EKS

ENTERPRISE CAT5 KVM SWITCH
WITH DIGITAL VIDEO

USER MANUAL

Designed and Manufactured in the USA

Smart-AVI
SMART AUDIO VIDEO INNOVATION

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OVERVIEW

TECHNICAL SPECIFICATIONS

VIDEO	
Video	1 or 2 x DVI-I Female
Video Resolution	Up to 1920 x 1200 @75Hz (VGA)/1920 x 1080@60Hz (DVI)
USB	
Keyboard	1 or 2 x USB Type A Female (white)
Mouse	1 or 2 x USB Type A Female (white)
CONTROL	
Console Connections	1x Local | 1x Remote
Computer Connections	16 or 32
Console Selection	Hot-Key and OSD menu
KVM Port	16 or 32 x RJ45 Female
Operation Indication	Online (White), Selected (Green), Offline 16 x Color LED
OTHER	
Firmware Upgrade	1 x micro–USB Female
Reset Button	1 x Tact Switch
Power	1 x AC Socket with Light Power Switch
Power-On (White)	2 x Color LED Indicator
Maximum Input Power Rating	AC Power 100V~240V/ 50~60Hz.
Operating Temp.	0-50°C
Storage Temp.	-20°C; -60°C
Humidity	2 x Color LED Indicator
Housing	Metal
Weight	4.43 lbs.
Dimension (L x W x H)	17.4 x 5.9 x 1.7 in.
Safety	CE/FCC

WHAT'S IN THE BOX?

PART NO.	Q-TY	DESCRIPTION
EKS-1602-PRO or EKS-1602 or EKS-3202-PRO or EKS-3202	1	Enterprise KVM Solution Features
PS12VDC2A	1	12VDC 2A (minimum) power adapter with center-pin positive polarity.
	1	User Manual

FRONT AND BACK

EKS-1602-PRO Back

EKS-1602-PRO Front

EKS-1602 Back

EKS-1602 Front

FRONT AND BACK

EKS-3202-PRO Back

EKS-3202-PRO Front

EKS-3202 Back

EKS-3202 Front

EKS-CK-HD

EKS-CK-DP

EKS-CK-VGA

INSTALLATION

1. **Setting Up the EKS Unit:**
   - Place the EKS Unit in a secure, ventilated location near your server rack or computer setup.
   - Ensure that it's within 150ft of all PCs or servers you wish to connect.
2. **Connecting Local Inputs:**
   - Connect the local keyboard and mouse to the designated USB ports on the front panel of the EKS Unit.
3. **Networking for Remote Access:**
   - Plug one end of the Network LAN Cable into the network port on the EKS Unit.
   - Connect the other end to your network switch or router to enable remote user access.
4. **Connecting PCs or Servers:**
   - For each PC or server, use a CATx Cable to connect from the server's video and USB ports to one of the 16 input ports on the EKS Unit.
   - Ensure the CATx Cable does not exceed the 150ft length limit for optimal performance.
5. **Powering the EKS Unit:**
   - Connect the power cable to the EKS Unit and plug it into an appropriate power source.
   - Switch on the EKS Unit using the power button.

