SD22-SD27 SERIES

Cameras

High Speed Dome

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 it is 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 ve 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 as D- Vision.

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.
- Possibility of controlling the cameras directly from the video recording device (see D-Vision or DR digital video recorders)
- Advanced software functionality.

PRODUCT RANGE

Cameras high speed dome day / night 22x Indoor

SD-22SP
For in mounting inside ceiling

Cameras high speed dome day / night 27x Outdoor

SD-27EX
For outdoor installation in a wall or ceiling bracket

Fixing bars

SD-ST2
Bracket long wall SD-xxEX

SD-ST3
Ceiling Bracket SD-xxEX

SD-ST4
Mounting Collar of pole brackets SD-ST1 / 2

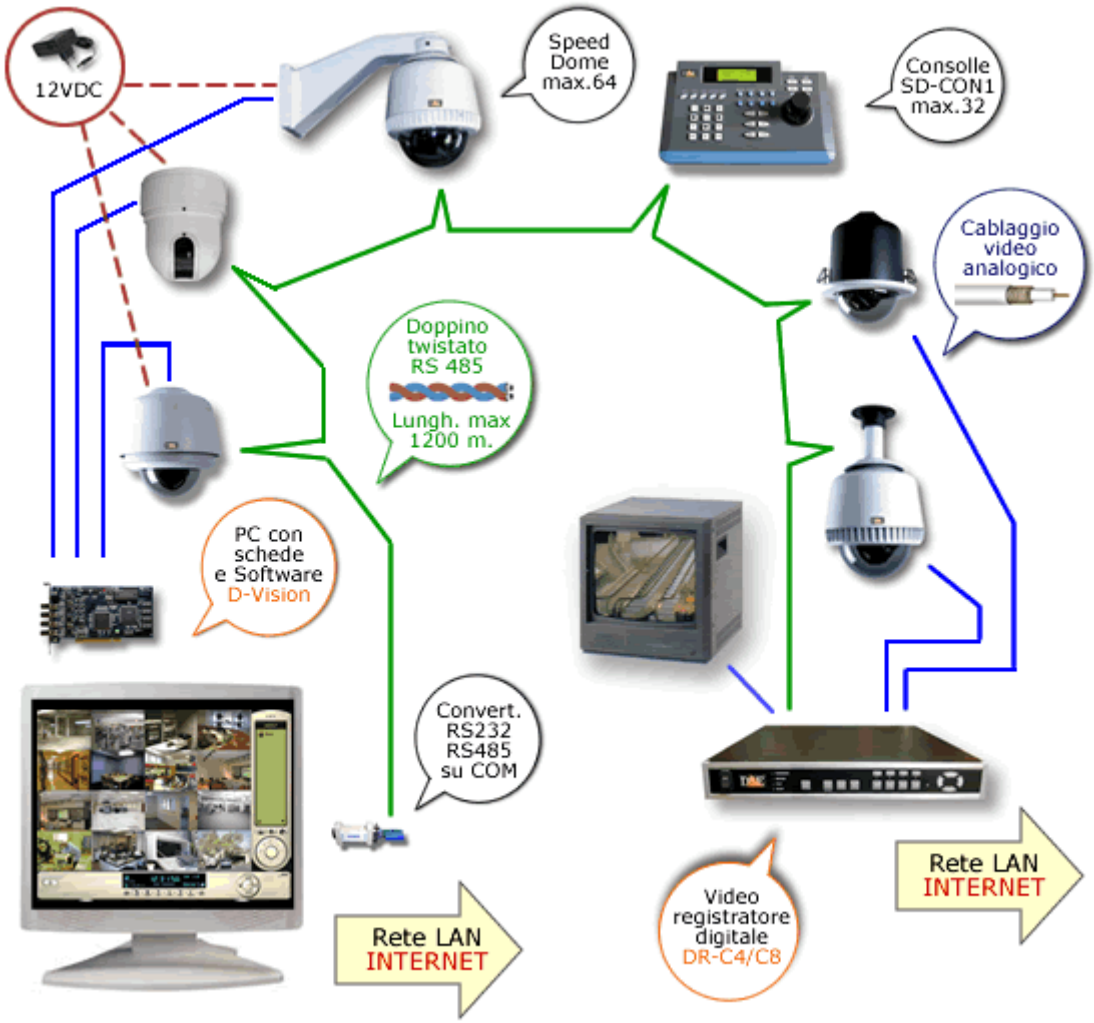
Console and accessories

SD-CON1
Control panel for SD series cameras

SD-232485
RS232 / RS485 for PC control

Example installation Cameras Speed dome

To begin to understand the potential of a system of High-Speed-Dome Series SD cameras, see below, by way of example, a rough indication on the construction of a plant. You notice the video cabling, to be achieved with the usual coaxial cable or twisted pair cable, and RS485 BUS for controlling the cameras. The RS485 BUS there are also a digital video recorder DR and a PC equipped with card and software D- Vision. Both devices allow the control of speed dome cameras SD Series cha both locally and remotely.



HIGHLIGHTS PTZ

FEATURE	SD and SD-22xx-27xx
Speed horizontal movement (PAN)	0.1 ° - 240 ° / sec.
Speed vertical movement (TILT)	0.1 ° - 120 ° / sec.
Excursion horizontal movement (PAN)	360 ° without limit switches
Excursion vertical movement (TILT)	0-90 ° (180 ° AUTOFLIP function)
Programmable Presets (PRESET)	Max. 64
Time needed to reach a Preposition	Less than 1.5 seconds
Rotation speed in achieving a Preposition	Pab 240 ° / sec. Tilt 120 ° / sec.
Focus fire Time	Less than 1.5 seconds
Accuracy in achieving a Preposition	+ / - 0.03 °
panoramic movement between two limit Preposition	Yes (SCAN function)
Automatic movement between multiple presets	Yes (Max 16 presets) - programmable speed - programmable dwell time in an autonomous way for each preset (function TOUR)
autoflip function to follow the target beyond the vertical	It is 180 °

PRINCIPAL ELECTRICAL

FEATURE	SD and SD-22xx-27xx
Supply voltage	3A 12VDC +/- 10%
Power consumption	24W (including fan / heater)
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	Terminal 4 places + 12V / 12V / RS485A / RS485B
Output Video Connections	BNC female connector

PRINCIPAL MECHANICAL

FEATURE	SD-22SP	SD-xxEX
Installation	Indoor	External
mounting	ceiling	On bracket
for Wall Mount Bracket	Not available	RE-ST1 / RE-ST2
Bracket for ceiling mounting	not required	RE-ST3
Protection Housing	IP55	IP66
Fan and Heater	-	12VDC
operating temperature	- 10 ° .. + 50 ° C	- 30 ° .. + 50 ° C
Housing material	Polycarbonate	Polycarbonate
Material of the transparent dome	Polycarbonate	Polycarbonate

