

OPTRON *mobile*

User Guide

Vers. 2.1AL
©Magnified Vision, Inc. 2013

 **magnified vision**

Before operating this device,
please read this user guide
thoroughly and retain it for future
reference. For questions, please
call 1-888-567-8766.

©Magnified Vision, Inc. 2013
P.O. Box 5454
Morton, IL 61550
USA

www.optronusa.com
info@optronusa.com
1-888-567-8766



Contents:

1 Note (FCC Compliance):	4
2 Safety Instructions	5
3 OPTRON <i>mobile</i>: Components	6
3.1 What is in the Carrying Case?	6
3.2 Ports on the Main Box	6
3.3 Camera View	7
3.4 Control Panel	7
4 Getting the OPTRON <i>mobile</i> ready	8
4.1 Setting up the Camera	8
4.2 The Main Box	9
4.3 Connecting the OPTRON <i>mobile</i> to a Monitor	9
4.4 Adjusting the Optron to a different monitor	10
4.5 Turning on the OPTRON <i>mobile</i>	11
5 Working with the OPTRON <i>mobile</i>	11
5.1 Desktop viewing (near distance)	11
5.2 Distance viewing (far distance)	12
5.3 Zooming in and out	12
5.4 Adjusting the Image Brightness	12
5.5 Turning the Auto Focus on or off	13
5.6 Selecting High Contrast Colors / Reading Colors	13
5.7 Adjusting the Flex Joint	13
5.7.1 Part 1: Adjusting the Swivel Joint	14
5.7.2 Part 2: Adjusting the Rotation Joint	15
5.8 Changing the clamp height	16
6 Packing the OPTRON <i>mobile</i>	17



1 Note (FCC Compliance):

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

The use of shielded cables is required to comply with class B limits in Subpart B of FCC Rules. Do not make any changes or modifications to this equipment unless otherwise specified in this user guide. If such changes or modifications should be made, you could be required to stop operating this device.

Magnified Vision Inc.
P.O. Box 5454
Morton, IL 61550
USA
1-888-567-8766



2 Safety Instructions

Do not open any of the OPTRON's components. Any unauthorized opening of the OPTRON or its components can cause death or serious injuries and will automatically void any warranty.

Do not use the OPTRON near water or in moist/rainy situations (hazard of electric shock). Only use the OPTRON indoors.

Always follow these instructions when setting up, using and packing the OPTRON.

Do not use the OPTRON in a dusty or extremely humid environment (above 70% humidity). Do not expose the OPTRON to temperatures above 90° F (35° C) or under 50° F (10° C).

When connecting the cables to the OPTRON make sure that the plugs sit firmly in their sockets.

Make sure that cords and cables connected to the OPTRON cannot cause tripping or stumbling.

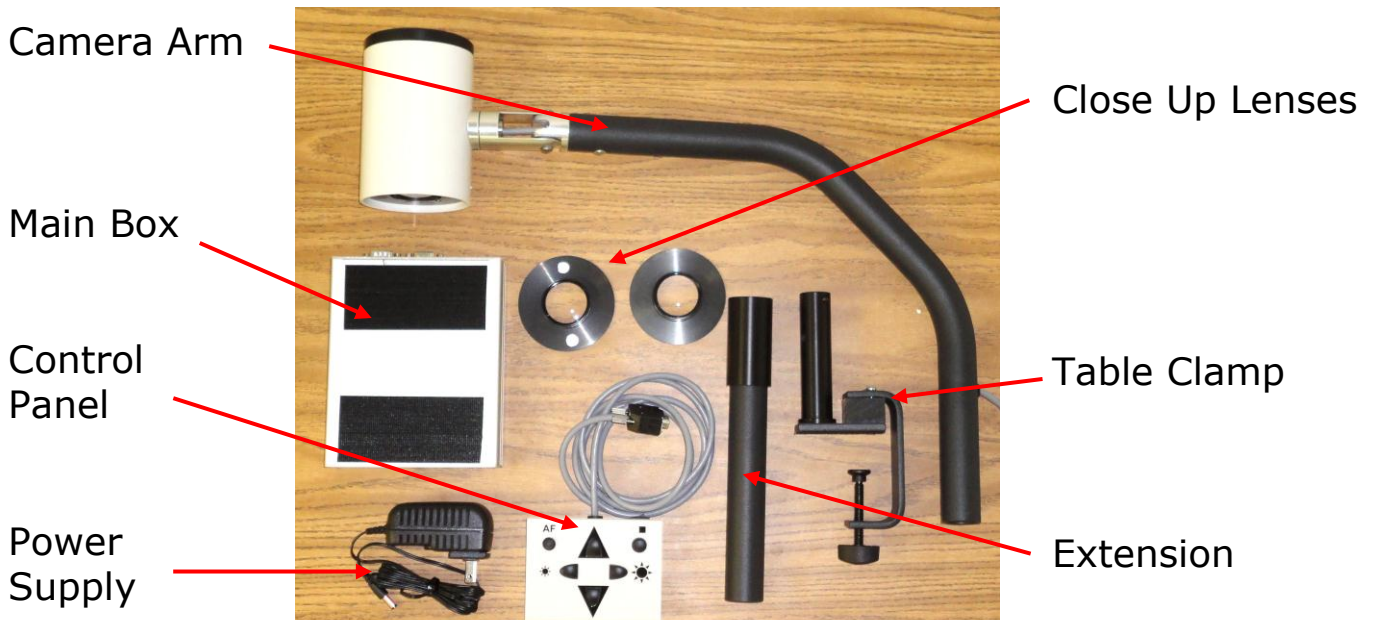
Data on your PC's hard disk is stored magnetically. Make sure that there is no interfering magnetic or electromagnetic influence to your PC or laptop when using it with the OPTRON.

