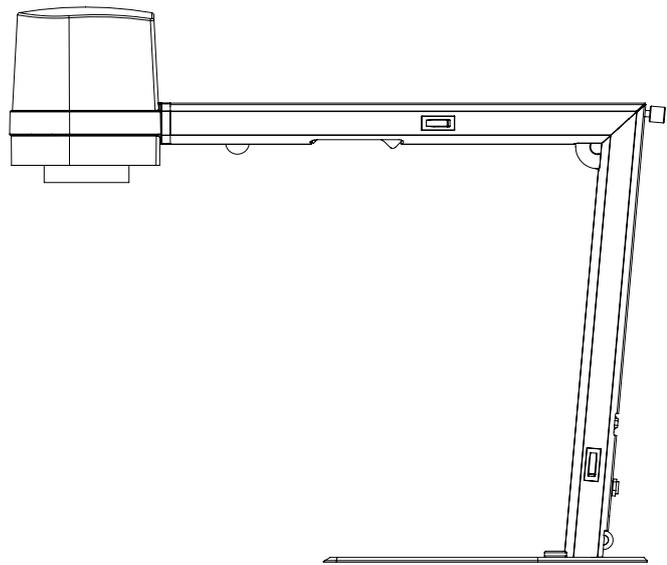


# MANUAL

# TAGARNO FHD ZIP

VERSION: 1.1 | 2016-12-21



## CONTENTS

1.	INTENDED USE	2
2.	WARNING	2
3.	YOU HAVE RECEIVED	3
4.	ASSEMBLING AND CONNECTING	4
5.	COMBINATIONS	5
6.	OPERATION	6
7.	TECHNICAL SPECIFICATIONS	9
8.	SYSTEM REQUIREMENTS	11
9.	MAINTENANCE	12
10.	WARRANTY	12
11.	ERGONOMICAL RECOMMENDATIONS	12
12.	DECLARATION OF CONFORMITY	13

# 1. INTENDED USE

The product is a digital magnifying system consisting of a camera unit, PCBs, mechanical parts and a power supply. The product is intended for marketing worldwide and is designed for manual visual inspection

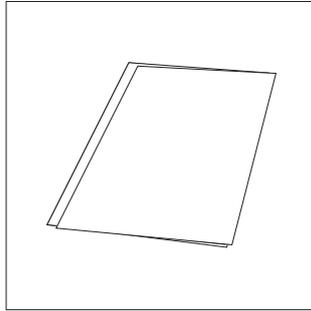
# 2. WARNING



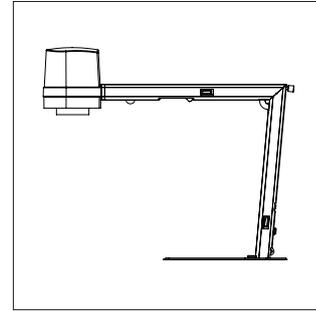
Read all safety information before you use the product  
Please pay attention when you see the warning label on the product

1. Read the manual before you use the product
2. Use the product only as specified, or the protection supplied by the product can be compromised
3. When applicable, use both hands to move the XY Table
4. When applicable use both hands to adjust the height of the product
5. If fluids are spilled on the product, turn the system off immediately by pulling the power supply out of the electrical outlet
6. In case of fire close to the microscope, please turn off and disconnect the system
7. Do not touch the light source. It gets hot when using the product
8. Do not look directly into the light source
9. You must not discard this electrical/electronic product in domestic household waste  
Please dispose at your local recycling centre
10. Avoid touching the lens glass
11. Avoid subjecting the lens to sharp or hard objects
12. Please do not connect the microscope, if visible damages appear
13. When applicable connect the power plug to a grounded power outlet
14. Do not dismantle any parts of the microscope, except where noted in the manual
15. Never disassemble or clean internal optical surfaces
16. Use only the power supply provided from TAGARNO
17. Always turn off the system before unplugging, when possible

