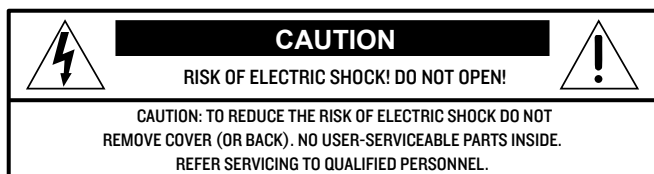# SRM|FLEX
PORTABLE COLUMN PA SYSTEM

OWNER'S MANUAL

MACKIE.®

Important Safety Instructions

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with a dry cloth.
7. Do not block any 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. No naked flame sources, such as lighted candles, should be placed on the apparatus.
10. 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.
11. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
12. Only use attachments/accessories specified by the manufacturer.
13. 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.

PORTABLE CART WARNING

14. Unplug this apparatus during lightning storms or when unused for long periods of time.
15. 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.
16. 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.
17. Do not overload wall outlets and extension cords as this can result in a risk of fire or electric shock.

CAUTION

RISK OF ELECTRIC SHOCK! DO NOT OPEN!

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED PERSONNEL.

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 significant magnitude to constitute a risk of electric shock to persons.
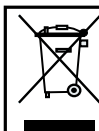
The exclamation point within an equilateral triangle is intended to alert the user of the prescence of important operating and maintaining (servicing) instructions in the literature accompanying the appliance.

18. This apparatus has been designed with Class-I construction and must be connected to a mains socket outlet with a protective earthing connection (the third grounding prong).
19. This apparatus has been equipped with a rocker-style AC mains power switch. This switch is located on the rear panel and should remain readily accessible to the user.
20. The MAINS plug or an appliance coupler is used as the disconnect device, so the disconnect device shall remain readily operable.
21. The use of apparatus is in tropical and/or moderate climates.

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

CAUTION — To prevent electric shock hazard, do not connect to mains power supply while grille is removed.

Laite on liitettävä suojakoskettimilla varustettuun pistorasiaan.
Apparatet må tilkoples jordet stikkontakt.
Apparaten skall anslutas till jordat uttag.

Correct disposal of this product: This symbol indicates that this product should not be disposed of with your household waste, according to the WEEE directive (2012/19/EU) and your national law. This product should be handed over to an authorized collection site for recycling waste electrical and electronic equipment (EEE). Improper handling of this type of waste could have a possible negative impact on the environment and human health due to potentially hazardous substances that are generally associated with EEE. At the same time, your cooperation in the correct disposal of this product will contribute to the effective usage of natural resources. For more information about where you can drop off your waste equipment for recycling, please contact your local city office, waste authority, or your household waste disposal service.

22. **NOTE:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
    - Reorient or relocate the receiving antenna.
    - Increase the separation between the equipment and the receiver.
    - Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
    - Consult the dealer or an experienced radio/TV technician for help.

    CAUTION: Changes or modifications to this device not expressly approved by LOUD Audio, LLC could void the user's authority to operate the equipment under FCC rules.
23. This device complies with FCC radiation exposure limits set forth for an uncontrolled environment. This device should be installed and operated with minimum distance 20cm between the radiator & your body.
24. This apparatus does not exceed the Class A/Class B (whichever is applicable) limits for radio noise emissions from digital apparatus as set out in the radio interference regulations of the Canadian Department of Communications.

ATTENTION — *Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de class A/de class B (selon le cas) prescrites dans le réglement sur le brouillage radioélectrique édicté par les ministere des communications du Canada.*

25. This device complies with Industry Canada's licence-exempt RSSs. Operation is subject to the following two conditions:
    (1) this device may not cause interference, and
    (2) this device must accept any interference, including interference that may cause undesired operation of the device.

    Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:
    (1) l'appareil ne doit pas produire de brouillage, et
    (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.
26. Exposure to extremely high noise levels may cause permanent hearing loss. Individuals vary considerably in susceptibility to noise-induced hearing loss, but nearly everyone will lose some hearing if exposed to sufficiently intense noise for a period of time. The U.S. Government's Occupational Safety and Health Administration (OSHA) has specified the permissible noise level exposures shown in the following chart.
    According to OSHA, any exposure in excess of these permissible limits could result in some hearing loss. To ensure against potentially dangerous exposure to high sound pressure levels, it is recommended that all persons exposed to equipment capable of producing high sound pressure levels use hearing protectors while the equipment is in operation. Ear plugs or protectors in the ear canals or over the ears must be worn when operating the equipment in order to prevent permanent hearing loss if exposure is in excess of the limits set forth here:

Duration, per day in hours	Sound Level dBA, Slow Response	Typical Example
8	90	Duo in small club
6	92	
4	95	Subway Train
3	97	
2	100	Very loud classical music
1.5	102	
1	105	Craig screaming at Troy about deadlines
0.5	110	
0.25 or less	115	Loudest parts at a rock concert

Contents

f **Like us**   **t** **Follow us**

Features

- Lightweight, Small Footprint, Built-Like-A-Tank
  - Lightweight all-in-one design offers everything you need for your gig
  - Load in to your next gig and be set up in minutes
  - Fits just about anywhere and disappears in any room
  - Rugged design is built to last

- Proven SRM Sound with Ultra-Wide Coverage
  - 1300W of power delivers maximum headroom and top performance
  - 6-driver wide-dispersion array and 10" subwoofer provide crystal-clear, room-filling sound
  - Adjustable height directs the sound at ear level for optimal coverage and clarity
  - For audiences of up to 100 people

- Complete Wireless Control with SRM-Flex Connect™
  - Pair your smartphone and get wireless control over everything from channel levels to EQ, system presets, and more
  - Mount your phone to your mic stand for on the fly adjustments or have a dedicated engineer mix you from the audience
  - Compatible with iOS and Android® devices*

- Stream Your Music
  - Need to play some break music or a backing track? No need to worry about the cable. Stream music straight from your phone or any Bluetooth® enabled device.

- Built-in 6-Channel Digital Mixer
  - The built-in 6-channel digital mixer has inputs for mics, instruments, and media players
  - Professional XLR out allows for connection to an additional SRM-Flex or front-of-house mixer

- Dial in Your Sound
  - 2-Band EQ on channels 1 and 2 allow you to easily adjust the tone of your mic, guitar, keyboard, or anything else you plug in to get the sound just right
  - Application voicing modes tailor the system to your application and venue. Choose between Music, Speech, and Live.

- Find the Perfect Reverb
  - Put the finishing touch on your sound with a choice of not just 1, but 3 great-sounding reverbs

- Zero-Fuss Physical Controls
  - With tactile knobs for every critical function and adjustment, you can get to what you need without the hassle of navigating menus on a small screen

- Weight and Dimensions (H x W x D)
  - 29.6 lb. / 13.4 kg
  - 17.0 x 13.0 x 14.2 in / 432 x 330 x 361 mm (Base only)
  - 79.0 x 2.8 x 3.0 in / 2007 x 71 x 76 mm (Total size with extenders)

- Included Accessories
  - Carry bag for array module and extenders
  - Protective cover for subwoofer/mixer module

*SRM-Flex Connect requires iOS 11 or later or Android 6 or later

You Tube **Watch our dang videos**

Introduction

The Mackie SRM-Flex Portable Column PA System features a compact, lightweight form factor, signature SRM Series sound quality, and intuitive Mackie mixer design for maximum flexibility.

With a staggering 1300W of power, custom 6-driver wide-dispersion array, and 10″ subwoofer, SRM-Flex has plenty of headroom to ensure crystal-clear, room-filling sound.

The built-in 6-channel digital mixer makes it easy to dial in your optimal sound in minutes with full control over levels, EQ, reverb, and more via physical knobs or wirelessly on your phone. You can even stream music or backing tracks via any Bluetooth® enabled device.

Perfect for solo acts, bands, corporate events, schools, and more.

How to Use This Manual:

After this introduction, a getting started guide will help you get things set up fast. The hookup diagrams show some typical SRM-Flex setups.

VERY IMPORTANT
This icon marks information that is critically important or unique! For your own good, read and remember them...it is a good idea to pay special attention to these areas in the Owner's Manual marked with the "VERY IMPORTANT" hand icon.

