H. W. ENGLISH

Specialists in Optics

Optical Catalogue

469 RAYLEIGH ROAD, HUTTON
BRENTWOOD, ESSEX CM13 1SU
TELEPHONE BRENTWOOD 221685 (STD Code 0277)

TERMS AND CONDITIONS OF BUSINESS

1. All goods are offered subject to availability on receipt of order.
2. We reserve the right to withdraw from sale any item listed and to alter specifications and prices without notice at any time.
3. Wherever possible all orders are despatched within seven days of receipt. In cases where this cannot be accomplished the customer will be notified immediately.
4. If your order is not received within 14 days notify us immediately in writing.
5. All claims for loss or damage in transit must be made in writing within seven days of delivery. Do not return goods until we advise you to do so; We cannot accept responsibility for goods sent to us without our written consent.
6. Examination on receipt must be confined to conditions of normal use; the dismantling of any equipment, the removal of any part, and cleaning in any way whatever is undertaken at the purchaser's risk and nullifies any guarantee. This applies to both new and used equipment and also to the intervention of any third party.
7. All goods are cash with order. No hire purchase terms or C.O.D. Prices are applicable to U.K. only; overseas orders (including Ireland) by written quotation.
8. Monthly accounts, except to Government departments and Education Authorities, are by special arrangement only, and remain at all times subject to our conditions of business. All further conditions of purchase are expressly excluded. Minimum value order for monthly account is £10.00. All orders below this value must without exception be accompanied by cash.
9. With the exception of Barclaycard/Access Rush Service we do not accept orders by telephone. This applies to monthly accounts. We regret that we do not have staff available to answer detailed telephone enquiries. We are happy to assist wherever possible if queries are made by letter, enclosing adequate return postage (12p minimum). The same stipulation also applies to requests for catalogues and price lists, etc.
10. POST AND PACKING CHARGES ARE EXTRA ON ALL ORDERS UNLESS OTHERWISE STATED. Please allow 5 per cent of total cost of order. MINIMUM CHARGE 35p per order.
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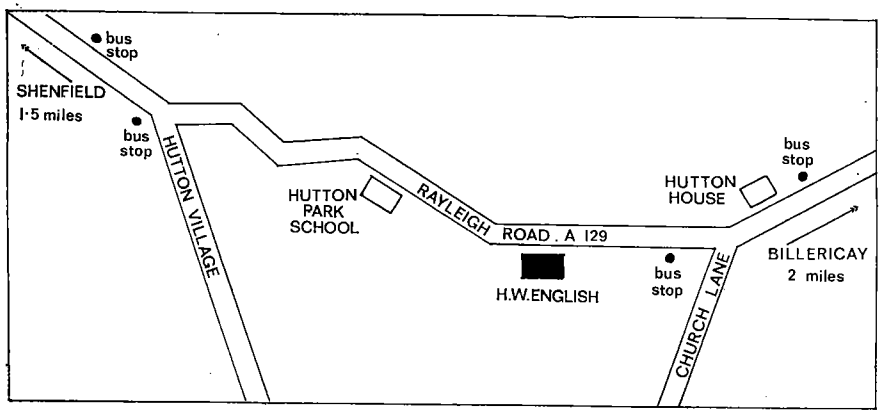
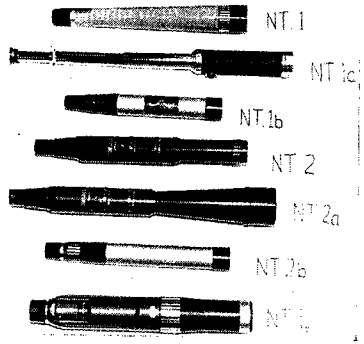
12. PERSONAL COLLECTION DISCOUNT. All orders totalling £10 or more in value from this catalogue which are paid for and collected from our shop by the buyer are subject to a discount; the only exceptions are items marked DNA (Discount not applicable). Our discount structure is as follows:
    (a) 15 per cent discount for cash payment.
    (b) 10 per cent discount for Barlaycards and Access.
    (c) 5 per cent discount for cheques. Please note that the acceptance of cheques is entirely at our discretion.
13. All prices shown in this catalogue INCLUDE value added tax at the current rate. Our VAT registration number is 246 3806 55.

Our hours of business, both shop and office, are 9 a.m. to 1 p.m. and 2 p.m. to 5.30 p.m. from Mondays to Saturdays. We are closed all day Sundays.





NT.1. 25 power. 30mm diameter objective. 1.1. degree field of view. Bloomed. Erect image. Objective focussing, closest focussing distance 10 feet. Length 12″. Overall diameter 1½″. Weight 10 ounces. With tripod bush.

NT.1a. Variable power, 10 to 30. 30mm diameter objective. Maximum field of view 2.3 degrees. Bloomed. Erect image. Drawtube focussing, closest focussing distance 9 feet. Length (closed) 6½″, (open) 15¾″. Overall diameter 1½″. Weight 11 ounces. Supplied with small carrying case.

NT.1b. 15 power. 30mm diameter objective. 2.5 degree field of view. Bloomed. Erect image. Drawtube focussing, closest focussing distance 2 feet. Length 9½″. Overall diameter 1⅜″. Weight 4½ ounces. The good field of view, high luminosity, and unusually close focussing facility coupled with an achromatic object glass of unusually high quality for an instrument in this price range make this instrument useful for a large number of purposes where expenditure must be kept to a minimum.

NT.2. Zoom 9-30 power. 30mm diameter objective. Maximum field of view 5¼ degrees. Bloomed. Erect image. Helical focussing, closest focussing distance 18 feet. Length 12″. Overall diameter 1½″. Weight 12 ounces. With tripod bush.

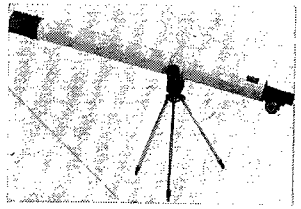
NT.2a. Zoom 15-60 power. 50mm diameter objective. Maximum field of view 3.3 degrees. Bloomed. Erect image. Helical focussing, closest focussing distance 36 feet. Length 15″. Overall diameter 2¼″. Weight 14 ounces. With tripod bush.

NT.2b. Zoom 6-18 power. 30mm diameter objective. Maximum field of view 6 degrees. Bloomed. Erect image. Drawtube focussing, closest focussing distance 7 feet. Length 10½″. Overall diameter 1⅜″. Weight 8 ounces.

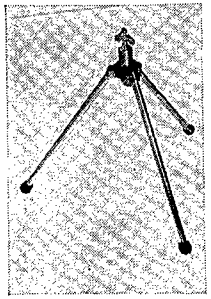
NT.4. Zoom 8-25 power. 30mm diameter objective. Maximum field of view 3.8 degrees. Bloomed. Erect image. Objective focussing, closest focussing distance 15 feet. Length 12½″. Overall diameter 2″. Weight 19 ounces.

THE ABOVE FIVE ZOOM TELESCOPES ALL MAKE USEFUL SHORT RANGE SPOTTING 'SCOPES.

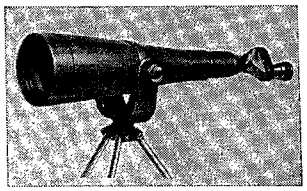
NT.3. Powers 15, 30 and 45. 40mm diameter objective. Maximum field of view 1½ degrees. Bloomed. Erect image. Rack and pinion focussing, closest focussing distance 28 feet. Length 24″. Overall diameter 2¼″. Weight 36 ounces. On metal table tripod, with yoke mount.



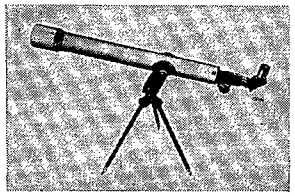
NT.4a. Zoom 12 to 40 power. 40mm diameter objective. Maximum field of view 2 degrees. Bloomed. Erect image. Helical focussing of object lens, closest focussing distance 20 feet. Length 16½″. Diameter 2″. Weight 1 lb 6 oz. With standard tripod bush.



NT.5



N.T6



NT.8

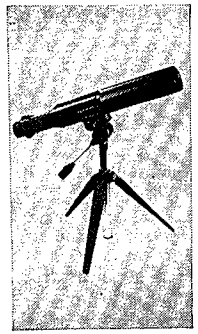
NT.5. Table tripod, metal construction. Height 9″. Weight 10 ounces. With standard ¼″ screw fitting for cameras or small telescopes.

NT.6. Prismatic spotting telescope, 30 power. 60mm diameter objective. 1¼ degree field of view. Bloomed. Erect image. Eyepiece focussing, closest focussing distance 40 feet. Length 12″. Overall diameter 2¾″. Weight 22 ounces. With metal table tripod and yoke mount. This telescope is, in our opinion, the best bet where a relatively inexpensive spotting telescope of good optical quality is required.

NT.8. Powers 30, 48 and 100. 50mm diameter objective. Maximum field of view 1 degree. Bloomed. Erect image. Rack and pinion focussing. Length 25″. Overall diameter 2½″. Weight 3 lb 7 oz. Supplied with 3 eyepieces, prism diagonal and metal table tripod.

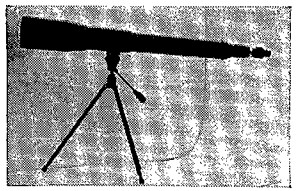
NT.8a. Telescope same as NT.8 but supplied with full length wood and metal tripod.

NT.9. Zoom 9-30 power. 40mm diameter objective. Maximum field of view 3 degrees. Bloomed. Erect image. Objective focussing, closest focussing distance 32 feet. Length 14¼″. Overall diameter 2″. Weight 2 lb. 10 oz. On de luxe metal tripod with pan and tilt head.



NT.11. Prismatic spotting telescope. 22 power. 60mm diameter objective. 2 degree field of view. Bloomed throughout. Erect image. Eyepiece focussing, closest focussing distance 28 feet. Length 15½″. Overall diameter 2½″. Weight 1 lb. 10 oz. Unusually sharp definition. Available either with all metal adjustable low level Tripod, or with clamp fitted with standard ¼″ screw fitting for attachment to a photographic Tripod.

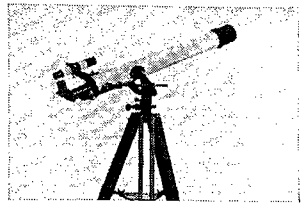
NT.11a. Specification as for NT.11, but fitted with 45 degree angled eyepiece unit. Tripod and clamp as for NT.11. A good quality leather case is also available for either NT.11 or 11a. Both NT.11 and 11a may be increased in power to 30, 40 or 50 magnification by fitting extra eyepieces, which we also stock.

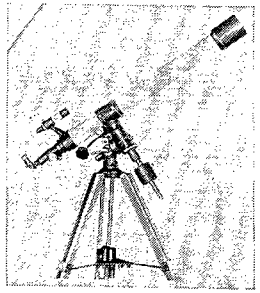


NT.13. Zoom 30-120 power. 80mm diameter objective. Maximum field of view 1.7 degrees. Bloomed. Erect image. Helical eyepiece focussing, closest focussing distance 33 feet. Length 27½″. Overall diameter 3½″. Weight 3 lb. 12 oz. On tripod with pan and tilt head.

