

Prodigy

Installation Manual

Software Version 1.0
Part Number: DPR1202-D
Document Number: 146



Copyright © 2000

IMPORTANT NOTICE

COPYRIGHT

The material in this document is copyright to Fairlight ESP Pty Ltd, and may not be quoted or reproduced in any form without written permission from the company.

LIMITED WARRANTY POLICY

All the software and hardware provided with, or purchased especially for, Fairlight products has been tested for functionality. Fairlight ESP Pty Ltd will make its best efforts to correct reported defects for future releases subject to technical practicabilities. Fairlight ESP will also replace any defective media on which software has been delivered provided that the item to be replaced is returned to the dealer who supported the product within 90 days of purchase.

Fairlight ESP Pty Ltd makes no warranty or representation either expressed or implied with respect to the system's performance or fitness for a particular purpose.

In no event will Fairlight ESP Pty Ltd be liable for direct or indirect damages arising from any defect in the product or its documentation. Further, Fairlight ESP Pty Ltd will not accept any liability for any programs, sounds, audio recording or sequences stored in or used with Fairlight products, including the cost of recovery of such data.

The warranties, remedies and disclaimers above are exclusive and take precedence over all others, oral or written, express or implied, to the extent permitted by law in the geographical area of the product's use. No employee of Fairlight ESP, agent, distributor or employee of an agent or distributor is authorized to offer any variation from this policy.

Copyright 2000:

Fairlight ESP Pty Ltd,

Unit 2, 1 Skyline Place,

French's Forest, NSW 2086,

AUSTRALIA.

Telephone +61 2 8977 9999

Fax +61 2 8977 9900

TABLE OF CONTENTS

IMPORTANT NOTICE	2	4.2 Switching on the Equipment	23
CERTIFICATES & COMPLIANCES	5	4.2.1 Prodigy Console Surface	23
CC EMISSION CONTROL	5	4.2.2 Mainframe	23
SAFETY SYMBOLS	6	4.3 System Fails To Boot From A Hard.....	
MAINS PLUGS & MAINS POWER CORDS	7	Drive	25
OBTAINING TECHNICAL SUPPORT	8	4.4 System Stops At Mfx Picture	25
SECTION 1 - INTRODUCTION	9	4.6 Software Installation for MFX	
1.1 Product Description	9	Mainframe	26
1.2 Manual Summary	9	4.6.1 Installing Software From Exabyte	26
1.3 System Overview	10	4.7 Software Installation for Prodigy	
1.3.1 Prodigy MFX Processor Rack.	10	Surface	26
1.3.2 Prodigy Control Surface	10	SECTION 5 - BISCUIT PC CONFIGURATION	27
1.3.3 Monitor Box	10	5.2 BIOS Settings	28
1.4 Unpacking	11	5.3 Checking for Newly Installed SCSI	
1.5 Equipment Supplied	12	Devices- Mainframe	30
1.6 Static Precautions	13	5.4 Setting up SCSI Hard Disk Drives -	
1.7 Environment	13	Mainframe	30
SECTION 2 - INSTALLATION OF THE PRODIGY SURFACE	14	5.5 Setting Up Removable Media	
2.1 Installation	14	Devices - Mainframe	32
2.2 Electrical Installation	16	SECTION 6 - ROUTINE MAINTENANCE	33
2.2.1 Safety	16	6.1 Cleaning The Exterior Of The Units.....	33
2.2.2 Mains input voltage	16	6.2 Cleaning The Monitor Screens	33
2.2.3 Mains connection	16	6.3 Cleaning The Mainframe Air Filter	33
2.2.4 Fuses	17	APPENDIX - CONNECTION SPECIFICATIONS	34
2.3 Prodigy Audio Input/Output allocation	18	Introduction	34
2.31 Input Allocation	18	Prodigy Audio Connectors	34
2.32 Output Allocation	19	A1 Analogue Inputs	34
2.4 Prodigy Audio Connectors	20	A2 Analogue Outputs	35
SECTION 3 - PLANNING THE MFX CONNECTIONS .	21	A3 Digital Inputs and Outputs	36
3.1 Output Connections	21	A4 AES / EBU Outputs	36
3.2 Inputs	22	A5 Surface VGA Cable	37
SECTION 4 - SYSTEM CONFIGURATION	23	A6 X-Link Cable	37
4.1 Introduction	23	A7 Prodigy Surface Mixer Cable	38
		A8 MFX Controller Cable	39
		A9 Monitor Box wiring	40
		A9.1 Standard Connections - Inputs	40
		9.2 Standard Connections - Outputs	41
		9.3 Specifications	42

9.3.1 Main Inputs to Speaker Outputs (Unity Gain)	42
9.3.2 Main & External Analogue Inputs	42
9.3.3 Analogue Outputs	42
9.4 EDAC Pinout Diagram	43
9.5 Monitor Box EDAC connections	44
A10 Example Monitor Box Connections	
for 5.1, LCRS and Stereo Operation	46
A11.1 Prodigy Controller Surface	46
A11.2 Prodigy Processor Rack (MFX) ..	46
A11.3 Prodigy Monitor Box	46
A11 Dimensions	47

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 Prodigy Console and Mainframe conform to the EMC directives :-

EN 55022:1998 Class A - Emissions

EN 55024:1998 Class 3 - Susceptibility

The Prodigy Console and Mainframe also conform 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	Supplmental Data: Class 1 - Grounded equipment
Installation Catergyory	Requirment Category 2 - Local level appliances, portable equipment etc.
Pollution Degree	Requirment: Level 2 operating enviornment - 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 simbolo 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 simbolo 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.

Mains Attachment Plugs		
Standards applicable for Mains Plugs	Rating	Country
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
Mains Power Leads		
Standards applicable for Mains Leads	Rating	Country
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>

United Kingdom	USA – West Coast
Fairlight ESP Limited Unit 12, Spectrum House 32-34 Gordon House Road London NW5 1LP England Tel: +44 171 267 3323 Fax: +44 171 267 0919	Fairlight USA 844 North Seward Street Hollywood, CA90038 USA Tel: +1 323 465 0070 Fax: +1 323 465 0080
France	USA – East Coast
Fairlight France 41-43 Rue des Peupliers 92100 Boulogne-Billancourt Paris France Tel: +33 1 4610 9292 Fax: +33 1 4610 9295	Fairlight USA 2 West 45 th Street, Suite 605 New York, NY 10036 USA Tel: +1 212 819 1289 Fax: +1 212 819 0376
Germany	Japan
Fairlight Deutschland GmbH August-Bebel-Strasse 26-53 14482 Potsdam-Babelsberg Berlin Germany Tel: +49 331 721 2930 Fax: +49 331 721 2933	Fairlight Japan Inc. Seijyo 4-2-23, Setagaya-Ku, Tokoyo 157-0066 Japan Tel: +81 3 5940 1515 Fax: +81 3 5940 1516
Asia - Pacific	
Fairlight ESP Pty.limited Unit 2, 1 Skyline Place, Frenchs Forest NSW 2086 Australia Tel: +61 2 8977 9999 Fax: +61 2 8977 9900	

SECTION 1 - INTRODUCTION

1.1 PRODUCT DESCRIPTION

Prodigy is an integrated digital audio production system that seamlessly combines a 24-track digital multitrack recorder, editing workstation, and a fully automated digital mixer in a compact and powerful package.

The system marries together the MFX user interface with the technology of the latest generation of digital audio workstation in a combination that has a significant impact on productivity and efficiency.

The interface incorporates a dedicated editing Console, a unique graphical user interface and powerful database capabilities.

The control surface offers a unique graphical interface, dedicated mixing Console and a powerful automation software application. These tools allow the operator to work quickly and efficiently without impeding the creativity of the recording and editing process, and can now be fully utilized in the professional audio suite.

The Prodigy offers a number of unique benefits through its adaptation of DSP and proprietary technology to the audio environment.

1.2 MANUAL SUMMARY

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

1.3 SYSTEM OVERVIEW

Prodigy consists of the following 3 elements:

1.3.1 PRODIGY MFX PROCESSOR RACK.

This 8U rack contains all of the digital processing, audio inputs and outputs, synchronization functions, VTR remote control ports, timecode Ports and disk systems for Prodigy. This manual contains enough information to connect the Audio I/O. For detailed instructions on installing the MFX Processor Rack, working with hard disks and configuring SCSI or networking ports, for example, please refer to the *Fairlight MFX3Plus Installation Manual (supplied separately)*. The Processor Rack has an SVGA output which displays the audio recording and Editing screens. The user will need to supply a monitor for this, preferably mounted on the purpose built shelf at the rear of the Prodigy Surface.

1.3.2 PRODIGY CONTROL SURFACE

The Prodigy Surface acts as a physical interface for the processor rack by means of two high speed serial links connected via a miniature PC computer which is embedded inside the chassis. The PC allows the automation data to be saved and recalled at any time.

On the back of the surface, the system has output ports to control outboard effects equipment and a SVGA port which displays the automation and Mixer user interface.

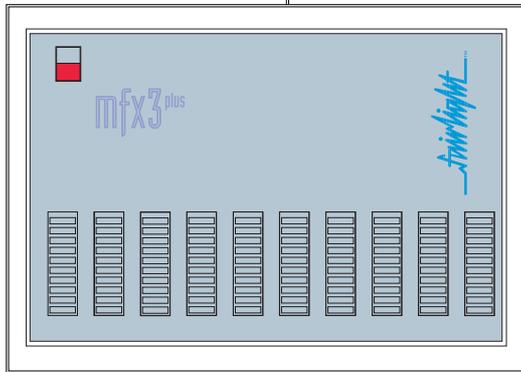
The only audio that passes through the Prodigy control surface is the Talkback Mic signal, which runs through a connector on the top of the surface, through a Mic preamp to another connector on the rear of the surface. From here it should be cabled to Input 22 of the MFX Rack. The user will need to supply an appropriate Microphone for talkback purposes, which should be a 12V powered Electret type. The Prodigy Surface supplies 12V Phantom power to the Talkback Mic connector.

1.3.3 MONITOR BOX

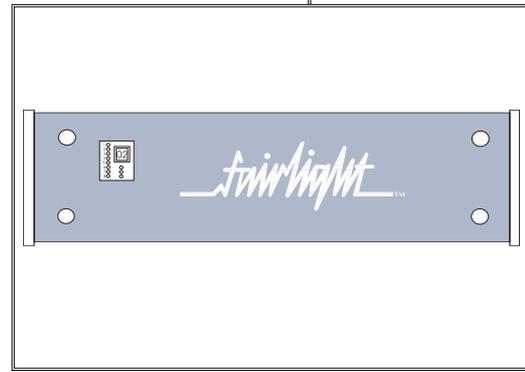
The 3U Monitor box takes care of all the monitoring for Prodigy, and is described in detail later. Six specific audio outputs from the Processor rack are connected to the Monitor Box, which is itself then connected to the Monitor Speakers, metering and Dolby encode/decode units if required.



Prodigy Control and Editor Surface



MFX Mainframe



Surround Monitor

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 5 meters square should be suitable. Using the basic packing list attached record the items you have received and the serial number where applicable. 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	DESCRIPTION	QUANTITY	LENGTH
PRODIGY Console	Control surface	1	
PRODIGY Processor Rack	19 inch rack (8U)	1	
Monitor Box	Analogue Monitoring unit (3U)	1	
Controller cable	37 Way Centronics Cable	1	10m
MFX VGA	15 Way VGA Monitor Extension Cable	1	10m
9 Pin Control Cable	Sony Machine Control Cable	1	5m
SCSI Terminator	SCSI Bus Active Terminator	1	
Connector Kit	D Connectors for Processor Rack Audio Connections	1	
EDAC Connector Kit	EDAC Connectors for Monitor Unit	1	
X-Link control cable	9 Way to 9 Way Monitor Control	1	10m
Mixer Control cable	25 way MFX to Surface Control Cable	1	10m

OPTIONAL USER SUPPLIED ITEMS	QUANTITY
SVGA Monitor for Surface Display (Panasonic Panaflat LC50 or LC50S recommended)	1
SVGA Monitor for MFX display (Panasonic Panaflat LC50 or LC50S recommended)	1
Video monitor for video machines (Panasonic Panaflat LC50 or LC50S recommended, with external Composite Video to VGA convertor)	1
1 x 12V electret talkback microphone	1

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 subsequential 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 (19°C - 20°C) should be suitable. The rack mounted units and disk drives, use fans for ventilation. Users may find it desirable to install these units away from the operator/console location.

