



A M C R E S T

**UltraHD 5MP Full Color Analog Camera
A5TN28-W-V3
Quick Start Guide**

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Welcome

Thank you for purchasing an Amcrest camera!

This user manual is designed to be a reference tool for the installation and operation of your camera. Here you can find information about the camera's features and functions, as well as information to aid in troubleshooting.

For access to other support related materials and information, please visit us at <http://amcrest.com/support>

Email Amcrest Customer Support: <https://amcrest.com/contact>

Important Safeguards and Warnings

1. Electrical Safety

All installation and operation should conform to your local electrical safety codes. The product must be grounded to reduce the risk of electrical shock. We assume no liability or responsibility for any fires or electrical shock caused by improper handling or installation.

2. Transportation Security

Heavy stress, violent vibrations, and excess moisture should not occur during transportation, storage, and installation of the device.

3. Installation

Handle the device with care. Do not apply power to the camera before completing installation. Do not place objects on top of the camera.

4. Repair Professionals

All the examination and repair work should be performed by a qualified service engineer. We are not liable for any problems caused by unauthorized modifications or user attempted repair.

5. Environment

The camera should be kept in a cool, dry place away from direct sunlight, flammable materials, explosive substances, etc. This product should be transported, stored, and used only in the specified environments as stated above. Do not aim the camera at a strong light source as it may cause overexposure of the picture or affect the longevity of the camera's sensors. Ensure the camera is in a well-ventilated area to prevent overheating.

6. Operation and Maintenance

Do not touch the camera sensor or lens directly. To clean dust or dirt off the lens, use an air blower or a microfiber cloth.

7. Accessories

Be sure to use only the accessories recommended by the manufacturer. Before installation, please open the package and check to make sure that all the components are present. Contact the retailer that you purchased from or Amcrest directly if anything is broken or missing in the package.

Product Introduction

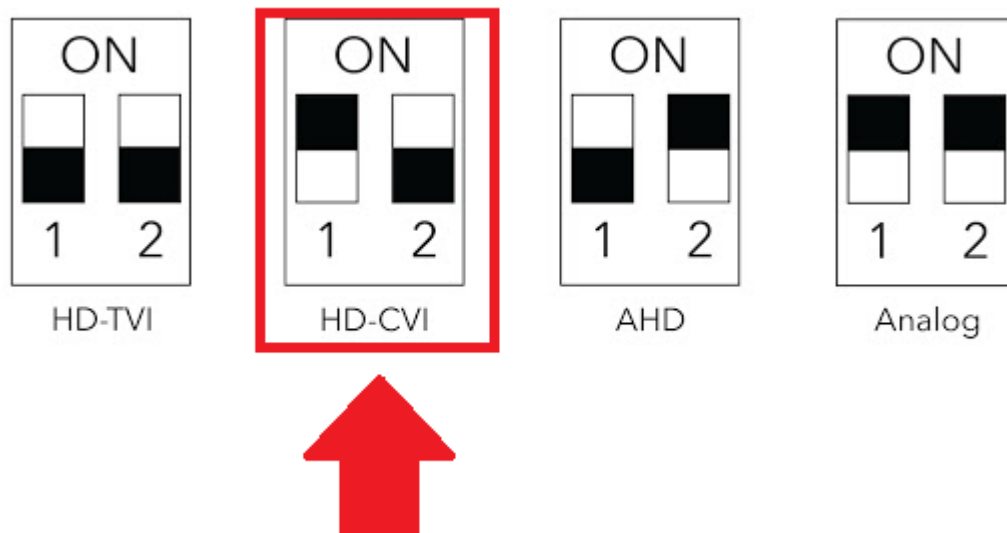
This series of camera is adopted with CMOS image sensors that provide high performance, high megapixel resolution that supports 5MP video. It supports monitoring signals and audio via a coaxial transmission and standard BNC connection and built-in microphone. Transmission distances can range more than 700m (2296ft) @ 5MP. This is a quadbrid camera that supports CVI/TVI/AHD/Analog output as well as recognize high speed, long distance, and real time video transmissions. For more information about quadbrid cameras please refer to the information provided below.

Quadbrid technology allows you to transmit HD video over coaxial. The signal is transmitted uncompressed, which eliminates latency and allows for real-time, highly reliable video security without loss or delay. The cameras connect point-to-point directly to the DVR (BNC) which provides a highly secure, closed network, as well as a painless and non-complex plug-and-play setup process.