NT.13a. (not illustrated). Zoom 20 to 90 power. 60mm diameter objective. Maximum field of view 2 degrees. Bloomed. Erect image. Helical eyepiece focussing, closest focussing distance 22 feet. Length 22″. Overall diameter 2½″. Weight 2 lb. 10 oz. On short tripod with pan and tilt head.
A smaller version of NT.13, this telescope is very useful where high power is required together with light weight, at a reasonable price.

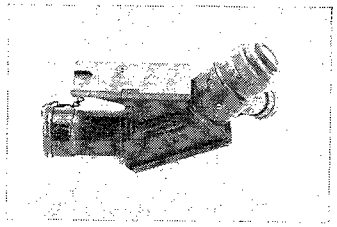
NT.14. Astro refractor. Powers 35, 70, 117, 234, 60mm diameter objective of 700mm focal length. Maximum field of view 0.8 degree. Bloomed. Inverted image. Rack and pinion focussing. Length 28″. Weight 16 lb. 4 oz. Supplied with 2 eyepieces, diagonal prism, 2× Barlow, finder telescope, adjustable mount on full length wood and metal tripod complete in wooden carrying case.

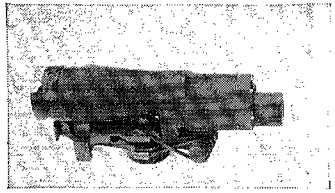




NT.15. Astro refractor. Powers 62, 124, 208, 312, 416 and 625. 77mm diameter objective of 1260mm focal length. Bloomed. Erect or inverted image. Rack and pinion focussing. Supplied with 3 eyepieces, 2× Barlow, erecting prism, diagonal prism, sun diagonal, projection screen, finder telescope, filters, on equatorial mount with setting circles and full length wood and metal tripod, complete in fitted wooden case.

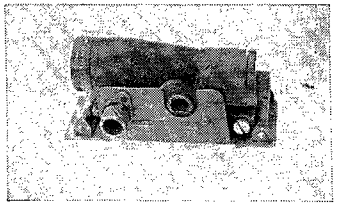
T.24. Angle telescope, eyepiece at 45 degrees to line of sight. 3 power. 12mm diameter objective. Field of view 14 degrees. Erect image. Eyepiece focussing. Length 5¼″. Weight 2 lb. 4 oz. Small cross graticule with provision for illumination. In small wooden case.

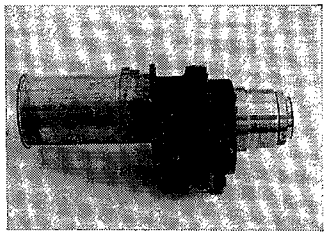




T.28. Prismatic sighting telescope. Ex-government. 1½ power. 9mm diameter objective. 9 degree field of view. Erect image. Fixed focus. Length 5¼″. Weight 1 lb. 4 oz. Circle and dot or small crossline graticule.

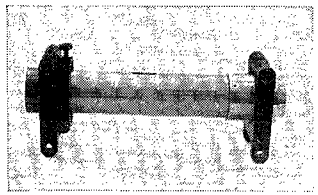
T.29. Prismatic sighting telescope. Ex-government. 1 power. 7mm diameter objective. 10 degree field of view. Erect image. Fixed focus. Length 4¾″. Weight 1 lb. 3 oz. In adjustable mount which can be aligned in a matter of seconds. Highly recommended. Circle and dot graticule.



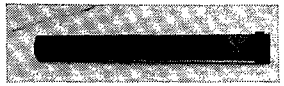


T.35. Prismatic finder telescope. Ex-government. 3 Power. 22mm diameter objective. 18 degree field of view. Bloomed. Erect image. Fixed focus. Five glass erfle eyepiece with cross line graticule. Length 8¾″. Overall diameter 4″. Weight 3¾ lb.

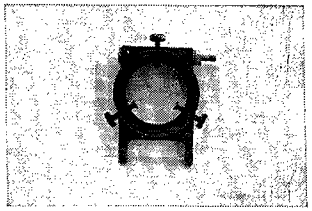
NT.16. Sighting telescope of our own construction, using both new and ex-government components. 4 power. 30 mm diameter objective, fully corrected and bloomed. 10 degree field of view. Inverted image. Wide angle Kellner eyepiece. Fixed focus. Service type graticule with circle and dot and graduated scale. Length 7½″. Weight 14 oz.

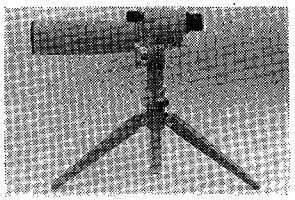


T.75. Sighting telescope by Ottway, London. Ex-government. 1 power. 32mm diameter objective. 35 degree field of view. Erect image. Fixed focus. Length 15″. Weight 2 lb. 10 oz. All brass construction. Cross line graticule with three rings, giving 25½ degrees divided into steps of 4¼ degrees, the whole divided into twelve equal segments. An instrument of great accuracy for any sighting or collimating purpose. In fitted wooden case.



T.77. Finder telescope mounts. Specially designed adjustable mounts with four point suspension which will fit any size or shape of tube. Simple 2 hole fixing (2 BA). Fit telescopes up to 42mm outside diameter.



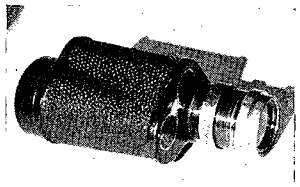


NT.18. Prismatic spotting telescope. Powers 16 to 36 zoom. 60mm diameter object lens of 420mm effective focal length. Maximum field of view 2 degrees. Closest focussing distance 20 feet. Bloomed throughout. Erect image. Length 10½″. Weight 32 ounces. This Telescope is one of the sharpest that we have have ever tested, possessing a triplet objective, eight element zoom eyepiece and built in achromatic barlow lens. On shooting-type adjustable all metal low-level tripod.

NT.18a. Telescope identical to NT.18 but single 20× power, closest focussing distance 32 feet.

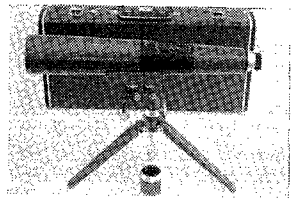
NT.18e. Interchangeable 48× eyepiece available as an optional extra for either NT.18 or 18a.

NT.19. Wide-Field Prismatic Monocular with long eye-relief. Adapted by us from the best of new and ex-government equipment, this instrument combines a wide field of view of unusual brightness with ease of use obtained by the provision of a long eye-relief which means that even the spectacle wearer may obtain the full field of view. DEFINITION AND RESOLUTION GUARANTEED TO BE EQUAL TO ANY COMPARABLE INSTRUMENT REGARDLESS OF PRICE. Power 6½. 30mm diameter objective. Field of view 8 degrees. Bloomed on internal optical surfaces. Erect image. Eyepiece focussing. Length 4½″. Weight 11¾ ounces.



NT.19a. The above instrument can be supplied wtih the eyepiece adapted to screw directly into the filter mounts of SLR camera lenses, allowing photography by the afocal method. With a 58 mm. camera lense an effective focal length of 375 mm. is obtained, aperture f12.5. Available to fit either 49 mm. or 52 mm. filter mounts (state which size required).

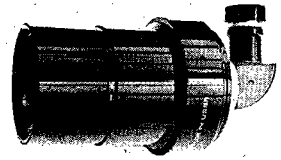
NT.20. Close focussing monocular. Identical in specification to NT. 19, this instrument can be supplied to focus at any distance from 1 foot to infinity. Merely order stating the focussing distance which you require and we will supply the monocular adjusted so as to focus at this distance. Invaluable in any form of micro-engineering, as well as product inspection and control in all branches of industry. Supplied with lugs for fitting.



NT.21. 1000 to 4000 mm. zoom telephoto lens AND 15 to 60× telescope combined. Beautifully constructed 14 element optical system gives the ultimate in telephoto power coupled with a really first class telescope. Photographic apertures f16 to f64. 60mm. diameter objective. Maximum field of view 33 degrees. Bloomed. Visual image erect. Central zoom and focussing controls, calibrated visual power and distance in feet and meters, also special calibration for infra red photography. Length 17½″. Overall diameter 3″. Weight 3½ lbs. Supplied with special low-level tripod, T-mount adaptor, and de-luxe attache style case, available separately.

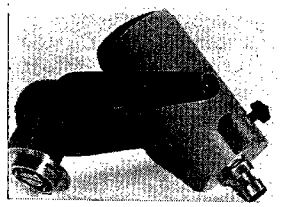
TELESCOPE ADAPTORS FOR PHOTOGRAPHIC LENSES

AP.1. Zoom eyepiece unit for photographic lenses, converts any lens of longer focus than 135mm into a terrestrial telescope. Power of the telescope depends on the focal length of the camera lens, for instance with a 200mm lens power is 8-25, maximum field of view 4½ degrees. Resolution of the eyepiece unit is very fine, with a good objective 1¼ seconds of arc may be exceeded with very little difficulty. Supplied ready to use in 'T' mount fitting tube—for lenses having adaptable 'T' mounts merely remove the adaptor which fits into your camera and screw the eyepiece unit directly onto the thread on the lens. For non-adaptable lenses an extra adaptor is required (male 'T' mount to female fitting suitable for your camera lens) available either from the suppliers of your camera or from us. Most fittings are available (screw types generally from stock) but there may be some delay with complex bayonet mounts.

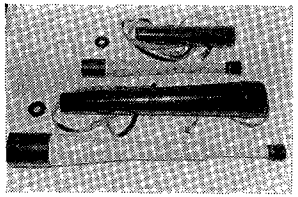


AP.2. Angled eyepiece unit for photographic lenses; this is an alternative unit to the above providing a right angled viewing position which may be more comfortable for some purposes. The image is erect but inverted laterally. Power with a 550mm lens will be 35, field of view 2 degrees. Resolution is at least as good as AP.1. Barlow lens no. NB3 may be used to boost the power of AP.2 by a factor of 2½, producing 32× with a 200mm lens. 42mm screw fitting only.

Various other permutations are possible using our listed accessories, for instance if adaptor AD.7 is used on a good quality, long focus lens, any RAS fitting eyepiece may be added to form an astro telescope—a short extension ring may be necessary for correct focussing. Alternatively a barlow lens such as NB.1 or NB.3 may be used to provide a power boost. If AD.1 is added to AD.7 the range of possible eyepieces is extended to include any 24.5mm fitting type, also barlow lenses, erecting lenses, etc., as listed. For all telescopic purposes mirror lenses are strongly recommended due to their complete lack of chromatic aberration, very important in visual work, and using a lens of high quality such as the MTO.550 and high quality eyepieces selected from our lists, a telescope which could compare with the famous 'Questar' for image quality may be built up to the user's individual requirements. If you have difficulty deciding which eyepieces etc., would be the best to employ we will be happy to advise (by letter, please, we regret we cannot give advice by telephone).

