



# System Controller Pro

## NV series

### User's Manual

July 2011



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## **WARNING**

TO REDUCE RISK OF FIRE OR ELECTRIC SHOCK. DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

WARRANTY VOID FOR ANY UNAUTHORIZED PRODUCT MODIFICATION.

## **INFORMATION**

For more information, please refer to the user manual. User can download the user's manual from website <http://surveillance.aver.com/download-center>

# TABLE OF CONTENTS

<b>CHAPTER 1</b>	<b>INTRODUCTION .....</b>	<b>1</b>
1.1	Hardware Introduction .....	1
1.1.1	Left Side.....	1
1.1.2	Rear Side.....	2
1.1.3	Familiarizing with System Controller Panel Buttons .....	3
1.2	Hardware Installation .....	7
1.2.1	Connecting with the DVR Server through the USB port .....	7
1.2.2	Connecting with the DVR Server through the RS485 port.....	8
1.2.3	Connect a PTZ Camera to System Controller Pro .....	11
<b>CHAPTER 2</b>	<b>OPERATING THE SYSTEM CONTROLLER PRO.....</b>	<b>12</b>
2.1	Using the System Controller for the First Time .....	12
2.1.1	Upgrading the Firmware of the System Controller .....	13
2.1.2	Switching to USB DVR Mode .....	14
2.1.3	Switching to 485 DVR Mode.....	16
2.3	Operating the LCD Menu .....	19
2.4	Select a Camera.....	21
2.5	Locking System Operation.....	22
2.6	Trigger the Alarm Button .....	23
2.7	To Playback the Recorded File.....	24
2.7	To Playback the Recorded File.....	24
2.8	To View the Emap .....	26
2.9	PTZ Operation .....	28
2.9.1	Using the Joystick to Operate the PTZ Camera.....	28
2.9.2	To Focus the Object .....	29
2.9.4	Setup preset position and Use Preset .....	30
	Setup Preset Position .....	30
	Using the Preset Button .....	30
2.9.5	Enabling the AutoPan.....	31
2.9.6	Using Digital Zoom .....	33
2.10	Functions in Preview Mode .....	34
2.10.1	Select a Monitor Layout.....	34
2.10.2	Camera Setup.....	35

Enable a Camera .....	35
Enable a Camera View .....	36
Adjusting the Hue.....	37
Adjusting the Saturation .....	38
Adjusting the Brightness.....	39
Adjusting the Contrast .....	40
Trigger the Relay of IP Camera .....	41
2.10.3 Server Setup .....	42
Start Recording .....	42
Stop Recording.....	43
Network Time Synchronization .....	44
Open Event Log Viewer .....	45
2.10.4 Sound Setup .....	46
2.10.5 Controller Setup .....	47
Set a Password for System Controller .....	47
Change the Password of the System Controller.....	49
Set the Timer .....	51
Adjusting the Brightness of LCD Screen.....	52
Adjusting the Contrast of LCD Screen .....	53
Enable/disable Code Number Display .....	54
Operation Mode Selecting .....	54
Enable/disable Button Confirmation .....	55
Viewing System Version Information .....	56
2.11 Functions in Playback Mode.....	57
2.11.1 Select a Monitor Layout.....	57
2.11.2 Camera Setup.....	58
Enable the De-interlace .....	58
2.11.3 Server Setup .....	59
Open Event Log Viewer .....	59
2.11.4 Sound Setup .....	60
2.11.5 Controller Setup .....	61
Set a Password for System Controller .....	61
Change the Password of the System Controller.....	63
Set the Timer .....	65

Adjusting the Brightness of LCD Screen.....	66
Adjusting the Contrast of LCD Screen .....	67
Enable/disable Code Number Display .....	68
Viewing System Version Information .....	69
<b>CHAPTER 3                    OPERATING IN PTZ 485 MODE.....</b>	<b>70</b>
3.1   Switching to the PTZ 485 Mode.....	70
3.2   Select the Protocol of the PTZ Camera.....	72
3.3   Setup the Baudrate of the PTZ Camera .....	73
3.4   Controller Setup .....	74
3.4.1   Set a Password for System Controller .....	74
3.4.2   Change the Password of the System Controller .....	76
3.4.3   Set the Timer.....	78
3.4.4   Adjusting the Brightness of LCD Screen.....	79
3.4.5   Adjusting the Contrast of LCD Screen .....	80
3.4.6   Viewing System Version Information .....	81

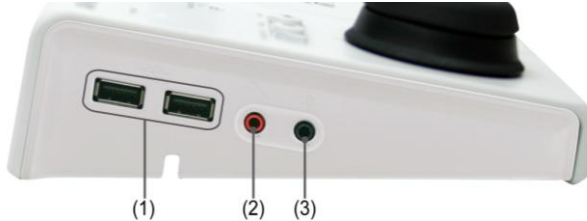




# Chapter 1 Introduction

The AVer™ System Controller Pro provides user an easy way to operate DVR server .

## 1.1 Hardware Introduction

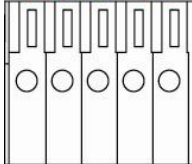
### 1.1.1 Left Side



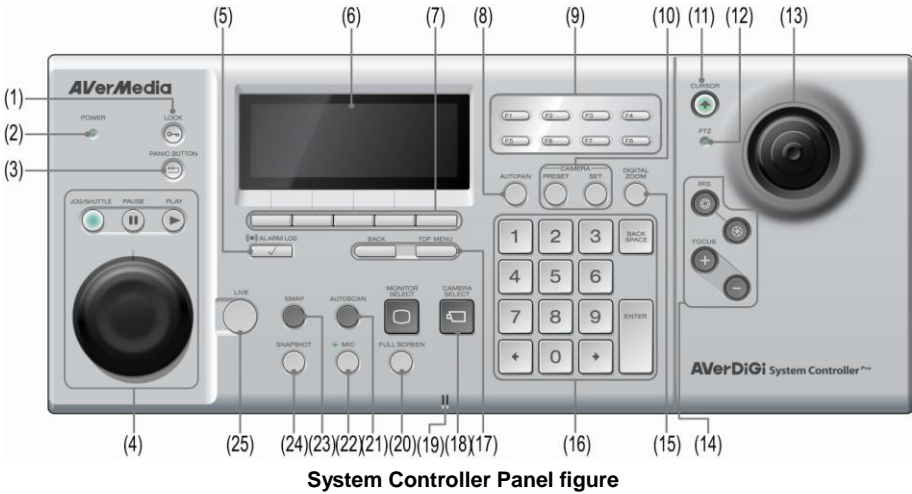
Function	Description
(1) USB Port	2 * USB ports for connection of keyboard, mouse, or USB flash memory.
 The USB port of the System Controller is the same as the USB port on the DVR system, but USB of the System Controller and DVR system cannot be used at the same time.	
(2) Audio Input	For audio input device connection such as microphone.
(3) Audio Output	For audio output device connection such as speaker.
 - The audio input and output device has its own power supply is necessary. - The audio input and output port is same as the audio input and output port on the DVR system, but audio input and output port of System controller and DVR system cannot be used at the same time. - When audio input/output device has connected on the System Controller, the audio input/output port of the DVR system will be disabled. - After audio input/output device has removed from the System Controller, please stop recording and reboot the DVR system to enable the audio input/output port on the DVR system.	

### 1.1.2 Rear Side

















Function	Description										
(1) RS485 Port	For connection of Pelco-D/P PTZ camera and using RS485 to RS232 converter to connect with DVR system (see also <a href="#">Chapter 1.2.2</a> ).										
	<table border="1"> <tbody> <tr> <td>1</td> <td>TX+</td> </tr> <tr> <td>2</td> <td>TX-</td> </tr> <tr> <td>3</td> <td>RX+</td> </tr> <tr> <td>4</td> <td>RX-</td> </tr> <tr> <td>5</td> <td>GND</td> </tr> </tbody> </table> 	1	TX+	2	TX-	3	RX+	4	RX-	5	GND
1	TX+										
2	TX-										
3	RX+										
4	RX-										
5	GND										
(2) Power Supply Port	For AC power adaptor connection.										

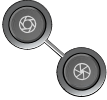
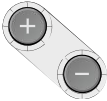

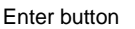





### 1.1.3 Familiarizing with System Controller Panel Buttons






System Controller Panel figure

Function	Description
(1)  (Lock)	To lock panel buttons and all operations are lock. Press it to lock and press again to un-lock. If the system password has been set, please enter the password to un-lock (see also <a href="#">Chapter 2.5</a> )
(2)  (Power)	Lights up when unit is power on.
(3)  (Panic Button)	To trigger the alarm buttons that user has defined (see also <a href="#">Chapter 2.6</a> ). To setup alarm button, please refer to <b>Chapter 5.9 step 5</b> of <i>NV User's Manual</i> . If the alarm button hasn't been defined, there is no action when alarm button is selected to trigger.
(4) Playback Control Buttons	(Jog/Shuttle) Enable/disable the jog/shuttle function. When button lights up is enabling.
	(Pause) To pause the playback.
	(Play) To switch to playback mode and start playback.
	(Jog/Shuttle) <ul style="list-style-type: none"> <li>- <b>Jog dial (top part):</b> Playback video frame-by-frame that control by user.</li> <li>- <b>Shuttle ring (lower part):</b> Playback video at faster forward or rewind speed that control by user.</li> </ul>
(5)  (Alarm Log)	To call out the alarm log window. To close alarm log window, press the button again.

