

# SM Pro Audio

## Operating Manual M-Patch

Version 1.0 Jan 2004



## **SAFETY INSTRUCTIONS**

### **WARNING:**

- Do not expose this appliance to rain or moisture.
- This unit accepts line/mic level input only. Do not connect your power amp outputs to this device.

### **DETAILED SAFETY INSTRUCTIONS:**

All safety and operation instructions of this manual should be read and adhered to before operation.

#### **Retain Instructions:**

Please retain all safety and operating instructions for future reference.

#### **Follow instructions:**

All operation and user instructions should be followed.

#### **Water, liquid and Moisture:**

The appliance should not be used near water, rain or other liquids. Make sure that no liquid can leak, spill or otherwise seep into the appliance.

#### **Cleaning:**

The appliance should be cleaned only with a light soft cloth. Do not use any damaging or corrosive products on the unit.

#### **Damage Requiring Service:**

The appliance should be serviced by qualified service personnel when:

- Objects have fallen, or liquid has been spilled into the appliance; or
- The appliance has been exposed to rain; or
- The appliance does not appear to operate normally or exhibits a marked change in performance

#### **Servicing:**

The user should not attempt to service the appliance beyond that is described in the Operating Instructions.

All other servicing should be referred to qualified service personnel.

## **M-Patch Main Features**

The M-Patch is a professional, multi-purpose passive volume control & patch control device for studio applications.

- passive volume control
- level balancing between signals
- independent Main & Aux controls
- A/B multiple outputs
- Balanced and unbalanced input (XLR, RCA)
- stereo/Mono summing switch
- mute function switch

The M-Patch is suitable for the following applications:

- Mixerless daw solutions
- non linear video systems
- Distributed audio systems
- MIDI Systems

plus more...

## **FOREWORD**

Dear Customer,

Thank you very much for expressing your confidence in SM ProAudio products by purchasing this unit. The M-patch has been designed to be used as a standard tool for home/pro studios. With much experience in the audio industry over a long period of time, and along with valuable suggestions from our customers, our engineers have developed a product we know you will be satisfied with. We guarantee you uncompromising quality (manufactured under ISO9000 certified management system) as well as excellent technical and audio properties at an extremely affordable price.

Regards,

SM ProAudio

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## **1. INTRODUCTION**

In purchasing the new M-Patch, you have acquired a passive volume control device of high class that meets the demands of the home/pro studio.

An affordable high-quality problem solver for mixerless DAW and nonlinear video production environments, the M-Patch provides an ideal desktop stereo level control solution for any monitoring or distributed sound application.

The M-Patch is essentially a multi channel stereo attenuator using passive circuitry designed for users wishing to work without outboard mixers or bit-degrading digital volume attenuators. The M-Patch provides stereo level control solutions for any monitor or distributed sound application. Featuring two rotary controls for precise two x stereo channel level adjustments, and housed in a compact half rackmount sized chassis, the M-Patch passive volume control and patch control device is perfectly suited to serve in any common capacity in which more control over volume is desired. From desktop, mixerless DAW and MIDI systems in which no mixer is present to public presentations, professional multichannel installations, distributed sound systems, or audio and video post production environments, the M-Patch adds high quality zone and/or channel control wherever it's needed.

## **2. THE DESIGN CONCEPT**

### **2.1 High quality components and design**

The philosophy behind SM ProAudio products guarantees a no-compromise circuit design and employs the best choice of components.

### **2.2 Inputs and outputs**

All inputs and outputs are secured firmly to the exterior chassis housing. This ensures robust quality and confidence in performance under all conditions.

### 3. INSTALLATION

Your SM ProAudio M-Patch was carefully packed in the factory and the packaging was designed to protect the unit from rough handling. Nevertheless, we recommend that you carefully examine the packaging and its contents for any signs of physical damage, which may have occurred in transit.

+ If the unit is damaged, please do not return it to us, but notify your dealer and the shipping company immediately, otherwise claims for damage or replacement may not be granted. Shipping claims must be made by the consignee.

#### 3.1 Desktop or Rackmount

The SM ProAudio M-Patch's compact size enables it to sit comfortably on your desktop, however if you would like to rackmount the unit there are rackmount ears available provided. Simply attaching the ears to each side of the M-patch allows you to rackmount the unit in a standard 19" professional rack.

