

### RE-BCC8YK2

#### PRODUCT DESCRIPTION

This camera is made to allow the resumption of license plates of vehicles in slow or fast motion. It can operate in any light condition thanks to

infrared illuminators incorporated. Thanks to a System of High-Light Suppression is not affected by the headlights of the vehicle is that dipped beam.



#### ASSEMBLY

The cameras are equipped with a mounting bracket for wall built to allow the passage of cables within it.

The bracket is mounted generally in matching output cables. The basis of fixing It has 4 holes for fixing to the wall with dowels. The housing is waterproof and can be installed outdoors without any protection.

The housing is air-conditioned and is equipped with a fan which is activated at above 45 ° and a heater that is activated at below -5 ° C.

#### POSITIONING

The positioning of the camera it is very important for a good yield of the license plate reading.

The optimal recovery of the plate is carried out at a maximum distance of 30 m. depending on the adjustment of the lens. The first thing to check is therefore that the distance as the crow flies (not walkable on the ground) between the camera and the point where you will find the means does not exceed this distance otherwise the infrared lighting will not be effective.

The second thing to consider is to position the camera so that the light of the headlights is not directly oriented towards the camera, while maintaining at least an angle of 30 ° vertically with respect to lighting of the headlights. The camera will then be placed in detected position with respect to the road surface so as to avoid that the

dot headlights directly against camera.

Satisfied 2 previous points in orienting the camera needs to be done so that the plate remains as long as possible in the field of vision of the camera.

#### CONNECTIONS

The connections on the output cable from the camera are the following:

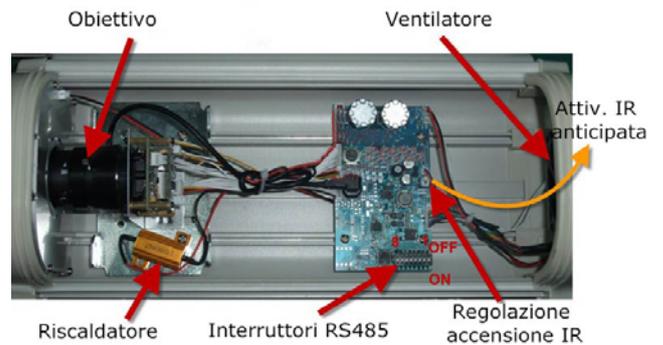
**BNC video output** - At the BNC female bayonet connecting the video cable that leads then to monitor or management devices typically using RG59 coaxial cable and BNC connector.

**Jack DC12V** - We must connect a 12VDC power supply stabilized by at least 2,000 mA, such as RE-AL5 model (not included).

The requested plug is the standard 5.5 mm. Attention to use STABILIZED feeders that provide 12V in any load condition. The use of a different supply voltage from 12VDC can generate video disorders and in the worst cases damage the camera. Beware extension power cables are too long or

small section, that could to introduce excessive fall species voltage at the time IR illuminator ignition.

**RS485 input** - This connection is optional and allows to connect a RS485 BUS to be able to remotely adjust the IR illumination power and the shooting mode.



#### TARGET

**Adjust zoom / focus** - The camera mounts an adjustable objective lens from 5 to 50 mm. autoiris DC drive. Once the camera is positioned it is necessary to orient the bracket and appropriately adjust the lens. initially act on the ZOOM ring (TW) and adjust the amplitude of the frame (wide angle / zoom) based on the area to be framed. Remember that in most wide angle corresponds

inevitably a lower image detail.

In general, it is good to frame a narrowest possible width around the location where it will be located in the plate so that the same appears as large as possible in the frame.

Once you defined the field of view act on the FOCUS ring to focus perfectly the area

framed. Recall that each lens has its own depth of field to which it is possible to put in focus in a perfect way only a portion of the space in front of the camera. Concentrate on the most important area where you will find the plate of the vehicle to adjust the focus optimally.

It may be helpful for an optimal adjustment to position a car stops at the exact point where it carries out the reading of the license plate.

The lens adjustment ring nuts can be rotated only after having unscrewed the pawl. Retighten after adjustment in order to avoid unwanted changes.

**MODE 'DETECTION 1..6**

The RE-BCC8YK2 camera is pre-programmed for the best performance in the detection of plaques. They are preset 6 different types of adjustment can be selected according to the shooting situation.

For each mode corresponds to a different speed of the electronic shutter of the camera Mode 1: Mode 2 1/120: 1/250 Mode 3: Mode 4 1/500: 1/1000 Mode 5: Mode 6 1/2000: 1/4000

If the means transiting at a reduced speed, as in the case of access roads or gates you can select the mode 2 or 3. It is necessary to choose one of the high shutter speed (3 or higher) if it is expected that the means may be in transit even at high speed . A higher speed shutter image to match against much darker. The choice of 1..6 mode must be done at night, with the illuminators

IR lit and after adjusted perfectly focusing lens as in the previous section. To change how

recovery move mini joystick placed along the camera cable to the right and left. The number of the setting (1 to 6) will appear superimposed on the upper left in the image. Choose the setting that offers the best performance under actual shooting conditions based on the estimated maximum speed of the vehicles.

Note that in the night mode camera must shoot an image very dark and see only the license plate is in a position of headlights that extinct.

**IR LIGHT**

The cameras integrates in its interior an infrared illuminator that emanates illumination invisible to the human eye, but visible to the camera. The illuminator turns itself on when it gets dark and the camera switches alone in night vision mode. The illuminator allows ignition

the vision of the license plate total darkness until its scope lighting. In this camera, the illuminator is used for the vision of the automobile license plate and not to allow the night vision of the medium or environment.

