

# KEYBOARD CONTROLLER

## USER MANUAL

*EXCELLENT CONTROL DEVICE WITH FULL FUNCTIONALITY*



Thank you for choosing this keyboard controller.  
Before attempting to connect or operate this product,  
please read the instructions thoroughly and  
save this manual for future reference.

## IMPORTANT SAFEGURARD



### CAUTION

#### RISK OF ELECTRIC SHOCK



#### CAUTION:

To reduce the risk of electric shock, do not expose this apparatus to rain or moisture.

Only operate this apparatus from the type of power source indicated on the label.

The company shall not be liable for any damages arising out of any improper use, even if we have been advised of the possibility of such damages.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



This exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.



#### ROHS Announcement

All lead-free products offered by the company comply with the requirements of the European law on the Restriction of Hazardous Substances (RoHS) directive, which means our manufacture processes and products are strictly “lead-free” and without the hazardous substances cited in the directive.



The crossed-out wheeled bin mark symbolizes that within the European Union the product must be collected separately at the product end-of-life. This applies to your product and any peripherals marked with this symbol. Do not dispose of these products as unsorted municipal waste.



#### CE Mark

This apparatus is manufactured to comply with the radio interference.

We reserve the right to make improvements to the documentation, software and firmware of its products without notice. In order to provide users with better operation of this product, information in this manual is intended to be accurate and reliable. However, we assume no responsibility for its use, nor for any infringements of rights of third parties whom may result from its use. For the actual display & operation, please refer to your device in hand. Any changes of this manual are subject to the actual product without further notification.

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# INTRODUCTION

## 1. Overview

This product is designed for use with all our speed dome cameras & DVRs. It can serve as a control console to manage your surveillance system, and is able to control up to 64 devices with the convenient 3D joystick and functional keypad design. Accurate control of the pan / tilt / zoom movement for a speed dome camera becomes easy, and you can operate other devices via this product conveniently.

## 2. Features

- Controls up to 64 devices through one keyboard controller  
(Devices such as the PTZ camera & DVR...etc.)
- User-friendly button placement & LCD touch panel (128 \* 64 pixels) for easy operation
- Network upgrade available for future scalability
- Supports our own protocol, PELCO-D and PELCO-P
- Password protection to prevent unauthorized users
- Built-in microphone for broadcast function

## 3. Specifications

Keyboard Controller	
Device Control	PTZ camera & DVR...etc.
Remote Control	RS-485
Protocols	Our own protocol / PELCO-D / PELCO-P
Baud Rate	2400 ~ 57600
LCD Display	128 * 64 pixels
Ethernet Port	10/100 Base-T
Serial Port	9-Pin D-Sub
Input Voltage	DC12V
Power Consumption	< 2W
Operating Temperature	0°C ~ 40°C
Operating Humidity	< 95%
Dimension	380(W) mm x 180(H) mm x 95(D) mm

\* The specifications are subject to change without notice.

Table 1: Keyboard controller specifications

## 4. Package Content

Please make sure you have the following items in your sales package:



Keyboard Controller x 1



Stylus x 1



9-pin D-Sub Connector  
and its accessories x 1



Adapter x 1



User Manual x 1

# CONNECTION AND SETUP

## 1. General Connection

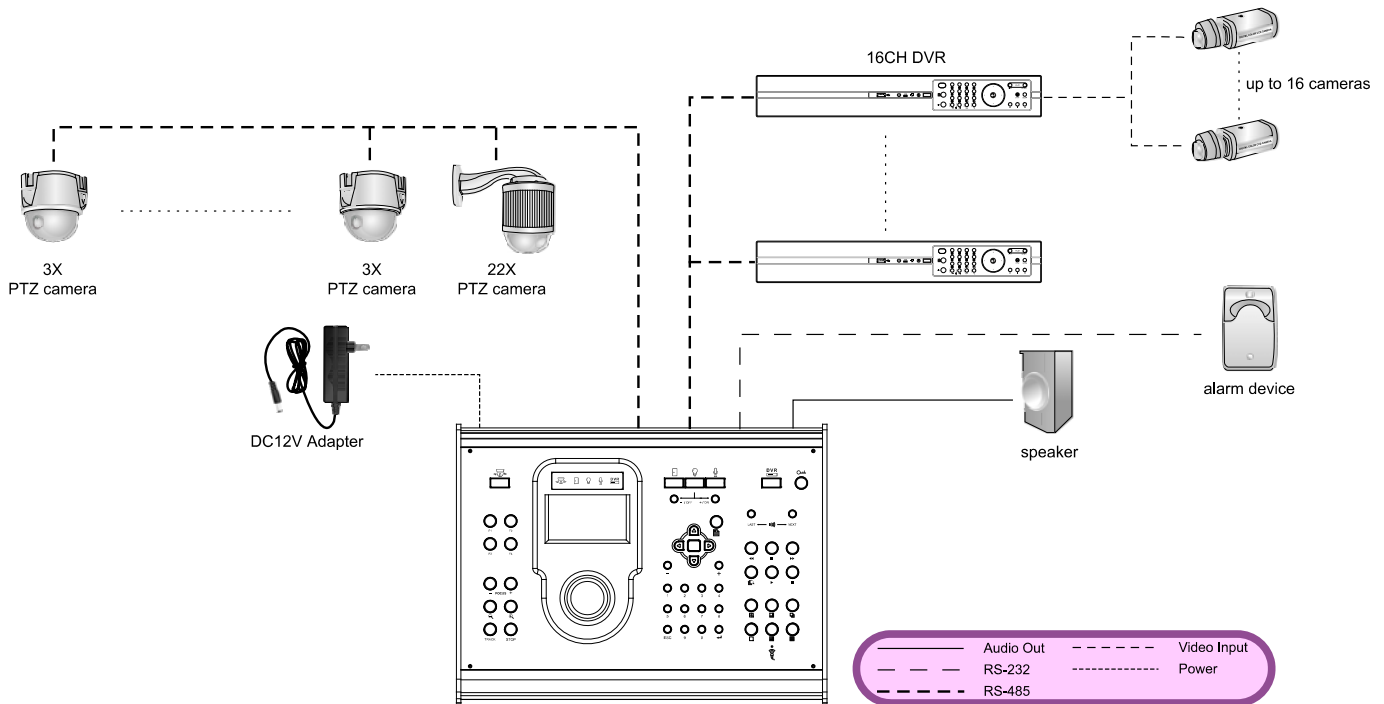


Figure 1: Example of keyboard controller connection -- connect up to 64 devices

## 2. Connectors on Rear Panel

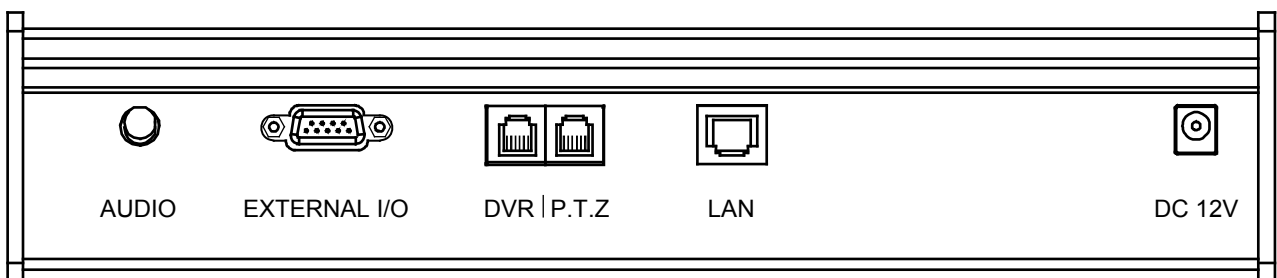


Figure 2: Connectors on the rear side

### a). Audio Out (AUDIO)

Audio-out connector, used to connect to an audio device, such as a speaker.

**NOTE** This function will be ready in the future.

### b). External I/O Port (EXTERNAL I/O)

RS-232 port, used to connect to an external alarm device with the supplied 9-pin D-Sub connector.

- **PIN Configuration**

Only PIN 1, 3 and 5 are functional. Connect to PIN 1 & 3, or PIN 1 & 5 depending on your situation.

PIN	FUNCTION	DESCRIPTION
1	COM. (COMMON)	COM. is used with N.O. or N.C. for the N.O. or N.C. circuit to take effects.  For the N.O. or N.C. connection, and the alarm-triggered criteria, see the description below.
3	N.O. (NORMALLY OPEN)	When N.O. is connected, an alarm is triggered by a momentary short in a normally-open (N.O.) circuit.
5	N.C. (NORMALLY CLOSED)	When N.C. is connected, an alarm is triggered by a momentary break in a normally-closed (N.C.) circuit.

Table 2: PIN configuration

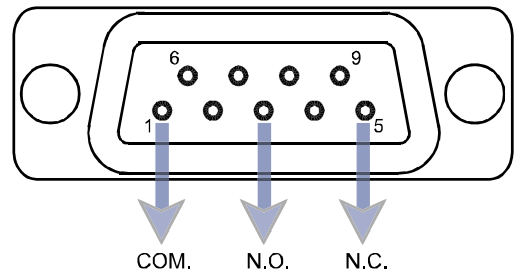


Figure 3: Solder side of this product's supplied 9-pin D-Sub connector

### c). RS485 Port (DVR / P.T.Z)

Two RS485 ports, used to connect to a speed dome camera or DVR.

- Port Connection & System Mode Selection

Device	Connection Method	Port	Mode*
One DVR and one camera	--	DVR: DVR	M-1
		Camera: P.T.Z	
A DVR	--	DVR	M-1
Two DVRs or more	Parallel**	DVR	M-1
		DVR	M-2
One camera	--	P.T.Z	Both M-1 and M-2 are OK
		DVR & P.T.Z	M-2
Two cameras or more	Parallel	DVR	M-2
		P.T.Z	Both M-1 and M-2 are OK
		DVR & P.T.Z	M-2

Table 3: RS485 port connection and system mode selection

### d). LAN

Connect to the local area network (LAN) or Internet through a network cable with RJ-45 connectors. This port can be used only for firmware upgrade, and extend the scalability of this product.

For details, please see "Firmware Upgrade" at page 21

### e). Power Connector (DC 12V)

Connect to the supplied adapter.

\* To select the mode, click "Conf" on the touch panel, and go to "Mode". For details, please see "Set Mode" at page 18.

\*\* For parallel connection details, please see "Parallel Connection With Two Or More Cameras" at page 6, and "Parallel Connection With Two Or More DVRs" at page 8.

### 3. Speed Dome Camera Connection

There are only two RS485 ports (DVR / P.T.Z) for camera connection. For the normal camera connection, please see “Single Camera Connection” at page 5. For the parallel connection with two or more cameras, please see “Parallel Connection With Two Or More Cameras” at page 6.

**NOTE:** You need a RJ11 line to connect this product and a speed dome camera. Different RJ11 connector may have different RS485-A & RS485-B wire layout, so the connection might be different. If you cannot control the camera after connection, please reverse the wire connection with the camera.

#### a). Single Camera Connection

Step1: Before connecting this product to your speed dome camera, finish the camera connection and setup first as described in your camera’s user manual.

Step2: Get a RJ11 line with the proper length for your connection.

Step3: Remove one end of the insulating coating of the RJ11 line to reveal four wires. Find the RS485-A and the RS485-B wires, and remove the insulating coating to reveal the naked wires for further connection. For example, in *Figure 4*, the RS485-A wire is the red one, and the RS485-B wire is the green one.

**NOTE:** The RJ11 line is not supplied in the sales package.

Step4: Find the RS485-A and RS485-B wires from your speed dome camera (*Figure 5*). For details, please check your camera’s user manual.

Step 5: Twist the red and green wires of the RJ11 line to the corresponding wires of your camera. Take *Figure 4 & 5* as an example, the connection will be as follows:

RJ11 Line	Camera
Red wire (RS485-A)	Brown wire
Green wire (RS485-B)	Orange wire

Step6: To protect the naked wires, use the insulation tape to cover on the twisted wires.

Step7: Connect the RJ11 connector to the RS485 port “DVR” and / or “P.T.Z” on the rear side of this product depending on your connection needs. For details, please see “Table 3: RS485 port connection and system mode selection” at page 4.



Figure 4: RJ11 Line

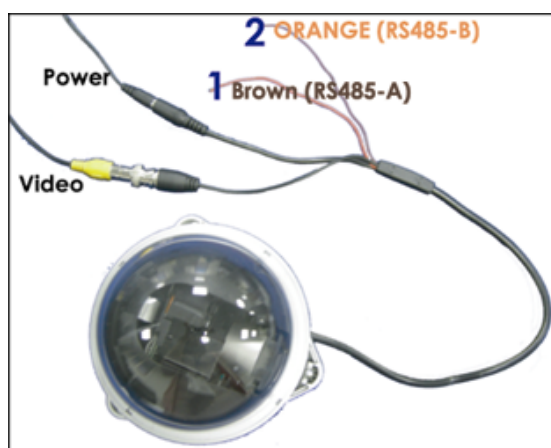


Figure 5: Example of RS485-A and RS485-B wires

Step8: Click “Conf” on the touch panel, and click the system icon and camera icon to make related settings.