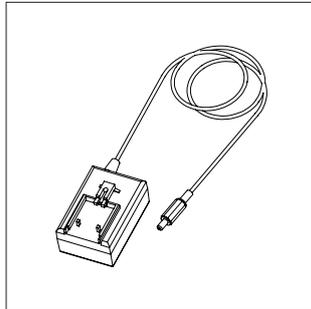
### 3. YOU HAVE RECEIVED



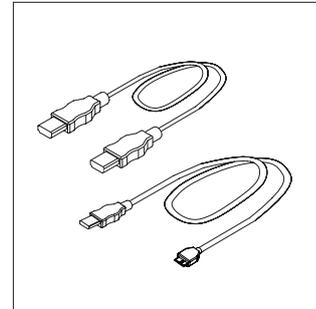
Manual



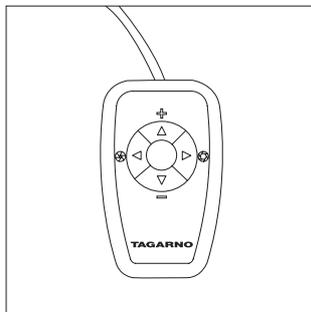
Microscope



Power supply

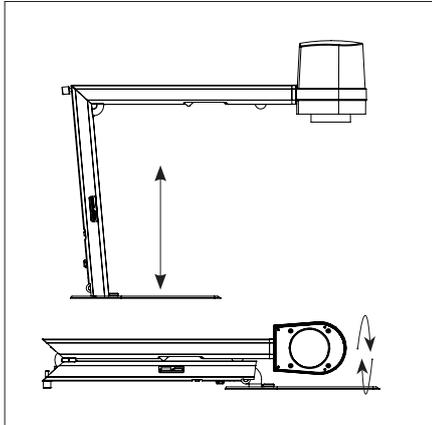


Mini HDMI-HDMI Cable  
Micro USB 3.0 Cable

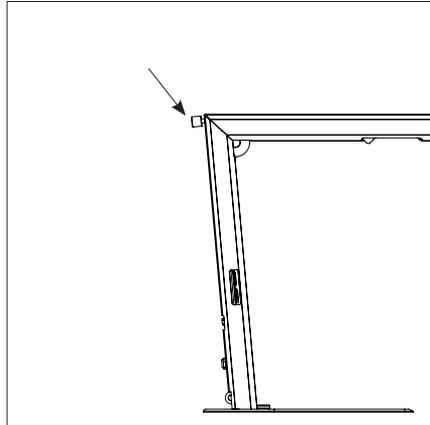


XKEY Control box

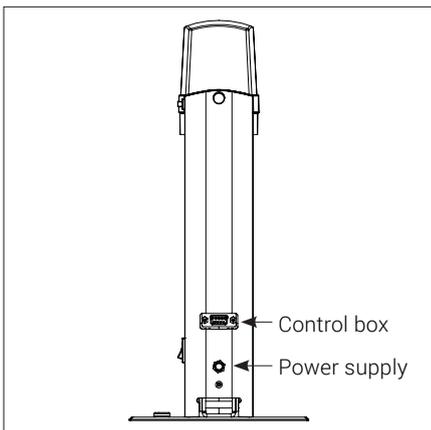
## 4. ASSEMBLING AND CONNECTING



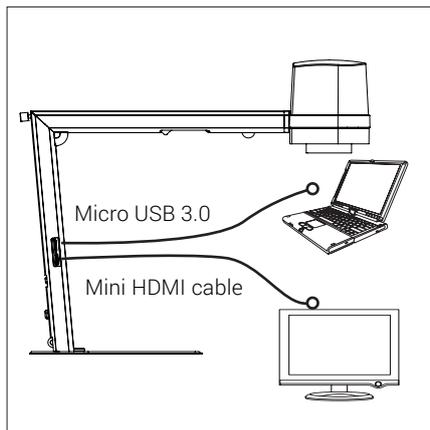
Unfold the device and rotate the camera head 90 degrees so the lens points downwards



