

CT-Cylinder Camera Mini

Article Number: 1240808

Operation Instructions



1. Important safety instructions



For the use of the device notice the national safety and accident prevention regulations and the following safety instructions shown in italics in this instruction manual.

- *Before using CT-Video products read completely the appropriate operating instructions. If in doubt, ask our technical staff.*
- *If repair work of any kind needs to be done to CT-Video products, arrange for it to be performed only by the company CT-Video or by a specialized workshop that is authorized by CT-Video. In all other cases our warranty and liability for the product shall lapse.*
- *If products are operated on a mains voltage, always pull the mains plug out of the mains plug socket before opening such products (e.g. for servicing purposes) !*
- *Do not store CT-Video products outside or in damp ambient conditions. At all times keep them clean, dry and at normal air humidity. CT-Video products must not be stored in areas with a temperature of over +80 °C (+176 °F), e.g. in the summertime on the parcel shelf of a car. If not stated otherwise, the following temperature ranges are allowed for CT-Video products: -10 to +55 °C (+14 to +131 °F) for operation, -40 to +80 °C (-40 to +176 °F) for storage.*
- *Do not immerse a CT-Video product into water, if it is not expressly specified for this purpose.*
- *When using CT-Video products that are equipped with connection leads ensure that the latter do not get caught up in operational machinery or wheels !*
- *CT-Video products that are not intrinsically safe (explosion-proof) and therefore have no special explosion-proof designation must never be operated in potentially explosive environments (e.g. when refuelling cars, aircraft etc.). Devices that are not explosion-proof can unintentionally trigger off explosions in such areas !*
- *Connect CT-Video accessories to a device or disconnect them from a device only when the device is switched off. In the case of intrinsically safe products (explosion-proof) this must always take place outside of the potentially explosive area. Otherwise the consequence could be an unintentional explosion !*



- *If you are a cardiac pacemaker carrier, before operating a transmitter/receiver ask the manufacturer of your cardiac pacemaker for information about any impairment that might be caused due to high frequencies.*

- *Do not leave CT-Video products lying around loose in cars, e.g. on the parcel shelf. Stow these products in a suitable, safe place in the car so that they do not present a danger to you or to other occupants of the car, if emergency braking is effected.*
- *Charge rechargeable batteries only with the appropriate suitable CT-Video charger. Observe the voltage and currency specifications, including those on the mains face (e.g. 230 V AC or 115 V AC). Never use the charger to recharge non-rechargeable batteries.*
- *When handling rechargeable batteries comply with environmental protection regulations !*



Never attempt to open a rechargeable battery and never throw a rechargeable battery into fire. Expended (defective) rechargeable batteries are subject to compulsory regulated waste disposal. Do not put them in the household waste !

- *Ensure that a short-circuit (risk of fire or injury) is not created across rechargeable battery terminals or charging sockets by a short-out (bent-open paper clip, bunch of keys etc.). In such an event the warranty shall lapse. Transport any spare rechargeable batteries in an electrically non-conducting package in order to avoid short-circuiting the rechargeable batteries.*
- *Keep CT-Video products and rechargeable batteries out of the reach of children and any other persons who are not familiar with the handling and operation thereof.*
- *Packaging materials, e.g. filling materials and plastic bags are not toys and have to be kept out of the reach of children. There is a risk of children ingesting them and choking !*
- *Safe operation requires clean devices. Ensure that the devices (microphones, connectors etc.) are clean and in good condition at all times.*
- *CT-Video products may only be used for the specific application envisaged.*



● *Should equipment, supplied by CT-Video, be definitely put out of service you may return it to CT-Video. We ensure recycling and/or disposal of outdated equipment in compliance with the applicable environment protection law.*

2. CT-Cylinder Camera Mini

2.1 General Description

The CT-Cylinder Camera Mini is a completion of the compact CT-Cylinder Camera.

