SERIES SD-A36IRT

Camera

High Speed Dome 36x

IR illuminator 150 m. and autotracking

INTRODUCTION

The cameras speed domes I'm cameras Fully remote controllable. They allow an operator equipped with appropriate console command to rotate the camera in all directions and zoom in pleasure on the scenes of most interest.

What is PTZ

The cameras controlled remotely are also defined PTZ, which stands for PAN / TILT / ZOOM. PAN is the movement in horizontal, TILT movement in vertical and ZOOM control of the lens focal length. Today there are two technologies to control remote cameras: PTZ electromechanical (combined with standard motorized lenses and cameras) and Speed Dome cameras.

- **T Motors electromechanical and objectives motorized**

With the use of an electromechanical tilt and a zoom lens becomes a remotely controllable any standard camera. They are used motorized objectives, with inside 3 motors capable of controlling Fire, Aperture and Focal and rotating media, said traverses, also controlled by motors for the horizontal and vertical rotation. The control of these engines

Zoom lens

in one sense or another it is via direct sending of the control voltage via a console connected with a multipole cable typically containing 12 poles.

Pan

It is still a viable option because it is very simple and robust, but with obvious limits application. Every camera in fact it requires a direct wiring to its control panel with a clear complexity in management of many cameras.

Console

- **Speed Dome Cameras**

Yes It is the most modern solution and does not use standard cameras, but special controlled equipment to remotely via serial line. The command is carried out by means of proper control console or by themselves devices of digital recording.

Speed dome camera

Benefits of Speed Dome cameras than traditional PTZ

The Speed-Dome cameras offer several advantages compared to electromechanical solutions. Among these examples are:

- High rotation speeds elegant design and dimensions contained Ability to control many
- cameras from a single location with a single cascade wiring
-

- Possibility of having more than one control panel and from each of them access to all cameras
- Possibility of set preset shots (PRESET) and automatically recalls
- Possibility of set automatic movements repetitive.

SPEED DOME

The product ranges includes several accessories for the mounting and control of motorized cameras SD-Series A

Fixing bars

SD-AST2
Wall Bracket

SD-AST3
Ceiling Bracket

SD-AST4
Collar for mounting on a pole for SD-AST2 brackets

SD-AST5
Accessory for mounting at an angle to SD-AST2 brackets

Console and accessories

SD-CON1
Control panel for SD series cameras

SD-CON3
Control panel for SD series cameras

SD-232485
RS232 / RS485 for PC control

HIGHLIGHTS PTZ

FEATURE	SD-A36IRT
Movement speed in manual control	PAN: Min. 0.01 ° - Max. 200 ° / sec. TILT: Min. 0.01 ° - Max. 200 ° / sec. Automatic adjustment according to the zoom
Speed in automatic control movement (PRESET)	PAN: 200 ° / sec. TILT: 200 ° / sec.
Excursion horizontal movement (PAN)	360 ° without limit switches
Excursion vertical movement (TILT)	0-90 ° (180 ° AUTOFLIP function)
Programmable Presets (PRESET)	Max. 256 of which 24 are reserved eg system functionality and 232 to the user
panoramic movement between two limit Preposition	It - (FRAME SCAN)
Automatic movement between multiple presets	Yes - 1 sequence of max 20 presets - Programmable Speed - Time stay programmable (CRUISE function)
autoflip function to follow the target beyond the vertical	It is 180 °
Registering custom motion sequences	It - 4 sequences - (PATTERN Function)

PRINCIPAL ELECTRICAL

FEATURE	SD-A36IRT
Supply voltage	4A 12VDC +/- 10%
Power consumption	60W max.
Communication with the control unit	Serial RS485
Cable to be used for connecting the RS485 command	Twisted pair 0.5 mm - Length. max 1200 m.
RS485 communication protocol	Pelco D / P Pelco automatic recognition
Speed RS485 communication protocol (Baud Rate)	1200-2400-4800-9600 selectable
Maximum number of cameras that can be connected in cascade RS485	256
Maximum number of control console	32
power and control connections	2 + 2 power cables cables RS485A / RS485B
Output Video Connections	BNC female connector

PRINCIPAL MECHANICAL

FEATURE	SD-A36IRT
Installation	External
mounting	On bracket
for Wall Mount Bracket	SD-AST2
Bracket for ceiling mounting	-
Protection Housing	IP66
Operating Humidity	10% 90%
operating temperature	- 25 ° .. + 70 ° C
Housing material	Aluminum

Material of transparent slits	Polycarbonate
Weight	2.5 Kg.

MAIN CAMERA DATA

FEATURE	SD-A36IRT
CCD Sensor	SONY Super HAD 1/3 "Color
Video output signal	1V pp 75 Ohm
video Format	PAL
Function Day / Night	It is compatible with IR illuminators 850 nm
Number of Pixels	976x582 pixels
Video Signal Process	Digital DSP
Resolution	650 TV Lines
Synchronization	internal
Signal / noise ratio (S / N ratio)	Greater than 60 dB
Electronic Shutter Speed (Shutter)	1/50 ... 1 / 12,000 sec.
integrated IR illuminator	It reaches 150 m. with automatic intensity according to the zoom
minimum Illumination	Day Color: 0.05 Lux Night B / W: 0 Lux with IR on
White Balance (AWB)	Automatic
iris control	Electronic
Automatic Gain Control (AGC)	Yes
Backlight Compensation (BLC)	Yes
image Adjustments	Brightness
Mirror Image (MIRROR)	Yes

MAIN OBJECTIVE DATA

FEATURE	SD-A36IRT
optical Zoom	36X
focal	Min. 3.2 mm (wide angle) Max. 115.20 (tele)
Autofocus	Manual / Automatic

INSTALLATION OF CAMERA

The SD-A series cameras are packed carefully to prevent damage during transport. First, you must check the received material.

