# **REMS CamSys 2**

Electronic camera inspection system

Ultra light, handy camera inspection system for inexpensive inspection and damage analysis of pipes, drains, chimneys and other hollow cavities. Self-levelling camera. Transmitter for localising camera heads. Electronic metering. Also for inspection after pipe cleaning work and for acceptance of new installations or repairs. Documentation of pictures and videos with voice recording on SD card. Cordless and mains operation.

Camera head S-Color/S-Color S	Ø 25 mm
Camera head S-Color S-N	Ø 33 mm
Pipes, drains, chimneys, other cavi	ties
Camera head S-Color	Ø (40) 50–150 mm
Camera head S-Color S	Ø 50–150 mm
Camera head S-Color S-N	Ø 70–150 mm

REMS CamSys 2 – Brilliant pictures and videos of pipes and drains. Voice recording Self-levelling camera. Transmitter for localising camera heads. SD card slot. Electronic metering. Cordless and mains operation.

## System advantage

Only **one** controller unit with TFT-LCD colour display for connecting different camera cable sets for different requirements. Therefore inexpensive conversion possible.

## Design

Ultra light and handy. Can be used everywhere, even in very narrow places. Controller unit connected to the camera cable set by a 2 m connecting cable, removable for easy cleaning of the camera cable set. Various camera cable sets can be used. Plug-screw connections for changing the camera cable sets and the controller unit without tools. Sturdy case for controller unit, voltage supply/ charger and accessories.

## Controller unit with TFT-LCD colour display

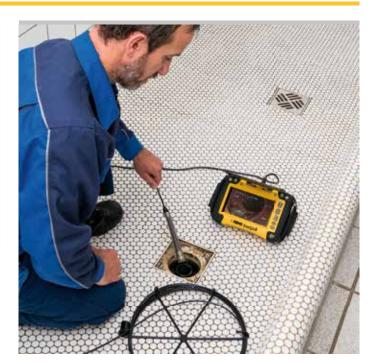
Controller unit with 7" colour display with state of the art TFT-LCD technology for brilliant pictures and videos, 178 mm screen diagonal, 720 × 480 pixels. Very light and handy, only 1.3 kg. Sturdy, impact-proof plastic housing, spray protected, glare protection. Integrated stand for different angles of inclination of the screen. Ergonomic grips with soft-grip and adjustable clamping bands, keys for picture and video, for one-hand operation by right and left handers. Small dimensions: 270 × 164 × 70 mm. Keys for setting the brightness of the LEDs of the colour camera head. Full screen, 2x zoom, 4x rotation options for the picture. Adjustable automatic switch-off. SD card slot. Pictures and videos with voice recording can be saved on an SD card for simple documentation of the inspection result. Insertion depth of the camera is stored in the picture and the video, optionally also date and time of the recording. Pictures can be taken during video recording or transmission to other devices with SD card. Pictures can also be taken later from the video during playback of recorded videos on the controller's colour display. USB connector for direct connection to PC or laptop. Video output socket Composite-Video PAL/NTSC for connecting an external monitor. Connection for voltage supply/charger 100 – 240 V.

## Cordless and mains operation

Li-Polymer Technology. Controller unit with integrated Li-Polymer battery 3.7 V, 7.6 Ah. Light and powerful. Power supply/charger 100–240 V, 15 W, with USB port and USB cable for connecting power supply/charger, laptop or other voltage supply. No memory effect for maximum battery performance.

### High resolution special colour camera

High resolution special colour camera with CMOS image sensor and ultra bright, white light emitting diodes (LEDs) with adjustable light intensity up to 1700 mcd and concentrated radiation angle for brilliant colour pictures with evenly bright illumination. Low light requirement due to very high light sensitivity (0.1 lux). Fixed focus and special lens with 90° wide angle, also for detecting the smallest details.









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# **REMS CamSys 2**

### Exchangeable cable camera sets

<u>Camera cable set S-Color</u>, consisting of a special high resolution colour camera  $\emptyset$  25 mm with 20 m push cable  $\emptyset$  4.5 mm, very flexible, for small pipe diameters and narrower bends  $\emptyset$  (40) 50–150 mm, in the hasp with electronic metering or 10 m push cable  $\emptyset$  4.5 mm with length mark, very flexible, for small pipe diameters and narrower pipe bends  $\emptyset$  (40) 50–150 mm, in the cable reel. <u>Camera cable set</u> <u>S-Color S</u>, consisting of a special high resolution colour camera  $\emptyset$  25 mm with 30 m push cable  $\emptyset$  5.4 mm, flexible, for  $\emptyset$  50–150 mm, in the hasp with electronic metering and 33 kHz transmitter for localising the camera head. <u>Camera cable set</u> <u>S-Color S-N</u>, consisting of a special high resolution colour camera  $\emptyset$  33 mm with 30 m push cable  $\emptyset$  5.4 mm, flexible, for  $\emptyset$  70–150 mm, in the hasp with electronic metering, 33 kHz transmitter for localising the camera head and self-levelling camera for upright pictures and videos. Connection for controller unit. Very small, rounded camera head, water-proof up to 20 m (0.2 MPa/2 bar/29 psi) and highly flexible sliding spring tapered towards the push cable for effortless feeding even through several pipe bends. Camera head with strong, quick-change protective cap with linserted mineral glass pane. Bend-manoeuvring push cable in hybrid technology, with glass fibre core, data cables and plastic sheath, very stable, for long life. Robust, powder-coated, easy to clean cable cage. Hasp with rotary cage for simple unwinding and winding of the push cable set as an accessory.

