



HIGH-SPEED OUTDOOR PTZ CAMERA SERIES

Operation Manual
Ver. 1.15



TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE. DO NOT INSERT ANY METALLIC OBJECTS THROUGH THE VENTILATION GRILLS OR OTHER OPENINGS ON THE EQUIPMENT.



This symbol indicates that dangerous voltage constituting a risk of electric shock is present within this unit.



This symbol indicates that there are important operating and maintenance instructions in the literature accompanying this unit.

! DANGER



Do not stare into Beam or View Directly with Optical Instrument
Laser Radiation Class 3A.

CAUTION

RISK OF ELECTRIC SHOCK.

DO NOT OPEN.

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL

FCC COMPLIANCE STATEMENT

FCC INFORMATION: THIS EQUIPMENT HAS BEEN TESTED AND FOUND TO COMPLY WITH THE LIMITS FOR A CLASS A DIGITAL DEVICE, PURSUANT TO PART 15 OF THE FCC RULES. THESE LIMITS ARE DESIGNED TO PROVIDE REASONABLE PROTECTION AGAINST HARMFUL INTERFERENCE WHEN THE EQUIPMENT IS OPERATED IN A COMMERCIAL ENVIRONMENT. THIS EQUIPMENT GENERATES, USES, AND CAN RADIATE RADIO FREQUENCY ENERGY AND IF NOT INSTALLED AND USED IN ACCORDANCE WITH THE INSTRUCTION MANUAL, MAY CAUSE HARMFUL INTERFERENCE TO RADIO COMMUNICATIONS. OPERATION OF THIS EQUIPMENT IN A RESIDENTIAL AREA IS LIKELY TO CAUSE HARMFUL INTERFERENCE IN WHICH CASE THE USER WILL BE REQUIRED TO CORRECT THE INTERFERENCE AT HIS OWN EXPENSE.

CAUTION: CHANGES OR MODIFICATIONS NOT EXPRESSLY APPROVED BY THE PARTY RESPONSIBLE FOR COMPLIANCE COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

CE COMPLIANCE STATEMENT

WARNING: THIS IS A CLASS A PRODUCT. IN A DOMESTIC ENVIRONMENT THIS PRODUCT MAY CAUSE RADIO INTERFERENCE IN WHICH CASE THE USER MAY BE REQUIRED TO TAKE ADEQUATE MEASURES.

CAUTION: BEFORE ATTEMPTING TO CONNECT OR OPERATE THIS PRODUCT, PLEASE READ THE LABEL ON THE BOTTOM AND USER'S MANUAL CAREFULLY

PRECAUTION

- All installation works should be done by qualified service person or system installer.
- Do not try to open or disassemble the PTZ. To prevent electric shock, do not remove the screws or cover. There are no user-serviceable parts inside. In case of maintenance, contact qualified service personnel.
- Handle the PTZ carefully. Do not hit, strike or shake the PTZ. This will cause damage the mechanic parts and avoids the warranty. During the transport or storage, the PTZ should be packed in original packing, which will protect from pressure, vibration and humidity.
- Do not use strong or excessive liquid to clean the PTZ and cover. Use dry cloth or mild cleaning lotion, and wipe gently.
- Do not operate the PTZ among the specified condition. Please refer to the section "Specification" for detailed information.
- Do not expose the indoor PTZ to water or moisture. The indoor version of PTZ is not designed to resist high humidity and water, these may cause permanent damage and avoids the warranty. For indoor application with extreme wet condition or area contains water or high-humidity, use the outdoor model instead. When the indoor PTZ get wet, turn off the power immediately and send to qualified service personnel.
- Do not point the camera to strong light source (e.g. Sun-Light, Beamer or laser pointer). This will cause permanent damage to the sensor and avoids the warranty.
- Read this user's manual carefully before operating, and make sure that the operation and installation follow your local electric safety standards or regulation.
- Do not install the PTZ in orientation other than designed. The PTZ is designed for operation looking-down. Other orientation of installation will prevent the heat-sink function and cause damage.
- Do not touch the PTZ clear cover with bare hands or any object. These will leave permanent scratches on the surface and decrease the image quality. Scratches are not covered by the warranty.
- Do not install and operate this PTZ in a flammable and explosive environment.
- Make sure that the installation is done according to the local electricity safety regulation of your country.
- Before installation or maintenance, make sure that the PTZ is disconnected from the power source.
- Do not use any power source other than specified in the specification, in order to prevent damages. In case of doubt, see section "Specification" for details.
- Handle the device during the installation carefully. Falls or extreme vibration will cause irreparable damages and avoid the warranty.
- Do not install or operate the PTZ near any high-voltage devices or high-voltage cable. The safety distance should remain at least 50 m.
- To archive best image quality, it is recommended to use underground cable shielded with steel tube. Do not install the cable without any protection.
- In area or region which has high inductive power, such as high voltage transformer stations, or high electrostatic discharges, such as thunder, it is necessary to use additional lightning-proof equipments or lightning rod for protection.
- For outdoor installation, lightning-proof and grounding of the device should be considered. Please refer to the industrial safety regulation and request of your country.
- Grounding of the PTZ should consider with anti-interference and fulfill the safety requirements. Do not connect the ground with short-circuited or other high-voltage electric network.
- The resistance of down conductor should not exceed 4 Ohm, and its thickness should be at least 25mm²
- This PTZ is protected against high-voltage pulse up to 1500V
- The outdoor model meets the Ip66 standard for water and dust proof. Do not install the in-door model for out-door application. Make sure that the installation is protected from long-time water-drop or spatter, which may damage the appliance.
- Make sure that the environment of installation meets the requirement of the appliance, such as holding the weight, enough spaces for bracket and power supply.

Technical specification are subjects to change without prior notice. Manual may contain mistake or print error.
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Unpacking



G50/G50IR/G50Q/
G50L/G50VL



Manual

Model Description



G50



G50IR / G50Q
IR- Headlight



G50VL
Visible Headlight



G50L
IR-Laser Beam



G50M
Mobile Version
with Anti-Shock



Keep the original box for
possible transport in the
future.



DANGER



Do not stare into Beam or View
Directly with Optical Instrument
Laser Raidiation Class 3A.

I/O Interface

Connectors



Red:AC24V
Black:AC24V
24V AC / 2A



Red:AC24V
Black:AC24V
24V AC / 2A



Inner Pin: Video +
Outer Conn.:Video -



Green: RS-485 +
Yellow: RS-485 -



Accessories



Power



Power



DVR



Keyboard
Controller



Sensor
Switch



Do not use Voltage other
than 24V AC, otherwise
will destroy the camera.