Material check

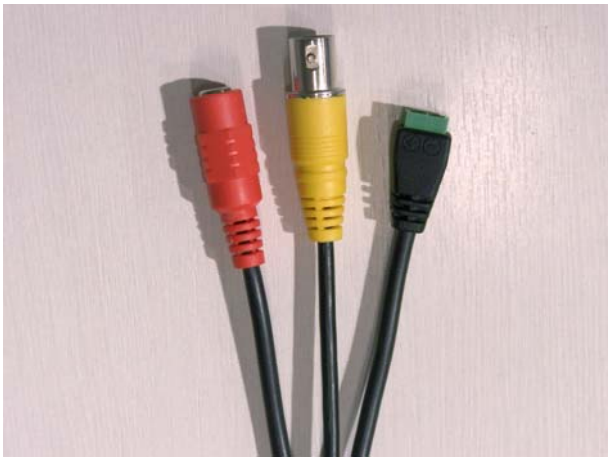
The speed dome camera that you have purchased is protected by elements Packaging ranging carefully removed before using it.

Cable connections

Each camera Speed Dome SD-A36IRT has a cable fitted with the following connections:

VERSION 12V DC

- **1 cable** feeding with 5.5 mm plug.
- **video Output** BNC female
- **2 Connectors** BUS **RS485**



To structure a system of Speed Dome cameras must prepare three types of wiring:

- **Supply.** IS' can feed there camera with a 220VAC / 12VDC adapter by at least 3A (not supplied) or prepare a 12VDC network with cables with a suitable section so as to avoid excessive voltage drop.

- **Video connection.** It is carried out as for any traditional CCTV camera, being the video signal produced by a composite video camera. You typically use RG59 coaxial cable for distances up to 2-300 meters. For longer distances it can carry the video signal on twisted pairs using special converters.

- **Telemetry.** It is of the serial connection that leads the movement commands to the camera. The SD series cameras use an RS485 serial line (BUS RS485) that must be achieved with a pair of twisted wires. E 'essential that the two cables are wound between them and non-parallel. In principle the RS485 serial line can extend up to 1200 meters in length and along it are connected in cascade devices. The section of the cables closely depends on the length of the connection: for medium distances is sufficient a section of 0.5 mm, while if it is necessary to reach considerable distances (max. 1200 m.) Should be used upper sections of 1 mm or even 2.5 mm. In carrying out the wiring is recommended to use shielded cable. The cameras and the console must be connected in cascade ie entering and exiting from 2 RS485A terminals (+) and RS485B (-). It 'important not to confuse the two cables (AB) during the connection of the equipment.

The order in which the devices are connected to BUS has not relevance. Every equipment will be identified by its own unique address, adjustable via DIP switches, which will properly address the instructions. E 'can be connected to the same BUS up to 256 cameras.

The console does not require any addressing, while for the cameras is necessary to set a different address for each camera, as described below.

Setting address and baud rate of the cameras

Each camera must have an address different from the other in order to be identified along the BUS. It must also be able to communicate with other devices using the same protocol and the same transmission rate (or baud rate). These three parameters: Address, Protocol and Baud rate is set via DIP switches on board room and critical to the operation. The standard protocol used by these cameras is the common PELCO PELCO P and D. The SD-A36IRT cameras are equipped with a system of

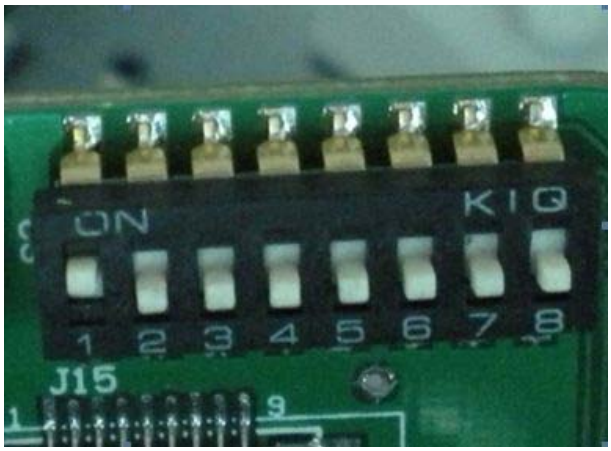
Automatic detection of the protocol and baud rate it is not to make any settings via DIP switches as it does on other models.

After starting the camera automatically it will incorporate the protocol and its speed at the first command received by the control unit (console or DVR)

With regard to the address of the camera, it is set via microswitches in the camera board.

The camera housing is provided with a window through which it is accessed in 8 microswitches. There

window remains accessible even to camera mounted to allow changes without having to disassemble.



