

User Guide



LED-Dentalstick-Equine

Rigid Video Endoscope for teeth examination

SWISSVET

Swiss Quality for Your Horse

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Important Safety Instructions

1. Read all warnings in these instructions.
2. Do not misuse this apparatus.
3. Clean only with a damp cloth.
4. Do not install near any heat source such as radiators, heat registers, stoves or other apparatus that produces heat.
5. Do not tamper with the polarized or grounding-type plug. A polarized plug has two types of blades with one being wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or third prong is provided for your safety. When the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
6. Protect the power cord from being walked on or pinched especially near plugs, outlets, and the point where the cord exits from the apparatus.
7. Unplug this apparatus during lightning storms or when unused for long periods of time.
8. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as when a power supply cord or plug has been damaged, liquid has been spilled on the apparatus, objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, or does not operate normally, or has been dropped.

Warranty

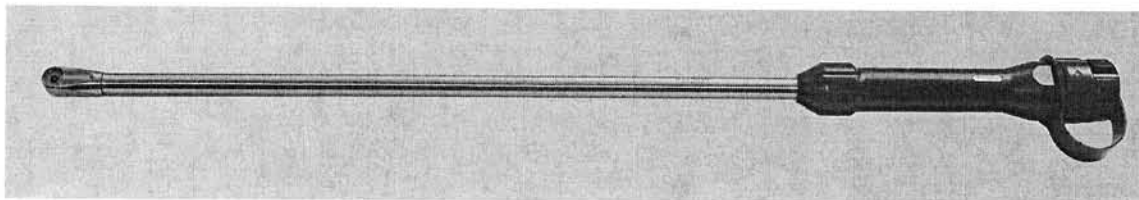
For one year upon delivery to the practitioner, we agree to replace the goods free of charge if proof can be provided of faulty materials or faulty workmanship. In doing so we do not bear the cost of transportation or the risk of shipment.

The warranty referred to in paragraphs of our Standard Conditions of Business shall apply.

Limitation of liability

The manufacturer shall be liable for failure or deterioration in the safe operation, operational reliability and performance of this equipment only subject to the conditions that all assembly operations, system expansions, readjustments, modifications or repairs, to same have been performed by a person or persons duly authorized by the manufacturer, that all electrical installations at the location of use meet applicable national and local electrical codes and that the instrument has been used in accordance with its operating instructions at all times.

LED-Dental Stick Equine



Introduction

The LED Dentalstick Equine is a specially designed rigid video endoscopes for veterinary work. Lightning is made by a LED ring at the front end of the stick. The video camera with its front lense is placed in the middle of the LED lightning ring. This compact construction allows a power supply by only one cable or a wireless version via sender and batteries. Especially for field practice use, both versions, cable or cableless can be installed, cleaned and disinfected quickly to be prepared for the next patient.

The LED stick is watertight and fully immersible **if the cover cap is closed**. Cleaning and disinfection like rigid endoscopes can be performed and are standard procedures for this type of scopes (use only solutions expressly for flexible endoscopes or anesthesia plastic parts). Ovoid in case of soaking temperature differences (+/- 10°). High temperatures can destroy the optical system. Do not use cleaning and disinfection solutions for standard medical instruments. Those substances will destroy slowly the surface of the optical system.

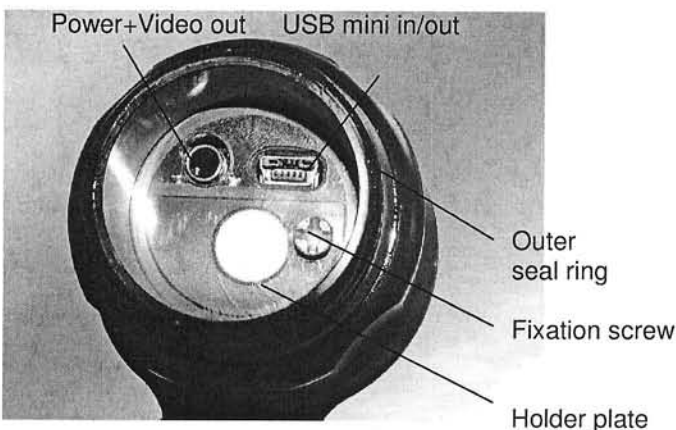
If the gripp end cover cap is open the scope is **not watertight**. Avoid therefore fluids and humidity around the sockets. Protect this stick from falling to a hard surfaces and avoid to put pressure to the lense and lighting system by miss using it as a heavy tool.

Sedation: It is highly recommended to use an adequate sedation during dental endoscopy. Users suggest to use an opiate derivate like Butorphenol. Those substances seem to reduce tongue movement, which allows better and constant visualisation for user and horse owner without disturbing movements.

