SERIES SD-A27IR

Camera

High Speed Dome with IR illuminator

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 with 3D joystick for control movement and zoom

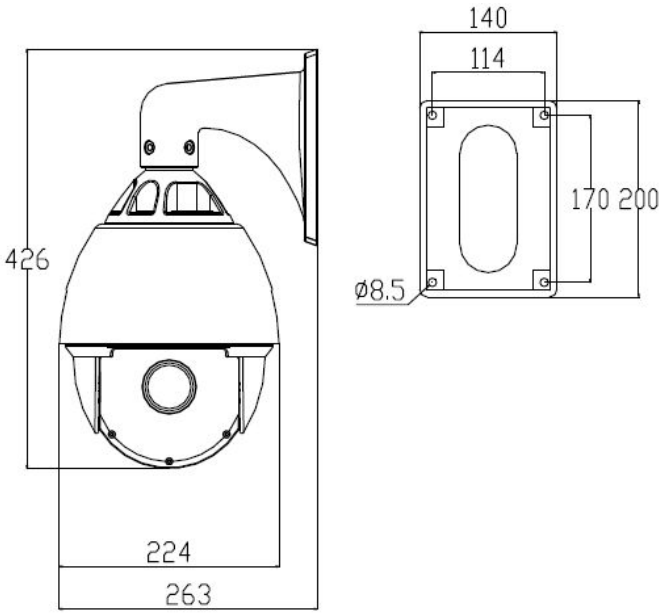
SD-CON3
Control Console for SD series cameras with 2D joystick control movements

SD-232485
RS232 / RS485 for PC control

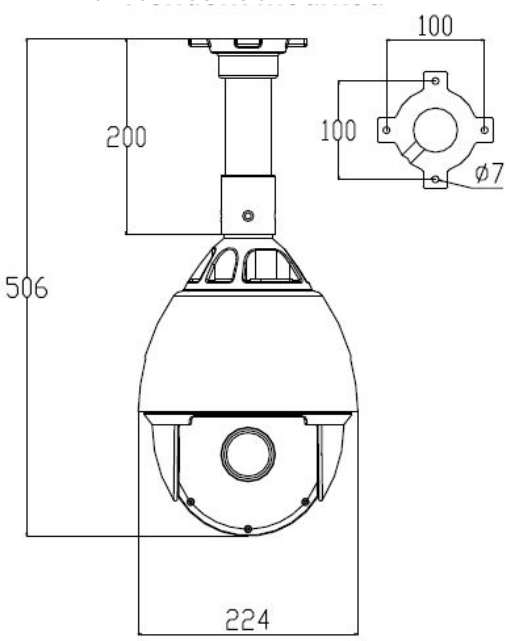
DIMENSIONS

The camera is provided without the support bracket. E 'must be ordered separately bracket depending on the type of installation planned:

WITH WALL BRACKET SD-AST2



WITH BRACKET CEILING SD-AST3



HIGHLIGHTS PTZ

FEATURE	SD-A27IR
Movement speed in manual control	PAN: Min. 0.05 ° - Max. 240 ° / sec. TILT: Min. 0.03 ° - Max. 160 ° / sec. Automatic adjustment according to the zoom
Speed in automatic control movement (PRESET)	PAN: 200 ° / sec. TILT: 160 ° / sec.
Excursion horizontal movement (PAN)	360 ° without limit switches
Excursion vertical movement (TILT)	0-90 ° (180 ° AUTOFLIP function)
Programmable Presets (PRESET)	Max. 255 including 51 reserved pe system functionality and 204 to the user
panoramic movement between two limit Preposition	Yes - 20 sequences - (SCAN function)
Automatic movement between multiple presets	Yes - 9 max 16 presets sequences - Programmable Speed - Time stay programmable independently for each preset - (TOUR 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-A27IR
Supply voltage	4A 24VAC or 12VDC 3A +/- 10% +/- 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-A27IR
Installation	External
mounting	On wall bracket
for Wall Mount Bracket	SD-AST2
Bracket for ceiling mounting	SD-AST3
Protection Housing	IP66
Operating Humidity	10% 90%

operating temperature	- 30 ° .. + 53 ° C
Housing material	Aluminum
Material of the transparent dome	Polycarbonate
Weight	2.5 Kg.

MAIN CAMERA DATA

FEATURE	SD-A27IR
CCD Sensor	SONY Super HAD 1/4 "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	752x582 pixels
Video Signal Process	Digital DSP
Resolution	540 TV Lines
Synchronization	internal
Signal / noise ratio (S / N ratio)	Greater than 60 dB
Electronic Shutter Speed (Shutter)	1/50 ... 1 / 10,000 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	autoiris
Automatic Gain Control (AGC)	Yes
Backlight Compensation (BLC)	Yes
image Adjustments	Brightness
Mirror Image (MIRROR)	Yes

MAIN OBJECTIVE DATA

FEATURE	SD-A27IR
optical Zoom	27X
focal	Min. 3.2 mm (wide angle) Max. 86.40 (tele)
F-Stop	F1.8 F2.9 ...
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

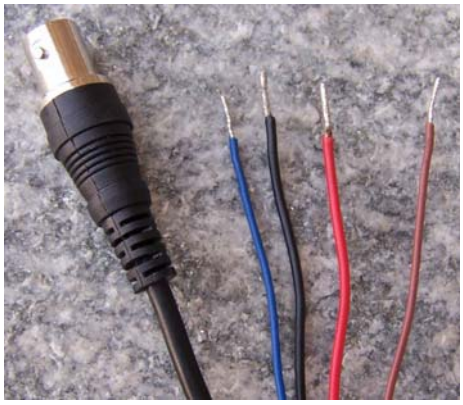
Each camera Speed Dome SD-A series has a cable fitted with the following connections:

VERSION 24V AC

- **2 cables** Power RED BLACK
- **video Output** BNC female
- **2 Cables** BUS **RS485** BLUE BROWN

VERSION 12V DC

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



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

- **Supply.** The SD-A27IR cameras come in two versions: with 12VDC power supply with supply 24VAC (the latter with power supply included). The power supply is 24VAC advisable if the wiring is long in order to avoid voltage drops in view of the absorption of the camera.

The 24VAC version is supplied complete with 220VAC / 24VAC.

In the case of 12VDC power supply is possible to feed the camera locally with an adapter 220VAC / 12VDC 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 (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 the console must be 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.

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.

The cables to be used for the RS485 line are the BROWN (RS485A) and BLUE (RS485B)

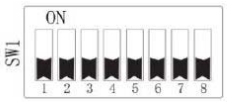
Setting address and baud rate of the cameras

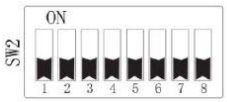
Each camera must have an address different from the other in order to be identified along the BUS. It must also be able to communicate with other devices using the same protocol and the same transmission rate (or baud rate). These three parameters: Address, Protocol and Baud rate is set via DIP switches on board room and critical to the operation.

The SD-A27IR also feature an automatic protocol recognition and baud rate cameras.

The factory setting is:
PROTOCOL: IDENTIFICATION AUTOMATIC BAUD RATE: AUTOMATIC IDENTIFICATION ADDRESS: 1

The proper setting of the microswitches is the first operation to be performed even before proceed to assembly.
The camera housing 2 is provided with windows through which You are accessed in blocks of 2 microswitches. The windows are also accessible to camera mounted to allow changes without having to disassemble.





