

# ViVid

DIGITAL VIDEO RECORDER

## Installation Manual

Software Version 1.0H/2.0E  
Part Number: DVV212-A  
Document Number: 156



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## CERTIFICATES & COMPLIANCES

### CC EMISSION CONTROL

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

The ViVid conforms to the EMC directives :-

EN 55022:1998 Class A - Emissions

EN 50082.1.1995

The ViVid also conforms to the Safety directives :-

UL 1419 - Professional Video & Audio Equipment

IEC 60950 - Information Technology Equipment

For further information on EMC procedures please refer to the following titles:-

Noise Reduction Techniques In Electronic Systems by Henry W Ott

EMC by Tim Williams

Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense. Changes or modifications not expressly approved by Fairlight ESP can affect emission compliance and could void the user's authority to operate this equipment.

CHARACTERISTICS	DESCRIPTION
Equipment Type	Supplemented Data: Information Technology
Equipment Class	Supplemental Data: Class 1 - Grounded equipment
Installation Category	Requirement Category 2 - Local level appliances, portable equipment etc.
Pollution Degree	Requirement: Level 2 operating environment - Normally only non-conductive pollution occurs. Occasionally there may be a temporary conductivity caused by condensation.

## SAFETY SYMBOLS

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of un-insulated “dangerous voltage” within the product’s enclosure; that may be of sufficient magnitude to constitute a risk of electric shock to persons.

L’éclair, dans une triangle, est destiné à alerter l’utilisateur de la présence de haute tension dangereuse non isolée dans l’enclosure du produit, qui peut être d’un voltage suffisant pour constituer un risque d’électrocution.



Das dreieckige Schild mit Blitzsymbol soll den Benutzer vor unisolierten Hochspannungen innerhalb des Gerätes warnen. Es besteht Lebensgefahr durch elektrischen Schlag!

El símbolo del rayo dentro de un triángulo equilátero, es usado para indicar la presencia de un voltage peligroso en el interior del aparato, de suficiente intensidad, como para constituir riesgo de electrocución a las personas.

“三角形内加上闪电似的箭号”表示机件 / 机器内部有“暴露的高电压”，可能造成触电的危险。

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance instructions in the literature accompanying the appliance.

Le point d’exclamation dans une triangle est destiné à alerter l’utilisateur de la présence d’instructions importantes de fonctionnement et d’entretien dans la littérature accompagnant l’appareil.



Das dreieckige Schild mit Ausrufungszeichen soll den Benutzer auf wichtige Bedienungs- und Wartungshinweise in der Bedienungsanleitung hinweisen.

El símbolo de exclamación dentro de un triángulo equilátero avisa al usuario de la presencia de instrucciones importantes acerca del funcionamiento y mantención del aparato en los documentos que se

“三角形内加上感叹号”表示提醒使用者查阅附上的“重要操作和维修指南”。

## MAINS PLUGS & MAINS POWER CORDS

The following lists the recommended Mains Plugs and Leads for use in various countries throughout the world.

<b>Mains Attachment Plugs</b>		
<b>Standards applicable for Mains Plugs</b>	<b>Rating</b>	<b>Country</b>
ASTA BS1363 1984	10A @ 250VAC	UK
BS546, 1950	10A @ 250VAC	India, Kenya, Nigeria, Kuwait, Parts of Asia and the Far East
IEC695-2-1 & NF-USE	10A @ 250VAC	France & Belgium
DIN49441 & CEE 7 Sheet VII	10A @ 250VAC	Europe
SEV	10A @ 250VAC	Switzerland
CEI23-16	10A @ 250VAC	Italy
NEMA5-15P & NEMA6-15P	10A @ 250VAC	USA
<b>Mains Power Leads</b>		
<b>Standards applicable for Mains Leads</b>	<b>Rating</b>	<b>Country</b>
CSA22.2 No.42 & UL498	10A @ 250VAC	Canada & Japan
ASE 1011 (1959)	10A @ 250VAC	Switzerland
CEI 2316	10A @ 250VAC	Italy
SRAF 1962	10A @ 250VAC	Denmark
AS3112-1990, NZSS198-1967	10A @ 250VAC	Australia, New Zealand, Fiji, Papua New Guinea, Republic of China
UL498 & SJT 10A minimum rating with IEC60320-1 coupler	10A @ 250VAC	USA

## OBTAINING TECHNICAL SUPPORT

Users requiring technical support should contact their local Fairlight office or distributor.

