

First Alert[®]

420 TVL
CMOS Camera
INDOOR / OUTDOOR
for wired video systems

USER'S MANUAL

Model

**CM420 1/3" CMOS
with Night Vision**



night vision



**indoor/
outdoor
420 TVL
cameras**



WELCOME

Thank you for choosing First Alert for your security needs!

For more than half a century, First Alert has made the home-safety and security products that make your job easier. Our products are built to the highest standard which has earned us a leadership role in the home-safety and security product categories. We are committed to serving our customers, from the professionals who install our products, to the families and businesses who count on them. First Alert has been helping families and businesses stay safe for over 50 years. By having a First Alert Security System, you're taking the first step in protecting your home or business from damage or theft. We're watching, even when you're not.

This manual is written for the CM420 security camera. It was accurate at the time it was completed. However, because of our ongoing effort to constantly improve our products, additional features and functions may have been added since that time and on-screen displays may change. We encourage you to visit our website at www.brkelectronics.com to check for the latest manuals (English and Spanish), firmware updates, downloads, other security camera products and announcements. You'll find this product line under Products >> Security Cameras >> Wired Cameras.

CAMERA MAIN FEATURES

- 1/3" CMOS Color
- 420 TVL Resolution
- 30 IR LEDs
- Night Vision Distance 50'
- 6.0mm Lens
- 0 Lux Day & Night Auto Switch
- IP54 Weather Proof Rating
- ABS Plastic Housing and Mounting Stand
- Mounting Bracket and Hardware Included



CM420 420 TVL Camera



Quick Install Guide



12V DC Power Adaptor



75' BNC Video & DC Power Cable

SAFETY PRECAUTIONS

- Do not drop, puncture, or disassemble the cameras or DVR.
- Do not tug on the power adapter. Use the plug to remove it from the wall.
- Do not expose the cameras or DVR to high temperatures.
- For your own safety, avoid using the DVR when there is a storm or lightning in your area.
- Use the cameras and DVR with care. Avoid pressing hard on the cameras or DVR body.
- Do not use power cable if it is crushed or damaged

FCC COMPLIANCE

FCC Compliance Class B Digital Device

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 the 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 of the receiver.
- Consult the dealer or an experienced radio or TV technician for help.

Notice: Only peripherals complying with FCC class B limits may be attached to this equipment. Operation with non-compliant peripherals or peripherals not recommended by First Alert / BRK Brands, Inc. is likely to result in interference to radio and TV reception. Changes or modifications to the product, not expressly approved by First Alert / BRK Brands, Inc., could void the user's authority to operate the equipment.

We, First Alert / BRK Brands, Inc. declare under our sole responsibility that the device to which this declaration relates: 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.

FCC Certification (if applicable)

This device contains a radio transmitter. Accordingly, it has been certified as compliant with 47 CFR Part 15 of the FCC Rules for intentional radiators. Products that contain a radio transmitter are labeled with an FCC ID.

FIRE AND ELECTRIC SHOCK HAZARD STATEMENT



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK. UNPLUG ALL POWER SOURCES, INCLUDING CAMERAS FROM THE DVR BEFORE REMOVING COVER. FAILURE TO DO SO CAN RESULT IN DAMAGE TO THE DVR OR ITS COMPONENTS AS WELL AS INJURY OR DEATH.

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of un-insulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock.

The exclamation point within an equilateral triangle, is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE

CAUTION: TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF THE PLUG TO THE WIDE SLOT AND FULLY INSERT

INSTALLING CAMERAS

Mounting Cameras and Running Cable

Select the position for the camera and secure the camera stand. Screw the camera onto the stand. Adjust camera to the proper view angle. Make sure the lens is upright relative to the subject. Tighten the thumb bolt. First Alert cameras can be either ceiling or wall mounted by simply reversing the camera stand mounting. See "Camera Orientation" Info box. Holes are provided on both the bottom and back of the camera housing to accommodate most mounting requirements. Run cable from camera to DVR location. See Information box below on "Longer Cable Runs".