- System (See “System” at page 17 for details)

MODE : Select M-1 or M-2 depending on your connection needs.  
For details, please see “Table 3: RS485 port connection and system mode selection” at page 4 for details

- Camera (See “Camera” at page 19 for details)

RATE : Check and select the baud rate the same as the connected speed dome camera is used.

MODE : Choose the proper camera protocol depending on the camera type, AVP321 / AVP311 / PELCO-D / PELCO-P.

ID : Assign a unique ID. This ID is important for this product to identify the camera you want to control if two or more speed dome cameras are connected.

## b). Parallel Connection With Two Or More Cameras

Step1: Before connecting this product to two or more speed dome cameras, finish the camera connection and setup first as described in your camera’s user manual.

Step2: Get a RJ11 line with the proper length for your connection.

Step3: Remove one end of the insulating coating of the RJ11 line to find the RS485-A and the RS485-B wires, and remove the insulating coating to reveal the naked wires for further connection. For example, in *Figure 4*, the RS485-A wire is the red one, and the RS485-B wire is the green one.

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**NOTE:** The RJ11 line is not supplied in the sales package.

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Step4: Find the RS485-A and RS485-B wires (*Figure 5*) from all your speed dome cameras. For details, please check your camera’s user manual.

Step 5: Twist the red wire of the RJ11 line and the RS485-A wires of all the cameras together. Then, twist the green wire of the RJ11 line and the RS485-B wires of all the cameras together.

Step6: To protect the naked wires, use the insulation tape to cover on the twisted wires.

Step7: Connect the RJ11 connector to the RS485 port “DVR” or “P.T.Z” on the rear side of this product depending on your connection needs. For details, please see “Table 3: RS485 port connection and system mode selection” at page 4 for details.

Step8: Click “Conf” on the touch panel, and click the system icon and camera icon to make related settings.

- System (See “System” at page 17 for details)

MODE : Select M-1 or M-2 depending on your connection needs.  
For details, please see “Table 3: RS485 port connection and system mode selection” at page 4 for details

NET WORK : Check if this product is under the same domain as the connected speed dome camera.

- Camera (See “Camera” at page 19 for details)

RATE : Check and select the baud rate the same as the connected speed dome camera is used.

MODE : Choose the proper camera protocol depending on the camera type, AVP321 / AVP311 / PELCO-D / PELCO-P.

ID : Assign a unique ID. This ID is important for this product to identify the camera you want to control if two or more speed dome cameras are connected. You need to set different ID for each connected camera, or this product will not be able to control it.

## 4. DVR Connection

There is only one RS485 port (DVR) available for DVR connection. For the single DVR connection, please see “Single DVR Connection” at page 7. For the parallel connection with two or more DVRs, please see “Parallel Connection With Two Or More DVRs” at page 8.

**NOTE:** You need a RJ11 line to connect this product and a DVR. Different RJ11 connector may have different RS485-A & RS485-B wire layout, so the connection might be different. If you cannot control the DVR after connection, please reverse the wire connection with the DVR.

### a). Single DVR Connection

- Step1: Before connecting this product to your DVR, finish your DVR connection and setup first as described in your DVR’s user manual.
- Step2: Get a RJ11 line with the proper length to your connection.
- Step3: Remove one end of the insulating coating of the RJ11 line to find the RS485-A and the RS485-B wires, and remove the insulating coating to reveal the naked wires for further connection. For example, in *Figure 6*, the RS485-A wire is the red one, and the RS485-B wire is the green one.



Figure 6: RJ-11 Line

**NOTE:** The RJ11 line is not supplied in the sales package.

- Step4: Solder the red and green wires of the RJ11 line to the corresponding pins of the D-Sub connector supplied with the connected DVR (*Figure 7*), or the RS485 port on the DVR rear panel (*Figure 8*).

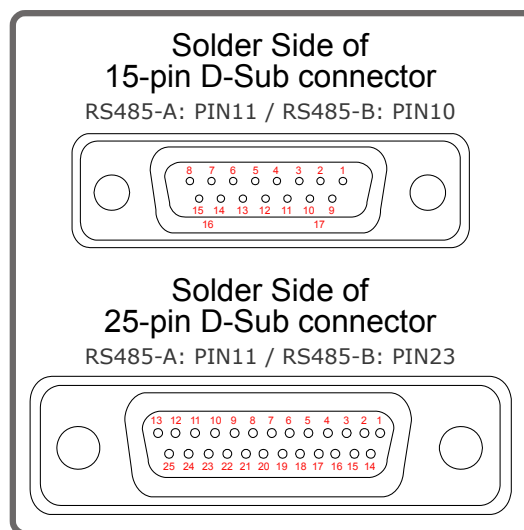


Figure 7: Solder side of the DVR’s supplied D-Sub connector

RJ11 Line	DVR D-Sub Connector
Red wire (RS485-A)	15PIN Connector: PIN11 25PIN Connector: PIN11
Green wire (RS485-B)	15PIN Connector: PIN10 25PIN Connector: PIN23

Table 4: RJ11 line to DVR Connection

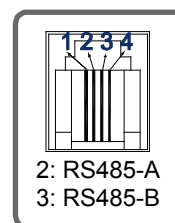


Figure 8: RS485 Port

**NOTE:** The actual corresponded RS485-A/B pin number, please refer to your DVR user manual or consult your installer.

- Step5: To protect the naked wires, use the insulation tape to cover on the twisted wires.
- Step6: Insert the connector to the DVR’s external I/O port.

Step7: Connect the RJ11 connector to the “DVR” port on the rear panel of this product.

Step8: Click “Conf” on the touch panel, and click the system icon and DVR icon to make related settings.

● System (See “System” at page 17 for details)

MODE : Select M-1.

● DVR (See “DVR” at page 20 for details)

RATE : Check and select the baud rate the same as the connected DVR is used.

MODE : Choose the proper DVR protocol depending on the DVR type, DVR-16 (16CH) / DVR-8 (8CH) / DVR-4 (4CH).

