USER GUIDE

MICMIX

16 CHANNEL MIC/LINE & INSTRUMENT MIXER WITH DIRECT OUTPUTS

Malcolm Toft

MICMIX

Malcolm Jolf

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SAFETY INSTRUCTIONS

1) Read these instructions carefully before installing the device.

2) Follow all instructions in this manual

3) Be aware of your surroundings when installing this equipment and make sure that there are no hazards present.

4) Do not expose the equipment to moisture or excessive heat. Do not install near water.

5) Make sure it is situated in a well ventilated area.

6) There are no serviceable items inside the unit.High voltages may be present. Do not remove the cover. Doing so will invalidate the warranty. Refer all servicing to qualified personnel.

7) This equipment is provided with a universal power supply manufactured specifically with this product. There are no user replaceable fuses inside. Do not attempt to replace it with a non factory specified unit. Doing so could cause serious damage to the product and potential injury.

8) Always make sure that the unit is properly earthed in accordance with the country of operation. It is important to read the section on 'Star Grounding) further in this manual.

9) Make sure that the correct power lead is used and that it is in compliance with the country of operation.

10) It is essential that an external fuse is used in conjunction with the unit. This should be fitted to the power lead and rated at 2 amps.

11) Ensure that no strain is placed on the power cable or any other cables connected to the apparatus. Make sure that all cabling is kept clear of walkways and is not near water.

12) The power socket used for this apparatus must be kept clear and in close proximity to it.

13) Do not operate the apparatus with the covers removed or when the unit is covered.

14) This equipment is manufactured in compliance with European CE safety rules and others that apply internationally.

ABOUT THE DESIGNER

Malcolm Toft has had an illustrious career in the recording industry that spans more than fifty years. He is unique in that he has worked as a top level recording engineer as well as a designer of recording consoles and associated equipment . He was the first recording engineer to be employed at the now legendary Trident Studios in London when it first opened in 1968. During those exciting times, he engineered and worked on records by The Beatles, David Bowie, James Taylor, Paul McCartney, Joe Cocker, Rod Stewart, T-Rex and many more. A few year later he became studio manager and was tasked to oversee the rapid growth the studio had made from 8 to 24 track in just a few years. This meant the purchase of a new console that would suit the specific requirements that the studio engineers required After looking at the small number of companies able to provide high quality recording consoles, it became apparent that none of them could providethe advanced facilities that were needed such as full 24 track routing and monitor equalisation (this was considered taboo in those days!) After visiting these companies and realising this, Malcolm made the bold suggestion to the studio owners that perhaps they could build their own console that would fit their needs exactly.

Malcolm at Trident Studios in 1968

As a recording engineer, Malcolm had always felt it important to understand how the electronics of a console worked. This he felt would enable him to make the best use of the equipment. At 17 he had in fact built his first console in his parents front room where he recorded local bands on a mono tape recorder!

Malcolm‘s first console!

Trident agreed to let him build a new console provided that he took full responsibility and oversaw the project. He knew he would need some help with the electronics side while he took care of the ergonomics, systems and feature set. Fortunately, Trident had a young maintenance engineer, Barry Porter, who had been giving Malcolm advice while he was building another console at his home (this was later to become the Trident B Range mixer).

During the building of this first console for Trident studios, a number of clients showed an interest in the facilities and features of the new console and soon wanted to buy one. Malcolm discussed this with the studio owners and they agreed to start a new division which they would call Trident Audio Developments with Malcolm as managing Director. The console that started it was the now legendary A Range and Malcolm went on to design the B Range, Series 80, TSM , Trimix, Fleximix, Series 65 and many other consoles. He sold Trident in 1988 and later founded Malcolm Toft Associates (MTA). He has continued to design consoles and studio equipment up to the present day.

Malcolm wiring the first Trident A Range console

In 2010 he was made a visiting professor at Leeds College of Music in recognition of his contribution to the recording industry. In July 2023 he was awarded an Honourary Doctor of Science by West London University.

The Integra 8 incorporates the wealth of experience Malcolm has gained throughout his illustrious career as both a recording engineer and console designer. So you know that a MalcolmToft design comes with a great pedigree.