Each quadbrid camera is compatible with HD-CVI, HD-TVI, AHD, and Analog systems. The settings for these cameras can be adjusted on the mode switch which is connected to the camera as displayed in the image below:



Each mode switch setting can be configured per device. For instance, an Amcrest HD-CVI unit will have the following configuration on the mode switch:



Note: If the mode switch configuration for your camera is not properly set, you will not be able to view your cameras on your device since the mode configuration is incorrect.

Each camera is equipped with a configuration diagram that displays the different settings per device. Please ensure these settings are correct, according to the specified diagram for full functionality of your camera before continuing the setup process.

Features

1/2.7" CMOS
5MP (2880 (H) x 1620 (V) @25fps
3D NR, Full-Color
DC12V, 2.0A



Installation

Before physically installing your camera, make sure the mounting surface can support up to 3x the weight of the camera.

- 1) Remove the base portion of the camera using the included star tool.
- 2) Locate the position in which you would like to place your camera and using the base of the camera, mark the installation holes with a marker on the mounting surface. These holes will be used to drill the holes needed to mount your camera.
- 3) Using a drill bit that is the same diameter or slightly smaller diameter than the included drywall wall anchors, drill the 4 holes and insert the wall anchors into the holes.
Note: The wall anchors should be in the same bag as the screws and are designed to secure the screws onto the mounting surface.
- 4) Attach the power cable and BNC cabling to the camera. (If you are running the cables through a mounting surface, use a 1" paddle bit to bore a hole for the cables.)
- 5) Attach the cables to the BNC connection and power supply and place the base of the camera on the wall anchors lining the holes to the mounting surface. Please note, if you are running the cables through the mounting surface, run the cables into the hole, if you are running the cables on the side of the camera, ensure the cables are ran the groove found on the side of the mounting plate.
- 6) Using a Phillips head screwdriver, secure the screws and base of the camera to the mounting surface.
- 7) Place the cover over the camera and make it flush to the mounting plate and secure it to the mounting plate using the included star tool.

Connection

To connect your camera to your DVR, please follow the steps provided below:

Step 1: Connect a BNC (coaxial) cable to the video out connection of your camera.

Step 2: Connect the male end of the DC power connector of the BNC (coaxial) cable to the female end of the power connector of the camera.

Step 3: Connect the BNC (coaxial) cable to a video out channel on the back of your DVR.

Step 4: Connect the male end of the DC power connector of the power adapter to the female end of the power connector of the BNC (coaxial) cable. Plug in the power adapter to apply power to the camera.

For more information on the installation process described, refer to the image below for more details.

Technical Specifications

AT5N28-W-V3											
Camera											
Image Sensor	5MP CMOS										
Max. Resolution	2880 (H) x 1620 (V)										
Scanning System	Progressive										
Electronic Shutter Speed	PAL: 1/3 s-1/100,000 s; NTSC: 1/4 s-1/100,000 s										
Min. Illumination	0.001 lux@F1.0 (Color, 30 IRE), 0 lux (Illuminator on)										
S/N Ratio	>65 dB										
Illumination Distance	131ft										
Illuminator On/Off Control	Illuminator On/Off Control Auto/Manual										
Illuminator Number	4 White Light LEDs (No IR)										
Angle Adjustment	Pan: 0°-360°, Tilt: 2°-75°, Rotation: 0°-360°										
Lens											
Lens Type	Fixed-focal										
Auto Focus	Not Supported										
Lens Mount	M12										
Focal Length	2.8mm										
Max Aperture	F1.0										
Field of View	H: 112°, V: 57°, D: 132°										
Iris Type	Fixed										
Close Focus Distance	6.56ft										
DORI Distance	<table border="1"> <thead> <tr> <th>Lens</th> <th>Detect</th> <th>Observe</th> <th>Recognize</th> <th>Identify</th> </tr> </thead> <tbody> <tr> <td>2.8mm</td> <td>221.13ft</td> <td>88.52ft</td> <td>44.29ft</td> <td>21.98ft</td> </tr> </tbody> </table>	Lens	Detect	Observe	Recognize	Identify	2.8mm	221.13ft	88.52ft	44.29ft	21.98ft
	Lens	Detect	Observe	Recognize	Identify						
2.8mm	221.13ft	88.52ft	44.29ft	21.98ft							
<p>*DORI (Detect, Observe, Recognize, Identify) is a standard system (EN-62676-4) for defining the ability of a person viewing the video to distinguish persons or objects within a covered area. The numbers in this table do not reflect intelligent function distances. For intelligent function distances, refer to installation and commissioning manual/project design tool.</p>											
Video											
Frame Rate	CVI: PAL: 5M@25 fps; 5M@12.5 fps; 4M@25 fps; 1080p@25 fps NTSC: 5M@25 fps; 5M@10 fps; 4M@30 fps; 1080p@30 fps AHD: PAL: 4M@25 fps, NTSC: 4M@30 fps TVI: PAL: 5M 16:9@20 fps; 4M@25 fps, NTSC: 5M 16:9@20 fps; 4M@30 fps CVBS: PAL: 960H, NTSC: 960H										
Resolution	5M (2880 × 1620); TVI 5M 16:9 (2960 × 1665); 4M (2560 × 1440); 1080p (1920 × 1080); 960H (960 × 576/960 × 480)										
Day/Night	Color										

