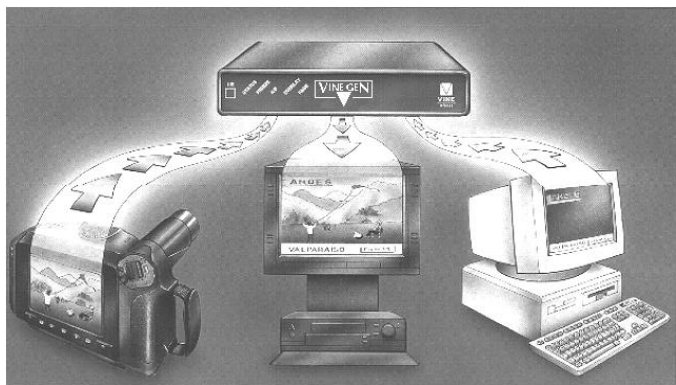


VINE GEN
2

VINE GEN
pro

Instruction Manual V 5.00



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VineGen Introduction

By linking the VineGen (either '2' or 'Pro') between your computer and your VGA monitor, and connecting a 12v power supply, a video signal can be taken to a television or video - for display or video recording. By feeding a video signal (from a camcorder or VCR) into one of the inputs, you can then overlay titles and graphics, and re-record the results.

VineGen 2/Pro 'PC to video' features

- VGA/SVGA/XGA (24bit compatible) input
- Macintosh compatible for resolutions of 640x480 and above.
- Converts image to Composite, S-Video & RGB (computer image).
- VineGen 2 recommended for resolutions up to 800x600.
- VineGen Pro will give superior results, can work at up to 1600x1200, and can also accept interlaced VGA inputs.
- Infra-red remote control of all functions.
- Adjustable overscan/underscan settings.
- Freeze facility, Two-level flicker reduction control.
- Horizontal & vertical picture size and positioning adjustments.
- Internal non-volatile memory remembers picture size/position settings.
- Proprietary digital processing gives high quality 21 bit image.
- All functions can be computer-controlled from Windows or DOS.
- Colour sub-carrier locked to line frequency, thus reducing 'dot-crawl'.
- VineGen Pro also supports a 2x Zoom & Pan feature, and YUV output (computer image only).
- VineGen Pro + Cross-fader supports high-quality manual fading.

VineGen 2/Pro 'Overlay' features

- Composite Video & S-Video inputs.
- 32-Level luma-key allows overlay of titles of any colour (except black)
- Fader allows titles and graphics to be faded to black, or to the video background.
- 32-Levels of fade speed, from 0.5s to 4s (approx.).
- Key-level and fade speed adjustable from remote-control, or from DOS & Windows software.
- Key-level and fade speed stored in non-volatile memory.
- Two keying methods provided - 'Hard-keying' and 'Soft-keying'.
- Soft-keying can give near broadcast-quality titling from title programs.
- Compatible with 'anti-aliased' fonts - ie. to give smooth text edges.

Credits

VineGen 2 & VineGen Pro Hardware (c)1996 Vine Micros Ltd, portions (c)1993 Vine Micros Ltd.

DeltaScan/VineGen DOS/Windows Control Software (c)1995-1996 Vine Micros Ltd.

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Designed and Manufactured in the United Kingdom.

Hardware and Software designed by R.P.D.Mallett.

VineGen Instructions release 5.00 (c) July 1998 by R.P.D.Mallett, with thanks to A.S.J.Mallett.

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Identifying the hardware

Checklist

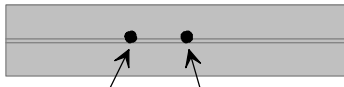
1. VineGen 2 or VineGen Pro box.
2. Computer lead. This is a short lead consisting of a 'VGA' style 15 way plug on one end, with a 8 pin 'mini-DIN' plug on the other.
3. Composite Video lead and S-Video lead (plus SCART lead with Pro).
4. Hand-held Remote Control.
5. 'External Adaptor Control Software' disk.
6. This manual.
7. Mains adaptor. If you have not purchased a mains adaptor with this unit, you will need to use one with the following specification: 12volts DC, minimum of 500mA, 2.1mm DC power-plug with centre pin positive. *Do not use a mains adaptor with a higher voltage rating than this.*



Front of VineGen.



Back of VineGen.



