Video Effects Processor - VSL 201

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Video Effects Processor - VSL 201

Features

- Two video inputs
- Composite video or Y/C inputs and output
- High resolution 768 x 576 pixels (CCIR PAL format)
- Software switchable between CCIR-PAL and EIA-NTSC
- Fixed single Reticule
- Moveable single crosshairs
- Moveable twin crosshairs
- Twin crosshairs with measurement
- Moveable Triple crosshairs
- Moveable Reticule and 2 concentric boxes
- Moveable Reticule and 2 concentric circles
- Video line profiling
- White / black reticules
- Solid or a selection of dashed reticules
- Left – Right screen split
- Top – Bottom screen split
- Horizontal / Vertical image mirror / flip
- Moveable line of text
- 4 stored setups
- Powers up with setup-1
- Mouse driven (PS2) – allows unit to be remote from power and cabling
- Unit effectively locked when mouse removed
- Feature rich hierarchical menu
- Low power
- Uses double insulated power source to eliminate earthing issues
- User replaceable power source (12V(nominal) 1A; +ve centre pin)
- User replaceable mouse (PS2)
- Configurable logic processor
- ARM CPU

Reticule / video formats

0022.30 mm
0017.00 mm
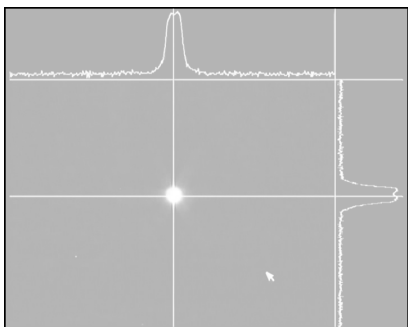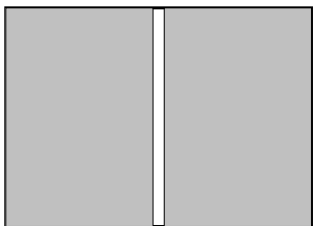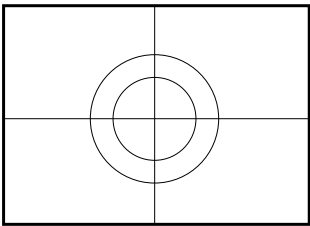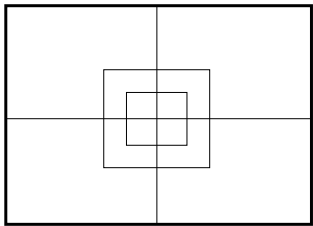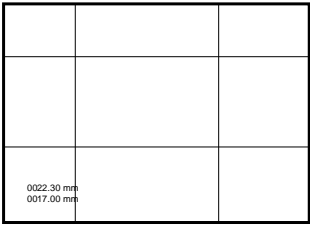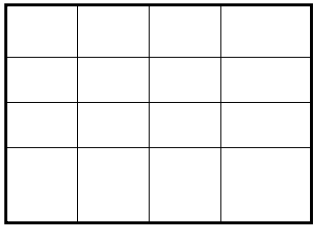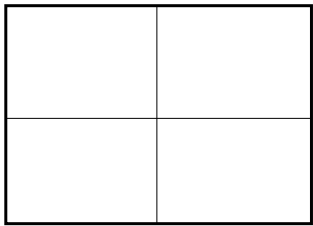
Video Effects Processor - Rear View

Input / Outputs

The unit has of 2 video input channels, each comprising of a composite video input (BNC), and Y/C component video input (Mini DIN). The output channel can be selected from any one of these 4 inputs. Both composite and Y/C component video outputs are provided simultaneously.

The supplied PS/2 mouse and power supply must be connected to the appropriate inputs for correct operation and control. The mouse can be removed at any time where the unit must not be tampered with or where settings must not be changed.

Setup Screens

As a general rule, a right click will cycle through the top level menu screens, according to the selected overlay options, and a left click will step down to lower menus or select or change options. Whilst in a lower menu, a right click will move to a higher menu.

