

SAMSUNG TECHWIN

SYSTEM CONTROLLER

User Manual

SPC-6000



SAMSUNG

SAMSUNG

System Controller

User Manual

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Warranty

If the product does not operate properly in normal conditions, please let us know. Samsung Techwin will resolve the problem for free of charge. The warranty period is 3 years. However, the followings are excluded:

- If the system behaves abnormally because you run a program irrelevant to the system operation.
- Deteriorated performance or natural worn-out in process of time

IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings, Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety, If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/ accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.



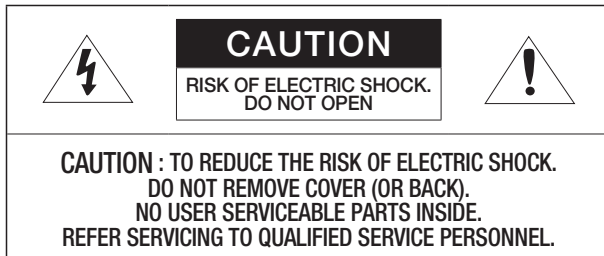
overview

WARNING

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE. DO NOT INSERT ANY METALLIC OBJECT THROUGH THE VENTILATION GRILLS OR OTHER OPENINGS ON THE EQUIPMENT.

Apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.

CAUTION



EXPLANATION OF GRAPHICAL SYMBOLS











The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

Please read the following recommend safety precautions carefully.

<p>Do not Place this apparatus on an uneven surface.</p> 	<p>Do not install on a surface where it is exposed to direct sunlight, near heating equipment or heavy cold area.</p> 
<p>Do not place this apparatus near.</p> 	<p>Do not attempt to service this apparatus yourself.</p> 
<p>Do not place a glass of water on the product.</p> 	<p>Do not install near any magnetic sources.</p> 
<p>Do not block any ventilation openings.</p> 	<p>Do not place heavy items on the product.</p> 

User's Manual is a guidance book how to use the products

The meaning of the using sign in the book is following

- Reference : In case of providing information for helping of product's usages
- Notice : If there's any possibility to occur any damages for the goods and human caused by not following the instruction
- ※ Please read this manual for the safety before using of goods and keep it in the safe place.

overview



This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.



Samsung Techwin cares for the environment at all product manufacturing stages, and is taking measures to provide customers with more environmentally friendly products.

The Eco mark represents Samsung Techwin's devotion to creating environmentally friendly products, and indicates that the product satisfies the EU RoHS Directive.



Correct Disposal of This Product (Waste Electrical & Electronic Equipment)

(Applicable in the European Union and other European countries with separate collection systems)

This marking on the product, accessories or literature indicates that the product and its electronic accessories (e.g. charger, headset, USB cable) should not be disposed of with other household waste at the end of their working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate these items from other types of waste and recycle them responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take these items for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract. This product and its electronic accessories should not be mixed with other commercial wastes for disposal.

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KEY FEATURES

SPC-6000 system controller enables you to control external devices such as PTZ camera, DVR, MATRIX using RS-485 communications.

It provides a user-friendly interface with onscreen menu, touch screen and joystick.

- Long-distance remote control
- With RS-485 communications, you can control a maximum range of 1km.
- Integrated system control
- With a single system controller, you can control all of camera (receiver unit), DVR and MATRIX.
- Connection of multiple system controllers enabled
- You can control the system at different sites and connect up to 16 controllers simultaneously.
- Switch the position between joystick and jog shuttle module
- For the user's convenience, the positions of the joystick and jog shuttle module can be switched between left and right.
- User-friendly interface

The operation status of the system control is displayed on the screen; the touch-screen enables you to select a menu with ease; the joystick makes your manipulation simple and easy.

❖ Compatibility List

- Camera
- DVR
SRD-XXXX series, SHR-8/7/6XXX series, SHR-604X series, SVR-1670
- PC Based DVR
SPR-7XXX series, SPR-9XXX series

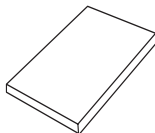
overview

WHAT'S INCLUDED

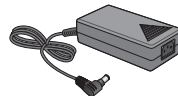
Unpack the product package and place the product on the floor or a flat surface.
Check if the following components are all included in the product package.