Camera - Wall Mounted

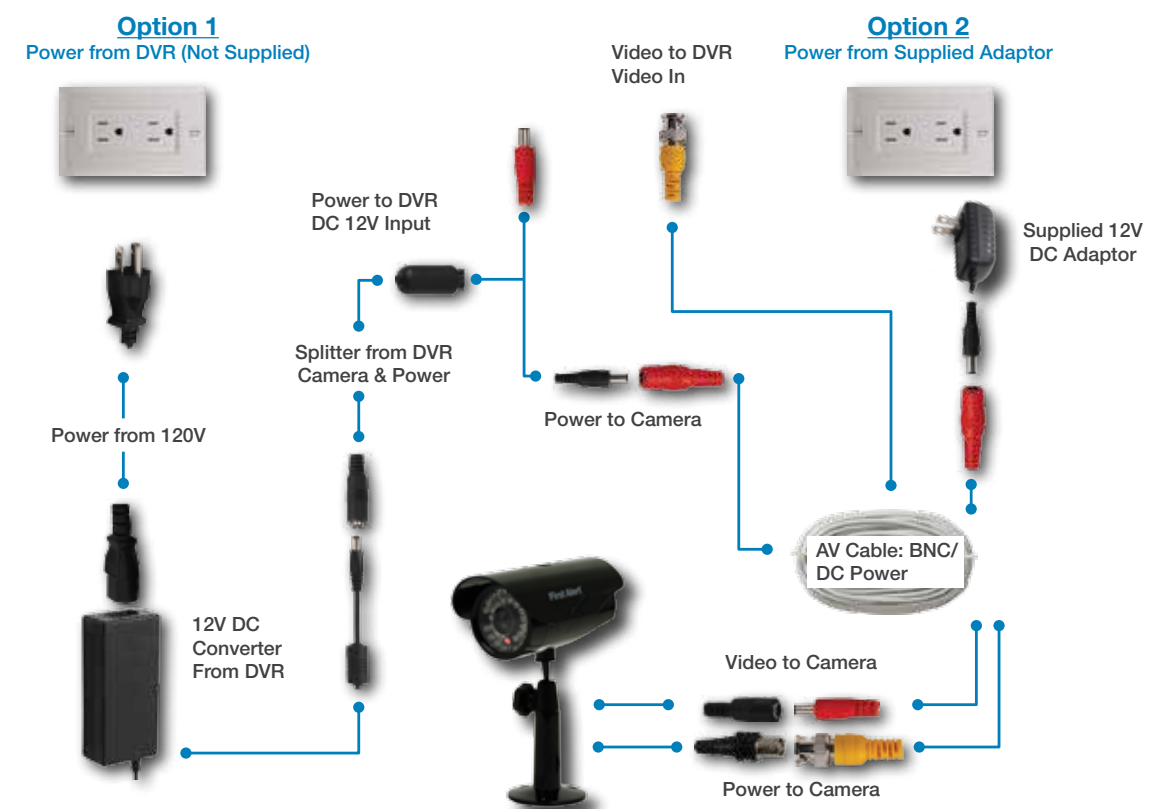
Camera - Ceiling Mounted

Camera Orientation
It's important the camera is mounted correctly to ensure the image is not upside down as the camera lens can only be positioned one way.

Longer Cable Runs
Longer cable runs may require an upgrade to RG59 Coax cable. First Alert kits ship with economical AV cable that is designed to work well up to the length of cable provided, usually around 60 feet. If longer distances between camera and DVR are required, you will need to upgrade to RG59 Coax cable. We provide several lengths up to 300 feet. In addition, if you need to run cable for in-wall installations, then you may require fire rated cable, FT-4/CMR UL approved for in-wall installations.

CONNECTING CAMERAS

Follow this diagram to connect camera to a DVR or other device using a BNC connection. Note: DVR Power Adaptor is for illustration purposes only. Your power adaptor may be different.



TECHNICAL SPECIFICATIONS

ITEM	SPECIFICATION
MODEL	CM420
IMAGE SENSOR	Color 1/3" CMOS (NTSC) ; Color 1/3" CMOS (PAL)
EFFECTIVE PIXELS	NTSC: 720 (H) X 487(V) : PAL: 720 (H) X 576 (V)
HORIZONTAL RESOLUTION	420TVL
IP RATING	IP54
NUMBER OF INFRARED LEDS	30
NIGHT VISION RANGE	50 ft.
INDOOR OUTDOOR	Both
SIGNAL SYSTEM	NTSC/PAL
LENS	6mm
FRAME RATE	NTSC: 60 fields/sec ; PAL: 50 fields/sec
MINIMUM ILLUMINANCE	0 Lux (IR ON)
AUDIO	No
GAIN CONTROL WHITE BALANCE	Auto
SIGNAL TO NOISE RATIO	>48dB (AGC OFF)
GAMMA CHARACTERISTICS	0.45
SHUTTER SPEED	1/50(1/60) 1/100000
INFRARED WAVE LENGTH	850nm
VIDEO OUTPUT	1.0Vp-p 75 Ohm
POWER SUPPLY	DC 12V 225mA(IR ON)
OPERATION TEMPERATURE	14 °F to 113 °F (-10 °C to 45 °C)

TROUBLESHOOTING

ERROR	POSSIBLE CAUSE	SOLUTIONS
No Picture	Camera cables are loose or have become disconnected	<ul style="list-style-type: none"> Check the camera video cable and connections Disconnect and reconnect the cable at the system and at the camera Try moving the camera to another channel or use another cable
Flickering image	Bright light shining directly into camera lens	<ul style="list-style-type: none"> Move the camera or move any source of bright light away from the camera
Image is too light or dark	Mis-adjustment of contrast and brightness levels	<ul style="list-style-type: none"> Adjust the contrast and brightness on the DVR or TV Move the camera or move any source of bright light away from the camera
A white image appears at night	Camera is placed too close to a window	<ul style="list-style-type: none"> The camera's infrared LEDs shine invisible light that reflects off surfaces such as glass causing white light Place the camera on the other side of windows or place the lens flush against the surface to improve night vision