Information can also be found on the world wide web at :-

<http://www.fairlightesp.com>

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## SECTION 1 - INTRODUCTION

### 1.1 PRODUCT DESCRIPTION

ViVid is a general purpose video and audio recorder that can be used in a number of professional applications where reliable and fast access to non-linear video and audio is required. Its main purpose is to act as a video-follow device during editing sessions with MFX3<sup>plus</sup> and other Fairlight Products.

The disk recorder takes PAL or NTSC composite analogue video, audio and LTC timecode signals and digitises them in real time onto a high speed magnetic disk drive. The file can then be played with all signals being output in sync with each other, using the front panel or Sony 9-pin remote control.

For a more detailed explanation of the ViVid, please refer to the *ViVid User Manual*.

### 1.2 MANUAL SUMMARY

The purpose of this manual is to provide all the technical information required to design a suitable installation for the ViVid system and to fit and connect the units. It is assumed that the installer is familiar with video and audio post production including analogue and digital video and audio signals. For full operational instructions please refer to the *ViVid User Manual*.



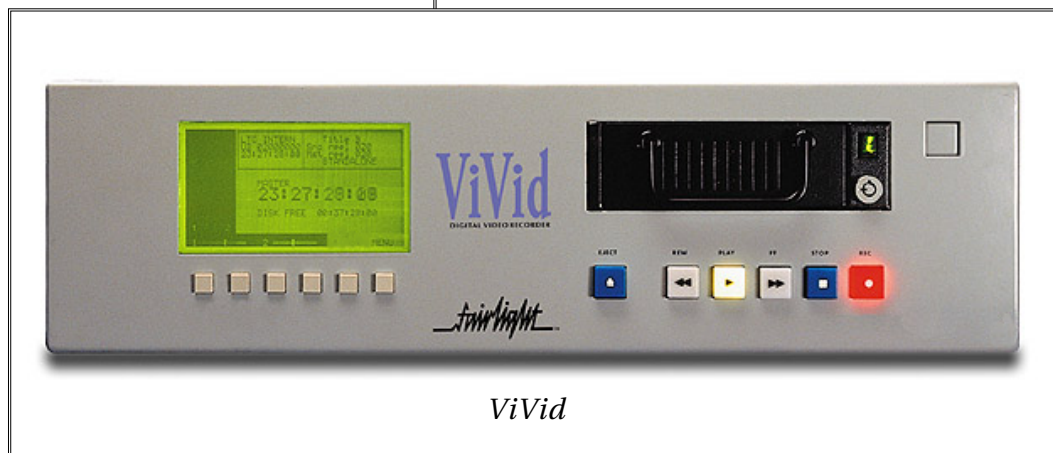
### 1.3 SYSTEM OVERVIEW

The ViVid system is made up of one main rack mountable unit. The system is normally connected to a video monitor and a source device, such as a video tape recorder.

The ViVid can be remote controlled from other devices such as the Fairlight MFX range of digital audio workstations via the Sony RS422 protocol. In such a configuration an audio mixer, such as the Fairlight Fame or Prodigy, can also be configured to control the ViVid.



*MFX3<sup>plus</sup> Digital Audio Workstation*



*ViVid*

## 1.4 UNPACKING

It is advisable that before any installation work is attempted that the system be unpacked and the contents verified. A sizeable area approximately 3 meters square should be suitable. Using the basic packing list attached record the items you have received. This will both help you when you have to make an enquiry, by having the relevant details logged in your Installation Manual, in the event of a packing omission. At this stage do not power up the system, nor remove electronic modules from the system, as damage may occur if not handled correctly.