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

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

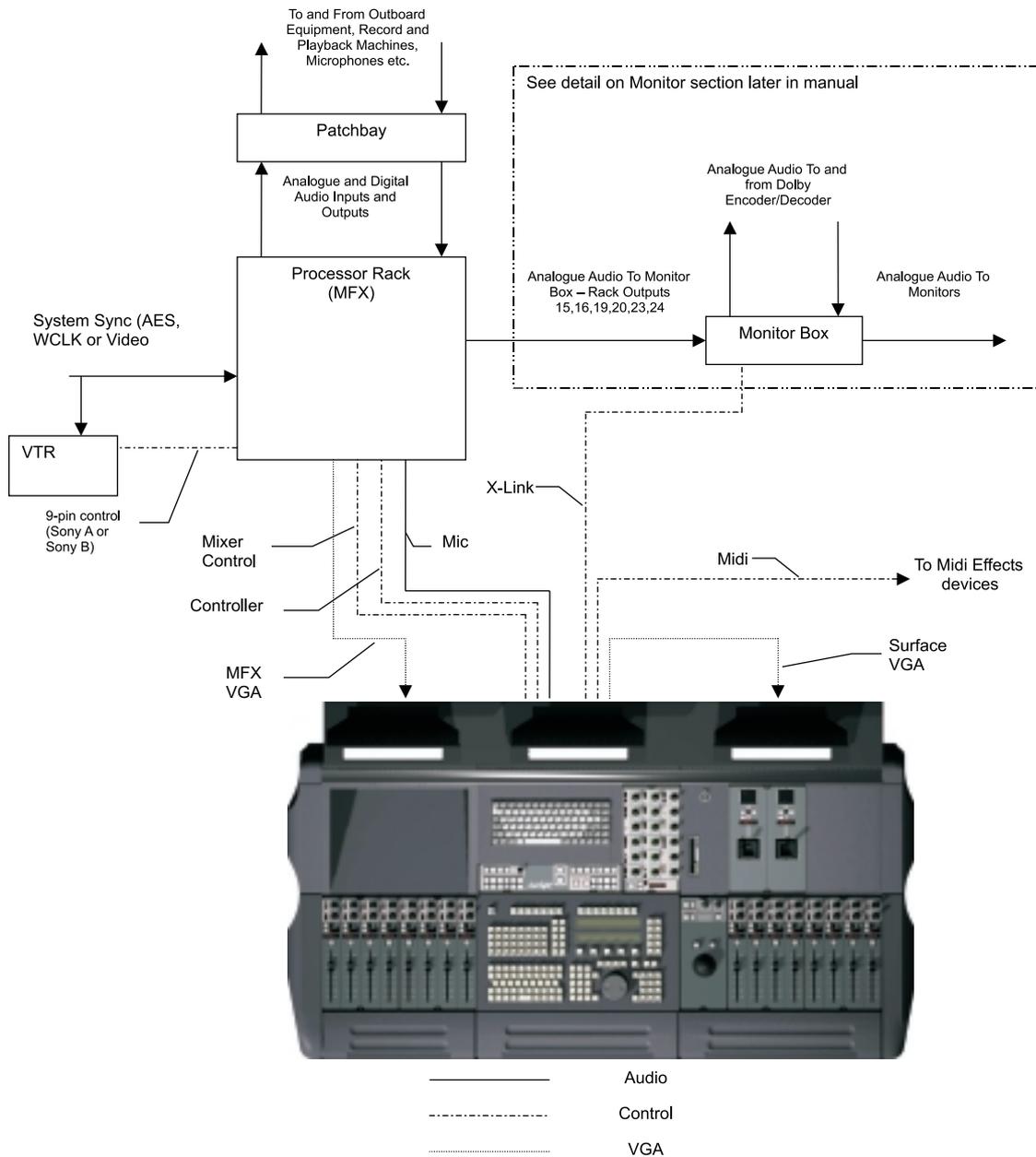
The Mainframe unit is normally installed in a suitable 19" rack which is at least 600 mm deep, or has an open back section. It is recommended that external hard drives be mounted on a rack tray, above or below the Mainframe, using the shortest possible cables to prevent SCSI bus corruption.

Please Avoid:

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

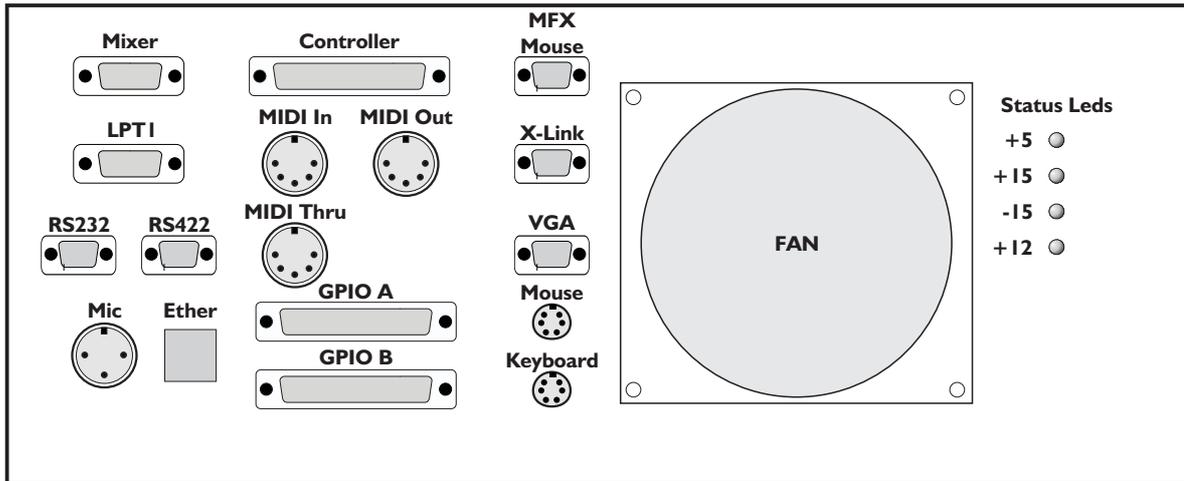
SECTION 2 - INSTALLATION OF THE PRODIGY SURFACE

2.1 INSTALLATION



The above diagram shows the basic cabling of a Prodigy system.

System cables should be connected as shown in the following table, referring to the diagram above. Audio cables should be installed according to your specific needs, referring to the suggestions later in this manual.



Rear Panel of Prodigy Surface

Cable name	Connectors	Routing
MFX VGA	15 Way D (F at MFX end) to 15 Way D (M at Monitor end)	MFX Processor Rack "Video" connector to MFX display monitor (user supplied). Cable mates with standard Monitor VGA cable.
Controller cable	37 Way "D" connector with 9-way "D" "Pigtail" at Surface end. "Centronics" type 24 pin connector at MFX end.	Surface "Controller" connector to MFX "Console" connector
Mic cable (not supplied)	XLR (F) at Surface. Wired to 15 pin "D" Male (Analogue Input connector) at MFX end.	Surface "Mic" connector to Analogue Input 22 on MFX.
X-link cable	9 Way "D" Male at Surface end. 9 Way "D" Male at Monitor box end	Surface "X-Link" connector to Monitor Box "Remote In" connector
MIDI cable (not supplied)	5-pin standard MIDI DIN connector on Surface	Surface MIDI OUT connector to User effects devices for remote control by Prodigy
Surface VGA (not supplied)	15 Way "D"	Surface "VGA" connector to user supplied VGA monitor for Surface display.
Mixer Control Cable	25 Way "D" Male at MFX end. 25 Way "D" Female at Prodigy surface end.	Surface "Mixer" connector to MFX "Mixer" connector
IEC Mains (not supplied)	Local mains plug to IEC lead connector	Surface IEC connector

- The supplied cables offer a maximum distance of 10 metres between Prodigy Surface, MFX Processor Rack and Monitor box.
- Position the console to allow access to the rear connector panel.
- Before making any cable connections, ensure that power is disconnected from all equipment. This will prevent electrical damage to components within the equipment.

2.2 ELECTRICAL INSTALLATION

The Mainframe is designed to run from a single phase power source with one of its current carrying conductors at or near ground 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 Mainframe and Console 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.

2.2.1 SAFETY

Like all mains powered equipment, The console must be earthed. If hum problems arise, or if earth loops are suspected, it is never correct or safe to remove the earth from the unit having a three core mains input cable. Some other solution to break the earth loop can always be found.

Power supply units contain lethal voltages. Always disconnect the mains from the console before opening or removing covers. If repair work or adjustments are being made on power supplies which are connected to the mains, ensure you are familiar with the appropriate survival techniques and have a suitable work area.

2.2.2 MAINS INPUT VOLTAGE

The power supply automatically adjusts for a wide range of input voltages.

Input voltages should be either between 90 and 132 volts or between 180 and 264 volts.

Despite the self adjusting input system, it is preferable for the mains to remain at a constant value and to be free from transients.

2.2.3 MAINS CONNECTION

Do not replace the cable supplied with the power supply.

The mains cable contains three cores which are colour coded:

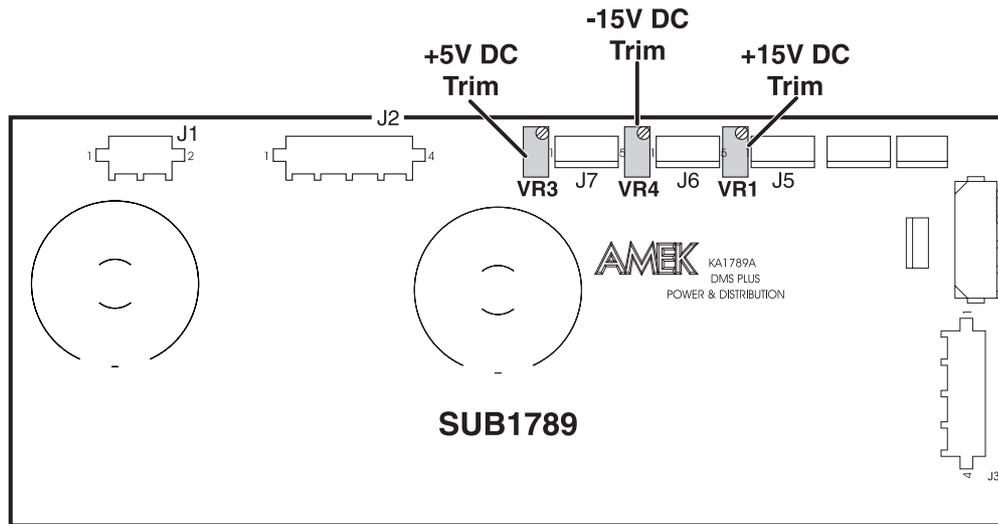
Brown	live
Blue	neutral
Green/yellow	earth

The earth connection must always be made.

2.2.4 FUSES

When used on mains supplies of 220 to 240 volts, the IEC mains connector should be fitted with an 5 amp mains input fuse. A 10 amp fuse should be used for supply voltages of 100 to 120 volts. Only 20mm anti surge (T) types should be fitted.

Danger - Shock hazard - The power cord must be disconnected before removing the cover plates to gain access to the Power Distribution Board, which is located beneath the keyboard on the Prodigy Control surface.