Function	Description
(6) LCD Screen	To operate the each function in multi-functions menu and view system related information.
(7) Multi-function Buttons	Each button represents a function that is corresponding to the function display on the LCD screen. Press the button and operate it (see also <a href="#">Chapter 2.10</a> ).
(8)  AUTOPAN	Enable/disable the PTZ camera move automatically that is based on the selected camera group preset position number (see also <a href="#">Chapter 2.9.5</a> ).
(9) Custom Function Buttons	 To view system information.
	 Enable/disable recording. Press it to start recording and press again to stop recording. The authentication password is required for stop recording. Using numeric key pad to enter the password and press <b>Enter</b> button to confirm.
	 Enable/disable network connection. Press it to connect the network and press again to disconnect the network. The authentication password is required for stop network connection. Using numeric key pad to enter the password and press <b>Enter</b> button to confirm.
	 To enter system setup mode. The authentication password is required to enter system setup mode. Using numeric key pad to enter the password and press <b>Enter</b> button to confirm.
	 To freeze/un-freeze the surveillance screen. Press it to freeze the screen and press again to un-freeze.
	 To extend/fold camera tree window.
	 Open/close PTZ control panel. Press it to call out the PTZ control panel and press again to close it.
	 Call out Logout dialog.
(10) Preset/Set Button	 PRESET Move the PTZ camera to the selected preset position (see also <a href="#">Chapter 2.9.4</a> ).
	 SET To setup the PTZ preset position (see also <a href="#">Chapter 2.9.4</a> )
(11) 	Enable/disable joystick as a mouse function.
 User can adjust the move speed of the mouse cursor on the Windows system where the DVR system installed on it. Please go to <b>Start &gt; Control Panel &gt; Mouse</b> .	
(12)  PTZ	When lights up in green, user can use PTZ related operation(see also <a href="#">Chapter 2.9</a> ).
(13) Joystick	To control PTZ camera to left, right, up, down, zoom in, and zoom out.

Function	Description
(14) IRIS/Focus Button	 To adjust the IRIS of camera's lens. (IRIS)
	 To adjust the focus of the PTZ camera. (Focus)
(15) DIGITAL ZOOM	Enable/disable digital zoom (see also <a href="#">Chapter 2.9.6</a> ).
(16) Numeric Key Pad	 Number 0~9.  For confirmation  To delete the entering information on LCD monitor.  Moving the cursor to left or right.
(17) Back /Top Menu Button	 Go back to previous multi-function menu screen.  Go back to the main menu screen.
(18) Camera Select	Using to select the camera channel (see also <a href="#">Chapter 2.4</a> ).
(19) Microphone	Build-in microphone for sound receiving. To enable, press  button.
(20) FULL SCREEN	Switch to full screen mode.
(21) AUTOSCAN	Enable/disable channel display cycle automatically. Press it to start auto pan and press again to stop.
(22) MIC	When button is pressed and lights up, the System controller can receive the sound.

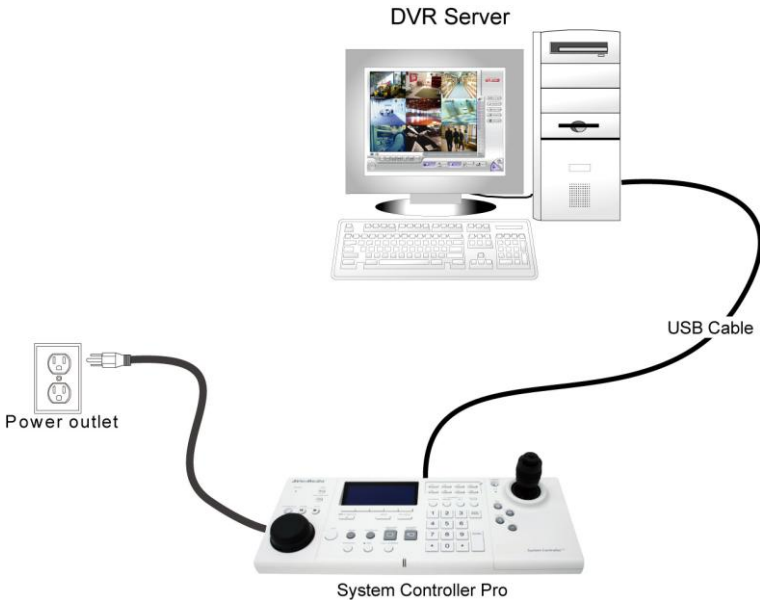
Function	Description
(23) 	Switch to Emap mode. In Emap mode, user can select different Emap to view(see also <a href="#">Chapter 2.8</a> ).
(24) 	Take a quick photo shot of the surveillance screen and save it.
(25) 	Switch to preview/live view mode.

## 1.2 Hardware Installation

### 1.2.1 Connecting with the DVR Server through the USB port

The following is an example of System controller installation.

1. The DVR server should be power on and DVR program is executed.
2. Plug the power cord of the System Controller into power outlet.
3. And then, plug the USB cable that is attached on the System Controller to the USB port of the DVR server.
4. After hardware installation has completed, please remember system controller function on DVR server (see also [Chapter 2.1](#)) and select the correct operating mode on the System Controller (see also [Chapter 2.1.2](#)).



After System Controller has connected to the DVR system, please wait about 3 minutes for DVR system to automatically detect and install the System Controller.

---

## 1.2.2 Connecting with the DVR Server through the RS485 port

Through the RS485 port, user can connect multiple DVR servers with the System Controller. Before starting to make a connection, please prepare the following items:



RS232 cable



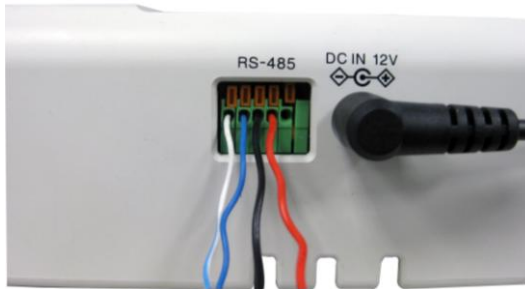
RS485 to RS232 Converter



Single core wire

(\*User can purchase from the dealer  
\*\* The RS232 to RS485 Converter needs  
to support **RS-485 automatic data  
direction control protocol**)

1. Cut the 4 single core wires.
2. Using the screwdriver to press down the orange tenon and insert the single core wire into the pin hole of the I/O terminal on the System Controller. When the wire is inserted in the end of the pin hole, release the orange tenon to fix the wire.



- Set the DIP switch of the RS232 to RS485 converter at 4-wire RS485 setting.



- Using the screwdriver to lose the pin hole of RS485 to RS232 converter. And then, insert another side of single core wire into the pin hole of the RS485 to RS232 converter. Using the screwdriver to screw tight the wire. Please refer to the below table for pin-hole matching:



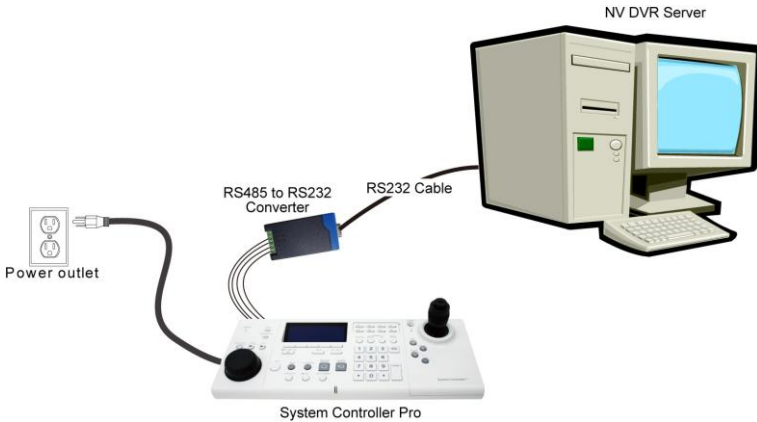
RS485 pin hole of System Controller

RS485 to RS232 Converter site		System Controller site	
R+		T+	1
R-		T-	2
T+		R+	3
T-		R-	4

5. Connect the RS232 cable to the RS232 port of the RS485 to RS232 converter.



6. Connect another side of RS232 cable to the RS232 port of the DVR server.
7. Power on the System Controller.
8. The following figure is an example of the installation illustrate.

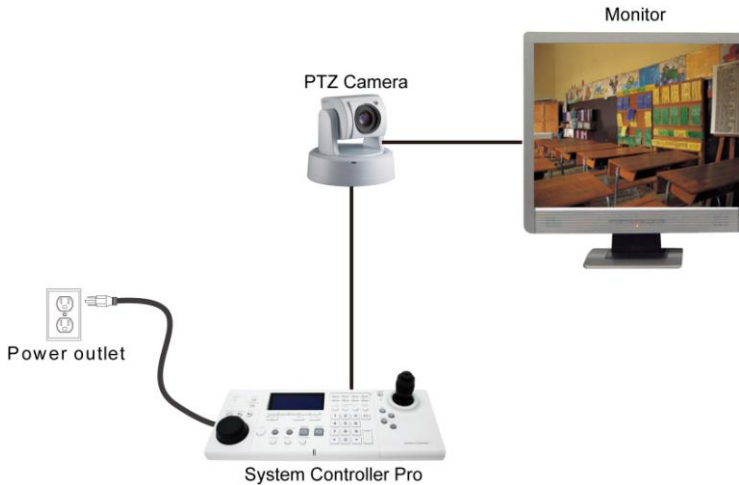


9. After hardware installation has completed, please remember to enable the system controller function on DVR server (see also [Chapter 2.1](#)) and select the correct operating mode on the System Controller (see also [Chapter 2.1.3](#)).

### 1.2.3 Connect a PTZ Camera to System Controller Pro

The following is an example of PTZ camera install to System Controller Pro.

1. Connect the PTZ camera to System Controller Pro through the RS-485 interface.
2. Plug the power cord of the System Controller Pro into power outlet.
3. After hardware installation has completed, please remember to select the correct operating mode on the System Controller (see also [Chapter 3](#)).

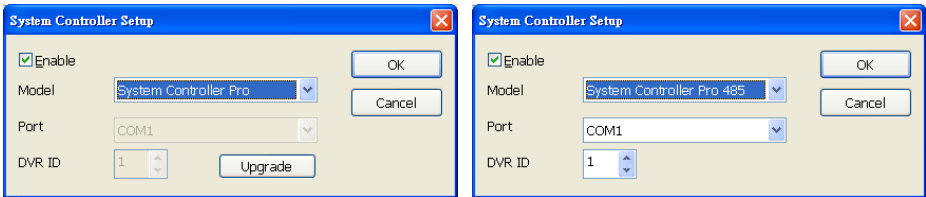


## Chapter 2 Operating the System Controller Pro

### 2.1 Using the System Controller for the First Time

For the first time using the System Controller, please enable system controller function on the DVR server.

