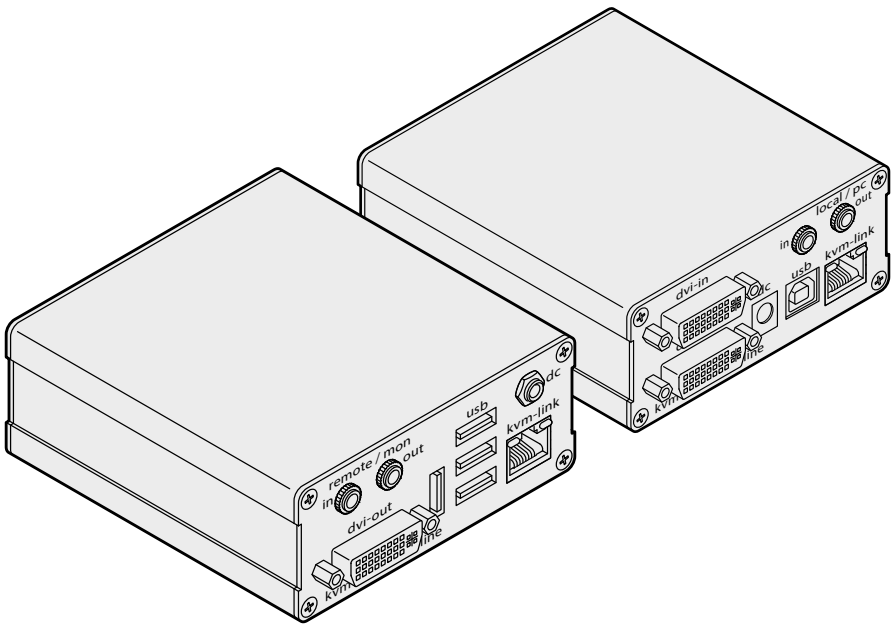


UPDATE MANUAL



MASTERLINE MVX AND SVX KVM EXTENDERS

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1. MVX/SVX KVM EXTENDER FIRMWARE UPDATE GUIDE

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There are three methods to update the firmware on your MVX and SVX KVM Extenders: **Direct Update**, **Automatic Update** and **Network Update**. These are all available from the Update Menu. A Direct Update is the preferred method for a pair of extenders. An Automatic Update is the preferred method when you would like to update multiple extenders. A Network Update is the preferred method for updating extenders connected to a switching network.

1.1 HOW TO PERFORM A DIRECT UPDATE

The Direct Update is designed to update a pair (one remote and one local) of extenders. You can perform the Direct Update when the extenders are connected to your computer, monitors, mouse and keyboard.

To do a Direct Update:

- 1 Connect your Masterline MVX1/MVX1-F KVM and Smartline SVX Extender according to the instructions as described in the extender's user manual. **Note!** The extenders must be connected directly.
- 2 Go to <http://www.kvm-tec.com/en/support/firmware-download.html>
- 3 Download the correct Firmware Update.
- 4 Unzip the file. Right-click on the *.bmp file and select **Open with>Paint**. **Note:**
 - Make sure to open the bitmap file in 1:1 resolution (100%).
 - Recommended run in fullscreen mode.
 - Make sure the cursor is not in the bitmap.

1. MVX/SVX KVM EXTENDER FIRMWARE UPDATE GUIDE

- 5 Press the **Scroll Lock** key rapidly five times. The **main menu** opens.

```
Menu
T = Status Overview
U = Update Flash FW
M = Option Overview
O = DDC Option (remote monitor)
W = Network Settings
G = Extender Settings
L = Switching List
Q = Exit

Remote (Con) FW Ver = 4245
Local (PC) FW Ver = 4245
```

- 6 Press the **U** key. The **Update** menu opens.

```
UPDATE
+-----+
Console module running          4245

N   Network Update
A   Automatic Update
U   Direct Update
Q   Return to Main Menu
```

- 7 Press the **U** key. The update starts. **Note!** Do not interrupt the update, otherwise both units must be returned to the factory for repairing.

1. MVX/SVX KVM EXTENDER FIRMWARE UPDATE GUIDE

- 8 Press the **Scroll Lock** key rapidly five times. The main **menu opens**. The new firmware version is displayed below.

Menu

T = Status Overview
U = Update Flash FW
M = Option Overview
O = DDC Option (remote monitor)
W = Network Settings
G = Extender Settings
L = Switching List
Q = Exit

Remote (Con) FW Ver = 4267
Local (PC) FW Ver = 4267

Problem	Cause	Solution
"Cannot find Bitmap" appears	Bitmap is not on the correct location	Move the image slightly and try again.
"Cannot find Bitmap" error persist	Screen resolution is not correct	Reduce the screen resolution and try again
CRC error or "Check that the mouse isn't in the way"	When using Windows 7, some display drivers reduce the video level for about 10% at full HD resolution (1920 x 1080).	Reduce the resolution to 1280x1024 before doing the update.

