Network keyboard Quick Start Guide

V1.0.0

Table of Contents

Welcome

Thank you for purchasing our network keyboard!
This quick start guide is designed to be a reference tool for the operation of your system.
Before the operation please read the following safeguards and warnings carefully!
Please keep it well for future reference.

Important Safeguards and Warnings

1．Electrical safety

All installation and operation here should conform to your local electrical safety codes.
We assume no liability or responsibility for all the fires or electrical shock caused by improper handling or installation.

2．Transportation security

Heavy stress, violent vibration or water splash are not allowed during transportation, storage and installation.

3．Installation

Keep upwards. Handle with care.
Do not place objects on the network keyboard

4．Qualified engineers needed

All the examination and repair work should be done by the qualified service engineers.
We are not liable for any problems caused by unauthorized modifications or attempted repair.

5．Environment

The network keyboard should be used in a cool, dry place away from direct sunlight, inflammable, explosive substances and etc.

6. Accessories

Be sure to use all the accessories recommended by manufacturer.
Before installation, please open the package and check all the components are included.
Contact your local retailer ASAP if something is broken in your package.

1 FEATURES

The network keyboard has the following features:

- One network keyboard can control several DVRs or several network keyboards can control one DVR.
- Can control speed dome.
- Support RS485 and RS232 port.
- Support HDMI port.
- Support 2 USB ports. They are used to upgrade the applications, import/export configuration, backup snap picture and record files and etc.
- Support VGA output.
- Use the joystick to control the PTZ conveniently.
- Support all operations you get from DVR front panel function keys.
- Support keyboard lock function.
- Support multiple-level operation rights.
- Support menu setup of one or more DVR(s).
- 10.2-inch 800*480 TFT touch panel. On-screen menu, user-friendly interface, support touch pen for convenient operation.
- Control NVS, NVD.
- Built-in 10/100/1000M self-adaptive RJ45 port.
- Embedded WIFI module and outside WIFI antenna, support wireless network connection.

2 Overview and Controls

2.1 Front Panel

This series products' front panel is shown as below. See Figure 2-1.

Figure 2-1

It includes seven panes.

SN	Name	SN	Name
1	Touch panel	4	Shuttle(Outer ring) Jog(Inner dial)
2	Indication light	5	Function buttons
3	Record playback	6	PTZ control
7	Joystick		

2.2 Function Buttons List

Please refer to the following sheet for function button information.

SN	Name	Symbol	Function
Function key	Number and character	0-9	It is to input number and character. Click the Shift button to switch.
	ESC		Cancel/exit
	ENTER		Confirm
	SHIFT		Switch
	LOCK		Work with SHIFT button to lock/unlock the device.
Indication light	Working power indication light	POWER	The light becomes on when the keyboard connects to the power.
	Wire network indication light	LINK	The light becomes on when the keyboard connect to the wire network properly.

	Indication light	RX/TX	The light becomes on when the wire network data is sending or receiving properly.
	Wireless indication light	WIFI	The light becomes ion when it connects to the wireless network properly.
PTZ control	PT		PTZ shortcut button
	GOTO		Preset
	AUTO PAN		Pan
	PATTERN		Pattern
	ZOOM+		PTZ lens zoom in.
	ZOOM-		PTZ lens zoom out.
	FOCUS+		Focus of the PTZ lens zoom in.
	FOCUS-		Focus of the PTZ lens zoom out.
	IRIS+		Aperture of the PTZ lens zoom in.
	IRIS-		Aperture of the PTZ lens zoom out.
	LIGHT		Speed dome light shortcut button
	WIPER		Speed dome wiper shortcut button.
Decoder	CAM		Working with the number button to select the input device.
	MON		Working with the number button to select the output channel.
	WIN		Working with the number button to select the output window.
	MULT		Working with the number button to select the window split mode.
	CAM-G		Working with the number button to select the input group.
	MON-G		Working with the number button to select the output group.
DVR Buttons	TOUR		PTZ control, tour.
	MULT		Window split mode.
	DEVC		Working with number button to select remote device.
	Record	●	Record/playback.
	Stop record	■	Stop record/playback.
	Play/pause	▶ II	● Play normally when it is backward playing or in pause mode. ● Play when it is in pause mode.
	Backward/Pause	II ◀	● Play backward when it is in normal playback or in pause mode. ● Click it to pause playback when it plays backward.
	Play previous		● When playback, click it to play the previous

			file. ● In menu setup interface, you can skip to the previous item.
	Play next	⏭	● When playback, click it to play the next file. ● In menu setup interface, you can skip to the next item.
AUX buttons	AUX		AUX button. Working with number buttons.
	MAC		Macro setup.
Others	Touch panel		Display OSD.
	Jog		AUX menu or function buttons operation.

2.3 Rear Panel

This series products' rear panel is shown as below. See Figure 2-2.

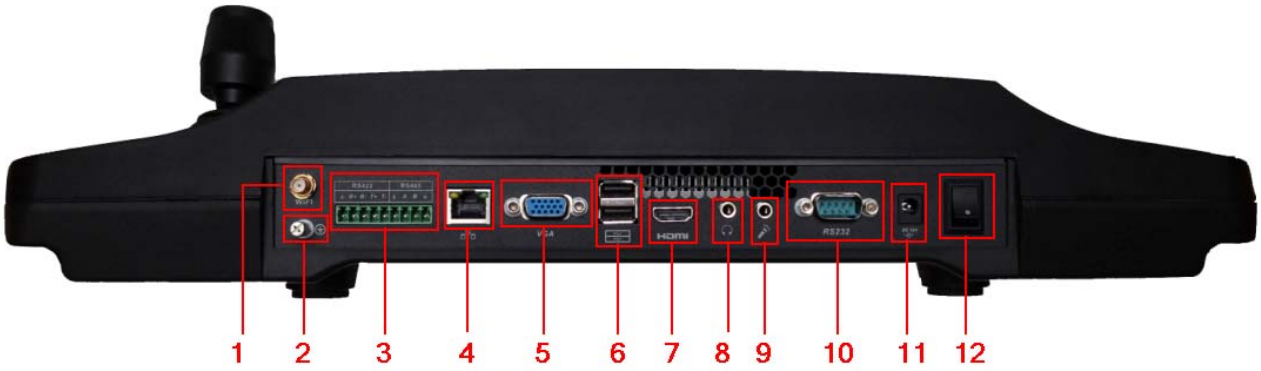

Figure 2-2

Please refer to the following sheet for detailed information.