Power Distribution Board

2.3 PRODIGY AUDIO INPUT/OUTPUT ALLOCATION

2.31 INPUT ALLOCATION

There are 24 physical inputs to the PRODIGY, which may be switched in pairs between AES digital or analogue audio. 48 Input Sources can be connected to Prodigy, of which 24 will be available at any one time.

These are divided in to 12 'A' or "Live" inputs and 12 'B' inputs. Consecutive Pairs of Inputs, starting from 1 (eg 1 and 2 but not 2 and 3, 3 and 4 but not 4 and 5) may be made into Stereo pairs at any time. Electrically the A and B inputs are identical, however, there are restrictions as to how the A and B inputs may be used within the system.

- A Inputs may be patched directly to a Track and recorded, or may be connected to the Input of a Live Feed. Therefore A Type "Live" Inputs should be used for Record sources that need fader level control (microphones for example) and additive type Effects Returns (reverbs).

- B Inputs may be patched directly to a Track and recorded, or may be used as Insert returns. These inputs should be connected to Static record Sources (CDs, DATs etc.) and insertable Effects outputs (Compressors, Eqs).

A Live Feed is a mixer channel that can be routed directly to a Main or Sub Bus without first going to a Track. Thus Live Feeds may be used as effects returns, for example, or for summing several inputs together to a bus, with fader control over each input, prior to recording that bus to a track or sending it straight out of the system. There are 12 Live Feeds in Prodigy, and 12 A Type Inputs to connect to them.

Analogue Input 22 is reserved for use by a Talkback Mic .

INPUT	TYPE	APPLICATION
1	A	LIVE INPUT
2	A	LIVE INPUT
3	B	INSERT RETURN
4	B	INSERT RETURN
5	A	LIVE INPUT
6	A	LIVE INPUT
7	B	INSERT RETURN
8	B	INSERT RETURN
9	A	LIVE INPUT
10	A	LIVE INPUT
11	B	INSERT RETURN
12	B	INSERT RETURN
13	A	LIVE INPUT
14	A	LIVE INPUT
15	B	INSERT RETURN
16	B	INSERT RETURN
17	A	LIVE INPUT
18	A	LIVE INPUT
19	B	INSERT RETURN
20	B	INSERT RETURN
21	A	LIVE INPUT
22	A	Talkback
23	B	INSERT RETURN
24	B	INSERT RETURN

Input Allocation Table

2.32 OUTPUT ALLOCATION

The PRODIGY has 24 physical outputs, each of which delivers analogue and AES digital signals simultaneously. There are therefore 48 simultaneous audio outputs from Prodigy, derived from 24 simultaneous sources. The outputs are also divided into A and B types.

- A Type outputs can only be used as Bus Outputs
- B Type outputs can be used as either Insert Sends or Direct outputs from either Live Feeds or Tracks. Direct outputs are Post EQ and Dynamics, and Pre-fader.

A type Outputs should therefore be connected to devices that you want to send a Bus to. For example, effects devices (Auxiliaries are buses), and Record machines (from the M1 main bus).

B Type Outputs should be connected to the Inputs of Insertable Effects units (such as Dynamics, Eqs) for use as Insert Sends.

The last 6 B Type Outputs - 24,23,20,19,16 and 15 - are used by the Monitor system. Prodigy however only uses monitor outputs as required. Thus if the system is only ever used in Stereo Mode, outputs 15,16,19 and 20 are available for Insert Sends. If the system is only ever used in Stereo or LCRS mode, Outputs 15 and 16 are available for Insert Sends.

OUTPUT	TYPE	SOURCE
1	A	BUS OUTPUT
2	A	BUS OUTPUT
3	B	INSERT SEND
4	B	INSERT SEND
5	A	BUS OUTPUT
6	A	BUS OUTPUT
7	B	INSERT SEND
8	B	INSERT SEND
9	A	BUS OUTPUT
10	A	BUS OUTPUT
11	B	INSERT SEND
12	B	INSERT SEND
13	A	BUS OUTPUT
14	A	BUS OUTPUT
15	B	Insert Send or Monitor Right Surround (5.1 mode)
16	B	Insert Send or Monitor Left Surround (5.1 mode)
17	A	BUS OUTPUT
18	A	BUS OUTPUT
19	B	Insert Send or Monitor Surround (LCRS Mode) or SubWoofer (5.1 Mode)
20	B	Insert Send or Monitor Centre (LCRS Mode)
21	A	BUS OUTPUT
22	A	BUS OUTPUT
23	B	Monitor R
24	B	Monitor L

2.4 PRODIGY AUDIO CONNECTORS

The PRODIGY MFX Processor rack has 24 inputs and 24 outputs.

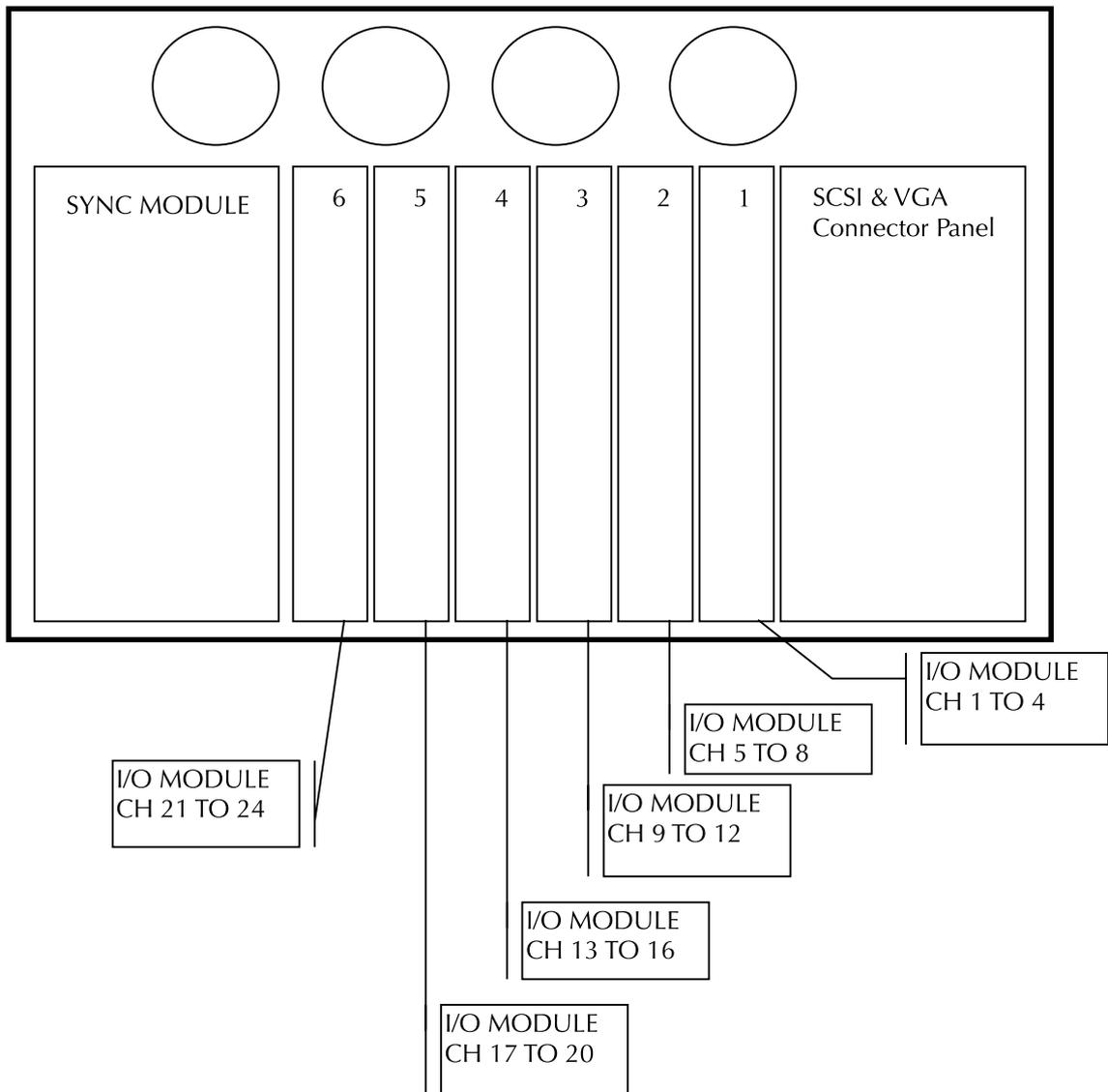
The input/output hardware is divided in to modules. There are 6 modules.

Each module provides 4 channels worth of analogue and digital I/O processing.

On each module there are 3 connectors, these are:

- 15 Way Male D Type for the Analogue Outputs
- 15 Way Female D Type for the Analogue Inputs
- 37 Way Female D Type for the Digital Inputs and Outputs

Rear View of MFX Processor Rack



SECTION 3 - PLANNING THE MFX CONNECTIONS

The following guidelines show how you might wire a system which is to be used for Stereo, LCRS and 5.1 mixing work. If Stereo is the only requirement, all Buss and Monitor Outputs above L and R may be redeployed for other purposes. In LCRS mode, the stereo Record machine will be connected to the LT/RT output of the Dolby Encoder, with M1 connected to a 4 track machine if required.

3.1 OUTPUT CONNECTIONS

A- type are "Busses"

B-Type are "Insert sends" or "Direct Sends", but some are reserved for the Mo0nitor system

OUTPUTS	FUNCTION	DESTINATION
A-1	M1 (L)	Record Machine via patch
A-2	M1 (R)	Record Machine via patch
B-3		
B-4		
A-5	M1 (C)	Record Machine via patch
A-6	M1 (S) LCRS mode M1 (Sub) 5.1 mode	Record Machine via patch
B-7		
B-8		
A-9	Aux 3 LCRS Mode M1 (LS) 5.1 mode	FX Unit 3 via Patch. Record Machine.
A-10	Aux 4 LCRS Mode M1 (LS) 5.1 mode	FX Unit 4 via patch. Record Machine.
B-11		
B-12		
A-13	Aux 1	FX Unit 1 via Patch
A-14	Aux 2	FX Unit 2 via patch
B-15	Monitor (SR) in 5.1 mode	Monitor Box Main Input 6
B-16	Monitor (SL) in 5.1 mode	Monitor Box Main Input 5
A-17	AUX A (L)	Headphones via Patch and Monitor Box Speaker Feed 7. Extra FX Unit when mixing
A-18	AUX A (R)	Headphones via Patch and Monitor Box Speaker Feed 8. Extra FX Unit when mixing
B-19	Monitor (S) in LCRS mode Monitor (Sub) in 5.1 mode	Monitor Box Main Input 4
B-20	Monitor (C)	Monitor Box Main Input 3
A-21	Spare (Aux or Buss)	Patch
A-22	Spare (Aux or Buss)	Patch
B-23	Monitor (R)	Monitor Box Main Input 2
B-24	Monitor (L)	Monitor Box Main Input 1

3.2 INPUTS

A- type are "Live" and can be routed to busses. Use for FX returns and Microphones (or any other record source where you want fader control of Input level).

B-Type are "Insert returns". Use for Record sources and Insertable Outboard Outputs.

All can be patched to tracks and recorded with or without EQ/Dynamics

INPUTS	FUNCTION	ANALOGUE SOURCE	DIGITAL AES SOURCE
A-1	Mic 1	Patch	
A-2	Mic 2	Patch	
B-3	Outboard Compressor 1	Patch	
B-4	Outboard Compressor 2	Patch	
A-5	FX Unit 1 L	Patch	FX Unit 1 L
A-6	FX Unit 1 R	Patch	FX Unit 1 R
B-7	Outboard EQ 1	Patch	
B-8	Outboard EQ 2	Patch	
A-9	FX Unit 2 L	Patch	FX Unit 2 L
A-10	FX Unit 2 R	Patch	FX Unit 2 R
B-11	CD L	Patch	DAT L
B-12	CD R	Patch	DAT R
A-13	FX Unit 3	Patch	FX Unit 3
A-14	FX Unit 3	Patch	FX Unit 3
B-15	VTR 1	Patch	
B-16	VTR 2	Patch	
A-17	FX Unit 4	Patch	FX Unit 4
A-18	FX Unit 4	Patch	FX Unit 4
B-19	VTR 3	Patch	
B-20	VTR 4	Patch	
A-21	Mic 3	Patch	
A-22	Talkback Microphone	Patch	
B-23		Patch	
B-24		Patch	

SECTION 4 - SYSTEM CONFIGURATION

4.1 INTRODUCTION

The following describes the procedure for powering on the surface and Mainframe.