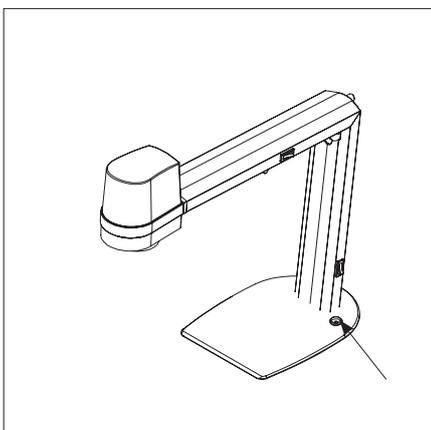
Lock the device by fastening the screw



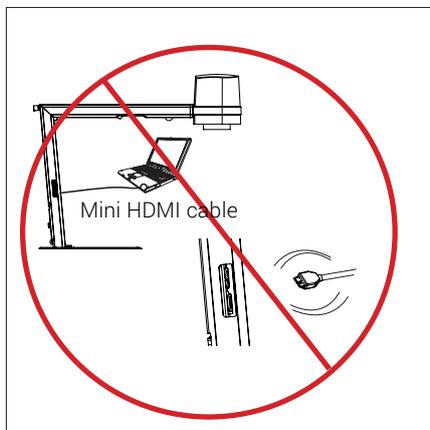
Connect the control box and power supply



Connect the USB 3.0 to your PC.  
Connect the monitor with HDMI

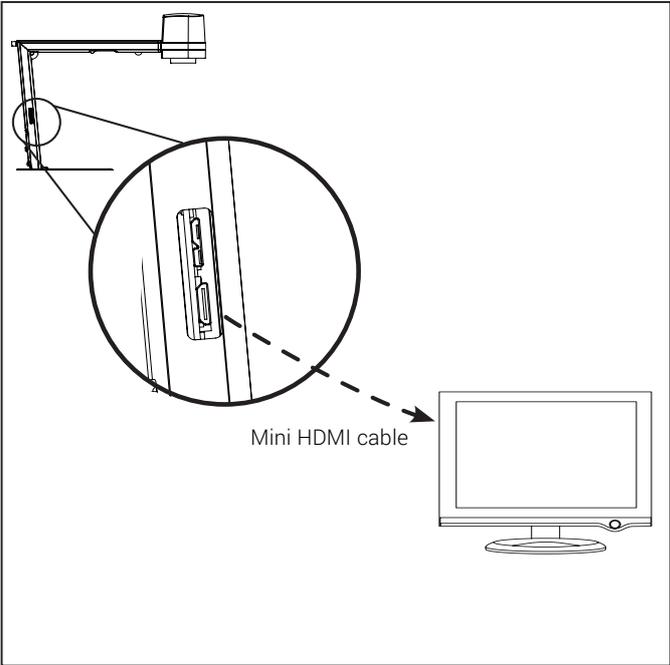


Connect ESD (Electro Static Discharge)



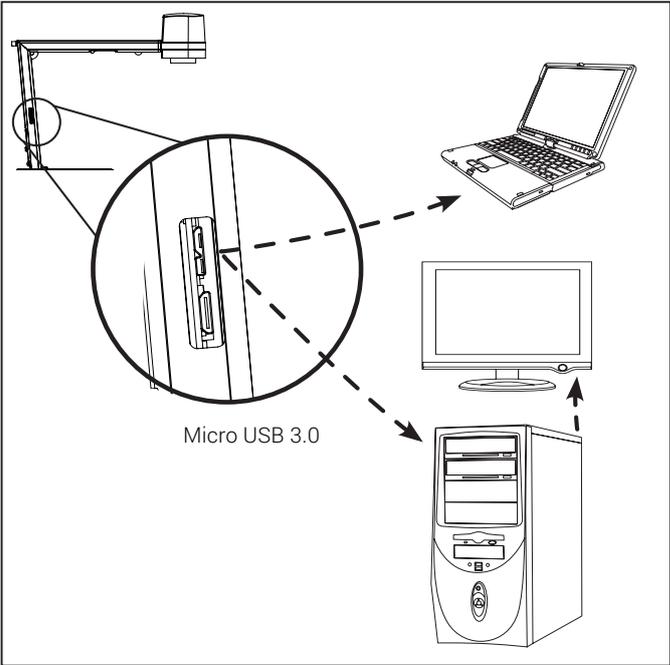
WARNING! Do not connect the mini HDMI cable to a PC. Please do not use force when inserting the cable plugs

# 5. COMBINATIONS



The microscope can be connected directly to a monitor.