1	WIFI antenna
2	GND stud
3	RS422/RS485 port
4	Network port
5	VGA port
6	USB port
7	HDMI port
8	Audio output
9	Audio input
10	RS232
11	Power port
12	Power on-off button

3 Overview of Navigation and Controls

Before operation, please make sure:

- The supplying power and the device power are matched.

3.1 Login, Logout & Shutdown

3.1.1 Login

Connect the power to the keyboard, you can see the power indication light becomes on. You can see the welcome interface on the LCD after it properly boots up.

Now you can see the login interface. The factory default user name is **admin** and password is **admin**. Please turn the jog (inner dial) to select the user name and turn the shutter (outer ring) to move the cursor to input the password. Or you can use the mouse or touch panel to input the password. Click the SHIFT button to switch the input method. The input method includes number, capitalized character, small character and etc.

The administrator account has only one user (**admin**) and the user name is read-only. The admin can add the ordinary user account and set corresponding devices for each account. For detailed operation contents, please refer to Chapter 3.2 Admin Operation Menu and Chapter 3.3 User Operation Menu.

3.1.2 Shutdown

After you logged out the system, you can press the power button to turn off the keyboard.

3.2 Admin Operation Menu

3.2.1 Main Menu

After you login, the main interface is shown as below. See Figure 3-1.
It includes six buttons: General, Device manager, Input Settings, Output Settings, Account and Shutdown.

Tips:

After you login the menu, you can set the menu property.
There are three ways for you.

- You can set the device via the touch panel.
- You can use the joystick to move the cursor or select the item. After you complete current setup, you can use the joystick to move the cursor to select other items. For special menu item, you can follow the prompt to click the ENTER button to confirm the operation or the ESC button to cancel current setup.
- You can connect the mouse to the keyboard to use.

Figure 3-1

3.2.2 System Settings

The system settings include the following buttons: general settings, network setting, hardware settings, default, screen calibration, config backup and version. See Figure 3-2.

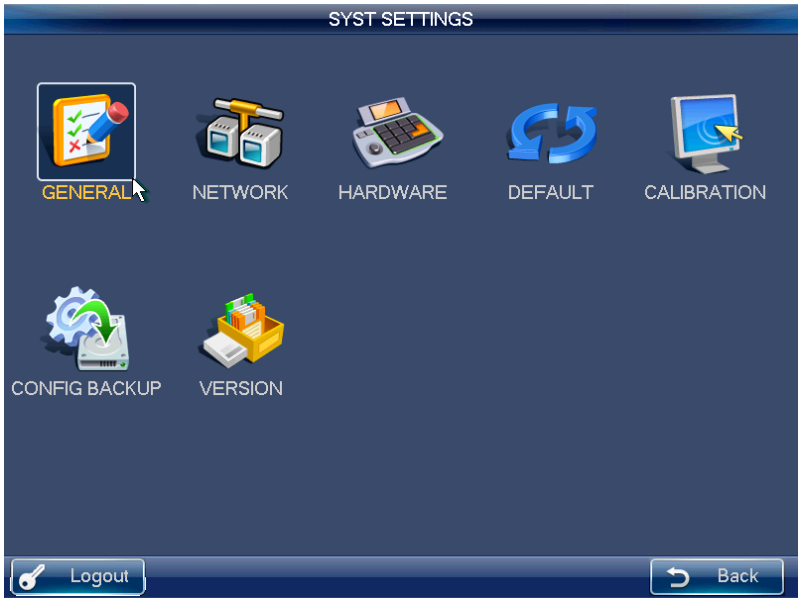

Figure 3-2

3.2.2.1 Network

There are two ways for you to select: LAN and WLAN. .

3.2.2.1.1 LAN

The wire network interface is shown as below. See Figure 3-3.

You can use the direction keys and number keys to set. You can use the touch panel

or the left/right button to move the cursor to the corresponding position and then use the number keys to change the setup.

- IP address: Here you can input IP address.
- Subnet mask: You can input subnet mask here.
- DHCP: It is to auto search IP. When enable DHCP function, you can not modify IP/Subnet mask /Gateway. These values are from DHCP function. If you have not enabled DHCP function, IP/Subnet mask/Gateway display as zero. You need to disable DHCP function to view current IP information. **Please note you need to have the router and enable the DHCP function before you use this function.**
- TCP port: Default value is 37777.
- Preferred DNS server: DNS server IP address.
- Alternate DNS server: DNS server alternate address.

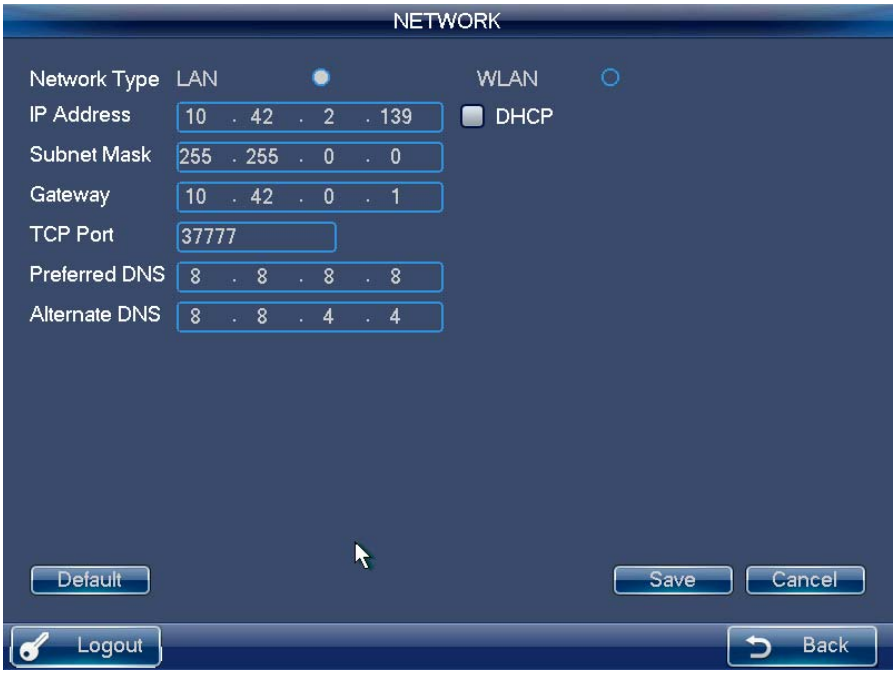

Figure 3-3

3.2.2.1.2 WLAN

The wireless network is shown as in Figure 3-4.