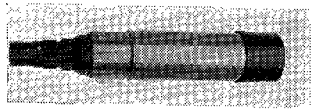


NT.24. Maksutov type reflecting astro telescope of high quality and very compact dimensions. Powers 50 and 72. 70mm diameter objective of 765mm effective focal length. Maximum field of view one degree. Inverted image. Bloomed. Eyepiece focussing. Length 8½″. Weight of telescope 10 lbs. Supplied complete with strongly made altazimuth mount and adaptor bush for fitting to standard photographic tripod, plus sun projection screen and fittings. Several experts we have spoken to consider that this telescope compares very favourably with widely advertised and expensive American instruments of similar type. Resolution exceeds 1.5 seconds of arc.



NT.25 Terrestrial telescope, 20 power. 50mm diameter objective. 2 degree field of view. Bloomed optics. Erect image. Micro focussing on eyepiece plus single drawtube. Closest focussing distance 80 feet. Length closed 15″, open 19½″. Overall diameter 2¼″. Weight 22 ounces. Finish is in good quality enamel with extensible sunshade cap. Image quality is most attractive with very fine contrast. Supplied with screw top carrying case.

NT.25a. 10 power. 30mm diameter objective 4.5 degree field of view. Bloomed. Erect image. Eyepiece focussing, closest focussing distance 20 feet. Length 12¾″. Overall diameter 1.6″. Weight 9 ounces Supplied with black plastic carrying case with lanyard.

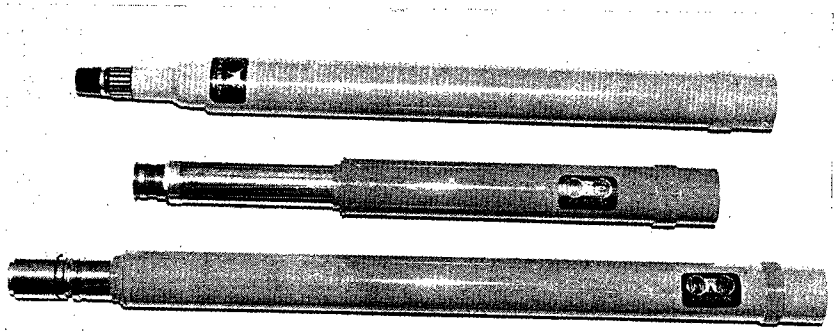


NT.25b. Zoom 14 to 45 power. 50mm diameter objective. Maximum field of view 2½ degrees. Bloomed. Erect image. Helical focussing on eyepiece plus single drawtube. Closest focussing distance 20 feet. Length closed 11″, open 15½″. Overall diameter 2¼″. Weight 20 ounces. With tripod bush. A very useful compact instrument for field work where small size, high power, and versatility must be combined.

NT.26. Zoom Ultrascope. Powers 19-57. 48mm diameter objective. Maximum field of view 1.6 degrees. Erect image. Drawtube focussing, closest focussing distance 30 feet. Length 25″. Overall diameter 2¼″. Weight 2 lbs. This instrument is especially convenient as a portable terrestrial 'scope, and is also ideally suited for use as a spotting telescope for rifle, pistol or archery at all ranges.

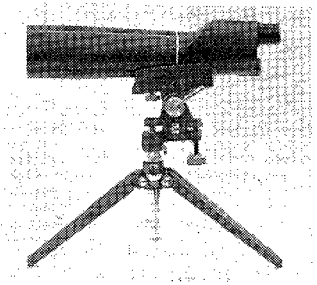
NT.27. Terrestrial Ultrascope. 32 power. 48mm diameter objective. Field of view one degree. Erect image. Drawtube focussing, closest focussing distance 12 feet. Length 27″. Overall diameter 2¼″. Weight 3¼ lbs. This instrument uses a lens erector system giving an eye relief of almost two inches and is thus ideally suited to all spectacle wearers, since it affords the full field of view in complete comfort even with very thick spectacle lenses. It has an RAS fitting eyepiece tube, allowing full interchangeability with any RAS eyepiece, or other fittings with the appropriate adaptor.

NT.28. Astro Ultrascope. 25 power. 48mm diameter objective. Field of view 2¼ degrees. Inverted image. Drawtube focussing. Length 20″. Overall diameter 2¼″. Weight 2¼ lbs. This model also has RAS eyepiece fitting, allowing full interchangeability as NT.27 above. Also the Ultrascope barlow lens may be used, giving powers in excess of 100 whilst retaining good eye relief and field of view. In fact, using eyepieces down to 4mm focal length powers up to 450 could theoretically be obtained. Although at these limits the image becomes so dim as to be practically valueless, magnifications up to 200 or more may be quite usefully employed on suitably bright astronomical subjects. This is made possible by the fine quality of the Ultrascope objective lens, originally designed for Barr and Stroud range-finding equipment to standards far above those required for civilian instruments.

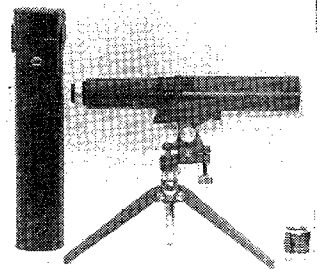


Top NT.26. Middle NT.28. Bottom NT.27.

NT. 29.



NT. 32.

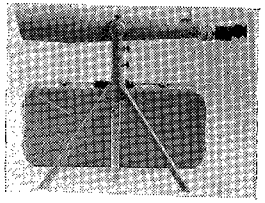


NT. 33.

NT.29. Terrestrial telescope, zoom 30-90 power. 60mm diameter objective. Maximum field of view 0.8 degrees. Bloomed. Erect image. Rack and pinion focussing, closest focussing distance 28 feet. Length 25″. Overall diameter 3″. Weight, complete with wood tripod and altazimuth mount, 8 lbs. A good quality terrestrial outfit at a very reasonable price.

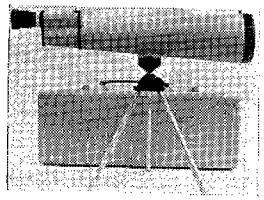
NT.32. Prismatic spotting telescope. Power 20. 60mm diameter object lens. Field of view 2¼ degrees. Fine helical focussing operating on prism unit. Closest focussing distance 13½ feet. Bloomed throughout. Erect image. Length 14½″. Diameter 3½″ × 2½″. Weight 2.1 pounds. By using a special adaptor this telescope may be converted to 'T' mount fitting for use on a wide range of cameras as a 1215mm f20 telephoto lens. We can supply 'T' mount adaptors to suit most modern cameras—see adaptor section (page 29). Additional orthoscopic eyepieces are available which interchange to increase the power of the telescope to 30, 40, 50, or 60×.
The telescope may be attached to any standard photographic tripod, or used with the special low level spotting scope tripod, available separately. Both in terms of versatility and optical quality we feel that this unit is very good value.

NT.33. Zoom spotting telescope. Powers 25 to 50×. 50mm diameter object lens. Maximum field of view 2 degrees. Helical focussing on main barrel adjacent to zooming control marked in feet and metres. Closest focussing distance 20 feet. Bloomed throughout. Erect image. Length 15″. Diameter 2½″. Weight 2 pounds. By using a special adaptor this telescope may be converted to 'T' mount fitting for use on a wide range of cameras as a 1700 to 3400mm zoom telephoto unit, maximum effective aperture f34. The telescope may be attached to standard photographic tripods or to the special low level spotting scope tripod, available separately. A carrying case is available for the telescope (this is tubular in shape and has room for only the telescope itself.



NT.34. Prismatic spotting telescope. Powers 30 and 60×. 70mm diameter object lens. Maximum field of view 1.2 degrees. Helical focussing by ring on main tube. Closest focussing distance 75 feet. Bloomed. Erect image. Length 22″. Diameter 3½″. Weight 2¾ pounds. Supplied with adjustable low level spotting scope tripod and metal carrying case for scope and tripod together. This telescope represents good value for a 60 × 70 terrestrial unit, due to the very sharp definition and good contrast at high power. It does unfortunately suffer from slight amounts of fine dust visible on the eyepiece unit which we have found to be impossible to effectively remove; despite this we have no reservations about the optical quality of the instrument.

NT.35. Prismatic spotting telescope. Powers 20 and 40. 64mm diameter objective. Maximum field of view 2½ degrees. Bloomed. Erect image. Eyepiece focussing. Closest focussing distance (by pulling eyepiece out in retaining collar) 11 metres. Length 40 cm. Overall diameter 8 cm. Weight 1½ kg. Supplied with ball and socket head with screw-in tripod legs adjustable for height to 30 cm. All in sturdy metal carrying case 40 cm × 15 cm × 9 cm.



EYEPIECE TYPES

The eyepieces generally available fall into six broad categories;—Huyghens, Ramsden, Kelner, Symmetrical, Orthoscopic and Erfle. Although differing in field of view and distortion factors, ANY of these types will provide satisfactory performance when correctly used, but if the object glass is defective in some way, or misaligned, or if an inferior Barlow lens or erecting system is used, NONE of them will. If your telescope, when correctly focussed, does not show clear definition at the CENTRE of the field of view, no change of eyepiece will improve matters. Furthermore, serious colour defects are unlikely to be due to the eyepiece alone unless this has been incorrectly assembled. The only occasion on which colour defects can be definitely blamed on an eyepiece is when a reflector type telescope is being used. These are normally free from colour distortion, but aberrations do often show up when large aperture mirrors are used with the cheaper types of eyepiece. Otherwise even the Ramsden eyepiece at high power shows no more than slight fringes of colour, which do not seriously impair resolution. Many people spend large amounts of money on unsuccessful attempts to improve the performance of objectives which they are unwilling to admit to be inferior. Also, much money is spent on short focus eyepieces which would be better spent on long focus types. The view through a telescope fitted with a first class low or medium power wide field ocular is infinitely more satisfying than that with any high power type.

(1) Huyghens. Sometimes marked 'H' or 'HM'. This eyepiece type has two simple lens elements. It is the most frequently used eyepiece in microscopes, due to the fact that it can be fully corrected for lateral chromatic aberration (colour fringing). It has a limited undistorted field of view, this being relatively unimportant for microscope use. It is a useful economy eyepiece for telescopes, but suffers from insufficient eye relief at focal lengths less than 8mm. (The eye relief is the distance between the rear lens and the eye of the observer). Most of the

low power eyepieces sold with Japanese astro and terrestrial telescopes are of the Huyghens type which do not fully exploit the field of view available. Replacement with true wide field eyepieces often produces a spectacular improvement.

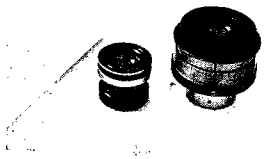
(2) Ramsden. Sometimes marked 'R' or 'SR'. Another two element eyepiece, but differently constructed so as to give a wider field of view, making it better suited to telescope use.

(3) Kelner. Sometimes marked 'K'. This is a three element eyepiece, having a basically similar form to the Ramsden, but employing an achromatic eyelens to give improved colour correction. The Kelner is probably the best kind of general purpose eyepiece available for a moderate outlay.

(4) Symmetrical. Ideally, this eyepiece is made up of two identical achromat lenses, but in practice most ex-government types have lenses which differ slightly. This type of eyepiece, sometimes called 'Plossl' type, gives high quality results. Since both lenses are achromatic, colour correction is very good, also field of view is wide and very flat. Of the types so far mentioned this eyepiece is the only one to offer a really long eye relief, (about three quarters of it's focal length) making for very comfortable observation.