CAUTION : NEVER ATTEMPT TO ATTACH SCSI BASED DISK DRIVES OR OTHER CABLING WHILE THE SYSTEM IS RUNNING. ALWAYS POWER OFF BEFORE CONFIGURING ANY CABLES.

4.2 SWITCHING ON THE EQUIPMENT

4.2.1 PRODIGY CONSOLE SURFACE

Once the cables have been connected, the Prodigy surface can be powered up.

1. Turn on the power switch, at the power source, and on the back of the Console. The Console will then boot up.

2. The four power indicator lights located next to the power switch should turn on when the console is powered up.

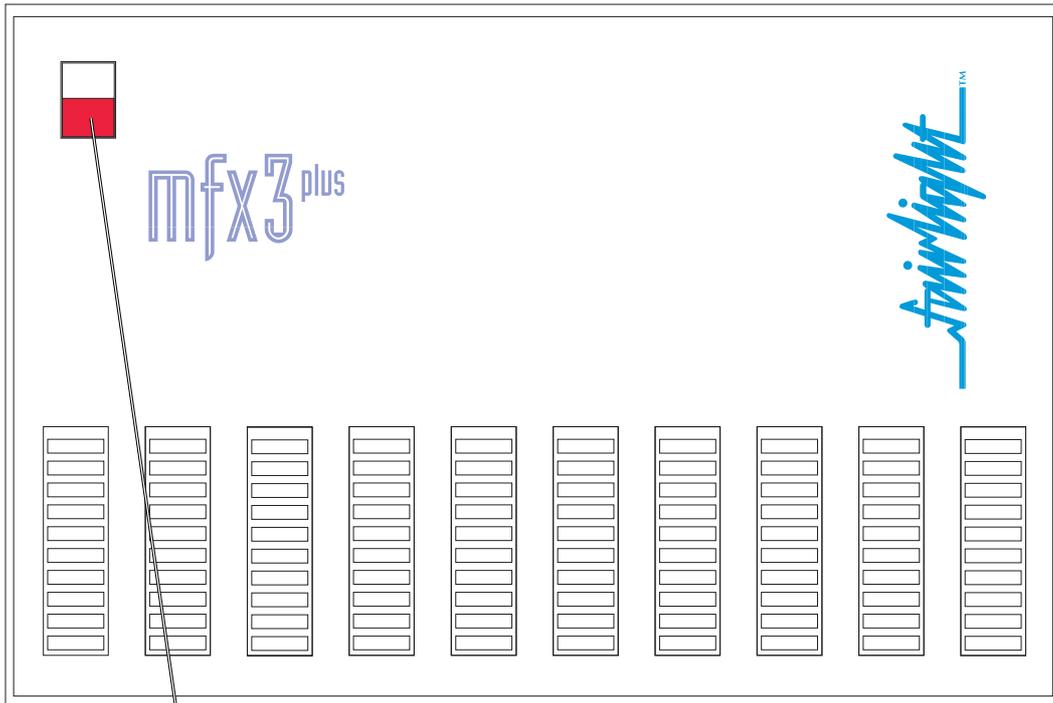
4.2.2 MAINFRAME

The powering up of the Mainframe is the most critical part of the installation exercise. By spending extra time at this stage, before power is applied, check all connections and SCSI devices, the potential for damage to the system will be greatly reduced.

1. Ensure all SCSI cables and terminators are connected.
2. Power up all SCSI devices.
3. Verify monitor cable is connected and then power up the monitor.
4. Ensure all Sync Input/Output cables are connected and secure.
5. Turn down the master faders on the mixing console.
6. Ensure all digital and analog input / output cables are connected and secure.
7. Ensure the mixer and Mainframe cables are connected and secure.
8. Ensure 9 pin control cable is connected and secure.
9. Power up the Mainframe via pressing the switch on the front panel.

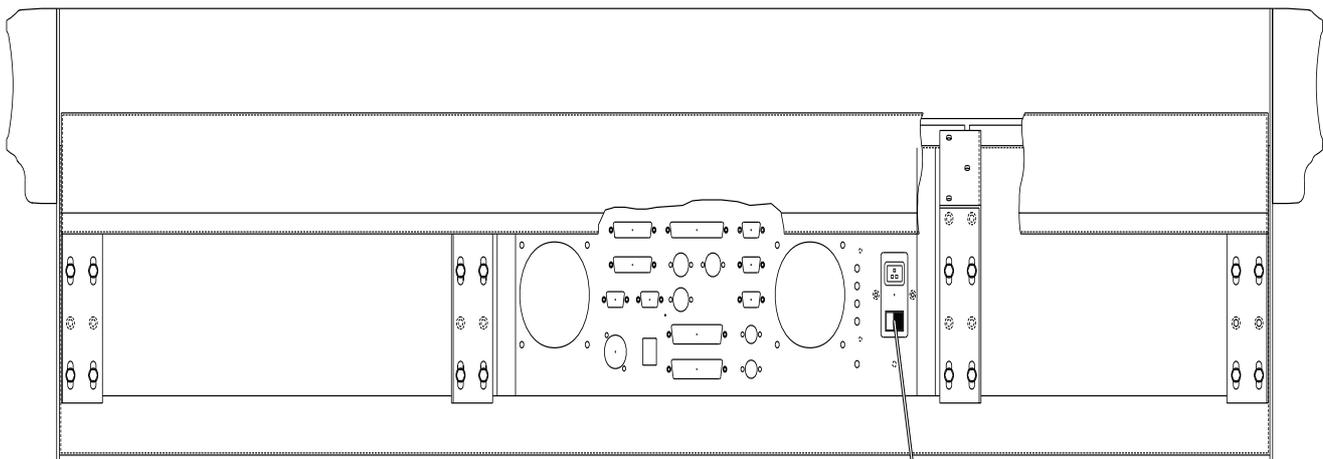
At this point the Mainframe and Control Surface computers should have booted up to their respective shells.

For further information on how to start the various software applications users should refer to the Prodigy Mix Automation Manual and the Prodigy Edit User Manual.



Mainframe Front Panel

Power Switch



Surface Back Panel

Power Switch

4.3 SYSTEM FAILS TO BOOT FROM A HARD DRIVE

If your system fails to boot from a hard drive which you believe has software on it, the following procedure may be of assistance.

1. Reboot the system and press the < Space Bar > as soon as it is possible.
2. You should see a small menu with the following prompt;
" Select a boot method from the above menu: "
3. Type "SCANTS" then press < Return >
4. Check that the drive you are attempting to boot from is detected.
5. If detected there is probably a boot sector problem on the Drive or the Drive may not have software installed.
6. If not detected, then check all SCSI connections and that the drive is powered up.

4.4 SYSTEM STOPS AT MFX PICTURE

If after powering up your new system it appears to stop at the point where the MFX picture is displayed the following should correct the problem.

1. Type "QUIT" < Return >
2. Answer "Y" to the question.
3. Type "MFXLOAD" < Return >
4. Allow the Mainframe to load software into the Merlin Console. The Console will reset itself when finished.
5. Reboot the system by typing "RESTART" < Return >
6. The system should now boot through to the Disk Recorder.

If the above procedure fails please press the < Blue > key and then the < ESC > key.

Contact your local Distributor or Fairlight office for further assistance.

4.6 SOFTWARE INSTALLATION FOR MFX MAINFRAME

From time to time software will need to be installed onto the MFX system Mainframe. The following describes the steps which need to be taken to install software.

4.6.1 INSTALLING SOFTWARE FROM EXABYTE

1. Ensure that an Exabyte drive is connected and set to ID 5
2. Power up the Exabyte drive
3. Place the Exabyte software tape in the drive.
4. Power up the Mainframe.
5. Press the < Space Bar > immediately on powering up the system. You may need to press the < Space Bar > a few times. The aim is to stop the system booting from a hard drive if one is connected.
6. The displayed prompt is " Select a boot method from above menu: ".
7. Type " ROM " < Return > to boot to Wave Exec Rom.
8. Type " Upgrade -T " < Return>. This tells the system to boot from the Exabyte at ID 5.

Follow the procedure as appears on the screen. You will be asked if you want to reformat the drive. Answer NO to this if there are projects you require on the drive.

4.7 SOFTWARE INSTALLATION FOR PRODIGY SURFACE

From time to time software will need to be installed onto the Prodigy surface. The following describes the steps which need to be taken to install software.

- Prodigy software comes on two floppy disks, or two zip files which can be extracted to two floppy disks.

Before any software can be installed the readme.txt file on the 1st floppy disk must be read, the text file gives instructions for installing Prodigy software.

This file can be read on the Prodigy by inserting the disk into the floppy disk drive and typing the following command at the dos prompt :-

```
a:edit readme.txt
```

Or alternatively using a Microsoft Windows 3.11/95/98/NT/2000 based Notepad application running on a PC can be used to read the text file.

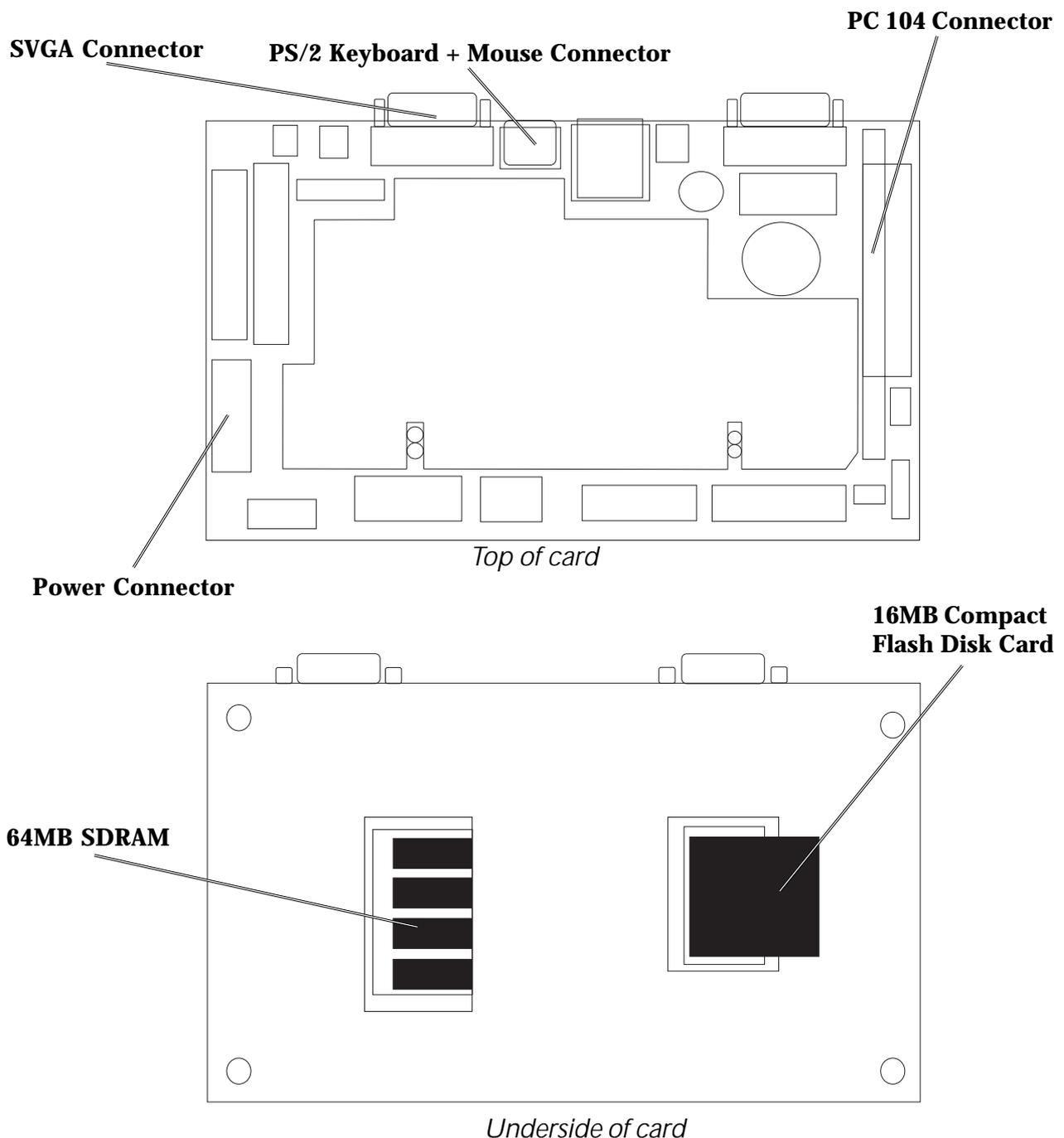
SECTION 5 - BISCUIT PC CONFIGURATION

The Prodigy Surface has an imbedded miniature PC, within the unit, which runs all the automation software.