Addition 24V AC
Power Supply is
require on G50VL
Beamer

Basic Setup

Check-List before installation:

1. Telemetric Protocol setting
2. Dome ID setting
3. Termination setup
3. Necessary Accessories (e.g Power supply)

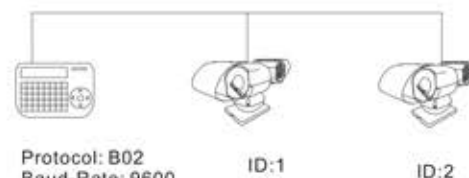
Telemetric

For telemetric control, make sure that:

1. All devices are set with same protocol and comm setting.
2. All PTZ devices have an unique ID.
3. Control cable (Rs485) are connected properly.

For controller setup, please refer to the
operation manual

Example:



ID & protocol setup



Step 1
Loose the screws (4 pcs)
and open the base-part



Step 2
Take off the base
part for configuration



Step 3
Set the ID, Protocol
Baud-Rate and Termination

Switch 1:
ID Setup

Switch 2:

Digit 1 to 5: Protocol setup

Digit 6,7: Baud-Rate

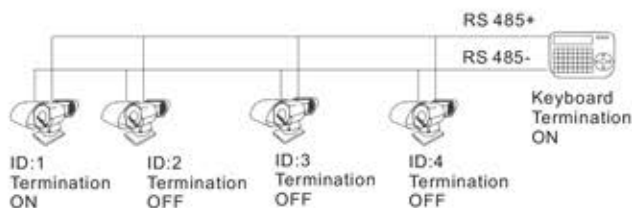
Digit 8: RS485 Termination(default: off)

For setting details, please refer to appendix A.

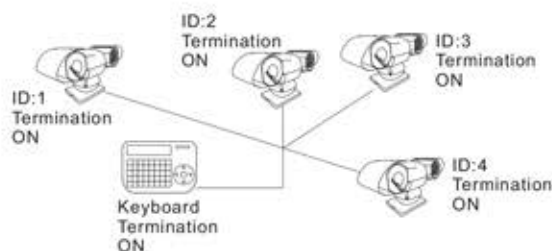
RS485 Termination

For a smooth telemetric operation, it is necessary to set the termination properly.

1. Chain Connection

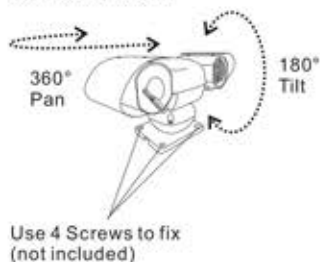


2. Star-Form Connection

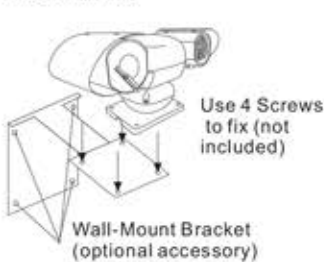


Mounting

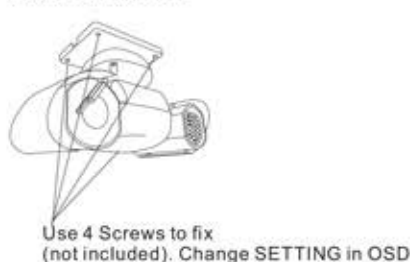
Surface-Mount



Wall-Mount



Reverse-Mount



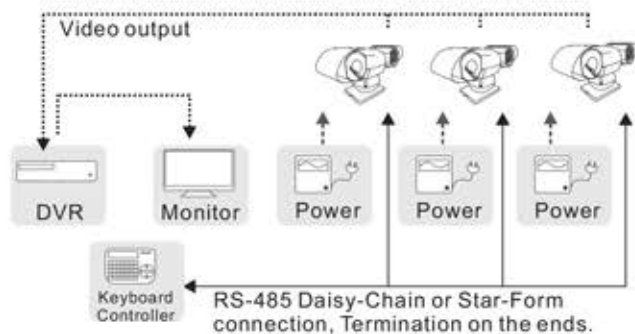
Mobile-Mount with Anti-Shock



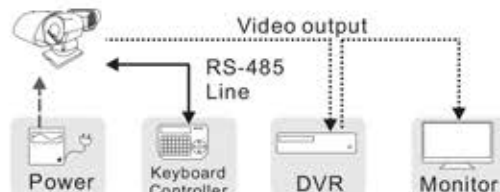
⚠ Make sure the installation environment provide enough space for pan and tilt movement, else it might damage the mechanic parts.

Application Example

Multiple PTZ



Simple PTZ



RS485 Transmission

The distance of RS485 transmission between 2 nodes depends on the baud-rate. The table on the right side shows the maximum range of every baud-rate, assuming a AWG24 wire-pair is used. Note the range might be shorter than given here, since the cable quality or interferences may affect the transmitted data, and cause invalid command.

In star-form connection, it might be necessary to use RS-485 Distributor, to ensure the signal quality of the transmission.

Baud Rate	Max. Distance
2400 bps	1700m
4800 bps	1100m
9600 bps	700m
19200 bps	400m

Video Transmission

For video signal transmission, coaxial cable with 75 Ohm impedance is recommended. Depends on the cable type, the transmission distance might be different:

Cable standard	Max. Distance (m / ft)
RG 59 /U	229m / 750 ft
RG 6 /U	305m / 1000 ft
RG 11 /U	457m / 1500 ft

The actually transmission distance can vary from the data shown on the table left. It is necessary to consider the environmental in fluences when planning the installation. If the transmission requires a larger distance, you may use video-balun or fiber-transmitter to extend the distance. Contact your local sales representative for further information.

Powering the PTZ



After connected to power source, the PTZ will perform the self-test with pan, tilt and zoom, and displays the initial screen with following information:

S/N: Serial number of the PTZ
FIRMWARE: Current firmware version
PROTOCOL: Protocol version
DOMEADDRESS: the PTZ ID
COMM: Baud-rate and serial settings

The initial screen will disappear once the PTZ camera receives a user command. If the function "Power up action" is defined with certain action, it will execute the action immediately.

Work with PTZ

In order to work with the PTZ function, you need a device for telemetric control, such as a controller keyboard, a PTZ software or DVR with PTZ control. Make sure that the protocol, baud-rate setting are done correctly as described in section "Installation", or refer to the operation manual of the controller device.

Beside the pan, tilt and zoom function, this camera provides also auxiliary function for surveillance, such as preset position, self-learning tours and pattern, which consist the more preset position. The setting of camera and auxiliary function can be accessed either directly from the keyboard, or through the On-Screen-Display (OSD) menu, a text-based navigation menu projected on the monitor screen.