If this is request must be the tiling of another camera.

**IR threshold adjustment - On the electronic circuit board inside the housing is placed a potentiometer (see figure) to adjust the illuminator ignition threshold.**

In most cases it is not necessary to adjust and recommend not to change the factory setting. Intervening only if one realizes that the camera never switches to night mode or switches in untimely manner due to abnormal conditions of ambient brightness. Turn clockwise for the illuminator will light up later, unscrewing it anticlockwise will be activated soon. In the adjustment keep in mind that the camera reaction occurs with 5 seconds delay to avoid that sudden flashes can make the camera move from night to day. It is therefore necessary to turn a little potentiometer and wait for the reaction of the camera.

**IR brightness adjustment - E 'can adjust the brightness of the illuminator to adapt to the distance of the shot. Of**

rule this adjustment is not necessary, but it can happen, especially in case of a short distance readings, which is necessary to reduce the power of the LEDs to prevent the plaque appears bleached. To reduce the power of the LED is necessary to act on the small joystick along the connection cable as shown in the figure. Moving the joystick upward towards the camera by increasing the lighting, moving down towards the connectors is reduced. Pressing the joystick will save the setting. Always remember to confirm the setting of brightness control led by pressing the joystick to prevent the regulation is changed in case of power failure. To properly adjust the lighting ask

in real dark conditions and illuminators turned on by placing a retainer means in the license plate reading point. then act on the regulation in order to optimize the illumination on the plate.

The brightness of the LED adjustment has no feedback in overlay in the image. E ', however, possible to physically see the different power of brightness

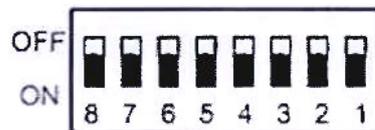
**RS485 FOR REMOTE CONTROL**

The camera is equipped with an RS485 port that can be used to remotely control both the detection modes 1 ... 6 of the camera is the brightness of the illuminators.

This remote connection is not essential for the operation but it can be useful because it allows to adjust remotely the camera parameters to obtain the best yield strength without having to access the camera itself.

And 'possible to send commands with the common protocol Pelco P / D using a control console for our speed dome cameras or our DVR. The transmission speed of the protocol must be 9600bps.

On the inner sheet is placed a block with 8 switches to set the camera ID that the factory is: 1



They only use the swithc 1 to 5 which are used to assign the address to the camera according to the following tables:

Address	Int. 1	Int.2	Int.3	Int.4	Int.5		
1	OFF	OFF	OFF	OFF	OFF		
2	ON	OFF	OFF	OFF	OFF		
3	OFF	ON	OFF	OFF	OFF		
4	OFF	ON	ON	OFF	OFF		
5	OFF	OFF		ON	OFF	OFF	
6	ON	OFF		ON	OFF	OFF	
7	OFF	ON	ON	OFF	OFF		
8	ON	ON	ON	OFF	OFF		
9	OFF	OFF	OFF			ON	OFF
10	ON	OFF	OFF			ON	OFF
11	OFF	ON	OFF	ON	ON		
12	ON	ON	OFF			ON	OFF
13	OFF	OFF		ON	ON	OFF	
14	ON	OFF		ON	ON	OFF	
15	OFF	ON	ON	ON	OFF		
16	ON	ON	ON	ON	OFF		
17	OFF	OFF	OFF	OFF			ON
18	ON	OFF	OFF	OFF			ON
19	OFF	ON	OFF	OFF			ON
20	ON	ON	OFF	OFF			ON
21	OFF	OFF		ON	OFF		ON
22	ON	OFF		ON	OFF		ON
23	OFF	ON	ON	OFF			ON
24	ON	ON	ON	OFF			ON
25	OFF	OFF	OFF				OR NOT
26	ON	OFF	OFF				OR NOT
27	OFF	ON	OFF				OR NOT
28	ON	ON	OFF				OR NOT
29	OFF	OFF		ON	ON	ON	
30	ON	OFF		ON	ON	ON	
31	OFF	ON	ON	ON	ON		
32	ON	ON	ON	ON	ON		

The settings of the camera factory there  
RS485 communication are: Pelco D Protocol

**TECHNICAL FEATURES**



[www.dseitalia.it/dati\\_telcavo.htm](http://www.dseitalia.it/dati_telcavo.htm)

SPEED '9600 bps ADDRESS: 1

The keyboard commands available for Pelco D Protocol are as follows:

**Call PRESET 101..106** - Recalling presets 101 to 106 is set to the shooting mode from 1 to 6.

**Call 200 PRESET** - With this command gives you access to the remote modification of the IR LED brightness. When you enter the preset 200 act on the joystick by moving it up and down to change the power of the LEDs. Check the result on the monitor.

**Richimare PRESET 201** - This command ends the LED brightness adjustment and save the setting.

**PROBLEMS AND SOLUTIONS**

**Image B / W day** - lit illuminators, adjust IR activation threshold. If the image is B / N IR off the IR filter is in the wrong position due to mechanical shock, deenergize and restore control camera, then secure it more solidly.

**IR LED does not light up at night** - Adjust the ignition threshold. Avoid strong light sources in the vicinity.

**Glare on the plate** - Avoid lights directly oriented towards the camera (min 30 °)

**The plate is moved** - Check goal setting. Increasing the shutter speed to 1/1000 or 1/1500

**Targa too bright or dark at night** - Adjust the power of the LEDs according to the shooting distance

**The power of LEDs varies after a reset** - Confirm the IR power setting by pressing the mini joystick

**The plate is too small and you can not read** - Increase the zoom lens to focus the shot.