MAIN CAMERA DATA

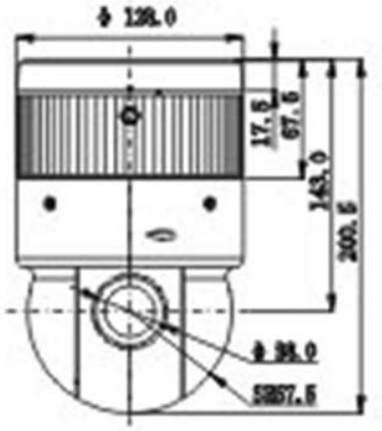
FEATURE	SD-22 xx	SD-27 xx
CCD Sensor	SONY Super HAD 1/4 "Color	SONY Super HAD 1/4 "Color
Video output signal	1V pp 75 Ohm	1V pp 75 Ohm
video Format	PAL	PAL
Function Day / Night	It is compatible with IR illuminators	It is compatible with IR illuminators
Number of Pixels	752x582 pixels	752x582 pixels
Video Signal Process	Digital DSP	Digital DSP
Resolution	480 TV Lines	480 TV Lines
Synchronization	internal	internal
Signal / noise ratio (S / N ratio)	Greater than 48 dB	Greater than 48 dB
Electronic Shutter Speed (Shutter)	1/50 ... 1 / 10,000 sec.	1/50 ... 1 / 10,000 sec.
Digital slow Diaphragm (DSS)	Yes	No
minimum Illumination	1 Lux 0.001 Lux Day / Night with DSS	1 Lux 0.1 Lux Day / Night
White Balance (AWB)	Automatic	Auto / Manual / Indoor / Outdoor
aperture	autoiris	Manual / Auto Iris
Automatic Gain Control (AGC) Yes		Manual / Automatic
Backlight Compensation (BLC)	Yes	Yes (switchable)
flickerless function for correct display of monitors and fluorescent lights	No	Yes (switchable)
Titration alphanumeric cameras	No	10 alphanumeric characters
image Adjustments	Contrast, Brightness	Color, Contrast, Brightness
Mirror Image (MIRROR)	Yes	Yes
Negative Image	No	Yes

MAIN OBJECTIVE DATA

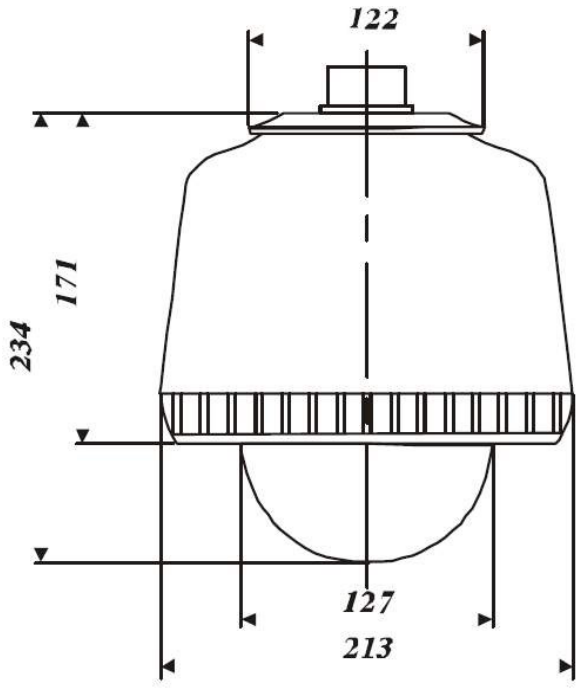
FEATURE	SD-22 xx	SD-27 xx
optical Zoom	22x	27X
digital zoom	10x (220x Total)	10x (270x Total)
focal	Min. 3.9 mm (wide angle) Max. 85.80 (tele)	Min. 3.25 mm (wide angle) Max. 88.00 (tele)
F-Stop	F1.6 ... F3,7	F1.5 F3.8 ...
Autofocus	Video AF	Video AF
Horizontal angle of view	49.55 ° (Max. Wide angle) 2.40 ° (Max. Telephoto)	57.96 ° (Max. Wide angle) 2.34 ° (Max. Telephoto)
Minimum shooting distance	10 mm. (Max. Wide angle) 1 m. (Max. Telephoto)	10 mm. (Max. Wide angle) 1 m. (Max. Telephoto)
Focus	Manual / AutoFocus	Manual / AutoFocus
Zoom Speed	fixed	Adjustable Slow / Medium / Fast

DIMENSIONS AND DIMENSIONS

Cameras

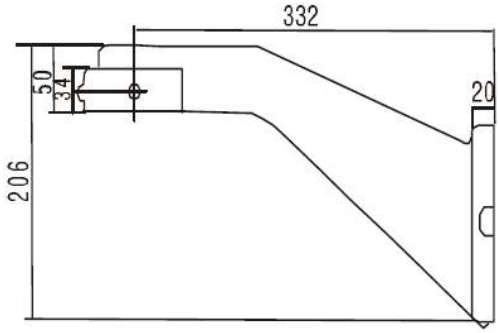


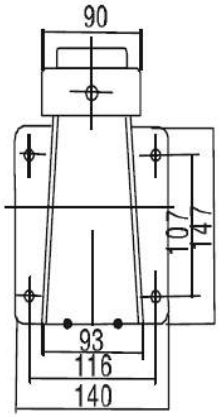
SD-Xxsp
For mounting in a ceiling internal



SD-xxEX
For outdoor installation bracket

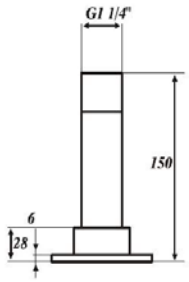
Brackets and supports

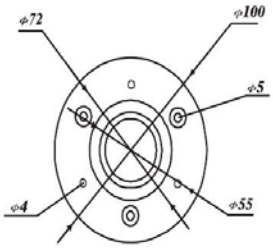




SD-ST2

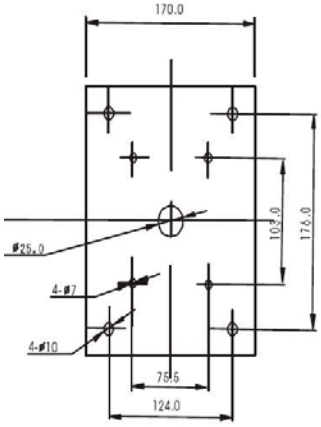
Long bracket for wall mounting

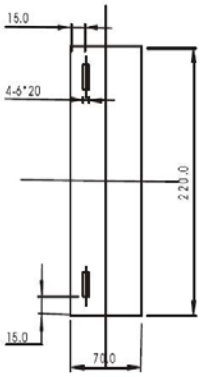


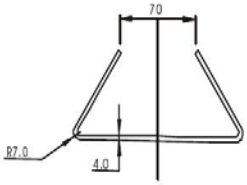


SD-ST3

Short arm for ceiling mounting







SD-ST4

Collar for mounting of the brackets on the pole

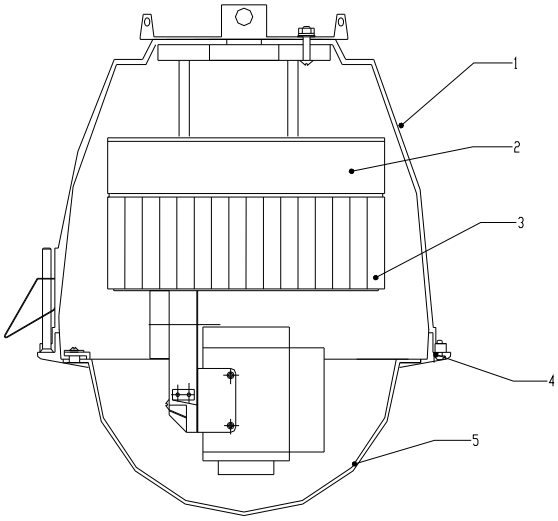
INSTALLATION OF CAMERAS

The cameras SD series 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 consists of the following:

- **camera Body** individually packed
- **external box** individually packed
- **cap** transparent
- **Manual** instruction in Italian



1. outer shell
2. Anchor base for camera body
3. camera Body
4. decorative ring
5. transparent cover

If you have purchased for mounting cameras on the bracket as SD-xxEX you also allegedly ordered:

- **bracket** wall or ceiling

For the control of the camera movements you need at least one:

- **Console** of SD-CON1 control. It 'also possible to control the movements of the Speed Dome Camera Series

SD via a PC on which is installed a D- Vision card or via a digital video recorder that has RS485 serial port and suitable protocol. In

Again you can also give up the control console. The command of the cameras via the devices of video registration It will be described detail below.