The outside dimensions were still continued to minimize by the employment of a smaller camera module. In spite of the minimal dimensions are all functions of a Pan & Tilt camera available.

The CT-Cylinder Camera Mini can be used in an extremely wide range of security observation environments and is designed as comfortable replacement of old fashioned, heavy, tall and visible pan & tilt cameras.

Multiple preset functions realize optimized observation tasks including on screen data and many more. The high performance built-in video camera with a 1/4 inch CCD™ Sensor works microcomputer controlled with high precision engines for pan & tilt.

This realizes an exact movement to every horizontal position more than 360 ° and vertical position between +20 ° and -20 ° degrees by full functionality of every implemented camera control function.

The product comes with high sensitivity for night shots.

The camera control functions are predefined and controlled by using the cable remote control unit or the radio remote unit.

The camera offers the possibility of storing in the horizontal direction of motion two camera positions. After the activation of the SCAN mode the camera between both positions swivels periodically back and forth. The CT-Cylinder Camera Mini is space and weight constrained for an easily handling and simple mounting. During the construction were paid attention to compact size of the camera and most extensive soundlessness. One of the key elements of video observation is to transmit wireless video to a receiver and to control the camera with a radio Remote Control Unit.

Different transmitter and receiver remote units of CT-Video GmbH are available.

Additionally, the user can connect encryption & decryption devices for a secure wireless video transmission. The radio distance between the CT-Cylinder Camera Mini and the receiver video unit depends on the transmitting frequency, the environment and the output power. If in doubt, please ask the CT-Video GmbH.

The camera can be used in two different versions. On the one hand the user will get a CT-Cylinder Camera Mini together with a cable Remote Control Unit and on the other hand comes the camera together with a Radio Remote Control Unit.

Over the cable of the CT-Cylinder Camera Mini you can connect the connector cable for the cable remote control unit for the cable-controlled observation or the transmitter-/receiver unit for the wireless observation.

The CT-Cylinder Camera Mini and this manual are part of a complex electronic system. In order to ensure a problem-free co-operation of these components, you read please these and other operating instructions of the system.

2.2 Technical specifications

Technical specifications about the CT-Cylinder Camera Mini

<ul style="list-style-type: none">• Dimensions 200 mm x 90 mm• 360° angle of view• More than 40° tilt• 1/4" inch CCD Image Sensor• 795 (H) x 596 (V) Pixel• 625 TV Lines horizontal• focal length min. 4,2 mm (wide end) to 42 mm (tele end)• 0,03 Lux	<ul style="list-style-type: none">• 100 x zoom (10 x optical, 10 x digital)• Motion detect in 48 Zones (selectable via OSD- Menu)• Color/ black & white changeover via OSD Menu• Power supply 12 V DC• Power consumption 1,2 A (with working engines)• Video Output Composite with 1,0Vpp-(75 Ω)• Operation Temperature = 0° to 50° C Humidity = to 85 %
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2.3 Preset Functions

Any internal functions are preset and cannot be changed from the user.

- Automatic Slow Shutter Speed function
- Left / Right Reverse

If in doubt ask the company CT-Video GmbH.

2.4 0,03 Lux Shot

The minimum luminous sensitivity of the "CT-Cylinder Camera Mini" reached in "Star-light" mode of the camera. It amounts to 0,03 lx. The normal luminous sensitivity amounts to 2,5 lx.

2.5 Stored camera Presets

The CT-Cylinder Camera Mini is equipped with an EEPROM. In the EEPROM the presets for the specific camera use are stored. The camera loses its programmed data only if the memory is overwritten.

2.6 Construction of the CT-Cylinder Camera Mini

The CT-Cylinder Camera can be divided into three different parts (feet, body and pan & tilt head). An important part is the pan & tilt head. This part realizes the pan & tilts function and transmits video to the build in camera. Please keep the head completely clean, dry and do not connect the head to other equipment. The head must always turn without resistance. Other parts are the body and the feet with the 50cm-connection cable. Body and feet are water resistance but not waterproof.