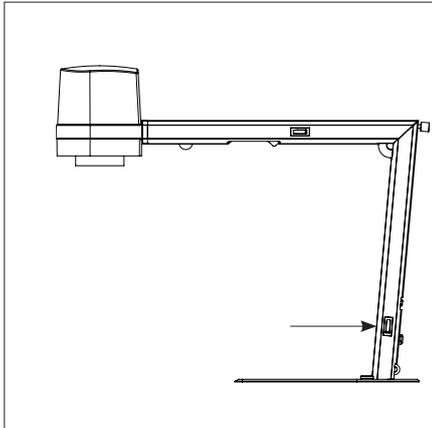
AND/OR



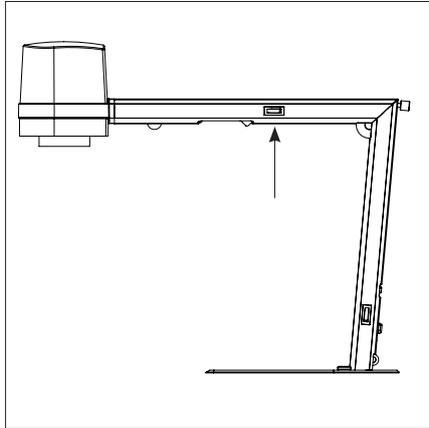
The microscope can be connected to a desktop or laptop

# 6. OPERATION

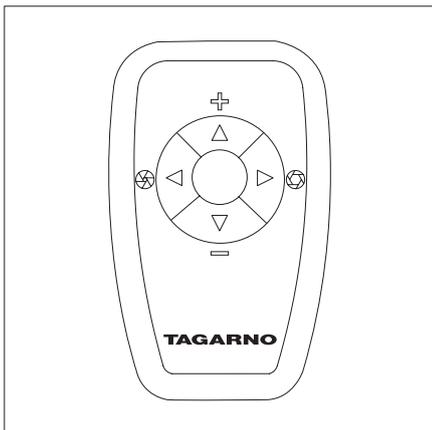
## OPERATION | CONTROL BOX (1/3)



Power on/off



Light on/off



Multi function buttons. Do only connect equipment distributed by TAGARNO



Short push switches between Iris, Gain and Preset mode.



Increase Iris/Gain or switch between zoom preset 1, 2 or 3.



Decrease Iris/Gain or switch between zoom preset 1, 2 or 3.

To change and save a zoom preset, use zoom buttons to select a zoom level and simultaneously press left/right buttons. OSD will show SAVED:PRE(X)



Hold down for 3 seconds to use auto exposure mode

**+** Zoom in

**-** Zoom out



Push both plus and minus to switch from auto focus to manual focus. You can now adjust the focus manually by using plus/minus

**+** If you wish to focus on something close

**-** If you wish to focus on something farther away

### RESET TO FACTORY SETTINGS

Follow this procedure to change back to factory setting 1080P60.