Cable connections

Each Speed Dome SD series camera has a terminal block to 4 places with the following connections:

- **Positive** + 12VDC power supply
- **Negative** 12VDC- of power positive communication **RS485A**
-
- Negative communication
- **Land** always connect to the proper functioning of electrical protection. There is also a separate cable for the video signal

- **video Output** BNC female

The cameras for SD-xxEX also require external power to the fan and the internal heater:

- Positive Negative + 12VDC air conditioning 12VDC-
-

It is understood that in order to structure a system of Speed Dome cameras must prepare 3 types of wiring:

- **Power supply 12V** DC. E 'can feed the locally camera with a 220VAC / 12VDC adapter or prepare a 12VDC network with cables with a suitable section so as to avoid excessive voltage drop. Should you connect the cameras locally you can use 12V power supplies stabilized for at least 3A as the RE-AL5 model.

- **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 (RE-BNCRJ1 / 2).

- **Telemetry.** It is of the serial connection that leads the movement commands to the camera. The SD series cameras use an RS485 serial line (RS485 BUS) which is formed 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 consoles are

connected in cascade ie entering and exiting from the clamps 2 and RS485A RS485B. IS' important not invert the two cables (AB) during the connection of the equipment.

Below you can see an example of a camera the terminal block with the right connections

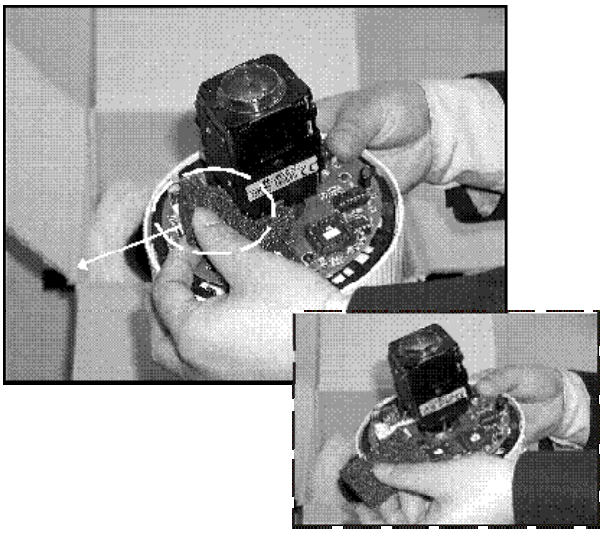
The order in which the devices are connected to BUS has not relevance. Every equipment will be identified by its own unique address, adjustable via DIP switches, which will properly address the instructions. E 'can be connected to the same BUS up to 64 cameras and 32 console. The consoles, require no addressing, while the cameras you need 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. The address setting is therefore the first operation to be performed before proceeding with assembly. The procedure is as follows:

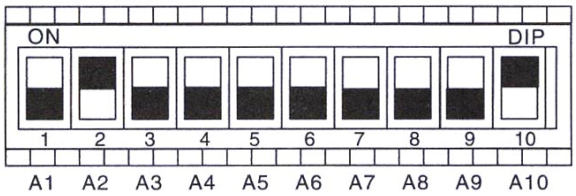
- Carefully pull the from the camera body package.

- Remove the protections placed to prevent accidental movement of the device during transport. They should also be cut any locking clamps placed ago the central mobile unit and the plastic body.



SD-27EX

On the camera card, accessible via a slot in the base, there is a block 10 of microswitches that allow set the transmission speed of the RS485 BUS and the camera address.



THE microswitches 9:10 They serve to set the BUS speed which must be common to all of the connected equipment, in accordance with the following table:

BUS speed Table

	Switch 9	Switch 10
1200B / S	OFF	OFF
2400B / S	ON	ON
4800b / S	OFF	ON
9600b / S	ON	OFF

The factory setting is: 4800.

The SD series cameras accept Protocol Pelco P and Pelco D interchangeably. You do not need to set the protocol type, as this is automatically recognized by the camera. It is not

You can operate the cameras with different protocols.

THE microswitches 1 and 8 They are used to assign the address to the camera according to the following table, and allow to obtain 255 different addresses (from 0 to 255). Every camera connected to the BUS goes assigned a different address that will be typed on the console command whenever you would like to command it.

The microswitches factory location plans
ADDRESS: 1 SPEED 'PROTOCOL: 4800

address Table

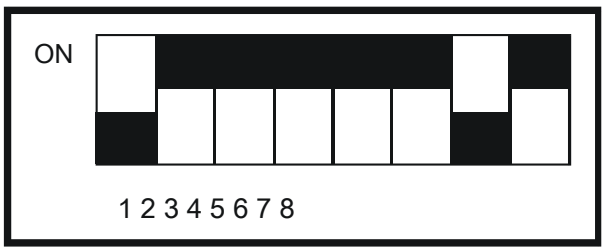
ADDRESS	SW.1	sw.2	sw.3	sw.4	sw.5	sw.6	sw.7	Sw.8
0	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
1	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF
2	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF
3	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF
4	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF
5	ON	OFF	ON	OFF	OFF	OFF	OFF	OFF
6	OFF	ON	ON	OFF	OFF	OFF	OFF	OFF
7	ON	ON	ON	OFF	OFF	OFF	OFF	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

The set address and factory: 1, which is the only one switch in the ON position.

SD-22SP

On the camera card is present a block of 8 microswitches that allow you to set the transmission speed of the RS485 BUS and the camera address.



THE microswitches 7:08 They are used to set the bus speed which must be common to all related equipment, according to the following table:

	Switch 7	Switch 8
1200B / S	OFF	OFF
2400B / S	ON	ON
4800b / S	OFF	ON
9600b / S	ON	OFF

The factory setting is: 4800.

The SD series cameras accept Protocol Pelco P and Pelco D interchangeably. You do not need to set the protocol type, as this is automatically recognized by the camera. You can not control the cameras with different protocols.

THE microswitches 1 and 6 They are used to assign the address to the camera according to the following table, and allow to obtain 64 different addresses (from 0 to 63). For each connected on the BUS camera it should be assigned a different address that will be typed on the command console whenever you would like to control it.

