ABUS

Security Tech Germany

eyseo.

Vandal proof WD DNR Day/Night Vario 650 TVL outdoor dome camera

Version 12/2010

TVCC71000
TVCC71500

$C \epsilon$

Original English user manual. Keep for future use.

ⓊⓀ __Introduction__

Dear Customer,

Thank you for purchasing this product.

This product meets the requirements of the applicable European and national guidelines. The corresponding declarations and documents can be obtained from the manufacturer (www.abus-sc.com).

To maintain this condition and to ensure risk-free operation, you as the user must observe these operation instructions!

Before initial start-up, read through the complete operating instructions observing operating and safety instructions.

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If you have any questions, please contact your installer or your local dealer!

⚠️ **Disclaimer**

This user manual was prepared with greatest care. If you should notice omissions or inaccuracies, please inform us about these on the back of this manual given address.
The ABUS Security-Center GmbH & Co. KG assumes no liability for technical and typographical faults and reserves the right to make at any time modifications to the product or user manual without a previous announcement.
The company is not liable or responsible for direct and indirect subsequent damages which are caused in connection with the equipment, the performance and the use of this product.
No guarantee for the content of this document is taken.

Important safety instructions

The warranty will expire for damage due to non-compliance with these operating instructions. We shall not be liable for any consequential loss!

We do not accept liability for damage to property or personal injury caused by incorrect handling or non-compliance with the safety-instructions. In such cases the warranty will expire.

Dear customer,
The following safety instructions are intended not only for the protection of your health, but also for the protection of the device. Please read through the following points carefully:

- There are no parts on the inside of the product which need to be serviced. Apart from this, the license (CE) and the guarantee/warranty will lapse if you open/take the product apart.
- The product will be damaged even it falls from a low height.
- This device can be used in inside as well as outside.
- During the installation of the camera please take care that direct sunlight cannot fall onto the image sensor of the device. Please follow the installation instructions in the corresponding chapter of this user manual.

Avoid using the device under the following unfavorable ambient conditions:

- wetness or excessive air humidity
- extreme cold or heat
- direct sunlight
- dust or combustible gases, vapors or solvents
- strong vibration
- strong magnetic fields, such as those found in the vicinity of machinery or loudspeakers
- the camera should not positioned with opened iris towards the sun - this can lead to the destruction of the sensor.
- the camera may not be installed on unstable surfaces

General safety instructions:

- Do not leave packaging material lying around carelessly. Plastic/ foil/bags and polystyrene parts etc. could become dangerous toys for children.
- For safety reasons don't give the camera into child hands due to them being able to swallow small parts.
- Please do not insert objects through the openings into the device.
- Use only accessories which are specified by the manufacturer.
  Please do not connect incompatible parts to the device.
- Please pay attention to the safety instructions and user manuals of the other connected devices.
- Check the device for damages before installation. If this should be the case please do not use it.
- Please adhere to the operational voltage limitations listed in the technical data. High voltage could destroy the device and pose a health hazard (electric shock).

During the installation into an existing video surveillance system make sure that all devices are disconnected from the low and supply voltage circuit.

If in doubt allow a professional electrician to mount, install and wire-up your device. Improper or make-do electrical connection to the mains does only represent at threat to you but also to other persons.
Wire-up the entire system making sure that the mains and low voltage circuit remain separated and cannot come into contact with each other in normal use or due to any malfunctioning.

Table of contents

1. Intended use

The vandal proof 650TVL outdoor dome camera is equipped with a high quality image sensor. It is used for video surveillance in connection with a recorder or monitor.

You can find a detailed description of functions in section "4. Features and functions".

Any other use than that described above can lead to damage to the product and in addition involve other risks. This does not include operation for other applications and would in case of doing so the guarantee and any related liability will lapse. This is also the case if any unauthorized changes or additions have been made to the product.

Please read through the entire manual carefully before putting this product into operation. This operating manual contains guidelines that are important for correct mounting and operating.