1.2 HOW TO PERFORM AN AUTOMATIC UPDATE

The Automatic Update transfers the firmware from one extender (the *source* extender) to another (the *target* extender). During an Automatic Update, the saved firmware of the source extender will be transferred to saved space of the target extender. The target extender will then transfer its newly saved firmware into its active firmware and complete the update. You would typically choose an Automatic Update when you want to update multiple extenders. They can be updated by a connection with a network cable only.

1. MVX/SVX KVM EXTENDER FIRMWARE UPDATE GUIDE

Requirements for performing an Automatic Update:

- The source extender must have firmware 4180 or above.
- Both extenders must be of the same type (SVX with SVX, or MVX with MVX).
- When using SVX extenders, then the target extender must have firmware 4180 or above. When the target extender has a firmware below 4180, then the extender cannot be updated by Automatic Update. Perform a Direct Update instead.
- When using MVX extenders, then target extender can have any firmware version.
- It is highly recommended to use a remote extender as the source extender.
- The target extender can be either a remote extender or a local extender.

To prepare the source extender:

- 1 Connect your remote extender (which will be the source extender) to a monitor and attach a keyboard.
- 2 Press the **Scroll Lock** key rapidly five times. The **main menu** opens.

```
Menu
T = Status Overview
U = Update Flash FW
M = Option Overview
O = DDC Option (remote monitor)
W = Network Settings
G = Extender Settings
L = Switching List
Q = Exit
```

```
Remote (Con) FW Ver = 4267
Local (PC) FW Ver = 4267
```

1. MVX/SVX KVM EXTENDER FIRMWARE UPDATE GUIDE

- 3 Press the **U** key. The **Update** menu opens.

```
UPDATE
+-----+
Console module running          4245

N   Network Update
A   Automatic Update
U   Direct Update
Q   Return to Main Menu
```

- 4 Press the **A** key. The **Autoupdate Settings** menu opens.

```
UPDATE - Autoupdate Settings
+-----+
Console module running          4267
Console module has saved        4267
Console set to not automatically update

C   Con Autoupdate   P   PC Autoupdate
Esc Return to Update Menu
```

- 5 If the text “You must first load Firmware via BITMAP” appears then the extender has no saved firmware, and the desired firmware must first be loaded before continuing: perform Network Update steps 1 – 8.

1. MVX/SVX KVM EXTENDER FIRMWARE UPDATE GUIDE

- 6 Press the **C** key. The Console will be set to automatically update.

```
UPDATE - Autoupdate Settings
+-----+
Console module running          4267
Console module has saved        4267
Console set to automatically update

C   Con Autoupdate   P   PC Autoupdate
Esc Return to Update Menu
```

- 7 Press the **Esc** key 3 times to close the Main Menu.
- 8 You may now disconnect the power supply from the extender.
- 9 The source extender is now prepared to update any number of target extenders.

To perform an Automatic Update:

- 1 Connect your prepared source extender to a monitor.
- 2 Connect the source extender to the target extender with a CATx cable. **Note!** The extenders must be connected directly. Do not use a network switch!
- 3 Connect both extender power supplies to an earthed wall socket.
- 4 Both extenders will initially have a red blinking LED. These will shortly stop blinking.

1. MVX/SVX KVM EXTENDER FIRMWARE UPDATE GUIDE

- 5 After a while (a maximum of 40 seconds) the automatic update will begin. The LED of the source extender starts blinking orange and the following menu appears. **Note!** Do not interrupt the update, otherwise both units must be returned to the factory for repairing.

```
**** AUTOUPDATE START ****  
Copying Data
```

- 6 Once the update has finished the menu will display the word “COMPLETE!” and the LED of the source extender will now be green.

```
**** AUTOUPDATE START ****  
Copying Data ####  
Installing      #  
  
Waiting for other extender to restart  
and complete install.  
  
COMPLETE!  
  
Press ANY key
```

- 7 The update is complete. You may disconnect the extenders and use the source extender to update further target extenders.

1. MVX/SVX KVM EXTENDER FIRMWARE UPDATE GUIDE

Problem solving:

Problem	Cause	Solution
Monitor returns FAIL and the LED of the <i>target extender</i> is off		Restart the <i>target extender</i> and leave for a minute to complete the update

1.3 HOW TO PERFORM A NETWORK UPDATE

A Network Update is the preferred method of updating extenders connected to a switching network. A new update to the extenders on the network has a minimal impact on the use of the network. When performing a Network Update, a firmware update will be loaded from a bitmap and be transferred to any or all extenders on the network, and tell those extenders to update to the new firmware.

Requirements for performing a Network Update:

- The extenders must all be connected to a single GB network switch. The Switching Option must be installed.
- The extenders must all have firmware version 4180 or above.
- The extenders must all be of the same type (all MVX or all SVX).

To do Network Update:

- 1 Connect your Masterline Extenders according to the instructions as described in the extender's user manual.
- 2 Go to <http://www.kvm-tec.com/en/support/firmware-download.html>
- 3 Download the correct Firmware Update.
- 4 Unzip the file. Right-click on the *.bmp file and select **Open with>Paint. Note:**
 - Make sure to open the bitmap file in 1:1 resolution (100%).
 - Make sure the cursor is not in the bitmap.
 - The bitmap should be approximately in the middle of the screen and slightly towards the left.