Main Unit



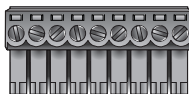
User Manual



Power Adaptor 1EA



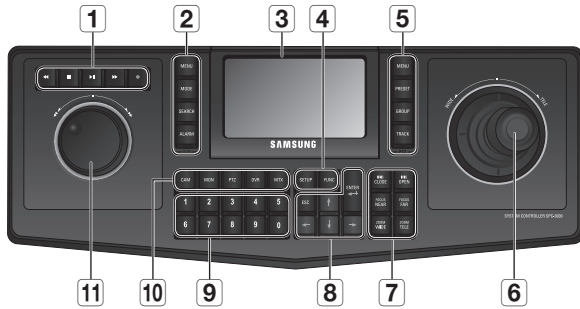
Power Cable 1EA



Terminal Block 1EA

SYSTEM CONTROLLER AT A GLANCE

Front Side

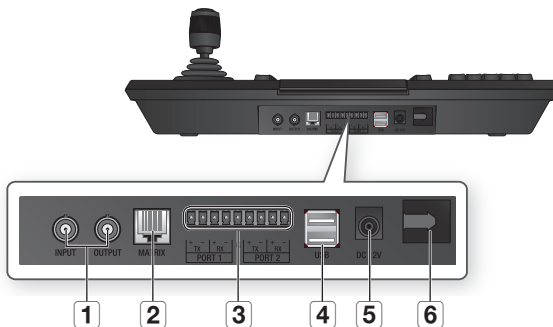



Item	Description
1 DVR Play Bar	Play/Pause, Fast Forward/Fast Backward, Stop, Record
2 DVR Control Bar	Access the selected menu, search, select a split mode, or control the alarm.
3 LCD Display	Display the operation status and the setup menu of the system controller.
4 SETUP Bar	In a combination with the [FUNC] button, you can access the Setup menu.
5 Camera Operation Bar	Access the selected PTZ menu, or execute Preset, Group or Track.
6 Joystick Controller	You can manipulate the Pan/Tilt operation up or down in connection with the PTZ camera or receiver unit. Turn the joystick clockwise or counter clockwise to control zooming. You can control the direction of the connected controller from the menu screen of the controller.




overview

Item	Description	
7 Camera Lens Bar	IRIS	Control Iris (CLOSE/OPEN)
	FOCUS	Adjust the focus (NEAR/FAR)
	ZOOM	Zoom In/Out (WIDE/TELE)
8 Navigate, ENTER, ESC	Navigate	Navigate through menu items.
	ENTER	Move to a desired item using the navigation buttons and select it.
	ESC	Cancel the current operation.
9 Number (0-9) Buttons	Used to specify numeric characters for camera, monitor, DVR or Preset settings.	
10 Controller Selection Bar	Used to select a camera, monitor or DVR.	
11 Jog Shuttle	Jog	Used to search for forward /reverse frame in DVR play mode.
	Shuttle	Forward/Reverse /Play/FF/REW in DVR play mode.

Rear Side



Item	Description	
1 Video In/Out	Video input/output port	
2 MATRIX	Matrix connection port	
3 RS-485	PORT 1	Connected to a controller such as camera or DVR through RS-485 communications.
	PORT 2	Connect to other SPC-6000 system controller.
4 USB Port	Used for backup of the system controller settings or upgrading the firmware.	
5 Power	DC 12V input port (— —⊖ — ⊕)	
6 Cable Hook	To prevent the power cable from being loose. <ul style="list-style-type: none">  Be sure to use the cable hook when installing and using the controller. 	

-  The MATRIX port contains the power line so you don't need to supply DC 12V separately if using the MATRIX port.
-  The MATRIX port contains a single line controlling the main and subsidiary control signals.
-  The MATRIX signal is of TTL level.

installation

PRECAUTIONS

Before you install the product, read through and comply with the following instructions.

- The product is designed for indoor use only.
 - Keep it away from water or moisture.
 - Do not put excessive force on it.
 - Do not pull out the power cable forcibly.
 - Do not dismantle it at your own.
 - Use only the rated I/O range.
 - Use only the provided power cable.
 - Use the power plug containing the earth wire if available.
 - Install the system controller on a flat table.
 - The layout of the main unit and the wiring system are critical for a proper system operation.
 - If the devices are too close with each other or in a poor-ventilating environment, the system may not work properly.
Inaccessibility to the system makes the repair difficult or even impossible.
 - To prevent a system failure or to reduce the system shutdown, make enough room for ventilation and close the cover firmly.
 - Do not dismantle the system controller at will as a high voltage runs inside the system controller.
- Operation Temperature : 0°C ~ 40°C
 - Storage Temperature : -20°C ~ 60°C
 - Operation Humidity : 10%~70% RH
 - Storage Humidity : 10% ~ 90% RH
 - Power Consumption : DC 12V, Max 4W (— — (— — +)

BEFORE INSTALLATION

- You must turn off the product before installing it.
- A severe impact or vibration may cause a system failure.
- Keep it away from a strong magnetic field or electric interference, or wireless devices such as radio or TV set.
- Keep the installation site clean and dust-free all the time while or after you have installed the product.
- Place it on an unsealed, flat surface at an optimal temperature.
Install it at least 15cm away from the wall.
- Do not close the ventilation hole or put a conductive object in it.
- Do not expose it to the direct sunlight. Keep the accessories or tools out of people's reach in an attempt to prevent a risk of physical damage.
- Leaving an abnormal smoke or smell as it is may lead to a fire or electric shock.
If this is the case, turn off the product immediately and contact us for a technical assistance.
- Take an appropriate action if you find: damp floor, unearthed power extension cord, peeled-off power cable, or absence of safety grounding.



- Use a dry cloth to wipe it out. If badly dirty or stained, use a cloth soaked into neutral detergent to wipe it out.
Do not use volatile solvents such as alcohol, benzene or thinner that may damage the product surface.
- Do not operate the LCD monitor at a high temperature; recommended to use the screen saver for power conservation.