PAN, TILT and ZOOM Functions

In order to work with the PTZ function, you need a device for telemetric control, such as a controller keyboard, a PTZ software or DVR with PTZ control. Make sure that your controller device supports these functions.



Zoom in



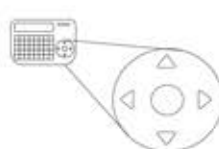
Zoom out



PAN



TILT



The PAN and TILT function are mostly performed from the Joystick on the keyboard. Please refer to the user's manual of controller device for operation instruction

IRIS and FOCUS

In regular operation, the focus and iris will be regulated automatically to achieve best image quality. If case of need, you can adjust Iris and focus setting by press the corresponding buttons on the controller device. The auto-focus will resume once a PTZ command is triggered.



IRIS Open



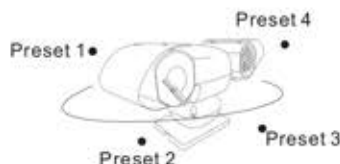
IRIS Close

FOCUS
FarFOCUS
Near

Auxiliary Function

The auxiliary function provides user automated action, such as memorizing position and recalling by a direct input on the controller device. Make sure that the keyboard controller you use support these function, and refer to the manual for operation.

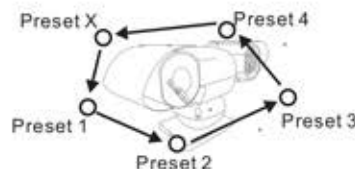
PRESET: A Pan-Tilt position which contains the zoom setting. Up to 128 presets can be stored in the camera



PATTERN TOUR: A recording of user's Pan, Tilt and zoom up to 180 seconds. Up to 4 pattern tours are supported



SEQUENCE(PRESET TOUR): An auto-touring through the defined, stored preset positions. Each tour can contain up to 24 preset points. Total 4 tours can be stored in the camera.



SCAN TOUR: A Pan-Tilt moving between 2 defined limits. Up to 4 scan tours are supported



Camera Functions

This PTZ camera provides also image enhancement functions, such as BLC, AGC, AE or the Day/Night Vision. Details will be introduced in the section "OSD".

Enter the OSD

The OSD menu can be activated by recall the preset position number 95

Press [SHOT] + [9] + [5] + [ENTER]
or
Press 2x [SHOT] + [9] + [ENTER] withing 3 seconds.

In case your controller device has other key descriptions, please refer to the function "recall preset" (instead of [Shot])

Navigation from keyboard: To navigate through the OSD menu items, following keys are defined for OSD operation. Make sure your controller device provide the keys:

[IRIS OPEN] Enters the sub-menu or confirm

[IRIS CLOSE] Cancel the current setting, or exit the selected menu item.

[UP], [DOWN] Move between menu lines(menu item), or adjust the selected value when entered.

[RIGHT] Enter a high-lighted menu item,

[LEFT] exit the menu item, equals to [IRIS CLOSE]

Symbols:

"→": On the end of the line indicates a sub-menu.

◁: Shows current cursor.

Main Menu

MAIN MENU

SYSTEM SETTING →
CAMERA SETTING →
FUNCTION SETTING →
WINDOW BLANKING →
ALARMS →
LANGUAGE →
EXIT

SYSTEM SETTING: contains setting parameter for the system.
CAMERA SETTING: Camera / image related settings
FUNCTION SETTING: PTZ and auxiliary function settings
WINDOW BLANKING: Privacy masking function and settings

System Setting

SYSTEM SETTING

EDIT DOME LABEL →
INITIAL INFO →
DISPLAY SETUP →
MOTION →
CLEAR →
PASSWORD SETTING →
CLOCK SETTING →
BACK →
EXIT

SYSTEM SETTING: contains setting parameter for the system.
CAMERA SETTING: Camera / image related settings
FUNCTION SETTING: PTZ and auxiliary function settings
WINDOW BLANKING: Privacy masking function and settings

System Setting

Edit dome label

EDIT DOME LABEL
LABEL → DOME1
BACK
EXIT

- Select DOME LABEL and enter with [RIGHT] or [IRIS OPEN]

- The input character starts to flash, use [UP] or [DOWN] to select the desired character and [RIGHT] for next input.

- Available characters appear in following order: "0" to "9", "A" to "Z", ":", "<", ">", "-", " " (SPACE) (empty sign).

- Use [LEFT] to move to previous character when edit.

- In case you need to delete a character, use the "SPACE"-character (Empty sign).

- When finished, press [IRIS OPEN] to save, or use [RIGHT] to move to last character and next to exit the editing mode.

- To discard the setting, press [IRIS CLOSE] to exit.

- Select "BACK" to exit to "SYSEM SETTING" menu.

System Setting

Initial Info

INITIAL INFO

S/N XXXXXXXXXXXXXXXX
FIRMWARE v1.10
PROTOCOL: VIDO B02
DOME ADDRESS: 001
COMM, 9600, N8, 1
BACK
EXIT

Initial Info show the following Info:

- ▶ Product Seriennummer
- ▶ Firmware version
- ▶ Protocol Setting
- ▶ Dome ID
- ▶ Baudrate

System Setting

Display Setup

DISPLAY SETUP

DOME LABEL	OFF
PRESET LABEL	OFF
ZOOM LABEL	OFF
ZONE LABEL	OFF
DIRECTION LABEL	OFF
TEMPERATURE LABEL	OFF
TIME LABEL	OFF
DATE LABEL	OFF
BACK	

[DOME LABEL]: show label name
 [PRESET LABEL]: show preset label or scan label
 [ZOOM LABEL]: show zoom ratio
 [ZONE LABEL]: show zone Label
 [DIRECTION LABEL]: show the coordinate position
 [TEMPERATURE LABEL]: show the current dome temperature
 [TIME LABEL]: show the current time
 [DATE LABEL]: show the current date



System Setting

Motion

MOTION

AUTOFLIP	ON
PROPORTION PAN	ON
PARK TIME	005
PARK ACTION	SCAN
POWER UP ACTION	AUTO
FAN ENABLE	040
ADVANCE SETTING ->	
BACK	
EXIT	

Auto flip: The dome swing the PAN to 180°, when the limit of 90°TILT reach
Proportional Pan: Inversely controlling
Park time: Set the IDLE timer in minutes, and activates the action defined in "PARKACTION".
Park Action: Define the action when "Park time" activate. Selcetable: Preset 1-80, Scan 1-4, Pattern1-4, Tour 1-4
Power Up Action: Start "Park Action" when power up.
FAN Enable: Define the temperature limit for the internal cooling fan.

