



**IN5E**  
**Operating Manual**

## **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 that is described in the Operating Instructions.

All other servicing should be referred to qualified service personnel.

## **IN5E Main Features:**

The new IN5E from SM Pro Audio covers a huge range of applications for use in the home/project studio. It is suitable for mixing various analog audio signals to a high quality recording output channel in either high quality low noise analog or pristine 24-bit 96 kHz digital format via USB. This makes the IN5E to a truly high quality audio interface which can be directly connected to a computer. In addition to this, the unit will operate as a versatile monitor mixer providing facilities for up to 12 channels of monitored signal!

- 3 x Mic pre amps
- 3 x Insert points
- 3 x Phantom power
- 2 x XLR Bal I/O
- 6 x Mono, 3 x Stereo line inputs
- 1 x Turntable or CD inputs with switchable RIAAEQ and level controls
- 2 x Headphone monitoring amplifiers
- USB port
- CAT5 connector for connecting 3 balanced inputs with just one single CAT5 cable!

## **FOREWORD**

Dear Customer,

Thank you very much for expressing your confidence in SM ProAudio products by purchasing this unit. The SM IN5E 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 Pro Audio

*\* It should be pointed out, that extreme output volumes may damage your ears and/or your headphone units. Turn down the LEVEL controls before you switch on the unit.*

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## 1. Introduction

### Functionality - Versatility - Mix - Record - Monitor - Convert - Inject and Digitize!!!

The new IN5E from SM Pro Audio covers a huge range of applications for use in the home/project studio. It is suitable for mixing various analog audio signals to a high quality recording output channel in either high quality low noise analog or pristine digital format via USB.

Many users will be glad to see the options provided for connectivity. 3 x Bal mic inputs with switchable phantom power, peak lights, and gain control can be found on the front of the unit (3 x inserts available on these channels). An additional 6 x mono (3 x stereo) line level inputs, 1 x stereo turntable, CD or Phono inputs with RIAAEQ and level controls are also present. This is great news for DJ's home audiophile users wanting to digitize their vinyl and transfer to the PC!

And we have one truly innovative feature packed at the backside of the IN5E: With the TST3 connector you have the possibility to connect up to 3(!) analog audio channels with just one standard CAT5 cable. All you need is a compatible Audio-to-CAT5 converter box like the Violet Audio TST3 (please check [www.violetaudio.com](http://www.violetaudio.com) for more details)!

## 2. The Design Concept

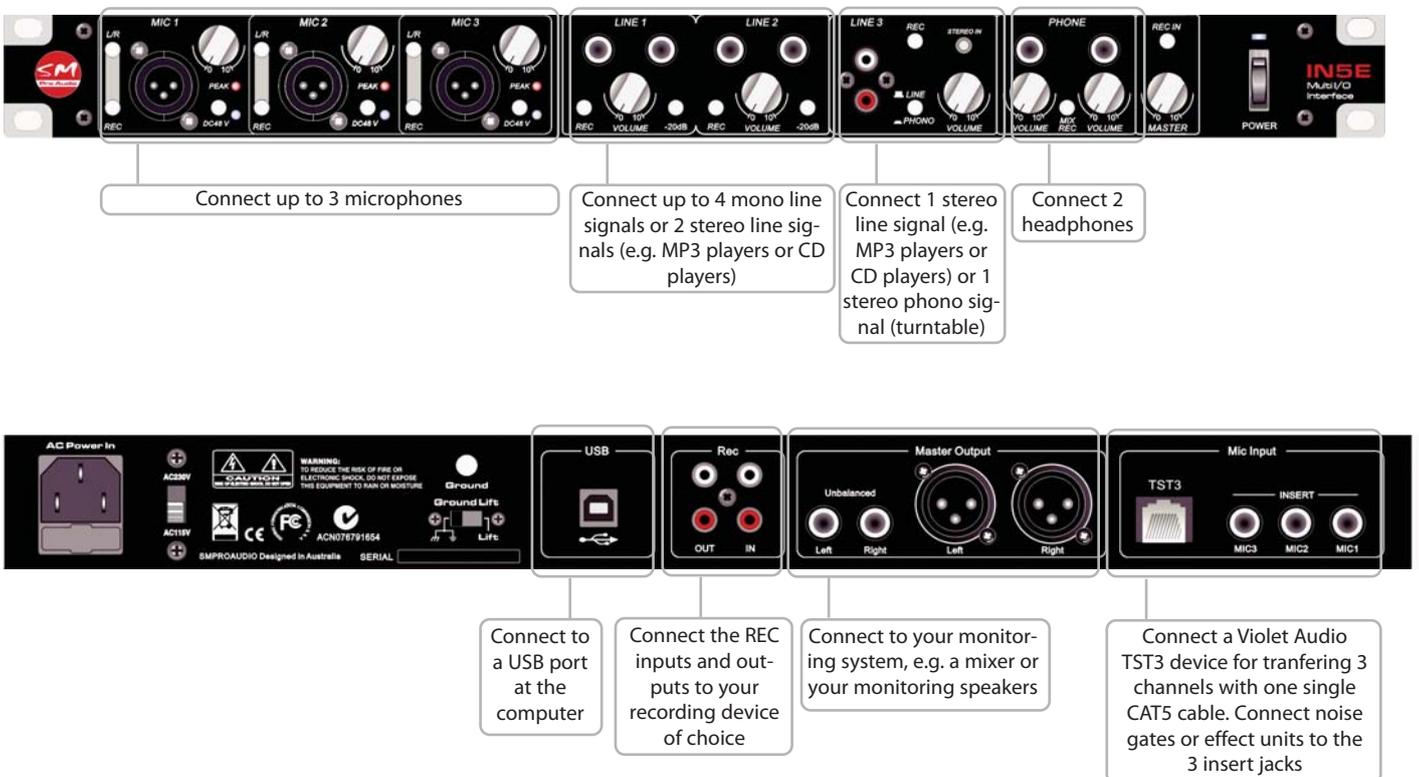
### 2.1 High quality components and design