2. Explanation of symbol

A flash in the triangle is used if there is danger for the health, e.g. by an electric shock.

An exclamation mark in the triangle points to an important note in this user manual which must be minded.

This symbol can be found when you are to be given tips and information on operation.

3. Scope of delivery

- 650 TVL Outdoor dome camera
- Installation material (screws, pegs)
- DC 2-pin adapter
- User manual

4. Features and functions

- State-of-the-art EFFIO chip set with WD function for clear images, even at high contrast ratios
- DNR function for noise-free images
- Integrated 2.8 - 10.5 mm variofocal lens
- High resolution of 650 TV lines
- Easy Plug camera module and mounting plate for quick installation
- Triaxial camera holder
- IP66 protection class for outdoor use
- Auto-IR LED function for automatic adjustment of the LED performance (TVCC71500)

5. <u>Description of device</u>

5.1 Overview – item numbers

Item number	TVCC71000	TVCC71500
Resolution	650 TVL	650 TVL
Lens	2.8~10.5 mm	2.8~10.5 mm
IR	-	√
Day/Night (removable IR cut filter)	√	√
Voltage	12 VDC	12 VDC

5.2 Unpacking

While you are unpacking the device please handle it with utmost care.

(i) If you notice any damage of the original packaging, please check at first the device. If the device shows damages, please contact your local dealer.

6. <u>Mounting</u>

Attention!
Please disconnect the camera from power supply during the installation.

6.1 Cable routing

The cable can be routed to side (visible) or through the bottom side (hidden). To prevent from wetness a cable gland will be installed on the housing. Please fully screw the cable gland into the side or bottom opening, the remaining opening will covered by a flat supplied screw.

6.2 Mounting of the camera

Please remove the dome head ring first by anti-clockwise rotation.

Then unscrew the fixing screws for the dome head and remove it.
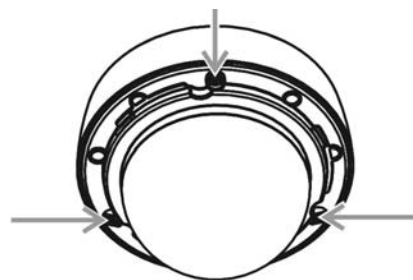
For this camera type the camera module can be removed, and it is fixed by two fixing screws. Base part of the camera and camera module are connected by a 15 pin D-Sub joint. Unscrew the fixing screws, and carefully remove the camera module.
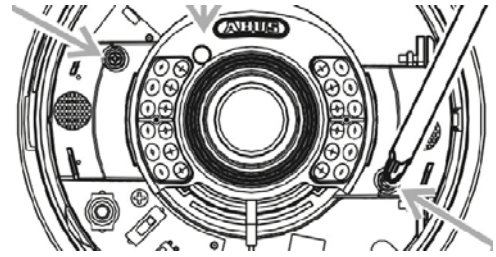
Place the base part to the desired installation position, mark the holes for fixing on the surface, and drill the fixing holes. Use the supplied screws and pegs to fix the base part on the surface. The cable routing can be done to the side or throught the base.
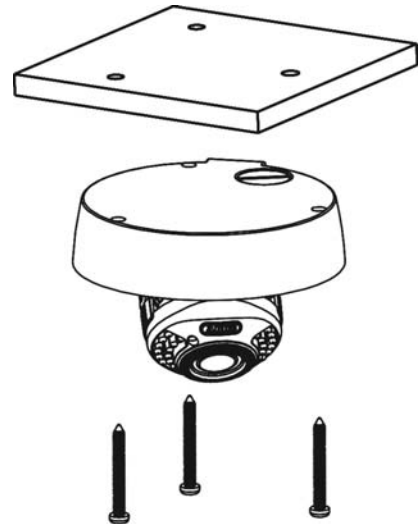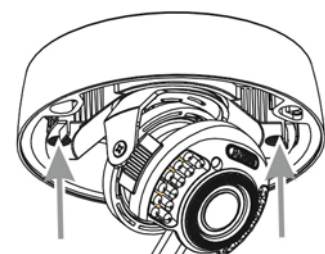
Installation of the camera module

