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INSTRUCTION MANUAL

4K ULTRALINE UVX1/UVX1-F KVM EXTENDER

Part.No: 6901
Ultraline UVX1

Part No: 6902
UltralineUVX1-F

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1. INTRODUCTION

Congratulations on the purchase of your new Ultralineline UVX1/UVX1-F KVM Extender. You have bought a high quality extender. These instructions are part of this product. They contain important information regarding safety, use and disposal for every user of the Ultraline UVX1 and UVX1-F KVM Extender. Please familiarise yourself with the information within prior to using your product. Use the product only in the manner as described and for the areas of application as stated. When passing the product to a third party be sure to also supply all instructions and other relevant documentation. Following proper use and maintenance, your Ultraline UVX1/UVX1-F KVM Extender will bring you joy for many years to come.

1.1 INTENDED USE

This product is intended to be used as a device to increase the distance that a keyboard, monitor and mouse can be placed from a computer. This product is intended for professional use. The product should not be used in potentially explosive environments.

The product may only be used according to the instructions as described in this manual. All use, other than that described in this manual, is seen as unintended use. Modifications in the course of technological progress are reserved. In these user instructions the Ultraline UVX1/UVX1-F KVM Extender is referred to as 'product' or 'extender'. The UVX1/PC is referred to as the 'local unit' - CPU and the UVX1/Monitor is referred to as the 'remote unit' - CON.

WARNING
The device may not be opened by an authorized technician.
Danger of electric shock!

1.2 SAFETY INSTRUCTIONS

WARNING! Read and understand all safety instructions.

- Follow all the instructions. This will avoid accidents, fire, explosions, electric shocks or other hazards that may result in damage to property and/or severe or fatal injuries. Please ensure that everyone who uses the product has read and followed these warnings and instructions.
- Keep all safety information and instructions for future reference and pass them on to subsequent users of the product.
- The manufacturer is not liable for cases of material damage or personal injury caused by incorrect handling or non-compliance with the safety instructions. In such cases, the warranty will be voided.
- This product is not intended for use by persons (including children) with restricted physical, sensory or intellectual capability or lack of experience and/or knowledge, unless they are supervised by a person who is responsible for their safety or provides them with instructions on how to use the product.
- **DANGER!** Not for use in potentially explosive environments.
- **DANGER!** Be vigilant at all times, and always take care around this product. Do not use electrical equipment if you are lacking in concentration or awareness, or are under the influence of drugs, alcohol or medication. Even a moment of inattentiveness can lead to serious accidents and injuries when using electrical equipment. Check the product and the cables for any damage before use. If there is any visible damage, a strong odour, or excessive overheating of components unplug all the connections immediately and stop using the product.
- **DANGER!** The UVX1-F KVM Extender is a Class 1 Laser Product 1 according to DIN 40008/EN and VDE 0837.
- If the product is not installed and used in accordance with this manual, it may cause disruptive interference with radio or television reception or affect other electronic products in residential areas.
- Use shielded cables only to connect the components in order to avoid such interference. Non-compliance invalidates the permission to operate this product.
- Only the mains adapter included with the product should be used as the power supply. Do not use other adapters.
- Prior to connecting to the mains, make sure your local mains voltage matches the rating indicated on the product.
- The product must be connected to a permanent and earthed AC wall socket.

- Protect cables from being strained, pinched or buckled and place them in a way to prevent people from tripping over the cord.
- In particular, ensure to avoid damage to the mains adapter.
- Use the product with a suitable, properly installed and easily accessible mains power socket. Make sure the product can be disconnected from the power socket at all times.
- Unplug the product during electrical storms or when not in use.
- **DANGER!** Never touch the adapter with wet hands.
- Use the product within the specified performance limits.
- Keep the product away from flammable materials such as curtains and drapes.
- Protect the mains adapter from use by third parties (particularly children). Keep the unused mains adapter in a dry, elevated or locked location away from children.
- Do not place the product near heaters.
- Do not drop or hit the product.
- Unplug all connections before cleaning the product. Do not use wipes or chemicals as these could damage the surface. Wipe the housing with a damp cloth. Electrical/ electronic parts must not be cleaned.
- Alterations to the product and technical modifications are not permitted.