1. Start up the DVR program.
2. Click **Setup** in preview mode.
3. Select **System**, the **System Setting** windows will appear.
4. Click **Detail** that is next to the System Controller section.
5. Mark **Enable** check box to enable the function of the System Controller.
6. Select the **Model** as **System Controller Pro (USB connection)** or **System Controller Pro 485(RS485 port connection)**.
7. For System Controller Pro 485 model, user needs to select the connection **Port**. If there is more than one DVR systems are connecting with System Controller, user can assign a **DVR ID** for the DVR system as a control identity.
8. Click **OK** to complete the setting.



9. Please remember to select corresponded operating mode on the System Controller in order to operate normally.

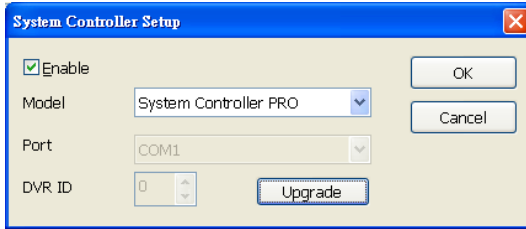
### 2.1.1 Upgrading the Firmware of the System Controller

User can upgrade the newest firmware of the System Controller. For newest firmware, please contact your local dealer.

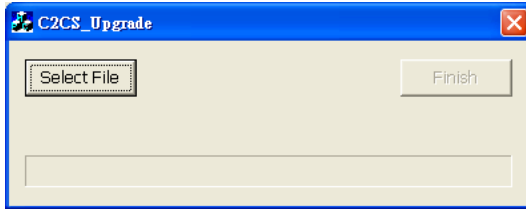


The upgrade process doesn't support when System Controller connect to DVR server through the RS485 port.

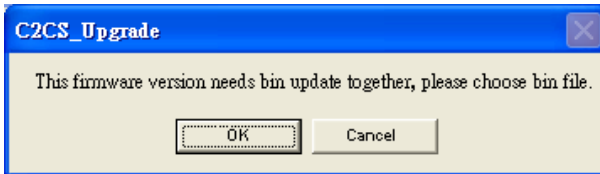
1. In DVR program UI, click **Setup > System > Detail** of System Controller.
2. Click **Upgrade** button.



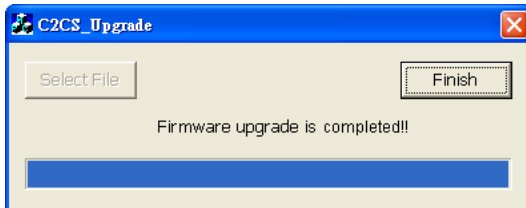
3. Click **Select File** button to locate the firmware.



4. Select the firmware file and click **OK**. The upgrade process will start.
5. The upgrade firmware may have more than one file. Therefore, click **OK** and locate the firmware file to upgrade another file.




6. When the upgrade process is done, click **Finish** to complete.

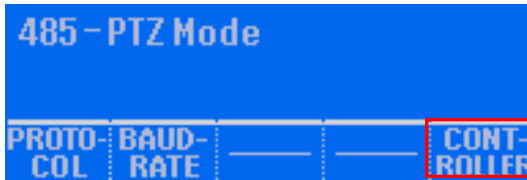


## 2.1.2 Switching to USB DVR Mode

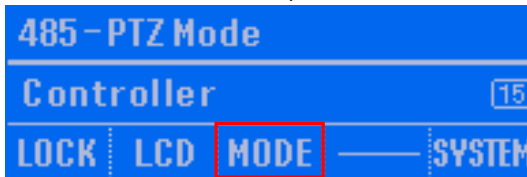
When the System Controller is connecting with DVR system through the USB port, the System Controller mode should be in **USB DVR** mode in order to operate the DVR system normally. If the mode is not USB DVR mode, please follow the below steps to switch to USB DVR mode.


- 
-  - The default mode is USB DVR mode.
  - The USB CMS and 485 CMS mode is supported for CMS application.
  - If System Controller is connecting with PTZ camera through RS485 port, please refer to [Chapter 3](#) for operation description.
- 


1. In 485 PTZ or 485 DVR menu screen, press  button to enter Controller setup screen.
2. Press  button to enter Mode setup screen.

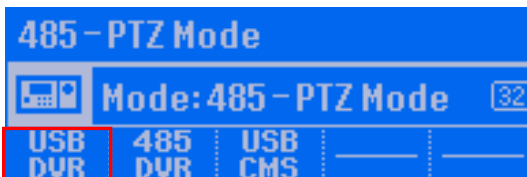


485-PTZ menu screen

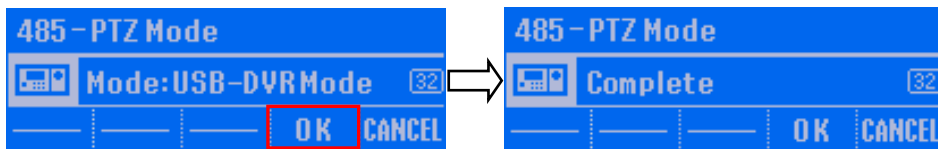


- 
-  If the password function is enabled, user needs to enter the password for mode switching.
- 

3. In Mode setup screen, press  button to switch the mode to USB DVR mode.




4. Press **OK** button to confirm. To cancel the selection, press **CANCEL** button. When the "Complete" message appears on the LCD screen, the mode switch is completed.

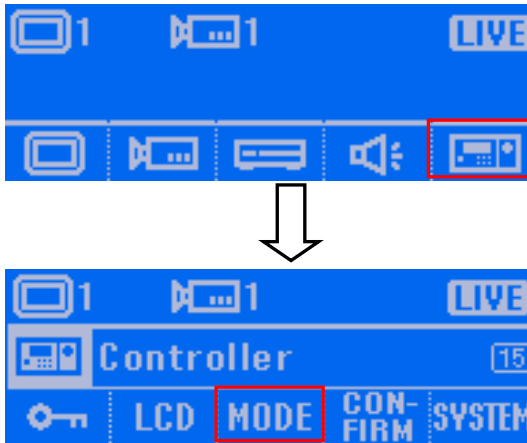


### 2.1.3 Switching to 485 DVR Mode

When the System Controller is connecting with DVR system through the RS-485 port, the System Controller mode should be in **485 DVR** modes in order to operate the DVR system. If the mode is not 485 DVR mode, please follow the below steps to switch to 485 DVR mode.

- 
- i** - The default mode is USB DVR mode
  - The USB CMS and 485 CMS mode is supported for CMS application.
  - If System Controller is connecting with PTZ camera through RS485 port, please refer to [Chapter 3](#) for operation description.
- 

1. In main menu screen, press  button to enter Controller setup screen.
2. Press **MODE** button to enter Mode setup screen.

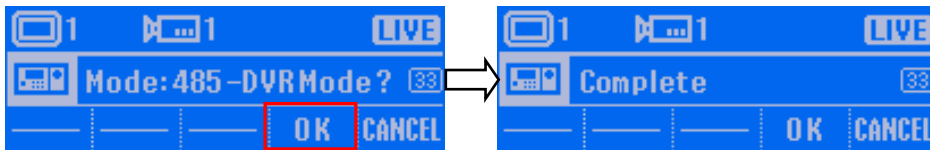


- 
- i** If the password function is enabled, user needs to enter the password for mode switching.
- 

3. In Mode setup screen, press  button to switch the mode to 485 DVR mode.



4. Press **OK** button to confirm. To cancel the selection, press **CANCEL** button. When the “**Complete**” message appears on the LCD screen, the mode switch is completed.



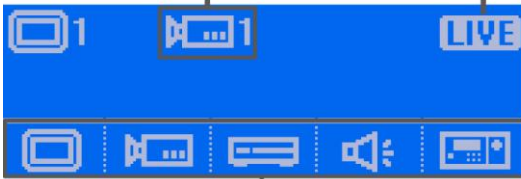
## 2.2 Familiarizing with LCD Screen

Following will describe the information or icon that display on LCD screen.

### ■ Main Menu

Current Select Channel Number  
1 means channel 1

Current Surveillance Mode  
Live is preview mode  
Playback is playback mode



Multi-Function Menu

### ■ Submenu(Multi-function menu)

Name of function that user has selected

Display the selection that user had made or confirmation infor.



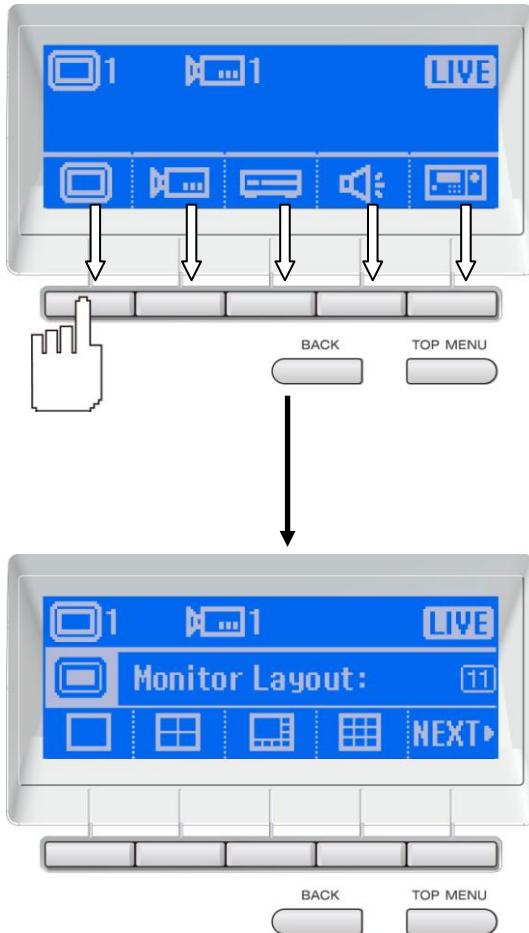
The number indicate what level of menu and function that user has selected  
11 means menu level 1 and select function 1

Function Selections Menu

## 2.3 Operating the LCD Menu

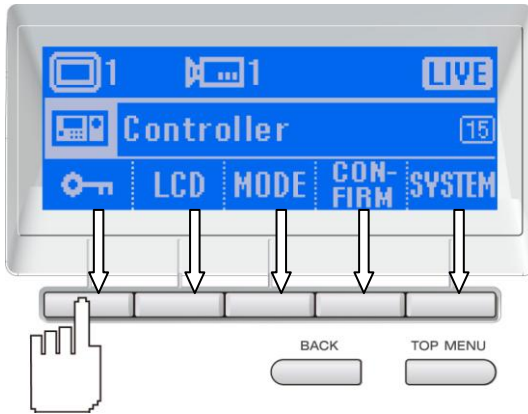
### ■ Main Menu

On the LCD screen, each function is corresponding to the button on the panel of the System Controller Pro. To select the function, press the correspond button.