ADJUSTING THE SCREEN ANGLE OF THE SYSTEM CONTROLLER

You can pull the screen forward for a better view.



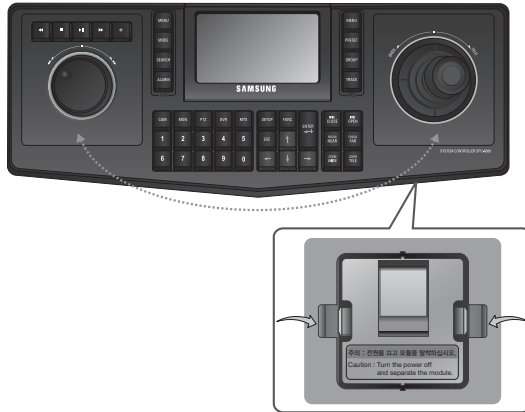
installation

SWITCHING THE LAYOUT OF JOYSTICK AND JOG SHUTTLE

You can switch the position of joystick and jog shuttle module to your convenience.



- To switch between left and right, turn off the system controller and switch the modules manually. Or, press <Change> in the controller setup menu and switch the modules manually. (▶ page 38)



<Bottom>

1. Press down both hooks on the bottom of the system controller to remove the module.
2. Remove both joystick and jog shuttle modules from the controller and switch the position. When done, insert them until you hear a click.



connecting to an external device

SPC-6000 system controller can be used in connection with an external device such as camera or DVR.

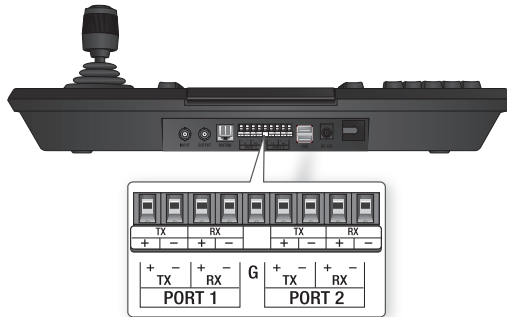
TO CONNECT A RS-485 DEVICE

With the system controller, you can control the PTZ camera or DVR that supports RS-485 communication protocols.

1. Connect the rear PORT1 with RS-485 port of the PTZ camera or DVR.
2. According to the system of the external device, select Half Duplex or Full Duplex for the connection.

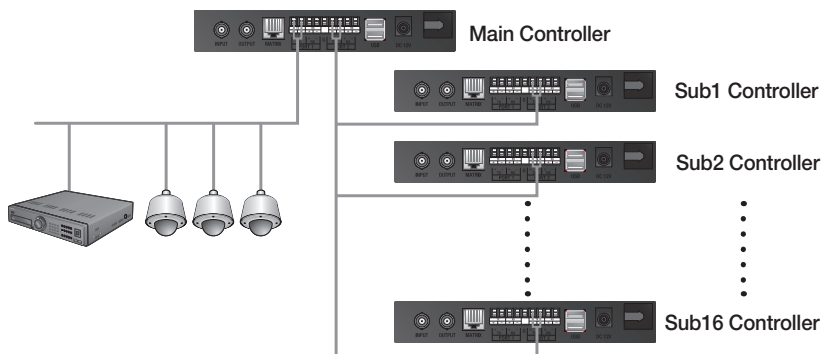


- For the Half Duplex system, use TX +/- terminals.
- For RS-485 communications, pay special attention to the polarity (+/-).
- Use the provided terminal block in the product package.
- Check if the RS-485 device is compatible with SPC-6000.

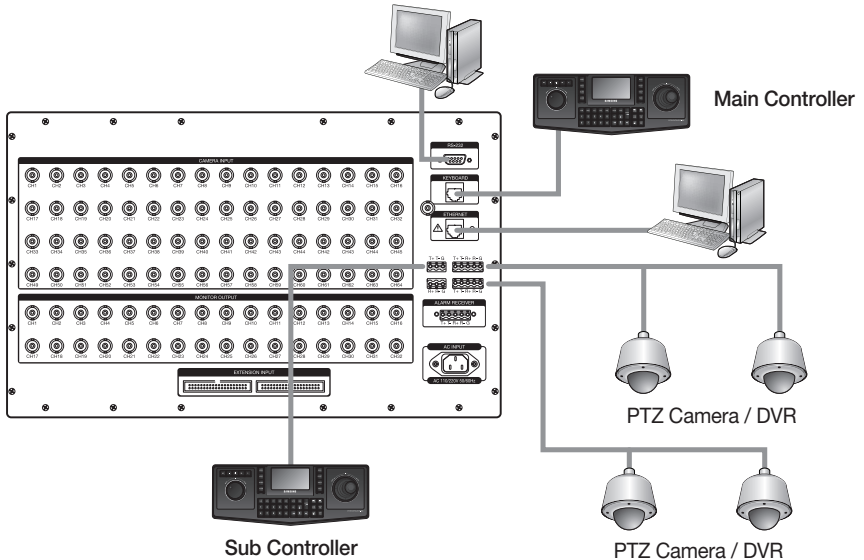


connecting to an external device

If connecting the keyboard without using MATRIX



If connecting the keyboard using MATRIX



1. Connect the [MATRIX] port of the main controller to the [KEYBOARD] port of the matrix.
The MATRIX port contains the power line so you don't need to supply DC 12V separately.
2. Connect TX+ and TX- of the sub controller to T+ and T- of the matrix, respectively.
 - The baud rate between sub controllers in sync with MATRIX will be fixed to 9600 bps.
 - The MATRIX ID is fixed to <SUB 09>.
3. Connect DVR and PTZ camera to MATRIX.