The camera is equipped with 1 ADDRESS factory.

In the following page table positions that correspond to other addresses are indicated.

SOFT ADDRESS

The cameras also support the so-called SOFT ADDRESS for which is' also possible to set the camera address by software acting within the configuration. In this way it will be possible to vary the address from the remote camera installed independently

from position of microswitches.

IR Illumination

The camera has three groups of LED illuminators for night vision 0 lux. The two groups of LEDs to the left and right of the camera are used for short and long distance vision and come on automatically depending on the selected zoom level. The camera is also equipped with a central IR beacon that creates a very focused lighting that is automatically activated to high levels of zoom.

autotracking

The camera is equipped with the autotracking function that allows you to follow intruder in its path within the visual field of the camera. This function does not require any special wiring and is obtained by digital image analysis. If you intend to use the Autotracking care must be taken in positioning the camera to avoid obstacles or blind spots where the camera may lose sight of the intruder hiding from view.

DIP SWITCHES FOR SETTING ADDRESS ID

The second group switches on the right allows you to set the camera address that will identify it. The set address and factory: 1, which is the only one switch in the ON position.

ADDRESS	SW.1	sw.2	sw.3	sw.4	sw.5	sw.6	sw.7	Sw.8
0	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
1	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF
2	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF
3	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF
4	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF
5	ON	OFF	ON	OFF	OFF	OFF	OFF	OFF
6	OFF	ON	ON	OFF	OFF	OFF	OFF	OFF
7	ON	ON	ON	OFF	OFF	OFF	OFF	OFF
8	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF
9	ON	OFF	OFF	ON	OFF	OFF	OFF	OFF
10	OFF	ON	OFF	ON	OFF	OFF	OFF	OFF
11	ON	ON	OFF	ON	OFF	OFF	OFF	OFF
12	OFF	OFF	ON	ON	OFF	OFF	OFF	OFF
13	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
14	ON	OFF	ON	ON	OFF	OFF	OFF	OFF
15	ON	ON	ON	ON	OFF	OFF	OFF	OFF
16	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF
17	ON	OFF	OFF	OFF	ON	OFF	OFF	OFF
18	OFF	ON	OFF	OFF	ON	OFF	OFF	OFF
19	ON	ON	OFF	OFF	ON	OFF	OFF	OFF
20	OFF	OFF	ON	OFF	ON	OFF	OFF	OFF
21	ON	OFF	ON	OFF	ON	OFF	OFF	OFF
22	OFF	ON	ON	OFF	ON	OFF	OFF	OFF
23	ON	ON	ON	OFF	ON	OFF	OFF	OFF
24	OFF	OFF	OFF	ON	ON	OFF	OFF	OFF
25	ON	OFF	OFF	ON	ON	OFF	OFF	OFF
26	OFF	ON	OFF	ON	ON	OFF	OFF	OFF
27	ON	ON	OFF	ON	ON	OFF	OFF	OFF
28	OFF	OFF	ON	ON	ON	OFF	OFF	OFF
29	ON	OFF	ON	ON	ON	OFF	OFF	OFF
30	OFF	ON	ON	ON	ON	OFF	OFF	OFF
31	ON	ON	ON	ON	ON	OFF	OFF	OFF
32	OFF	OFF	OFF	OFF	OFF	ON	OFF	OFF
33	ON	OFF	OFF	OFF	OFF	ON	OFF	OFF
34	OFF	ON	OFF	OFF	OFF	ON	OFF	OFF
35	ON	ON	OFF	OFF	OFF	ON	OFF	OFF
36	OFF	OFF	ON	OFF	OFF	ON	OFF	OFF
37	ON	OFF	ON	OFF	OFF	ON	OFF	OFF
38	OFF	ON	ON	OFF	OFF	ON	OFF	OFF
39	ON	ON	ON	OFF	OFF	ON	OFF	OFF
40	OFF	OFF	OFF	ON	OFF	ON	OFF	OFF
41	ON	OFF	OFF	ON	OFF	ON	OFF	OFF

42	OFF	ON	OFF	ON	OFF	ON	OFF	OFF
43	ON	ON	OFF	ON	OFF	ON	OFF	OFF
44	OFF	OFF	ON	ON	OFF	ON	OFF	OFF
45	ON	OFF	ON	ON	OFF	ON	OFF	OFF
46	OFF	ON	ON	ON	OFF	ON	OFF	OFF
47	ON	ON	ON	ON	OFF	ON	OFF	OFF
48	OFF	OFF	OFF	OFF	ON	ON	OFF	OFF
49	ON	OFF	OFF	OFF	ON	ON	OFF	OFF
50	OFF	ON	OFF	OFF	ON	ON	OFF	OFF
51	ON	ON	OFF	OFF	ON	ON	OFF	OFF
52	OFF	OFF	ON	OFF	ON	ON	OFF	OFF
53	ON	OFF	ON	OFF	ON	ON	OFF	OFF
54	OFF	ON	ON	OFF	ON	ON	OFF	OFF
55	ON	ON	ON	OFF	ON	ON	OFF	OFF
56	OFF	OFF	OFF	ON	ON	ON	OFF	OFF
57	ON	OFF	OFF	ON	ON	ON	OFF	OFF
58	OFF	ON	OFF	ON	ON	ON	OFF	OFF
59	ON	ON	OFF	ON	ON	ON	OFF	OFF
60	OFF	OFF	ON	ON	ON	ON	OFF	OFF
...	... ..	... ..	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...
246	OFF	ON	ON	OFF	ON	ON	ON	ON
247	ON	ON	ON	OFF	ON	ON	ON	ON
248	OFF	OFF	OFF	ON	ON	ON	ON	ON
249	ON	OFF	OFF	ON	ON	ON	ON	ON
250	OFF	ON	OFF	ON	ON	ON	ON	ON
251	ON	ON	OFF	ON	ON	ON	ON	ON
252	OFF	OFF	ON	ON	ON	ON	ON	ON
253	ON	OFF	ON	ON	ON	ON	ON	ON
254	OFF	ON	ON	ON	ON	ON	ON	ON
255	ON	ON	ON	ON	ON	ON	ON	ON