EKS-1602-PRO

——	LAN
——	DVI-I
——	USB IN
——	CAT5
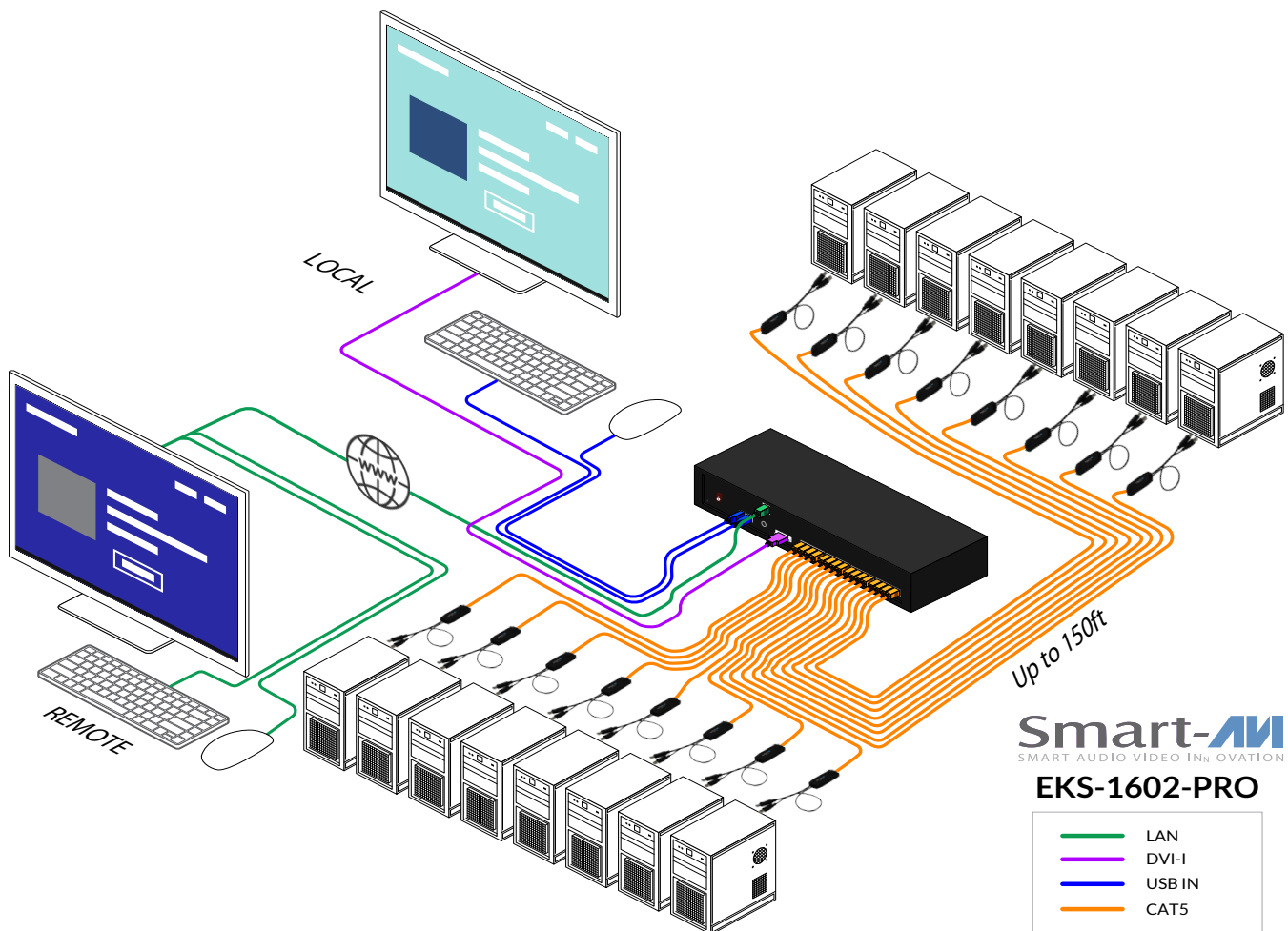
KVM-OVER-IP ACCESS

SmartEKS is the web interface of the EKS CAT5 KVM switch provides a user-friendly platform for managing your KVM remotely. This includes customizing video settings, cursor settings, creating shortcuts, managing channels, and viewing logs.

ACCESSING SMARTEKS

1. Connect your computer to the same network as the KVM switch.
2. Open a web browser and enter the IP address of the KVM switch (**192.168.0.100**) or the network name (**https://ipdsk.local**) into the address bar.
3. Log in using your credentials to access the dashboard.

VIDEO SETTINGS

The **Video Settings** tab allows you to fine-tune the display quality of the remote session to your preferences and network capabilities.

1. **Adjusting Video Quality**

   - Navigate to the **Video Settings** tab.
   - Adjust the **Quality** slider to your desired level. A higher value provides better image quality, while a lower value may improve performance over slower connections.

2. **Setting the Frame Rate**

   - Below the quality slider, set the **Frames Per Second (FPS)** to control the smoothness of the video. A higher FPS offers a smoother video but requires more bandwidth.

3. **Resolution Settings**

   - Select your preferred **Resolution** from the dropdown menu to match your monitor's display for optimal viewing.

4. **Selecting Video Device**

   - If multiple video sources are available, use the **Video Device** dropdown to choose the one you wish to view.

5. **Frame Rate Control**

   - For detailed motion control, specify the **Drop Same Frames** count to adjust how the system handles frame rates.

6. **Video Options**

   - Choose from **Default, Extended**, or **Fullscreen** options to tailor your viewing mode.
   - After making your adjustments, click **Submit** to save the changes.