Bring the camera module close to the base part so that the 15 pin socket and plug position will match. At the opposite side of the 15 pin joint the module will be hold in position by two fixing bars. In case socket and plug will match please press the camera module on both outside handles in direction of the base part, until the 15 pin joint is fully latched. Please screw the two fixing screws for the camera module back.
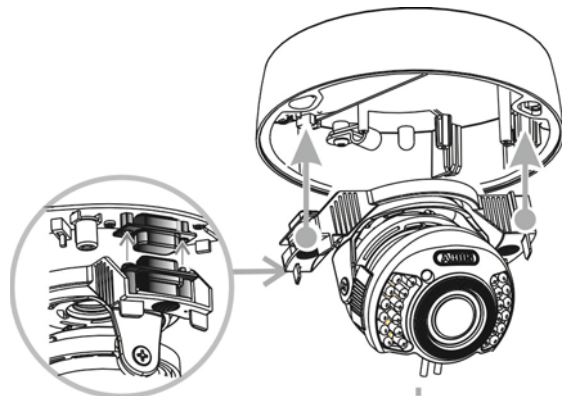
Installation of the dome head

First please perfom the steps of adjustment of viewing angle of the camera module as well as the adjustment of the lens.
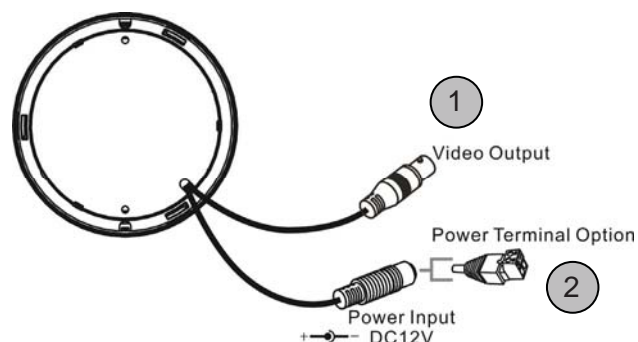
The dome head will be fixed on the dome base by three screws. Please take care that the dome head will placed even to the dome base. The dome head ring will be fixed by clockwise rotation to the dome head.
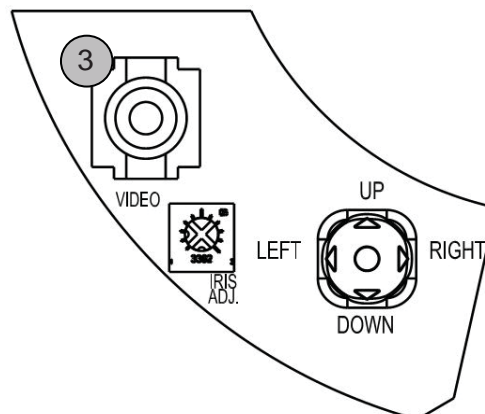
6.3 Connectors

Before you start with the installation please make sure that the supply voltage and the nominal voltage of the camera comply together.

Power supply & video signal   **Video output (for service purpose)**

1   Video output (primäry), BNC (female), FBAS 1Vs-s
2   Power connector (round plug 5.5x2.1mm, 12 VDC) or DC 2-pin adapter
3   Videoausgang (sekundär, Service), Cinch (female) FBAS 1Vs-s

6.4 Camera module adjustment

The camera module can be adjusted in 3 axis. The adjustment of the third axis often will be used on wall mount of the camera. The module rotation (1st and 3rd axis) must not be performed more than 360 degree.
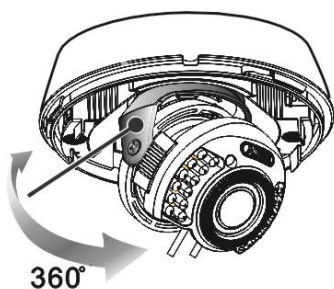
Pan (1st axis)   **Tilt (2nd axis)**   **Rotation (3rd axis)**

6.5 Focus and zoom adjustment

The cameras TVCC71000 and TVCC71500 are equipped with a vario focal lens. On the bottom side of the lens two adjustment handles for focus and zoom ratio are positioned. The handles additionally act as a fixing screw for the focus and zoom adjustment.

