

INSTALLATION AND OPERATION

RS485 GRAPHICAL USER INTERFACE FOR V1600 MODULAR RANGE

ISSUE: 1



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CONTENTS

1	INTRODUCTION	4
2	INSTALLATION	4
2.1	HARDWARE INSTALLATION	4
2.2	SOFTWARE INSTALLATION	4
3	OPERATION	5
3.1	NETWORK BROWSER WINDOW	5
3.1.1	<i>Display</i>	5
3.1.2	<i>Settings</i>	6
3.1.3	<i>Windows</i>	6
3.1.4	<i>Help</i>	6
3.2	CONTROL AND PRESETS WINDOWS	6
3.2.1	<i>V1642 Processing Amplifier</i>	7
3.2.2	<i>V1645 Noise Reducer</i>	7
3.2.3	<i>Early V1647 Aspect Ratio Converter</i>	8
3.2.4	<i>Current V1647 Aspect Ratio Converter</i>	9
3.2.5	<i>V1647/F Aspect Ratio Converter</i>	11
3.2.6	<i>PC Presets</i>	12

1 INTRODUCTION

The V1642 Processing Amplifier, V1645 Noise Reducer and V1647 Aspect Ratio Converter have provision for remote control from a PC over an RS485 multi-drop network. PC software that provides graphical user interface control of all three module types is provided on a 3.5 inch floppy disk with the relevant modules.

2 INSTALLATION

2.1 Hardware Installation

The V1642, V1645 and V1647 have an RS485 D9 connector control interface on the rear panel. The protocol is designed to work with an RS232 serial comms port of a PC and an RS232 to four wire RS485 converter must therefore be inserted between the PC port and the controlled equipment. These are available as small inexpensive in-line units or, alternatively, an RS485 interface card may be installed in the PC.

The software provides for a maximum of 64 controlled devices but the practical limit is determined by the drive capability of the RS485 interface. With self powered inline units this may be as low as 10, but a PC interface card should be capable of driving 32.

The default comms port used by the software is Comm2, but this may be changed – see Section 3.1.2.

The module address is set with internal switches on each module. Module addresses must not be duplicated. It is normal practice to set addresses in an ascending sequence starting from 00 as this enables the top address to be set to the highest value used, avoiding unnecessary polling of unused addresses – see Section 3.1.2.

The connection between the RS485 interface and the controlled modules consists of a “daisy chain” of D9 connections.

2.2 Software Installation

The Vnetbrow software supplied runs under Windows 95 and Windows 98.

Vnetbrow supports both current and earlier versions of the V1647 Aspect Ratio Converter and the reduced facilities V1647F. The program displays control windows appropriate to the version found.

The software is supplied as an installation file (setup.exe) which should be run to install the program (vnetbrow.exe). To carry out the installation:

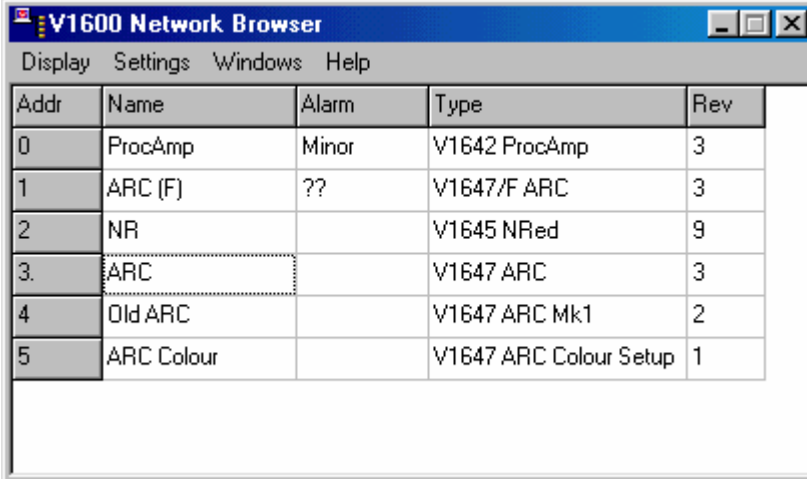
- insert the disk into the floppy disc drive
- click on the Windows Start menu and select “Run”

- in the Run dialog box type A:\setup (or B:\setup if drive B is in use)
- follow the on-screen instructions.

When it is first run an initialisation file (vnetbrow.ini) is created in the working directory.