CHANNELS MANAGEMENT

The **Channels** tab on the web interface is where you can manage and switch between the different PCs connected to your KVM switch.

KVM-OVER-IP ACCESS (CONTINUED)

1. **Accessing Channels**

   - Click on the **Channels** dropdown menu at the top of the interface.
   - You will see a list of all available channels, typically numbered from 1 to 16 or more, depending on your KVM switch model.

2. **Synchronizing Aliases**

   - To synchronize channel names with their respective devices, click on the 'Synchronize aliases' option if available. This will match the channel numbers with the assigned aliases for easier identification.your KVM switch model.

3. **Selecting a Channel**

   - To switch to a specific PC, simply click on the corresponding channel number. The remote view will adjust to show the display of the selected PC.

4. **Managing Channel Settings**

   - Additional settings for each channel may be accessed by hovering over or right-clicking on the channel number, depending on the interface design.

CURSOR SETTINGS

The **Cursor Settings** tab allows you to adjust how your cursor behaves and appears during a remote session.

1. **Adjusting Cursor Appearance**

   - Navigate to the **Cursor Settings** dropdown menu.
   - You can select between different cursor options:

     - **Default:** Uses the cursor as configured on the remote PC.
     - **None:** Hides the cursor in the remote session.
     - **Pointer:** Displays a custom cursor provided by the KVM switch interface.

2. **Applying Cursor Settings**

   - After selecting your preferred cursor setting, the change should take effect immediately within the remote session.

DEVICE INFORMATION

For quick access to detailed information about your KVM switch:

- Click on the **Device Info** button located in the top-right corner of the interface. This will provide you with information such as firmware version, IP configuration, and other technical details.

LOGOUT PROCEDURE

After managing your settings:

- Remember to securely log out of the web interface by clicking the **Logout** button to prevent unauthorized access.
- Review the **Logs** tab to monitor activity, track changes, and troubleshoot issues.

SYSTEM OPERATION

Hotkeys

Hotkeys are executed using only the keyboard connected to the EKS.
Keying Hotkey command must be completed within 6 seconds to take effect.

The default hotkey is [Scroll Lock] and can be changed in OSD menu.

The Hotkey options are:
* Scroll Lock
* Num Lock
* CAPS Lock.

Hotkey Table

#	FUNCTION	HOTKEY COMMAND	DESCRIPTION
1	Enter OSD Menuand USB	`Hotkey > Hotkey > Hotkey`	Press the hotkey three times to trigger the OSD. With the default hotkey "Scroll Lock", you should press: `Scroll Lock > Scroll Lock > Scroll Lock`
2	Switch Channel N	`Hotkey > Hotkey > N + Enter`	Press 'Hotkey' twice, then the channel number, and press Enter. For example, to access channel 3, press the following keys: `Scroll Lock > Scroll Lock > 3 > Enter`
3	Adjust a Channel Video Settings	`Hotkey > Hotkey > C > Enter` See **Video Settings**	Press the hotkey twice, then the letter "C" and finally press Enter. With the default hotkey "Scroll Lock", you should press: `Scroll Lock > Scroll Lock > C > Enter`
4	Access the next or prior ACTIVE channel	`Ctrl > Ctrl (LEFT OR RIGHT)`	• Make sure there is no OSD shown onscreen. • To select the next "active" channel, press the RIGHT 'Ctrl' key twice. `Ctrl > Ctrl` • To select the prior "active" channel, press the LEFT 'Ctrl' key twice. `Ctrl > Ctrl`
5	Factory Defaults	`Ctrl + Shift + F10 + Enter` See **Resetting to Factory Defaults**	• Press F4 to log out and show the Login screen. • Press `Ctrl + Shift + F10` then press Enter to proceed with the factory reset.
6	Modify Keyboard Language Layout	`Ctrl + F1`	• Press F4 to log out and show the Login screen. • Press `Ctrl + F1` to modify the keyboard language layout. (EN33,FR08,GR09) • Press the language number, then the "ESC" to finish the setting. For example, to choose English Keyboard, press the following keys: `33 > ESC`

SYSTEM OPERATION (CONTINUED)

OSD (ON SCREEN DISPLAY) MENU

After turning on the device, the login screen displays. For initial login, use the built-in administrator account and password. You CANNOT remove the built-in administrator and user accounts, but you can change their passwords or rename any user accounts. Only the administrator can rename user accounts or change passwords.