address Table

Address Sw.	1	Sw. 2	Sw. 3	Sw. 4	Sw. 5	Sw. 6
0	ON	ON	ON	ON	ON	ON
1	OFF	ON	ON	ON	ON	ON
2	ON	OFF	ON	ON	ON	ON
3	OFF	OFF	ON	ON	ON	ON
4	OFF	ON	ON	ON	ON	ON
5	OFF	ON	OFF	ON	ON	ON
6	ON	OFF	OFF	ON	ON	ON
7	OFF	OFF	OFF	ON	ON	ON
8	ON	ON	ON	ON	ON	OFF
9	OFF	OFF	ON	ON	ON	ON
10	ON	OFF	ON	OFF	ON	ON
11	OFF	OFF	OFF	ON	ON	ON
12	ON	ON	OFF	OFF	ON	ON
13	OFF	OFF	OFF	ON	ON	ON
14	ON	OFF	OFF	OFF	ON	ON
15	OFF	OFF	OFF	OFF	ON	ON
16	ON	ON	ON	ON	OFF	ON
17	OFF	ON	ON	ON	OFF	ON
18	ON	OFF	ON	ON	OFF	ON
19	OFF	OFF	OFF	ON	ON	ON
20	ON	ON	OFF	ON	OFF	ON
21	OFF	ON	OFF	ON	OFF	ON
22	ON	OFF	OFF	ON	OFF	ON
23	OFF	OFF	OFF	ON	OFF	ON
24	ON	ON	ON	OFF	OFF	ON
25	OFF	ON	ON	OFF	OFF	ON
26	ON	OFF	ON	OFF	OFF	ON
27	ON	OFF	OFF	OFF	OFF	ON
28	ON	ON	OFF	OFF	OFF	ON
29	OFF	ON	OFF	OFF	OFF	ON
30	ON	OFF	OFF	OFF	OFF	ON
31	OFF	OFF	OFF	OFF	OFF	ON
32	ON	ON	ON	ON	ON	OFF
33	OFF	ON	ON	ON	ON	OFF
34	ON	OFF	ON	ON	ON	OFF
35	OFF	OFF	ON	ON	ON	OFF
36	ON	ON	OFF	ON	ON	OFF
37	OFF	ON	OFF	ON	ON	OFF
38	ON	OFF	OFF	ON	ON	OFF
39	OFF	OFF	OFF	ON	ON	OFF
40	ON	ON	ON	OFF	ON	OFF
41	OFF	ON	ON	OFF	ON	OFF
42	ON	OFF	ON	OFF	ON	OFF
43	OFF	OFF	ON	OFF	ON	OFF
44	ON	OFF	ON	OFF	ON	OFF
45	OFF	ON	OFF	OFF	ON	OFF
46	ON	OFF	OFF	OFF	ON	OFF
47	OFF	OFF	OFF	OFF	OFF	ON
48	ON	ON	ON	ON	OFF	OFF
49	OFF	ON	ON	ON	OFF	OFF
50	ON	OFF	ON	ON	OFF	OFF
51	OFF	OFF	ON	ON	OFF	OFF
52	ON	ON	ON	OFF	OFF	OFF
53	OFF	ON	OFF	ON	OFF	OFF
54	ON	OFF	OFF	OFF	OFF	ON
55	OFF	OFF	OFF	OFF	OFF	ON
56	ON	ON	ON	OFF	OFF	OFF
57	OFF	ON	ON	OFF	OFF	OFF
58	ON	OFF	ON	OFF	OFF	OFF
59	ON	OFF	OFF	OFF	OFF	OFF
60	ON	ON	OFF	OFF	OFF	OFF
61	ON	OFF	OFF	OFF	OFF	OFF
62	ON	OFF	OFF	OFF	OFF	OFF
63	OFF	OFF	OFF	OFF	OFF	OFF

The set address and factory: 1, which is the only one switch in the OFF position.

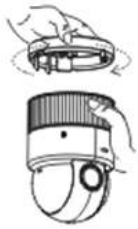
SD-Xxsp Assembly

CAUTION: shows photographs are to be considered exemplary in that the mechanical details may be different depending on the purchased product version.

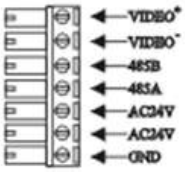
The cameras SD-Xxsp type can be installed ceiling without any additional accessory. You should do the following:

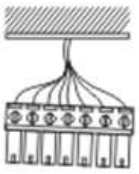
- Carefully pull the from the camera body package.
- With the use of the drilling jig to make the 3 fixing holes in the ceiling at the point where you want to install the camera.

- Separate the mounting base from the camera by pressing background the button hooking

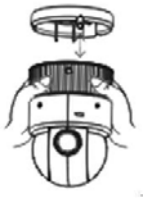


- Fix the base to the ceiling with the dowels by passing the cables Power / Video / RS485 suitably pre-drilled, through the hole central.
- Connect the cables to the terminal by following the codes of the card at the foot of the terminal. In sequence EARTH, +/- 12VDC power supply, RS485 A / B, VIDEO +/-. Once the connections are completed and can leave the removable part of the terminal connected to the cable and connect it to the camera just before attaching it.





- Connect the terminal to the camera and secure the camera to the base by turning it clockwise until it actuates the lock button.



SD-xxEX Assembly with wall bracket

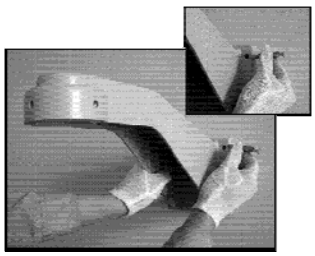
CAUTION: shows photographs are to be considered exemplary in that the mechanical details may be different depending on the purchased product version.

The cameras SD-XXEX type (for external use) can be installed on the wall with the aid of the SD-ST2 brackets.

SD-ST2

The procedure is as follows:

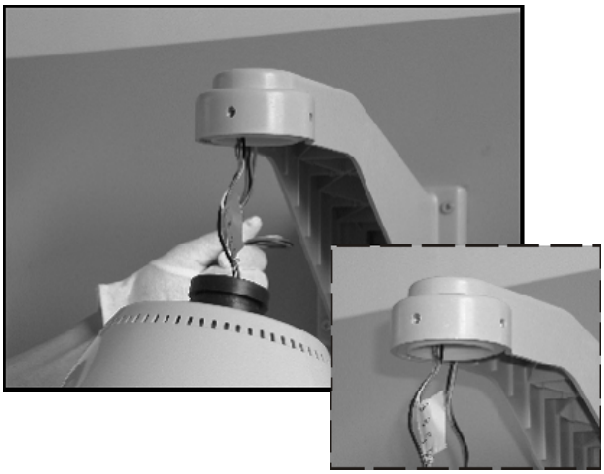
- Attach the wall bracket through dowels taking care to to pass the cables of connection to the system through there stirrup same. The SD-ST2 bracket has a removable bottom to facilitate the fixing.



- As already seen earlier, extract the camera body, remove the caps and the lens cover and set the address appropriately.

Place then the camera body in the container. It should simply push the body chamber towards the base until the clips are not fully set by anchoring the camera. The clips only serve to keep the camera in position to facilitate the final fixing with the locking screws provided. It is therefore not forget to apply the fastening screws provided to consolidate the tightening. Take care to pass the connection cables through the upper hole of the container.

- Connect the system cables through the upper hole and secure the housing to the bracket blocking the fastening screws.



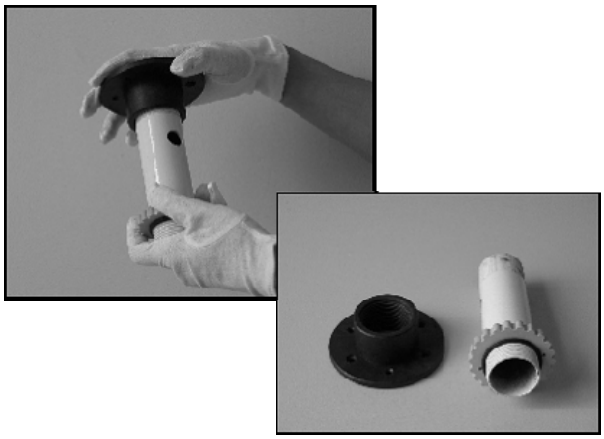
- extract there dome transparent from its and screw it to container. Yes recommended that special attention when handling the dome and the use of gloves provided to avoid annoying fingerprints due to handling.

