# **SM Pro Audio**

# Operating Manual - SM MC04

Version 1.0 Jun 2005





#### SAFETY INSTRUCTIONS

**CAUTION:** To reduce the risk of electrical shock, do not remove the cover of the microphone while connected and in use.

**WARNING:** To reduce the risk of fire or electrical shock do not expose this appliance to rain or moisture.

#### **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 microphone 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; or
- The appliance has been dropped, or the enclosure damaged.

#### Servicina:

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.

2 Safety

#### SM MC04 Main Features

Congratulations on purchasing the SM Pro Audio MC04 Ribbon Studio Microphone. This superior microphone is designed for use in contemporary, state of the are studios, yet offers the unique natural sound previously only available on exclusive classic large ribbon mics of the past.

Perfect for recording studio vocals, acoustic instruments, strings, horns, orchestras and choral groups, ambient sounds, and many other live sound applications the MC04 is both Powerful and versatile. Featuring that classic ribbon sound the MC04 meets the stringent requirements of even the most demanding digital recording and live broadcasting applications.

#### **FOREWORD**

Dear Customer,

Congratulations on purchasing the SM Pro Audio MC04 Ribbon Studio Microphone. The MC04 has been designed to be used as a standard tool for recording engineers. 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 as well as excellent technical and audio properties at an extremely affordable price.

Regards,

SM Pro Audio

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#### 1. INTRODUCTION

With the advent of pristine digital studio recording facilities now-days, more and more recording engineers are wanting to retain as much warmth, detail and roundness in their recordings as possible. One way to achieve this is to use a ribbon microphone!

The SM MC04 is a dedicated ribbon microphone of exceptional quality featuring he following:

- Unparalleled sound of a classic ribbon (velocity) mic
- Low tension 2-inch long, 2 micron thick aluminium ribbon design with typical "large mellow" ribbon audio reproduction.
- Smooth natural extended low and high ends
- Fast accurate transient response
- Ultra-high 165dB SPL capability
- Stunning realism
- Figure 8 directional pattern

#### 2. THE DESIGN CONCEPT

# 2.1 High quality components and design

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

The MC04 components feature:

- Low tension 2-inch long, 2 micron thick aluminium ribbon
- Professionally machined high quality housing
- Sturdy microphone stand mount

# 2.2 Connections

All connection points on the microphone and power supply are secured firmly to the exterior chassis housing. This ensures robust quality and confidence in performance under all conditions.

#### 3. INSTALLATION

Your SM Pro Audio SM MC04 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.

The MC04 flight case & soft carry case were designed to protect the unit during shipping. Please retain these cases for subsequent transport and in the highly unlikely event that you ever need to return your microphone for servicing. Please note: since the ribbon assembly of the ribbon microphone, as with all ribbon microphones is extremely fragile, you must verify immediately upon receipt of your microphone that it has not been damaged during shipment and is operating correctly. The warranty on this microphone does not extend beyond an initial inspection as these microphones are easily damaged during handling and use. If the unit arrived damaged please return it immediately to where you bought it. Units that are damaged in use can have the ribbon assembly replaced by a service centre.

+ 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 Shipping contents

Your SM MC04 comes bundled with:

- SM MC04 ribbon microphone
- Light weight soft padded carry case for protection for your microphone
- Aluminium flight case to provide maximum protection for your microphone
- Microphone cable to connect to your SM MC04
- · Microphone stand mount

#### 3.2 Mounting the MC04 on a microphone stand

The use of the stand mount allows for the MC04 to be mounted securely to a standard microphone stand.

You will notice that there is a small threaded hole on an adjustable mounting clip fixed to the bottom of the stand mount assembly. This is where you can connect to any standard microphone stand. Screw the stand mount to the microphone stand firmly.

# 3.3 Connecting the microphone cable

Connect the microphone

Using the included microphone cable, connect one end of the cable to the base of the MC04 microphone, and the other to the your desired device (mixer, pre-amp, etc).

We strongly suggest you use a high quality cable. The cable should be as short as it can be practically be in your situation. Long cables may adversely affect sound quality.

#### 4. APPLICATION GUIDE

# 4.1 Using your ribbon microphone

Ribbon microphones offer exceptional detail and transient response due to their extreme sensitivity to moving air pressure. Traditionally ribbon microphones have been used in studio applications for voice, classical, and choir recordings. Audio engineers are now finding that not only are ribbons well suited to these applications but are getting great results on electric guitars, dobros, and virtually all modern day instrument recordings.

