

Technaxx[®] * User Manual

Endoscope Camera TX-116

The Declaration of Conformity for this device is under the Internet link: www.technaxx.de/ (in bottom bar "Konformitätserklärung"). Before using the device the first time, please read the user manual carefully.

Service phone No. for technical support: 01805 012643 (14 cent/minute from German fixed-line and 42 cent/minute from mobile networks).

Free Email: support@technaxx.de

Under no circumstances shall the manufacturer or supplier assume responsibility or be liable for any direct or indirect, incidental or consequential damages, or for any injury, resulting from the installation or use of this system.

Keep this user manual for future reference or product sharing carefully. Do the same with the original accessories for this product. In case of warranty, please contact the dealer or the store where you bought this product.

Warranty 2 years

Introduction

The endoscope camera TX-116 is an optical inspection device which is not approved for medical use. It can be used in inaccessible places to aid inspection and fault analysis, because it has a 1m flexible gooseneck and adjustable LED lighting.

To display the image on a TV screen, use the built-in video-out port.

The gooseneck is waterproof (protection class IP67) and suitable for use in aqueous liquids provided the immersion depth does not exceed 90cm.

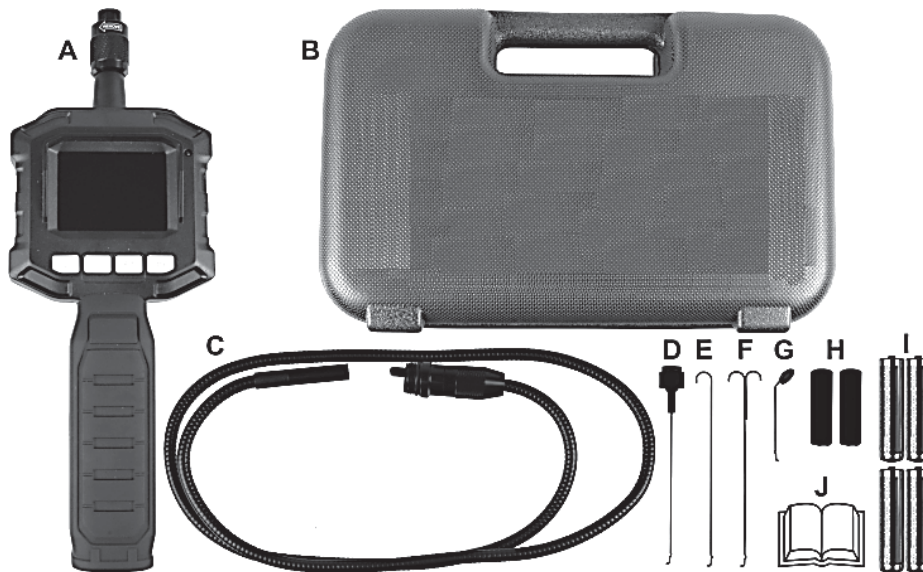
NOTE: only the gooseneck may be exposed to moisture, NOT the control panel (TFT monitor with handle). To use of the device in oils, lyes or acids is NOT permitted.

WARNING: The endoscope camera is not suitable for medical applications or use and should never be inserted into body orifices.