## 1.5 EQUIPMENT SUPPLIED

EQUIPMENT SUPPLIED	QUANTITY	CHECK LIST
ViVid	1	
IEC Mains Cable	1	
ViVid Installation Manual	1	
ViVid User Manual	1	
BNC 75 Ohm Terminator	2	

## 1.6 STATIC PRECAUTIONS



Please take note that all Fairlight manufactured electronic modules are static sensitive and should be handled under anti-static conditions. When working on a system always ensure that you have an anti static lead connected and that the system is connected to ground through an earth lead.

Never work on the system while powered up unless you are authorized by Fairlight to do so. As a matter of practice always touch the external chassis of the system before opening the front panel. If cards are not handled under anti static procedures your machine may sustain damage which could either cause a complete failure or may cause intermittent crashes and subsequent system failure.

When handling cards please ensure that they are placed in anti static bags when not in the system. For shipment purposes electronic modules should be placed in an anti static bag and then suitably surrounded with loose packaging materials in a solid card board box. Cards shipped to Fairlight without the correct anti static packaging will have their warranty voided. If you have any enquiries on this matter please feel free to contact your local Fairlight office or distributor.

## 1.7 ENVIRONMENT

The system is designed to be operated in a clean air-conditioned environment. Generally, an area comfortable for people ( 20°C - 21°C ) should be suitable. The ViVid uses fans for its forced ventilation system, these generate an amount of ambient noise. Users may find it desirable to install these units away from the operator/console location. Note that cable lengths, as detailed in *Section 2.5 - External Cable Considerations*, should be taken into account when planning the installation.

Make sure that the rack units can access cool air through the opening on the base or top of the front panel, and expel warm air from the fans at the rear of the system. As with all computer systems, the Fairlight will operate more reliably if static generating floor coverings are avoided.

Do not fit the ViVid into a closed environment except where ducted air is forced through the rack. Do not run the ViVid whilst it is on the ground as it will accumulate dust, which may eventually cause a failure.

The ViVid is normally installed in a suitable 19" rack which is at least 600 mm deep, or has an open back section. It is recommended that external hard drives be mounted on a rack tray, above or below the system, using the shortest possible cables to prevent SCSI bus corruption.

Please Avoid:

- Fitting the ViVid where air circulation will be restricted.
- Installing ViVid close to heat sources.
- Installing in dusty or damp area.
- Installing in an area subject to vibration.
- Installing in area with strong magnetic or electric fields

## SECTION 2 - INSTALLATION OF ViVid

### 2.1 MECHANICAL INSTALLATION

The ViVid unit, takes up 3 RU, when fitted into a 19" rack. It operates from either 100-120v or 200-250v, 50-60Hz with the mains inputs being auto-switching. There are no switches to be set.



*ViVid Front Panel*

1. If the ViVid is to be installed into a rack, the four feet on the underside of the system need to be removed using a philips screwdriver.
2. Next remove the front dress panel, to allow access to the rack mount holders on the ViVid.
3. Mount the ViVid into the rack and insert 4 rack retaining screws on to both the left and right rack mounts. Once this is done reattach the front dress panel.

## 2.2 ELECTRICAL INSTALLATION

The ViVid is designed to run from a single phase power source with one of its current carrying conductors at or near earth ground potential (the neutral conductor). Only the line (live) conductor is fused for over-current protection. Systems that have both current carrying conductors live with respect to ground, such as phase-to-phase in multi-phase systems are not recommended as power sources.

It is recommended that both the ViVid and its peripheral equipment are connected to the same electrical supply or ring main which ideally should be regulated and smoothed. If the power source is likely to be unexpectedly cut then both the units should be fed from a backed up power source such as a UPS.

Mains connections should be fitted with the appropriate type of plug. See Section “Mains Plugs & Power Cords” at the front of this manual.