SD-xxEX mounting with ceiling bracket

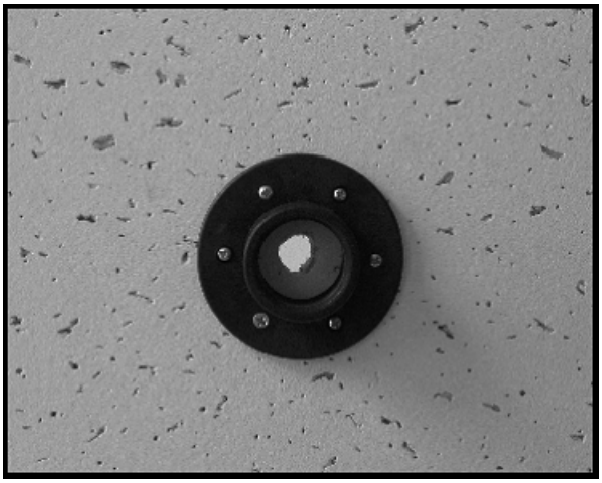
CAUTION: shows photographs are to be considered exemplary in that the mechanical details may be different depending on the purchased product version.

The SD-XXEX cameras (outdoor) can also be installed in the ceiling using the SD-ST3 bracket. You should do the following:

- Separate the fixing base from the plastic support tube of the SD-ST3 bracket.



- Fix with plugs the plastic base of the bracket in correspondence with output cables prepared.



- As already seen earlier, extract the camera body, remove the caps and the lens cover and set the address appropriately.

To insert then the camera body in the container, taking care to pass the connection cables through the upper hole of the container.

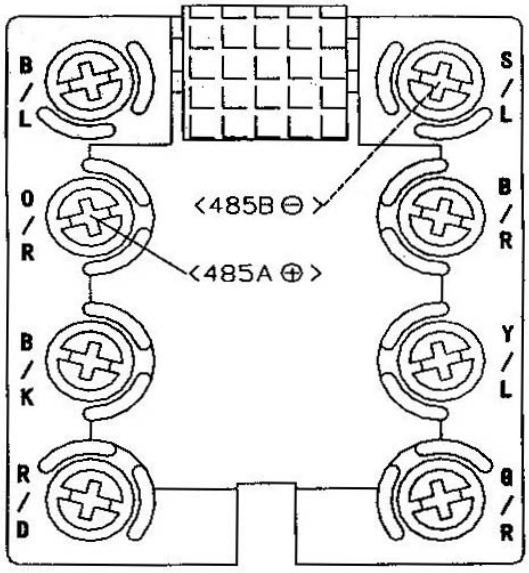
- Screw the bracket into the container by passing through the connecting cables. Then screwed the other end of the bracket in its base previously fixed to the ceiling

CAUTION. Depending on the type of container may be necessary to remove the black plastic adapter on the housing of the camera by unscrewing it vigorously in a counterclockwise direction.

INSTALLATION OF THE CONSOLE

Once installed the cameras need to install the control panel through which you can control the movements of the cameras.

The console communicates with cameras through the RS485 BUS, so it the first thing to do is to connect the console to the BUS. To do this connect the supplied cable to the RX OUT connector on the back of the console. When the connector and RX RS232 do not use. At the other end of the cable to insert the junction box provided inside of which there are 8 terminals



Use the terminals shown in Figure 2 to connect the RS485 BUS cables (A / B). You can connect to the BUS up to 32 consoles without having to route them. Once the connection is made in the food BUS the console with the 9VDC power supply provided and remove the protective film of the LCD screen.

The commands from the console

SETTING THE PARAMETERS OF THE BUS. Before you can use the console it is necessary to program the communication parameters so that they are consistent with those set on through cameras microswitches. E 'essential that all devices connected to the BUS using the same protocol and the same communication speed. To act according to the table:

Type 50 then PGM	Set protocol PELCO P
Type 44 then PGM	Set Pelco D Protocol
Enter 12 then PGM	Set Baud-Rate 1200
Type 24 then PGM	Set baud rate 2400
Type 48 then PGM	Set baud rate 4800
Type 96 then PGM	Set baud rate 9600

It is not necessary to set the camera in the Pelco P or Pelco D protocol since it is able to recognize in an automatic way. The factory-set parameters are the same camera, or Pelco D Protocol, baud rate 4800, and then, if you have not changed the position of the microswitches 7/8 of the cameras is not necessary to change them.

SELECT THE CAMERA. Now you need to select the camera address to be controlled. Type the address that you have set in the camera via the microswitches (eg. 1), then press the CAM key. The selected camera number will appear in the upper right of the LCD screen next to the entry CAM. All commands from this point forward you will work will only affect this camera.

MOVEMENT WITH JOYSTICK. If you have actually selected a camera connected to the BUS you can now comandarne the Pan / Tilt movements with the joystick. If you move the camera over the vertical (TILT 90 °), the camera will rotate 180 ° automatically to allow a correct view (AUTOFLIP)

TELE / WIDE. These buttons allow controlling the camera zoom making it more focused recovery (TELE) and wide angle (WIDE). E 'can also control zooming by turning the knob of the joystick to the right or left.

CLOSE / OPEN. These buttons are used to close / manually open the aperture (iris) of the camera. 'Possible that this command has no effect if the camera settings (see programming below) do not provide there manual iris adjustment.

NEAR / FAR. These buttons allow you to manually adjust the focus (FOCUS) of camera. 'Possible that this command has no effect if the camera settings (see programming below) do not provide there manual adjustment of focus.

The presets

A pre-positioning (also called in English PRESET) is a predefined scan position that can be stored in the camera and that can be recalled quickly from the keyboard or inserted in automatic recovery sequences.

Each camera SD Series can store up to 64 presets.

SET A PRESET. For setting up framing choose default the correct the camera position and the right angle zoom. When you are satisfied with the composition of the PRESET enter the number (1 ... 33 or 35 ... 63) and press the PRESET button. The preset position will be stored. E 'can store up to 64 different presets for each camera.

DELETE A PRESET PRESET To delete a previously set enter the PRESET number and commute hold the PRESET button for at least 2 seconds. To clear all PRESET stored in the camera, type 77 and press PRESET.

RECALLING A PRESET Once you set a preset, you can recall the framing by entering the Preset number and pressing the CALL button. The camera rotate immediately until reach the preset shot. If the PRESET called has not been previously set the camera will not move.

PRESET SYSTEM - In the program the presets you can not assign some presets that are reserved for system functions. The presets can not be used are dependent on the MENU where you choose whether to use a keyboard 64 or 128 PRESET. See table following

The SCAN function - pan scan

The panoramic scanning function (SCAN) serves to continuously perform to a horizontal panoramic camera delimited by two end positions. It is a good solution to keep under control a very large environment with a single camera.

SET THE LIMIT Before you can use the SCAN function must set the loosening as follows:

1 - Position the camera at the right limit point, then type 92 and press PRESET 2 - Position the camera in correspondence of the left limit point then type 93 and press PRESET

START SCAN To start the SCAN press the SCAN button: the button will illuminate to indicate the activation of the function and the camera will start a continuous movement between the two points. To stop the SCAN simply press the SCAN button so that the internal LED showing off. Alternatively you can start the SCAN recalling the preset 99

Note that the SCAN function only affects the horizontal panning (PAN) and does not consider the camera tilt (TILT) that will remain the same as that the camera had at the time activation of the scan. Until the SCAN function is impossible to operate the camera is active with the joystick. Why limit the SCAN function to take effect the option must be enabled in the programming menu (see below)

The TOUR function

The TOUR function (also called CRUISE) serves to fulfill continuously at a camera programmed sequence of presets. It is an excellent solution for securing specifically specific risk areas rather than just a generic recovery environment.