A CLOSER LOOK
There's an illustration of a microscope, so, of course, you're going to get more detailed information when you see this little guy. There are explanations of features and practical tips listed here.

NOTE
It's a good idea to pay attention to text displayed next to a note icon, as this icon draws attention to certain features and functions relating to the usage of the SRM-Flex.

Please write the serial numbers here for future reference (i.e., insurance claims, tech support, return authorization, make dad proud, etc.)

Purchased at:

Date of purchase:

Getting Started

The following steps will help you set up the SRM-Flex quickly.

1. Make all initial connections with the power switch OFF.

2. Connect height extension module(s) and/or HF driver column to the base station. [Instructions discussed in greater detail on page 9.]

3. Plug signal sources into SRM-Flex, such as:
   • Microphones plugged into the mic inputs.

   • Instrument level sources, such as acoustic guitars w/active pickups into the instrument inputs

   • Line-level sources such as keyboards, drum machines, or MP3 players plugged into the line-level inputs.

   • Smartphone paired and connected via Bluetooth.

4. Push the line cord securely into the IEC connector and plug the other end into a grounded AC outlet.

5. Turn SRM-Flex on.

6. Be sure that the volume of the input is the same as it would be during normal use.

7. Slowly bring up the main output level to a comfortable listening level.

Things to Remember:

• Never listen to loud music for prolonged periods. Please see the Safety Instructions on page 2 for information on hearing protection.

• Save the shipping boxes and packing materials! You may need them someday. Besides, the cats will love playing in them and jumping out at you unexpectedly. Remember to pretend like you are surprised!

• Save your sales receipt in a safe place.

Hookup Diagrams
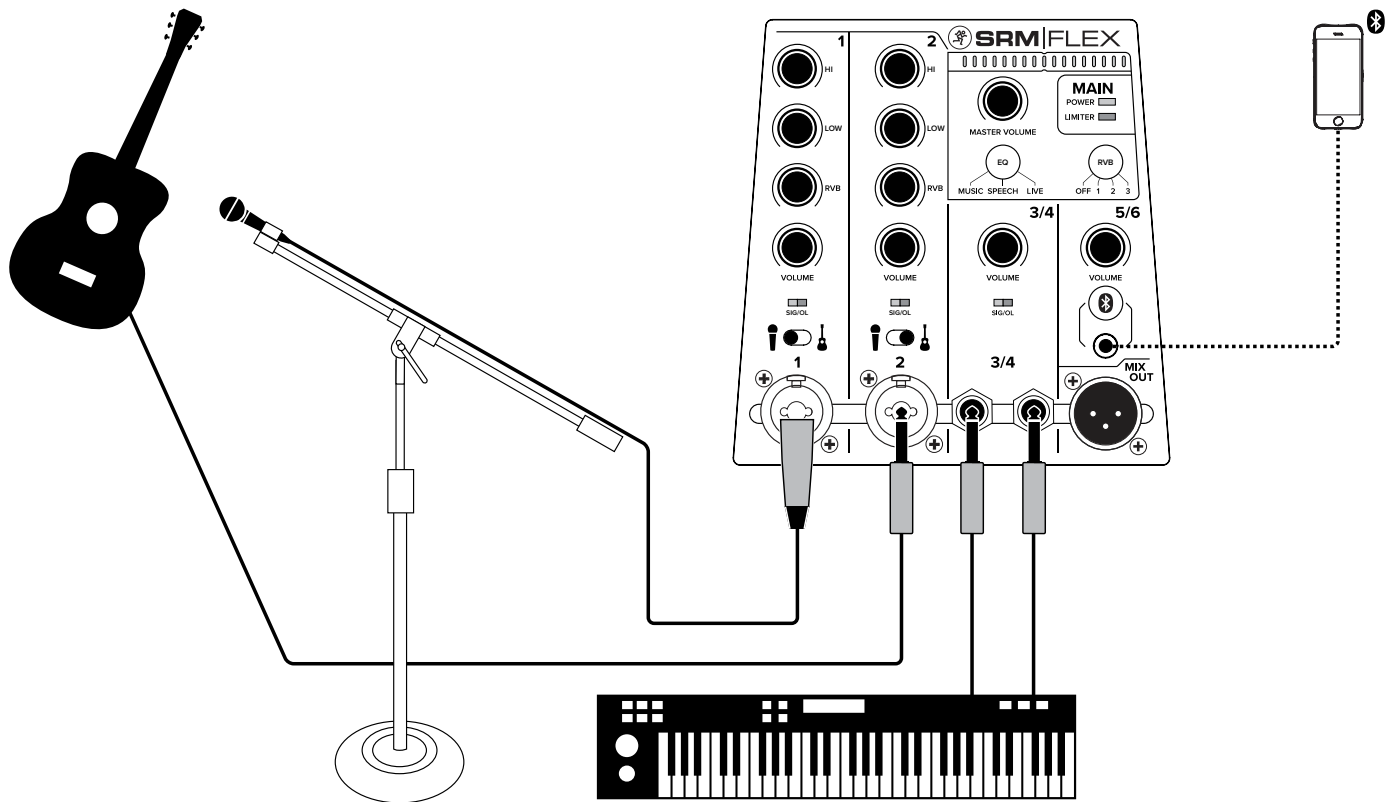
SRM-Flex is the perfect tool for singer-songwriters touring the local coffee shops. Bring your favorite axe and mic, SRM-Flex and cables and power cord. Do you have a special guest that joins you on keys on a few tracks? Have them bring their keyboard, cables and power cord, as well!

In this example, a dynamic microphone is connected to the channel 1 input of SRM-Flex. Note that the mic-line / Hi-Z switch is set to "mic" (switch left).

Now grab your axe and plug it directly into the channel 2 input. Or if you use effects, connect the guitar to the effects input and another cable from the effects output to the channel 2 input. Note here that the mic-line / Hi-Z switch is set to "Hi-Z" (switch right).

Your friend's keyboard may be plugged directly into stereo inputs 3/4 using cables with 1/4″ jacks. Lastly, a phone may be connected via Bluetooth to stereo channel 5/6. The phone can be used as playback music between sets and/or as backing tracks to your compositions!

Before wowing the crowd with your tunes, you will want to set a speaker mode, described in detail on page 13. For this type of setup, live works well.