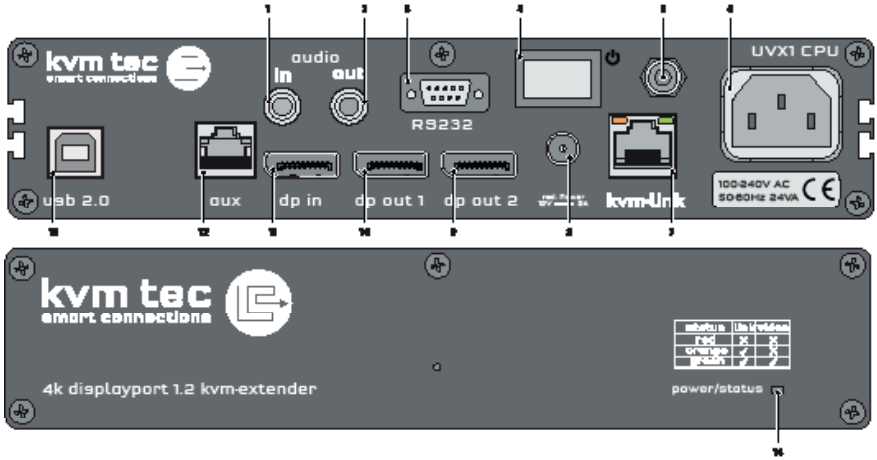
1.3 TECHNICAL SPECIFICATIONS

Type:	KVM Extender (local unit-CPU and remote unit-CON)
Model:	4K Ultraline UVX1/UVX1-F KVM Extender
Power supply input voltage:	90 - 240 V; 50/60 Hz AC
Power supply IN:	12V; 2A (external power supply - redundant)
Power requirement:	15 W per extender (excluding attached USB devices)
Operating temperature range:	0 °C to 45 °C / 32 °F to 113 °F
Storage temperature range:	−25 °C to 80 °C / −13 °F to 176 °F
Relative humidity:	max. 80% (non-condensing)
Storage humidity:	max. 80% (non-condensing)
Casing Material:	Anodized aluminium
Dimensions:	approx. 218 x 43 x 105 mm/ 8.58 x1.69 x 4.13 “
Weight:	approx. 1383 g / 48.78 oz. per set
Expected product life:	82 820 hours / 10 years
Laser MVX1-F:	Class 1 Laser Product 1 according to DIN 40008/EN and VDE 0837

Manual Version	0.01/14

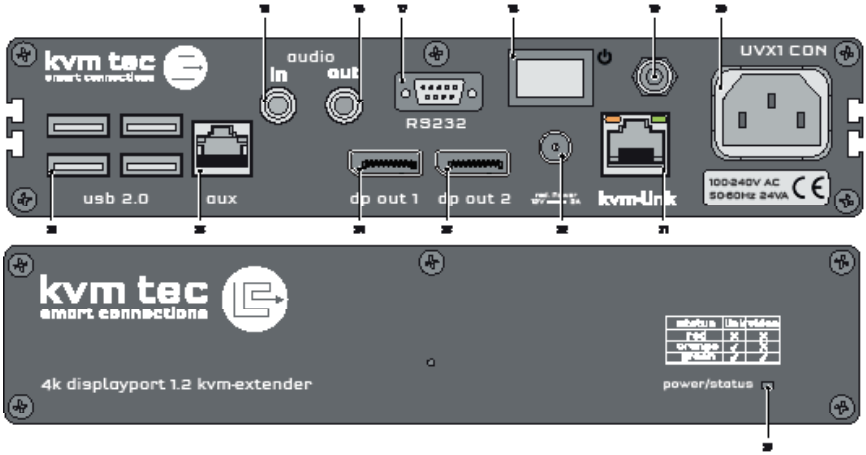
1.4 PRODUCT ELEMENTS

Local Extender (CPU)



Nr.	Name	Function
1	audio in	Audio in from PC
2	audio out	Audio Out to PC
3	RS232	RS232
4	ON/OFF	Power Switch ON/OFF
5	grounding	grounding screw
6	power	Connection for 220 V power supply
7	kvm-link	Connection for CAT 7 cable or fibre cable
8	dc	Connection für 12V power supply
9	dpout 2	Displayport Output to Monitor 2
10	dpout 1	Displayport Output to Monitor 1
11	dpin	DP Input from PC
12	AUX	Auxilary Gigabit Network Connector
13	USB 2.0	USB 2.0 to PC
14	POWER/LED status	Displays the status of the extender

Remote Extender (CON)



Nr.	Name	Function
15	audio in	Audio In from microphone etc.
16	audio out	Audio Out to speakers etc.
17	RS232	RS232
18	power	Power Switch ON/OFF
19	grounding	grounding screw
20	Power	Power Connector AC90-240V
21	kvm-link	Connection for CAT 7 cable or fibre cable
22	DC	Connection für 12V power supply
23	dp out 2	Displayport Output to Monitor 2
24	dpout 1	Displayport Output to Monitor 1
25	AUX	Auxilary Gigabit Network Connector
26	USB	USB 2.0 to keyboard /Muse
27	POWER/ LED	Displays the status of the extender

1.5 MEANING OF LED INDICATORS

The Status LED (8/15) can light red, orange or green. Table 1 shows the meaning of each colour. Also see chapter *Troubleshooting*.

		Normal Operation						
Colour	**Blinking**	**Physical Link**	**Active Connection**	**Video Extended**	**USB Initialisation**	**UBS Data Received**	**Identify Command**	**Autoupdate Mode**
Main LED								
Red	-	Yes	No	No				Update Failed
Red	Slow	No	No	No				
Orange	-	Yes	Yes	No				
Orange	Fast							Update in Progress
Green	-	Yes	Yes	Yes				Update Succedded
Green	V. fast				Yes**			
Red/Green	V. fast						Yes	
RJ45 Socket LEDs *								
Yellow	-	No						
Yellow	Slow	Yes						
Green	-			Yes				
Green	V. fast					Yes		

* UVX only

** Rem. Only

Table 1: Meaning of LED indicators

2.1 UNPACKING AND CHECKING THE CONTENTS

Before using the product for the first time it should be checked for damage. In case of damage due to transport inform the carrier immediately. Before delivery the product is checked for its function and its operating safety.

