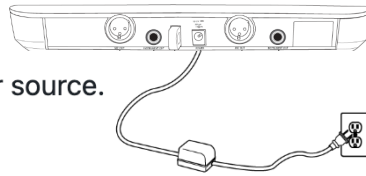


# Quick Start Guide

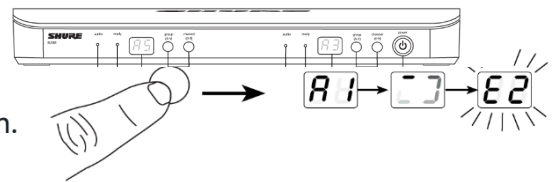
1. Connect receiver to power source.



2. Connect receiver to mixer or amplifier. Hold power button to turn on.

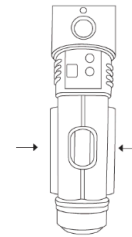


3. Press group button on receiver to perform a group scan.

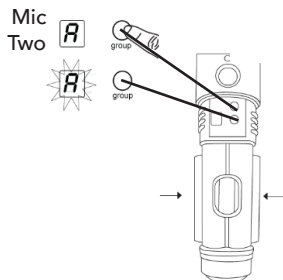
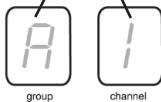


## Handheld Wireless Microphone

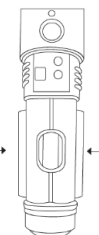
1. Install batteries and turn on the microphone

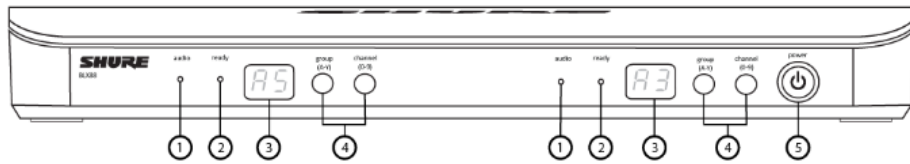


2. On the microphone set the group and channel to match the receiver. The audio LED on the receiver should illuminate.



Twist off ->





① audio LED

Indicates strength of incoming audio signal: green for normal and red for overload.

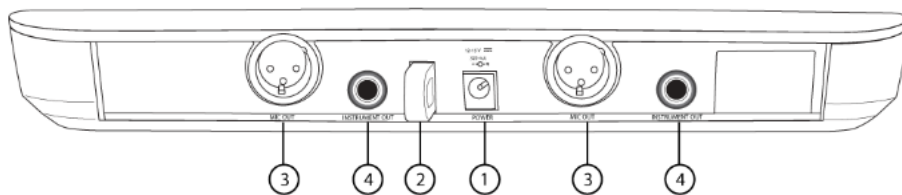
② ready LED

Green light indicates system is ready for use and receiving transmitter signal.

③ LED Display

Displays group and channel setting.

④ group and channel Buttons

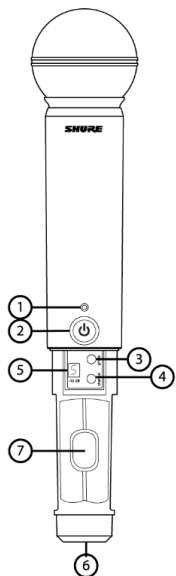


① DC Power Jack

② Adapter Cord Tie-Off

③ XLR microphone output jack (MIC out)

④ 6.35 mm (1/4") instrument level output jack (instrument out)



## BLX2

① LED Indicator

Displays power and battery status (see Transmitter LED Indicators).

② power Button

Push to turn power on or off.

③ group Button

Changes group setting.

④ channel Button

Changes channel and gain setting.

⑤ LED Display

Displays group and channel setting.

⑥ Identification Cap

⑦ Battery Compartment

Microphone LED Indicator	Status
Green	Ready
Rapidly Flashing Red	Controls locked
Solid Red	Battery power low (less than 1 hour remaining*)
Flashing Red and shuts off	Batteries dead (change batteries to power on transmitter)

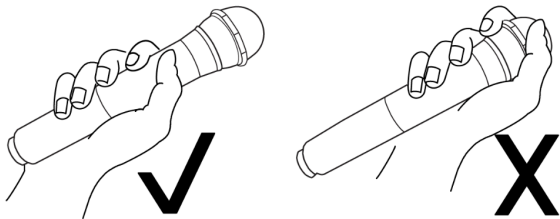
## Tips to Improve Wireless System Performance

If you encounter interference or dropouts, try the following suggestions:

- Choose a different receiver channel
- Reposition the receiver so there is nothing obstructing a line of sight to the transmitter (including the audience)
- Avoid placing transmitter and receiver where metal or other dense materials may be present
- Move the receiver to the top of the equipment rack
- Remove nearby sources of wireless interference, such as cell phones, two-way radios, computers, media players, Wi-Fi devices, and digital signal processors
- Charge or replace the transmitter battery
- Keep transmitters more than two meters (6 feet) apart
- Keep the transmitter and receiver more than 5 meters (16 feet) apart
- During sound check, mark trouble spots and ask presenters or performers to avoid those areas

## Getting Good Sound

### Correct Microphone Placement



- Hold the microphone within 12 inches from the sound source. For a warmer sound with increased bass presence, move the microphone closer.
- Do not cover grille with hand.

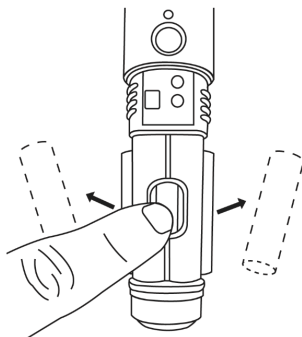
## Batteries

Expected life for AA batteries is up to 14 hours (total battery life varies depending upon battery type and manufacturer).

When the LED indicator turns red, it signifies "low battery" with approximately 60 minutes of remaining battery life.

For alkaline batteries only. For rechargeable batteries, solid red means the batteries are dead.

To remove batteries from the handheld transmitter, push them out through the opening in the microphone battery compartment.



## Troubleshooting Wireless Microphone System

Issue	Indicator Status	Solution
No sound or faint sound	Receiver ready LED on	<ul style="list-style-type: none"> <li>• Verify all sound system connections or adjust gain as needed (see Adjusting Gain)</li> <li>• Verify that the receiver is connected to mixer/amplifier</li> </ul>
	Receiver ready LED off	<ul style="list-style-type: none"> <li>• Turn on transmitter</li> <li>• Make sure the batteries are installed correctly</li> <li>• Perform transmitter setup (see Single System Setup)</li> <li>• Insert fresh batteries</li> </ul>
	Receiver LED screen off	<ul style="list-style-type: none"> <li>• Make sure DC adapter is securely plugged into electrical outlet.</li> <li>• Make sure receiver is powered on.</li> </ul>
	Transmitter indicator LED flashing red	Replace transmitter batteries (see Changing Batteries).
Audio artifacts or dropouts	Ready LED flickering or off	<ul style="list-style-type: none"> <li>• Change receiver and transmitter to a different group and/or channel.</li> <li>• Identify nearby sources of RF interference, and shutdown or remove source.</li> <li>• Replace transmitter batteries.</li> <li>• Ensure that receiver and transmitter are positioned within system parameters</li> <li>• System must be set up within recommended range and receiver kept away from metallic surfaces.</li> <li>• Transmitter must be used in line of sight from receiver for optimal sound</li> </ul>
Distortion	Audio LED on receiver indicates overload (red)	Reduce transmitter gain (see Adjusting Gain).
Sound level variations when switching to different sources	N/A	Adjust transmitter gain as necessary (see Adjusting Gain).
Receiver/transmitter won't turn off	LED/display flashing rapidly	See Locking and Unlocking Controls.





1. Make all initial connections with the power switches OFF on all equipment. Make sure the master volume, level and gain controls are all the way down.
2. Turn the mixer (or other signal source) on.
3. Turn the loudspeakers on.
4. Make sure the loudspeaker's channel gain knob(s) are set to mic or line.
5. Be sure that the volume of the input is the same as it would be during normal use.
6. Start the signal source and raise the mixer's main L/R fader up to a comfortably loud listening level.

## Important Safety Instructions

Do not use this apparatus near water.  
Clean only with a dry cloth.

Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.

Minimum distance (5 cm) around the apparatus for sufficient ventilation. The ventilation should not be impeded by covering the ventilation openings with items, such as newspapers, table-cloths, curtains, etc.

Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

No naked flame sources, such as lighted candles, should be placed on the apparatus.

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 are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

Only use attachments/accessories specified by the manufacturer.

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.

Unplug this apparatus during lightning storms or when unused for long periods of time.

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.

This apparatus shall not be exposed to dripping or splashing, and no object filled with liquids, such as vases or beer glasses, shall be placed on the apparatus.

Do not overload wall outlets and extension cords as this can result in a risk of fire or electric shock.



As a general guide, the mixer (or other signal source) should be turned on first, subwoofers next, and Thump loudspeakers last. As such, the Thump loudspeakers should also be turned off first, followed by the subwoofers, then the mixer. This will reduce the possibility of any turn-on or turn-off thumps and other noises generated by any upstream equipment from coming out of the speakers.



# Thump Series Loudspeakers: Rear Panel Features

## 1. Power Connection

This is a standard 3-prong IEC power connector. Connect the detachable power cord (included in the packaging with the loudspeaker) to the power receptacle, and plug the other end of the power cord into an AC outlet.



**VERY IMPORTANT** Make sure that the AC power is matched to the AC power indicated on the rear panel (near the IEC receptacle).



**VERY IMPORTANT** Disconnecting the plug's ground pin is dangerous. Don't do it!

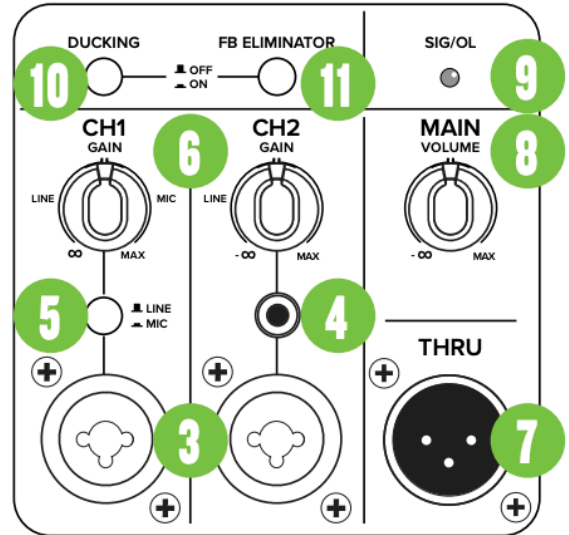
## 2. Power Switch

Press the right side of this rocker switch inwards to turn on the loudspeaker. Press the left side of this rocker switch inwards to turn off the loudspeaker.



**VERY IMPORTANT** As a general guide, the mixer (or other signal source) should be turned on first, subwoofers next, and loudspeakers last.

As such, the loudspeakers should also be turned off first, followed by the subwoofers, then the mixer. This will reduce the possibility of any turn-on or turn-off thumps and other noises generated by any upstream equipment from coming out of the speakers.

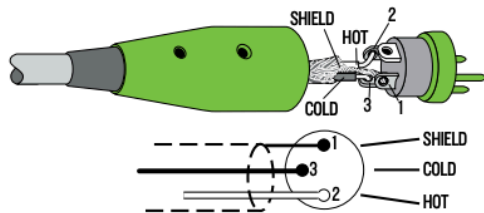


## 3. XLR and 1/4" Combo Input Jacks

Input channels 1 and 2 may accept a balanced mic signal using an XLR connector. They are wired as follows, according to standards specified by the AES (Audio Engineering Society).

### XLR Balanced Wiring:

- Pin 1 = Shield (ground)
- Pin 2 = Positive (+ or hot)
- Pin 3 = Negative (- or cold)



In addition to accepting a balanced mic signal using an XLR connector, these input channels may also accept 1/4" line-level signals driven by balanced or unbalanced sources.

## Thump Series Loudspeakers: Rear Panel Features continued...

### 4. 1/8" Input Jack [Ch. 2]

This input channel may accept an 1/8" line-level signal from a phone, tablet, MP3 player, or other signal source.



**NEVER** connect the output of an amplifier directly to a Thump input jack. This could damage the input circuitry.



The 1/8" line-level connection may be used simultaneously with channel 2's combo jack – XLR or 1/4". In other words, if there is a physical connection to the 1/8" line input and another physical connection to the combo jack, none of those inputs will be interrupted. An easy way to look at it is... there are extra inputs! The 1/8" line-level connection and XLR (or 1/4") connection sum together and do not override each other.

### 5. Mic / Line Switch [Ch. 1]

Because an XLR connector may be connected to a mic or an instrument, this switch adjusts the channel's input sensitivity to optimize channel 1 for mic or line-level signals. If a mic is connected, this switch should be engaged and the gain knob – more below – set to mic. If an instrument is connected to channel 1 (via XLR), this switch should be disengaged and the gain knob set to line.

### 6. Gain Knobs [Ch. 1 and 2]

If you haven't already, please read the "Quick Start" section on page 4. Setting the gain correctly will ensure that the preamplifier's gain is not too high, where distortion could occur, and not too low, where the quieter, exquisitely-delicate passages might be lost in background noise.

The gain knobs allow signals from the outside world to be adjusted to run through each channel at optimal internal operating levels.

If connecting mixer outputs to Thump inputs, set the gain knobs to 9:00 ["LINE"] for optimal sound and performance.



Keep in mind that these "MIC" and "LINE" markings are for reference only and may need to be raised or lower.

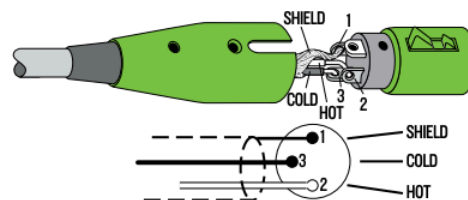
### 7. Thru Jack

This is a male XLR-type connector that produces the mix from the input jacks. Use it to daisy-chain several Thump loudspeakers together off the same signal source(s).

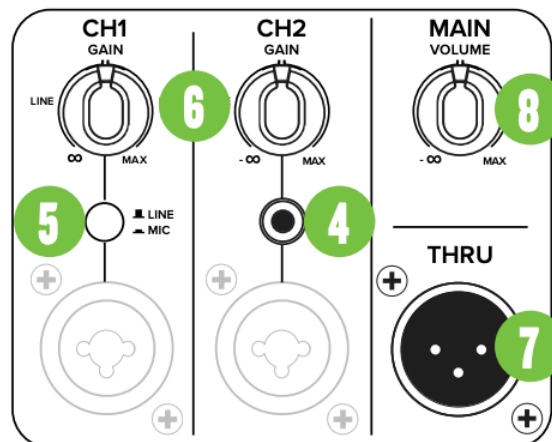
They are wired as follows, according to standards specified by the AES (Audio Engineering Society):

#### Balanced XLR Output Connector

- Pin 1 – Shield (ground)
- Pin 2 – Positive (+ or hot)
- Pin 3 – Negative (- or cold)



See page 8 to learn more about daisy-chaining Thump loudspeakers.



### 8. Main Volume Knob

The volume knob adjusts the overall signal level at the input to the built-in power amplifiers. It ranges from Off ( $-\infty$ ) to MAX (maximum gain).

- Thump loudspeakers are designed to operate with a +10 dBu signal when all knobs are at the center position.

- Thump loudspeakers may accept up to a +20 dBu signal by turning down the channel gain in line mode.

- Turning the main knob past center position will provide enough gain to connect a microphone directly. Most microphones will want the knob somewhere around the 9:00 position. For safety, if you're plugging in a mic, start with the volume off and gradually rotate it clockwise until you achieve the desired volume... and be on the lookout for the dreaded shriek of the feedback monster.



## Thump Series Loudspeakers: Rear Panel Features continued...

### 9. Sig/OL LED

This dual-colored LED will illuminate green when the input signal is present, indicating signal.

Thump loudspeakers have a built-in limiter that helps to prevent the amplifier outputs from clipping or overdriving the transducers. The LED illuminates red when the limiter is activated. It's okay for it to blink red occasionally, but if it blinks frequently or lights continuously, turn down the gain knob until it only blinks occasionally.



Excessive limiting may lead to overheating, which in turn trips the thermal protect circuitry and interrupts the performance. See 'Thermal Protection' on page 14 for more information.

### 10. Music Ducking

Have you been to an event where music was playing, then when someone spoke into the mic, that the music volume decreased greatly (but was still there)? That's called "music ducking"!

When the music ducking switch is engaged, the channel 2 level will decrease when a mic signal is present on channel 1. As if by magic, once the speaking is completed, the music will return back to its previous level. True wizards, those engineers... and none of them have long grey beards, robes and pointy hats.



The audio nerds out there might like to know that the channel 2 level decreases by 10 dBu when a mic signal is present in channel 1 (and when auto-ducking is engaged, of course).

### 11. Feedback Eliminator

The multi-band feedback eliminator hunts down offending feedback frequencies and applies up to six notch filters automatically to destroy feedback and maximize gain prior to feedback. This is a great tool for when an engineer is not present.

- **Off [Default]** – The feedback eliminator is not engaged. If filters have been applied, this setting will retain its current filter settings if there are any, but they will not be engaged until it is turned back on.

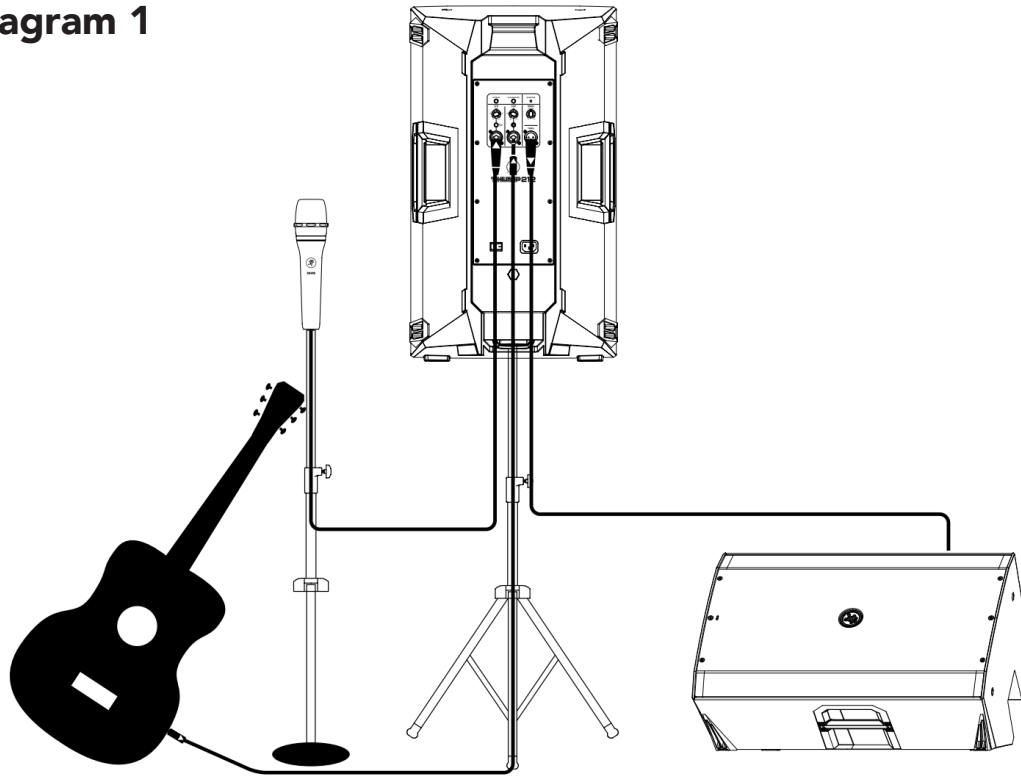
- **On** – When the automatic feedback eliminator is turned on, scanning occurs continuously. The six filters will engage sequentially when feedback is present until all are used and then it will be locked. If feedback is identified on an existing filter, the notch will deepen in three steps to further destroy the offending feedback frequency. Pretty cool, huh?



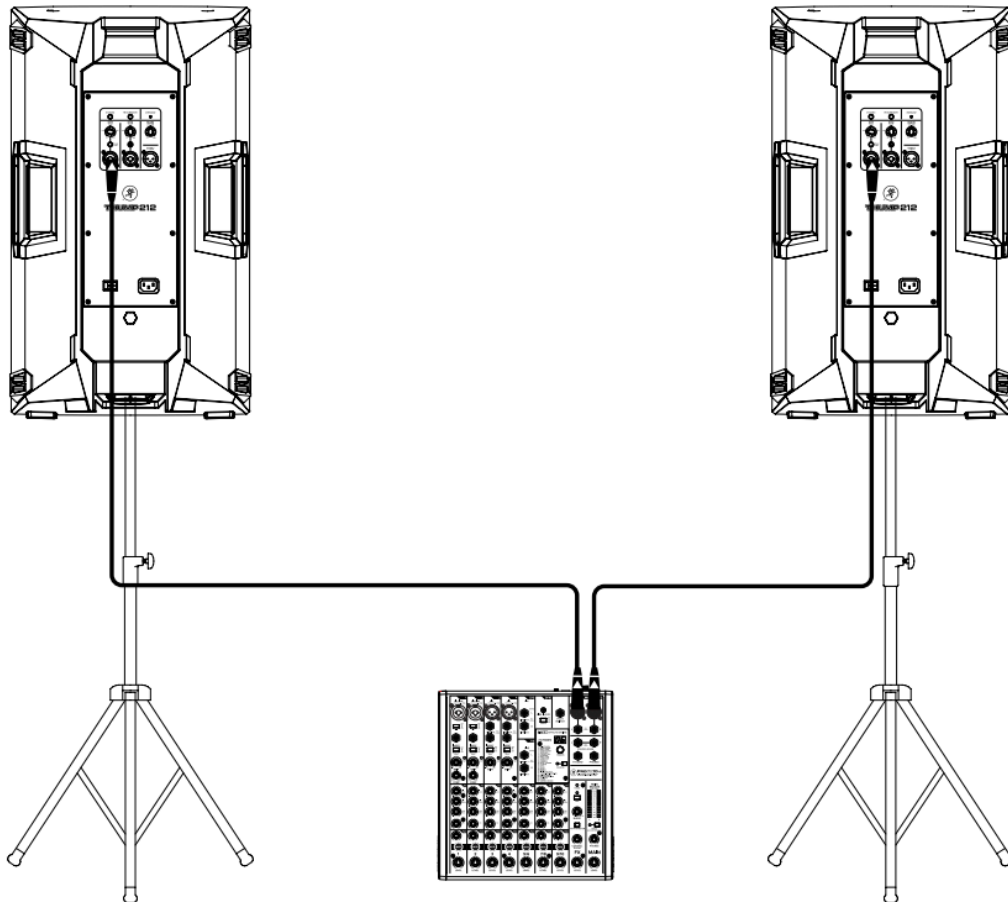
The feedback eliminator **ONLY** affects channel 1 (mic and line mode).



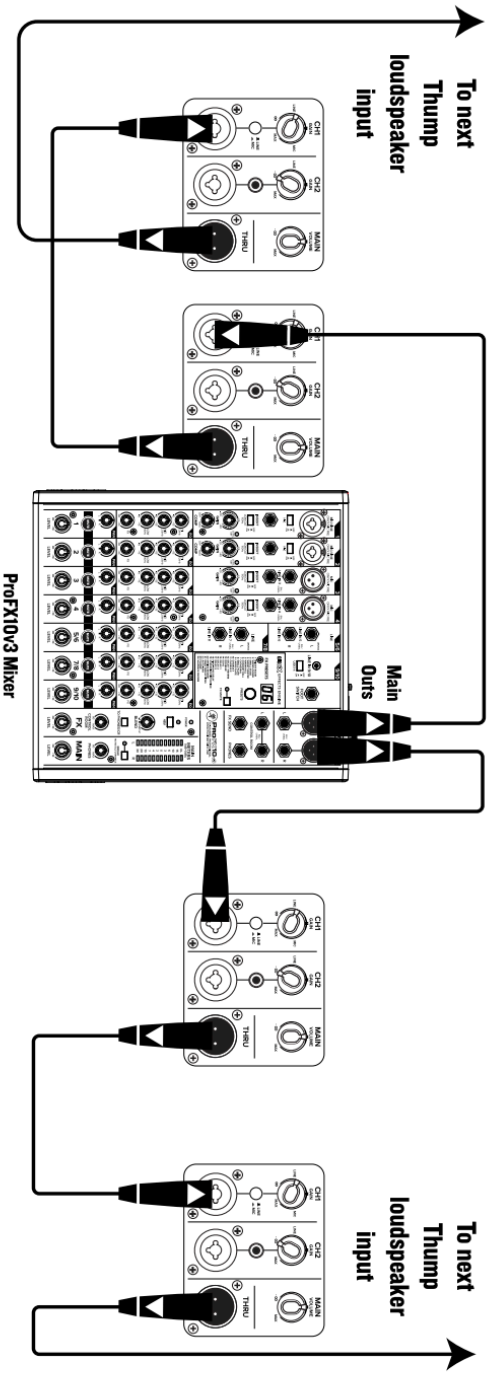
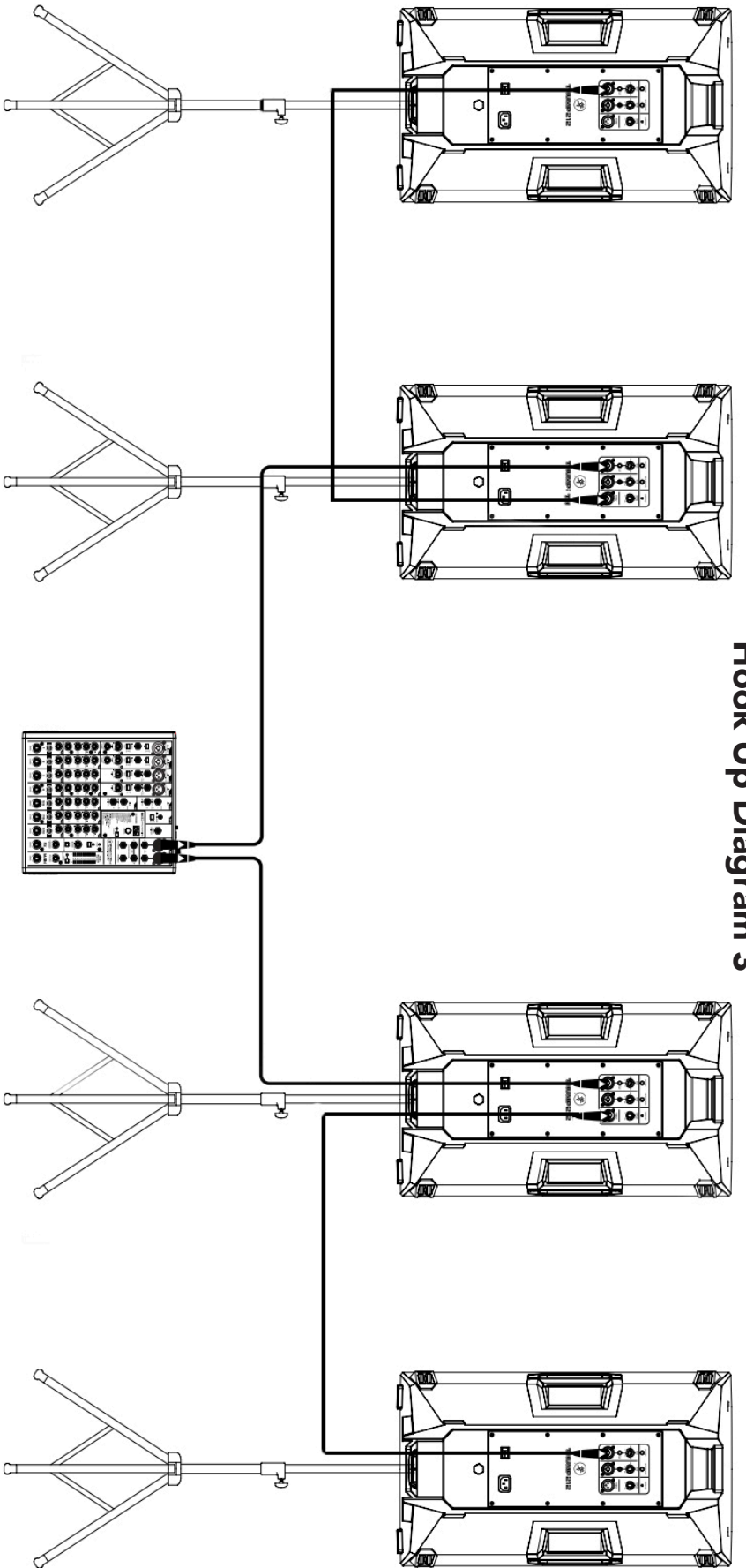
## Hook Up Diagram 1

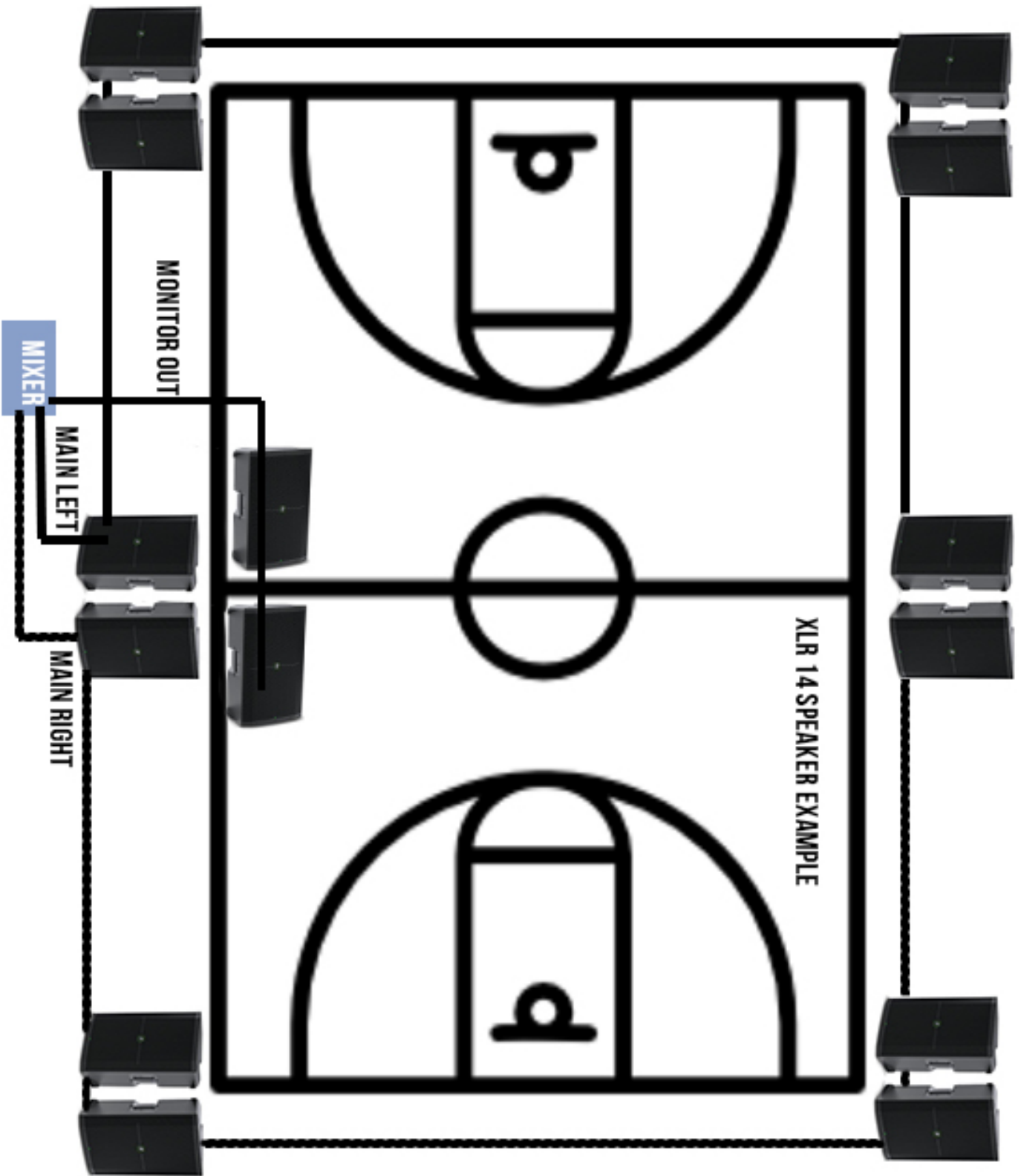


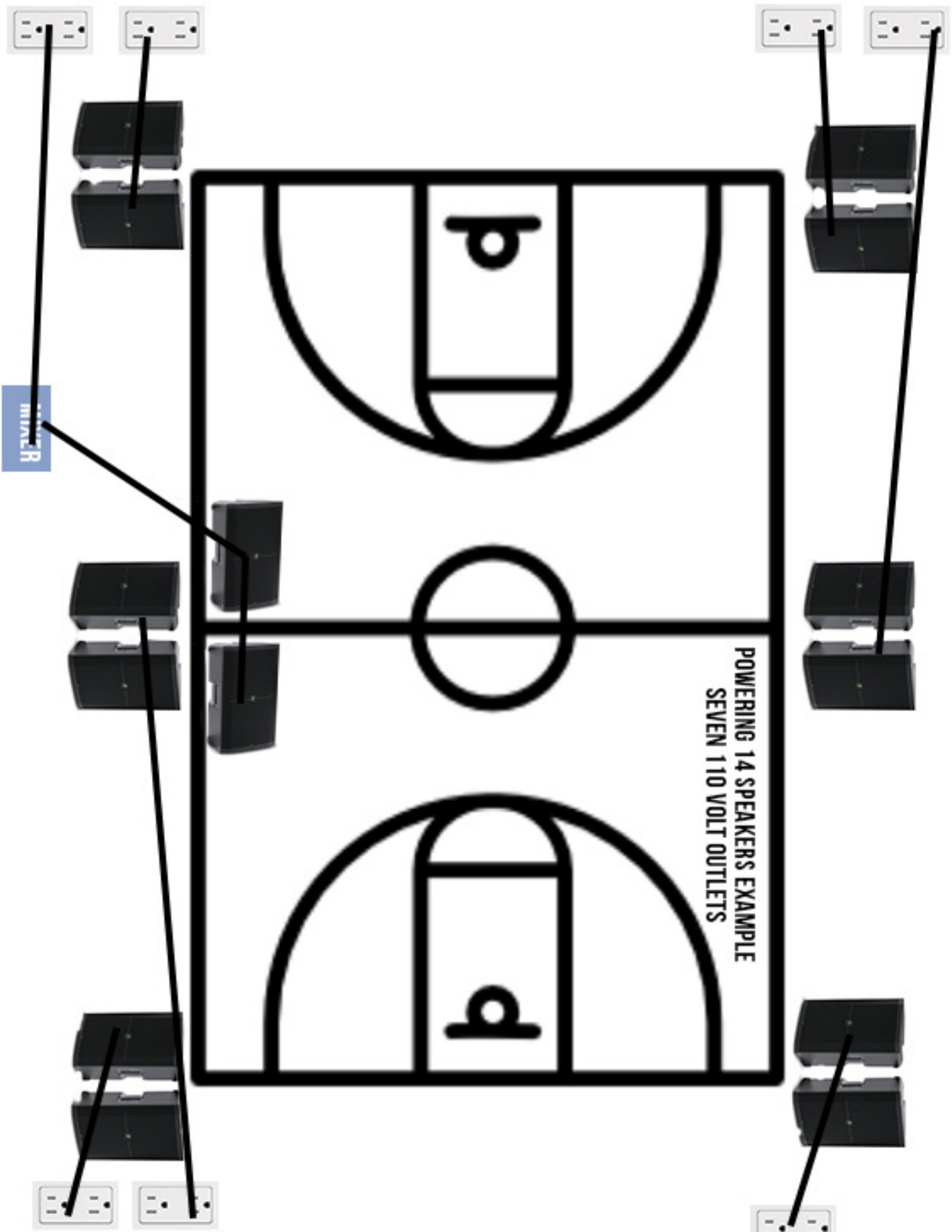
## Hook Up Diagram 2



# Hook Up Diagram 3



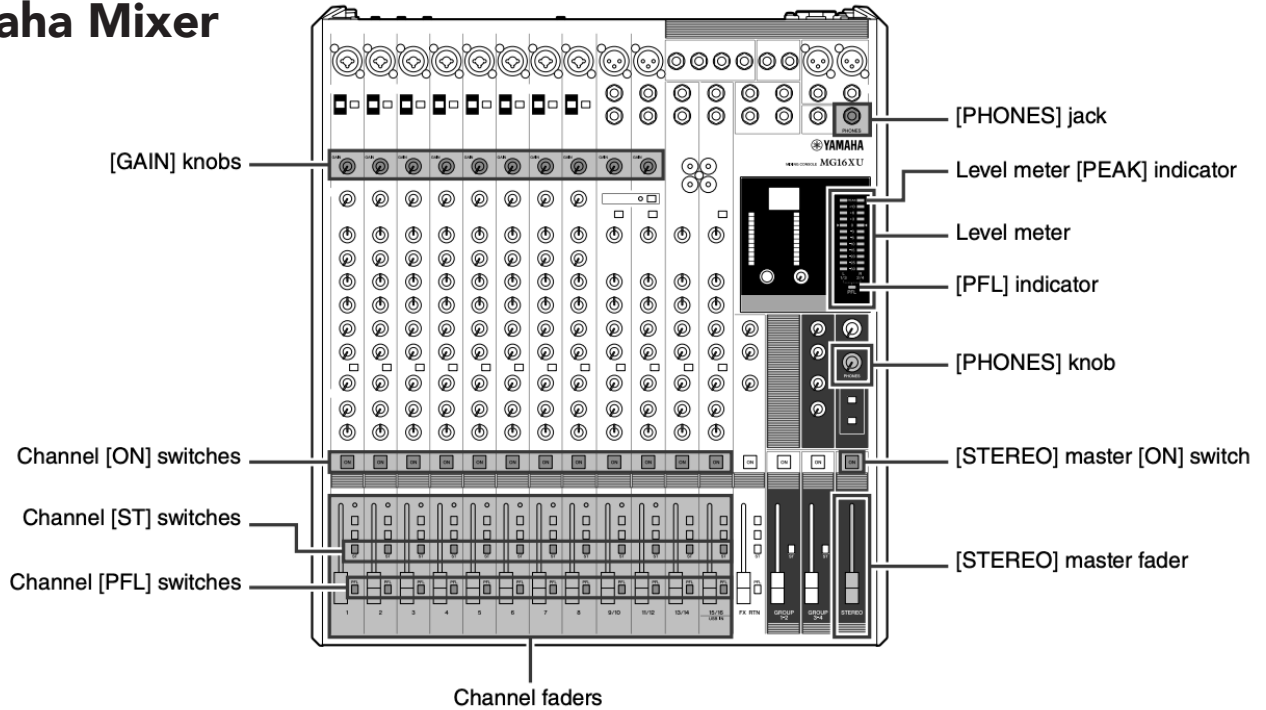




POWERING 14 SPEAKERS EXAMPLE  
SEVEN 110 VOLT OUTLETS




# Yamaha Mixer



1. Turn on (  ) the [PFL] switches for each channel you are using.



## NOTE

- When you turn on the [PFL] switch for a channel, you can monitor the signal for that channel through headphones connected to the [Phones] jack. The level of the signal is also shown on the level meter indicator, allowing you to more accurately check signal levels. After checking levels, turn the [PFL] switches off.
- When a [PFL] switch is turned on, the [PFL] indicator below the level meter flashes.

2. While playing your instrument or speaking into a microphone, adjust the input signal with the [GAIN] knob until it goes past the “0” (  ) position on the level meter only occasionally.


## NOTE

If you connect a portable audio player, synthesizer, or other equipment to a stereo input channel that has no [GAIN] knob, adjust the output level on the connected device.

3. Turn on (  ) the [ON] switches for each channel you are using.
4. Turn on (  ) the [ST] switches for each channel you are using.

5. Turn off (  ) all [PFL] switches.

Confirm that the [PFL] indicator below the level meter is off.

6. Turn on (  ) the [ON] switch for the [STEREO] master.
7. Raise the [STEREO] master fader to the “0” position.
8. Set the channel faders to create the desired initial balance.
9. Adjust the overall volume of the [STEREO] master fader.

## Step 1 Preparing the Power Supply

1. Make sure that the power switch of the unit is set to the “O” position (off).

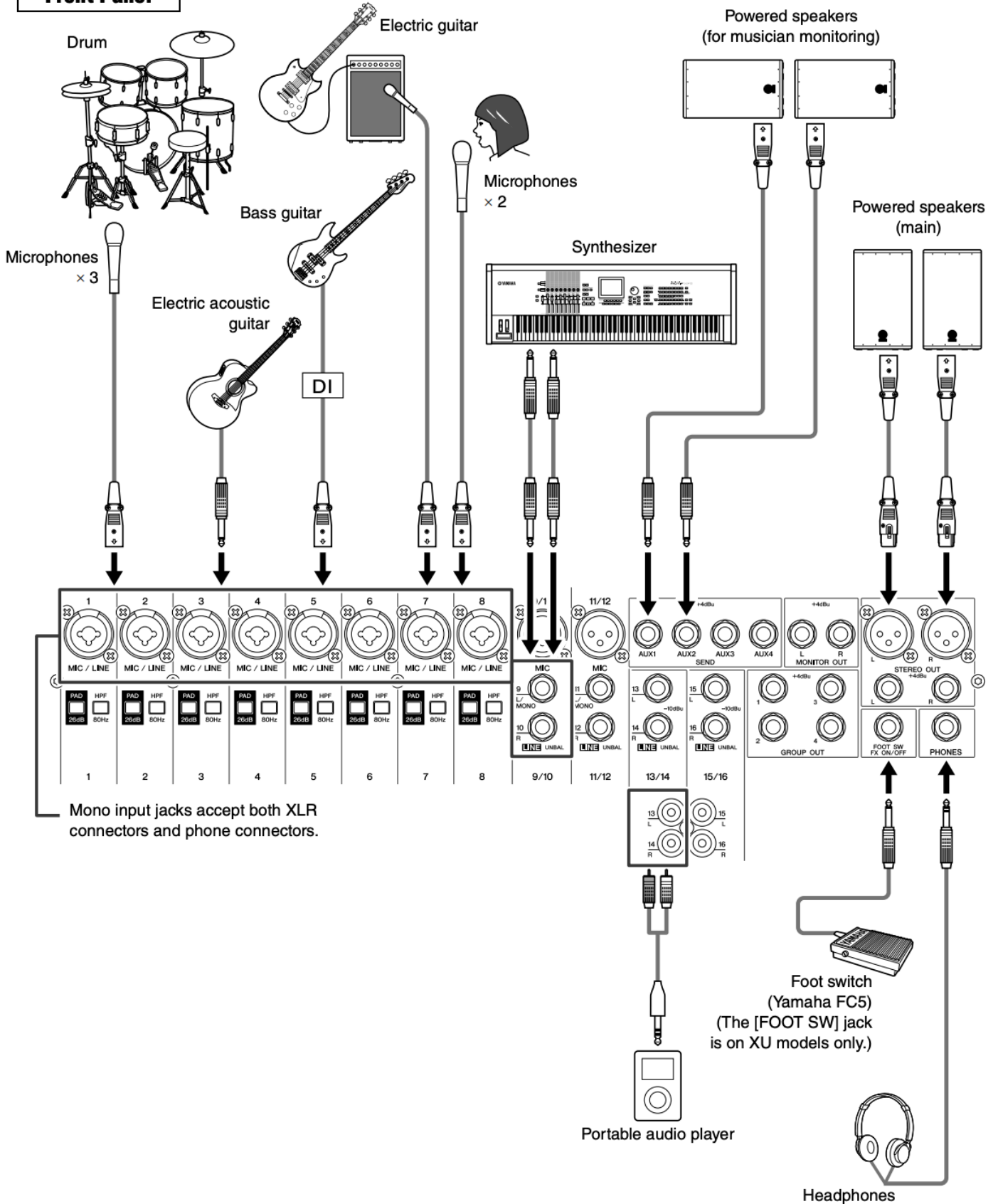


2. Connect the socket of the included power cord to the [AC IN] jack on the rear panel.
3. Plug the power cord into a power outlet.

## Step 2 Making Connections

1. Turn all the faders and [GAIN] knobs completely down.
2. Connect the microphones, instruments, and/or speakers you intend to use.

**Front Panel**



DO NOT SIT ON OR USE FOR  
TRANSPORTING PASSENGERS



## IMPORTANT SAFETY INSTRUCTIONS

1. Read, understand and follow ALL instructions before using this product.
2. Do not exceed the overall maximum load capacity of 1,000 lbs (453 kg). The weight rating is based on an evenly distributed load.
3. Do not load items on the top edges of the panels. Remove panels before loading oversized items.
4. Distribute the load evenly over the surface of the bed.
5. Do not allow children to use the cart without supervision. This cart is not a toy.
6. Do not use this cart for transporting passengers.
7. This cart is not intended for highway use.
8. Do not exceed 5 mph.
9. If any parts become damaged, broken or misplaced, do not use the cart until replacement parts have been obtained.
10. Do not use the cart on surfaces or for transporting objects that can cause damage to the pneumatic tires or tubes. **DO NOT INFLATE TIRES TO MORE THAN 30 PSI (2.07 BAR).**
11. It is recommended that the cart be inspected for damage before each use.
12. KEEP THESE INSTRUCTIONS FOR FURTHER REFERENCE.

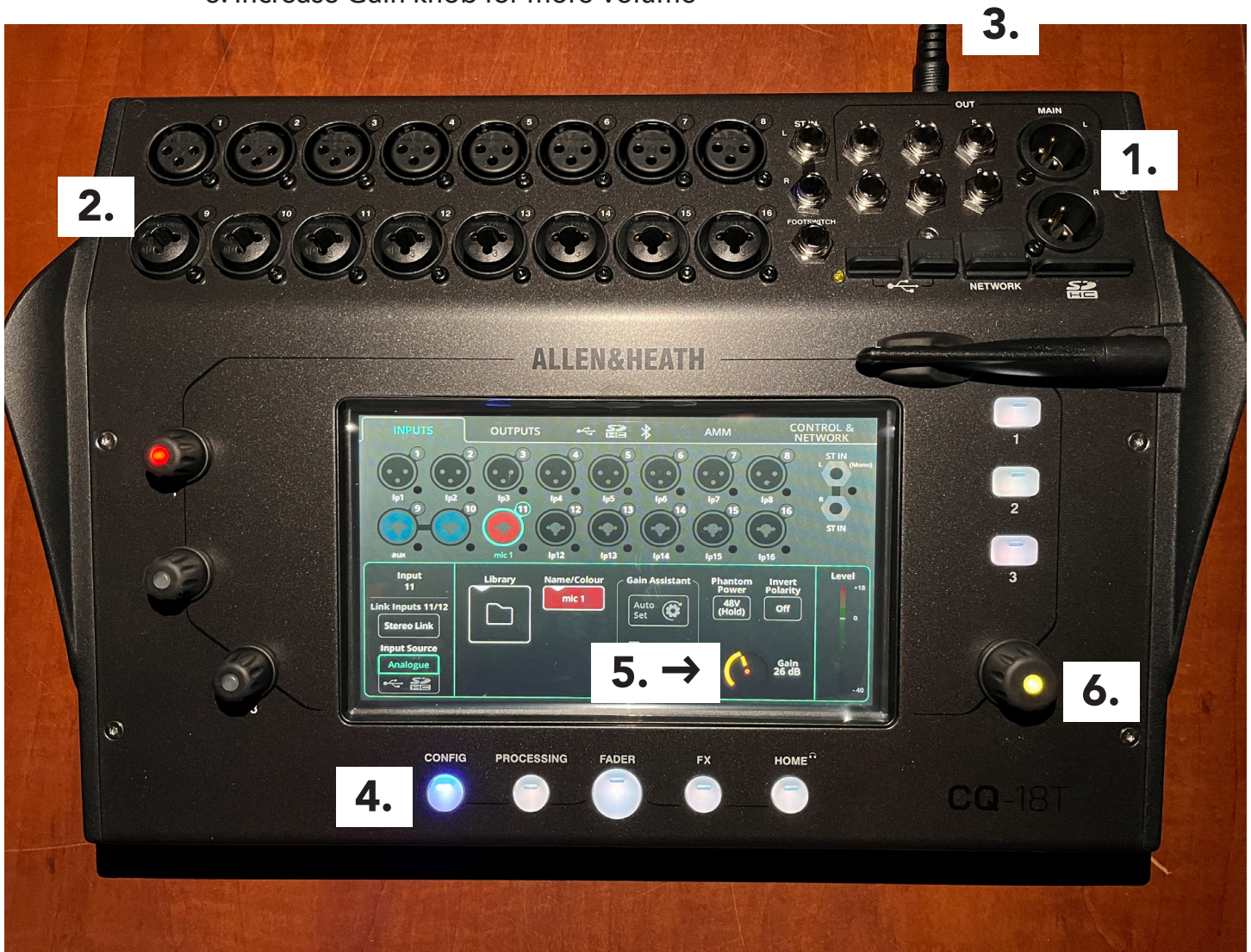
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# Allen & Heath CQ-18T Digital Mixer

## QUICK START GUIDE

1. Connect MAIN L + R To First Two Speakers
2. Connect Any Microphones or Cables Into mixer
3. Connect to power and turn on mixer (back of unit)
4. Click The "CONFIG" Tab
5. Click on "Gain"
6. Increase Gain knob for more Volume



GO TO PAGE 2 (Flip Side)



# Allen & Heath CQ-18T Digital Mixer

## QUICK START GUIDE

7. Click The "FADER" Tab
8. Select the Input you want to increase
9. Increase Input on the Channel to 0
10. Set the Main LR to 0