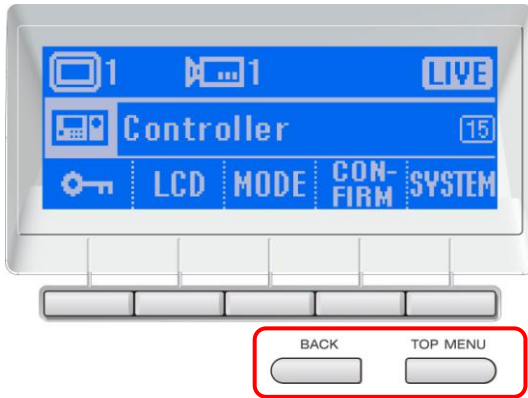


## ■ Multi-Function Menu

In multi-function menu screen, press the correspond button of the selections to configure/operate.




To go back to the main menu, press the **TOP MENU** button. Press the **BACK** button will go back to the previous screen.



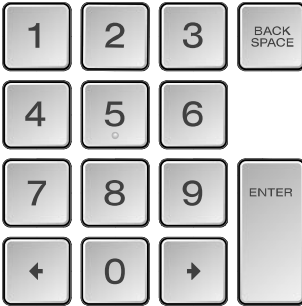
## 2.4 Select a Camera



Select a camera to view, record, or operate.

1. Press  button.
2. On the LCD screen will display **Camera Select** screen.

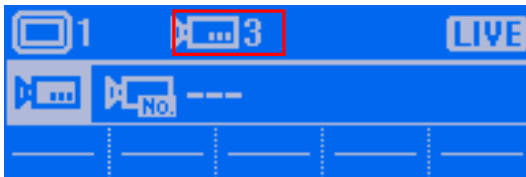


3. Using the numeric key pad to enter the camera number (3 numbers, ex: camera 2, enter 002). After entered the camera number, press **Enter** button to confirm.

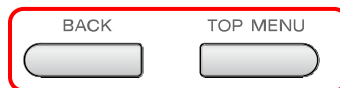
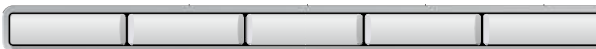


Using  &  button can move the cursor to left or right.


4. User should see the camera number will be 3 on the Camera Select screen. Also the surveillance screen of DVR will switch to camera 3.




5. To exit the camera select screen, press **BACK** or **TOP MENU** button.




## 2.5 Locking System Operation

Using the lock button () to lock the System Controller for preventing any unexpected situation happen during the operator or administrator is away from the System Controller.

We strongly recommend that you enable the password function to enhance the security (see also [Set a Password for System Controller](#)).


1. Press  button. The LCD screen will display “System Controller Locked” message.



2. To un-lock, press  again and use the numeric key pad to enter the password. And then, press **Enter** button to un-lock.



## 2.6 Trigger the Alarm Button

The panic button () allows user to trigger the defined alarm button manually.

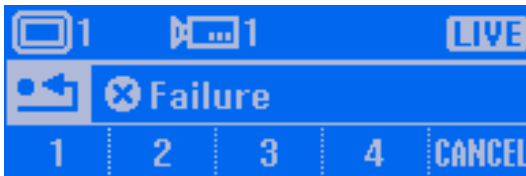
1. Press  button and the Alarm Button screen will appear on the LCD screen.



2. Press the number of alarm button to trigger the alarm. When the “**Complete**” message appears on the LCD screen, the alarm is triggered.




3. If the “**Failure**” message appears on the LCD screen, please make sure the alarm button has been defined. Please refer to the *NV user's manual* for **Alarm Button**'s configuration.




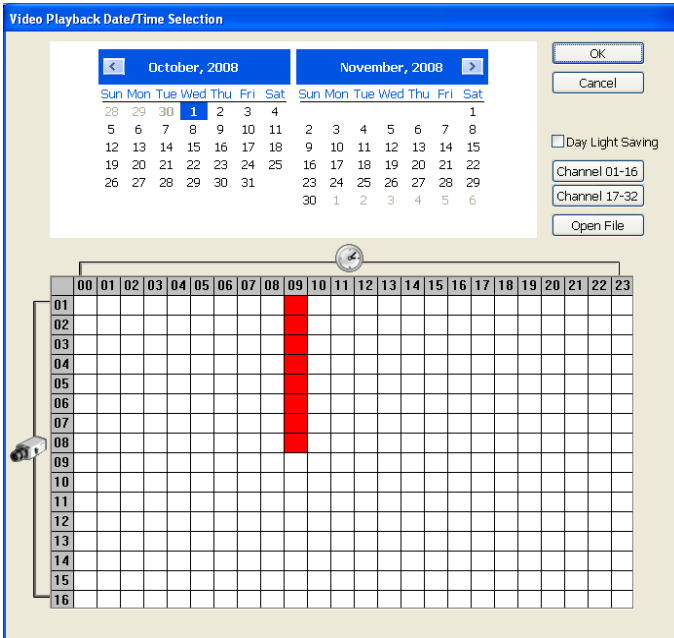
## 2.7 To Playback the Recorded File

To playback the recorded file on surveillance screen.

1. Press  button to switch to playback mode. The LCD screen will display “Playback” message that means the DVR is in playback mode now.





2. The playback time and date selection window will appear on the surveillance screen. Using the mouse or joystick (press the  button to switch to mouse function) to select the time and date that wants to playback.



3. After selected the time and date to playback, the DVR system will start to playback.






4. Using the Jog/Shuttle button to control the playback speed. Press  to enable the Jog/Shuttle button. To disable the Jog/Shuttle button, press  button.

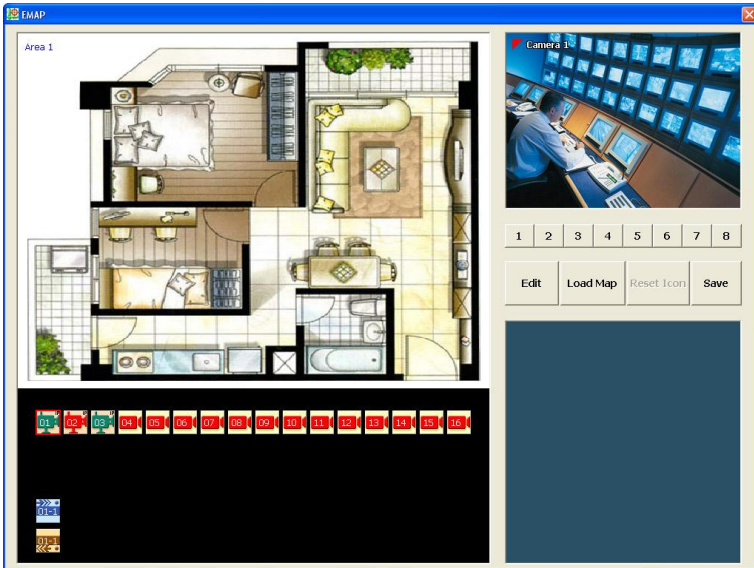
- **Jog dial (top part):** Rotate in clockwise is forward play frame-by-frame that control by user. Rotate in counterclockwise is rewinding play frame-by-frame that control by user.
- **Shuttle ring (lower part):** Rotate in clockwise is play at increase speed of 1x, 2x, 4x, 8x, 16x, and 32x. Rotate in counterclockwise is rewinding playback.

5. To pause the playback, press  button. Press  again to start playback.

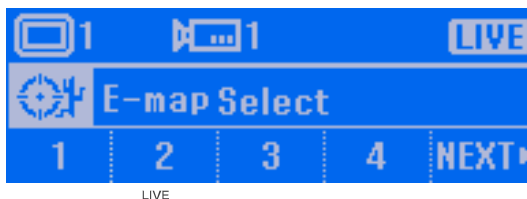
## 2.8 To View the Emap


User can select the different Emap to view. The Emap () button is same as the Emap () button on the DVR program UI.

1. Press Emap () button and the Emap UI will appear on surveillance screen.



2. On LCD screen, press the Emap number button (1~8) will switch to the Emap that user has selected. Press **NEXT** button will go to next page of screen.



3. To close the Emap UI, press  button, the DVR program will switch back to preview UI.

4. Press **TOP MENU** button to go back to the main menu screen.




## 2.9 PTZ Operation

If the camera has enabled the PTZ function, user can use the System Controller to operate the PTZ camera.



- Please select the PTZ camera before starting PTZ operation. Please refer to [Chapter 2.4](#).

PTZ

- When PTZ indicator (  ) is green light up, the PTZ operation is available.

### 2.9.1 Using the Joystick to Operate the PTZ Camera

The joystick can move the camera to right, left, up, and down and also to zoom in and out of the camera.

#### Panning

Move the joystick to right or left.



#### Tilt

Move the joystick to up or down.





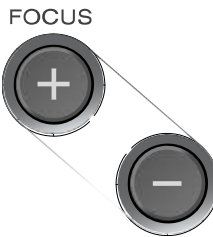
### Zoom in/out

Rotate the joystick to the clockwise side to zoom in and counterclockwise to zoom out.





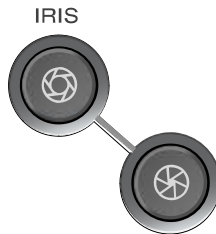
### 2.9.2 To Focus the Object

Press  button to focus the object in the distance. Press  button to focus the object in nearby.