- Refresh: You can click it to search the new station. System can automatically add the information such as password if you have current station before.
- Disconnect: You can click it to disconnect current connection.
- Connect: Please select the available station and then click the Connect button to establish the relationship. You need to disconnect current connection if you want to connect again. The WIFI setup is shown as below. See Figure 3-5. The WIFI working information can display current connection status after it successfully established the connection. See Figure 3-6.

Figure 3-4

Figure 3-5

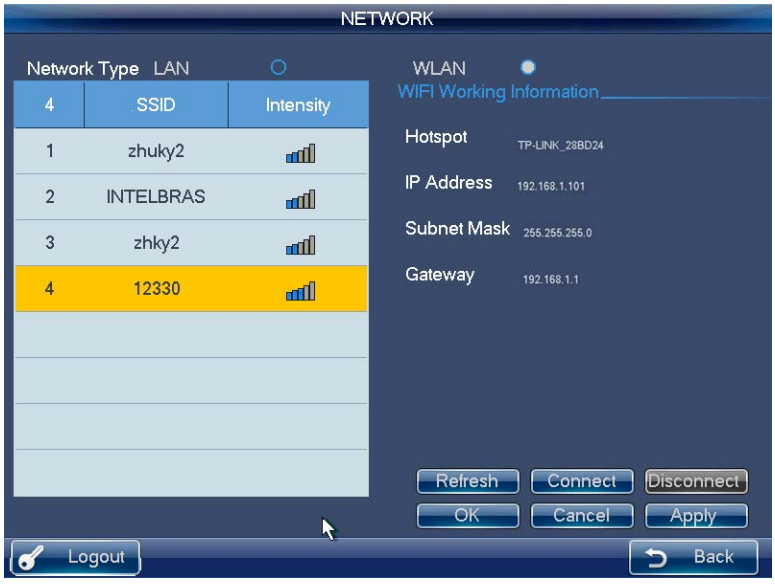

Figure 3-6

3.2.3 Device Manager

Click Device manager button, you can see an interface shown as in Figure 3-7.

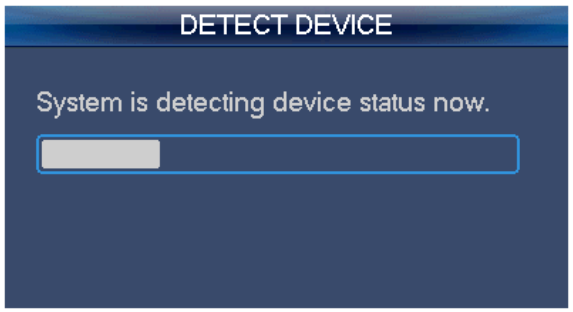

Figure 3-7

The device manager interface is shown as below. See Figure 3-8.

Here you can see controlled device name, IP address, port, device type, status and etc. You can add, modify and delete the device.

Figure 3-8

3.2.4 Input Settings

Click Input settings button, you can go to the following interface. Here you can view the device channel information you can control. See Figure 3-9.

Important

The position name is the corresponding channel name of the device.

Figure 3-9

3.2.5 Output Settings

The output settings interface is shown as below. See Figure 3-10.

Figure 3-10

3.3 User Operation Menu

3.3.1 Main Menu

The user menu is shown as below. See Figure 3-11.

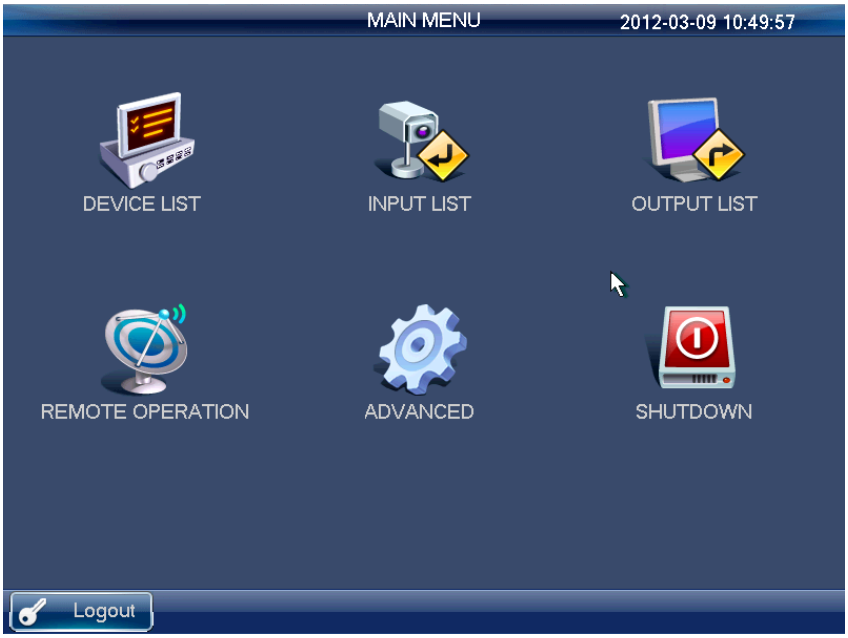

Figure 3-11

3.3.2 Remote Operation (Network Connection)

Basic operation

- Keyboard lock: It is to lock the keys and mouse. The keys, joystick and touch panel are all null once you lock the keyboard. You need to click the unlock button to unlock the keyboard.
- Keyboard lock/unlock button: Click LOCK+SHIFT button within 3 seconds.
- The keyboard lock operation has the highest priority in the shortcut operations. During any operation in any interface, click the LOCK+SHIFT button, you can lock the keyboard.
- Delete: During the keyboard remote operation, ESC button have the delete function. You can use it to remove the latest input number.

