TVK-800 User Manual

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Manufacturer

United Technologies Corporation
2955 Red Hill Avenue, Costa Mesa, CA 92626-5923, USA

Authorized EU manufacturing representative:
UTC Fire & Security B.V.
Kelvinstraat 7, 6003 DH Weert, The Netherlands

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Certification

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Introduction

Features

Hardware

- 7’’ TFT touch screen at 800×480 resolution
- 4-axis joystick
- Shortcut keys for PTZ control, setting and calling of preset, preset tour, and shadow tour
- Shortcut keys for playback operation
- Shortcut keys for input groups and output groups
- Shortcut keys for wiper and light control operation

Software

- Admin, manager, operator, and custom user management
- Supports upgrade by USB flash drive
- Auto searches connected devices in the same network area
- Imports and exports keypad configuration parameters
- Macro command operation
- Storage of recorded files and snapshots to USB flash drive or FTP server
- Plays back recorded files from the USB flash drive
- Plays back remotely recorded files
- Bidirectional audio
- Supports configuration by web server

Decoding capability

- Provides 1-ch video decoding
- Supports standard MPEG4 and H.264 encoding formats
- Decodes at up to 720P real-time resolution

Display decoded video on the monitor

- Displays a decoded camera on the selected window
- Displays a decoded camera group on the selected window
- Sequences a display of a decoded camera group on a monitor
- Sequences a display of a decoded camera group on a monitor group

Package contents

When you receive the product, check the package and contents for damage and verify that all items are included. If any items are damaged or missing, please contact your local supplier.

Items shipped with the product include:

- TVK-800 keypad
- Power supply unit (PSU)
- Power supply cords (UK and Europe)
- CD-ROM
- User manual

Installation environment

When installing your keypad, consider these factors:

Ventilation: Do not block any ventilation openings. Install in accordance with the manufacturer's instructions. Ensure that the location planned for the installation of the unit is well ventilated and dust-free.

Temperature: Consider the device's operating temperature (-10 to +55 ºC, 14 to 131 °F) and noncondensing humidity specifications (10 to 90%) before choosing an installation location. Do not install the device on top of other hot equipment.

Moisture: Do not use the unit near water. To reduce the risk of fire or electric shock, do not expose this unit to rain or moisture.

Electrical: Ensure that the device is connected to a power supply that corresponds with the characteristics listed in the technical specifications.

Working surface: Place the device on a horizontal solid surface. Avoid exposure to severe vibrations.

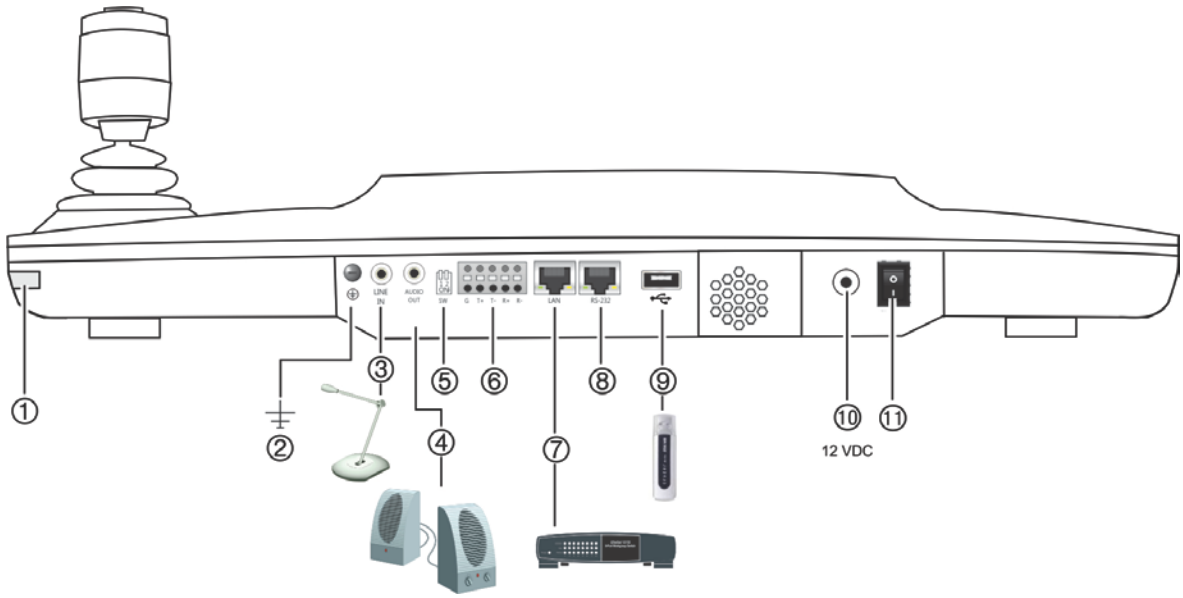
Caution: Do not attempt to dismantle this product. Any attempt to dismantle or remove the covers from this product will invalidate the warranty and may also result in serious injury.

Description

This chapter describes how to connect the keypad as well the functions of the different keys on the keypad.

Connections

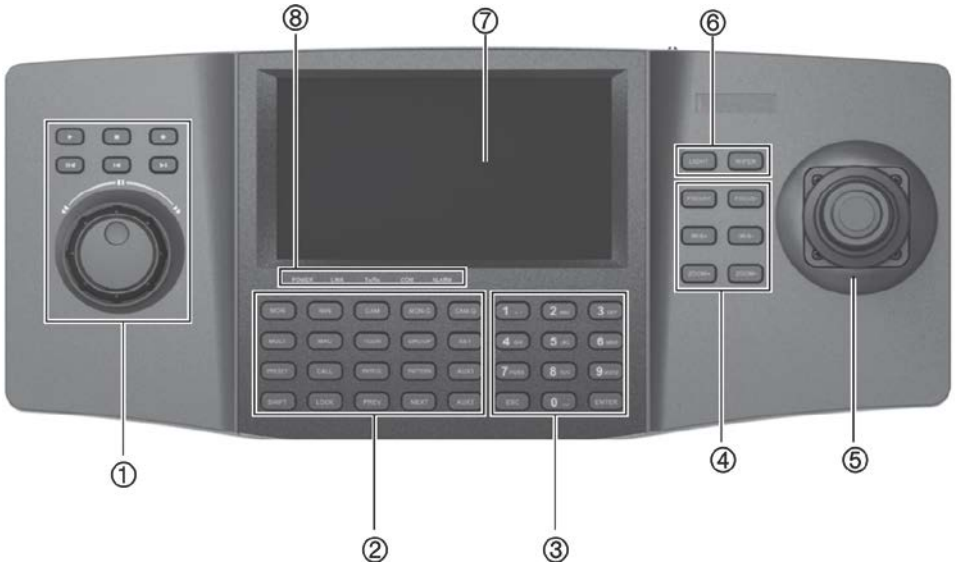
Figure 1: Back view of the keypad



1. Touch pen
2. GND
3. Line in
4. Audio out
5. Reserved
6. RS-485 interface
7. LAN, PoE (802.3af)
8. RS-232 interface
9. USB interface
10. 12 VDC power supply
11. Power on/off

Keypad description

Figure 2: Keypad top view



1. Playback control
   See “Playback control dial and keys” on page 7 for further information.
2. Function keys
   Each key has a special function. See “Function keys” below for further information.
3. Numeric keys
   Input numbers as well as ESC and ENTER.
4. Lens control keys
   Zoom in or out, focus near or far, open or close iris.
5. 4-axis joystick.
   Control pan, tilt and zoom as well as capture snapshots. See “Joystick operation” on page 8 for further information.
6. Turn light and wiper on or off.
7. Touch-sensitive LCD display
8. LED indicators:
   POWER: Lit when keypad is powered up.
   LINK: Lit when the keypad is connected to the network.
   Tx/Rx: Flickers when the keypad is transmitting/receiving data.
   COM: Reserved.
   ALARM: Reserved.

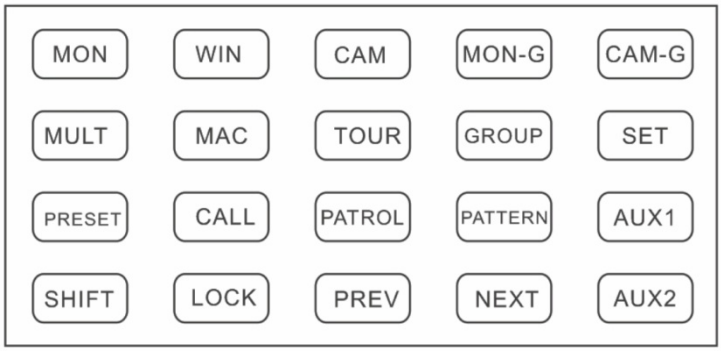
Function keys

There are 20 function keys. They allow you to quickly select regularly used functions such as to call up presets or to select a monitor.

See Figure 2 above for the location of the function keys on the keypad.

The keys are lit blue when inactive and red when active.

Figure 3: Description of the function keys



MON	WIN	CAM	MON-G	CAM-G
Select a monitor	Select a video tile (decoders only)	Select a camera	Select a monitor group	Select a camera group
MULT	**MAC**	**TOUR**	**GROUP**	**SET**
Select a multiview display format	Call a macro	Set or call a tour	Set or call a group	Set preset tour, shadow tour
PRESET	**CALL**	**PATROL**	**PATTERN**	**AUX1**
Set a preset	Call a preset	Call a preset tour	Call a shadow tour	AUX 1
SHIFT	**LOCK**	**PREV**	**NEXT**	**AUX2**
Shift	Lock screen	Previous camera	Next camera	AUX 2

Locking the keypad

When in live view mode, press the LOCK key to lock the keypad and mouse. Once locked, none of the keys (except LOCK), the joystick, the mouse, or the touch screen can be used.

To lock the keypad in live view, press and hold the LOCK key, or press the SHIFT + LOCK keys. When the keypad is locked, the LOCK key is lit red.

To unlock the keypad, press and hold the LOCK key, or press the SHIFT + LOCK keys. The LOCK key turns blue.

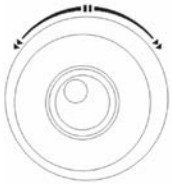
The keypad automatically locks after a predetermined period of inactivity. The time (in minutes) can be set in the Keypad > Hardware Settings menu.

Note: The keys are also locked when the screen is automatically locked.

Playback control dial and keys

See Figure 2 on page 6 for the location of playback control on the keypad.

Figure 4: Description of the playback control dial and keys

	Not used.		Play the last five minutes in decoder playback mode.
			Play/pause.
	Stop play back.		Play back the previous file (not available in USB playback mode).
	Record.		Play back the next file (not available in USB playback mode).

Select options on the LCD display

There are four ways to select and enter items on the LDC display:

- **Touch pen**: Use the touch pen (see Figure 1 on page 5) to select options on screen. Replace the touch pen in its holder when finished using it.
- **Finger**: Use your finger to select options on screen.
- **Joystick**: Rotate the joystick to position the on-screen cursor in the desired location. Press the center key on the joystick to select.
- **Mouse**: Use a mouse. Plug the mouse into the USB socket on the back of the keypad.

Joystick operation

Move the joystick in one of eight directions to control pan/tilt. Rotate the knob for zoom control.

Press the center key on the joystick for the Enter function and to capture snapshots. Save the snapshots to a USB flash drive or to a FTP site.

Using the key commands

Key operation

Table 1: Operating a multiple video display

Key	Description	Example
MON	*Num+MON*: Select the video output to be controlled by the decoder, NVR, or DVR. **Note**: When Num=0, the system enters local live view mode.	Press the *2+MON* keys to select monitor 2.

Key	Description	Example
MULT	*Num+MULT*: Select the multiview display format for the selected output channel.	Press the *2+MON+2+MULT* keys to configure a two-division display for monitor 2.
WIN	*Num+MON+Num+WIN+Num+CAM-G*: Output and display the video signal from the camera group on the selected video tile of the monitor in cycle.	Press the *2+MON+3+WIN* keys to select video tile 3 of monitor 2.
CAM	*Num+CAM*: Select the video input.	Press the *2+MON+3+WIN+5+CAM* keys to display video input 5 on video tile 3 of monitor 2.
MON-G	*Num+MON-G:* Select the monitor group.	Press the *1+MON-G* keys to select monitor group 1.
CAM-G	*Num+CAM-G:* Select the camera group.	Press the *1+MON+1+CAM-G* keys to select camera group 1 to be displayed on monitor 1.
SET	*SET+Num+TOUR/ GROUP/ PATROL/ PATTERN/ PRESET*: Set the tour, group, preset tour, shadow tour, or preset.	Press the *SET+1+PATTERN* keys to set shadow tour 1.
TOUR	*SET+Num+TOUR:* Set the tour. *Num+TOUR:* Call the defined tour.	Press the *SET+1+TOUR* keys to set tour 1. Press the *1+TOUR* keys to call the pre-defined tour 1.
GROUP	*SET+Num+GROUP:* Set the group. *Num+GROUP: C*all the defined group.	Press the *SET+1+GROUP* keys to set group 1. Press the *1+GROUP* keys to call the defined group 1.

PTZ control keys

Table 2: PTZ control keys

Key	Description	Example
PRESET	*Num+PRESET*: Move the PTZ camera to the desired position, and then press the *Num+PRESET* keys to set a preset.	Press the *1+PRESET* keys to set preset 1.
CALL	*Num+CALL*: Call the predefined preset.	Press the *1+CALL* keys to call preset 1.
PATROL	*SET+Num+PATROL:* Set a preset tour. *Num+PATROL:* Call a predefined preset tour.	Press the *SET+1+PATROL* keys to set preset tour 1. Press the *1+PATROL* keys to call preset tour 1.
PATTERN	*Num+PATTERN*: Call a predefined shadow tour.	Press the *SET+1+PATTERN* keys to set shadow tour 1. Press the *1+PATTERN* keys to call shadow tour 1.

Other keys

Table 3: Functions of the other keys

Key	Description	Example
MAC	*Num+MAC*: Call the MAC command.	Press the *1+MAC* keys to call MAC command 1.
SHIFT	*SHIFT+LOCK*: Lock/unlock the system.	Press the *SHIFT+LOCK* keys to lock/unlock the system.
LOCK	Lock/unlock the system.	Press and hold the *LOCK* key, or press the *SHIFT+LOCK* key, to lock/unlock the system.
PREV	Select the previous camera for live view on the keypad or a multiview display.	
NEXT	Select the next camera for live view on the keypad or a multiview display.	
AUX1	Press the AUX1 key to set its defined function (bidirectional audio or snapshot).	
AUX2	Press the AUX2 key to set its defined function (bidirectional audio or snapshot).	

Entering characters on screen

A soft keyboard will appear on screen when you need to enter characters in a screen option. Click a key to input that character.

Figure 5: Soft keyboard

abc 123 Click to enter letters or numbers.

Click to switch between upper and lower case.

Overview of the user groups

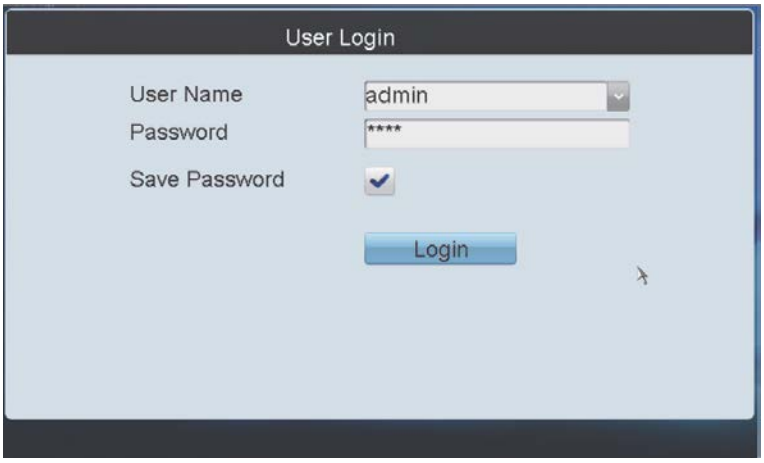
By default the keypad comes with four user groups: Administrator, Manager, Operator, and Customized User.

Table 4: User levels

User	Description
Admin	The administrator has full access to all menu settings. • Configure basic parameters of the keypad • Add, modify, and delete devices • Remotely control the front panel • Add, modify, and delete manager users • Assign devices to manager users • Modify number of inputs and outputs • Local live view and PTZ control There can only be one administrator. The user name is “admin”. It cannot be modified. The default password is 1234.
Manager	**The manager has reduced menu access:** • Remotely control the front panel • Add, modify, delete operator and custom users • Assign devices to operator and custom • Local live view and PTZ control Only the manager can add operator and custom users. Each manager has their own list of operator and custom users.
Operator	The operator only has access to the remote control of DVR/NVR front panels.
Custom	The customized user only has access to the remote control of DVR/NVRs front panel.

Logging in/out

1. Power up the keypad. The following display appears:



2. Select your user name from the drop-down list (admin, manager, operator/custom) and enter the password.

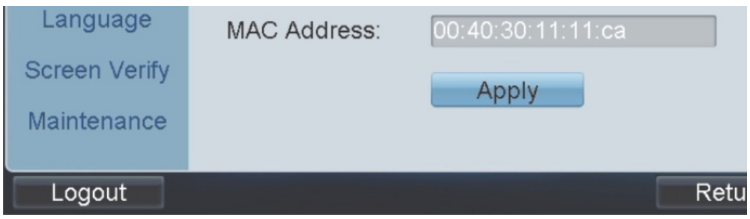
   Note: Record your password in a safe place. If you should forget your password, you will not be able to access the keypad functions. Please contact technical support for assistance.

3. Check **Save Password** to save the login password for future use.
4. Click **Login**. The main screen for the user type appears with the list of menu options available displayed.

   Note: The list of menu options available will depend on the user type.

To log out of the system:

1. Click the **Logout** button in one of the configuration screens.



   You return to the Login screen.

Menu overview

Not all user types have permission to access all menu functions.

Figure 6: Main menu (Admin shown)

Menu function	Description
1. Keypad	**Keypad management**: View the device version, configure network parameters, configure hardware settings, set date and time, select the language, calibrate the touch screen, upgrade the system, and import/export a configuration file. Only available to the Admin. See “Keypad management” on page 24 for more information.
2. Device	**Device management**: Add, modify, and delete a device.
3. User	**User management**: Add and delete a user, add and delete devices associated with a user, and change the password.
4. Input	**Input settings**: Start local live view, change camera name/ number/ protocol/ stream type, and group cameras.
5. Output	**Output settings**: Display output channels of user, play back recordings, modify an output channel, and group outputs.
6. Macro	**Macro settings**: Set up a sequence of actions. Add, view, run, and delete a macro.
7. Playback	**Playback recordings**: Playback recordings from a USB flash drive or FTP site through a decoder.
8. Advanced	**Advanced settings**: Set AUX1 and AUX2 keys to bidirectional audio and snapshots. Modify network performance and PTZ speed. Set up FTP server settings.
9. Shutdown	Log out, reboot, and shutdown the system.