The PC comprises of a single board based Cyrix 233Mhz computer with 64 MB SDRAM and an on board flash memory card instead of a conventional hard drive, with a 16MB capacity, running IBM PC 2000, an advanced version of MS-DOS 6.22.

A high speed link card called the HSL card connects on to PC card. This is a proprietary Fairlight designed card which converts MIDI, serial, parallel and the X link signals between the Prodigy surface and the MFX processor rack.

Below is a simplified picture of the board layout showing the connections used.



Goto INTEGRATED PERIPHERALS

Build In CPU Audio

Disabled

Video Memory

4.0 M

Then Save and exit the BIOS setup.

5.3 CHECKING FOR NEWLY INSTALLED SCSI DEVICES- MAINFRAME

Once you have mounted all external and internal SCSI devices, the following will aid you in determining if they are all detected.

1. Ensure that the Mainframe is completely reassembled and that there are no loose cables.
2. Power up the Mainframe and Console.
3. Press the SPACE BAR once a gray display is seen. If you miss the time window in which the Space bar must be pressed, simply reboot and try again.
4. The displayed prompt is " Select a boot method from the above menu: ".
5. From the prompt type " SCANTS " < RETURN >.
6. Observe that all SCSI devices are detected.
7. You may need to run this command a couple of times as some drives are much slower to boot than the Mainframe.
8. If a SCSI device is not seen, power down the system and check all SCSI ID's and that the SCSI and power cables are connected.

5.4 SETTING UP SCSI HARD DISK DRIVES - MAINFRAME

Disk Drives can be low level formatted on a standard SCSI based PC. Once the drive has been formatted, running the Diskinit command on the drive via the Mainframe will allow correct operation. Alternatively, with most drives just running the Diskinit command as follows will work successfully;

Exit the Disk Recorder by typing 'QUIT' < Return > 'Y'

The displayed prompt is " # ".

DISKINIT /SCX0 -V=1024 -C=128 < RETURN >.

(Where 'X' is the SCSI address of the device)

If a new boot drive is attached to the system the DISKINIT command can be run from system ROM, i.e. you do not need to boot from a drive with software. The following procedure outlines the steps:-

1. Connect the drive that requires setup.
2. Power up the Mainframe.
3. Press the SPACE BAR immediately on power up.

4. The displayed prompt is " Select a boot method from the above menu: ".
5. Type " ROM " < Return >. This will cause the system to boot from Rom.
6. Type the Diskinit command as outlined above.
7. The drive will be set up for software.

If after you have completed the above, you wish to install software from Exabyte complete the following;

1. Place the Exabyte tape in the Exabyte drive.
2. The displayed prompt is "#".
3. Type " UPGRADE -T " < Return >.
4. Follow the prompts and select the desired drive.
5. Software will be installed and the system will reboot.

Before connecting the drive to a system ensure that there are no SCSI ID conflicts, i.e. that a drive is not already connected with the ID of the drive you are about to connect.

Drives being setup to be used on the system should have all internal termination's and termination power turned off. In all applications the termination power is supplied by the Mainframe. Termination is achieved by use of external terminators on the last device on the chain.

SCSI busses should be terminated at the beginning and end of the chain only. The internal SCSI buss is terminated on the motherboard and at the other end of the cable loom an active terminator is connected.

5.5 SETTING UP REMOVABLE MEDIA DEVICES - MAINFRAME

To set up optical drives for use on the system it is not necessary to format the media. All that is required is that the following command be run on the media;

```
DISKINIT /SCX0 -C=128 -V=1024 -Z -N="Name" ( eg Boot )
```

This command must be run from the shell, so you will need to quit from the main application to the shell. When media is not in use it is strongly recommended that the media is ejected from the drive to ensure that the media has not deteriorated due to the level of heat in the drive itself. Keep media away from strong magnetic fields and direct sunlight.

The system automatically detects new SCSI devices. For example if an Optical drive is connected at boot up and the media is not present the device will be seen on the Project page, however it will indicate no media. On placing a suitable formatted media in the drive the device will become available for use.

Hard drives will also be automatically detected if they are installed correctly.

Please avoid connecting external devices by breaking the SCSI chain while the system is running as it can either crash the system or if a project is open, lead to project corruption.

SECTION 6 - ROUTINE MAINTENANCE

6.1 CLEANING THE EXTERIOR OF THE UNITS

You should clean the Prodigy system units 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.

6.2 CLEANING THE MONITOR SCREENS

The Graphics Monitors have a special coating on the screen which prevents glare. A cleaning cloth should be supplied with the Graphics Monitor and the instructions given in the monitor manual should be followed.

6.3 CLEANING THE MAINFRAME AIR FILTER

To ensure good airflow through the Mainframe, the air filter in the front panel must be periodically cleaned. It is usually sufficient to simply remove accumulated dust using a vacuum cleaner to suck it out of the front panel grille. From time to time, however, the front panel will have to be removed to give the filter a thorough clean or even replace it altogether. The front dress panel should be removed to allow access to the Air Filter.

1. Gently lift the dress panel away from the Mainframe.
2. Undo the screws holding the the Air Filter in place and remove it from the face of the facia. of the 2nd panel.
3. Once the air filter has been removed, clean it thoroughly before reinstalling it.

CAUTION: DO NOT ALLOW WATER TO GET INSIDE ANY ENCLOSED ASSEMBLY OR COMPONENT. DO NOT CLEAN ANY PLASTIC MATERIALS WITH ORGANIC CLEANING SOLVENTS, SUCH AS BENZENE, TOLUENE, XYLENE, ACETONE, OR SIMILAR COMPOUNDS, BECAUSE THEY MAY DAMAGE THE PLASTIC. CAUTION: DO NOT USE CLEANING FLUIDS, OTHER THAN THOSE MENTIONED IN THE GRAPHICS MONITOR MANUAL, TO CLEAN THE SCREEN - THE SPECIAL COATING COULD BE DAMAGED.

APPENDIX - CONNECTION SPECIFICATIONS

INTRODUCTION

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

PRODIGY AUDIO CONNECTORS

The audio connector details are only shown for the first four channels. Each input output module has identical pin outs.

A1 ANALOGUE INPUTS

Connectors	15 pin D - mini Female
Input	Balanced
Input level	+22 dBu Max
Input sensitivity	- 10 dBu / +4dBu software switched
Input attenuation range	14 dB to -99 dB
Input impedance	> 10K ohm

PIN	FUNCTION
1	Frame Ground
2	IN 1 GND
3	IN 2 +
4	IN 2 -
5	IN 3 GND
6	IN 4 +
7	IN 4 -
8	NC
9	IN 1 +
10	IN 1 -
11	IN 2 GND
12	IN 3 +
13	IN 3 -
14	IN 4 GND
15	NC

A2 ANALOGUE OUTPUTS

Connector	15 Pin D - mini Male
Output	Electronic Balanced Differential
Output Level	+ 22 dBu max at 0 dBFS
Output impedance	< 55 ohms
Output Load	600 ohms minimum

PIN	FUNCTION
1	Frame Ground
2	OUT 1 GND
3	OUT 2 +
4	OUT 2 -
5	OUT 3 GND
6	OUT 4 +
7	OUT 4 -
8	NC
9	OUT 1 +
10	OUT 1 -
11	OUT 2 GND
12	OUT 3 +
13	OUT 3 -
14	OUT 4 GND
15	NC

A3 DIGITAL INPUTS AND OUTPUTS

AES / EBU Inputs

Connector	37 way D mini Female
Channels	2 x Stereo pairs per I/O module
Sample Rates	44.1 KHz, 48 KHz, 32 KHz, 44.056 KHz
Resolution	24 bit
Input Level	200 mV Differential Minimum

PIN	FUNCTION
17	AES IN 1 GND
18	AES IN 2 -
19	AES IN 2 +
35	AES IN 1 -
36	AES IN 1 +
37	AES IN 2 GND

A4 AES / EBU OUTPUTS

Connector	37 way D mini Female
Channels	2 by Stereo pairs per I/O module
Sample Rates	44.1K, 48K, 32K, 44.056 KHZ
Resolution	24 bits
Output Level	4.3V Minimum

PIN	FUNCTION
14	AES OUT 1 GND
15	AES OUT 1 -
16	AES OUT 1 +
32	AES OUT 2 -
33	AES OUT 2 +
34	AES OUT 2 GND

A5 SURFACE VGA CABLE

15 Way D Female Connector

PIN	FUNCTION
PIN 1	RED
PIN 2	GREEN
PIN 3	BLUE
PIN 4	GND
PIN 5	GND
PIN 6	GND
PIN 7	GND
PIN 8	GND
PIN 9	GND
PIN 10	GND
PIN 11	NC
PIN 12	NC
PIN 13	HSYNC
PIN 14	VSNYC
PIN 15	NC

A6 X-LINK CABLE

9 Way D Female Connector at surface end. 9 Way D Male Connector at Monitor Box end.

PIN	FUNCTION
PIN 1	TX
PIN 2	NC
PIN 3	RX
PIN 4	NC
PIN 5	GND
PIN 6	NC
PIN 7	NC
PIN 8	NC
PIN 9	NC

A7 PRODIGY SURFACE MIXER CABLE

25 Way D Male Connector at the MFX end. 25 Way Female Connector at the Prodigy surface end.

PIN	FUNCTION
Pin 1 Screen	Screen
Pin 2 XMT -FF (-)	XMT -FF (-)
Pin 3 XMT - CLK (-)	XMT - CLK (-)
Pin 4 XMT - DAT (-)	XMT - DAT (-)
Pin 5 XMT - WR (-)	XMT - WR (-)
Pin 6 N/C	N/C
Pin 7 N/C	N/C
Pin 8 RCV - FF (-)	RCV - FF (-)
Pin 9 RCV - CLK (-)	RCV - CLK (-)
Pin 10 RCV - DAT (-)	RCV - DAT (-)
Pin 11 RCV - WR (-)	RCV - WR (-)
Pin 12 N/C	N/C
Pin 13 FRAME (-)	FRAME (-)
Pin 14 XMT - FF +	XMT - FF +
Pin 15 XMT - CLK +	XMT - CLK +
Pin 16 XMT - DAT +	XMT - DAT +
Pin 17 XMT - WR +	XMT - WR +
Pin 18 N/C	N/C
Pin 19 N/C	N/C
Pin 20 RCV -FF +	RCV -FF +
Pin 21 RCV - CLK +	RCV - CLK +
Pin 22 RCV - DAT +	RCV - DAT +
Pin 23 RCV - WR +	RCV - WR +
Pin 24 N/C	N/C
Pin 25 FRAME +	FRAME +