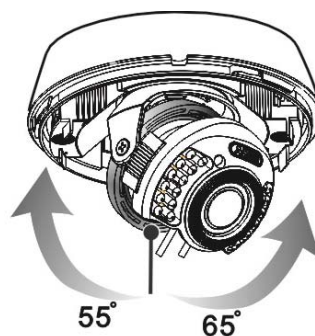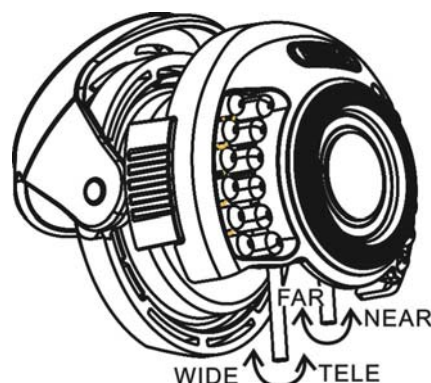The fixing handles can be rotated anti-clockwise for defixing. Please perfom this with care to prevent the handles falling off the lens. Now please adjust zoom ratio and focus. Afterwards fix the handles by rotating clockwise.

Function	Beschreibung / Option
Zoom ratio adjustment	WIDE – Viewing angle wide, Zoom 0x (max.) TELE – Viewing angle narrow, Zoom 3.75x (max.)
Focus adjustment	FAR – Focus far NEAR – Focus near

6.6 Adjustment of IR LED intensity and camera parameter

1   IRIS ADJ.: Adjustment of the aperture of the auto iris lens

2   IR intensity: 2 levels for the IR light intensity are available (HI – 20 meter; LOW – 10 meter).

3   Setup of camera parameter over control keys (OSD menu)
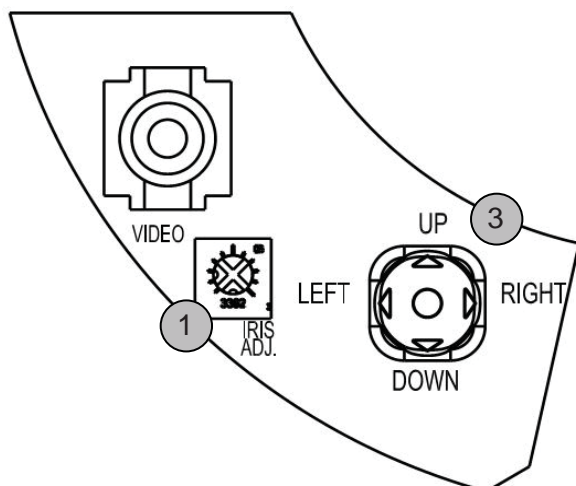
TVCC71000:   TVCC71500:
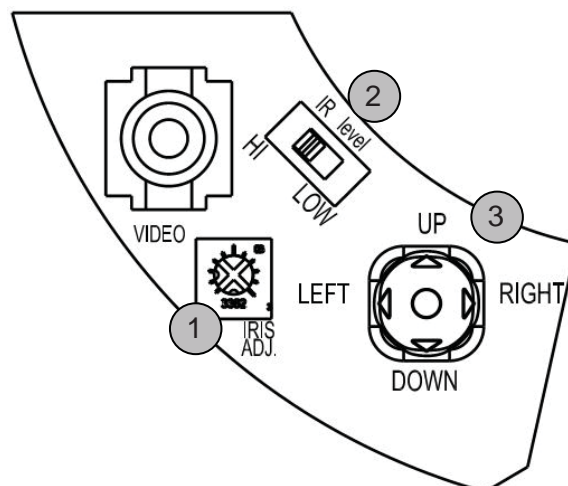
6.7 Camera parameter (OSD menu)

