

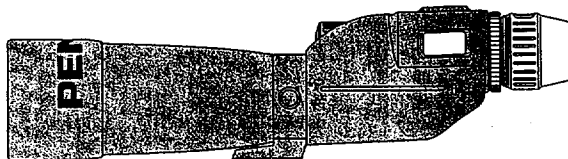
**PENTAX**

**SPOTTING SCOPE**  
**LUNETTE DE VISÉE**  
**TELESCOPIO**  
単筒望远镜  
スポッティングスコープ

**OWNER'S MANUAL**  
**BEDIENUNGSANLEITUNG**  
**MANUEL D'UTILISATION**  
**ISTRUZIONI**  
**MANUAL DE INSTRUCCIONES**  
**HANDLEIDING**

**PF-80ED**

使用説明書  
使用説明書



**⚠️ WARNINGS**

Never attempt to look into the sun with spotting scope.

**⚠️ WARNUNG**

Blicken Sie nie mit einem Spotting scope in die Sonne.

**⚠️ ATTENTION**

N'observez jamais le soleil avec vos lunette de visée.

**⚠️ AVVERTENZE**

Non guardate il sole attraverso il spotting scope.

**⚠️ ATENCION**

Nunca intente mirar al sol con telescopio.

**⚠️ WAARSCHUWINGEN**

Probeer nooit recht in de zon te kijken met de spotting scope.

**⚠️ 警告**

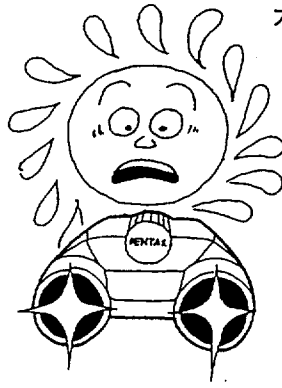
切勿用单筒望远镜观望太阳。

**⚠️ 警告**

スポッティングスコープで太陽を絶対見ないで下さい。



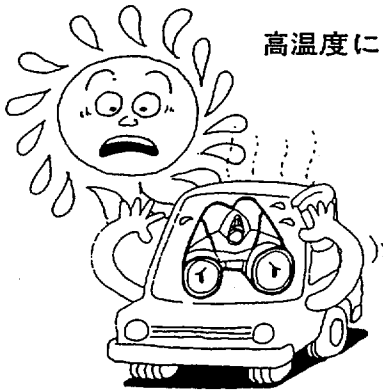
太陽を見ないでください

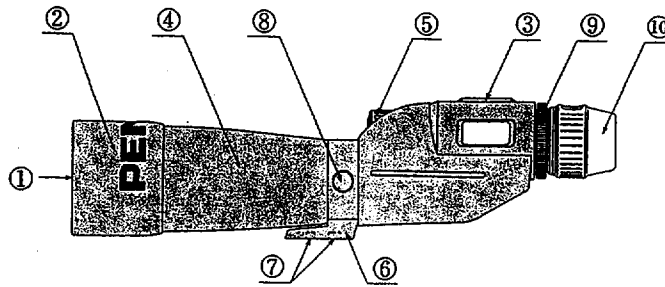


衝撃を与えないで



高温にしないで





**日本語** 各部名称

- ① 対物レンズ
- ② フード
- ③ 照準
- ④ 鏡筒
- ⑤ フォーカスノブ
- ⑥ 三脚座
- ⑦ カメラ三脚ネジ穴
- ⑧ クランプネジ
- ⑨ 接眼レンズ固定リング
- ⑩ 接眼レンズ

**Italiano** Componenti e comandi

- ① Obiettivo
- ② Cappuccio
- ③ Collimatore
- ④ Tubo lente
- ⑤ Pomello di messa a fuoco
- ⑥ Rondella per il treppiede
- ⑦ Foro di fissaggio del treppiede al telescopio
- ⑧ Vite di fissaggio
- ⑨ l'anello di fissaggio dell'oculare
- ⑩ Oculare

**English** Names of Parts

- ① Objective lens
- ② Hood
- ③ Collimator
- ④ Lens tube
- ⑤ Focusing knob
- ⑥ Tripod mount
- ⑦ Camera tripod screw hole
- ⑧ Clamp screw
- ⑨ Eyepiece lens fixing ring
- ⑩ Eyepiece lens