## 2.3 ViVID REAR PANEL CONNECTIONS

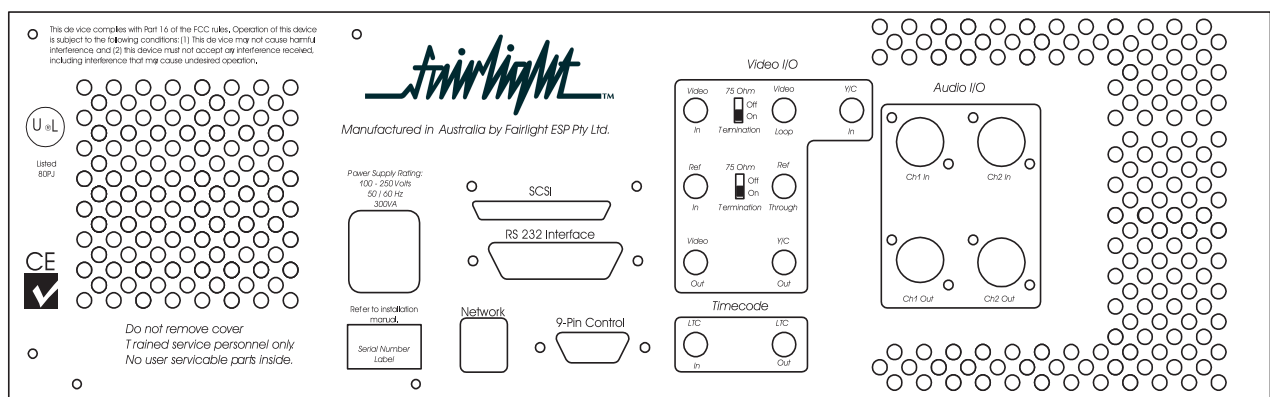
The ViVid rear Panel is split into four distinct sections; Video I/O, Audio I/O, Timecode I/O and Communications I/O.

The Video I/O Panel contains connections for 1 Composite Analogue Video Input and Output, 1 Y/C Input and Output and 1 Video Reference In and Loop Through.

The Audio I/O Panel contains 2 Analogue Input Channels and 2 Analogue Output Channels.

The Timecode Panel contains LTC In and Out.

The Communications Panel contains a Sony 9 Pin port to allow the ViVid to be remote controlled from other devices, a Network Port and a SCSI Port.



ViVid Back Panel

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## **2.4 CABLING**

Once the mechanical installation of the ViVid is complete, a number of cables must be connected. Some of these connect various components together and may have been supplied with the system, others provide connection to the rest of the environment.

The interconnecting cables supplied as standard may not be long enough for your installation, in which case you must provide longer cables. The following information gives specific wiring details and highlights any special requirements, however as with all equipment not supplied with the ViVid system, it is the installer's responsibility to ensure that these cables comply fully with the applicable safety and EMC regulations.

## **2.5 EXTERNAL CABLE CONSIDERATIONS**

Poor cabling can be the bane of a good system. Earth loops, floating inputs and outputs and extended runs are just some of the issues to be addressed when planning an installation.

### **2.5.1 SONY 9 PIN CABLE**

The 9-Pin cable connects the Mainframe to a Sony 9-pin protocol machine. The recommended maximum length for this cable is 30 meters. It is recommended that the power be switched off at one end when connecting to protect the drivers.

### **2.5.2 VIDEO CABLES**

Standard 75 ohm shielded coaxial cable is suitable.

### **2.5.3 LTC CABLE**

Standard 75 ohm shielded coaxial cable is suitable.

### **2.5.4 AUDIO CABLES**

Standard, shielded balanced audio cable is suitable.