### 2.9.3 Adjusting the Brightness of the Image

Press  and  to adjust the IRIS of camera lens.



## 2.9.4 Setup preset position and Use Preset

### Setup Preset Position

1. Press  button and the Camera preset setup screen will appear on LCD screen.





2. Please adjust the lens position of the camera to wanted position.
3. And then, using numeric key pad to enter the preset position number. The numbers of preset position depends on the support of the PTZ camera.
4. Press **Enter** button to confirm the setting.



5. When the “**Complete**” message appears on the LCD screen, the setting is done.
6. To setup another preset position, please repeat the step 2 ~ 4.

### Using the Preset Button

Press the  button and enter the preset position number, the camera will move to the preset position that user has setup.

1. Press  button and the Preset position screen will appear on LCD screen.
2. Using numeric key pad to enter the number of the preset position and press the **Enter** button.



3. When the “**Complete**” message appears on the LCD screen, the function is completed.

### 2.9.5 Enabling the AutoPan

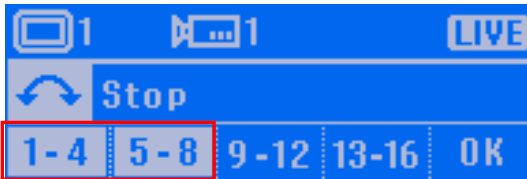
Enable/disable the PTZ camera move automatically that is based on the selected camera group preset position number.

AUTOPAN

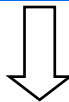
1. Press  button and the AutoPan screen will appear on LCD screen.



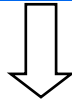
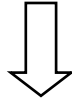
2. Press the preset position group number button (1-4, 5-8, 9-12, 13-16) and press **OK** button to start auto pan.



3. When the **“Complete”** message appears on the LCD screen, the function is enabled.




4. To stop auto pan, press selected preset position group number again and press **OK** button. When the “**Complete**” message appears on the LCD screen, the function is disabled.




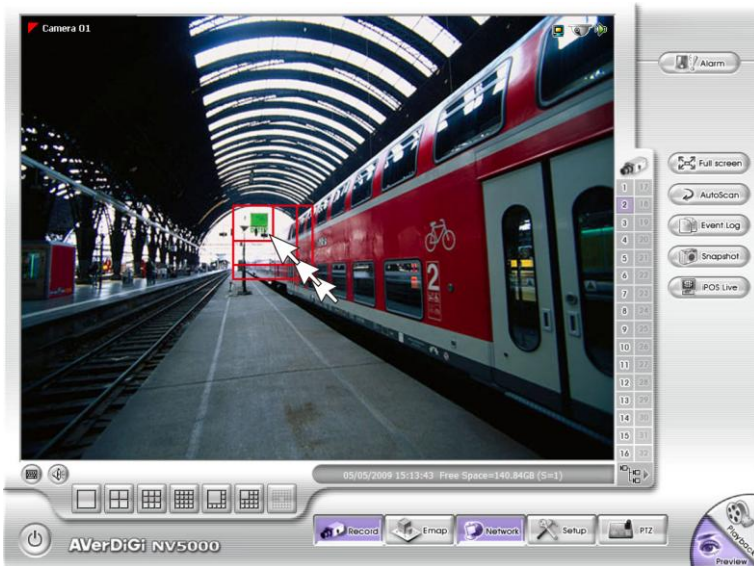
## 2.9.6 Using Digital Zoom

To zoom in the selected screen area for viewing.

1. In PTZ camera screen, press  button. The message “Complete” will appear on the LCD screen that means the digital zoom is enabled.



2. A red frame will appear on the camera screen. Using mouse or joystick (press the  button to switch to mouse function) to click on red frame and drag the area that user wants to zoom in.
3. Right-click mouse or press button on top of joystick to enlarge the selected area.
4. To return to normal view, click or press button on the top of joystick on the enlarge area.




## 2.10 Functions in Preview Mode

In the following sections will introduce the each function in preview mode.

### 2.10.1 Select a Monitor Layout

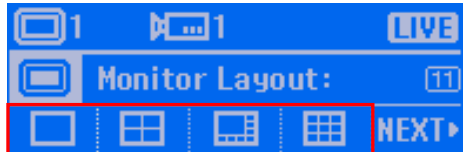
In Monitor Layout, user can select different screen display mode to view. This function is same as split-screen buttons (        ) on DVR application UI.

There are 7 types of monitor layout -- , , , , , , .

1. Press the  button to enter **Monitor Layout** screen.



2. In Monitor Layout screen, press the button of monitor layout that user wants to view.



3. Press **Next** button to go to next page. To go back to previous page, Press **Prev.** button.



4. The selected monitor layout will be display. The surveillance screen will switch the monitor layout that user has selected.



## 2.10.2 Camera Setup


In Camera setup, user can enable/disable the camera, enable/disable camera video to be display on the screen, adjust contrast/brightness/saturation/hue, enable/disable de-interlace, and enable/disable relay of the IP camera.




### Enable a Camera

1. First, select the camera to configuration. Please refer to [Chapter 2.4](#).





2. At main menu screen, press the  button to enter **Camera Setup** screen.



3. In Camera Setup screen, press  button to enter **Camera Enable** screen.







4. To enable the camera for viewing and recording, press  button. Press  button to disable the camera. When the camera has been disabled, the camera video can't be view and record.



5. When user sees the **“Complete”** message, it means the operation is done.
6. To go back to the Camera setup screen, press **BACK** button. To go back to the main menu screen, press **TOP MENU** button.



## Enable a Camera View


1. First, select the camera to configuration. Please refer to [Chapter 2.4](#).
2. At main menu screen, press the  button to enter **Camera Setup** screen.
3. In Camera Setup screen, press  button to enter **Camera Display** screen.
4. To enable the camera for viewing and recording, press  button. Press  button to disable the camera. When the camera has been disabled, the camera video can't be view and record.
5. When user sees the "**Complete**" message, it means the operation is done.
6. To go back to the Camera setup screen, press **BACK** button. To go back to the main menu screen, press **TOP MENU** button.




## Adjusting the Hue

1. First, select the camera to configuration. Please refer to [Chapter 2.4](#).




2. At main menu screen, press the  button to enter **Camera Setup** screen.



3. In Camera Setup screen, press  button to enter **Attribute** screen.



4. In Attribute screen, press  button to enter the **Hue adjustment** screen.



5. In Hue adjustment screen, enter the value number( Range is 0~ 100). After value has entered, press **Enter** button to confirm.



6. When user sees the "**Complete**" message, it means the operation is done.




7. After complete the adjustment, the value of hue will be display on the LCD screen. To go back to previous menu screen, press **BACK** button. To go back to main menu, press **TOP MENU**.




## Adjusting the Saturation

1. First, select the camera to configuration. Please refer to [Chapter 2.4](#).




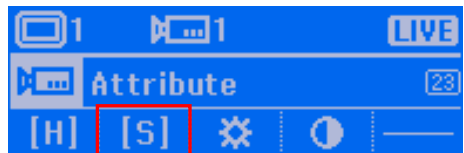
2. At main menu screen, press the  button to enter **Camera Setup** screen.



3. In Camera Setup screen, press  button to enter **Attribute** screen.



4. In Attribute screen, press  button to enter the **Saturation adjustment** screen.



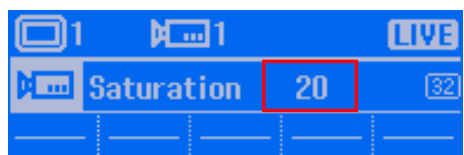
5. In Saturation adjustment screen, enter the value number (Range is 0~ 100). After value has entered, press **Enter** button to confirm.



6. When user sees the **“Complete”** message, it means the operation is done.




7. After complete the adjustment, the value of hue will be display on the LCD screen. To go back to previous menu screen, press **BACK** button. To go back to main menu, press **TOP MENU**.




## Adjusting the Brightness

1. First, select the camera to configuration. Please refer to [Chapter 2.4](#).




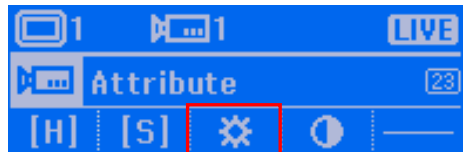
2. At main menu screen, press the  button to enter **Camera Setup** screen.



3. In Camera Setup screen, press  button to enter **Attribute** screen.



4. In Attribute screen, press  button to enter the **Brightness adjustment** screen.



5. In Brightness adjustment screen, enter the value number (Range is 1~ 100). After value has entered, press **Enter** button to confirm.



6. When user sees the **“Complete”** message, it means the operation is done.




7. After complete the adjustment, the value of hue will be display on the LCD screen. To go back to previous menu screen, press **BACK** button. To go back to main menu, press **TOP MENU**.




## Adjusting the Contrast

1. First, select the camera to configuration. Please refer to [Chapter 2.4](#).




2. At main menu screen, press the  button to enter **Camera Setup** screen.



3. In Camera Setup screen, press  button to enter **Attribute** screen.



4. In Attribute screen, press  button to enter the **Contrast adjustment** screen.



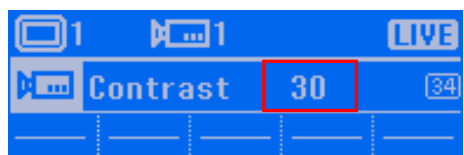
5. In Contrast adjustment screen, enter the value number (Range is 1~ 100). After value has entered, press **Enter** button to confirm.



6. When user sees the **“Complete”** message, it means the operation is done.




7. After complete the adjustment, the value of hue will be display on the LCD screen. To go back to previous menu screen, press **BACK** button. To go back to main menu, press **TOP MENU**.




## Trigger the Relay of IP Camera

1. First, select the camera to configuration. Please refer to [Chapter 2.4](#).



2. At main menu screen, press the  button to enter **Camera Setup** screen.



3. In Camera Setup screen, press  button to enter **IP-CAM Output** screen.



4. In IP-CAM Output screen, press **1 ~ 4** button to trigger relay 1~4.



5. When user sees the “**Complete**” message, it means the operation is done. To go back to previous menu screen, press **BACK** button. To go back to main menu, press **TOP MENU**.