- Administrator Account: Default name: admin Default password: pass
- User Accounts: Default names: user001 through user015; Default passwords are NOT available.

Note:
Before logging into the OSD, set your keyboard language layout.

1. Press Ctrl + F1 to modify the keyboard language layout. (33: English US, 08: French, 09: German)
2. Press the language number, then the "ESC" to finish the setting.
    For example, to choose "English US "Keyboard, press the following keys: 33 > ESC

Login Screen

After turning on the device, the login screen displays. For initial login, use the built-in administrator account and password.
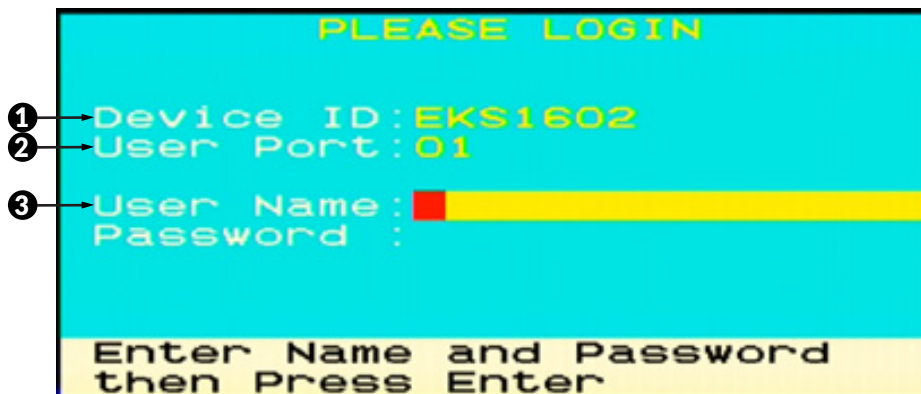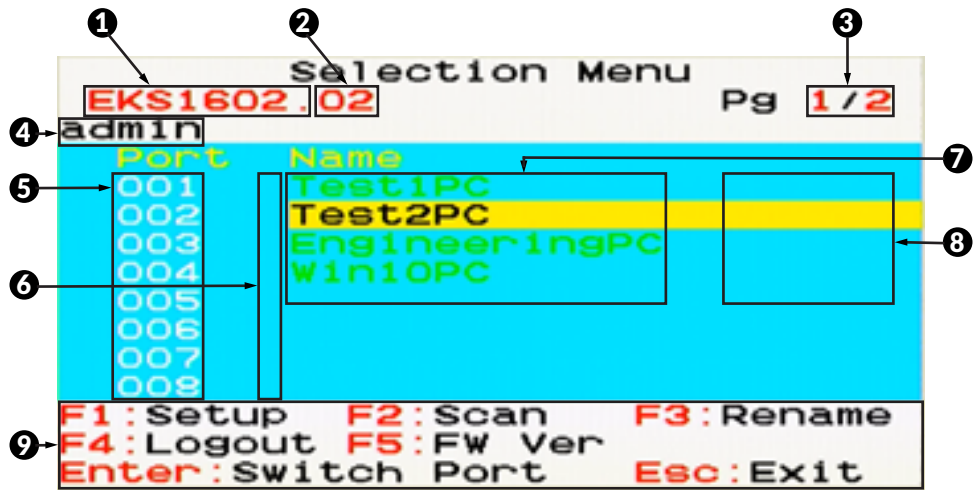
SYSTEM OPERATION (CONTINUED)

1	Device ID	The model name of your device.
2	User Port	The ID number of your console.
3	User Name (16 Characters Long) Password (8 Characters Long)	The fields for entering user credentials. The user name and password can consist of any of combination letters and numbers.

Selection Menu

After the successful login, the Selection Menu displays.