System Setting

Motion

Advance Setting

ADVANCE SETTING

EIS ANABLED	N/A
PRESET FREEZE	N/A
HEAD-DOWN	OFF
DEFOGGER	15
WIPER	
IR HEADLIGHT	▶
BACK	
EXIT	

EIS ANABLED: Electronic Image Stabilizer. Depends on the camera model, it might not be available.
PRESET FREEZE: Freezes the preset image
HEAD-DOWN: When installing the PTZ reversed, turn on this option.
DEFOGGER: Defogger function in the camera bay.
WIPER: Starts the Wiper

System Setting

Motion

Advance Setting

IR HEADLIGHT

IR HEADLIGHT

IR HEADLIGHT	MANUAL
DELATY TIME	02
IR CUT FILTER	BLACK
ACTIVATE AUX1	OFF
BACK	
EXIT	

IR HEADLIGHT: Performance of the IR-Headlight, selectable with Low, Medium, High or Manual.
Note: The Shot Key is deactivate if the IR Headlight is set by LOW / MID / HIGH
And the IR Headlight will no start automatic, when the camera goes B/W mode, if it's set by MANUAL

DELATY TIME: Time between activate IR LED and turn on the IR LED
IR CUT FILTER: Define the modus of the Camera if the IR Headlight is activate COLOR / BLACK / AUTO
ACTIVATE AUX1: The Alarm output 1 (AUX1) can be activate after the IR Headlight is activate if the setting is ON

Shot Key:

IR/VL Beamer ON



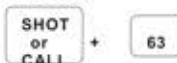
SHOT ... on VIDO Keyboard
 CALL ... on another Keyboard

IR/VL Beamer OFF



SHOT... on VIDO Keyboard
 CALL ... on another Keyboard

Active Wiper for 15 sec



SHOT... on VIDO Keyboard
 CALL ... on another Keyboard

Head Light Control (G50L only):

IRIS Open Tele Laser Optical Lens
 IRIS Close Wide Laser Optical Lens

System Setting

Clear

CLEAR

CLEAR ALL ZONES
CLEAR ALL PRESET
CLEAR ALL PATTERNS
CLEAR ALL TOURS
CLEAR ALL WINDOWS
FACTORY DEFAULTS
RESTART
BACK
EXIT

The "CLEAR" function resets the settings to factory default.

CLEAR ALL ZONES: Delete all zones setting
CLEAR ALL PRESET: Delete all preset positions
CLEAR ALL PATTERNS: Delete all pattern setting
CLEAR ALL TOURS: Delete all tours setting
CLEAR ALL WINDOWS: Delete all privacy masking setting
FACTORY DEFAULT: Reset all setting and return to factory settings
RESTART: Restart the dome

Note: after using the option "Factory default", all system setting and stored information such as preset, tour or pattern will be erased permanently. Please make sure of using this function before proceeding.

System Setting

Password Setting

PASSWORD SETTING

OLD PASSWORD *****
NEW PASSWORD *****
CONF PASSWORD *****
ENABLE PASSWORD OFF
BACK
EXIT

The password function can prevent unauthorized access to the OSD and change the setting. It consists a 6 digit number from 0-9 and can be disable.

OLD PASSWORD: Enter the old password
NEW PASSWORD: Enter the new password with 6 digit number
CONF PASSWORD: Enter the new password again
ENABLE PASSWORD: Activate the login function to the OSD
Default password: 000000
Supervisor password: 892226

System Setting

Clock Setting

CLOCK SETTING

TIME: HH:MM:SS
DATE: YY/MM/DD
BACK
EXIT

The system is equipped with a RTC (Real-Time Clock) and can be used to display the date/ time information on the screen, or schedule enabled operation. In order to use these functions correctly, you need to setup at first.

TIME: Change the time setting

DATE: Change the date setting

Use [LEFT], [RIGHT] to move the cursor and use [UP], [DOWN] to adjust the value. When finished, press [IRIS OPEN] to save the setting.

Camera Setting

CAMERA SETTING

ZOOM SPEED HIGH
DIGITAL ZOOM ON
BLC MODE OFF
SLOW SHUTTER OFF
LINE SYNC N/A
WDR MODE N/A
ADVANCE SETTING 1 →
ADVANCE SETTING 2 →
BACK
EXIT

Zoom Speed: Define the Zoom speed. Selectable: LOW/HIGH

Digital Zoom: Activate digital zoom, depend on Modul

BLC MODE: Back-Light Compensation mode. Use this option when the observed object has a strong back-light such as the sun light or other light source.

SLOW SHUTTER: The slow-shutter allows a higher sensitivity by exposing the image sensor with a longer period of time, incase the observed objects does not have much movement.

WDR MODE: Activate Wild Dynamic Range, depend on Modul

Note: This function is only available for models with Day/Night ability. please contact your local dealer in case of doubt.

Camera Setting

ADVANCE SETTING 1

IR CUT FILTER

IR CUT FILTER COLOR
IR CUT ON TIME N/A
IR CUT OFF TIME N/A
MAX GAIN 28dB
BACK
EXIT

IR CUTTER: Enables the removal of Infrared Cutter Filter (IRC), also known as "DAY/NIGHT" mode.

- Color Mode: remains in the day mode
- Black: IRC remains in night mode.
- TIME: Controlled by the time schedule.

IR CUT ON TIME: When the IR Cutter should turn on, given in day time.

IR CUT OFF TIME: When the IR Cutter should turn off, given in day time.

MAX GAIN: improve the image quality in the Night modus

Note: This function is only available for models with Day/Night ability. please contact your local dealer in case of doubt.

Camera Setting

Advanced Setting

ADVANCE SETTING

AE MODE → AUTO
SHUTTER N/A
IRIS N/A
BRUGHT N/A
WB MODE AUTO
R GAIN N/A
B GAIN N/A
HI RESOLUTION ON
BACK
EXIT

ADVANCED SETTING: Enters the advanced setting module for the camera setting

AE MODE: Auto-Exposure mode. This camera supports various exposure methods for different environment:

SHUTTER MODE: In shutter mode, the camera changes the shutter speed to regulate light.
IRIS MODE: Regulate the Iris-opening to control the exposure
BRIGHTNESS: Regulates the exposure by changing the brightness control
AUTO: Automatically regulates the exposure modes.

WB MODE: The camera supports ATW, Indoor and Outdoor mode of White balance, which chooses the correct color of the image.

R-Gain: Regulates the red elements in the image color

B-Gain: Regulates the blue elements in the image color

High-Resolution: Turns the High-Resolution mode of the camera. only available on supported camera models.