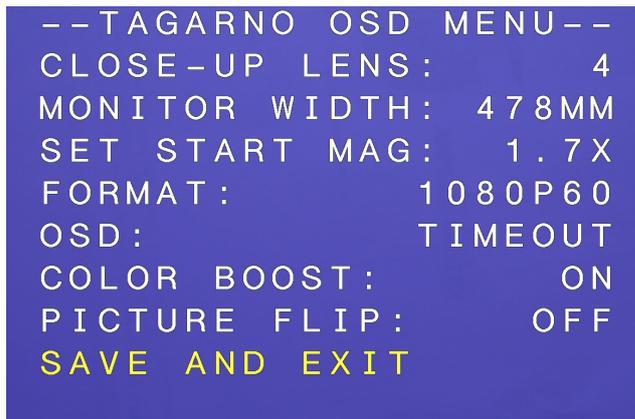
1. Turn the microscope off
2. Press and hold the center button down while turning the power on
3. Keep holding the center button down for 25 seconds
4. Release the center button and turn the power off
5. Turn the power back on and the microscope is set to factory setting 1080P60

## OPERATION - ON SCREEN DISPLAY (OSD) (2/3)

When turning on your FULL HD system, you are informed of the given units, serial number (SN), version and resolution.

### 1. Open the OSD menu

To open the TAGARNO On Screen Display Menu, press and hold down the center button for approximately 5 seconds.



### 2. Choose lens

Set the current close-up lens by using the left/right arrows on the XKEY Control box. The choice is naturally between LENS +3, +4, +5 or +10. LENS +4 is factory default. Continue using the down arrow.

### 3. Choose monitor width

Press the center button to set up the width of the monitor. You need to measure the horizontal width of the monitor panel on your monitor, Select one digit at a time by using the left/right arrows and adjust the digits with the up/down arrows. Switch between millimeters and inches via the up/down buttons. Monitor 22" FHD is factory default. To store modified settings press the center button.

### 4. Set start magnification

Select the magnification level you wish to use as start up level. Press the center button and select one digit at a time in the bottom of the page by using the left/right arrows and adjust the digits with the up/down arrows. By pressing the center button one more time, you have selected the values chosen. Press the down arrow to choose format.

### 5. Choose format

You have the option to switch between different video formats, 1080p 60fps being the highest quality. Select the required format by pressing the center button, and use arrow keys left/right to select between 6 different formats.

## OPERATION - ON SCREEN DISPLAY (OSD) (3/3)

### **6. Select OSD presets**

You need to choose between respectively ALWAYS ON, OFF or TIMEOUT using the left/right arrows in order to have the OSD Menu displayed continuously, never or for 3 seconds at the time. Continue by pressing the down arrow.

### **7. Color boost**

The OSD menu gives you the possibility to choose between two color settings; Color boost on or off, by using the left/right arrows. Which setting chosen, is a matter of individual preferences and the object projected on screen. Continue by pressing the down arrow.

### **8. Flip picture**

In the menu you have the possibility to rotate the screen image 180 degrees, or choose the standard view by using the left/right arrows. Choose between the two views by pressing the left/right buttons. Continue by pressing the down arrow. Press the down button one time to highlight the save and exit option.

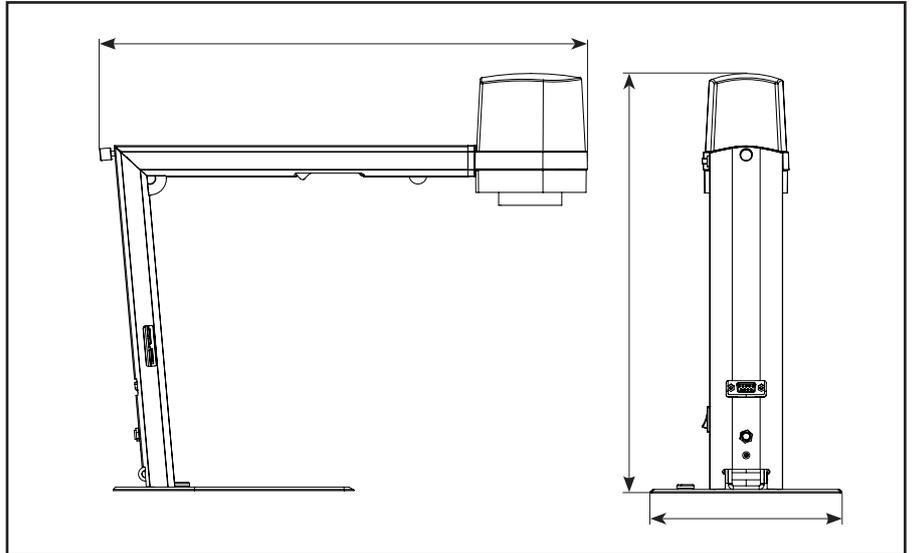
### **9. Save presets**

To save your presets and exit the menu, press the center button and thereby return to the image displayed on the monitor, using your recently saved presets.

