

# **SUGDEN AUDIO**

**A21 Signature**

## INSTRUCTION MANUAL

**MAY 2015**

Designed and manufactured in England by

J E Sugden & Co Ltd  
Valley Works  
Station Lane  
HECKMONDWIKE  
West Yorkshire  
WF16 0NF  
ENGLAND

## BEFORE USE

This section must be read before connecting to the mains supply

### MAINS CONNECTION INFORMATION

Your SUGDEN amplifier has been designed to comply with the domestic power and safety requirements that exist in your area. This amplifier can be powered by AC ONLY.

IF YOU NEED TO ADJUST THE GAIN SETTING OF YOUR AMPLIFIER TO MATCH YOUR CARTRIDGE YOU MUST ALWAYS DISCONNECT THE MAINS LEAD FROM THE MAINS SUPPLY.

### CHOOSE A SAFE AND SUITABLE LOCATION

Your amplifier is a class A design and therefore requires good ventilation

DO NOT: Expose to direct Sunlight

DO NOT: Position next to a heat source such as a radiator

DO NOT: Use in places with high humidity or poor ventilation

DO NOT: Subject to mechanical vibration

DO NOT: Place on an unstable or inclined surface

DO NOT: Stand other equipment on top of the amplifier

Never block the ventilation holes or stand directly on a carpet

### ACCESSORIES SUPPLIED

Guarantee Card

Instruction book

IEC mains lead



The A21 is in conformity with the EMC directive and low-voltage directive.

### UNPACKING

Your amplifier should reach you in a substantial protective carton. On unpacking please examine the unit for signs of prior use or damage. Check that all the front panel controls function mechanically. The following items should also be in the carton:-

- (1) AC power lead with pre-molded IEC straight connector and plug.
- (2) Owners registration card which should be completed and the bottom section removed and returned to us.
- (3) Remote Control

### RECYCLING

This products packaging materials are recyclable and can be reused. The product and the accessories packed together are the applicable product to the WEEE directive except batteries. Please dispose of any material in accordance with your local recycling regulations. When discarding the unit, comply with your local rules and regulations. Batteries should never be thrown away or incinerated but disposed of in accordance with your local regulation concerning chemical waste.

### FRONT PANEL CONTROLS



#### INPUT SELECTOR

Selects the program source to be played from inputs 1-4 and Phono.

#### SENSOR

The remote sensor receives the Infra red commands from the RC5 remote control. The remote control should be pointed towards the sensor.

#### VOLUME CONTROL

Adjusts the volume level. Turn clockwise to increase the volume and anti-clockwise to reduce the level. This can also be operated by the remote control volume up and down buttons. The volume is at zero when rotated fully anti-clockwise

#### POWER LED

Lights up when the amplifier is switched on and receiving power

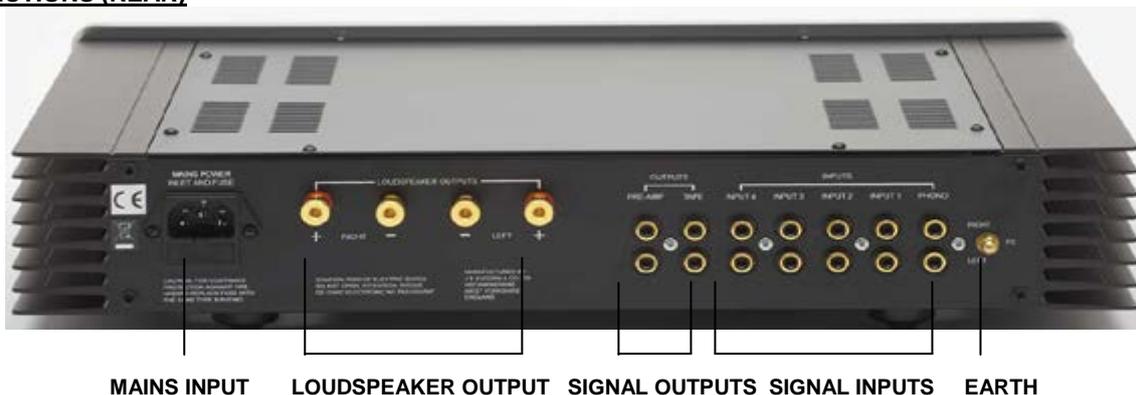
#### POWER SWITCH

Depressing the power switch turns the amplifier on. Pressing again turns the amplifier off.

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[www.sugdenaudio.com](http://www.sugdenaudio.com)

## CONNECTIONS (REAR)



### MAINS INPUT & FUSE

The supplied IEC mains lead should be used to connect your amplifier to the mains supply. This has been tested to EMC directive.

### LOUDSPEAKER OUTPUTS (for bare wire, 4mm plugs and spade connectors)

This amplifier is equipped with one set of stereo loudspeaker terminals. Connect the Right channel speaker to the right terminals and the Left channel speaker to left terminals. The output terminals have positive (+) and negative (-) polarity, and each speaker has the same polarity. Be sure to connect the terminals with the same polarity. If using bare wires make sure that the ends are tidy with no loose strands. We recommend that pre-made cables should be used and these can be obtained from your supplier.

### SIGNAL OUTPUTS

If a tape recorder is being connected to the amplifier, you will need to connect the TAPE OUTPUT to the TAPE INPUT or RECORD INPUT of the tape recorder. This is a fixed output.

The Pre-output is a variable output with the same level as the pre-amplifier circuit of the amplifier. This is useful for feeding a sub woofer or additional power amplifier.