Right-Side of VineGen.

Connecting the hardware

Connecting the VineGen unit to your computer could not be easier! Since there's no software to run, setting the unit up is as simple as connecting some cables and making sure your TV or video is switched to the right input.

First: Switch off power to all equipment

Connection to your computer

Dis-connect the VGA monitor from the computer's VGA output, and use the supplied computer cable to link from the computer's VGA output to the round connection marked 'VGA in' on the VineGen.

Re-connecting your VGA monitor

Plug your existing VGA monitor into the connector marked 'VGA out' on the VineGen. This will let you use your VGA screen as before, but only when there is power supplied to the VineGen unit.

Connecting the video outputs

The unit can drive several different outputs:

1. Composite Video - for linking to domestic TVs or VCRs via the (normally yellow) 'Video In' phono socket on the equipment. NB. This output will not connect to an aerial input.
2. S-Video - for linking to S-VHS or Hi8 recorder decks. This will give far superior results than the Composite video output, but not all equipment has such an input.
3. RGB - for connection to a TV's SCART plug, or video projector. NB. this cable is only included with the Pro version, and will only ever show the computer output.

Connecting a mains adaptor

The VineGen requires a 12v DC minimum 500mA power supply - see 'Technical Specifications' for further information on suitable power supplies. Plug the mains adaptor into a mains outlet, and plug the round 'DC power plug' into the 'DC In' socket on the VineGen. (Note that there is no on/off switch on the unit.)

Turning on

Make sure you've connected all leads, and your equipment is turned on. Your VGA screen should function normally, and any connected video monitors or TVs should now show a similar signal. If you do not get what you expect:-

1. If there's a picture, but the wrong shape or position, please continue through this manual - everything is working fine, but just needs slight adjustment by using the remote control.
2. If there's no picture at all, then are you sure there's power to the unit? If the red 'Status' LED is not on, then you've not connected the mains adaptor correctly.
3. If there's no picture and the 'Status' LED is on, then check:
 - a) all connections;
 - b) that your TV or video is connected to the right output from the unit;
 - c) that your TV or video has the right input selected (for example AV, or channel 0) - as it is likely that it will default to the aerial input, and may not be the one that you have plugged the output of the unit into.
 - d) if you still have no image, then please refer to the 'Problems?' section at the back of this manual before contacting Technical Help.

Overlaying onto video

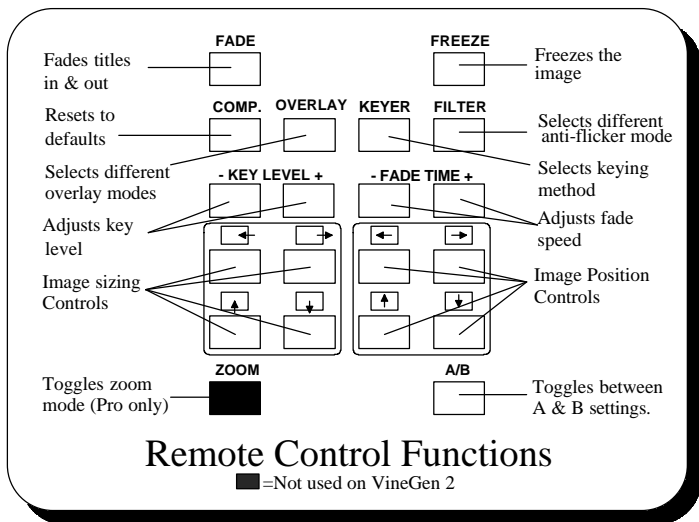
We know you're keen to get cracking, but it's important to get the unit up and running first in normal 'Computer to video' mode (ie. just showing the computer image on the TV screen). The next section in this manual has further information on setting the unit up to suit your computer's graphics card, and this is much easier to do in non-overlay mode. A later section then deals with the subject of video overlay.

If you really want to skip to the overlay section, you can do so - but the next section describes some very important things about this unit, and as you'll probably only have to read it once, please take the time to do so.

Using the VineGen

The VineGen range could not be easier to use - it's active as soon as it's connected. All functions of the VineGen are controlled using the infra-red remote control provided. In use, you should always point it directly at the front of the unit within a range of about 4m.

This first section describes the 'PC to Video' buttons in detail. The subsequent section describes the overlay controls in detail.