- Make sure that the packaging contains the following content:

A. 1x UVX1/local Extender CPU
B. 1x UVX1/remote Extender CON
C. 2x power cable IEC C13 (REM)
D. 1 x DP - DP cable1,8 m (5.9ft)
D. 1x USB A-B cable 1,8m (5.9ft)
E. 2 x Audio cable 1,8m (5.9ft) opt
F 1x RS232 cable1,8m (5.9ft) opt.
G. 1x Quickstart Manual
Manual download www.kvm-tec.com/support
H. 8 x rubber feets
I. 8x mounting pads

UVX -F:

2 x SFP Modul - Multimode up to 300 m (984 ft)

Manual V 0.01 /14

2.2 MOUNTING OPTIONS

2.2.1 MOUNTING PADS AND RUBBER FEET

The mounting pads and rubber feet can be used to hold the extenders in place and prevents them from sliding and falling.

To attach the mounting pads or rubber feet:
1. Remove the protection layer from the **mounting pads** or **rubber feet** (G).
2. Attach the **mounting pads** or **rubber feet** (G) to the bottom the units.

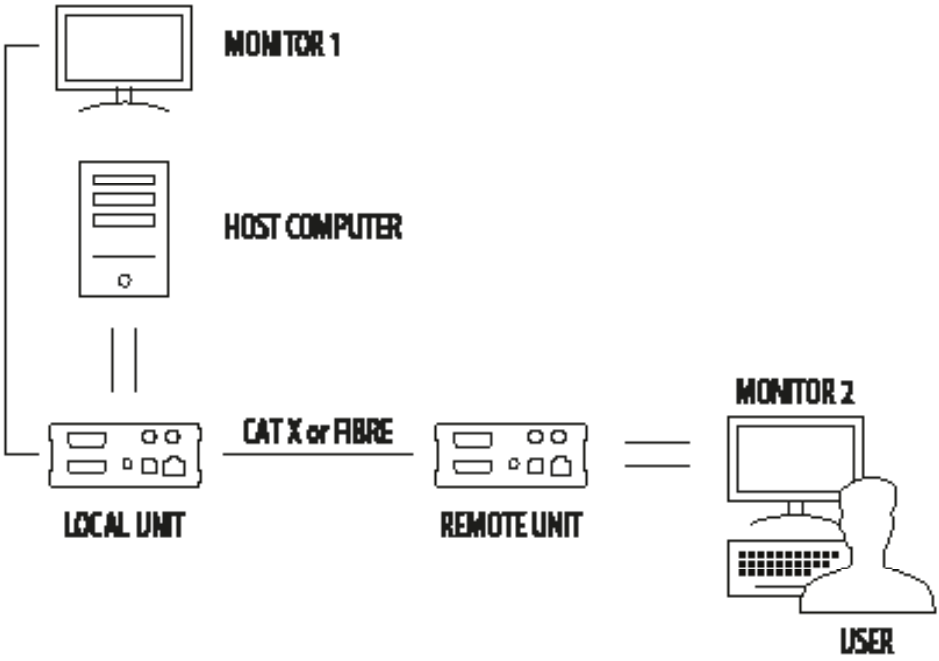
2.2.2 MOUNTING KITS (OPTIONAL)

The following mounting kits are available:
Rack Mounting Kit RMK-F - Part No. 6230
The rack mounting kit RMK-F is for assembling kvm-tec Ultraline UVX1extenders. It consists of 19“ rack shelf and an alu-faceplate.

2.3 INSTALLING THE EXTENDER

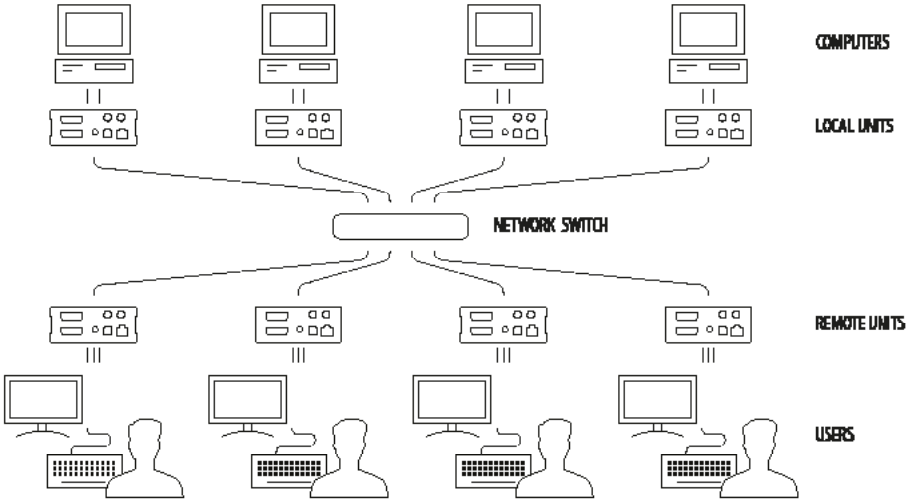
WARNING! Read and understand all safety information before installing the product.

The units can be set up to access one host computer, or to access numerous host computers. In the case of the latter, an additional Network Switch must be installed. With a Network Switch, each user can gain quick access to any of the required computers.