(5) Orthoscopic. Sometimes marked 'Or' or 'O'. This type is of four element construction, a cemented triplet plus a single element eye lens. It can be computed so as to give almost perfect correction of all aberrations, plus wide angle of view and long eye relief. It is an indispensible type for high power work, it's only drawback being a relatively high price.

(6) Erfle. This has five or six elements, the rear lens always having a concave outer surface. For width and flatness of field this eyepiece cannot be surpassed; it offers all the merits of the orthoscopic type except that the eye relief is somewhat less. It's main use is for moderate power work where the field of view and bright image give a really breathtaking effect.



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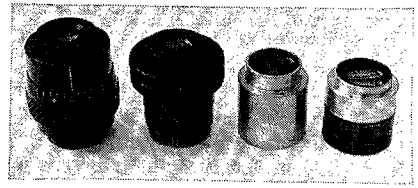

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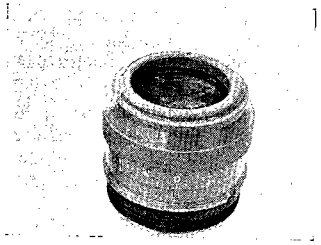

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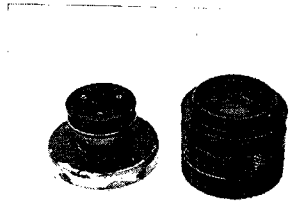
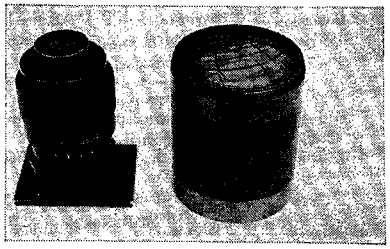


E21 E22



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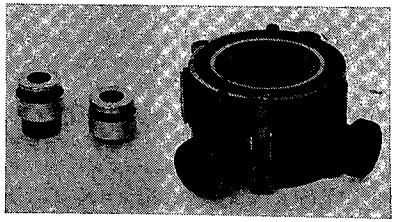

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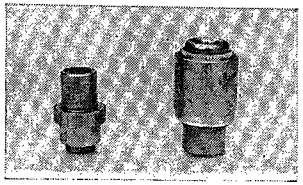
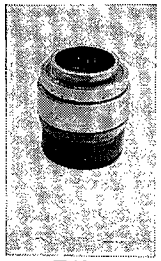


E39 E38



E40

E41

SPECIALIST EX-GOVERNMENT EYEPIECES

Suitable for use with all good quality reflecting and refracting telescopes, as well as numerous special applications.

R.A.S. thread, 1¼″ push in, or 24.5mm push in mounts can be fitted to the eyepieces marked* In some cases these fittings have the effect of reducing the field of view.

E.6*. 18½ mm focal length, 6 lens Erfle. Field of view 76 degrees. Weight 12 oz. In all brass focussing mount with non-rotating optics. New condition.

E.6a. as E.6, but with cross-line graticule.

E.7*. 18½mm focal length, 4 lens Kelner (Plossl). Field of view 53 degrees. Weight 3 oz In brass mount.

E.7a*. This eyepiece can be supplied with the rear mount threaded to screw directly into the filter mounts of SLR camera lenses, allowing photography by the afocal method. Available to fit either 49mm or 52mm filter mounts (state which size required).

E.12*. 31½mm focal length Kelner. Field of view 46 degrees. Weight 13 oz. In all brass focussing mount with non-rotating optics. Secondhand condition only.

E.13*. 27½mm focal length Kelner. Field of view 51 degrees. Weight 12 oz. In all brass focussing mount. Secondhand condition only.

E.14*. 31mm focal length 4 lens Kelner (Plossl). Field of view 53 degrees. Weight 8 oz. In all brass mount.

E.14a. as E.14, but with graticule having centre cross and graduations.

E.15*. 31½mm focal length Kelner. Field of view 51 degrees. Weight 8 oz. In all brass mount.

E.15a. as E.15, but with graticule having centre circle and dot and graduations.

E.20. 44mm focal length 6 lens Erfle. Field of view 60 degrees. Weight 2 lb. 4 oz. Of American manufacture, this eyepiece is used on the Mount Palomar telescope. In focussing mount. To obtain maximum field of view requires the use of a drawtube not less than 2″ in diameter.

E.21. 44mm focal length single lens Kepler. Field of view 44 degrees. Weight 3 oz. In focussing mount. Good condition.

E.22. 39½mm focal length 4 lens symmetrical. Field of view 53 degrees. Weight 13 oz. In brass mount. R.A.S. thread can be fitted. Makes excellent richest field eyepiece. Secondhand condition only.

E.22a. as E.22, but turned down so as to fit into 2″ push fitting tube.

E.22L. Same specification as E.32 but fitted into a new type of brass mount which reduces the total weight to only 6 ounces. Outside diameter is 43mm. New condition. Also available fitted with R.A.S. thread (E.22La.)

E.22Lg. Lightweight eyepiece as above fitted with service type circle and dot graticule having slits for illumination, in adjustable mount, Also available fitted with R.A.S. thread (E.22Lga.). Any one of the above lightweight eyepieces can also be supplied fitted with 49, 52 or 55mm filter mounts (please state which) for attachment to a camera lens for the purpose of photography through a telescope.

E.24. 45mm focal length, special 3 lens Huyghens with achromatic eyelens. Field of view 35 degrees. Weight 1 lb. 3 oz. In focussing mount. Secondhand condition.

E.25. 44mm focal length 6 lens Erfle. Field of view 49 degrees. Weight 2 lb. 4 oz. This is an exceptionally large eyepiece, having 2½″ diameter eyelens but field lens only 1¼″. Produces an exceptionally flat undistorted field of view. Can be supplied in pairs marked 'objective' and 'eyepiece' to give field of view of 40 degrees at 1×. Length of the pair 7″. Aperture f0.8.

E.28. 50× eyepiece for Scout telescope Mark II. 25½mm focal length Huyghens. Field of view 26 degrees. Weight 2 oz. New condition.

E.29. 75× eyepiece for Scout telescope Mark II. 17mm focal length Huyghens. Field of view 30 degrees. Weight 2 oz. New condition.

E.30. Ross micrometer. Two-way movement glass graticules. All brass body. Weight 5 lbs. Can be supplied fitted with E.7 or E.22 eyepieces as interchangeable units. Good condition. Eyepieces extra as listed.

E.38*. 20mm focal length Ramsden. Field of view 28 degrees. Weight ½ oz. Graticule marked in Rontgens. New condition. A handy instrument eyepiece for experimental purposes.

E.39*. Bell and Howell viewfinder lens, 25mm focal length in mount. Field of view 15 degrees. Weight ½ oz. New condition. Another useful instrument eyepiece.

E.40. 31½mm focal length 5 lens erfle. Field of view 54 degrees. Bloomed. Weight 14 oz. Good condition.

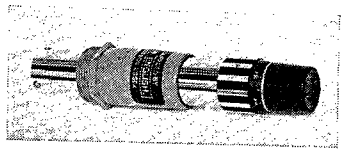
E.41. 44mm focal length, 4 lens symmetrical. Field of view 54 degrees. Weight 13½ ounces. In all brass mount. This eyepice can be supplied with cross-line graticule GR.8 in 30 ounce all brass adjustable mount, giving about 3mm perpendicular lateral adjustment.

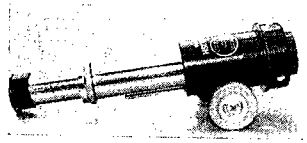
E.41a. as E.41 (eyepiece only) but turned down so as to fit into 2″ push fitting tube.

NEW EYEPIECES

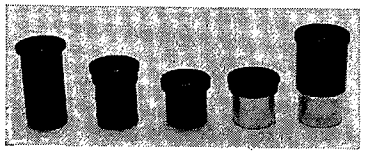
The following high grade imported eyepieces have been tested by us and found to be of very high quality. We recommend them for all general telescopic and microscopic purposes.

E.37. 8-24mm focal length 6 lens zoom. Field of view 12 to 36 degrees. Weight 8½ oz. R.A.S. thread fitted as standard. Self erecting, and therefore eminently suitable for the construction of high quality terrestrial telescopes. Also suitable for astro use if the erect image does not worry you. Bloomed optics.





E.45. Self erecting terrestrial eyepiece supplied complete in rack and pinion focussing mount ready to at into any tube having 42.5mm inside diameter. 11-22mm focal length, variable power. Field of view 20 degrees (maximum). Bloomed. Weight 10 ounces.



24.5 mm Fitting Eyepieces

Huyghens eyepieces; useful where a well-corrected medium power eyepiece is required for a moderate outlay.

E. 73. 12.5mm focal length. 30 degree field of view. Weight 1¼ ounces. Bloomed.

E.74. 20mm focal length. 30 degree field of view. Weight 2¾ ounces. Bloomed

Modified Huyghens eyepieces; similar to the above but employing modified lens elements so as to produce a wider than normal undistorted field of view.

E.82. 9mm focal length. 45 degree field of view. Weight 1¼ ounces. Bloomed.

E.83. 12.5mm focal length. 40 degree field of view. Weight 1¼ ounces. Bloomed.

E.86. 40mm focal length. 27 degree field of view. Weight 2½ ounces. Bloomed.

Kelner eyepieces; fine quality optics giving wide, flat field of view plus excellent correction and resolution.

E.91. 6mm focal length, 40 degree field of view. Weight 1 ounce. Bloomed.

E.93. 12mm focal length. 40 degree field of view. Weight 1¼ ounces. Bloomed.

E.94. 18mm focal length. 45 degree field of view. Weight 2 ounces. Bloomed.

Orthoscopic eyepieces; offering the features of Kelner types plus much greater convenience of use due to long eye relief and large diameter eye lenses.

E.100. 4mm focal length. 40 degree field of view. Weight 1 ounce. Bloomed.

E.101. 6mm focal length. 40 degree field of view. Weight 1 ounce. Bloomed.

E.102. 9mm focal length. 40 degree field of view. Weight 1¼ ounces. Bloomed.

E.103. 12.5mm focal length. 40 degree field of view. Weight 1¾ ounces. Bloomed.

E.104. 18mm focal length. 40 degree field of view. Weight 2 ounces. Bloomed.

E.105. 25mm focal length. 40 degree field of view. Weight 2½ ounces. Bloomed.

E.105a. as E.105, but fitted with cross-line graticule.

Erfle eyepieces; the ultimate wide field optic.

E.59. 15.5mm focal length. 68 degree field of view. Weight 1½ ounces. Bloomed.

We can supply adaptors to R.A.S. thread or 1¼″ push fitting for any of the above eyepieces, Only one adaptor is needed to accept all of the eyepieces.

23.5mm push fit Microscope Eyepieces. Adaptors to R.A.S. thread or 1¼″ push fit are available.

E.60. 36mm focal length Huyghens (7×). Field of view 26 degrees. Weight 1 oz.

