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### **Theata Owner's Manual**

Firstly, let us congratulate you on your purchase of the Theata. We know you will be as pleased with its sonic qualities as we are.

You are now the proud owner of a Class A Discrete Theata that has the advantages of more than 25 years experience in audio engineering, today's component and manufacturing technology, but still retaining "that sound" uniquely achievable through Class A design.

As you can tell, Phoenix Audio is dedicated to the development of Class A discrete technology used within high build-quality equipment.

**The Theata uses our well proven and loved Discrete, Class A output stage (DSOP-2) which gives a "valve-like" sound. It also incorporates our high input impedance instrument pre-amp circuitry.**

**You CAN hear the difference!!!**

## **Theata - Class A Discrete Eight channel instrument pre-amp**

### **Short description:**

1. The Phoenix Audio Theta is a high-quality, active, eight channel instrument pre-amp, with Class A, discrete, super high-impedance inputs (10M), and Class A, discrete, transformer balanced outputs.
2. The Phoenix Audio Class A, all discrete, instrument pre-amps have been tested and used by many guitar professionals in studio recording environments, and the comments are always the same. The overdrive is fantastic, the guitar sounds clean, clear, and un-restrained, they are also perfect for keyboards/synths, bass guitars and even electronic instruments like drum machines or samples like MPC's
3. This is the definitive Pre-amp !! The pre-amps characteristics are very noticeable on any input source, and are superb for "sweetening" the output from DAW or any other signal source.

### **Specifications**

**1U rack space unit: With External 24v at 1 amp PSU self switchable 240V/110V**

**Class A (DSOP-2) Output specs. Frequency response: 20Hz to 20kHz +/- 0.5dB,**

**Maximum Output Level: +26dBu @ 1kHz**

**Noise: -90dB @ 20Hz to 20kHz.**

**Frequency Response: Instrument pre-amp Input Stage: -0.3dB @ 40Hz, -0.5dB @ 25kHz**

**Typical Headroom: +26dB on output stage**

Eight World class ultra high impedance Class A discrete Instrument pre amps

Class A discrete summing amplifier mixing suite

Intuitive & flexible bussing matrix with L & R switched options

Stereo width effect control option with mono effect & 25% wider option

24 inputs (8inputs on D-sub rear input, 8 inputs on the front panel, 8 through inputs on the front panel)

20 outputs (8 main outputs, 8 additional monitor outs, 2 main summing outs & 2 monitor summing outs)

10 classic Phoenix Audio transformers

30db of gain on every channel to shape & control your color & tone

Variable HPF on every channel – 45hz to 250hz

Phase reverse on every channel

Pad on every channel – 15db gain reduction

Ground lift on every channel

Master Insert send & return

Bus Linking for two units, ability to make a 16 channel unit

Theata is a unique instrument with more crammed into the single rack space than any other active **or** passive DI on the market today. It has 8 independent channels of Class A discrete, High input impedance input stage, with Class A, transformer balanced outputs.

It is much more versatile than the “dumb” passive DI's on the market, that are often not much more than a “box of jack sockets” with standard transformers on the output.

Value for money with a robust, “touring- grade” heavy-duty all steel chassis, fantastic sound and huge versatility makes the N-8 a market leading active DI.

### **Overview:**

Theata is an 8 channel Active super high impedance instrument pre-amp. Being active has many advantages over a simple “jack to transformer” passive low impedance DI that can flatten & suck the life out of your instruments potential.

1: The input impedance is much higher than any passive DI. This means there is minimal loading on the output of the Guitar, Keyboard, DAW, Microphone, or any other source you choose to use, which “opens” the sound of the instrument allowing a new-found level of nuances and sounds to be realized.

2: Coupled with the high input impedance, the huge amount of available gain means that there is virtually no limit to what source can be used, and also offers much more sound flexibility than a passive DI. Starting from clean and crisp through to darker “rock” style, just by use of the available gain.

3: The output is driven into our custom designed output transformers using our renowned Class A output stage. The transformer isolates and balances the output and is capable of driving into long lines and multiple loads with no loss of quality or level when used correctly.

4: There are 2 x 25 Way D-Sub Connectors on the rear panel. Both are wired "Tascam" DA88 standard. The main output is a balanced output and is capable of driving long studio lines, as well as driving multiple loads without degradation of sound quality. The number of loads that can be driven, at once of course depend on the total impedance of the loads and is best trialed in advance, but it is far more than most passive DI designs can drive.