Single setup

2. INSTALLATION OF THE EXTENDER



Network Switch Setup

2. INSTALLATION OF THE EXTENDER

To install the product with/without Network Switch:

1. Position the **UVX1/local unit/CPU** (A) close to the host computer.
2. Position the **UVX1/remote unit/CON** (B) at the desired location.
3. If you are using a Network Switch, position the device between the **UVX1/local unit/CPU** and the **UVX1/remote/CON/ unit**. Note: the maximum distance between the UVX1 units with CAT7cable is 100 meter (328 ft) . The maximum distance between the UVX1-F extenders with fibre cable in the single mode is 20 kilometer (12.42 miles) , with multimode is 300 meter (984 ft) - Standard
4. Connect a monitor to the **DP-out** (7) on the **UVX1/local/CPUunit** (A) - If a local Monitor is required (optional)
5. Connect one end of the supplied **DP-cable** (D) to the **DP-in** (1) on the **UVX1/local unit** (A).
6. Connect the other end of the supplied **DP-cable** (D) to the DP connection on your computer.
7. Connect one end of the supplied **USB cable** (E) to the **USB connection** (5) on the **UVX1/local unit** (A).
8. Connect the other end of the supplied **USB cable** (E) to a USB port on your computer.
9. Connect a monitor to the **DP-out** (14) on the **UVX1/remote /CON unit** (B).
10. Connect a keyboard to a **USB port** (11) on the **UVX1/remote/CON unit** (B).
11. Connect a mouse to a **USB port** (11) on the **UVX1/remote/CON unit** (B)
12. Do one of the following, depending on your model and configuration:

- For the UVX1 with Network Switch (see chapter *Requirements* for cable requirements):
  - Connect one end of a CAT7 cable (not included) to the **kvm-link port** (4) on the **UVX1/local unit** (A). Make sure that the plug is latched.
  - Connect the other end of the CAT7 cable to one of the two CATx ports on the Network Switch (10 G)
  - Connect the end of a second CATx cable (not included) to the **kvm-link port** (4) on the **UVX1/remote unit** (A). Make sure that the plug is latched.
  - Connect the other end of the second CAT7 cable to the other CATx port on the Network Switch (10 G)

- For the UVX1 without Network Switch (see chapter *Requirements* for cable requirements):
  - Make sure the dust protectors on the Network Switch and Extenders have been removed.
  - Connect one end of the CAT7 cable (not included) to the **kvm-link port** (7 /21) on the **UVX1/local unit** (A). Make sure that the plug is latched.
  - Connect the other end of the CAT7 cable to the **kvm-link port** (4) on the **UVX1/remote unit (A)**. Make sure that the plug is latched.

- For the UVX1-F with Network Switch (see chapter *Requirements* for cable requirements):
  WARNING! The UVX1-F is a Class 1 Laser Product. Avoid exposure to the beam!
  - Make sure the dust protectors have been removed from the SFP+ modules. Connect one end of a fibre cable (not included) to the **kvm-link port** (7 /21) on the **UVX1/local /CPU unit** (A). Make sure that the plug is latched.
  - Connect the other end of the fibre cable to one of the two fibre ports on the Network Switch (10 G)
  - Connect the other end of the second fibre cable (not included) to the other fibre port on the Network Switch. (10G)
  - Connect the other end of the second fibre cable to the **kvm-link port** (13) on the **UVX1/remote unit** (B).

- For the UVX1-F without Network Switch (see chapter *Requirements* for cable requirements):
  WARNING! The UVX1-F is a Class 1 Laser Product. Avoid exposure to the beam!
  - Make sure the dust protectors have been removed.
  - Connect one end of a fibre cable (not included) to **the kvm-link port** (4) on the **UVX1/local unit** (A). Make sure that the plug is latched.
  - Connect the other end of the fibre cable to the **kvm-link port** (13) on the **UVX1 - F remote unit** (B).

17. If you are using a Network Switch, connect your other work stations (remote extenders) and computers (local extenders) with the Network Switch (see chapter *Requirements* for switching requirements).
18. If you are using a Network Switch, connect the **Power supply** to the AC connection on the Network Switch.
19. Connect a **Power cable** to **UVX1/local unit** (6)
20. Connect the other **Power cable** to **UVX1/remote unit** (20) .

2.4 START UP

To start up the system without switch:

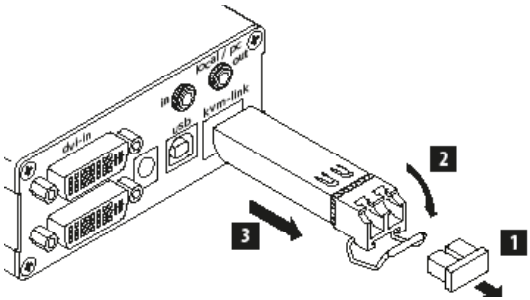
1. Make sure that the two monitors and the computer are switched on.
2. If you are using a Network Switch, connect the power cable to an earthed wall socket.
3. Connect both extender **power cables** (6 / 20) to an earthed wall socket. Both extenders will start an initialisation process. The red status LED blinks a few seconds. After a few seconds the status LED lights green. The monitor will displays your computer's desktop or any open applications.

2.5 REPLACING THE SFP MODULE

The UVX1-F is delivered with a multimode SFP module.

To replace an SFP module with a different SFP+ module:

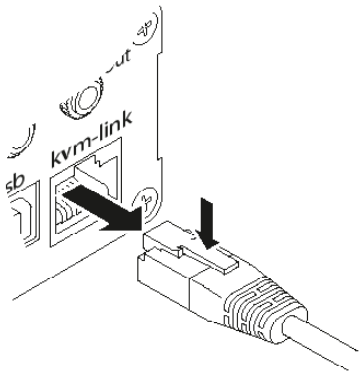
1. Remove the black dust protector from the SFP+ module.
2. Pull the metal latch of the SFP+ module forwards until it is at a right angle.
3. Replace the SFP+ module with the other module. Put the metal latch back in position. Only use SFP+ modules from kvm-tec, or recommended by kvm-tec.