Important

The keyboard becomes lock after the screen auto turns off.

3.3.2.1 Shortcut Operation

Remote operation

You can view current selected output channel on the left pane. Here you can select window display mode, the decoded input channel of each window and set other shortcut ways. You can view current input information and some shortcut setup on the right pane. See Figure 3-12.

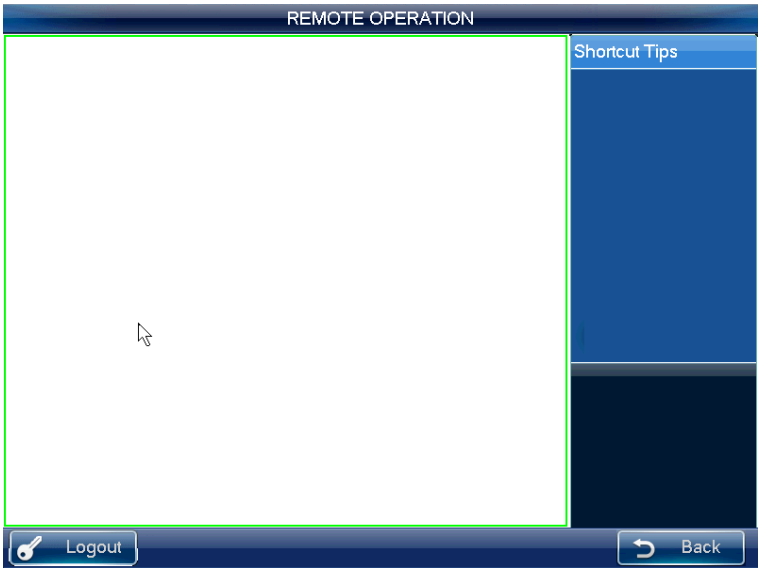

Figure 3-12

3.3.2.2 Local Preview

Local preview is to decode and playback the signal from the input channel at the keyboard local-end. You can implement other shortcut operations during the local preview process. Please follow the steps listed below.

- Input number 0+MON, select the local preview operation.
- Input number i+MULT, select the window display amount. System now supports 1/4/8/9 /16-window mode.
- Input number j+WIN, select the output window j.
- Input number k+CAM, it is to output the signal from the channel k to window j via the keyboard decode.

For example, 0+MON+4+MULT+2+WIN+1+CAM means: Display in 4-window mode; output the video from channel 1 to the window 2 to preview. See Figure 3-13.

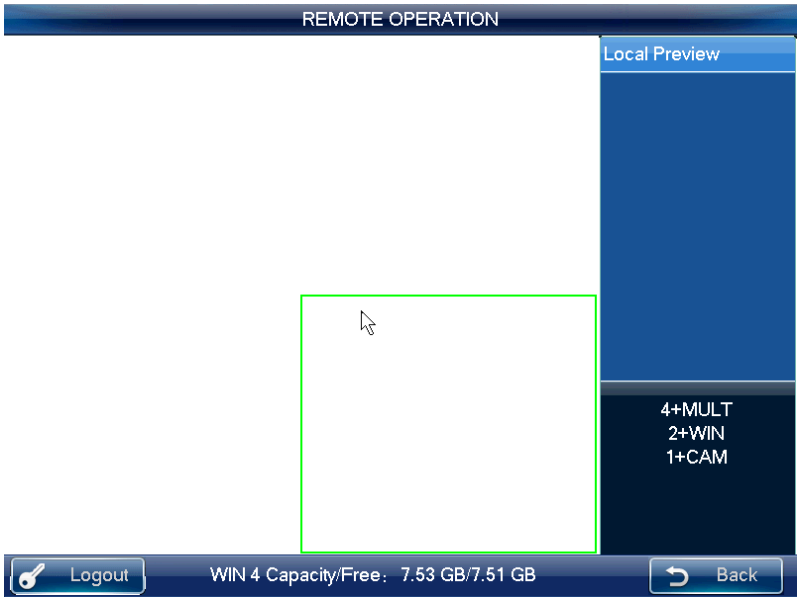

Figure 3-13

3.3.2.3 Decoder Operation

Window split Mode

Here is for you to set the window display mode. It is to output the selected channel to the specified windows.

Please follow the steps listed below.

- Input number i+MON, it is to select the output channel i. (Please note 0+MON is the keyboard local preview.)
- Input number j+MULT, it is to output the signal from channel i to display in j-window mode.

Output to the video wall

It is to display the signal from the selected channel via the decode output channel. See Figure 3-14.

Please follow the steps listed below.

- Input number i+MON, it is to select output channel i.
- Input number j+WIN, it is to select current output window.
- Input number k+CAM, it is to output the input signal from channel k to the video wall via the output channel i of window j.

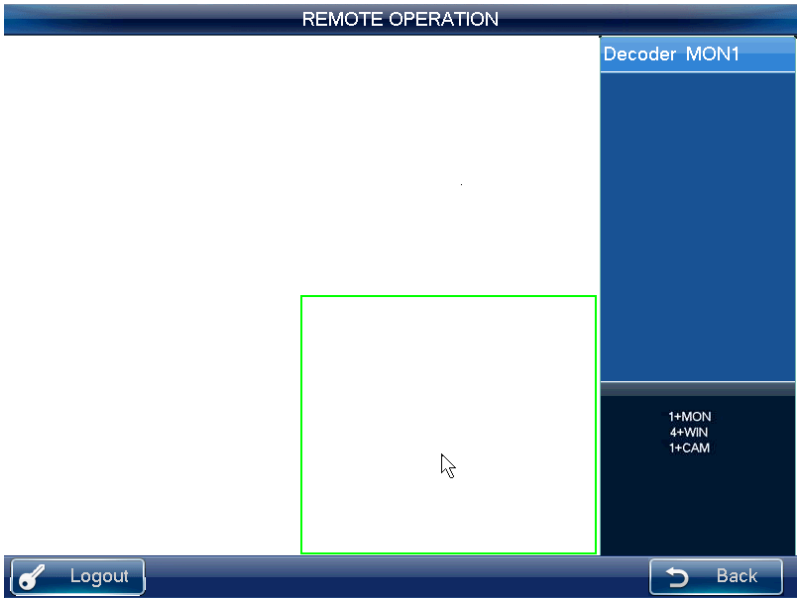

Figure 3-14

Important

Input 0+CAM is to terminate dynamic decode function of current window.