ID : Assign a unique ID. This ID is important for this product to identify the DVR you want to control.

## b). Parallel Connection With Two Or More DVRs

Step1: Before connecting this product to your DVR, finish your DVR connection and setup first as described in your DVR’s user manual.

Step2: Get enough RJ11 lines with the proper length for your connection. If you want to connect two DVRs, three RJ11 lines will be needed; if you want to connect three DVRs, four RJ11 lines will be needed, etc. The following description will take two-DVR connection as an example.

Step3: Remove one end of the insulating coating of the RJ11 line to find the RS485-A and the RS485-B wires, and remove the insulating coating to reveal the naked wires for further connection. For example, in *Figure 6*, the RS485-A wire is the red one, and the RS485-B wire is the green one.

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**NOTE:** The RJ11 line is not supplied in the sales package.

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Step4: Solder the red and green wires of the RJ11 line to the corresponding pins of the D-Sub connector supplied with the connected DVR (*Figure 7*).

Step5: Twist the red wire of the RJ11 line and the RS485-A wires of the two DVRs together. Then, twist the green wire of the RJ11 line and the RS485-B wires of the two DVRs together.

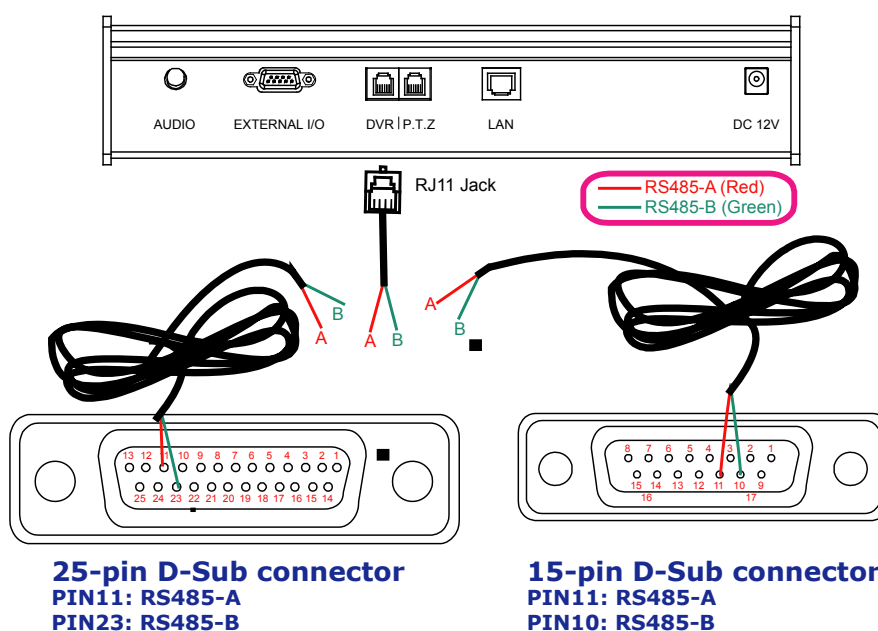


Figure 9: Example of Parallel Connection with Two DVRs

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**NOTE:** The actual corresponded RS485-A/B pin number, please refer to your DVR user manual or consult your installer.

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Step6: To protect the naked wires, use the insulation tape to cover on the twisted wires.

Step7: Insert the D-Sub connector to the DVR's external I/O port.

Step8: Connect the RJ11 connector to the port "DVR" on the rear panel of this product.

Step9: Click "Conf" on the touch panel, and click the system icon and DVR icon to make related settings.

- System (See "System" at page 17 for details)

MODE : Select M-1.

- DVR (See "DVR" at page 20 for details)

RATE : Check and select the baud rate the same as the connected DVR is used.

MODE : Choose the proper DVR protocol depending on the DVR type, DVR-16 (16CH) / DVR-8 (8CH) / DVR-4 (4CH).

ID : Assign a unique ID. This ID is important for this product to identify the DVR you want to control. You need to set different ID for each connected DVR, or this product will not be able to control it.

# PARTS AND KEYS

This chapter describes the keypad layout, and the function or usage of each key and the combination keys.

## 1. Keypad Layout

Figure 9 shows the keypad layout of this product, from which you can briefly check the functions of this product. For details of each key function, please see “Function of Each Key” at page 11.