#### 3.2 Audio connections

##### *Analog inputs*

The M-Patch features two (2) separate input channels named "Stereo" & "Aux". The connections are found on the rear panel.

\* Note: The M-patch accepts mic or line level input signals. Do not connect your power amplifier outputs to the M-patch inputs.

Stereo ~ The Stereo main inputs feature XLR bal/unbalanced combo connectors for L&R input signal. This input is perfect for connection to your main audio interface device (example; MBox, etc).

Aux ~ The Aux input channel features two different connection possibilities in the form of 2 x RCA (L&R) and a stereo 3.5mm mini-jack input. These connections are perfect for devices such as a CD players line output or a stereo connection from your PC's standard soundcard.

##### *Analog outputs*

The M-Patch features two (2) pairs (L&R) of XLR balanced analog outputs on the rear panel. Connect these outputs to your destination device (active monitors, digital recorder, or wherever you need the attenuated output signal sent).



## 4. FRONT PANEL CONTROLS

### 4.1 Stereo/Aux input selector

The Stereo/Aux input selector on the front panel of the M-Patch is for selecting which physical input you desire to be assigned to the outputs for immediate listening and control. Select the “stereo” position to activate the main stereo input source connected to the XLR/combo inputs, or select “Aux” position to activate the RCA and 3.5mm stereo mini-jack input source.

### 4.2 On/Off Mute switch

The on/off mute switch on the front panel of the M-Patch is for muting all audio immediately from the M-Patch.

### 4.3 Aux Input volume attenuator

The Aux input volume attenuator switch on the front panel of the M-Patch is for adjusting the level of monitored output signal for devices connected to the Aux inputs (either the RCA or 3.5mm stereo min-jack) of the M-Patch.

### 4.4 Mono/Stereo summing switch

The mono/stereo summing switch on the front panel of the M-Patch allows you to sum a stereo signal to a mono signal. This can be very handy when testing your audio for certain issues like phase cancellation, preparation for AM radio, etc.

### 4.5 1/2 Output selector switch

The 1/2 output switch on the front panel of the M-Patch is for selecting which desired outputs you would like to send your audio to. If you have more than one set of monitors you can connect one pair to the output 1, and the other to the output 2. Simply change the position of the switch to toggle between output destinations.

### 4.6 Stereo Input volume attenuator

The stereo input volume attenuator switch on the front panel of the M-Patch is for adjusting the level of monitored output signal for devices connected to the stereo inputs (XLR combo connectors) of the M-Patch.



## 5. APPLICATION

### 5.1 Using the M-Patch

You can use M-Patch anywhere you want to trim the amount of gain; ie, reduce the volume of analog audio signals. For example, you could use one to trim the output of a microphone pre-amplifier. With its high-quality potentiometer, the M-Patch passes signal more accurately, and sounds better than most built-in volume controls. Another use might be to trim the levels of a 5.1 or greater multi-channel monitor system -- either one pair of channels, or two, or all of them. You can also use a M-Patch to trim the output level of a Digital to Analog Converter like those found in high end pre-amplifiers. Or as a local volume control for distributed audio systems. The possibilities are endless.

#### *Handy applications..*

The M-Patch is great for those times when you prefer to monitor directly from the outs on your sound card or audio interfaces main outputs directly to your monitors. When your monitors are on they are normally extremely loud. As a result, you may become a bit frustrated as the volume is often simply too high to be comfortable. Your only choices is to either hook up through an external mixer and attenuate the signal or to attenuate the signal in the computer outputs, thereby degrading your bit-levels. Neither solution is completely satisfying. Mixers adds color to the signal and reducing the digital output in the computer will compromise the fidelity of your audio.