SETTING THE PRESETS The TOUR function provides for the continuous movement of the camera through all preset programmed from 1 to 32. Before you can use the TOUR function is therefore necessary to set the PRESET to be used in the camera, as seen previously.

SETTING THE PARAMETERS The SD series cameras allow you to store 4 different sequences of TOUR which can then activate to taste. It 'also possible to set all the parameters related to the speed of movement and the time spent on each preset. For programming, see the configuration menu in the following chapter.

Other keys

The CLEAR key is used to erase the numerical value introduced. The other keys not described in this section have no function at the moment and will be available for future implementations. The MENU button instead serves to gain access to the programming of the camera which will be described in the next chapter.

CONFIGURATION MENU

The operating parameters of the Speed-SD Series dome cameras are fully programmable.

How to access the menu

To access the configuration menu, just press the MENU button on the console or, if you **operate the camera without a PC console, act as to set PRESET 95 or 64.** Appears on the screen superimposed a programming menu as the following:

MAIN MENU
<SYSTEM INFORMATION>
<DISPLAY SETUP> <DOME SETTINGS> <RESTORE>

CONFIG KEYBOARD: 128PRE
<EXIT>

How to operate in the Menu

Use the joystick of the console to move between menu items.

Move the joystick to the right to select an item and access its settings

Move the joystick to the left to confirm and exit.

System information

By selecting the first menu item and pressing OPEN leads to a summary screen of the current settings

SYSTEM INFORMATION
CAMERA: PAL
CONFIG KEYBOARD: 128PRE SWITCH
ADDRESS: 01 ACTIVE FAST FAST
ADDRESS ADDRESS : OFF CURRENT
TOUR GROUP: ALL GROUPING TOUR
TOUR DWELL TIME RESTORE <BACK>
<EXIT>

ROOM - The top line indicates the camera's video format, PAL rule. To be paid in basde to the connected camera (PAL or NTSC)

CONFIG KEYBOARD - Here you can set how many presets can handle the control device (64 or 128 - default 128). This parameter affects such presets are reserved for system functions and are not available for the user's use. Here is the list of private functions:

KEYBOARD 128 PRESET (default)

Preset	Function
1..33 and 35..63	user Positions
34	software reset
64 and 95	Access PROGRAMMING menu.
76	Start TOUR
92 and 93	Set the limit of SCAN
76	Start TOUR
96	Stop the TOUR and SCAN
99	Starting SCAN
Other presets	not used

KEYBOARD 64 PRESET

Preset	Function
1..33 and 35..63	user Positions
34	software reset
64	Access PROGRAMMING menu.
61	Start TOUR
62 and 63	Set the limit of SCAN
59	Stop the TOUR and SCAN
60	Starting SCAN
Other presets	not used

It 'also available OTHER option to use keyboard with over 128 PRESET

SWITCH ADDRESS - E ' indicated that the address through the microswitches it has been set in the camera.

FAST ADDRESS - E 'can set up a software defined address "FAST" which overrides the setting of the microswitches. If you wish to leave the address programming the microswitches to the camera board set FAST OFF.

CURRENT TOUR GROUP. We have seen in previously that it is possible to make sure that the camera performs a TOUR between the first 32 set preset positions. The SD series cameras but also allow set 4 different selectable sequences. With the voice CURRENT TOUR GROUP choosing which tour sequence set (1,2,3,4). Select ALL if you want to exclude

Group function and leave the Tour TOUR of all presets 1-16.

TOUR GROUPING - Here are defined as preset are part of the 4 tour groups, setting a sign of check mark next to prepositioning desired.

TOUR DWELL TIME - For each preset you can set the dwell time in seconds during the TOUR function.

RESTORE - Allows you to delete all the PRESET set in the camera (CLEAR ALL PRESET) or restore all settings to factory settings (RESTORE DEFAULTS)

Display setup

By selecting Display Setup to access the programming menu of the monitor display

DISPLAY SETUP
PRESET OR LIVE ID: Off Set
NORTH: OFF PAN / TILT
ANGLE: OFF <BACK> <EXIT>

PRESET OR LIVE ID - Allows you to choose whether to display the camera name and the preset superimposed (ON / OFF)

September NORTH - The SD series cameras allow to report the PAN and TILT rotation to a reference point that is called NORTH. Place the camera in the selected reference point and then set this option to ON. The angle parameters will start by considering this point as 0 °

PAN / TILT ANGLE - sets whether or not the position in degrees of the camera and the point NORTH superimposed (ON / OFF)

Dome settings

In this section there are the settings of the speed dome camera

DOME SETUP
<CAMERA>
<PAN / TILT SETUP>
<PRESET OR CAMERA LABEL : ON / OFF> <BACK>
<EXIT>

ROOM. By choosing this item you access the camera programming. This section is described thoroughly in chapters following is It differs depending on whether you purchased a SD-22 and SD-27 camera. See the following chapters for details.

PAN / TILT SETUP. Selecting this item accesses of movement of camera adjustment parameters.

PAN / TILT SETUP ACTIVITY ON / OFF
IDLE JOINING: NONE IDLE TIME: 240s
AUTO FLIP: ON PROPORTION PAN /
TILT: ON SCAN SPEED: 12 DEG / S
LIMIT STOPS: OFF MAX STICK SPEED:
240DEG / S TOUR SPEED: 240DEG / S
<BACK> <EXIT>

ACTIVITY . This option influence the behavior of the camera during the SCAN TOUR or functions. If the function is set to ON and during the SCAN / TOUR replaced by a manual command that stops it, the camera automatically resumes the SCAN / TOUR after 1 minute of inactivity of hand controls, so as to restore the movement existing automatic. Selecting the option to OFF, the function is disabled.

JOINING IDLE - Allows you to make sure that in case of absence of commands for a certain period, the camera resumes a precise function. E 'can set a fixed preset or one or SCAN TOUR function. In the following entry IDLE TIME you set the number of seconds of absence commands you invoke the function set.

AUTOFLIP. It allows to enable and disable the autoflip namely, the function that allows the camera to follow a movement in addition to its vertical by 90 ° by rotating on its axis automatically.

PROPORTION PAN / TILT allows to enable and disable the function that makes the proportional displacement of the zoom speed. This function should be kept active as a rule because it reduces the speed of movement if the recovery is at a distance (zoom) avoiding the consequent pointing imprecision at an excessive speed.

SCAN SPEED Allows you to adjust the speed of movement during the SCAN function in degrees / sec.
1 ... 40 ° / sec.

LIMIT STOPS Allows to enable / disable the limit switches of the SCAN OVERVIEW function (see above)

MAX SPEED STICK Adjusts the sensitivity of the joystick 4 to 240 ° / sec. The function is inactive if you are using the PROPORTIONAL PAN / TILT.

TOUR SPEED Allows you to set the speed of camera during the displacements in the TOUR function (from 5 to 240 ° / sec)

Preset / Camera Label

In this section you can give a name max. 16 alphanumeric characters to both the camera to the programmed presets.

PRESET OR CAMERA PRESET
LABEL NO LABEL OR CAM.ID:128:
<BACK> <EXIT>

These descriptions appear in overlay if it is selected to be displayed in the DISPLAY SETUP

PRESET NO OR LIVE ID. The first item allows you to select the preset number you intend to appoint 1 to 128. By selecting CAM stands for the number 0, on the other hand will give the name of the camera.

EDIT LABEL. Select the item and act with the joystick to change the name

Pattern

In this section it is possible to record the sequences of operations that will then be possible to invoke and run automatically.