Ribbon microphones offer a smooth, warm, and extremely clear result. Just the thing to fatten up your audio in today's digital environment.

Some simple considerations when using your MC04 ribbon microphone...

- 1/ Experiment with your mic placement! A wide variety of tonal characteristics in your recordings can be attained by microphone positioning. It is a good idea to listen to the effect that close, near and distant On-Axis/Off-Axis microphone positioning will give your recordings.
- 2/ When recording vocals, try and use a pop-filter/shield!
- 3/ Ribbon mics generally deliver a rather low output current. Don't be surprised about this. It is normal! Experiment with your pre-amp gain to maximize performance.
- 4/ Remember to take care of your ribbon microphone. It is fragile and requires great deal of respect, especially during storage and transport. Always store the microphone in the upright position.

Enjoy recording with your new ribbon microphone. We are certain you will appreciate the many advantages a ribbon microphone will offer you as part of your microphone tool kit.

# 4.2 Optional Accessories

#### SMPS1 Pop-Filter/Shield

The MC04 has a companion pop-filter/shield accessory called the SMPS1. It is highly recommended for both the quality of your recordings and for the preservation of the performace of your microphone over time. Moisture from mouth spray can degrade the performance of your ribbon microphone.

Please enquire at your dealer about purchasing the optional SMSP1 pop-filter/shield.

# 5. Warning / Precautions

# **5.1 Damage protection**

Always protect your ribbon microphone from any hard knocks! The ribbon assembly is quite fragile so avoid any hard knocks, drops, or general rough handling. Always handle with complete care.

# 5.2 High impact air movement protection

Prevent any sudden or strong blasts of air movement from ever reaching your microphone. These can tear and destroy the fragile ribbon. Never blow into your microphone! It is advised to always use a pop-filter/shield to prevent any percussive sounds and from damaging the ribbon. A pop-filter will also help prevent damage from any mouth spray moisture.

# 5.3 Phantom power protection

Never intentionally or accidentally apply any phantom power from your mixer or external phantom power supply. This could possibly burn up the ribbon. Please always check carefully before connecting your ribbon mic that there is no phantom power being provided to the microphone.

# 5.4 Storage

When not in use, always keep the microphone in the soft padded carry case provided. Always store in a vertical position as the 2" ribbon can sag over time when laying horizontal causing a degradation in performance.

Note: Damaged ribbons are not covered by warranty and there will be a charge to replace the element.

# 6. SPECIFICATIONS

Microphone type: Large Ribbon Geometry (LRG) ribbon (velocity) micro

phone

**Ribbon type & Dimensions:** Pure aluminium 2 micron tick

Polar pattern: Figure 8

**Sensitivity:** -56.5dB(0dB=1V/Pa)

Frequency response: 20 to 18,000Hz (+/-3dB)

**Impedance**: <=600 Ohms

Recommended load impedance: 1000 Ohms

Max. SPL (1% THD@1000Hz): 165dB

**Equivalent noise level** 

to IEC 268-4 (A weighted): 18dB

Mic cable: 3-pin XLR standard cable

**Size:** Diameter - 2.7"(68.5mm), Length - 7.3"(185mm)

**Net weight:** 44 oz (1230g)

Note: Specifications and design subject to change for improvement purposes without prior notice.

#### 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 Pro Audio (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 Pro Audio warrants the mechanical and electronic components of this product to be free of defects in material and workmanship for a period of one (1) year 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 Pro Audio 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 Pro Audio 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 Pro Audio 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 Pro Audio 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 W25, 26-28 Roberna St Moorabbin Melbourne, Victoria Australia 3189

#### **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 Pro Audio under the terms of this warranty will be repaired or replaced within 30 days of receipt of the product at SM Pro Audio.
- 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 Pro Audio 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 Pro Audio.
- 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 Pro Audio will inform the buyer of any such circumstance. If the buyer fails to submit a written repair order within 4 weeks after notification, SM Pro Audio 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 Pro Audio.

#### **6 CLAIM FOR DAMAGES**

Failure of SM Pro Audio to provide proper warranty service shall not entitle the buyer to claim (consequential) damages. In no event shall the liability of SM Pro Audio 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 Pro Audio.

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