



# Smart Keyboard

User's Manual



**CAUTION**  
RISK OF ELECTRIC SHOCK  
DONOT OPEN



Note:  
One who is not professional can't open the casing.  
There's no part in the machine that user can repair by himself.  
Repair work must be done by qualified personnel.



Distributor:  
Collsam Distribution, Inc.  
<https://collsam.com>

Please read the operation manual carefully before using keyboard.

V1-3102C201406E

#### 4.2.9 Enter into image hidden settings

Press MENU key, choose image setting with joystick, press ENTER to confirm. When selecting hidden area, press EDIT key( this area is in red) ,if you want to cancel hidden area (in yellow), press [AP]key and then press [ESC] key to exit.

#### 4.2.10 Start camera password settings

Select "Local Display" with joystick in DVR main menu operation interface, press [ENTER]key to confirm and then choose "start password settings" and then press [ENTER] key for selection, switch the joystick to "Confirm" and set password,modifying password in "User Management" and press [ESC] key to exit.

#### 4.2.11 Others

The other operations when you control Hikivision DVR should operate as DVR instructions describes.

### 4.3 Methods to connect Dahua DVR

( It needs 232 specified control line to connect , RJ45 port to connect keyboard, 232 port to connect NVR)

#### 4.3.1 NVR setting

Check equipment number Main menu → System setting→ Normal setting → Machine Number

Set it as Internet keyboard Main menu →System setting→ serial port setting → Internet keyboard

Close log out menu user Main menu →Close System→ log out menu user → Confirm

#### 4.3.2 Keyboard menu setting

Press MENU key to enter into keyboard menu, select "DVR SET" of "PROTOCOL" option to choose "DH" key, press MENU key to exit the menu. Default baud rate is 9600.

## 1. Notes on Installation&Use

Before installing and using this product, pay attention to the following items:

- ※ Before installing and operating this equipment, please read all safety operating manuals carefully.
- ※ Please don't put this product at places with water or moisture.
- ※ Please don't abuse this machine; please don't operate the machine under exceeding rated voltage.
- ※ Please don't clean this machine with strong cleanser, when dirt is accumulated too thick, gently clean with neutral cleanser, and noting limited to surface cleaning only.



Warm: To ensure safety of system operator, unrelated individual can not disassemble or assemble this machine and can't loose screw or open casing. There's no applicable part inside fitting to user.

## 2. Functions Introduction

### 2.1 Summary

Digital intellectual keyboard is a supporting product for such terminal receivers as DVR, high speed dome, decoder, etc. Keyboard and receiver is connected with each other through EIA/RS-485 communication interface. After the keyboard is connected with DVR, functional control of relative DVR is realized and 16 DVR can be controlled in maximum. One keyboard can control 64 speed dome or decoders without adding BUS driven, and the maximum communicate distance between keyboard and receivers is 1.2KM. It is convenient to control and preset DVR and speed dome with keyboard. And it can also directly control terminal decoders and achieve control of front-end equipment such as scanner, camera lens, lamp and wipper.

3D keyboard has all the functions of 2D keyboard and in addition it can control zoom in&out by the racker.

### 2.2 Technical Parameters

- 2.2.1 communication mode : point-to-multipoint semi-duplex communication.
- 2.2.2 Standard of interface: RS-485
- 2.2.3 Baud rate: 1200bps, 2400bps, 4800bps, 9600bps for options.
- 2.2.4 Protocols including PELCO-D and PELCO-P
- 2.2.5 It can connect Hikivision. Hanbang DVR and Dahua NVR.

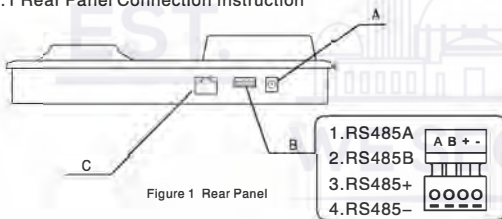
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  - 4. 2 Methods to connect Hikivision DVR
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- 2.2.6 Longest communication distance:1.2KM
- 2.2.7 Power Adapter:DC9V
- 2.2.8 control DVR in quantities: 16 pcs at most
- 2.2.9 Control dome camera and decoder in quantities: 64 pcs at most
- 2.2.10 External Dimensions:262\*133\*100mm Weight:0.6kg

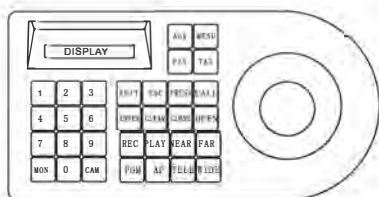
### III Instructions of installation and panel display

#### 3.1 Rear Panel Connection Instruction



- A. Input port of power supply: input DC9V
- B. Output port of RS485 : 1 . 3 (RS485 +), 2 . 4 (RS485 -). Connect to the KB-D+ and D- port of rear panel when it connects to keyboard interface of Hikivision DVR.
- C. RJ45 is 232 control port.

