# STAGE BUDDY PERSONAL MONITORING SYSTEM

EXPANDABLE CATS SYSTEM BUILT-IN REVERB & EQ ON-BOARD LIMITER EASY "MORE ME" CONTROL











# 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.

### 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.

### 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 what 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 Pro Audio products by purchasing this unit. The Stage Buddy was designed to be a full-featured personal monitoring system for project and professional studios, live sound rental companies, houses of worship, schools, and fixed installations—in short, virtually any and all venues where audio products are used. Drawing on years of hands-on experience in the audio industry and valuable suggestions from our customers, our engineers have developed a product that we are certain will more than meet your expectations. As with all SM Pro Audio equipment, the Stage Buddy was designed to provide you with superb performance, excellent technical specifications, and uncompromised audio quality at an extremely affordable price.

Regards, SM Pro Audio

# INSTALLATION

Your SM Pro Audio Stage Buddy was carefully packed at the factory and the packaging is 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 that 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.

# PLACEMENT

The SM Pro Audio Stage Buddy utilizes an electronic circuit. Be sure that there is enough air space around the unit for cooling. To avoid overheating, please do not place the unit on high temperature devices such as power amplifiers or near other units that may have high frequency transmittance, such as wireless devices.

# MAINS VOLTAGE

The Stage Buddy can be used with voltages ranging from 100V AC to 250V AC. Please make sure that you have selected the correct voltage range on the back of the unit and that the required fuse setting is correct as well before switching the unit ON. Damage occurring as a result of incorrect voltage selection may not be covered as a warranty repair.

# INTRODUCTION

The Stage Buddy system is an expandable monitoring solution comprised in its simplest form of one MASTER unit and four (4) REMOTE units. Remote units can be connected either directly to the Master unit or daisy-chained (up to 4 units) in succession to each other using readily available standard CAT5 (ethernet) network cable. Audio transmission and power is supplied to each remote unit directly from the MASTER unit, making an extremely simple and elegant solution for distributing personal monitoring to multiple users.

The MASTER unit is a 1U 19" rack-mountable hardware device that houses both the main audio connections for the system and four CAT5 distribution outlets for connection to the REMOTE units. Power/signal LEDs on the front panel display current audio activity, while a convenient split output pair allows for simple system expansion and added flexibility for various audio applications.

Each REMOTE unit is a little wonder in itself! With a host of features packed into a compact monitoring unit, the REMOTE of fers quality personal microphone preamplification, EQ, reverb, limiting, and a powerful, pristine headphone amplifier. The special and ingenious "MORE ME" control is a standout. What could be easier than simply turning up the MORE ME knob when you want to hear a little more of yourself?

# GENERAL

STAGE BUDDY REMOTE:
2 x Combination XLR - TRS 1/4" inputs
2 x Mic preamplifiers
Switchable +48V phantom power per input channel
Switchable -20dB pad per input channel
Built-in personal monitor reverb
Tone control
"More Me" mix balance control
2 x XLR FOH/DI outputs with GND lift switch
2 x XLR Monitor outputs
2 x RJ45 system link connectors

# STAGE BUDDY MASTER:

- 4 x RJ45 system link connectors
- 8 x Audio/Power activity indicators
- 2 x XLR Mic inputs with inserts
- 2 x XLR split outputs

# STAGE BUDDY MASTER UNIT

The Master unit provides the power and the audio signal to the Stage Buddy Remote units via a standard CAT5 cable (also referred to as a network cable). Although a Remote unit can be used as a stand-alone device (described later in this manual), in most cases a Master unit will be used for audio and power distribution.



- 1. Audio input level controls (please note LED ON means distortion)
- 2. Power safe indication for the four CAT5 outputs (each one has its own power supply and fuse).
- 3. Audio input, balanced XLR and 1/4" inputs.
- 4. Split signal (from the audio inputs) so that other Stage Buddy Master units can be connected (for expanding a system by "daisy-chaining" multiple Master units).
- 5. AC power input. Please make sure the correct voltage for your country is selected.
- RJ45 CAT5 outputs for connection to Stage Buddy Remote units, and individual power fuse for each CAT5 output.

# STAGE BUDDY REMOTE CONNECTIONS

The Remote unit is a full-featured device designed to give you a great deal of control over the sound you're monitoring. The unit also provides enhanced features, such as digital reverb and equalization, for customizing your sound.



# Protect your ears!

The Stage Buddy's headphone output is LOUD! It may cause permanent hearing damage if not correctly used or if used over prolonged periods at loud levels!

- 1. Combination XLR-1/4" inputs. The XLR is for microphone signals and the 1/4" TRS is for Line Level and Instrument signals.
- 2. 48V phantom power switch and -20dB pad for the XLR input
- 3. Simple Tone Control: Move to the left for more bass and to the right for for more treble.
- 4. More Me: Turn to the left for more music (audio signal from Master unit over CAT5 cable) in the monitor mix; move to the right to hear more of you--the signal appearing at the inputs (vocals, guitars, keyboards, etc.)
- 5. Adds digital reverb to the input signal.
- 6. Adjusts the output level of the headphones.
- 7. 1/4" stereo headphone output connector
- 8. Limiter On/Off switch, applied to the audio signal from the CAT5 cable Master Unit. Protection for your ears!
- 9. Mono switch. If only one of the Stage Buddy Remote inputs is used, enabling this switch causes the signal to be heard in both sides of the headphones or monitoring system. If two different signals are being monitored, for example, a vocal and a guitar, enabling the Mono switch allows both signals to appear equally in the headphones, rather than one signal on the left and the other on the right.