Singer-Songwriter Setup

Hookup Diagrams continued...
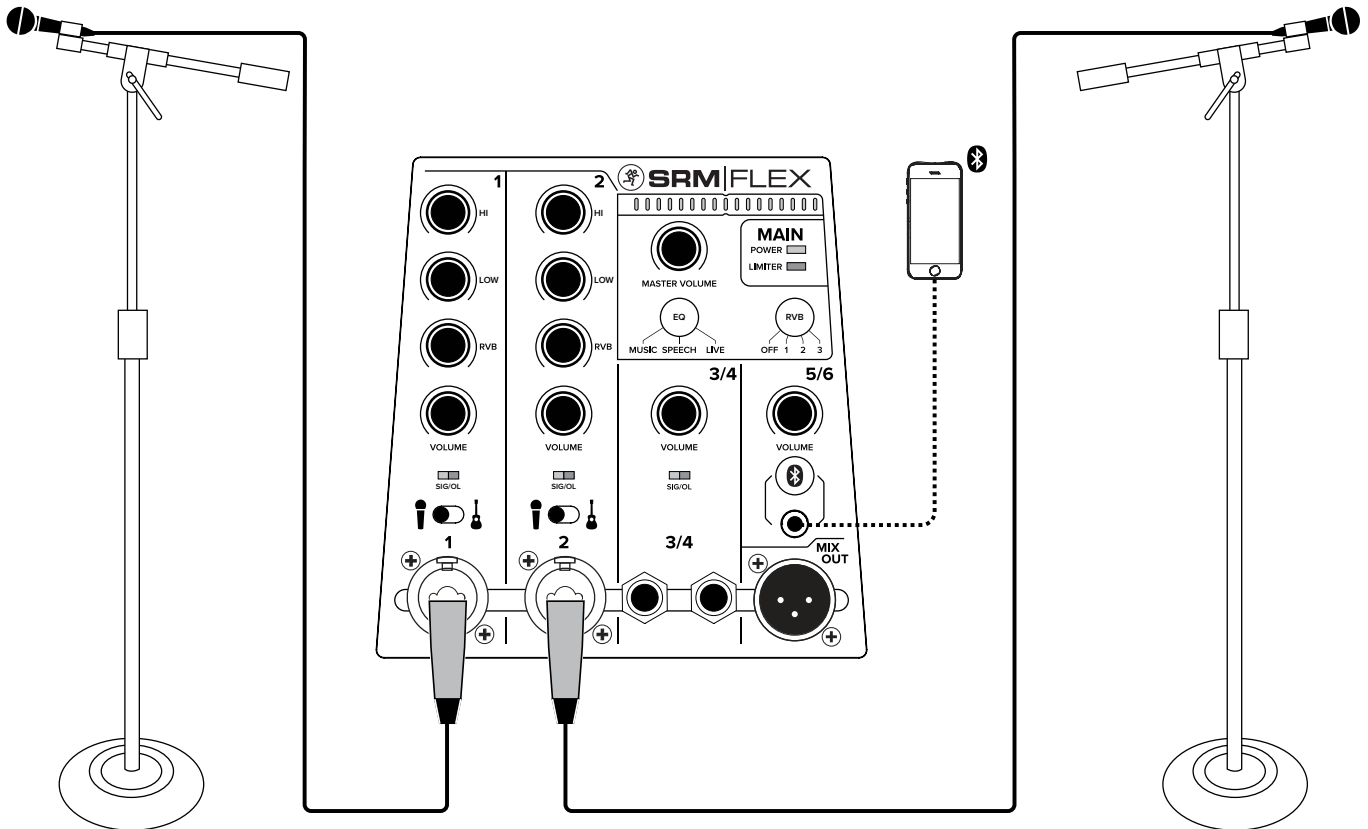
SRM-Flex is a really simple – yet very powerful – tool to use for presentations, karaoke and other similar situations.

Here we just attached two mics to channels 1 and 2 of SRM-Flex. Note that the mic-line / Hi-Z switch is set to "mic" (switch left) on both channels.

Set the speaker mode to speech and deliver the great news to your company employees, to the board, stakeholders, convention attendees, or whatever other presentation you can think of... the possibilities are endless!

Is there a post-speech karaoke-off? Or maybe there is no speech and you're just having friends over on a Saturday night for karaoke. Either way, keep the mics as they are, plugged into channels 1 and 2, but also connect a phone via Bluetooth to stereo channel 5/6. This phone has all of the karoke tracks. What song(s) will you sing?!

For karaoke, you will want to set the speaker mode to music. More information about speaker mode is described in detail on page 13.

Presentation and/or Karaoke System

Hookup Diagrams continued...
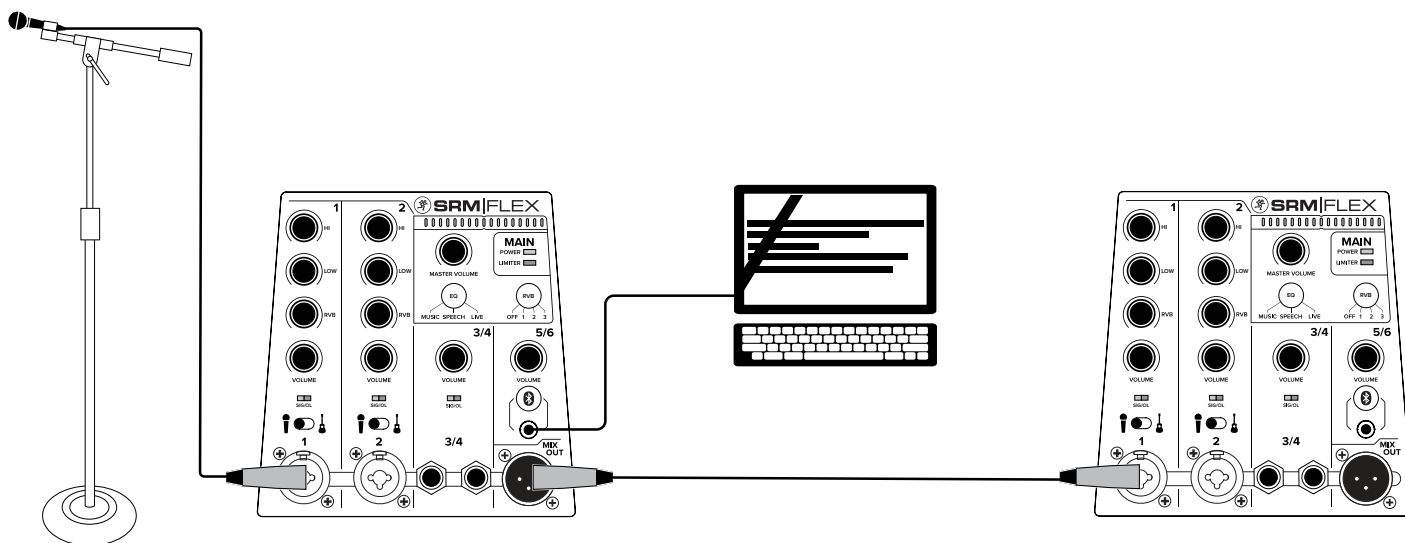
Perhaps you're a DJ that's been hired to work a wedding. Well, the SRM-Flex works great for playing bumpin' tunes all night to the happy newlyweds and raucous crowd that's groovin' and dancin' to your fine selection.

In this example, a mic is connected to channel 1 of SRM-Flex and the mic-line / Hi-Z switch is set to "mic" (switch left). This mic may be used for best man / maid of honor toasts, for the DJ to announce the couple's first dance and any "...someone with a blue truck, license plate XYZ123 left their lights on..." announcements.

All the music is on a playlist on the DJ's laptop. It's connected directly to the 1/8" stereo channel 5/6 input.

The last connection is an XLR cable from the mix out jack of the first SRM-Flex to the channel 1 input of an additional SRM-Flex.

The speaker mode on both may be set to speech when toasts are happening and switched back to music when the dancing begins!

Pro Tip: wrap each SRM-Flex with wedding garland so they blend in with the theme!

Wedding System

Hookup Diagrams continued...
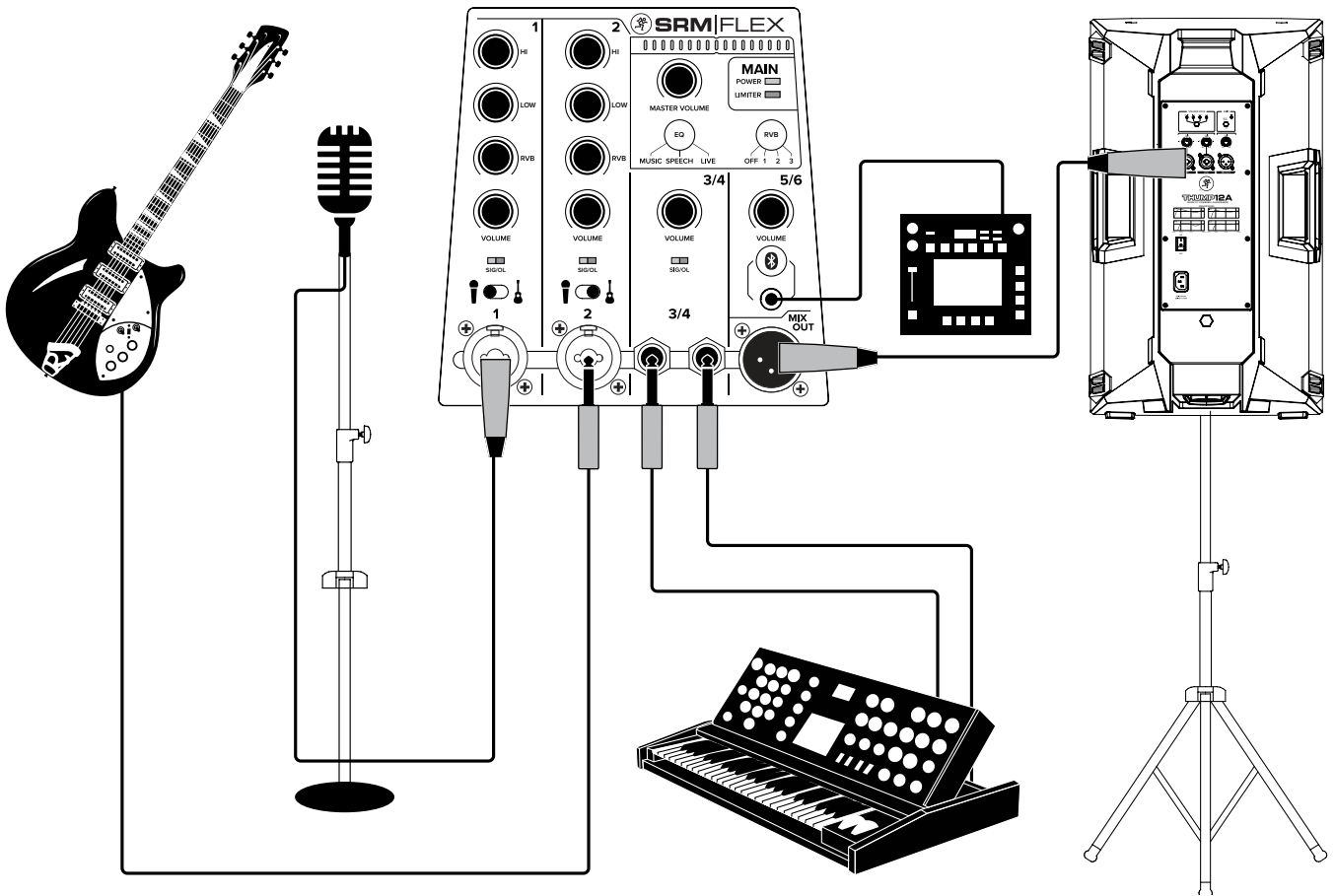
Now we're on to the small club system. SRM-Flex is great because it breaks down into a smaller, more portable system, leaving room in your ride for all of the other necessary gear.

