

*VMU5\_V4 VideoMirrorUnit for NEC NP60/50/40 and newer*



## **Introduction**

Thank you for choosing our VideoMovingSystem to fulfil your needs concerning brand new video technology. We sincerely hope that your new product will provide you with years of trouble-free service. In the event that anything does go wrong, you can rest assured that the VMS network is available to support you.

Our extensive dealer network can provide technical service and sales support no matter where you are in the world, and the VMS team is always available for support and advice. Visit the VMS website [www.vms-at.com](http://www.vms-at.com), contact one of our regional market managers or talk to us personally +43 1 505 76 04.

Once again thank you for choosing VMS!



Thomas Kühne & Udo Kapeller  
VMS CEO

## **SECURITY ADVICES**

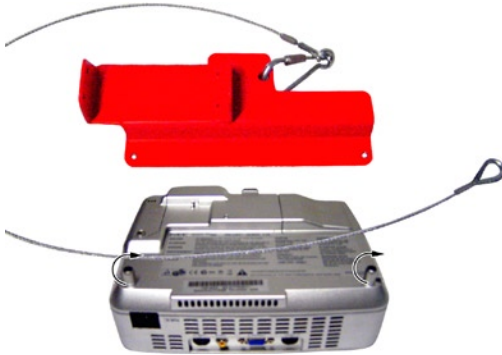
Connected load: ~110V/60HZ || ~230V/50Hz

Attention! This equipment is not appropriate for homebound usage. This product may be danger to life or physical condition, as electric shock and fall. Read manual before connecting or assembling the equipment. If you have any questions concerning save usage of this equipment, please contact your dealer.

### **PROTECTION FROM ELECTRIC SHOCK**

- Separate the equipment all pole from the power system, if not in use and before removing or installing fuses or other components
- Always earth the equipment electrically, before opening the chassis.
- Only use power supply units being up to local and general safety regulations and fused with overload protection and fuse.
- Never expose this equipment to rain or humidity.
- Leave all maintenance work not described in the manual to qualified technicians.
- Always use an extra fall protection for the equipment, for example a safety rope
- Close off work area underneath the equipment when assembling or disassembling

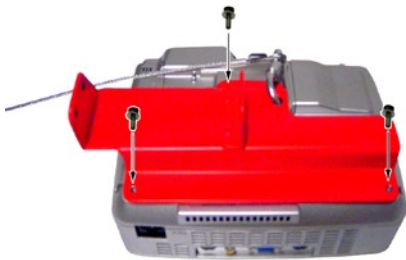
**ATTENTION:** TO AVOID FIRE AND ELECTRIC SHOCK NEVER EXPOSE THIS EQUIPMENT TO RAIN OR HUMIDITY. NEVER USE THE CONNECTOR OF THIS EQUIPMENT WITH EXTENSION CORDS OR POWER OUTLETS IN WHICH NOT ALL PINS CAN BE INSERTED.



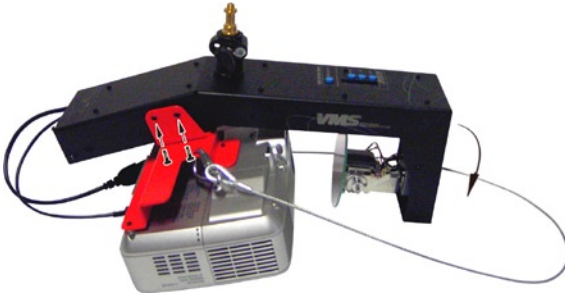
1. Put the NEC NP60/50/40 projector upside down.
2. Unscrew the feet of the projector.



3. Pay attention that the safety rope is attached to the basis plate.



4. Attach the three provided M3x10 screws to the projector's basis plate.



- Put the reflecting unity on the base plate.  
Now mount the VMU with the four screws, intended for it, on the basis plate loosely.

**right:** the projection is within the body.

**wrong:** the projection is beyond the body.

- Start running the projector and remove the protective foil of the mirror!  
Turn the mirror to the right and adjust the projector in such a way that the projection is within the reflecting unity.  
Screw on the base plate firmly.



- Mount the spigot (optional globe joint) and super clamp onto the holder.

- Attach the RS232 Out cable, Mini DIN 8, from the mirror unit to the projector's PC control connector.

- Attach the mirror unit's 230V Power Out cable to the projector's AC IN connector. The projector's power supply cable is used for the whole unit's power supply.



## VMU5.NP mirror unit – technical details:

Mirror control	DMX 512 1x in,1x out, 16 bit
Pan-range	180°
Tilt-range	90° oberer Endposition = Shutterposition
Weight	4.4 Kg (without basis plate)
Dimensions	HxBxT = 455x112x160 mm

## Practical tips for NEC NP60/50/40 projectors used as VideoMovingProjector.

As it is required by certain menu functions, the projector should be attached to a video source.

Auto-Keystone has to be inactive	General -> Auto-Keystone -> Off
Auto-Focus has to be inactive	Options -> Auto-Focus -> Off
Background color black	Installation -> Background -> Black
Adjustment of screen alignment	Installation -> Orientation -> choice between 4 options

## **Mirror Reset over display:**

Selection by pressing the "MENU"- button, till the "rES" letters are shown. Press "STORE"-button.

## **DMX- and RS232 assignment**

The DMX-addresses are selected using "UP" and "DOWN" and can be saved by pressing the "STORE"-button.

## **The VMU5 provides two operational modes:**

### **Mode 1 "bA\_1":**

5 channels – mirror control, 16 bit pan/tilt and Mirror Reset.

### **Mode 2 "bA\_2":**

13 channels – mirror unit functions and several RS232-commands for the projector, it must be pointed out that the projector is able to run those commands.

You can switch between the two operational modes on the display as following:

VMU5 V4



Selection by pressing the "MENU"-button twice. On the selection screen the appropriate operational mode is chosen by using "UP" and "DOWN" and saved by pressing the "STORE"-button.



**Mode 1: "bA\_1" 5 channels:** 16 bit mirror

DMX Channel	Function
01	Pan (MSB)
02	Pan fine (LSB 16bit)
03	Tilt (MSB)
04	Tilt fine (LSB 16bit)
05	Mirror Reset, value 255

**Mode 2: "bA\_2" 13 channels:** 16 bit mirror and RS 232 assignment over DMX for NEC NP60/50/40

DMX Channel	Function
01	Pan (MSB)
02	Pan fine (LSB 16bit)
03	Tilt (MSB)
04	Tilt fine (LSB 16bit)
05	Mirror Reset, value 255
06	Picture mute, value 0 off, value 255 on
07	Picturte freeze, value 0 off, value 255 on
08	not supported
09	not supported
10	Keystone vertical: value 0 is - 32, 128 is Keystone 0, 255 is +32
11	Orientation: 4 values, splitted to 4 x 64 values, Desktop Front, Ceiling Rear, Desktop Rear, Ceiling Front.
12	Source Select 3 options: 0 - 64 Video, 128 - 150 S-Video, 192 - 255 Computer
13	Lamp on/off - on is between 128 and 192, off is 255 - must be pressed at least 2 seconds

Notes:

VMS - VideoMovingSystem is an international company that focuses on video based technologies, applications and video content. The company is based in Vienna, the Cultural Capital of Europe. The VideoMirrorUnit is the key piece of VideoMovingSystem. This simple, yet brilliant invention is designed and produced in Austria.