E.61. 25½mm focal length Huyghens (10×). Field of view 26 degrees. Weight 1 oz.

E.62. 17mm focal length Huyghens (15×). Field of view 30 degrees. Weight 1¼ oz.

E.63. 36mm focal length microscope eyepiece as E.60, but having additional internal reticule divided into 100 equal parts plus focussing eyelens to facilitate focussing of the reticule. This eyepiece enables accurate measurements to be made on any standard microscope.

E.64. 31mm focal length Huyghens (8×) by Meopta. Field of view 30 degrees. Weight 1¾ ounces. Bloomed.

E.65. 38mm focal length Huyghens (6×) by Gillett and Sibert. WFC type with focussing eyelens, giving full field of view when used with spectacles. Field of view 22 degrees. Weight 2 ounces. Bloomed.

E.65a. As E.65, but fitted with cross-line graticule.

E.66. 31mm focal length Huyghens (8×) by Gillett and Sibert. WFC type with focussing eyelens, giving full field of view when used with spectacles. Field of view 30 degrees. Weight 2 ounces. Bloomed.

E.66a. As E.66, but fitted with cross-line graticule.

REFLECTOR TELESCOPE MIRRORS

In common with other leading suppliers of optical instrumentation we do not quote figures as to the accuracy of our telescope mirrors, since it is practically impossible for anyone, amateur or professional, to state definitely just how accurate any particular paraboloid may be. The only worthwhile criteria are practical ones as to resolution given in actual performance. All of our mirrors are guaranteed to give a performance equal to that of any other comparable mirror on the market. In order to keep our prices to a minimum commensurate with highest quality we restrict our range to those sizes for which we find that there is the greatest demand. We will however be pleased to quote for other sizes, focal lengths and specification to special order.

AM.1. 6″ diameter telescope mirror, 48″ focal length, of low expansion glass worked to an extremely accurate paraboloid figure. Supplied with matching flat, both mirrors aluminized and hard silica coated.

AM.2. 8½″ diameter telescope mirror, 64″ focus, of low expansion glass worked to an extremely accurate paraboloid figure. Supplied with matching flat, both mirrors aluminized and hard silica coated.

AM.4. 4″ diameter telescope mirror, 31″ focal length, accurately figured and supplied with matching diagonal mirror, both mirrors aluminized and hard silica coated.

MIRROR MAKING KITS

These kits contain a low expansion glass blank with the correct spherical curve pre-ground on the better face, a glass tool plate, which also has the correct positive curve pre-ground on its surface, a diagonal mirror blank, sufficient pitch, netting, polishing medium etc. to complete the mirror, and full instructions. The pre-formed mirror blank and tool mean that only smoothing, polishing and final figuring need be carried out, and there is no need to check the radius of curvature of the mirror during work.

AMK.1. To make mirror 6¼″ dia., 48″ focal length.

AMK.2. To make mirror 8¾″ dia., 51″ focal length.

SURFACE ALUMINISED MIRRORS. Top grade spherical. Positive focus.

	dia inches	focus inches
AM.18.	4	13.5
AM.19.	4	3.5
AM.20.	2	4.25
AM.21.	2	20
AM.22.	1.25	0.85
AM.23.	2	0.9
AM.24.	2.5	1
AM.25.	2	2 NEG.
AM.26.	2.5	0.75 NEG.
AM.27.	1.25	2.3 NEG.

CONCAVE ALUMINIZED MIRRORS

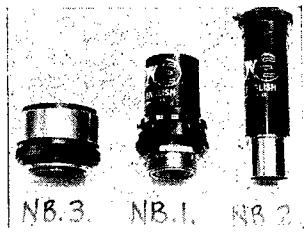
AM.6. 3¼″ diameter, 2″ focal length.

AM.7. 3¼″ diameter, 6″ focal length.

SUPER BARLOW LENSES

As a result of an unrelenting search of all possible ex-government sources we are now able once again to offer a very limited quantity of these world famous optics, in secondhand condition only. Our own tests and the glowing tributes of our customers have long ago convinced us that these are the finest barlow lenses ever to have been produced in quantity, and it is unlikely that lenses such as these will ever again be available to the general public. Unlike most commercial barlow lenses, Super Barlow lenses are not limited to one amplification factor, and power can be increased up to five times with no loss of resolution. Fully achromatic at all powers. Supplied complete with our special simplified instruction sheet 'The Barlow Lens and How to Use It'. Unmounted, secondhand condition.

SB.2. 15mm diameter, 1″ negative focal length.



We also have three entirely new types of Barlow lens:—
NB.1. The Ultrascope Barlow. This is a 4× bloomed unit fitted with R.A.S. threads and micro focussing for fine adjustment of lens position. It is simply screwed into any R.A.S. fitting telescope eyepiece mount, and the eyepiece screwed back into the barlow mount. The resulting four times enlargement of the image is virtually unaffected by chromatic aberration and of beautiful quality. Intended primarily for use with our Astro Ultrascope this unit will give outstanding results with any really first rate objective or mirror. It is also useful for astro photography when used with a camera adaptor such as AD.3.

NB.2. 4× bloomed achromatic barlow lens as above, but supplied in 24.5mm fitting tube, without micro focus control, to suit the majority of new imported instruments.

NB.3. 2½× achromatic barlow lens combination, fully coated, fitted into a mount with 42mm (Praktica, Zenith fitting) threads, male one end, female the other. This is a power booster for telescope eyepieces when used with photographic lenses. It may be used with any 42mm threaded photographic lens of good quality and relatively long focal length (135mm or longer). Mirror lenses are especially suitable. Any eyepiece may be used (with the appropriate adaptor) EXCEPT zoom eyepieces, which cannot be used with Barlow lenses.

We have recently received an enthusiastic commendation of the Ultrascope Barlow lens from the curator of a Lancashire observatory; he writes that with a 4mm orthoscopic eyepiece at a power of 2250× the barlow performed remarkably well, flare and ghosting both being minimal. Used with our eyepiece E.22 for optimum field width, he remarked upon the crisp image at any zone radius. When used photographically at f.54 he confirmed our own test results that there was no visible manifestation of lateral or spherochromatic aberration.

LENSES

The majority of these lenses are ex-government stock, in unmarked condition. Any which are in secondhand condition are marked and priced accordingly.
Lenses from new sources are marked † after list number.
Lenses marked * after diameter are uncemented.
Lenses marked ** after focus are in mount.

TELESCOPE OBJECT LENSES. ACHROMATS.

List No.	*Dia. mm.*	*Focus inches*	
73	32	6½	
82	45	19	
88	48	18**	
Lens no. 88 is the Ultrascope objective lens.			
89	50	15	
93	56	25	
101	75	45	
102	100	47	
			in brass mount
109	30	5¼	**bloomed
Supplied in aluminium mount and tube 6¼″ long.			
210	48	15	

TELESCOPE ERECTOR LENSES

Specially corrected achromatic aplanats in screwed brass cells.

List No.	*Dia. mm.*	*Focus inches*	*Cell dia.*	*Threaded*
230	13	1¾	24mm	48 T.P.I.
231	15 (triplet)	2	24mm	48 T.P.I.
232	18	1¾	24mm	36 T.P.I.
232a	16	2	23mm	48 T.P.I.

232b 4½″ brass tube 1½″ diameter fitted with nosepiece to suit above tubes. Please state which type when ordering.

233 Two 4″ focus achromatic doublets in seperate cells which screw together to make a complete erector 2″ focus and 1″ diameter.

233a 4″ brass tube 1½″ diameter to fit Number 233 above. Fitted with light baffle and nosepiece to suit.

See also photographic lens number PL.27.

The above erector lenses are also suitable for macro photography in conjunction with a bellows unit or extension tubes. Shorter effective focus may be obtained by mounting two together, and greater depth of field by placing a stop cut from black card or thin metal in front of or between them.

ACHROMATS (positive focus)

List No.	*Dia. mm.*	*Focus inches*
2	32	7
7	40	3
7a	42	3½
8	39	4¼
8a	39	4¾
15	15	2** Triplet
17	22	2
18	82 *	8
46	20	2 **
47	25	4 **
53	26	5¾ **
76	25	5
77	31	5½ **
112	18	1¾ **
113	13	1¾ **
1280	30	5 **
1284	32	4
1285	48	6 **
1286	12 *	1½
1287	32	6
1296	28	4 **
1297	22	2¼ **
1298	21	2 **
1299	17	3 **
1500	14	1½ ** bloomed
1501	10	½ ** bloomed
1502	26	5½ ** bloomed
1503	53	5 **
1504†	6	2¼** bloomed triplet
1505†	24	4¼ bloomed
1506	34	3¼**

Most of the above lenses can usually be supplied secondhand with some small marks and scratches, but in worthwhile useable condition, at half price.

NON-ACHROMATS

Double Convex (positive focus).

List No.	*Dia. mm.*	*Focus inches*
21	18	½
23	33	2
24	39	2
27	82	3½
28	92	9

59	13	½
60	13	¾
164	103	5½
170 †	47	40
177	38	8¼
180 †	44	3½
181 †	63	6½
182 †	75	9
183 †	87	10½
184 †	101	10½
185	21	½
186	6	3/8
187	13	½ ** bloomed
188	8	¼ ** bloomed
2189	37	2½ bloomed
2190	39	4½ bloomed
2191	53	7

Plano-Convex (positive focus)

List No.	*Dia. mm.*	*Focus inches*
65	55	2¾
71	18	1½
190 †	95	5½
Condenser lens for 2¼″ square film size.		
191 †	114	7½
Condenser lens for 3¼″ × 2¼″ film size.		
192 †	57	3½
Condenser lens for 35mm film size.		
198	8	1
1300	28	7
1301	11	1
1302	11	¾
1303	15	2
Has engraved cross line on plane surface.		
197	13	¾
30	33	2
200	25	2½
201	25	4
251	7	½
252	16	¾
120 one each of lenses Nos. 252 and 185 in plastic mount, producing a condenser unit. 10mm focal length f0.7.		
253	22	1¾
254	51	7**
with four engraved lines across plano face.		
255	75	4

Meniscus (positive focus)

List No.	*Dia. mm.*	*Focus inches*
40	60	4½ Deep curve
66	15	1¾
68	20	2¼
70	14	4½
260	6	½
261†	30	3 bloomed

Meniscus (negative focus)

List No.	*Dia. mm.*	*Focus inches*
34	34	4

35	17	1
36	20	3
38	12	1¼
67	18	1¾
69	20	2
175	50	7

Plano-concave (negative focus)

List No.	*Dia. mm.*	*Focus inches*
176	52	12

Double Concave (negative focus)

List No.	*Dia. mm.*	*Focus inches*	
39	85	4	Chipped 50p
41	20	1	
1401	10	1 ** bloomed	
1402	8	¾ ** bloomed	
1403	6	¼	

Rectangular Lenses, for slide viewers etc. Brand new, optical quality white glass.
RL.2. 3¼″ × 2½″. 7″ positive focus.
RL.3. 3½″ × 4½″. Approx. 8″ positive focus. One surface is flat ground glass, used as viewing screen for back protection etc.

Cylindrical Lenses
CL.1. 3/8″ dia., 10″ negative focus. In brass mount.