3 OPERATION

3.1 Network Browser Window



Addr	Name	Alarm	Type	Rev
0	ProcAmp	Minor	V1642 ProcAmp	3
1	ARC (F)	??	V1647/F ARC	3
2	NR		V1645 NRed	9
3	ARC		V1647 ARC	3
4	Old ARC		V1647 ARC Mk1	2
5	ARC Colour		V1647 ARC Colour Setup	1

The Network Browser window is displayed when the program is started. This lists the module types present in the order of their address settings and (optionally) also shows the module's user name, alarm status and revision status.

Clicking on the module address in the left hand **Addr** column launches the relevant module control window if the module is present and communicating with the PC.

Clicking on an entry in the **Name** column opens a dialogue box which enables the name to be entered or edited, unless this is inhibited by selection of Freeze Names (see Section 3.1.2).

The **Alarm** column indicates loss of input by displaying "MAJOR". If the control system has not detected a module at the address, the Alarm column indicates "??".

The **Rev** column indicates the RS485 control revision status of the module.

The menu bar provides the following functions:

3.1.1 *Display*

Show Active sets the Network Browser window to show only those modules that are communicating with the control system (toggles with **Show All**). In this condition **Show Active** is ticked.

Show All sets the Network Browser window to show modules with addresses between 00 and the top address. In this condition **Show All** is ticked.

Show Alarms selects whether or not the alarms column is displayed. When ticked, the alarm column is present.

Show Type selects whether or not the module type column is displayed. When ticked, the module type column is present.

Show Rev selects whether or not the module revision status column is displayed. When ticked, the revision status column is present.

3.1.2 Settings

Top Address opens a dialogue box which enables the highest address polled to be changed. To change the top address, type the new value then select "OK".

Freeze Names opens a dialogue box which enables the editing of user-entered module names to be inhibited. To freeze names, select "OK" in the dialogue box.

Comm Port opens a dialogue box which enables the PC comm port used for module control to be changed. To change the comm port setting, type in the new value and select "OK".

Poll Rate opens a dialogue box which enables the polling interval to be changed. In normal operation, it should not be necessary to change this from the 150mS default value.

3.1.3 Windows

Selecting "Windows" from the menu bar gives a drop-down list of the windows available.

Comms launches a window which indicates the Comm port in use and shows the transmitted and received data. This is intended for engineering diagnostic use.

The other entries in the Windows list provide an alternative means of accessing the module control and presets windows. In normal operation these are accessed by selecting the module address in the Network Browser window.

3.1.4 Help

Show Hints selects whether or not context sensitive popup hints are displayed, with a tick displayed when these are enabled.

About shows the Network Browser version number when selected.

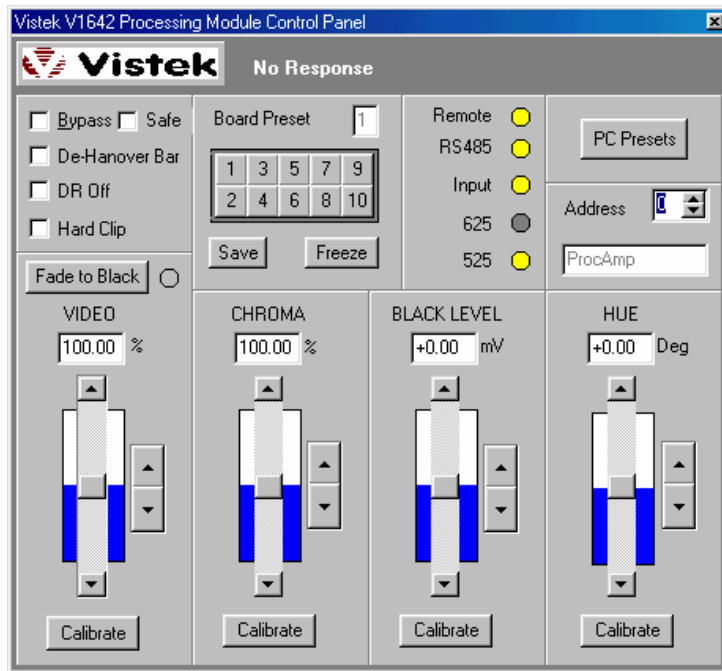
3.2 Control and Presets Windows

Examples of the control and presets windows for the three module types supported are shown below. For details of the operation of the module controls, please refer to the Installation and Operation manual for the module concerned.

In some conditions, more than one window may be displayed, but only one is active at any time.