A8 MFX CONTROLLER CABLE

37 Way D Male Connector with 9 D Male pigtail Connector at surface end. 24 Way Male Centronics Connector at MFX end.

37 Way D Connector		24 Way Centronics Connector		9 Way D Connector	
PIN 13	FS + (X422+)	PIN 5	FS +		
PIN 31	FS - (X422-)	PIN 17	FS -		
PIN 12	TS + (R422+)	PIN 6	TS +		
PIN 30	TS - (R422-)	PIN 18	TS -		
PIN 8	MO1+(MID+)	PIN 10	MO1+		
PIN 26	MO1-(MID-)	PIN 22	MO -		
PIN 9	MI1+(MOUT+)	PIN 9	MI+		
PIN 27	MI1+(MOUT-)	PIN 21	MI-		
PIN 11	MI2+(KEY+)	PIN 7	MI2+		
PIN 29	MI2-(KEY-)	PIN 19	MI2-		
PIN 6	RSI1	PIN 12	RSI1		
PIN 21	GND	PIN 14	GND		
PIN 7	RSI2	PIN 11	RSI2		
PIN 20	GND	PIN 13	GND		
PIN 25	RS202(KEYBOARD0)	PIN 23	RS202(KEYBOARD0)		
PIN 16	SPARE 4	PIN 15	SPARE 4		
PIN 10	*MFXPRESENT	PIN 8	*MFXPRESENT		
PIN 28	SYSC	PIN 20	SYSC		
PIN 24	RSO1 (DATAIN)	PIN 24	RSO1 (DATAIN)		
PIN 23	GND	PIN 16	GND		
PIN 2	SPARE1	PIN 2	SPARE1		
PIN 4	SPARE2	PIN 3	SPARE2		
PIN 1	GND	PIN 1	GND		
PIN 14	SPARE3	PIN 4	SPARE3		
PIN 36	MRXD			PIN 2	MRXD
PIN 37	MTXD			PIN 3	MTXD
PIN 33	GND			PIN 5	GND

A9 MONITOR BOX WIRING

The Monitor Box provides all the monitoring and meter switching for the PRODIGY system. It offers a total of 8 Speaker Feeds plus extra inputs and outputs for Metering, Dolby(r) Encoder/Decoder insertion and Nearfield speakers. The main Speaker Feeds are allocated as follows:

- 1: LEFT 2: RIGHT 3: CENTRE
- 4: SURROUND in LCRS mode or BOOM in 5.1 mode
- 5: LEFT SURROUND in LCRSS mode
- 6: RIGHT SURROUND in LCRSS mode
- 7: STUDIO LEFT 8: STUDIO RIGHT

Speaker paths 1-6 are controlled by the "Control Room" Monitor pot.

Speaker paths 7 & 8 are controlled by the "Studio" Monitor pot

A9.1 STANDARD CONNECTIONS - INPUTS

NAME	DESCRIPTION	LOCATION	SOURCE
EXT I/P 1	Source for Speaker 1 when monitoring switched to "External"	EDAC 4	Patchbay for connection of external source
EXT I/P 2	As above, speaker 2	EDAC 4	As above
EXT I/P 3	As above, speaker 3	EDAC 4	As above
EXT I/P 4	As above, speaker 4	EDAC 4	As above
EXT I/P 5	As above, speaker 5	EDAC 4	As above
EXT I/P 6	As above, speaker 6	EDAC 4	As above
EXT I/P 7	Source for Studio Speaker LEFT when switched to "M1" position	EDAC 4	Normally, directly from the auxiliary feed used to send to Headphones, for example AUX A LEFT
EXT I/P 8	As above, Studio RIGHT	EDAC 4	As above

MAIN I/P 1	Source for Speaker 1 when monitoring switched to "Internal"	EDAC 4	MFX outputs assigned to "CR Monitor" as appropriate for the operating mode
MAIN I/P 2	As above, speaker 2	EDAC 4	
MAIN I/P 3	As above, speaker 3	EDAC 4	
MAIN I/P 4	As above, speaker 4	EDAC 4	
MAIN I/P 5	As above, speaker 5	EDAC 4	
MAIN I/P 6	As above, speaker 6	EDAC 4	
MAIN I/P 7	Source for Studio Speaker LEFT when switched to "C/R" position	EDAC 4	Normally, Monitor Box "INS SEND 1" to obtain a signal which follows exactly the main monitor selection
MAIN I/P 8	As above, Studio RIGHT	EDAC 4	As above, "INS SEND 2"
STEREO I/P 1	External monitoring input for speaker path 1 which is POST Dolby Insert Return, for monitoring LT,RT encoded signals.	EDAC 4	Output of stereo machines used to record Dolby encoded stereo LT,RT from the Dolby encoder.
STEREO I/P 2	As above, Speaker Path 2	EDAC 4	As above

9.2 STANDARD CONNECTIONS - OUTPUTS

NAME	DESCRIPTION	LOCATION	DESTINATION
SPEAKER 1A	Feed for Speaker 1	EDAC 8	Main Monitor amplifier L
SPEAKER 2A	Feed for Speaker 2	EDAC 8	Main Monitor amplifier R
SPEAKER 3	Feed for Speaker 3	EDAC 8	Main Monitor amplifier C
SPEAKER 4	Feed for Speaker 4	EDAC 8	Main Monitor amplifier Surround (LCRS Mode) Main Monitor amplifier Sub (5.1 Mode)
SPEAKER 5	Feed for Speaker 5	EDAC 8	Main Monitor amplifier Surround L
SPEAKER 6	Feed for Speaker 6	EDAC 8	Main Monitor amplifier Surround R
SPEAKER 7	Feed for Studio Speaker LEFT	EDAC 8	Studio Speaker or headphones amplifier L
SPEAKER 8	As above, Studio Speaker RIGHT	EDAC 8	Studio Speaker or headphones amplifier R

Meter O/P 1	Meter feed from speaker path 1. NOTE signal is UNBALANCED, -6dB.	EDAC 8	Customer supplied external meters. These meters will meter whatever is switched to the main monitors, and are switchable PRE DOLBY, POST DOLBY, POST MONO or POST Monitor Pot.
Meter O/P 2	As above, speaker 2	EDAC 8	As above
Meter O/P 3	As above, speaker 3	EDAC 8	As above
Meter O/P 4	As above, speaker 4	EDAC 8	As above
Meter O/P 5	As above, speaker 5	EDAC 8	As above
Meter O/P 6	As above, speaker 6	EDAC 8	As above
Meter O/P 7	as above, Studio Speaker L.	EDAC 8	As above, but will meter Studio speaker selection
Meter O/P 8	As above, Studio Speaker R.	EDAC 8	As above.

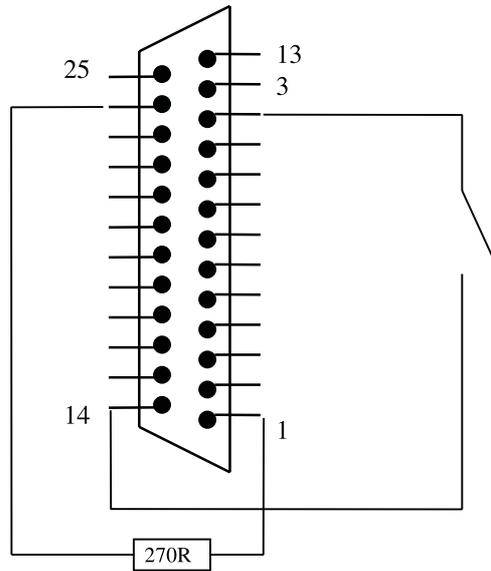
SPEAKER 1B	Pressing the "Near" monitor button on FAME causes the monitor box to become stereo, and Speaker Path 1 to be routed to this output via a relay.	EDAC 8	Stereo Nearfield speaker amplifier L
SPEAKER 2B	As above, Speaker Path 2	EDAC 8	As above, R.

The Monitor Schematic provides more detailed signal flow information.

The Monitor Box is controlled by Prodigy via the X-Link cable, and must have its front panel ID set to 2. This is achieved by inserting a thin pointer into the small hole on the front panel and pressing the concealed switch there repeatedly until the numeral "2" is displayed on the front panel indicator. The unit must be switched on to achieve this, and the setting is remembered until a full reset or software download.

Audio connections are made via 4 x 56 way EDAC connectors, the Surround Monitor Rear View diagram shows the relevant EDAC circuits. Refer to diagrams for the relevant EDAC pin outs.

There is a 25 way D type connector on the rear of the unit. This connector provides the Return Talkback switch as shown in the following diagram. When a switch closure is made as shown, any signal present on the "Ret.TB" connections on the Monitor Box will be routed to the Main Monitors.:



25-way D male, viewed from solder side

9.3 SPECIFICATIONS

9.3.1 MAIN INPUTS TO SPEAKER OUTPUTS (UNITY GAIN)

Frequency Response	10 Hz Flat to 200KHz (-3dB)
Noise DIN	-87dBu
Distortion	20Hz to 20kHz at 0dBu <0.0025%

9.3.2 MAIN & EXTERNAL ANALOGUE INPUTS

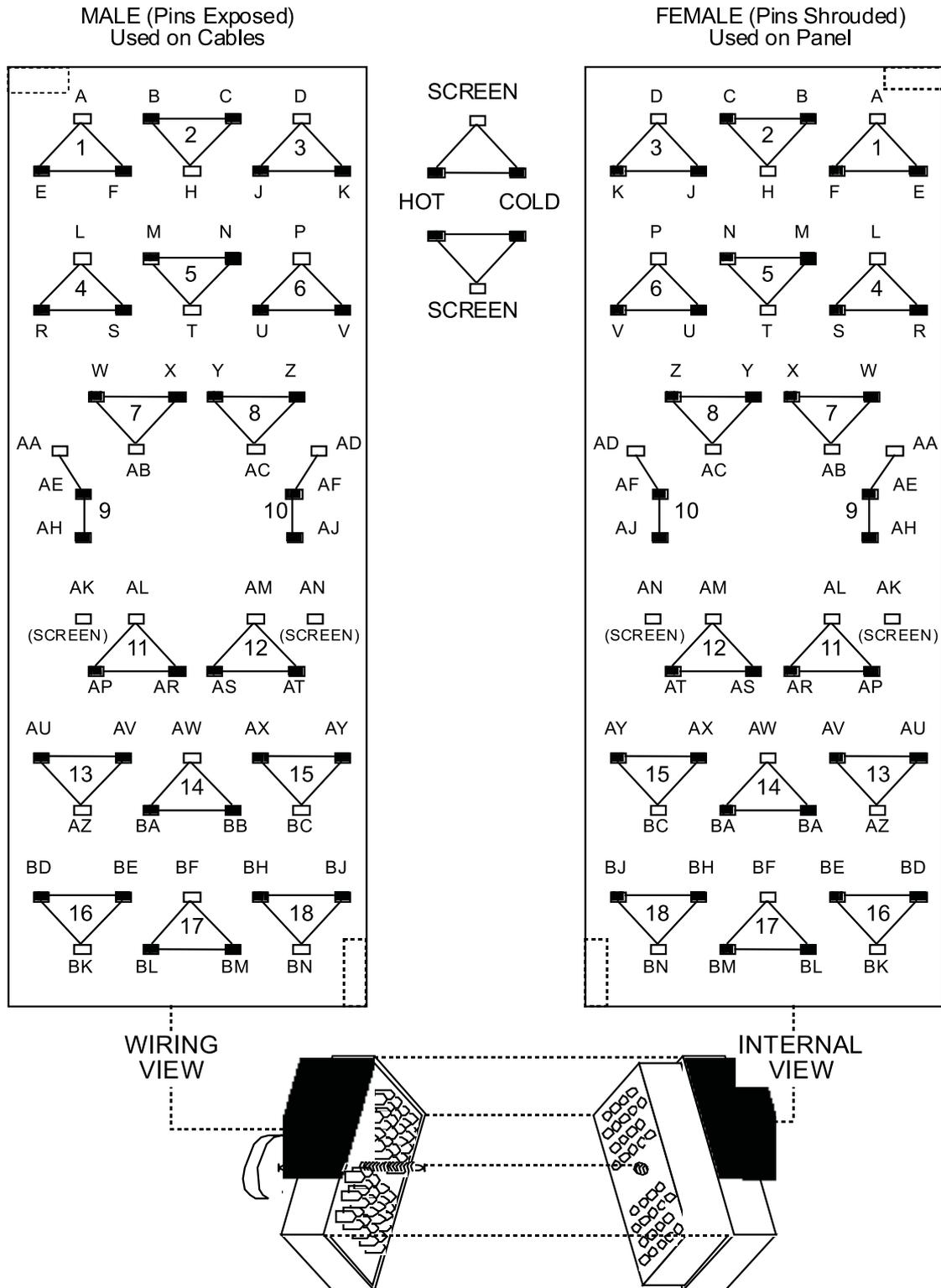
Connectors	56 way EDAC socket
Input	Balanced
Input Level (Max)	+26dBu
Input Sensitivity	+ 4dBu
Input Impedance	40K ohm Balanced

9.3.3 ANALOGUE OUTPUTS

Connectors	56 way EDAC socket
Output Impedance	65 ohms Balanced
Output Level (Max)	+26 dBu

9.4 EDAC PINOUT DIAGRAM

Each EDAC can have up to 18 circuits, numbered 1 to 18.