The first of eight microswitch on the left block is used to set communication protocol and transmission speed. Only the first 5 DIP switches are used.

The second block is used to set the address.

GROUP MICROSWITCH SW1 LEFT

The first group of switches allows you to set the protocol and baud rate.

No.	1	2	3	4	5	
Protocol	OFF	OFF	OFF			Pelco D or self-identification
	OFF	OFF	ON			TA01
	ON	OFF	OFF			Pelco-P
	ON	OFF	ON			Dahua / GA
	ON	ON	OFF			HIK
Baud rate (BPS)				OFF	OFF	1200 or auto identification
				ON	OFF	2400
				OFF	ON	4800
				OR	NOT	9600

To communicate with the DSE devices you set the Pelco-D protocol.

GROUP MICROSWITCHES SW2 RIGHT

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

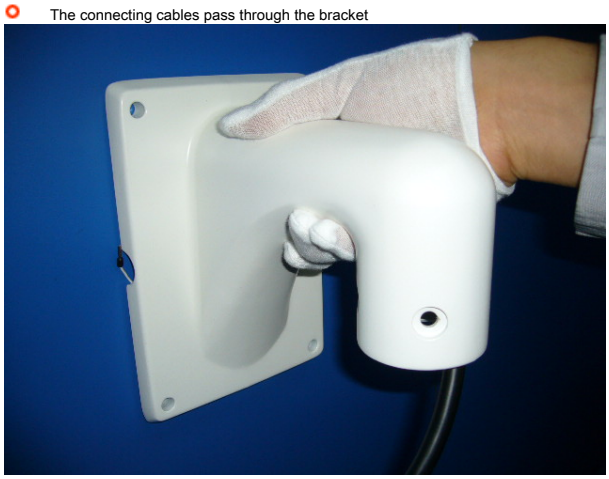
mechanical assembly

The speed dome cameras SD-A can be installed for exterior wall and ceiling with the aid of SD-AST2 / 3 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.

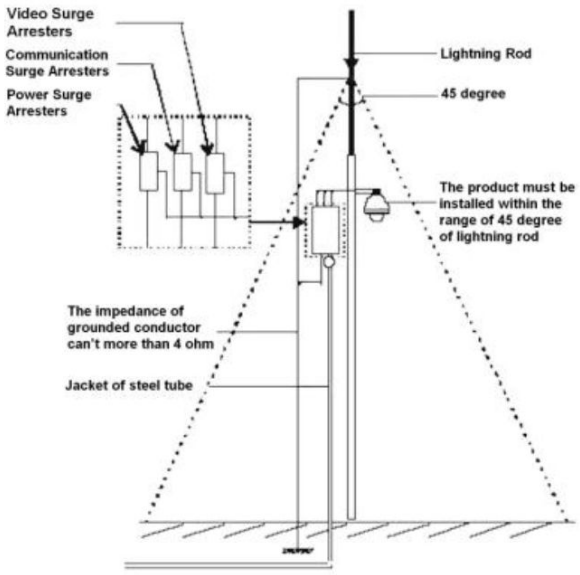
Surge protection

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 the address set on the camera by the microswitches. 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 not in the choir 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 27x 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 The camera stores the preset. To confirm the correctness of the transaction appears on-screen overlay the inscription: SET: 001 if you set eg the preset 1. If confirmation does not appear, check that you have correctly used the button on the keyboard with preset function and setting not entering the number of a Preset system with unique functions (see below)

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, generally 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.

This camera allows the user to use as desired presets from 1 to 48 and from 100 to 255 while they are reserved for system functions the presets 49-99.

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.

Note that some system presets provide for the recall of two presets in sequence. They are marked with
the asterisk (*) and explained in detail in the next description. The second preset must be called within a maximum time of 15 seconds. For example to set the residence time in seconds d PATROL press 1: 51 + SET
+ 3 + CALL.
Some system presets particularly critical features are not active without first enabled mode
USERS with the preset 72. This in order to prevent accidental activations of inexperienced personnel. These presets are indicated in the table with an asterisk (§).

PRESET	FEATURE ON RECALL PRESET (CALL)	FEATURE ON SET PRESET (SET)	FURTHER INFORMATION
49	Operation of the IR LEDs (*)		Call preset 49 and then the desired preset chosen in the IR table below
50	Start PATTERN 1	Set PATTERN 1	A PATTERN is a sequence of movements prestored callable at any time. With "set PATTERN" (SET preset 50) enters the configuration program of PATTERN 1. Perform the sequence of movements that you want to store and press IRIS OPEN to finish. Recalling the preset 50 starts the stored sequence.
51	Start PATROL 1 (SCAN 1)	Set time permanence PATROL 1 (*)	As PATROL means the sequential display of more preset with a certain residence time on each one. Richiamanado the Preset system 51 starts the patrol 1 among the presets from 1 to 16. By setting the same preset 51 instead defines the time spent on each preset. For scegeliere time call within 15 seconds, the preset that corresponds to the desired time in the TIMES table that follows.
52	Start PATROL 2 (2 SCAN)	Set time permanence PATROL 2 (*)	As above for PATROL 2 among the preset 17 to 32
53	Start PATROL 3 (SCAN 3)	Set time permanence PATROL 3 (*)	As above for PATROL 3 among the preset 33 to 48
61	Disable text overlay	Enable text overlay	The text overlay in the image that can be enabled or less includes: the angle data and direction, the zoom level and the preset number recalled
62	Disable reduction at high zoom speed	Enables reduction to strong zoom speed	This function is the one that automatically reduces the speed of the tilting movement in proportion to the level of

			Camera Zoom
63	Start horizontal scan	Enable / Disable autoflip	Scan = horizontal continuous pan rotation Movement (PAN) Autoflip = automatic camera rotation once exceeded 90 ° TILT
65	Auto Horizontal Scan (*)		This preset allows you to quickly launch a horizontal panoramic being able to determine the speed and direction of rotation. After retrieving the preset 65 call within 15 seconds to a preset choice between: • 1 ... 10 to select the rotation in the CW and speed from 1 to 10 • 11 ... 20 to select the rotation COUNTERCLOCKWISE and speed from 1 to 10
66	horizontal linear Scan	Sets 2 and preset limit of the linear scan speed (*)	As linear SCAN defines the horizontal continuous movement between two preset limit which is well to have the same level of TILT. To program the linear SCAN 3 consecutive preset must be set as follows: • set the presets 66 • set the preset limit of 1 to 20 (see table below) • set the preset speed: 1 = low, 2 = average, 3 = high To start the linear scan set to recall the preset 66.
71 (§)	Clear all presets		Delete all stored presets
72	Closes EXPERT mode	Opens EXPERT mode	The perst marked with the symbol (§) require EXPERTS activate this mode in order to be executed. The operation can be esguita once and remains stored. By setting the presets the camera 72 starts an overview rotation to confirm the opening of the mode EXPERTS
79	Reset default		Restore the factory setting
80 (§)	Set time OBSERVE (*)	Set OBSERVE share (*)	The observe function serves to perform an automatic action after a certain time the absence of commands. Call preset 80 and follow recall the desired preset time. In the table below TIME 1,2,3 consider that the options are not enabled and the minimum time of absence commands usable is 15 seconds (the factory default is 30 sec.). Set preset 80 and set the presets realtivo follow the action to be performed by choosing actions in the underlying table. Ex. To recall the preset 1 after 5 minutes of inactivity, type: CALL + 80 + 7 + CALL to set the time and 80 + 2 + SET + SET to set the action
81 (§)	Set startup action (*)		Set an automatic action to be performed at startup of the camera. Call preset 81 and to follow the preset action chosen in the action table below.