1	Model Name	Your EKS-16's model name.
2	Selected Channel	The number of the channel that is being accessed.
3	Page Information	The current page number and total pages
4	Login ID	The currently used login ID
5	Channel Numbers	Channel numbers of current page
6	Borderless Mouse Switching Status	When the function is enabled, the letter "S" will appear. You can press the S key on the keyboard to switch this function.
7	Channel Names	Available channel names of current page. The channel connected with a 2nd-tier EKS-16 will be marked with the symbol "+".
8	CIM Resolution	The current resolution setting of MDCIM or MDUTP
9	Operation Keys	Frequently-used keys for operating the current OSD

SYSTEM OPERATION (CONTINUED)

Setup

On the Selection Menu, press F1. The SETUP Menu displays.
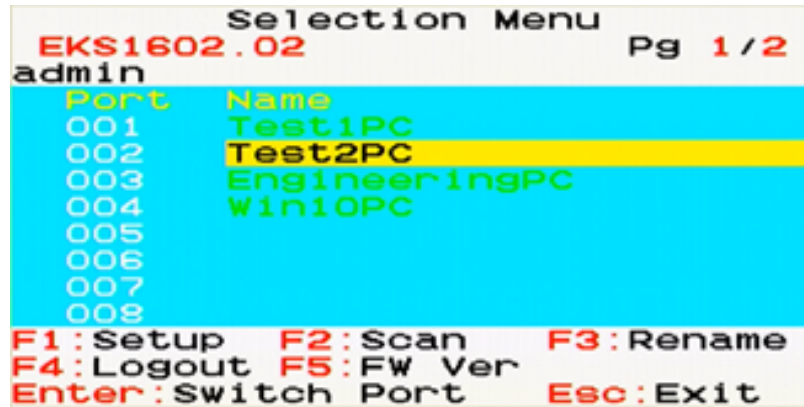
FIELD	OPTIONS/VALUES	FUNCTION
Scan Mode	All, or PC ON	This determines which servers will be scanned after activating the channel scan function. • All: All channels are scanned. • PC ON: Only active channels are scanned.
Scan Time	5 to 255 seconds (at an interval of 5 seconds)	This determines how long each channel's video is displayed during the channel scan.
ID Display	5 to 25 seconds, or ALL	This determines how long each channel's ID appears onscreen after selecting any channel.
Position	Menu, or ID	Select Menu or ID in order to adjust its position on the screen. • Menu: Main OSD pages, such as Selection Menu and the login screen. • ID: Channel ID.
Hotkey	Scroll Lock, Caps Lock, or Num Lock	This determines the hot key used for: • Triggering the OSD. • Selecting a channel when the OSD is not shown.
Buzzer	ON or OFF	Turn on or off the buzzer of the EKS-16 switch.
Audio	ON or OFF	Turn on or off the Audio Function of the EKS-16 switch.

SYSTEM OPERATION (CONTINUED)

User Configuration

On the SETUP Menu, press F5. The User Configuration Menu displays. EKS-16 provides one administrator and 15 user accounts.
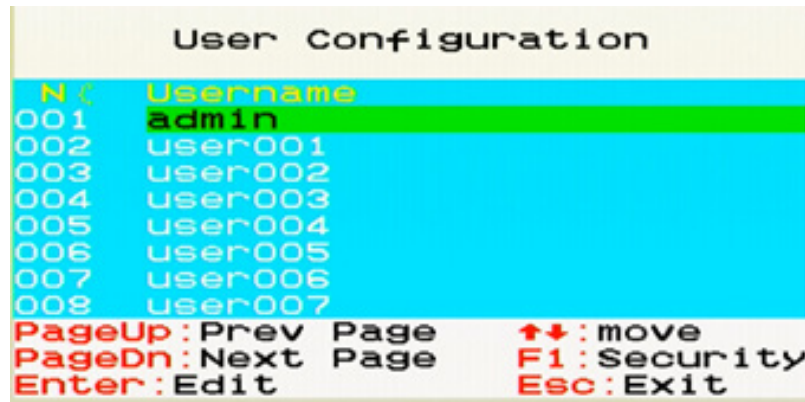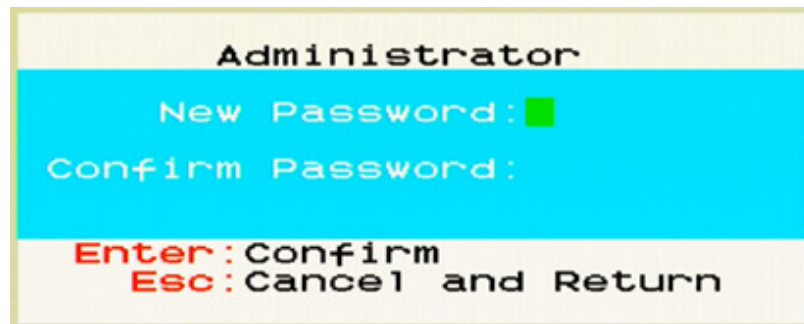

> **Note:**
>
> - Operation Key "F1" is not available to setup admin's Port Access right.
>
> - Press ↑ or ↓ to select the desired user. Press Page Up or Page Down if the desired user is not shown on the current page.
>
> - Press Enter, and that user's password change page displays. Then follow either procedure below.
>
> - After finishing the user accounts changes, press Esc to exit the User Configuration page.

