

EDID CONFIGURATION GUIDE

SECURE KVM SWITCHES

24/7 TECHNICAL SUPPORT AT 1.877.877.2269 OR VISIT BLACKBOX.COM

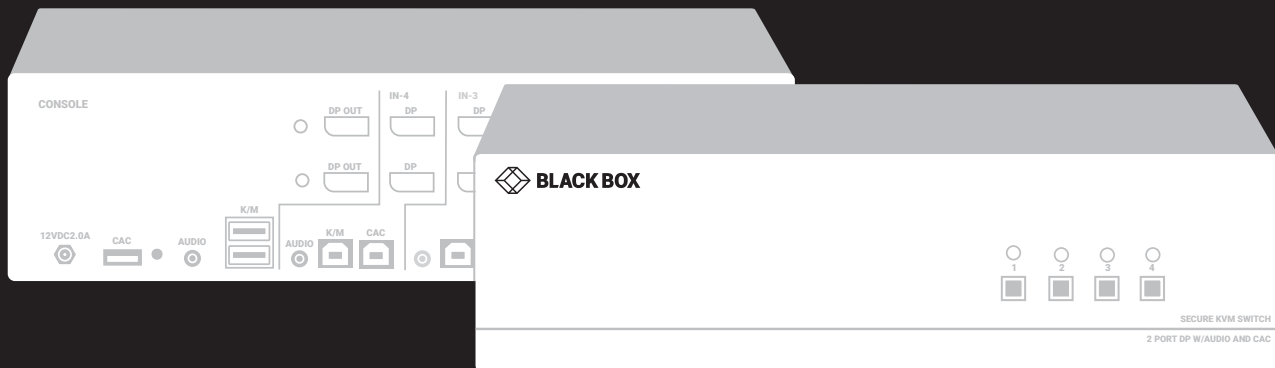


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CHAPTER 1: OVERVIEW

1.1 INTRODUCTION

The Secure KVM Switch EDID Configuration Guide outlines how Authenticated Administrators can learn and configure EDID of a particular display to support all of your displays' features.

Factory default video EDID is set to HP (1080P max resolution) to allow initial operation with most of the DP display brands. For security reasons, EDID learn of most DP displays' brands can be achieved only by an Authenticated Administrator.

This guide is applicable for the following Secure KVM Switch models:

SPECIFICATION COMPARISON CHART						
PRODUCT CODE	NUMBER OF PORTS	VIDEO CONNECTOR	DUAL-HEAD OR SINGLE-HEAD	CAC	USB EMULATION	SPECIAL FEATURES
SS1P-SH-DVI-UCAC	1	DVI-I	SINGLE	YES	YES	ISOLATOR
SS2P-SH-DVI-U	2	DVI-I	SINGLE	NO	YES	—
SS2P-SH-DVI-UCAC	2	DVI-I	SINGLE	YES	YES	—
SS2P-DH-DVI-U	2	DVI-D	DUAL	NO	YES	—
SS2P-DH-DVI-UCAC	2	DVI-D	DUAL	YES	YES	—
SS2P-SH-DP-U	2	DISPLAYPORT	SINGLE	NO	YES	—
SS2P-SH-DP-UCAC	2	DISPLAYPORT	SINGLE	YES	YES	—
SS2P-DH-DP-U	2	DISPLAYPORT	DUAL	NO	YES	—
SS2P-DH-DP-UCAC	2	DISPLAYPORT	DUAL	YES	YES	—
SS2P-SH-HDMI-U	2	HDMI	SINGLE	NO	YES	—
SS2P-SH-HDMI-UCAC	2	HDMI	SINGLE	YES	YES	—
SS2P-DH-HDMI-U	2	HDMI	DUAL	NO	YES	—
SS2P-DH-HDMI-UCAC	2	HDMI	DUAL	YES	YES	—
SS4P-SH-DVI-U	4	DVI-I	SINGLE	NO	YES	—
SS4P-SH-DVI-UCAC	4	DVI-I	SINGLE	YES	YES	—
SS4P-DH-DVI-U	4	DVI-I	DUAL	NO	YES	—
SS4P-DH-DVI-UCAC	4	DVI-I	DUAL	YES	YES	—
SS4P-SH-DP-U	4	DISPLAYPORT	SINGLE	NO	YES	—
SS4P-SH-DP-UCAC	4	DISPLAYPORT	SINGLE	YES	YES	—
SS4P-DH-DP-U	4	DISPLAYPORT	DUAL	NO	YES	—
SS4P-DH-DP-UCAC	4	DISPLAYPORT	DUAL	YES	YES	—
SS4P-SH-HDMI-U	4	HDMI	SINGLE	NO	YES	—
SS4P-SH-HDMI-UCAC	4	HDMI	SINGLE	YES	YES	—
SS4P-DH-HDMI-U	4	HDMI	DUAL	NO	YES	—
SS4P-DH-HDMI-UCAC	4	HDMI	DUAL	YES	YES	—
SS4P-QH-DVI-UCAC	4	DVI-I	QUAD	YES	YES	—
SS4P-QH-DP-UCAC	4	DISPLAYPORT	QUAD	YES	YES	—
SS4P-QH-HDMI-UCAC	4	HDMI	QUAD	YES	YES	—
SS4P-DVI-4X2-UCAC	4, 2 USERS	DVI-I	SINGLE	YES	YES	MATRIX
SS4P-DVI-4X4-UCAC	4, 4 USERS	DVI-I	SINGLE	YES	YES	MATRIX
SS4P-SH-DVI-UCAC-P	4	DVI-I	SINGLE	YES	YES	PREVIEW
SS8P-SH-DVI-U	8	DVI-I	SINGLE	NO	YES	—
SS8P-SH-DVI-UCAC	8	DVI-I	SINGLE	YES	YES	—
SS8P-DH-DVI-U	8	DVI-I	DUAL	NO	YES	—
SS8P-DH-DVI-UCAC	8	DVI-I	DUAL	YES	YES	—
SS8P-SH-DP-U	8	DISPLAYPORT	SINGLE	NO	YES	—
SS8P-SH-DP-UCAC	8	DISPLAYPORT	SINGLE	YES	YES	—

CHAPTER 1: OVERVIEW

SPECIFICATION COMPARISON CHART (CONTINUED)

PRODUCT CODE	NUMBER OF PORTS	VIDEO CONNECTOR	DUAL-HEAD OR SINGLE-HEAD	CAC	USB EMULATION	SPECIAL FEATURES
SS8P-DVI-8X2-UCAC	8, 2 USERS	DVI-I	SINGLE	YES	YES	MATRIX
SS8P-DVI-8X4-UCAC	8, 4 USERS	DVI-I	SINGLE	YES	YES	MATRIX
SS16P-SH-DVI-U	16	DVI-I	SINGLE	NO	YES	—
SS16P-SH-DVI-UCAC	16	DVI-I	SINGLE	YES	YES	—
SS4P-KM-U	4	N/A	N/A	NO	YES	—
SS4P-KM-UCAC	4	N/A	N/A	YES	YES	—
SS8P-KM-U	8	N/A	N/A	NO	YES	—
SS8P-KM-UCAC	8	N/A	N/A	YES	YES	—

1.2 INTENDED AUDIENCE

The information in this document is for authorized system administrators.



CHAPTER 2: SYSTEM REQUIREMENTS

1. The Black Box Secure KVM Switches are compatible with standard personal/portable computers, servers, or thin-clients running operating systems such as Windows or Linux.

The Administration and Security Management Tool can only run on Windows operating systems (XP, Win 7, Win 8, and Win 10 with framework .NET 2.0 or newer).

2. The peripheral devices that are supported by the switch are listed in the following table.

TABLE 2-1. PERIPHERAL DEVICES SUPPORTED BY THE SWITCH

CONSOLE PORT	AUTHORIZED DEVICES
Keyboard	Wired keyboard and keypad without internal USB hub or composite device functions, unless the connected device has at least one endpoint that is a keyboard or mouse HID class, KVM/KM extender
Display	Display, Projector, Video or KVM extender
Audio out	Analog amplified speakers, Analog headphones, Digital audio appliances
Mouse/pointing device	Any wired mouse or trackball without internal USB hub or composite device functions, Touch-screen, Multi-touch or digitizer, KVM extender
User authentication device	Smart-card reader, PIV/CAC reader, Token or Biometric reader*

*CAC models only

CHAPTER 3: SYSTEM SETUP

NOTE: Only one computer connected to KVM port 1 is required for any activity in this guide.