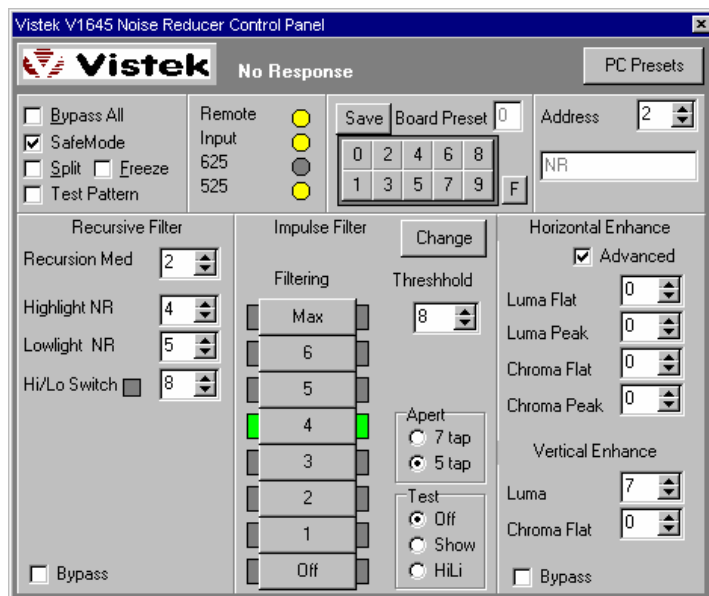
3.2.1 V1642 Processing Amplifier

The V1642 has a single control window. The associated PC Presets window (see section 3.2.6) is accessed by the “PC Presets” button in the top right.



3.2.2 V1645 Noise Reducer

The V1645 has a single control window. The associated PC Presets window (see section 3.2.6) is accessed by the “PC Presets” button in the top right.

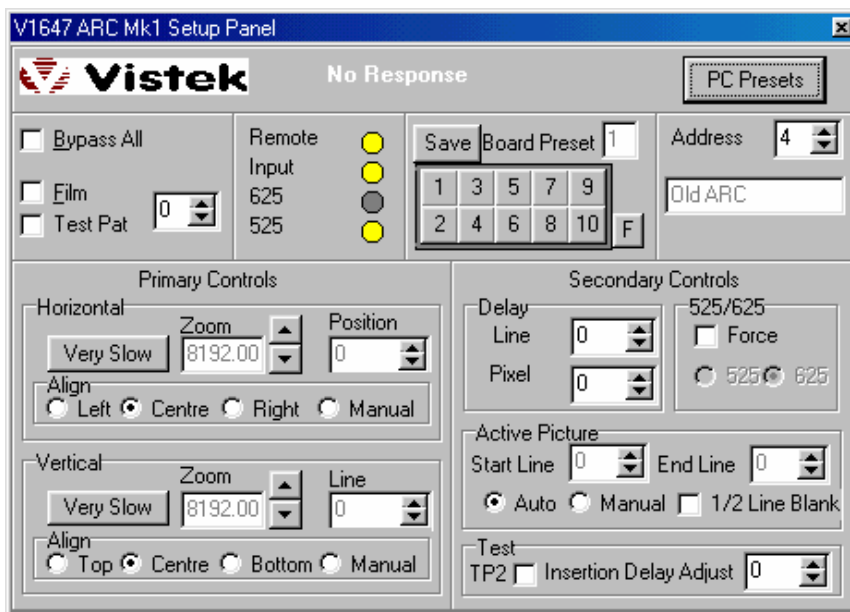


3.2.3 Early V1647 Aspect Ratio Converter

The early version of the V1647 (identified as V1647 ARC Mk1 at the top of the control and setup windows) has two control windows. The Control Panel is displayed when a V1647 is selected from the network browser. This window provides selection of the standard conversions, bypass and the ten board presets.



Selecting "Setup" from the Control Panel displays the setup Panel window which provides full control of all facilities.. The associated PC Presets window (see section 3.2.6) is accessed by the "PC Presets" button in the top right.