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. Overview



## 4. Installation

Your SM ProAudio IN5E 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.*

### 4.1 What's included in the box

- the IN5E (hopefully)
- a power cord and/or a suitable power supply
- this beautiful designed manual

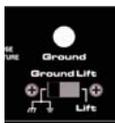
### 4.2 Rack mounting

The SM ProAudio IN5E fits into one standard 19" rack unit of space (1 3/4"). Be sure that there is enough air space around the unit for cooling. As to avoid overheating, please do not place the IN5E on high temperature devices such as power amplifiers.

### 4.3 Mains voltage

The SM IN5 has a professional internal power supply thus eliminating the use of external power adaptors. Before you connect your IN5E to the mains, please make sure that your local voltage matches the voltage required by the unit!

## 5. Rear Panel Connections



### 5.1 GND – Ground pin connector

The ground pin connector allows for connection of your turntable grounding wire. Please refer to your turntable manual for information regarding ground connections.

### 5.2 Ground lift switch

In certain situations where you have audible humm or buzz in your system, you can use the Ground Lift Switch to eliminate this problem. Place the switch in the "Lift" position to lift the ground.



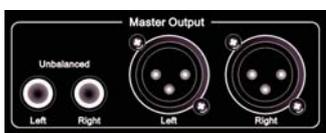
### 5.3 USB connector

This port is used for the direct connection between the IN5E and the computer.



### 5.4 Stereo RCA record input and outputs

Use standard stereo RCA cables to connect the REC inputs and outputs to your recording device of choice. This could be a DAT, MD recorder, Sound card, etc. The REC outputs (L&R) connect to the inputs of your chosen recording device, while the REC inputs are used for the return signal from your recording devices outputs.



### 5.5 Stereo Unbalanced & Balanced Audio Outputs

The IN5E provides two types of analog output connections to connect to your monitoring device, unbalanced & balanced. These are to connect to your active monitor speakers, amplifier, or additional mixer device for you to listen to the output from the IN5E. This output signal carries the source signal from any/all of the inputs on the front of the IN5E, or a mixed signal including the inputs on the front and a source from the the REC inputs on the rear.



## 5.6 Ethernet input and microphone insert point

The IN5E supports you with a new breed of analog audio distribution features. With just one standard CAT5 cable it is now possible to transmit up to three channels of audio. Perfect, if you are going to use the IN5E as recording interface in a studio. No more cable hassles and fear of broken audio cables during a recording session. This new connection is truly passive without any influences on the sound! Just check your local dealer and [www.violetaudio.com](http://www.violetaudio.com) for compatible products.

