

Spider MT503 SMART

USER MANUAL



INDEX

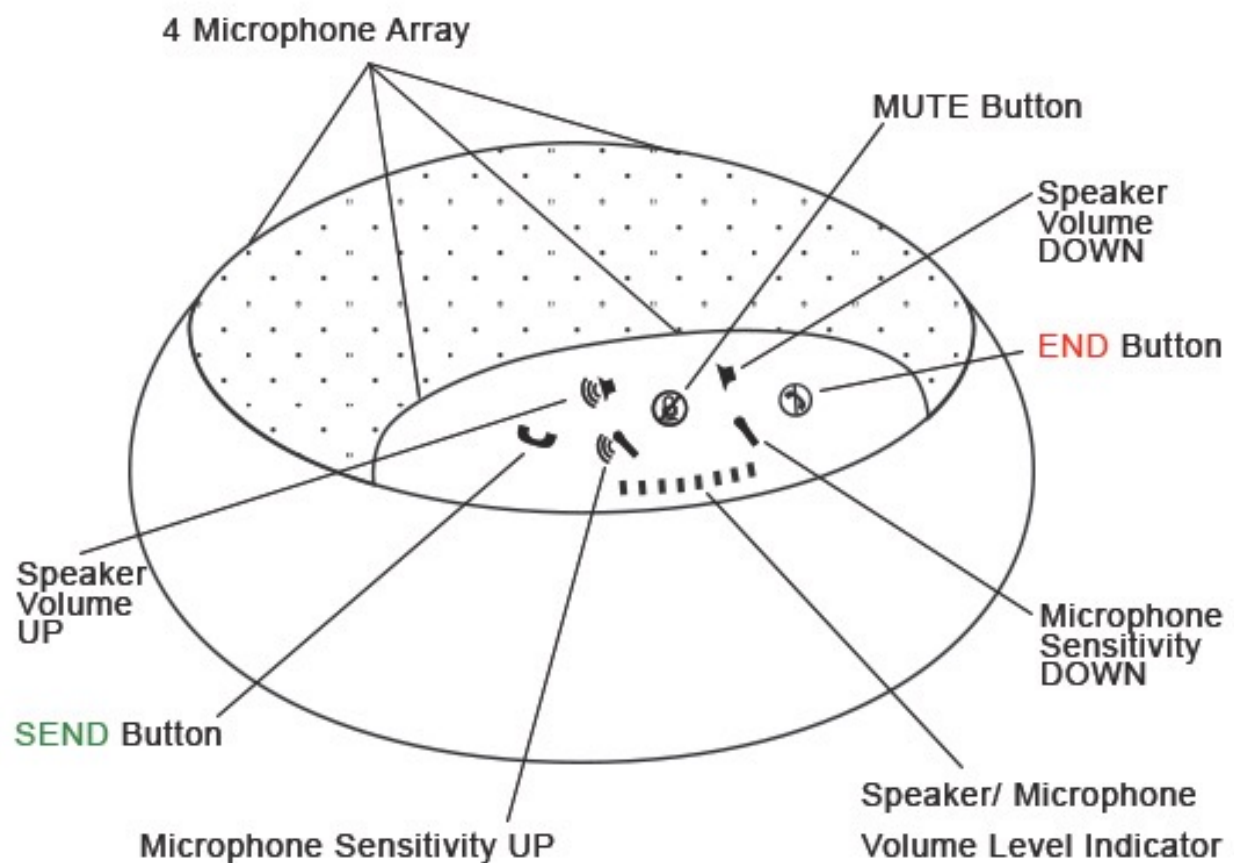
Overview	Page 03
Connecting the Spider	Page 04
Using the Spider	Page 05
• Directional Array	Page 05
• Volume Control	Page 06
Display	Page 06
External Mic/Speaker	Page 07
Daisy Chaining	Page 09
Specifications	Page 11
Warranty	Page 12