PATTERN No:
1
<RECORD>
<RUN>
<BACK>

E 'you can record 4 programmable sequences

NO - The first item allows you to choose the PATTERN number to be registered or 1,2,3

RECORD - Select to record the sequence of commands. Once your registration call preset 1 (1 + CALL) to begin recording and the timer will start. Perform the movement and zoom as you want. At the end again recall the preset 1 (1 + CALL) to stop the recording of the sequence.

RUN - Here you can select the sequence (PATTERN) 1,2,3 or 4 and start it in such a way that it is automatically performed.

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CONFIGURATION SD-22 CAMERAS

The SD-22xx speed-dome cameras are high-performance cameras, delivering high quality video results and have numerous programmable options.

Main characteristics

- **HIGH RESOLUTION** - 480 TVL. Sony CCD SuperHAD
- **OPTICAL ZOOM 22x -** Zoom with a focal up to 85.8 mm allows to obtain optical 22x magnification far superior to the current industry standards (18x)
- **DIGITAL ZOOM 10x -** It allows you to multiply the optical magnification reaching a total zoom of x220.
- **DAY / NIGHT FUNCTION (DAY & NIGHT) -** Below minimum illumination to enable effective color camera (1 Lux) the camera provides video in white / black able to see at a lower brightness and accept infrared illumination
- **FUNCTION DSS (DIGITAL SLOW SHUTTER) -** This function allows for exceptional performance in low light conditions. By reducing the speed of the electronic iris it is possible to shoot up to

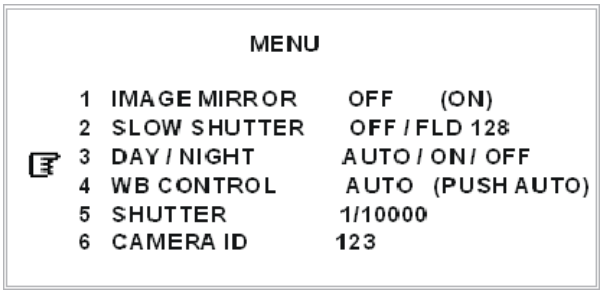
0.001 Lux.

Accessing Setup

To access the Camera programming options must:

Press the MENU button on the console or select the preset 64 or 95.

Select and press IRIS OPEN DOME SETTING Select CAMERA and press IRIS OPEN will appear superimposed on the screen of the camera setup menu that consists of two pages of options:



- To move through the options Press WIDE / TELE. To select an item, press FAR so the parameter start flashing
- When the parameter is flashing you can change it by pressing WIDE / TELE
- For confirm the chosen value and be able to again moving down the MENU: press NEAR.

To exit the programming, press MENU or call the PRESET 64 or 95.

Configuration Options

- **MIRROR IMAGE (** ON / OFF) - This option allows you to flip the image 180 degrees as if seen in a mirror. To enable it to put the option to ON. Depending on the version of firmware instead MIRROR option may be present the BACKLIGHT function to activate or deactivate the backlight compensation BLC.
- **SLOW SHUTTER** - (OFF / 2, 4, 8, 12, 16, 24, 32, 64, 128 fields) This option allows to insert the DSS (Digital Slow Shutter) to optimize vision in low light conditions. The DSS technology allows to slow down the reading of the CCD of the camera, ie the shutter speed, thereby increasing the sensitivity of the camera is dark. There are several settings that represent the number of Fields of integration. The higher the slower Fields value will be the shutter speed and therefore the greater the sensitivity of the camera is dark. SETTING

	SPEED 'SHUTTER
OFF (OFF DSS)	Min. 20 msec. (1/50 sec.)
2 integration Fields	40 msec ..
4 Integration Fields	80 msec.
8 Fields of integration	160 msec.
12 Integration Fields	240 msec.
16 Integration Fields	320 msec.
24 Fields of integration	480 msec.
32 Integration Fields	640 msec.

64 Integration Fields	1.28 sec.
128 integration Fields	2.56 sec.

- **DAY / NIGHT** - Color cameras are for them inefficient nature in low light conditions, where the cameras in White / black provide much more qualitative images. In addition, Black / white cameras accept infrared illumination, which is not supported by the color cameras. The function Day and Night (Day / Night) enables color camera

turn in white / black to fall darkness, providing better images and accepting the presence of IR illuminators. With this option you can set the Day & Night function in three ways:

  - **CAR -** The Day / Night function is activated automatically according to the brightness
  - **ON -** The Day / Night function is always active
  - **OFF -** The Day / Night function is excluded

- **WB CONTROL** - Is the balance of White AWB is essential to allow the faithful color reproduction camera. The SD-22xx camera only handles the automatic white control, so this option should be left to AUTO (the PUSH option is not used).

- **SHUTTER** - The SD-22xx camera provides for the automatic management of the diaphragm (SHUTTER).
- **CAMERA ID** - Not used
- **ZOOM START** - The camera has SD-22xx 22x optical zoom and a 10x digital zoom allowing a total of 220x. This step allows programming set on which enlargement is to start the zoom range. Typically this parameter is left to default, ie x1. E 'but a different value can be set to 220x

- **ZOOM END -** Similarly to the parameter Previous Here you can limit the maximum zoom magnification. Typically this parameter is left on the 220x factory setting, but you can limit it

- **BRIGHTNESS** - E 'can adjust the brightness image (from 0 to 48)
- **SHARPNESS -** E 'can adjust the contrast of the image (0 to 15)

- **FOCUS -** The focus can be done in three ways:
  - AUTO - Auto Focus
  - PUSH - Manual focus by pressing the NEAR / FAR buttons

- **INIT September** - Setting this option to ON It allows to reset all the parameters to the values of factory.

CONFIGURATION SD-27 CAMERAS

The SD-27xx speed-dome cameras are high-performance cameras, delivering high quality video results and advanced programmable features.

Main characteristics

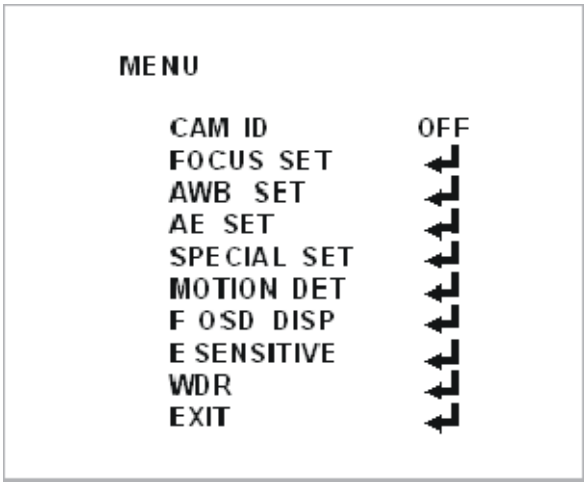
- **HIGH RESOLUTION** - 480 TVL. Sony CCD SuperHAD
- **OPTICAL ZOOM 27x** - Zoom with a focal allows up to 88 mm get 27x magnification, performance at the vertices of the current industry standards
- **DIGITAL ZOOM 10x** - It allows you to multiply the optical magnification reaching a total zoom of x270.
- **DAY / NIGHT FUNCTION (DAY & NIGHT)** - Below minimum illumination to enable effective color camera (1 Lux) the camera provides video in white / black able to see at a lower brightness and accept infrared illumination
- **FUNCTION FLICKERLESS** - This special feature allows you to resume monitors and lights fluorescent without oscillation.

Accessing Setup

To access the Camera programming options must:

Press the MENU button on the console or select the preset 64 or 95.

Select and press IRIS OPEN DOME SETTING Select CAMERA and press IRIS OPEN will appear superimposed on the screen of the camera setup menu



- To move through the options Press WIDE / TELE. To edit an entry press NEAR
- / FAR

To exit the programming, press MENU.