**Español** Nombres de los componentes

- ① Objetivo
- ② Capucha
- ③ Colimador
- ④ Tubo de lente
- ⑤ Botón de enfoque
- ⑥ Arandela de
- ⑦ Agujero de tornillo de trípode de cámara
- ⑧ Tornillo de sujeción
- ⑨ Anillo de sujeción del ocular
- ⑩ Ocular

**Deutsch** Bezeichnung der Teile

- ① Objektivlinse
- ② Gegenlichtblende
- ③ Kollimator
- ④ Linsentubus
- ⑤ Fokussierknopf
- ⑥ Stativ-Beilagscheibe
- ⑦ Einschraubloch für Kamerastativ
- ⑧ Klemmschraube
- ⑨ Sicherungsring der Okularlinse
- ⑩ Okularlinse

**Nederlands** De verschillende onderdelen

- ① Objectief
- ② Kap
- ③ Zoek kijker
- ④ Lensbuis
- ⑤ Schepstellingsknop
- ⑥ Sluitring voor statief
- ⑦ Camerastatiefaansluiting
- ⑧ Klemschroef
- ⑨ Bevestigingsring van het oculair
- ⑩ Oculairlens

**Français** Descriptif

- ① Lentille de l'objectif
- ② Cache
- ③ Collimateur
- ④ Tube à lentille
- ⑤ Bouton de mise au point
- ⑥ Rondelle de pied
- ⑦ Trou de vis du pied de caméra
- ⑧ Vis de blocage
- ⑨ l'anneau de fixation de la lentille oculaire
- ⑩ Lentille oculaire

**中國語** 部件名稱

- ① 物鏡
- ② 防護罩
- ③ 准直儀
- ④ 鏡頭管
- ⑤ 調焦旋鈕
- ⑥ 三角架墊圈
- ⑦ 相機三角架螺絲孔
- ⑧ 夾緊螺絲
- ⑨ 目鏡鏡頭固定環
- ⑩ 目鏡

## English

### Features

The Pentax Spotting scope PF-80ED is a high-performance telescope employing advanced optical technology and based on Pentax's plentiful experience in this field.

Multicoating on each of the lenses ensures a clean image throughout the field of view. The eyepiece lens attachment is of the American 1 1/4 inch size generally used with astronomical telescopes. This enables use of the astronomical XL eyepiece, a high-performance eyepiece lens, and produces powerful, sharp images.

Nitrogen gas inside the unit prevents the lens from clouding over due to temperature differences and enables use in rain and inclement weather conditions.

### ⚠ WARNINGS

1. To avoid serious eye damage, NEVER look at the sun using the spotting scope.  
Serious damage to the retina, or total loss of eyesight may occur.
2. Do not leave the spotting scope in direct sunlight. Sun rays passing through the spotting scope will be intensified, and should they focus on flammable materials, fire may occur.

### ⚠ Safety Precautions

1. Take care not to let your fingers get caught up when you attached the spotting scope to the tripod.
2. Using the spotting scope continuously for a long time may cause inflammation of the skin around the eye where the eyepiece ring come in contact with the skin. Consult a physician if any symptoms are noticed.
3. Do not wave the instrument around, either in its case or with the tripod attached. It may hit someone and cause injury.
4. Take care with the vinyl bag and cap. To avoid any risk of suffocation, do not put the instrument within the reach of young children.