Keypad configuration via the web browser

You can quickly and easily configure remotely the keypad via a web browser. The main menu functions available depend on the type of user: Administrator, Manager, or Operator/Customized user.

This chapter provides an overview on configuring the keypad via a browser. For further information on how to configure by the different user types, see:

- Administrator: “Local keypad configuration by the Administrator” on page 24.
- Manager: “Local keypad configuration by the Manager” on page 45.
- Operator and Customized user: “Local keypad configuration by the Operator and Custom users” on page 52.

Login

To access the keypad, open a web browser and enter the IP address assigned to the keypad as a web address. In the Login window, enter the Admin user name and password.

Admin User ID: admin

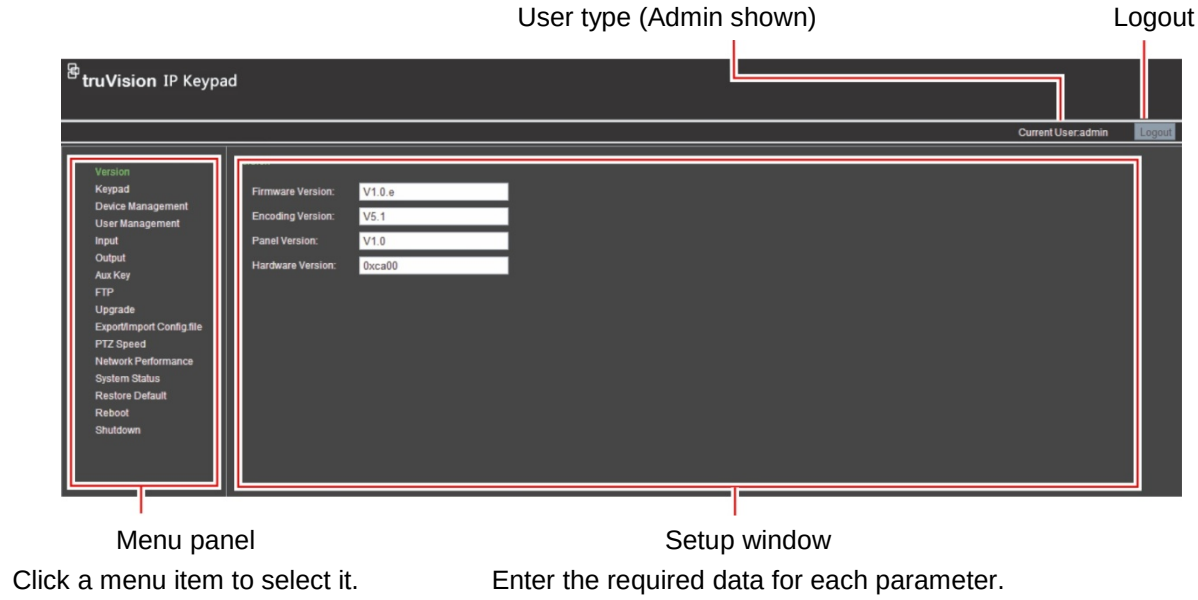
Password: 1234

IP address: 192.168.1.70

Subnet mask: 255.255.255.0

Port: 8000

Figure 7: Main web window (Version menu shown)



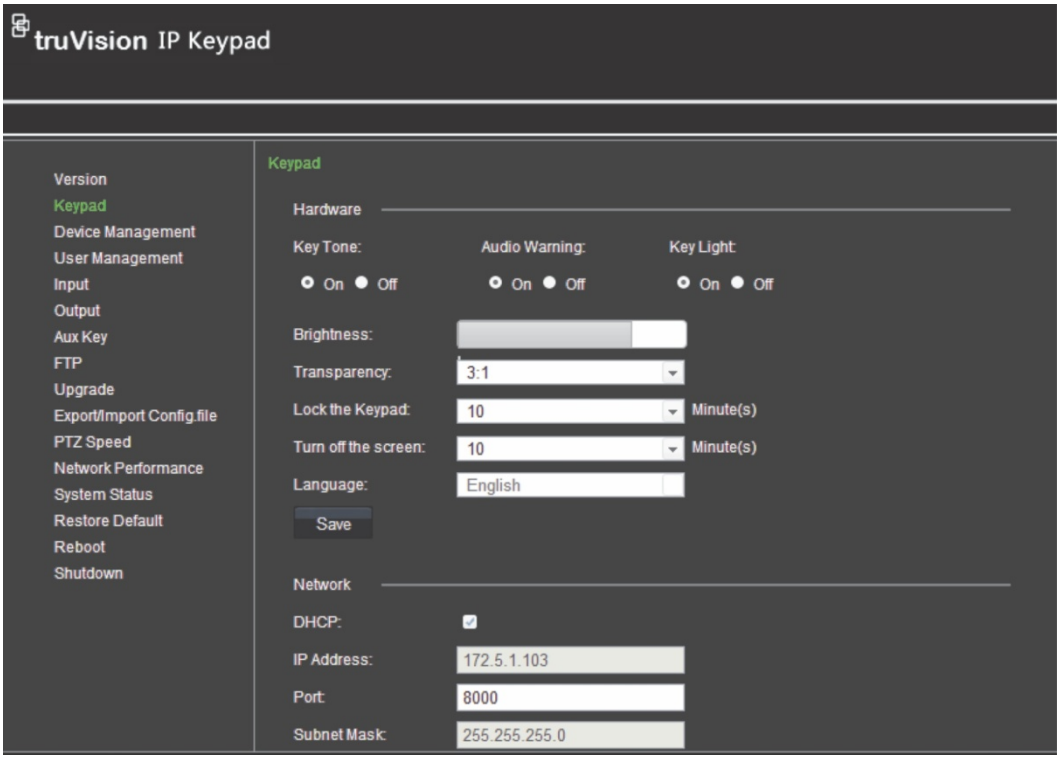
Keypad management

This menu is only accessible by the Administrator.

You can configure all the keypad parameters from the browser by clicking **Keypad** in the submenu panel and entering the required parameters. Click **Save** to save the changes. See Figure 8 below.

For information on setting up keypad parameters locally, see “Keypad management” on page 24.

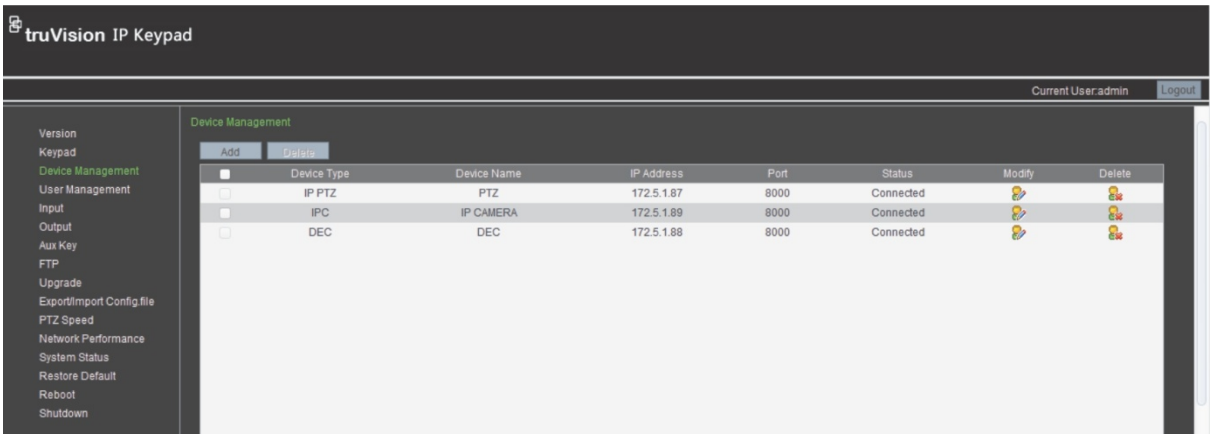
Figure 8: Keypad management window



Device management

The Administrator can add, modify, or delete a device from the keypad. See Figure 9 below. The Manager and Operator/Custom users can only see the list of devices available. For further information on setting up device parameters, see “Device management” on page 29.

Figure 9: Device Management window



Add a device

1. Click **Device Management** in the submenu panel. The “Device Management” window appears.
2. Click the **Add** button. In the pop-up window, add the device name, IP address, port, as well as user name and password. Click **OK** to confirm.

   The successfully added device is then listed in the Device Management window.

Modify a device

1. In the “Device Management” window, click for the selected device. In the pop-up window, enter the new device name. Click **OK** to confirm.

Delete a device

1. In the “Device Management” window, click for the selected device. Click **OK** to confirm the deletion of the user.

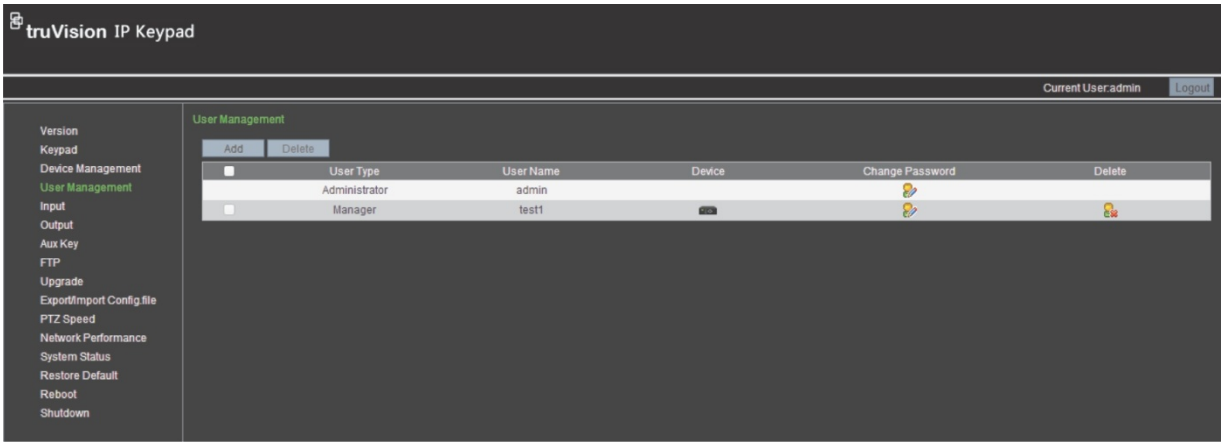
User management

The Administrator and Manager can use the browser to add, delete, and change the user parameters. The Operator/Custom users can modify their passwords.

Note: Only the Administrator can create Managers. However, only Managers can create Operator and Custom users

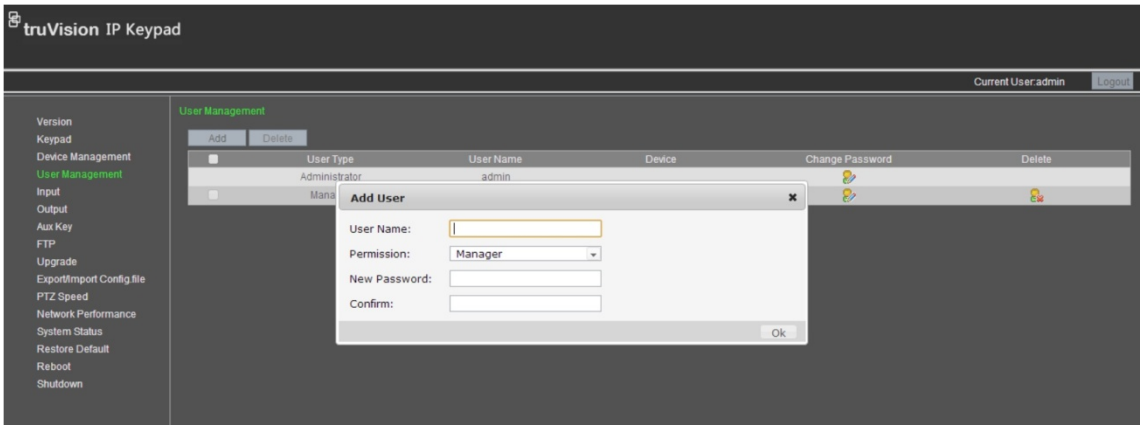
See Figure 10 on page 17. For further information on setting up user parameters, see “User management” on page 35.

Figure 10: User Management window



Add a user

1. Click **User Management** in the submenu panel. The “User Management” window appears.
2. Click the **Add** button. In the pop-up window, add the new user details. Enter the user type (“Permission”) and new password. Confirm the password and then click **OK**.



Modify a user

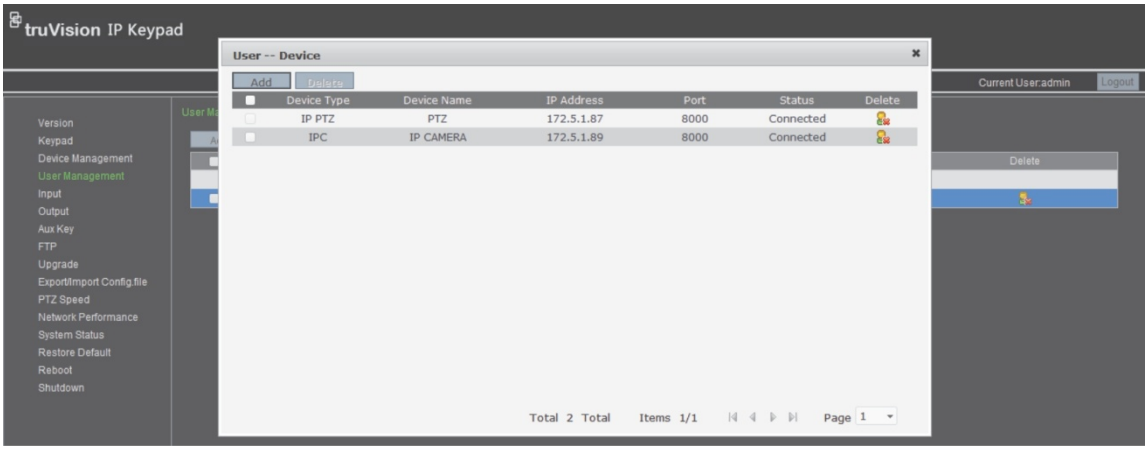
1. In the “User Management” window, click for the selected user. In the pop-up window, change the user password. Confirm the password and then click **OK**.

Delete a user

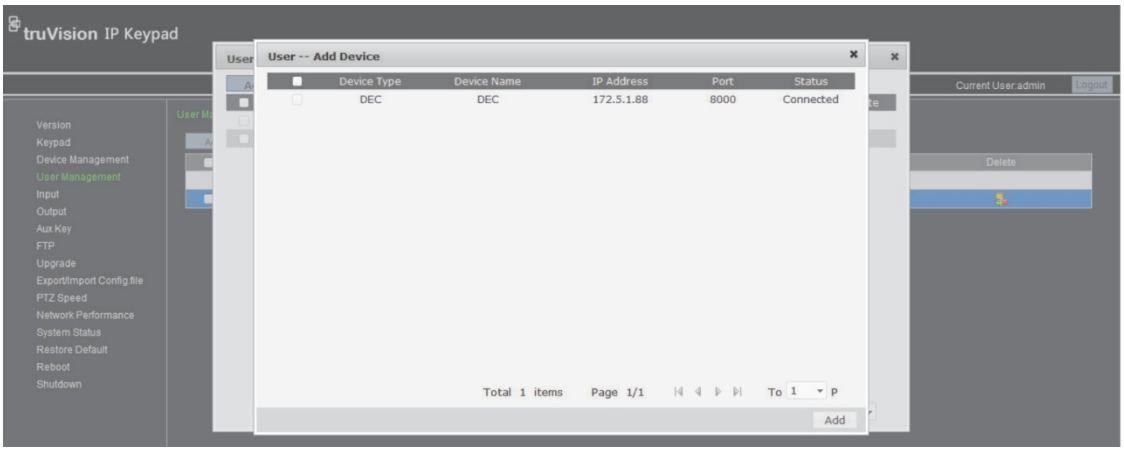
1. In the “User Management” window, click for the selected user. Click **OK** to confirm the deletion of the user.

Set up a user to access a specific device

1. In the “User Management” window, click for the selected user. The “User-Device” pop-up window appears, listing all the devices available.



2. Click the **Add** button. The “User-Add Device” pop-up window appears, listing all the devices added to the keypad by the Administrator.



3. Select the desired devices and click the **Add** button to add the devices to the selected user. The successfully added devices are then added to the “User-Device” window.
4. To delete a device from the list, click for the device you want to delete.

Input settings

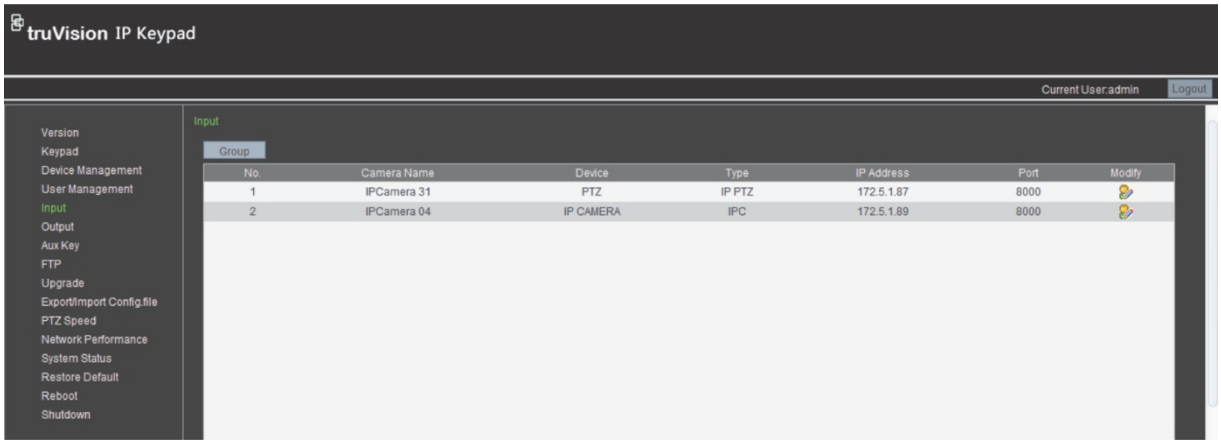
The Administrator and Manager can modify inputs, such as cameras, from the browser. Click **Input** in the submenu panel to get the Input window. See Figure 11 on page 19.

Cameras can also be grouped together so that they can be called up to appear together on a specific monitor. For example, one group can be cameras viewing the car park and another group can be cameras viewing the building entrances.

You can set up to 16 camera groups.

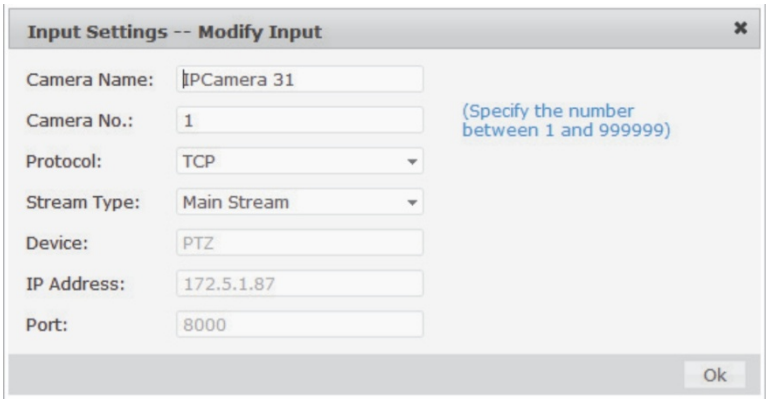
For further information on setting up input parameters, see “Input settings” on page 49.