Screen Adjustments

The VineGen is unique, in that it allows the user to customise the screen size and position to exactly suit the display being used. It is often the case that different computer graphic cards, or different televisions will display a picture that is slightly 'off-centre' - perhaps too far to the right or left, for example - and the adjustments that the unit allows will compensate for such differences.

The following sections cover the adjustments that can be made using the remote control. All changes made (except Freeze, Filter, and A/B) are stored in non-volatile memory (ie. memory that is not lost when power to the unit is removed). Adjustments are also specific to individual screen resolutions, so you won't need to constantly alter screen position for different programs - once set up for your needs, it will remain so.

Defaults

Default screen size and positioning adjustments are pre-programmed into the internal memory for a variety of standard screen modes. However, it is quite possible that it will not know about a screen mode that your graphic card outputs, and for these resolutions you will have to adjust the display until it is correct - but you should only need to do so once!

Screen positioning adjustment

Use these buttons to control the position of the image on your TV. If you try and move the image too far, it will jump to the other side of the screen (eg. move too far to the left, and it will jump back to the right).

Screen size adjustment

These buttons change the height and width of the display. They should be used in conjunction with the screen position buttons to adjust the display to your needs. Eg. making the screen wider will probably require you to move the screen to the left slightly as well. If you try and make the image too tall, the image may become unstable - in which case you should reduce the image height until it becomes stable again. Note that Screen size adjustments are disabled when in zoom mode. Like the positioning controls, these adjustments will 'wrap-around'. See the section 'Getting the best possible picture' for more information.

A/B - (Underscan/Overscan)

This button gives you the ability to store two different size, position and zoom (Pro only) settings for each screen resolution, with the 'A/B' LED coming on when the 'B' setting is selected. In most cases, this will be for 'Underscan' and 'Overscan'. Overscan is where the display image is made slightly too large for the TV set, with the result that you no longer have a black border round the edge. Underscan is a setting where you still have the border, much as you would see on a VGA screen.

Alternatively, you can use the A/B feature to store other screen size/position settings - including, for example, one that uses the zoom feature, so that pressing the A/B button toggles between normal mode and a zoom mode.

It is recommended that the 'B' mode is used for storing the overscan and zoom settings.

Zoom (on Pro version only)

Press zoom to get a 2x 'blow-up' of your computer image on the TV set. The screen positioning buttons will control the area being zoomed. Press Zoom again to put things back to normal. Note that your image may now be offset - but this can be avoided by using the A/B feature, with your normal image position/size stored in 'A', and your zoomed position/size stored in 'B'.

Freeze

Pressing this button will light up the Freeze LED, and prevent the TV image from changing. When active, the picture sizing, positioning, and A/B controls will be disabled. Press again to put things back to normal. This feature is useful for presentations, where one picture can be displayed and frozen, whilst another is prepared on the computer's screen.

Filter

This button toggles between two different 'flicker reduction' modes. The first offers a high-quality image with slight flicker, and the second produces a lower-resolution image with no flicker at all. Note that some screen images will flicker more than others, and that the 'perceived flicker' can depend on your TV set's brightness and contrast settings - and will also vary between different TVs. See the section 'Getting the best possible picture' for more information.

Comp.

Pressing this button will set the unit back to 'Computer to Video' default mode - ie. Freeze off, 'A' mode, high-quality filter, overlay off, fade off, and standard keyer. This button is useful as a quick way of resetting the unit. Note that screen positions, sizes, key level, and fade speed are completely unaffected by this button.

Hardware adjustments available

See diagram in the section 'Identifying the hardware'.

Freq.Adj.' - Colour sub-carrier frequency adjustment

This adjustment allows control of the 'colour sub-carrier' frequency, and will not normally need adjusting. An incorrect setting may result in a black & white picture, or incorrect/unstable colours when overlaying.

Level' - VGA image clip level.

This adjustment is similar to a brightness control, but will also clip colours that are too bright to the maximum brightness level. If this is set wrongly, then certain colours such as yellow may appear washed out, or even come out as white. This adjustment is factory set, and should not normally need altering.

Don't forget to see the next section on video overlay!

Using the VineGen's Overlay functions

Introduction

This section covers the remote control buttons to do with overlaying titles onto video. This may only be something you have in mind for a future application, or it may be the main reason for buying this unit. Either way, please read this section thoroughly to get a good idea of how the unit works.