In order to get to the main setup screen, right Click the mouse until you get to this top menu

> **Retrieve setup 1**
> **Retrieve setup 2**
> **Retrieve setup 3**
> **Retrieve setup 4**
> **Overlay setup**
> **Misc setup Menu**
> **Store setup**
> **Unlocked**

The unit has 4 stored configurations which can be retrieved from this menu. The unit powers up with **setup 1**. To retrieve a setup, move the mouse to highlight the appropriate line and left click. To select a submenu, highlight the line with the mouse and left click. To exit this and any other menu right click the mouse.

In this menu the Crosshairs can be locked and unlocked. If locked, the moveable crosshairs cannot be moved through a left click as explained later in this manual.

On left clicking Overlay setup on top menu we get to this menu

> **Crosshair menu**
> **Measurement menu**
> **Split screen menu**
> **Video profile**   **:**
> **Video flip menu**
> **On screen text**   **:**

In this menu we can see the Profile option where the cursor selects the horizontal and vertical lines to be sampled.

The unit allows for one line of text, which when enabled, can be entered with a single right click of the mouse when in normal mode. Characters are then highlighted when the mouse hovers over the character in question and the characters can be incremented by a left click, or more conveniently through using the mouse scroll feature. The full set of ASCII characters is available.

Further submenus can be reached by left clicking on the appropriate line.

Crosshair sub menu:

Fixed Single crosshair	**:**
Single crosshair	**:**
Dual Crosshair	**:**
Triple Crosshair	**:**
Crosshair with 2 circles	**:**
Crosshair with 2 squares	**:**

Various types of crosshairs can be selected by left clicking the appropriate line.

Measurement sub menu:

Dual crosshair measurement	**:**
Measurement units	**:**
Measurement text pos : Line 00	

When Dual Crosshair with measurement is selected, the on-screen measurement text can be moved up or down and the unit of measurement can be selected.

Split screen sub menu:

Split screen left/right	**:**
Split screen top/bottom	**:**

This allows for comparisons to be made between the two video inputs or a frozen image from the same input.

Video flip menu: On a left click within this text, the following menu will appear:

Flip Vert	**:**	**N**
Flip Horiz	**:**	**N**

This is useful where a system might have a mirror or some other optical function that needs correcting.

The Misc setup menu can be reached from the top menu:

```
No overlay / loopthrough  :
Select language
Video Input
Line type
Default setup          :
Video Type             :
Ver 4.xxxxxxxx
```

Here the overlays can be turned off with the exception of the line of On-screen text.

Language: Currently the only language is English, others may become available and translations are invited.

Video Input menu

```
Video input 1     : *
  Composite       : *
  Y/C             :
Video input 2     :
  Composite       : *
  Y/C             :
```

Video Input: Video input can select between BNC (composite) input and MiniDIN (Y/C) inputs. The primary video channel can also be selected here between channel 1 or 2.

Line type menu

```
Line Width         : 1.5 lines
Black / white line : White
Line Type          : Solid
```

The line width controls the amount of "smearing" of the overlaid lines and text over the screen. 1.5 lines are recommended for a pleasing display to eliminate line-to-line flicker and to reduce cross-colour artefacts associated with composite video. A line width of 1.0 lines may be selected for LCD displays that eliminate this line-to-line flicker and if the Y/C output is chosen. In cases where these artefacts still occur with the minimum line width, a compromise is to select the 1.25 line width option.

A choice of black or white lines can be selected. The line type can be either be a solid or a dashed line with a period which can be chosen using the left button or the scroll wheel.

Default setup to factory setup. This does not update the stored setups, only the current reticule positions and setup.

Video Type: The video effects processor is capable of providing video output in either the CCIR PAL (625 lines / 50Hz) or EIA NTSC (525 lines / 60Hz) standard. On clicking Video type, the sub-menu below will appear:

```
 ***** Warning ******
Do not change the Video
Standard unless you have
read the manual.

 Video Std : PAL - 625 lines
```

If the standard is changed then a further menu is shown on a right click to exit this screen. This is:

```
***** Warning *******
Are you sure?  The unit will
Shut down and restart.
All unsaved settings will
be lost.


Yes / No : N
```

If the video standard change is accepted the unit will restart after a right click to exit this submenu, taking a few seconds where the screen will blank before being active again. Normally the video standard **SHOULD NOT** be changed except upon initial installation. If it is changed it is essential that a monitor is compatible with the proposed standard, otherwise one will have to be found that is.