Configuration Options

- **CAMERA ID** - Not used
- **FOCUS September** - You go to a sub menu

It contains all the options for controlling the fire and put the zoom. E 'consists of the following items: -

FOCUS MODE - The focus mode can be programmed as AUTO (autofocus), MANUAL (manual focus with NEAR / FAR or PUSH AUTO keys (Autofocus but manual pressure to the NEAR / FAR keys)

- FOCUS DIST - E 'the minimum distance of adjustable focus from 1 cm. 5 meters
- **ZOOM START** - The SD-27xx camera has an optical zoom 27x and a 10x digital zoom allowing a total of 270x.

This programming step
You can set on which enlargement is to start the zoom range. Typically this parameter is left to default, ie x1. E 'but a different value can be set to 270x

- **ZOOM END** - Similarly to the previous parameter, here it is possible to limit the maximum zoom magnification. Typically this parameter is left on the 270x factory setting, but you can limit it

- **ZOOM SPEED** - E 'the zoom speed, adjustable SLOW (slow), MIDDLE (medium) or QUICK (fast)

- **ZTRK MODE** - If the FOCUS MODE is automatic, the ZOOM TRACKING mode is automatic only. If the FOCUS MODE is manual, you can also choose the ZOOM TRACKING manual, ie make sure that the focus does not follow that change the zoom automatically.

- **INIT September** - Setting this option to ON allows you to reset all parameters to the factory defaults.

- **AWB September** You go to a sub-menu containing all of the essential White balance Automatic options for proper fidelity in color reproduction. The menu includes the following items:

- **WBC MODE** - Here you can choose there the White Balance mode you prefer. AUTO (Automatic), INDOOR (For

internal), OUTDOOR (For external), MANUAL (Manual Adjustment), SPECIAL (Adjustment of setting custom base and then operation automatic to the to vary image) and PUSH AUTO (Automatic adjustment on specific image framed).

- **RED ADJUST -** Adjusting the red tones. This adjustment is available in various ways, or is not available, depending on the mode set WBC (WBC View Mode).

- **BLUE ADJUST -** Adjusting blue tones. This adjustment is available in various ways, or is not available, depending on the mode set WBC (WBC View Mode).

- **PUSH AUTO - ??? ??**
- **INIT September** - Setting this option to ON allows you to reset all parameters to the factory defaults.

AE Set - You go to a sub-menu containing all the image control options. The menu includes the following items:

- **AE MODE** - This mode can be set control image you prefer choosing from the following options: AUTO (auto iris and auto gain control) IRIS MAN (manual iris and auto gain control) MAN AGC (Auto Iris and Manual Gain Control) MANUAL (manual and manual gain control diaphragm)

- **IRIS ADJUST -** If it is set in the first item AE MODE a mode that manual adjustment of the diaphragm, here you can set its value.

- **AGC ADJUST -** If it is set in the first item AE MODE a mode that manual adjustment of the Control of Gain, here you can set its value.
- **BRIGHTNESS** - E 'can adjust the brightness of the image

- **BACKLIGHT** - E 'can be enabled (ON), disable (OFF) or set automatically the BLC, which is the backlight compensation to be used when shooting a dark subject against bright background. The BLC is not available in MANUAL control mode. By setting there AUTO BLC activates the voice automaticament and if one of the areas 1,2,3 or 4 presents a strong brightness compared to the 0 central.

- **BLC LEVEL** - Rule the level of backlight compensation

- **FLICKERLESS -** You can enable the function flickerless that allows to resume chiaramenti screens, monitors is lights fluorescent.
- **SHUTTER -** Here you can impose a certain period of the electronic shutter speed value (SHUTTER) of the camera or leave the automatic NORMAL setting.

- **INIT September** - Setting this option to ON allows you to reset all parameters to the factory defaults.

Special Set - It leads to a submenu that contains several additional options. The menu is

It comprises the following items:

- **USER TITLE** - E 'can give a name to the camera so that it is exposed over video image. It must position the NEAR / FAR buttons on the box and set the letter with TELE / WIDE
- **SHARPNESS -** And 'possible to adjust the image contrast
- **MIRROR (** ON / OFF) - This option allows you to flip the image 180 degrees as if seen in a mirror. To enable it to put the option to ON.

- **COLOR (** ON / OFF) - This option allows you to switch between color vision in white / black

- **WIDE BURST -** E 'can enable and disable the function WIDE BURST useful in the recovery of very distant objects. If the object is far away colors are badly perceived by the camera and generally impoverished. The Wide Burst function amplifies the color signal allowing a good yield of colors also on very distant objects.

- **INIT September** - Setting this option to ON allows you to reset all parameters to the factory defaults.

MOTION DET - The SD-27xx cameras prepared for the detection of the movement, but this function is not activated at the time.

F OSD DISP - Here you can access a sub menu where you can set which parameters you wish to report over video in the image. I'm available the following information: FUNCTION (Active function), MOTION DET (motion detection), CAMERA ID (not used), ZOOM (MAG magnification Zoom) USER TITLE (first name camera), INITIAL TITLE (Written STAND-BY when power of the camera)

PC CONTROL

The speed-dome cameras and SD SD-22xx-27xx can also be controlled directly from PC Spread across the D-Vision software, or any other application capable of sending the correct commands in Pelco P and Pelco D Protocol

Above is the main screen of D Vision, powerful solution for digital video recording which uses capture cards designed to benefit (DV-XP4 and DV-XP8 + TV).

On the right you can see the control panel to the Speed Dome cameras.

PC Controls

The D-Vision software enables control of the following functions from PC.

- **SELECTION CAMERA -** In the D-Vision and settings can be set for each camera the communication protocol and address. Before working on the control panel you must select the camera on which to act.

- **SHIFT** - clicking on remote control to move the camera in all directions

- **IRIS, FOCUS, ZOOM** - It's possible act on the lens aperture parameters, fire is focus simply by clicking the mouse. For some parameters, the change can not be allowed depending on the settings of the camera.

- **PRESET -** E 'you can be set directly the presets favorite, without acting on the console

Control of the cameras, and recall them easily with a click.

- **CRUISE -** Once programmed presets is possible to program the cruise function that consists of a predetermined sequence of movements that the camera will execute automatically. E 'can set the sequence in the holding time of each position.

- **AUTO PAN -** This function allows the selection of two preset (see above) and make sure that the camera moves constantly between these two preset in a horizontal manner, for example to control a wide open area.

NOTE: You can not access the PC through internal programming menu of the cameras, for which it will be increasingly essential to an SD-CON1 console. The console may also possibly be connected only to carry out such an approach and then be removed.

Connection to the PC

The SD series Speed Dome cameras are controlled via a RS485 BUS. The speed of the protocol can be selected between 1200/2400/4800/9600 and the protocol can be selected from Pelco D and Pelco P. The PC it is installed on D-Vision (or other video surveillance software)

hardly

It will have a RS485 port to be connected directly to the cameras. More

You will probably have one or two COM ports RS232 as that on the right. The Speed Dome cameras do not use the RS232 standard because it would allow an extension of the cable of a few tens of meters., while the RS485 standard allows to extend the BUS up to 1200 m. .

For this it is necessary to use the SD-232/485 converter that allows to obtain from an RS232 port, an RS485 BUS. The twisted pair of

BUS is connected to terminals A and B. E 'necessary to pay attention so that the connection A / B is maintained that on each of the BUS component and do not connect any camera upside down as this would jeopardize the proper functioning of the system.

Software Settings

To program the D-Vision software (or other software) so that it recognizes the cameras, refer to the product manual.