Output decoded video group to the video wall (Input group->output channel).

The function of the decoder is to output a selected group via the output decoded channel.

Detailed function:

When the channel *n* in the group is smaller than the output channel window amount *m*, it is to decode dynamically. System outputs the input channel from the group to display in the windows respectively.

When the channel *n* in the group is larger than the output channel window amount m, it is

to realize the tour function. The output channel window *m* is one output group and system decodes and outputs the input channel *m* by once. System repeats the output until the remaining input channel amount is smaller than the *m*.
Please follow the steps listed below.

- Input i+MON, it is to select output channel i.
- Input j+CAM-G, it is to output current input group j via the output channel i.

Decoded video group to the video wall (Input group->output window)
You can refer to the above contents for detailed information. The difference is that you need to select a window for the output channel. You need to set the input channel of the input group to one window of the output channel to enable the tour function. If there is only one input channel, it is just like the dynamical decode in the output window.
Please follow the steps listed below.

- Input i+MON, it is to select the output channel i.
- Input j+WIN, select the window j for current output channel.
- Input k+CAM-G, select to output the current input group k to the output channel window j to enable the tour function.

Decode video to the video wall (Input group->output group)
You can refer to the above contents for detailed information. If the channel amount n in the input group is smaller than or equal to the output window amount *m* in the output group (for example, output group 1 has two output channels, and each output channel has 4-window. There is total 8-window. Here you need to compare *n* and 8.). It is to decode the signal from the input channel to the output channel respectively. If the *n* is larger than *m*, system decodes and outputs *m* output channel until the remaining input channel is smaller than *m*.
Please follow the steps listed below.

- Input m+MON-G, it is to select the output group *m*.
- Input n+CAM-G, it is to output the input group *n* to the output group *m* to enable the tour function.

3.3.2.4 Playback by Time

It is to control the output channel to playback the record file of the decoded input channel remotely. You need to select the output channel and input channel and set the corresponding playback time. See Figure 3-15.
Please follow the steps listed below.

- Input i+MON, it is to select the output channel i.
- Input j+WIN, it is to select the window of current output channel.
- Input k+CAM, select input channel k. You can skip to the next step if current channel already decodes in current playback channel.
- Click ► (PLAY/PAUSE), you can go to the playback setting interface. (Right now, there is no playback in current window).
- Set playback start time and end time. Please input the time (second-minute-hour) and select the day-month-year. Click the OK button to begin the playback.

- During the playback process, you can click ► (PLAY/PAUSE）to pause current operation, click ■ (STOP) to stop playback.

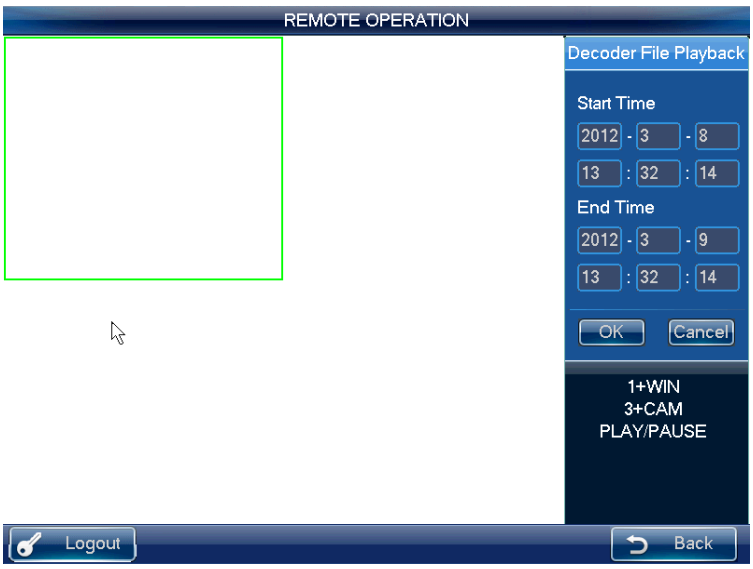

Figure 3-15

Important

Right now, system supports control decoder playback remotely. It does not support the local playback function.

3.3.2.5 PTZ

In the PTZ control mode, you cam use the network keyboard to control the PTZ operation. The interface is the same as when you are controlling via the Web. You can view the video from the control channel on the left pane and the PTZ control interface on the right pane. You can input number i+PT to control. The number *i* is the channel number you input. The PTZ interface is shown as below. See Figure 3-16.

Figure 3-16

You can input the number (Step, preset and etc) from the panel. You can use the keyboard to control the PTZ, zoom, and use joystick to control the direction. You can also use mouse and touch panel. You can use the touch panel to control the positioning and PTZ. Please refer to the following sheet for detailed information.

Button	Function
Number	Input step, preset and etc.
Joystick	Control PTZ direction.
Shuttle (Outer ring)/ /	Zoom +/-
Jog(Inner dial)/ /	Focus +/-
/	Aperture+/-
	Light
	Wiper
GOTO	Preset
PATTERN	Pattern start /Stop
TOUR	Tour start /Stop
AUTOPAN	Pan start /Stop
ESC	Esc

3.3.2.6 Audio Talk

You can use the audio talk function to realize the bidirectional talk between the keyboard and the selected device. See Figure 3-17.

Here we use “a+AUX” to enable the audio talk function. See chapter 3.3.8.4 in the user’s manual for audio talk function setup.

In the local preview mode, you can follow the steps listed below.

- Input number i+WIN, you can select channel of one device for current window.
- Input number a+AUX, it is to enable the bidirectional talk with the selected window.
- Click AUX to exit audio talk.