9.5 MONITOR BOX EDAC CONNECTIONS

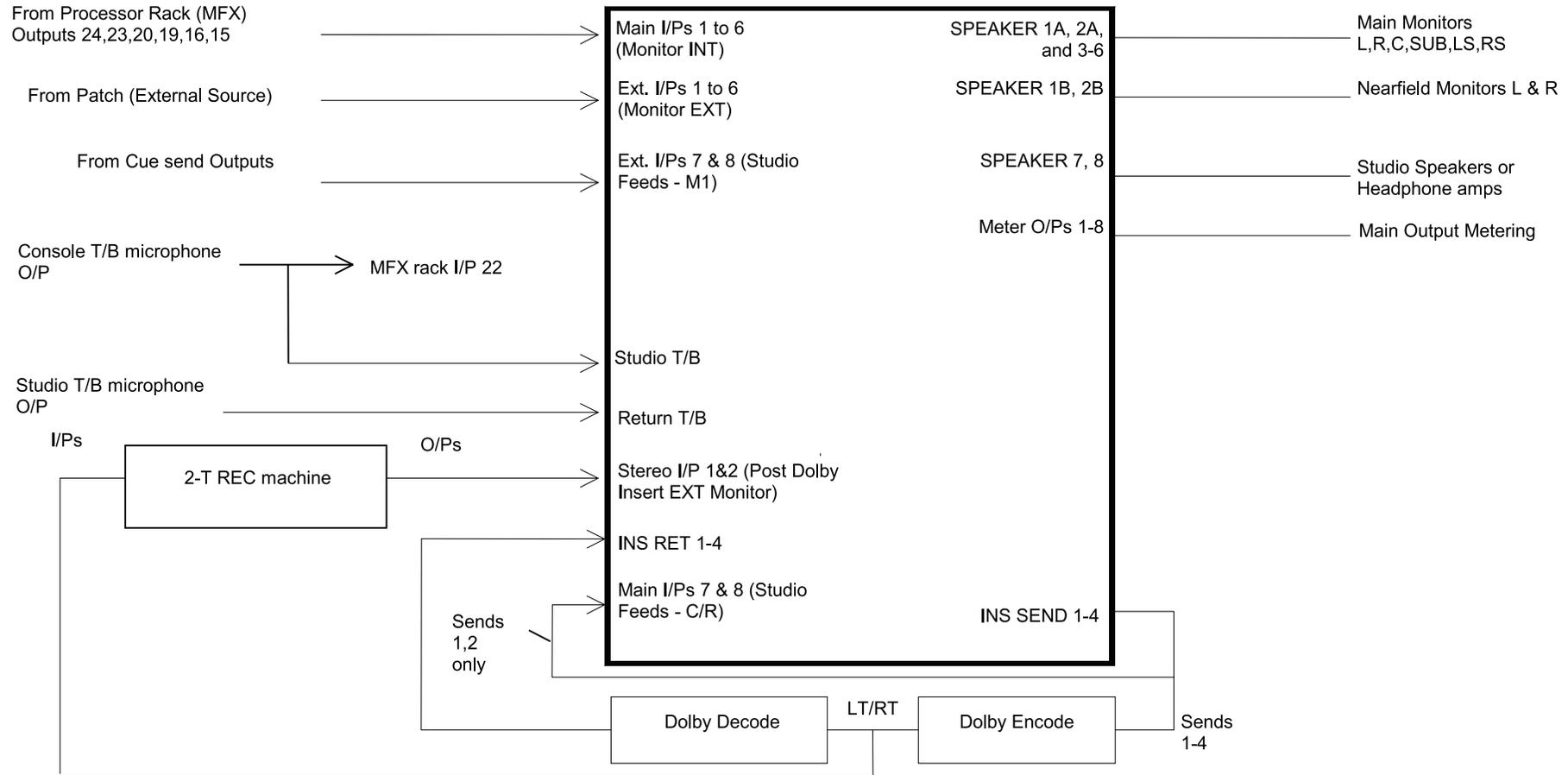
EDAC 8		
CCT	Function	Pin
01	SPKR 1A Sc	A
01	SPKR 1A +	E
01	SPKR 1A -	F
02	SPKR 2A Sc	H
02	SPKR 2A +	B
02	SPKR 2A -	C
03	SPKR 3 Sc	D
03	SPKR 3 +	J
03	SPKR 3 -	K
04	SPKR 4 Sc	L
04	SPKR 4 +	R
04	SPKR 4 -	S
05	SPKR 5 Sc	T
05	SPKR 5 +	M
05	SPKR 5 -	N
06	SPKR 6 Sc	P
06	SPKR 6 +	U
06	SPKR 6 -	V
07	SPKR 7 Sc	AB
07	SPKR 7+	W
07	SPKR 7 -	X
08	SPKR 8 Sc	AC
08	SPKR 8 +	Y
08	SPKR 8 -	Z
09	SPKR 1B Sc	AA
09	SPKR 1B +	AE
09	SPKR 1B -	AH
10	MTR O/P 1 Sc	AD
10	MTR O/P 1 +	AF
10	MTR O/P 1 -	AJ
11	MTR O/P 2 Sc	AL
11	MTR O/P 2 +	AP
11	MTR O/P 2 -	AR
12	MTR O/P 3 Sc	AM
12	MTR O/P 3 +	AS
12	MTR O/P 3 -	AT
13	MTR O/P 4 Sc	AZ
13	MTR O/P 4 +	AU
13	MTR O/P 4 -	AV
14	MTR O/P 5 Sc	AW
14	MTR O/P 5 +	BA
14	MTR O/P 5 -	BB
15	MTR O/P 6 Sc	BC
15	MTR O/P 6+	AX
15	MTR O/P 6 -	AY
16	MTR O/P 7 Sc	BK
16	MTR O/P 7+	BD
16	MTR O/P 7 -	BE
17	MTR O/P 8 Sc	BF
17	MTR O/P 8 +	BL
17	MTR O/P 8 -	BM
18	SPKR 2B Sc	BN
18	SPKR 2B +	BH
18	SPKR 2B -	BJ

EDAC 7		
CCT	Function	Pin
01		A
01		E
01		F
02		H
02		B
02		C
03		D
03		J
03		K
04		L
04		R
04		S
05		T
05		M
05		N
06		P
06		U
06		V
07		AB
07		W
07		X
08		AC
08		Y
08		Z
09		AA
09		AE
09		AH
10	Solo I/P L Sc	AD
10	Solo I/P L +	AF
10	Solo I/P L -	AJ
11	Solo I/P R Sc	AL
11	Solo I/P R +	AP
11	Solo I/P R -	AR
12	Ext MTR I/P L Sc	AM
12	Ext MTR I/P L +	AS
12	Ext MTR I/P L -	AT
13	Ext MTR I/P R Sc	AZ
13	Ext MTR I/P R +	AU
13	Ext MTR I/P R -	AV
14	Solo MTR O/P L Sc	AW
14	Solo MTR O/P L +	BA
14	Solo MTR O/P L -	BB
15	Solo MTR O/P R Sc	BC
15	Solo MTR O/P R +	AX
15	Solo MTR O/P R -	AY
16	Return TB Sc	BK
16	Return TB +	BD
16	Return TB -	BE
17	Studio TB Sc	BF
17	Studio TB 15+	BL
17	Studio TB 15 -	BM
18		BN
18		BH
18		BJ

EDAC 4		
CCT	Function	Pin
01	EXT I/P 1 Sc	A
01	EXT I/P 1+	E
01	EXT I/P 1-	F
02	EXT I/P 2 Sc	H
02	EXT I/P 2 +	B
02	EXT I/P 2 -	C
03	EXT I/P 3 Sc	D
03	EXT I/P 3 +	J
03	EXT I/P 3 -	K
04	EXT I/P 4 Sc	L
04	EXT I/P 4 +	R
04	EXT I/P 4 -	S
05	EXT I/P 5 Sc	T
05	EXT I/P 5 +	M
05	EXT I/P 5 -	N
06	EXT I/P 6 Sc	P
06	EXT I/P 6 +	U
06	EXT I/P 6 -	V
07	EXT I/P 7 Sc	AB
07	EXT I/P 7+	W
07	EXT I/P 7 -	X
08	EXT I/P 8 Sc	AC
08	EXT I/P 8 +	Y
08	EXT I/P 8 -	Z
09	Ext Stereo I/P L Sc	AA
09	Ext Stereo I/P L +	AE
09	Ext Stereo I/P L -	AH
10	MAIN I/P 1 Sc	AD
10	MAIN I/P 1 +	AF
10	MAIN I/P 1 -	AJ
11	MAIN I/P 2 Sc	AL
11	MAIN I/P 2 +	AP
11	MAIN I/P 2 -	AR
12	MAIN I/P 3 Sc	AM
12	MAIN I/P 3 +	AS
12	MAIN I/P 3 -	AT
13	MAIN I/P 4 Sc	AZ
13	MAIN I/P 4 +	AU
13	MAIN I/P 4 -	AV
14	MAIN I/P 5 Sc	A W
14	MAIN I/P 5 +	BA
14	MAIN I/P 5 -	BB
15	MAIN I/P 6 Sc	BC
15	MAIN I/P 6+	AX
15	MAIN I/P 6 -	AY
16	MAIN I/P 7 Sc	BK
16	MAIN I/P 7+	BD
16	MAIN I/P 7 -	BE
17	MAIN I/P 8 Sc	BF
17	MAIN I/P 8 +	BL
17	MAIN I/P 8 -	BM
18	Ext Stereo I/P R Sc	BN
18	Ext Stereo I/P R +	BH
18	Ext Stereo I/P R -	BJ