2.6 REMOVING A CAT7 CABLE

To remove a CAT7 cable:

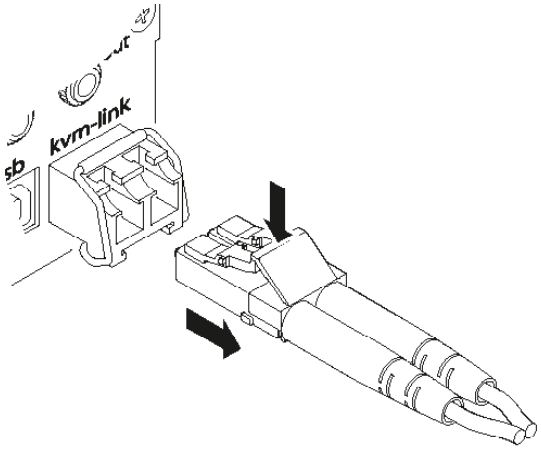
- Press the latch down and slowly pull the cable out.



2.7 REMOVING A FIBER CABLE

To remove a fiber cable:

- Press the latch down and slowly pull the cable out.

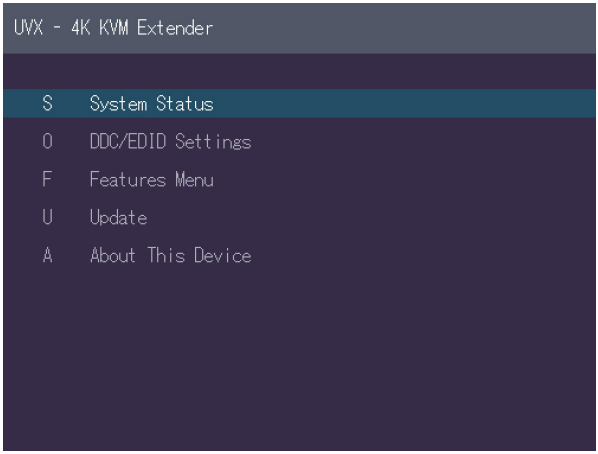


3.1 ACCESS MAIN MENU

Use the monitor and keyboard to access the main menu.

Access to the main menu

1. Make sure that the extenders, monitors and computer are turned on
2. Press the **Scroll Lock** button five times quickly. The main menu and the overview of the submenus are displayed.
3. To access a submenu, press the corresponding key or navigate with the **arrow keys up and down** to the corresponding line and then press Enter key.



In the main menu you can make the following settings by selecting the corresponding letters:

Press		
S	**System status**	**status menu / current status**
O	**DDC/EDID Settings**	**definition of DDC/EDID**
U	**Update**	**update firmware**
M	**Upgrade Menu**	**activated and preinstalled upgrades**
F	**Features Menu**	**activated features**
A	**About this device**	**information about the unit**

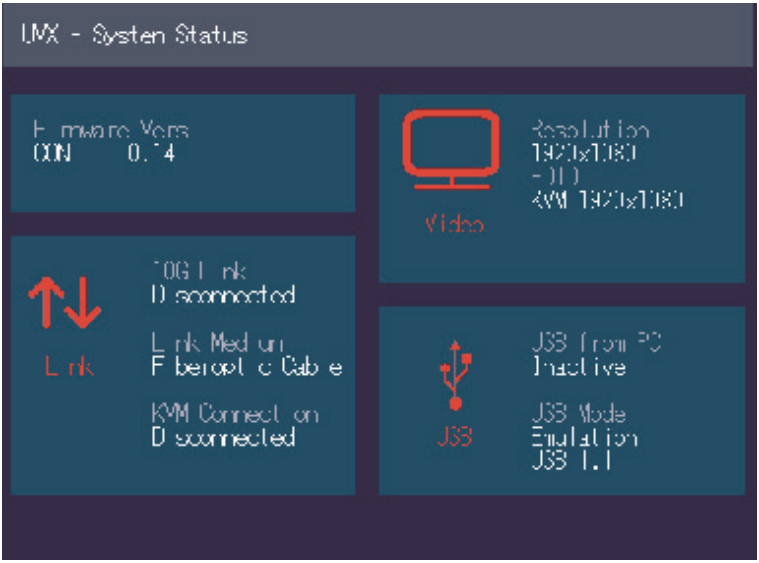
3.1.1 STATUS MENU

The „Status Menu“ displays the current status of the extender connection. The menu displays infroms about the connection, video channel resolution and USB status.

The **current FW** version is displayed in the upper left corner.

The **link status** indicates whether a connection is possible.

Video and USB indicate whether data is currently being transferred.



3.1.2 DEFINITION DDC/EDID SETTINGS

In the DDC Information menu, the user can define which DDC information is used by the PC.