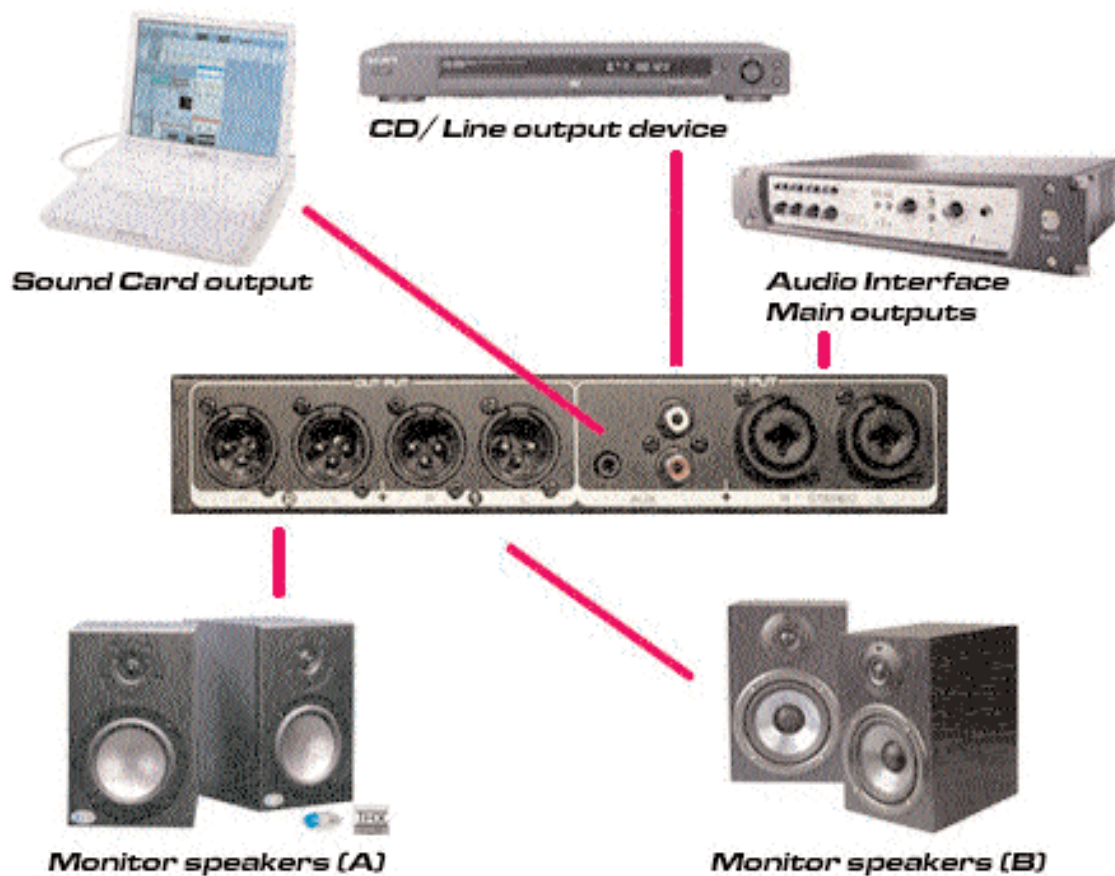
#### **Simple steps for your home workstation:**

1. Typically you should connect the output of your soundcard or audio interface to the input of the M-Patch using RCA, TRS or XLR jacks. You could also connect multiple connections at the same time if required. For example, connect the outputs of your audio interface (eg Digidesign MBox) to the balanced combo connectors, and your soundcards minijack output to the stereo 3.5mm AUX input on the M-Patch. You could also connect your CD or other line level device to the AUX RCA inputs. This enables you to level balance two input sources by passive attenuation!
2. Connect XLR cables from the outputs of the M-Patch to your active monitors or the amplifier that powers the monitors. Remember you have two (2) output destinations so if you have two different monitor pairs (nearfield & far field (room speakers)) you can connect one pair to output 1 (L&R), and the other pair to output 2 (L&R).
3. Turn the volume all the way up on your monitors, software & software volume control panel, or amplifier and use the M-Patch on your desktop to control your monitor level. Simple, effective, transparent.

#### *Controlling the M-Patch:*

- Use the input selector switch on the front panel to select which input source you wish to listen to (main or Aux inputs).
- Use the Mute switch when required. Great for powering down without pops, or muting without changing your level control and forgetting exactly where you were.
- Use the Mono/Stereo switch if you want to sum the stereo signal to mono for testing.
- Use the Output selector to select output 1 or 2 for listening. Great to A/B listen between near-field and far-field monitors pairs.





## 6. SPECIFICATIONS

### AUDIO INPUTS

- Connectors
- 2 x XLR Combo connectors (L&R)
  - 1 x stereo RCA pair (L&R)
  - 1 x stereo 3.5mm jack

### AUDIO OUTPUTS

- Output Connectors
- 2 x XLR Balanced output pairs (A-/L&R, B-/L&R)

### PHYSICAL

- Dimension 20cm x 10cm x 5 cm  
 Net weight approx. 1 kg

SM ProAudio is constantly striving to maintain the highest professional standards. As a result of these efforts, modifications may be made from time to time to existing products without prior notice. Specifications and appearance may differ from those listed or shown.