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SETUP MENU


WHITE BAL          ATW↵
BACKLIGHT          OFF
PICT ADJUST        ↵
ATR                ON↵
PRIVACY            OFF
NR                 ↵
CAMERA ID          OFF
CAMERA RESET


EXIT↵              SAVE ALL↵
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Funktion	Beschreibung
WHITE BAL	Settings for White balance function
BACKLIGHT	Settings for back light handling
PICT ADJUST	General image settings
ATR	Adaptive Tone Reproduction – Settings for the Wide Dynamic Function
PRIVACY	Settings for privacy masking
NR	Settings for noise reduction
CAMERA ID	Setting for camera description
CAMERA RESET	Restore the default settings
EXIT	Leaving the OSD menu
SAVE ALL	Save all changed values

White Balance (WHITE BAL)

Function	Description
ATW	**Auto Tracking White Balance** The setting for the white balance function will be performed dynamically and continuously in the range of 1800~10500K.
PUSH	Continuous setting for the white balance with limitation of color temperature range
USER1 / User 2	**User defined white balance** B-GAIN (0~255): Blue value R-GAIN (0~255): Red value
ANTI CR	Optimized white balance settings for fluorescent light, to avoid cross color effects
MANUAL	**Manual white balance** B-GAIN (0~255): Blue value R-GAIN (0~255): Red value
PUSH LOCK	**Push Lock** The white balance measurement will be performed by pressing the „Enter" button on the control board, and will be stored.

BACKLIGHT

Function	Description
OFF	The back light handling is turned off.
BLC	The conventional back light compensation function is activated. (Back Light Compensation)
HLC	The function for inversion of too bright image areas into black color is activated (High Light Compensation). Too bright image areas will be converted to black areas over certain value (e.g. car lights).

PICT ADJUST

Function	Description
MIRROR	**Horizontal mirror** OFF: Horizontal image inversion is deactive ON: Horizontal image inversion is active
BRIGHTNESS	Brightness (0~255)
CONTRAST	Contrast (0~255)
SHARPNESS	Sharpness (0~255): A high value of sharpness could increase the noise level.
HUE	Hue (0~255)
GAIN	Gain (0~255): Setting for the maximum internal gain value.

ATR

Function	Description
ATR	**Settings for the Wide Dynamic Function (Adaptive Tone Reproduction)** OFF: Wide Dynamic Function deactive ON: Wide Dynamic Function active LUMINANCE (LOW/MID/HIGH): Level of the brightness balance. Dark areas will be displayed more bright (LOW->HIGH), in addition the brightness for bright areas will be tried to keep constant. CONTRAST (LOW/MIDLOW/MID/MIDHIGH/HIGH) Increasing of image contrast (LOW->HIGH). A high value can cause detail loss in dark areas as well as over exposure.

PRIVACY

Function	Description
PRIVACY	**Privacy masking function of up to four zones (free to configure)** OFF: Privacy masking function deactive ON: Privacy masking for all four zones is active AREA SELECT (1/4~4/4): Zone selection TOP (0~288): Top limit for the selected area BOTTOM (0~288): Bottom limit for the selected area LEFT (0~468): Left limit for the selected area RIGHT (0~468): Right limit for the selected area COLOR (1~8): Red(1), light green(2), blue(3), green(4), light blue(5), purple(6), white(7), black(8) TRANSP (0.0~1.00): Transparency of the masking MOSAIC (OFF/ON): Mosaic display for the privacy masking. The impression of unsharp areas will be produced for masked areas. The effect is at best at TRANSP=0.00. RETURN: Back to main menu