			The default action is: GOTO PRESET 1
89 (§)	Reboot the system		Restart the camera
91 (§)	standard mounting	Mounting reversed	Enable the mirror function to flip the image horizontally in the case of retrospective view
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.
96	stop scan		
97	Start Pattern 1		
98	Start Patrol 1		
99	Start Auto Scan		Start auto scan

TABLE TIMES

CALL PRESET	TIME	CALL PRESET	TIME	CALL PRESET	TIME	CALL PRESET	TIME
1	1 sec.	**5**	30 sec.	**9**	30 min	**13**	24 hours
2	3 sec.	**6**	1 min.	**10**	1 hour		
3	6 sec.	**7**	5 min	**11**	8 hours		
4	15 sec	**8**	15 min	**12**	12 hours		

TABLE FOR LINEAR SCAN LIMIT (see system presets 66)

Set Preset PRESET	LIMIT Set Preset PRESET		LIMIT Set Preset PRESET		LIMIT Set Preset PRESET		LIMIT
1	11-21	**6**	16-26	**11**	21-11	**16**	26-16
2	12-22	**7**	17-27	**12**	21-12	**17**	27-17
3	13-23	**8**	18-28	**13**	23-23	**18**	28-18
4	14-24	**9**	19-29	**14**	24-14	**19**	29-19
5	15-25	**10**	20-30	**15**	25-15	**20**	30-20

TABLE SHARES

PRESET	ACTION
1	No action
2 ... 9	Go to Preset 1 ... 8
10	Start Patrol 1 (Auto Scan between presets)
11	Start Patrol 2
12	Start linear Scan 1 (horizontal Scan between two preset)
13	2 Scan Start linear
14	Start Auto Scan 1 (360 horizontal scanning speed 1 ° clockwise)
15	5 Start Automatic Scan (horizontal scanning speed 5 360 ° clockwise)
16	Start Pattern 1 (user prerecorded Path)
17	Start Pattern 2

TABLE OPERATING LIGHTS IT (see system presets 49)

PRESET	OPERATION IR	NOTE
1	Threshold Day / Night high	The higher the threshold more quickly the camera illuminators to illuminate the darkness falls, passing the White / black display. Default: Media
2	Threshold Day / Night medium	
3	Threshold Day / Night low	
7	always on Illuminator	It defines how they should turn on the LED illuminator IR Default: Automatic
8	always off Illuminator	
9	automatic Illuminator	
50	of automatic LED Power	Controls the brightness of the LED Deafult: Automatic
57	Low power LED	
59	High Power LED	

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CONFIGURATION

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

Access the menu

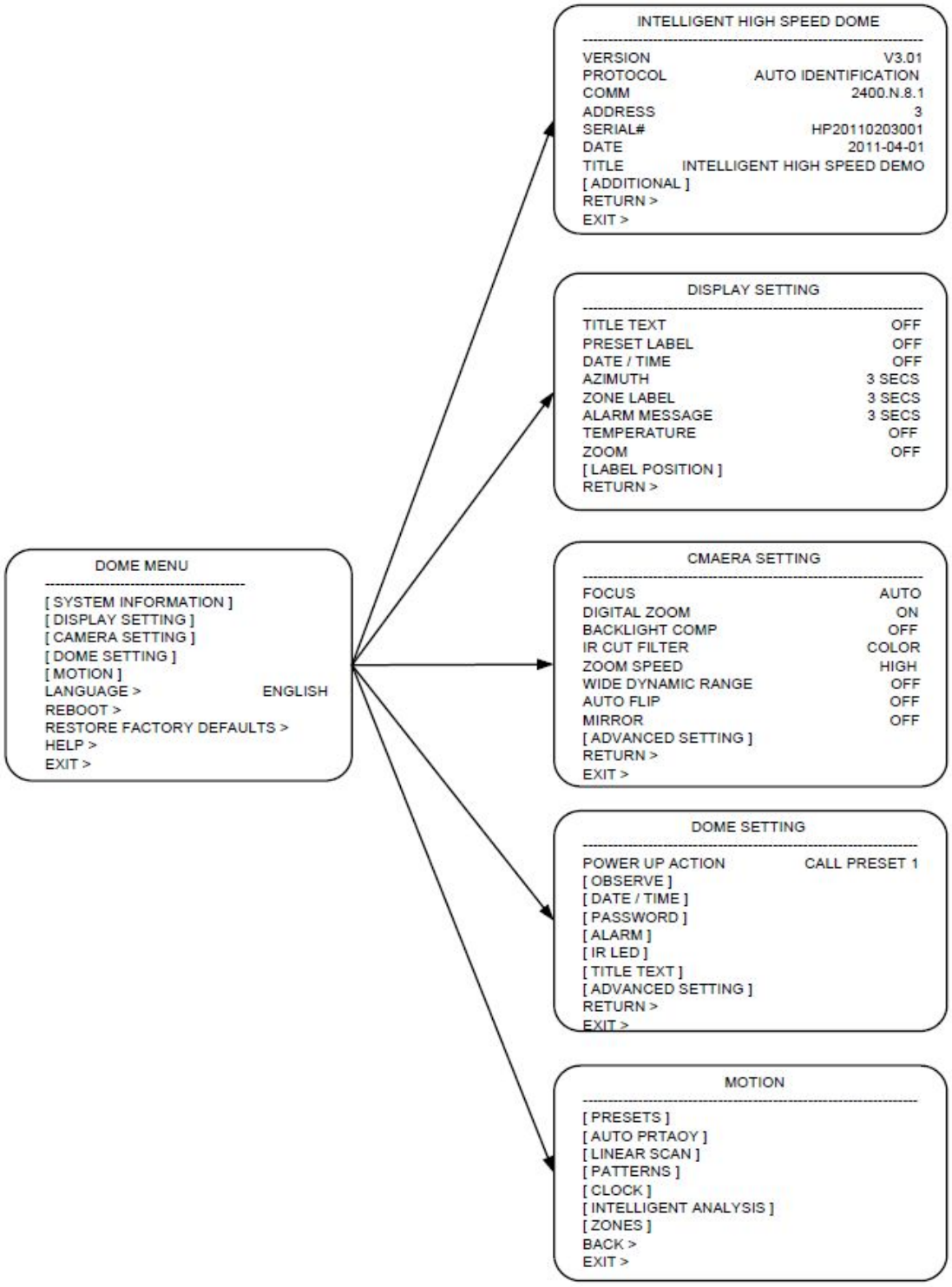
To access the menu configuration just call from the console:
PRESET 95 system.