Cable and connectors are waterproof.

The camera is designed for outdoor jobs without permanently wetness. Do not use the camera in higher protection environments.

The data and power supply cables and the connectors are intended for use in harsh environments.

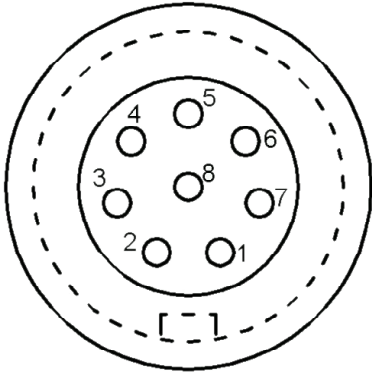
Outer sheaths of black polyurethane and flame-retardant according to VDE 0472, part 804, test B (IEC 332.1).

➔ Note

Do not use the CT-Cylinder Camera Mini for prohibited applications or not allowed areas, for example water or fire. Do not use the CT-Cylinder Camera Mini for a permanent video observation in unprotected outdoor areas. Do not shake the CT-Cylinder Camera Mini and safe the whole system for impacts. Mechanical distortions can cause not repairable fail function. The Auto Focus is not suitable for the permanent works. If in doubt ask the company CT-Video GmbH.

2.7 Port configuration

Binder 720 jack and plug of the CT-Cylinder Camera Mini

PIN	Colour	Type	
1	yellow	Video signal	
2	red/brown	+12 VDC	
3	shield	Ground	
4	purple	RxD Cam	
5	green	Not connected	
6	blue	Video ground	
7	black	Audio TxD Cam	
8	orange	Scrambler	

3 fach Verteiler

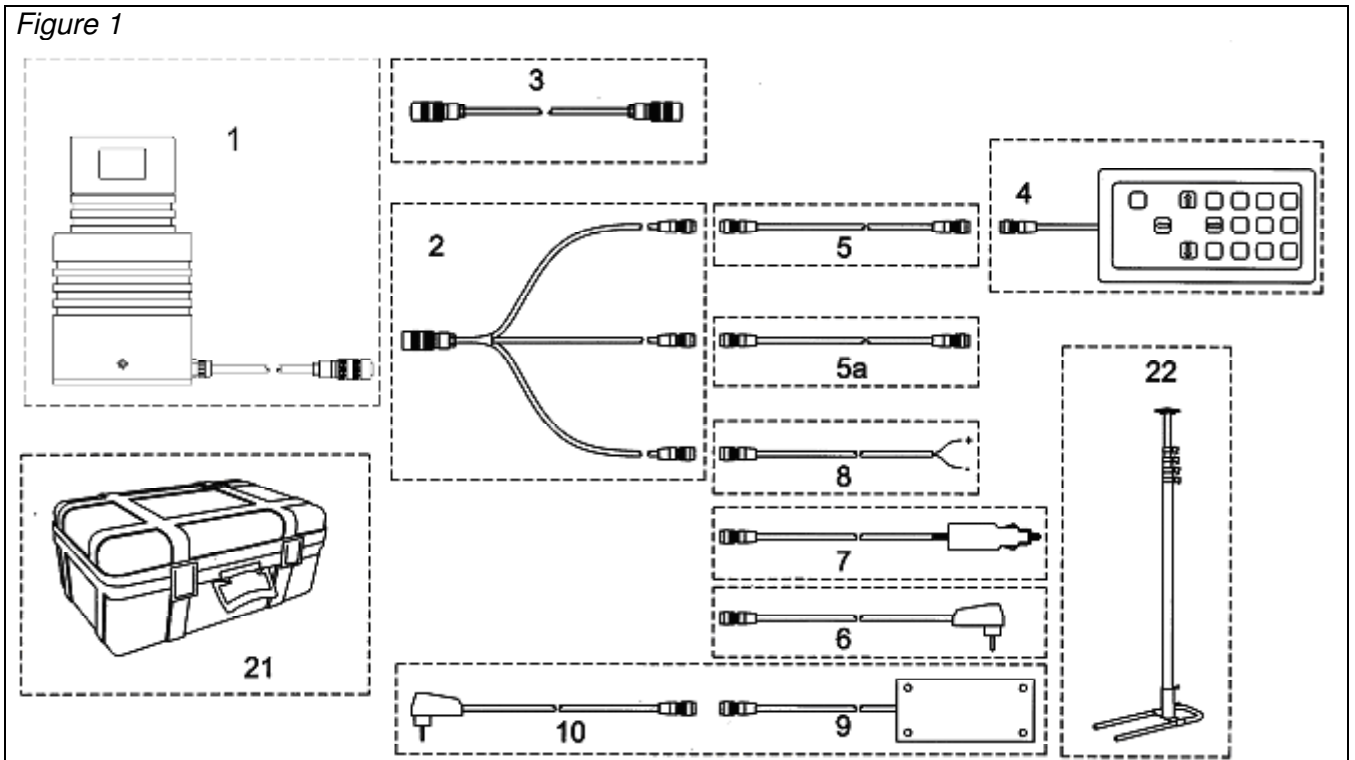
Binder 720 3-polig Buchse		Hirose 6-polig Stecker		Chinchbuchse Video (gelb)	
Pin	Typ / Farbe	Pin	Typ / Farbe	Pin	Typ / Farbe
1	+12V DC / alle Farben	1	Schaltspan. Progr. / blau	mittel	Video / weiß
2	Not connected	2	Txd Cam / grün	außen	Video GND / Schirm
3	Ground / Schirm	3	Rxd Cam / gelb		
		4	GND / braun		
		5	Scrambler / weiß		
		6	+12V DC / rosa		