NR

Function	Description

NR	**Settings for the noise reduction (2D DNR)**
	
	 OFF: Noise reduction deactivated
	
	 NR MODE (Y/C/ Y/C):
	     Y: Noise reduction for luminance signal
	     C: Noise reduction for chroma signal
	     Y/C: Combination of Noise reduction for luminance and chroma
	
	 Y LEVEL (0~15): Level for the noise reduction of luminance
	
	 C LEVEL (0~15): Level for the noise reduction of chroma
	
	 RETURN: Back to main menu

Camera ID

Function	Description
CAMERA ID	**Camera description** OFF: No display of the camera description in the live image ON: Display of the camera name, with dedicated location The camera description length is max. 26 digits. ←→↑↓: Control keys for this sub menu CLR: By selection and pressing the Enter key, the selected digit will be deleted. POS: By pressing the Enter key, the positioning mode will be activated. Use the control keys to change the position of the name. By pressing Enter once again, the sub menu will be left.

CAMERA RESET

Function	Description
CAMERA RESET	**Restore the default camera settings**

7. <u>Service and cleaning</u>

7.1 Function test

Check the technical safety of the product such as damage to the housing at regular intervals.

When it can be assumed that the safe operation is no longer possible, the product must be put out of service and precautions taken o ensure that it is not used unintentionally.

It must be assumed that safe operation is not longer possible if

- the device shows visible signs of damage
- the device no longer operates and
- has been stored for longer periods under unfavorable conditions or
- has been subjected to considerable stress in transit.

Please note:
The product is absolutely maintenance-free for you. There are no components on the inside of the product to be checked or services by you, never open it.

7.2 Cleaning

Clean the product with a clean, soft cloth. To remove severe contamination, the cloth can be dampened with luke-warm water.

Make sure that no liquids can enter the equipment as the device can be destroyed. Never use chemical detergents as they could attack the surface of the device.

8. <u>Disposal</u>

Products which are labeled with this pictogram may not be disposed by the domestic rubbish. Please dispose the product in accordance with the prevailing legal regulations at the end of its life time.
Please consult your dealer or dispose the product over the municipal gathering point for electric scarp.

9. Technical data

Item number	TVCC71000	TVCC71500
TV standard	PAL	
Resolution	650 TVL	
Bildaufnehmer	1/3" Sony Exview HAD II CCD	
DSP	Sony Effio-E	
Picture elements (total)	1020(H) x 596(V)	
Picture elements (effective)	976(H) x 582(V)	
Signal-to-noise ratio	50 dB	
Minimum illumination (day)	0.05 Lux @ F1.2	0.05 Lux @ F1.2
Minimum illumination (night)	0 Lux @ F1.2 (external IR)	0 Lux @ F1.2
Day/night	IR cut filter removable (ICR), Color / B/W	IR cut filter removable (ICR), Color / B/W
Lens	2.8~10.5mm, F1.2	2.8~10.5mm, F1.2
IR LEDs	-	24 LEDs, 850nm
IR Range	-	10 / 20 m
Horizontal angle of view	101.8°~27.4°	101.8°~27.4°
Electronic Shutter	AI	AI
Synchronisationi	Internal	
Automatic gain control (AGC)	28 dB (max.)	
Backlight compensation (BLC)	BLC	
WDR	Max. 46 dB	
Noise reduction	2D DNR	
White balance	ATW, 1800K~10500K	
Control options	OSD	OSD
Protection class	IP66	
Video signal	2 x FBAS, 1V s-s, 75 Ohm (BNC, Cinch), 5.5x2.1mm (DC)	
Operating temperature	-10°C ~ +50°C	
Humidity	0~85%, not condensing	
Nominal supply voltage	12 VDC	
Power consumption	max. 250 mA	max. 350 mA (IR off), max. 450 mA (IR on)
Dimension (HxØ)	99.5 x 145 mm	
Weight	700 g	700 g
Certifications	CE, RoHS, Reach	