1. Ensure that the KVM's power is turned off or disconnected from both the unit and the computer.
2. Using a USB cable (Type-A to Type-B), connect the PC to the KVM host's K/M port one.
3. Connect a USB keyboard and mouse to the two USB console ports.
4. Connect a video cable between the PC and the KVM video 1 port.
5. KVM—Connect a DP display to the KVM console video output connector.
6. Power up the PC and the KVM.
7. Download the Administration and Security Management Tool from the following link to your PC:
<https://www.blackbox.com/NIAP3/documentation>
8. Run the Administration and Security Management Tool executable file.

See Figure 3-1 for a screenshot of the tool you should be seeing on your screen.

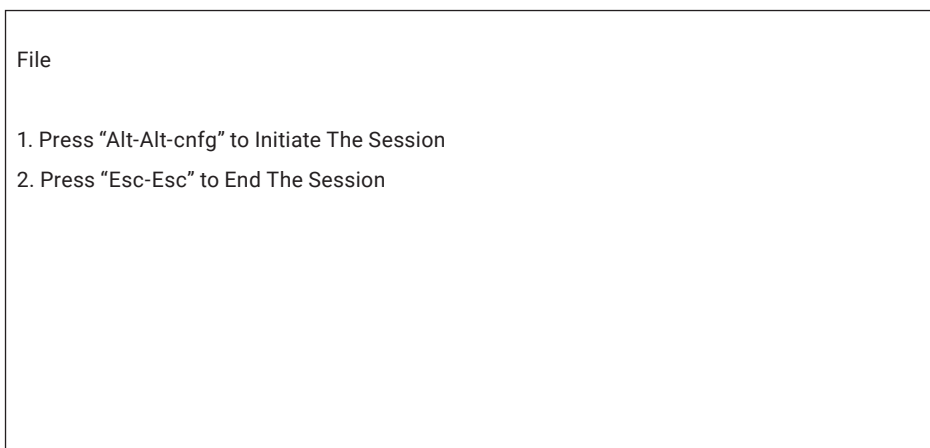


FIGURE 3-1. ADMINISTRATION AND SECURITY MANAGEMENT TOOL

CHAPTER 4: INITIATE SESSION

1. Using the keyboard, press "Alt Alt cnfg."
2. At this stage, the mouse connected to the KVM will stop functioning.
3. Figure 4-1 is a screenshot of the tool you should be seeing on your screen.