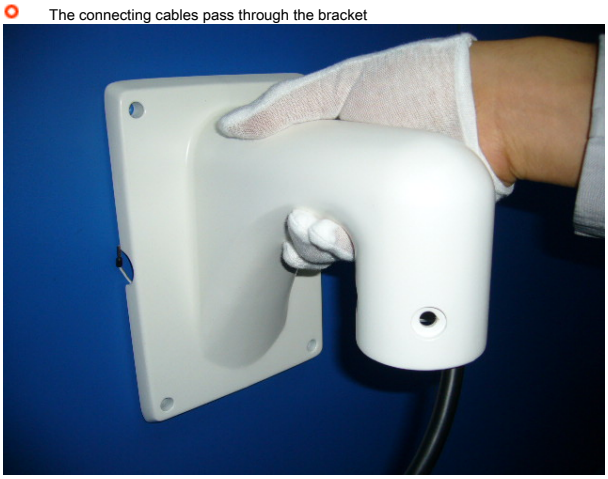
mechanical assembly

The speed dome cameras SD-A for external can be installed on the wall with the aid of the SD-AST2 brackets that must be ordered separately.

In the pictures that follow the example of installing the wall bracket

- Fasten the wall bracket by plugs, taking care to leave the cable outlet at the center between the fixing holes.

- The connecting cables pass through the bracket



- Connect the camera and fasten it to the bracket with the supplied screws.

Mounting console

The movement control of the speed dome cameras is done through the RS485 serial port sending commands using a special console or via a VCR.

The control devices are connected along the bus 485, such as cameras and do not require addressing. E ', however, essential that the protocol used and the speed are the same as the one set in the cameras. Refer to the manual of the console or VCR for programming.

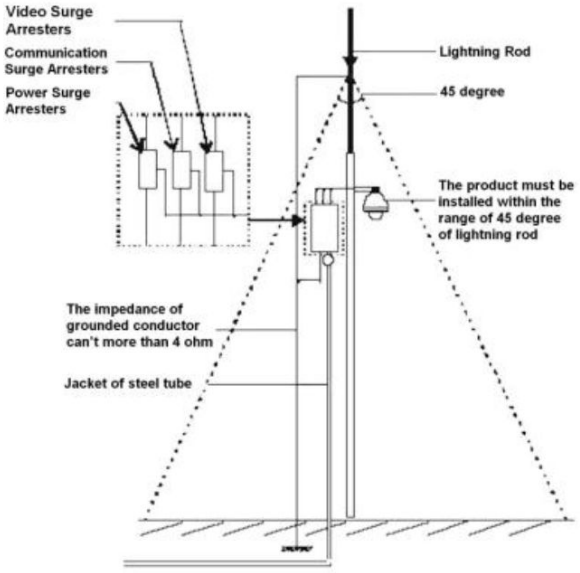
Surge protection

The overvoltages of atmospheric origin are the main cause of failure of the speed dome cameras in the exterior.

This camera is provided with protections against overvoltages able to protect it from atmospheric discharges mild.

However in outdoor installations necessary to pay attention to the following general rules:

- Keep wiring at least 50 m away from high / medium voltage
- If you can make runs and cables under the protection of a cornice
- In routes outside the building, to use underground steel pipes with a good point grounding
- Avoid overhead cables
- If the zone and subject to strong temporal or is located in close proximity to electrical power stations or booths in medium or high voltage use appropriate additional protections and possibly of a lightning conductor system



BASIC OPERATIONS

Below we listed the main controls through which it is possible to control the speed dome.

On and Self Test

Powering the camera will start a sequence of automatic operations. The camera performs a series of movements automatic and verification the functioning of the horizontal movement, of the and vertical movement of the camera body. A screen you can follow the self-test process, and will also report overlay the Protocol, the communication speed and set the camera address using the DIP switches. At the end of the automatic test the camera is ready to receive the incoming commands from the console.

Pan Tilt Control Manual

The first command to verify the correct communication between the camera and the console is the displacement RIGHT / LEFT (PAN) and UP / DOWN (TILT) by acting on the console joystick. If the camera does not react to the console commands it means that something is wrong in the communication. Check in order:

1 - That the two twisted wires leading to the RS485 or wire is not reversed (A with A and B to B). 2 - What is the console that camera have been set with PELCO D protocol and equal transmission rate.