connecting to an external device

Connecting the PTZ Camera

By connecting RS-485 port on the rear of the PTZ camera with PORT 1 of SPC-6000, you can control the camera.

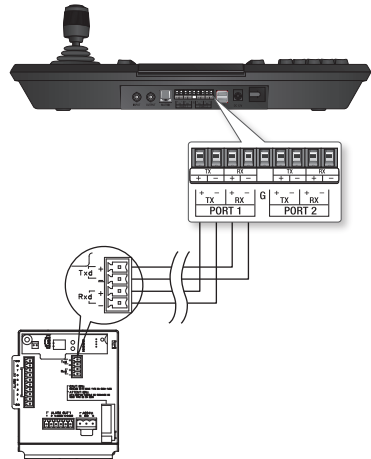
- Depending on the camera, the polarity may differ.
For more information, refer to the user manual of the PTZ camera.

For the half duplex system

- Connect RX (+) of RS-485 port of the PTZ camera with TX (+) of PORT 1 of SPC-6000.
- Connect RX (-) of RS-485 port of the PTZ camera with TX (-) of PORT 1 of SPC-6000

For the full duplex system

- Connect RX (+) of RS-485 port of the PTZ camera with TX (+) of PORT 1 of SPC-6000.
- Connect RX (-) of RS-485 port of the PTZ camera with TX (-) of PORT 1 of SPC-6000.
- Connect TX (+) of RS-485 port of the PTZ camera with RX (+) of PORT 1 of SPC-6000.
- Connect TX (-) of RS-485 port of the PTZ camera with RX (-) of PORT 1 of SPC-6000.



Connecting SRD-16XX/8XX series, SHR-8/7/6XXX series or SVR-470 with DVR

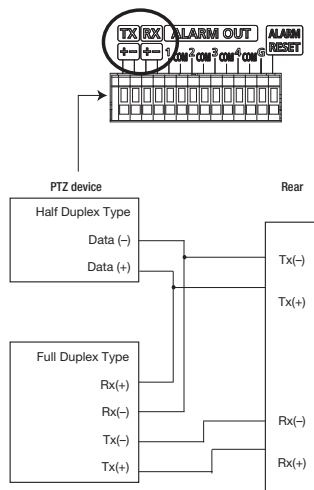
Connect between DVR and SPC-6000 using RS-485 port on the rear of the DVR.

For the half duplex system

- Connect TX (+) of RS-485 port of the DVR with TX (+) of PORT 1 of SPC-6000.
- Connect TX (-) of RS-485 port of the DVR with TX (-) of PORT 1 of SPC-6000.

For the full duplex system

- Connect TX (+) of RS-485 port of the DVR with RX (+) of PORT 1 of SPC-6000.
- Connect TX (-) of RS-485 port of the DVR with RX (-) of PORT 1 of SPC-6000.
- Connect RX (+) of RS-485 port of the DVR with TX (+) of PORT 1 of SPC-6000.
- Connect RX (-) of RS-485 port of the DVR with TX (-) of PORT 1 of SPC-6000.



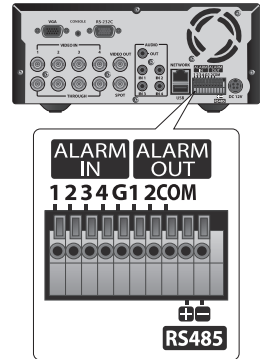
connecting to an external device

Connecting SRD-4XX or SHR-604X series with DVR

Connect RS-485 port on the rear of SRD-4XX or SHR-604X series with SPC-6000.

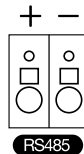
❖ For the half duplex system

- Connect TX (+) of SRD-4XX or SHR-604X with TX (+) of PORT 1 of SPC-6000.
- Connect TX (-) of SRD-4XX or SHR-604X with TX (-) of PORT 1 of SPC-6000.

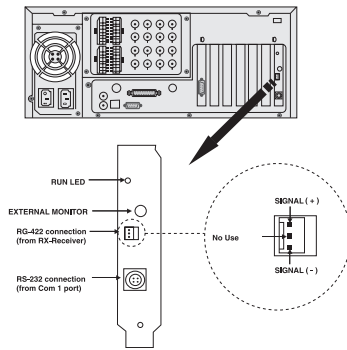


PC-based DVR

- Connect between PC-based DVR and SPC-6000 using RS-485 port on the rear of the DVR.
- Connect SIGNAL (+) of RS-485 port of the PC-based DVR with TX (+) of PORT 1 of SPC-6000.
- Connect SIGNAL (-) of RS-485 port of the PC-based DVR with TX (-) of PORT 1 of SPC-6000.