### 2.10.3 Server Setup

In Server setup, user can start recording, stop recording, execute network time synchronization, and call out event log viewer windows.




#### Start Recording

This function is same as press **F2** button (see also [\(9\)Custom Button Function](#) in [Chapter 1.1.3](#))

1. At main menu screen, press the  button to enter **Server Setup** screen.




2. In Server Setup screen, press  button to start recording.



3. When user sees the "**Complete**" message, it means the operation is done. To go back to previous menu screen, press **BACK** button. To go back to main menu, press **TOP MENU**.




4. When recording is enabled, the  icon will show up on the surveillance screen.




## Stop Recording

This function is same as press **F2** button (see also [\(9\)Custom Button Function](#) in [Chapter 1.1.3](#))

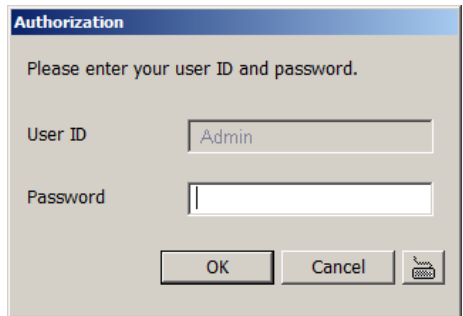
1. At main menu screen, press the  button to enter **Server Setup** screen.



2. In Server Setup screen, press  button to stop recording.






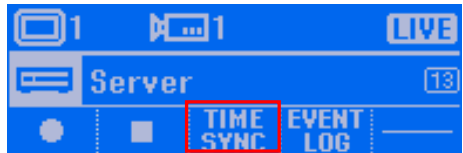
3. The authorization dialog will show up on surveillance screen. Enter the authorize password and click **OK** to stop recording.




## Network Time Synchronization



To adjust the DVR system time through the network time server that user has configured on DVR server.

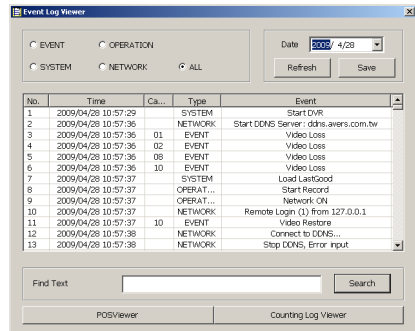
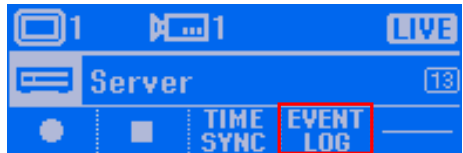
1. At main menu screen, press the  button to enter **Server Setup** screen.
2. Please stop recording before start network time synchronization. Press  button in Server setup screen (see also [Stop Recording](#)).
3. After stop recording, press  button to start time synchronization.



## Open Event Log Viewer


To call out the event log viewer window. This function is same as press  button on DVR program UI.

1. At main menu screen, press the  button to enter **Server Setup** screen.
2. In Server Setup screen, press  button.
3. The event log viewer window will show up on the surveillance screen.






## 2.10.4 Sound Setup



In Sound setup, user can enable/disable sound and adjust volume output of the System Controller.

1. At main menu screen, press the  button to enter **Sound setup** screen.



2. Press s  and  button to increase or decrease the volume.
3. To disable the sound, press  button.



4. Press  button to complete the setup. To cancel, press  button.




## 2.10.5 Controller Setup

In Controller setup, user can configure the parameters of the System Controller Pro.



### Set a Password for System Controller

To setup the password of System Controller for security issue.

1. At main menu screen, press the  button to enter **Controller setup** screen.



2. Press  button to enter System Lock screen.



3. Press  button to enter the Password setup screen.



4. Press **ON/OFF** button to enable password function.
5. The password enter screen will appear. Using numeric key pad to enter the password (6 numbers). After entered password, press **Enter** button.




6. When user sees the **"Complete"** message, it means the operation is done.




## Change the Password of the System Controller



The password function will be enabling after password changed.

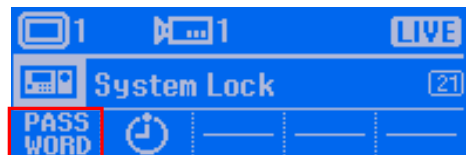
1. At main menu screen, press the  button to enter **Controller setup** screen.




2. Press  button to enter System Lock screen.



3. Press  button to enter the Password setup screen.



4. Press  button and the Password Change screen will appear.
5. Using numeric key pad to enter the current password (6 numbers). After entered password, press **Enter** button.



6. After entered the current password, the new password screen will appear.
7. Using numeric key pad to enter the new password (6 numbers) and press **Enter** to confirm.



8. After entered the new password, the password confirm screen will appear.
9. Using numeric key pad to re-enter the new password and press **Enter** button to confirm.




10. When user sees the **"Complete"** message, it means the operation is done.




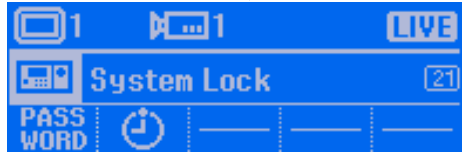
## Set the Timer


Set a System Controller idle time period to switch to rest status.

1. At main menu screen, press the  button to enter **Controller setup** screen.



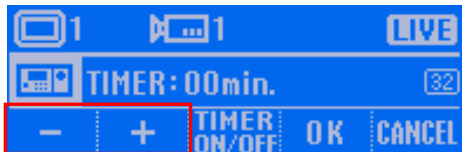
2. Press  button to enter System Lock screen.







3. Press  button to enter the Timer setup screen.



4. Press **TIMER ON/OFF** button to enable the timer. Press again will disable the timer.




5. Press s  and  button to adjust the time.

6. Press  button to confirm the setting. To cancel, press  button.

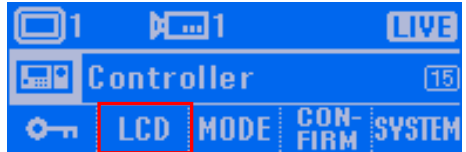
## Adjusting the Brightness of LCD Screen


To adjust the back light brightness of the LCD screen.

1. At main menu screen, press the  button to enter **Controller setup** screen.










2. Press **LCD** button to enter LCD setup screen.



3. Press  button to enter the Back light brightness setup screen.
4. Press s **+** and **-** button to adjust the brightness. Press **OK** button to confirm the setting. To cancel, press **CANCEL** button.










## Adjusting the Contrast of LCD Screen

1. At main menu screen, press the  button to enter **Controller setup** screen.
2. Press  button to enter LCD setup screen.
3. Press  button to enter the Contrast setup screen.
4. Press  and  button to adjust the brightness.
5. Press  button to confirm the setting. To cancel, press  button.



## Enable/disable Code Number Display

1. At main menu screen, press the  button to enter **Controller setup** screen.
2. Press  button to enter LCD setup screen.
3. Press  button to enter the Code number setup screen.
4. Press  button to enable the code number display. Press  button again will disable the code number display.
5. Press  button to confirm the setting. To cancel, press  button.




## Operation Mode Selecting

System Controller supports USB DVR and 485 DVR mode for NV DVR server. User can depend on the way of connection to select operation mode. Please refer to [Chapter 2.1.2](#) and [Chapter 2.1.3](#) for details.

## Enable/disable Button Confirmation






User can enable/disable to display a confirmation screen when press custom function buttons (F1~F8) and Alarm button.

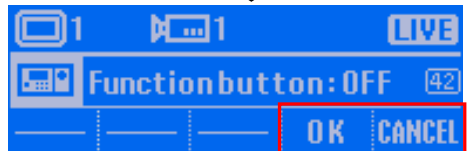
1. At main menu screen, press the  button to enter **Controller setup** screen.







2. Press  button to enter Button Confirmation setup screen.

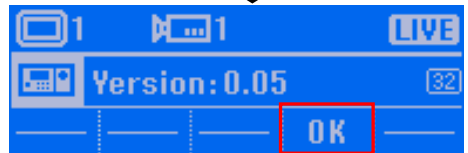


3. Press  button to enter Function button setup screen.
4. Press  button to enable or disable the button confirmation function. Press  button to confirm the setting. To cancel, press  button.
5. Press  button again will disable or enable the function.



## Viewing System Version Information

1. At main menu screen, press the  button to enter **Controller setup** screen.
2. Press  button to enter System Menu screen.
3. Press  button to view current system version. Press  button exit from the screen.





## 2.11 Functions in Playback Mode

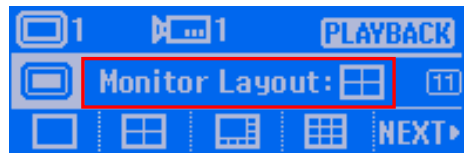
In the following sections will introduce the each function in playback mode.

### 2.11.1 Select a Monitor Layout

In Monitor Layout, user can select different screen display mode to view. This function is same as split-screen buttons (  ) on DVR application UI.

There are 7 types of monitor layout -- 

1. Press the  button to enter **Monitor Layout** screen.
2. In Monitor Layout screen, press the button of monitor layout that user wants to view.
3. Press **Next** button to go to next page. To go back to previous page, Press **Prev.** button.
4. The selected monitor layout will be display. The surveillance screen will switch the monitor layout that user has selected.





## 2.11.2 Camera Setup

In Camera setup, user can enable/disable de-interlace function.



**Camera Enable** ( ) , **Display** ( ) , **Attribute** ( ) , and **IP-CAM Output** function ( ) are not supported.

### Enable the De-interlace

1. At main menu screen, press the  button to enter **Camera Setup** screen.
2. In Camera Setup screen, press  button to enter **De-interlace** screen.
3. In De-interlace screen, press **1** button to if you are capturing motionless picture. Press **2** button if it captures lots of movement. To disable de-interlace, press **OFF** button.
4. When user sees the **“Complete”** message, it means the operation is done. To go back to previous menu screen, press **BACK** button. To go back to main menu, press **TOP MENU**.





### 2.11.3 Server Setup

In Server setup, user can call out event log viewer windows.