1. MVX/SVX KVM EXTENDER FIRMWARE UPDATE GUIDE

- 5 Press the **Scroll Lock** key rapidly five times. The **main menu** opens.

```
Menu
T = Status Overview
U = Update Flash FW
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W = Network Settings
G = Extender Settings
L = Switching List
Q = Exit

Remote (Con) FW Ver = 4267
Local (PC) FW Ver = 4267
```

- 6 Press the **U** key. The **Update** menu appears.

```
UPDATE
+-----+
Console module running          4245

N   Network Update
A   Automatic Update
U   Direct Update
Q   Return to Main Menu
```

1. MVX/SVX KVM EXTENDER FIRMWARE UPDATE GUIDE

- 7 Press the **N** key. The **Network Overview** menu appears. This menu lists all the extenders currently on the network. The extender you're using is marked in green. The active firmware and saved firmware version numbers are listed for each extender.

```
UPDATE - Network Overview
+-----Module-----+Act--+Save--+
  (PC)  Server 1      | 4245 | none ■
> (PC)  Server 2      | 4245 | 4245 ■
  (Con) Workstation 1  | 4245 | 4245 □
  (Con) Workstation 2  | 4245 | 4267 □

A  (Un)mark All      Space Mark Selected
L  Load New Version from Bitmap
S  Send Saved Version to marked modules
U  Update All Marked Modules
Esc Return to Update Menu
```

- 8 Press the **L** key. The new firmware version will be loaded from the bitmap and transferred to the saved firmware on your remote extender (marked in green).

```
UPDATE - Loading Bitmap
+-----+
STAGE 1: [.....]
STAGE 2: [.....]
STAGE 3: [.....]
```

1. MVX/SVX KVM EXTENDER FIRMWARE UPDATE GUIDE

- 9 Select all extenders that you want to update. Use the Up and Down arrows to navigate to the extender's on the network. Press the space bar to mark or unmark an extender in the list, or press the A key to mark all extenders in the list. **Note!** A marked extender has a filled rectangle. An unmarked one has an empty rectangle.
- 10 Press the **S** key. The saved firmware version will be saved to the marked extenders. **Note!** The extender you are using cannot accept further inputs during this process. All other extenders on the network, including those to which the firmware is being transferred, can be used and switched as normal.
- 11 Press the **U** key. The marked extenders will be updated. **Note!** Do not interrupt the update, otherwise both units must be returned to the factory for repairing. This process will disrupt the network: any extenders that are updated will become briefly unusable before restarting in to the new active firmware. This process will take several seconds.
- 12 When the update is finished, restart your computer.
- 13 Press the **Scroll Lock** key rapidly five times. The **main menu** opens. The new firmware version is displayed below.

```
Menu
T = Status Overview
U = Update Flash FW
M = Option Overview
O = DDC Option (remote monitor)
W = Network Settings
G = Extender Settings
L = Switching List
Q = Exit
```

```
Remote (Con) FW Ver = 4267
Local (PC) FW Ver = 4267
```

Problem solving:

Problem	Cause	Solution
"Cannot find Bitmap" appears	Bitmap is not on the correct location	Move the image slightly and try again.
"Cannot find Bitmap" error persist	Screen resolution is not correct	Reduce the screen resolution and try again

2 GUIDE TO UPDATING MVX EXTENDERS

		Starting Firmware Version		
		1100 - 1269	1273-1290	4200+
Target Firmware Version	1100 - 1273	Direct Update to new version	Direct Update to new version	Direct Update to new version
	4200+	<p><i>If an extender with 4200+ is available then use this to perform an Automatic Update</i></p> <p><i>else perform a Direct Update to 1273 followed by a Direct Update to 4200+</i></p>	<p><i>If an extender with 4200+ is available then use this to perform an Automatic Update</i></p> <p><i>else perform a Direct Update to new version</i></p>	<p><i>If extenders are in a matrix switch then use Network Update</i></p> <p><i>If updating only one pair of extenders perform a Direct Update</i></p> <p><i>If updating many extenders then perform a Direct Update on one pair and then use them to perform Automatic Updates on the others</i></p>

3 GUIDE TO UPDATING SVX EXTENDERS

Note: SVX extenders with serial numbers **5130xxxxx and above** are **NOT compatible** with firmware versions **2060 and below**.

		Starting Firmware Version		
		2000 - 2061	2066	4200+
Target Firmware Version	2000 - 2066	Direct Update to new version	Not possible	Not possible
	4200+	Perform a Direct Update to 2066 followed by a Direct Update to 4200+	Perform a Direct Update to new version	<i>If extenders are in a matrix switch then use Network Update</i> <i>If updating only one pair of extenders perform a Direct Update</i> <i>If updating many extenders then perform a Direct Update on one pair and then use them to perform Automatic Updates on the others</i>