The three TRS inserts are for connecting any dynamics or effects between the connected microphones at the front panel. So if you like to spice up your vocals directly while recording, these are the right connections.

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## 6. Front Panel Connections and Control Knobs/Switches



### 6.1 XLR Mic Input controls

Independent (3 x) rotary gain controls, switchable Phantom power, peak lights, and a record/monitor enable switch.

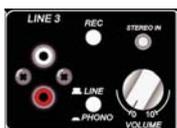
This is where you can connect up to three microphones, control their input gain, and choose either to monitor the signal directly to your main outputs for monitoring, or to send the source to the REC outputs and subsequently to your recording device. Connect a microphone using a standard XLR type microphone cable and turn up the volume knob to an acceptable level. If your microphone is a condenser microphone that requires phantom power, depress the 48V switch to enable power to your mic. The REC switch directs the microphone source signal to the REC output on the rear panel when in the depressed position. When in the non-depressed position the signal is routed directly to the main outputs on the rear panel. The peak light illuminates to indicate when the mic pre-amp is overdriven with excessive input signal. If illuminated, reduce the volume to avoid distortion of your microphone signal.



### 6.2 Stereo line Input controls

Independent (2 x) rotary volume controls, -20dB pad, and a record/monitor enable switch.

This is where you can connect up to two stereo (L&R) line level devices (keyboards, modules etc), control their input gain, and choose either to monitor the signal directly to your main outputs for monitoring, or to send the source to the REC outputs and subsequently to your recording device. Connect your stereo (L&R) line level device with a standard 1/4" audio cables and turn up the volume knob to an acceptable level. A -20dB PAD switch is provided to reduce the input gain on very high input signals. If your signal is distorting, depress the -20dB switch to adjust to a more suitable level. The REC switch directs the line level source signal to the REC output on the rear panel when in the depressed position. When in the non-depressed position the signal is routed directly to the main outputs on the rear panel.



### 6.3 Phono Input controls

Independent rotary volume control, line/phono switch, and a record/monitor enable switch.

This is where you can connect one stereo phono/line level device, control their input gain, and choose either to monitor the signal directly to your main outputs for monitoring, or to send the source to the REC outputs and subsequently to your recording device.

Connect your stereo (L&R) phono/line level device with a standard RCA audio cable and turn up the volume knob to an acceptable level. A line/phono switch is provided for the stereo pair of the input which toggles the use of the input as either a fully operational RIAA phono pre-amp or as standard RCA line level input. The REC switch directs the phono/line level source signal to the REC output on the rear panel when in the depressed position. When in the non-depressed position the signal is routed directly to the main outputs on the rear panel.



## 6.4 Stereo headphone amplifiers

Independent (2 x) rotary monitor volume controls, and MIX/REC switch.

This is where you can connect up to two stereo headphones, control their volume, and choose either to monitor the full mix of your signals from both the front panel inputs and the REC inputs together, or just the REC input signal from the rear panel. The MIX/REC switch toggles the monitor mode of the headphone amplifiers.



## 6.5 Master volume section

The master volume controls the main output level to the Main outputs on the rear panel.

*\* Note: This does not effect the REC output volume.*

The REC IN switch enables a mixed signal of both the input signals on the front panel with the REC IN input on the rear panel.



## 6.6 Power switch

Power on/off switch. This is where you enable the unit for use.

# 7. Application Guide

## 7.1 The Purpose of the IN5E

Nowadays, the computer is the hub of the home recording studio. There are many reasons for this including ease of editing, clarity, digital transfer to CD etc. Traditionally, most computer audio interface units (standard sound card) been limited to only 2 channel inputs that do not offer professional connectivity for microphones, turntables and the like. Some type of mixer device is required to provide these features. In the case of the turntables, a seperate phono pre-amp is also required to record your analog vinyl records to your PC for CD transfer. The IN5E has been designed for many of these needs.

The IN5E provides a solution for users needing to connect a multitude of different devices including condenser microphones which require phantom power, turntables, keyboards, modules, and even 2 sets of headphones for monitoring to any 2 channel recording device. This includes the computer, MP3 players, DAT recorders, MD recorders, etc.

## 7.2 The IN5E as a recording interface unit

In this example we will record an input from a microphone to a recording device, e.g. a Multitrack recorder.