## 2.6 CONNECTING THE VARIOUS SYSTEM COMPONENTS

- 1 Once cabling issues have been dealt with the various system connections need to be made.
- 2 Connect an IEC Power lead to the back of the ViVid.
- 3 Connect the audio inputs and outputs to the XLR connectors on the rear of the unit.
- 4 Connect the video source signal to VIDEO IN using either the composite BNC Input, or the Y/C Input connector.
- 5 Connect a cable from the Video Out or Y/C Out Connector to an external picture monitor.
- 6 To lock the ViVid to an external video reference, connect the source to the REF IN Port.
- 7 To allow an external timecode to be used with the ViVid, connect a time code source to the LTC In Port.
- 8 Connect a 9-Pin control cable from an external device to the ViVid via the Sony 9- pin Port.

**1. If terminator switches are fitted to your unit, they must be switched to the on position if there are no other video devices connected to the Video Loop thru connector.**

**2. If there is no termination switches fitted, you must connect the terminators supplied to the video loop through if there are no devices to be connected to these sockets.**

## 2.7 INTERNAL AND EXTERNAL SCSI DEVICES

The ViVid has been designed to accept one 5.5" drive bay internally which can hold a Kingston Technology DE-100 SW drive enclosure. The system typically comes configured with one system disk which contains the Operating System and ViVid software. This allows for one media drive to be fitted internally in the system.




*Kingston De-100 SW Drive Enclosure*



## SECTION 3 - SYSTEM CONFIGURATION

### 3.1 INTRODUCTION

The following describes the procedure for powering on ViVid.



**CAUTION : NEVER ATTEMPT TO ATTACH SCSI BASED DISK DRIVES OR OTHER CABLING WHILE THE SYSTEM IS RUNNING AS THIS MAY CAUSE FILE AND PROJECT CORRUPTION. ALWAYS POWER OFF BEFORE CONFIGURING ANY CABLES.**

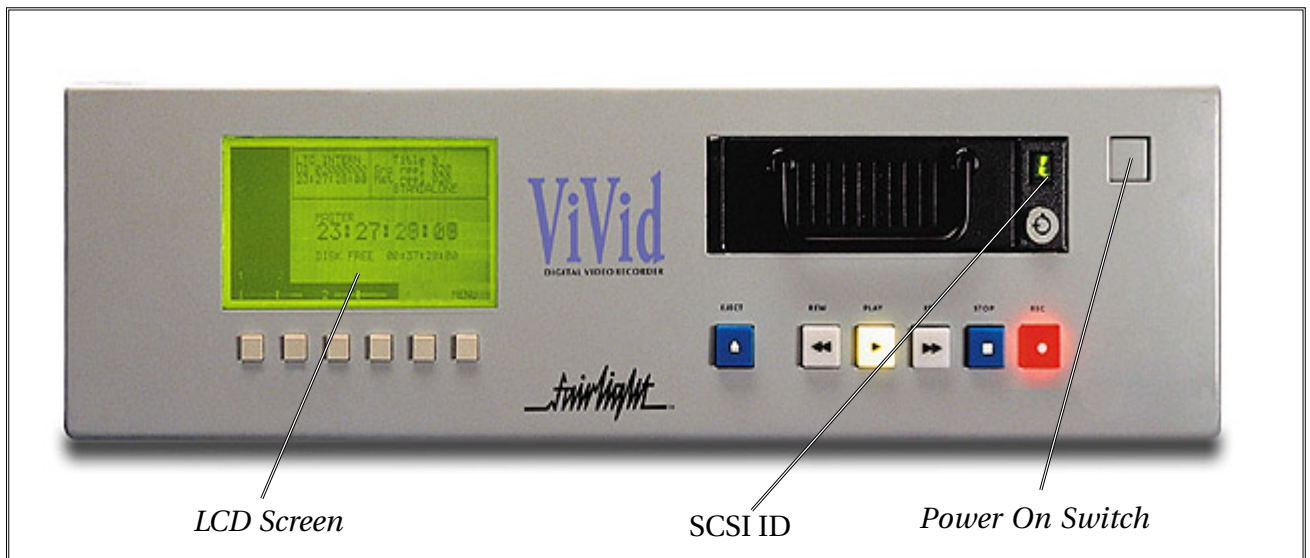
### 3.2 SWITCHING ON THE ViVID

1. Press the Power switch located on the front of the ViVid.
2. The unit will show the SCSI ID flashing while the disk drive spins up. Drive activity is denoted by the flashing green dot in the drive indicator.
3. The LCD screen will display the message -

“Welcome to ViVid

INITIALISING...”.