Here we hooked up a mic to channel 1 [mic-line / Hi-Z switch is set to "mic" (switch left)] and a rad guitar to channel 2 [mic-line / Hi-Z switch is set to "Hi-Z" (switch right)]. An analog synthesizer is plugged directly into stereo inputs 3/4 and a drum machine into the 1/8″ stereo input 5/6.

The last connection is an XLR cable from the mix out jack of the SRM-Flex to the channel 1 input of a Mackie Thump12A loudspeaker. This can deliver the sound to people who aren't near the stage or SRM-Flex.

The speaker mode may be set to live. There's a crowd waiting to hear your music, go break a leg!

Small Club System

Base Station

Before even plugging the SRM-Flex in and turning it on, the high frequency driver column needs to be connected to the base station / subwoofer. This can be done with or without the height extension modules (aka spacers).
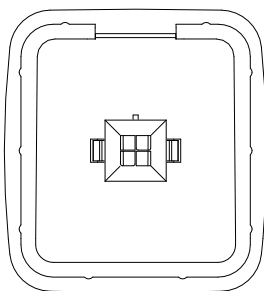
If the high frequency driver column is not attached, the SRM-Flex will not sound great. At all. This is because only the subwoofer is being used.

To help determine how many height extension modules are needed (if any), check out the venue and compare it to where people will be in relation to the SRM-Flex. Placement is important and more information may be found on page 17. Please determine that information before attaching any height extension modules.

On the top of the base station / subwoofer (near the grille) is a square opening. This opening is where to place the height extension modules and/or high frequency driver column.
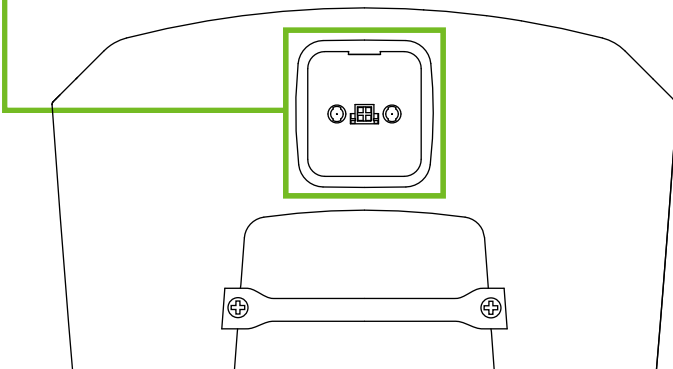
The height extension modules contain Molex-type connectors on both the top and bottom, indicating that the assembly is not yet complete. The front of the high frequency driver column contains a Running Man logo on the front and the top is capped. The high frequency driver column should be the last piece connected to SRM-Flex.
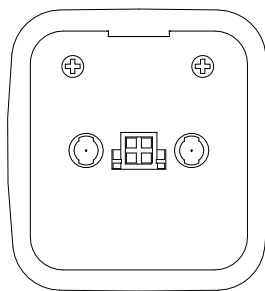
Bottom Connector   **Top Connector**

Connection is simple. There is only one way the height extension modules and high frequency driver column fit into each other and the SRM-Flex's base station / subwoofer: bottom into top (see drawings on the bottom-left) with the grille(s) facing the same way as the grille of the base station / subwoofer. The back side of the height extension modules and high frequency driver column are flat black (no grille) with holes leading to screws.

Do not remove these (or any) screws. You will void the warranty if you do!

SRM-Flex Connect™ App

SRM-Flex is designed to be used in conjunction with the SRM-Flex Connect App. With it, all of the hardware features listed here – and more! – may be controlled remotely via Bluetooth connection. The only thing the SRM-Flex Connect App can't do is turn the unit on and off, select between mic/line or Hi-Z or pair a Bluetooth device.

More information about the SRM-Flex Connect App may be found by visiting the SRM-Flex Connect App Reference Guide.

SRM-Flex: Rear Panel Features

1. Power Connection

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

Make sure that the AC power is matched to the AC power indicated on the rear panel (next to the IEC receptacle).

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

SRM | FLEX
PORTABLE COLUMN PA SYSTEM

~100-240VAC
50-60 Hz 110W
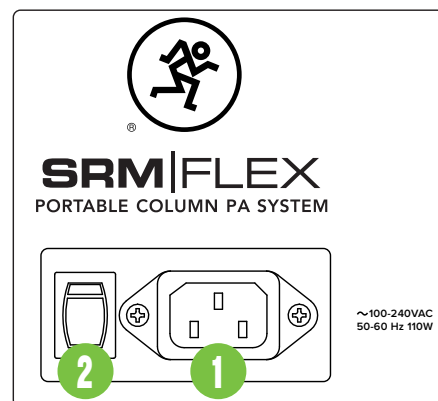
2. Power Switch

Press the top of this rocker switch inwards to turn on the SRM-Flex. Press the bottom of this rocker switch inwards to turn it off.

SRM-Flex: Top Panel Features

3. Power LED

This LED will illuminate green when the SRM-Flex is turned on, as a reminder of how on it really is. If it is not on, then it is off, and it becomes a rather nice weight for keeping your morning newspaper from blowing away in the wind.

If it does not turn on, make sure the power cord is correctly inserted at both ends, the local AC mains supply is active, and the power switch is on.

There is a horizontal LED bar located near the bottom of the base station / subwoofer, as well as near the top of the high frequency driver column. These, too, will illuminate green when powered up. However, they may be turned off or set to show signal via the SRM-Flex Connect App. Read the reference guide for more information.

4. XLR and 1/4″ Combo Inputs [Chs. 1 and 2]

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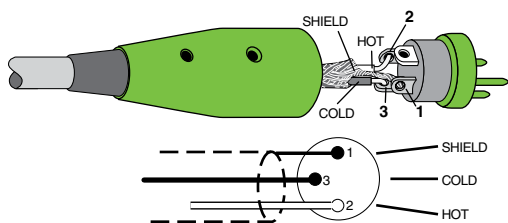
In addition to accepting a balanced mic signal using an XLR connector, these input channels may also accept 1/4″ line-level signals driven by balanced or unbalanced sources.

