

# opticron

## MMS 160 Image Stabilized Travelscope

User Instructions and Warranty

North America



MMS0417

# Main Features & Specifications

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- A Focusing ring.
- B Objective lens housing.
- C Neck strap attachment point.
- D Stabilization on/off switch.
- E Stabilization on/off indicator LED (to rear).
- F Eyepiece connection thread
- G Battery compartment (to rear)

## Specifications

Product Code	41148
OG Dia (mm)	25
Close Focus (ft)	9.8
Dims (LxWxD) (in)	4.7x2.8x1.8
Weight (oz)	9.9
Battery	2x CR2 3V Lithium
Battery life (hrs)	30

## Contents

Your new MMS 160 is quality checked before being packed at our factory. However, please check the following list to ensure that you have received all the items. If not, please contact us at the address shown on the back page of this user guide.

- |                           |                             |
|---------------------------|-----------------------------|
| 1x MMS 160 Travelscope    | 1x Objective Lens Cover     |
| 1x Elasticated Hand Strap | 1x Lens Cleaning Cloth      |
| 1x Neck Strap             | 2x CR2 3V Lithium Batteries |

# Eyepieces

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Eyepieces	• SDLv2	• HDF				• HR		
Product Code	40936P	40810P	40831P	40861P	40862P	40930P	40931P	41145P
Magnification	7-21x	8x	11x	33x	7-21x	9x	11x	8-24x
Eye Relief (mm)	20-18	22	16	16	22-17	18	17	20-16

## Getting Started

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An eyepiece needs to be attached to the travelscope before use. The body has both internal and external eyepiece connection threads to match Opticron HR2/3, HDF & SDL eyepieces.

Use the switch marked “ON/OFF” on the top of the scope body to activate and deactivate the image stabilization. When powered on, a green LED on the eyepiece end of the scope body will illuminate. The image is focused by rotating the ring at the far end of the objective lens housing. If you are using a zoom eyepiece, magnification is adjusted using the zoom ring on the eyepiece.

Please note that the stabilization will NOT power off automatically so should be switched off manually when not in use. When battery power is exhausted the scope can still be used without image stabilization.

**WARNING.** Never under any circumstances use a travelscope to view the sun. Doing so will cause serious damage to your eyes.

# Care & Cleaning

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The MMS 160 is waterproof to IPX5 standard and there are no user-serviceable parts inside. As such, the product casing should not be opened except by trained service personnel. If your device develops a fault, our Service Department is on hand to help you.

The MMS 160 is rubber armored and therefore will withstand the typical bumps and knocks that, for example, a mobile phone or MP3 player would get in normal everyday use. Avoid dropping the device on hard surfaces and take care not to crush the device if it is packed in a rucksack or case.

In use, if the MMS 160 is subjected to fast downward (or upward) motion such as moving it rapidly from the horizontal position at your eye to a vertical position at your waist level (or the reverse), the image stabilization system will temporarily cause the image to appear to shake strongly from side to side. This effect will disappear after a couple of seconds.

Avoid subjecting the device to extreme changes of temperature. Also, when taking the unit from a very cold e.g. outdoor environment to a warmer environment (such as indoors), the lenses may mist over. Once the device has warmed up, the misting will disappear.

## **Battery Care**

The batteries should be removed from the battery compartment if the device is not going to be used for any length of time i.e. more than one month.

## **Cleaning**

To clean the outer glass surfaces of eyepieces and objective lenses, gently remove excess dirt and dust using compressed air or a blower brush. Breathe on exposed glass surface and then wipe with an optical cleaning cloth in a circular motion until the surface is clean again.

# Telephotography

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## **Digiscoping with digital compact cameras, camcorders and mobile phones**

Shooting high magnification photos and video through your MMS Travelscope is possible if you have a suitable camera, camcorder or mobile phone. To find out how suitable or not your device is for digiscoping, position it up to the viewing eyepiece and see if an image appears on the screen. You may have to position the unit a few mm away from the eye lens of the eyepiece and increase the zoom to get a full frame image.



To find out more about bespoke digiscoping kits and universal mounts and brackets visit the Digiscoping & Telephotography pages at [www.opticronusa.com](http://www.opticronusa.com) or contact Sales on (704) 895 3046.

The MMS 160 is not suitable for telephotography with SLR cameras (digital or film).

# Warranty

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Please keep this Warranty Card in a safe place

Model: **MMS 160 Travelscope**

Serial No: ..... Purchase Date: .....

Dealer: .....

Opticron equipment is of a very high quality both in its performance and construction and for your peace of mind we offer a Standard Warranty that covers all the optical and mechanical components as well as the outer protective armor.

In the case of defects attributable to faulty parts or assembly we will assume responsibility for the full costs of repair during the first year after purchase. We reserve the right to decide whether defective parts or products should be repaired or replaced.

During the next year we will assume responsibility for materials and parts only, charging labor costs to complete the repair.

The Standard Warranty covers the instrument and accessories supplied with it.

The Standard Warranty does not cover accidental damage, loss, theft or deliberate damage to the instrument.

# Registration

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It is important you register your new purchase to activate your Premier Plus Limited Lifetime Warranty. To register your product and activate the warranty please visit [www.opticronusa.com](http://www.opticronusa.com) and complete the online Product Registration Form.

Premier Plus Limited Lifetime Warranties are available on new instruments purchased from participating dealers in North America and are transferable. If you part with your instrument please make sure the new owner has a copy of your original proof of purchase and re-registers their ownership at [www.opticronusa.com](http://www.opticronusa.com).

## **Privacy**

Opticron takes your privacy seriously and we do not share personal information with other companies.



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