*Step 1* Ensure you have the REC inputs & outputs connected correctly to your recording device as outlined in section 5.4 of this manual.

*Step 2* Connect your microphone to one of the microphone connections on the front of the IN5E and increase the gain control to an acceptable level.

*Step 3* Depress the REC switch on the front panel of the IN5E for the microphone channel you are using to direct the signal to your REC outputs. This will send the signal from the microphone directly to your recording device. Adjust the gain control on the microphone to the correct level desired. You should take note of the level meter indicators on your recording device while setting the gain.

*Step 4* Engage recording on your recoring device, and capture the signal from your microphone.

*\* Note: For monitoring your signal, simply listen to your monitor speakers (ensure they are connected correctly as described in section 5.5) or headphones connected to the front panel of the IN5E (as described in section 6.4).*

## 7.3 The IN5E as a standard mixer

The IN5E is extremely simple to operate as a standard mixer.

*Step 1* Simply connect all your input devices to the appropriate connections on the front panel.

*Step 2* Adjust the gain controls on the desired input signals to your desired level.

Step 3 Monitor the results from your speakers or headphones.

#### 7.4 The IN5E as a computer interface

The IN5E can act as a pretty nifty Interface for your computer. As all major operating systems come with plug and play it's just about connecting the IN5E via USB cable. As no drivers are needed the IN5E works with low latency drivers (Core Audio) within your Mac OS X System. Under Windows we recommend that you install the Freeware **ASIO4all** ([www.asio4all.com](http://www.asio4all.com)) to have decent ASIO drivers within your DAW.

Step 1 Connect the IN5E with a compatible USB cable to your computer.

Step 2 Connect your microphone to one of the microphone connections on the front of the IN5E and increase the gain control to an acceptable level. Do the same with all other sources you want to record.

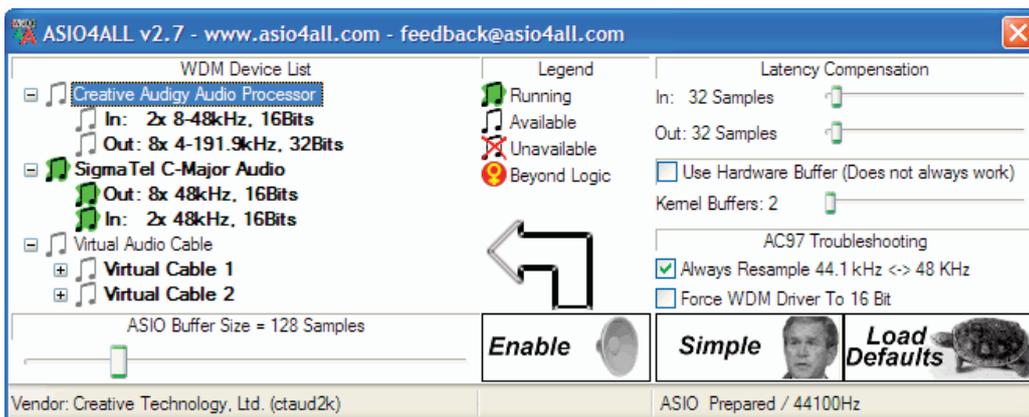
Step 3 Start your Sequencer. There you need to choose a audio channel and press the "Monitoring" button.

\* Note: The function "Monitoring" may differ, depending which sequencer you use.

Now you should see the signal what's coming from the IN5E into your DAW. If not, please consider the manual of your sequencer. Adjust the gain control on the microphone to the correct level desired. You should take note of the level meter indicators on your recording software while setting the gain.

Step 4 Hit the "Record" button in your Sequencer, and capture the signal from your microphone.

\* Note: If you have heavy latencies within your system, please check the ASIO4all software panel and adjust the buffer size as desired. Also check the "Audio Preferences" pane within your sequencer. The latency depends on many factors, e.g. how fast your computer is and what kind of drivers you have chosen.



This is the ASIO4all Software Panel, where you can configure the soundcard's latency.