FUNCTION SETTING

```

PRESET →
SCAN →
PATTERNS →
TOUR →
ZONES →
TIME RUNNING →
BACK
EXIT

```

PRESET: Setup and manage the presents.
SCAN: Define and manage the scan tours.
PATTERNS: Pattern tours.
TOUR: Preset Tours
ZONES: Zone settings
TIME RUNNING: Scheduled actions

Function Setting

Presets

PRESET

```
PRESET NUMBER
SET PRESET
SHOW PRESET
CLEAR PRESET
EDIT PRESET LABEL →
BACK
```

PRESET NUMBER: Selected preset position, supports up to 128 presets.
SET PRESET: Setup the preset position. Enter this menu, move the PTZ to desired position and press [IRIS OPEN] to store, or [IRIS CLOSE] to discard.
SHOW PRESET: Recall the preset position
CLEAR PRESET: Delete the preset position
EDIT PRESET LABEL: Assign the preset label.

Function Setting

Scan

SCAN

```

SCAN SPEED                      50
SET LEFT LIMIT
SET RIGHT LIMIT
RUN SCAN
CLEAR SCAN
EDIT SCAN LABEL →
BACK
EXIT

```

SCAN SPEED: Define the scan speed, lowest 1 - fastest 50
SET LEFT LIMIT: Define the left point of scan tour, press [IRIS OPEN] to store, or [IRIS CLOSE] to discard.
SET RIGHT LIMIT: Define the right point of scan tour, press [IRIS OPEN] to store, or [IRIS CLOSE] to discard.
RUN SCAN: Start the scan tour
CLEAR SCAN: Erase the stored scan tour
EDIT SCAN LABEL: Assign a name of the tour

Function Setting

Pattern

PATTERNS

```

PATTERN NUMBER          XX
PROGRAM PATTERN
RUN PATTERN
CLEAR PATTERN
EDIT PATTERN LABEL →
BACK
EXIT

```

The Pattern-Tour is a custom-defined tour by recording user's control action up to 180 sec per tour. This dome can support up to 4 pattern tours.

PATTERN NUMBER: Selected pattern tour
PROGRAM PATTERN: Record the tour. Enter this menu and start the tour recording, when finished, Press[IRIS OPEN] to store.
RUN PATTERN: Start the selected pattern tour
CLEAR PATTERN: Delete the selected pattern
EDIT PATTERN LABEL: Assign the name of the pattern

Function Setting

Tour

TOUR

```

TOUR NUMBER      1
EDIT TOUR--
RUN TOUR
CLEAR TOUR
BACK
EXIT

```

A tour is a automated cruising through selected preset positions with individual speed and dwell time. This PTZ supports up to 4 tours with 24 position each.

TOUR NUMBER: Currently selected tour
EDIT TOUR: Edit the selected tour
RUN TOUR: Start the selected tour
CLEAR TOUR: Delete the selected tour

Function Setting

Tour

Edit Tour

EDIT TOUR

[illegible]

PO: The preset position being included in the tour. If there is no preset position stored, please define the preset at first.

S: The velocity when PTZ moves to this preset, between low1 - high 8.

TM: The dwell before the PTZ moves to next point. between 1-60 second

Function Setting

Zones

ZONE

```

ZONE NUMBER
SET LEFT LIMIT
SET RIGHT LIMIT
CLEAR ZONE
EDIT ZONE LABEL -->
BACK
EXIT

```

The ZONE function allows user to define a perimeter with a name tag. The perimeter is defined by given a left- and right-end of the PTZ range. When the camera enters this area, the name will be displayed on the screen, which provides better orientation in surveillance application. Up to 8 zones are supported.

ZONE NUMBER: Currently selected zone
SET LEFT LIMIT: Set the left-end, press [IRIS OPEN] to store, or [IRIS CLOSE] to discard.
SET RIGHT LIMIT: Set the right-end, press [IRIS OPEN] to store, or [IRIS CLOSE] to discard.
CLEAR ZONE: Delete the zone setting
EDIT ZONE LABEL: Edit the name tag

Function Setting

Zones

Edit Zone Label

EDIT ZONE LABEL

LABEL: ZONE -1
BACK
EXIT

Enter the zone name here.

Function Setting

Time Running

TIME RUNNING

TIME CHANNEL 1
START TIME 00:00
END TIME 01:00
RUNNING ▶
NONE
BACK
EXIT

The Time Running function is a scheduled start for predefined action, such as preset tour, scan tour ..etc. This dome supports up to 4 schedules. Before setting this function, please make sure that the system time has been set correctly.

TIME CHANNEL: Currently selected schedule

START TIME: Start time of the selected schedule

END TIME: End of the schedule

RUNNING: Define the action to be started. Select None to deactivate the function.

Window Blanking

WINDOW BLANKING

WINDOW NUMBER 01
EDIT WINDOW
ENABLE WINDOW OFF
CLEAR WINDOW
BACK
EXIT

The Window-Blanking function is use to protect the privacy in observed area, as this might be requested by the law. It is also known as "Privacy Masking", which cover the selected area with a blank window, depend on modul how much Masking it has.

WINDOW NUMBER: Currently selected window

EDIT WINDOW: Edit the current masking window

ENABLE WINDOW: Activate the masking window

CLEAR WINDOW: Dclear the selected masking window

Alarms

ALARMS

RESUME OFF
SEQUENCE 002
RESET DELAY 020
ALARM CONTACT N/C
ALARM SETTING →
ARM SETTING →
BACK
EXIT

RESUME: Continue the function on the camera , if it was setting before the alarms.

SEQUENCE:

RESET DELAY: How long the camera stay in Alarm position.

ALARM CONTACT: Setting between N/C (normal Close) or N/O (normal Open).

ENABLE WINDOW: Activate the masking window

ALARM SETTING: expanded Alarm setting

ARM SETTING: expanded Alarm setting

Alarms

Alarm Setting

ALARM SETTING

ALARM NUMBER 001
ALARM ACTION
TOUR
ACTIVATE AUX
NONE
ALARM PRIORITY HIGH
BACK
EXIT

ALARM NUMBER: supports up to 7 alarm (7 input & 1output pre-wired)

ALARM ACTION: Setting for PRESET, SCAN, TOUR, PAT 1-4, or NONE, if the camere in alarm position.

ACTIVATE AUX: Setting Alarm Output, when Alarm is activate. Select between AUX1, AUX2 (not connected) or BOTH.

ALARM PRIORITY: Priority when multiple alarms are triggered.

BACK: Move to previous menu.

Alarms

Arm Setting

ARM SETTING

DAY SUN
ARM STATE OFF
ARM TIME N/A
UNARM TIME NA
BACK
EXIT

DAY: Arm setting for weekdays

ARM STATE: Arm or disarm the alarm for the selected weekday

ARM TIME: Scheduled alarm time

UNARM TIME: Disarm time.