If you have changed the various formats, your FULL HD system needs to be restarted. This will be indicated in the bottom if needed.

# 7. TECHNICAL SPECIFICATIONS

## TECHNICAL SPECIFICATIONS (1/2)



<b>Dimensions</b>	H: 350mm/13.78" W: 155mm/6.10" D: 386mm/15.20"
<b>Weight</b>	2.0 kg/4.4lbs
<b>Camera resolution</b>	FHD 1080p, 1920x1080p at 59,94/50/29,97/25Hz HD 720p, 1280x720p at 59,94/50Hz
<b>Camera zoom</b>	30x optical
<b>Autofocus</b>	Yes
<b>Power consumption</b>	15W
<b>Standby consumption</b>	0.8W
<b>Storage</b>	-5 - +60°C / +23 - +140°F, 20 - 90% RH
<b>Operation</b>	+5 - +40°C / +41 - +104°F, 20 - 80% RH
<b>Work height</b>	250mm/9.84"
<b>Work depth</b>	280mm/11.02"
<b>Auto Monitor Detect</b>	Yes
<b>Plug connection</b>	Mini-HDMI & Micro-USB 3.0

## TECHNICAL SPECIFICATIONS (2/2)

### FEATURES

Auto & Manual Focus	Color boost
Iris, Gain & Preset mode	Flip picture
OSD menu	Image capture, PC (with third-party software)
Choose lens	
Choose monitor width	
Set start magnification	
Choose format	
Select OSD presets	

### LENS

<b>Dimensions</b>	58 mm/2.3"
<b>Included lens</b>	+4

LENS	Lens to object distance	Magnification on 22" monitor
+4	250mm/9.84"	1.6x - 48.0x

### RECOMMENDED MONITOR FORMAT

<b>Panel format</b>	16:9 (Widescreen)
<b>How to link</b>	DVI or HDMI input
<b>Response time</b>	2 ms
<b>Signal format</b>	FHD 1920x1080

### ACCESSORIES

HD 22" and 24" widescreen monitor	Cleaning kit
Foot switch	
Light Kit	

## 8. SYSTEM REQUIREMENTS

FULL HD 1080P @ 59,94/50HZ		
OS	Desktop	Laptop
	Windows 7, 8 or 10 (with DirectX 11)	
<b>Memory</b>	8GB	
<b>CPU</b>	Intel® Core™ i5 or i7 @2.4GHz, (3rd or 4th generation named 3xxx or 4xxx)	CPU: Intel® Core™ i5 or i7 @2.4GHz (4th generation named 4xxx)
<b>Hard Disc Space</b>	1GB required (SSD type recommended)	
<b>Connections</b>	USB 3.0 xHCI host controller (Intel chipset recommended)	
<b>Integrated Graphics</b>	Intel® HD Graphics 4000	Intel® HD Graphics 4400
<b>Dedicated graphics card</b>	AMD Radeon™, HD 7xxx Series with 2GB RAM	nVidia GeForce GT 740M with 2GB RAM
<b>Monitor resolution</b>	1920x1080 (recommended)	

FULL HD 1080P @ 29,97/25HZ AND HD 720P @ 59,94/50/30/25HZ		
OS	Desktop	Laptop
	Windows 7, 8 or 10 (with DirectX 11)	
<b>Memory</b>	4GB	
<b>CPU</b>	Intel® Core™ Dual@3.0GHz or i3@2.4GHz, (3rd generation named 3xxx)	Intel® Core™ i3 @ 3.2GHz, (3rd generation named 3xxx)
<b>Hard Disc Space</b>	1GB required (SSD type recommended)	
<b>Connections</b>	USB 3.0 xHCI host controller (Intel chipset recommended)	
<b>Integrated Graphics</b>	Intel® HD Graphics	
<b>Dedicated graphics card</b>	AMD Radeon™, 1GB ram	nVidia GeForce GT 1GB RAM
<b>Monitor resolution</b>	1920x1080 (recommended)	