▶ **To change the administrator's password**

1. In the New Password field, type the new password, and press Enter. A password comprises up to 8 characters.
2. Re-type the password and press Enter. To abort the changes, press Esc instead.
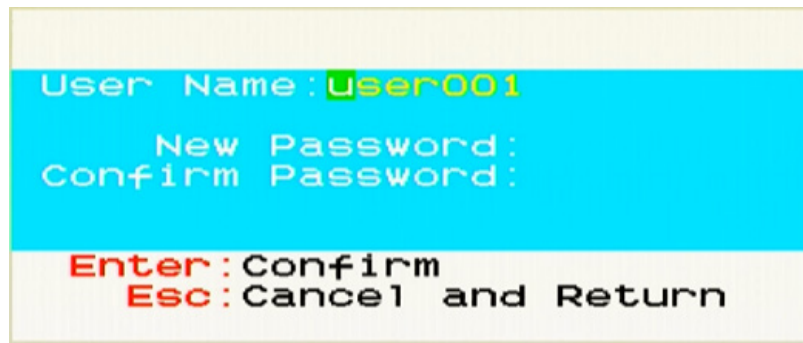

Important:
It is strongly recommended to change the admin password. Make a note of it and keep it in a secure place.

SYSTEM OPERATION (CONTINUED)

▶ **To rename a user account and/or change the password:**

1. To rename it, type the new name in the User Name field, and press Enter. The name can comprise up to 16 characters. To keep the <u>user</u> name unchanged, simply press Enter without typing any characters.
2. In the New Password field, type the new password, and press Enter. A password comprises up to 8 characters.
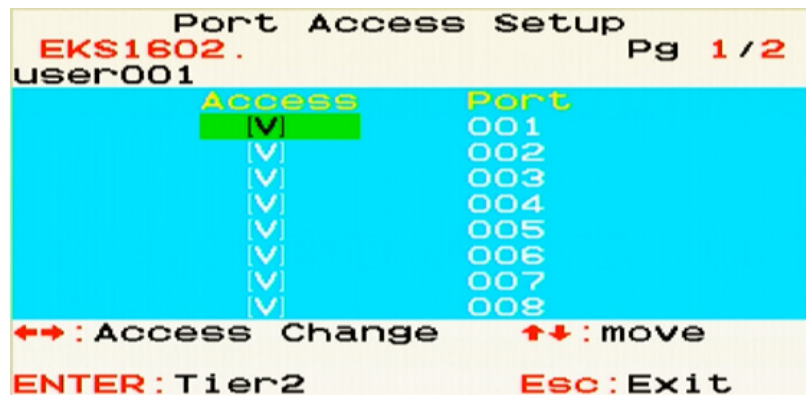3. Re-type the password, and press Enter. To abort the changes, press Esc instead.

Important:
It is recommended to note down all user names and passwords, and keep the data in a secure location.

Port Access Setup

On the User Configuration Menu, press F1. The User Port Access Setup Menu displays.
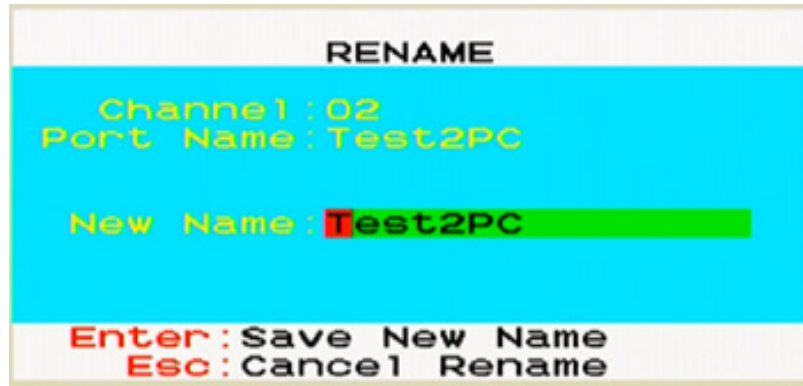

Viewing Firmware Version

Press F5 on the Selection Menu page. The firmware information displays

SYSTEM OPERATION (CONTINUED)

Rename

On the Selection Menu, press F3. The Rename Menu displays.