Definition of the DDC information used in the PC:

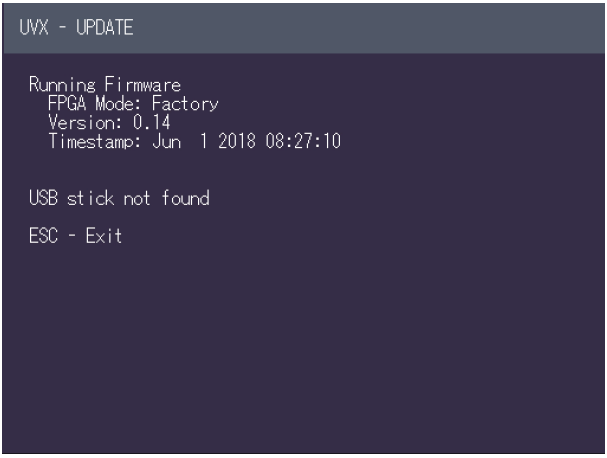
1. Make sure that the main menu is open.
2. Press the **O** button and the DDC Option Menu will be displayed.
3. Press **1** to display the DDC information of the monitor connected to the remote (CON).
4. Extender is connected. The DDC information is automatically saved
5. Press **2** for a fixed position 1920 x 1080
6. Press **3** for a fixed setting 3840 x 2160

Press **ESC** to return to the main menu.

3.1.3 DISPLAY UPDATE MENU

Display firmware version

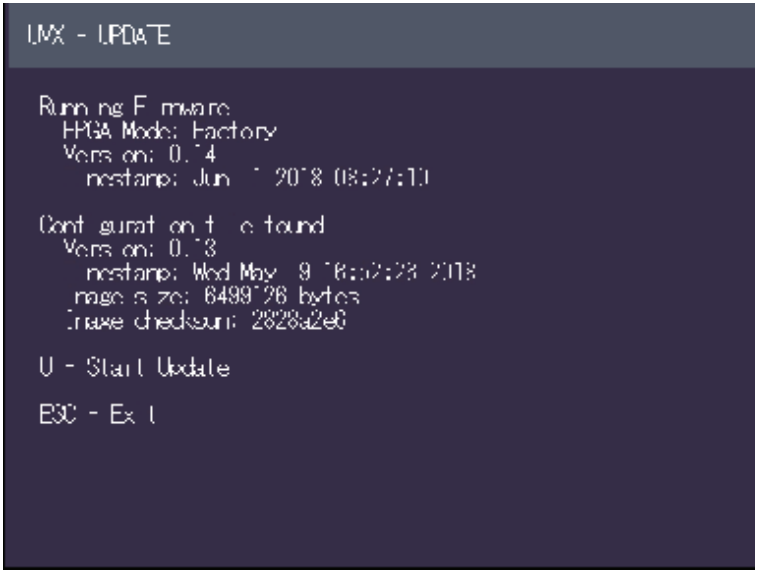
The main menu leads you to the update menu. The currently installed firmware version of the remote (CON) and local (CPU) Extender is displayed (e.g.‘0.8’).



3.1.4 FIRMWARE UPDATE WITH USB STICK

The latest version of the firmware can be downloaded at **www.kvm-tec.com/ support.** Each update file includes a detailed description of the update process. For more information, please refer to the update manual.

1. Go to the **main menu**
2. **Connect the USB stick to the CON** (REMOTE) unit (wait a few seconds until the USB stick is connected to the CON).
3. Open the upfdate menu with „**U**".
4. The firmware appears on the USB stick under „**Configuration found**".
5. Press „ **U**" to start the update of the remote (CON) unit.



The **REMOTE (CON) UPDATE** process is **now started and takes place in 2 steps:**

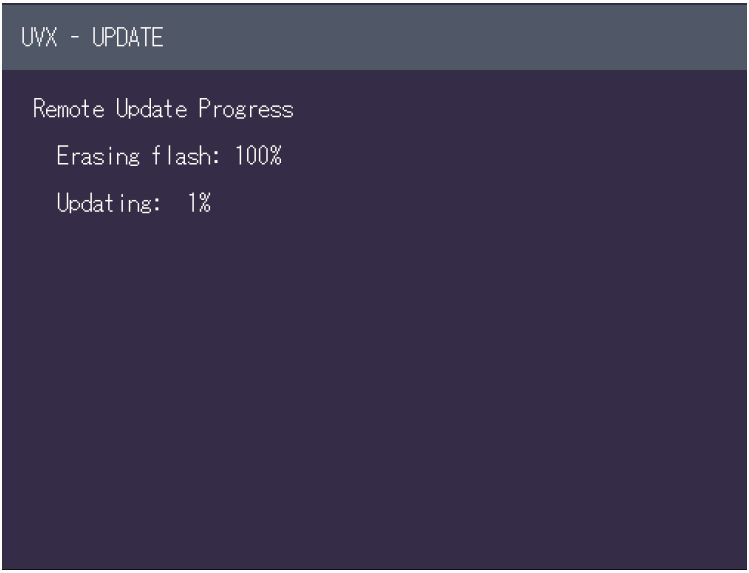
1. Wait for the two steps.
2. Erasing flash and update is 100% finished.

The remote (CON) has now programmed the update.

LOCAL UPDATE (CPU) UNIT

The update of the local part by pressing „**L**“ (recommended by kvm-tec) and then a reboot can be performed.

To ensure that CON and CPU have the same firmware version.



