



# AEROMIX 2+2DC

Voice-over-Music Mixer

Operation manual



ISO 9001



ISO 14001



OHSAS 18001



GREEN PRODUCT



# The Fitness Audio 2+2DC Hook-up Guide

Thank you for purchasing the Aeromix 2+2DC Voice-over-Music Mixer by Fitness Audio – designed to make fitness instructors’ lives easier. If your sound contractor is not installing your Aeromix for you, please follow these simple steps to connect it to your Group Fitness stereo sound system.

## 1. Connecting the Wireless Mic Receiver

Connect the Line Out jack socket of your wireless microphone receiver to the Mic 1(15) socket on the back of the Aeromix using a standard mono 6.35mm (quarter inch) jack to jack lead which is usually supplied with wireless receivers.

### 1.1 Balanced Line Connection

These mic sockets will also accept a TRS (stereo) jack with a balanced line cable from an XLR Mic Level output socket found on the majority of quality wireless receivers. Balanced line connections will always sound better, revealing more “body” in the voice, and are less susceptible to noise and interference.

### 1.2 Connecting a second Wireless Mic Receiver

If a second wireless receiver has to be connected then repeat the connection procedure as before using the Mic 2(15) input socket.

## 2. Connecting the Music Sources - The Main CD Player

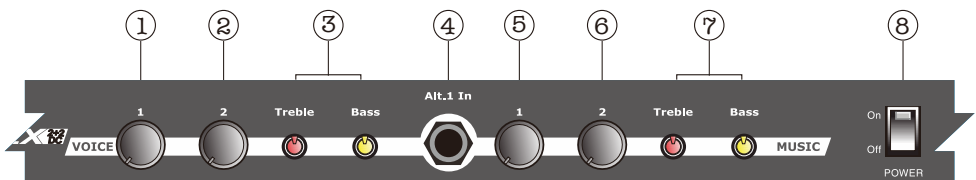
Connect the Line Out or Play sockets of your CD Player to the Music 1(14) input sockets on the Aeromix using a 2 RCA to 2 RCA lead. Remember that “Red is Right and Left is White” (or black!).

### 2.1 Connecting a second Player or Radio Tuner

Connect the Line Out or Play sockets from your second player to the Music 2(14) input sockets of the Aeromix using a 2 RCA to 2 RCA lead - the volume is controlled by Music 2 (6).

### 2.2 Connecting an MP3 Player

Using the supplied iJax 6.35mm stereo jack to 3.5mm stereo mini-jack lead, connect the Line Out or Play sockets of your Personal MP3 or MD Player to the 6.35mm Alt.1 In(4) jack socket on the front panel of the Aeromix. When this lead is plugged in the Music 1(5) the input is diverted from any player plugged into the rear panel Music 1(14) RCA input sockets until the jack plug is removed. Use a combination of your player’s output level control, if it has one, and the Music 1(5) volume control to achieve a strong, clean, clear sound.



### Key To Illustration:

- |                              |                         |
|------------------------------|-------------------------|
| 1. Voice Input 1 Volume      | 5. Music Input 1 Volume |
| 2. Voice Input 2 Volume      | 6. Music Input 2 Volume |
| 3. Voice Input Tone Controls | 7. Music Tone Controls  |
| 4. Alternate Input 1         | 8. Power On/Off         |

### 3. Connecting to the Power Amplifier

Connect a dual 6.35mm jack lead (balanced or unbalanced) from the 1V Output(10) pair of sockets to your amplifier's input sockets. If the power amplifier is a USA made brand it may require more driving voltage – if this is so then connect it to the 1.5V High Output(9) sockets. Most power amplifiers made in Asia are best suited to the standard 1V sockets(10). A pair of 1m TRS Jack to XLR-M cables are supplied in some areas for this purpose. For mono or single channel amplification systems just use either right channel for a mono output to your Power Amplifier.

#### 3.1 Connecting to a second device

The unused pair of outputs can be used for driving another amplifier in either stereo or mono; or they could be used to connect to a wireless transmitter or a recording system, providing they have input or record level controls and you don't use exaggerated treble & bass tone settings.

### 4. Plug it in!

With the speakers connected to the power amplifier, connect the Aeromix 24VDC Power Pack to your power point, turn it on and make sure the full system is fully powered up. The latest version (2012/09) features a cable restraint post to secure the DC plug from being accidentally removed so secure the cable around the restraining post.

### 5. Setting the volume levels

Start from the end! Firstly adjust the level controls of your power amplifier – set its volume controls up to maximum, then set the Master(11) control to about 75%, that is, half way between the 50% click point and the turning right end stop.

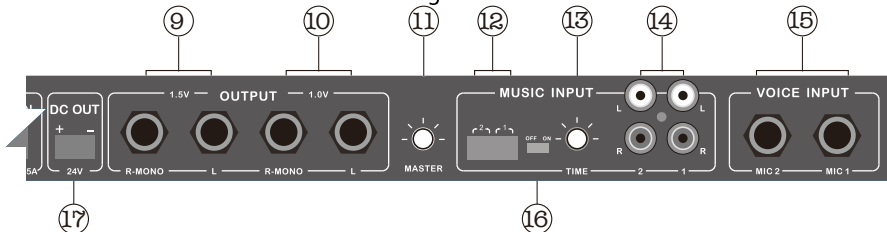
#### 5.1 Setting the microphone level.

Check that the receiver's mic/line output selector (if there is one) is set to "mic" if you're using a balanced line cable connection, or to "line" if you're using an unbalanced cable connection, and turn the volume control of the receiver to the midway or 12 o'clock position.

