# **Ai1 OWNER'S MANUAL**



Thank you for your purchase. We have developed a quality DI with preamp for use by professional musicians with added features for home or private practice.

**Features:** The **Ai1** is a quality DI and full-featured preamp with active tone controls. Whether at a local open mic night or at a major concert venue, you will be able to dial in your clear natural acoustic sound and route it through a balanced XLR output or unbalanced standard line output to the PA sound system. Not on stage? No problem, you can also use the **Ai1** to connect your acoustic instrument into your home theater system or just plug in a pair of headphones for private listening.

### **Getting Started:**

#### **Power Requirements: 9VDC**

This unit can run off 9V battery or you can connect a 9V adapter.

- Battery: Standard 9V battery (Power consumption approx. 30 mA)
- Power Supply: 9V DC (Regulated), 50 mA minimum

#### **Attention Power Supply Users:**

- Use a "DC" Power Supply Only! Failure to do so may damage the unit and void the warranty.
- The adapter must have a 2.1mm barrel connector with **center negative**. The battery may be left in or taken out when using an adapter.

### **Attention Battery Users:**

- To install or replace the 9V battery, simply open the easy access battery door located on the bottom of the unit.
- Always remember to unplug your guitar cords from the Ai1 to conserve battery life.

#### **Initial Setup**

Begin with all of the knob controls at the mid point (12:00 o'clock) with the "SHAPE" switch "OFF" and the "Ground (GND) LIFT" switch "OFF". The "PHASE" switch can be in either the "IN" or "OUT" position. This initial setup will provide a medium gain setting with FLAT frequency response. Each control is fully explained in the next section.

### **Control Elements Panel**



- 1. **POWER:** The green LED illuminates when the **Ai1** is activated. The **Ai1** will become active when a plug is inserted into the INPUT jack.
- 2. <u>INPUT GAIN</u> is the first control you should adjust. It is not a volume control. The "INPUT GAIN" sets the level of amplification applied to the input signal to boost it to a useable level. This adjustment allows for a wide range of pickup devices. You will want to use the highest "INPUT GAIN" setting you can without overdriving or distorting the signal. If you are using a high output active pickup system you will likely want to use a lower setting on the "INPUT GAIN". If you are using a passive type pickup system you will likely need a higher setting on the "INPUT GAIN". To adjust, slowly turn the "INPUT GAIN" up (clockwise) while playing your instrument until you begin to hear some distortion, then back the "INPUT GAIN" down (counter-clockwise) until the distortion disappears. This will give the Ai1 the most signal to work with and the best signal to noise ratio. Take note of this optimized setting for future reference.
- 3. <u>LEVEL</u> adjusts the amount of signal sent to ALL Outputs (**D.I. XLR OUT, Standard OUTPUT, HEADPHONE** jacks and **RCA LINE OUT**).
- 4. BASS adjusts the amount of cut or boost in the low frequency (150HZ) range.
- 5. **TREBLE** adjusts the amount of cut or boost in the high frequency (5kHZ) range.
- 6. **SHAPE ON/OFF** switch enables or disables the **"SHAPE"** control. In the **"ON"** position, mid frequencies will be cut and the high and low frequencies will be boosted.
- 7. **PHASE** affects the way the signal mixes live and when recording. If you experience "positive acoustic" feedback, flip the phase switch to the alternate setting to kill the feedback.
- 8. **GND LIFT** If you have multiple grounds, you may have hum or ground loops. Disconnect the DI output ground by **switching "ON" the Ground Lift** to eliminate this problem.

# **Primary Input Output Panel:**



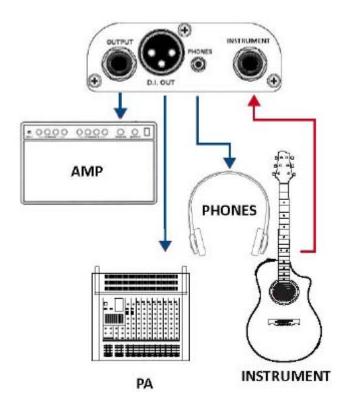
**INSTRUMENT INPUT**: uses a standard instrument cable and is designed for all passive and active type pickup signals. When a plug is inserted, the 9V battery is switched on.