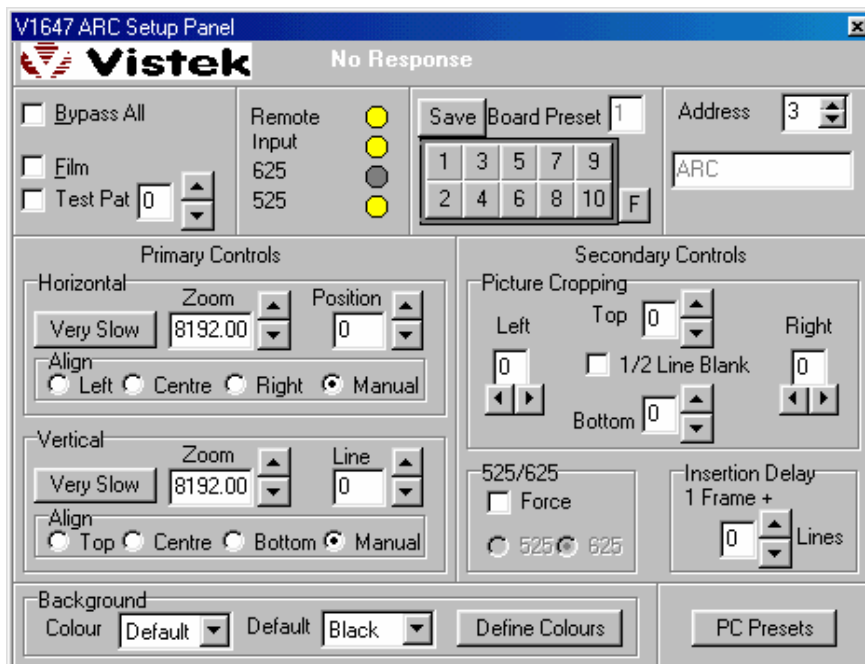


3.2.4 Current V1647 Aspect Ratio Converter

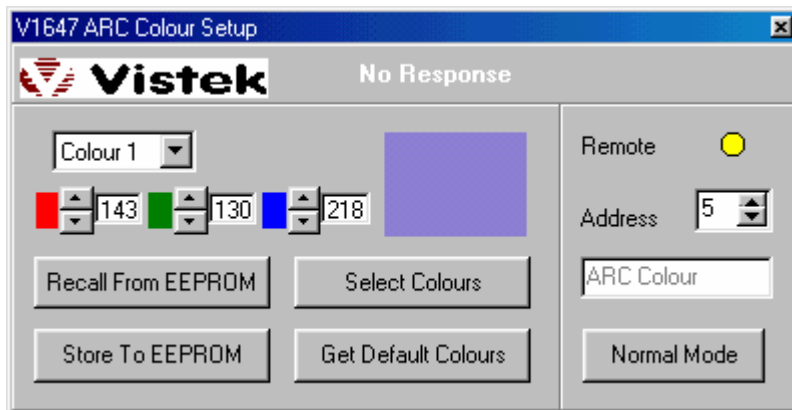
The current V1647 has four control windows. The Control Panel is displayed when a V1647 is selected from the network browser. This window provides selection of the standard conversions, bypass and the ten board presets.



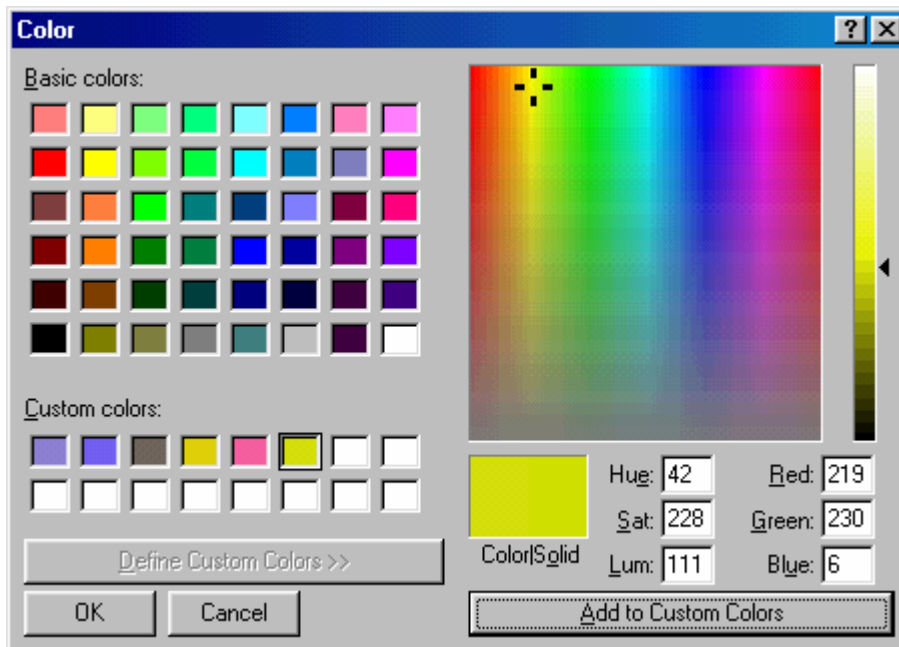
Selecting "Setup" from the Control Panel displays the Setup Panel window which provides full control of all facilities.. The associated PC Presets window (see section 3.2.6) is accessed by the "PC Presets" button in the top right.



Selecting the Define Colours button on the Setup Panel launches the Colour Setup window.