BLC	BLC; HLC; WDR; HLC-Pro
WDR	120 dB
White Balance	Auto/Area white balance
Gain Control	Auto/Manual
Noise Reduction	3D NR
Illumination Mode	Smart Light
Defog	Electronic defog
Digital Zoom	4x
Mirror	Supported
Privacy Masking	Off/On (8 area, rectangle)
Audio	
Built-in Mic	Supported
Port	
Video Output	Video output choices of CVI/TVI/AHD/CVBS by one BNC port
Alarm Output	1 channel
General	
Power Supply	12 VDC \pm 30% (It is recommended to use a power adapter to supply the power for one camera)
Power Consumption	Max 9 W (12 VDC, LED on)
Operating Temperature	-40°F to 140°F (-40°C to +60°C); <95% (non-condensation)
Storage Temperature	-40°F to 140°F (-40°C to +60°C); <95% (non-condensation)
Protection Grade	IP67
Mounting Brackets	Junction Box: PFA139, Wall Mount: PFB204W, Ceiling Mount: PFB220C, Pole Mount: PFA152-E + PFB204W
Casing	Metal
Dimensions	ϕ 4.17" \times 3.81"
Net Weight	1.08 lbs.

FCC Statement

1. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
2. The user's manual or instruction manual for an intentional or unintentional radiator shall caution the user that changes, or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. In cases where the manual is provided only in a form other than paper, such as on a computer disk or over the Internet, the information required by this section may be included in the manual in that alternative form, provided the user can reasonably be expected to have the capability to access information in that form.
3. (b) For a Class B digital device or peripheral, the instructions furnished the user shall include the following or similar statement, placed in a prominent location in the text of the manual: NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or

television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

4. RF exposure warning: This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. End-users and installers must be provided with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance.

IC Warning Statement

This device complies with Industry Canada’s license-exempt RSSs. Operation is subject to the following two conditions:

(1) This device may not cause interference; and (2) This device must accept any interference, including interference that may cause undesired operation of the device. Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement. This equipment complies with IC RSS-102 radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20cm between the radiator and any part of your body. Pour se conformer aux exigences de conformité CNR 102 RF exposition, une distance de séparation d'au moins 20 cm doit être maintenue entre l'antenne de cet appareil et toutes les personnes.

Appendix A: Toxic or Hazardous Materials or Elements

Component Name	Toxic or Hazardous Materials or Elements					
	Pb	Hg	Cd	Cr VI	PBB	PBDE
Sheet Metal (Case)	o	o	o	o	o	o
Plastic Parts (Panel)	o	o	o	o	o	o
Circuit Board	o	o	o	o	o	o
Fastener	o	o	o	o	o	o
Wire and Cable/Ac Adapter	o	o	o	o	o	o
Packing Material	o	o	o	o	o	o
Accessories	o	o	o	o	o	o

O: Indicates that the concentration of the hazardous substance in all homogeneous materials in the parts is below the relevant threshold of the SJ/T11363-2006 standard.

X: Indicates that the concentration of the hazardous substance of at least one of all homogeneous materials in the parts is above the relevant threshold of the SJ/T11363-2006 standard. During the environmental-friendly use period (EFUP) period, the toxic or hazardous substance or elements contained in products will not leak or mutate so that the use of these (substances or elements) will not result in any severe environmental pollution, any bodily injury or damage to any assets. The consumer is not authorized to process such kind of substances or elements, please return to the corresponding local authorities to process according to your local government statutes.

O: Indicates that the concentration of the hazardous substance in all homogeneous materials in the parts is below the relevant threshold of the SJ/T11363-2006 standard.

X: Indicates that the concentration of the hazardous substance of at least one of all homogeneous materials in the parts is above the relevant threshold of the SJ/T11363-2006 standard. During the environmental-friendly use period (EFUP) period, the toxic or hazardous substance or elements contained in products will not leak or mutate so that the use of these (substances or elements) will not result in any severe environmental pollution, any bodily injury or damage to any assets. The consumer is not authorized to process such kind of substances or elements, please return to the corresponding local authorities to process according to your local government statutes.

Note:

This document is for reference only. Slight differences may be found in the user interface.

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