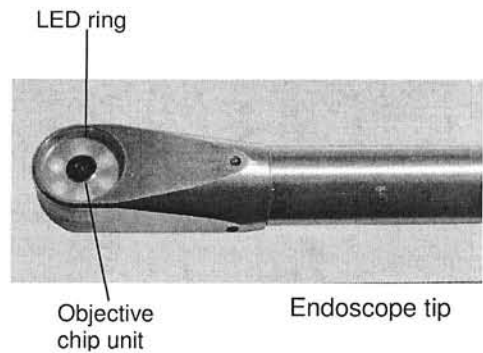
Installation- how to use the stick

Remove the end cover cap and plug in the y- connection cable to the power/video socket. The y-end should go to a monitor and to the power transformer. Any size of monitor can be usefull. We can supply you with different types if needed. Just ask your customer service. In the moment you have connected power supply cable you will see LED ring working. The video image is transfered to the monitor (s. pictures).

Connection to the gripp



Gripp end, cover cap, open

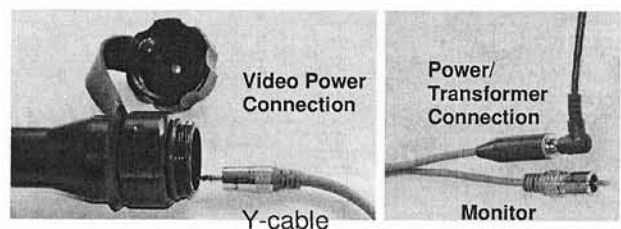


Monitor connections:

You have 3 connection possibilities

1. Connection to monitors

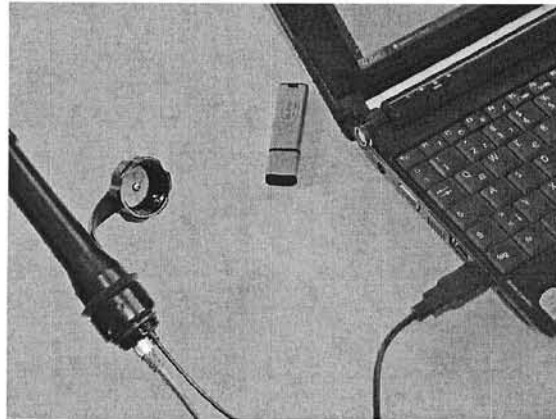
Video connection cable including power supply (Trafo, Y-cable)



2. Computer connection (PC)

- Install driver software first (use USB stick).
- Then install viewer program.
- Connect dentalscope with USB cable to your PC and start viewer program.

Attention: a parallel power supply connection is necessary!
Parallel connections are possible (PC and analog monitor)



Double connection
1x USB to PC
1x power supply + standard monitor



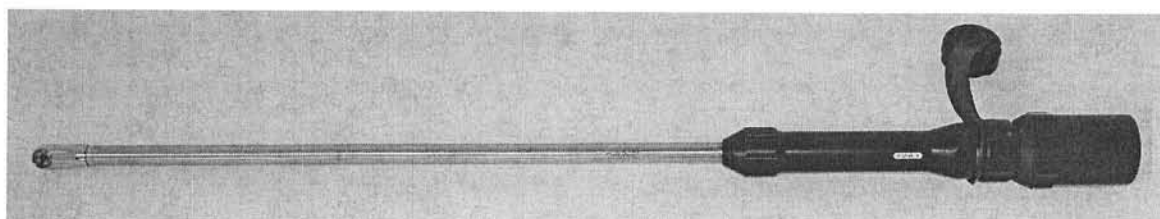
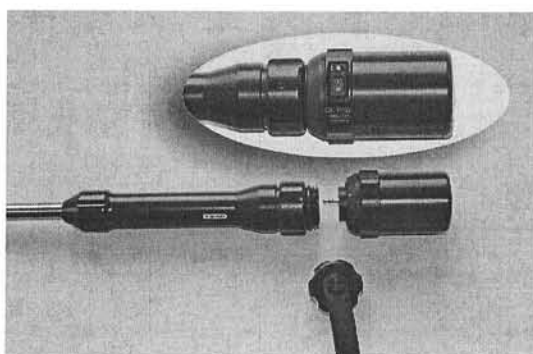
3. Wireless connection to PC and monitor

Open the lid from the endoscope gripp. Place sender/battery module to the compatible socket.
You will receive a video image if you have installed the receiver modul in connection with your computer or in connection with a monitor (see special manual).