Figure 11: Input window



Modify an input

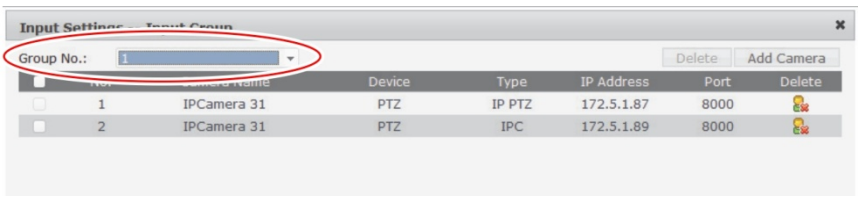
1. In the “Input” window, select a camera from the list and click . The “Input Settings-Modify Input” pop-up window appears.



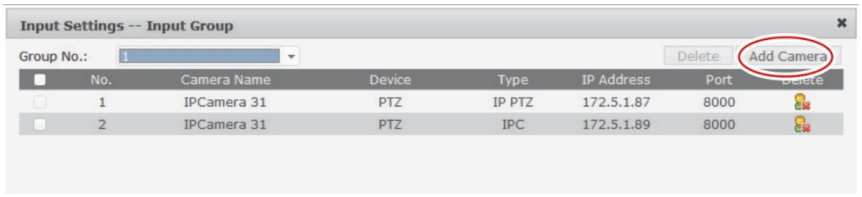
2. Modify the input’s name, protocol number, and stream type. Click **OK** to accept.

Set up a camera group

1. In the “Input” window, click the **Group** button. The “Input Settings-Input Group” window appears.
2. Select the desired group number from the **Group No.** drop-down list.



3. Click the **Add Camera** button. The “Input Settings-Add Camera” window appears.



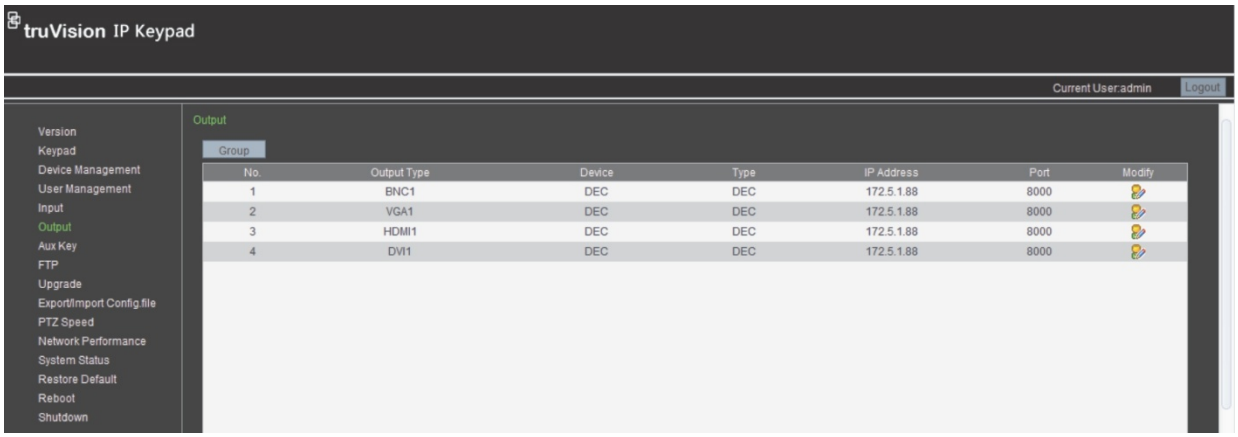
4. Select the desired cameras that you want to group together. Click **Add** to accept the changes and return to the “Input Group” window. The list of successfully added cameras to the group is shown.

Output list

The Administrator and Manager can modify the parameters of outputs such as monitors, decoders, DVRs, and NVRs. Click **Output** in the submenu panel to get the Output window, which displays all the output channels that are accessible by the user currently logged in. See Figure 12 below.

For further information on setting up output parameters, see “Output settings” on page 50.

Figure 12: Output window



Modify an output channel

1. In the “Output” window, select a camera from the list and click . The “Output Settings-Modify Input” window appears.

2. Modify the output’s number. Click **OK** to accept.

Set up an output group

1. In the Input window, click the **Group** button. The “Input Settings-Input Group” window appears.
2. Select the desired group number from the drop-down list.

3. Click the **Add Output** button. The “Add Output” window appears.
4. Select the desired outputs to add to the group. Click **Add**.
5. Click **Finish** to return to the “Output Settings-Output List” window to see the list of outputs added to the selected group.

Auxiliary functions

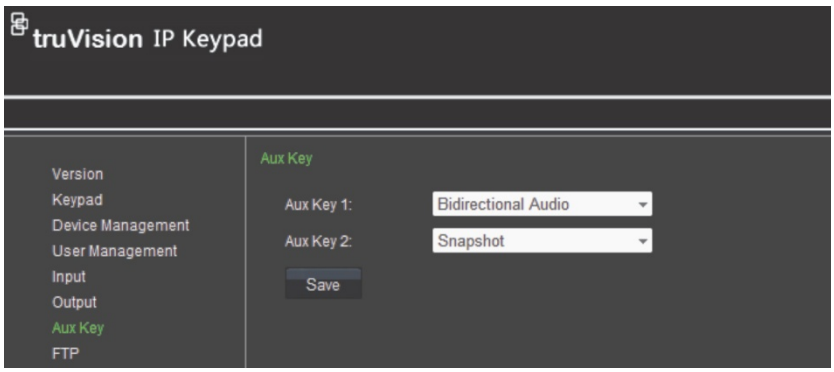
The keypad has AUX1 and AUX2 keys that can be configured for the AUX1 and AUX 2 functions in the system. By default, AUX 1 is set to bidirectional audio and AUX 2 is set to snapshot capture.

The Administrator and Manager can modify the auxiliary settings.

Click **Aux Key** in the submenu panel to get the Aux Key window. See Figure 13 below.

For further information on auxiliary key set up, see “Bidirectional audio and snapshot settings” on page 42.

Figure 13: Aux Key window



Live view and PTZ speed settings

You can set up the network performance for local live view on the keypad as well as set the PTZ movement speed.

Click **Network Performance** in the submenu panel to get the “Network Performance” window. See Figure 12 on page 20. From the drop-down menu, select the performance level: Least delay, Balanced (default), or Best fluency. Click **Save** to save the changes.

Click **PTZ Speed** in the submenu panel to select a PTZ movement speed level for the connected PTZ camera. There are three levels: Low speed, Medium speed (default), High speed. Click **Save** to save the changes.

For further information on setting up these parameters, see “Live view and PTZ speed settings” on page 43.

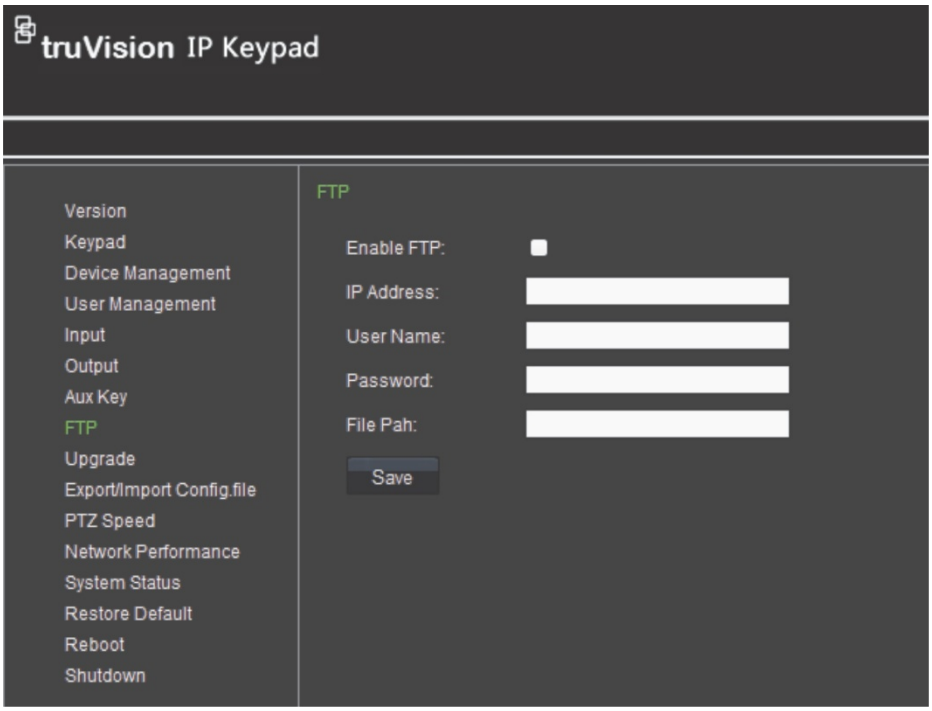
FTP settings

You can upload video file and snapshots to an FTP server.

Click **FTP** in the submenu panel to get the FTP window. See Figure 14 below.

For further information on auxiliary key set up, see “FTP settings” on page 43.

Figure 14: FTP window



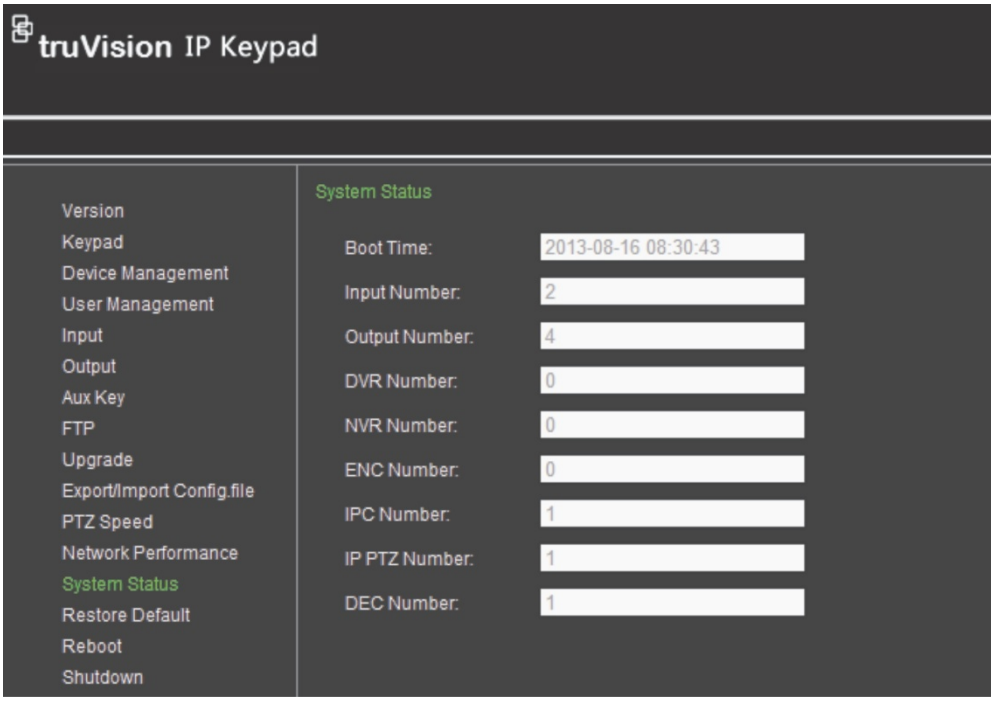
To set up the FTP server settings

1. In the FTP window, check the **Enable FTP** box.
2. Enter the IP address as well as the user name and password to log in to the FTP server.
3. Enter the file path to which the video files and snapshots are uploaded.
4. Click **Apply** to save the settings.

System status

Click **System Status** to check the boot time of the keypad as well as the number of different devices connected to the keypad.

Figure 15: System Status window



Local keypad configuration by the Administrator

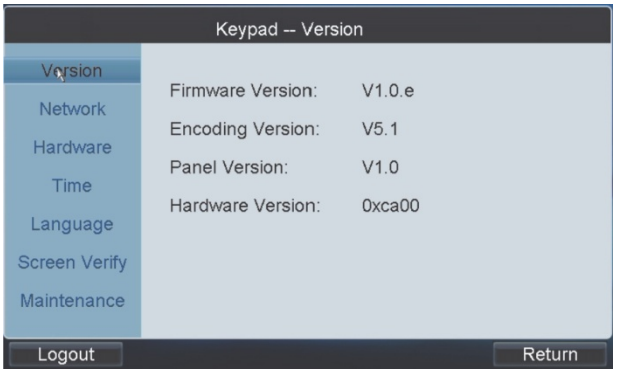
This chapter describes how the administrator can configure the keypad. The administrator has access to all the keypad functions. The keypad configuration menus are only accessible to the administrator.

Log into the keypad as **Admin** and enter the admin password (see “Logging in/out” on page 11).

Keypad management

View the keypad version information

1. In the Main menu, click **Keypad** > **Version**. The “Keypad-Version” window appears:

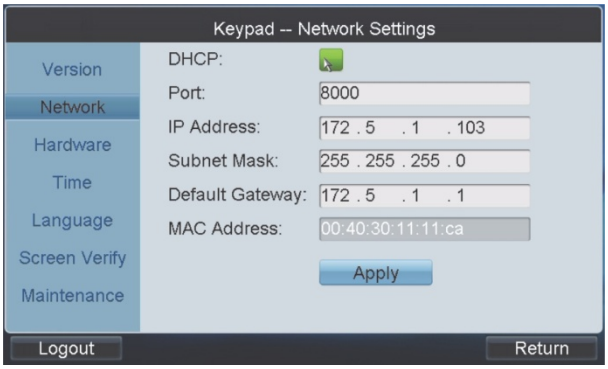


   It lists the current version information of the firmware, encoding, panel, and hardware.

2. Click **Return** to return to the Main menu or click another Keypad menu option.

Configure the keypad network settings

1. In the Main menu, click **Keypad** > **Network**. The “Keypad-Network Settings” window appears:



2. Enter the port, IP address, subnet mask, default gateway values.

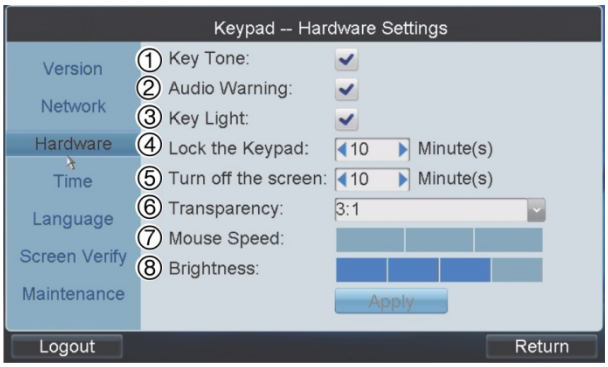
   - Or -

   Check the **DHCP** box. Ensure that you have a DHCP server on your network before selecting this option.

3. Click **Apply**.
4. Click **Return** to return to the Main menu or click another Keypad menu option.

Hardware settings

1. In the Main menu, click **Keypad** > **Hardware Settings**. The “Keypad-Hardware Settings” window appears:



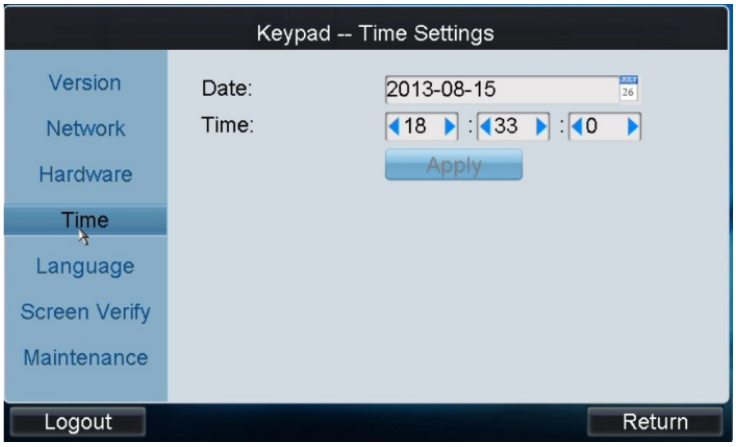
2. Enter the desired value for each parameter:

Parameter	Description
1. Key tone	Key makes a beeping noise when pressed. Enable or disable the option.
2. Audio warning	Keypad emits warning if the network cable is disconnected. Enable or disable the option.
3. Key light	Keypad keys are lit red or blue to show if active or locked. Enable or disable the option.
4. Lock the keypad	Set a timer so that the keypad automatically locks itself after a defined period of inactivity. Select a time between 0 and 10 minutes of inactivity.
5. Turn off the screen	Set a timer so that the keypad screen automatically turns off after a defined period of inactivity. Select a time between 0 and 10 minutes of inactivity.
6. Transparency	Set the transparency level between the decoded video and the menu. It only applies to local live view. There are four values to select: 1:1, 3:1, 1:3, or Not transparent.
7. Mouse speed	Set the mouse speed. Select a level between 0 and 2.
8. Brightness	Set the screen brightness. Select a level between 0 and 3.

3. Click **Apply** to save settings.
4. Click **Return** to return to the Main menu or click another Keypad menu option.

Time and date settings

1. In the Main menu, click **Keypad** > **Time Settings**. The “Keypad-Time Settings” appears:



2. Select the desired date.
3. Enter the desired time.
4. Click **Apply** to save settings.
5. Click **Return** to return to the Main menu or click another Keypad menu option.

Language selection

1. In the Main menu, click **Keypad** > **Language Settings**. The “Keypad-Language Settings” appears:

2. Select the desired language.

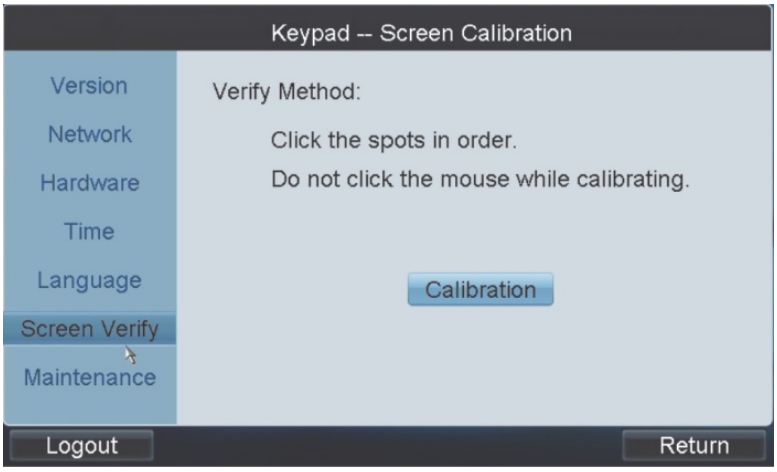
   Note: Currently only English is available.
3. Click **Apply** to save settings.
4. Click **Return** to return to the Main menu or click another Keypad menu option.