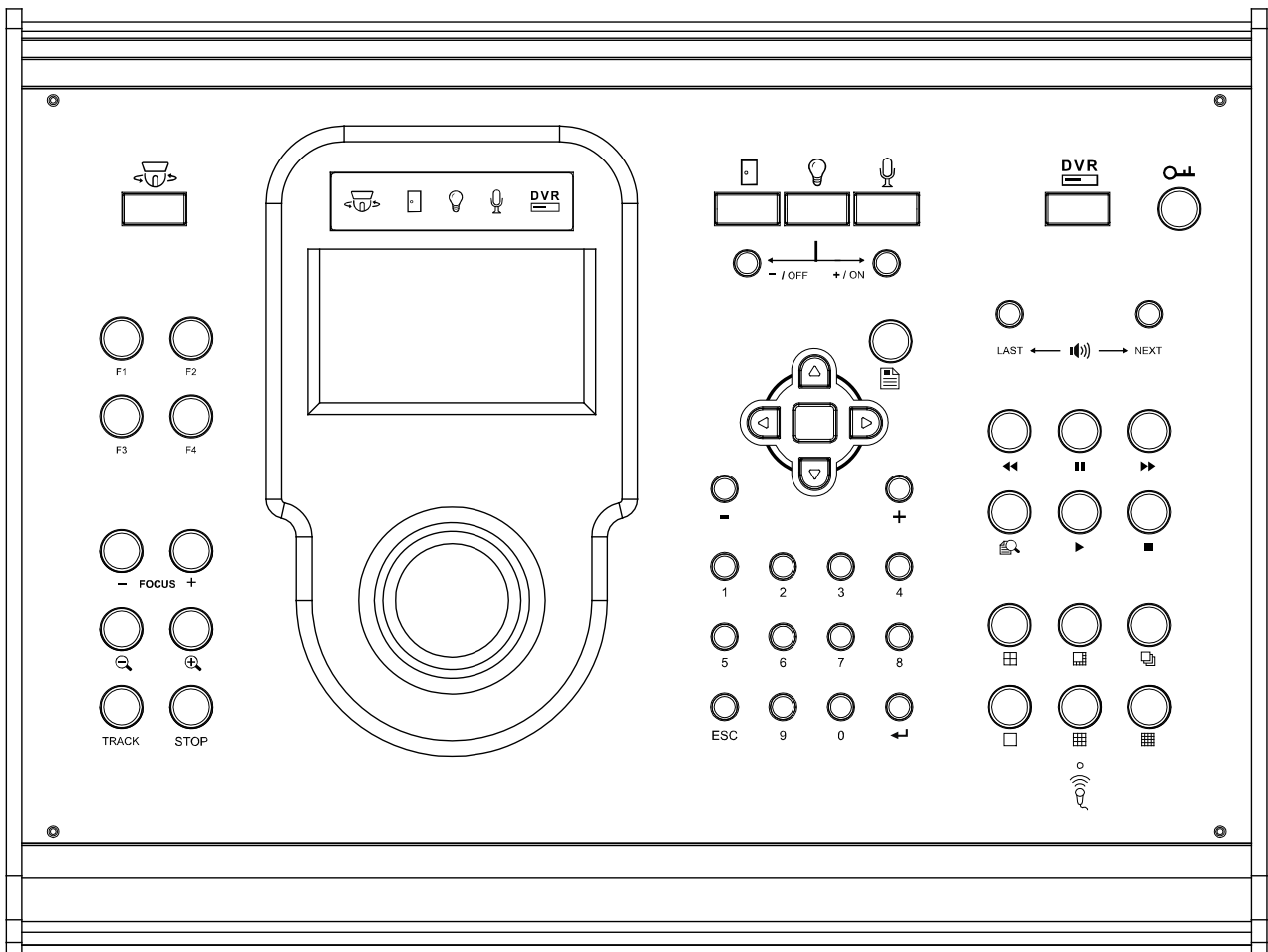


Figure 10: Controller Keypad Layout

## 2. LCD Display

Device LED : Indicate which device this product is controlling right now.

The icons from left to right represent the speed dome camera, door access system, lighting system, microphone, and DVR respectively.

To switch between each device, please see “Device Selection” at page 11 for details.

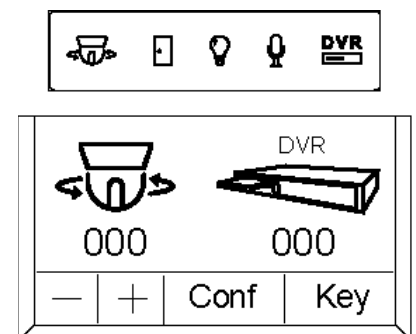


Figure 11: LED Display & Touch Panel

Touch Panel : In the standby mode, touch the panel or press any key to show the latest camera ID and DVR ID this product controlled.

▶ **To control the connected device:**

With the supplied stylus, click the device icon (PTZ camera or DVR), and key in the ID number of the device you want to control by clicking “+” or “-” on the touch panel, or directly entering the ID with the number pad (See “Number Pad” at page 13).

▶ **To configure the connected device:**

With the supplied stylus, click “Conf” on the touch panel, and select the device you want to configure (See the chapter “PROGRAMMING” at page 16).

▶ **To set the hot key operation for the PTZ camera:**

With the supplied stylus, click the camera icon, and click “Key” on the touch panel to set the PTZ camera, by clicking “+” or “-” on the touch panel, or directly entering the ID with the number pad (See “Number Pad” at page 13), for the following functions:

- HOME : Go to the home position.
- GOTO : Assign the preset point when the corresponding function key is pressed.
- SEQ : Assign the sequence group when the corresponding function key is pressed.
- AUTO PAN : Enable the camera panning function.

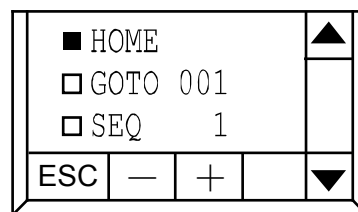







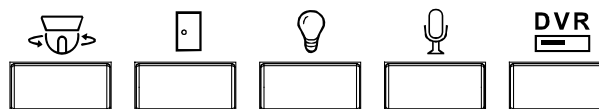
Figure 12: Key

### 3. Function of Each Key

#### a). Device Selection

Choose from the device selection keys based on the connected device. The keys on the right hand side represent the devices this product can control: speed




dome camera (  ), door access control (  ), lighting system (  ), microphone (  ) and DVR (  ).



*\*Access control, lighting system & microphone support will be ready soon.*

## b). Device Control

This key set is designed to use with the control of the door access

() , lighting system () and microphone () . Press ON / OFF to turn the device on / off.

*This function will be ready in the future.*



## c). Lock

Press this key to lock the keypad, and press again to unlock by entering the unlock password with the number pad.

To set the password, please see "Set Password" at page 17.



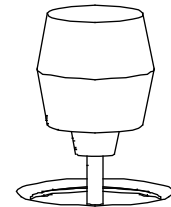
## d). Joystick

### Movement

Tilt up  
Tilt down  
Tilt left  
Tilt right  
Turn clockwise  
Turn counter-clockwise

### Camera Control

Move the camera up  
Move the camera down  
Move the camera left  
Move the camera right  
Zoom In  
Zoom Out



## e). General

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**NOTE:** The actual operation varies depending on the device you switch to.





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- Menu

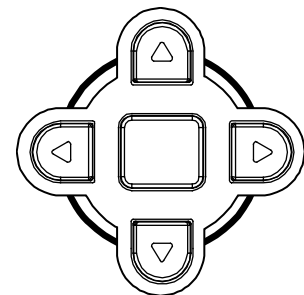
Press this key to show the main menu of the connected device, and press again to go to the upper level of the menu list, or exit the menu.



- Navigation

Press  /  /  /  to move the cursor or highlight up / down / left / right. To enter or confirm your

selection, press  (Enter).



- + / -

Press to switch the channel.

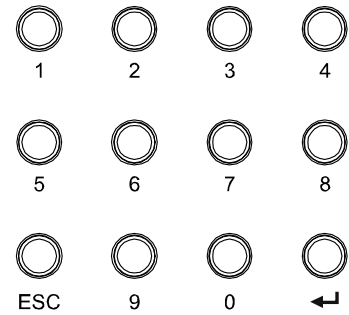


- Number Pad


**0 ~ 9** : Used to enter the camera ID, DVR ID, channel number, password, etc.

 : Confirm your key-in.