> **Note:**
>
> Before enabling borderless mouse switching, you must set the port's resolution the same as the corresponding computer video output.

Video Adjustment

On the Selection Menu, press F3. The Rename Menu displays.

You can adjust the brightness and contrast of the channel that is being accessed.
1. Select the desired channel to have its video shown on the screen.
2. Press the hot key twice, then the letter "C" and finally press Enter. For example, with the default hot key "Scroll Lock", press:
    Scroll Lock > Scroll Lock > C > Enter
3. The following video properties appear onscreen.
*   Press ↑ or ↓ to select the brightness or contrast.
*   Press ← or → to adjust the value of brightness or contrast.
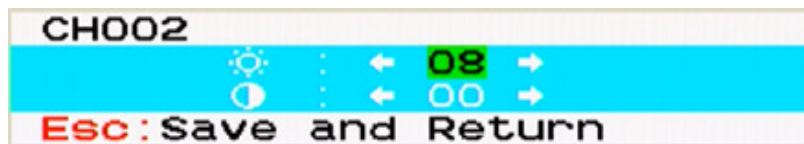
TROUBLESHOOTING

No Power
- Make sure that the power adapter is securely connected to the power connector of the unit.
- Check the output voltage of the power supply and make sure that the voltage value is around 12VDC.
- Replace the power supply.

No Video
- Check if all the video cables are connected properly.
- Connect the computer directly to the monitor to verify that your monitor and computer are functioning properly.
- Restart the computers.

Keyboard is not working
- Check if the keyboard is properly connected to the unit.
- Check if the USB cables connecting the unit and the computers are properly connected.
- Try connecting the USB on the computer to a different port.
- Make sure that the keyboard works when directly connected to the computer.
- Replace the keyboard.

Mouse is not working
- Check if the mouse is properly connected to the unit.
- Try connecting the USB on the computer to a different port.
- Make sure that the mouse works when directly connected to the computer.
- Replace the mouse.

No Audio
- Check if all the audio cables are connected properly.
- Connect the speakers directly to the computer to verify that the speakers and the computer audio are functioning properly.
- Check the audio settings of the computer and verify that the audio output is through the speakers.

TECHNICAL SUPPORT

For product inquiries, warranty questions, or technical questions, please contact info@smartavi.com.

LIMITED WARRANTY STATEMENT

A. Extent of limited warranty

SmartAVI, Inc. warrants to the end-user customers that the SmartAVI product specified above will be free from defects in materials and workmanship for the duration of 1 year, which duration begins on the date of purchase by the customer. Customer is responsible for maintaining proof of date of purchase.

SmartAVI limited warranty covers only those defects which arise as a result of normal use of the product, and do not apply to any:
     a. Improper or inadequate maintenance or modifications
     b. Operations outside product specifications
     c. Mechanical abuse and exposure to severe conditions

If SmartAVI receives, during applicable warranty period, a notice of defect, SmartAVI will at its discretion replace or repair defective product. If SmartAVI is unable to replace or repair defective product covered by the SmartAVI warranty within reasonable period of time, SmartAVI shall refund the cost of the product.

SmartAVI shall have no obligation to repair, replace or refund unit until customer returns defective product to SmartAVI.

Any replacement product could be new or like new, provided that it has functionality at least equal to that of the product being replaced.

SmartAVI limited warranty is valid in any country where the covered product is distributed by SmartAVI.

B. Limitations of warranty

To the extant allowed by local law, neither SmartAVI nor its third party suppliers make any other warranty or condition of any kind whether expressed or implied with respect to the SmartAVI product, and specifically disclaim implied warranties or conditions of merchantability, satisfactory quality, and fitness for a particular purpose.

C. Limitations of liability

To the extent allowed by local law the remedies provided in this warranty statement are the customers sole and exclusive remedies.

To the extant allowed by local law, except for the obligations specifically set forth in this warranty statement, in no event will SmartAVI or its third party suppliers be liable for direct, indirect, special, incidental, or consequential damages whether based on contract, tort or any other legal theory and whether advised of the possibility of such damages.

D. Local law

To the extent that this warranty statement is inconsistent with local law, this warranty statement shall be considered modified to be consistent with such law.

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