CCT695 KOVERT *External Module*
COLOUR KOVERT CCTV CAMERA INSTRUCTIONS

Features

♦ Excellent picture quality
♦ Day/Night digital signal processing
♦ Small compact design
♦ Low light capability (0.2 lux approximately)
♦ Infra red sensitive
♦ Free mounting bracket provided
♦ IP66 Rating for external use

The Kovert External module provides an ideal solution for discrete external surveillance. Its small size enables it to be disguised for discrete surveillance and the bracket supplied provides a ready made conventional mounting option. With interchangeable lens options of 2.9, 3.6, 6, 8, 12 and 16mm it offers flexibility to obtain the correct view of a wide range of different scenes internally or externally.

How does the "Day/Night digital signal processing" work?
To get the very best out of the camera in a wide range of lighting conditions, the camera uses a unique method of digital analysis of light level and colour balance. This is carried out in two stages;
1- At around 1 lux or below, the camera's intelligent electronics dynamically boost the brightness of certain colour pixels resulting in a dilution of colour but an improved picture in low light.
2- The "brightened" picture is further processed by "near colour substitution" resulting in a more grey-scale picture with sharper detail in low light.

Positioning the Camera
As with all CCD cameras avoid directing the camera at any object or surface containing bright spots that may cause flare on the resulting camera picture. To reduce flaring, try to ensure that the camera is looking at a scene with uniform brightness and not a dark scene with one well-lit area. Otherwise, the "electronic iris" will become confused and the camera will "average" the picture to a dark scene and show the bright spot as a flared image. When trying to identify a person with a CCD camera, plan the installation so that the person you are trying to identify will walk directly towards the camera.
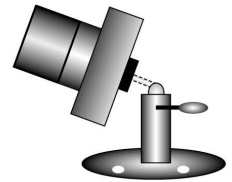

Fastening the Camera to the Wall
The camera bracket has 3 holes used to fasten it to the wall using the appropriate screws.
The camera body itself attaches to the bracket by the threaded insert at the end of the camera.

Connecting and Testing the Camera

To do this, the camera requires a 12V 100mA+ **_high quality regulated_** *power supply*, a recommended unit is any of the *'ANTIHUM'* series of power supplies that are specifically made for getting the best out of CCTV installations. The cameras d.c input connector is a 2.1mm size DC Socket and the middle pin is the 12V+ and the outer case is 0V or ground – *please ensure your power supply is regulated and has the same connector configurations or you may damage the camera and void the guarantee*.

Dia 1

Video BNC (Female)
12V Power 2.1mm
⊖   ●   ⊕

Video - Yellow
Ov - Black
+12V - Red
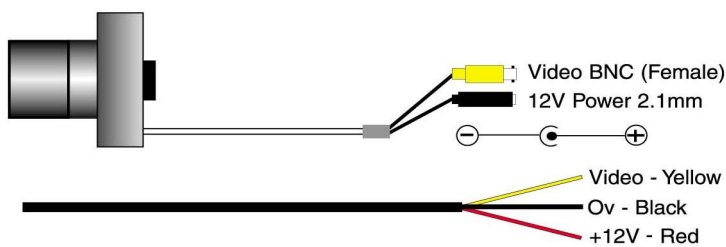
You can connect the camera to any suitable switcher, quad, multiplexer, VCR or monitor that uses the industry standard 1Volt peak-peak 75Ω input. The camera will usually be supplied with a pre-connected BNC connector that can connect directly into the video input of other CCTV equipment by a suitable BNC-BNC lead. It is not recommended that you cut off the connectors from the camera as it may cause the camera to be connected incorrectly and damage it.

When you first connect the camera it is recommended that you connect it directly to the VIDEO INPUT of the monitor you are using to prove the camera and power supply are functioning correctly, you will need a BNC to BNC lead to do this. When you connect the power supply to the camera, with the monitor switched on, you should now see the camera picture on the monitor. Once you have concluded the camera and power supply are working satisfactorily you can proceed to installing the camera with any other equipment in your system such as a quad or switcher. If you fail to get a picture after you introduce other CCTV equipment such as a switcher, quad, multiplexer or VCR, go back to basics and connect the camera directly to the monitor to ensure you get a picture. You can then eliminate item by item in your full system to identify the cause of the problem.

Changing the Camera Lens.

The CCT695 has an interchangeable lens feature. Most "board type" lenses should fit but the *'KAPTURE'* range is fully approved, tested and recommended. To change the lens you need to remove the weatherproof lens cover by turning it anti-clockwise. Next, using a small precision screwdriver (allen key on some models) release the lens grub screw located near the end of the camera, by turning the grub screw 2-3 times anti-clockwise. Take care when releasing the grub screw not to unscrew it too far as its small size means it is easy to lose if it drops out of the camera body. When the grub screw has been loosened the fitted lens can be removed by gently turning it anti-clockwise.