<SPR-9XXX Series>



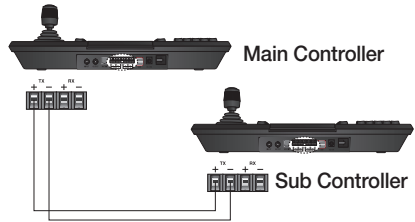
<SPR-7XXX Series>

CONNECTING TO OTHER SYSTEM CONTROLLER

- You can connect up to 16 controllers simultaneously.
- For communication settings of the controller, refer to “Sub List” of “Menu Setting”. (▶ page 37)

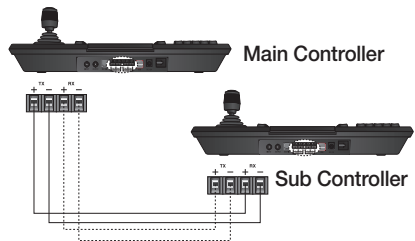
For the half duplex system

- Connect TX (+) of PORT 2 of SPC-6000 with TX (+) of PORT 2 of the other SPC-6000.
- Connect TX (-) of PORT 2 of SPC-6000 with TX (-) of PORT 2 of the other SPC-6000.



For the full duplex system

- Connect TX (+) of PORT 2 of the main controller SPC-6000 with RX (+) of PORT 2 of the sub controller SPC-6000.
- Connect TX (-) of PORT 2 of the main controller SPC-6000 with RX (-) of PORT 2 of the sub controller SPC-6000.
- Connect RX (+) of PORT 2 of the main controller SPC-6000 with TX (+) of PORT 2 of the sub controller SPC-6000.
- Connect RX (-) of PORT 2 of the main controller SPC-6000 with TX (-) of PORT 2 of the sub controller SPC-6000.



- You must use PORT 2 if you want to connect to other system controller.

using the menu

GETTING STARTED

1. Turn on all system component devices.
2. When you connect the power adapter to the rear port of the system controller, the login dialog appears.
3. Use the number pad to enter the password and press [ENTER].
The main menu of the PTZ control system appears.
 - The default password is "4321".



CONTROLLING THE PTZ CAMERA

To enter PTZ control mode

Press [PTZ] of the controller.

To select a camera

1. Use the number buttons to enter the number of the camera of your choice.
2. Press [CAM] or [ENTER].



Pan/Tilt Control

You can use the controller joystick to adjust the pan/tilt angle of the camera.
The farther from the center of the joystick is, the faster the moving speed becomes.

Zooming

Turn the joystick clockwise, or press **[ZOOM TELE]** to control the zoom-in operation of the camera.
Turn the joystick counter clockwise, or press **[ZOOM WIDE]** to control the zoom-out operation of the camera.

Focus

Press **[FOCUS FAR]** or **[FOCUS NEAR]** on the controller to fit the camera focus.

IRIS

Press **[IRIS OPEN]** or **[IRIS CLOSE]** on the controller to adjust the brightness of the camera video.

PRESET

Move the camera to a pre-determined point.

To set a preset

1. Select a camera that you want to set a preset for.
2. Use the joystick to move the camera to a desired point.
3. Press **[SETUP]** and enter a desired number using the number buttons.
Then, press **[PRESET]**.

To execute the preset

1. Select a camera.
2. Enter a desired number(s) using the number buttons and press **[PRESET]**.
3. The preset will be executed.



- For SCP-3430, SCP2430, SCP-3250 and SCP-2250 PTZ dome series, a maximum of 512 presets are supported only if Samsung E protocol is selected.

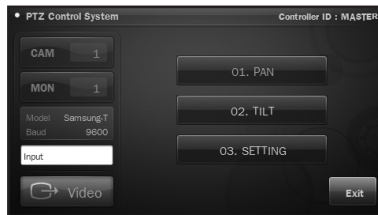
using the menu

SWING

You can move the camera between two preset points to monitor the course.

Swing setup

1. Select <SWING> from the menu screen.
2. Press <SETTING>.



3. Use the number buttons to select PAN/TILT and specify the start preset and end preset.
4. Specify the speed and dwell time.
5. Press <Save>.

To execute the swing

1. Select <SWING> from the menu screen.
2. Use the number buttons to select PAN or TILT for the swing type.
3. The swing function will be executed.



GROUP

You can make a group of multiple presets before calling them in sequence.

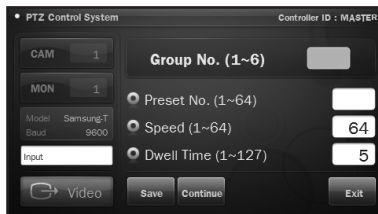
To set a group

1. Select <Group/Scan> from the menu screen.
2. Select <Group Setting>.
3. Enter a group number and press [ENTER].
4. Specify the speed and dwell time.
5. Press <Save>.