Also, both channels may accept a Hi-Z source (such as a guitar) via the 1/4″ input without the need for a separate DI box. Be sure to set the Mic / Hi-Z switch to the right, though!
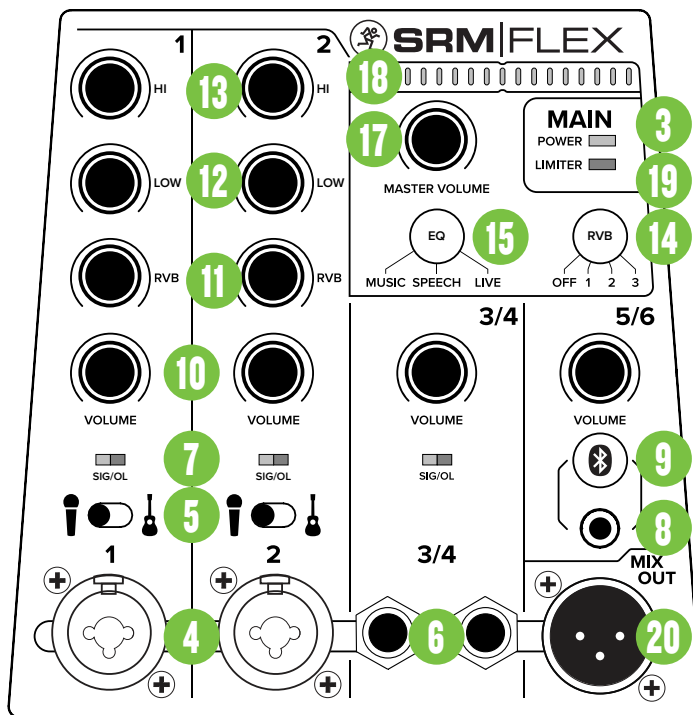
To connect balanced lines to these inputs, use a 1/4″ Tip-Ring-Sleeve (TRS) plug. "TRS" stands for Tip-Ring-Sleeve, the three connection points available on a stereo 1/4″ or balanced phone jack or plug. TRS jacks and plugs are used for balanced signals and are wired as follows:

1/4″ TRS Balanced Mono Wiring:
Sleeve = Shield
Tip = Hot (+)
Ring = Cold (−)
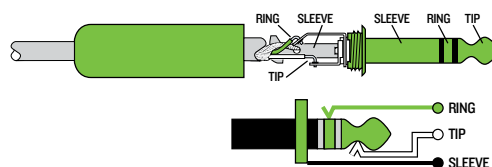
To connect unbalanced lines to these inputs, use a 1/4″ mono (TS) phone plug, wired as follows:

1/4″ TS Unbalanced Mono Wiring:
Sleeve = Shield
Tip = Hot (+)

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

SRM-Flex: Top Panel Features continued...

5. Line / Hi-Z Switches [Chs. 1 and 2]

To connect a guitar directly to SRM-Flex without using a DI Box, move the switch to the right first – guitar icon – then connect the output from the guitar to the channel's 1/4″ TRS input. The input impedance is optimized for direct connection and high-frequency fidelity is assured.

When the switch is to the left, the channel's 1/4″ TRS input becomes a line input just like any other mono line input.
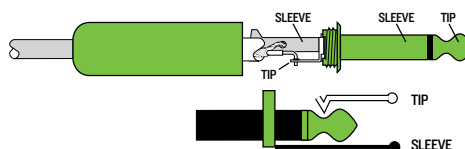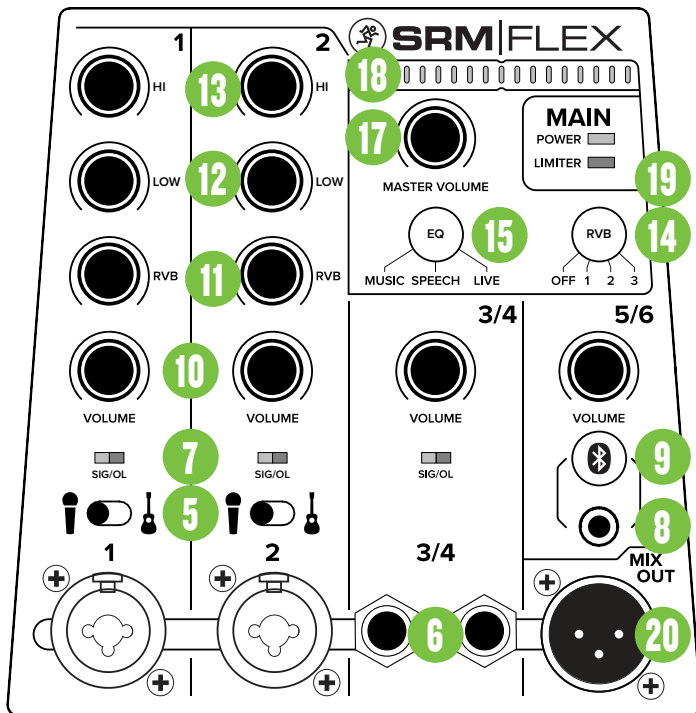
Without a DI box – or if this switch is not to the right – guitars may sound dull and muddy.

6. 1/4″ Stereo Line Inputs [Ch. 3/4]

The stereo line inputs are designed for 1/4″ TRS balanced or 1/4″ TS unbalanced signals. They may accept any line-level instrument, effects device, CD player, etc.

If you are connecting a mono source, use the left (mono) input, and the mono signals will appear on both sides of the main mix.

7. Sig / OL LEDs

This dual-colored LED will illuminate green when the channel's input signal is present, indicating signal. It will remain lit so long as there is signal above −20 dBu present in that channel.

This dual-colored LED will illuminate red when the channel's input signal is too high, indicating a signal overload. This should be avoided, as distortion will occur. If the OL LED comes on regularly, check that the volume knob is set correctly for the input device. The signal is at −3 dB before hard clip begins.

8. 1/8″ Stereo Line Input [Ch. 5/6]

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

VERY IMPORTANT NEVER connect the output of an amplifier directly to this input jack. This could damage the input circuitry.

VERY IMPORTANT A Bluetooth connection and 1/8″ line-level connection may NOT be used simultaneously. If there is a physical connection to the 1/8″ input, it will take priority over any Bluetooth connection. For example, if you are playing a song from a phone (connected via Bluetooth) and connect an MP3 player to the 1/8″ jack, the phone song will be interrupted and the MP3 player now takes precedence.

9. Bluetooth Button [Ch. 5/6]

In lieu of the 1/8″ stereo line input, channel 5/6 may accept a Bluetooth [stereo audio streaming] signal from a phone, tablet, MP3 player, or other signal source.

VERY IMPORTANT To enter pairing mode, press the Bluetooth button on SRM-Flex. The button LED will illuminate and flash yellow while in pairing mode. While SRM-Flex is in pairing mode, simultaneously scan for Bluetooth devices on your phone/tablet. You should see SRM-Flex appear in the "available devices" list. Select it by tapping "SRM-Flex". From there, your device should indicate that it is successfully connected. Additionally, the Bluetooth LED will illuminate solid yellow to indicate success! If it does not, start the pairing process again, and make sure that SRM-Flex and your device are both in pairing mode at the same time.

NOTE When the SRM-Flex is turned off, it will recall the Bluetooth connection when powered back up. No need to re-pair!

NOTE If a device is paired and the Bluetooth button is pushed and held, it will drop the current connection and go back into pairing mode.

VERY IMPORTANT The Bluetooth may disconnect when affected by Electrostatic Discharge [ESD]. Manually reconnect the Bluetooth connection.

SRM-Flex: Top Panel Features continued...

10. Volume Knobs

The endless rotary volume knobs adjust the channel's relative volume to the master bus. This allows signals from the outside world to be adjusted to run through each channel at optimal internal operating levels.
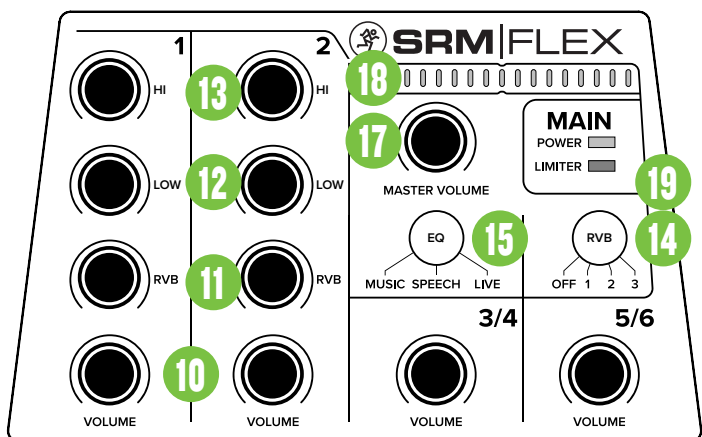
The main meters will display the input signal level (for that channel) as the knob is turned. The main meters will display the output level after five seconds of inactivity.

