

# P-CONTROL

OPERATING MANUAL  
ENGLISH



*clever audio solutions.*



## **SAFETY INSTRUCTIONS**

**CAUTION:** To reduce the risk of electrical shock, do not remove the cover or rear panel of this unit. No user serviceable parts inside. Please refer servicing to qualified personnel only.

**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.

#### **Ventilation:**

Please place the appliance so no obstacles interfere or impede the flow of air through the ventilation openings.

#### **Heat:**

The appliance should be situated away from other heat sources such as heaters, radiators, ovens, or other appliances that produce heat.

#### **Power Source:**

Make sure your appliance is set to the correct voltage for the country in which it will be used before switching the device ON.

#### **Grounding and Polarization:**

Precautions should be taken so that the grounding or polarization means of an appliance is not defeated.

#### **Power-Cord Protection:**

Power supply cords should be routed so that they are not likely to be walked on, pinched, damaged, worn, or rubbed by any other device or obstacle.

#### **Cleaning:**

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

#### **Periods of inactivity:**

The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time or in case a lightning storm occurs.

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

The appliance should be serviced by qualified service personnel when:

- The power supply cord or the plug has been damaged; or
- 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.

#### **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.

## FOREWORD

Dear Customer,

Thank you very much for expressing your confidence in SM ProAudio products by purchasing this unit. The P-Control has been designed to be used as a standard tool for home/pro studios, P.A. rental companies, Schools and in many other situations where audio products would be used. 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 ProAudio

## INSTALLATION

Your SM ProAudio P-Control 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.

## RACK MOUNTING

The SM ProAudio P-Control fits into HALF a standard 19" rack unit of space. Be sure that there is enough air space around the unit for cooling. As to avoid overheating, please do not place the units on high temperature devices such as power amplifiers.

## MAINS VOLTAGE

The units come with a 17V AC power supply adaptor. Before you connect your unit to the mains, please make sure that your local voltage matches the voltage required by the unit!

## 1. SM P-CONTROL MAIN FEATURES

- Professional, Phase manipulation and correction device
- Balanced and unbalanced Line/Mic inputs
- Transformer Isolated Outputs
- Phase control 0-180 degrees
- 1/2Rack unit with optional adaptor
- Low Cut switch
- Phase Reverse switch
- Rugged metal construction
- VU Output Metering

## 2. INTRODUCTION

The P-Control finally puts the control of the Audio Phase in your hands. Create extended rich tones with the simple touch of a button or combine different microphone or line sources to get the FAT sound which engineers dream of having. Getting a great guitar stereo

sound is a simple matter with a P-Control in your mix. You no longer need to bang your head against your desk to get the tone you are looking for, just put a P-Control on the channel insert or inline with your instrument. Kick Drums, Guitars, Stereo Micing will all benefit greatly from the features which the P-Control offers.

With the added Transformer Isolation on the output you can also eliminate many ground loop errors and noisy inputs found on some systems.

### 3. THE DESIGN CONCEPT

#### 3.1 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.

#### 3.2 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.

### 4. P-CONTROL FRONT PANEL

The panel has 4 switches a Phase control, a Volume control and a Level Meter.

#### 4.1 Bypass ON-OFF switch

Use this switch to totally bypass the device, so you can A-B the difference the P-Control makes to the sound.

#### 4.2 Low Cut ON-OFF switch

Use this switch to add an 80hz filter to the audio signal.

#### 4.3 Phase Reverse ON-OFF switch

Use this switch to totally reverse the phase of the signal (180 degrees)

#### 4.4 Phase Control Knob

Use this knob to manually control the degree in which you are moving the phase of the sound from 0-180 degrees.

#### 4.5 Output Volume Knob

Use this knob to manually control the output volume of the device.

#### 4.6 Output Level Meter

View this meter to see what is your output level.

#### 4.7 Ground/Earth Lift ON-OFF switch

Use this switch to select of the Earth/Ground should be removed from the signal to assist in some situations where Earth/Ground hum can occur.

#### 4.1 Bypass ON-OFF switch 4.2 Low Cut ON-OFF switch 4.3 Phase Reverse ON-OFF switch



#### 4.4 Phase Control Knob 4.5 Output Volume Knob 4.6 Output Level Meter 4.7 Ground Lift switch

## 5. P-CONTROL BACK PANEL

The back panel has all the input and output connectors plus power connector, a Ground/Earth Link screw and a transformer isolation switch.