To execute the group function

1. Select <Group/Scan> from the menu screen.
2. Select <Group Executing>.
3. Enter a group number and press [ENTER].
4. The group function will be executed.



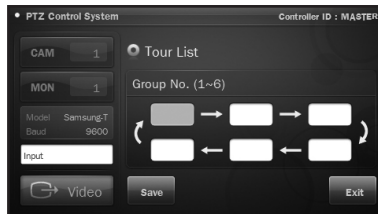
using the menu

TOUR

You can make a tour of at least one group before executing the groups in sequence.

To set a tour

1. Select <TOUR> from the menu screen.
2. Select <Tour Setting>.
3. Each time you press the number of a group that you want to add to the tour, the group will be added to the tour.
 - You can add up to 6 groups to a tour.
4. Press [Save] to apply your settings.



To execute the tour function

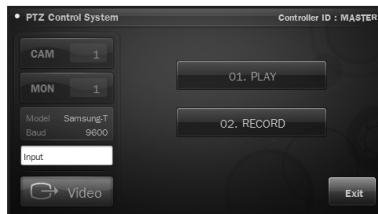
1. Select <TOUR> from the menu screen.
2. Select <Tour Executing>.
3. The tour function will be executed.

TRACE

With the joystick or camera buttons, you can instruct the controller to record the camera movement for a specific time and repeat the movement.

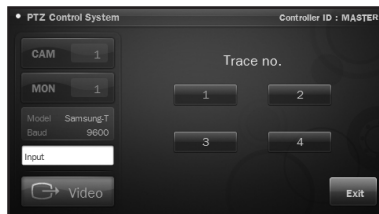
To set a trace

1. Select <Trace/Pattern> from the menu screen.
2. Select <RECORD>.
3. Specify a trace number to record.
4. With the joystick or camera buttons, control the camera movement as you wish.



To execute a trace

1. Select <Trace/Pattern> from the menu screen.
2. Select <PLAY>.
3. Specify a trace number to execute.
4. The trace function will be executed.



Auto Focus

1. Select <A/F> from the menu screen.
2. The auto focus feature will be activated.

RESET

1. Select <RESET> from the menu screen.
2. The camera will be reset.



TARGET LOCK

1. Select <TARGET LOCK> from the menu screen.
There appears a rectangle box on the camera video.
2. Move to an object to track down and press [ENTER].
 - This is applied only to a camera that supports the tracking function.

TRACK

1. Select <TRACK> from the menu screen.
2. The track function will be executed.
 - This is applied only to a camera that supports the tracking function.

using the menu

CONTROLLING DVR

Depending on the model, the DVR may have different features available. For details, refer to the applicable user manual.

- An improper setting may cause a problem using the DVR.

To select a DVR

1. Press [DVR].
2. Use the number buttons to enter a DVR number (0~255) and press [ENTER].



3. The main menu screen appears. It differs depending on the model.

- For a DVR that supports SRD protocols, the menu screen displays only menu items available.
- If you connect a DVR that supports SRD protocols, the PTZ settings will be made automatically.



To select a DVR channel

1. Use the number buttons to enter the number for a desired DVD channel.
2. Press [CAM].

To control the DVR menu

1. To control the menus of the selected DVR, press [MENU] in the DVR control bar.
2. Use the direction buttons to move to a desired menu item and press [ENTER].

To control the PTZ device that is connected to DVR


Depending on the DVR model, you may not control the PTZ device that is connected to the DVR. If this is the case, press [PTZ] to switch from DVR control mode to camera control mode.

To control the PTZ device in DVR mode

1. Press [PTZ] in the bottom right corner of the DVR menu screen.
2. Use the joystick to control the PTZ camera in connection with the DVR.
For details, refer to the user manual of the DVR.

DVR login

You must access the DVR menu with the right user account.

-  Select <Input> to deactivate the input box. Now you can use only the number buttons to switch the channel or enter the password for the DVR without using the [CAM] button. Select <Input> again to return to the previous mode.



using the menu

CONTROLLING MATRIX

To control monitor and camera in Matrix mode

You can control the monitor and camera in Matrix mode.

1. Press **[MTX]**.
2. Select a monitor number and press **[MON]**.
3. Select a camera number and press **[CAM]**.
The selected monitor will play the video of the selected camera.



To play the current video on the previous monitor

Enter a number for the camera to select.

1. Press the camera number in the Matrix setup screen and press **[CAM]**.
2. The previous monitor will play the video of the currently selected camera.

Auto Select

You can make a schedule of operations in the Matrix setup menu.

1. Select a monitor number in the Matrix setup menu and press **[MON]**.
2. From the menu screen, press **<Auto Select Set>**.



3. When the <Auto Select Set> screen appears, select a monitor and a camera to connect and specify the dwell time.
4. When camera #1 settings are completed, press <Continue> and specify the dwell time for camera #2.
5. When completing the dwell time setting, press <Save>.



Run / Hold

Run/Hold will run or hold the Auto Select setting that you have made.