Always unplug this device and its accessories from the wall outlet before cleaning. To clean your OPTRON, use a soft damp cloth. Never use chemically treated cloth or solvents like paint thinner.

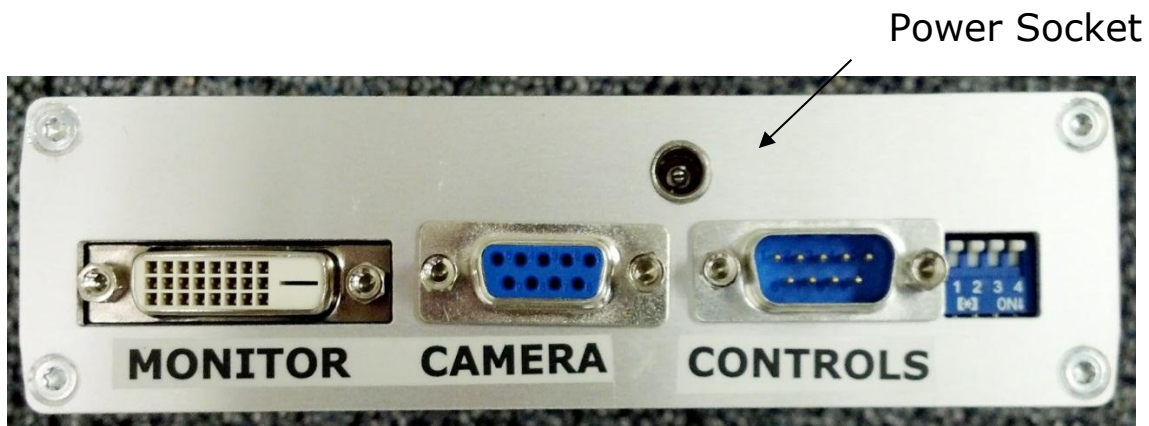


3 **OPTRON mobile: Components**

3.1 **What is in the Carrying Case?**



3.2 **Ports on the Main Box**



Monitor
Port

Camera
Port

Control
Panel

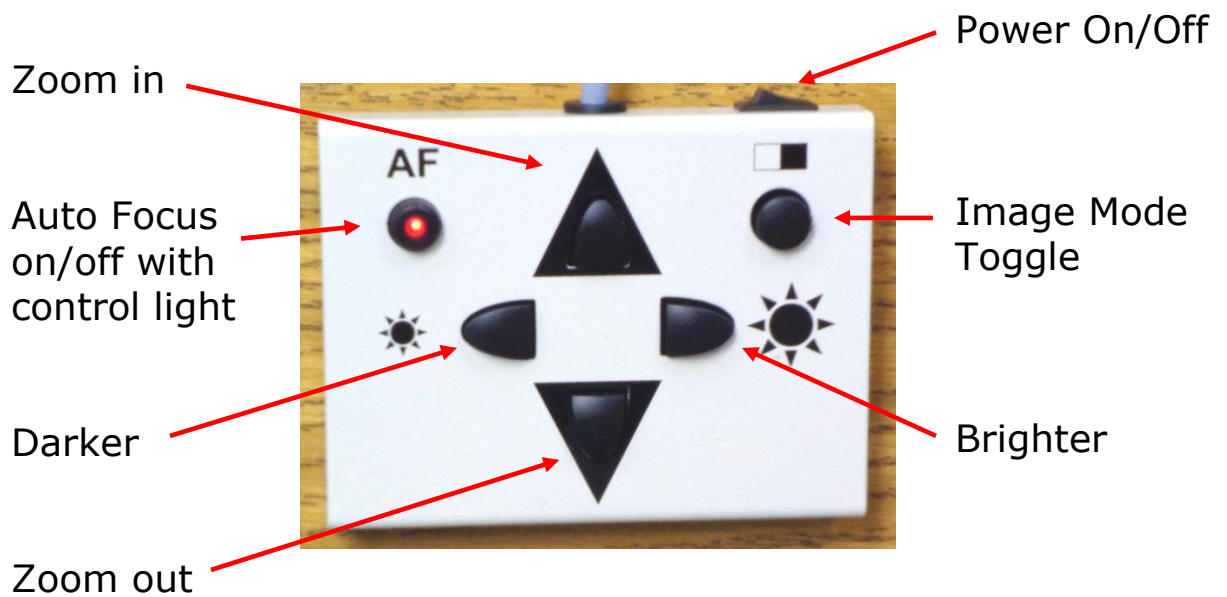
Monitor
Select



3.3 Camera View



3.4 Control Panel



4 Getting the OPTRON mobile Ready

4.1 Setting up the Camera

- Mount the *Table Clamp* to a desk or table.
- Make sure that the clamp is tightly fixed to the table.
- If you use the OPTRON *mobile* without the extension kit and with the *X/Y-Tray*, put the *Tray Extension Ring* into the notch sticking up from the *Table Clamp*.



- If you use the System Extension, insert the Extension Bar into the notch sticking up from the clamp. The thick plastic end of the Extension Bar has to be at the top.



- Insert the *Swivel Arm* carefully into the notch of the *Table Clamp* or – if the System Extension is used – into the *Extension Bar's* upper end.
- Once again, check that the clamp is connected tightly by carefully turning the swivel arm. Retighten the clamp if necessary.



4.2 The Main Box

The OPTRON *mobile's* *Main Box* contains the processing unit and the connection ports to all components of the device. The Main Box can be placed directly on your table. However, in order to gain a maximum of workspace, we recommend placing the main box behind your table or underneath your table top.

- To attach the box to your table, locate a smooth, dry and non-greasy area underneath your table top or on the side or back of your table. The area must be large enough for the *Main Box* and the cables.
- Pull off the two backings on the soft strips and push the box with the strips firmly against the table area.
- Connect the *Camera Plug* to the *Camera Port* on the *Main Box*.