CLOSE-UP LENSES FOR PHOTOGRAPHY

High quality glass close-up lenses in standard screw-in mounts to add on to your existing camera lens. New and bloomed.

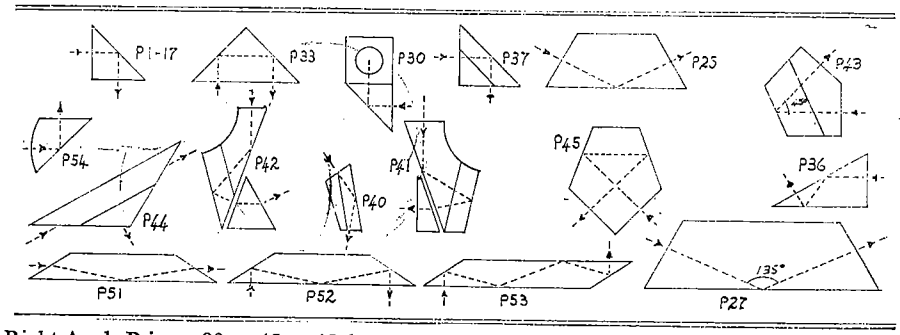
1 Dioptre positive (40 inch focus).
CU.1. 52mm mount. CU.2. 55mm mount. CU.7. 49mm mount.
2 Dioptre positive (20 inch focus).
CU.3. 52mm mount. CU.4. 55mm mount. CU.8. 49mm mount.
3 Dioptre positive (13.3 inch focus).
CU.5. 52mm mount. CU.6. 55mm mount. CU.9. 49mm mount.
See also ten dioptre achromatic close-up lens, page 53.

TELESCOPE ACCESSORIES

24.5mm (Swift type) push-in fitting, standard on most imported astro telescopes. These accessories have all been tested by us and found to be first class.
TA.3. Erecting Prism. Uses two Porro prisms to enable astro telescopes to be used for terrestrial observation.
TA.4. Sun diagonal, incorporating a 'Herschel wedge' prism, for the safe observation of the sun. (when used with a sun filter).
TA.5. Sun Filter (not for use without the correct sun diagonal).
TA.6. Moon Filter. Both these filters screw directly into eyepieces numbers E.51–58.
TA.8. 2x Barlow lens. High transmission single element bloomed Barlow lens, giving two times power increase. Supplied ready fitted into correct length tube with eyepiece fitting (24.5m).

PRISMS

Mint condition unless otherwise stated.



Right Angle Prisms, 90 × 45 × 45 degrees.

P.2. $\frac{5}{8}$″ square faces. Silvered in mount.

P.3. 18mm faces in mount.

P.5. 25mm × 23mm faces.

P.9. $1\frac{1}{2}$″ square faces.

P.11a. Elliptical prism diagonal. 2″ diameter clear aperture on each face.

P.14. $2\frac{1}{4}$″ square faces in mount.

P.25. 60 degree prism. Truncated, faces $\frac{7}{8}$″ square in mounts.

P.25a. 60 degree prism, as used in spectroscopes, etc. Three faces, 1″ square each face. New.

P.26. Ditto, $1\frac{1}{4}$″ square faces in mount.

Binocular (Porro) Prisms

P.30. Ross type (2 cemented) prisms, Faces $1\frac{1}{8}$″ square. In brass mount 3″ in diameter. Normal binocular type.

P.34. $\frac{3}{4}$″ wide. Ex-government 6 × 30 type.

P.35. Ditto. $\frac{7}{8}$″ wide.

We can usually match most types of binocular prisms up to $\frac{3}{4}$″ wide from used stock in fair condition.

P.36. 90 × 60 × 30 degree prism. Small face $1\frac{1}{8}$″ square. Imperfect only.

P.36a. 90 × 60 × 30 degree prism, face 1″ square, New.

Roof Prisms

P.37. 90 × 45 degrees. $\frac{5}{8}$″ faces.

P.38. Ditto, 1″ faces. In mount.

P.38a. Ditto, faces 25mm × 27mm.

P.39. Ditto, $1\frac{3}{4}$″ × 2″ faces.

P.40. 45 degree faces. One end $\frac{3}{8}$″, the other $\frac{3}{4}$″.

P.41. Pair in mounts as shown. Faces 1″ × $1\frac{1}{4}$″. Zeiss made.

P.42. Similar type unmounted. Produces 60 degree angle as shown.

P.44. Faces angle 120 degrees, gives 0–180 degree coverage with complete reversal. Parallel rays only (i.e., before an object glass). Width $1\frac{1}{8}$″. Effective aperture over the arc approximately 1″ diameter. In mount with ball races.

P.44a. 1.4″ faces. In superb brass mount and flange fitting. Top grade. Bloomed.

PENTAGONAL PRISMS. CONSTANT DEVIATION

P.45. $\frac{5}{8}$″ faces. Unsilvered.

P.46. 1″ silvered.

P.47. $1\frac{1}{8}$″ silvered.

P.48. $1\frac{3}{8}$″ silvered.

P.51. Dove, or one-way reversing prism. $\frac{5}{8}$″ square × $2\frac{5}{8}$″ long. Gives 180 degree rotation when turned through 90 degrees. In mount.

P.52. Constant deviation. Rays return without reversal. Faces $\frac{5}{8}$″ × $\frac{3}{4}$″.

P.54. Amici prism. Right angle, faces $1\frac{1}{8}$″ square. Lens focus approximately 3″. Imperfect only.

BEAM SPLITTER PRISM CUBES. 50/50 transmission. Ex-government.

P.61. 18mm.

P.62. 35mm.

P.63. 54mm.

OPTICALLY FLAT GLASS. Ex-government. New and unused unless otherwise stated

PP.3. $5\frac{1}{2}$″ × $1\frac{1}{4}$″ × $\frac{7}{16}$″.

PP.11. Circular $27\frac{1}{2}$mm diameter × 7mm thick.

PP.12. Circular 31mm diameter × $6\frac{1}{2}$mm thick.

PP.13. Circular 40mm diameter × 4mm thick. Bevelled edge.

PP.14. Circular 50mm diameter × 6mm thick.

PP.16. Circular 45mm diameter by 6mm thick, bloomed. In brass mount threaded 2 3/16″ dia. × 32 T.P.I.

PP.17. Circular 63mm diameter × 4mm thick.

OPTICAL QUALITY NEUTRAL TINT FILTER GLASSES. Ex-government. New condition. Ground edges

NF.1. $2\frac{1}{2}$″ × $4\frac{3}{4}$″ × $\frac{1}{8}$″.

NF.2. 4″ × 3″ × $\frac{1}{8}$″.

OF.2. 5″ × $2\frac{3}{8}$″ × 4mm thick.

OF.3. $5\frac{1}{2}$″ × $2\frac{3}{8}$″ × 4mm thick.

OF.4. $5\frac{3}{4}$″ × $2\frac{3}{8}$″ × 2.7mm thick.

OPTICAL QUALITY CLEAR GLASS. Ex-government. Ground edges

OF.6 $5\frac{1}{8}$″ × 3″ × 5.3mm.

SURFACE ALUMINIZED FLATS. $\frac{1}{8}$″ thick. Unground edges

AF.5. 1″ × $1\frac{1}{2}$″.

AF.7. $1\frac{1}{2}$″ × $2\frac{1}{4}$″.

AF.20. 2″ × 3″.

AF.21. 3″ × 4″.

AF.22. Circular aluminized flat, 15mm dia. x 3.5 mm thick, edged.

LARGE SURFACE ALUMINIZED MIRRORS.

Especially suitable for Episcopes, back projection, etc.

LAM.1. 6″ × 4″ × $\frac{1}{8}$″ thick.

LAM.2. 6″ × 4″ × $\frac{1}{4}$″ thick.

LAM.3. 8″ × 4″ × $\frac{1}{8}$″ thick.

SEMI-SILVERED MIRRORS. $\frac{1}{8}$″ thick. 50–50 transmission.

SM.1. 1″ × $1\frac{1}{2}$″.

SM.2. 2″ × 3″.

SM.3. 3″ × 4″.

SM.4. 6″ × 4″.

ELLIPTICAL FLATS. For reflector telescopes

EL.1. 6mm thick, surface aluminized, $1\frac{1}{2}$″ minor axis.

EL.2. 6mm thick, surface aluminized, 2″ minor axis. Both these flats are of first rate quality and are recommended for all telescopic purposes.

GLASS BLANKS. Annealed plate for easy grinding. Ground edge and polished both sides.

GB.3. 4″ diameter × ¼″ thick.

GB.4. 6″ diameter × 1″ thick.

GB.5. 8″ diameter × 1″ thick.

GB.7. 16½″ diameter × ¾″ thick. Due to it's fragile nature this item can only be sent at purchaser's risk. We recommend personal collection wherever possible.

BACK SILVERED MIRRORS

AM.7a. Microscope substage mirror. First grade. 2″ diameter, 3″ focus (positive).

AM.8. Microscope substage mirror. First grade. 2⅜″ diameter, 3″ focus (positive).

AM.12. 2⅝″ × 3¼″ plane mirror. First grade.

AM.13. Microscope substage mirror. First grade. 40mm. diameter. 2″ focus (positive).

AM.15. Various small mirrors with ground or bevelled edges. Average size about 1½″ × 2″. Unused, but may have minor imperfections of no practical consequence. Many uses in optical setups and experiments as well as general decorative purpose.

GRATICULES. Engraved on glass flats. Ex-government.

GR.1. Crossline. 1″ diameter, in brass mount.

GR.2. Rifle sight type. Crossline and vertical, in brass mount ⅞″ diameter and 1″ long.

GR.3. Grating, useful for microscopy and for telescopic purposes. Divided over entire surface into 1/25″ squares. Unmounted.

GR.4. Crossline. 33mm diameter, unmounted.

GR.5. Eccentric cross lines, horizontal line divided into millimeters at centre. 40mm clear diameter, 3mm thick. In brass mount 2″ overall diameter.

GR.6. Engraved line 4mm long divided into fifths of a millimeter, plus two other scales. 26mm clear diameter, 3mm thick. In brass mount 1.8″ overall diameter.

GR.7. Engraved cross lines, 45mm diameter. In brass mount 55mm diameter, 22mm long, threaded 32 T.P.I.

GR.8. Cross lines, 31mm diameter, in brass mount 46 mm diameter.

POLARIZING FILTERS

PF.5. 46mm diameter discs. Material sandwiched between glass. Total thickness 2½mm. At maximum extinction these produce a deep violet image.

Neutral colour linear polarizers in 0.035″ thick plastic material. High transmittance type (32 per cent). Suitable for variable density filter systems using two polarizers with axes crossed (minimum transmittance 0.005 per cent) all and general purpose uses. Cuts easily with hobby knife to any desired shape.

PFT.1. 1½″ square
PFT.2. 2″ square
PFT.3. 3″ square
PFT.4. 4″ square
PFT.5. 6″ square

Neutral colour linear polarizers in 0.030″ thick plastic material. High extinction type (0.0005 per cent) transmittance 22 per cent. Specially suitable for microscopes, sextants, and instruments where extreme extinction density is required. Cuts easily with hobby knife to any desired shape. Numbers PFE.1. to 5, same sizes and prices as PFT.1. to 5.