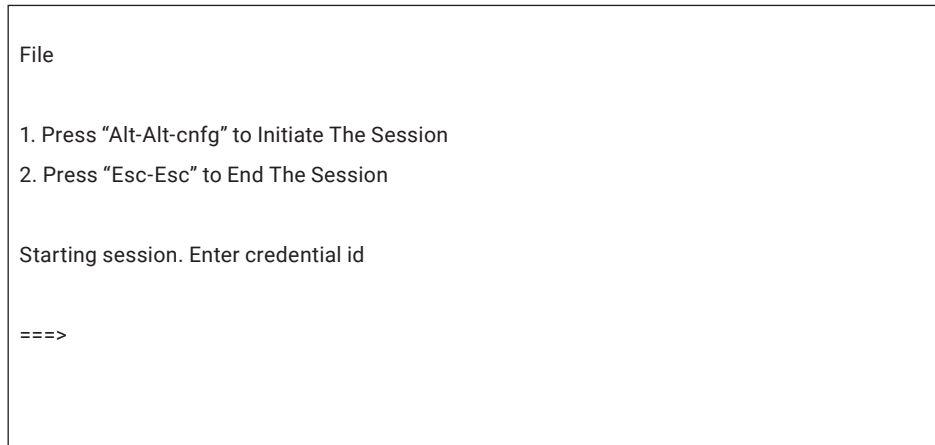


FIGURE 4-1. INITIATE SESSION CAPTURE

CHAPTER 5: ADMINISTRATOR FUNCTIONS

5.1 ADMINISTRATOR - LOGIN

1. Enter the default username "admin" and press Enter.
2. Enter the default password "12345" and press Enter.
3. Figure 5-1 is a screenshot of the tool you should be seeing on your screen.

```
File

1. Press "Alt-Alt-cnfg" to Initiate The Session
2. Press "Esc-Esc" to End The Session

Starting session. Enter credential id

===> admin

Enter credential password

=>

0. Show this menu
1. Change User Credentials
2. Change Admin Credentials
3. View Registered CAC Device
4. Register New CAC Device
5. Dump Log
6. Select Mode
7. Restore Factory Defaults

=>
```

FIGURE 5-1. ADMINISTRATOR - LOGIN SCREEN

CHAPTER 5: ADMINISTRATOR FUNCTIONS

5.2 ADMINISTRATOR - SELECT MODE (KVM/KM) OPTION #6

1. Select option 6 from the menu on your screen and press enter.
2. The following menu will be presented (see Figure 5-2).

```
File

1. Press "Alt-Alt-cnfg" to Initiate The Session
2. Press "Esc-Esc" to End The Session

Enter credential password

=>

0. Show this menu
1. Change User Credentials
2. Change Admin Credentials
3. View Registered CAC Device
4. Register New CAC Device
5. Dump Log
6. Select Mode
7. Restore Factory Defaults
=> 6
Select Mode: 1. KVM
              2. KM
              3. Custom
Current mode is KVM
====>
```

FIGURE 5-2. ADMINISTRATOR - SELECT MODE

3. Type "local" for reading and learning the connected display's EDID.
4. Press the Enter key on your keyboard. The learned EDID will be stored and the device will be reset.
5. At the end of the boot-up, ensure that all computers are connected to the KVM and switch through each port to verify that all are properly presenting video on the connected display.

CHAPTER 6: TROUBLESHOOTING

6.1 NO VIDEO AFTER SETTING LOCAL EDID

If there is no video output after performing the above, follow these steps:

1. Disconnect the display from the KVM Console Video port and connect it directly to your PC.
2. Run the Administration and Security Management Tool per instruction above.
3. Access the Administration and Security Management Tool per instruction above.
4. Select option 6 from the menu on your screen and press enter.
5. The following menu will be presented (see Figure 6-1).

```
File

1. Press "Alt-Alt-cnfg" to Initiate The Session
2. Press "Esc-Esc" to End The Session

Enter credential password

=>

0. Show this menu
1. Change User Credentials
2. Change Admin Credentials
3. View Registered CAC Device
4. Register New CAC Device
5. Dump Log
6. Select Mode
7. Restore Factory Defaults
=> 6
Select Mode: 1. KVM
              2. KM
              3. Custom
Current mode is KVM
===>
```

FIGURE 6-1. ADMINISTRATOR - SELECT MODE

6. Type:

- ♦ "dell" if the display brand you are trying to work with is DELL brand.
- ♦ "samsung" if the display brand you are trying to work with is Samsung Brand.
- ♦ "lg" if the display brand you are trying to work with is LG Brand.
- ♦ "hp" if the display brand you are trying to work with is HP Brand.

CHAPTER 6: TROUBLESHOOTING

7. Press the Enter key on your keyboard. The learned EDID will be stored and the device will be reset.
8. At the end of the boot-up, ensure that all computers are connected to the KVM, connect your display back to the KVM Console Video Port and verify that all ports are presenting video on the connected display by switching ports.

6.2 NO VIDEO AFTER SWITCHING DISPLAY

If there is no video output after switching your display with a different display brand, repeat steps under section 7 - No Video after Setting Local EDID.

Contact Black Box Technical Support at 877-877-2269 or info@blackbox.com if you have any additional video issues.



APPENDIX: DISCLAIMER/TRADEMARKS

A.1 DISCLAIMER

Black Box Corporation shall not be liable for damages of any kind, including, but not limited to, punitive, consequential or cost of cover damages, resulting from any errors in the product information or specifications set forth in this document and Black Box Corporation may revise this document at any time without notice.

A.2 TRADEMARKS USED IN THIS MANUAL

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NOTES

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