

This exciting range of external 3.5 - 9mm day/night varifocal infra-red dome cameras are finished in iridium silver and graphite grey.

The CAM070 (silver) and the CAM075 (graphite) produce stunning pictures. The unique 3-d axis allows easy installation with easy front access for adjustment and precise positioning.



Installation Instructions

Connecting dome to 12v DC power

The camera is provided with a 2.1mm mini jack plug on a fly lead that allows you to connect the power supply to it. When powering these dome cameras with a 12V DC power supply, ensure that the supply is fully regulated. It is recommended to use a power supply that is rated higher than the current consumption of the camera ie: allows 25% - 30% minimum headroom, so for these cameras a minimum requirement would be a continuous rating of 400mA or higher per camera. This prevents the PSU from running at its maximum rating for long periods of time.

Connecting the camera to video control equipment

The dome camera comes with a fly lead for power and video out. To reduce installation time, the video out lead is terminated into a male BNC connector. This allows the installer to effortlessly connect the camera to control equipment via a female BNC-BNC lead.



Remember that the Video out from the camera is like any other electrical circuit and requires two wires to complete the circuit. When using a co-ax type cable such as RG59 or similar, the outer braid of the co-ax provides the "0V GROUND" connection and the inner core provides the "Video" connection.

It is recommended that when you are first setting up the cameras that you use a short BNC-BNC cable to link the camera directly to a test monitor and set it up at the same time. This allows you to both understand the camera and get the very best out of this great product, as you will be able to adjust the camera whilst looking at the monitor screen. Obviously whilst you are setting up the camera, it does need to be powered!

- 1) Carefully unscrew the outer fixing ring (via Allen key supplied) to dismantle the dome releasing the ball collar, dome ball and dome base. Secure the dome base using the screws provided.
- 2) Connect video to BNC plug and 12v DC power to mini 2.1 power jack plug.
- 3) Reassemble the dome.
- 4) Adjust Near/Far Zoom controller and Tele/Wide viewing angle by turning the adjusters on the front of the camera. Take particular care with this operation, as forcing the adjustment screws beyond their limits can damage the zoom and focus mechanism.
- 5) Lock the ball collar and outer fixing ring using the Allen grub screws supplied.
- 6) Ensure that you do not attempt to reposition the ball after fitting the Allen grub screws or you will damage the dome case.

Special Note

When this unit is in use, avoid direct eye contact with the infrared lights. The unit's outer glass front can heat up to 50°C when in use so care should be taken to ensure that this dome is fitted where it cannot be easily touched. It must also not be fitted in close proximity to any flammable materials. The front glass on the dome is a special anti-infra-red reflection glass and must be carefully cleaned with a soft dry cloth to avoid scratching. Note that the infrared illuminators provide a relatively narrow beam of acting rather like a torch beam so if this dome is used with a wide angle setting then it may be necessary to purchase additional infra-red lighting.

Technical Specifications

Model	CAM070	CAM075
Colour	Silver	Grey
Image Sensor	1/3" Sony Exview CCD	
Horizontal Resolution	540 TV Lines	
Effective Pixels	PAL 752 x 582	
Scanning system	PAL 625 lines – 2:1 interlaced	
Video Output	1.0V p-p Composite. 75 ohms	
S/N Ratio	More than 50dB	
Lens	3.5mm ~ 9mm vari-focal lens	
Min. Illumination (IRs off)	0.05 Lux	
Backlight Compensation	Automatic	
Shutter Speed	PAL: 1/50 ~ 1/100,000 sec	
Sync System	Internal Synchronisation	
White Balance	ATW-Auto Tracing White Balance	
Power Source	12 volt DC	
Max Operating Current	300mA with LEDs ON	
Infra Red LEDs	36 x 850nm I.R LEDs - 20-30 metre range	
Housing	Vandalproof	
Weight	727g nominal weight - 811g gross weight	
Size	119mm (d) x 105mm (h)	

Troubleshooting

This camera is built to the highest standards and every unit is fully tested prior to packing. If you experience an installation problem you need to investigate your cabling, connections, power supply and monitor. If you fail to get a picture or there is picture interference on a monitor you need to check the following things:

No Picture

The camera cannot function without the correct working power supply. The power supply must be regulated and capable of supplying 400mA per camera constantly. First check that the power supply is functioning correctly using a multimeter set on DC volts (above 12v) and connect the probes to the power supply's output. The meter should read between 12-13 volts. If the meter shows a negative voltage the psu could be wired incorrectly or you may have the meter leads reversed.

To ensure the multimeter is working correctly, connect it to a known voltage and polarity such as a battery. If you find that the supply is more than 13 volts you may be using a non-regulated power supply and you must stop using it immediately as it may cause permanent damage to the camera.

Ensure that the BNC-BNC lead that you connect between the camera and monitor has no shorts or open circuits. If you are making your own BNC-BNC lead, do not forget the lead must have two wires connected, to complete the circuit, a video and a ground. If in any doubt, change the lead for a pre-wired commercial one, as faulty leads are invariably the main cause of problems.

Interference on the camera picture

This is usually caused by poor or inadequate cabling, not observing the correct wiring techniques and for 12v DC cameras the use of an unregulated or poorly regulated power supply. If you want a good picture quality and require the camera to work to its full potential, do not use an intruder alarm PSU with 12v DC cameras. If you suspect you have a PSU problem with a 12v DC camera, the best way to check this is to power your system using a fully charged 12v lead acid battery to give 12v totally regulated supply. If this solves the problem then you need to change the PSU for a better quality one.

Picture out of focus

The focus and zoom controls on this camera are situated on the front of the camera and both can be adjusted using a small screwdriver.

No Infra-red image at night even though IR LEDs are illuminated

This can be due to voltage drop over distance or a inadequate power supply being used. Consider moving the power supply nearer to the camera and check compatibility of power supply.



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