### Handling Precautions

1. The instrument cannot be used alone. It must always be used with the eyepiece lens, which must be purchased separately.
2. Do not apply too much force when turning the focus knob or the clamp screw or when attaching the instrument to the tripod. Excessive force will damage the instrument.
3. Do not drop the spotting scope or subject them to strong vibration, impact or pressure.
4. Never expose the spotting scope to high temperature (Over 60 degrees centigrade or 140 degrees Fahrenheit). Avoid leaving the spotting scope for an extended period of time in a hot humid place such as in a car parked in the sun or near a heater, as this could cause the spotting scope to become deformed.
5. Do not use the spotting scope under the water. When splashed with salty water, wipe off them with dry clean cloth moistend with fresh water.
6. Take care against sand and mud. Contact with sand and mud is likely to impair proper functioning. Take precautions in this respect when using the instrument.
7. Your Spotting scope is waterproof, but any drops of water attached to it after use should be wiped away with a dry cloth. Do not wipe with thinner, alcohol, benzene or any other chemical.  
If the lens has become dirty, first blow away any dust on the surface and then wipe gently with gauze or commercially available lens-cleaning paper soaked in a lens-cleaning solution.  
Wiping too hard when dust is attached to the lens may scratch the lens and should be avoided.
8. Spotting scope should be stored in a well-ventilated place to prevent fungus growth. Never store them in a closet with mothballs or in an environment where chemicals are handled.

## How to Use

- 1. Attach to the tripod.**

The spotting scope unit should be used attached to a tripod, etc. (see 1-1).  
The camera tripod screw hole at the bottom of the unit should be used to attach the tripod.  
Opening the fastener at the bottom of the case makes it possible to use the spotting scope attached to the tripod while the unit remains inside its case. (see 1-2)
- 2. Attaching the eyepiece lens (extra)**

Insert the eyepiece lens firmly into the eyepiece lens attachment section, turn the eyepiece lens fixing ring in the (→LOCK) direction on the unit, and fix the lens securely. (see 2)  
To remove, loosen the eyepiece lens fixing ring in the reverse direction from the locking direction and detach the lens.
- 3. Eye cap (for use with the Pentax XL Eyepiece and the Zoom Eyepiece)**

The position of the eye cap can be freely adjusted within the movable range. Adjust to obtain the best possible overall view. For further details on how to use the eye cap, see the explanation of use of the eyepiece lens. (see 3)
- 4. Collimator**

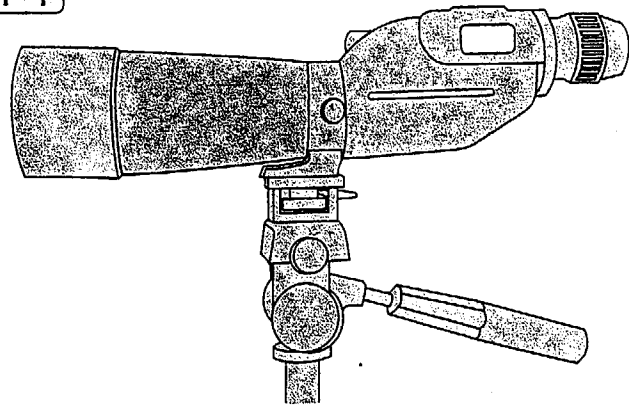
A collimator is set on top of the lens tube. The place in which a straight line of vision is obtained is the standard for the centre of the field of view of the eyepiece lens. (see 4)
- 5. Focusing**

Turn the focus knob and adjust so that the object can be clearly seen within the field of view. Turning the focus knob to the right (from the eyepiece lens side) enables focusing at long distances. Turning to the left results in focusing at short distances. (see 5)
- 6. Using the hood**

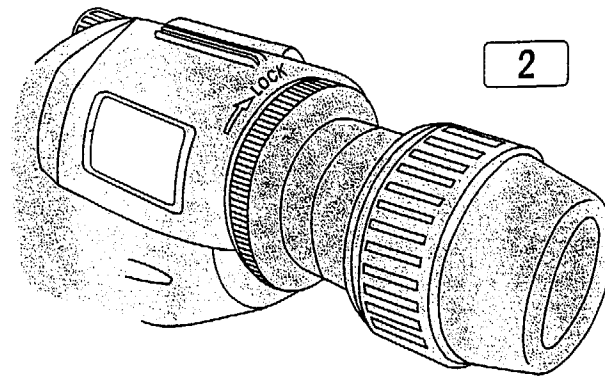
Pull out and use when necessary. (see 6)
- 7. Clamp screw**

Loosen the clamp screw to turn the unit freely to left or right and to obtain the most suitable posture for observation. There are eight click stops as the unit is rotated. Fix the clamp screw by tightening it in the most suitable position. (see 7)