Calibrate the keypad touch-screen

The keypad touch-screen needs to be calibrated for it to be correctly positioned.

To calibrate the touch-screen:

1. In the Main menu, click **Keypad** > **Screen Verify**. The “Keypad-Screen Calibration” window appears:



   The system displays the calibration instructions; “Click the spots in order” and “Do not click the mouse while calibrating”. Click **Calibration**.

2. Using the touch pen, click the three “+” spots that appear on screen.

   The message “Screen calibration complete” appears.

3. Click **OK** to complete the calibration.

Upgrade the software

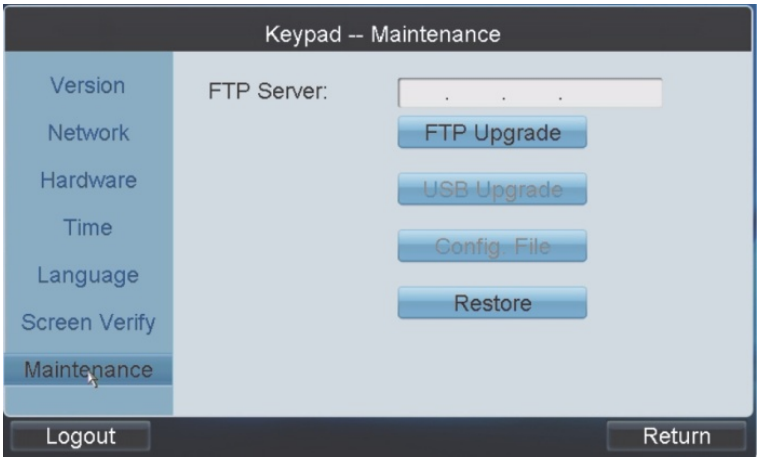
There are two ways to upgrade the keypad software:

- Use an FTP server
- Use an USB flash drive

Before you can upgrade the keypad software by FTP, you must first set up an FTP server connection by TFTP or WFTP to transfer the file.

To upgrade the software using an FTP site:

1. In the Main menu, click **Keypad** > **Maintenance**. The “Keypad-Maintenance” window appears:

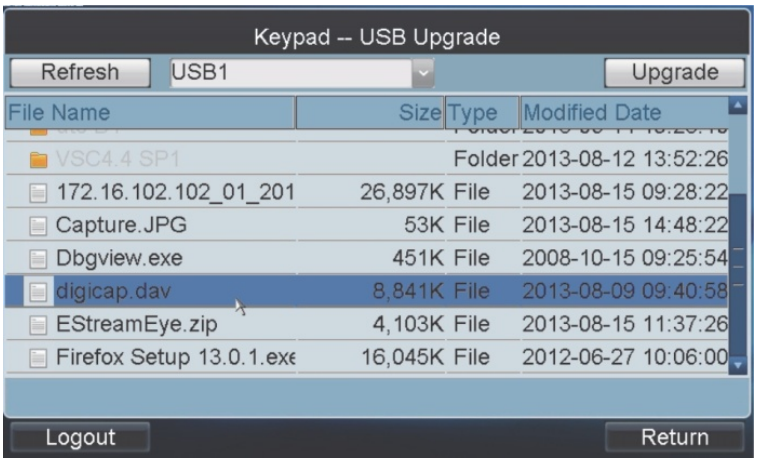


2. Enter the FTP address and then click **FTP Upgrade**.
3. When the upgrade is successful, the keypad automatically reboots.

   If the upgrade fails, an error message appears. Click **OK** to accept.

Upgrade the software using an USB flash drive:

1. Insert the USB flash drive into the keypad slot.
2. In the Main menu, click **Keypad** > **Maintenance**. The window appears.
3. Click **USB Upgrade** to enter the USB Upgrade window.
4. Select the upgrade file from the list and click **Upgrade** to start the upgrade process. The configuration file is *digicap.dav*.

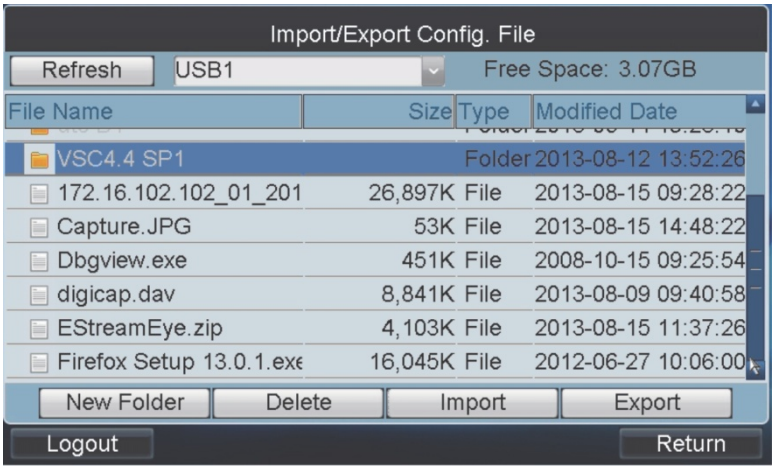


5. When the upgrade is successful, the keypad automatically reboots.

   If the upgrade fails, an error message appears. Click **OK** to accept.

Import/export the configuration file

1. In the Main menu, click **Keypad** > **Maintenance**. The window appears.
2. Click **Config File** to enter the “Import/Export Config. File” window.



3. To import a configuration file:
   1) Insert the USB flash drive into the keypad slot.
   2) Enter the flash drive and select the file.
   3) Click **Import** to import the configuration file.

   Note: If the imported configuration is invalid, the following error message appears, “Importing file failed: File type does not match.”
4. To export a configuration file:
   1) Insert the USB flash drive into the keypad slot.
   2) Click **Export** to import the configuration file.

Restore default settings

1. In the Main menu, click **Keypad** > **Maintenance**. The window appears.
2. Click **Restore** to restore the system to default. The following message appears, “Restore Default?”
3. Click **Yes** to continue, or **No** to cancel the operation.

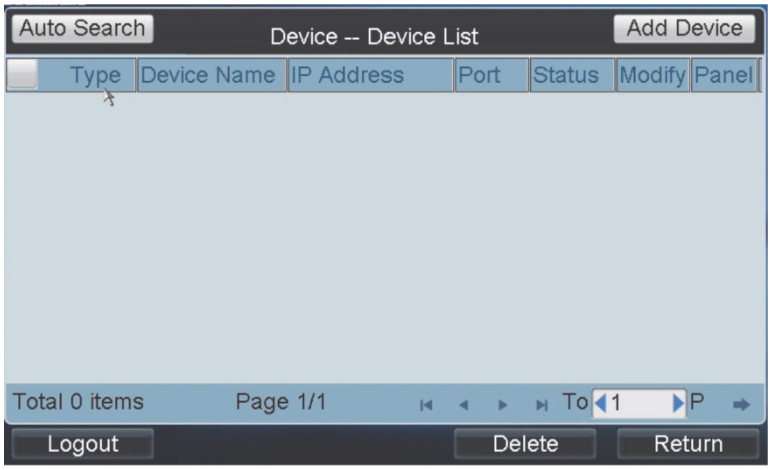
Device management

Use this menu to add, modify, or delete a device on the keypad. You can also set up the keypad to remotely control a DNR or NVR.

The “Device-Device List” window lists all the devices that are in communication with the keypad. See Figure 16 on page 30.

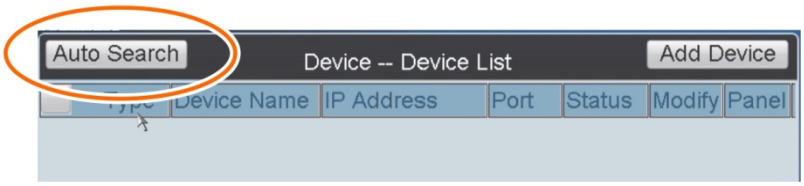
You can add devices to the keypad either by searching for all the devices available in the same subnet, or by doing a manual search.

Figure 16: Device-Device List window



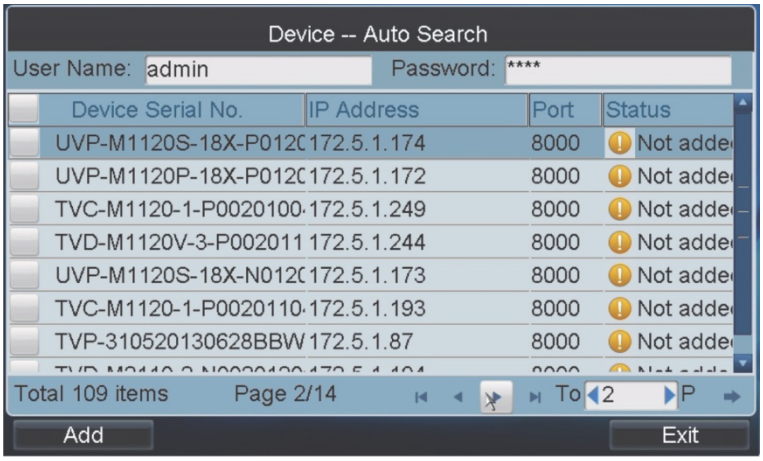
Add a device by auto searching

1. In the Main menu, click **Device**. The “Device-Device List” window appears. Click the **Auto Search** button.



Note: Only devices that are in the same network area as the keypad can be found by the keypad.

All devices found by the keypad are listed in the window.



2. Select the desired device from the list. Enter the login user name and password of the device.

   Several devices can be selected together if they share the same login user name and password.

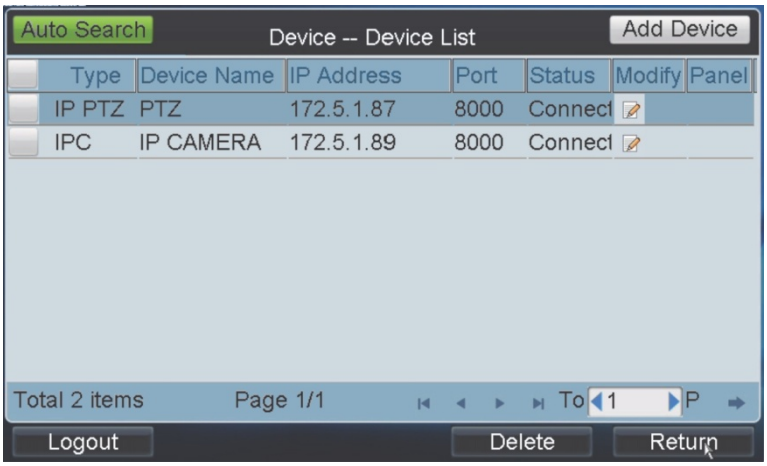
3. Click **Add** to add the device to the system.

   The Status column indicates the status of each listed device:

	The device is not added.
	The device failed to be added.
	The device has been successfully added.

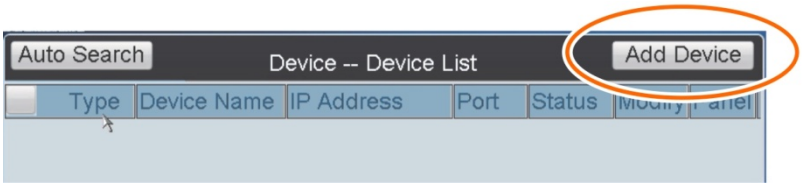
4. Once all the desired devices have been successfully added, click **Exit** to return to the “Device-Device List” window.

   You can then see the information on each device that has been added.



Add a device manually

1. In the Main menu, click **Device**. The “Device-Device List” window appears. Click the **Add Device** button.

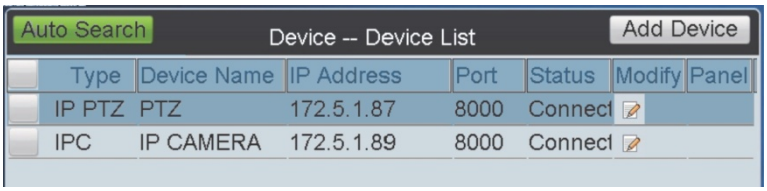


2. In the window that appears, enter the device name, device IP port, user name, and password. Click **Add** to add the device.

   Note: If the information is invalid or the device is offline, the following error message appears, “Failed to add device.”

Modify the device name

1. In the Main menu, click **Device**. The “Device-Device List” window appears.



2. Click for the device you want to modify. The “Device-Modify Device” window appears.

3. Modify the device name. Click **Modify** to accept the changes.

   Note: The user name and password refer to those required to log in to the device from the keypad.

Delete a device

1. In the Main menu, click **Device**. The “Device-Device List” window appears.
2. Select the device to be deleted. Click .
3. Click **Yes** in the pop-up window to confirm the deletion.

Remotely control a DVR/NVR

You can remotely control a DVR or NVR through the keypad. There are two ways to remotely control a device:

- Use the remote panel of the keypad.
- Use the MON key to connect directly to a DVR/NVR. This method may be easier to use when there are several DVRs/NVRs connected to the keypad.

  You can call up a specific output DVR or NVR by entering its output device number and pressing the MON key. The output device number associated with a DVR or NVR is shown in the “Output Settings-Output List” window (see “Output settings” on page 38 for more information). A DVR or NVR can have a maximum of two monitors connected to it. See Table 5 for an example on how to call up the desired monitor of a DVR accessible by the keypad.

Table 5: Example of how to access a DVR monitor

Keypad keys to press	DVR	Monitor
#1 MON	1	A
#2 MON	1	B
#3 MON	2	A
#4 MON	2	B

Note: Not all DVRs/NVRs support remote control.

To remotely control a DVR/NVR using the keypad MON key:

1. Press the **Num** + **MON** keys to call up the monitor of the desired DVR or NVR. The Shortcuts window appears.

You can use the keypad keys as well the shortcut buttons displayed to control the DVR or NVR.

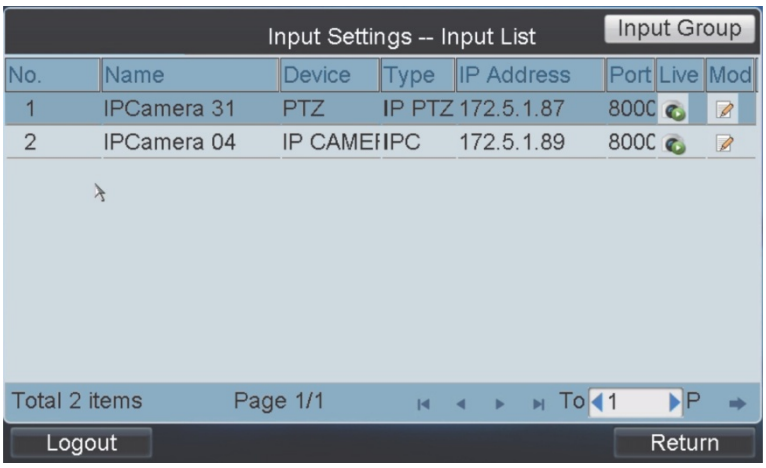
Local live view

A full-screen overlay of local live view from the selected camera appears on the keypad display.

There are two ways to see local live view on the keypad display. You can use the Input menu as well as using the keypad keys. For instructions on using the keypad keys, see “Local live view” on page 54.

To see local live view using the Input menu

1. In the Main menu, click **Input**. The “Input Settings-Input List” window appears.

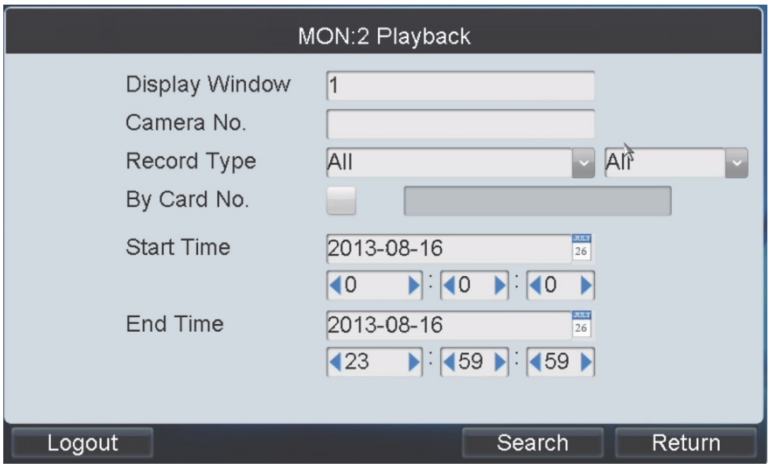


2. Click for the desired camera. Local live view starts immediately.
3. To view other cameras listed, press the **NEXT** or **PREV** keys on the keypad to view the next or previous cameras.

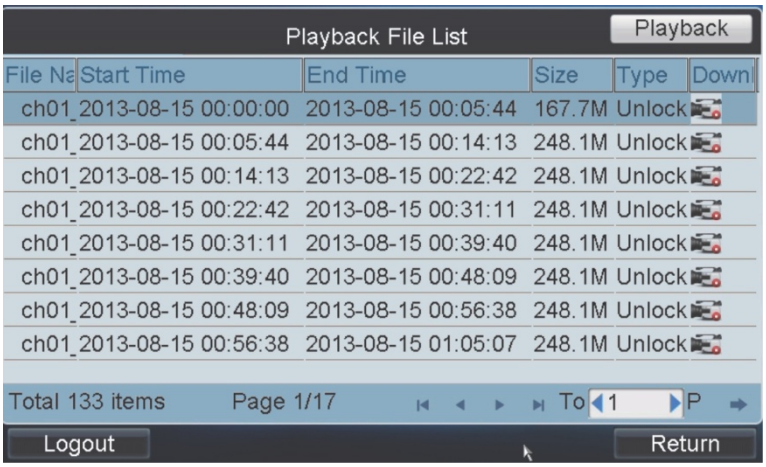
Playback a file

1. In the Main menu, click **Output**. The “Output Settings-Output List” window appears.

2. Click of the desired output channel. The Playback window appears.
3. Click the **By File** tab to enter the “Playback by File” window.



4. Enter the camera number, record type, and file type as well as the start and end times for playback. Click **Search**. The results are listed on-screen.



5. Select a file for playback from the list and click the **Playback** button to play back the file.

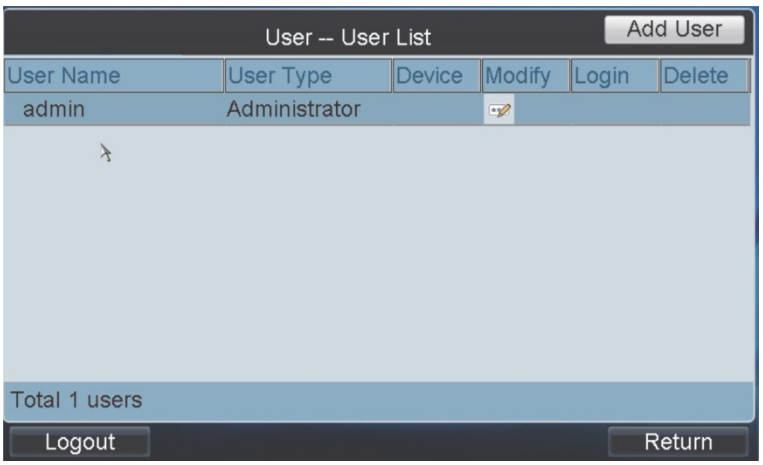
Note: You can also do instant playback. See “Instant playback” on page 61 for more information.