Circular polarizers, neutral colour, in 0.030″ thick plastic material. Used for suppression of unwanted reflections on tubes and screens of all types. 35 per cent transmittance.
PFC.1. 3″ square
PFC.2. 6″ square
Larger sizes of any of the above polarizers available to special order.

PHOTOGRAPHIC POLARIZING FILTERS

High quality glass polarizing filters in standard screw-in rotating mounts for cameras. New.

PF.85. 49mm mount.
PF.86. 52mm mount.
PF.87. 55mm mount.
PF.88. 58mm mount.

PHOTOGRAPHIC FILTERS

High quality glass filters in standard screw-in mounts for cameras. New.

Medium Yellow
CF.61. 43mm mount.
CF.62. 48mm mount.
CF.63. 49mm mount.
CF.64. 52mm mount.
CF.65. 55mm mount.
CF.66. 58mm mount.

Skylight
CF.73. 43mm mount.
CF.74. 48mm mount.
CF.74a. 49mm mount.
CF.74b. 52mm mount.
CF.75. 55mm mount.
CF.76. 58mm mount.

Soft focus filter.
CF.79. 49mm mount.
CF.80. 52mm mount.
CF.81. 55mm mount.

Medium Red
CF.67. 49mm mount.
CF.68. 52mm mount.
CF.69. 55mm mount.

Green
CF.70. 49mm mount.
CF.71. 52mm mount.
CF.72. 55mm mount.

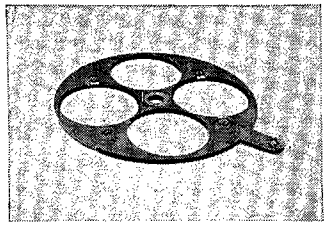
85B Filter.
CF.77. 52mm mount.
CF.78. 55mm mount.

Cross Diffraction Effect Filter.
CF.82. 49mm mount.
CF.83. 52mm mount.
CF.84. 55mm mount.

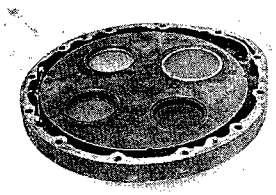
COLOUR FILTERS

For optical instruments. First grade Optically Flat glass filters, ex-government.

F.1. 19mm dia. neutral
F.1a. 14mm dia. Neutral
F.2. 22mm dia. neutral
F.3. 28mm dia. neutral
F.3a. 28mm neutral yellow
F.4a. 34mm neutral
F.5. 38mm neutral
F.6. 61mm neutral
F.7. 60mm neutral yellow
F.11. 12.5mm red
F.13. 25mm red
F.20. 9mm red
F.24. 32mm red
F.32. 60mm yellow
F.34. 60mm neutral yellow
F.42. 34mm dark neutral green
F.50. 52mm neutral
F.51. 52mm medium neutral
F54. 52mm neutral yellow
F.54a 34mm U.V.
F.55. 35mm light blue



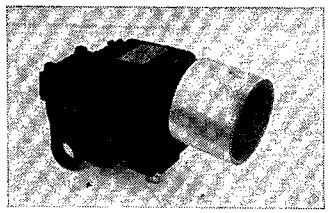
F.52. Brass disc as illustrated, accepts filters F.50 and F.51. 5¼″ diameter.



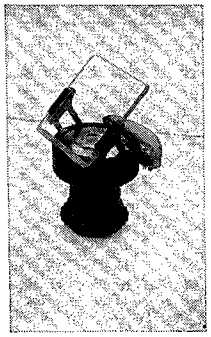
VF.1. Variable density filter unit. Optically flat filters, red, yellow and clear, 35mm dia., plus polarizing filters 40mm dia. in contra-rotating mounts giving variable density effect for control of image brilliance. Seperate knobs for density control and filter selection. All brass, weight 5 lb.
This unit can be supplied with eyepiece No. E.34 in focussing mount if ordered at the same time.

REFLECTOR SIGHTS (ex-government)

RS1



RS2



RS3

R.S.1. A small sight, consisting of a 4 lens projection system projecting an electrically illuminated image of a circle and dot graticule which is reflected back to the eye from a first class optical flat. Can be used as telescope sight or finder. The original lamps are no longer available, but can be replaced with a small torch bulb, with suitable modifications to the lamp holder and wiring. Or car type lamps can be adapted. Makes an excellent collimator for projecting parallel rays. As a break down unit it yields a three glass lens that is suitable for many purposes (See PL25), also No. 197. The flat which is approximately ¼″ thick, and about 1½″ × 3″ makes an excellent diagonal if surface silvered. The hinged neutral approx. 1½″ dia. is suitable for astro use. Brand New and Boxed.

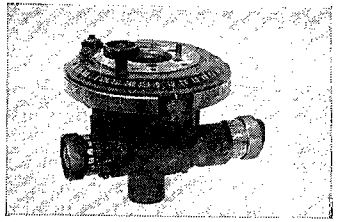
R.S.2. AMERICAN S8. Contains a 2⅜″ dia. by 5″ focus achro. O.G. plus S.S. mirror and lamp-house. Makes useful collimating target for parallel rays. Secondhand Condition.

R.S.3. BRITISH Mk. III. 3½″ dia. 4 glass achromatic lens system. If dismantled yields lens No. 28. No. 40 and No. 18. Also PP.1. Secondhand condition.

This is the famous 'Sight that saved Britain', the reflector sight used in battle of Britain Spitfires and Hurricanes. As a special offer to collectors we are able to offer a very limited quantity of these sights in specially selected fully working condition, complete with lamp and lamp housing., in the original fitted wooden case.

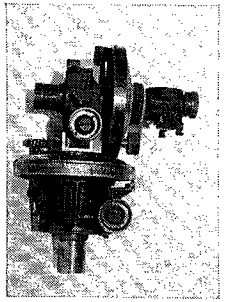
GEARED DRIVES. Ex-government

GD.1. 5″ diameter circles, divided 0-360 degrees. One is adjustable and calibrated in opposition to the other. 72–1 geared drive fitted with micrometer and calibrated to 10 minutes of arc. Quick release lever to disengage drive is incorporated. These units are from precision optical equipment, unused but store soiled. The gears and circles are brass or gunmetal, the cases mainly steel. Weight 5 lb.



GD.2. As above, but case brass or gunmetal, larger bearing surfaces, and fitted with electric contact rings from base to moveable head. Weight 6 lb.

Both these units will accept a shaft approximately 1″ in diameter. One of each of the above geared heads may be quite simply fitted together as shown to form a very useful altazimuth or equatorial head for telescopes of up to about four inches aperture. (See illustration at right).



GD.3. A similar unit to GD.1. but constructed from solid brass throughout, and slightly heavier.

STANDARD FITTINGS FOR OPTICAL INSTRUMENTS

Telescope Eyepieces.

There are two main fittings for telescope eyepieces, and three others which are occasionally used.

The two most frequent sizes are:—

(1) RAS (Royal Astronomical Society) thread. This has an external diameter of 1¼″ (31.75mm) and a thread of 16 t.p.i., (turns per inch). This size thread is used on the vast majority of British manufactured telescopes and accessories, and is in every way a most suitable and convenient fitting for the majority of normal purposes.

(2) 24.5mm push-in fitting. This has a plain tube having an outside diameter of 0.965″ (24.5mm). This fitting is used on most astro telescopes produced in Japan. It is sometimes called 'Swift' fitting after the American firm which has it's products manufactured using this size fitting. Many of the plain tubes used to accept eyepieces with this fitting have knurled screws, other split sleeves, to stop the eyepieces from slipping; others rely merely on a precise push fit. This fitting is satisfactory for a large number of relatively small astro (and terrestrial) telescopes, but it's small size makes the provision of low power/wide field eyepieces difficult and produces a fair degree of corner cut-off with most methods of photography.

The less frequent eyepiece fittings are:—

(1) 1¼″ diameter push fitting. This has a plain tube 1¼″ (31.75mm) in diameter. Formerly the standard for American produced, as well as many British telescopes, this fitting has become less common, although it is still used on some imported Japanese equipment, intended primarily for the U.S. market. This fitting is as useful as the RAS type, but less positive due to the lack of a thread for locking and alignment.

(2) 2″ diameter push fitting. This has a 2″ (50.8mm) diameter plain tube. It is occasionally

used on larger telescopes to allow the provision of large, low power, wide field eyepieces, so important for the observation and photography of star fields, nebulae, comets, and similar faint objects of large angular size. It is often provided as a separate, additional fitting, only attached to the telescope (usually a reflector) when needed.

(3) Microscope fitting. This has a plain tube, 0.912″ (23.165mm) external diameter. It was formally employed on a few telescopes making use of microscope eyepieces, but has now practically disappeared from use on telescopes.

Ex-government eyepiece fittings do not normally conform to any of the above descriptions, since they usually fit into purpose made mounts which are unique to the units for which they were designed. They can often, however, be adapted to fit into standard mounts (see our eyepiece lists) and even when this is not possible it is well worth the trouble of making a special mount to fit onto a particular telescope, since the quality of ex-service optics is so extraordinarily high.

Microscopes.

The British Standard sizes for microscope optics are termed RMS (Royal Microscopical Society) fittings. There is less variation than among telescope optics, but there is still some difference between manufacturers, expecially as regards substage condensers.

Eyepieces. Standard RMS eyepiece (ocular) fitting is given as 23.3mm (0.9173″) diameter plain tube. However, we have measured examples from manufacturers of various nationalities and most modern eyepieces appear to conform to a slightly smaller diameter of 23.165mm (0.912″). This is the size which we refer to as standard fitting.

Objectives. Standard RMS fitting is given as 19.822mm (0.7804″) diameter, 36 t.p.i. thread. However, as for eyepieces the objectives found on modern instruments appear to differ slightly, although we have yet to find one which will not fit into the standard mount. Threads are always 36 t.p.i. The usual diameters are:—

External diameter of objective thread 20.2mm (0.795″)

Internal diameter of mount 19.5mm (0.768″)

These sizes are the ones which we refer to as standard fitting.

Substage Condenser Mounts.

The standard RMS size is given as 38.786mm (1.527″) but there is considerable variation between manufacturers here. Not all makers use a plain push-in mount. Of those that do the most usual size is 37.0mm (1.456″) diameter. This is the size which we refer to as standard fitting.

PHOTOGRAPHY THROUGH OPTICAL INSTRUMENTS

In general photography through instruments such as telescopes and microscopes is not as difficult as many people believe, but it does need considerable patience, a fair amount of experience by trial and error, and some basic equipment. For instance, although it is possible to use a camera which does not have reflex focussing, nor a detachable lens, the purchase of a camera with these features makes the whole procedure so much simpler, and opens up so many new possibilities that we consider it to be essential for serious work. On the other hand ultra sophisticated photographic equipment will not eliminate all of the difficulties; focussing and exposure determination at high powers is always tricky regardless of what equipment is used, and experience is the only sure teacher in these matters. There are always likely to be a fair proportion of wasted shots under any circumstances.

(1) Telescopes.