The video input source should correspond with the standard set in the above menu for consistent and reliable operation.

The store menu can be reached from the top menu:

```
Store setup1
Store setup2
Store setup3
Store setup4          Saved
```

There are 4 non volatile setups. On a left click, the current reticule/setup is stored in Flash memory. When the operation in completed the line is appended with "saved".

In normal mode, when the unit is not in any menu, the moveable reticules can be moved using the mouse. On a left click, the mouse arrow will jump to an intersection. When moving the mouse the crosshairs will move in sympathy. A further left click will either move onto the next intersection, for multiple crosshairs, or exit this function.
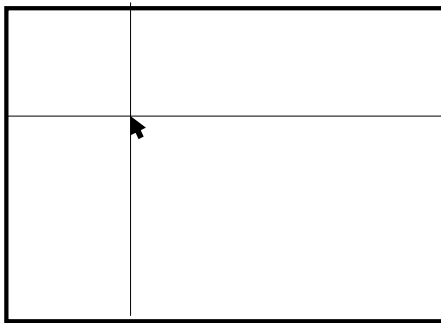
To make this setup survive power cycling, or indeed any further changes, it must be stored using the corresponding save menu.

If the dual crosshairs with measurement is selected, there are some additional calibration facilities. To set the x or y measurement to the calibration value, right click the mouse to enter this calibration mode and move the mouse over the measurement to be changed. Note that if the line of onscreen text is enabled, it will take two right clicks to reach this mode, and a further one to enter the main menu. As the mouse hovers over each digit, the scroll wheel can be used to increment and decrement each number. Alternatively the left button will increment the selected number. To save the chosen value to the current screen, click the mouse right button whilst over the X or Y number. To discard any changes, click outside of the area where the numbers are highlighted. This calibration will be lost on power cycling unless stored.

```
0022.30 mm
0017.00 mm
```
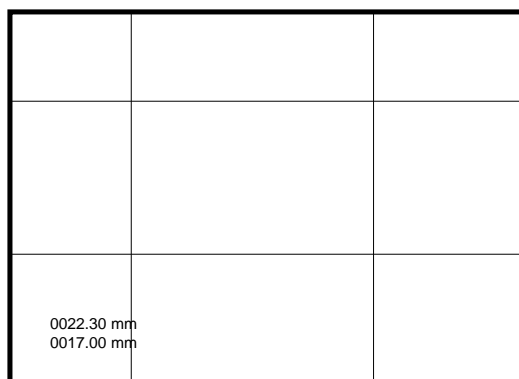
Left/right and top/bottom split screen

In crosshair operation, the active channel is the selected video input from the Video Input setup menu. In split screens there is the option of selecting video input 2, and indeed either input can be chosen for either side, and where each side can be frozen independently.

When a split mode is selected, by right clicking within the area of interest, it is possible to select the relevant video source and to freeze frame. As a side note; a choice has been made to freeze a complete frame and not a video field in order to retain the highest quality image for a stationary object. A consequence is that if the video is frozen whilst there is movement, then the frame will comprise of two interlaced images resulting in motion flicker.

Video input: 1 (2)
Live (Frozen)
Exit

The detail in brackets indicates the alternative entries which may be found. Exit is a quick way of exiting the menu structure without multiple right clicking in order to exit.

Important features:

- On power up, the setup screen will be that stored in Setup 1
- Without a mouse, the setup is effectively locked

Tip:
   If there is any confusion in respect of which mode or reticule is the unit is currently in, it can be useful to reset the unit to the default setting which can be found in the **Misc setup Menu**.

These instructions are being continuously improved and subject to change.

We hope you enjoy the use of this product.

For further information please contact your distributor at the first instance or us at:

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Or you can contact us through our website at   **www.videosolutions.ltd.uk**