3 - That the center console is selected the camera address to be controlled.

To facilitate these checks, the start screen of the camera summarizes all his settings of communication (protocol, speed and address)

manual ZOOM Command

The cameras are equipped with a 36x optical zoom. To control the zoom is possible to act on the keyboard ZOOM +/- buttons (or TELE / WIDE depending on the console). If you're using a so-called 3D console you can also control the zoom by rotating the head of the joystick.

If necessary, it is possible to change the focus by pressing the buttons FOCUS +/- (or NEAR / FAR depending on the console), but it is generally more practical to allow that the camera uses the autofocus function.

Setting PRESET

The cameras are in degrees to store the predefined positions that can be invoked quickly without having to manually move the joystick. Each camera is capable of storing 255 PRESET each distinguished by its own value of XY coordinates, ZOOM and FOCUS. To set a preset do the following:

- Select the camera to be controlled
- Acting on the joystick to position the camera in your favorite tune and adjust zoom and eventual fire
- Dial on the keyboard to set the preset number (1 to 255)

- Press on the keyboard the setting button generally referred to as PRESET Some keyboards have a SET button that must be pressed before the sequence to enable the setting.

The camera stores the pre-positioning. To confirm the correctness of the transaction appears on-screen overlay the inscription: PRESET IS SAVED. If the confirmation does not appear, check that you have correctly used the button on the keyboard with the preset setting function and not entering the number of a PRESET

system functions Confidential (see more below) .Consultate your keyboard user guide for more details.

Recalling Preset

Once you have stored presets for interest
You can easily recall from the keyboard acting as follows:

- Select the camera to be controlled
- Dial the number PRESET
- to press the button recall PRESET, generalment CALL or PREVIEW depending on the console.

The camera automatically moves up to the stored position.

System PRESET

Not all of the 255 stored presets are available for user customization; some are used by the camera for specific functionality and are denominated SYSTEM PRESET.

The system Preset allow access to the configuration of the camera and to impart quickly the main controls. The complete programming of the functions, however, is always carried out in the camera setup menu that is Mr. Fox next chapter and which also includes a detailed explanation of the individual functions summarized in this table.

The system presets have different function depending on whether you press the button RECALL PRESET (typically CALL or PREVIEW on the keyboard) or the SET PRESET button (typically SET or PRESET on the keyboard). Consult your keyboard user guide to identify which buttons correspond to these commands.

PRESET	FEATURE ON RECALL PRESET (CALL)	FEATURE ON SET PRESET (SET)	FURTHER INFORMATION
95	Open configuration menu		It allows you to access the full programming menu of the camera whose options are described in detail in the next chapter.
83	Clear all presets		Delete all stored positions
80	start autotracking		Recalling this preset activates the autotracking function thanks to which the camera will automatically follow every movement is present in the visual field.
61	As preset 80 but for Dahua protocol		
97	Start Cruise programmed (preset 1..20) with Autotracking		Recalling this preset activates the autotracking function, but maintaining the original in cruise moving camera between presets so as to cover a wide surveillance area. As soon as the camera detects motion stop the cruise sequence and follow the intruder. When the intruder will come out of the camera's field will resume scheduled cruise.
62	As preset 97 but for Dahua protocol		
99	Start Cruise programmed (preset 1..20) without Autotracking		Recalling this preset activates the cruise among preset 1-20 set in programming.
63	Recall presets 63 and starts Autotracking		The presets 63-69 are preset dedicated to Autotracking function. Recalling the preset moves the camera to a preset position and starts the autotracking detection. As soon as the camera detects motion will follow the intruder. When the intruder will come out of the camera's field will return to the preset origiario.
64	Recall presets 64 and starts Autotracking		Like above
65	Recall preset 65 and starts Autotracking		Like above
66	Recall preset 66 and starts Autotracking		Like above
67	Recall presets 67 and starts		Like above

	autotracking		
68	Recall presets 68 and starts Autotracking		Like above
69	Recall presets 69 and starts Autotracking		Like above
84	Recall PATTERN 1		As Pattern is defined as a sequence of movements registered by the user in the configuration. The camera allows to store 4 pattern.
85	Recall PATTERN 2		Like above
86	Call up PATTERN 3		Like above
87	Call up PATTERN 4		Like above
88	Start CRUISE preset between 1 and 10		As CRUISE means the sequential display of more preset with a certain residence time on each one. With this command, it starts the unconditional CRUISE between presets 1 and 10.
89	Start CRUISE between presets 11:20		Like above
90	Start CRUISE between presets 21:30		Like above
91	Start CRUISE preset between 31 and 40		Like above
82	Start horizontal scanning (FRAME SCAN)		Scan = horizontal continuous pan rotation Movement (PAN) between two limit switches that are defined in the configuration.
ninety two	SCAN 360 ° with breaks		Start horizontal scan continuous 360 ° (no limit). Unlike the normal scan 360 (see below), the camera in this mode performs the randomiche breaks along the path to allow a vision of greater detail.
98	SCAN 360 °		Start horizontal scan continuous 360 ° (no limit)
100	Night Mode Force ON IR		Brings the mode B / W camera and turn on the IR illuminator regardless of the configuration and the ambient light
101	Force Day IR OFF		It brings the camera color mode and turns off the IR illuminator regardless of the configuration and the ambient light
102	Force IR AUTO mode		Bring the camera DAY & NIGHT mode automatco regardless of the configuration and the ambient light
103	IR night mode Force FULL ON		Bring the camera in B / W mode and turns on the IR illuminator regardless of the configuration and the ambient light. Unlike the preset 100 in this case, the brightness of the LEDs and always to the maximum and does not adjust automatically.

automatic movements

In addition to the preset that you just talked about the cameras can perform other automatic movements which are described below.