**ESC** : Clear your key-in / escape the channel sequence mode.



## f). Camera Control

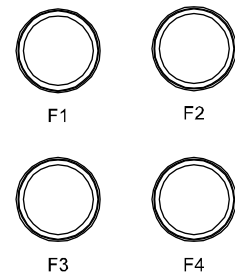
Press  device selection key, or click the speed dome camera icon on the touch panel with the supplied stylus to switch to the speed dome camera mode, and you can control the following function keys and perform certain functions by some certain keystroke combinations:

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**NOTE:** You can also use the camera control keys "FOCUS", " / ", "TRACK" and "STOP" when the device is switched to .

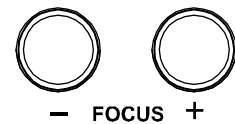
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F1 / F2 / F3 / F4 : Operate the function you assigned in the "HOT KEY" menu. There are 5 options available: HOME, GOTO, SEQ, AUTO PAN and NONE. For details, please see "Set Hot Key" at page 17.



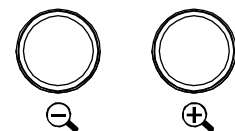
Or,

Press with  to enable the shortcut key function for showing ID, clearing ID, hiding ID, or showing the firmware version. For details, please see "Shortcut Keys" at page 15.

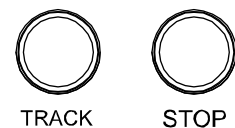


**FOCUS** : Adjust the focal length.

 /  : Zoom out / in.





**TRACK** : Press to start tracking, and press again to quit and return to the live view.



**STOP** : Press to stop the PTZ cruising.

## g). DVR Control

Press  device selection key, or click the DVR icon on the touch panel with the supplied stylus to switch to the DVR mode, and you can control the following functions:

**NOTE:** You can also use the camera control keys "FOCUS", "⊖/⊕", "TRACK" and "STOP" when the device is switched to .

### ● Audio Channel Selection Keys

Press "NEXT" or "LAST" to choose the next / previous audio channel to hear the live sound (in the live mode) or the recorded sound (in the playback mode).



For example, if the connected DVR supports 4 audio channels:


Mode	Live Mode	Playback Mode
Selection	AUDIO OFF	AUDIO OFF
	AUDIO 1 (L)	AUDIO 1 (P)
	AUDIO 2 (L)	AUDIO 2 (P)
	AUDIO 3 (L)	AUDIO 3 (P)
	AUDIO 4 (L)	AUDIO 4 (P)


Table 4: Audio channel switch





### ● Playback Keys

 : Press to open the search list in which you can find the recorded events and play the corresponding video clip. Select one event from this list by using the navigation keys, and press  to play the video clip.

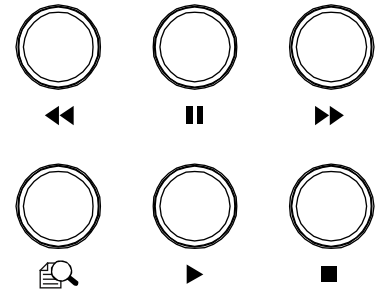
 : Press to play the selected video clip.

 : Press to fast-forward the video clip, from 4X to 32X.

 : Press to fast-rewind the video clip, from 4X to 32X.

 : Press to pause the video play.

 : Press to stop the video play and go back to the live view.



### ● Display Mode Selection Keys

 : Press to display a single channel.

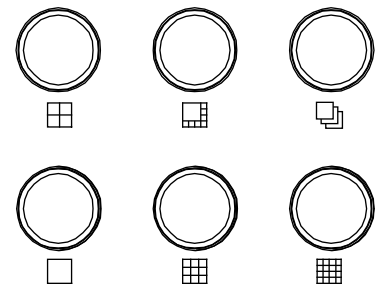
 : Press to display the 4-cut view.

 : Press to display the 8-cut view.



 : Press to display the 9-cut view.

 : Press to display the 16-cut view.

 : Press to display each channel one by one.



## h). Shortcut Keys

Press and hold , and press F1, F2, F3, F4 and  respectively to quickly perform different functions as follows:








Key Combination	Functions	Description
 and F1	Show Camera ID	This keystroke combination will show the camera ID display on the monitor if the ID is hided.
 and F2.	Clear Camera ID	This keystroke combination will clear the camera ID information saved in the camera, and restore to the default setting ( <b>01</b> ).
 and F3	Hide Camera ID	This keystroke combination will hide the camera ID display on the monitor. To show the ID again, press  and F1.
 and F4	Show Firmware Version of this Product	This keystroke combination will show the current firmware version of this product for your reference.
 and 	Reset Default of this Product	This keystroke combination enables the reset of this product to the factory settings. Then, it will prompt you to shut down and power up again.

Table 5: Shortcut Keys

# PROGRAMMING

Click “Conf” on the touch panel with the supplied stylus to go the device selection screen as shown in Figure 11, and you can configure the controller system, connected speed dome camera(s), and connected DVR(s).

Directly use the supplied stylus to touch the available options for setting change (Table 6), or use the keypad (Table 7) to change the setting.

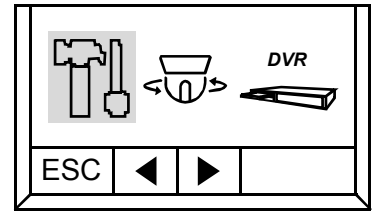


Figure 13: Conf

Option or Action	Operation
+ / -	Click to set the digits, such as the host ID
▲/▼/◀/▶	Click to move the highlight up / down / left / right
ESC	Click to go to the previous menu level
Double-click	Double click to change the setting

Table 6: Touch panel options






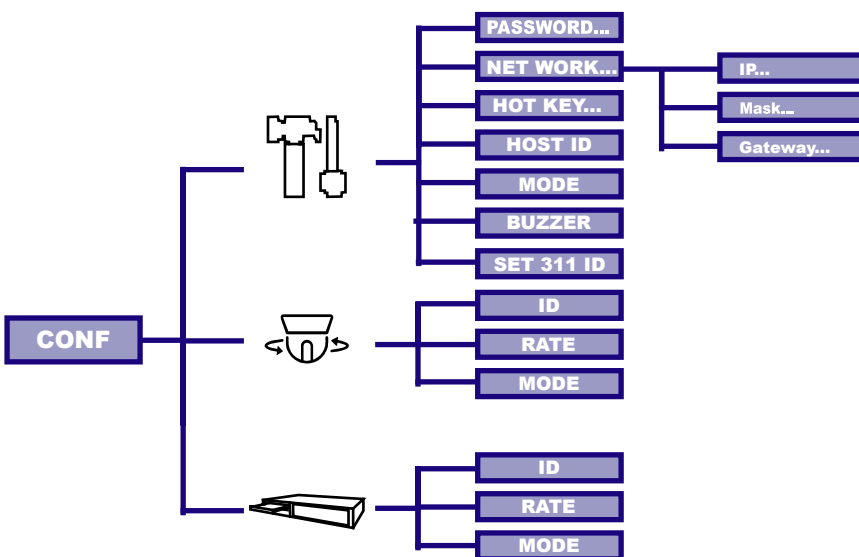
Key	Function
Navigation	 /  /  /  to move between each selection
Number Pad	<b>Number 1 ~ 9</b> to key in the digits, such as the host ID  to confirm your selection or key-in <b>ESC</b> to clear your key-in