### SIGNAL INPUTS

Connect the output RCA leads of your source components here. There are four line level inputs suitable for connecting any of the following equipment;

CD PLAYER  
TUNER  
TAPE REPLAY  
DVD  
PHONO AMPLIFIER  
MUSIC STREAMER (Analogue output)

Inputs are left and right handed for identical connection to the RCA leads. Right is always on the top with Sugden equipment.

### PHONO INPUT (A21 Integrated amplifier only)

Connect the output jacks of your turntable to the PHONO input jacks. For correct gain adjustment see PHONO INPUT INSTRUCTIONS.

### EARTH

Be sure to connect the turntables EARTH (GND) wire to the earth terminal. An EARTH does not need to be connected if the turntable does not have an EARTH wire.

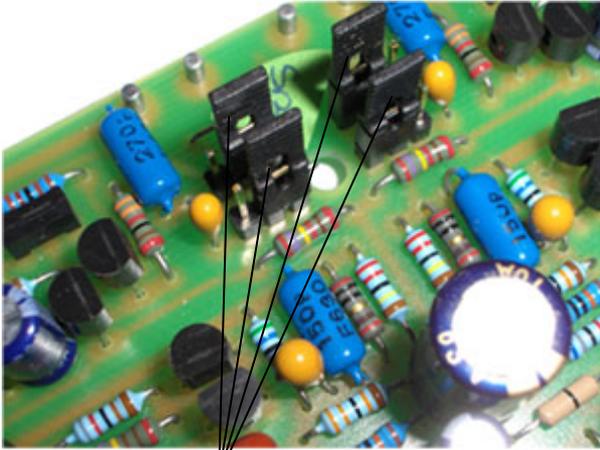
## BASIC OPERATION

Set the VOLUME CONTROL to the minimum position and then switch on the amplifier. Select the input and slowly adjust the volume control to the desired level as the source component begins to play.

### PHONO INPUT INSTRUCTION

If you have purchased the A21 integrated amplifier this comes with a phono input for your turntable. If you have **not** requested your retailer to pre-set the phono stage it will be factory set for Moving Magnet (MM) cartridges. To adjust the gain for use with low output Moving Coil (MC) cartridges you will need to access the phono board and move the gain JUMPERS as shown below:

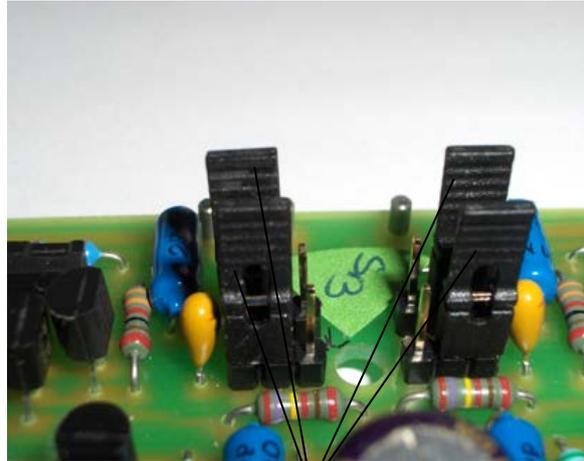
## FACTORY SET TO MM



There are four Jumpers positioned on the phono board factory set to MM.

With the jumpers in the inner position the gain is for MM cartridges.

## SUPPLIER OR USER SET TO MC



Moving the JUMPERS to the outer positions increases the gain for MC cartridges.

**IMPORTANT:**  
BEFORE ADJUSTING DISCONNECT THE AMPLIFIER FROM THE MAINS SUPPLY. IF IN DOUBT CONSULT YOUR SUPPLIER

## ACCESSING THE PHONO BOARD

Once you have disconnected the amplifier from the mains supply you will need to remove the top plate to access the phono board. This is located at the rear of the amplifier next to the Phono input. This is achieved by unscrewing the four M3 Set Screw with a 2mm Allan key also known as a Hex Key or Allan Wrench.

## ADDITIONAL INFORMATION

### WARM UP

Unlike conventional amplifiers the A21 is a pure class A amplifier and runs quite hot. There are a couple of advantages to this one being the speed it reaches working temperature.

As it draws a high constant mean current, the circuit warms up quickly compared to a class AB amplifier. From switch on it will take approximately ten minutes to reach a good working temperature. Therefore we never recommend leaving any of our class A amplifier switched on when not in use. It wastes electricity and will reduce the life expectancy of your product

### LOUDSPEAKER MATCHING

The A21 is capable of driving any domestic loudspeaker. However, room size, sitting position and sound pressure levels should be considered when matching speakers. Loudspeakers of 86dB efficiency and above are recommended for an average size sitting room. In our experience the A21 sounds at its most natural driving medium efficiency speakers but can produce surprising dynamics with efficient speakers.

### MAINS CONDITIONERS

Multi-way mains blocks with active filtering should be avoided as these can restrict the performance of Sugden Class A amplifiers. Heavy duty mains blocks and mains leads that have been tested by the appropriate authorities can be beneficial.

### SIGNAL LEADS

Sugden equipment has been designed to reproduce music as accurately as possible and this includes the ability to produce a wide bandwidth. It is important to use cables that do not restrict or change the frequency response. We therefore recommend using high quality cables made from high quality materials. Investing in good cables will get the most from your audio system.

### A21 Signature Specifications

Line input sensitivity	170mV for max. output
Phono input sensitivity	3.0mV MM 0.2mV MC
Phono Loading	MM 47K MC 100 Ohm
Power output	25 Watts per Channel (8 Ohms)
Frequency response	+/- 1dB 10Hz-20kHz
Bandwidth (wide)	+/- 3dB 6Hz – 200kHz
Signal to Noise	>83dB
Packed weight	11Kgs
Dimensions	92 x 430 x 350mm (hwd)

The manufacturer reserves the right to alter specification without notice.