User management

You can set up the keypad so that a user can access specific devices, such as cameras.

Add a user

1. In the Main menu, click **User**. The “User-User List” window appears.



2. Click the **Add User** button. The “User-Add User” window appears.
3. Select the user type: Manager, Operator, or Custom.

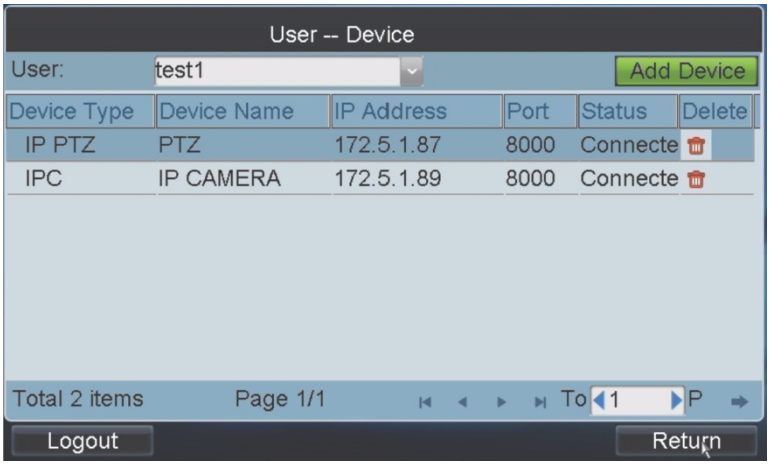
   Note: Only the administrator can add managers.
4. Enter the user name and password. Verify the password.
5. Click **Add** to add the user to the system.

Set up a user to access a specific device

1. In the Main menu, click **User**. The “User-User List” window appears.
2. Select the desired user and click . The “User-Device” window appears.
3. Click the **Add Device** button.

4. In the window that appears, select the desired devices and click **Add** to add the device to the selected user.

   The successfully added devices are then added to the “User-Device” window.

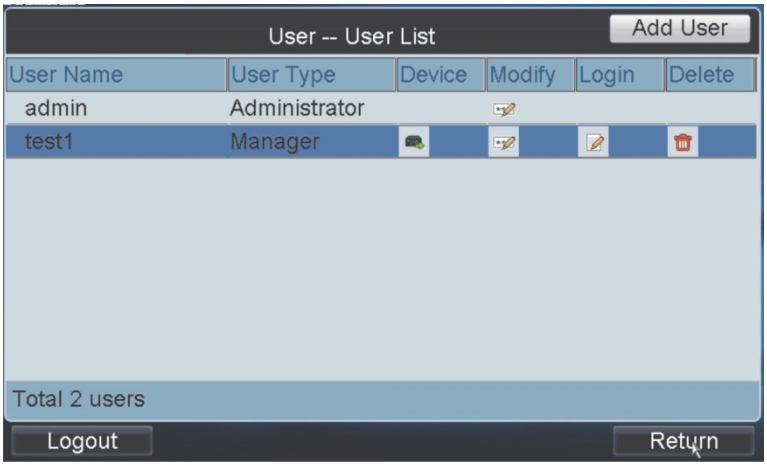


Delete user access to a device

1. In the Main menu, click **User**. The “User-User List” window appears.
2. Select the desired user and click . The “User-Device” window appears.
3. Select the desired devices for this user and click . Click **Yes** in the pop-up window to confirm deletion.

Switch user

1. In the Main menu, click **User**. The “User-User List” window appears. The list of Managers is listed.
2. Click to directly access the desired user’s login window. Enter the user’s password.



Modify a user password

1. In the Main menu, click **User**. The “User-User List” window appears.
2. Click for the desired user. The “User-Change Password” pop-up window appears.
3. Enter the new password and verify it. Click **OK** to accept.

Delete a user

1. In the Main menu, click **User**. The “User-User List” window appears.
2. Click for the desired user.
3. Click **Yes** in the pop-up window to confirm the deletion.

Camera settings

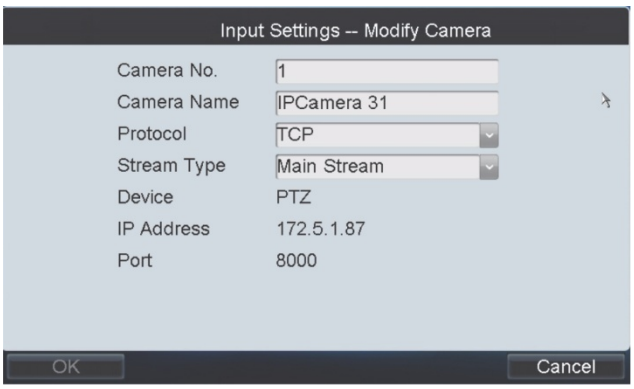
Use this menu to configure inputs such as cameras.

You can set up the keypad to live view camera images. Cameras can also be grouped together so that they can be called up to appear together on a specific monitor. For example, one group can be cameras viewing the car park and another group can be cameras viewing the building entrances.

You can set up to 16 camera groups.

Modify a camera’s information

1. In the Main menu, click **Input**. The “Input Settings-Input” window appears.
2. Click of the desired camera. The “Input Settings-Modify Camera” window appears.



3. Enter the camera number, camera name, protocol, and stream type. Click **OK**.

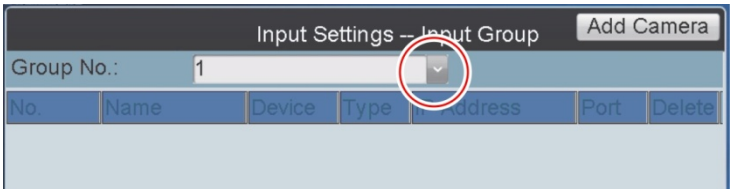
   Note: The camera number must be between 1 and 999,999.

   Note: Managers can also modify camera information.

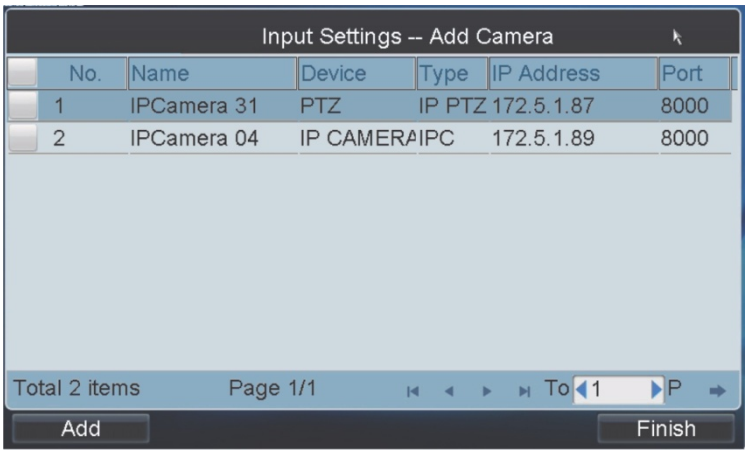
Set up a camera group

1. In the Main menu, click **Input**. The “Input Settings-Input” window appears.
2. Click the **Input Group** button. The “Input Settings-Input Group” window appears.
3. Select the desired group number from the **Group No.** drop-down list.

   Up to 16 camera groups can be added.



4. Click the **Add Camera** button. The “Input Settings-Add Camera” window appears.



5. Select the desired cameras that you want to group together. Click **Add**.
6. Click **Finish** to return to the Input Group window. The list of successfully added cameras to the group is shown.

Output settings

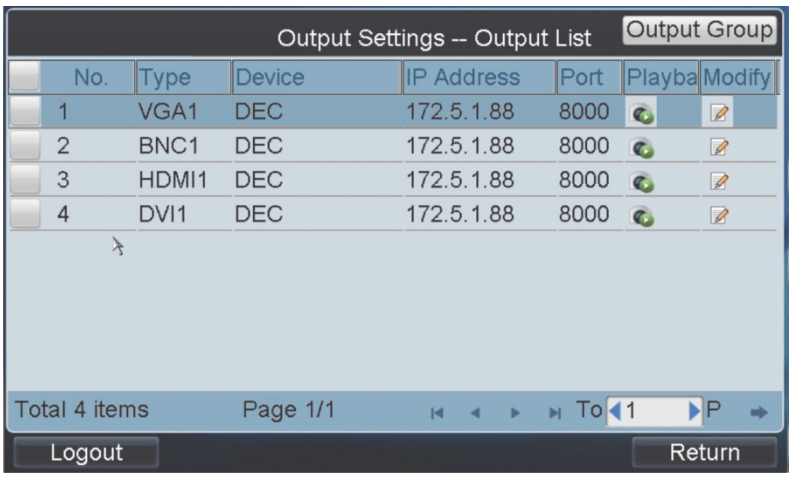
Use this menu to configure outputs such as monitors, decoders, DVRs, and NVRs.

You can display in the “Output Settings” window all the output channels that are accessible by the user currently logged in.

You can also playback files from the output channel, such as a DVR or NVR.

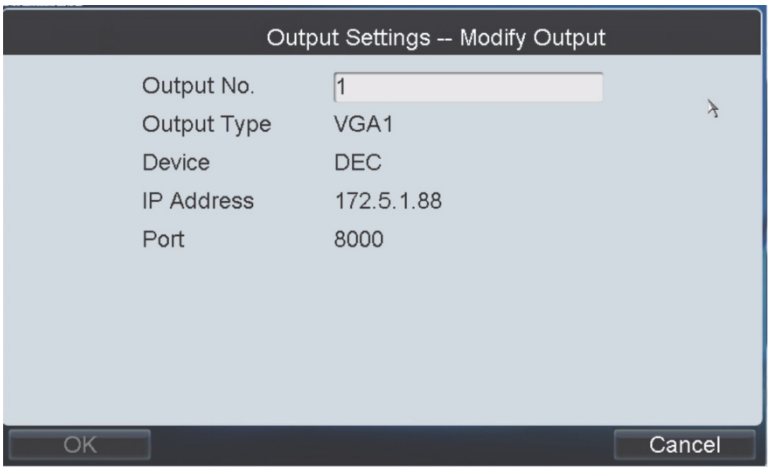
Display the list of output channels

1. In the Main menu, click **Output**. The Output Settings-Output window appears.



Modify an output channel

1. In the Main menu, click **Output**. The “Output Settings-Output List” window appears.
2. Click on the desired output. The “Input Settings-Modify Output” window appears.



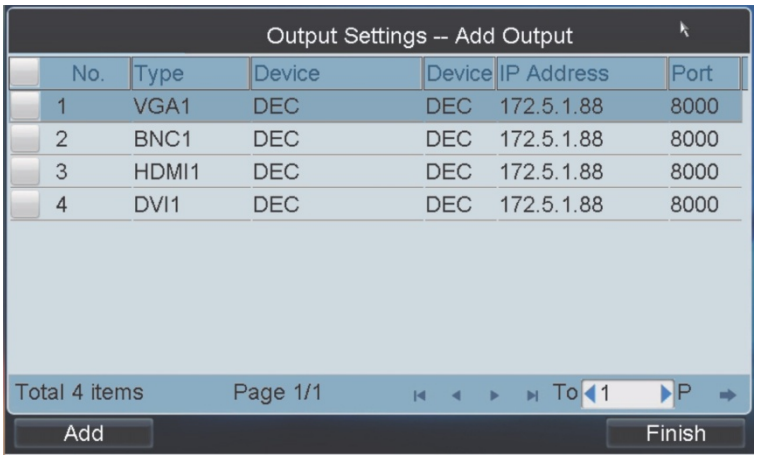
3. Enter the output number and click **OK** to accept the change.

Set up an output group

You can group together the different channels of a decoder, such as cameras, DVRs, and NVRs to make them easier to manage. However, you cannot create a group of camera outputs if they are connected to different DVRs or NVRs.

To set up an output group of channels:

1. In the Main menu, click **Output**. The “Output Settings-Output List” window appears.
2. Click the Output Group button. The “Input Settings-Output Group” window appears.
3. Click to select the group number from the drop-down list.
4. Click the **Add Output** button. The “Add Output” window appears.



5. Select the desired outputs to add to the group. Click **Add**.

6. Click **Finish** to return to the “Output Settings-Output List” window to see the list of outputs added to the selected group.

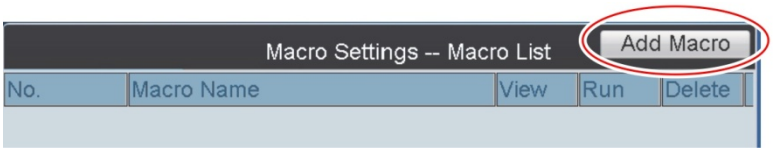
Macro settings

A macro is a sequence of steps or commands. When you run a macro, the steps programmed into the macro are performed. You can add up to 128 macro commands. There can be up to a maximum of six numbers in a macro command.

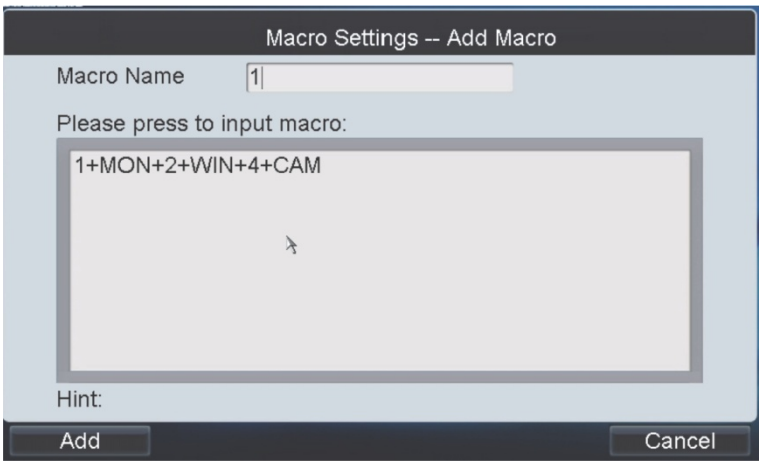
Note: Local decoding and live view are currently not supported.

Add a macro

1. In the Main menu, click **Macro**. The “Macro Settings-Macro List” window appears.
2. Click the **Add Macro** button.



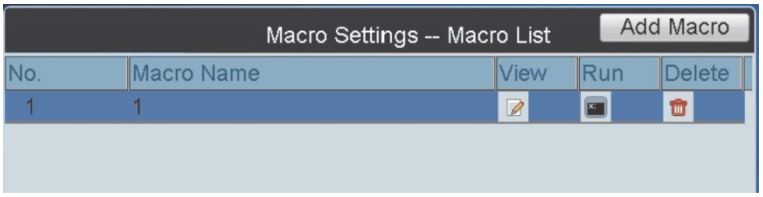
The “Input Settings-Output Group” window appears.



3. Enter the macro name. Then press the **MAC** key on the keypad to enter the text box in the display window.
4. Click **Add** to add the current macro command.

Manage a macro

1. In the Main menu, click **Macro**. The “Macro Settings-Macro List” window appears. All the current macro commands are listed.



2. Click one of the icons to view, run, or delete the selected macro command:

Macro icon	Description
	Click to view a macro command.
	Click to run a macro command.
	Click to delete a macro command.

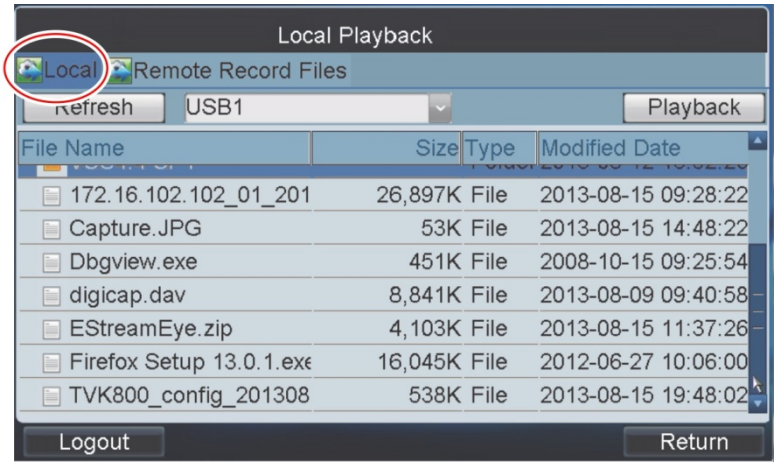
Playback files from a recorder

Video files stored in a recorder can be played back through the related decoder. There are two ways to play back the files:

- Files located on a USB flash drive
- Remote playback

Play back using a USB file

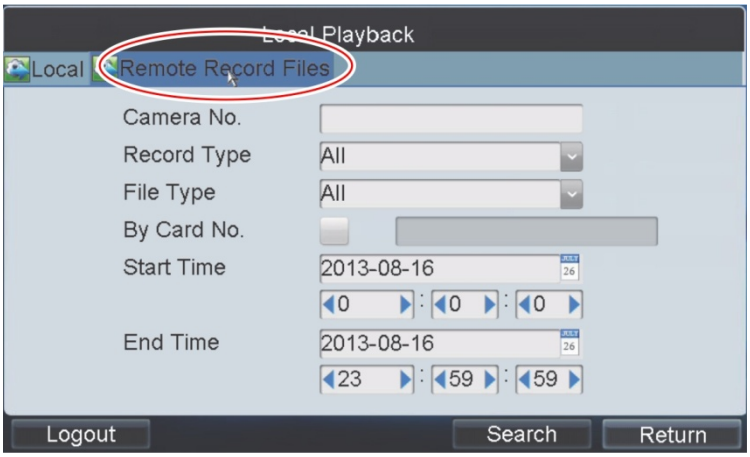
1. Insert the USB flash drive into the keypad slot.
2. Click the **Local** tab on the Local Playback window. The “Local Playback” window appears.



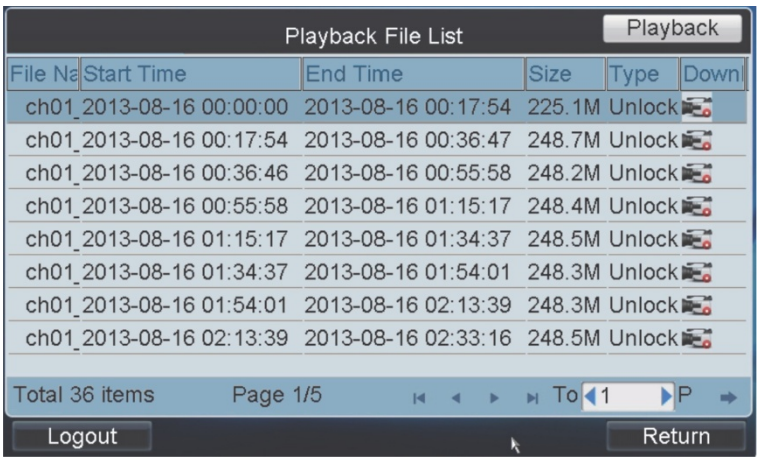
3. Select the desired file to play back.
4. Click the **Playback** button. The file starts to play.