3.1.5 UPGRADE MENU

The upgrade menu shows **all already installed and activated setting**s:

Analog sound	Fix displayed (aktiv)
Embedded Sound	Fix displayed (aktiv)
RS232	Fix displayed (aktiv)
USB Save Feature (no mass storage) on/ off	default off
Matrix Switching	coming soon

USB MEMORY UPGRADES

USB flash memory and external storage devices can be accessed via the extender via the already activated upgrade USB memory.

The USB memory upgrade can be switched off and on by pressing „**M**“.

USB SAVE FEATURE

With the activation, the intrusion of computer viruses via USB mass storage can be prevented. Data from a connected USB mass storage device cannot then be accessed.

SOUND

The upgrade is already activated and transmits sound in CD quality analog over 3.5mm sockets in both directions.

Furthermore, the embedded sound information of the display port is transmitted.

RS 232

Transmitted with max 115.200 kBd. A signal is transmitted in both directions for flow control.

It is not necessary to set the baud rate and bits per character.

„**R**“ appears in the menu item and this function is permanently active.

Switching up to 480 endpoints

The already activated Switching upgrade can be activated from the Switching menu (in the main menu).

By pressing „**S**“, you can access the switching menu and thus activate or de-activate the switching upgrade.

In the main menu you can configure the switching system with „**S**“.

3.1.6 MENU FEATURES

V- Multiview Commander (coming soon)

M- Mouse Glide & Switch (coming soon)

P- Point to point Mode on/off

S- Matrix Swithcing Mode (coming soon)

Two features are already pre-installed, which can be set by pressing „**F**“ in the main menu. You can activate either the 4K Multiview Commander or the Mouse Glide& Switch.

1. 4K Multiview Commander (implemented from 07/ 2018)

By pressing „**V**“ you activate the 4K Multiview Commander and thus you can display and operate 4 PC screens on a 4K Moniotr simultaneously.

The 4K Mulitview Commander requires up to 4 MX local (CPU) devices on the CPU side, which are connected to the UVX CON part via a network switch.

2. Mouse Glide & Switch (implemented from 08/2018)

Multiple UVX Extenders can be configured to automatically switch the USB operation of each computer and follow the mouse movement.

Up to 8 Moniotre can be configured vertically as well as horizontally.

By pressing „**M**“ you get to the configuration of the Mouse Glide & Switch feature

the corresponding local units are connected to the remote unit via a 10G network

switch

3. **Point to point** By default the remote is directly connected to the local part

4. **Matrix Switching System (implemented from 07/2018)**

If this function is active, the Multiview Commander and Mouse Glide features are controlled via the Switching manager software (see Switching Manager manual).

All functions of the switching system can be operated via the Matrix Swithcing Mangager software

You can download the Switching Manager Software Manual:

http://www.kvm-tec.com/en/support/manuals.html

3.1.7 SELECT KEYBOARD LAYOUT

In the Keyboard Layout menu you can switch between the keyboard layouts with which you can navigate the on screen display menu (OSD).

Press the **K** button. The Keyboard Locale menu opens:
Press **E** to select English (QWERTY).
Press **D** to select English (QWERTY).
Press **F** to select French (AZERTY).

4. MAINTENANCE AND CARE

CAUTION! Do not use solvent-containing cleansers. Do not use wipes, alcohols (e.g. spiritus) or chemicals as these could damage the surface.

To clean the product:

- Clean the product with a maintenance product for synthetic material, which is available in specialized shops.

5. TROUBLESHOOTING

Error	Cause	Solution
LED is not lighting	*The devices get no power*	Is the power supply connected? (white box)
LED is lighting in red	*No connection between Loc and Rem*	Check if the RJ45/network cable is connected well. (Clicking noise when plugging in) Control both, if it does not work please send an e-mail to support@kvm-tec.com or phone +42 2253 81912
LED is lighting in orange	*No picture on the monitor*	Check if the local (PC) cable is connected well. Check if the remote (monitor) cable is connected well. If everything is connected well but no function appears, reconnect power supply again. If the menu is visible, press the **O** key and choose the resolution of the monitor. Then press the assigned number on your keyboard.
LED is lighting green	*Screen occurs but the keyboard is not working*	Plug out/in USB of keyboard and wait until driver is installed (after few seconds). Check all USB connections on both sides (Local and Remote) If it is still not working, plug out/in USB once more
LED is lighting green	*No audio*	**Establish audio connection:** plug stereo-jack to the audio output of the PC (green) connection with local: IN remote: headset OUT **Establish microphone connection:** plug stereo-jack to the microphone input of the PC (pink) connection with local OUT

5. TROUBLESHOOTING

Error	Cause	Solution
LED is lighting green	*The screen flickers, has an incorrect display*	Install current firmware from our homepage (http://www.kvm-tec.com/support/firmware-download.html).
LED is blinking green	*Different firmware or USB is not compatible*	Please contact the kvm-tec support team via e-mail: support@kvm-tec.com or by phone: +43 2253 81912 30
LED are lighting differently	*Different firmware*	**To enter on screen menu/check firmware version:** To enter the On screen menu, press the **Scroll Lock** key five times in quick succession. The currently installed firmware version is displayed below the menu If firmware update does not work, please send an **e-mail to** support@kvm-tec.com

6. DISPOSAL

This symbol on the product, the accessories or packaging indicates that this product must not be treated as unsorted municipal waste, but must be collected separately! Dispose of the product via a collection point for the recycling of waste electrical and electronic equipment within the EU and in other European countries that operate separate collection systems for waste electrical and electronic equipment.