3. Information for scope of delivery

Every integrated product is predefined for specialized customer use.

CT-Cylinder Camera Mini cable remote control

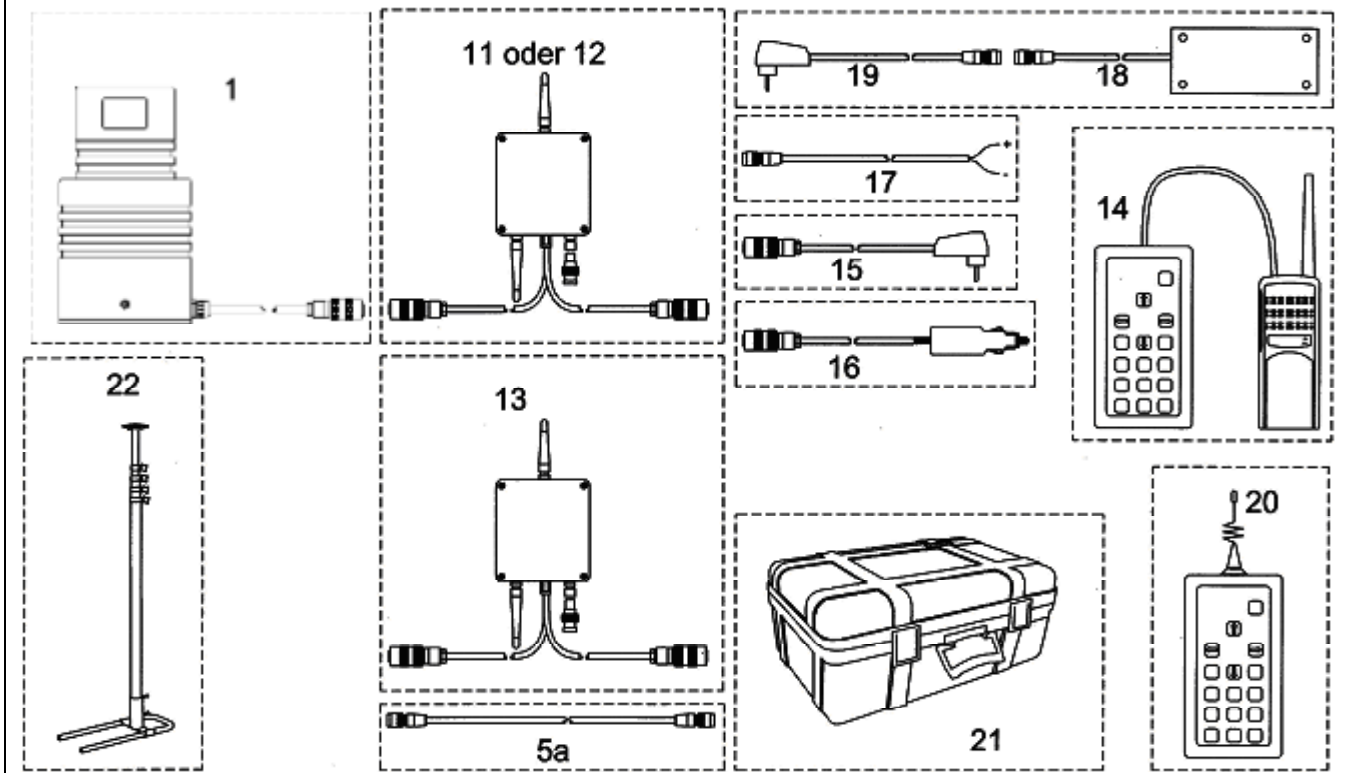
Figure 1



1	CT-Cylinder Camera Mini with 5 m cable and Binder 720 screw connection, IP 68
2	connection cable 2m long (Video/Output; Power Supply; Remote Control) Binder 720 screw connection, Hirose and RCA
3	10 m extension cable double-sided Binder 720 screw connection, IP 68
4	cable remote control
5	extension cable for connecting remote control at the connection cable 2, 3 m long
5a	extension cable for connection of a video receiver
6	mains cable 1m long + battery charger, 12 VDC
7	mains cable 3m long for connection at the car cigarette lighter, 12VDC
8	mains cable 3m long ,12VDC; with open end of one side
9	Battery rechargeable - with connection cable
10	battery charger
21	hard-cover suit-case, waterproof
22	stand

CT-Cylinder Camera Mini mit Funkfernbedienung

Bild 2



1	CT-Cylinder Camera Mini mit 5 m Kabel und Binder 720 Verschraubung, IP 68
11, 12	kombinierter Funk Video Sender + Funk Fernsteuersender (13)
14	Funkfernbedienung mit Funkgerät
15	Stromversorgungskabel 1m lang + Batterieladegerät, 12 VDC; zum Anschluss an eine Steckdose
16	Stromversorgungskabel 3m lang zum Anschluss an Fahrzeugzigarettanzünder, 12VDC
17	Stromversorgungskabel 3m lang ,12VDC; mit an einer Seite offenen Enden
18	Akku- Pack mit Anschlusskabel
19	Batterieladegerät
20	Funkfernbedienung
21	wasserdichter Hartschalenkoffer
22	Stativ

4. System

CT-Cylinder Camera Mini control many different external and internal functions. The controlling of the simple functions can take place in two different kinds. The basic functions (up, down, right, left, zoom, focus etc.) can be controlled either via the provided cable remote control or via the software "Mediacenter". Special parameters are configured over an OSD menu faded in the video picture. The controlling of the OSD menu is exclusively made by the "Mediacenter" software.