Be sure to unplug from the **INSTRUMENT INPUT** when the **Ai1** is not in use to conserve the battery life. We recommend you turn down your amp or mixers input before plugging/unplugging from the **INPUT** jack to help protect your speakers from loud pops.

**PHONES:** Use a standard 1/8" stereo jack for connection of headphones.

**<u>D.I. OUT</u>**: Plug a standard XLR cable from your PA or recording console into this low impedance balanced output.

<u>OUTPUT</u>: Plug a standard instrument cable from a stage monitor, amp, or mixer into this unbalanced output. Use the "LEVEL" control to set all **Ai1** output levels to best match your sound system and give you the least amount of noise.

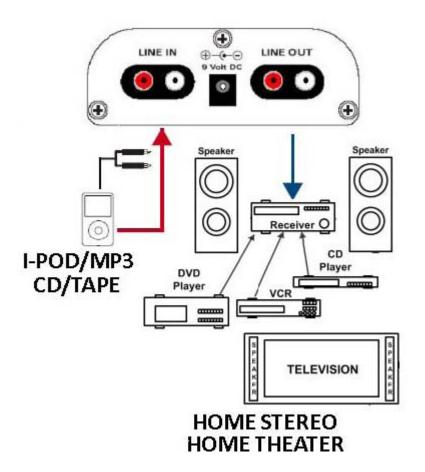


# **Auxiliary Stereo RCA and Power Supply Panel:**



<u>LINE IN:</u> (Stereo) is an input for a CD/Tape player, MP3 player or other equipment with RCA type connectors. The RCA line input will be heard through all **Ai1** outputs. Volume level of inputs connected through the "RCA LINE IN" must be controlled at the source. The "LEVEL" control does not affect the "RCA LINE IN" volume.

**LINE OUT:** (Stereo) can be used to patch your acoustic instrument into any other equipment that uses RCA type inputs, like your home theater system.



# **Specifications:**

Input:

Connector: Standard ¼" TS Jack

Impedance 1M ohm

**Output:** 

Connector Standard ¼" TS Jack

Impedance 510 ohm

DI OUT:

Connector XLR Balanced Impedance 100 ohm

**Headphone:** 

Connector 1/8" TRS Stereo Jack

Impedance 5.1 ohm

Line In: (Stereo)

Connector: RCA, Unbalanced

Impedance 10K ohm

Line Out: (Stereo)

Connector: RCA, Unbalanced

Impedance 1K ohm

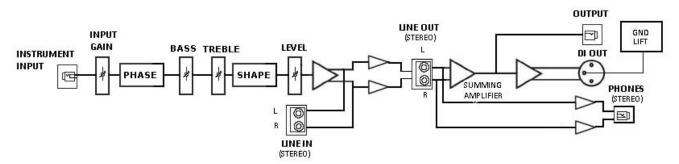
Power Supply 9V DC - Battery, AC Adaptor

Current Draw >40mA

Dimensions 3.86" x 3.62" x 2.07" - (98x92x52)mm (Including knobs and jacks)

Weight .55 lbs. – 248 g

# **Block Diagram:**



#### **Precautions:**

- 1) Read and follow these instructions before operating the unit.
- 2) Please heed all safety warnings and keep these instructions for future reference.
- 3) Do not use this apparatus near water or moisture.
- 4) Clean only with soft, dry cloth.
- 5) Do not install near a heat source such as radiators, hear registers, stoves, or other apparatus that produce heat.
- 6) Only use attachments/accessories specified by the manufacturer.
- 7) Refer all servicing to qualified service personnel.
- 8) Use AC adaptor for ultimate performance.