Remote playback

1. Click the **Remote Record Files** tab on the “Local Playback” window. The “Remote Record Files” window appears.



2. Enter the camera number, record type, and file type as well as the start and end times for playback. Click **Search**. The results are listed on-screen.



3. Select the file for playback and click **Playback** to play back the file.

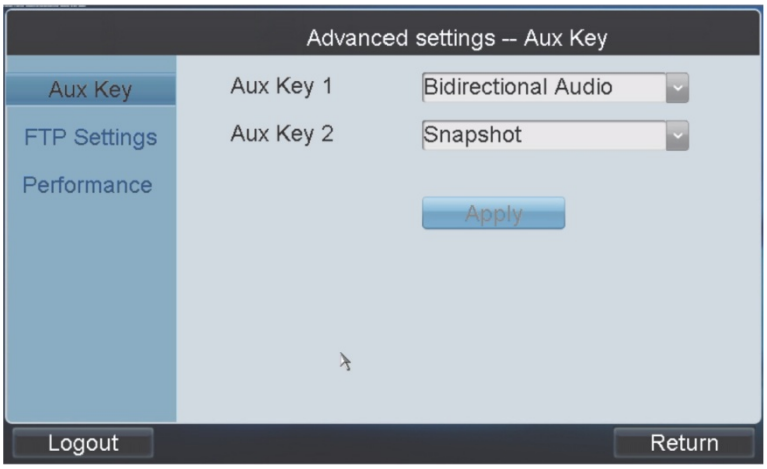
Advanced settings

Use this menu to configure FTP settings, the AUX keys, live view performance, and the PTZ speed control settings.

Bidirectional audio and snapshot settings

1. In the Main menu, click **Advanced**. The “Advanced Settings” window appears.
2. Click **Aux Key** to view the “Aux Key” window.

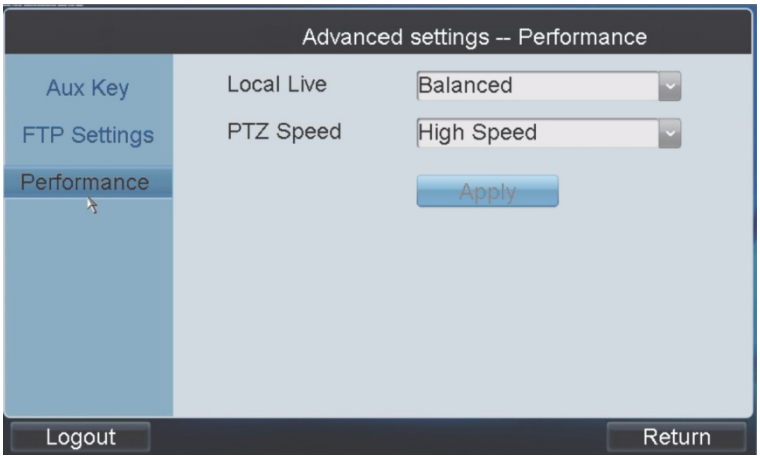
   The Aux Key 1 and Aux Key 2 options correspond to the AUX 1 and AUX 2 keys on the keypad.



3. Select an Aux function for each Aux key; **Bidirectional Audio** and **Snapshot** control.
4. Click **Apply**.

Live view and PTZ speed settings

1. In the Main menu, click **Advanced**. The “Advanced Settings” window appears.
2. Click **Performance** to view the Performance window.



3. Select a network performance level for live view; Least Delay, Balanced (default), or Best Fluency.
4. Select a PTZ movement speed level for the PTZ camera; Low Speed, Medium Speed (default), or High Speed.
5. Click **Apply**.

FTP settings

You can upload video files and snapshots to an FTP server.

To set up the FTP server settings:

1. In the Main menu, click **Advanced**. The “Advanced Settings” window appears.
2. Click **FTP Settings** to view the FTP Settings window.
3. Check **Enable FTP** box.

Note: If the option is left unchecked, video files and snapshots will be saved on the USB flash drive.

4. Enter the IP address as well as the user name and password to log in to the FTP server.
5. Enter the file path to which the video files and snapshots are uploaded.
6. Click **Apply** to save the settings.

Log out of the keypad

1. In the Main menu, click **Shutdown**. Select **Logout**.

   The pop-up window appears, “Logout of the system?”
2. Click **Yes** to confirm, or **No** to cancel.

Reboot the keypad

1. In the Main menu, click **Shutdown**. Select **Reboot**.

   The pop-up window appears, “Restart of the system?”
2. Click **Yes** to confirm, or **No** to cancel.

Shutdown

1. In the Main menu, click **Shutdown**. Select **Shutdown**.

   The pop-up window appears, “Shut down the system?”
2. Click **Yes** to confirm, or **No** to cancel.

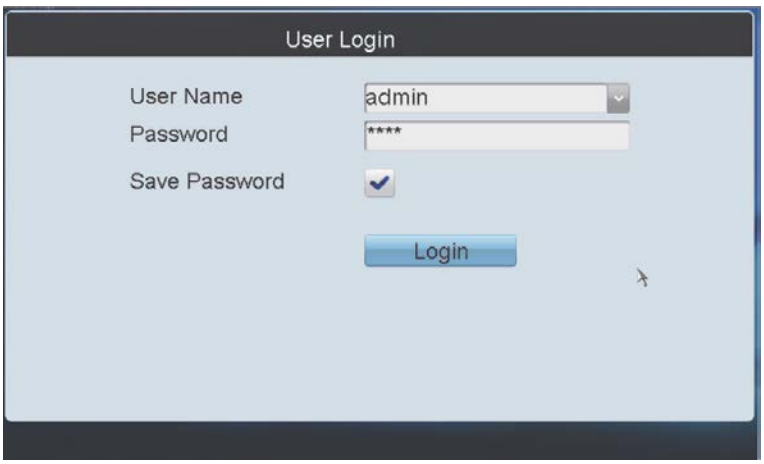
Local keypad configuration by the Manager

The Administrator must first set up the Managers as users.

Logging in/out

To log into the system:

1. Power up the keypad. The “User Login” window appears:

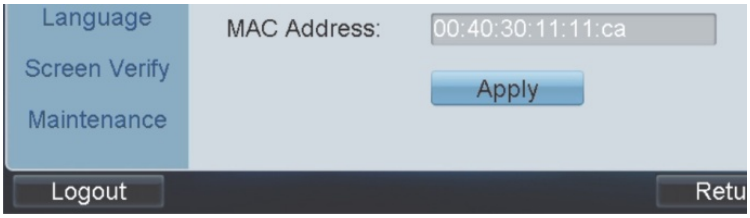


2. Select your user name from the drop-down list and enter the password.
3. Check **Save Password** to save the login password for future use.
4. Click **Login**. The main screen for the user type appears with the list of menu options available displayed.

   Note: The list of menu options available will depend on the user type.

To log out of the system:

1. Click the **Logout** button in one of the configuration screens.



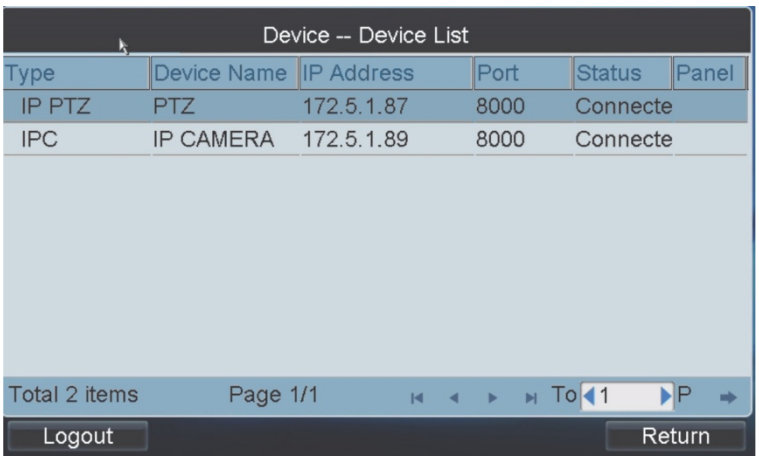
You return to the Login screen.

Display list of accessible devices

The Administrator assigns the devices that can be accessed by users with Manager rights.

To display list of accessible devices

1. In the Main menu, click **Device**. The “Device-Device List” window appears with the list of devices available to the user.

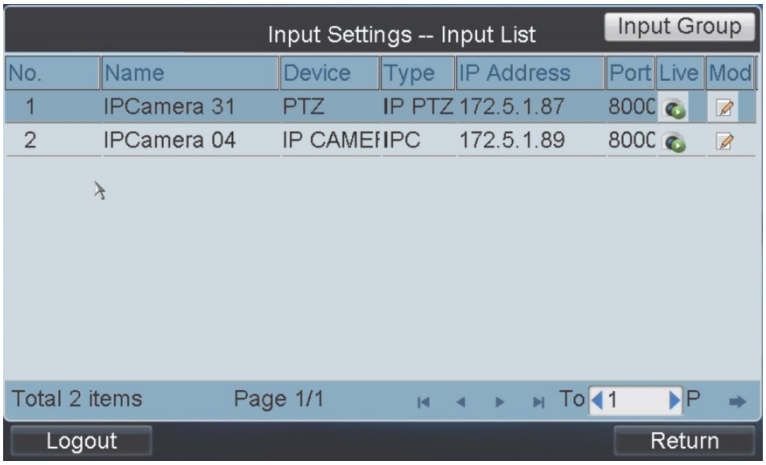


Local live view

The Administrator assigns the cameras that can be viewed by Managers.

To live view cameras locally

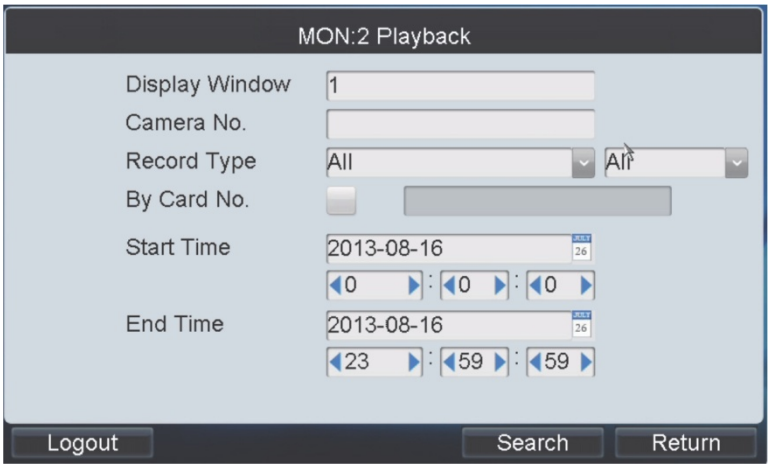
1. In the Main menu, click **Input**. The “Input Settings-Input “window appears.



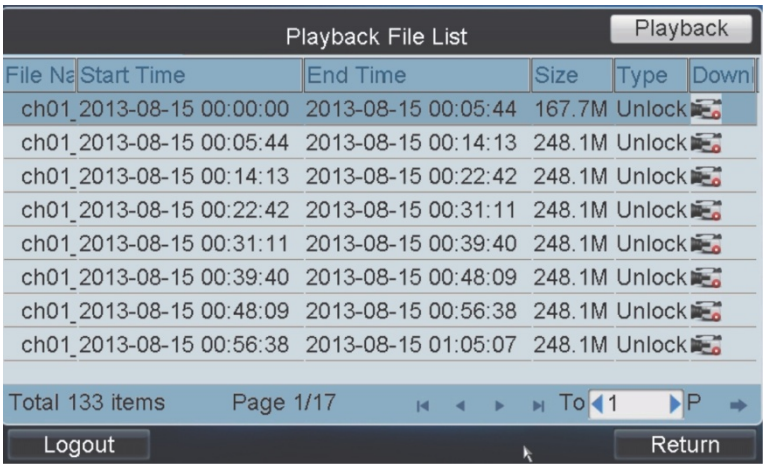
2. Click for the desired camera. Local live view starts immediately.
3. To view other cameras available, press the **NEXT** or **PREV** keys on the keypad to view the next or previous cameras.

Playback a file

1. In the Main menu, click **Output**. The “Output Settings-Output” List window appears.
2. Click on the desired output channel. The Playback window appears.
3. Click the **By File** tab to enter the “Playback by File” window.



4. Enter the camera number, record type, and file type as well as the start and end times for playback. Click **Search**. The results are listed on-screen.



5. Select a file for playback from the list and click **Playback** to play back the file.

User management

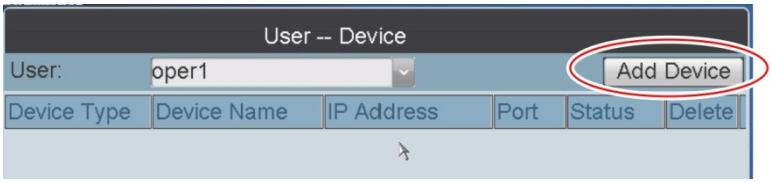
Only the Administrator can create Managers. However, only Managers can create Operator and Custom users.

Add a user

1. In the Main menu, click **User**. The “User-User Lists” window appears.
2. Select the user type: Operator or Custom.
3. Enter the user name and password. Confirm the password.
4. Click **Add** to add the user to the system.

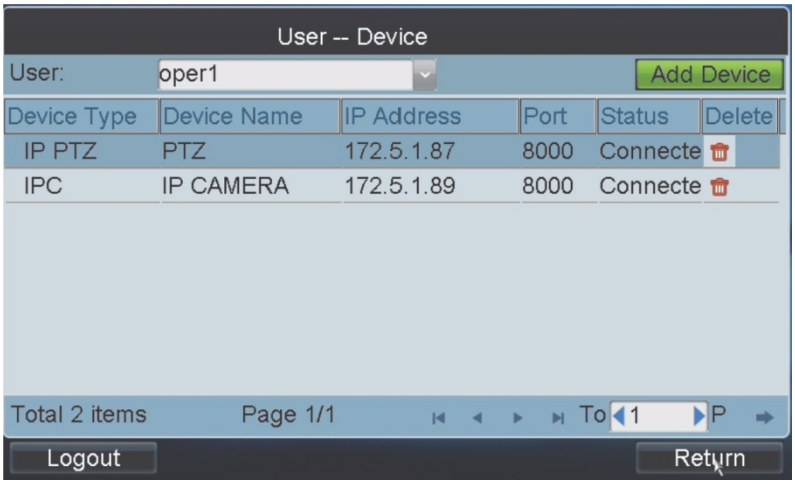
Set up a user to access a specific device

1. In the Main menu, click **User**. The “User-User List” window appears.
2. Select the desired user and click . The User-Device window appears.
3. Click the **Add Device** button.



4. In the window that appears, select the desired device and click **Add Device** to add the device to the selected user.

   The successfully added device is then added to the “User-Device” window.

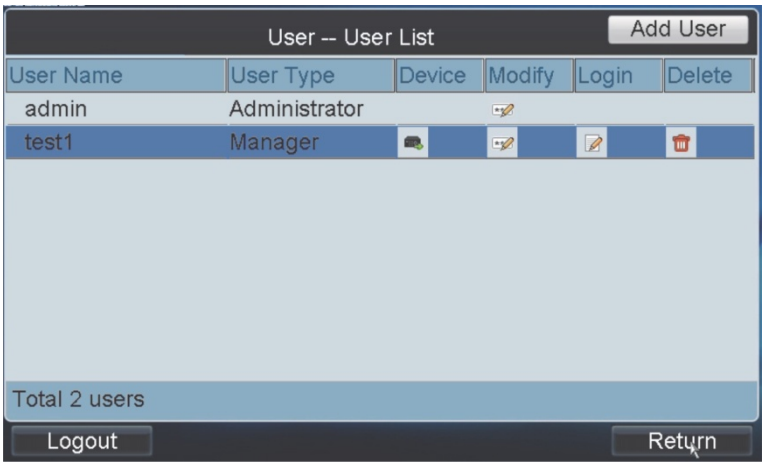


Delete user access to a device

1. In the Main menu, click **User**. The “User-User List” window appears.
2. Click for the desired user. The “User-Device” window appears.
3. Select the desired device for this user and click . Click **Yes** in the pop-up window to confirm deletion.

Switch user

1. In the Main menu, click **User**. The window appears. The list of Operators and Customized users are listed.
2. In the “User-User List” window, click to directly access the user’s login window.



Input settings

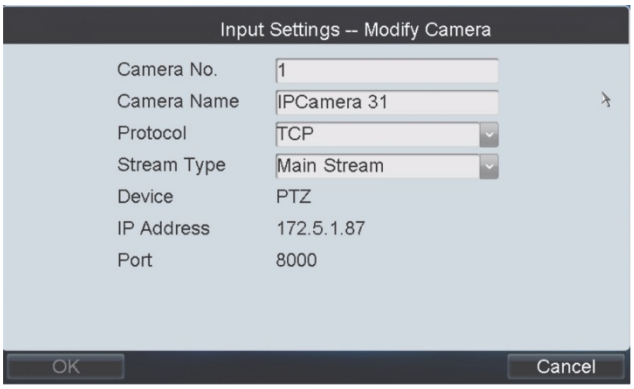
Use this menu to configure inputs such as cameras.

Managers can group cameras together so that the cameras can be called up to appear together on a specific monitor. For example, one group can be the cameras viewing the car park and another group the cameras viewing the building entrances.

You can set up to 16 camera groups.

Modify a camera’s information

1. In the Main menu, click **Input**. The “Input Settings-Input” window appears.
2. Click on the desired camera. The “Input Settings-Modify Camera” window appears.



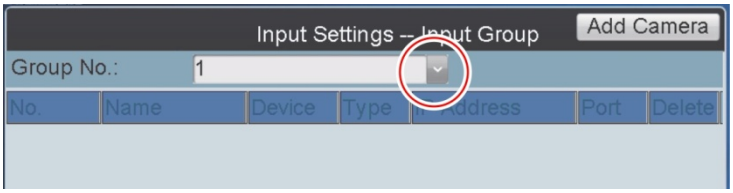
3. Enter the camera number, camera name, protocol, and stream type. Click **OK**.

   Note: The camera number must be between 1 and 999,999.

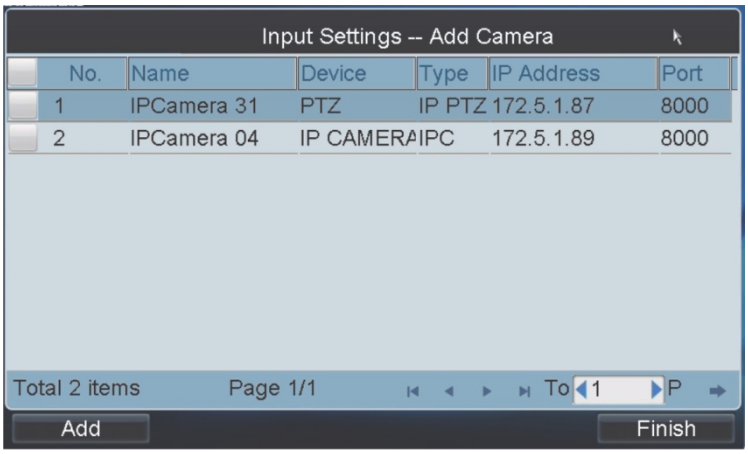
Set up a camera group

1. In the Main menu, click **Input**. The “Input Settings-Input” window appears.
2. Click the **Input Group** button. The “Input Settings-Input Group” window appears.
3. Select the desired group number from the **Group No.** drop-down list.