Typically, you must first select all the address of camera that Yes want program, then type 95 and then press CALL or PREVIEW (see manual of the console on how to recall a preset)

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

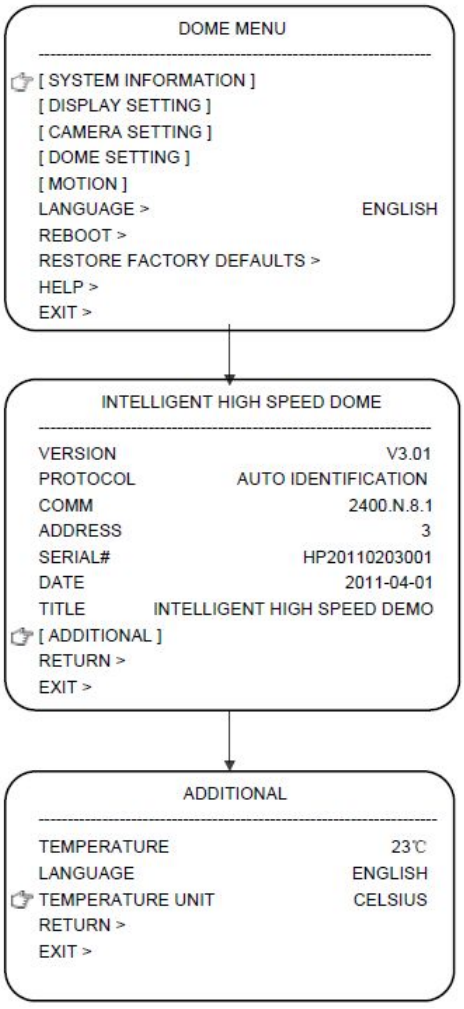
	Call preset 95 to access the configuration menu
	Move the joystick up and down to select the various menu items
	Move the joystick left and right to change the values of an option
	Press IRIS + to select an item and enter the possible submenu (such as ENTER)
	Press IRIS - to exit the upper level (like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

Map of the configuration menu



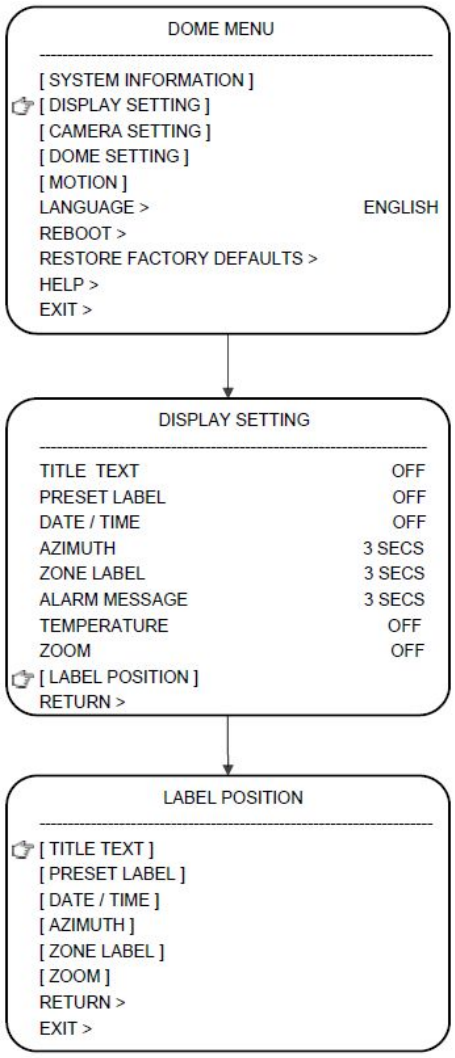
System information

The first menu item gives you all the camera information including the selected communication parameters with microswitches (you see chapters earlier) and the ambient temperature.



Display Setting

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.



- TITLE TEXT - Camera name
- PRESET LABEL - Name of preset recalled
- DATE / TIME - Date and time
- AZIMUTH - Vertical angle and horizontal reference against North
- ZONE LABEL - Name of a specific area of interest (see programming zones).
- ALARM MESSAGE - Not used
- TEMPERATURES - Temperature inside of the casing of the camera.
- ZOOM - Lens Zoom Level

For each of these overlays are available different display options

- OFF - Overlay not present
- EVER - always present Overlay

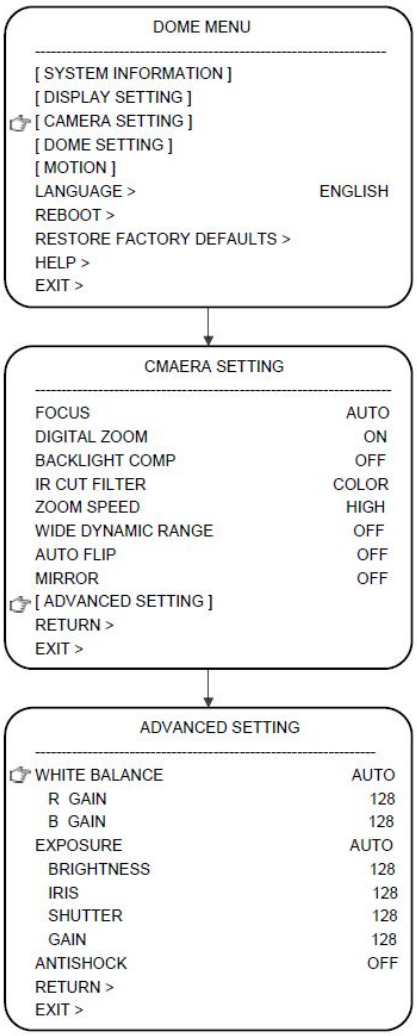
- 1-3-6-15 sec - Overlay only active for a specific time after the placement of the camera.

Each overlay can be positioned anywhere on the screen

- Press LABEL POSITION
- Select the overlay (camera name, date / time, etc.) and press IRIS +
- Move the message overlay where you like making sure that does not overlap with the other
- Press IRIS + to confirm

Camera Setting

This section contains all the settings of the camera module which has its own independent configuration from the mechanical movement of the dome.



- FOCUS - 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)
- DIGITAL ZOOM - Not available on this model
- BACKLIGHT COMP - The backlight compensation is to be activated when shooting dark against a bright background. Typical application the entrance of a store or a space which has large windows outwards. (ON / OFF options)
- IR CUT FILTER - 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. IS'

However, you can force the camera to an ever shot in color or always black / white. (Options: AUTO / COLOR / B & W)

- ZOOM SPEED - Adjusts the speed of response to commands of the zoom (Options: LOW / MEDIUM / HIGH)
- WIDE DYNAMIC RANGE - Not available on this model

- AUTOFLIP - This function allows the camera to follow a movement in addition to its 90 ° vertical rotating on its axis automatically. (ON / OFF options)

- 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. (ON / OFF options)

In the section Advanced Setting there are several fine adjustments of the camera that can come in handy in particular applications.

- WHITE BALANCE - Change the white balance to better make the white color depending on the kind of ambient lighting (Options: AUTO / INDOOR / OUTDOOR / MANUAL / AUTO TRACKING). 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)
- EXPOSURE - Edit the parameters concerning exposure image. (Options: AUTO / MANUAL / BRIGHT / SHUTTERI / IRIS). In generally should keep the automatic option. If set one of the alternative options are adjustable one or more of the following parameters (BRIGHTNESS / IRIS / SHUTTER / GAIN)

- ANTISHOCK - To limit the effects pissoli movements of the dome due to wind etc. (ON / OFF options)

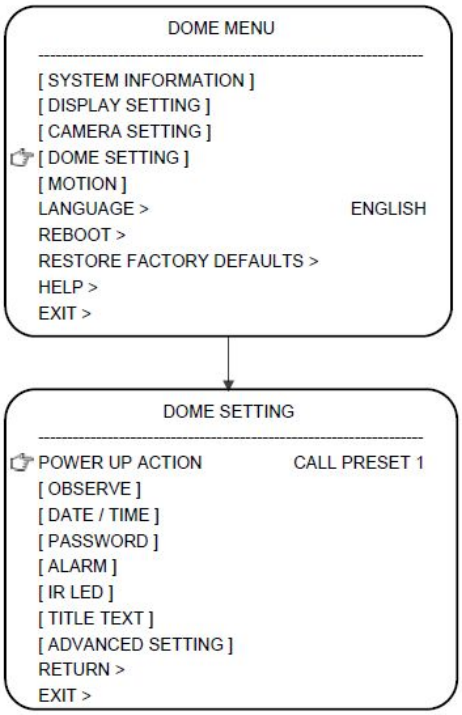
- NOISE LEVEL - AGC function. Selecting a value from 1 to 5 is activated improving vision with little brightness but also by introducing an unavoidable noise image (Options OFF / 1 ... 5)

Setting Dome

This section contains all of the tilt adjustments that supports and moves the camera.