Put the microphone on, turn on the transmitter and start counting out loud while advancing the Voice 1(1) Volume control on the back of the Aeromix until feedback (mic howling) starts; then edge it back a touch until the voice sounds dry with no hint of "ringing" or feedback. Fine tune by walking around the room talking and seeing how close you can get to the speakers – the better they are the closer you'll get without the mic feeding back. This process is called setting the maximum "gain-before-feedback" position.

#### 5.2 It's a Voice-Over-Music Mixer

Now play some music and adjust the music volume against your mic level while projecting your voice as you would teaching an Group Fitness or Dance Class. Remember, it's a Voice over Music Sound System – the audience wants to hear what's being said above the level of the music.



9. 1.5Volt Line Output

10. 1Volt Line Output

11. Master Volume

12. Music Mute/LM Relays Inputs

13. LM Recovery Time Control

14. Music Inputs

15. Mic Level Inputs

16. LM On Switch

17. 24V DC Output

## 6. Setting the Tone Controls.

As a general guide, the voice could do with a touch less bass and a touch more treble but not too much or it might sound too “edgy” so just add a little treble boost to help the voice cut through the music. Now for the music – get a test CD or MP3 Player Playlist and start it playing. Set the volume so it’s not too loud and adjust the bass and treble controls by sweeping from left to right and back again. Settle on a setting that gives a more subtle fullness to the music rather than an exaggerated bass and/or treble. Use the Voice Treble (3) control to reduce microphone feedback.

## 7. Connecting to a Loudness Monitor

The Fitness Audio LM-30 Trigger™ is a sound pressure level (SPL) monitoring display that shows you when a pre-set sound level has been exceeded by illuminating 3 rows of red LEDs. The monitor should be positioned above head height on a side wall, in a position that will catch the ambient or reflected sound, that is not directly facing the loudspeakers and importantly, has to be visible to the sound system operator. The default setting of the Aeromix 2+2DC’s Audio Slap™ Switch (16) is off for a normal hook up to a power amp. If you are connecting the mixer to a Trigger™ then set this switch to ON.

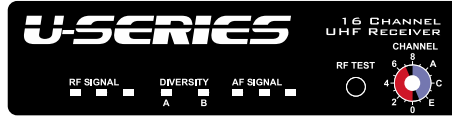
Connect the bare wires to the 4 pin green connector on side 1 for The Trigger™, the earth side to the inside contact of {1} and the signal side to the outside contact of {1}. Run the cable from the monitor back to the 2+2DC LM Relay Input(12). Using the detachable half of the green connector, connect the 3rd contact to the earth or sleeve of the mini jack and 4th to the tip or +. Now connect and play music with the SPL monitor set at 94dB. The Audio Slap™ circuit will be activated every time the sound level exceeds the recommended setting. A 15dB cut means the music level will be substantially reduced but still quite audible. The LM Recovery TIME screw pot (13) adjusts the amount of recovery time it takes to switch back on - from a couple of seconds up to a maximum of 30 seconds of reduced music level. Turn the Music and Voice control levels down a bit to avoid the Audio Slap™ occurring again. Keeping your eyes on the monitor lights while setting the sound levels could save your ears in the long term.

## 8. Music Mute Relay Circuit

Many responsible Building Approval Authorities around the world are now requesting that there be supplied a music cut out switch on any powerful music system installed in a public or community centre (ie city or council owned fitness centres). The circuit is closed by the fire alarm control system should an alarm be activated anywhere in the building. We believe that this will eventually be a compliance standard for private enterprise owned centres as well. We have opted to supply a music cut out circuit rather than a total power cut system, as we feel that Instructor should be trained to react to the alarm and lead their class members out to safety using the vocal power of their mic through the sound system. This connection should only be installed by a licensed contractor. To use the circuit a two-wire cable has to be run from the General Services Board connected to the building’s alarm system and the two wires are connected to the screw terminals. Set the music playing and have someone on the mic just talking, then check by shorting a test cable screwed into the green connector(12), pins 1 & 2, {Input 2} the music will cut out leaving the mic working so that people can be marshalled out to the Fire Drill Assembly points.

# FITNESS AUDIO PRODUCTS ALSO INCLUDE:

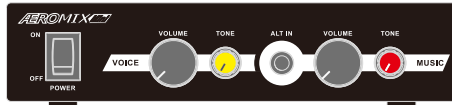
*Fitness Audio U-Series UHF Wireless System*



*Fitness Audio Aerolink AL3.0 Bluetooth Receiver*



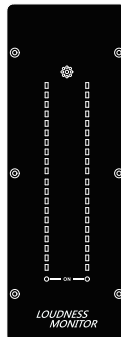
*Fitness Audio Aeromix AMX-32.2 Voice-over-Music Mixer*



*Fitness Audio Aeromix 2+2DC Voice-over-Music Mixer*



*Fitness Audio LM-30 Loudness Monitor*



*Fitness Audio SPL2 Sound Pressure Limiter*



Fitness Audio products are distributed worldwide by Fitness Audio Network. They are manufactured to our specifications by Chiayo Electronics, Taiwan. Your Aeromix is covered against manufacturing defects by a 12 month warranty commencing from your date of purchase.

**Warranty Information**

***(Please retain for your records)***

This product was purchased by:

(Your Business) .....

on (date)../... /... from (Company).....

of (address) .....

Model Number(s).....

Serial Number(s) .....

**Fitness Audio**

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