4.1 Basic requirements

The following minimum requirements are necessary to make a cable video observation with the CT-Cylinder Camera Mini

- CT-Cylinder Camera Mini + 0,5 m cable
- Connection cable for video, radio remote control and power supply
- Cable remote control
- Power supply 12 V DC

4.2 Installation of the System

For use of the system connect the remote Control via the connection cable at the CT-Cylinder Camera Mini. After this connect the Video output and the power supply at the CT-Cylinder Camera Mini. For representing the video picture a monitor or the like (not in the scope of delivery) should be connected to the video output. If the additional camera functions are to be programmed or be controlled the camera with a PC, a PC must be connected via the provided data cable.

4.3 Cable remote control

The cable remote control is a "Plug`n Play" device. The cable remote control is connected via the control cable and the system is ready for use. With the cable remote control the turn and inclination of the camera are controlled.

The following external basic functions can be controlled by the cable remote control.

Control	Function
↑	moves the displayed video up
↓	moves the displayed video down
←	moves the displayed video left
→	moves the displayed video right
Scan 1	press this button to store the current camera position at position 1
Scan 2	Press this button to store the next camera position at position 2. The camera start scanning the area you have chosen automatically between Position Scan 2 and Scan 1
Zoom +	moves the displayed object closer
Zoom -	Moves the displayed object far away.
Auto Focus	automatic
Focus +	increases manual the focus Auto focus must be disabled
Focus -	Decreases manual the focus. auto focus must be disabled
Backlight	Backlight compensation
0 Lux	turns the IR-Cut Filter on/off -picture soft green
Freeze	after pushing the button a storage picture will be displayed
ON/ Off	no function
Opt.	no function

Figure. 2 Cable remote Control



The cable remote control does not need a power supply.

4.4 Radio Remote Control

Radio Remote Control functions realizes moving and enhanced camera control functions. The following external basic functions can be used to control the camera by means of the radio remote control unit

Control	Function
↑	moves the displayed video up
↓	moves the displayed video down
←	moves the displayed video left
→	moves the displayed video right
Scan 1	by pressing this button will storage the actually position at position 1
Scan 2	Press this button to store the next camera position at position 2. The camera start scanning the area you have chosen automatically between Position Scan 2 and Scan 1
Zoom +	moves the displayed object closer
Zoom -	Moves the displayed object far away.
Auto Focus	the object will be automatic focused
Focus +	increases manual the focus Auto focus must be disabled.
Focus -	Decreases manual the focus. auto focus must be disabled
B/L	Backlight compensation
0 Lux	turns the IR-Cut Filter on/off -picture soft green
Freeze	after pushing the button a storage picture will be displayed
ON/ Off	switch the video transmitter ON/OFF
Opt.	no function

Figure. 4 radio remote control



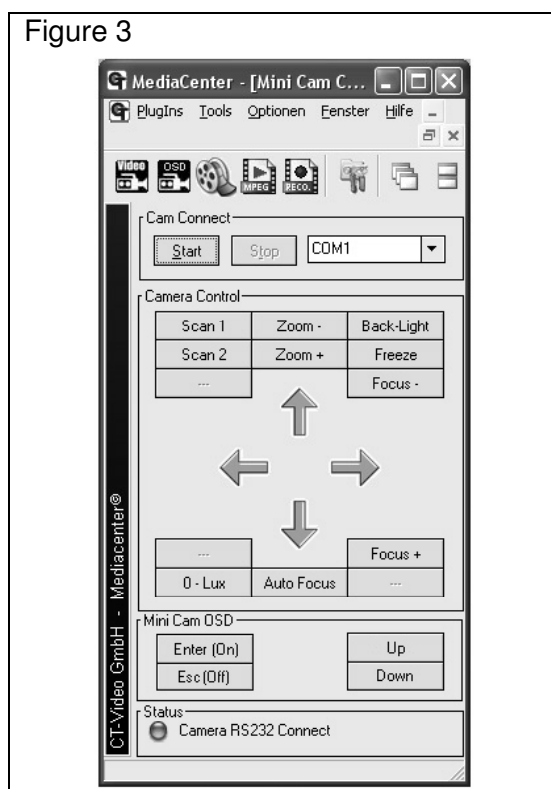
The radio remote control unit needs an internal 9V accumulator pack for correct functionality.