There are three methods of photography used for producing an image on film using a telescope.

(a) The Afocal method. With this the camera, complete with lens is used to take a picture through the telescope set up exactly as for visual observation. The telescope is focussed on the object to be photograped, then the camera with lens focussed at infinity is placed behind the eyepiece and the exposure made. The camera itself does not have to be physically attached to the telescope, but if this is done it makes the whole procedure rather more simple to operate. The camera lens should be set wide open, at it's largest aperture setting (the largest aperture setting being that of the lowest f number).

The exposure time depends on the object being photographed. Firstly the effective aperture of the afocal system must be determined; this is done by (1) dividing the focal length of the

camera lens in mm by the diameter of the objective, also in mm, then (2) multiplying the result of this by the power of the telescope. Thus for a 6″ (150mm) telescope used at 48 power, with a camera having a 50mm lens, the effective aperture of the afocal system works out at f.16. Once this has been determined for the particular combination in use, the camera shutter can be set accordingly. If the object to be photographed is in daylight a normal exposure meter can be used and the shutter speed set which corresponds to the effective aperture—i.e. if the effective aperture is f.16 as in the example above, the shutter speed to use is the one shown against f.16 on the meter. For pictures of astronomical subjects requiring generally longer exposures a great deal more trial and error in the form of trial exposures at various different speeds will be required. It will be most useful to keep a detailed note book of these experiments for future reference.

The afocal method is the only one which can be made to work using a non-reflex type camera with a fixed lens. Even so it is very easy to obtain an out of focus or misaligned picture, and the single lens reflex camera, whether fixed or interchangeable lens, offers very great advantages.

(b) The Direct Method. With this method the camera lens is removed and the camera body alone is used at the prime focus of the objective. No eyepiece is used in the telescope, thus some form of reflex focussing must be provided on the camera. The only problem with this method is that with some types of telescopes it may not be possible to place the camera body near enough to the objective (lens or mirror) to get the the picture into sharp focus, thus necessitating modifications to the focussing tube or even to the objective mount. With most telescopes, however, this method works very well. It is certainly the simplest to operate and almost always gives the sharpest image resolution. Unfortunately it will not provide enough power for small astronomical objects such as planets. There will usually be some cut-off at the edges of the field of view, depending on the diameter of the focussing tube which is used. The effective aperture by the direct method is simply that of the objective itself, given by dividing it's focal length in mm by it's diameter, also in mm. The f number obtained is then used to set the shutter speed by the same proceedures described for the afocal method.

(c) The Projection Method. With this method the primary image formed by the objective is projected onto the film using another lens or lens system. This may be a positive lens system such as the telescope eyepiece itself, or an enlarging lens, or the camera lens, or it may be a negative (Barlow) lens. In either case the projecting lens will be separated from the camera by a distance which varies according to the magnification required. The Barlow lens will give the greatest power increase for any given extension, and also probably the sharpest resolution, but the use of the eyepiece itself for projection is obviously the cheapest and simplest method. The characteristics of lens systems such as this are fully covered in our book *How to use Lenses and Mirrors*, and we will not go into more detail here.

The projection method offers the advantage of high powers and better film coverage, but since the effective aperture falls off as the power is increased, focussing is often difficult and exposures are considerably lengthened.

(2) Microscopes.

To an even greater degree than with telescopes, successful photography through a microscope depends on experience, and a great deal of practice is required to achieve really good results. Reflex focussing is an absolute necessity for the camera, and high intensity illumination plus a good substage condenser are almost as important. Basically, the first thing to master is really good visual adjustment of the instrument, providing even illumination and the sharpest possible definition. Although all three methods of photography as described for telescopes are possible with a microscope, the method most likely to give good results is the projection method using the standard microscope eyepieces. Although exposure can be determined by trial and error, there is always considerable uncertainty and especially for colour work a camera with through-the-lens metering will rapidly pay for itself in terms of film costs.

Altogether, microphotography is one of the more expensive pastimes. If a great degree of magnification is not required, less than about ten times (this can of course be increased by subsequent photographic enlargement) it is much cheaper and simpler to make use of a macro lens, with bellows unit and/or extension tubes. The photograph on page 55 shows how impressive these low power shots can be. Also, by this method both transparent and opaque objects may be successfully photographed.

TELESCOPE TUBING. Dismantled from ex-government equipment. Useful to the home constructor of telescopes and other optical instruments.

FT.1. Brass drawtube, 4″ extending to 7″. 1¼″ drawtube diameter. Inner tube is a ground in sliding fit.

FT.2. Ditto, 6″ extending to 11″.

FT.3. Ditto, 10″ extending to 15″.
The above three drawtubes can be supplied with RAS female thread fitted to the inside tube.

FT.4. Brass drawtube, 4″ extending to 7″. 1″ outside diameter. Inner tube is a ground in sliding fit.

FT.6. Plain brass tube, 36mm inside diameter 38mm outside diameter. 9½″ long.

FT.10. Hard Paxolin tube, 45mm inside diameter. Fits lenses numbers 82 and 83. Can be supplied in up to 3′ lengths.

FT.13. Brass drawtube, 4½″ extending to 6½″. 1¼″ overall diameter. ⅞″ inside diameter. Very precise sliding fit. Can be supplied with 'Swift' type 24.5mm internal fitting or with RAS female thread.

FT.13a. Extra inside drawtube with ground in sliding fit to give 3″ extra extension.

FT.14. Brass tube 1⅜″ inside diameter with aluminium outside sleeve and flanged base, 2″ × 3⅜″.

FT.15. Light brass tube, 0.9″ outside diameter, flanged one end. Flange 1.05″ diameter. In two lengths, 1.4″ and 1.95″. Please state which length.

FT.16. Plain brass tube, 3.28″ long. 1.38″ outside diameter, 1.25″ inside diameter.

FT.17. Aluminium tubing, 2″ outside diameter, 1.85″ inside diameter. Lengths up to 3 foot sent by post, up to 16 foot lengths available if collected.

FT.18. Brass tube 55mm diameter × 260mm long. Collar one end 60mm diameter. Four internal light baffles. Weight 2 lb.

ADAPTORS

Please note, regarding all telescope camera adaptors, that these are only intended to attach the camera to the eyepiece mount and to assist in alignment, they are NOT intended to carry the weight of the camera, etc. Many eyepiece mounts are not strong enough for this, and for security the camera should always be separately supported, either by a support fixed to the telescope itself or on a separate stand.

AD.1. 24.5mm (internal thread) to RAS (external thread). Used to fit 'Swift' fitting eyepiece (E.50 to 59) into RAS threaded telescope focussing mounts.

AD.2. Microscope eyepiece (internal) to RAS (external thread). Used to fit RMS microscope eyepieces (E.60 to 62) into RAS threaded focussing mounts.

AD.3. Pentax (42mm dia. x 1mm pitch) external thread to RAS (external thread). Used foa photography by the direct objective method for telescopes with RAS eyepiece fitting and cameras having Pentax type screw thread.

AD.5. Microscope objective (internal thread) to Pentax (external thread). Used for attaching RMS microscope objectives to extension bellows or tubes with Pentax type screw thread, thus enabling macro or microphotography to be undertaken by the direct objective method.

AD.7. RAS (internal thread) to Pentax (internal thread). Used for attaching RAS threaded eyepieces to Pentax photographic lenses for telescopic purposes. See details on page 9.

AD.8. Leica (internal screw thread) (39mm dia. x 1mm pitch) to Pentax (external thread). Converts Leica fitting camera or enlarging lenses to Pentax fitting.

AD.9. Pentax (external thread) to Biolam 70 Russian microscope head fitting. Used for all methods of photography with Pentax fitting cameras through Biolam series microscopes.

AD.10. 24.5mm (external) fitting to RAS (internal thread). Converts 24.5mm telescope mounts to accept RAS eyepieces. It should be noted that the use of RAS eyepieces on smaller tubes will often entail an inevitable decrease in the field of view.

AD.11. 24.5mm (external fitting to Pentax (external thread)). Used for photography by the direct objective method with 24.5mm eyepiece fitting telescopes and cameras with Pentax type thread.

AD.12. RAS (external thread) to Pentax (external thread) with RAS (internal thread) inset. Same use as AD.3 above, but RAS eyepieces can also be used allowing photography by eyepiece projection. Extension tubes will be required in addition, to give clearance over the eyepiece. Suitable eyepieces are E.7, 14, 15, and E.37 (plus E.50 to 59 if used with AD.1.).

AD.13. Reverse camera adaptor. Pentax (external) thread to 49mm x 1mm pitch (external) filter mount thread. Used to fit camera lenses back to front in their mounts; screw into filter mount of lens. Often used for macrophotography.

AD.14. Reverse adaptor, Pentax to 52mm filter thread. Use as for AD.13.

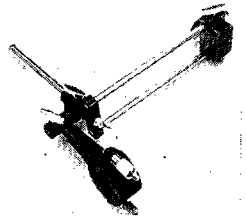
AD.15. Reverse adaptor, Pentax to 55mm filter thread. Use as for AD.13.

AD.16. Three screw holder to Pentax (external) thread. The holder has three clamping screws enabling it to be fitted over any eyepiece or tube having a diameter of 20 to 40mm. Used for photography by the direct method (adaptor on eyepiece mount and camera) or the projection method (adaptor on eyepiece itself and camera with extension tubes).

AD.17. Three screw holder to Pentax (internal) thread. As above, but used with AD.13, 14 or 15 for photography by the afocal method. This combination may also be used for photgraphy through our microscope units T.68 and 69.

AD.18. 'T' mount to external microscope tube fitting. This adaptor may be used for all methods of photography through microscopes having RMS size microscope tubes. It is especially useful for cameras having odd-sized or bayonet fitting mounts, since adaptors to 'T' mount are usually readily available.

AD.20. 1¼″ push fitting (external) to 24.5mm (internal). Converts 1¼″ telescope eyepiece mounts to accept 24.5mm fitting eyepieces.



AD.21. Universal camera daptor. This unit is designed to allow any camera having a standard tripod bush to be fitted to any instrument with an eyepiece tube up to 45mm diameter. Three adjustable tracks allow positioning of the camera, either with or without lens, to be either horizontal or vertical at any distance up to 7″ from the clamping collar. This is a substantially made piece of equipment of great versatility, described by 'Amateur Photographer' magazine as 'an exciting acquisition and well worth while'.

AD.22. 'T' mount adaptors for cameras. Enable the following cameras to be fitted to 'T' (Interflex T-2) mount lenses and accessories;
Alpha, Argus, C-mount, Canon, Exakta, Topcon U, Icarex BM, Konica, Konica AR, Leicaflex, Leica, Minolta, Miranda, Nikon, Nikkormat, Olympus Pen, Olympus OM-1, Pentax/Praktica (screw), Petri FT, Rolleiflex SL-35, Yashica Pentamatic, Zenith 3M.

Please state which camera fitting you require when ordering. Other camera fittings are frequently available to special order—price by quotation.

Interflex T-2 mounts are said to be compatible with the following lens systems;
Soligor, Vivitar, Photax, Paragon, Sigma, Palar, Aicoset, Promura, Prinz Galaxy, Hanimar, Optomax, etc.