> **NOTE** While the knobs may rotate endlessly, there are high and low parameters. In other words, you can't keep cranking the input level past max – there is no "beyond max". It also will not wrap around back to off and vice-versa.

• Channels 1-4: −∞ dB (off) to +16.0 dB (max)
• Bluetooth: −∞ dB (off) to +10.0 dB (max)

These knobs also act like momentary switches with three possibilities:

• Push down and release to see the current input level.
• Push down and release three times quickly to zero out the current input level.
• Push down and hold for two seconds to see the peak input level.

11. Reverb Send Knobs [Chs. 1 and 2]

These endless rotary reverb send knobs allow you to select the amount of reverb you would like to add per channel.

The main meters will display the reverb level (for that channel) as the knob is turned. The main meters will display the output level after five seconds of inactivity.

> **NOTE** While the knobs may rotate endlessly, there are high and low parameters. In other words, you can't keep cranking the reverb level past max – there is no "beyond max". It also will not wrap around back to off and vice-versa.

• Reverb levels: 0% (off) to 100% (max)

These knobs also act like momentary switches with two possibilities:

• Push down and release to see the current reverb level.
• Push down and release three times quickly to zero out the current reverb level.

> **NOTE** Don't hear any reverb? Make sure it's turned on either via the SRM-Flex or SRM-Flex Connect app.

Channel Equalization (EQ)

Channels 1 and 2 have 2-band EQ with shelving hi and shelving low — low shelving at 90 Hz and high shelving at 6.0 kHz. "Shelving" means that the circuitry boosts or cuts all frequencies past the specified frequency. For example, maxing the low EQ to 5 dB boosts bass starting at 90 Hz and continuing down to the lowest note you never heard and 6.0 kHz on up boosts the treble in the case of the high EQ.

> **VERY IMPORTANT** With too much EQ, you can really upset things. We've designed a lot of boost and cut into the equalizer circuit because we know that everyone will occasionally need that. But if you max the EQ, you'll likely get mix mush. Equalize subtly and use cut as well as boost. If you find yourself repeatedly using a lot of boost or cut, consider altering the sound source, such as placing a mic differently, trying a different kind of mic, a different vocalist, changing the strings, or gargling.

12 and 13. Low and Hi EQ Knobs [Chs. 1 and 2]

These endless rotary EQ knobs allow you to boost and cut EQ to channels 1 and 2.

The main meters will display the EQ boost / cut (for that channel) as the knob is turned, with the center LED being 0 dB (flat). The main meters will display the output level after five seconds of inactivity.

> **NOTE** While the knobs may rotate endlessly, there are high and low parameters. In other words, you can't keep cranking the EQ levels past max – there is no "beyond max". It also will not wrap around back to −15 dB and vice-versa.

• Low EQ: −15 dB (cut) to +5 dB (boost) at 90 Hz
This frequency represents the punch in bass drums, bass guitar, fat synth patches, and some really serious male singers who eat raw beef for breakfast.

• Hi EQ: −15 dB (cut) to +5 dB (boost) at 6 kHz
Use it to add sizzle to cymbals, an overall sense of transparency, or an edge to keyboards, vocals, guitar and bacon frying. Turn it down a little to reduce sibilance or to mask tape hiss.

SRM-Flex: Top Panel Features continued...

These knobs also act like momentary switches with three possibilities:

• Push down and release to see the current EQ boost / cut.
• Push down and release three times quickly to center (0 dB) the current EQ.
• Push down and hold for two seconds to see the peak input level.

14. Reverb Button

Are you interested in adding some reverb to the signal? It can't be more straightforward. Simply press this button repeatedly until the reverb you want illuminates white.

• Off [default] – No reverb
• 1 – Small room
• 2 – Medium room
• 3 – Large room

Setting reverb levels is discussed on the previous page, call-out number 11.

15. Speaker Mode Button

Speaker mode allows you to change the SRM-Flex's speaker voicing to tailor it to best suit your particular application. Simply press this button repeatedly until the EQ mode you want illuminates white.

The three speaker modes are as follows:

• Music [Default] – This mode is full range, but focuses on increased bass and brilliant high frequencies. This is the place to start for most music playback applications.

• Speech – This mode features a significant low frequency roll-off to get rid of unwanted thumps. It also adds boost and sparkle to mid-range and high frequencies, critical for speech applications.

This plug-and-play mode is perfect for larger venue applications where speech is the primary audio source in need of clear and precise intelligibility.

• Live – This mode is flat, perfect for singer-songwriters and other live performers.
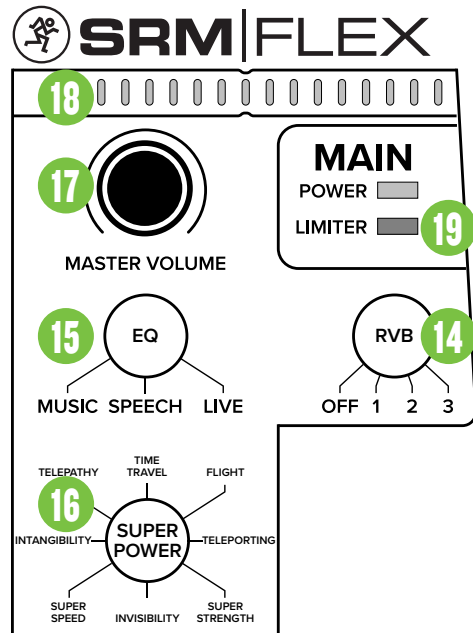
16. Super Power Button

This button allows you to select from a wide variety of super powers. Simply press this button repeatedly until the super power you want illuminates white.

The eight super powers to choose from are as follows:

• Telepathy [Default] – Mentally receive and transmit thoughts and other information.

• Time Travel – Travel to another time (in the past or future).

• Flight – Fly without the need for wings, propulsion or other outside influence.

• Teleportation – Move from one spot to another instantly.

• Super Strength – Have strength beyond the norm. Way, way, way beyond the norm.

• Invisibility – Move about without being seen by the naked eye.

• Super Speed – Have speed beyond the norm. Way, way, way beyond the norm.

• Intangibility – Pass through physical matter; i.e. walk through walls.

VERY IMPORTANT: Having a super power is a privilege, not a right, and thus must only be used for good. If not... well, you don't want to know what happens if it's not used for good.

NOTE: While only one super power may be selected at a time, we are currently updating the firmware and working on software updates so you have the ability to use multiple super powers simultaneously. How about that?!

SRM-Flex: Top Panel Features continued...

17. Master Volume Knob

The endless rotary master volume knob allows you to adjust the overall output level. This gives you the ultimate feeling of power and control over the sound level sent to your audience. Adjust this control carefully, with your good eye on the meters to check against overloading, and your good ear to the levels to make sure your audience (if any) is happy.

The main meters will display the output signal level as the knob is turned and return to bouncing meters after five seconds of inactivity.

NOTE While the knobs may rotate endlessly, there are high and low parameters. In other words, you can't keep cranking the output level past max – there is no "beyond max". It also will not wrap around back to off and vice-versa.

• Output Level: −∞ dB (off) to +10.0 dB (max)

This knob also acts like a momentary switch with three possibilities:

• Push down and release to see the current output level.
• Push down and release three times quickly to zero out the current output level (thereby killing the sound)!
• Push down and hold for two seconds to switch between bouncing meters (peak meter mode) and a solid bar (volume level).

18. Main Meters

These meters are made up of a single horizontal row of 17 green LEDs and are used to gauge the input and output levels, as well as display the reverb send levels and EQ boost / cut.