Important

In the local preview mode, input number a+AUX, you can enable the bidirectional talk with device in the first window.

In any mode

- Input number i+DEVC, it is to select the output channel for the local preview.
- Input number a+AUX, it is to enable the bidirectional talk with the specified device.
- Click AUX button to stop the bidirectional talk.

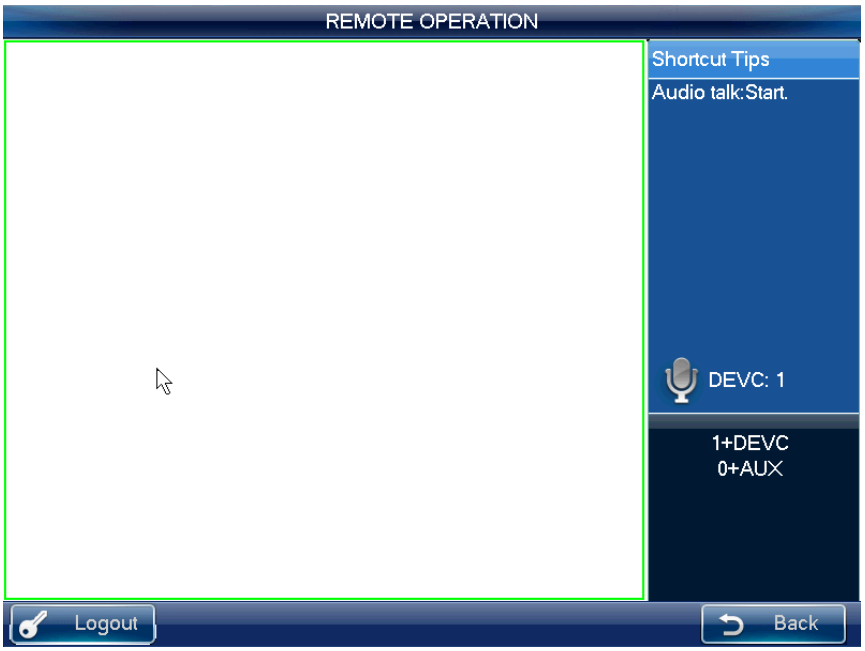

Figure 3-17

3.3.2.7 Snap

The snap function can only be valid in preview mode. The snap picture saved in the USB devices.

Please follow the steps listed below.

- Input number i+WIN, it is to select the window i for the output channel.
- Input a+AUX (Please make sure you have set a+AUX as the snap shortcut button) to enable network snap.

If you click the snap shortcut button directly, system snaps the video in the first window by default.

3.3.2.8 Record

The USB device record has two types: local preview record and remote channel record. See Figure 3-18 and Figure 3-19.

- Local preview record: During the preview process, select preview window to record.
- Remote channel record: You can select an input a channel name to record.

Please follow the steps listed below.

- Local preview record: Input number i + WIN + REC (Please make sure you are in preview mode.).
- Remote channel record: Input number j+ CAM+ REC.

You can click ■ (STOP) to stop record.

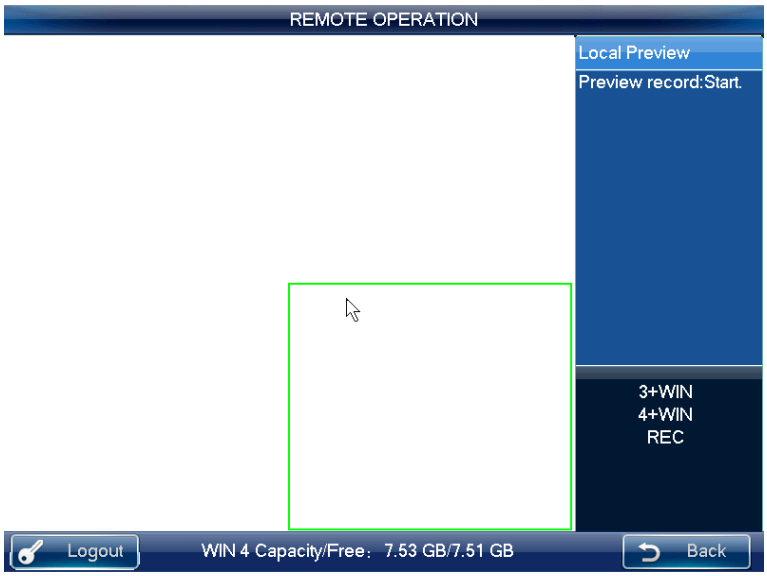

Figure 3-18

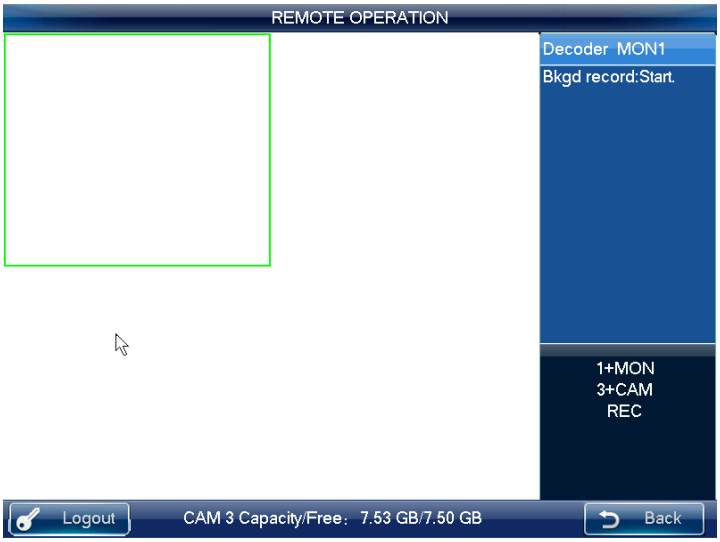

Figure 3-19

Important

- In anytime, system can only record in one mode. You can not enable these two modes at the same time. The remote record stops once you exit the remote control interface.
- In the preview mode, click the REC button directly; system begins record the first window by default.

Figure 3-20

The local USB device record automatically stops when you switch the mode. The local record function can only be valid in the preview mode.