Power up action

This section It allows of setting up the startup behavior of the camera which is particularly important for restore there desired condition in case of accidental lack network.



You can automatically perform the following functions:

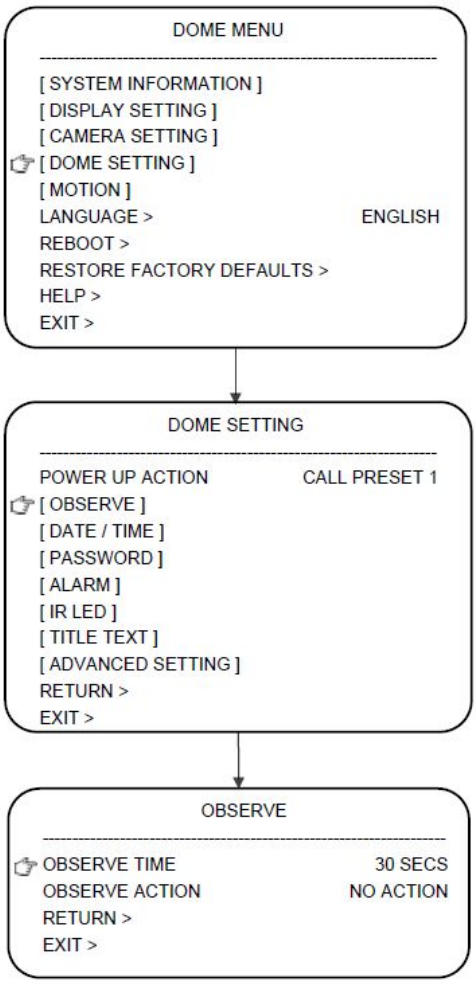
- NO ACTION - No function
- CALL PRESET 1 ... 8 - Recalls a preset
- START PATROL 1 or 2 - Draws a sequence of presets

- LINEAR SCAN START 1 or 2 - Start the horizontal scan between 2 presets

- START AUTO SCAN 1 or 5 - Start the automatic scan 360 ° (pan) at speeds of 1 to 5
- START PATTERN 1 or 2 - Start the path (sequence of movements) pre-stored user
- START AUTO TRACKING - Not available on this model

Observe

The observe function serves to perform an automatic action after a certain time of absence commands from the operator. Yes This approach important to prevent the camera from being inadvertently left on insignificant positions.



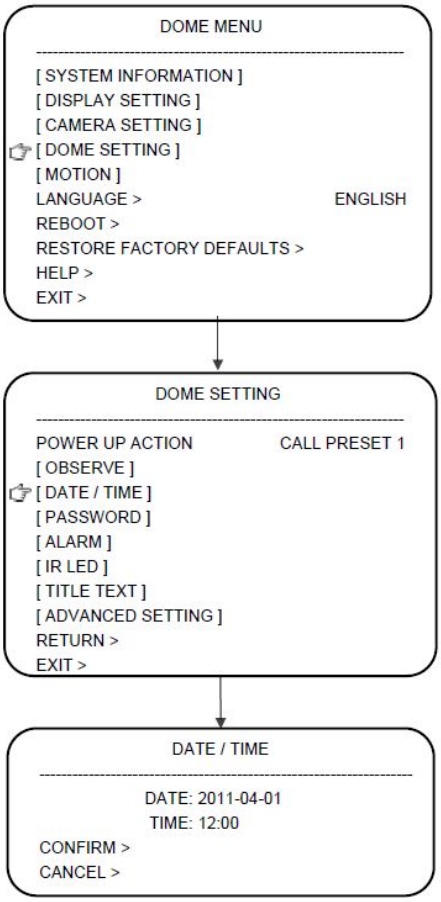
And 'possible to set an idle time with the following options: 15 sec./ 30 sec./ 1 min / 5 min./ 15 min./ 30 min./ 1 hour / 8 hours / 12 hours / 24 hours.

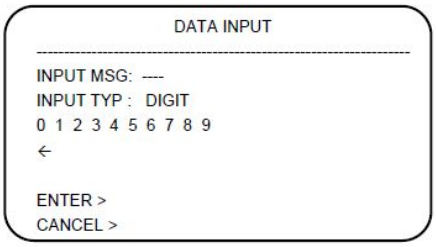
When the time set if no command arrives a camera it will perform automatically one of the following actions:

- NO ACTION - No function
- CALL PRESET 1 ... 8 - Recalls a preset
- START PATROL 1 or 2 - Draws a sequence of presets
- LINEAR SCAN START 1 or 2 - Start the horizontal scan between 2 presets
- START AUTO SCAN 1 or 5 - Start the automatic scan 360 ° (pan) at speeds of 1 to 5
- START PATTERN 1 or 2 - Start the path (sequence of movements) pre-stored user
- START AUTO TRACKING - Not available on this model

Date / Time

E 'can set the date and time stored by the camera.





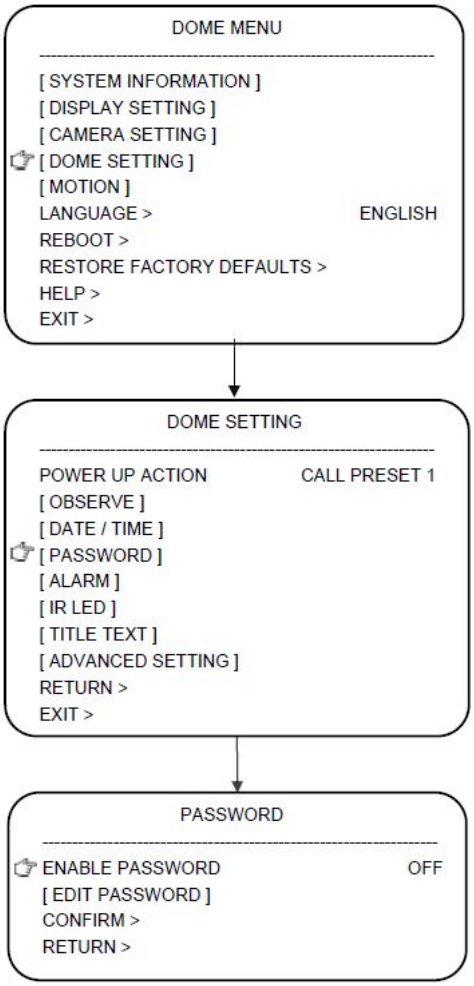
To act in the input window, proceed as follows:

- Select with the joystick to vary the data and press FOCUS + so that it becomes Flashing
- Get down with the joystick in the numbers and press FOCUS +
- Choose with the joystick to insert the number and press FOCUS + to confirm and automatically go to the next

- To delete a errta choice is available the character "backspace"
- When finished, press IRIS - to exit the typing area
- Muocere the cursor with the joystick on the word and press ENTER FOCUS + to confirm.
- Once all the numbers in the date and time press CONFIRM set the parameter and exit.