SPIDER 503 SMART OVERVIEW

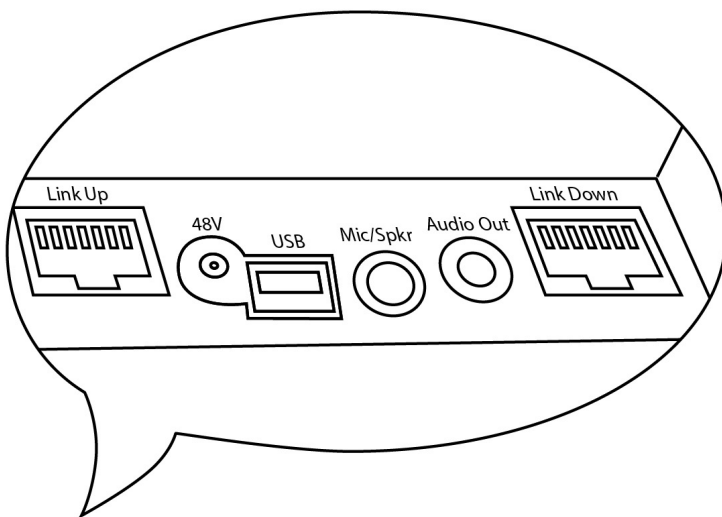
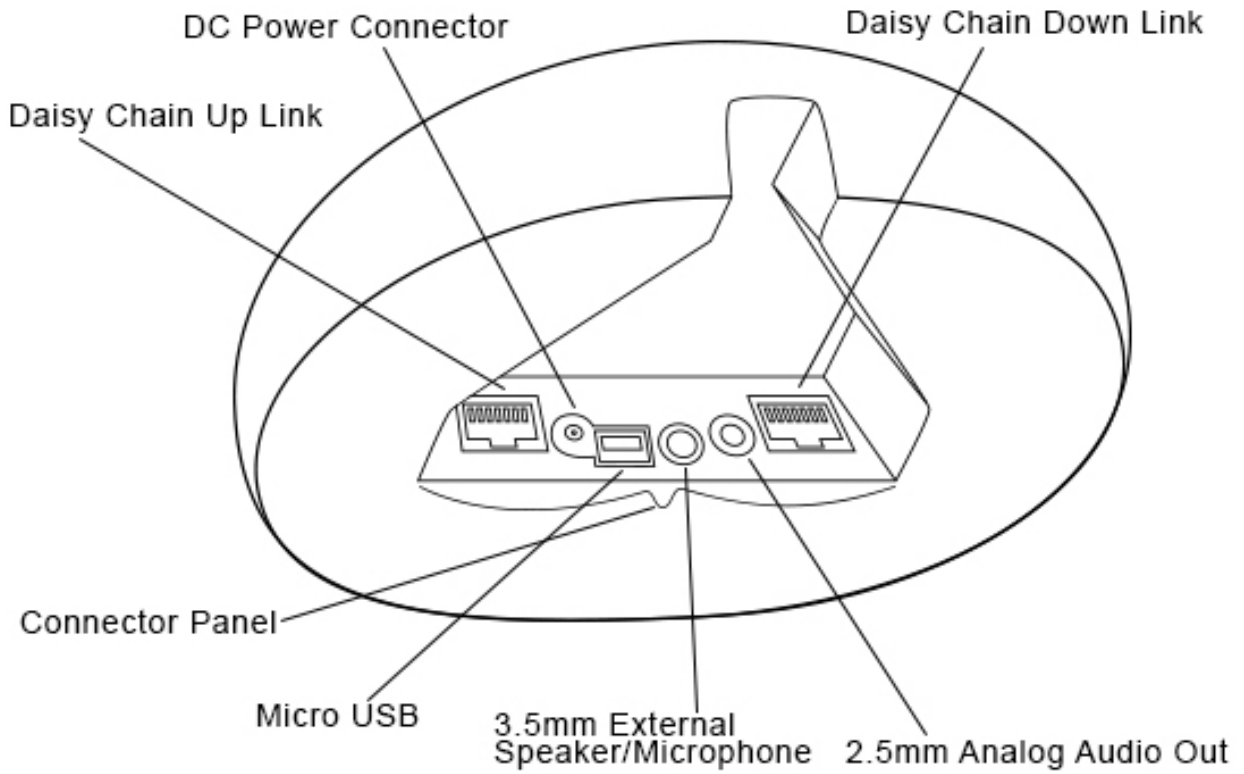
The Spider is a high-quality conference speakerphone that will turn any room into a professionally sounding conference room. It has an exceptionally large pickup and broadcasting range, yet is small in size and discreet in design.

The Spider utilizes multiple microphones, a uniquely designed speaker, and a powerful DSP to achieve commanding performance.

This guide will help you learn how to use your conference phone and will reveal all the features that come with it.



CONNECTING YOUR SPIDER



Connector Panel Detail

CONNECTING TO A COMPUTER

This connection is for any session using your computer, such as Voice over IP applications (Skype, Vido, etc.).

- ▶ Using the USB cable provided, plug the micro USB side of the cable into the Spider (USB connector located on the connector panel below the unit).
- ▶ Plug the USB end of the cable into any USB port on your computer.

No additional drivers or steps are needed. However, we do recommend downloading and using our “Phoenix Audio Setup Utility” for optimal audio control and performance. This utility can be found on our website: www.phnxaudio.com/downloads/audiosetup/

CONNECTING TO A SMART DEVICE

This connection is for any session using a smart phone, tablet, or any device that requires an analog audio signal (Smart Phones, Tablets, Video Codec Systems, etc.).

- ▶ Using the provided audio cable or any custom made cable, plug the 2.5mm 3-pin connector side into the Spider’s “Audio Out” jack (located on the connector panel below the unit).
- ▶ Plug the other end of the provided cable (3.5mm 4pin connector) into your smart phone or tablet’s headphone / headset jack.
- ▶ Connect your Spider to a power source using either a USB connection (computer or the provided 5V USB power supply) or a 48V Daisy Chain Kit power supply. Your Spider is now ready for use.

USING THE SPIDER

THE DIRECTIONAL ARRAY

During a call the Spider uses a proprietary Beamforming technology to locate a legitimate voice source, and to steer an array towards it. This allows the Spider to focus on the speaker in the room and to cancel out all other noises.

The Beamforming process is dynamic and adjusts the direction of the array when the source of sound changes or moves. When in a call and a voice is detected in the room, a single or multiple blue lights located under the grill will indicate which direction the Spider’s audio beam is

focusing on. This is the direction that will be heard best by the far-end of the call (the person you are talking to).

NOTE: This function can be disabled (see below).

VOLUME CONTROL

Adjust the volume levels for the Spider's different volume profiles listed below:

SPEAKER


Change the speaker volume by using  to increase, or  to decrease the volume.


MICROPHONE

Change the microphone sensitivity by using  to increase, or  to decrease the sensitivity.

NOTE: If the sensitivity is set too low you won't be heard by the far-end. However, if the sensitivity is set too high, the far-end might get a distorted signal.

MICROPHONE MUTE



In order to mute the Spider's microphones during a call, press the  button located on the bottom right of the keypad. When muted, a MUTE symbol will appear on the screen and all the grill lights will flash red.

To UNMUTE, just press the  button again.

DISPLAY

GRILL LIGHT

When using the device, blue LED lights located under the grill will show the direction of the Spider's Beamforming mechanism. This indicates to the user which direction the Spider is "listening" to. These same lights will blink red when the device's microphones are muted.

In order to disable the grill light function, press and hold both the  AND  buttons for three seconds.

To enable the feature, just repeat the process.

VOLUME LEVEL INDICATOR

The LED bar, which is located below the buttons, represents the volume level currently being adjusted.

CONNECTING AN EXTERNAL MIC AND SPEAKER

MICROPHONE ONLY

Connect the external microphone to the 3.5mm connector using a 3-pin to 4-pin adapter (the same adapter that is used to connect a standard microphone to a Smart device). Select “External Microphone” in the “Audio Jack Setting” of the Audio Setup Utility. The unit’s internal speaker and microphones will continue working, along with the external microphone.

SPEAKERS ONLY (OR HEADPHONES)

Connect the external speakers to the 3.5mm connector. The unit’s built-in speaker will be muted. Make sure that the “Headset” option is selected in the “Audio Jack Setting” of the Audio Setup Utility (this should be the default).

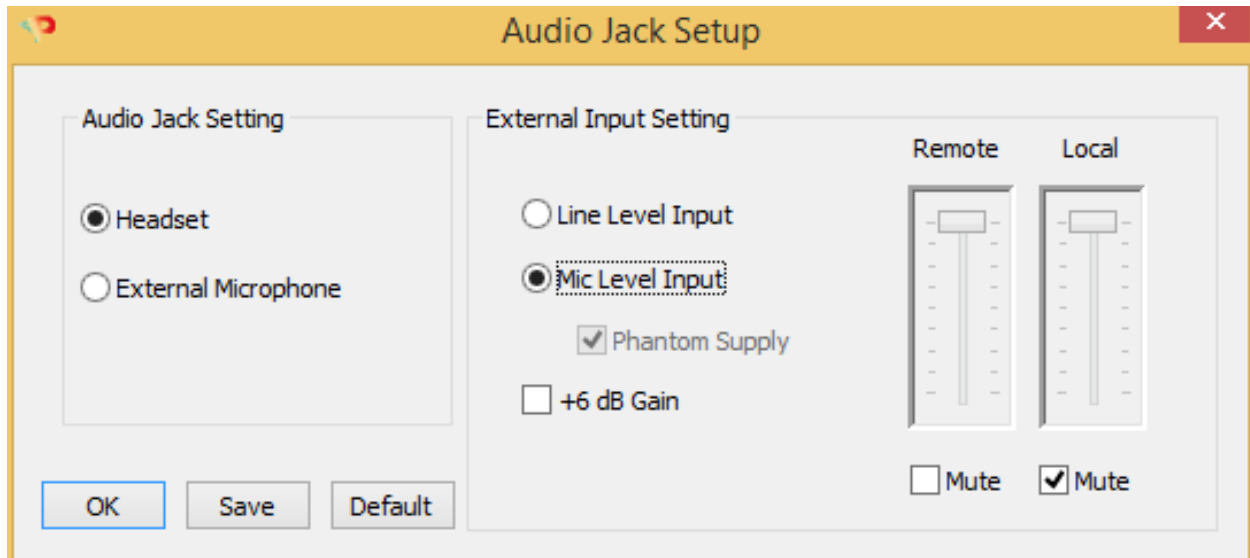
MICROPHONE AND SPEAKERS (OR HEADPHONES WITH MIC)

Connect your headset into the 3.5mm connector, making sure that the “Headset” option is selected in the “Audio Jack Setting” of the Audio Setup Utility (this should be the default.) If you would like to use external speakers and a microphone, wire them the same way a standard Smart Phone mic’d headphone would be wired.

NOTE: Standard wiring: tip ➡ left, ring1 ➡ right, ring2 ➡ ground, sleeve ➡ mic-in

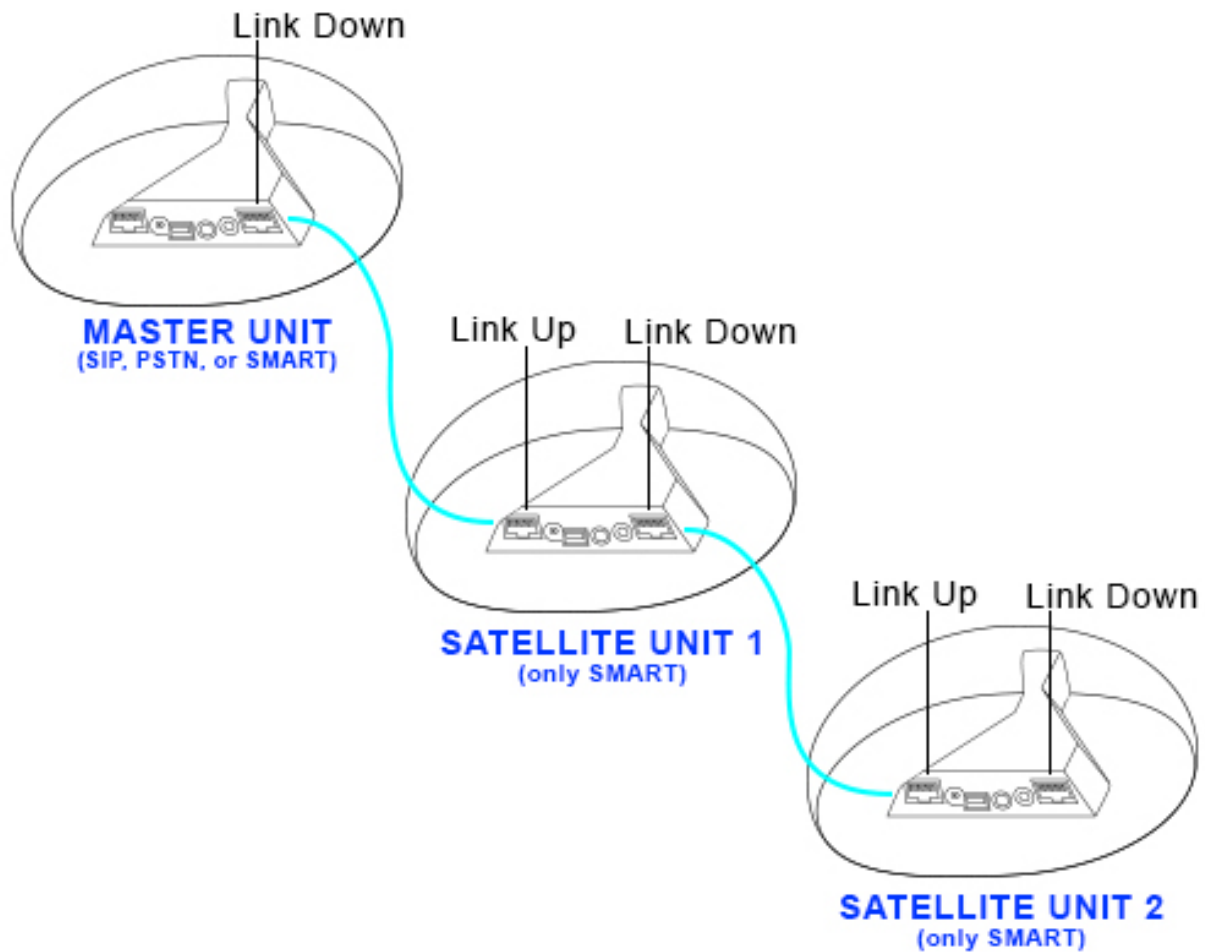
PRIVACY MODE

When using a mic'd headset, you can utilize the standard headset button to toggle between Privacy Mode (Headset Audio) and Speakerphone Mode. This allows you to leave your headset (or handset) plugged into the device when using the Spider's built-in microphone and speaker. When in Privacy Mode the two front red LEDs will blink.



DAISY CHAINING

Every Spider comes with a built in ability to connect to other SMART Spiders (MT503) or Quattro3s (up to 15 units). This feature enables you to provide coverage for larger spaces using a chain of units.



MAKING THE CONNECTION

- ▶ The SMART Spider can be both a master unit as well as a satellite, however you can use other units as masters. The master unit will be the only unit communicating with an external device, while all other units will connect and communicate only with each other.
- ▶ Using either the provided daisy chain cable or any other Ethernet cable, connect one of the cable ends to the master unit's daisy chain **DOWN** connector (the RJ45 connector marked "Link Down").
- ▶ Take the other end of the cable and connect it to the next unit's daisy chain **UP** connector (the RJ45 connector marked "UP" or "Link Up").
- ▶ Repeat the process in order to connect a third unit to unit number 2. This process can be repeated with up to 15 units regardless of their interface type. All units in the chain must be Quattro3s or Spiders.

NOTE: The MT505 and MT502 can only be the master unit, or the first unit in the chain.

POWERING THE DAISY CHAIN

Every unit in the chain must be powered. In order to do this, there are two available options:

OPTION 1

Power each unit separately, using its own provided USB cable, DC power supply, or internal battery (if applicable).

OPTION 2

Power only the master unit using the "Daisy Chain Power Kit" (MT320). This setup will require you to connect only the first unit to a power source, and will allow the rest of the units to feed off the master unit via the Ethernet daisy chain cables.

NOTE: While any Spider or Quattro3 can be daisy chained (regardless of interface), the power daisy chain method requires all units in the chain to have some type of secondary interface card (ONLY Quattro3 MT301 will not work). The power daisy chain method will work with up to 8 consecutive units before requiring another power source. The power source can be placed anywhere in the chain (first, last, or middle units).

SPECIFICATIONS

USB interface (micro B connector)

- 3.5mm external loudspeaker and microphone jack
- Daisy chain expandability of up to 15 units
- Three-way bridging capability
- Frequency response 50Hz – 16KHz
- Low latency (10ms)
- Broadcast level (peak): 92dB SPL @1m (5 watts RMS)
- Noise cancellation > 10dB (without pumping noise)
- 100% full duplex – no attenuation (in either direction) during full duplex
- High-end performance conforms to ITU-T G.167
- Acoustic echo cancellation > 40dB with conversion speed of 40dB/sec
- Residual echo is suppressed to the environment noise level, preventing artificial ducking of signal
- 4 high-quality directional microphones
- Direction-finding algorithm (determines the presence and direction of a speaker)
- Beam-forming algorithm (forms and directs audio beams towards a defined direction)
- Automatic voice-level adjustment (AGC)
- Line-echo canceler active when telephone interface is present
- Metal case and metal grill mesh for high RFI immunity and product durability

Dimensions:	<i>Length: 7" Width: 7" Height: 2.75"</i>
Weight:	<i>2.15 lbs.</i>
Power Consumption:	<i>5V 500mA through USB or wall mount ac/dc adaptor</i>
Software:	<i>Plug- and -Play. No installation or drivers.</i> Note: Audio Setup Utility is available for Windows. The setup utility helps monitor the audio input and output level but is not required.
Operating Systems:	<i>Windows 98 and up / Linux / MacOS.</i>

Complies with FCC 47 CFR Part 68, and ACTA adopted technical criteria: TIA-968-A

Complies with FCC 47CFR Part 15; ICES-003: 2004 Issue 4, Class B; AS/NZS CISPR 22: 2006, Class B; EN 55022: 1998+A1(00)+A2(03), Class B; EN61000-3-2: 2000+A2(05); EN61000-3-3: 1995+A2(05); EN55024: 1998+A1(01)+A2(03)

Complies with ETSI EG 201 121 V1.1.3 (2000-02); ETSI ES 203 021-2 V2.1.2 (2006-01); ETSI ES 203 021-3 V2.1.2 (2006-01)

Conforms to the requirement of the European Union Directive 2002/95EC (RoHS Directive)

WARRANTY

PHOENIX AUDIO TECHNOLOGIES TWO (2) YEAR LIMITED PRODUCT WARRANTY

THIS LIMITED WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS AND YOU MAY ALSO HAVE OTHER RIGHTS, WHICH VARY FROM STATE TO STATE.

THE LIMITED WARRANTY CAN ALSO BE FOUND ONLINE AT <http://www.phnxaudio.com/warranty/limitedwarranty.pdf> OR IN THE DOCUMENTATION WE PROVIDE WITH THE PRODUCT.

WE WARRANT THAT DURING THE WARRANTY PERIOD, THE PRODUCT WILL BE FREE FROM MECHANICAL, ELECTRICAL, AND SOFTWARE DEFECTS IN MATERIALS AND WORKMANSHIP.

WE LIMIT THE DURATION AND REMEDIES OF ALL IMPLIED WARRANTIES, INCLUDING WITHOUT LIMITATION THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE TO THE DURATION OF THIS EXPRESS LIMITED WARRANTY. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THIS LIMITATION MAY NOT APPLY TO YOU. OUR RESPONSIBILITY FOR THE DEFECTIVE PRODUCT IS LIMITED AS DESCRIBED BELOW IN THIS LIMITED WARRANTY STATEMENT.

1. WHO MAY USE THIS LIMITED WARRANTY?

Phoenix Audio Technologies, located at address 16 Goodyear Suite 120, Irvine, California 92618 ("we", "us", "our", or its derivations) extends this two (2) year limited product warranty (this "limited warranty") only to the consumer who originally purchased the product to which this limited warranty applies ("you", "your"). It does not extend to any subsequent owner or other transferee of the product. It does not cover anyone not located in the United States at the time coverage is sought under this limited warranty.

To obtain coverage under this limited warranty, you must (a) purchase the product which this limited warranty covers (and provide us with a sales receipt or other evidence acceptable to us showing your purchase); (b) provide us with the serial number of the product for which you purchased the warranty; and (c) provide us with information about you, if we request it. This limited warranty is expressly conditioned upon and valid only upon the satisfaction of the foregoing requirements of (a) through (c), and our receipt of any and all required payments in connection with the foregoing requirements of (a) through (c).

2. WHAT DOES THIS LIMITED WARRANTY COVER?

This limited warranty covers mechanical, electrical, or software defects in materials and workmanship of the product purchased by you from us (the "product") for the Warranty Period as defined below, and this limited warranty is specific to the product for which you purchased this limited warranty.

3. WHAT DOES THIS LIMITED WARRANTY NOT COVER?

This limited warranty does not cover any damage ("excluded events") due to: (a) incidental events (e.g., coffee spills, water damage, damage resulting from dropping the product, or fire damage); (b) transportation; (c) storage; (d) improper use; (e) failure to follow the product instructions or to perform any preventive maintenance; (f) modifications; (g) unauthorized repair; (h) normal wear and tear; (i) misuse; (j) external causes such as accidents, abuse, or other actions or events beyond our reasonable control; or (k) damages or repairs that, in our opinion, result from similar events.

This limited warranty does not cover incidentals, general customer dissatisfaction (such as in the case of "buyer's remorse"), lost peripherals (e.g., misplaced cables or power supplies needed to use the product), or any damage not caused by a mechanical, electrical, or software defect.

4. WHAT WILL WE DO UNDER THIS LIMITED WARRANTY/WHAT ARE YOUR REMEDIES?

In the event of a mechanical, electrical, or software defect, malfunction, or other failure of the product not, in our opinion, the result of excluded events, we will remedy the failure or defect without charge to you. We can choose to:

- Repair the product or defective, malfunctioning, otherwise failing parts in the product within a reasonable time as solely determined by us; OR
- Replace the product or defective, malfunctioning, otherwise failing parts in the product within a reasonable time as solely determined by us.

In order to obtain warranty coverage: (1) you must have proof of your properly-obtained limited warranty pursuant to Section 1 of this limited warranty; (2) an excluded event must not have occurred with respect to the mechanical, electrical, or software defect, malfunction, or other failure in the product and/or its part(s); and (3) you must obtain a return authorization number and other return shipping information from us to allow you to ship the product and/or part of the product back to us.

As part of these limited warranty services, we will offer (a) phone and e-mail support (see contact information in Section No. 6 below); (b) free software upgrades for the purchased product, if applicable; and (c) no costs for any of the replacement parts or labor needed to make the product function as warranted. No other services or repair work are included in this limited warranty other than the repairs and services expressly described in this Section No. 4.

5. WHAT IS THE PERIOD OF COVERAGE?

This limited warranty begins on the date of your purchase of the product and lasts for two (2) years, subject to the requirements described in Section No. 1, subsections (a) through (c) of this limited warranty (the "Warranty Period"). The Warranty Period is not extended if we repair or replace the product. We may change the availability of this limited warranty at our discretion, but any changes will not cover periods before the change went into effect.

6. HOW DO YOU OBTAIN LIMITED WARRANTY SERVICE?

To obtain limited warranty service, you must call (818) 937-4774 or email our Customer Service Department at support@phnxaudio.com during the Warranty Period. No limited warranty service will be provided without satisfying the requirements described in Section No. 1, subsections (a) through (c) of this limited warranty.

7. LIMITATION OF LIABILITY

EXCEPT FOR THE EXPRESS WARRANTIES CONTAINED IN THIS LIMITED WARRANTY STATEMENT, NO OTHER WARRANTY, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR USE, APPLIES TO THE PRODUCT. THE REMEDIES DESCRIBED ABOVE ARE YOUR SOLE AND EXCLUSIVE REMEDIES AND OUR ENTIRE LIABILITY FOR ANY BREACH OF THIS LIMITED WARRANTY. OUR LIABILITY SHALL UNDER NO CIRCUMSTANCES EXCEED THE ACTUAL AMOUNT PAID BY YOU FOR THE DEFECTIVE PRODUCT, NOR SHALL WE UNDER ANY CIRCUMSTANCES BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL OR PUNITIVE DAMAGES OR LOSSES, WHETHER DIRECT OR INDIRECT.

SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

8. WHAT CAN YOU DO IN CASE OF A DISPUTE WITH US?

Any controversy or claim arising out of or relating in any way to this purchase or attempted purchase of this limited warranty directly from us shall be brought on an individual, and not on a class action basis, shall be exclusively subject to binding arbitration, which shall be administered by the American Arbitration Association, and decided by one (1) arbitrator, and judgment upon the award rendered by the arbitrator may be entered in any court having jurisdiction thereof. By purchasing this limited warranty, you further agree that the arbitrator, and not any federal, state, or local court or agency shall have exclusive authority to resolve any controversies, claims, or other disputes arising out of or relating to the interpretation, applicability, enforceability or formation of this limited warranty.

By purchasing this limited warranty, you understand and agree that you are waiving and hereby waive your rights to maintain other available resolution processes, such as a court action or administrative proceeding, to settle any disputes between you and us.