## **7. WARRANTY**

### **1 WARRANTY CARD**

To be protected by this warranty, the buyer must complete and return the enclosed warranty card (signed/stamped by retail dealer) within 14 days of the date of purchase to SM ProAudio (see address below 3). Failure to return the card in due time (date as per postmark) will void any extended warranty claims.

### **2 WARRANTY**

1. SM ProAudio warrants the mechanical and electronic components of this product to be free of defects in material and workmanship for a period of one (3) years from the original date of purchase, in accordance with the warranty regulations described below. If any defects occur within the specified warranty period that are not caused by normal wear or inappropriate use, SM ProAudio shall, at its sole discretion, either repair or replace the product.

2. If the warranty claim proves to be justified, the product will be returned freight prepaid by SM ProAudio within Australia. Outside of Australia, the product will be returned at the buyer's expense.

3. Warranty claims other than those indicated above are expressly excluded.

### **3 RETURN AUTHORIZATION NUMBER**

1. To obtain warranty service, the buyer must call SM ProAudio during normal business hours BEFORE returning the product (Tel.: +61 3 9555 8081). All inquiries must be accompanied by a description of the problem. SM ProAudio will then issue a return authorization number.

2. The product must be returned in its original shipping carton, together with the return authorization number, to the following address:

SM Pro Audio  
Service Department  
Warehouse 25  
Roberna Business Park  
26-28 Roberna St  
Moorabbin 3189  
Melbourne, Victoria  
Australia

## 4 WARRANTY REGULATIONS

1. Warranty services will be furnished only if the product is accompanied by an original retail dealer's invoice. Any product deemed eligible for repair or replacement by SM ProAudio under the terms of this warranty will be repaired or replaced within 30 days of receipt of the product at SM ProAudio.

2. If the product needs to be modified or adapted in order to comply with applicable technical or safety standards on a national or local level, in any country which is not the country for which the product was originally developed and manufactured, this modification/adaptation shall not be considered a defect in materials or workmanship.

The warranty does not cover any such modification/adaptation, irrespective of whether it was carried out properly or not. Under the terms of this warranty, SM ProAudio shall not be held responsible for any cost resulting from such a modification/adaptation.

3. Free inspections, maintenance/repair work and replacement of parts are expressly excluded from this warranty, in particular if caused by inappropriate use. Likewise, the warranty does not cover defects of expendable parts caused by normal wear of the product. Expendable parts are typically pots, potentiometers, switches and similar components.

4. Damages/defects caused by the following conditions are not covered by this warranty:

- Misuse, neglect or failure to operate the unit in compliance with the instructions given in the user or service manuals.
- Connection or operation of the unit in any way that does not comply with the technical or safety regulations applicable in the country where the product is used.
- Damages/defects that are caused by any other condition beyond the control of SM ProAudio.

5. Any repair carried out by unauthorized personnel will void the warranty.

6. Products which do not meet the terms of this warranty will be repaired exclusively at the buyer's expense. SM ProAudio will inform the buyer of any such circumstance. If the buyer fails to submit a written repair order within 4 weeks after notification, SM ProAudio will return the unit C.O.D. with a separate invoice for freight and packing. Such cost will also be invoiced separately when the buyer has sent in a written repair order.

## **5 WARRANTY TRANSFERABILITY**

This warranty is extended exclusively to the original buyer (customer of retail dealer) and is not transferable to anyone who may subsequently purchase this product. No other person (retail dealer, etc.) shall be entitled to give any warranty promise on behalf of SM ProAudio.

## **6 CLAIM FOR DAMAGES**

Failure of SM ProAudio to provide proper warranty service shall not entitle the buyer to claim (consequential) damages. In no event shall the liability of SM ProAudio exceed the invoiced value of the product.

## **7 OTHER WARRANTY RIGHTS**

This warranty does not exclude or limit the buyer's statutory rights provided by national law, in particular, any such rights against the seller that arise from a legally effective purchase contract.

The information contained in this manual is subject to change without notice. No part of this manual may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying and recording of any kind, for any purpose, without the express written permission of SM ProAudio.

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