USER MANUAL

DUET EXECUTIVE
USB DESKTOP SPEAKERPHONE

[Image: Image of a USB desktop speakerphone]
The Duet is a high performance speakerphone for desktop use that can cover anywhere from small to medium room settings. It has a commanding pickup and broadcasting range and is remarkably portable.

The Duet utilizes a high quality microphone and loudspeaker backed by a powerful DSP that runs advanced echo cancellation and noise suppression technologies. The Duet is made out of an aluminum body which makes it exceptionally durable and great for travel. Its plug-and-play design makes it extremely user friendly and eliminates the need for additional driver installations in order to use.

The Duet Executive, which is the dual USB and phone model of the Duet family, is a desktop solution that is compatible with almost any telephone / smartphone / tablet as well as Voice over IP (VoIP) conferencing.

This guide will help you learn how to use your speakerphone and will reveal all the features that come with it.
CONNECTING YOUR DUET

CONNECT TO A COMPUTER:
This connection is for any session using your computer, such as Voice over IP applications (Skype, Vidyo, etc.).

1. Using the USB cable provided, plug the mini USB side of the cable into the Duet (located on the connector panel below the unit).
2. Plug the USB end of the cable into any USB port on your computer.
CONNECTING YOUR DUET

CONNECT TO A PHONE / SMARTPHONE / TABLET / VIDEO CODEC SYSTEM
This connection is for any session using a phone device with either an RJ11, 3.5mm headset, or RCA jack (telephone, IP phone, smartphone, tablet / Video Codec system).

Take a look at the kind of connector your device has for a headset jack and continue to the appropriate section below:

RJ11 connector (square phone jack):

If your device has an RJ11 connector as its headset jack you will need to use one of two RJ11 to RJ11 cables that were supplied with your Duet. The two cables (one gray an one black) have the same connector at both ends, but have different internal wiring. If you have a Cisco phone, start with the black cable. If it doesn’t work, repeat the process with the gray cable. If you have an Avaya phone, start with the gray cable. If it doesn't work repeat the process with the black cable. Plug the RJ11 cable into the Duet and plug the other end of the RJ11 into the RJ11 jack on your phone.

2.5mm Connector (telephone / cellular phone):

If your device has a 2.5mm jack you will need to use the RJ11 to 2.5mm cable. Plug the RJ11 end into the Duet and the 2.5mm end into the device.

3.5mm Connector (4 pin for smartphone / tablet):

Using the RJ11 to 2.5mm cable plug the RJ11 end into the Duet. Using the provided 2.5mm to 3.5mm adapter, connect the female end of the 2.5mm adapter to the male end of the 2.5mm to RJ11. Plug the 3.5mm connector into your device.

RCA Connector (Video Codec systems):

Using the RJ11 to RCA cable connect the RJ11 to the Duet. Connect the black RCA to your VC’s speaker output. Connect the red RCA to your VC’s speaker input.

Your Duet is ready to use. No additional drivers or steps are needed; however we do recommend downloading and using our “Phoenix Audio Setup Utility” for optimal audio controls and performance. This utility can be found on our website:

www.phnxaudio.com
USING THE DUET

The Duet’s control panel has **3 buttons:**

- **Mute** (in the middle)
- **Volume Up** (to the right)
- **Volume Down** (to the left)

**LIGHT INDICATIONS:**
- Button panel light off - unit is off (not connected)
- Button panel light on – unit is on (connected)
- Button panel light blinking – unit is on and the microphone is muted

**BASIC UNIT OPERATIONS:**

Turn unit ON: unit is always on when connected to a power source or USB device.

Turn unit OFF: disconnect unit from power source or USB device.

Mute microphone: push the Mute button once. The button panel light will start blinking.

Unmute microphone: push the Mute button once. The button panel light will stop blinking and will stay on.

**NOTE:** The MUTE button will mute the microphone not the speaker. To mute the speaker just use the volume buttons to decrease the volume till no sound is audible. The volume buttons will control the level of audio heard from the speaker and not the sensitivity of the Duet’s microphone. To adjust the microphone volume level use the Phoenix Audio Setup Utility which can be found on our website.

SETTING UP TELEPHONE OUTPUT GAIN

Output gain controls the level (sensitivity) of the Duet's output audio signal going into your telephone. If the gain is set too high, the telephone input will clip the signal and the Duet will fail to cancel the “line echo”. As a result you may hear an echo returning when you speak. If the gain is set too low, the other side may have trouble hearing you or won’t be able to hear you at all. You can customize your output gain by downloading the Phoenix Audio Setup Utility:

www.phnxaudio.com
HEADSET CONNECTION

The Duet is equipped with a 2.5mm standard telephone / cellular phone headset connector. Connecting a headset to the Duet will automatically disable the Duet's internal built-in speaker and microphone. Your PC's sound (music, VoIP communication, etc...) will be converted into mono and sent to the headset's earphone together with the audio signal received by the telephone. The headset connection is useful when you want to conduct a high quality private conversation using a standard telephone / cellular phone headset.

CONNECTING EXTERNAL SPEAKERS / HEADPHONES

The 3.5mm “External Speaker” jack located on the Duet’s connector panel can be used to connect any type of amplified speakers or stereo headphones. The external speakers / headphones will be used by the Duet to play sound and the Duet’s internal speaker will be muted.

**NOTE:** When connecting the Duet Executive to external speakers, the Executive will also send your telephone’s audio to the external speaker (or headphones). While the internal Executive's speaker is disabled when using this connection, the Executive's internal microphone is still functional. This feature is useful if, for example, you listen to music stored on your computer while wearing headphones and the telephone rings. You can pick up the call without taking the headphones off. It can also be useful if you want to have a private conversation using standard headphones without the need to purchase a telephone headset.
DAISY CHAINING

The Duet Executive is the only Duet model that can be Daisy Chained. Any number of units can be connected in a Daisy Chain as long as all the units are Executive models. This feature allows the Duet to cover medium to large conference rooms. Every unit in the chain will utilize both its microphone and speaker.

DAISY CHAINING EXECUTIVES REQUIRES TWO ELEMENTS:
1. RJ11 to 2.5mm cable, like the one supplied with each Duet and used for a cellular phone connection
2. 3.5mm plug (we call it a Dummy Plug). The 3.5mm stereo plug is the standard plug used by most powered speakers and headphones. Feel free to use your household headphones

HOW TO DAISY CHAIN MULTIPLE UNITS:
1. Connect Duet #1 to your communication link (PC, telephone, or both)
2. Take the RJ11 to 2.5mm cable and plug the 2.5mm end of the cable into Duet #1 and the RJ11 into Duet #2
3. Plug the Dummy Plug into Duet #1’s 3.5mm jack
4. Setup output gain through the Phoenix Audio Technologies Setup Utility (0dB gain)
5. Power Duet #2 using the supplied power adapter (you can also power it from a USB port)

NOTE: Plugging in the Dummy Plug signals to the Duet that it is in a Daisy Chain mode and activates all the required algorithms. Failing to do so will disable the echo cancelling algorithm and other critical functions.

NOTE: Phoenix offers a Daisy Chain Kit (MT221). This kit consists of an 11 foot RJ11 to 2.5mm cable and a Dummy Plug that can assist you with Daisy Chaining.
HOW TO BRIDGE CALLS

When the Duet Executive is connected to both your computer and your telephone, you can bridge the two connections which will allow you and both parties to communicate freely with each other.

This feature is very convenient if you are on a VoIP call and want to patch-in a person that has no access to a computer. Simply call him / her using your telephone while keeping the VoIP call active.
# SPECIFICATIONS

**Compatibility**
Windows 95 and up, MAC OS, and Linux

**Connectivity**
USB connector – PC or Laptop connectivity and power
2.5mm – headset connection
3.5mm connection – for external loudspeakers or headphones
RJ11 connector – (accompanied cables provided)

**Size**
3.75 in x 1.25 in x 4.5 in (W x H x D)

**Weight**
0.55 lbs (with USB cable)

**Power**
USB power for PC and Laptop (LED will illuminate)
External power supply included for phone only configurations (when Duet is not plugged into the PC)

**Performance**
Speech processing and echo suppression at 32KHz sampling rate
HD speaker audio (16KHz bandwidth)
Maintains audio performance of the PC for HiFi audio applications when external speakers are connected
Plugging in external speakers will automatically turn off the internal loudspeaker

**Audio**
100% Full duplex performance – No attenuation (either way) during full duplex
Acoustic echo cancellation >40 dB
High-end performance: conforms to ITU-T G.167 standard
Noise cancellation >10dB
Residual echo is suppressed to the environment noise level to prevent artificial ducking of signal
Voice level equalization
Convergence speed 40 dB/sec
Tail length (200ms)
Convergence during full duplex (no recovery time after full duplex)
Low delay (10 msec)
Bandwidth 20 – 7500 kHz for speech processing maintains the soundcard bandwidth
Integrated loudspeaker
Mute button and loudspeaker volume control buttons (LED will blink in mute mode)
Four position gain setting for optimum adjustment of signal level into the telephone
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.phxnaudio.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).

2. WHAT DOES THIS LIMITED WARRANTY COVER?

This limited warranty covers mechanical, electrical, and 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 incidents, 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:

• Replace 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 and return your product within the Warranty Period.

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 chance 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@phxnaudio.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 IN 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 agree to the rules and not any appeal, and any final 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.