For the complete range of Malcolm Toft designed products, visit: www.malcolmtoft.com

OVERVIEW

MicMix is an extremely versatile and powerful unit combined with extremely high quality audio circuitry. It provides inputs for a combination of up to 8 microphone or line level signals together with up to 8 instrument inputs, Each input has its own balanced direct output that appears on a rear jack socket. Consequently a combination of up to 16 inputs and outputs are available simultaneously.

At the same time, these 16 independent inputs can also be combined to provide a separate stereo output with a master level control, together with independent speaker and headhone outputs.

Each mic/line input is provided with a bargraph meter which provides full control of signal levels, together with a +48V phantom power, mic/line selector phase reverse and 50Hz high pass filter switches. All switches are illuminated. A centre detented pan control completes the facilities. The instrument input is accessed via a 1/4" jack socket on the front panel. This has it's own continuously variable level control with up to 30db gain.

Because of the wide amount of connectivity and versatile signal routing provided, it soon becomes apparent that it's small size belies the flexibility of operation that is possible. Two of its immediately obvious applications are that of a multi track 'front end' for recording to a DAW via multi channel A to D converters and as a summing mixer to provide analogue 'warmth' during the mix process. The setup for these are shown on the pages of this manual entitled 'Multi Track Recording' and Stereo Recording'.

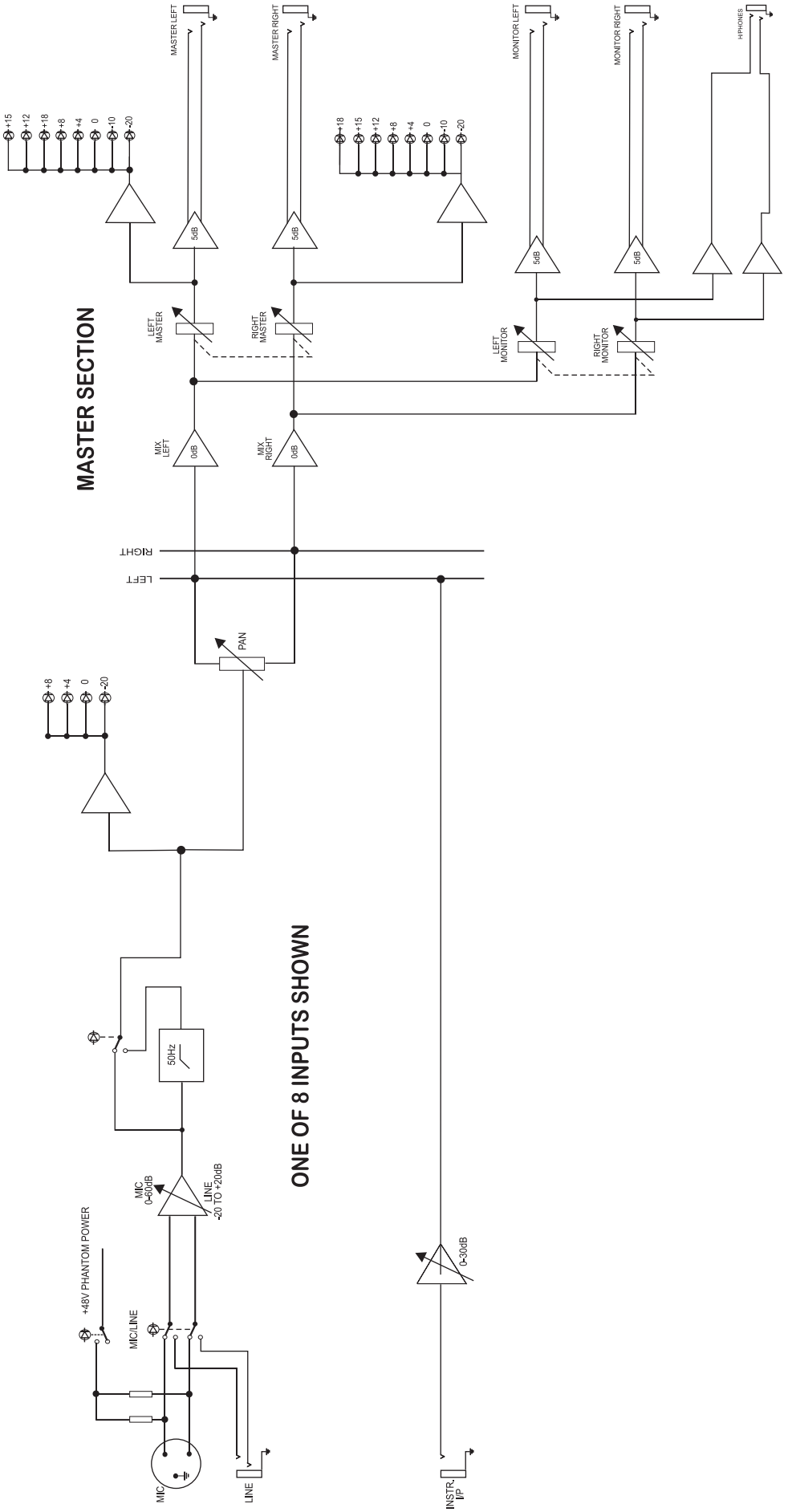
It should be noted that whilst being designed to provide a high input impedance for use with musical instruments such as guitars, the instrument inputs are of very high quality and can easily be used as a line level input, again increasing the versatility of the unit.