Features

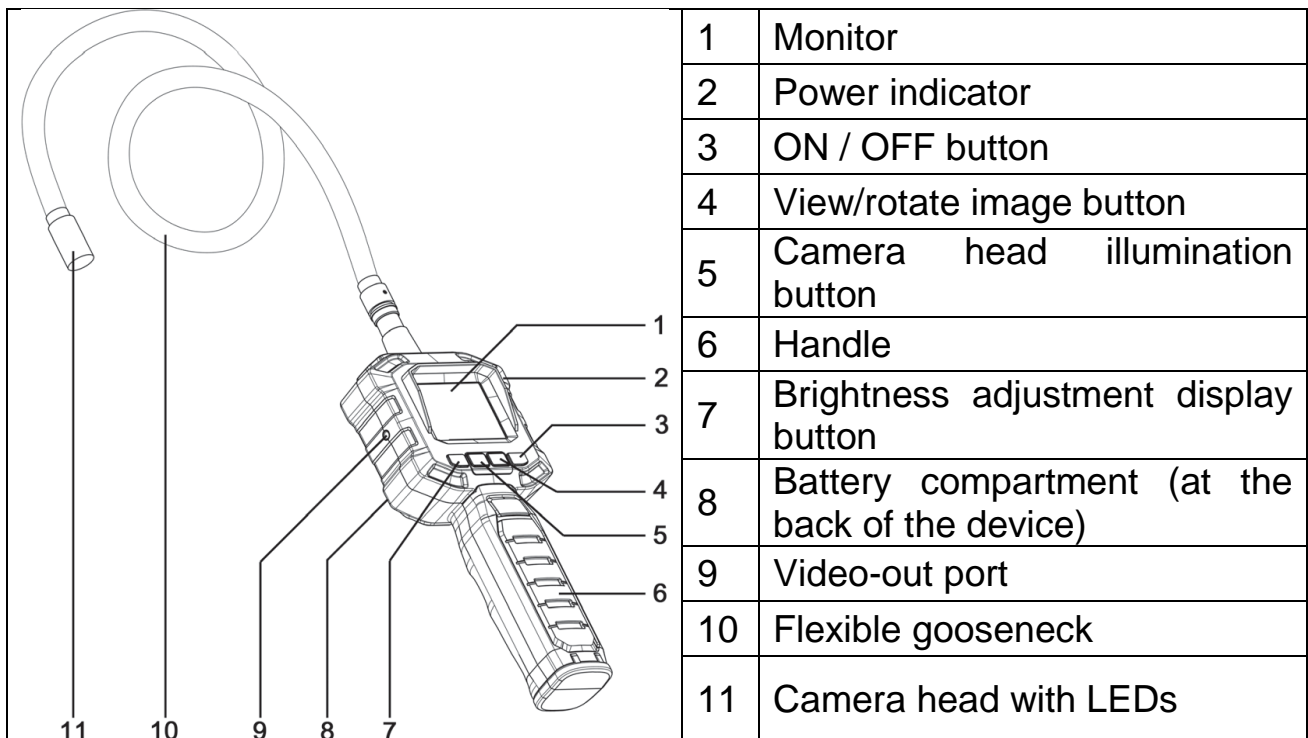
- Waterproof mini endoscope camera with monitor & 1m flexible gooseneck
- Exploration and measurement hard-to-reach, narrow and dark areas and corners (pipes, waterpipes, engine compartment, under/behind cabinets, etc.)
- Various attachments (magnet, mirror, hooks) help to recover keys, rings, etc. → Rescue a ring or key, which e.g. fell into a drain, by attaching the magnet or hook on the endoscope camera head → Find things under cupboards or shelves with the attachable mirror
- 2.31" TFT LCD colour monitor (5.9cm)
- Stepless dimmable camera illumination (8 stages) with 4 white LED lights
- Easy operation via ON/OFF button
- 3 buttons for 90° image rotation, display brightness and endoscope light
- Lightweight, handy design, flexible and convenient to use
- Gooseneck protection class IP67 (dustproof & protection against temporary immersion)
- Small handy hard shell case for easy storage and take away