EDAC 3		
CCT	Function	Pin
01	INS RET 1 Sc	A
01	INS RET 1+	E
01	INS RET 1-	F
02	INS RET 2 Sc	H
02	INS RET 2 +	B
02	INS RET 2 -	C
03	INS RET 3 Sc	D
03	INS RET 3 +	J
03	INS RET 3 -	K
04	INS RET 4 Sc	L
04	INS RET 4 +	R
04	INS RET 4 -	S
05	INS RET 5 Sc	T
05	INS RET 5 +	M
05	INS RET 5 -	N
06	INS RET 6 Sc	P
06	INS RET 6 +	U
06	INS RET 6 -	V
07	INS RET 7 Sc	AB
07	INS RET 7+	W
07	INS RET 7 -	X
08	INS RET 8 Sc	AC
08	INS RET 8 +	Y
08	INS RET 8 -	Z
09		AA
09		AE
09		AH
10	INS SEND 1 Sc	AD
10	INS SEND 1 +	AF
10	INS SEND 1 -	AJ
11	INS SEND 2 Sc	AL
11	INS SEND 2 +	AP
11	INS SEND 2 -	AR
12	INS SEND 3 Sc	AM
12	INS SEND 3 +	AS
12	INS SEND 3 -	AT
13	INS SEND 4 Sc	AZ
13	INS SEND 4 +	AU
13	INS SEND 4 -	AV
14	INS SEND 5 Sc	AW
14	INS SEND 5 +	BA
14	INS SEND 5 -	BB
15	INS SEND 6 Sc	BC
15	INS SEND 6+	AX
15	INS SEND 6 -	AY
16	INS SEND 7 Sc	BK
16	INS SEND 7+	BD
16	INS SEND 7 -	BE
17	INS SEND 8 Sc	BF
17	INS SEND 8 +	BL
17	INS SEND 8 -	BM
18		BN
18		BH
18		BJ

A10 EXAMPLE MONITOR BOX CONNECTIONS FOR 5.1, LCRS AND STEREO OPERATION



A11 DIMENSIONS

A11.1 PRODIGY CONTROLLER SURFACE

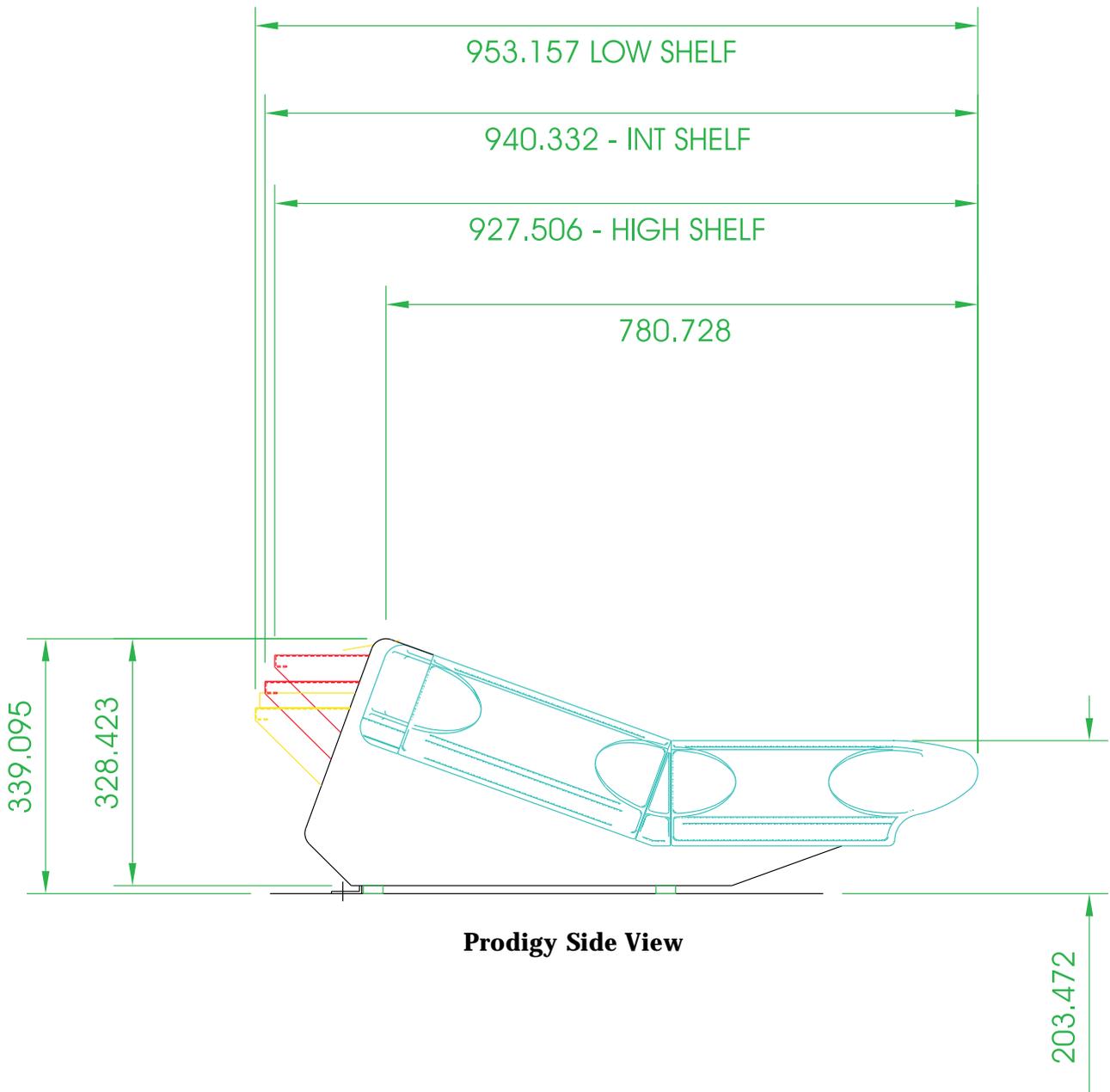
Height:	340 mm
Width:	1487mm
Depth:	940 mm including shelf
Weight:	190 kg
DC Power Consumption:	400 VA
Voltage:	100 - 240 VAC, auto sensing.

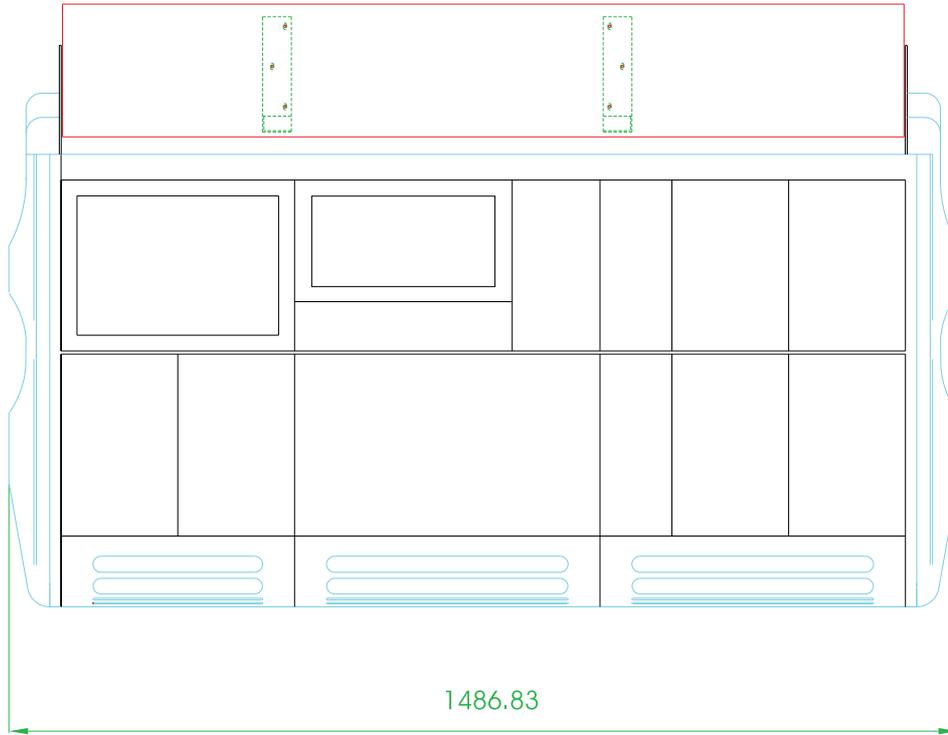
A11.2 PRODIGY PROCESSOR RACK (MFX)

Height:	8U (19" Rack Mount)
Depth:	465mm
Weight:	19kg approx
Power Consumption:	600 VA
Voltage:	100 - 240 VAC, auto sensing.
Fuse rating	125V @ 6.5 Amp 240V @ 3.15 Amp

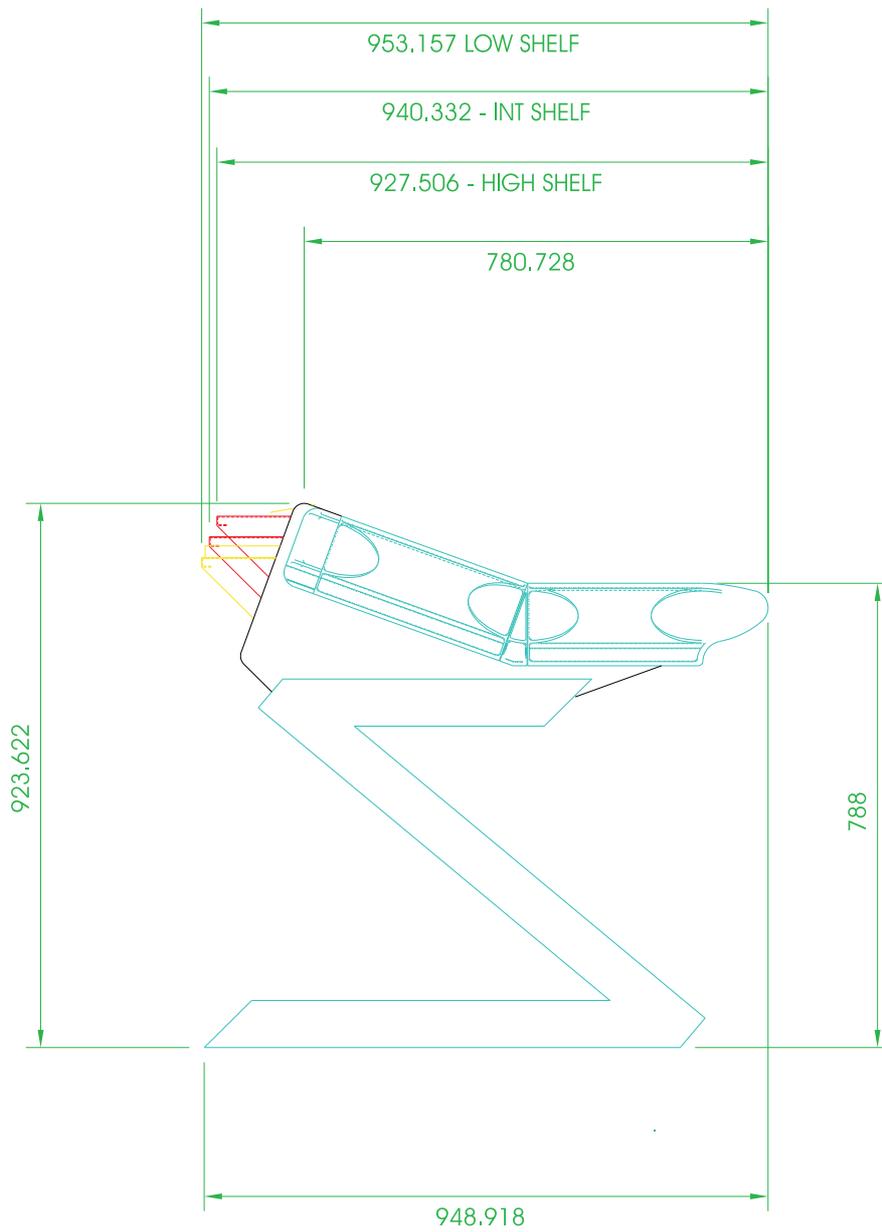
A11.3 PRODIGY MONITOR BOX

Height:	3U
Depth:	405mm
Weight:	7kg approx.
Power Consumption:	60 VA
Voltage:	Switched 110 – 120 /220 - 240 VAC
Fuse rating	3.15 Amp





Prodigy Width View



Prodigy Stand View