#### 3.2 Front panel Instruction



4.3.3 Operation to connect Dahua DVR

4.3.3.1 Set equipment number on the keyboard ,whose number should be in accordance with DVR number. Input number key, and then press MON to confirm.

4.3.3.2 Press TAB key to enter into DVR working mode  
Press "AUX" key, displaying multi-images.  
Press Menu key to enter into DVR main menu, choose menu up,down, left and right with joystick, exit the menu with ESC key.  
Press "REC" key to enter into manual recording settings, press ESC key to exit.  
Press "PLAY" key to enter into manual video replay setting, press ESC key to exit.  
Press "PAN" key to enter into PTZ manual operation, choose pan-tilt control, press "ENTER" to enter into control mode. Press "PAN" to switch pan-tilt setting interface . Pan-tilt will turn as using joystick upwards, downwards, leftwards and rightwards. The joystick to turn clockwise and counter-clockwise is used for TELE and WIDE. ( Two-dimensional keyboard to rotate needs to use TELE key and WIDE key), press "REC" key to enter into pan-tilt setting interface, where can set up preset, and then press ESC to exit ,back to pan-tilt setting interface.

4.3.3 Others

#### 4.4 Operation methods to connect Hanbang DVR

485+,485- port of DVR and A,B port of keyboard should be connected correspondingly. The device number set on keyboard should be in line with serial port number set in DVR serial port setting. Other operations are consistent roughly.

#### 4.2 Methods to connect Hikivision DVR

4.2.1 KB port D+,D- of DVR needs to connect A,B port correspondently.

4.2.2 Press CLEAR key when screen does not display DVR model, device number set on the keyboard should be in line with DVR number. Input number key "N" , press MON key to confirm, and then press TAB key to enter DVR working mode when screen displays "TAB" . Press "TAB" key, screen displays DVR model, DVR starts preview interface, in which moment keyboard panel replaces DVR panel function which won't affect the direct operation of DVR panel keypad.

4.2.3 Enter into DVR main menu interface  
Press MENU key, screen displays "MENU" to enter into DVR main menu interface, if you want to exit the menu ,press ESC key.

4.2.4 Enter into Manual recording settings  
Press REC key, to enter into Manual recording settings. If you want to exit the menu ,press ESC key.

4.2.5 Enter into Manual video replay settings  
Press PLAY key, to enter into Manual video replay settings. If you want to exit the menu ,press ESC key.

4.2.6 Enter into channel(images) parameters , preset function settings of terminal equipment  
Choose "decoders" with joystick in DVR main menu operation interface, press ENTER key to set up decoder's corresponding parameters, if you want to cancel the setting of this item, choose "Cancel" with joystick ,and then press ENTER to confirm the cancellation.

4.2.7 Image switching  
Press AUX key, displaying multi-images. Press N to switch to the corresponding images.

4.2.8 Enter into manual operation of PTZ  
Choose the corresponding channel of terminal equipment which will be operated , press number key "N" +PAN key, flip rocker upwards, downwards, leftwards and rightwards, when the rocker stands neutral, it stops tuning. Control the camera dolly-in (WIDE)and dolly-out (TELE). When the keyboard is 3 dimensional rocker, rotation of the rocker can be used to control WIDE and TELE. Press ESC to exit the PAN function.

#### 4.1 Keyboard operation method to connect terminal equipment

Set preset	N+[PRESTE]key (N means number, the same below)
Call preset	N+[CALL] key
Clear preset	N+[PRESTE]key ( long press 3 seconds )
AUX 1 ON/OFF	[AUX]key/[AUX]key(on/off)
Buzzer ON/OFF	66+[PGM] key /66+[PGM] key (on/off)
Set baud rate as 1200	12+[PGM]key
Set baud rate as 2400	24+[PGM]key
Set baud rate as 4800	48+[PGM]key
Set baud rate as 9600	96+[PGM]key
Set PELCO-D protocol	44+[PGM]key
Set PELCO-P protocol	50+[PGM]key
Set address bit	0~255+[CAM]key
Auto scan of Pan-tilt starts	[ESE]key
Auto scan of Pan-tilt stops	[ESE]key or shake joystick
Manual operation of Pan-tilt 1	Joystick control( bigger angle of inclination , faster moving speed)
Manual operation of Pan-tilt 2	[PAN] key +2,8,4,6 (scan up,down,left and right, stop scanning when releasing the hand ,press [PAN]key to exit
Lens aperture ON/OFF	[OPEN] key /[CLOSE] key
Lens focus near/far	[N EAR] key/[FAR] key
Lens dolly-in/dolly -out	[TELE]key/[WIDE] key