### SOFTWARE RECOMMENDED

<b>Windows 7</b>	Youcam 6 + Youcam 7 (Youcam 7 is only compatible with video format FULL HD 1080P @ 25/30HZ)
<b>Windows 8</b>	Windows 8 Camera App
<b>Windows 10</b>	Windows 10 Camera App

## 9. MAINTENANCE

- Store and use the microscope in a dry, clean and ventilated room.
- Do not place the product in direct sunlight, next to a radiator/heater or some place where the system may be subjected to liquids.
- All plugs are designed to be used in one way only. Therefore, you should never use force when you connect the system.
- Remember to disconnect all elements if you intend to move the microscope.
- If you move the product from a cold to a hot room, you must wait at least an hour before you turn it on, to avoid short circuits due to condensation.
- Remove the cables by pulling the plug itself - never by pulling the cable.
- If the TAGARNO needs repair, never do it yourself, contact your distributor.
- When cleaning the product, please turn off the system and wait until the system has cooled off.
- Clean the product with a damp cloth. Never use strong cleaning agents or chemicals - these may damage the microscope.
- Clean the lens regularly with isopropyl alcohol and a microfiber cloth or with our TAGARNO cleaning kit.

## 10. WARRANTY

### Warranty terms for the product shall be as follows:

TAGARNO warrants that the product will correspond with the specification at the time of delivery and will be free from defects in material and workmanship for a period of 24 months (2 years) from date of invoice from Supplier.

### This warranty shall cover:

- a. The replacement of defective parts.
- b. All labour costs to exchange defective parts in product.
- c. Complete functions test of product before return to end user's site.
- d. Return transport costs of product from TAGARNO to end user's site.

The warranty only applies if the product is packed, shipped, stored, handled and maintained correctly.

Failures due to improper packing and transport are not covered.

Failures due to drops and sudden blows are not covered.

Failures due to storage and handling in extreme high or low temperatures are not covered.

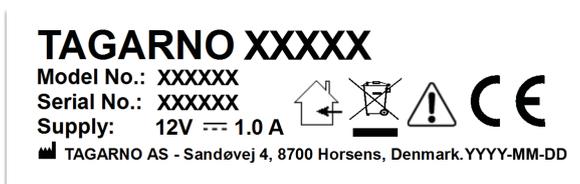
Failures due to storage or handling in extreme high humidity are not covered.

## 11. ERGONOMICAL RECOMMENDATIONS

Please be careful when carrying the product from one place to another.

Please do not lift the microscope by grabbing the camera arm.

All TAGARNO products are marked with a product label:



Values marked with X varies from product to product and are replaced by specific numbers and letters.

# 12. DECLARATION OF CONFORMITY

## PRODUCT

MODEL TAGARNO FHD ZIP | Type no.: 600600  
ART Inspection camera unit

## MANUFACTURER

NAME TAGARNO A/S  
ADDRESS Sandøvej 4  
ZIPCODE/CITY 8700 Horsens  
COUNTRY Denmark  
PHONE +45 76251111



## DESCRIPTION

TAGARNO A/S hereby declares that the product listed above, consisting of a camera unit and a 12V power supply, is in compliance with the following European directive:

### **EMC DIRECTIVE 2014/30/EU**

By conforming to the following harmonised standards:

**EN 61010-1:2010**  
**EN 61326-1:2013**

### **The declaration is issued by:**

MANUFACTURER TAGARNO A/S



TAGARNO A/S  
Sandøvej 4  
8700 Horsens  
Denmark

+45 76251111  
mail@tagarno.com

www.tagarno.com