   Up to 16 camera groups can be added.



4. Click the **Add Camera** button. The “Input Settings-Add Camera” window appears.



5. Select the desired cameras that you want to group together. Click **Add**.
6. Click **Finish** to return to the Input Group window. The list of cameras successfully added to the group is shown.

Output settings

Use this menu to configure outputs such as monitors, decoders, DVRs, and NVRs.

You can display in the “Output Settings” window all the output channels that are accessible by the user currently logged in.

You can also playback files from the output channel, such as a DVR or NVR.

For instructions on setting up outputs, see “Output settings” on page 38.

Macro settings

A macro is a sequence of steps or commands. When you run a macro, the steps programmed into the macro are performed. You can add up to 128 macro commands. There can be up to a maximum of six numbers in a macro command.

For instructions on setting up and using macros, see “Macro settings” on page 40

Playback files from an encoder

Video files stored in an encoder can be played back through the related decoder. There are two ways to play back the files:

- Files located on a USB flash drive
- Remote playback

For instructions on doing playback from an encoder, see “Playback files from a recorder” on page 41.

Advanced settings

Use this menu to configure FTP settings, the AUX key, live view performance, and the PTZ control speed control settings.

For instructions setting up bidirectional audio and snapshots using the AUX settings, live view, PTZ speed control, FTP, see “Advanced settings” on page 42.

Log out of the keypad

1. In the Main menu, click **Shutdown**. Select **Logout**.

   The pop-up window appears, “Logout of the system?”
2. Click **Yes** to confirm, or **No** to cancel.

Reboot the keypad

1. In the Main menu, click **Shutdown**. Select **Reboot**.

   The pop-up window appears, “Restart of the system?”
2. Click **Yes** to confirm, or **No** to cancel.

Shutdown

1. In the Main menu, click **Shutdown**. Select **Shutdown**.

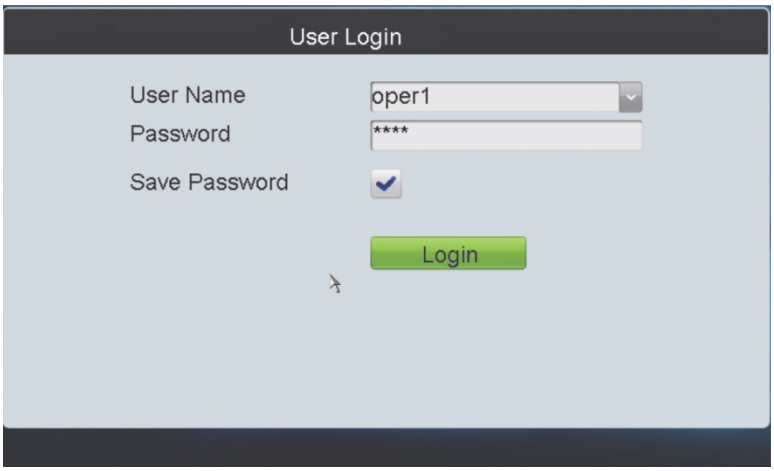
   The pop-up window appears, “Shut down the system?”
2. Click **Yes** to confirm, or **No** to cancel.

Local keypad configuration by the Operator and Custom users

Operators and customized users can login to the system and see the list of accessible devices. They can also change their password.

Logging in/out

1. Power up the keypad. The following display appears:

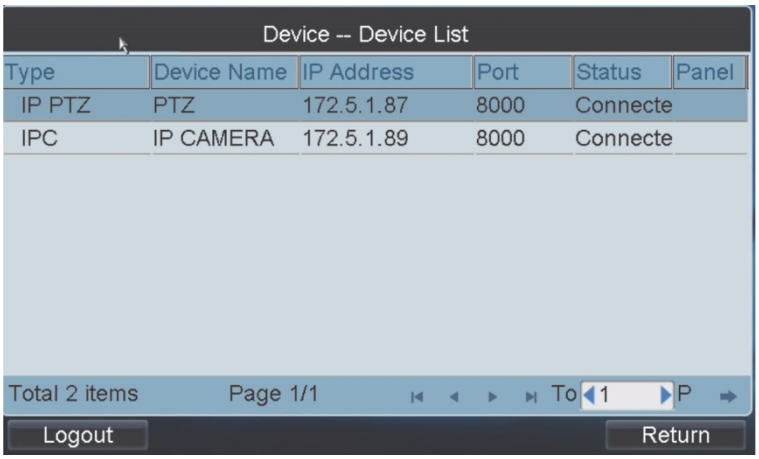


2. Select your user name from the drop-down list and enter the password.
3. Check **Save Password** to save the login password for future use.
4. Click **Login**. The main screen appears with the list of menu options available displayed.

Display list of accessible devices

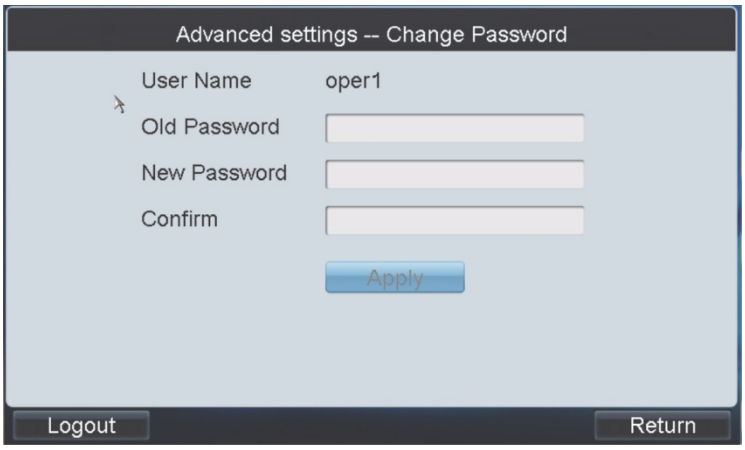
The Administrator assigns the devices that can be accessed by users with Manager rights. Managers can then assign their devices to operators and customized users.

1. In the Main menu, click **Device**. The “Device-Device List” window appears with the list of devices available to the user.



Change password

1. In the Main menu, click **Advanced Settings**. The “Advanced Settings-Change Password” window appears.



2. Enter the current password and the new one. Confirm the new password.
3. Click **Apply** to accept the changes

Shutdown

1. In the Main menu, click **Shutdown**. Select **Shutdown**.

   The pop-up window appears, “Shut down the system?”
2. Click **Yes** to confirm, or **No** to cancel.

Using the keypad

This chapter shows you how to use shortcut operations, display video on a monitor from one or a group of cameras, use instant playback, and record. It also describes how to use tours, presents, preset tours, and shadow tours.

Using shortcut operations

Use shortcut operations to quickly access many keypad functions. A shortcut is a sequence or combination of keystrokes on the keypad that invokes commands in the software.

You must be logged into the keypad in order to carry out a shortcut operation.

Figure 17: Shortcut window description

In local live view mode, the window (WIN), camera group (CAM-G), multiview (MULT), and camera tour (TOUR) and functions are unavailable.

An error message will appear in the Hint box of the shortcut screen when an invalid action is entered.

Local live view

A full-screen overlay of local live view from the selected camera appears on the keypad display. It is not possible to use a multiview format.

There are two ways to see local live view on the keypad display. You can use the Input menu and the keypad keys. For instructions on using the Input menu, see “Local live view” on page 33.

You can carry out shortcut actions to live view.

To access local live view:

1. Press **0** + **MON** to enter local live view mode.
2. Enter the camera number **Num** and press **CAM**.

Note: Window (WIN), camera group (CAM-G), multiview (MULT), and camera tour (TOUR) functions are not available in local mode.

3. Press **ESC** to enter full-screen mode.

Display decoded video on a monitor

This section describes how to display video on a monitor when using a decoder.

Multiview display

Depending on the decoder used, you can display the video on the selected monitor in full-screen mode as well as in 2X2 multiview format.

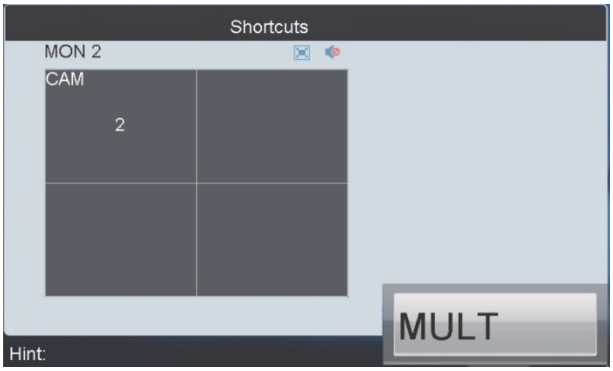
When in multiview mode, you can easily switch a selected video tile to full-screen mode and back again as well as turn audio on and off. See Figure 18 below.

Figure 18: Multiview control icons

Switch the selected camera in multiview format to full-screen mode	Switch full-screen mode back to the selected camera in multiview format	Audio off	Audio on

To view in full-screen or multiview mode:

1. Press the **Num** + **MON** keys to select the monitor.
2. Press the **Num** + **MULT** keys to select the multiview mode for the monitor.



Note: If you enter 0 + MON in live view mode, multiview mode is not supported as video is then displayed on the keypad.

Display a specific camera on a monitor

You can select which camera to display on a monitor.

To display a specific camera on a monitor:

1. Press the **Num** + **MON** keys to select the monitor.
2. Press the **Num** + **WIN** keys to select the video tile to be displayed on the monitor

   — Or —

   Directly touch the keypad window to select the desired video tile.
3. Press the **Num** + **CAM** keys to select the camera.

   For example, press 1+MON, 2+WIN, 3+CAM to decode the video signal from Camera 3 and display it on Video tile 2 of Monitor 1.

Set up a camera group to display on a monitor

You can use a decoder to configure the keypad to display the images from a camera group on a monitor.

When the number of cameras in a group is less than or equal to the number of video tiles on-screen (for example three cameras and four video tiles), each camera is then displayed on its corresponding time (for example, camera 1 on video tile 1, camera 2 on video tile 2…)

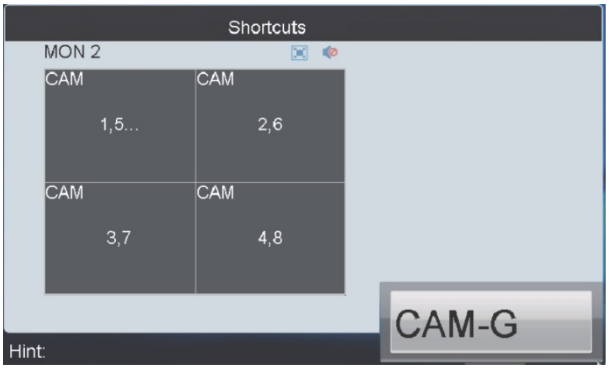
When the number of cameras in a group is more than the number of video tiles on-screen (for example 16 cameras and 4 video tiles), the cameras are displayed in the following sequence mode: cameras 1 to 4 are displayed on video tiles 1 to 4, next cameras 5 to 8 on video tiles 1 to 4, cameras 9 and 12 are displayed on video tiles 1 to 4, and finally cameras 13 to 16 on video tiles 1 to 4.

Note: The default dwell time is 30 seconds.

An error message will appear in the Hint box of the shortcut screen when an invalid action is entered.

To view a camera group on a monitor:

1. Press the **Num** + **MON** keys to select the monitor.
2. Press the **Num** + **CAM-G** keys to select the camera group to be decoded and displayed on the monitor.



Note: If you enter 0 + MON in live view mode, multiview mode is not supported as video is then displayed on the keypad.

Set up a camera group to display in the keypad window

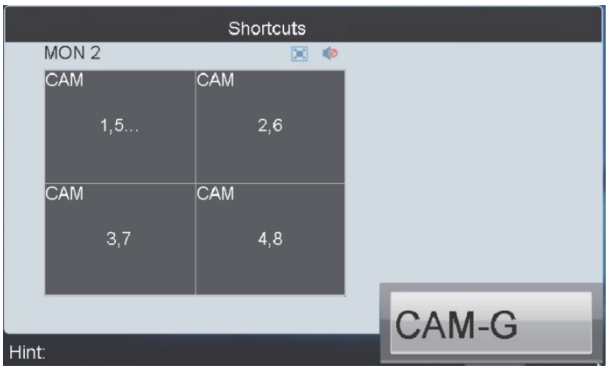
The video signal from the camera group can be outputted to and displayed on the selected window of the monitor in cycle.

Note: The default dwell time is 30 seconds.

An error message will appear in the Hint box of the shortcut screen when an invalid action is entered.

To view a camera group on a monitor:

1. Press the **Num** + **MON** keys to select the monitor.
2. Press the **Num** + **WIN** keys, or directly touch the keypad window, to select the display window.
3. Press the **Num** + **CAM-G** keys to select the camera group to be decoded and displayed on the monitor.



For example, press 1+MON, 2+WIN, 3+CAM-G to decode the video signal from Camera group 3 and display it on video tile 2 of Monitor 1.

Note: If you enter 0 + MON in live view mode, multiview mode is not supported as video is then displayed on the keypad.

Set up a camera group to display on a monitor group

You can configure the keypad to display the images from a camera group on a group of monitors through a decoder.

When the number of cameras in a group is less than or equal to the number of video tiles on-screen (for example eight cameras and nine video tiles), each camera is then displayed on its corresponding time (for example, camera 1 on video tile 1, camera 2 on video tile 2…)

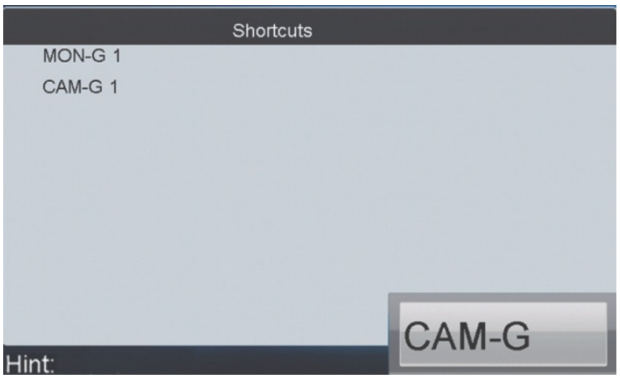
When the number of cameras in a group is more than the number of video tiles on-screen (for example 16 cameras and 4 video tiles), the cameras are displayed in the following sequence mode: cameras 1 to 4 are displayed on video tiles 1 to 4, next cameras 5 to 8 on video tiles 1 to 4, cameras 9 and 12 are displayed on video tiles 1 to 4, and finally cameras 13 to 16 on video tiles 1 to 4.

Note: The default dwell time is 30 seconds.

An error message will appear in the Hint box of the shortcut screen when an invalid action is entered.

To view a camera group on a monitor group:

1. Press the **Num** + **MON-G** keys to select the monitor group.
2. Press the **Num** + **CAM-G** keys to select the camera group to be decoded and displayed on the monitor group.



Note: In monitor group mode, output channels are only displayed in full-screen mode by default.

Set up a tour

A tour is the display of images from a sequence of different cameras. You can set up to 64 cameras in a tour.

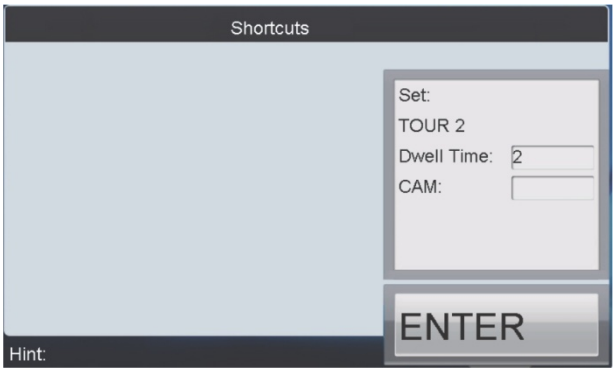
The dwell time is the time a camera image remains on-screen before the image from the next camera is displayed. The default dwell time is 30 seconds but it can be modified.

Tour setups are not saved when the device is restarted.

An error message will appear in the Hint box of the shortcut screen when an invalid action is entered.

To set up a tour:

1. Press the **SET** key to enter the tour shortcut window.
2. Press the **Num** + **TOUR** keys to set up a tour.
3. Press the **Num** + **ENTER** keys to set up the dwell time of the selected camera and camera number.



4. Repeat step 3 for each camera to be included in the tour.

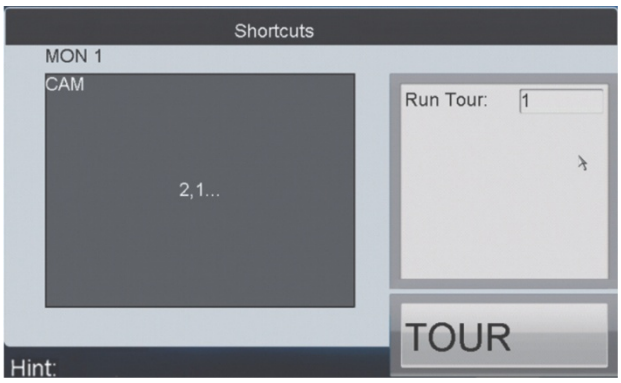
   Note: The tour parameters are cleared if you the **Num** + **TOUR** keys again.

5. Press the **SET** key to complete the tour settings.

   Up to eight tours can be set.

Call up a tour

1. Press the **Num** + **MON** keys to select the monitor.
2. Press the **Num** + **TOUR** keys to call up a programmed tour to be displayed on the monitor.



Set up a group tour

You can set up a group tour so that multiple camera groups can be displayed on specific monitors. Each user account can set up to eight tour groups. Each tour group can contain up to eight camera groups to specific monitors.

Caution: Group tour setups are not saved when the keypad is rebooted.

A group tour cannot be set up in playback mode.

To set up a group tour:

1. Press the **SET** key to enter the group tour shortcut window.
2. Press the **Num** + **GROUP** keys and set up a group tour.
3. Press the **Num** + **ENTER** keys and set the monitor number.
4. Press the **Num** + **ENTER** keys and set the camera group (CAM-G) number.

5. Repeat steps 3 and 4 for each monitor and camera group to be included in the group tour.

> **Caution**: The tour parameters are cleared if you press the **Num** + **GROUP** keys again.