Password

IS' possible to prevent access to menu the camera program by requiring a password to access it.



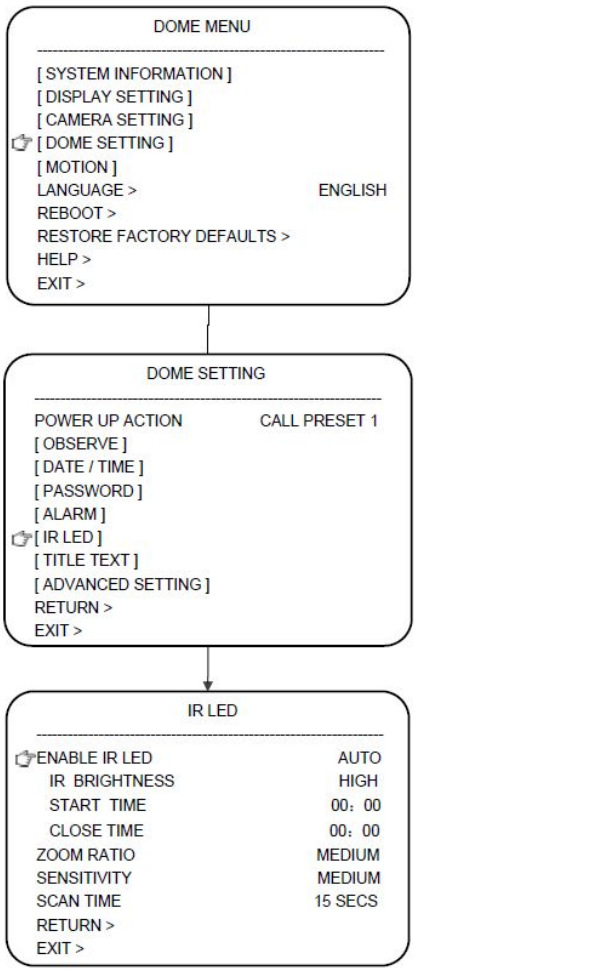
- PASSWORD ENABLE - Enables the use of passwords to access the menu
- EDIT PASSWORD - Allows insert the password. And 'it asked to enter the old password that factory it is: **"000000"**
- To enter the password act as described in the DATE / TIME.

Alarm

Not available on this model

IR LEDs

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

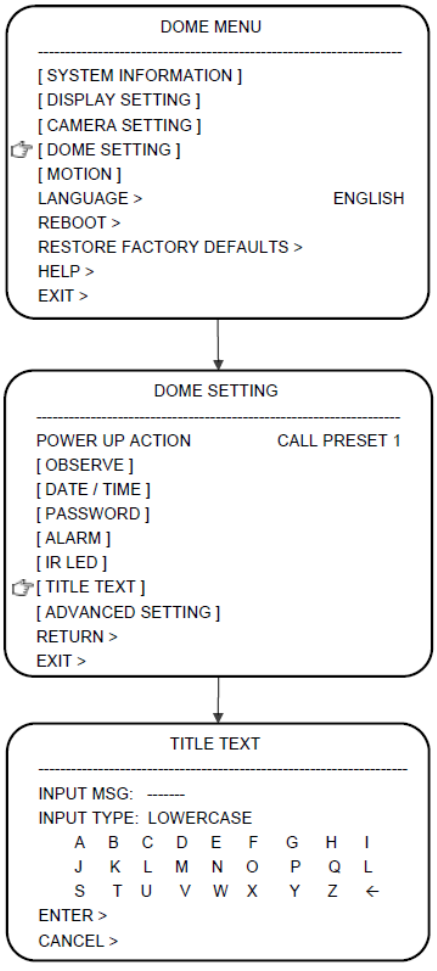


- ENABLE IR LED - Defines the operation of the illuminator with 4 modes: AUTO = automatic ignition, CLOCK = power based on time, IR ON = always on, always off OFF = IR.
- IR BRIGHTNESS - Tax the power illuminator (HIGH, MEDIUM, LOW)
- START / CLOSE TIME - If you chose the IR power mode on an hourly basis, you can enter wakeup times on and off automatically.

- ZOOM RATIO - Edit there power illuminator according to the zoom level (HIGH, MEDIUM, LOW)
- SENSITIVITY - If the IR power mode is set to AUTO You can set the sensitivity (HIGH, MEDIUM, LOW). A camera with high sensitivity will pass in B / N before a camera with low sensitivity
- SCAN TIME - The camera measures the ambient light periodically to decide whether or not to light illuminators. Here it is possible to set the interval between the measurements from 1 sec to 5 min

title text

In this section you can set the name of the camera to bring up an overlay if enabled in the settings of the display views over

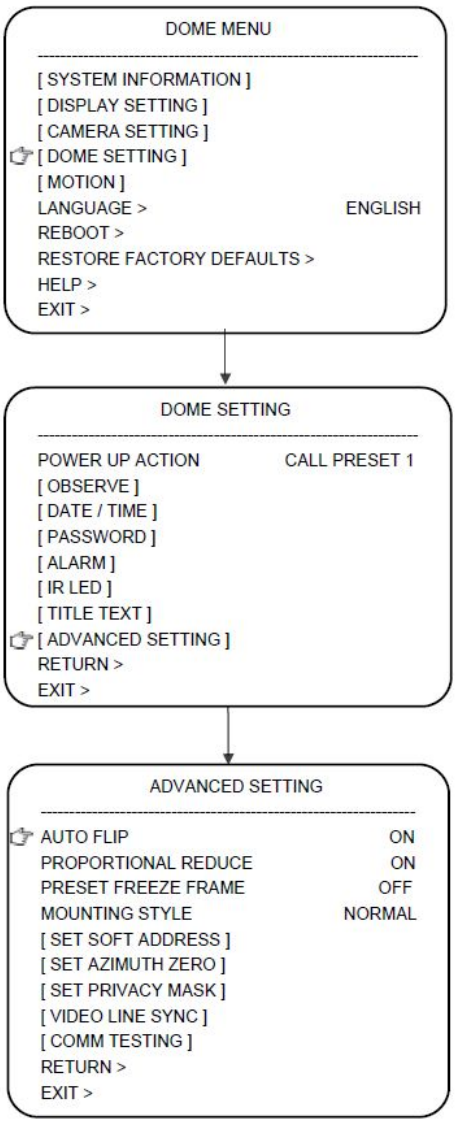


For the insertion act as described in the date / time settings. In addition you can change the type of characters to be used, choosing between:

- DIGIT: Numbers
- UPPERCASE: Capital letters
- LOWERCASE: Lowercase
- SPECIAL SYMBOL: Special Characters

advanced settings

In this section you can set several advanced functions related to the operation of the tilt



- AUTOFLIP - If it moves in the vertical camera (TILT) is obtained corrected image until

achievement of the vertical of 90 °. If you continue to impart to the camera of a vertical movement command and it responded normally the image would appear upside down there. For this does not happen in reality. The camera come in correspondence with the 90 ° stops. The alternative to the arrest and autoflip function thanks to which the camera, arrived in correspondence of 90 ° accomplishes an automatic 180 ° rotazaione on itself and can continue to follow the operator's command on

side

opposite always providing an image straight. (Options: ON / OFF)

- PROPORTIONAL REDUCE - E ' the function that It slows down the displacement of the tilt speed proportional to the level of the zoom lens. This is to prevent the movement with high levels of zoom

too much rapid tilt

prevent proper aiming.
- PRESET FREEZE FRAME - Not available
- MOUNTING STYLE - This option, also called MIRROR, allows to flip the image horizontally to allow to have a good understanding even when the recovery takes place in the opposite direction to the observer in rear view. (Options: FORWARD / REVERSE)

- September SOFT ADDRESS - E 'can set up a software address for the camera that replaces the one set with micriinterruttori. Press FOCUS + to RESET SOFT ADDRESS and set the software address to be assigned. Then press FOCUS + to ENABLE SOFT ADDRESS. From the moment the camera will only be operated with the new address. Disabling SOFT ADDRESS actual return address set with DIP switches on board room.