- **CRUISE** - Also called TOUR. Yes means the Automatic camera movement between different presets with a residence time on each of them programmable. The camera allows 4 fixed cruise sequences between the preset 1-

  10, 11-20, 21-30 and 31-40 as a programmable sequence between presets to be chosen between 1 and 20.
- **SCAN** - It is understood the continuous movement of horizontal rotation 360 °
- **FRAME SCAN** - It is understood the continuous movement RIGHT-LEFT between two end positions
- **PATTERN** - Similar to the CRUISE. The camera, however, does not follow in sequence the various presets, but a custom continuous movement recorded by the user in the programming phase. The camera allows to store 4 custom sequences.

All these automatic movements are set in the camera configuration that is described in the next chapter. To activate these automatic movements you can make use of the system presets that are listed in the table above. Some keyboards or DVRs also have specific buttons for SCAN activation, etc. CRUISE But be aware that there is an approval precise use of terminology that

must be tested the real correspondence between the commands imparted by the console and the reaction of the camera.

autotracking

These cameras They include there function Autotracking that allows to follow an intrusion into the visual field of the camera. By activating this function, the camera will react to the occurrence of a movement following the intruder in its path as long as he remains in the field of view of the camera. There are a few different ways to activate the Autotracking function.

- **autotracking SIMPLE** - Place the camera in a desired point and call the Preset 80. The camera will resume the scene waiting for an intrusion. Upon the occurrence of an intrusion the camera will follow the movement

  with displacements is zoom appropriate. When the intruder will come from the field visible the camera will return to the PRESET 1 after the scheduled time in programming and continue his revelation autotracking. If the PRESET 1 was not the camera will remain set at the position where it is located.

- **Autotracking with PRESET** - E 'can invoke some special presets (from 63 to 69) which automatically include the launch of Autotracking detection. Upon the occurrence of an intrusion there camera will follow the movement with displacements is zoom appropriate. When the intruder will come from the field visible the camera will return to the selected PRESET (63..69) after the scheduled time for planning and will continue there her Autotracking revelation.
- **Autotracking with CRUISE** - Recalling the PRESET 97 starts the scan defined between presets in programming (CRUISE) and simultaneously activates the detection of autotracking. Upon the occurrence of an intrusion the camera will follow the movement with movements and zoom appropriate. When the intruder will come from visible range there the camera will return to the CRUISE will perform scanning and continue its revelation of Autotracking.

CONFIGURATION

In the configuration menu you can set all the operating parameters of the camera and its movement.

Access the menu

To access the menu configuration just call from the console:
PRESET 95 system.

Typically, you must first select all the address of camera that Yes want program, then type 95 and then press CALL or PREVIEW or PRESET (see manual of the console on how to invoke a keyboard presets). Some keyboards have an OSD or MENU button to immediately open the camera's setup menu.

In the menu it is carried out by acting on the joystick and the IRIS button as indicated in the table:

	Call preset 95 to access the configuration menu
	Move the joystick up and down to select the various menu items
	Move the joystick left and right to select an option
	Press IRIS + to select an item and enter the possible submenu (such as ENTER)
	Press IRIS - to exit the menu

The programming menu is as follows

MAINMENU
<SYSTEM INFORMATION> <ADDR SETTING> <MOTION> <PATTERNS> <CAMERA> <CRUISE SETTING> <TRACKING SETTING> <DISPLAY SETUP> <IR SETTING> RESTOE FACTORY DEFAULT REBOOT SYSTEM EXIT

In the following pages to explain all the options included in this menu.

System information

The first menu item gives you all the camera information including the communication parameters selected with microswitches and autoappresi the control elements (see previous chapters).

SYSTEM INFORMATION COM	
	2400, N, 8,1
ADDRESS	1
PROTOCOL	PELCO-D
SOFTWARE VERSION V5.2 BACK	
EXIT	

address Setting

In this section we define the address of camera on the RS485 BUS.

ADDR ADDR TYPE	
SETTING	HARD
ADDR SOFT	3
ADDR HARD	1
BACK	
EXIT	

- ADDR TYPE - Defines if the camera will use the HARDWARE address set using the DIP switches on board, or the SOFTWARE address that you can customize in this window. Be careful because once changed this parameter the camera will reboot and re-enter in communication will need to type on the keyboard the new address.

- ADDR SOFT - Set the address you want to use software
- ADDR HARD - This item is one display and indicates the address set on the edge of the camera switches
- BACK - Return to main menu
- EXIT - Exits the OSD programming

Motion

In this section setting certain options concerning the automatic camera movements.