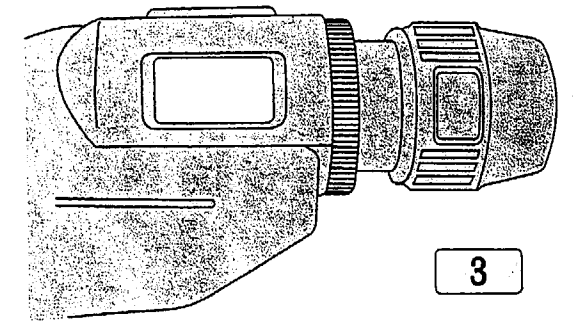
1-1



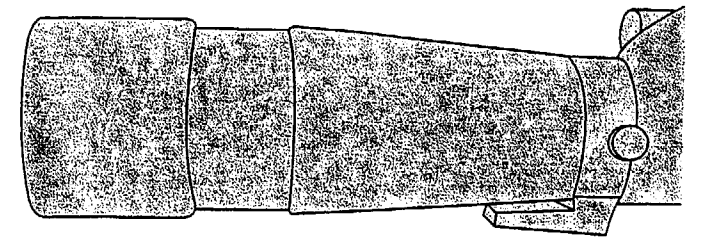
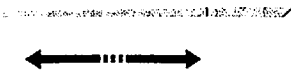
2



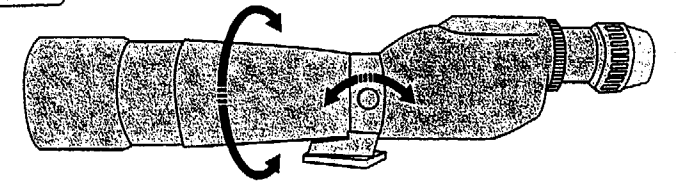
3



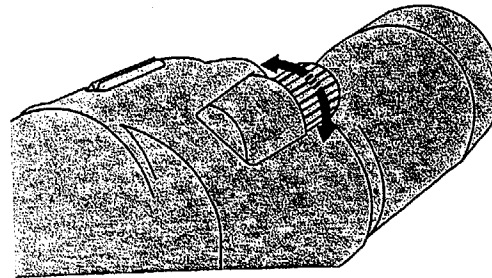
6



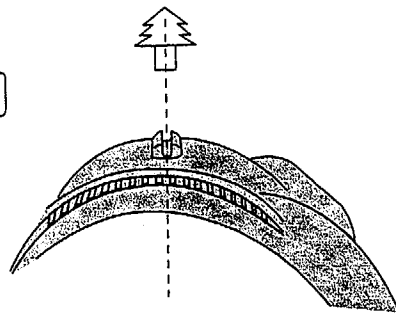
7

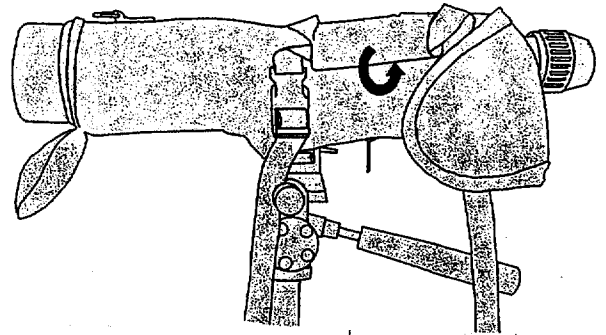
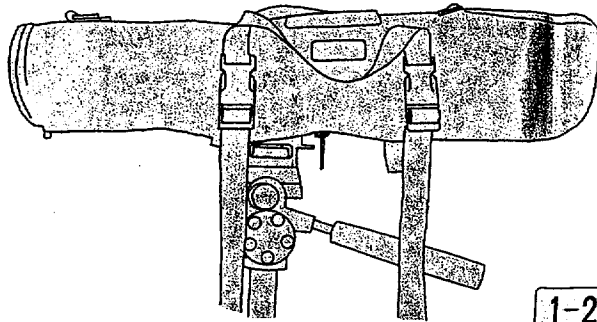
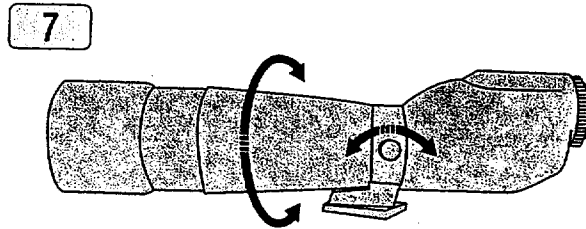
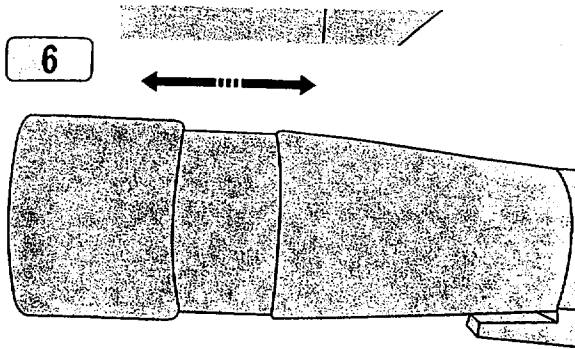