When one record is in process, if you enable the other mode, you can see system pops up a dialogue box for confirmation. You can click the OK button to stop current record and then enable the new one.

3.3.2.9 Remote Panel Simulation

In this mode, it works as the front panel. It simulates the front panel of the DVR. It supports shuttle/jog, number, record, playback, PTZ, OK,ESC and etc.

Please follow the steps listed below.

Input number i+DEVC+ENTER, number *i* is the DVR SN in the Device manager interface or the device list. You can click the DEVC to exit. See Figure 3-21.

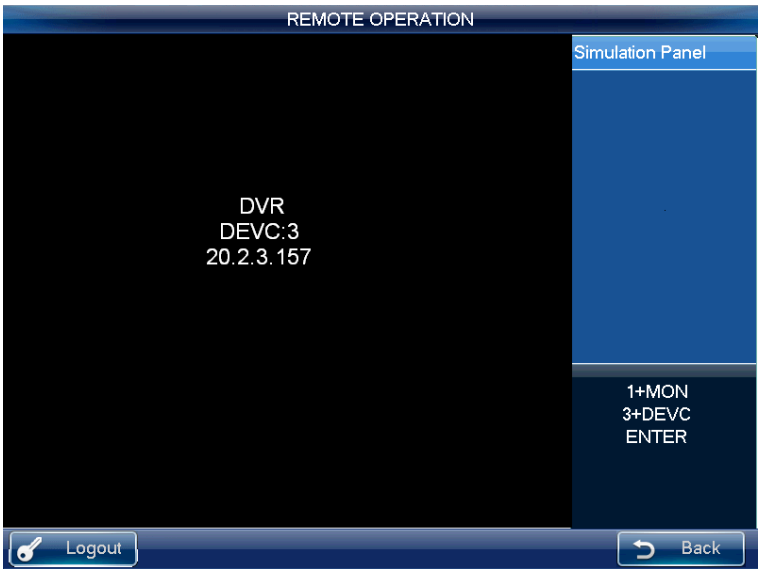

Figure 3-21

Please refer to the following sheet for detailed shortcut button information.

Button	Function
ENTER/Joystick button	Main menu
REC	Record control
PT	Open the AUX function: PTZ control and color.
Play/pause ▶ II	● Play normally when it is backward playing or in pause mode. ● Play when it is in pause mode.
Backward play/pause II ◀	● Play backward when it is in normal playback or in pause mode. ● Click it to pause playback when it plays backward.
Play previous ⏮	● When playback, click it to play the previous file. ● In menu setup interface, you can skip to the previous item.
Play next ⏭	● When playback, click it to play the next file. ● In menu setup interface, you can skip to the next item.

Record

Click the REC button, you can go to the Record interface. You can use the shuttle/jog to set the channel number and status. Click the ENTER button to save current setup and click the ESC button to exit.

One-window/multiple-window mode switch

Use the jog (inner dial) to select the window amount and use the shuttle (outer ring) to switch the displayed channel.

Click the number button to go to the selected channel. For example, click number 1; you can go to channel 1.

If you input channel number is more than 10, you can work with the CAM button. The input method is CAM+channel number+CAM. For example, click CAM+12+CAM, you can go to channel 12.

PTZ control and color

In window-display mode, there are two ways for you to go to the PTZ control.

- Click the PT button in the keyboard to enable the AUX function: PTZ control and color. Select the PTZ control to go to the DVR PTZ control menu.
- Input number i+PT (i=channel number), you can open the local PTZ control menu via the keyboard.

3.3.3 Remote Operation (RS232)

3.3.3.1 The keyboard setup after COM Connection

Before the operation, please make sure:

- The keyboard and the DVR connection are right.
- The DVR settings are right.

Before you use the keyboard to control the DVR, you need to set the RS232 connection type as keyboard. In the DVR main menu, from Setting->RS232, in the Function item,

please select net keyboard from the dropdown list. You need to set the baud rate, stop bit, data bit, parity and etc. System default setup is:

- Baud rate:9600:
- Data bit:8,
- Stop bit:1,
- Parity: none.

Please make sure the keyboard setups are the same with the DVR.

For the keyboard, from the Advanced->COM, here you can input remote address, baud rate, data bit, stop bit and parity.

Remote address: It is a SN for the front-end to detect. It is the DVR No. in the General interface.

You can use move the cursor to the remote address or use the shuttle(outer ring) to select the remote address, input the value directly or you can jog(inner dial) to select.

3.3.3.2 Operation

In this interface, you can use the keyboard to control the DVR interface operation. It supports shutter (outer ring), jog (inner dial), number, record, playback, PTZ, confirm, ESC and etc. See Figure 3-22.

Please follow the steps listed below.

Input number 0+DEVC+ENTER. Click the DEVC button to exit.

Important

Please logout the DVR local menu user before you login since the DVR local user has the higher priority than the keyboard user!

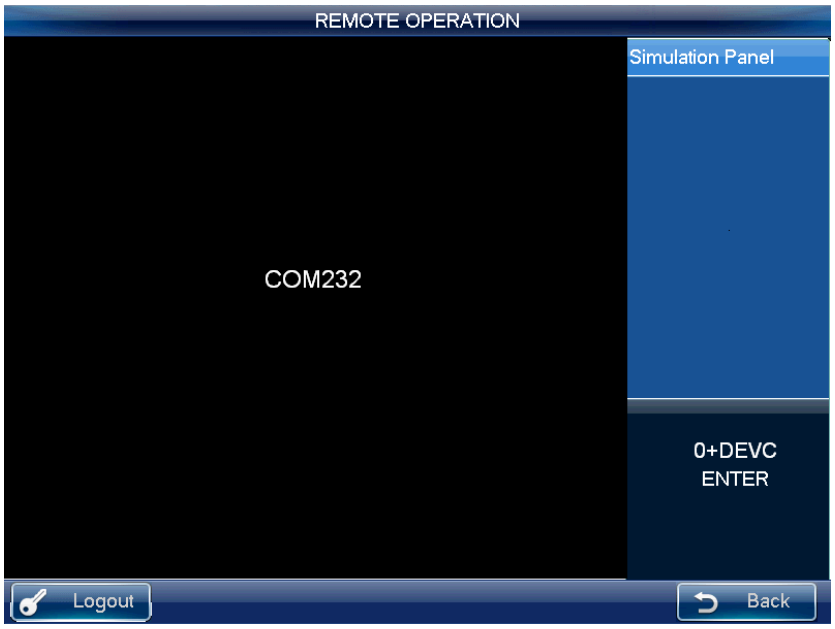

Figure 3-22

Record

Click the REC button, you can go to the Record interface. You can use the shuttle/jog to set the channel number and status. Click the ENTER button to save current setup and

click the ESC button to exit.