MOTION	
The <SET FRAME SCAN>	
POWER UP	PATTERN 4
PARK TIME	15S
PARK ACTION	PATTERN 4 FRAME
SCAN SPEED	16
BACK	
EXIT	

- September FRAME SCAN - It is intended as Frame Scan the horizontal rotation of the camera ago 2 points of predefined limit. To select SET SCAN POSITION for setting up the limits right is left corner of the scan.

FRAME SCAN	
SET SCAN POSITION	
CLEAR FRAME SCAN	
FRAME SCAN SPEED	1
BACK	
EXIT	

It 'important to use the IRIS OPEN button to access this feature, or by logging in with only the movement of the joystick operation may be incorrect. Co mparirà the following indication

September FRAME SCAN
LEFT LIMIT POSITION
IRIS OPEN TO CONTINUE

Position the camera to the left limit switch limit then to press IRIS OPEN to confirm. Then to repeat the same operation for the right limit. The voice CLEAR FRAME SCAN Clears the set limit. The voice FRAME SCAN SPEED sets the rotation speed (1 to 32). To start the Scan Frame call up the system presets 82.

- POWER UP - This section allows to set the camera start-up behavior which is particularly important to restore the desired condition in case of accidental lack network. Yes can to execute automatically the following Functions:

NONE	No action
63..69 BETWEEN	Preset 63..69 with Autotracking
BETWEEN CRUISE	Cruise with Autotracking
HOME BETWEEN	Preset 1 with Autotracking
CRUISE	Cruise without Autotracking
PATTERN 1..4	Start PATTERN 1,2,3 or 4
PRESET 1	Preset 1 without Autotracking
FRAME SCAN	Start scan between two switches
RANDOM SCAN	Start scan 360 ° with AUTO SCAN pauses
	Start scan 360 °

- PARK TIME - The PARK function is used to perform an automatic action after a certain time absence commands aside operator. This approach

important to prevent the camera from being inadvertently left on insignificant positions. This item must enter the time of absence necessary commands to trigger the action PARK (15 to 250 sec.)

- PARK ACTION - Here you set automatic action which the camera will perform at the end of PARK TIME just set. Are available

the same actions already described in the option POWER UP

Patterns

In this section it is possible to record sequences of customized operations (movements, zoom, etc.) that can be recalled later as desired so that the camera

The run automatically. These sequence defining PATTERNS. The camera can store up to 4 patterns.

```
PATTERNS
PATTERN NUMBER 1
CLEAR CURRENT PROGRAM
PATTERN PATTERN CLEAR ALL
PATTERN BACK EXIT
```

- PATTERN NUMBER - Choose which pattern (1,2,3,4) set
- PROGRAM PATTERN - This item allows you to record the sequence of movements. IS' important to use the IRIS OPEN button to access this feature, or by logging in with the only movement of joystick the operation may not be correct. It will see the following indication:

```
PROGRAM PATTERN MOVE THE
CAMERA TO THE
STARTING POSITION IRIS OPEN
TO CONTINUE
```

Position the camera at the start point and press IRIS OPEN to start recording. It will see the indication:

```
PATTERN STORAGE
USED <PCT> 1
```

that signals the start of registration marked by the advance of the second counter. Carry out all movements you want (max. 100), at the end of the sequence press IRIS OPEN again to save the pattern.

- CURRENT PATTERN CLEAR - Clear the selected pattern
- CLEAR ALL PATTERNS - Clears all set patterns.

Room

This section contains all the settings of the camera module which has its own independent configuration from the mechanical movement of the dome. This menu does not have an exit button so once finished programming, press IRIS CLOSE to exit.

SYSTEM

- LANGUAGE - Select which language to use in the camera menu. Available only English
- ZM DIS - Defines whether to show in superimposing the current level of zoom of the camera or not.
- LIVE ID - Unused
- BAUT RATE - Unused
- DAY & NIGHT - Controls the removal of the IR filter for passing the camera from "day mode" Color to the "night" in white / black. As a rule this option should be left to AUTO. E 'can, however, force the camera to an ever shot in color or always black / white. (Options:

AUTO / COLOR / B & W / EXT). In AUTO position, you can also set thresholds of commutation Day / Night is night / day but we should not change the factory setting

- RESET - Restores factory settings

FOCUS

- MODE - Lets you choose the option to set automatic or manual focus. In general, the speed dome will set for autofocus to adjust the lens automatically to vary the zoom. It 'also available however the manual focus which is carried out using the FOCUS +/- buttons on the console. (AUTO / MANUAL options)
- AF-MODE - There are two autofocus modes: NORMAL and ONE PUSH. We recommend using the normal option.

IMAGE

- BRIGHTNESS - Adjust image brightness
- SHARPNESS - Adjusts picture definition
- CONTRAST - Adjust contrast image
- DNR - Digital Noise Reduction. Digital Processing to reduce video noise in shots with difficult lighting conditions
- ATR - Adaptive Tone Reproduction. Digital Processing to faithfully reproduce colors when several levels of brightness coexist in the same immnagine.
- MIRROR - This function allows you to horizontally flip the image. It is generally used when the camera shoots a scene that is located behind the observer in rear view.
- HI-RES - Digital Processing to improve the definition.