Press the combination of <All> + <Run> to run Auto Select as you set.

Press the combination of <All> + <Hold> to stop operating Auto Select and wait for your input.

- 
■ To instruct an operation for an individual monitor, press a combination of "monitor number" + <RUN> or "monitor number" + <HOLD>.

Alarm Play

If the sensor is triggered in Alarm Play mode, the siren will sound if the alarm unit has set the siren to ON, or you can control external devices using the indicators if the alarm unit has set the indicator control output.

To release the alarm of the alarm unit, press <Alarm Play> again.

menu setting

TO ACCESS THE MAIN MENU

1. Press a combination of [FUNC] + [SETUP] on the controller.
2. When the setup system screen appears, select a desired menu item.



PTZ SETTING

From the PTZ setup screen, you can specify the protocol and baud rate.

1. Press <PTZ> from the setup main screen.
2. Use the direction buttons or joystick to move to a desired menu.
3. You can change the settings using [ZOOM WIDE] or [ZOOM TELE].
4. When you have completed the settings of protocol and baud rate, press <Save>.
5. To exit the <PTZ Setup> screen, press <OK> or [ESC].



- Before moving to a different page, save your settings.

DVR SETTING

From the DVR setup screen, you can specify the DVR type and baud rate.

1. From the setup main screen, press <DVR>.
2. Use the direction buttons or joystick to select a camera number and specify the DVR type.
3. Specify the baud rate.
4. When done, press <Save>.
5. To exit the <DVR Setup> screen, press <OK> or [ESC].



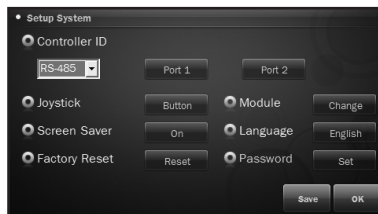
- Before moving to a different page, save your settings.

CONTROLLER SETTING

Controller ID

You can select RS-485 or RS-422 for the communication system.

1. Select RS-485 or RS-422 for the communication system between controller and external devices.
2. Press the port button to specify the port ID.

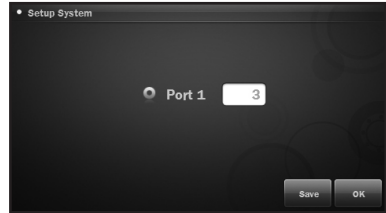


menu setting

PORT 1 ID

You can specify the controller ID for use in communication with other devices.

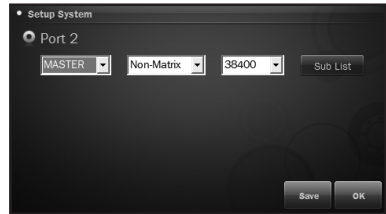
1. Press **[Port 1]** from the control ID setup screen.
2. Specify the ID and press **<Save>**.



PORT 2 ID

You can specify the main or sub controller for communications between controllers, and also set the use of matrix and sub list.

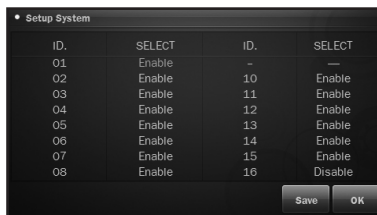
1. Press **[Port 2]** from the control ID setup screen.
2. Use the direction buttons to select a desired item and select a communication system between controllers.
 - You must set the sub list in a multi-controller environment.
3. When done, press **<Save>**.



Sub List

For a communication system featuring the main and sub controllers, you must set the <Sub List>.

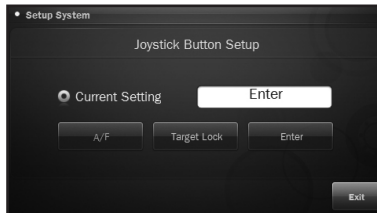
1. Press <Sub List>.
2. Use the direction buttons to select a desired item and configure the settings using [ZOOM WIDE] or [ZOOM TELE].
 - The MATRIX ID is fixed to <SUB 09>.
3. When done, press <Save>.
4. To exit the <Sub List> screen, press [OK] or [ESC].



Joystick Button Operation

You can set the operation for the joystick button.

1. Press the joystick <Button>.
2. From the joystick button operation screen, select a function button for the selected joystick button.
3. Check the current setting, press <Exit>.



Screen Saver

You can set to activate the screen saver if you do not intend to use the controller for an extended time.

1. If you want to display a logo screen, set the screen saver to <ON>.
2. To apply the changes, press <OK>; To cancel your setting, press <Exit>.

menu setting

Factory Default

You can return the current settings to the factory default.

1. Press **<Reset>**.
2. Press **<OK>**.
The current settings will return to the factory default.
3. To exit the menu, press **<Exit>**.



To switch between modules

You can switch the position between jog shuttle and joystick from left to right or vice versa.

1. Press **<Change>**.
2. From the Change Module screen that appears, you can switch the position between jog shuttle and joystick.
3. To exit the screen, press **<Exit>**.



Language

You can select a preferred language for the user interface.

