zich meebrengen.





Si desea formular alguna pregunta sobre el producto o alguna eventual reclamación, le rogamos que se ponga en contacto con el centro de servicio técnico (de preferencia por e-mail).

e-mail: servicio.iberia@bresser-iberia.es

Teléfono\*: +34 91 67972 69

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