You can get a good mix with peaks flashing anywhere shy of the far right 3-4 LED bars. SRM-Flex will sound muddy and distorted if all meter LEDs are illuminated constantly. Turn down the master volume knob.

Remember, audio meters are just tools to help assure you that your levels are "in the ballpark." You don't have to stare at them (unless you want to).

19. Limiter LED

SRM-Flex has a built-in limiter that helps to prevent the amplifier outputs from clipping or overdriving the transducers. The limiter indicator 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 volume knob(s) until it only blinks occasionally.

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

20. Mix Out

This is a balanced male XLR-type connector that produces a mono-summed post-DSP mix – after channel EQ and reverb, but pre-main fader, speaker EQ and limiting – from all input jacks. Use it to connect a Mackie loudspeaker off of the same signal source.

It is 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)
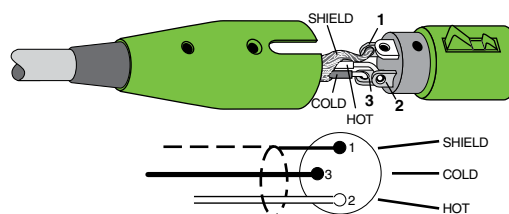
Protection Circuitry

SRM-Flex employs a built-in limiter for less distortion at peak levels. A dynamic bass response circuit provides optimal low frequency response regardless of overall output level. Additional protection includes automatic thermal shutdown should the amp overheat. However, with Class-D amp technology, which is highly-efficient, this should never be a problem.

The protection circuits are designed to protect the SRM-Flex under reasonable and sensible conditions. Should you choose to ignore the warning signs [e.g. excessive distortion], you can still damage the speaker by overdriving it past the point of amplifier clipping. Such damage is beyond the scope of the warranty.

Limiting

The driver has its own compression circuit which helps protect it from damaging transient peaks. The compressor is designed to be transparent and is not noticeable under normal operating conditions.

Overexcursion Protection

A subsonic filter circuit just prior to the power amplifier prevents ultra-low frequencies from being amplified. Excessive low-frequency energy can damage the woofer by causing it to "bottom out," also know as overexcursion, which is equivalent to a mechanical form of clipping.

Thermal Protection

All amplifiers produce heat. SRM-Flex is designed to be efficient both electrically and thermally. In the unlikely event of the amplifier overheating, a built-in thermal switch will activate, muting the signal.

When the amplifier has cooled down to a safe operating temperature, the thermal switch resets itself, and the SRM-Flex resumes normal operation.

If the thermal switch activates, try turning down the level control(s) a notch or two to avoid overheating the amplifier. Be aware that direct sunlight and/or hot stage lights may be the culprit of an amplifier overheating.

AC Power

Be sure the SRM-Flex is plugged into an outlet that is able to supply the correct voltage specified for your model. It will continue to operate at lower voltages, but will not reach full power. Be sure the electrical service can supply enough amperage for all the components connected to it.

We recommend that a stiff (robust) supply of AC power be used because the amplifiers place high current demands on the AC line. The more power that is available on the line, the louder the speakers will play and the more peak output power will be available for a cleaner, punchier bass. A suspected problem of "poor bass performance" is often caused by a weak AC supply to the amplifiers.

Never remove the ground pin on the power cord or any other component of the SRM-Flex. This is very dangerous.

Care and Maintenance

Your SRM-Flex will provide many years of reliable service if you follow these guidelines:

• Avoid exposing the SRM-Flex to moisture. If it is set up outdoors, be sure it is under cover if rain is expected.

• Avoid exposure to extreme cold (below freezing temperatures). If you must operate the SRM-Flex in a cold environment, warm up the voice coils slowly by sending a low-level signal through them for about 15 minutes prior to high-power operation.

• Use a dry cloth to clean the cabinets. Only do this when the power is turned off. Avoid getting moisture into any of the openings of the cabinet, particularly where the drivers are located.

Placement

SRM-Flex is designed to sit on the floor or stage as the main PA.

NEVER attempt to suspend an SRM-Flex by its handle.

Check to make sure that the support surface (e.g. floor, etc.) has the necessary mechanical characteristics to support the weight of the SRM-Flex.

As with any powered component, protect it from moisture. Avoid installing the SRM-Flex in places exposed to harsh weather conditions. If you are setting it up outdoors, make sure it is under cover if you expect rain.

Room Acoustics

SRM-Flex is designed to sound fantastic in nearly every application.

But, room acoustics play a crucial role in the overall performance of a sound system. However, the wide high-frequency dispersion of SRM-Flex helps to minimize the problems that typically arise.

Here are some additional placement tips to help overcome some typical room problems that might arise:

• Placing SRM-Flex in the corner of a room increases the low frequency output and can cause the sound to be muddy and indistinct.

• Placing SRM-Flex against a wall increases the low frequency output, though not as much as corner placement. However, this is a good way to reinforce the low frequencies, if so desired.

• Avoid placing SRM-Flex directly on a hollow stage floor. A hollow stage can resonate at certain frequencies, causing peaks and dips in the frequency response of the room. It is better to place them on a sturdy stand designed to handle the weight.

• Position the SRM-Flex so the high-frequency drivers are two to four feet above ear level for the audience (making allowances for an audience that may be standing/dancing in the aisles). High frequencies are highly directional and tend to be absorbed much easier than lower frequencies. By providing direct line-of-sight from SRM-Flex to the audience, you increase the overall brightness and intelligibility of the sound system.

• Highly reverberant rooms, like many gymnasiums and auditoriums, are a nightmare for sound system intelligibility. Multiple reflections off the hard walls, ceiling, and floor play havoc with the sound. Depending on the situation, you may be able to take some steps to minimize the reflections, such as putting carpeting on the floors, closing draperies to cover large glass windows, or hanging tapestries or other materials on the walls to absorb some of the sound.

However, in most cases, these remedies are not possible or practical. So what do you do? Making the sound system louder generally doesn't work because the reflections become louder, too. The best approach is to provide as much direct sound coverage to the audience as possible. The farther away you are from the speaker, the more prominent will be the reflected sound.

Keep in mind that the speaker mode is another great way to compensate for some of these issues. See page 13 for more information.

Appendix A: Service Information

If you think your SRM-Flex has a problem, please check out the following troubleshooting tips and do your best to confirm the problem. Visit the Support section of our website (www.mackie.com/support) where you will find lots of useful information such as FAQs and other documentation. You may find the answer to the problem without having to part with your SRM-Flex.

Troubleshooting

No power

- Our favorite question: Is it plugged in? Make sure the AC outlet is live [check with a tester or lamp].

- Our next favorite question: Is the power switch on? If not, try turning it on.

- Make sure the line cord is securely seated in the line cord socket and plugged all the way into the AC outlet.

- Are the power LEDs on the top and front panels illuminated? If not, make sure the AC outlet is live. If so, refer to "No sound" below.

- The internal AC line fuse may be blown. This is not a user serviceable part. If you suspect the AC line fuse is blown, please see the "Repair" section next.

No sound

- Is the level knob for the input source turned all the way down? Verify that all the volume controls in the system are properly adjusted. Look at the sig/OL LED and meters to ensure that SRM-Flex is receiving a signal.

- Is the signal source working? Make sure the connecting cables are in good repair and securely connected at both ends. Make sure the master volume level is turned up sufficiently to drive the inputs of the speaker.

- Make sure the input source is not muted or has a processor loop engaged. If you find something like this, make sure the level is turned down before disengaging the offending switch.

- Has it shut down? Make sure there is at least six inches of free space behind each SRM-Flex.

Poor sound

- Is it loud and distorted? Make sure that you're not overdriving a stage in the signal chain. Verify that all level controls are set properly.

- Is the input connector plugged completely into the jack? Be sure all connections are secure.

Noise

- Make sure all connections to SRM-Flex are good and sound.

- Make sure none of the signal cables are routed near AC cables, power transformers, or other EMI-inducing devices.

- Is there a light dimmer or other SCR-based device on the same AC circuit as SRM-Flex? Use an AC line filter or plug it into a different AC circuit.