Selecting the Normal Mode button returns to the Setup Panel window. Selecting the Select Colours button launches the Colour dialog.



This window enables custom background colours to be set up. It closes if the OK or cancel button are selected.

The colour dialogue is a standard Windows facility, but only the first six custom colours are used, corresponding to the six user colours. Entries in the other boxes are ignored. If no custom colour box is selected, (selection being indicated by a dotted outline) pressing the “Add to Custom Colors” button will enter the current palette selection into the first available empty custom colour box.

If a custom colour box is selected (as indicated by a dotted outline), pressing the “Add to Custom Colors” button updates the selected custom colour with the current palette selection. It is therefore necessary to select a custom colour box before attempting to update it with a new selection from the palette.

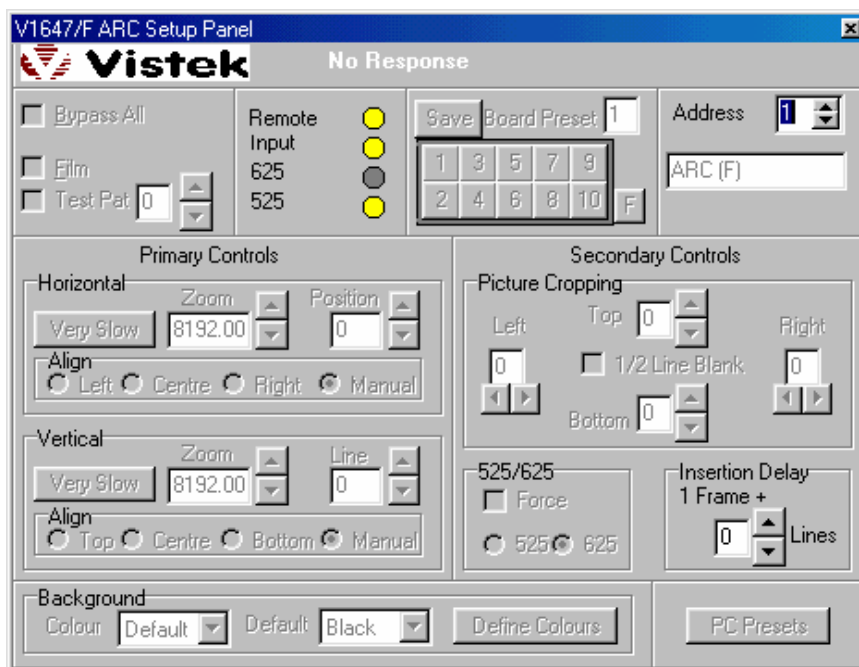
The user colours are updated on exiting the colour palette.

3.2.5 V1647/F Aspect Ratio Converter

The V1647/F has two control windows. The Control Panel is displayed when a V1647/F is selected from the network browser. This window provides selection of the standard conversions, bypass and the ten board presets.



Selecting “Setup” from the Control Panel displays the Setup Panel window which provides control of the facilities available. The associated PC Presets window (see section 3.2.6) is accessed by the “PC Presets” button in the top right.

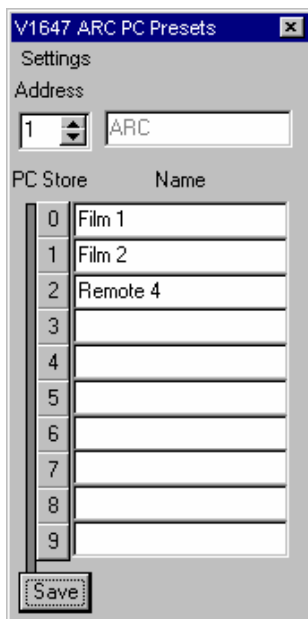


Items displayed “greyed out” are not available on the /F version.

3.2.6 PC Presets

For each supported module type there is a PC presets control window which enables ten sets of module configurations for each active address to be stored on the PC as part of the .ini file. The PC presets control window and the method of operation is the same for all three module types.

Note: The PC presets should not be confused with the board presets which are individually stored in non-volatile memory on each board.



The PC presets operate as follows:

- To save the current module settings in one of the PC preset stores, first click on the “Save” button. This will make the bar on the left of the store buttons turn red indicating that the unit is in “store mode”. Click on the required store button. The current settings will be stored and the store button surround will revert to grey, indicating that the unit is no longer in “store mode”.
- If “store mode” is entered in error, it may be left without storing any new settings by clicking the “Save” button again.
- To recall a preset store, click on the required store button. This will download the settings to the selected unit.
- Modification of names and settings may be inhibited by selecting “freeze” under “Settings” at the top of the PC Presets control window.