Overlay

Pressing the overlay button will cycle between 3 different modes:

Number	Mode	Description
1	PC to Video	Default mode, where the computer image is converted into a video signal.
2	Overlay	Titles and graphics that are above a certain 'key-level' are superimposed over the video image.
3	Mix	Either the PC image, or the video image, is displayed depending on the FADE status.

Mode number 2 (Overlay mode) is the most suitable for video titling. Once selected, you should adjust the key-level (see below) to control the level of keying. In Overlay mode the keyer works by cutting out any part of the computer image that is below a certain brightness, and anything above this key-level remains to be superimposed over the video image.

To use either of the last two modes, you'll need to connect a suitable input. This can be a VCR, a cam-corder, or anything that outputs a standard video signal. Connect to either the Composite Video or S-Video input, but note that if you feed a Composite Video signal in, you must use the Composite Video output. Similarly, if you use the S-Video input, you must use the S-Video output on the unit. ***The VineGen will not 'translate' a Composite Video signal to S-Video or vice versa, and the composite video input will override the S-Video input.***

Key-level

These two buttons increase and decrease the key-level of the 'keyer'. Keying is only active in Overlay mode, where the key-level defines what areas of the computer image are overlaid, and which areas (usually black) are not. Increase (+) the key-level to key-out black areas, and darker areas (eg. dark blue). Decrease (-) the key-level to bring back the darker areas (eg. dark red). Note that the keyer is colour independent - ie. it just looks at the colour's brightness, and you may find that an incorrect setting may result in blue colours not being overlaid (decreasing key-level should cure this).

There are 32 levels of keying available, and the last level used is remembered in non-volatile memory. Note that there are two methods of keying - but these will be covered under the 'Keyer' button description.

Fade

Pressing the fade button will fade out the computer image, at which point the 'Fade' light will come on. Pressing it again will fade the computer image back in again. The exact function of the fade depends on which mode you are in:-

Number	Mode	Affect of fading
1	PC to Video	The computer image will fade to black.
2	Overlay	The overlaid titles will fade 'into' the video image.
3	Mix	The whole computer image will fade away to reveal the whole video image.

Fade Time

These two buttons control the speed at which the fade operates. Increasing (+) the fade speed will increase the length of time it takes for the fade to operate. The minimum fade speed is approx. 0.5 seconds, and the maximum fade speed is approximately 4 seconds.

There are a total of 32 different speeds, and the last setting used is remembered in non-volatile memory.

Keyer

The Keyer button is used to select between two separate keying methods:-

Method	How it works	Uses
'Hard keyer'	Each pixel of the computer image is either keyed completely in or out, depending on the brightness of the image. There are no 'intermediate' levels.	General usage, and overlay of very dark colours such as dark blue.
'Soft keyer'	Computer image pixels that are very much brighter than the key-level are keyed in 'solidly'. Pixels that are very much darker than the key-level are keyed out completely. Pixels that are 'in-between' are semi-keyed - ie. they become translucent.	Compatible with 'anti-aliased' fonts, producing near broadcast-quality titles. Also used to reduce 'line flicker', and for special effects.

It's a good idea to play around with each keying method, to see what effect it has on your titles and graphics. The default setting is 'hard-keying', and this is the mode selected when pressing the 'COMP.' button to reset the unit. Supplied on the accompanying disk is a sample graphic file called 'OVERLAY.PCX'. This 256-colour picture, when loaded into a suitable viewer (eg. Windows Paintbrush), will let you try out the 'soft keyer' and see how it compares with the 'hard keyer'.

The 'Hard-keyer' is the default mode, selected on power-up, and when pressing the 'COMP.' button.

Remote control & Overlaying

Please note that if you select an Overlay mode, and then remove the video source that the VineGen is overlaying onto, then the remote control will appear not to work. If this happens, either remove power temporarily from the unit, or use the Windows software.

Installing the VineGen DOS/Windows Control Software

The VineGen DOS Control Software allows control over the VineGen unit from your keyboard - all the remote control buttons are duplicated using special 'Hot-keys'. The VineGen Windows Control Software presents a remote control on your screen, which behaves exactly like the remote control unit provided.