#### Open Event Log Viewer

To call out the event log viewer window. This function is same as press  button on DVR program UI.

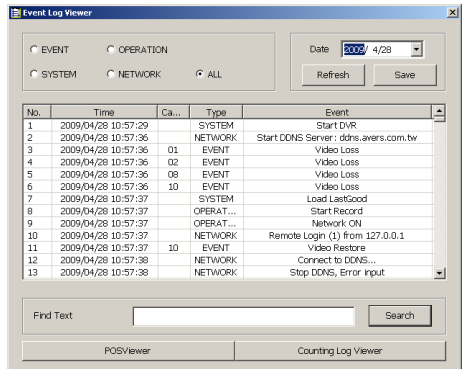
1. At main menu screen, press the  button to enter **Server Setup** screen.



2. In Server Setup screen, press  button.




3. The event log viewer window will show up on the surveillance screen.






## 2.11.4 Sound Setup



In Sound setup, user can enable/disable sound and adjust volume output of the System Controller.

1. At main menu screen, press the  button to enter **Sound setup** screen.



2. Press s  and  button to increase or decrease the volume.
3. To disable the sound, press  button.



4. Press  button to complete the setup. To cancel, press  button.



## 2.11.5 Controller Setup

In Controller setup, user can configure the parameters of the System Controller Pro.



The Button Confirmation (**CON-FIRM**) and Mode (**MODE**) function are not supported.

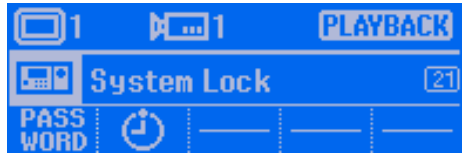
### Set a Password for System Controller

To setup the password of System Controller for security issue.

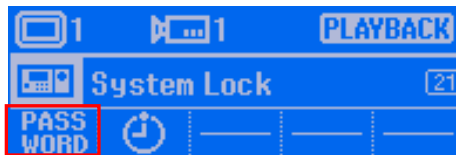
1. At main menu screen, press the **Controller** button to enter **Controller setup** screen.



2. Press **Key** button to enter System Lock screen.



3. Press **PASS WORD** button to enter the Password setup screen.



4. Press **ON/OFF** button to enable password function.
5. The password enter screen will appear. Using numeric key pad to enter the password (6 numbers). After entered password, press **Enter** button.




6. When user sees the **"Complete"** message, it means the operation is done.



## Change the Password of the System Controller



The password function will be enabling after password changed.

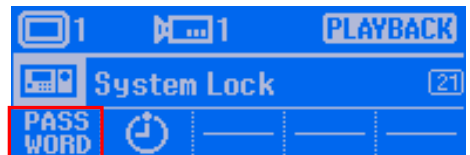
1. At main menu screen, press the  button to enter **Controller setup** screen.




2. Press  button to enter System Lock screen.



3. Press  button to enter the Password setup screen.



4. Press  button and the Password Change screen will appear.
5. Using numeric key pad to enter the current password (6 numbers). After entered password, press **Enter** button.



6. After entered the current password, the new password screen will appear.
7. Using numeric key pad to enter the new password (6 numbers) and press **Enter** to confirm.



8. After entered the new password, the password confirm screen will appear.
9. Using numeric key pad to re-enter the new password and press **Enter** button to confirm.




10. When user sees the **“Complete”** message, it means the operation is done.



## Set the Timer


Set a period time for System Controller idling over the setup time to switch to rest status.

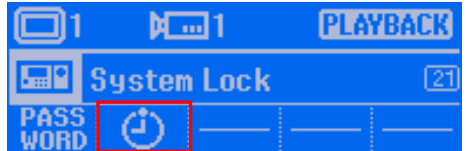
1. At main menu screen, press the  button to enter **Controller setup** screen.








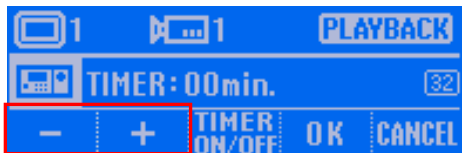
2. Press  button to enter System Lock screen.



3. Press  button to enter the Timer setup screen.




4. Press  button to enable the timer. Press again will disable the timer.
5. Press s  and  button to adjust the time.
6. Press  button to confirm the setting. To cancel, press  button.



## Adjusting the Brightness of LCD Screen


To adjust the back light brightness of the LCD screen.

1. At main menu screen, press the  button to enter **Controller setup** screen.



2. Press **LCD** button to enter LCD setup screen.





3. Press  button to enter the Back light brightness setup screen.



4. Press s **+** and **-** button to adjust the brightness. Press **OK** button to confirm the setting. To cancel, press **CANCEL** button.




## Adjusting the Contrast of LCD Screen

1. At main menu screen, press the  button to enter **Controller setup** screen.
2. Press **LCD** button to enter LCD setup screen.
3. Press  button to enter the Contrast setup screen.
4. Press **+** and **-** button to adjust the brightness.
5. Press **OK** button to confirm the setting. To cancel, press **CANCEL** button.



### Enable/disable Code Number Display

1. At main menu screen, press the  button to enter **Controller setup** screen.




2. Press **LCD** button to enter LCD setup screen.



3. Press **CODE NUMBER** button to enter the Code number setup screen.
4. Press **ON/OFF** button to enable the code number display. Press **ON/OFF** button again will disable the code number display.
5. Press **OK** button to confirm the setting. To cancel, press **CANCEL** button.



## Viewing System Version Information

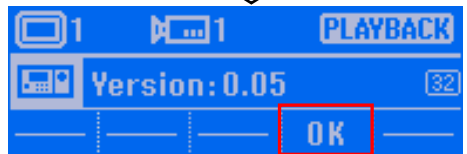
1. At main menu screen, press the  button to enter **Controller setup** screen.



2. Press **SYSTEM** button to enter System Menu screen.



3. Press **Ver.** button to view current system version. Press **OK** button exit from the screen.



## Chapter 3 Operating in PTZ 485 Mode

The PTZ 485 mode is to control the PTZ camera that is directly connected with System Controller through the RS485 port.





To operate PTZ camera, please refer to [Chapter 2.9](#).

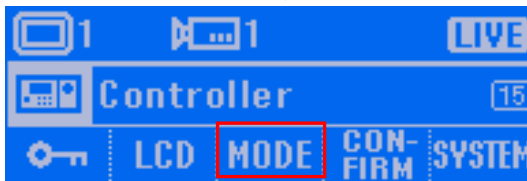
### 3.1 Switching to the PTZ 485 Mode

Before starting to operate the PTZ camera, please switch to the PTZ 485 mode.



- The default mode is USB DVR mode
- The USB CMS and 485 DVR mode is not supported in current version.
- If System Controller is connecting with DVR system, please refer to [Chapter 2](#) for operation description.

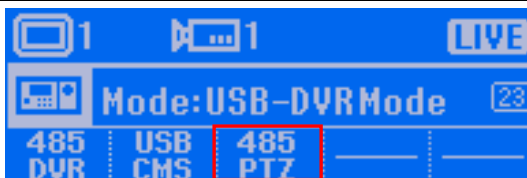
1. In main menu screen, press  button to enter Controller setup screen.
2. Press  button to enter Mode setup screen.



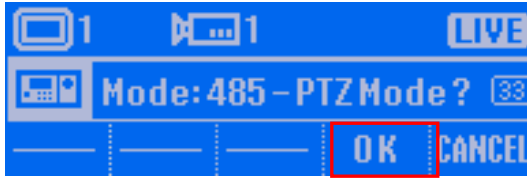
3. In Mode setup screen, press  button to switch the mode to 485 PTZ mode.



If the password function is enabled, user needs to enter the password for mode switching.



4. Press **OK** button to confirm. To cancel the selection, press **CANCEL** button. When the “**Complete**” message appears on the LCD screen, the mode switch is completed.



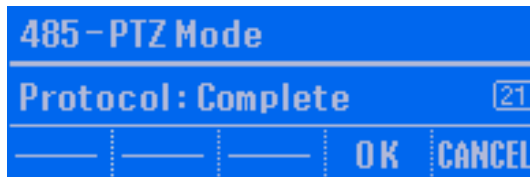
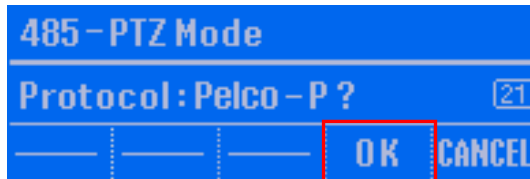
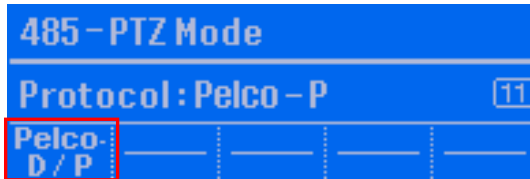
### 3.2 Select the Protocol of the PTZ Camera

Selecting the PTZ camera – Pelco-P or Pelco-D.

1. In 485 PTZ mode menu screen, press **PROTO COL** button to enter the Protocol setup screen.



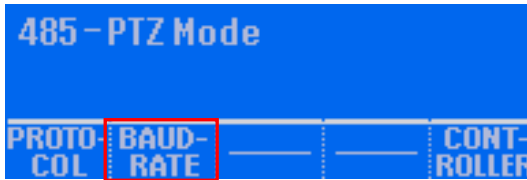
2. In Protocol setup screen, press **Pelco D/P** button to select the protocol. And then, press **OK** button to confirm. To cancel the selection, press **CANCEL** button. When the “**Complete**” message appears on the LCD screen, the mode switch is completed.



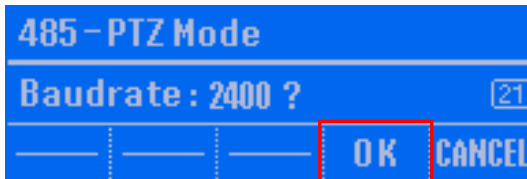
### 3.3 Setup the Baud Rate of the PTZ Camera

Selecting the baud rate of the PTZ camera.