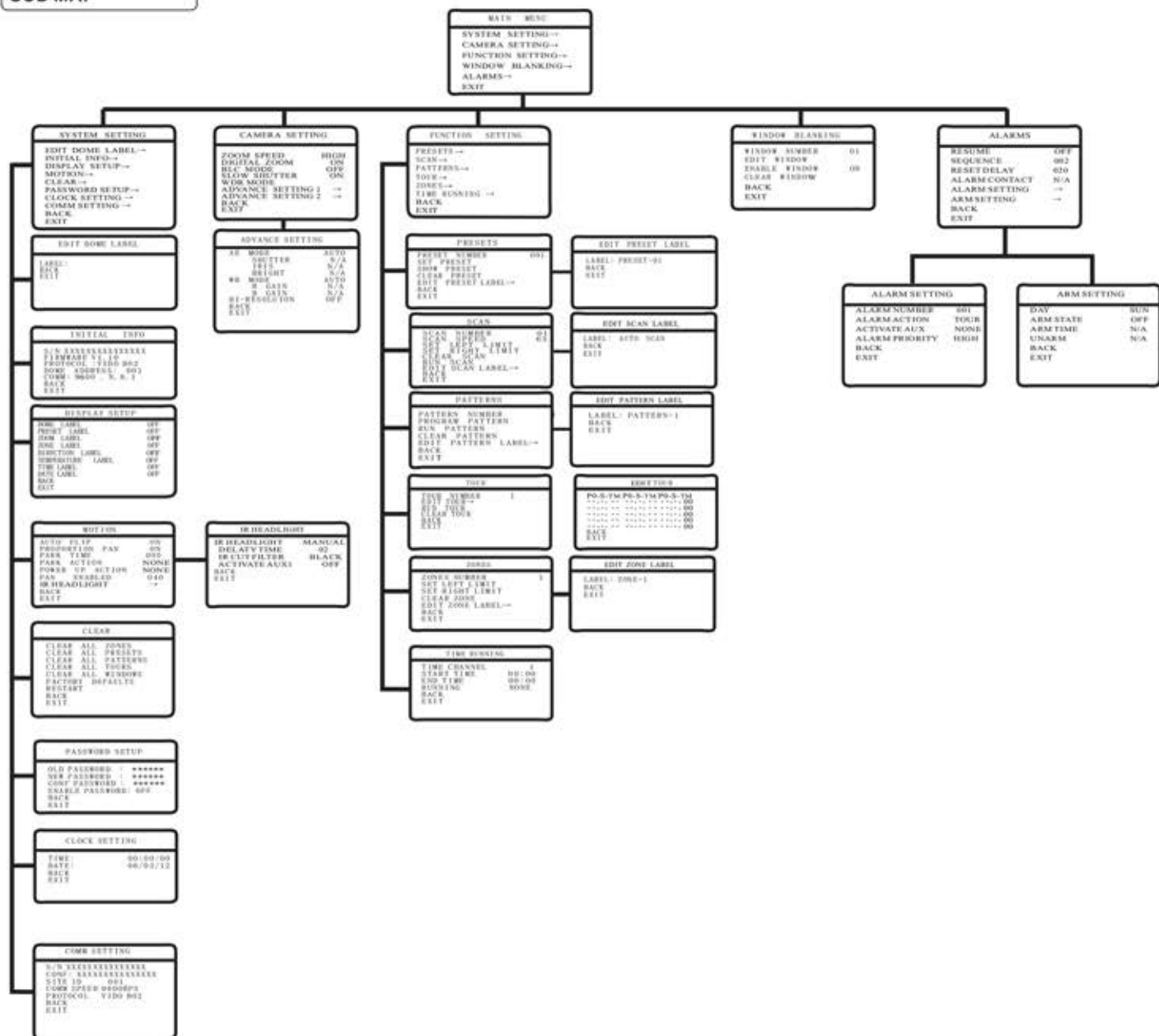
Language

LANGUAGE

LANGUAGE ENGLISH
BACK
EXIT

LANGUAGE: Selectable between available languages.

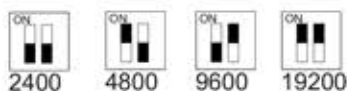
DIP Switch Setting



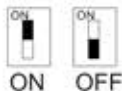
The Sw1 contains the setting for ID, please refer to next section for settings. Sw2 contains setting for Protocol, Baud-rate and Termination:



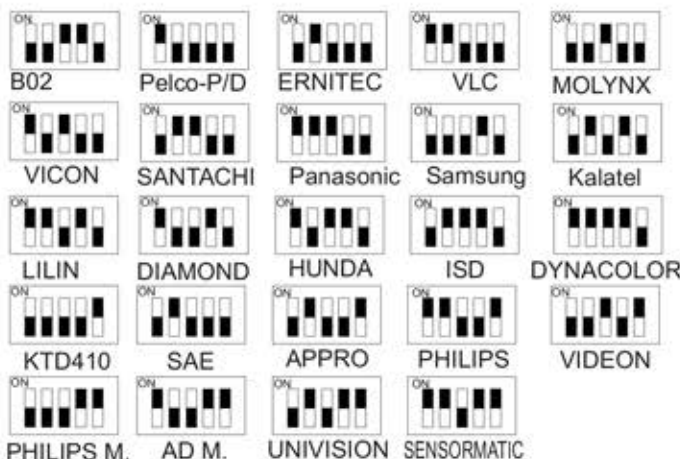
SW2 DIP 6 to7 : Baud-Rate



SW2 DIP 8 : Rs485 Termination



SW2 DIP 1 to 5 : Protocol



Note: Depends on distance requirement, the Baud-Rate of every protocol could be changed other than the originally specefied settings. Make sure that your controller device can work with the modified settings.