- September AZIMUTH ZERO - The camera can display overlays the horizontal angle of the camera refers to the geographic north. Here you can point the camera toward the north is set this point as AZIMUTH ZERO.

- September PRIVACY MASK - Not available on this model

Motion setting

This section contains all the programming for the automatic movement of the camera. To avoid misunderstandings in the reading of this part of the manual appropriate first to clarify that for these cameras, there are 5 types of automatic movements:

- **PRESET** - The presets are preset camera positions characterized by a precise value of X / Y coordinates, zoom and focus. You can also call

Easily keyboard

if necessary.

- **PATROL** - Also called or CRUISE TOUR. It means the automatic movement of the camera between presets with a residence time on each of them programmable.

- **SCAN** - Yes It means the continuous movement of horizontal 360 ° rotation
- **LINEAR SCAN** - Yes It means the movement continuous RIGHT-LEFT between two end positions

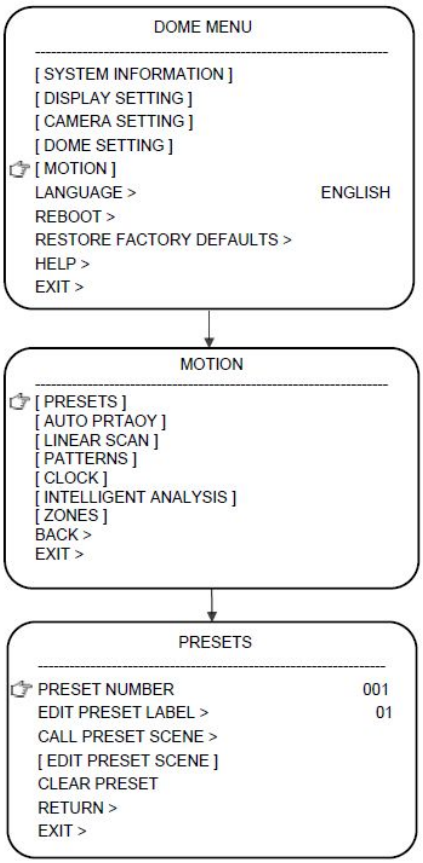
- **PATTERN** - Similar to the TOUR. The camera, however, does not follow in sequence the various presets, but a custom continuous movement recorded by the user in the programming phase.

Presets

This section allows you to set the camera presets via the programming menu, although this is also possible via the controls

from keyboard such as already described previously. The camera can manage 255 presets, but being the presets from 49 to 99 reserved for functions

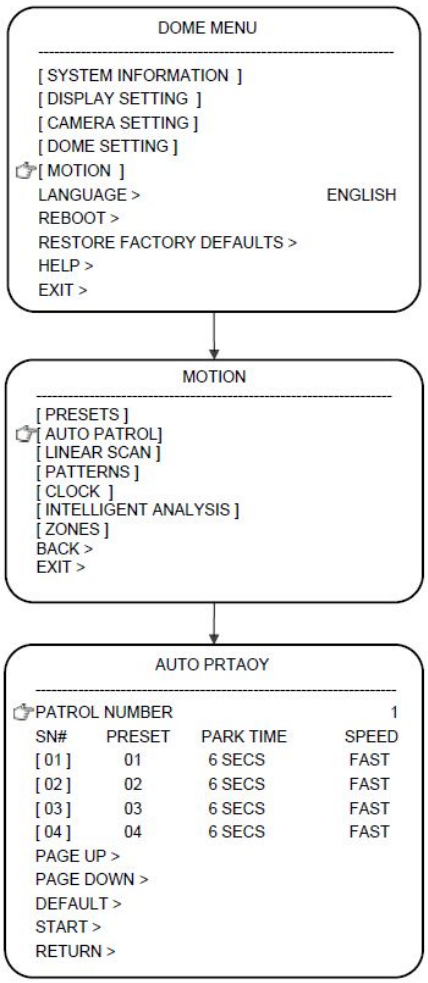
of system remain programmable to the user 204 presets.



- PRESET NUMBER - Select the preset number to set from 1 to 255 excluding 49 to 99 (system presets)
- EDIT PRESET LABEL - E 'can give a distinctive name to the presets
- CALL PRESET SCENE - Call the preset position stored
- EDIT PRESET SCENE - Select this to set the preset. Place the camera with the desired coordinates and zoom and press IRIS + to confirm.
- CLEAR PRESET - Clears the preset setting

Patrol Car

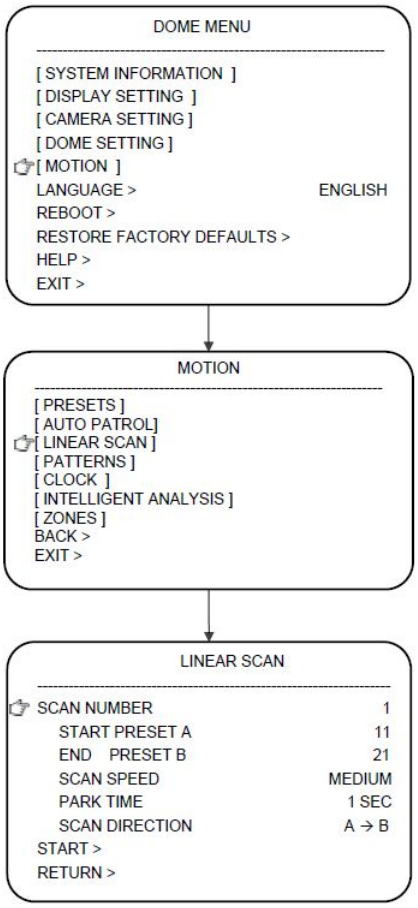
This section allows to set the patrol, also called CRUISE or TOUR, ie the movement of the camera scanning between different presets. This camera supports 8 different PATROL each containing up to 32 presets



- PATROL NUMBER - Select the patrol number to be programmed (1 to 8). Below appears a table which lists the various preset the camera to perform. Lists the first 4 presets, then with the voices PAGE UP / DOWN you can show them,
- SET THE FIRST PRESET - Select SN # 1 and press IRIS + to go to the editing area where you can set the PRESET you reach the parking time on that preset (PARK TIME) and the traveling speed to maintain (SLOW, MEDIUM, FAST)
- SET THE NEXT PRESET - to continue the list and moving between pages with PAGE UP / DOWN
- START - Starts PATROL set
- DEFAULT - Resets the factory setting which provides presets 1 to 4 with 6/2 PARK TIME and FAST speed.