One-window/multiple-window mode switch

Use the jog (inner dial) to select the window amount and use the shuttle (outer ring) to switch the displayed channel.

Click the number button to go to the selected channel. For example, click number 1; you can go to channel 1.

If you input channel number is more than 10, you can work with the CAM button. The input method is CAM+channel number+CAM. For example, click CAM+12+CAM, you can go to channel 12.

PTZ control and color

In window-display mode, there are two ways for you to go to the PTZ control.

- Click the PT button in the keyboard to enable the AUX function: PTZ control and color. Select the PTZ control to go to the DVR PTZ control menu.
- Input number i+PT (i=channel number), you can open the local PTZ control menu via the keyboard.

3.3.4 Remote Operation (RS485)

3.3.4.1 The keyboard settings after PTZ connection

Before the operation, please make sure:

- The A, B cable of the keyboard properly connects to the A, B cable of the speed dome.
- Turn on the speed dome and connect the video cable to the monitor.
- Set the speed dome address. Please make sure your keyboard RS485 address shall be the same with the speed dome address here.
- In the keyboard menu, from the Advanced->PTZ, you can set protocol, address, baud rate, data bit, stop bit, parity and etc. You can select the protocol according to your speed dome and RS485 address is the same as the speed dome.

3.3.4.2 Operation

In this mode, you can use the network keyboard to control the PTZ of the speed dome.

Please input the number 0+PT to set.

Please refer to chapter 3.3.5.5 Pan/Tilt/Zoom in the user's manual for detailed information.

3.3.5 Advanced

The advanced interface is shown as below. See Figure 3-23.

Figure 3-23

3.3.5.1 RS232

Click RS232 button, you can go to the following interface. See Figure 3-24.

Here you can set remote address, baud rate, data bit, stop bit, and parity.

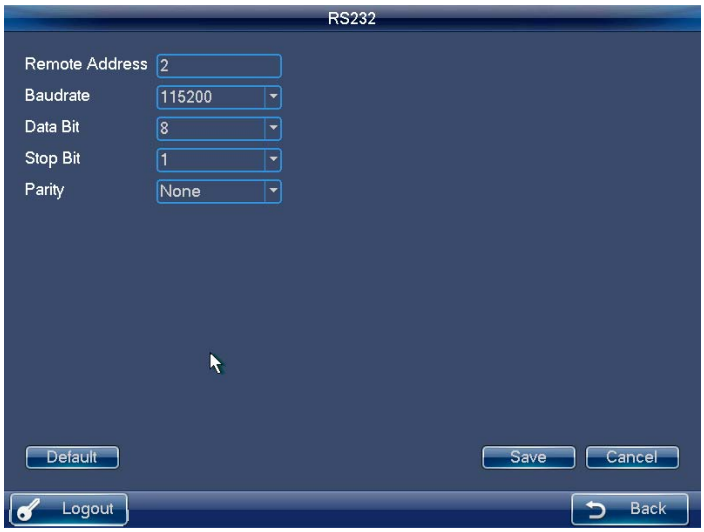

Figure 3-24

3.3.5.2 Pan/Tilt/Zoom

The pan/tilt/zoom interface is shown as below. See Figure 3-25.

Here you can set protocol, address, baud rate, data bit, stop bit, and parity.

Figure 3-25

3.3.5.3 AUX Settings

The AUX settings interface is shown as below. See Figure 3-26.

The aux button ranges from 0 to 9. The shortcut operation supports audio talk and the snap. You can select the AUX button and click the OK button to realize the corresponding function. You can input the corresponding number+AUX to enable the function. See Figure 3-26.

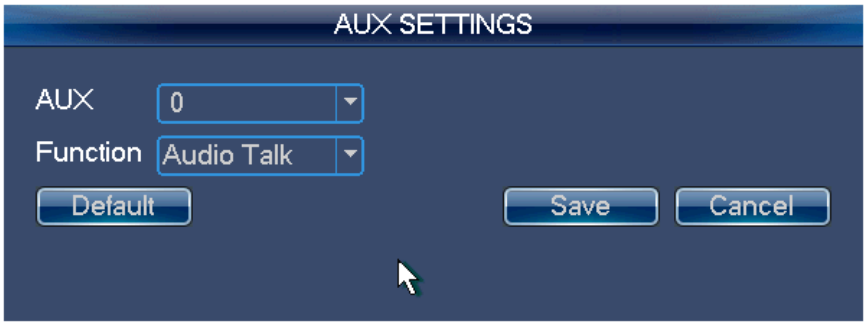

Figure 3-26

Important

System default AUX button is 0; you can click it to enable snap function.

Appendix Toxic or Hazardous Materials or Elements

Component Name	Toxic or Hazardous Materials or Elements					
	Pb	Hg	Cd	Cr VI	PBB	PBDE
Device Construction Material	○	○	○	○	○	○
Circuit Board Component	○	○	○	○	○	○
Wire and Cable	○	○	○	○	○	○
Accessories	○	○	○	○	○	○

O: Indicates that the concentration of the hazardous substance in all homogeneous materials in the parts is below the relevant threshold of the SJ/T11363-2006 standard.

X: Indicates that the concentration of the hazardous substance of at least one of all homogeneous materials in the parts is above the relevant threshold of the SJ/T11363-2006 standard.

Note:

- **This manual is for reference only. Slight difference may be found in the user interface.**
- **All the designs and software here are subject to change without prior written notice.**
- **If there is any uncertainty or controversy, please refer to the final explanation of us.**
- **Please visit our website or contact your local retailer for more information.**