## 8. Specifications

### Audio Inputs

Connectors	1/4" jack TRS Balanced, XLR Balanced RCA Unbalanced
Impedance	47k Ohms / 600Ohm
Min Sensitivity	-20dB
Peak input level	+16dB

### Mic Inputs

Connector	XLR
Type	Balanced
Impedance	47k Ohms
Min sensitivity	-60 dB
Peak input level	+9.5 dB
Phantom Power	+48V, switchable

### Headphone Outputs

Connectors	1/4" jack
Type	Stereo, 1V RMS @ 32 Ohm

### Stereo Line Mixer Outputs

Connectors	1/4" Jack Unbalanced
Impedance	47K / -10dB
Max. output level	+2dB (peak level +18.5 dB)

### XLR Balanced Outputs

Connectors	XLR
Type	balanced
Min. output impedance	600Ohms
Max. output level	0dB (peak level +18.5dB)

### Dist, Freq, S/N Ratio & Crosstalk

Frequency response	20Hz~20kHz, 0dB~-2B
Distortion	0.008%
S/N Ratio	better than 74dB
Crosstalk rejection	>80dB@1kHz;-20dB input

### Function Controls

Volume per channel	variable
Volume per channel	variable

### Power Supply

Mains voltages	USA/Canada ~ 120 V AC, 60 Hz U.K./Australia ~ 240 V AC, 50 Hz Europe ~ 230 V AC, 50 Hz General export model ~ 100-120 V AC, ~ 200-240 V AC, 50-60 Hz
Power consumption	11.5VA
Fuse	100-120 V AC: 630 mA(slow-blow) 200-220 V AC: 315 mA(slow-blow)
Mains connection	Standard IEC receptacle

### Physical

Dimension	1 3/4" (44.5 mm) * 19" (482.6 mm) * 8 1/2" (217 mm) Net weight approx. 3.25 kg
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*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.*

## **9. WARRANTY**

### **9.1 WARRANTY CARD &/OR WEBSITE REGISTRATION**

To be protected by this warranty the purchaser of the product must complete an SM Pro Audio product registration procedure.

Product registration is available via two methods:

- Complete and return the enclosed warranty card within 14 days of the date of purchase to SM Pro Audio (see address below).
- Complete an online product registration form at the SM Pro Audio website. [www.smproaudio.com](http://www.smproaudio.com)

### **9.2 WARRANTY**

- 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.

SM Pro Audio will at its sole discretion either repair or replace the product if any defects occur that are not caused by normal wear or inappropriate use within the warranty period.

- This warranty does not apply if the product has been damaged by negligence, non-authorized modifications, accident, abuse, misuse, misapplication, or as a result of unauthorized service other than performed by that of SM Pro Audio's service department.

- All freight charges incurred for transport of justified warranty claims are at the buyer's expense.

All other warranty claims other than those indicated above are excluded.

### **9.3 HOW TO REQUEST A RETURN AUTHORIZATION NUMBER**

To obtain warranty service, the purchaser must call SM Pro Audio during normal business hours before returning the product (Tel.: +61 3 9555 8081). An SM Pro Audio representative will discuss any issues with you over the telephone and then issue a return authorization number if deemed appropriate.

Please ship original shipping cartons along with your 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

Europe:

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

#### **9.4 WARRANTY REGULATIONS**

- Warranty can only be serviced when accompanying proof of purchase is provided. Dealers invoice and date stamp required.
- SM Pro Audio will endeavor to repair or replace any product under the terms of this warranty within 30 days of receipt of the product at SM Pro Audio.
- Modifications performed in order to comply with any applicable technical or safety standards in any country which is not the country for which the product was originally developed and manufactured shall not be considered a defect in materials or workmanship. SM Pro Audio shall not be held responsible for any costs incurred or resulting from any such modification whether performed correctly or not.
- This warranty does not cover defects of parts caused by normal operational wear. These parts are typically switches, knobs, and other similar components.

Product damage caused by the following conditions are not covered by this warranty:

- Operation of the unit in a way that does not comply with the safety regulations applicable in the country where the product is used.
- Damages or defects caused by conditions beyond the control of SM Pro Audio.

#### **9.5 WARRANTY TRANSFERABILITY**

This warranty is non transferable and available exclusively to the original purchaser.

#### **9.6 DAMAGE CLAIMS**

Failure of SM Pro Audio to provide proper warranty service does not entitle the purchaser to claim further damages. SM Pro Audio's liability shall in no way exceed the invoiced value of the product.

#### **9.7 OTHER WARRANTY RIGHTS**

This warranty does not exclude or limit any statutory rights provided by national law.