After about 90 seconds this message will be replaced by the audio level meters and time code display indicating that the unit is ready for use.



## SECTION 4 - ROUTINE MAINTENANCE

### 4.1 CLEANING THE EXTERIOR OF THE ViVID

You should clean the ViVid unit often enough to prevent dust or dirt from accumulating. Dirt acts as a thermal insulating blanket that prevents effective heat dissipation and may provide high-resistance electrical leakage paths between conductors or components in a humid environment.

Clean the dust from the outside by wiping with a soft cloth or small brush. A brush is especially useful for removing dust from around connectors and cooling grilles. Use a cloth dampened in water that contains 50% isopropyl alcohol to remove hardened dirt. You should not use abrasive cleaners. Remove power from the ViVid before cleaning.



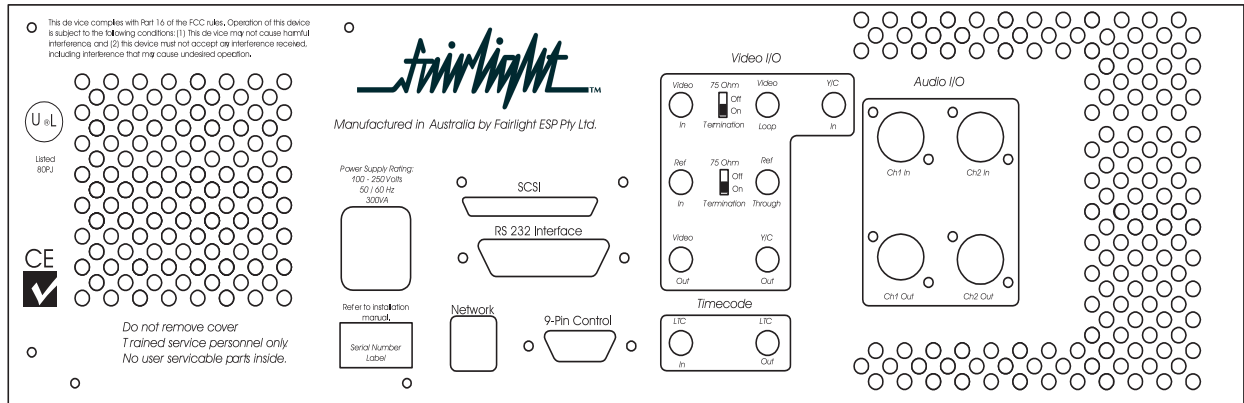
**CAUTION:**

Do not allow water to get inside any enclosed assembly or component, do not clean any plastic material with organic cleaning solvents such as Asbenzene, Toluene, Xylene, Acentone or similar compounds, because they may damage the plastic.

# APPENDIX - SPECIFICATIONS

## INTRODUCTION

The following information contains all the wiring details and specifications to allow users to connect peripheral devices to the back panel of the ViVid.



*ViVid Back Panel*

## REFERENCE SIGNAL INPUT

Reference Video Connector	BNC
Input Level	1V p-p 75 Ohms

## ANALOGUE VIDEO INPUT AND OUTPUT

Television Standard	PAL-CCIR 625/50
	NTSC 525/60
Signal Processing	CCIR 601, 4:2:2, 8 Bit
Genlock	B.B 1.0V p-p

## SIGNAL INPUTS AND OUTPUTS

Video Connector	BNC - Y/C
Input Level	1V p-p 75 Ohms
Audio Connector	Balanced XLR
Timecode	BNC
Input	0.5 V p-p to 18- V p-p
Output	3.0 V p-p

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## DIMENSIONS

Height	13 cm (3RU)
Depth	48 cm
Width	48 cm
Weight	approx 14kg

*Notes :*