### 5.1 XLR balanced output

Use this output connection for connecting to other Balanced equipment.

### 5.2 Schalter für die galvanische Trennung

Use this switch to either use an internal transformer for isolating the output signal from other equipment or do connect the output signal directly.

### 5.3 Line Level 1/4" Jack output

Use this output connection for connecting the output of the device to other equipment which is unbalanced.

### 5.4 Power connection

Use the provided 17V AC power supply to power the unit.

### 5.5 Ground/Earth connection

Wire this connection if you have other equipment wired with ground/earth in your studio.

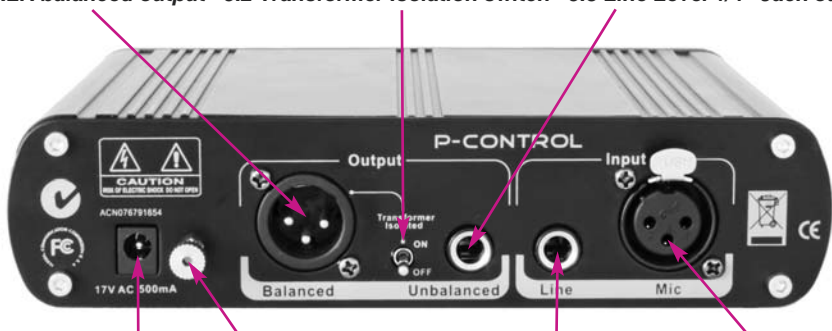
### 5.6 Line Input 1/4" Jack

Use this input for connecting Line level unbalanced signals to the P-Control.

### 5.7 MIC Input XLR

Use this input is for connecting Mic Level or Line Level Balanced cables.

### 5.1 XLR balanced output 5.2 Transformer Isolation switch 5.3 Line Level 1/4" Jack output



### 5.4 Power connection 5.5 Ground/Earth connection 5.6 Line Input Jack 5.7 MIC Input XLR

## 6. APPLICATION

### 6.1 Using the P-Control to eliminate phasing between stereo signals

Connect one microphone directly to you mixing desk or recording device and the other microphone thru the P-Control into a mixing console. Make sure the P-Control is In Bypass mode and having both channels together panned in the middle listen to you stereo sound, if you are setting up a stereo overhead for drums or stereo guitar sound you may hear some cancellations of certain frequencies at this point. Now, switch off the Bypass on the P-Control and slowly move the Main Phase knob until you start hearing the sound change, you can experiment with this and pan the stereo instruments while you are change their phase to listen to the effect it has on the sound.

### 6.2 Using the P-Control as a Subwoofer control device

Placement of subwoofers in a room or installation can be very critical especially with timing between speakers and room sizes, standing waves etc. With the P-Control you are able to control the phase of the audio going to a subwoofer from 0 to 180 degrees thus enabling you to tune it's timing to suit the room you are in.

## 7. 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 post-mark) will void any extended warranty claims.

### 7.1 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 (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 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.

### 7.2 RETURN AUTHORIZATION NUMBER

1. To obtain warranty service, the buyer must call SM Pro Audio during normal business hours BEFORE returning the product. Please use the following telephone numbers:

**Australia and Asia:** Tel.: +61 3 9555 8081

**North America:** Tel.: 1 800 343 0353

**Europe:** Tel.: +49 2504 888 878 0

All inquiries must be accompanied by a description of the problem. SM Pro Audio will then issue a return authorization number or by email to [service@smproaudio.com](mailto:service@smproaudio.com)

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

#### **Australia and Asia:**

SM Pro Audio  
Service Department  
W25, 26-28 Roberna St  
Moorabbin  
Australia

#### **North America:**

Kaysound  
5 Coton Lane, Champlain,  
New York, 12919  
USA

#### **Europe:**

SM Pro Audio Europe / tt audio GmbH  
Alfred-Krupp-Str. 5  
48291 Telgte  
Germany

### **7.3 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 in the best possible manner.

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.

### **7.4 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.

### **7.5 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.

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SM Pro Audio Service Department

W25, 26-28 Roberna St Moorabbin Melbourne, Victoria Australia 3189



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