# STAGE BUDDY REMOTE CONNECTIONS



- The Remote unit can be powered from a 17VAC / 1AMP power supply or, when used with a Master unit, over CAT5 cable (via the RJ45 connector). The switch selects the power source. Note that only two remote units should be used in a daisy-chain manner when power is applied via the CAT5 cable. You can connect many more units in a daisy-chain configuration if a power supply is connected to each unit.
- 2. When used in stand-alone mode without a master, audio signals can be routed into the Remote via these balanced TRS 1/8" connectors.
- RJ45 connectors for connecting a CAT5 cable between the Master and the Remote unit. Multiple units can be easily daisy-chained using the CAT5 inputs and outputs.
- 4. Used to adjust the output level for the XLR Monitor outputs (normally connected to an amp or an active monitoring system).
- 5. Monitor outputs, balanced XLR.
- 6. Balanced XLR outputs to F.O.H. (Front of House) or mixers, etc. These connectors duplicate the signals appearing at the front-panel inputs. XLR signals bypass all circuits, including the built-in microphone preamps. When a 1/4" plug is connected to the front of the Remote unit, a circuit is automatically switched in that turns the unit into a D.I. (Direct Inject) box.
- 7. Ground Lift switch. In some situations you may encounter a ground (or "earth") hum. Enabling this switch may resolve the problem.

# STAGE BUDDY FUNCTIONS: BASIC SETUP

In its simplest form, a system consists of a Master and two-four Remote units. To set up a basic system:



- Switch the Master unit ON. Observe that all four power LEDs are illuminated, indicating that the unit is working properly. Connect the L/R outputs from your mixer or other audio source to the Master unit's Mix inputs. The input sensitivity is set at -10dB; play the source music into the Master and adjust the output level of your mixer so that the green signal LEDs are *not* lit. Illuminated LEDs indicate an input overload, which will result in distortion being heard in the Remote units.
- On the Remote unit, set the Power Selector switch to the CAT5 position. Using standard CAT5 (ethernet) cable, connect one of the Master unit's CAT5 ouputs to the CAT5 input on the Remote. The Remote's power indicator should be on.

**Important:** Be sure to use standard CAT5 cable with no deviation from standard wiring, or signals will not transmit properly from the Master to the Remote.

- 3. Turn the Level control on the Remote unit fully counter-clockwise (OFF), then connect a set of headphones. Rotate the More Me knob fully counter-clockwise, then slowly increase the Level control until you can hear the audio signal from the Master unit at a comfortable volume.
- 4. Connect a microphone to the Remote unit's Mic 1 XLR input jack. If the microphone requires phantom power, engage the input's front-panel phantom power switch. Turn the input's Gain knob fully counter-clockwise and rotate the More Me control fully to the the right. Turn the Reverb knob fully to the left (OFF), set the EQ control to its center position, and depress the Mono button so that the microphone signal feeds the left and right headphone channels equally.
- 5. Begin talking or singing into the microphone. Slowly raise the level of the Mic 1 input Gain control until you hear a nice clean sound at a comfortable volume. Adjust the Reverb and EQ controls to taste. Now rotate the More Me control to set the blend of the microphone signal and the audio coming from the Master unit.
- 6. To record the microphone signal, connect the F.O.H. output on the Remote unit to the input of your recording system. Adjustments made to your personal monitor signal, *e.g.*, reverb and EQ settings, headphone mix, and so on, will not affect the signal appearing at the F.O.H. output.

You can now connect additional Stage Buddy Remote units by running CAT5 cables between them and the Master unit, or by connecting the CAT5 output of a Remote unit to the CAT5 input of another.

# STAGE BUDDY FUNCTIONS: SOLO PERFORMANCE

A single Remote device works as a mixer/monitor for use with a PA system.



In this application there is no master unit to supply AC power to the Remote, so you'll need to power the remote with a 17VAC/1AMP power supply.

Connect an audio source, such as an MP3 player or the output of a laptop, to the L/R 1/8" inputs on the Remote. Note that these inputs are monophonic, so the combined stereo output of an MP3 player, for example, will need to be split into independent left/right signals. This may require that you make or purchase the appropriate cable.



If the signal is balanced (from a computer interface, for example), the source XLR/TRS output should be wired to an 1/8" plug in standard TRS fashion, *i.e.*, T = Tip/Hot, R = Ring/Cold, S = Common/Shield (Sleeve)

Now connect your microphone and guitar, for example. Mix between them and and the backing track, add reverb and EQ, then send the full mix to your PA system via the Monitor outputs on the back of the Stage Buddy Remote.

# STAGE BUDDY FUNCTIONS: GROUP MONITORING

100s of Stage Buddies can be used together, in a large orchestra, for example, with each player having independent control over their own volume, mix, and effects. Up to 20 Remote units can be daisy-chained on a single audio stream from a Master unit (with four streams per Master), and multiple Master units can also be daisy-chained.

Note that in configurations using more than two Remote units, each unit must be powered by its own 17VAC supply, rather than via CAT5.

# ORCHESTRA

Personal monitoring for a whole orchestra can be configured with ease. Stage Buddy units can be dainy-chained with Cat 5 cable offering a flexible and affordable solution.



### I WARRANTY CARD

To be protected by this warranty, the buyer must complete an online warranty registration within 14 days of the date of purchase at www.smproaudio.com

## 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 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 ProAudio will then issue a return authorization number or by email to service@smproaudio.com

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

For warranty service in the USA and Canada, please contact:

SM Pro Audio USA c/o MV Pro Audio www.mvproaudio.com support@mvproaudio.com

# 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 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.

This 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 that 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 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.

### 6 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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# SMPRO AUDIO STAGE BUDDY