Note: VIDO B02 Protocol is fully compatible with VIDO B01. For previous version of Vido products please set to B02

ID	Switchnumber (Swl) Bit 1 2 3 4 5 6 7 8	ID	Switchnumber (Swl) Bit 1 2 3 4 5 6 7 8	ID	Switchnumber (Swl) Bit 1 2 3 4 5 6 7 8	ID	Switchnumber (Swl) Bit 1 2 3 4 5 6 7 8
	0 0 0 0 0 0 0 0	34	0 1 0 0 0 1 0 0	136	0 0 0 1 0 0 0 1	170	0 1 0 1 0 1 0 1
1	1 0 0 0 0 0 0 0	35	1 1 0 0 0 1 0 0	137	1 0 0 1 0 0 0 1	171	1 1 0 1 0 1 0 1
2	0 1 0 0 0 0 0 0	36	0 0 1 0 0 1 0 0	138	0 1 0 1 0 0 0 1	172	0 0 1 1 0 1 0 1
3	1 1 0 0 0 0 0 0	37	1 0 1 0 0 1 0 0	139	1 1 0 1 0 0 0 1	173	1 0 1 1 0 1 0 1
4	0 0 1 0 0 0 0 0	38	0 1 1 0 0 1 0 0	140	0 0 1 1 0 0 0 1	174	0 1 1 1 0 1 0 1
5	1 0 1 0 0 0 0 0	39	1 1 1 0 0 1 0 0	141	1 0 1 1 0 0 0 1	175	1 1 1 1 0 1 0 1
6	0 1 1 0 0 0 0 0	40	0 0 0 1 0 1 0 0	142	0 1 1 1 0 0 0 1	176	0 0 0 1 1 1 0 1
7	1 1 1 0 0 0 0 0	41	1 0 0 1 0 1 0 0	143	1 1 1 1 0 0 0 1	177	1 0 0 1 1 1 0 1
8	0 0 0 1 0 0 0 0	42	0 1 0 1 0 1 0 0	144	0 0 0 1 1 0 0 1	178	0 1 0 1 1 1 0 1
9	1 0 0 1 0 0 0 0	43	1 1 0 1 0 1 0 0	145	1 0 0 1 1 0 0 1	179	1 1 0 1 1 1 0 1
10	0 1 0 1 0 0 0 0	44	0 0 1 1 0 1 0 0	146	0 1 0 1 1 0 0 1	180	0 0 1 1 1 1 0 1
11	1 1 0 1 0 0 0 0	45	1 0 1 1 0 1 0 0	147	1 1 0 1 1 0 0 1	181	1 0 1 1 1 1 0 1
12	0 0 1 1 0 0 0 0	46	0 1 1 1 0 1 0 0	148	0 0 1 1 0 1 0 1	182	0 1 1 1 1 1 0 1
13	1 0 1 1 0 0 0 0	47	1 1 1 1 0 1 0 0	149	1 0 1 1 0 1 0 1	183	1 1 1 1 1 1 0 1
14	0 1 1 1 0 0 0 0	48	0 0 0 1 1 1 0 0	150	0 1 1 1 0 1 0 1	184	0 0 1 1 1 1 0 1
15	1 1 1 1 0 0 0 0	49	1 0 0 1 1 1 0 0	151	1 1 1 1 0 1 0 1	185	1 0 1 1 1 1 0 1
16	0 0 0 0 1 0 0 0	50	0 1 0 1 1 1 0 0	152	0 0 0 1 1 0 0 1	186	0 1 0 1 1 1 0 1
17	1 0 0 0 1 0 0 0	51	1 1 0 1 1 1 0 0	153	1 0 0 1 1 0 0 1	187	1 1 0 1 1 1 0 1
18	0 1 0 0 1 0 0 0	52	0 0 1 1 1 1 0 0	154	0 1 0 1 1 0 0 1	188	0 0 1 1 1 1 0 1
19	1 1 0 0 1 0 0 0	53	1 0 1 1 1 1 0 0	155	1 1 0 1 1 0 0 1	189	1 0 1 1 1 1 0 1
20	0 0 1 0 1 0 0 0	54	0 1 1 1 1 1 0 0	156	0 0 1 1 1 0 0 1	190	0 1 1 1 1 1 0 1
21	1 0 1 0 1 0 0 0	55	1 1 1 1 1 1 0 0	157	1 0 1 1 1 0 0 1	191	1 1 1 1 1 1 0 1
22	0 1 1 0 1 0 0 0	56	0 0 0 1 1 1 1 0 0	158	0 1 1 1 1 0 0 1	192	0 0 0 0 0 0 1 1
23	1 1 1 0 1 0 0 0	57	1 0 0 1 1 1 1 0 0	159	1 1 1 1 1 0 0 1	193	1 0 0 0 0 0 1 1
24	0 0 0 1 1 1 0 0 0	58	0 1 0 1 1 1 1 0 0	160	0 0 0 0 0 1 0 1	194	0 1 0 0 0 0 1 1
25	1 0 0 1 1 1 0 0 0	59	1 1 0 1 1 1 1 0 0	161	1 0 0 0 0 1 0 1	195	1 1 0 0 0 0 1 1
26	0 1 0 1 1 1 0 0 0	60	0 0 1 1 1 1 1 0 0	162	0 1 0 0 0 1 0 1	196	0 0 1 0 0 0 1 1
27	1 1 0 1 1 1 0 0 0	61	1 0 1 1 1 1 1 0 0	163	1 1 0 0 0 1 0 1	197	1 0 1 0 0 0 1 1
28	0 0 1 1 1 1 0 0 0	62	0 1 1 1 1 1 1 0 0	164	0 0 1 0 0 1 0 1	198	0 1 1 0 0 0 1 1
29	1 0 1 1 1 1 0 0 0	63	1 1 1 1 1 1 1 0 0	165	1 0 1 0 0 1 0 1	199	1 1 1 0 0 0 1 1
30	0 1 1 1 1 1 0 0 0	64	0 0 0 0 0 0 1 0	166	0 1 1 0 0 1 0 1	200	0 0 1 0 0 1 1
31	1 1 1 1 1 1 0 0 0	65	1 0 0 0 0 0 1 0	167	1 1 1 0 0 1 0 1	201	1 0 1 0 0 1 1
32	0 0 0 0 0 1 0 0	66	0 1 0 0 0 0 1 0	168	0 0 0 1 0 1 0 1	202	0 1 0 1 0 1 1
33	1 0 0 0 0 1 0 0	67	1 1 0 0 0 0 1 0	169	1 0 0 1 0 1 0 1	203	1 1 0 1 0 1 1