4.4 Software Control

By means of the provided software "Mediacenter" you can control the camera also over a PC or a Laptop. At first please connect the programming cable to the camera and to the PC.

Afterwards connect the camera to the power supply and start the software "Mediacenter" at the PC. Select the modul "OSD" by clicking at the toolbar at the top. Select in the menu item "Cam Connect" the right port of the camera.

By clicking on the button "start" the connection to the camera is activated. Now you can control the camera with all commands which are provided.



4.5 OSD Menu

The camera has different adjustment possibilities, which were developed for observation.

These adjustments can you change via the OSD menu. Thereto you must first connect the programming cable to the camera and to the PC. Connect the RS232 interface of the programming cable with a free "COM Port" of the computer. Connect the camera at a power supply. Afterwards switch on the computer and start the program "Mediacenter". Select the modul "OSD" by clicking at the toolbar at the top. Select in the menu item "Cam Connect" the right port of the camera.

By clicking on the button "Start" the connection to the camera is activated. By clicking the button "Enter (ON)" attain the OSD menu of the camera. This is represented at the connected monitor. In the menu you can move with the keys "UP" and "DOWN". Confirm the selection with "ENTER (ON)". By pressing of the key "ESC (OFF)" go back one step in the menu. In the menu of the camera, you can adjust 19 menu options at two main sides.

Menu item	Value	Description	
1 – IRIS	PEAK	ON	Control of the Iris (Ø or peak value)
		OFF	
	ALC	AUTO	automatic iris setting (adjustable)
		FIX	
	AES	AUTO	automatic shutter (at AUTO mode can be adjust)
		FIX	

2 – BLC Select	OFF		BLC selector off		
	ON	AREA	48 BLC zones can be set separately. According to the mask area (BLC zone) signal to decide the iris and shutter speed		
		SENS	Sensitivity adjustable		
3 – AGC, SENS Select	FREEZE	FIELD FRAME	"Freeze" selected area or frames at the monitor (Still Image)		
	FREEZE	OFF ON	ON / OFF switch the function		
	PRIORITY	AGC SENS	automatic or manual		
	AGC		9 steps (0 / 2,25 / 4,5 / 6,75 / 9 / 11,25 / 13,5 / 15,75 / 18dB)		
	SENS		9 steps for low light application (0 / 6 / 12 / 16 / 18 / 22 / 24 / 30 / 36 frames)		
4 - COLOR Select	COLOR	OFF	monochrome	image color matching	
		ON	normal		
		AUTO	automatic switch		
	WB	ATW	permanent	automatic white balance control	
		AWB	on push of a button		
	GAIN	R	red	color contrast adjustable	
B		blue			
5 – APC Select	H		horizontal and vertical compensation for enhance the picture quality (adjustable)		
	V				
6 – LENS Select	DIG ZOOM		adjustable (OFF, 2x / 4x / 6x / 8x / 10x)		
	ZOOM SPEED		zoom speed	adjustable	
	FOCUS SPEED		focus speed		
	ZOOM	WIDE TELE		Lens ZOOM adjust Wide / Tele	
		FOCUS	MANUAL	INF (-)	AUTO / MANUAL setting
	NEAR (+)				
AUTO					
7 – REV Select	POSI / NEGA	Positive	Positive / Negative image selection		
		Negative			
	H Reverse	OFF	Horizontal Reverse (Mirror)		
		ON			
V Reverse	OFF	Vertical Reverse (Mirror)			
	ON				
8 – POSITION Select	Alarm	No=	set Alarm position (0-64) 0 = Alarm enable	If an alert is given, the auto focus and the zoom adjust themselves automatically to the preset values of the respective zone.	
	Freeze	OFF	is use as trigger for alarm input		
		ON			
	Position	No=	64 positions adjustable		
		Zoom Speed			adjustable
		Focus Speed			adjustable
		Zoom	Wide		adjustable
Tele					
Focus	Inf	adjustable			
	Near				
9 – TITLE Select	Title	Start Position		title selector (start display)	
		Character / Symbol			
		Up			
		Down			
10 – PRESET Select	Preset	OFF	Preset	Preset / readjustment of the factory presets /	
		ON			
	Initial	OFF	factory preset		