Table 7: Keys for programming

## 1. Menu Tree



## 2. Menu List

### a). System

Select the left icon to go to the system configuration screen. In this menu list, you can set the password to unlock this product, set the host ID, turn on/off the buzzer, select the mode, and set the network.

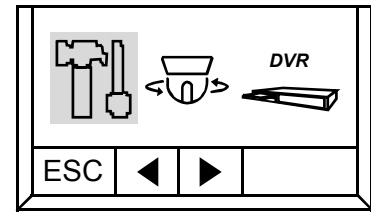



Figure 14: System

- Set Password

Set the password for the keylock function. When the keypad is locked, press , and enter the password you set here to unlock the keypad.

Select "PASSWORD...". Enter the old password first (4 digits), and enter the new password.

The default password is **0000**.



Figure 15: Password Setting

- Set Network

Select "NET IP..." to set the IP address, subnet mask and gateway of this product. Move to the item you want to set and make settings.

The default settings are as follows:

IP Address : 192.168.1.90  
 Subnet Mask : 255.255.255.000  
 Gateway : 192.168.1.254

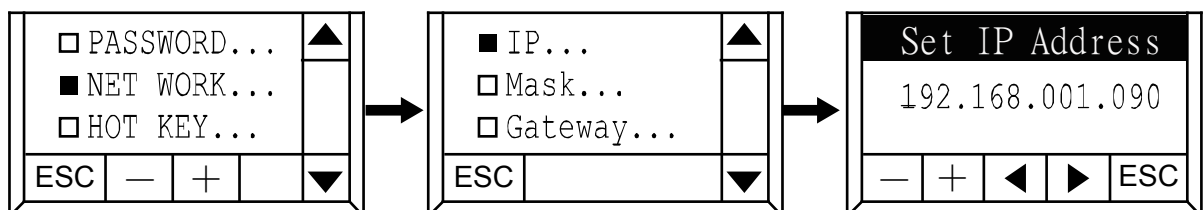


Figure 16: Example - IP Address Setting

- Set Hot Key

Select "HOT KEY..." to assign one of the four functions, "HOME", "GOTO", "SEQ", "AUTO PAN" to the hot key F1, F2, F3 or F4, or disable the key function with the option "NONE".

HOME : Go to the home position.

GOTO : Go to the preset point you set in "Key" (See "LCD Display" at page 10).

SEQ : Enable the cruising function with the sequence group you specified in "Key" (See "LCD Display" at page 10).

AUTO PAN : Enable the camera panning function.

NONE : Disable the hot key function.

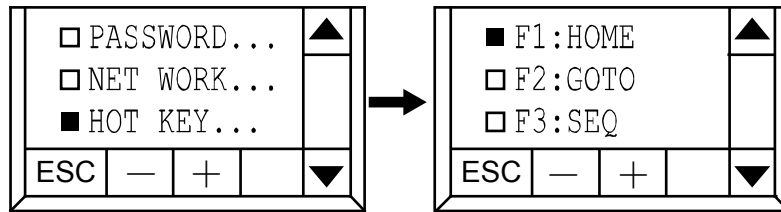


Figure 17: Hot Key

- **Set Host ID**

Set the ID of this product when the connected device is also connected to other device(s). The connected device needs this ID to identify this product.

Select "HOST ID", use the number pad to assign and enter an ID for this product, and press "↵" to confirm.

The default setting is **00**.

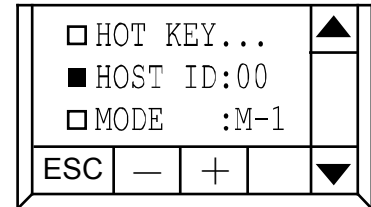


Figure 18: Host ID

- **Set Mode**

Select "MODE", and select "M-1" or "M-2" depending on the devices you're connected. For details, please see "Table 3: RS485 port connection and system mode selection" at page 4.

The default setting is **M-1**.

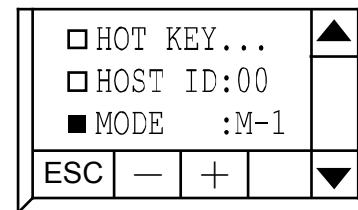


Figure 19: Mode

- **Set Buzzer**

Select "Buzzer", and click to enable (ON) or disable (OFF) the buzzer of the key-press.

The default setting is **ON**.

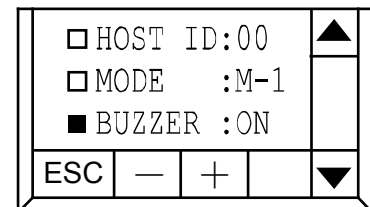


Figure 20: Buzzer

- **Set 311 ID (only for AVP311)**

Select "Set 311 ID", and click to modify the new ID depending on the device you connected.

The default setting is **000**.

1. Enter the old ID.
2. Enter the new ID.
3. Press "↵".
4. Click "ESC" as many as needed to return to the main menu.
5. Revise the ID of the camera to the new ID.

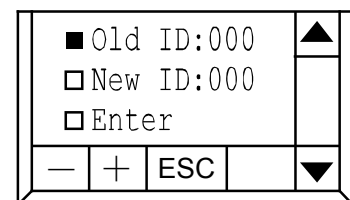


Figure 21: Set 311 ID

## b). Camera

When this product is connected to a speed dome camera, go to this menu list to set the baud rate, mode and ID of the connected camera for the camera control to take effect.

Each camera must be assigned a unique ID, and the baud rate and mode settings must be chosen correctly for the camera control to work properly. For details, please check the description below.

- **Select Camera ID**

Select the ID of the connected speed dome camera to show the related setting for the camera ID, and make changes when necessary.