ID	Switchnumber (Swl) Bit 1 2 3 4 5 6 7 8	ID	Switchnumber (Swl) Bit 1 2 3 4 5 6 7 8	ID	Switchnumber (Swl) (Bit) 1 2 3 4 5 6 7 8	ID	Switchnumber (Swl) (Bit) 1 2 3 4 5 6 7 8
68	0 0 1 0 0 0 1 0	102	0 1 1 0 0 1 1 0	204	0 0 1 1 0 0 1 1	238	0 1 1 1 0 1 1 1
69	1 0 1 0 0 0 1 0	103	1 1 1 0 0 1 1 0	205	1 0 1 1 0 0 1 1	239	1 1 1 1 0 1 1 1
70	0 1 1 0 0 0 1 0	104	0 0 0 1 0 1 1 0	206	0 1 1 1 0 0 1 1	240	0 0 0 1 1 1 1 1
71	1 1 1 0 0 0 1 0	105	1 0 0 1 0 1 1 0	207	1 1 1 1 0 0 1 1	241	1 0 0 1 1 1 1 1
72	0 0 0 1 0 0 1 0	106	0 1 0 1 0 1 1 0	208	0 0 0 1 0 1 1 1	242	0 1 0 1 1 1 1 1
73	1 0 0 1 0 0 1 0	107	1 1 0 1 0 1 1 0	209	1 0 0 1 0 1 1 1	243	1 1 0 1 1 1 1 1
74	0 1 0 1 0 0 1 0	108	0 0 1 1 0 1 1 0	210	0 1 0 1 0 1 1 1	244	0 0 1 0 1 1 1 1
75	1 1 0 1 0 0 1 0	109	1 0 1 1 0 1 1 0	211	1 1 0 1 0 1 1 1	245	1 0 1 0 1 1 1 1
76	0 0 1 1 0 0 1 0	110	0 1 1 1 0 1 1 0	212	0 0 1 0 1 0 1 1	246	0 1 1 0 1 1 1 1
77	1 0 1 1 0 0 1 0	111	1 1 1 1 0 1 1 0	213	1 0 1 0 1 0 1 1	247	1 1 1 0 1 1 1 1
78	0 1 1 1 0 0 1 0	112	0 0 0 1 1 1 1 0	214	0 1 1 0 1 0 1 1	248	0 0 0 1 1 1 1 1
79	1 1 1 1 0 0 1 0	113	1 0 0 1 1 1 1 0	215	1 1 1 0 1 0 1 1	249	1 0 0 1 1 1 1 1
80	0 0 0 1 1 0 1 0	114	0 1 0 1 1 1 1 0	216	0 0 0 1 1 0 1 1	250	0 1 0 1 1 1 1 1
81	1 0 0 1 1 0 1 0	115	1 1 0 1 1 1 1 0	217	1 0 0 1 1 0 1 1	251	1 1 0 1 1 1 1 1
82	0 1 0 1 1 0 1 0	116	0 0 1 1 1 1 1 0	218	0 1 0 1 1 0 1 1	252	0 0 1 1 1 1 1 1
83	1 1 0 1 1 0 1 0	117	1 0 1 1 1 1 1 0	219	1 1 0 1 1 0 1 1	253	1 0 1 1 1 1 1 1
84	0 0 1 1 1 0 1 0	118	0 1 1 1 1 1 1 0	220	0 0 1 1 1 0 1 1	254	0 1 1 1 1 1 1 1
85	1 0 1 1 1 0 1 0	119	1 1 1 1 1 1 1 0	221	1 0 1 1 1 0 1 1	255	1 1 1 1 1 1 1 1
86	0 1 1 1 1 0 1 0	120	0 0 0 1 1 1 1 0	222	0 1 1 1 1 0 1 1		
87	1 1 1 1 1 0 1 0	121	1 0 0 1 1 1 1 0	223	1 1 1 1 1 0 1 1		
88	0 0 0 1 1 1 0 1 0	122	0 1 0 1 1 1 1 0	224	0 0 0 0 0 1 1 1		
89	1 0 0 1 1 1 0 1 0	123	1 1 0 1 1 1 1 0	225	1 0 0 0 0 1 1 1		
90	0 1 0 1 1 1 0 1 0	124	0 0 1 1 1 1 1 0	226	0 1 0 0 0 1 1 1		
91	1 1 0 1 1 1 0 1 0	125	1 0 1 1 1 1 1 0	227	1 1 0 0 0 1 1 1		
92	0 0 1 1 1 1 0 1 0	126	0 1 1 1 1 1 1 0	228	0 0 1 0 0 1 1 1		
93	1 0 1 1 1 1 0 1 0	127	1 1 1 1 1 1 1 0	229	1 0 1 0 0 1 1 1		
94	0 1 1 1 1 1 0 1 0	128	0 0 0 0 0 0 1 1	230	0 1 1 0 0 1 1 1		
95	1 1 1 1 1 1 0 1 0	129	1 0 0 0 0 0 1 1	231	1 1 1 0 0 1 1 1		
96	0 0 0 0 0 1 1 1 0	130	0 1 0 0 0 0 1 1	232	0 0 0 1 0 1 1 1		
97	1 0 0 0 0 1 1 1 0	131	1 1 0 0 0 0 1 1	233	1 0 0 1 0 1 1 1		
98	0 1 0 0 0 1 1 1 0	132	0 0 1 0 0 0 1 1	234	0 1 0 1 0 1 1 1		
99	1 1 0 0 0 1 1 1 0	133	1 0 1 0 0 0 1 1	235	1 1 0 1 0 1 1 1		
100	0 0 1 0 0 1 1 1 0	134	0 1 1 0 0 0 1 1	236	0 0 1 1 0 1 1 1		
101	1 0 1 0 0 1 1 1 0	135	1 1 1 0 0 0 1 1	237	1 0 1 1 0 1 1 1		

Camera Functions	Model	EL-9036
	Image	1/4" Ex-View HAD CCD
	Effective Pixels	440 000 pixels
	Sync. System	Internal/external (V-Lock)
	Video Output	Compound Signal 1.0Vp-p/75Ω
	White Balance	Automatic/Manual
	AE Control	Auto, Manual, Bight, Blacklight Compensation
	Horizontal Resolution	470 TVL /530 TVL
	S/N Ratio	≥50db
	Electronic Shutter	1/1 to 1/10 000s, 22 steps
	Lowest LUX	0 LUX
	Focusing Range	f= 3.4mm-122.4, 36X
	Iris & Zoom	Automatic/Manual
Basic Functions of PAN/TILT	Pan Movement	0-80°/s
	Tilt Movement	0-60°/s
	Preset Position	128 position in maximum
	Patrol Function	6 patrol patterns are stored in maximum
	Scanning Speed	0.5-30°/s
	Self- Study Plattern	40 sec
Infrared Lamp	Infrared Illuminator	High Brightness LED X 36pcs
	Wavelength	850 nm
	Project Distance	60 m (IR)
	Power Consumption	10 W
	Control of Infrared Lamp	Auto/Manual control on menu
	Service Life of Infrared Lamp	Over 20000 hours
Alarm	Four Channel Inputs	Normal Open, closing for Alarm
	One Channel Output	Normal Open, Normal Close Output
Specifications	Power Supply	AC 24V 10% $I_{in} \geq 1.75A$
	Power Consumption	30 VA
	Weight	10 Kg
	Installation Style	Plain Base Installation/Vehicle-Carried
	Realative Humidity	10-90%
	Operation Temperature	-35°C ~ 50°C
	Waterproof Class	IP66