- BACKLIGHT - The backlight compensation is to be activated when shooting in the same image areas with different brightness. The BLC option is used when shooting dark against a bright background. Typical application the entrance of a store or a space which has large windows outwards. The HLC option is used instead to obscure sources

bright

disorder such as in the case of night shot of the car with headlights on

EXPOSURE

- MODE - Changing the adjustment mode at the picture show. Usually you should keep the option that automatically adjusts itself the right exposure according to the shooting. For shooting situations with abnormal brightness options: MANUAL (IRIS, SHUTTER and AGC manually adjustable), SHUT.P (SHUTTER and BRIGHTNESS 'manually adjustable), P. IRIS (IRIS BRIGHTNESS' manually adjustable) are available.

WHITE BALANCE

- WHITE BALANCE - Change the white balance to better make the white color depending on the

kind of ambient lighting

(Options: ATW / INDOOR / OUTDOOR / COLOR R / PUSH / MANUAL). And 'possible to test different options to see which of these colors makes it better for the environment. If

set the option

manual will be possible to change the underlying parameters 2

that show the intensity of

RED components (R-GAIN) and BLUE (B-GAIN)

MOTION

- Although the camera module possesses the ability to

detect movement within

image this function is not used in the use of this speed dome.

PRIVACY

- In this section it is possible to set the masked areas (up to 4) in order to avoid that they are visible certain sensitive areas. It should be considered, however, that this option is rarely used in the moveable cameras as moving the camera it is possible to circumvent the masking. It is therefore advisable to use the function only if the camera only performs automatic movements to configure in a manner consistent with the privacy masks.

Cruise setting

This speed dome camera can show different presets in sequence so as to monitor one after another several sensitive points. This function is called CRUISE. With the 88,89,90,91 system presets you can start the cruise among preset 1-10, 11-20, 21- 30 and 31-40. You can also set a sequence custom cruise choosing which display between presets 1 and 20. In this section we define this cruise sequence.

- DWELL TIME - Time spent on each preset (from 5 to 250 sec.) This setting is valid even for the cruise sequences which can be activated with the preset 88..91.

- PRESET 1 ... 20 - The presets selected as OFF will be excluded from scanning CRUISE.

setting Tracking

This camera operates the autotracking function that has already been described. In this section you set some options for this feature.

- AUTOZOOM - If you leave this option set to OFF the camera does not change the existing level of zoom, but merely follow the intruder with the shift. By enabling the option (level 1 ... 16), the camera will try to zoom in on the area where the movement occurs. The value from 1 to 16 allows to limit the zoom level reached by the camera in order to avoid losing sight of the overall picture of the area monitored.

- SIZE SENS - Defines the size of the target is necessary to follow and adjust it according to the size of the subject in the frame. Attention that is not done in this case reference to the actual size of the intruder but to what it is large in proportion to viewfinder.

- GRAY SENS - Defines the autotracking detection sensitivity to be adjusted so as to avoid untimely movements

- TRACKING TIME - Sets the duration of the Autotracking. If you leave the parameter to AUTO the camera will follow the intruder in his movements until it will not come from the field of view of the camera. Otherwise it is possible to establish a maximum duration of Autotracking from 30 sec to 6 minutes. At the end Autotracking the camera will return to the basic position defined according to the manner in which it is started

Autotracking function (see previous section)

- SETTING DEFAULT - Restores factory settings

Display Setup

This section contains all the settings related to the display of the camera image screen with the ability to define the information to be superimposed.

- PRESET LABEL - The preset name appears recalled overlays for a few seconds

- ZOOM - This option is not used in the menu to

this speed dome because there

overlay Zoom is managed directly by the internal camera module. If you want the

overlay enable the zoom level in CAMERA menu (see above)

- P / T DEGREE - horizontal and vertical angle indicating the camera position.
- BRIGHT DATE - Indication of the brightness of the image screen

IR setting

In this section it is possible to setting up the illuminator built-in infrared operation.

- IR MODE- Sets the operation illuminator with 4 available modes: AUTO = automatic ignition, ON = IR always lit with automatic lighting adjustment, OFF = IR always off, ALL = IR always switched on at maximum power.
- IR ON SENSITIVITY - If the IR ignition mode is AUTO it is possible to set the sensitivity for the passage DAY / NIGHT from 81 to 254. A camera with sensitivity set to a low value will change in B / N before a camera with high sensitivity it will retain as much as possible a color vision even in low light to switch to B / W only in condition of true darkness.
- IR OFF SENSITIVITY - If the IR power mode is set to AUTO You can set the sensitivity for the passage NIGHT / DAY from 81 to 254. A camera with sensitivity set to a low value will return after a color camera with high sensitivity
- LED ON 1 - Sets the ignition threshold of the second group of illuminators (AUTO / 1 .. 20). The only active moadlità is AUTO.
- ON LED 2 - Sets the ignition threshold of the third illuminator remote spot (AUTO / 1 .. 20). The only active moadlità is AUTO.
- CURRENT LEVEL - Shows a value that rappresente the current absorbed by the variable camera according to the power of the illuminators may be turned on.

Restore factory defaults

Restore all factory settings and erases all customizations including presets, patterns etc. to except for those relating to the addresses needed to communicate with the camera.

Reboot system

Restart the camera.