README file

The supplied disk may have a README file on it, which would contain any information that has changed since this manual has been released. It would also detail any changes to the software not mentioned in this manual. To view the README file (if there is one), simply load it into the Notepad program (which you'll find in your Windows' Accessories group), or use the TYPE command to view it from DOS.

Software Installation for Windows 3.1/3.11

1. The software installs using Windows, so first run Windows.
2. Put the supplied software disk in drive A: (or B:).
3. Select 'Run' from the 'File' menu from 'Program Manager'.
4. Type A:SETUP (or B:SETUP) in the box, and click on OK.
5. Follow the instructions that follow (if any). The supplied software uses 'Visual BASIC', and you may be asked to close other software that is programmed using this language during installation.
6. The Program Manager window may change size - simply click on the maximise button to correct this.
7. Once completed, you may move the icon to another window group for ease of use.

Software installation for Windows 95

1. Put the supplied software disk in drive A: (or B:).
2. Select 'Run' from the 'Start' button.
3. Type A:SETUP (or B:SETUP) in the box, and click on OK.

4. Follow the instructions that follow (if any). The supplied software uses 'Visual BASIC', and you may be asked to close other software that is programmed using this language during installation.
5. Once completed, you may move the icon to another window group for ease of use.

If you don't want to use Windows.....

Then simply copy the DMKEY.COM & DMCOMM.COM programs from A: into your computer's C:\ directory (or somewhere pointed to by the PATH setting), and see the next section on how to use them.

VineGen Control Software

Windows Control Software

The VineGen Windows Control Software lets you control your VineGen unit from within Windows.

Running the software

Simply double-click on the VineGen Control icon.

Controlling the VineGen

It's as easy as using the remote-control - because the software resembles the remote control! See section on 'Using the VineGen'.

DOS Control Software

The VineGen DOS Control Software lets you control your VineGen unit from 'hot-keys' in most DOS programs.

Running the software

A 'TSR' (Terminate and Stay Resident) program is used. To run it, simply make sure that the DMKEY.COM program is in your hard disk's root directory (ie. C:\), and type

DMKEY

A message similar to:-

```
DMKEY DOS Control Software
(c)1990-1996 Vine Micros Ltd
Version 1.31 RPDMS ASJM
```

... will appear, confirming that the software is installed correctly.

You can run the program at any time from the DOS prompt - even from within a Windows 'MS-DOS Prompt', but remember that the keys will only work whilst you are in the 'MS-DOS Prompt' that it was run from. See the following table for information on how to access each remote-control command.

General & PC to Video controls			
Function	'DMKEY' Hot-Key	'DMCOMM' Command	Code (dec)
Move screen left	ALT <left-arrow>	LEFT	10
Move screen right	ALT <right-arrow>	RIGHT	11
Move screen up	ALT <up-arrow>	UP	14
Move screen down	ALT <down-arrow>	DOWN	15
Make screen narrower	ALT Delete	SIZELEFT	8
Make screen wider	ALT Ins	SIZERIGHT	9
Make screen shorter	ALT PageUp	SIZEUP	12
Make screen taller	ALT PageDown	SIZEDOWN	13
A/B setting	ALT A	AB	20
Freeze/Unfreeze	ALT F	FREEZE	17
Filter (Sharpness)	ALT S	FILTER	3
Zoom (Pro only)	ALT Z	ZOOM	18
Resets to defaults.	ALT C	COMPUTER	0
Disable ALT keys	ALT <TAB>	KEYDISABLE	N/A
Enable ALT keys	ALT <TAB>	KEYENABLE	N/A
Overlay controls			
ALT O	Overlay mode	OVERLAY	1
ALT D	Fade	FADE	16
ALT - (Main keys)	Decrease key-level	KEYMINUS	4
ALT + (Main keys)	Increase key-level	KEYPLUS	5
ALT - (Keypad)	Decrease fade-time	FADEMINUS	6
ALT + (Keypad)	Increase fade-time	FADEPLUS	7
ALT K	Toggle key method	KEYER	2

Table of methods of controlling the VineGen

Controlling from other software

All the remote-control functions can be also be simulated from your own software, via either a 'Dynamic Link Library' (for Windows software) or a TSR driver (for DOS software). The (rather technical) information below gives details on how to do this.

Control from your Windows Applications

int VMDMSendCode(int code)

... is available in the DLL file 'VMSCNT3.DLL'. This function can be declared in a Visual Basic 'Declaration' section, or called from other software (eg. C++). See the previous table for the control codes to use.