WARRANTY

PRODUCT LIMITED WARRANTY

BRK Brands, Inc., ("BRK") the maker of First Alert® brand products warrants that for a period of one year from the date of purchase (the "Warranty Period"), this product will be free from defects in material and workmanship. BRK, at its sole option, will repair or replace this product or any component of the product found to be defective during the Warranty Period. Replacement or repair will be made with a new or remanufactured product or component. If the product is no longer available, replacement may be made with a similar product of equal or greater value. This is your exclusive warranty.

This warranty is valid for the original retail purchaser only from the date of initial retail purchase and is not transferable. In order to obtain warranty service, you must keep the original sales receipt and proof of purchase in the form of the UPC code from the package. BRK dealers, service centers, or retail stores selling BRK products do not have the right to alter, modify or any way change the terms and conditions of this warranty.

WARRANTY EXCLUSIONS

Parts and Labor: 1 year limited (warranted parts do not include bulbs, LEDs, and batteries)

This warranty does not apply to bulbs, LEDs, and batteries supplied with or forming part of the product.

This warranty is invalidated if non- BRK accessories are or have been used in or in connection with the product or in any modification or repair is made to the product.

This warranty does not apply to defects or damages arising by use of the product in other than normal (including normal atmospheric, moisture and humidity) conditions or by installation or use of the product other than in strict accordance with the instructions contained in the product owner's manual.

This warranty does not apply to defects in or damages to the product caused by (i) negligent use of the product, (ii) misuse, abuse, neglect, alteration, repair or improper installation of the product, (iii) electrical short circuits or transients, (iv) usage not in accordance with product installation, (v) use of replacement parts not supplied by BRK, (vi) improper product maintenance, or (vii) accident, fire, flood or other Acts of God.

This warranty does not cover the performance or functionality of any computer software included in the package with the product. BRK makes no warranty that the software provided with the product will function without interruption or otherwise be free of anomalies, errors, or "Bugs." This warranty does not cover any costs relating to removal or replacement of any product or software installed on your computer.

BRK reserves the right to make changes in design or to make additions to or improvements in its products without incurring any obligations to modify any product which has already been manufactured. BRK will make every effort to provide updates and fixes to its software via its website. This warranty does not cover any alteration or damage to any other software that may be or may become resident on the users system as a result of installing the software provided. This warranty is in lieu of other warranties, expressed or implied, and BRK neither assumes nor authorizes any person to assume for it any other obligation or liability in connection with the sale or service of the product. In no event shall BRK be liable for any special or consequential damages arising from the use of the product or arising from the malfunctioning or non-functioning of the product, or for any delay in the performance of this warranty due to any cause beyond its control.

BRK does not make any claims or warranties of any kind whatsoever regarding the product's potential, ability, or effectiveness to prevent, minimize, or in any way affect personal or property damage or injury. BRK is not responsible for any personal damage, loss, or theft related to the product or to its use for any harm, whether physical or mental related thereto. Any and all claims or statements, whether written or verbal, by salespeople, retailers, dealers, or distributors to the contrary are not authorized by BRK, and do not affect this provision of this warranty.

BRK's responsibility under this, or any other warranty, implied or expressed, is limited to repair, replacement or refund, as set forth above. These remedies are the sole and exclusive remedies for any breach of warranty. BRK is not responsible for direct, special, incidental, or consequential damages resulting from any breach of warranty or under any other legal theory including but not limited to, loss profits, downtime, goodwill, damage to or replacement of equipment and property and any costs of recovering, reprogramming or reproducing any program or data stored in or used with a system containing the product accompanying software. BRK does not warrant the software will operate with any other software except that which is indicated. BRK cannot be responsible for characteristics of their party hardware or software which may effect the operation of the software included.

Except to the extent prohibited by applicable law, any implied warranty of merchantability or fitness for a particular purpose is limited in duration to the duration of the above Warranty Period. Some states, provinces, or jurisdictions do not allow the exclusion or limitation of incidental or consequential damages or limitations on how long an implied warranty lasts, so the above limitations or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights that vary from state to state, or province to province, or jurisdiction to jurisdiction.

OBTAINING SERVICE

If service is required, do not return the product to your place of purchase. In order to obtain warranty service, contact the Consumer Affairs Division at 1-800-323-9005, 7:30 a.m. – 5:00 a.m. Central Standard Time, Monday through Friday. To assist us in serving you, please have the model number and date of purchase available when calling.

After contacting the Consumer Affairs Division and it is determined that the product should be returned for Warranty Service, please mail the product to: BRK Brands, Inc., 3901 Liberty Street Road, Aurora, IL 60504-81229.

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M08-0397-000