Specifications

Case:	Steel tube with plastic handle
Video:	PAL Video composite, BNC, USB 2.0 out let
Mechanical:	Size: 720 x 55 x 55 mm Weight: 420g with transportation case 2,7 kg
Environmental:	Storage: -40° to +65 °C Operating: -10° to +40 °C
Power:	12 V
Resolution:	752(H) x 582(V) active pixels 460 x 420 lines
Illumination:	LED ring, 6.500°K
Certifications:	UL, FCC, transformer
Kit Contents:	Dentalstick User guide USB Flash Drive USB cable (TW61-310) Y-video cable (PC-KL-35) Trafo (TW61-321)

User Guide



Wireless Modul Set

for wireless video transmission to analog monitors or PC's

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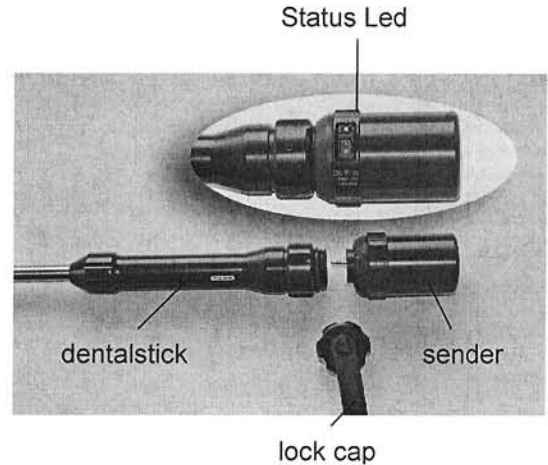
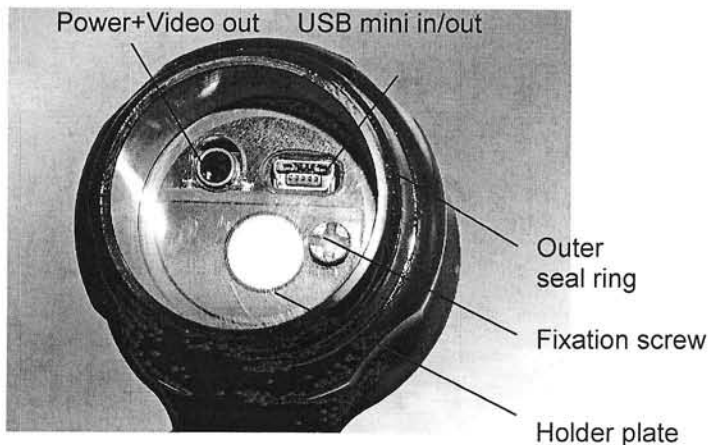
Introduction

The wireless set consist out of several parts. It is designed to supply suitable endoscopes (dentalstick ordifferent flexible scopes – TW –Series) with electric power and at the same time to transmit video data (2,4gGHz) to receiver systems for display on a monitor or pc.

Installation- how to use

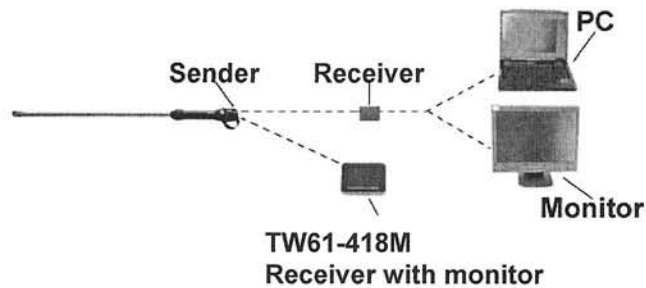
- Remove the end cover cap of your scope.
- Connect the sender module horizontal in the correct direction with the scope.
- Make sure to use marked position on scope and sender (red dots).
- Do not rotate or twist module against the scope.
- For removal just pull straight, the magnetic connector will release module. See image below.

Connection to the gripp



- Make sure to charge the sender module before use. A separate Li- charger is within the delivery.
- Start the sender unit via switch marked with the LED lights (green: fully charged).

With full batteries you will be able to use the scope between 50-80 minutes, depending forms scope, number of LED's and age of the batteries.



2,4 GHz receivers:

You have several possibilities



1. The 3,5" monitor (3,5") with in-built receiver (TW61-418M).
See special manual.

Fix it with the arm belt towards to your left or right lower arm to get an ideal vision to the small screen. Switch on the monitor.

Make sure to choose the correct receiver channel (after the first use the unit will store the channel automatically).

The video image will appear immediately with the correct channel when sender unit is started.

Use a Mikro SD card to save video or images.

Use the video connection cable to connect the receiver monitor toward larger analog video screens

2. You use a number of different receivers with 2,4" technique from industrial or consumer. Those units are free to use as it is convenient to our customers. They can be connected directly to a notebook or pc or to analog monitors. The sender unit will transmit the data depending on the location and area of 10 to 12 meters.

Notice:

There might occur disturbances due to the position and the distance of the sender unit towards the receiver unit. Those disturbance are not faults in manufacturing but problems due to the frequency used. Disturbances can also occur close to electrical power stations or other electrical fields.

Specifications

Sender: Kunststoff mit LED Ladestandanzeige
Size: 105 x 55 x 55 mm
Weight: 0,220 kg, sender unit
Environmental: 0° bis +45°C

Receiver per USB 2 cable to PC

Kit Contents: Sender unit (TW61-151) with in-built Lithium batteries, rechargeable,
 Special charger for Lithium batteries (TW61-152)
 Monitor-Receiver unit (TW61-418M) with in-built Lithium batteries, rechargeable,
 Special charger for batteries