#### **Guide bodies**

Guide body S-Color/S-Color S and S-Color S-N Ø 62 mm and Ø 100 mm, for greater pipe diameters, can be locked to camera head S-Color/S-Color S or S-Color S-N, as an accessory.

### Tracker

REMS Explorer for localising a camera head with a 33 kHz transmitter, for determining the position of damages or the course of a pipe, as an accessory.



## Supply format

**REMS CamSys 2 Set S-Color.** Electronic camera inspection system for low-cost inspection and damage analysis. Documentation of pictures and videos with voice recording on SD card with specification of date and time. Controller unit in microprocessor technology with 7" TFT-LCD colour display, SD card slot, USB port, video out socket PAL/NTSC, integrated Li-Polymer battery 3.7 V, 7.6 Ah, in sturdy, impact-proof plastic housing, spray protected, glare protection, stand. 2 m connecting cable from the controller unit to the camera cable set, voltage supply/ charger 100–240 V, 50–60 Hz, 15 W, SD card 4 GB, USB cable, video cable, in sturdy case. Camera cable set S-Color with high resolution special colour camera with CMOS image sensor and push cable.

Description	Version	ArtNo.	
Set S-Color 10 K	High resolution special colour camera $\emptyset$ 25 mm, 10 m push cable $\emptyset$ 4.5 mm with length mark, very flexible, in the cable reel. For small pipe diameters and narrower pipe bends $\emptyset$ (40) 50–150 mm, drains, shafts, stacks and other cavities.	175301	
Set S-Color 20 H	High resolution special colour camera $\emptyset$ 25 mm, 20 m push cable $\emptyset$ 4.5 mm, very flexible, in the hasp with electronic metering. For small pipe diameters and narrower pipe bends $\emptyset$ (40) 50–150 mm, drains, shafts, stacks and other cavities.	175302	
Set S-Color S 30 H	High resolution special colour camera $\emptyset$ 25 mm, 33 kHz transmitter for lo- calising the camera head, 30 m push cable $\emptyset$ 5.4 mm, flexible, in the hasp with electronic metering. For pipes $\emptyset$ 50–150 mm, drains, shafts, stacks and other cavities.	175303	
Set S-Color S-N 30 H	High resolution special colour camera Ø 33 mm, self-levelling, 33 kHz trans- mitter for localising the camera head, 30 m push cable Ø 5.4 mm, flexible, in the hasp with electronic metering. For pipes Ø 70–150 mm, drains, shafts, stacks and other cavities.	175304	



# **REMS CamSys 2**

Accessories for REMS CamS	ys 2	2
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Description	ArtNo.	
REMS CamSys 2 Basic-Pack Controller unit in microprocessor technology with 7" TFT-LCD colour display, SD card slot, USB port, video out socket PAL/NTSC, integrated Li-Polymer battery, 3.7 V, 7.6 Ah, in sturdy, impact-proof plastic housing, glare protection, stand, spray protected. 2 m connecting cable from the controller unit to the camera cable set, voltage supply/charger 100–240 V, 50–60 Hz, 15 W.		
SD card 4 GB, USB cable, video cable, in sturdy case.	175300	
Camera cable set S-Color 10 K High resolution special colour camera Ø 25 mm, 10 m push cable Ø 4.5 mm with length mark, very flexible, in the cable reel. For small diameters and narrower pipe bends Ø (40) 50–150 mm.	175305	
Camera cable set S-Color 20 H High resolution special colour camera Ø 25 mm, 20 m push cable Ø 4.5 mm, very flexible, in the hasp with electronic metering. For small diameters and narrower pipe bends Ø (40) 50–150 mm.	175306	
<b>Camera cable set S-Color S 30 H</b> High resolution special colour camera Ø 25mm, 33 kHz transmitter for localising the camera head, 30 m push cable Ø 5.4mm, flexible, in the hasp with electronic metering. For Ø 50–150 mm.	175307	
Camera cable set S-Color S-N 30 H High resolution special colour camera Ø 33 mm, self- levelling, 33 kHz transmitter for localising the camera head, 30 m push cable Ø 5.4 mm, flexible, in the hasp with electronic metering. For Ø 70–150 mm.	175308	
Guide body Ø 62mm S-Color/S-Color S, for camera head S-Color/S-Color S	175057	
Guide body Ø 100 mm S-Color/S-Color S, for camera head S-Color/S-Color S	175058	
Guide body Ø 62mm S-Color S-N, for camera head S-Color S-N	175343	
Guide body Ø 100 mm S-Color S-N, for camera head S-Color S-N	175339	
Protective cap S-Color/S-Color S with mineral glass pane, sealing ring, for camera head S-Color/S-Color S	175026	
Protective cap S-Color S-N with mineral glass pane, sealing ring, for camera head S-Color S-N	175330	
<b>REMS Explorer</b> , tracker for localising a camera head with a 33 kHz transmitter	175312	
Carrying case for camera cable set	175123	