Control from DOS Software

First run DMKEY.COM. This program supports an interrupt call that can be used to control the units. Then either:

- MOV AX, code
INT 066 (hex.)
... to control the unit with the codes listed previously; or
- Run DMCOMM followed by a comment word (or list of words). Eg.
DMCOMM FREEZE

Notes on control methods

1. Codes listed are in decimal.
2. Codes take approximately 0.25 seconds to send, during which time all interrupts are disabled.
3. Code 0 resets the unit to 'power-on' settings - however, no screen size or position adjustments will be affected.
4. The above codes, like the remote control, act as 'toggles'. To ensure that FREEZE is on, first 'Reset' (using code 0) and then 'FREEZE'.
5. You are free to distribute (but not alter) the files VMSCNT3.DLL, DMKEY.COM, DMCOMM.COM with your software for the purpose of controlling the VineGen hardware.

External Cross-Fader

Note that only Pro units with serial numbers beginning MLPX, MNPX, GLPX, or GNPX can support this external fader unit. This Cross-Fader unit is only available at the time of purchasing the main VineGen Pro unit.

Connecting the external fader box

The 15-pin plug should be connected to the 'Pro' unit's RGB/SCART output connector. This provides power to the cross-fader box, and allows the box to communicate with the 'Pro' unit.



How to use the external fader box

Use is very simple. Instead of using the 'FADE' button on the remote control, simply switch to 'Manual Fade' on the cross-fader box, and the slider will give you perfect control over the fading abilities of the 'Pro' unit. When in 'Manual Fade' mode, the remote control's FADE button is overridden. Switch back to 'Automatic Mode' to again use the remote control's fade facilities.

Please note

Since the main circuitry for the external cross-fader is actually inside the 'Pro' unit, only dedicated 'Pro with external fader' units can support the external box. There is a 'dead' region near the top and bottom of the slider's control area - this is to ensure that overlaid image is either fully in or out, with no possible slight overlay due to slight variances in construction of the box. This is not a fault with the unit. Disconnecting the external fader's plug from the 'Pro' unit is the same as switching back to 'Automatic mode'.

Getting the best possible picture

The VineGen is a highly sophisticated scan-converter, and has been developed from Vine Micros' 9 years of experience in computer to video conversion. As with all high-technology equipment, knowing how a device works will often let the user get more out of it, and this is the purpose of this section. Whilst no circuit diagrams will be given, useful information and tips will be.

PC to Video Tips

1. Use S-Video in preference to Composite Video, if your equipment has such an input or output. S-Video keeps the colour and brightness signals in a video signal separate, whereas Composite Video requires extra filters in the VineGen and in the TV or Video to separate them electronically - and these filters degrade the image.
2. If recording to video, use the higher-quality FILTER mode. This is because some video recorders will not work well with non-interlaced video signals - and may even give broken up pictures.
3. A slightly different vertical size or position may greatly reduce flicker in DOS text modes. By changing the vertical size or position slightly (up or down), you may be able to match the pixel spacing and design of the DOS text font.
4. The lower the graphics resolution, the better the 'horizontal' image quality. All scan converters store the computer image to be converted to video in their own internal memory, and to do so the graphics card's signal has to be 'sampled' many times during each horizontal scan-line. Each sample stores one pixel of information in the memory. The number of samples taken is proportional to the image quality - ie. the more samples the better. The VineGen takes a fixed number of samples per second, but since higher graphic resolutions take less time to display each scan-line than lower ones, it means that there'll be more samples per line for lower resolution modes - and hence lower resolutions will give a better 'horizontal' image quality.
5. The lower the graphics resolution, the better the 'vertical' image quality. TVs have a fixed number of lines available for displaying pictures - for PAL it is 576, and for NTSC it is 480, although some of these are off the top and bottom edges of the screen. So the more scan-lines a graphics resolution has (eg. an 800x600 resolution has 600 scan-lines), the more difficult it is for the VineGen to squeeze all these lines into the limited number available on

the 1 v. The result is that for high resolutions, there will be line-drooping - which is usually only noticeable on very small text.