#### Instruction on Key Functions on The Panel

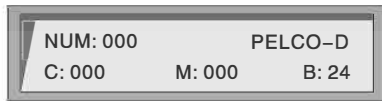
Key symbol	Key name	When hard disk video recorder used (TAB key light is on)	When terminal equip used (TAB key light isn't on)
0-9	Number	Input data of equipment	
MON	Channel	Confirm DVR address preset	Unused
CAM	Address	Unused	Confirm address preset
MENU	Menu	Menu start calls	Unused
EDIT	Edit	Edit image hidden preset: confirm record and playback preset	Unused
ESC	Escape	Cancel current command	Decoder is automatically scanning
TAB	Mode	DVR/ terminal equipment switch	DVR/ terminal equipment switch
PAN	Shift up	When TAB key light is on, DVR/terminal equipment switch	Number keys 2,6,4,8 are up, down, left and right functions respectively
REC	Record	Enter record preset (manual)	Unused
PRESET	Preset	Unused	Set and clear preset point
CLEAR	Clear	Unused	Clear data information
AP	Revise	Clear image hidden point	Unused
PLAY	Playback	Video playback	Unused
ENTER	Enter	Confirm menu items	Unused
CALL	Call	Unused	Call preset function and scan function
PGM	Program	Unused	Confirm protocol and baud rate
CLOSE	Aperture	Aperture off	Aperture off Exit modify manu of high speed dome
OPEN	Aperture	Aperture on	Aperture on Enter modify manu of high speed dome
NEAR	Focus	Focus near	When focusing near, modifying items escape from speed dome camera menu
FAR	Focus	Focus far away	When focusing far, modify item parameters from speed dome camera menu
TELE	Dolly-out	Lens dolly-out	When dolly-out, cursor moves upwards from speed dome camera menu
WIDE	Dolly-in	Lens dolly-in	When dolly-in, cursor moves downwards from speed dome camera menu
AUX1	Auxiliary 1	Picture 1, 4, 9, 16 switch	Decoder auxiliary 1
AUX2	Auxiliary 2	Unused	Decoder auxiliary 2
POWER	Power	Power on/off	Unused
	Rocker	Cradle head moves upwards, downwards, leftwards and rightwards, menu option (flip leftwards and rightwards) and number +/- in menu (flip upwards and downwards)	Cradle head moves upwards, downwards, leftwards and rightwards
	Rocker turning	Turn clockwise is focusing near; turn counter-clockwise is focusing far	Turn clockwise is focusing near; turn counter-clockwise is focusing far

Note: Terminal equipment means smart Pan-tilt which is built-in decoders like variable speed intellectual neutral speed & high speed dome camera and decoders.



### 3.3 Instruction of LCD panel

LCD panel display the mainly control information and part of operating information. It will turn into Power saving mode automatically in 10 seconds without any input. (Lowest brightness)



PS: The plastic film of the LCD panel is just for protection, tear it up before use.

The first line" NUM \*\*\*" , input number through NUMBER key to save for a while , if you need to clean it ,press CLEAR.

The first line displays protocols or part of operation commands.

In the second line, " M=\*\*\*" displays the device address of DVR, which can be ignored when connected to terminal equipment. In the second line, " C=\*\*\*" displays the address of terminal equipment, which can be ignored when connected to terminal equipment. In the secondline, "B=\*\*\*" displays Baud rate.

- "PELCO-D" display "PROTOCOL:PELCO-D"
- "PELCO-P" display "PROTOCOL:PELCO-P"
- It displays "HK" when connected to Hikivision DVR
- It displays "DH" when connected to Dahua DVR
- It displays "HB" when connected to Hanbang DVR
- when operate "up" command,display "\*\*\*\*\* UP \*\*\*\*\*"
- when operate "down" command,display "\*\*\*\*\* DOWN \*\*\*\*\*"
- when operate "left" command,display "\*\*\*\*\* LEFT\*\*\*\*\*"
- when operate "right" command,display "\*\*\*\*\* RIGHT \*\*\*\*\*"
- when rocker move slantly,LCD panel display two direction alpha ( with "+" )
- when operate "lens close" command,display " \*\*\*\*\* CLOSE \*\*\*\*\*"
- when operate "lens open" command,display "\*\*\*\*\* OPEN \*\*\*\*\*"

- when operate command "focus near" it display " \*\*\*\*\* NEAR \*\*\*\*\*"
- when operate command "focus far" it display "\*\*\*\*\* FAR \*\*\*\*\*"
- when operate command "telephotograph" it display "\*\*\*\*\* TELE \*\*\*\*\*"
- when operate command "lens wide" it display "\*\*\*\*\* WIDE \*\*\*\*\*"

### IV Operation Manual Instructions

Please be familiar with the control operation of decoders, smart pan-tilt , intelligent ball or DVR which connected to this keyboard .

Smart dome camera and DVR can be controlled normally only when baud rate and control protocol which corresponds to the controlled equipment have been set up in keyboard menu. Please press" MENU" to enter into keyboard menu. To choose the corresponding menu by operating joystick, when you need to exit the menu ,you can press "MENU" or choose "EXIT" in the menu.

NOTE: choose menu to control the joystick up and down, and confirm it by left and right.

Press "MENU" on the keyboard to display the following items:

