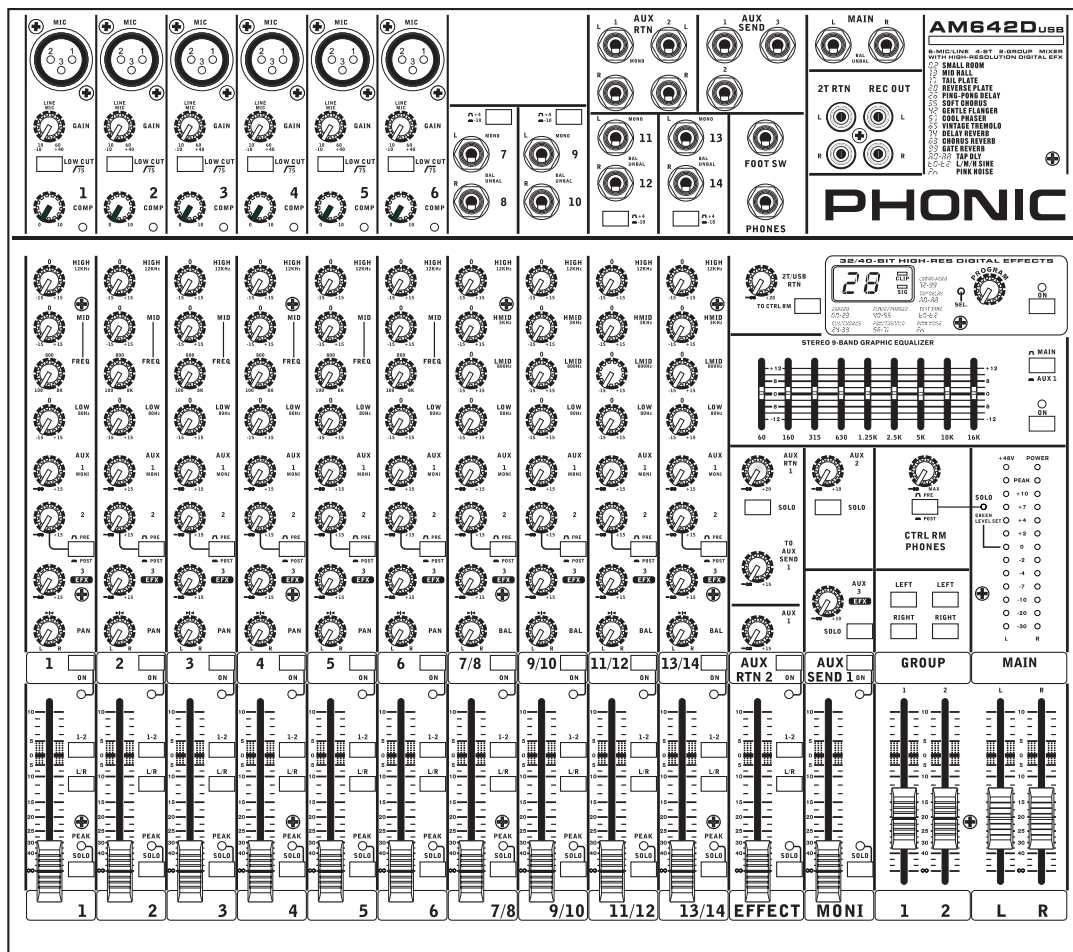


# PHONIC



AM642D USB

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## AM442D USB

## AM642D USB

- User's Manual
- Manual del Usuario

# AM442D USB

# AM642D USB

COMPACT MIXERS

MEZCLADORAS COMPACTAS



ENGLISH ..... I

ESPAÑOL ..... II

# USER'S MANUAL

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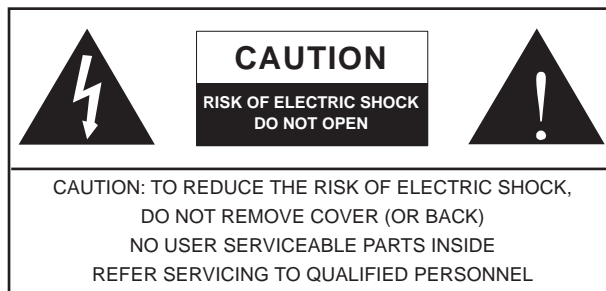
Phonic preserves the right to improve or alter any information within this document without prior notice.

## IMPORTANT SAFETY INSTRUCTIONS

The apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus. The MAINS plug is used as the disconnect device, the disconnect device shall remain readily operable.

**Warning:** the user shall not place this apparatus in the confined area during the operation so that the mains switch can be easily accessible.

1. Read these instructions before operating this apparatus.
2. Keep these instructions for future reference.
3. Heed all warnings to ensure safe operation.
4. Follow all instructions provided in this document.
5. Do not use this apparatus near water or in locations where condensation may occur.
6. Clean only with dry cloth. Do not use aerosol or liquid cleaners. Unplug this apparatus before cleaning.
7. Do not block any of the ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plug, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with a cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

**WARNING:** To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

**CAUTION:** Use of controls or adjustments or performance of procedures other than those specified may result in hazardous radiation exposure.



## Introduction

Thank you for choosing one of Phonic's many quality compact mixers. The AM442D USB and AM642D USB mixers – designed by the ingenious engineers that have created a variety of mixers fantastic in style and performance in the past – display similar proficiency that previous Phonic products have shown; with more than a few refinements, of course. Featuring full gain ranges, amazingly low distortion levels, and incredibly wide dynamic ranges, these amazing mixers are bound to make a big impression in any venue. The AM442D USB and AM642D USB also offer a USB interface for making stereo recordings on any modern Windows- or Mac-based computer.

We know how eager you are to get started – wanting to get the mixer out and hook it all up is probably your number one priority right now – but before you do, we strongly urge you to take a look through this manual. Inside, you will find important facts and figures on the set up, use and applications of your brand new mixer. If you do happen to be one of the many people who flatly refuse to read user manuals, then we just urge you to at least glance at the Instant Setup section. After glancing at or reading through the manual (we applaud you if you do read the entire manual), please store it in a place that is easy for you to find, because chances are there's something you missed the first time around.

## System Requirements

### Windows

- Windows™ XP SP2, Vista™ or 7
- Intel™ Pentium™ 4 processor or better
- 512 MB RAM (1 GB recommended)

### Macintosh

- Apple™ Mac™ OS X 10.5 or higher
- G4™ processor or better
- 512 MB RAM (1 GB recommended)

## Getting Started

1. Ensure all power is turned off on your mixer. To totally ensure this, the AC cable should not be connected to the unit.
2. All faders and level controls should be set at the lowest level and all channels switched off to ensure no sound is inadvertently sent through the outputs when the device is switched on. All levels can be altered to acceptable degrees after the device is turned on.
3. Plug all necessary instruments and equipment into the device's various inputs as required. This may include line signal devices, such as keyboards and drum machines, as well as microphones and/or guitars, keyboards, etc.
4. Plug any necessary equipment into the device's various outputs. This could include amplifiers and speakers, monitors, signal processors, and/or recording devices.
5. Plug the supplied AC cable into the AC inlet on the back of the device and a power outlet of a suitable voltage.
6. Turn the power switch on.

## Channel Setup

1. To ensure the correct audio level of the input channel is selected, each of the Mixer's Channel's ON buttons should be disengaged (which should turn the corresponding LED indicator off – otherwise go back and try again), as well as the SOLO buttons on each channel.
2. Ensure the channel you wish to set has a signal sent to it similar to the signal that will be sent when in common use. For example, if the channel has a microphone connected to it, then you should speak or sing at the same level the performer normally would during a performance; if a guitar is plugged into the channel, then the guitar should also be strummed as it normally would be (and so on). This ensures levels are completely accurate and avoids having to reset them later.

3. Move the Channel's fader to around the 0 dB mark.
4. Pushing the channel's SOLO button will send the audio signal to the Control Room / Phones mixing bus and the Level Meter will display the Control Room's signal properties (since the Main L/R mixing bus will receive no signal).
5. Set the gain so the level meter indicates the audio level is around 0 dB.
6. This channel is now ready to be used; you can stop making the audio signal.
7. You can now repeat the same process for other channels if you wish.

## Computer Connection

By simply connecting the USB cable provided along with your AM442D USB or AM642D USB to the device and your Personal Computer or Laptop, you are able to send CD quality (16-bit stereo, with a 44.1 kHz sampling rate) signal to and from your mixer. By doing this, you are actually turning your mixer into a highly useful plug'n'play soundcard for your computer.

The USB sends an audio stream of the Main Left and Right (record out) signal of your mixer to the computer. You can use almost any dedicated Digital Audio Workstation (DAW) software to record the signal from the AM mixer. You can also set the mixer as your default audio device.

The USB interface also returns the audio signal from your computer back to the 2T Returns, the signal of which is controlled by the 2T / USB Return control. If there are input signals from both the USB interface and the 2T Return, the two signals are combined and controlled simultaneously by the 2T return control.

### Windows

1. Turn both the AM mixer and the computer on.
2. Connect the AM mixer to the computer via the provided USB cable.
3. Let Windows find the device and install an appropriate driver.
4. Enter the Control Panel and select Sounds and Audio Devices.
5. When here, go to the Audio tab and select the "USB Audio Codec" as your default sound recording and playback device.
6. Depending whether you have Windows XP, Vista or 7, this may differ slightly but the setting can always be found within the Control Panel's audio menu.
7. If you don't want to use the AM442D USB and AM642D USB as your default audio device, you can simply enter your DAW or other audio program and select it as your default device in the program only.
8. Be sure to set your minimum buffer settings to 64 samples as to avoid clicks and pops.

### Mac

1. Turn both the mixer and the computer on.
2. Connect the AM mixer to the computer via the provided USB cable.
3. Enter the AUDIO MIDI SETUP menu.
4. Select the "USB Audio Codec" as your input and output device.
5. Either the AM442D USB or AM642D USB is now your default audio device.
6. Alternatively, enter your DAW software (or other relevant audio program) and select the "USB Audio Codec" in the device preferences.
7. Be sure to set your minimum buffer settings to 64 samples as to avoid clicks and pops.

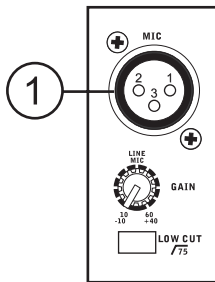
# Making Connections

## Inputs and Outputs

### 1. XLR Microphone Jacks

These jacks accept typical 3-pin XLR inputs for balanced and unbalanced signals. They can be used in conjunction with microphones – such as professional condenser, dynamic or ribbon microphones - with standard XLR male connectors, and feature low noise preamplifiers, serving for crystal clear sound replication. The AM442D USB mixer features five standard XLR microphone inputs, whereas the AM642D USB features a total of eight.

**NB.** When these inputs are used with condenser microphones, the Phantom Power should be activated. However, when Phantom Power is engaged, single ended (unbalanced) microphones and instruments should not be used on the Mic inputs.



### 2. Stereo Channels

The AM442D USB and AM642D USB feature a few stereo channels, thrown in for maximum flexibility. Each of these stereo channels features two 1/4" phone jacks, for the addition of various line level input devices, such as electronic keyboards, guitars and external signal processors or mixers. If you wish to use a mono device on a stereo input, simply plug the device's 1/4" phone jack into the left (mono) input and leave the right input bare. The signal will be duplicated to the right due to the miracle of jack normalizing.

### 3. AUX Sends

These 1/4" TS outputs may be used to connect to an external signal processor, or even to an amplifier and speakers (depending on your desired settings) from the mixer. The signal from the AUX Sends is controlled by the main AUX and EFX controls (on the face of the mixer), which obtain their signal from the AUX and EFX controls located on each channel strip. The AM442D USB features 2 AUX sends, whereas the AM642D USB features a total of 3.

### 4. AUX Returns

These 1/4" TS inputs are for the return of audio to the AM442D USB and AM642D USB mixers, processed by an external signal processor. If really needed, they can also be used as additional inputs. The feed from these inputs can be adjusted using the AUX Return controls on the face of the mixer. When connecting a monaural device to the AUX Return 1 and 2 inputs, simply plug a 1/4" phone jack into the left (mono) input, and the signal will appear in the right as well. This, however, does not work for the AUX Return 3 input on the AM442D USB.

**NB.** When any device is plugged into the mixer's corresponding EFX Return inputs (ie. AUX Return 2), the mixer's internal digital effect engine is then disabled.

### 5. Foot Switch Jack

These ports are for the inclusion of a foot switch, used to remotely switch the built-in Digital Effect processor between the on and standby modes.

### 6. Phones

This stereo output port is suited for use with headphones, allowing monitoring of the mix. The audio level of this output is controlled using the Control Room / Phones control.

### 7. 2T Record / Record Out

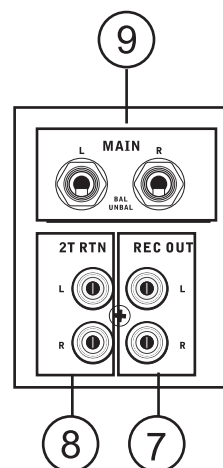
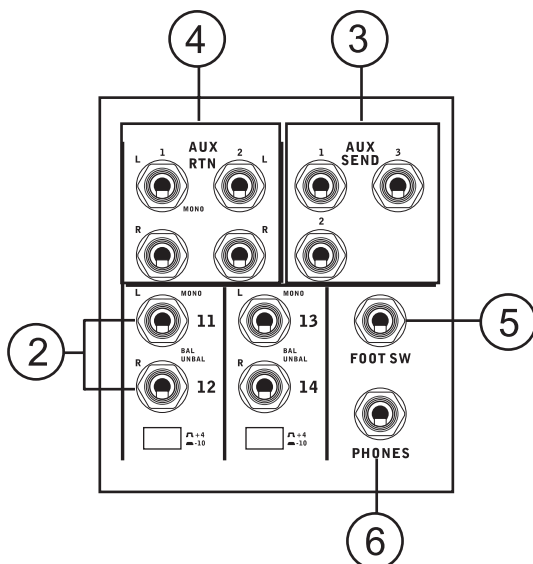
These outputs will accommodate RCA cables, able to be fed to a variety of recording devices. Also included is a mini stereo jack for the addition of recording devices such as MD players, and even laptop computers.

### 8. 2T Return

These RCA inputs are used to connect the mixer with parallel external devices, such as sub mixers or external effect processors, receiving the processed signal from another source and feeding it to either the Main L and R or the Phones mixing bus.

### 9. Main Out

These two 1/4" phone jacks will output the final stereo line level signal sent from the main mixing bus. The primary purpose of these jacks is to send the main output to external devices, which may include power amplifiers (and in-turn, a pair of speakers), other mixers, as well as a wide range of other possible signal processors (Equalizers, Crossovers, etcetera).





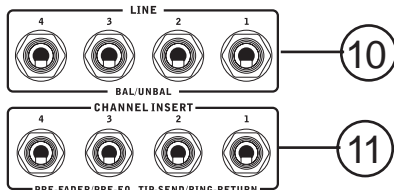
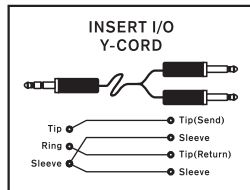
**Rear Panel**

**10. Line Inputs**

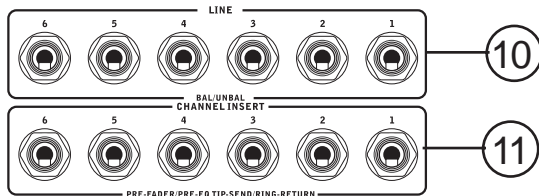
These inputs accept typical 1/4" TRS balanced or TS unbalanced inputs, for balanced or unbalanced signals. There are various numbers of these inputs depending which mixer you are using. They can be used in conjunction with a wide range of line level devices, such as keyboards, drum machines, electric guitars, and a variety of other instruments.

**11. Channel Inserts**

Located on the rear of the AM442D USB and AM642D USB, the primary use for these TRS phone jacks is for the addition of external devices, such as dynamic processors or equalizers, to the mono input channels on both of these units. This includes channels 1 to 4 on the AM442D USB and channels 1 to 6 of the AM642D USB. This will require a Y cord that can send (pre-fader and pre-EQ) and receive signals to and from an external processor.



AM442D USB



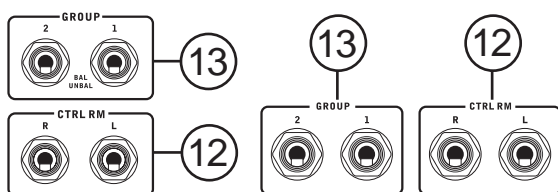
AM642D USB

**12. Control Room Outputs**

These two 1/4" phone jack outputs feed the signal altered by the Control Room / Phones level control on the face of the mixer. This output has extensive use, as it can be used to feed the signal from the mixer to an active monitor, for the monitoring of the audio signal from within a booth, or, alternatively, for the addition of external signal processing devices or mixers, as well as acting as a "side fill" output, supplying audio to indoor areas that the main speakers do not reach.

**13. Group Out**

These 1/4" phone jacks output the final feed from the Group 1 and 2 faders on the main mixer. These outputs can be used to feed a wide range of devices, such as mixers, signal processors, and even to connect an amplifier and speakers to be used along with the Main Speakers, for a more rounded audio experience.



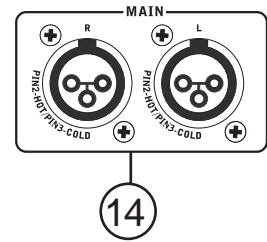
AM442D USB

AM642D USB

AM442D USB / AM642D USB

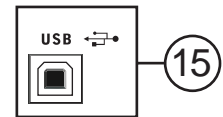
**14. Main Out**

These two XLR ports will output the final stereo line level signal sent from the main mixing bus. The primary purpose of these jacks is to send the main output to external devices, which may include power amplifiers (and in-turn, a pair of speakers), other mixers, as well as a wide range of other possible signal processors (equalizers, crossovers, etcetera).



**15. USB Port**

This USB connector can be used to connect the AM442D USB and AM642D USB to any modern Windows or Mac-based computer. Doing so will allow users to get a stereo signal both to and from the computer.



**16. Phantom Power Switch**

When this switch is in the on position, it activates +48V of phantom power for all microphone inputs, allowing condenser microphones (well, the ones that don't use batteries) to be used on these channels. Activating Phantom Power will be accompanied by an illuminated LED above the left channel Level Meter. Before turning Phantom Power on, turn all level controls to a minimum to avoid the possibility of a ghastly popping sound from the speakers.

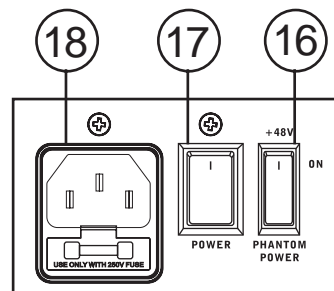
**NB.** Phantom Power should be used in conjunction with balanced microphones. When Phantom Power is engaged, single ended (unbalanced) microphones and instruments should not be used on the Mic inputs. Phantom Power will not cause damage to most dynamic microphones, however if unsure, the microphone's user manual should be consulted.

**17. Power Switch**

This switch is used to turn the mixer on and off.

**18. Power Connector**

This port is for the addition of a power cable, allowing power to be supplied to the mixer. Please use the power cable that is included with this mixer only.



**Controls and Settings**

**Channel Controls**

**19. Line/Mic Gain Control**

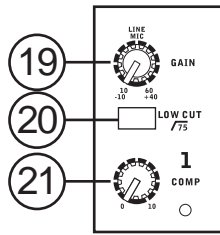
This controls the sensitivity of the input signal of the Line/Microphone input. The gain should be adjusted to a level that allows the maximum use of the audio, while still maintaining the quality of the feed. This can be accomplished by adjusting it to a level that will allow the peak indicator occasionally illuminate.

**20. Low Cutoff Filter (75 Hz)**

This button will activate a high-pass filter that reduces all frequencies below 75 Hz at 18 dB per Octave, helping to remove any unwanted ground noise or stage rumble.

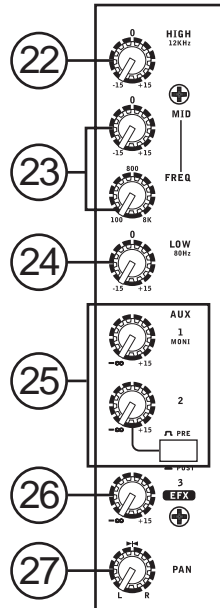
**21. Compressor Control and Indicator**

This controls the onboard compressor function on mono channels. Turning this control up towards the 12 o'clock position will adjust the threshold and ratio of the compressor at varying degrees. Once you reach the 12 o'clock position, the control will then adjust the compression settings along with an onboard expander (or, in other words, a compander). The LED that accompanies this control will light up when the compressor is triggered.



**22. High Frequency Control**

This control is used to give a shelving boost or cut of  $\pm 15$  dB to high frequency (12 kHz) sounds. This will adjust the amount of treble included in the audio of the channel, adding strength and crispness to sounds such as guitars, cymbals, and synthesizers.



**23. Middle Frequency Control**

This control is used to provide a peaking style of boost and cut to the level of middle frequency sounds at a range of  $\pm 15$  dB. These mixers also provide a sweep control, allowing you to select a center frequency between 100 Hz and 8 kHz. Changing middle frequencies of an audio feed can be rather difficult when used in a professional audio mix, as it is usually more desirable to cut middle frequency sounds rather than boost them, soothing overly harsh vocal and instrument sounds in the audio. The stereo channels of the AM442D USB and AM642D USB mixers feature a High-Mid and Low-Mid control instead of the typical controls described above. They provide a peaking style of boost and cut to middle frequencies, where the frequencies are set at 3 kHz and 800 Hz (High-Mid is set at 3 kHz and Low-Mid is set at 800 Hz).

**24. Low Frequency Control**

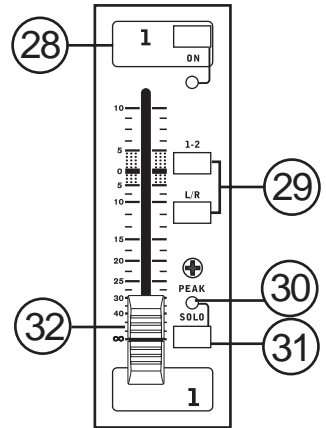
This control is used to give a shelving boost or cut of  $\pm 15$  dB to low frequency (80 Hz) sounds. This will adjust the amount of bass included in the audio of the channel, and bring more warmth and punch to drums and bass guitars.

**25. AUX Control and Pre/Post Button**

This control alters the signal level that is being sent to the AUX 1 mix, the signal of which is suitable for connecting stage monitors, allowing artists to listen to the music that is being playing. Also included is a Pre/Post button, which alternates the feed to the AUX mix between a post- and pre-fader feed. The AM642D USB features a second AUX send mix, and thus offers a second AUX control.

**26. EFX Control**

This control alters the signal level that is sent to the EFX send (AUX 2 or 3) output and the built-in digital effect processor. The EFX send signal can be used in conjunction with external signal processors (this signal of which can be returned to mixer via the AUX return input), or simply as an additional auxiliary output.



**27. Pan / Balance Controls**

This alternates the degree or level of audio that the left and right side of the main mix should receive. On mono channels, the PAN control will adjust the level that the left and right should receive (pan), where as on a stereo channel, adjusting the BAL control will attenuate the left or right audio signals accordingly (balance).

**28. On Button and Indicator**

This turns the channel on, allowing the user to use the feed from the channel's inputs to supply the MAIN L/R, GROUP 1/2, AUX and EFX buses. The corresponding indicator will be illuminated when turned on.

**29. 1-2 and L-R Buttons**

These handy buttons allow you to decide the audio path of the corresponding channel. Pushing the "1-2" button allows the signal to be sent to the Group 1-2 mix, where the "L-R" allows it to be sent to the Main L-R mix.

**30. Peak Indicator**

This LED indicator will illuminate when the channel hits high peaks, 6 dB before overload occurs. It is best to adjust the channel level control so as to allow the PEAK indicator to light up on regular intervals only. This will ensure a greater dynamic range of audio.

**31. Solo Button**

The Solo button is pushed to allow the signal of a corresponding channel to be sent to the Control Room / Phones control (pre or post fader, depending on the properties selected by the pre / post button, located by the Control Room / Phones control), for use with either headphones or studio monitors. This also allows easier setting of the input gain and tracking of audio by sound engineers. The corresponding green LED will illuminate when the Solo button is engaged.

**32. Channel Level Fader**

This control will alter the signal level that is sent from the corresponding channel to the main mixing bus.



**33. +4 / -10 Buttons**

These buttons, located on each stereo input channel, are used to adjust the input sensitivity of the corresponding channel, which will adapt the mixer to external devices which may use different operating levels. If the input source is -10 dBu (consumer audio standard), it is best to engage the switch, allowing the signal to be heard. If the input source is +4 dBV (professional audio standard) the corresponding input channel's button should be disengaged to ensure the integrity of the Mixer's circuitry. If you are unsure of the source's operating level, we suggest leaving the switch disengaged until you test the source's signal. You can then engage it if necessary (if the level of input is obviously too low).

**Digital Effect Engine**

**34. Digital Effect Display**

This 2-digit numeric display shows the program number that is currently applied to your EFX audio signal. When you rotate the Program control, you can scroll through different program numbers; however the display will revert back to the original program if a new program is not selected within a few seconds. For a list of available effects, please observe the Digital Effect Table.

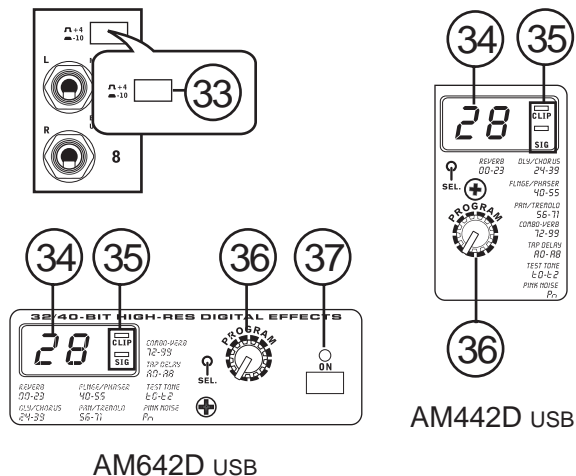
**35. Sig and Clip Indicators**

Located within the Digital Effect Display are Clip and Sig LEDs. The Sig LED will light up when any signal is received by the effect processor, and the Clip LED will light up shortly before excessive signals are dynamically clipped. If the Clip LED lights up too often, it may be advisable to turn down the AUX 3/EFX control on one or all input channels to ensure the signal level is not excessive.

**36. Program Control**

This control is used to scroll through the various effects. Turning the control clockwise will allow users to ascend into higher program numbers, and turning it counter-clockwise will allow users to descend into lower program numbers. Pushing this control will apply the new effect. When a tap-delay effect is selected, pressing this control will allow users to select the tap-delay time.

By pushing the button several times, the effect processor interprets the time between last two pushes and remembers this as the delay time – until the button is pushed again. This is kept even after the power is turned off. When the tap delay effect is selected, a small LED will flash within the digital effect display window at the selected intervals.



**37. Effect On Button (AM642D USB)**

This button is pushed to turn the corresponding effect panel on or off. When effects are bypassed, there will be 2 flashing LEDs in the effect display. This button is not featured on the AM442D USB. Users must use a footswitch to activate and deactivate effects on this model.

**Master Section**

**38. AUX Return Controls**

These controls adjust the signal level of audio fed through to the stereo AUX Return inputs, which will be added to the main mix. The two "To AUX" controls adjust the post-fader level of the signal from the AUX Return control to the AUX 1 mix.

On the AM642D USB, the AUX return control also features a SOLO button, which sends the signal to the Control Room / Phones mixing bus, most commonly for monitoring.

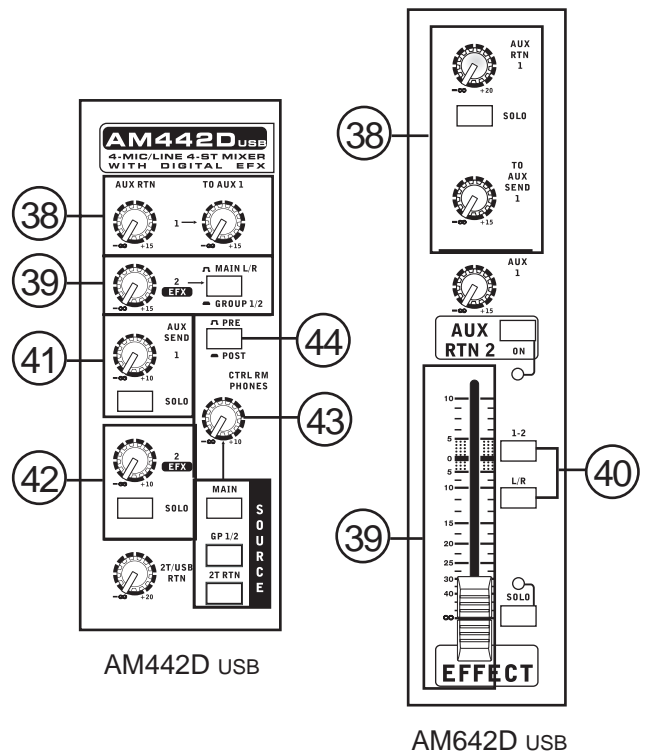
**39. EFX Return Control**

This control adjusts the signal level of audio fed through to stereo AUX Return 2 inputs. If no device is plugged into the AUX Return 2 inputs, this control then acts as the final level control of the built-in Digital Effect Engine. The signal of this control is sent to the appropriate mixing bus, as selected by the Main L-R / Group 1-2 button.

On the AM642D USB, the EFX return control is a little different, as it is, in fact, a 6 mm fader, and takes its feed from AUX Return 2. Along with what was already stated above, the AM642D USB's also features a SOLO button (with indicator), which sends the signal to the Control Room / Phones mixing bus; an L-R button, which allows you to send the EFX Return post-fader signal to the Main Left and Right mixing bus; and a 1-2 button, allowing you to send the EFX Return post-fader signal to the Group 1 and 2 mix.

**40. Main L/R - Group 1/2 Button**

This button changes the destination of the signal sent from the AUX Return 1 through to AUX Return 3 mixing buses between the Main L/R and Group 1/2 mixing buses.



**41. AUX Send Master Controls**

These controls adjust the final level of the AUX mixes (as taken from the AUX level controls on each channel strip), the audio of which is sent to corresponding AUX send outputs. The corresponding SOLO button allows you to send the AUX Send signal to the Control Room / Phones mixing bus. The AM442D USB offers one AUX send, while the AM642D USB offers two (excluding the EFX sends, of course). The AM642D USB's AUX 1 send is a 60 mm fader and also features an on/off button.

**42. EFX Send Master Control**

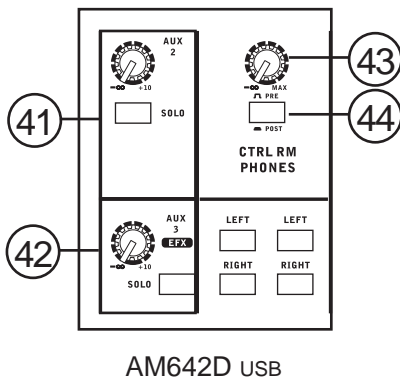
This control adjusts the final level of the EFX mixing bus (as taken from the EFX level controls on each channel strip), the audio of which is sent to the AUX Send 2 (on the AM442D USB) and the AUX Send 3 (on the AM642D USB) outputs, as well as the built-in digital effect processor. The corresponding SOLO button allows you to send the signal to the Control Room / Phones mixing bus.

**43. Control Room / Phones Controls**

This control is used to adjust the audio level of the phones feed, as well as the signal sent to the Control Room output, for use in monitoring, as side fill, or for the addition of other, external devices.

**44. Pre / Post Control**

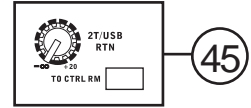
This button alternates the Control Room / Phones source signals between those of post-fader and pre-fader feeds.



AM642D USB

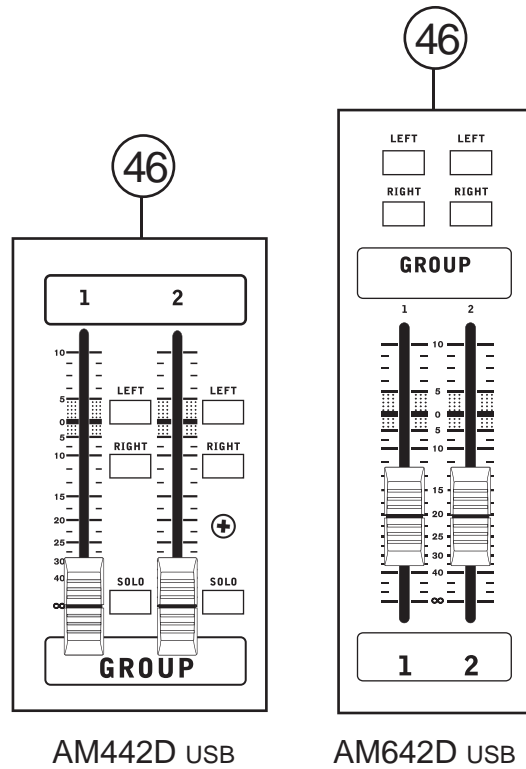
**45. 2T / USB Return Controls**

Turning the 2T Return level control adjusts the signal level of the feed from the 2T return inputs, as well as the USB return signal. These signals will then be fed to the Main stereo mix. The "to Ctrl Rm" button, found on the AM642D USB only, sends the signal to the Control Room/Phones mix.



**46. Group 1/2 Controls**

These two faders are the final level control for the Group 1 and 2 audio feeds, sent to the Group 1 and 2 outputs. These faders can be fed a signal from the various mono and stereo channels, as well as AUX and EFX returns, depending on your selections. When pushed all the way up, these faders provide 10 dB of gain to the signal, and, when set all the way down, effectively mute the signal. The Group 1/2 Controls also feature Left and Right buttons, which allow you to send the Group 1/2 post-fader signals to the Main left and right mixes (as selected). The AM442D USB also features a Solo button on each Group.



AM442D USB

AM642D USB

AM642D USB

AM442D USB / AM642D USB

**47. Main L/R Faders**

These two faders are the final level control for the Main Left and Right audio feeds, sent to the Main L and R outputs. These faders are possibly fed by the various mono and stereo channels, as well as AUX and EFX returns and 2T inputs, depending on the your selections. When pushed all the way up, these faders provide 10 dB of gain to the signal, and, when set all the way down, effectively mute the signal.

**48. +48V Indicator**

This indicator will illuminate when Phantom Power is activated.

**49. Power Indicator**

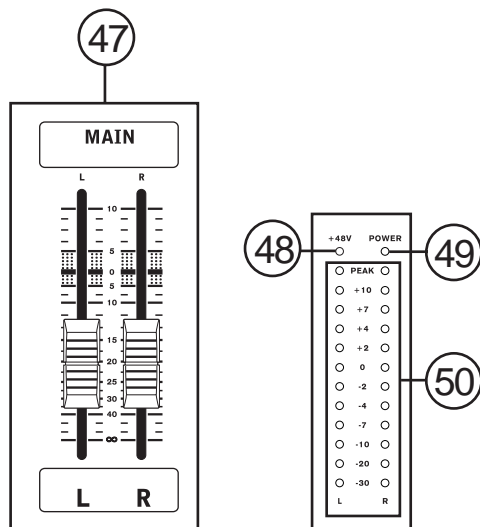
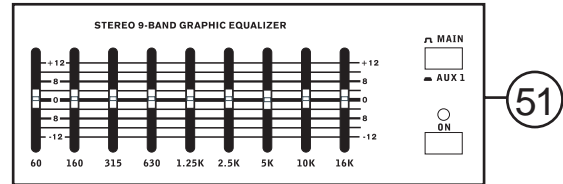
The Power Indicator will light up when the power of the mixer is on; in case you weren't too sure.

**50. Level Meter**

These dual 11- or 12-segment level meters give an accurate indication of when audio levels of the Main L/R output signals reach certain levels. The 0 dB indicator illuminates is approximately equal to an output level of +4 dBu, and the PEAK indicator illuminates about 6 dB before the signal is dynamically clipped. It is suggested for the maximum use of audio to set the various levels controls so that it sits steadily between 0 and 8 dB to make full use of audio, while still maintaining fantastic clarity. When no signal is being fed through the Main L/R mixing bus, the level meter will then display the audio properties of the Control Room / Phones feed. This is especially helpful when setting the levels of each individual channel, as is shown in the Channel Setup section of this manual. The "Solo" button will illuminate when the Level Meter displays the audio properties of the Control Room / Phones signal.

**51. Graphic Equalizer (AM642D USB only)**

This stereo 9 band graphic equalizer allows the user to adjust the frequency response of a signal, with a maximum of  $\pm 12$  dB of signal boost or cut for each of the frequencies. The AUX 1 / MAIN switch alternates the use of the equalizer between the use of the AUX 1 bus and MAIN L/R bus signals. Pushing the on button in activates the equalizer, which is accompanied by an illuminated LED.



**SPECIFICATIONS**

	AM442D USB	AM642D USB
<b>Inputs</b>		
Total Channels	8	10
Balanced Mono Mic / Line Channel	5	6
Balanced Mic / Stereo Line channel	-	2
Balanced Stereo Line Channel	3	2
AUX Return	3 stereo	2 stereo
2T Input	Mini stereo and stereo RCA	Mini stereo and stereo RCA
<b>Outputs</b>		
Main L/R Stereo	2 x 1/4" TRS, Bal. & 2 x XLR	2 x 1/4" TRS, Bal. & 2 x XLR
Group	2	2
Rec Out	Mini stereo and stereo RCA	Mini stereo and stereo RCA
CTRL RM L/R	2 x 1/4" TS	2 x 1/4" TS
Phones	1	1
Channel Strips	8	10
EFX Send	2	3
Pan/Balance Control	Yes	Yes
Volume Controls	60mm fader	60mm fader
Inserts	5	6
<b>Master Section</b>		
Phones Level Control	Yes	Yes
Main L/R Level Control	60 mm fader	60 mm fader
Level Meter	13-segment	13-segment
Phantom Power Supply	+48V DC	+48V DC
<b>Frequency Response</b> (Mic input to any output)		
20Hz ~ 60KHz	+0/-1 dB	+0/-1 dB
20Hz ~ 100KHz	+0/-3 dB	+0/-3 dB
<b>Crosstalk</b> (1KHz @ 0dBu, 20Hz to 20KHz bandwidth, channel in to main L/R outputs)		
Channel fader down, other channels at unity	<-90 dB	<-90 dB
<b>Noise</b> (20Hz~20KHz; measured at main output, Channels 1-4 unit gain; EQ flat; all channels on main mix; channels 1/3 as far left as possible, channels 2/4 as far right as possible. Reference=+6dBu)		
Master @ unity, channel fader down	-86.5 dBu	-86.5 dBu
Master @ unity, channel fader @ unity	-84 dBu	-84 dBu
S/N ratio, ref to +4	>90 dB	>90 dB
<b>Microphone Preamp E.I.N.</b> (150 ohms terminated, max gain)	<-129.5 dBm	<-129.5 dBm
<b>THD</b> (Any output, 1KHz @ +14dBu, 20Hz to 20KHz, channel inputs)	<0.005%	<0.005%
<b>CMRR</b> (1 KHz @ -60dBu, Gain at maximum)	80dB	80dB

<b>Maximum Level</b>		
Mic Preamp Input	+10dBu	+10dBu
All Other Input	+22dBu	+22dBu
Balanced Output	+28dBu	+28dBu
<b>Impedance</b>		
Mic Preamp Input	2 K ohms	2 K ohms
All Other Input (except insert)	10 K ohms	10 K ohms
RCA 2T Output	1.1 K ohms	1.1 K ohms
<b>Equalization</b>		
Low EQ	80Hz	80Hz
Mid EQ	100-8k Hz, sweepable	100-8k Hz, sweepable
L-Mid EQ	800 Hz	800 Hz
H-Mid EQ	3 kHz	3 kHz
Hi EQ	12 kHz	12 kHz
Low Cut Filter	75 Hz (-18 dB/oct)	75 Hz (-18 dB/oct)
USB Audio	Stereo In/Out	Stereo In/Out
Connector Type	USB Type B	USB Type B
Bitrate	16-bit	16-bit
Sampling Rate	48 kHz	48 kHz
Digital Effect Processor	100 effects with tap delay control and test tones	100 effects with tap delay control and test tones
Footswitch	EFX on/off	EFX on/off
Power Requirements	100-240 VAC, 50/60 Hz	100-240 VAC, 50/60 Hz
<b>Weight</b>		
	4.2 kg (9.25 lbs)	4.8 kg (10.6 lbs)
<b>Dimensions (WxHxD)</b>		
	11.8" x 3.5" x 13.4" (300 x 89 x 340 mm)	16" x 3.5" x 14" (407 x 89 x 357 mm)

## **SERVICE AND REPAIR**

For replacement parts, service and repairs please contact the Phonic distributor in your country. Phonic does not release service manuals to consumers, and advice users to not attempt any self repairs, as doing so voids all warranties. You can locate a dealer near you at <http://www.phonic.com/where/>.

## **WARRANTY INFORMATION**

Phonic stands behind every product we make with a no-hassles warranty. Warranty coverage may be extended, depending on your region. Phonic Corporation warrants this product for a minimum of one year from the original date of purchase against defects in material and workmanship under use as instructed by the user's manual. Phonic, at its option, shall repair or replace the defective unit covered by this warranty. Please retain the dated sales receipt as evidence of the date of purchase. You will need it for any warranty service. No returns or repairs will be accepted without a proper RMA number (return merchandise authorization). In order to keep this warranty in effect, the product must have been handled and used as prescribed in the instructions accompanying this warranty. Any tampering of the product or attempts of self repair voids all warranty. This warranty does not cover any damage due to accident, misuse, abuse, or negligence. This warranty is valid only if the product was purchased new from an authorized Phonic dealer/distributor. For complete warranty policy information, please visit <http://www.phonic.com/warranty/>.

## **CUSTOMER SERVICE AND TECHNICAL SUPPORT**

We encourage you to visit our online help at <http://www.phonic.com/support/>. There you can find answers to frequently asked questions, tech tips, driver downloads, returns instruction and other helpful information. We make every effort to answer your questions within one business day.

**support@phonic.com**  
**<http://www.phonic.com>**

# **PHONIC**



DIGITAL EFFECT TABLE TABLA DE EFECTO DIGITAL

NO	PARAMETER SETTING	PROGRAM NAME	
	ROOM	REV-TIME	EARLY LEVEL
00	COMPACT ROOM 1	0.05	100
01	COMPACT ROOM 2	0.4	0
02	SMALL ROOM 1	0.45	100
03	SMALL ROOM 2	0.6	90
04	MID ROOM 1	0.9	100
05	MID ROOM 2	1	50
06	BIG ROOM 1	1.2	100
07	TUNNEL	3.85	100
HALL	REV-TIME	EARLY LEVEL	
08	JAZZ CLUB	0.9	90
09	SMALL HALL 1	1.5	72
10	SMALL HALL 2	1.75	85
11	SPRING HALL	1.9	98
12	MID HALL 1	2.3	100
13	MID HALL 2	2.45	80
14	RECITAL HALL	2.7	96
15	BIG HALL 2	3.3	88
PLATE	REV-TIME	HPF	
16	SMALL PLATE	0.9	0
17	TAIL PLATE	1.2	20
18	MID PLATE 1	1.3	0
19	MID PLATE 2	2.2	0
20	REVERSE PLATE	2.25	42
21	LONG PLATE 1	2.6	80
22	LONG PLATE 2	3	625
23	LONG PLATE 3	4.2	0
DELAY (STEREO)	DELAY AVERG.	R-BEVEL	
24	SHORT DELAY 1	0.07	60
25	SHORT DELAY 2	0.14	60
26	PING PONG DELAY	0.11	55
27	MID DELAY 1	0.15	55
28	MID DELAY 2	0.3	60
29	SHORT DELAY 1(MONO)	0.06	100
30	MID DELAY 1(MONO)	0.13	100
31	LONG DELAY 1(MONO)	0.18	100
CHORUS	LFO	DEPTH	
32	SOFT CHORUS	0.2	56
33	SOFT CHORUS 2	0.5	70
34	SOFT CHORUS 3	0.8	75
35	WARM CHORUS	1.8	85
36	WARM CHORUS 1	3.2	80
37	WARM CHORUS 2	5.2	45
38	WARM CHORUS 3	7.8	52
39	HEAVY CHORUS	9.6	48
FLANGER	LFO	DEPTH	
40	CLASSIC FLANGER 1	0.1	44
41	CLASSIC FLANGER 2	0.3	63
42	GENTLE FLANGER	0.6	45
43	WARM FLANGER	1.6	60
44	MODERN FLANGER 1	2	85
45	MODERN FLANGER 2	2.8	80
46	DEEP FALANGER 1	4.6	75
47	DEEP FALANGER 2	10	60
PHASER	LFO	DEPTH	
48	CLASSIC PHASER 1	0.1	3.6
49	CLASSIC PHASER 2	0.4	2.6
50	COOL PHASER	1.4	0.7
51	WARM PHASER	3.2	0.3
52	HEAVY PHASER 1	5	1.2
53	HEAVY PHASER 2	6	2.8
54	WILD PHASER 1	7.4	0.8
55	WILD PHASER 2	9.6	4.8

NO	PARAMETER SETTING	PROGRAM NAME	
	PAN	SPEED	TYPE
56	SLOW PAN	0.1	R-->L
57	SLOW PAN 1	0.1	R<-->L
58	SLOW PAN 2	0.4	R-->L
59	MID SHIFT	0.8	R<-->L
60	MID SHIFT 1	1.2	L-->R
61	MID SHIFT 2	1.8	L-->R
62	MID SHIFT 3	1.8	R-->L
63	FAST MOVE	3.4	R<-->L
TREMOLO	SPEED	MODE-TYPE	
64	LAZY TREMOLO	0.8	TRG
65	VINTAGE TREMOLO	1.5	TRG
66	WARM TREMOLO	2.8	TRG
67	WARM TREMOLO 1	4.6	TRG
68	HOT TREMOLO	6.8	TRG
69	HOT TREMOLO 1	9.6	TRG
70	CRAZY TREMOLO 1	15	TRG
71	CRAZY TREMOLO 2	20	TRG
DELAY+REV	REV	DELAY	
72	DELAY+REV 1	1	1
73	DELAY+REV 2	2	2
74	DELAY+REV 3	3	3
75	DELAY+REV 4	4	4
76	DELAY+REV 5	5	5
77	DELAY+REV 6	6	6
78	DELAY+REV 7	7	7
79	DELAY+REV 8	8	8
CHORUS+REV	REV	CHORUS	
80	CHORUS+REV 1	1	1
81	CHORUS+REV 2	2	2
82	CHORUS+REV 3	3	3
83	CHORUS+REV 4	4	4
84	CHORUS+REV 5	5	5
85	CHORUS+REV 6	6	6
86	CHORUS+REV 7	7	7
87	CHORUS+REV 8	8	8
FLANGER+REV	REV	FLANGER	
88	FLANGER+REV 1	1	1
89	FLANGER+REV 2	2	2
90	FLANGER+REV 3	3	3
91	FLANGER+REV 4	4	4
92	FLANGER+REV 5	5	5
93	FLANGER+REV 6	6	6
94	FLANGER+REV 7	7	7
95	FLANGER+REV 8	8	8
GATED-REV	RELEASE	REV	
96	GATED-REV-1 9	0.02	TAIL PLATE
97	GATED-REV-2 10	0.2	TAIL PLATE
98	GATED-REV-1 9	0.02	REVERSE PLATE
99	GATED-REV-2 10	0.5	REVERSE PLATE
TAP DELAY	FB LEVEL	RANGE	
A0	TAP DELAY	0	100mS - 2.7S
A1	TAP DELAY	10	100mS - 2.7S
A2	TAP DELAY	20	100mS - 2.7S
A3	TAP DELAY	30	100mS - 2.7S
A4	TAP DELAY	40	100mS - 2.7S
A5	TAP DELAY	50	100mS - 2.7S
A6	TAP DELAY	60	100mS - 2.7S
A7	TAP DELAY	70	100mS - 2.7S
A8	TAP DELAY	80	100mS - 2.7S
TEST TONE	FREQUENCY	SHAPE	
T0	LOW FREQUENCY	100Hz	SINEWAVE
T1	MID FREQUENCY	1kHz	SINEWAVE
T2	HIGH FREQUENCY	10kHz	SINEWAVE
PN	PINK NOISE	20Hz~20kHz	

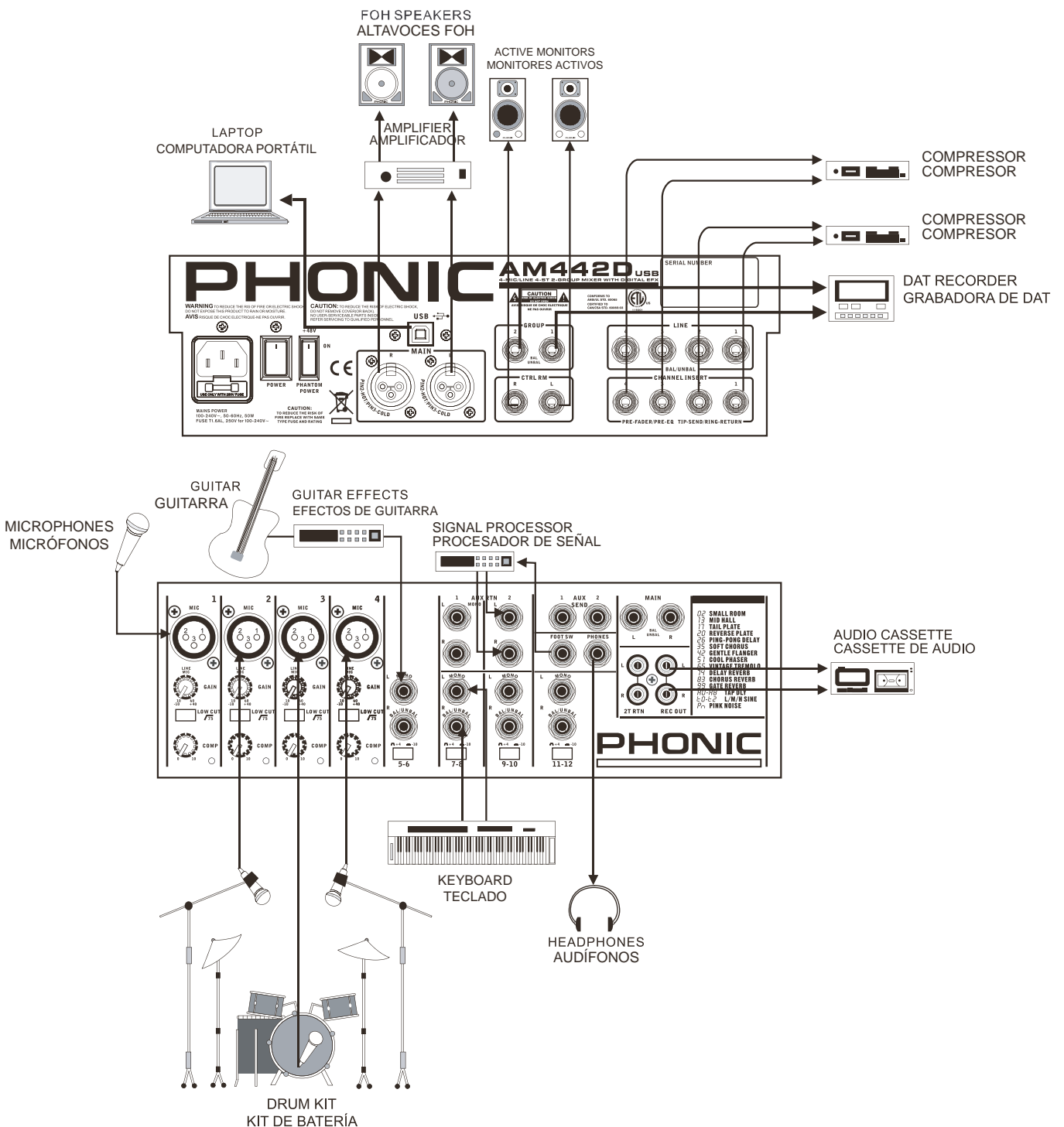
APPLICATION

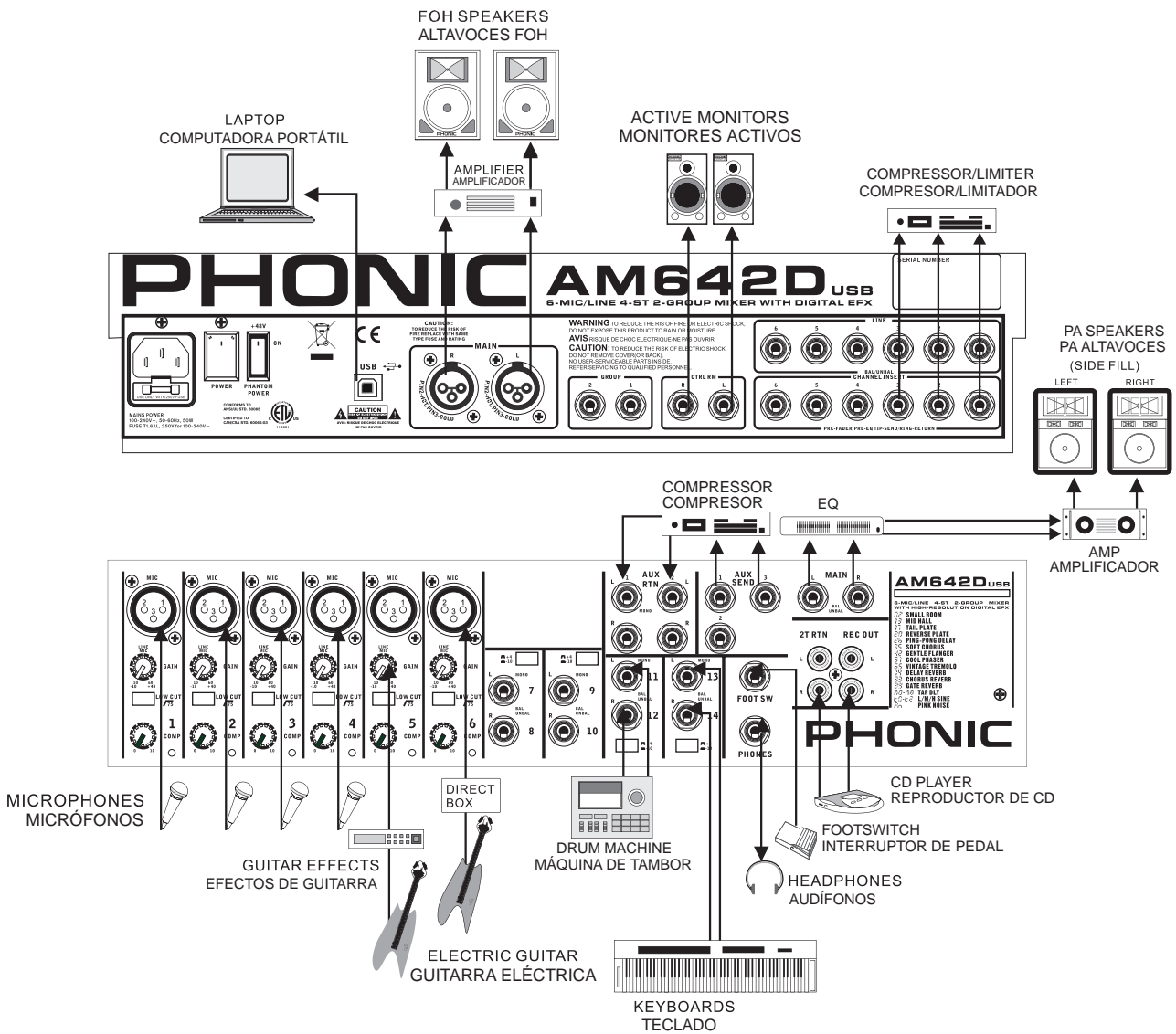
On the following few pages you will find a wide range of possible uses for the AM442D USB and AM642D USB mixers. Of course these are far from the only applications that can be attributed to the mixers' use; however they should give you an idea of the possible uses that the various inputs and outputs have. The right combination of microphones, guitars, drum machines, keyboards, as well as computers, signal processors, amplifiers and speakers, can make for the perfect live performance, home-studio recording session or even a basic public address, to name a few.

APLICACIONES

En las páginas siguientes usted encontrará una gama variada que emplea de posibles usos de las mezcladoras AM442D USB y AM642D USB. Claro que esto solamente son una parte de las aplicaciones que ofrece las mezcladoras. Sin embargo, nos ofrece una idea de los usos posibles las entradas y salidas tienen. La combinación correcta de micrófonos, guitarras, máquinas de tambor, teclados y tanto como computadoras, procesadores de señal, amplificadores y altavoces que pueden ejecutar presentaciones en vivo a la perfección, sesión de grabado en casa o hasta megáfono de base.

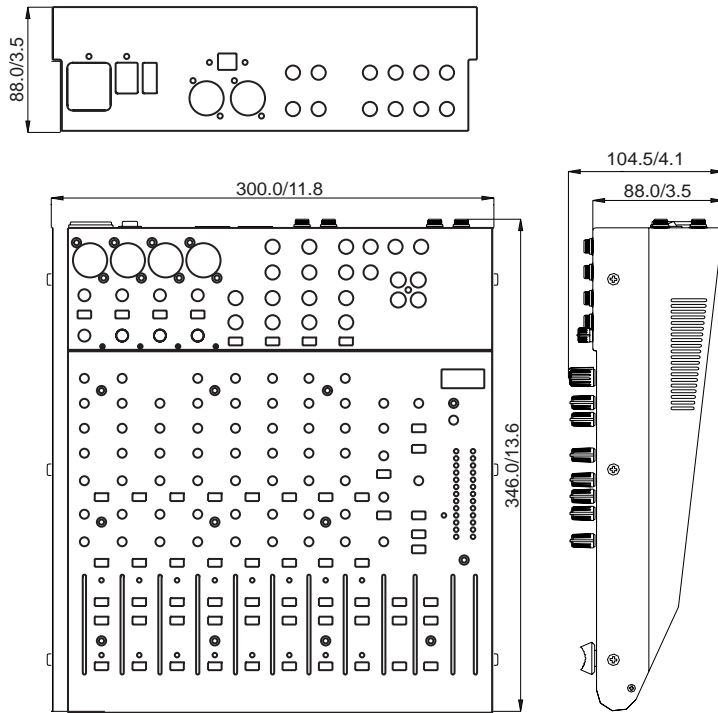
Appendix  
Apéndice



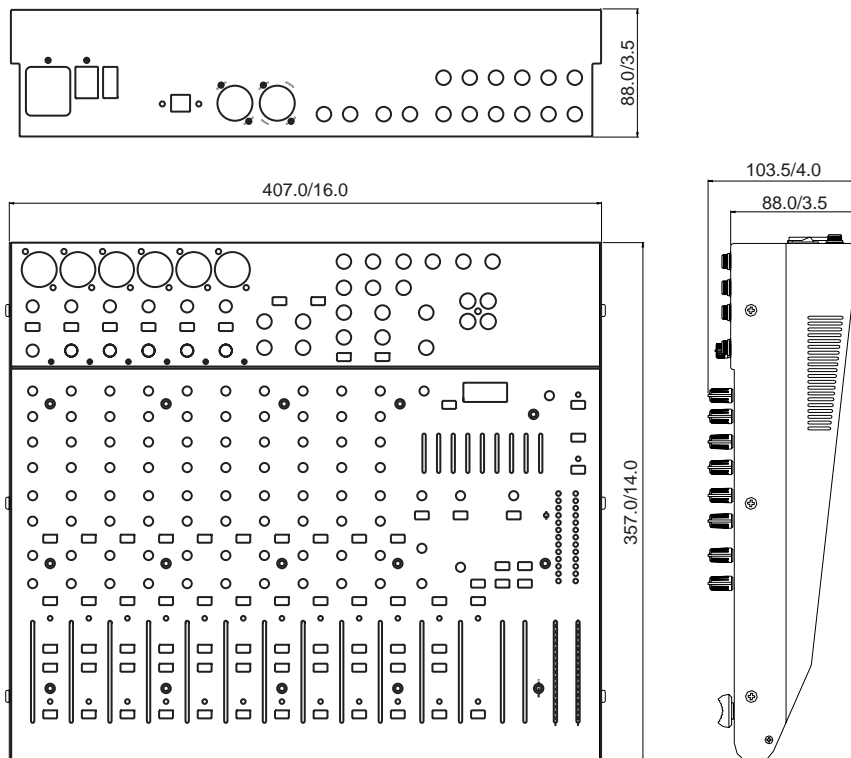


DIMENSIONS DIMENSIONES

AM442D USB



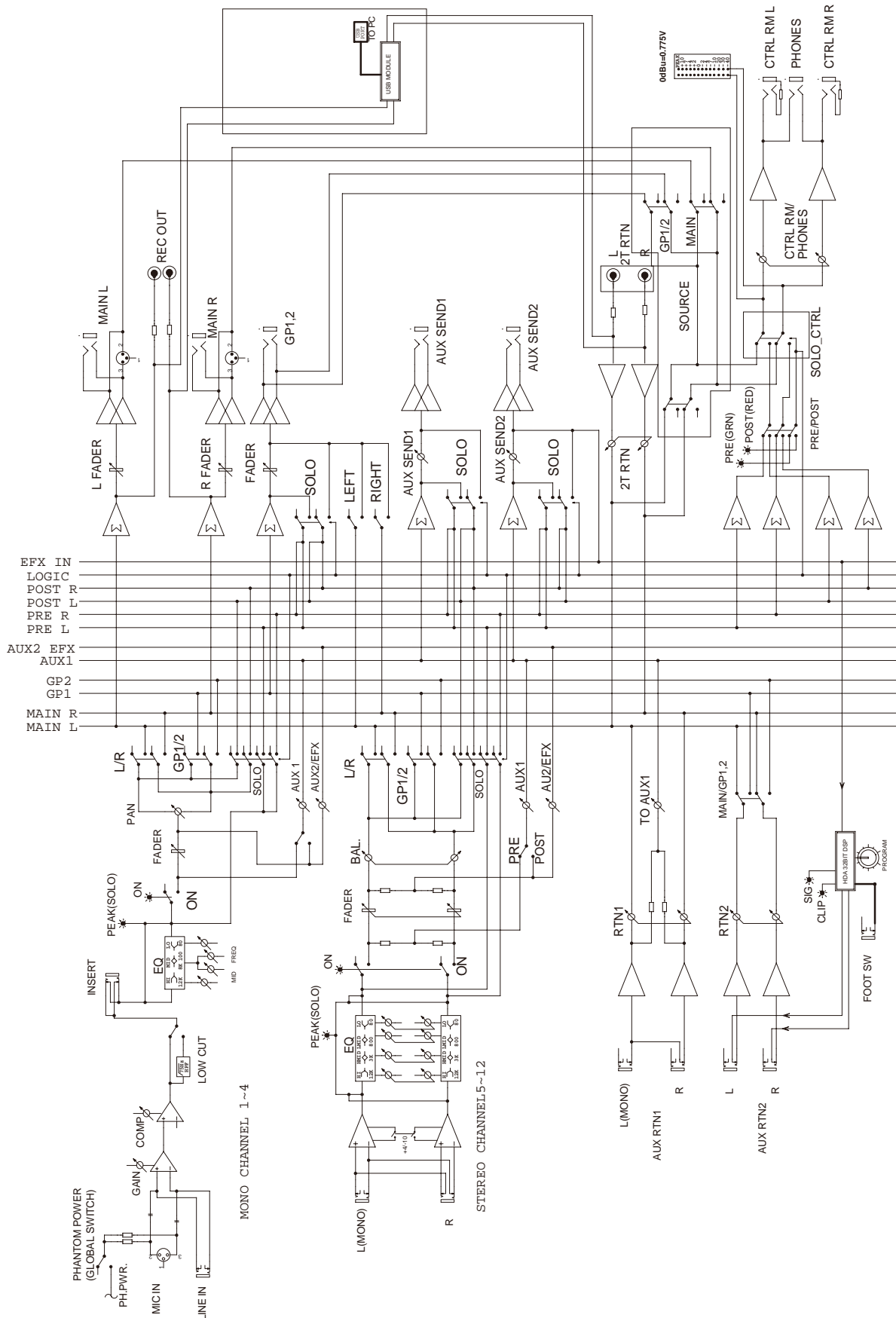
AM642D USB



\* All measurements are shown in mm/inches.  
 \* Todas las medidas están mostradas en mm/pulgadas.

BLOCK DIAGRAM DIAGRAMA DE BLOQUE

AM442D USB



AM642D USB