By disposing of the product in the proper manner, you help to avoid possible hazards for the environment and public health that could otherwise be caused by improper treatment of waste equipment. The recycling of materials contributes to the conservation of natural resources. Therefore do not dispose of your old electrical and electronic equipment with the unsorted municipal waste.

The packaging is made of environmentally friendly materials, which may be disposed through your local recycling facilities. By disposing of the packaging and packaging waste in the proper manner, you help to avoid possible hazards for the environment and public health.

7. WARRANTY

Warranty lasts 24 months from the date of purchase. The defect product has to be sent back to the manufacturer or your supplier within 2 weeks. The warranty becomes void in case of:

- External forceful impact
- Inappropriate maintenance
- Violating the operating instructions
- Damage by lightning

Always contact us first before sending back the product.

8. SUPPORT

If you have any questions about our products, please contact kvm-tec or your dealer.

kvm-tec electronic gmbh
Gewerbepark Mitterfeld 1A
2523 Tattendorf
Austria
Phone: 0043 (0) 2253 81 912
Email: support@kvm-tec.com
Web: www.kvm-tec.com

kvm-tec Inc
67 Camino Del Oro
Rancho Santa Margerita
CA 92688
Phone: +1 2136313663
Email: officeusa@kvm-tec.com

kvm-tec China Sales
Diyng Tower
100027 Beijing
Email: chinasales@kvm-tec.com

Find our newest updates and FAQs on our homepage: http://www.kvm-tec.com/support

9. DECLARATION OF CONFORMITY

EU DECLARATION OF CONFORMITY
EU KONFORMITÄTSERKLÄRUNG

Hersteller: KVM-TEC Electronic GmbH
Gewerbepark Mitterfeld 1A, 2523 Tattendorf, Austria
Firmenbuchnummer: FN 272328h LG Wr. Neustadt

Hiermit wird erklärt, dass unser Produkt

Produkt: Masterline UVX und UVX-F
Typ: UVX - Digital KVM Extender
UVX-F - Digital KVM Extender Fiber

folgende EU-Richtlinien und europäische Normen (EN) erfüllt:

EMC/EMV - EU Richtlinie 2014/30/EU und 2014/35/EU
2014/35/EU Niederspannungsrichtlinie
EMC Direktive 2014/30/EU EMV Richtlinie
Das Gerät wurde in einer typischen Konfiguration mit PC getestet.

RoHS II - EU Richtlinie 2011/65/EU
Bescheinigung nach RoHS II Richtlinie 2011/65/EU
Hiermit bescheinigen wir, dass alle unsere Produkte im Einklang mit den Richtlinien der RoHS II 2011/65/EU und PFOS 2006/122EG hergestellt und verpackt werden.

REACH - Verordnung (EG) Nr. 1907/2006
Für unsere Produkte nutzen wir ausschließlich marktübliche, bekannte Bauteile namhafter Hersteller, die die Grenzwerte für Substance of Very High Concern (SVHC) nicht überschreiten sowie nicht in die Pflichten aufgrund der Herstellung und des Inverkehrbringens von Substanzen/Chemikalien zur Vor-Registrierung bzw. Registrierung (ECHA) fallen.

Ökodesign Richtlinie 2009/125/EC

Im Speziellen werden die Grenzwerte der folgenden Normen eingehalten:

EN 55032:2012 Class A *

9. DECLARATION OF CONFORMITY

EN 55024:2010
EN 61000-3-2:2014
EN 61000-3-3:2013
EN 60950-1:2006+A2:2013, IEC 60950:2005
LASER CLASS 1: EN 60825-1:2007 kompatibel mit IEEE 803.3z

Unterzeichnet für und im Auftrag von:
KVM-TEC Electronic GmbH

Ort und Datum der Ausstellung:
Tattendorf, 2018-05-09

Name, Funktion, Unterschrift:
Ing. Dietmar Pfurtscheller, CEO/Geschäftsführer

10.1 REQUIREMENTS FOR CAT5/6/7 CABLES

A Cat 7 cable should meet the following requirements:

- The pins are connected 1:1. **Caution:** the cable pairs must be twisted to EIA/TIA- 568A (rare) or EIA/TIA-568 B (common) pairs.
- Erroneous assignments cannot be found with a simple cable tester.
- The pins for the green pair of wires are not adjacent to one other.
- The cable must at the very least meet the CAT7 specifications and be suitable for 10 Gigabit transmission.
- The cable should meet one of the following standards: Class D ISO/IEC 11801:2002 or EN 50173-1:2002. Schema EIA/TIA-568 B.
- Only use shielded installation cable with min. cross section of 24 AWG throughout the length.
- The shield should be contiguous and connected to both ends. A shielded patch cable is allowed for connection to the device.

Schema EIA/TIA-568 B

Pin	Color
1	Orange/White
2	Orange
3	Green/White
4	Blue
5	Blue/White
6	Green
7	Brown/White
8	Brown

10.2 REQUIREMENTS FIBER CABLES

10.2.1 MULTI-MODE (STANDARD)

A Multi-Mode fibre cable should meet the following requirements:

- Maximum length should be 300 m (984ft). The MVX1-F includes a fibre Multimode – SFP Module which allows a transmission distance of up to 300 m (984 ft) .
- Dedicated fibre connection cable type Duplex Multimode 50/125µ (OM2), LC connector

11. NOTES

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