Package contents



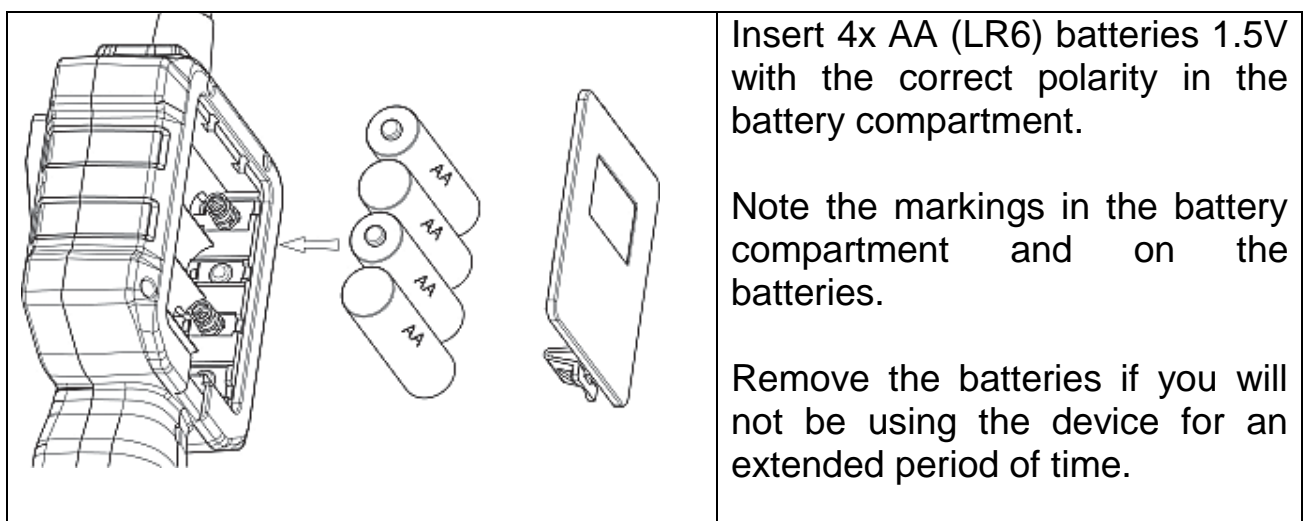
A	Endoscope camera TX-116	F	Double hook camera attachment
B	Hard shell case	G	Mirror camera attachment
C	Flexible gooseneck with camera head and LED lighting	H	2x attachment fixtures
D	Magnet camera attachment	I	4x AA batteries (LR6) 1.5V
E	Hook camera attachment	J	User Manual
& AV cable (1m) with jack-to-cinch (to show live pictures on TV)			

Overview: controls & button functions



Inserting & replacing the batteries

Ensure that the camera is switched off. The battery compartment [8] is located at the back of the device. Remove the battery compartment cover by pressing the release mechanism and lifting the cover upwards. The ribbon in the battery compartment is intended to facilitate the subsequent removal of the batteries. When inserting the batteries, make sure that this ribbon runs completely under all 4 batteries and that you can still access the end of the ribbon after the batteries have been inserted.



	<p>.1. The end of the ribbon should lie smoothly between the batteries and battery compartment cover.</p>
	<p>.2. Close the battery compartment by first inserting the two plastic tabs of the battery compartment cover into the slots provided for this purpose on the housing of the endoscope camera.</p>
	<p>.3. Then press it downwards until it audibly engages.</p>

Attaching & detaching the gooseneck

	<p>To ensure the tightness of the screw connection, remove any impurities on the rubber ring (a) and on the screw thread (b) with a slightly damp cloth.</p> <p>To maintain the flexibility of the rubber ring, you should lubricate it occasionally, for example, with vaseline.</p> <p>The gooseneck can only be attached in one direction due to the polarity protection feature. Insert the polarity protection for this purpose into the slot provided (c).</p>
	<p>The gooseneck can then be screwed on.</p> <p>Turn the screw connection to the right until it is firmly secured.</p>
	<p>To detach the gooseneck, turn the screw connection to the left until it is released.</p> <p>The gooseneck can then be pulled off by exerting a little force.</p>

Use of the device

Switching the endoscope camera on and off

The endoscope camera is switched on and off by pressing the on/off switch [3] for approximately 2 seconds. The power indicator [2] lights up green and, after a short delay, the image is shown on the monitor [1].

Lighting

The camera head is equipped with 4 LEDs. This lighting can be switched on with the illumination button [5]. This button can also be used to gradually increase the brightness of the LEDs by pressing it several times. 8 different levels can be set. When the highest level is reached and the illumination button [5] is pressed again, the lighting switches itself off.

Monitor brightness

The brightness of the monitor can be changed with the brightness adjustment display button [7]. The brightness of the monitor is gradually increased when this button is pressed several times. 8 different levels can be set. When the highest level is reached and the brightness adjustment display button [7] is pressed again, the brightness adjustment is reset to the default value.