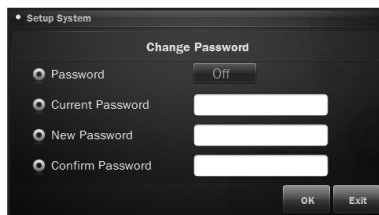
1. Press **<Language>**.
2. From the Language selection screen that appears, use the direction buttons or joystick to select a preferred language.
 - The language will be changed to the selected one immediately.
3. To exit the language selection screen, press **<Exit>**.



Password

You can set to enable or disable the password for the controller.

1. Press the password <Set> button.
2. To enable the password, set it to <ON>. If not, set it to <Off>.
3. Provide the current password.
4. To apply the changes, press <OK>; To cancel your setting, press <Exit>.



To change the password

You can change the password.

1. Press the password <Set> button.
2. Provide the current password.
3. Provide a new password.
4. To apply the changes, press <OK>; To cancel your setting, press <Exit>.



- The default password is "4321".


menu setting

FIRMWARE UPDATE

You can update the current firmware using the firmware files in the USB memory.

To update the controller firmware

You can download the latest firmware files and update the controller.

1. Connect the USB memory containing the latest firmware files to the system controller.
 2. From the menu setup screen, press **<Update>**.
 3. Press **<Update Controller Firmware>**.
 4. From the update screen, press **<OK>**.
The update status will be displayed in the progress bar.
 5. Wait until the system restarts after the update.
-  ■ Do not disconnect the USB memory or power cable during the update. Otherwise, it may fail to update the firmware or cause a system failure.



To backup the controller settings

If you want to change the controller or replace the camera, you can save the settings of the controller as a file and load the controller settings into a new camera.

1. From the menu setup screen, press **<Update>**.
2. Press **<Backup Controller Setting>**.
3. Press **<OK>**.
The backup process begins.


-  ■ Do not disconnect the USB memory or power cable during the backup. Otherwise, it may fail to backup the controller settings.



To restore the controller settings

If you have set the controller improperly or reset it, you can upload the current settings to a different controller.

1. From the menu setup screen, press **<Update>**.
2. Press **<Restore Controller Setting>**.
3. Press **<OK>**.
The restoration process begins.

-  ■ Do not disconnect the USB memory or power cable during the restoration. Otherwise, it may fail to restore the controller settings.



menu setting

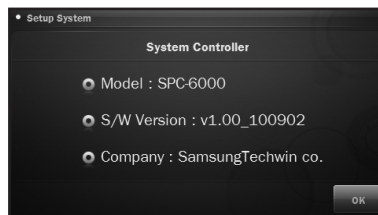
TO CHECK THE CONTROLLER INFORMATION

You can check the model name and software version of the system controller.

Status Screen

You can check the controller status.

1. From the menu setup screen, press <Status>.
2. Check the controller status.



appendix

SPECIFICATIONS

Item	Description
Communication System	RS-485 / 422 (remote control range: max. 1km) TTL (for controlling the matrix)
Units to control	Max. 255
Baud Rate	2,400 ~ 38,400 bps
Compatibility	PTZ / DVR / MATRIX / RECEIVER
Protocol (PTZ)	Samsung-T, Samsung-E, PELCO-D, PELCO-P, Panasonic, Vicon, AD, Honeywell, ELMO, BOSCH, GE
Protocol (DVR)	SVR, SRD, SRP
Protocol (MATRIX)	SMX-25632
Protocol (RECEIVER)	Samsung-T
Multilingual Support	English, Spanish, French, Italian, German, Turkish, Polish, Russian, Portuguese, Swedish, Dutch, Czech, Serbian, Korean, Chinese, Japanese
LCD Display	5" TFT LCD + Touch LCD
USB Port	Backup / Restore, S/W Update
Video Port	BNC Video Input, Loop-Through Output
Joystick	PTZ control (3 axial twist zoom)
Jog Shuttle	Control DVD playback
Power	DC 12V, Max 4W
Operation Temperature	0°C ~ 40°C
Operation Humidity	10 ~ 70% (Non-condensing)
Dimension	459.1(W) x 59.1(H) x 177.9(D) mm
Weight	Approx. 1.5 kg (adapter excluded)

appendix

Q & A

Problem	Action
I cannot communicate with the system controller.	<ul style="list-style-type: none">• Check if the RS-485 communication cable is connected properly.• Check if the address of the system controller is specified properly.• For specifying the address, refer to “Controller setting” from “menu setting”. (▶ page 35)
The USB memory is not recognized properly.	<ul style="list-style-type: none">• Check if the USB memory works properly.• Use only one USB memory and try again.



- The LCD panel of the system controller is a consumable part. To purchase the panel, contact the retailer or service center.

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Version 2.1, February 1999

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This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

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However, linking a “work that uses the Library” with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a “work that uses the library”.

The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

When a “work that uses the Library” uses material from a header file that is part of the Library, the object code for the work may be a derivative work

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If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

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a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work

is an executable linked with the Library, with the complete machine readable “work that uses the Library”, as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that

(1) uses at run time a copy of the library already present on the user’s computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.

c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

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