6. Press the **SET** key to complete the group tour settings.

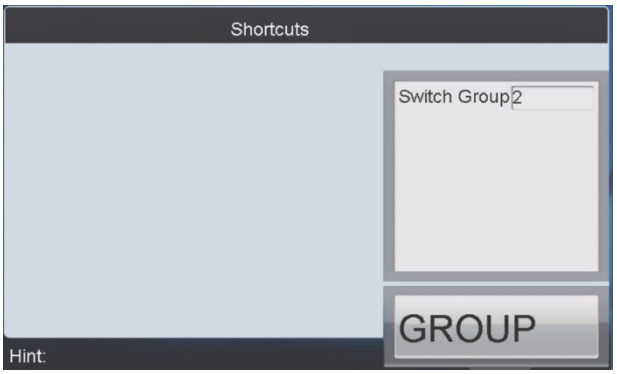
Call up a group tour

You can use a group tour to call up multiple camera groups on specific monitors. For example, call up camera group 1 appears on monitor 1, and camera group 2 appears on monitor 2. The dwell time of the group tour can also be modified.

If multiple camera groups have been set up to appear on the same monitor, then the monitor only displays the last programmed camera group.

To call up a group tour:

1. Press the **Num** + **GROUP** keys to call up the programmed group tour.



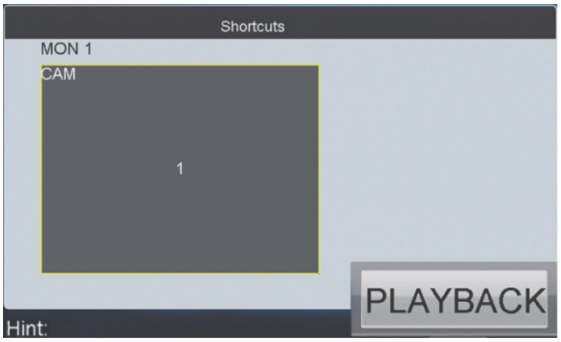
Instant playback

Use the keypad to quickly replay recorded video from the previous five seconds.

Administrators and Manager scan also play back video from the Input menu. See “Playback a file” on page 33 for more information.

To instantly playback a video:

1. Press the **Num** + **MON** keys and select the monitor.
2. Press the **Num** + **WIN** keys and select the video tile.
3. Press the Num + CAM keys and select the desired camera.
4. Press the ▶ key to enter instant playback window.



5. Press the ■ key to stop playback.

Auxiliary functions

The keypad has AUX1 and AUX2 keys that can be configured for the AUX1 and AUX 2 functions in the system. By default, AUX 1 is set to bidirectional audio and AUX 2 is set to capture a snapshot.

Note: An error message appears if an AUX function is requested when the current window is in cycle view mode.

Bidirectional audio

To start bidirectional audio with a decoder/NVR/DVR:

1. Press **Num** and **MON** and select the decoder/NVR/DVR.
2. Press the AUX1/AUX2 key that is configured to the bidirectional function to start bidirectional audio.

   Note: The keypad takes the bidirectional audio from the nearest device.

To start bidirectional audio with a camera:

1. Press **Num** and **CAM** and select the camera.
2. Press the AUX1/ AUX2 key that is configured to the bidirectional function to start bidirectional audio.

During bidirectional audio:

- Stop bidirectional audio by pressing 0 + AUX1/ AUX2
- If the network connection is lost during directional audio, press 0 + AUX1/AUX2 to stop the bidirectional audio and then restart it.
- If the system is in cycle view mode and you want to play bidirectional audio for a specific camera, you must quit cycle view mode by pressing ESC. Then press the Num + CAM keys and press AUX1/AUX2 key to start bidirectional audio.

Snapshots

You can use the keypad to capture a snapshot of a video image and save it on a USB flash drive or upload it to an FTP server. To upload snapshots to an FTP server, you must already have configured the system for the FTP server.

There are two ways to capture a snapshot. You can do it from the output channel or the input channel.

Note: An error message appears when the keypad window is configured to display cameras in cycle view mode.

Method 1: To capture a snapshot

1. Press the **Num** + **MON** keys and select the monitor.
2. Press the **Num** + **WIN** keys and select the video tile.
3. Press the **AUX** key that has been configured for snapshot capture (AUX 1 or AUX 2) to capture the snapshot.

Method 2: To capture a snapshot

1. Press the **Num** + **CAM** keys and select the input channel.
2. Press the center button of the joystick to capture the snapshot.

Saving recordings

You can record video from the cameras and save the files to a USB flash drive or upload it to an FTP server. You cannot record video during playback.

The REC key on the keypad is lit red during recording.

Note: An error message appears on-screen when the keypad window is configured to display cameras in cycle view mode.

There are two ways to record video:

Method 1: To record video

1. Press the **Num** + **MON** keys and select the monitor.
2. Press the **Num** + **WIN** keys and select the video tile.
3. Press the **REC** key to start recording.

Method 2: To record video

1. Press the **Num** + **CAM** keys and select the input channel.
2. Press the **REC** key to start recording.

Moving to next/previous cameras

You can easily select the next or previous cameras when carrying out a shortcut operation.

Note: An error message appears on-screen when the keypad window is configured to display cameras in cycle view mode.

Method 1: To move to the next or previous camera

1. Press the **Num** + **MON** keys and select the monitor.
2. Press the **Num** + **WIN** keys and select the video tile.
3. Press the **PREV or NEXT** key and select the previous or next camera.

   Note: This method only works if the current window is in dynamic decoding mode.

Method 2: To move to the next or previous camera

1. Press the **Num** + **CAM** keys and select the input channel.
2. Press the **PREV or NEXT** key and select the previous or next camera.

Operating PTZ cameras

You can control PTZ dome cameras using the keypad. If the camera supports PTZ functions, you can use the joystick as well as the Focus, Iris, and Zoom keys on the keypad to control the camera.

Setting a preset

Presets are previously defined locations of a PTZ dome camera. They allow you to quickly move the camera to a desired position.

An error message will appear in the Hint box of the shortcut screen when an invalid action is entered.

There are two ways to set a preset:

Method 1: To set a preset using an output channel

1. Press the **Num** + **MON** keys and select the monitor.
2. Press the **Num** + **WIN** keys and select the video tile.
3. Using the joystick, move the PTZ camera to the desired position.
4. Press the **Num** + **PRESET** keys and enter the preset number to set the current position as a preset.

Method 2: To set a preset using an input channel

1. Press the **Num** + **CAM** keys and select the camera.

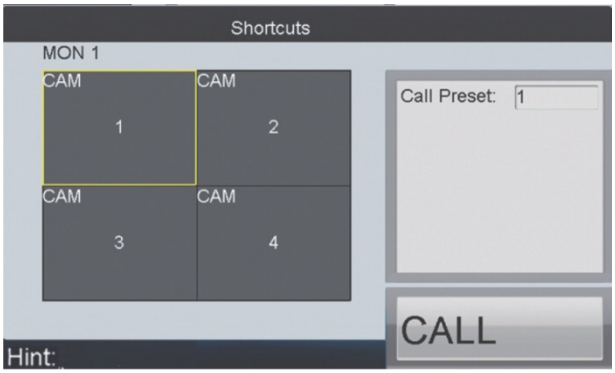
   Note: The action **0** + **CAM** is invalid.
2. Using the joystick, move the PTZ camera to the desired position.
3. Press the **Num** + **WIN** keys and enter the preset number to set the current position as a preset.

Calling up a preset

There are two ways to call up a preset:

Method 1: To call up a preset using an output channel

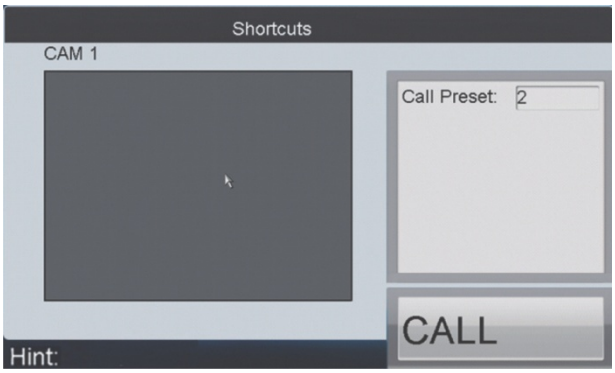
1. Press the **Num** + **MON** keys and select the monitor.
2. Press the **Num** + **WIN** keys and select the video tile.
3. Press the **Num** + **CALL** keys and enter the desired preprogrammed preset.



Method 2: To call up a preset using an input channel

1. Press the **Num** + **CAM** keys and select the camera.

   Note: The action **0** + **CAM** is invalid.
2. Press the **Num** + **CALL** keys and enter the desired preprogrammed preset.



Setting a preset tour

Preset tours move a PTZ dome camera to a sequence of steps. The camera stays at a step for a set dwell time before moving on to the next step. A step consists of a step number, a dwell time, and a speed.

The step number is the order the camera will follow while cycling through the preset tour. The dwell time is the length of time that a camera stays at a step before moving to the next step. The speed is the rate at which the camera will move from one step to the next.

A preset tour requires at least two presets.

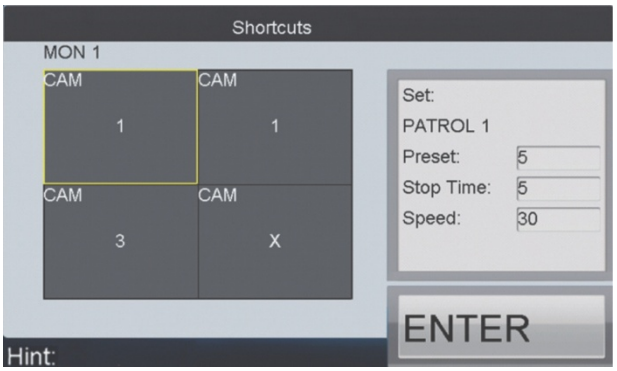
The PTZ dome camera must be able to support preset tours.

An error message will appear in the Hint box of the shortcut screen when an invalid action is entered.

There are two ways to set a preset tour:

Method 1: To set a preset tour using an output channel

1. Press the **Num** + **MON** keys and select the monitor.
2. Press the **Num** + **WIN** keys and select the video tile.
3. Press the **SET** key to enter the Settings window.
4. Press the **Num** + **PATROL** keys to enter the “Preset Tour Settings” window.
5. Enter the preset number and press **ENTER**, enter the dwell time (called “Stop Time on-screen) and press **ENTER**, and then enter the speed and press **ENTER**.



6. To set the next preset in the tour, repeat step 5.

   Note: To clear all programmed parameters, press the **Num** + **PATROL** keys again.

7. Press the **SET** key again to complete the preset tour.

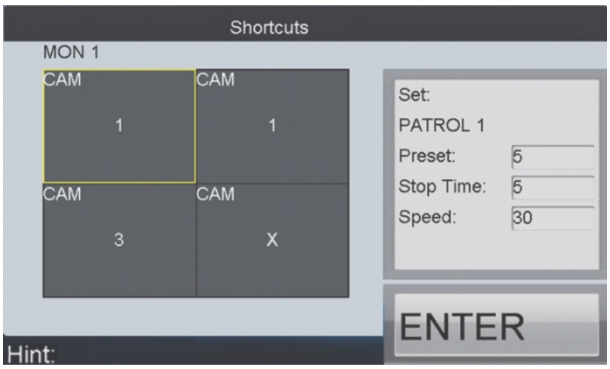
Method 2: To set a preset tour using an input channel

1. Press the **Num** + **CAM** keys to select the camera.

   Note: The action **0** + **CAM** is invalid.

2. Press the **SET** key to enter the Settings window.
3. Press the **Num** + **PATROL** keys to enter the Preset Tour Settings window.

4. Enter the preset number and press **ENTER**, enter the dwell time (called “Stop Time on-screen) and press **ENTER**, and then enter the speed and press **ENTER**.



5. To set the next preset in the tour, repeat step 5.

   Note: To clear all programmed parameters, press the **Num** + **PATROL** keys again.

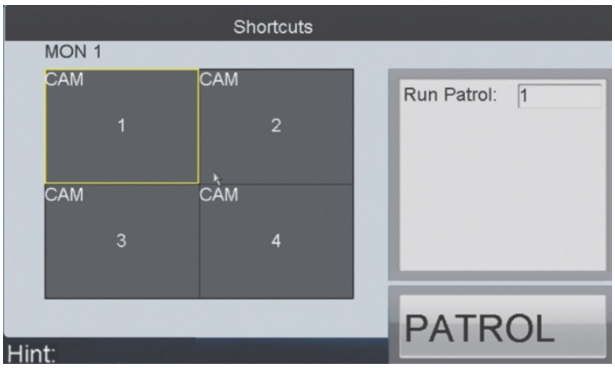
6. Press the **SET** key again to complete the preset tour.

Calling up a preset tour

There are two ways to call up a preset tour:

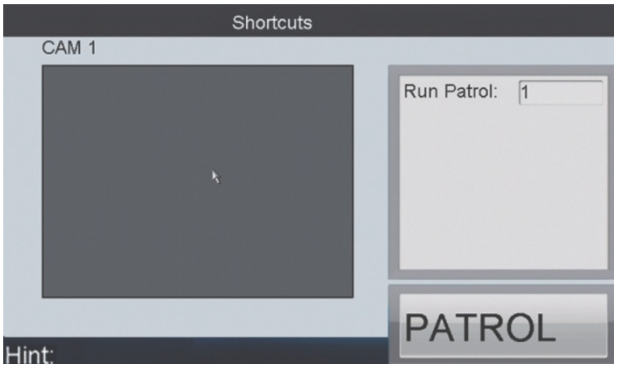
Method 1: To call up a preset tour using an output channel

1. Press the **Num** + **MON** keys to select the monitor.
2. Press the **Num** + **WIN** keys to select the video tile.
3. Press the **Num** + **PATROL** keys and enter the desired preprogrammed preset tour.



Method 2: To call up a preset tour using an input channel

1. Press the **Num** + **CAM** keys to select the camera.
2. Press the **Num** + **PATROL** keys to enter the desired preprogrammed preset tour.



Setting a shadow tour

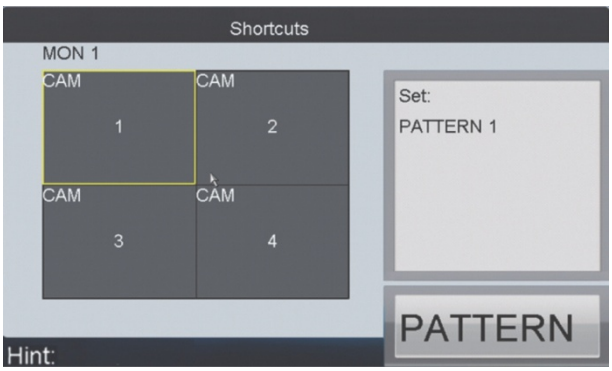
A shadow tour is a camera path that was manually-controlled. It has a beginning and end. You can set a camera to move between two points such as two locations in a car park. Only one shadow tour can be set up.

The PTZ dome camera must be able to support shadow tours.

There are two ways to set a shadow tour:

Method 1: To set a shadow tour using an output channel

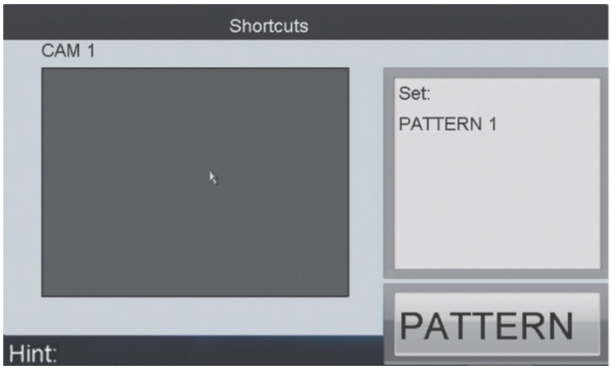
1. Press the **Num** + **MON** keys and select the monitor.
2. Press the **Num** + **WIN** keys and select the video tile.
3. Press the **SET** key to enter the Settings window.
4. Press the **Num** + **PATTERN** keys and set the shadow tour number.



5. Using the joystick, move the PTZ camera through the desired positions.
6. Press the **SET** key again to complete the shadow tour.

Method 2: To set a shadow tour using an input channel

1. Press the **Num** + **CAM** keys and select the camera.
2. Press the **SET** key to enter the Settings window.
3. Press the **Num** + **PATTERN** keys and set the shadow tour number.



4. Using the joystick, move the PTZ camera through the desired positions.
5. Press the **SET** key again to complete the shadow tour.

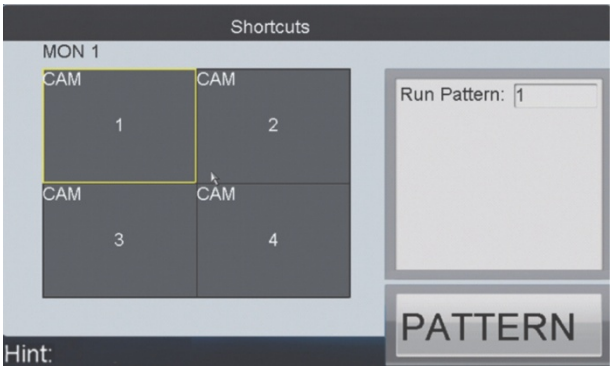
Calling up a shadow tour

The PTZ dome camera must be able to support shadow tours.

There are two ways to call up a shadow tour:

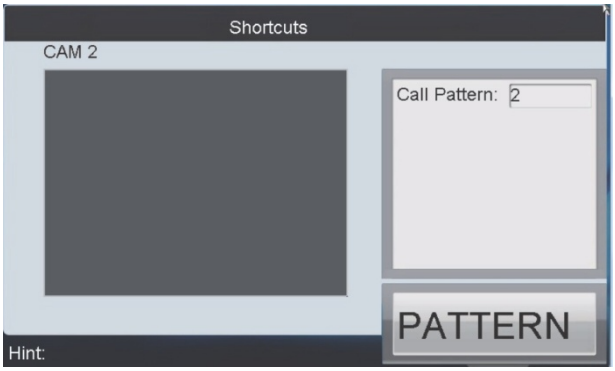
Method 1: To call up a shadow tour using an output channel

1. Press the **Num** + **MON** keys and select the monitor.
2. Press the **Num** + **WIN** keys and select the video tile.
3. Press the **Num** + **PATTERN** keys to call up the shadow tour number.



Method 2: To call up a preset tour using an input channel

1. Press the **Num** + **CAM** keys and select the camera.
2. Press the **Num** + **PATTERN** keys to call up the shadow tour number.



Specifications

Control mode	Control mode:	IP-based
Audio input/output	Line In:	1-ch, 3.5 mm connector (2.0 Vp-p, 1 kΩ)
	Audio Out:	1-ch, 3.5 mm connector (Linear, 600 Ω)
External interface	Communication interface:	1 RJ45 10M/100M/1000M adaptive Ethernet interface, PoE 1 RS-232 interface 1 RS-485 interface 1 USB2.0 interface (for data storage and device upgrade)
General	LCD screen:	7” TFT LCD monitor with touch panel
	Joystick:	3-axis joystick
	Power supply:	12 VDC
	Power consumption:	≤15 W
	Working temperature:	-10 to +55°C (14 to 131 °F)
	Working humidity:	10 to 90%
	Size (H × W × D):	110 × 193 ×435 mm (4.33 × 7.59 × 17.12 in.)
	Weight:	2 kg (4.4 lb.)

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