- Connect the *Power Supply* to the *Power Socket* on the *Main Box*. We recommend using a high quality surge protector. Damage caused by electric surge is not included in the manufacturer's warranty
- Connect the *Control Panel* to the *Control Panel Port* on the *Main Box*.

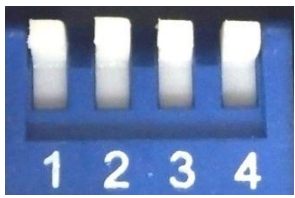




4.3 Connecting the OPTRON *mobile* to a Monitor

- Set up your monitor according to the monitor instructions.
- If a monitor arm is used with the OPTRON *mobile*, follow the setup instructions for the monitor arm and the monitor.
- The OPTRON *mobile* requires a DVI cable to connect to a monitor. If your monitor is equipped with a VGA port only, please use an adapter (not included).
- Connect one end of the cable to the DVI port on your monitor and the other end to the *Monitor Port* on the OPTRON *mobile*.

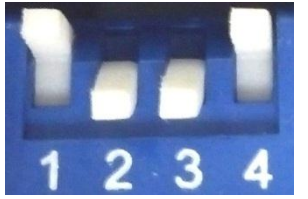



4.4 Adjusting the Optron to a Different Monitor

Your Optron mobile is preset to work optimally with the monitor that was purchased with the unit. However it will work with most monitors. If you use the Optron with a different monitor, the image might be slightly distorted or not be displayed at all. To adjust the OPTRON *mobile* correctly, you might have to change the *Monitor Select Settings* on the *Main Box* according to the resolution of the monitor you want to use.

Resolution	Aspect Ratio	Pin 1	Pin 2	Pin 3	Pin 3	Picture
1920 x 1080	16:9	Up/ Off	Up/ Off	Up/ Off	Up/ Off	
1680 x 1050	16:10	Down On	Up/ Off	Up/ Off	Up/ Off	
1360 x 768	16:9	Up/ Off	Down On	Up/ Off	Up/ Off	
1440 x 900	16:10	Down On	Down On	Up/ Off	Up/ Off	
1280 x 1024	5:4	Up/ Off	Up/ Off	Down On	Up/ Off	



1600 x 1200	4:3	Up/ Off	Up/ Off	Down On	Up/ Off	
1920 x 1200	16:10	Down On	Down On	Down On	Up/ Off	

4.5 Turning on the OPTRON *mobile*

- Turn on your monitor.
- Turn on your OPTRON *mobile* by pushing the *Power Switch* on the *Control Panel* to the "ON" position. The *Auto Focus* light will turn on.