		ON		preset of the external video signals
	Phase	OFF	external video signal	
		ON		
	Phase Set		preset of the available external video signal	
11 – MASK	OFF		Cross line ON/OFF select, set ON cross line display, set OFF cross line is hidden	
	ON			
12 – GAMMA	Type A		0,45	gamma correction
	Type B		1,0	
13 – POWER ON	Blue Back	OFF	background blue	Options when switching on the camera
		ON		
	Position	OFF	camera power on lens position is go to the designation position (adjustable 0-64)	
ON		No=		
14 – MOTION	Motion	OFF	motion detect function	Select of motion detect function in the zones
		ON		
	Area	10 sec	motion detect output time select	
		30 sec		
60 sec				
Sens		sensitivity adjust		
15 - MASK	Position	No=	adjustable 1-64	select mask area size and position for each setable lens position
	Mask	No=	adjustable 1-64	
	OFF		Mask OFF	
	ON	H-Start=	hor. direction start and end position	
		H-End=		
		V-Start=	ver. direction start and end position	
	V-End=			
	Connect	OFF ON	Zoom action to link mask area	
16 - OSD	Position	OFF	Position No.	shows the current status at the monitor
		ON		
	Motion	OFF ON	Motion detect	
Zoom Mag	OFF	Zoom		
	ON			
17 – ZOOM + AF	Zoom/AF	OFF	Zoom stops time execute lens focus once	select an occasion for auto focus action
		ON		
	AF Sleep	OFF	sleep function on, As show screen stillness about 5 min. cameras come into AF sleep mode namely, as screen has bigger change time come back again act for normal mode namely	
ON				
18 - LANGUAGE	English		select OSD menu display language	
	Chinese			
	Japanese			
19 – COMMUNICATION ID	Comm ID	No=	set ID number	select communication ID and mode
	Mode	1 - 1	One controller to control one camera	
		1 - N	One controller to control many cameras	

5. Advices to the safe use

Do not shoot images in extremely bright (e.g. light source, sun, etc.) for long periods of time. Do not use or store the CT-Cylinder Camera in the following extreme conditions;

- Extremely hot or cold places
- Damp or dusty places
- Where it is subject to strong vibration
- Close to generators of powerful electromagnetic radiation
- The CT Cylinder Camera Mini should be set up firmly

6. Installation areas and range of use

The CT-Cylinder Camera, cable and connectors are especially suited for Indoor and Outdoor applications for visible and invisible installation. Hereby, many useful installations are possible.

- stand alone with cable remote control
- stand alone with radio remote control and additionally radio video link,
- installations in complex housings, for example in seats, container and office environments,
- stand installations
- installation in under cover environments, for example in cars, company areas, fuel stations and many more

7. Storage

Store the cleaned devices in a clean and dry place at normal room temperature and at normal relative air humidity.

8. Maintenance

8.1 Visual inspections

Examine the device regularly for signs of fractures, cracks and wear. Send a defective device to CT-Video GmbH for repair.

8.2 Cleaning



CAUTION

Do not immerse the devices in water. No moisture may be allowed to penetrate the devices. Do not use any solvents (benzine, alcohol, etc.) for cleaning purposes !

Remove any loose dust with a soft brush. Clean the outside with a suitable clean cloth that has been slightly moistened with clear water, and rub the parts dry afterwards. If heavily soiled, some dishwashing liquid can be used in addition. If necessary, clean the contacts of the connection plug with a commonly available contact cleaning agent.

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