5



4





**English**

**Specifications**

Models	PF-80ED					
Features	Porro-prism Straight type					
Type	Porro-prism Straight type					
Magnification	18X	24X	36X	48X	72X	20~60X
Eyepiece lens	XL28	XL21	XL14	XL10,5	XL7	SMC PENTAX ZOOM EYEPIECE (4mm)
Effective diameter of objective lens	80mm					
Attachment diameter	31.7mm (1.25in)					
Real field of view	3.0°	2.7°	1.8°	1.4°	0.9°	1.9~1°
Field of view at 1000m	52m	47m	31m	24m	16m	33m~17m
Field of view at 1000yards	156ft.	141ft.	93ft.	72ft.	48ft.	99ft.~51ft.
Exit pupil aperture	4.4mm	3.3mm	2.2mm	1.7mm	1.1mm	4~1.3mm
Relative brightness	19.4	10.9	4.8	2.9	1.2	16~1.7
Eye relief	20mm	20mm	20mm	20mm	20mm	20mm
Focusing range	About 5.8m to infinity (19.0 ft to infinity)					
Eyepiece ring	Collet type					
Waterproof	1m depth of water, Nitrogen filled					
Length×Height×Width (Body)	(395~440)mm×120mm×98mm (15.6~17.3)in×4.7in×3.9in					
Length×Outside diameter (Eyepiece lens)	86×60mm 3.4×2.4in	86×60mm 3.4×2.4in	97×60mm 3.8×2.4in	107×60mm 4.2×2.4in	113×60mm 4.4×2.4in	144×69mm 5.7×2.7in
Weight (Body)	1400g (49.4 oz)					
Weight (Eyepiece lens)	340g 12 oz	325g 11.5 oz	360g 12.7 oz	380g 13.4 oz	425g 15 oz	550g 19.4 oz
Tripod mount	1/4 in, 3/8 in					
Accessories	Objective lens cap, Case					



## 旭光学工業株式会社

〒174-8639 東京都板橋区前野町2-36-9

## ペンタックス販売株式会社

〒100-0014 東京都千代田区家田町1-11-1

### ●お問い合わせは次の各サービス窓口へ

- ペンタックスフォーラム 〒163-0401 東京都新宿区西新宿2-1-1 新宿三井ビル1階(私書箱240号)  
☎03(3348)2941(代)
- 旭光学 東京 サービスセンター 〒104-0061 東京都中央区銀座西8-10 (土橋交差点交番並び)  
☎03(3571)5621(代)
- 〃 札幌 サービスセンター 〒060-0010 札幌市中央区北10条西8-36 ペンタックス札幌ビル4階  
☎011(812)3231(代)
- 〃 仙台 サービスセンター 〒981-3133 仙台市泉区泉中央1-7-1 千代田生命泉中央駅ビル3階  
☎022(371)6663(代)
- 〃 新潟 サービスセンター 〒951-8067 新潟市本町通7番町1153 新潟本町通ビル4階  
☎025(224)8391(代)
- 〃 横浜 サービスセンター 〒231-0047 横浜市中区羽衣町2-7-10 日本生命隣内ビル8階  
☎045(232)5281(代)
- 〃 静岡 サービスセンター 〒420-0858 静岡市伝馬町24-2 住友建設ビル5階  
☎054(265)6308(代)
- 〃 名古屋 サービスセンター 〒461-0001 名古屋市東区泉1-19-8  
☎052(862)5331(代)
- 〃 大阪 サービスセンター 〒542-0081 大阪市中央区南船場1-17-9 パールビル2階  
☎06(6271)7996(代)
- 〃 広島 サービスセンター 〒739-0035 広島市西区南観音3-5-2 空港通りビル6階  
☎082(234)5681(代)
- 〃 福岡 サービスセンター 〒810-0802 福岡市博多区中洲中島町3-8 パールビル1階  
☎092(281)6868(代)
- 〃 お客様相談室 〒104-0061 東京都中央区銀座西8-10 (土橋交差点交番並び)  
☎03(3572)6479