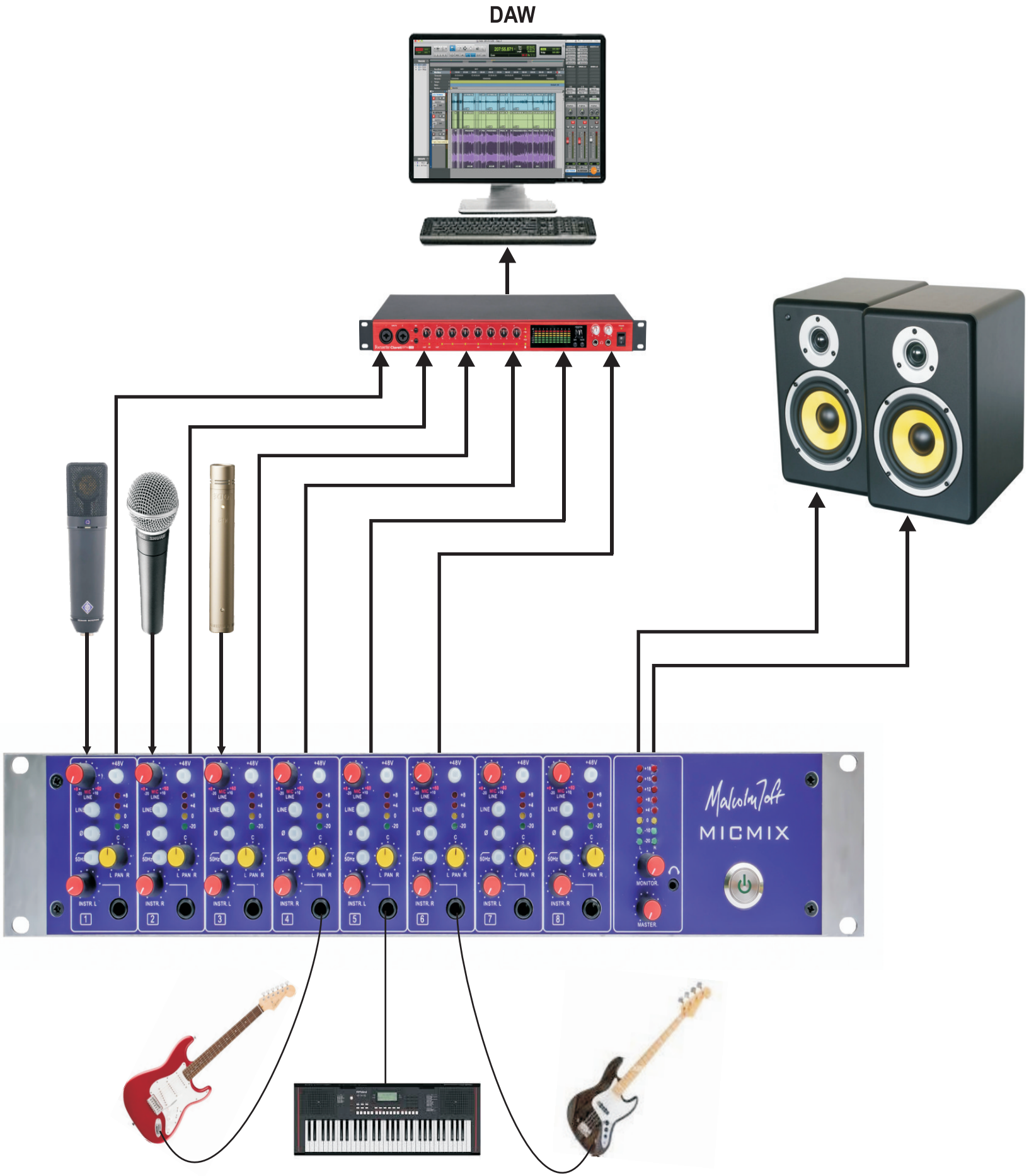
It goes without saying that as a product designed by Malcolm Toft it brings with it his more than fifty years designing recording consoles and associated equipment that is used in the very best recording studios around the world. The microphone amplifier is a precision instrumentation amplifier providing a frequency response in excess of 40kHz with low noise and very low distortion. A custom designed microphone level control avoids the 'cramping' often found in microphone amplifiers with a wide range of gain controlled by a single potentiometer.