5 Working with the OPTRON *mobile*

5.1 Desktop Viewing (near distance)

- When using the OPTRON *mobile* for desktop viewing, the *Camera Head* is in the vertical position and the camera lens faces downward.
- Make sure that the *Close-Up Lens* is attached to the camera lens opening. The *Close-Up Lens* snaps on to the *Camera Head* magnetically and adjusts itself into the right position automatically. If the *Close-Up Lens* is not applied, the OPTRON *mobile* will lose its focus at a fairly small magnification.
- Adjust the image on your display by turning the *Twist-Cam Ring* on the *Camera Head* until it is upright.





Please note:

The OPTRON *mobile* is equipped with two *Close-Up Lenses*: Please use the lens without dots when the camera is operated on the lower height without the arm extension. The *Close-Up Lens* with the dots should be used when the camera is on the higher height (arm extension applied).

When turning the *Twist-Cam Ring* on the *Camera Head*, do not force the *Twist-Cam Ring* beyond the stop points as this can damage your OPTRON *mobile*.

5.2 Distance Viewing (far distance)

- When using the OPTRON *mobile* to see the surroundings, turn the *Camera Head* into a horizontal position.
- Remove the *Close-Up Lens* from the camera lens opening and put it in the park position at the *Twist-Cam Ring*. The *Close-Up Lens* will snap on magnetically.
- Adjust the picture on your display by turning the *Twist-Cam Ring* until the image is upright (Twist-Cam Technology).
- Swivel the *Camera Head* to look further to the left or to the right.

5.3 Zooming in and out

- Adjust the image size by pushing the *Zoom in* or the *Zoom out* button.

5.4 Adjusting the Image Brightness

- To adjust the image brightness, push one of the two *Brightness Adjustment Buttons*. Pushing the button on the left



turns the image darker, pushing the button on the right will make it brighter.

5.5 Turning the Auto Focus on or off

- If you encounter a situation where you do not want to use the auto focus function (like writing, for example), you can turn the auto focus off by pushing the *Auto Focus ON/OFF* button. When the Auto Focus is off, the *Auto Focus Control Light* will turn off.
- To turn the auto focus function back on, push the *Auto Focus On/OFF* button again. The *Auto Focus Control Light* will turn on again.

5.6 Selecting High Contrast Colors / Reading Colors

- Toggle through the OPTRON *mobile's* various high contrast color options by pushing the *Image Mode Button* on the *Control Panel*. The OPTRON *mobile* offers several options of high contrast monochrome colors.

5.7 Adjusting the Flex Joint



Please note:

A video showing the joint adjustment can be viewed at: www.youtube.com/watch?v=NSd0rm2KX98

When adjusting the joint, do not overtighten the screws as this might damage it.



5.7.1 Part 1: Adjusting the Swivel Joint

- Using the small Allen wrench without flag, open the set screws on the part of the joint that is connected to the Optron camera arm.



- Using the big Allen wrench, tighten or release the joint screw on the top.



- Using the big Allen wrench, tighten or release the joint screw on the bottom.



- Tighten both set screws. Repeat steps 1-4 if joint wiggles or feels too tight.



5.7.2 Part 2: Adjusting the Rotation Joint

- Using the medium size Allen wrench with flag, open the set screw on the part of the joint that is connected to the camera head and facing towards the camera lens.



- Insert the flagged Allen Wrench into the hole at the top of the joint. Turn the camera head until the Allen wrench sinks a little deeper into the joint and blocks the camera head rotation.



- Tighten or loosen the rotation joint by turning the camera head approximately 5-10 degrees against the blocked bolt. Looking from the steel arm towards the camera head, turn clockwise to loosen or counterclockwise to tighten.

**Rotate camera head
clockwise: Loosen**

**Rotate camera head
counterclockwise: Tighten**



- Remove the Allen wrench from the hole and use the same wrench to tighten the set screw. Repeat steps 5-8 if joint wiggles or feels too tight/loose.

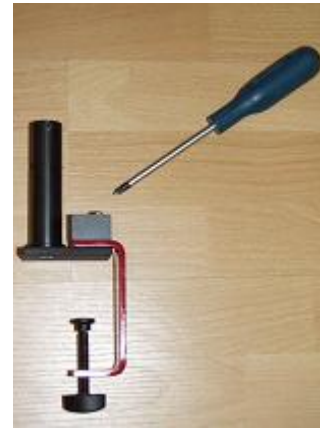


5.8 Changing the Clamp Height

- Upon delivery, the spacing block on the *Clamp* is located between the red clamp base and the notch base.
- If a table is so thick that the *Clamp* cannot be attached to it, open the two screws on the top of the *Clamp* base with a Phillips screw driver (not included).
- Insert the screws into the spacing block.



- Put the *Clamp* base between the spacing block and the notch base and tighten the screws. The *Clamp* is now ready to be used on a thicker table board.



6 Packing the OPTRON *mobile*

For travel, please pack your OPTRON *mobile* as shown in the picture:

