



System Controller Pro

Quick Installation Guide



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

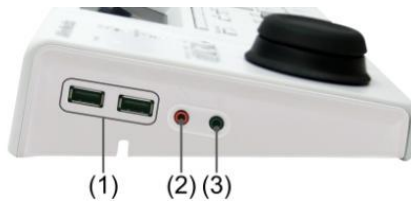
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INFORMATION

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

I. Hardware Introduction

Left Side



System Controller doesn't support audio input/output port for **SEB5108H/5116H** series DVR.

Function	Description
(1) USB Port	2 * USB ports for connection of keyboard, mouse, or USB flash memory.
(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 the 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.

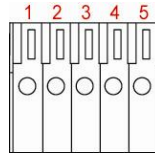
Rear Side



System Controller for **SEB5008H/5116H** series and **EH5108H/5216H** series doesn't support RS485 port connection.

Function	Description
(1) RS485 Port	For connection of Pelco-D/P PTZ camera and using RS485 to RS232 converter to connect with DVR system.

1	TX+
2	TX-
3	RX+
4	RX-
5	GND



(2) Power Supply Port	For AC power adaptor connection.
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II. Hardware Installation

USB port connection

The following is an example of System controller installation for **NV, SA, IWH Touch** series, **SEB5108H/5116H** series, **EH5108H/5216H** series and **CMS server**.

1. The DVR/CMS server should be power on and DVR/CMS 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/CMS server.



RS485 port connection



- The RS485 connection doesn't support on **SEB5108H/5116H** series and **EH5108H/5216H** series DVR.
- System Controller supports multiple DVR servers' connection for NV/SA DVR series through RS485 connection.

■ RS485 port through RS232 to RS485 Converter

This way of installation is suitable for **NV series, CMS server, SA5000, SA6000E, SA6000E Pro,** and **SA7000H**.

Before starting to make a connection, please prepare the following items:



RS232 cable



RS485 to RS232 Converter

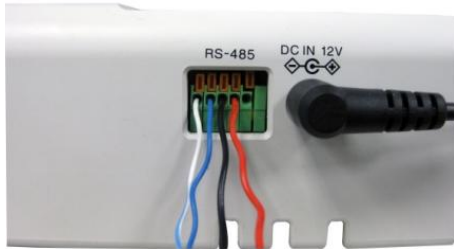


Single core wire

(*User can purchase from the dealer

** The RS232 to RS485 Converter needs to support **RS-485 automatic data direction control protocol**)

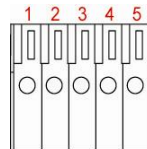
1. Cut the 4 single core wires.
2. Using the screwdriver to press down the orange tenon and insert the single core wire into the pin hole of the I/O terminal on the System Controller. When the wire is inserted in the end of the pin hole, release the orange tenon to fix the wire.



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



4. 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:



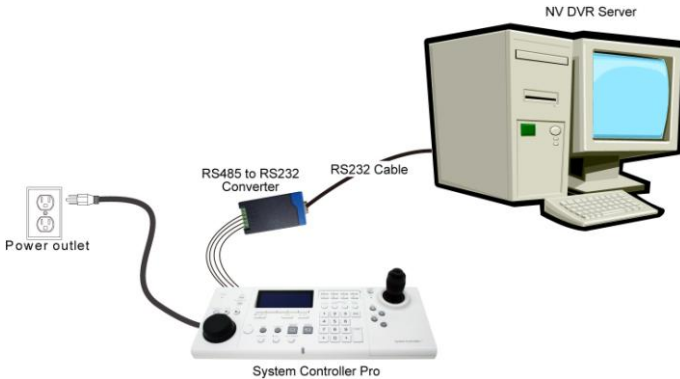
RS485 pin hole of System Controller

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/CMS 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 system.

■ RS485 port to RS485 port Directly

This way of installation is suitable for **SA9000E Pro**, **SA6000E RACK**, **SA9416 RACK**, and **SA6032E RACK**.

Before starting to make a connection, please prepare the following items:



RS232 cable



Single core wire

1. The DVR server should power on and DVR program is executed.
2. Cut the 4 lines of single core wire. The length of single core wire depends on the distance between DVR and System Controller.
3. Using the screwdriver to press down the orange tenon and insert the single core wire cable into the pin hole of the I/O terminal on the System Controller. When the wire cable is inserted in the end of the pin hole, release the orange tenon to fix the wire cable. The following table is the pin hole match for DVR server and System Controller.

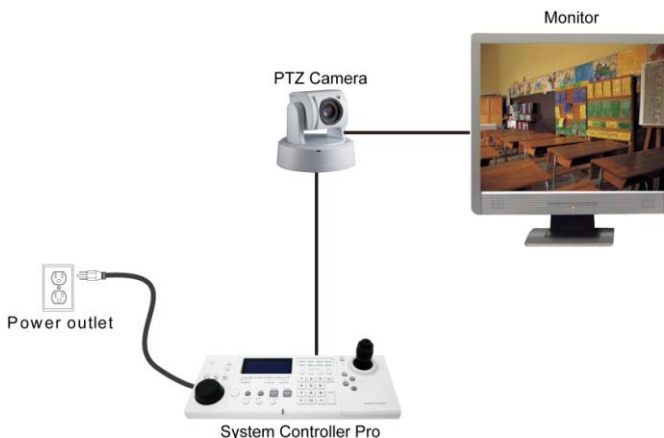
DVR server site		System Controller site	
R+	T+	1	
R-	T-	2	
T+	R+	3	
T-	R-	4	

- On the DVR server, using the screwdriver to press down the orange tenon and insert the single core wire cable into the pin hole of the I/O terminal on the DVR server, too. When the wire cable is inserted in the end of the pin hole, release the orange tenon to fix the wire cable.
- Power on the System Controller.
- After hardware installation has complete, please remember to enable the System Controller function in DVR system.
- Please remember to switch the System Controller mode to **485 DVR** mode before starting operation.

Connect a PTZ Camera to System Controller Pro

The System Controller Pro can connect the PTZ camera through RS-485 port. The following is an example of PTZ camera install to System Controller Pro.

- Connect the PTZ camera to System Controller Pro through the RS-485 interface.
- Plug the power cord of the System Controller Pro into power outlet.
- Please select the mode as **485 PTZ** on System Controller.



III. Enabling the System Controller

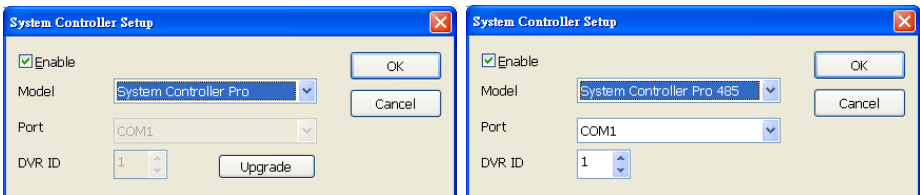


SEB5108H/5116H series and **EH5108H/5216H** series DVR will detect and install System Controller automatically, there is no need to enable on the DVR system.

■ NV/SA/IWH series DVR

Follow the below steps to enable the System Controller function on the DVR server.

1. Start up the DVR program.
2. Click **Setup**.
3. Select **System**, the **System Setting** windows will appear.
4. Click **Detail** that is next to the System Controller selection.
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 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** as control identity for DVR system in multiple DVRs control.
8. Click **OK** to complete the setting.



9. If the setting is complete, the LCD of System Controller should display like following figure.

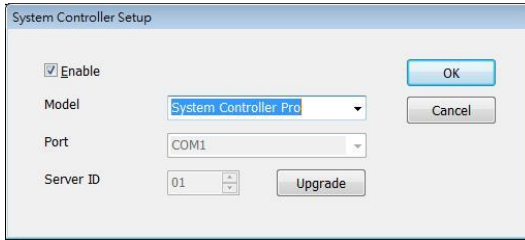


■ CMS server

Follow the below steps to enable the System Controller function on the CMS server.

1. Start up the CMS program.
2. Click **Setup**.
3. Select **System**, the **System Setting** windows will appear.
4. Click **Detail** that is next to the System Controller selection.
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 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 **Server ID** as a control identity for CMS system in multiple CMSs control.

8. Click **OK** to complete the setting.



IV. Select the Operation Mode on System Controller

For System Controller to operate the DVR system normally, the connecting mode must correspond with the way of connection (USB or RS-485) between System Controller and DVR server.

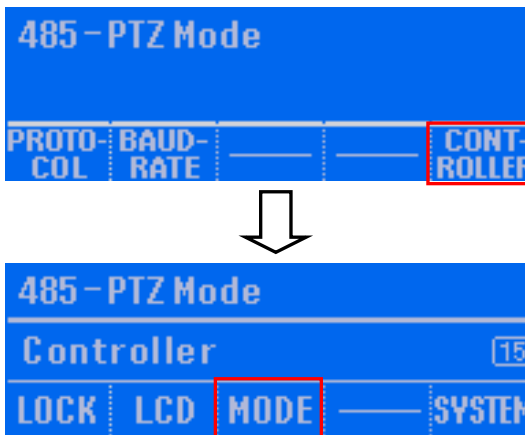


The following figures might varied from you have seen on the System Controller because it is due to the DVR server you have connected.

Switching to USB DVR Mode

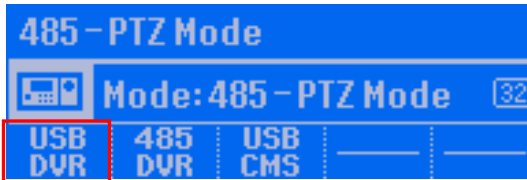
When System Controller is connected with DVR server through the **USB** port, please select the operating mode as **USB DVR** mode. The following steps describe how to switch from other operating mode to **USB DVR** mode.

1. In 485 PTZ menu screen, press **CONTROLLER** button to enter Controller setup screen.
2. Press **MODE** button to enter Mode setup screen.



If the password function is enabled on System Controller, user needs to enter the password that user has setup for mode switching.

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

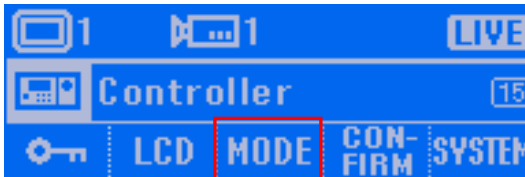


- Press **OK** button to confirm. To cancel the selection, press **CANCEL** button. When the “Complete” message appears on the LCD screen, the mode switch is completed.

Switching to 485 DVR Mode

When System Controller is connected with DVR server through the **RS-485** port, please select the operating mode as **485 DVR** mode. If the mode is not 485 DVR mode, please follow the below steps to switch to **485 DVR** mode.

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

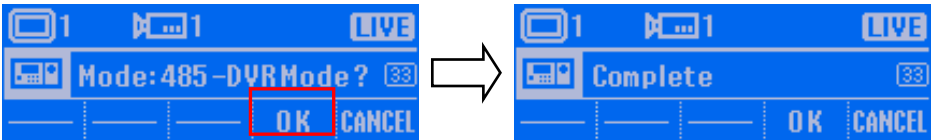


If the password function is enabled on System Controller, user needs to enter the password that user has setup for mode switching.

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



- 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.




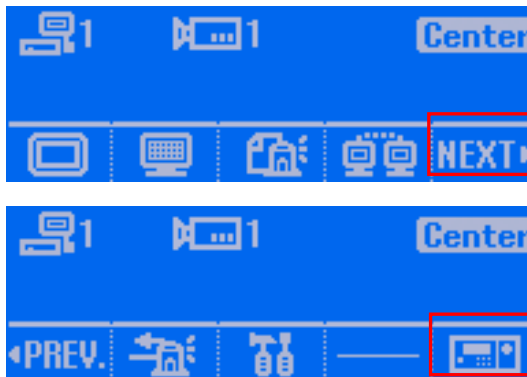
Switching to USB CMS Mode

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



- The default mode is USB CMS mode
- The 485 PTZ and 485 DVR mode doesn't support for CMS system.
- Please remember to setup the **System Controller Pro** as System Controller model on CMS server.

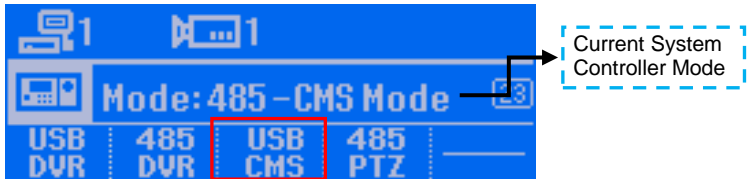
- In main menu, press **NEXT** and select  (system controller setting).



2. In System Controller setting screen, select **MODE**.



3. In Mode screen, select the **USB CMS**. If the current mode is USB-CMS mode already, then the **USB CMS** selection will not show in selection list.



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.




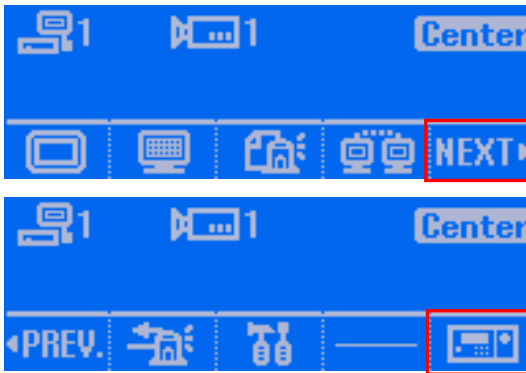
Switching to 485 CMS Mode

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

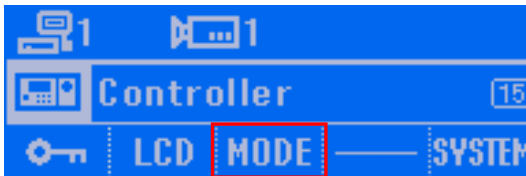




- The default mode is USB CMS mode
- The 485 PTZ and 485 DVR mode doesn't support for CMS server.
- Please remember to setup the **System Controller Pro 485** as System Controller model on CMS server.

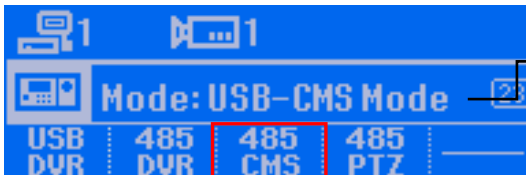
1. In main menu, press **NEXT** and select  (system controller setting).



2. In System Controller setting screen, select **MODE**.



3. In Mode screen, select the . If the current mode is 485-CMS mode already, then the  selection will not show in selection list.



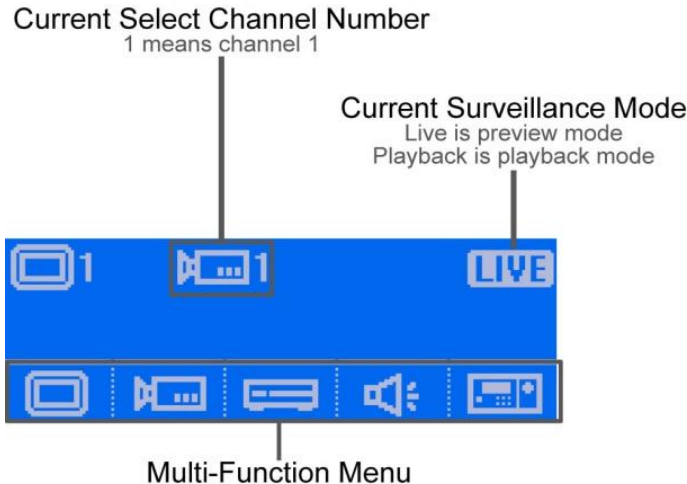
- Press **OK** button to confirm. To cancel the selection, press **CANCEL** button. When the “**Complete**” message appears on the LCD screen, the mode switch is completed.



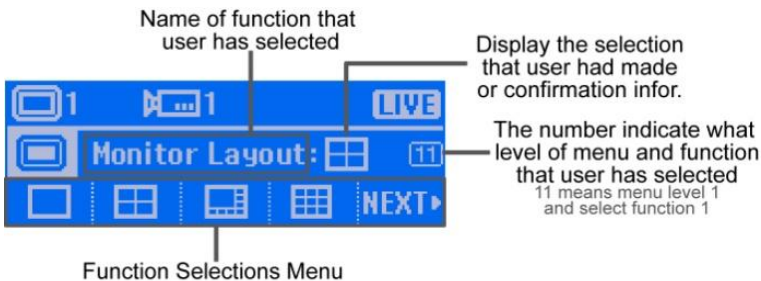
V. Familiarizing with LCD Screen

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

■ Main Menu



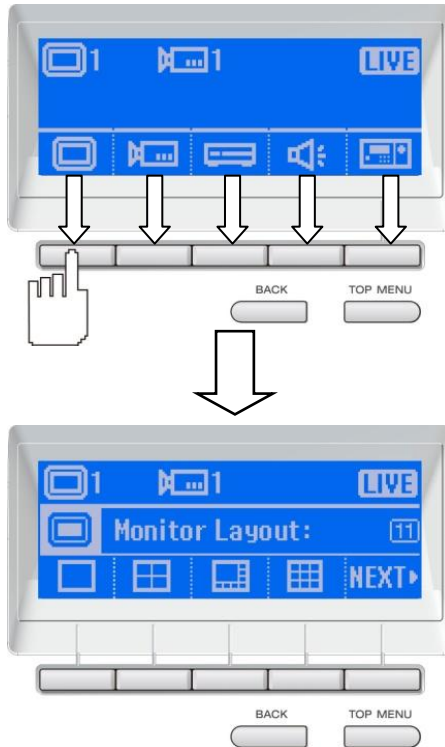
■ Submenu(Multi-function menu)



VI. Operating the LCD Menu

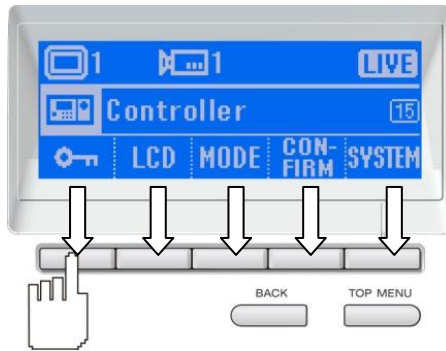
■ Main Menu

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.

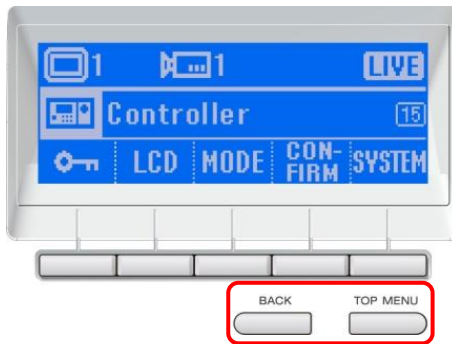


■ Multi-Function Menu

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

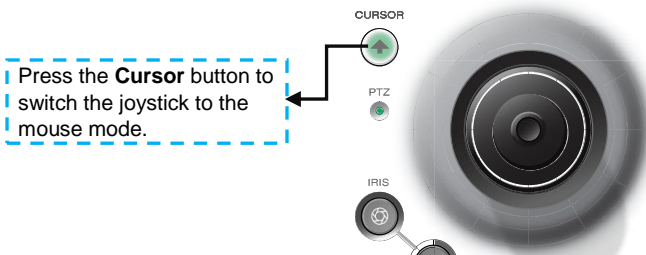


To go back to the main menu, press the **TOP MENU** button. Press the **BACK** button will go back to the previous screen.



■ **Switching the Joystick to the Mouse mode**


The joystick can switch to the mouse mode. User can use to operate the DVR system more easily.









On NV series DVR system, user can adjust the move speed of the joystick when is in mouse mode. Please go to **Start > Control Panel > Mouse**.

VII. To Playback the Recorded File on DVR server

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.
6. To exit playback mode, press  button.

VIII. Playback on CMS server

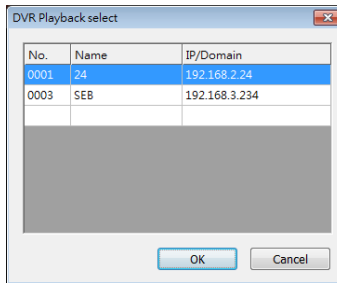
In playback mode, user can playback real-time recorded file from monitored DVR servers, download from monitored DVR servers and playback, and playback recorded file that has saved on local hard disk.

Follow the below steps to playback:

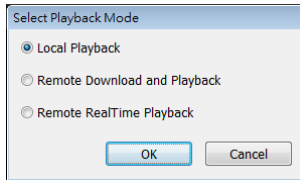
1. Press  button to switch to playback mode. The LCD screen will switch to the playback mode.



- And, the DVR selection dialog will show up on surveillance screen. Select the DVR server and click **OK**. User can use mouse or joystick to select. Press the button on top of joystick to confirm the selection.



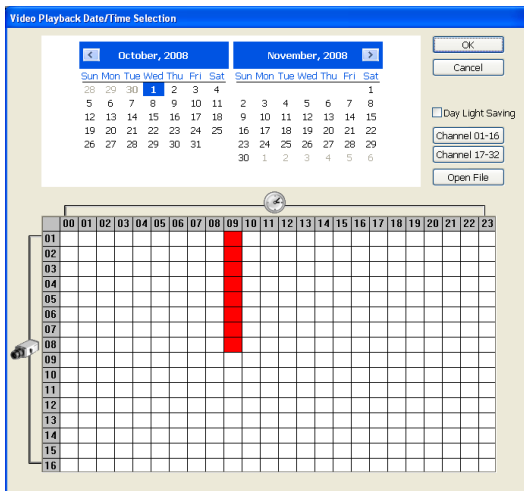
- After selected the DVR server, the playback mode selection dialog will show up on surveillance screen. Select the playback mode that user wants and click **OK**.



- The playback time and date selection window will appear on the surveillance screen. To select the date and time, user can use mouse or joystick. Moving joystick to up and down for date selecting. Moving joystick to left and right for hour selecting. To confirm the selection, press the button on the top of joystick.



The date and time selection dialog will be a little different due to the model of DVR server and the playback mode that user has selected.



5. After selected the time and date to playback, the CMS system will start to playback.



The playback UI will be a little different due to the model of DVR server and the playback mode that user has selected.



6. Using the Jog/Shuttle button to control the playback speed. Press make sure is play status, and then, press to enable the Jog/Shuttle button. To disable the Jog/Shuttle button, press button again.

- **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.



The Shuttle ring (lower part) position needs to be back at center to allow Jog dial to be functional.

- **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.


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







The button and Jog/Shuttle button doesn't support in Realtime playback mode.

FULL SCREEN

8. While playback, user can press button to switch to full screen mode.


9. Press  button can capture screen image and save it.

 The  and  function button doesn't support for SEB5108H/5116H series DVR.

10. To exit playback mode, press  button.



IX. Using the Joystick to Operate the PTZ Camera

If the camera has enabled the PTZ function, user can use the System Controller to operate the PTZ camera. Please select the PTZ camera channel before starting PTZ operation.

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



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

-  - Please select the PTZ camera before starting PTZ operation.
- When PTZ indicator () is green light up, the PTZ operation is available.

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.



■ **To Focus the Object**

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

■ **Adjusting IRIS of the PTZ Camera**

Press  or  to adjust the PTZ camera lens' iris.



IRIS buttons don't support on SEB5108H/5116H series DVR.



P/N: 300AC2CSADNG
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