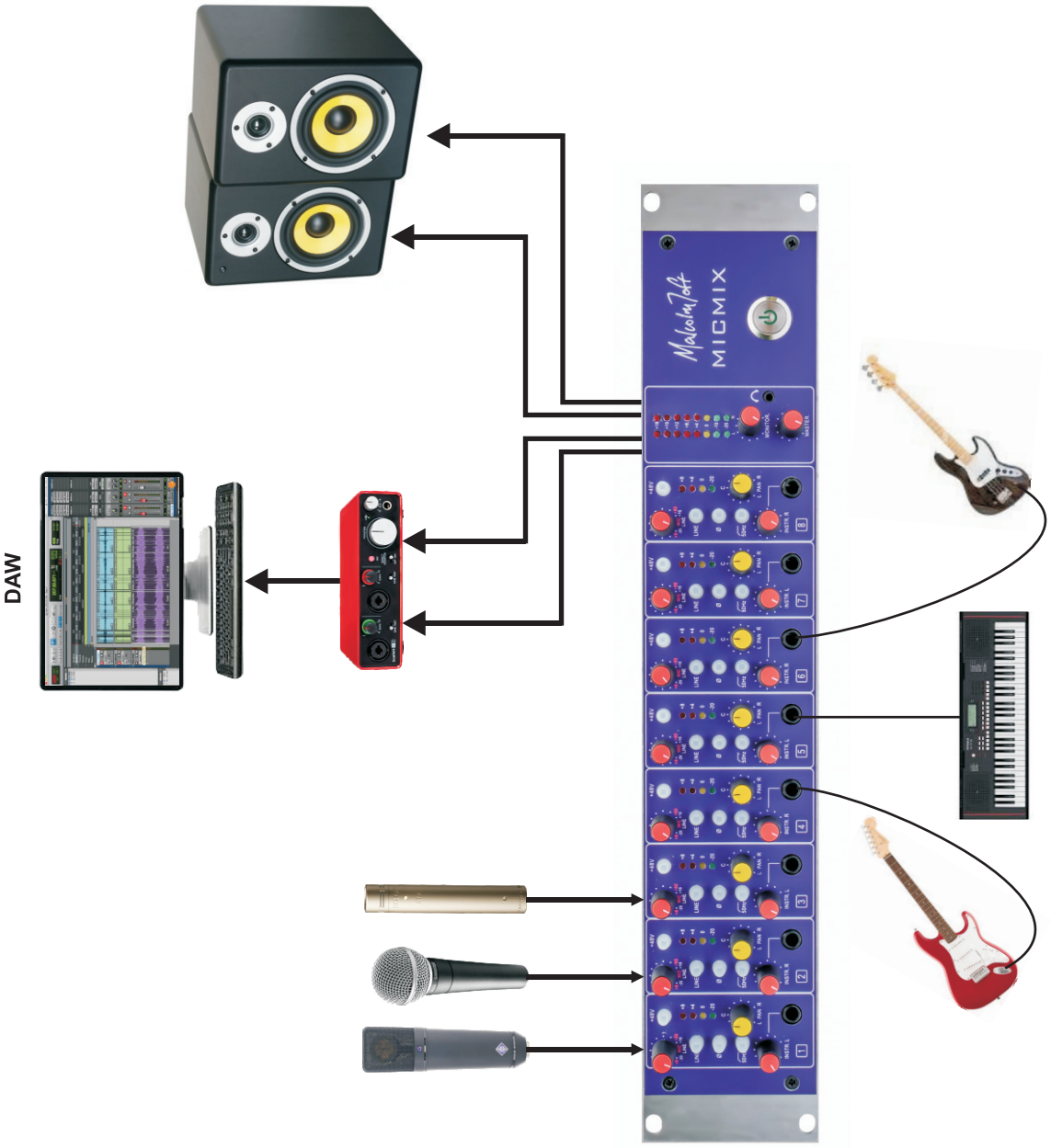
The instrument input uses a jfet amplifier that provides an input impedance suitable for just about any guitar input and again offers an extremely smooth frequency response with low noise and distortion.