The 25 Way D-sub for the monitor outputs follows the main outputs, but at a -4dB reduced level. This is so that monitoring equipment that would normally be over-driven by the active pre-amp can also be used at the same time, making it possible to drive multiple monitoring/recording/main outputs all at once.

5: Unlike passive systems, we have illuminated the push buttons using highly efficient, ultra long-life LED's so that the switch positions of all 8 channels can be seen at a glance, even in the lowest light situation.

The front panel has five illuminated switches.

The **PAD** switch allows hotter inputs to be utilized. The input is padded immediately after the input jack by -15dB. It is unlikely you will ever swamp the output transformer due to the carefully constructed gain stage, so if distortion due to over-drive is heard, the PAD switch would be the first place to try.

The **PHASE** switch inverts the phase at the input jack. This is useful to deal with phase cancellation caused by system delays and other "out of phase" problems.

It should be noted that the PAD and PHASE switches will affect both input jacks at once as they are wired in parallel.

The **FILTER** switch activates the variable high pass filter for each individual channel, with the rotary control you can achieve a high pass filter curve of 45hz through to 250hz, the roll off is 6db per octave.

The routing **L BUS AND R BUS** switches allow each individual channel to be routed to the Left or the Right mix bus, mono channels can even be routed to the stereo mix bus to create very interesting creative effects.

6: The input options are :

Input jacks are 1/4" TRS sockets. These sockets are able to accept both mono and stereo jack plugs. One jack socket is marked "Input" and the other marked

as “Thru”. The two sockets are wired in parallel, and therefore can be interchanged. The thru jack socket can be used to send dry signals to other equipment. For instance: Plug a guitar into the Input jack. The channel output (the D-25 Sub on the rear panel) could be sent to your recording device. At the same time, plug a 1/4” patch lead into the Through jack, the other end of which is plugged into your guitar amp. This can allow very creative and interesting effects, almost a form of re-amping

There is also an eight channel D-sub input on the rear of the unit so that units can be ‘hard wired’ in their location and allow neater wiring than using the front panel.

7 : The Mixing suite is accessed when you route the individual channels to it, all channels can be routed this way or simply just some of them, this can allow up to eight channels to be ‘summed’ to the stereo mix bus, the stereo mix bus has an output control that will allow an additional 15db of gain to be applied to the mix bus. The mixing suite has two sets of outputs, main outputs for the Left main output and Right main output are both accessible via the XLR outputs, there are also balanced TRS monitor outputs, these will follow the same output level as the main outputs.

8 : On the mixing suite there is a ‘stereo width’ option that allows mixes to be ‘widened’ with an additional 25% width or a mono mixing position, as the stereo width uses elements of phase cancellation channels routed to both the Left and Right positions will nullify the effect of the stereo width.

7: The gain control is via the front panel knob. This controls the gain on the Class A output stage (DSOP-2) that drives the output transformer. The output has huge headroom available and the transformer can drive quite heavy loads. It is unlikely that the output would ever be source of any distortion. In the case of any distortion you should always look at the input levels first.

8: Earth lift switch. The illuminated earth lift switch on the rear panel is a highly visible push-button. The switch disconnects the output cable screen of each channel from the chassis/mains earth. It does not disconnect the chassis safety earth.

9 : Bus Link on TRS connectors, allows the linking of two units to create a 16 channel box.

For two units to be in operation together then the first unit must be set to slave on the rear of the unit with the toggle switch & then the second unit must be set to master on the rear of the unit with the toggle switch.

The Mix bus outputs will not work on the slave unit as all information is bussed to the second unit.

If only one unit is used then it must be set to master at all times as audio will not be audible if the unit is set to slave.

It is recommended to use balanced TRS cables.

10 : Inserts on TRS connectors are send and return connectors for the ability to insert a hardware compressor or EQ across the mix bus.

These are wired : Tip – Send, Ring – Return, Sleeve – Common.

11: The supplied PSU is a small form-factor world-wide approved, high quality, stable unit capable of automatically adjusting to and accepting any country/continent's mains voltage without the need for manual switching – just plug and play.

The high quality, sturdy metal-bodied DC connector safely screw-locks into the chassis connector on the rear of the unit and cannot be accidentally kicked or pulled out.

Most racks have a convenient AC mains source and the PSU effectively filters out any stray AC noise from external sources, but it's tested and approved to not add any stray AC noise.

No substitute PSU should be used with the Theta. Replacement PSUs are available from Phoenix Audio.

There is no On/Off switch for the Theta. The unit is “always on” while plugged into the AC mains.