Overlay Tips

1. Anti-aliased fonts give the best results. Use anti-aliased fonts wherever possible, and enable the soft-keyer when using them. By doing this, the VineGen will blend the text edges into the background, giving near broadcast-quality results. Don't forget to adjust the key-level to suit the colours being used.
2. Use a softener tool on your graphics. If you can't use anti-aliased fonts, or you are using custom designed graphics, then use a 'softener' tool from your graphics software to do the anti-aliasing for you. Again, enable the soft-keyer and adjust the key-level to get the best effect.
3. Add a dark outline to your titles. If you can't use anti-aliased fonts, and your software has no 'softener' tool, then try putting a darker edge or outline to any characters used for titling. Again, enable the soft-keyer and adjust the key-level for the best results.
4. Translucent colours have many uses! You can create some really nice effects when using the 'soft-keyer' and large areas of 'translucent' dark colours. For example, you could add a translucent dark blue background to your titles, or even superimpose a green ghost over a video!

Problems?

Use this section as soon as you have a problem. Should none of the suggestions below help, please contact Customer Services at the number listed at the end of this section.

- The 'Power' LED does not come on.* Check that the mains adaptor is connected properly and turned on, and that its polarity is correct (if it has a polarity-reversal switch).
- There's no output from the unit.* First check that the power LED is on (see above). Check that the unit is responding to the remote control (eg. press FREEZE, and see if the LED comes on). If not, then the unit may be faulty, or the remote control batteries need replacing. If it does respond, then check all connections from the unit to your TV/Video, and that the TV/Video is correctly set up (eg. the right channel selected, or AUX or A/V pressed, etc.).
- The unit does not respond to the remote control* The 'STATUS' LED should flicker when the VineGen detects infra-red data - if it is not flickering, then you may need to replace the batteries in the remote control. Remember that when the FREEZE LED is on, most remote control buttons are disabled. Also, don't remove video when overlaying, as this will disable the remote.
- The DOS Control Software does not control the unit.* Are you sure that DMKEY has been run correctly? Have you accidentally disabled the keys using ALT-TAB? (If so, just press ALT-TAB again to restore the key functions). Some programs disable TSRs that use 'Hot-keys'. In these cases they will have no effect, and unfortunately nothing can be done - use the remote control instead.
- I get excessive flicker on the TV* Have you tried selecting the alternate FILTER mode? Even something as simple as turning the contrast down (and the brightness up slightly) can have a large effect on flicker.

- My TV image is distorted (bent).* This often occurs where some areas of the image are very dark and others are very bright - and your TV isn't used to this! The solution is to adjust the contrast and brightness settings on your TV to rectify the problem.
- Some colours come out wrongly on the TV.* Turn the 'Level' adjustment at the side of the box clockwise until the correct colours are restored. (See the text 'Hardware adjustments available' in the 'Using the VineGen' section, and the 'Identifying the hardware' section.
- I cannot adjust the screen size by the amount I need to.* First, remember that size settings cannot be altered in FREEZE mode. The unit is designed to allow size control of the computer display to fit your TV. Whilst in most cases you will be able to make the display smaller on your TV than on your monitor, do not try to make it too large, or the image will be unstable.
- I get a flashing, broken display on the TV.* Try repeatedly pressing one of the vertical sizing buttons or one of the vertical positioning buttons, until a stable image appears - if this doesn't work, then you may have gone beyond the limits of the VineGen!
- My TV image is okay, but a recorded image is very unstable.* Try using the higher-quality 'FILTER' setting. Some video recorders will not record properly with the lower-quality setting, as it forces the VineGen to output in non-interlaced video mode.
- Can the unit work with CGA and EGA?* The VineGen unit can work with CGA and EGA resolutions when working on a VGA graphics card, but is not compatible with the output from a CGA or EGA graphics card. Vine Micros no longer supply such units.
- What resolutions can the VineGen support?* Technically, just about any screen resolution can be fed into the unit. See the technical specifications at the back of this manual for further information. See the section on 'Getting the best possible picture' for tips on what resolutions to use.

How can I reduce smearing? Smearing usually only occurs when using Composite Video connections, and is generally unavoidable - unless you can switch to using S-Video or RGB connections. It occurs because the brightness and colour information is transmitted in one signal, and the two parts have to be 'bandwidth-limited' to avoid them interfering with each other - see Vine's free 'DTV Guide'.