※日曜・祝日および土曜日は原則として休みます。  
ただし、年末年始を除きペンタックスフォーラムは年中無休です。

### ●アフターサービスについて

本製品の、補修用性能部品は、製造打ち切り後5年間を目安にして保有しております。従って本期間中は原則として修理をお受け致します。なお、期間以後であっても修理可能な場合もありますので、当社サービス窓口にお問い合わせください。

## PENTAX

Asahi Optical Co., Ltd. 11-1, Nagata-cho 1-chome, Chiyoda-ku, Tokyo 100-0014, JAPAN  
(Internet://www.pentax.co.jp/)

Pentax Europe n.v. Weivekelaan 3-5, 1930 Zaventem, BELGIUM  
(Internet://www.pentaxeurope.com/)

Pentax GmbH. Julius-Vosseler-Strasse, 104, D-22527 Hamburg, GERMANY  
(Internet://www.pentax.de/)

Pentax U.K. Limited Pentax House, Heron Drive, Langley, Slough Berks SL3 8PN, U.K.

Pentax France S.A. 12/14, rue Jean Poulmarch, 95100 Argenteuil Cedex, FRANCE

Pentax Benelux B.V. (for Netherlands) Spinveld 25, 4815 HR Breda, NETHERLANDS  
(for Belgium & Luxembourg) Weivekelaan 3-5, 1930 Zaventem, BELGIUM

Pentax (Schweiz) AG Industriestrasse 2, 8305 Dietlikon, SWITZERLAND

Pentax Scandinavia AB P.O. Box 650, 75127 Uppsala, SWEDEN

Pentax Corporation 35 Inverness Drive East, Englewood, Colorado 80112, U.S.A.  
(Internet://www.pentax.com/)

Pentax Canada Inc. 3131 Universal Drive, Mississauga, Ontario L4X 2E5, CANADA

☆ SPECIFICATIONS ARE SUBJECT TO CHANGE AT ANY TIME WITHOUT NOTIFICATION OR ANY OBLIGATION ON THE PART OF THE MANUFACTURER.

☆ DIE TECHNISCHEN DATEN DES PRODUKTES KÖNNEN JEDERZEIT OHNE WEITERE VERPFLICHTUNGEN SEITENS DES HERSTELLERS GEÄNDERT WERDEN.

☆ LES CARACTERISTIQUES DE CET APPAREIL SONT SUJETTES A MODIFICATIONS SANS AUCUN ENGAGEMENT DE LA PART DU FABRICANT.

☆ LE CARATTERISTICHE POSSONO ESSERE SOGGETTE IN QUALSIASI MOMENTO A VARIAZIONI SENZA ALCUN PREAVVISO O OBBLIGO DA PARTE DEL FABBRICANTE.

☆ LA FICHA TECNICA ES SUSCEPTIBLE DE MODIFICACION EN CUALQUIER MOMENTO SIN NOTIFICACION NI OBLIGACION ALGUNA POR PARTE DEL FABRICANTE.

☆ SPECIFICATIES KUNNEN TE ALLEN TIJDE WORDEN GEWIJZIGD ZONDER VOORAFGAANDE KENNISGEVING OF ENIGE VERPLICHTING VAN DE KANT VAN DE FABRIKANT.

☆ 上述部份規格如有更改，請恕廠方不另行通知。

☆ 記載内容の仕様などの一部が予告なく変更される場合があります。