Once the lens is removed it is recommended the new lens is fitted as soon as possible to help prevent any dust, debris or moisture entering the camera as this may show up on the camera picture. To focus the camera you will need to have it connected to the monitor so as you carefully screw the lens into the camera body you can obtain

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the sharpest focus whilst watching the monitor screen. If you feel any resistance that prevents the lens being screwed into the camera STOP, you may damage the unit by forcing it. Check you have not got the lens cross-threaded and that the lens is not too long for the camera. When you have swapped the lens please remember to retighten the grub screw, and replace the lens cover. The lens cover must be screwed on tightly by hand with the "O" ring in position to ensure the camera is still weatherproof.

Trouble shooting.
The camera is built to the highest standards and every unit is fully tested prior to packing so if you experience an installation problem you need to investigate your cabling, connections, power supply and monitor. If you do fail to get a picture on a monitor you need to check the following things.

1 – The camera can not function without the correct working power supply.
The power supply MUST be regulated and be capable of supplying 100ma per camera CONTINUOUSLY.

To check that your power supply is functioning correctly use a multimeter set on D.C volts (above 12V) and connect the probes to the power supply output plug (the plug polarity is shown in diagram 1). The meter should read between 12-13V. If the meter shows a negative voltage the power supply output plug could be wired incorrectly or you may have the leads of the multimeter reversed. To make sure the multimeter is working correctly connect it to a known voltage and polarity such as a battery.

If you find that the power supply is giving out more than 13.5V you may be using a non-regulated power supply and must stop using it with the camera immediately or you may cause permanent damage to the camera. This rule applies to most 12V CCTV cameras.

If the power supply appears OK but there still is no picture on the monitor ensure that the power supply is fitted with a 2.1mm plug not a 2.5mm plug. If the power supply is fitted with a 2.5mm plug it will not make a good connection on the centre pin of the d.c power socket fitted to the camera, even though it feels a good fit when you push the plug into the socket.

2.1mm D.C power socket pins not open enough. It is possible that the power socket that is fitted to the camera needs to have the middle pin opened up slightly to ensure a better fit with the power-supply you are using. This can be done by inserting a small screwdriver between the "split-pin" of the d.c power socket fitted to the camera, gently widening the pin.

2 – Make sure the BNC –BNC lead you connect between the camera and the monitor has no shorts or open circuits.
If you are making up your own BNC-BNC lead don't forget the lead must have two wires connected to complete the circuit, video AND GROUND, without both of them it won't function correctly. If in doubt swap your lead with a pre-wired commercial one, as faulty leads are the main cause of problems.

"Misting" and "Fogging" of the camera picture.
If you find when the camera is installed externally that at night or when it is cold the camera picture gets misty or foggy you may have inadvertently "trapped" moist air in the camera that is condensing on the lens or lens cover. To remedy this, bring the camera into a warm, dry environment such as a home or office. Next, remove the lens cover by gently unscrewing this anticlockwise until it is detached from the camera. Now let the camera gently warm itself to its surrounding temperature for about 4/5 hours. When the camera is thoroughly dried out replace and tighten the lens cover ensuring the "O" ring seal is positioned correctly for a good seal. The cover should be screwed on tightly but only by hand and not using other tools or equipment. Powering the camera up in a warm dry environment with the lens cover off will speed up the process of removing the moist air from the camera to about 1 hour.

If you are still not sure talk to the technical department of your supplier or e-mail or fax KOVERT using the details at the bottom of these instructions.

SPECIFICATIONS

	External Kovert Module CAMERA –CCT695
Element	1/3" CCD Colour
Lens	3.6mm
Lens Angle	92° with 3.6mm as standard
T.V. lines	380 TVL
Min Illumination	0.2 lux @ F1.4
Power Voltage	12V dc - Must be regulated power supply
Current Consumption	90mA @12V
Iris Control	Auto Electronic 1/100000 second
Mounting	Bracket Included
Housing	Metal – alloy – Black finish
Size	33mm x 33mm x 40mm
Weight	Camera 110g

All specifications are approximate. Kovert.net reserves the right to change any product specification or features without notice. Whilst every effort is made to ensure that these instructions are complete and accurate, Kovert.net cannot be held responsible in any way for any losses, no matter how they arise, from errors or omissions in these instructions, or the performance or non-performance of the camera or other equipment that these instructions refer to.
WARNING - Under no circumstances remove or disconnect the base of this camera or any pre-connected plugs or socket attached to it, doing so will void all guarantees.