Select "ID", use the number pad to assign and enter an ID for the camera, and press "↵" to confirm.

The default setting is **00**.

- **Set Baud Rate**

Select "RATE", and click to set the baud rate for the connected camera. The options are: 2400 / 4800 / 9600 / 19200 / 38400 / 57600.

The default setting is **2400**.

---

**Note:** The setting here must be the same as the setting in the connected speed dome camera for the control of the camera to work properly.

---

- **Set Mode**

Select "MODE", and click to set the appropriate protocol for the connected speed dome camera. The options are: AVP321 / AVP311 / PELCO -D / PELCO-P.

The default setting is **AVP321**.

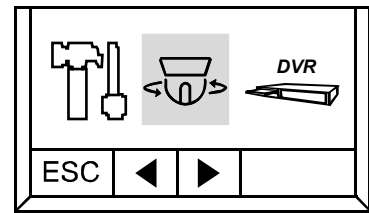


Figure 22: Camera

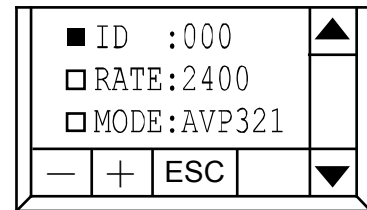


Figure 23: Camera ID

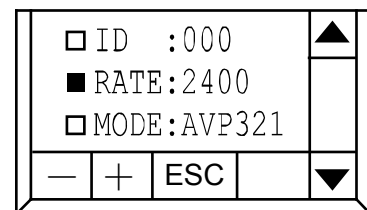


Figure 24: Camera Baud Rate

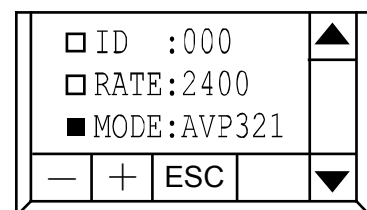


Figure 25: Camera mode

### c). DVR

When this product is connected to a DVR, go to this menu list to set the baud rate, mode and ID of the connected DVR for the DVR control to take effect.

Each DVR must be assigned a unique ID, and the baud rate and mode settings must be chosen correctly for the DVR control to work properly. For details, please check the description below.

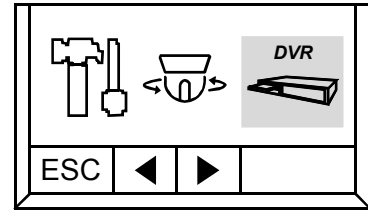


Figure 26: DVR

- **Select DVR ID**

Select the ID of the connected DVR to show the related setting for the DVR ID, and make changes when necessary.

Select "ID", use the number pad to assign and enter an ID for the camera, and press "↵" to confirm.

The default setting is **00**.

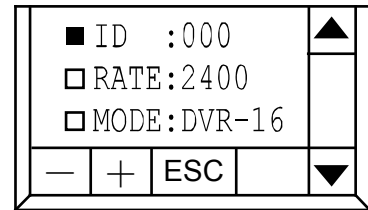


Figure 27: DVR ID

- **Set Baud Rate**

Select "RATE", and click to set the baud rate for the connected DVR. The options are: 2400 / 4800 / 9600 / 19200 / 38400 / 57600.

The default setting is **2400**.

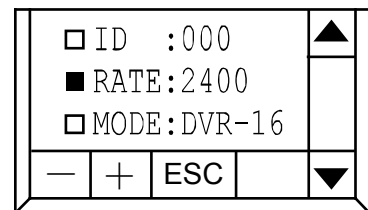


Figure 28: DVR Baud Rate

---

**NOTE:** The setting here must be the same as the setting in the DVR system configuration for the control of the DVR to work properly.

---

- **Set Mode**

Select "MODE", and click to set the appropriate protocol for the connected DVR. The options are: DVR-16 / DVR-8 / DVR-4 (16CH / 8CH / 4CH).

The default setting is **DVR-16**.

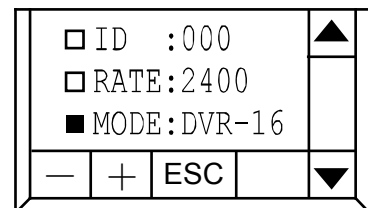
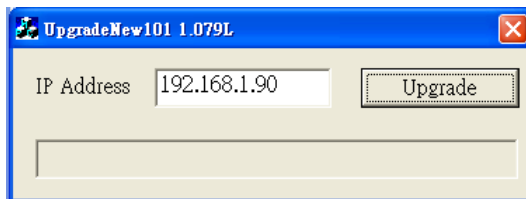


Figure 29: DVR Mode

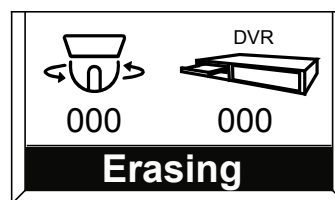
### 3. Firmware Upgrade

**NOTE:** For the firmware upgrade files, please consult your installer to get the latest version.

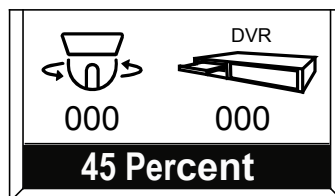
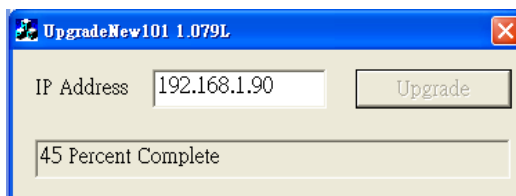
- 1). Connect this product to your PC/NB via a RJ-45 network cable. The default IP address is “192.168.1.90.” Set your PC’s IP address as “192.168.1.xx” (1~255, except 90) in order to make the PC and this product under the same domain.
- 2) Double click the firmware icon on your PC/NB,



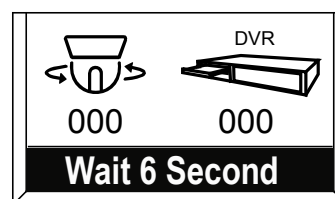
- 3). Make sure the IP Address correspond to this product. The default IP is “192.168.1.90”  
Click **Upgrade** to continue. The product starts Erasing.



Meanwhile, your PC/NB and the LCD of this product shows the update percentage.



- 4). When upgrade is complete, a window pops up. Please wait for 6 seconds and click **OK**.



The product will automatically restart after successful upgrade.

The LCD shows the new version