All balanced outputs are ground compensated so that if the negative output is grounded making the output unbalanced, the gain is compensated to allow for the signal loss.

The unit is self powered by a.c. mains operating fron 80-250v.


MASTER SECTION
ONE OF 8 INPUTS SHOWN
MASTER LEFT
MASTER RIGHT
MONITOR LEFT
MONITOR RIGHT
HPHONES
+15
+12
+18
+8
+4
0
-10
-20
5dB
LEFT MASTER
RIGHT MASTER
LEFT MONITOR
RIGHT MONITOR
MIX LEFT
MIX RIGHT
0dB
RIGHT
LEFT
PAN
50Hz
MIC 0-60dB
LINE -20 TO +20dB
+48V PHANTOM POWER
MIC/LINE
0-30dB
MIC
LINE
INSTR. I/P


DAW
MALCOLM TOFT
MICMIX
INSTR L
INSTR R
MONITOR
MASTER


DAW
MIGMIX

REAR VIEW

ALL REAR PANEL INPUTS AND OUTPUTS BALANCED

XLR:
PIN 1: Ground
PIN 2: Positive
PIN 3: Negative

JACK:
TIP: Positive
Ring: Negative
Sleeve: Ground

FRONT PANEL INSTRUMENT INPUT JACKS UNBALANCED

TIP: Positive
Sleeve: Ground

TECHNICAL SPECIFICATIONS

MIC INPUT:
Impedance: 1.2K
Gain: 0-60db
20Hz to 40kHz ±1db
Maximum input level: +10dbu
Noise: -127 ref 200 ohms

LINE INPUT:
Impedance: > 10k ohms
Maximum input level +24dbu
Frequency response: 20Hz to 20kHz ±1db

INSTRUMENT INPUT:
Impedance: > 470k ohms
Gain: 0-30dB
Maximum input level +20dbu
Frequency response: 20Hz to 20kHz ±1db

OUTPUTS:
Impedance:< 100 ohms
Maximum output level: +27dbu
Frequency response: 20Hz to 40kHz ±1db
Direct O/P Noise: < -80dbu 20Hz to 20kHz
Master Left/Right O/P noise < -75 dbu 20Hz to 20kHz
Master level at 0dB.

A.C. POWER:
Input: 80 to 240 volts
Consumption: < 40 Watts

MECHANICAL

SIZE:
2U. 48.3 cm wide (19”) x 8.9cm high (3.5”) x 16.2cm (6.4”) maximum height.

WEIGHT:
2.5kgs. (5.5lbs)

In pursuit of product improvement, we reserve the right to amend specifications without notice.