My recorded image is poor. Standard VHS videos are not very good at recording the fine detail present in computer graphics. S-VHS decks offer much better quality, whilst professional decks will be even better. Colour smearing is usually the first thing that causes a problem, but this is just because your video isn't capable of recording the picture in its full resolution - *it is not a fault with the VineGen or your video.* Try using less saturated colours (ie. pastel shades).

The unit does not remember my last key-level and fade-time settings The internal memory for these settings has a 'life' of 100,000 'writes'. Therefore the VineGen will only write to the memory when you switch from 'Overlay' mode to 'PC to Video' mode (either by pressing 'OVERLAY' or by pressing 'COMP.'), thus ensuring that the memory lasts the lifetime of the unit.

The fade-time buttons have no effect on fading. The key-level and fade-time adjustments can only be done during an overlay mode. This is a 'safety feature', to help prevent accidental changes to these settings.

My VGA monitor does not display an image, or is rolling vertically. The VineGen unit processes one of the synchronisation signals needed by the VGA monitor, thus power must be connected to the VineGen in order for the VGA screen to display an image correctly.

Overlaid colours are unstable. You should try adjusting the 'Freq.Adj.' at the side of the unit - see the section 'Identifying the Hardware'.

Technical support is available direct from Vine Micros direct on:

Tel: 01843 873300

FAX: 01843 873301

E-Mail: technical@vinemicros.com

Warranty & Returns Procedure

Warranty

Your unit comes with a two year warranty (valid from date of purchase), which covers faults in the VineGen unit that arise from defects due to material or construction, when under normal use. The VineGen device will be repaired or replaced, as Vine Micros sees fit, free of charge within this period.

This warranty does not cover damage due to negligence, mishandling, accident, improper maintenance, modification, or repair of the unit by anyone other than Vine Micros or their authorised representative.

Note that under all circumstances the warranty only covers losses up to the value of the replacement cost of the unit(s) described in this manual (see 'Disclaimer' on Page 2 of this manual).

Are you sure there's a fault?

Please consult the previous section on problem-solving before sending a unit back. Most 'faults' are due to incorrect usage.

If you need to return a unit...

First contact your supplier, who will obtain an authorisation number from Vine Micros. Please enclose with the unit details of why it has been returned, and failure details if appropriate. Proof of purchase should also be included.

Units should be returned via insured courier or registered post (thus allowing a trace to be made if goods are lost in transit), clearly stating the returns number allocated as this will speed up processing. Goods on their way to Vine Micros are the responsibility of the sender, and Vine Micros cannot be responsible for transit losses.

Technical Details

Input

Red, Green and Blue @ 0.7v peak white.
Non-interlaced HSync and VSync @ TTL levels.
Horizontal frequency range: 30kHz - 50kHz approx.
Recommended maximum resolution: '2': 800x600, 'Pro':
1600x1200. 'Pro' version also supports interlaced VGA inputs.

Outputs

PAL & NTSC units available.

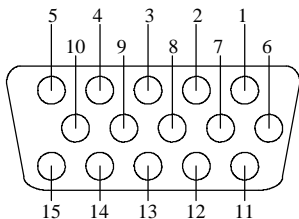
Standard VGA output to go back to monitor.
Composite Video 1v p-p, S-Video 1v p-p,
RGB (computer image only) signal, YUV (computer image only)
signal on Pro only.

Power

consumption

VineGen '2' consumes approx. 350mA @ 12v.
VineGen 'Pro' consumes approx. 450mA @ 12v.
Voltage requirements: minimum 12volts, maximum 16v DC.
Requires 'centre-pin positive' 2.1mm DC power plug input.
Reverse polarity protected. Internal non-serviceable 1.5A fuse

Pin	Function	Volt/Ohm
1	Red signal	0.7v/75 Ohm
2	Green signal	0.7v/75 Ohm
3	Blue signal	0.7v/75 Ohm
4	Y out - Pro only	1.0v/75 Ohm
5		
6	Red ground	
7	Green ground	
8	Blue ground	
9	RGB Blanking*	2.5v/75 Ohm
10		
11		
12	U out - Pro only	0.8v/75 Ohm
13	Composite Sync	TTL
14	V out - Pro only	1.0v/75 Ohm
15	Composite Video	1.0v/75 Ohm



RGB Output socket

*When using RGB output, you *must* ground pin 9 through a 75 Ohm resistor (this is done for you when using the SCART lead).