Changing the display

The camera image can be rotated by 180° and mirrored vertically or horizontally by pressing the view/rotate image button [4]. This setting enables you to display four different views of your image. If the display is changed, the default display is shown after the camera has been switched off and then switched on again.

Video-out function

You can use this function, for example, to display the images of the camera on a TV. Depending on the device on which you want to perform the playback, you will require a connection cable which must have a 3.5mm jack plug on one side for connecting to the video-out port [9] of the endoscope camera. Put the Cinch (RCA) connector into your playback device. For further details, read the user manual for your playback device.

To use the video-out function, proceed as follows:

→ Switch off the endoscope camera.

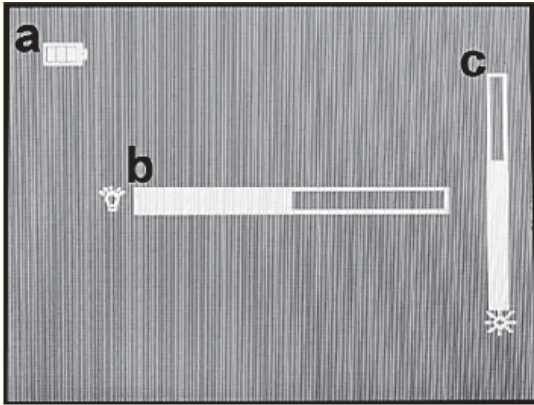
→→ Connect the video-out port [9] of the endoscope camera to your playback device. Note the corresponding user manual to adjust your playback device correctly.

→→→ Switch on the endoscope camera with the on/off switch [3]. The image is now displayed on both the monitor of the endoscope camera and on your playback device.






Attention: In some cases the monitor of your playback device is only black/white.

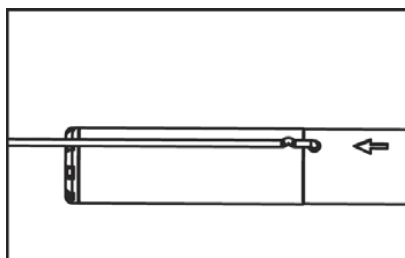
Note: Pressing the view/rotate image button [4] and brightness adjustment display button [7] only affects the monitor display of the endoscope camera. Pressing these buttons is irrelevant for the display of the playback device in use, for example, TV.

Monitor displays

	<p>a. Battery charge level indicator (permanent)</p>
	<p>b. LED lighting of the camera head (display for ~3 seconds when pressing the camera head illumination button [5]).</p>
	<p>c. Monitor brightness (display for ~3 seconds when pressing the brightness adjustment display button [7]).</p>

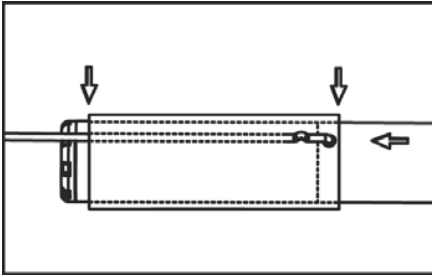
Fitting the attachments/fixtures

			
Magnet [D]	Hook [E]	Double hook [F]	Mirror [G]
			



Place the small barbed hook of the attachment into the opening provided at the end of the gooseneck just below the camera head.

Note: The attachment fixture of magnet and double hook attachments must be slid onto the attachments first due to their size



Then slide the attachment fixture carefully and completely over the camera head.

Ensure that the attachment is positioned in the slot provided in the attachment fixture.

Storage when not in use

If you will not be using the endoscope camera for an extended period of time, remove the batteries to avoid leakage. Keep the clean, dry endoscope camera and accessories in the supplied hard shell case (B) in a cool, dry place.

Troubleshooting

Q: The device cannot be switched on

A: (1) Batteries may be empty, replace the batteries. (2) Check whether the batteries are inserted correctly.

Q: No image in the display/distorted images

A: (1) Check the connection between the gooseneck and hand unit. Remove the gooseneck and then attach it again (as described in the section "Attaching/detaching the gooseneck"). (2) Distorted images on an external monitor e.g. TV; check that the cable is connected. You may have to use a different or better cable.