Linear Scan

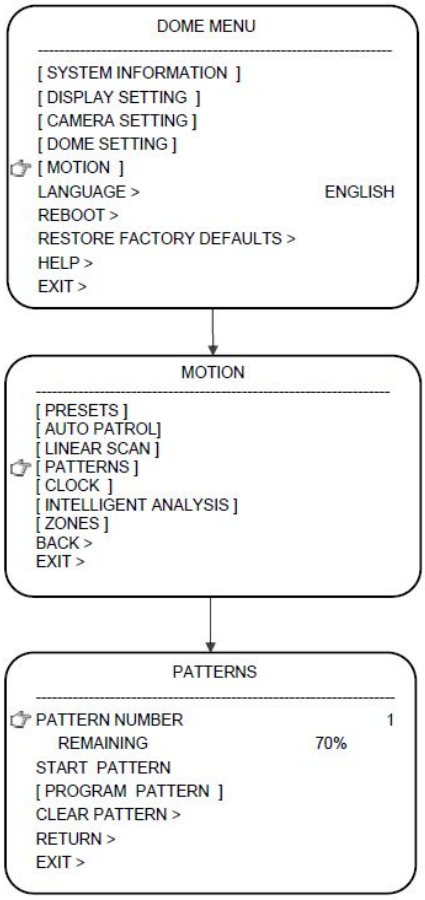
The linear scan is the continuous horizontal movement (PAN) from right to left between two preset limit. This camera allows you to store up to 20 linear scan.



- SCAN NUMBER - Select the number of the linear scan (1 to 20)
- START PRESET A- Defines the first preset to be used as limit switches.
- END PRESET B - Defines the second preset to be used as limit switches. It 'good to set two preset with the same level of tilt as the movement is only horizontally.
- SCAN SPEED - The speed of rotation (Options: FAST, MEDIUM, SLOW)
- PARK TIME - Once reached a preset limit is possible to program a residence time before starting the movement in the reverse direction (Options: 1 sec./ 3 sec./ 6 sec./ 15 sec./ 30 sec./ 1 min , / 5 min./ 15 min./ 30 min./ 1 hour / 8 hours / 12 hours / 24 hours)
- SCAN DIRECTION - Sets the direction of the first shift at the start of the scan (from A to B or vice versa)
- START - Starts the linear scan

Pattern

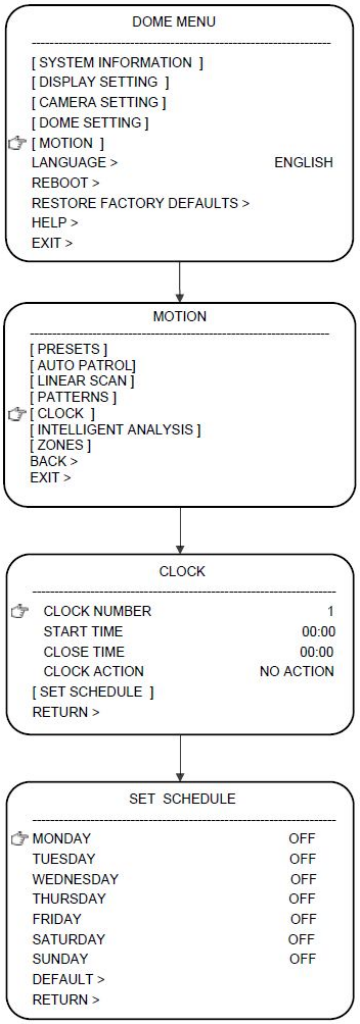
This camera is able to record a sequence of operations performed by the user, such as displacements, zoom etc. for them rerun automatically. These stored sequences are defined PATTERN. The camera allows you to record each pattern 4 by the maximum duration of 10 minutes and with a number of operations not exceeding 500.



- PATTERN NUMBER - The number of the pattern to be programmed (1 to 4)
- START PATTERN - Start the stored pattern
- PROGRAM PATTERN - Press IRIS + and the camera will start to store all user operations performed. To the end of Press IRIS + path to stop there recording.
- CLEAR PATTERN - Delete the stored pattern

Clock

This section allows programming of automatic actions that the camera can carry out on the basis of the time and day of the week.

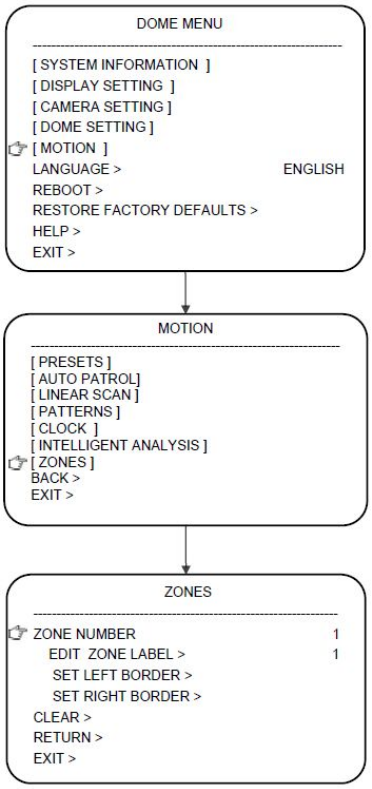


- CLOCK NUMBER - The number of the programming. You can set up to three time slots
- START TIME - Start time of the time slot
- CLOSE TIME - End Time Time Zone
- CLOCK ACTION - The action to be performed during the set time slot. Are available the following options:
  - NO ACTION - No function
  - CALL PRESET 1 ... 8 - Recalls a preset
  - START PATROL 1 or 2 - Call a patrol
  - LINEAR SCAN START 1 or 2 - Start the horizontal scan between 2 presets
  - START AUTO SCAN 1 or 5 - Start the automatic scan 360 ° (pan) at speeds of 1 to 5
  - START PATTERN 1 or 2 - Start the path (sequence of movements) pre-stored user
  - START AUTO TRACKING - Not available on this model
- September SCHEDULE - lets you choose which days of the week to enable this function. Care should be taken not to overlap time slots and not programmed bands that pass 00:00.

The programmer allows the camera to perform operations on the base of calendar so automatic. The automatic operation is stopped in case of manual control. If at the end of the manual operations the timeslot is still active the automatic action resumes.

Zone

E 'possible to identify within the 360 ° of horizontal rotation of the camera of the limited zones. When the camera will enter within the zone will appear on the screen of the same name (if enabled in the display options)



- ZONE NUMBER - Number of area. You can program up to 8 zones. If more zones overlap is shown the name of the one with the lowest number.

- EDITE ZONE LABEL - Enter the name of the zone to appear on screen.

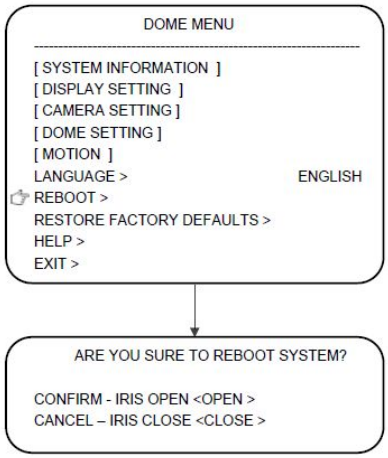
- September LEFT BORDER - Press FOCUS +, move the camera on the left edge of the area and press FOCUS + to confirm.

- September RIGHT BORDER - Press FOCUS +, move the camera on the right edge of the area and press FOCUS + to confirm.

- CLEAR - Clear the programmed zone

Reboot

This section allows to restart the camera



Restore factory defaults

This section allows you to restore the factory settings if dissatisfied programming carried out.