1. In 485 PTZ mode menu screen, press **PROTO COL** button to enter the Protocol setup screen.

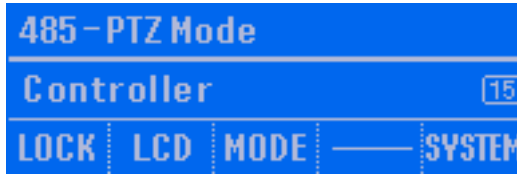


2. In Baudrate setup screen, press baudrate button and press **OK** button to confirm. To cancel the selection, press **CANCEL** button. When the **"Complete"** message appears on the LCD screen, the mode switch is completed.



### 3.4 Controller Setup

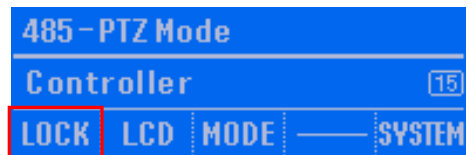
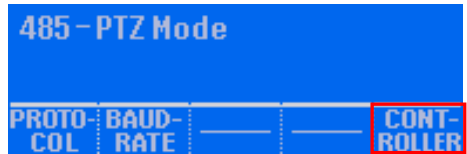
In Controller setup, user can configure the password, timer, brightness and contrast of the LCD screen, switch mode, and view system version.



#### 3.4.1 Set a Password for System Controller

To setup the password of System Controller for security issue.

1. At main menu screen, press the **CONTROLLER** button to enter **Controller setup** screen.
2. Press **LOCK** button to enter Lock setup screen.



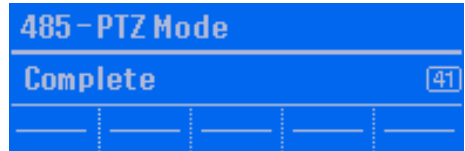
3. Press **PASS WORD** button to enter the Password setup screen.



4. Press **ON/OFF** button to enable password function.
5. The password enter screen will appear. Using numeric key pad to enter the password (6 numbers). After entered password, press **Enter** button.



6. When user sees the **Complete** message, it means the operation is done.

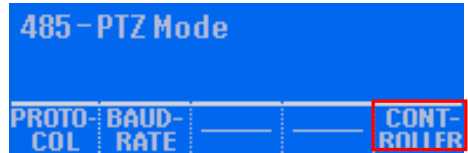


### 3.4.2 Change the Password of the System Controller

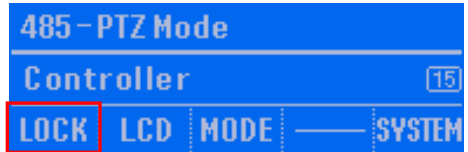


The password function will be enabling after password changed.

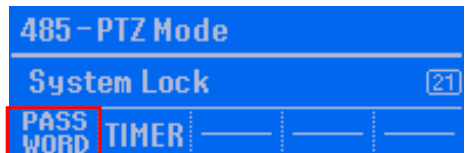
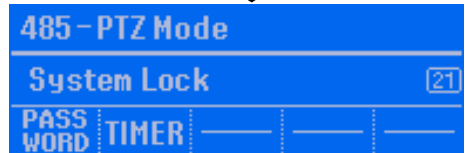
1. At main menu screen, press the **CONTROLLER** button to enter **Controller setup** screen.



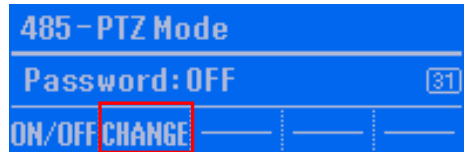
2. Press **LOCK** button to enter System Lock screen.



3. Press **PASSWORD** button to enter the Password setup screen.



4. Press **CHANGE** button and the Password Change screen will appear.
5. Using numeric key pad to enter the current password (6 numbers). After entered password, press **Enter** button.



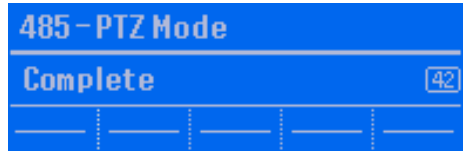
6. After entered the current password, the new password screen will appear.
7. Using numeric key pad to enter the new password (6 numbers) and press **Enter** to confirm.



8. After entered the new password, the password confirm screen will appear.
9. Using numeric key pad to re-enter the new password and press **Enter** button to confirm.



10. When user sees the "**Complete**" message, it means the operation is done.



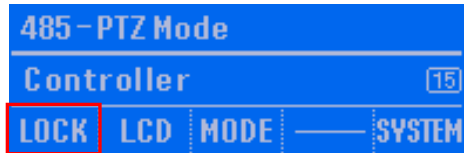
### 3.4.3 Set the Timer

Set a period time for System Controller idling over the setup time to switch to rest status.

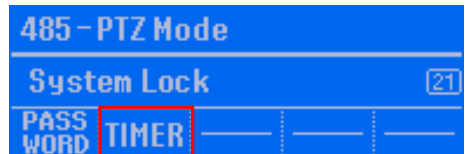
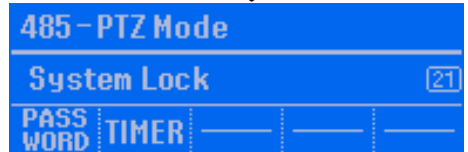
1. At main menu screen, press the **CONTROLLER** button to enter **Controller setup** screen.



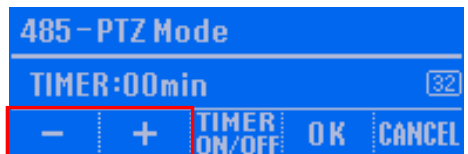
2. Press **LOCK** button to enter System Lock screen.



3. Press **TIMER** button to enter the Timer setup screen.



4. Press **TIMER ON/OFF** button to enable the timer. Press again will disable the timer.
5. Press s **+** and **-** button to adjust the time.
6. Press **OK** button to confirm the setting. To cancel, press **CANCEL** button.



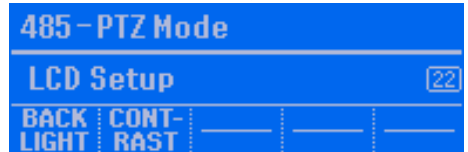
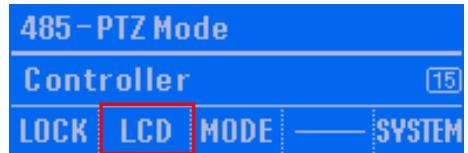
### 3.4.4 Adjusting the Brightness of LCD Screen

To adjust the back light brightness of the LCD screen.

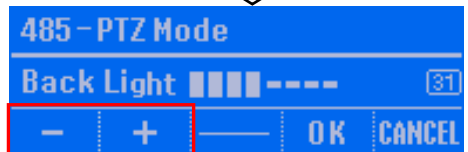
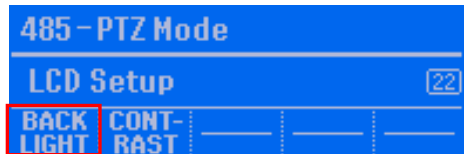
- At main menu screen, press the **CONTROLLER** button to enter **Controller setup** screen.



- Press **LCD** button to enter LCD setup screen.



- Press **BACK LIGHT** button to enter the Back light brightness setup screen.
- Press **+** and **-** button to adjust the brightness. Press **OK** button to confirm the setting. To cancel, press **CANCEL** button.

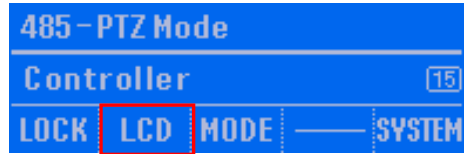


### 3.4.5 Adjusting the Contrast of LCD Screen

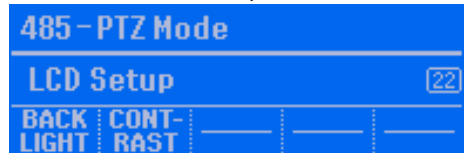
6. At main menu screen, press the **CONTROLLER** button to enter **Controller setup** screen.



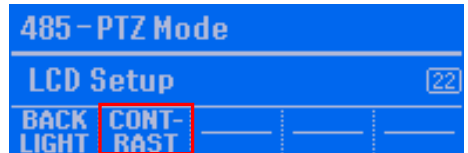
7. Press **LCD** button to enter LCD setup screen.



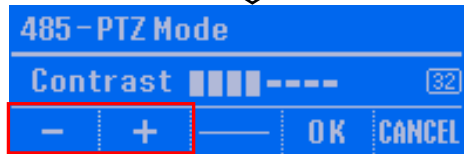
8. Press **CONTRAST** button to enter the Contrast setup screen.



9. Press **+** and **-** button to adjust the brightness.



10. Press **OK** button to confirm the setting. To cancel, press **CANCEL** button.

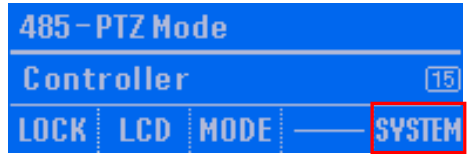


### 3.4.6 Viewing System Version Information

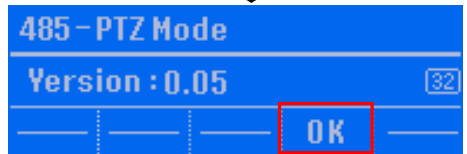
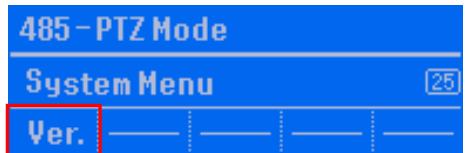
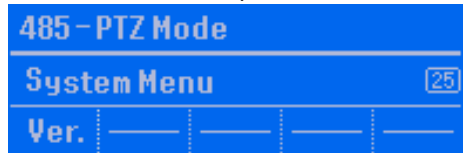
1. At main menu screen, press the **CONTROLLER** button to enter **Controller setup** screen.



2. Press **SYSTEM** button to enter System Menu screen.



3. Press **Ver.** button to view current system version. Press **OK** button exit from the screen.



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