Safety instructions

Neither the endoscope camera is for medical use, nor for use on humans and animals. There is a risk of a potentially fatal injury.

If there is smoke, unusual sounds or smells, switch off the device immediately, stop using it and remove the batteries. The user, and not the manufacturer, is responsible for any personal injury or material damage resulting from incorrect use.

Children and persons with disabilities

Electrical devices shall neither belong in the hands of children, nor to persons with limited physical/sensory/mental abilities. Children should always be supervised to ensure that they do not play with this device.

Always keep plastic packaging out of reach also. It poses a suffocation risk!

Monitor

Do not exert any pressure on and keep sharp objects away from the display. There is a risk of injury if the display is broken. Wear gloves if you are gathering broken parts. If the monitor becomes scratched or damaged in any way, take special care to ensure that no liquid leaks from the monitor.

If liquid has leaked and

(1) comes into contact with your skin, wipe it off with a clean cloth and rinse the area of contact with a large amount of water. Consult a doctor if necessary.

(2) and comes into contact with your eyes, rinse them with running water for at least 15 minutes and then go to a hospital immediately.

(3) and you swallow the liquid, first rinse your mouth with water and then drink a large amount of water. Consult a doctor immediately!

Operational safety

The **housing of the endoscope camera** must not be opened because it does not contain any parts that require maintenance.

Ensure that the device is not subject to extreme temperature fluctuations, since this could result in condensation and electrical short circuits.

If the device was subjected to extreme temperature fluctuations, wait ~2 hours until the device has reached ambient temperature before use.

Keep the **control panel** (TFT monitor with handle) away from moisture and ensure that no foreign objects penetrate the device.

Never place any objects filled with liquids e.g. vases or drinks, on or near the device.

Avoid vibrations, dust and heat, and ensure that the device is not exposed to direct sunlight or bright artificial light. The device could be damaged as a result.

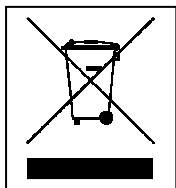
Ensure that no fire sources (e.g. burning candles) are placed on or near the device.

Technical specifications

TFT monitor	2.31" (5.9cm) / 320x240 pixel resolution / illuminated display / 8-stage adjustable brightness
Endoscope camera	640x480 pixel resolution (VGA) / Ø 8mm / 48° horizontal viewing angle
Lighting	4x white LEDs
Flexible gooseneck	1m (with camera head and adapter base) / IP67 protection class (dustproof & protection against temporary immersion)
Power supply	6V / 4x AA batteries* (*included, Type LR6) 1.5V
Working time	approx. 6–7 hours
Working temperature	–10°C ~ 50°C
Storage conditions	–10°C ~ 50°C; max. 85% RH (non-condensing)
Weight	437g (camera + monitor + batteries)
Weight / Dimensions hand unit with monitor	194g / (L) 25.7 x (W) 9.2 x (H) 4.4cm
Weight / Dimensions hard shell case	1kg (with contents) / (L) 31.5 x (W) 20.0 x (H) 6.0cm



Security and Disposal Hints for Batteries: Hold children off batteries. When a child swallowed a battery go to a doctors place or bring the child into a hospital promptly! Look for the right polarity (+) and (–) of batteries! Always change all batteries. Never use old and new batteries or batteries of different types together. Never short, open, deform or load up batteries! **Risk of injury!** Never throw batteies into fire! **Risk of explosion!**



Hints for Environment Protection: Packages materials are raw materials and can be recycled. Do not disposal old devices or batteries into the domestic waste. **Cleaning:** Protect the device from contamination and pollution (use a clean drapery). Avoid using rough, coarse-grained materials or solvents/aggressive cleaner. Wipe the cleaned device accurately. **Important Notice:** Should battery fluid leak from a battery, wipe the battery case with a soft cloth dry. **Distributor:** Technaxx Deutschland GmbH & Co.KG, Kruppstr. 105, 60388 Frankfurt a.M., Germany

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