Hum

- Try disconnecting the cable connected to the input jack. If the noise disappears, it could be a "ground loop," rather than a problem with SRM-Flex. Try some of the following troubleshooting ideas:
  - Use balanced connections throughout your system for the best noise rejection.
  - Whenever possible, plug all the audio equipment's line cords into outlets which share a common ground. The distance between the outlets and the common ground should be as short as possible.

Other Issues

- Please email or call Technical Support if you are having any other issue not listed here:
  - mackie.com/support-contact
  - 1-800-898-3211

Repair

For warranty service, refer to the warranty information on page 21.

Non-warranty service is available at a factory-authorized service center. To locate the nearest service center, visit www.mackie.com/support/service-locator. Service for an SRM-Flex living outside the United States may be obtained through local dealers or distributors.

If you do not have access to our website, please call our Tech Support department at 1-800-898-3211 (normal business hours, Pacific Time), to explain the problem. They will tell you where the nearest factory-authorized service center is located in your area.

Appendix B: Technical Information

SRM-Flex Specifications

Acoustic Performance

Frequency Range (−10 dB):	40 Hz – 20 kHz
Frequency Range (−3 dB):	50 Hz – 20 kHz
Horizontal Coverage:	90º
Vertical Coverage:	40º
Maximum SPL Peak:	118 dB

Transducers

Low Frequency:	10 in / 254 mm with ferrite
High Frequency:	6x 2.0 in / 51 mm silk dome tweeters

Power Amplifiers

System Power Amplification	
Rated Power	1300 watts peak
Low Frequency Power Amplifier	
Rated Power:	1000 watts peak
Rated THD	< 1%
Cooling	Convection
Design:	Class D
High Frequency Power Amplifier	
Rated Power:	300 watts peak
Rated THD	< 1%
Cooling	Convection
Design:	Class D

System Processing

Voicing	3 speaker modes
Reverb	Off, 1-3

Equalization

Low	+5 / −15 dB @ 90 Hz
High	+5 / −15 dB @ 6.0 kHz

Input/Output

Input Type:	2x Female XLR Balanced 4x 1/4″ Balanced / Unbalanced 1/8″ Stereo
Mic-Line Impedance:	8 kΩ balanced
1/4″ Hi-Z Impedance:	1 MΩ unbalanced
Mix Out:	Male XLR Balanced
Mix Out Impedance:	600 Ω balanced

Bluetooth Information

Bluetooth Protocol:	4.2
Bluetooth Function:	Audio Streaming and User Interface Control
Bluetooth Class:	Class 1

Crossover Point

Crossover Frequency:	600 Hz (18 dB Butterworth)

Line Input Power

Detachable line cord	~100 – 240VAC, 50 – 60 Hz, 110W
AC Connector	3-pin IEC 250VAC, 10 A male
Power Supply Type	Switchmode

Safety Features

Input Protection	Peak and RMS limiting, power supply and amplifier thermal protection
Status Info	Input and output levels, reverb levels, sig / OL, EQ settings, speaker mode

Construction Features

Basic Design:	Asymmetrical
Enclosure Material:	Polypropylene
Enclosure Finish:	Black Polyurea
Grille Material:	Perforated steel
Grille Finish:	Powder-coated black
Handles:	One on the top panel of the base station
Display LEDs	
Front:	Defeatable power
Top:	Power, Limiter, Bluetooth
Operating Temperature:	0 – 40 ˚C 32 – 104 ˚F

SRM-Flex Specifications continued...

Physical Properties

Base Station:

Height:	17.0 in / 432 mm
Width:	13.0 in / 330 mm
Depth:	14.2 in / 361 mm

High Frequency Section:

Height (each):	22.5 in / 572 mm
Height (total):	67.5 in / 1715 mm
Height (total w/base):	79.0 in / 2007 mm
Width:	2.8 in / 71 mm
Depth:	3.0 in / 76 mm

Weight (total):	29.6 lb / 13.4 kg

Accessories (Included)

|	
SRM-Flex Carry and Cover Kit	P/N 2051980-00

Disclaimer

Since we are always striving to make our products better by incorporating new and improved materials, components, and manufacturing methods, we reserve the right to change these specifications at any time without notice.

The "Running Man" figure is a registered trademark of LOUD Audio, LLC.

All other brand names mentioned are trademarks or registered trademarks of their respective holders, and are hereby acknowledged.
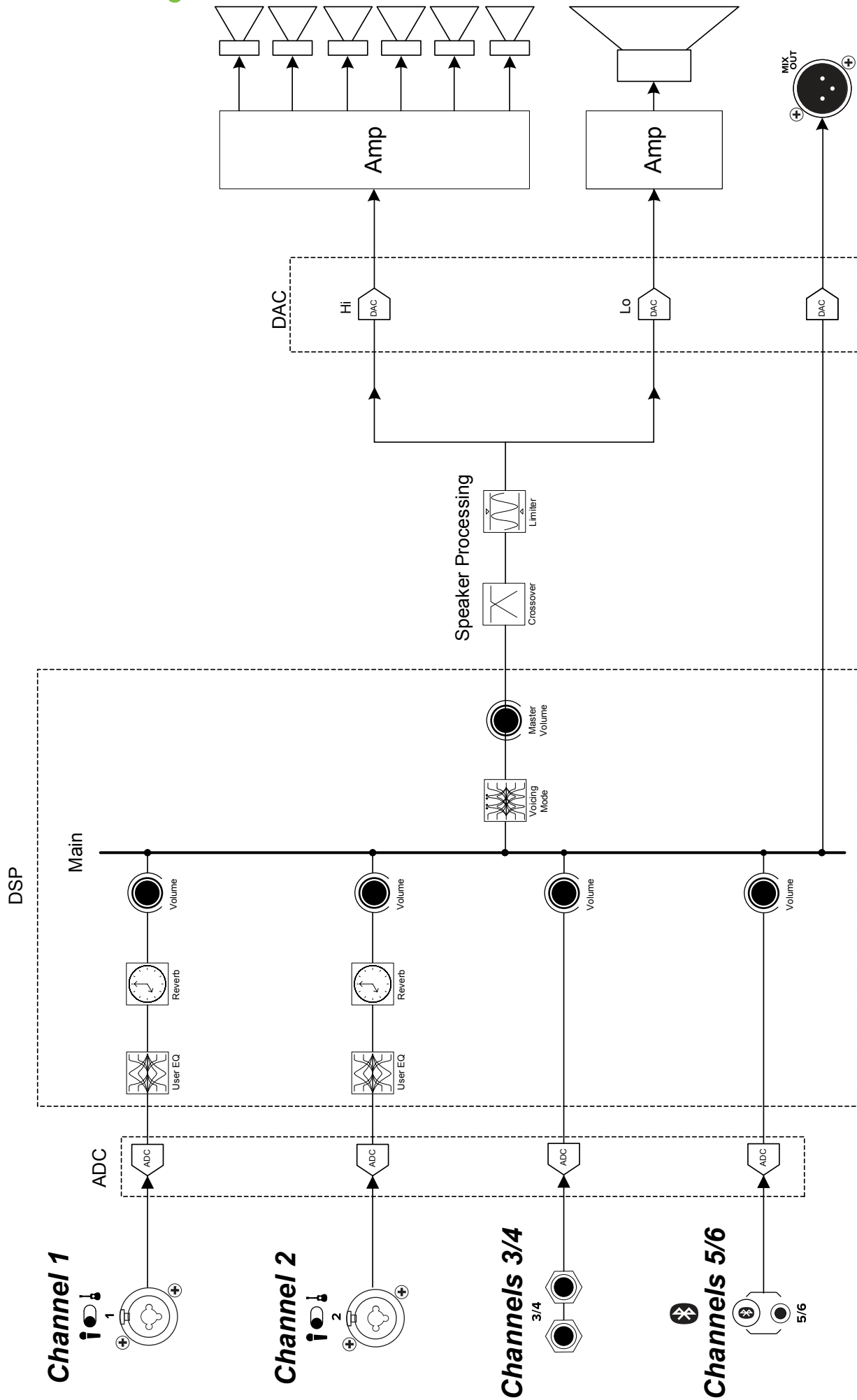
©2019 LOUD Audio, LLC.
All Rights Reserved.

SRM-Flex Dimensions
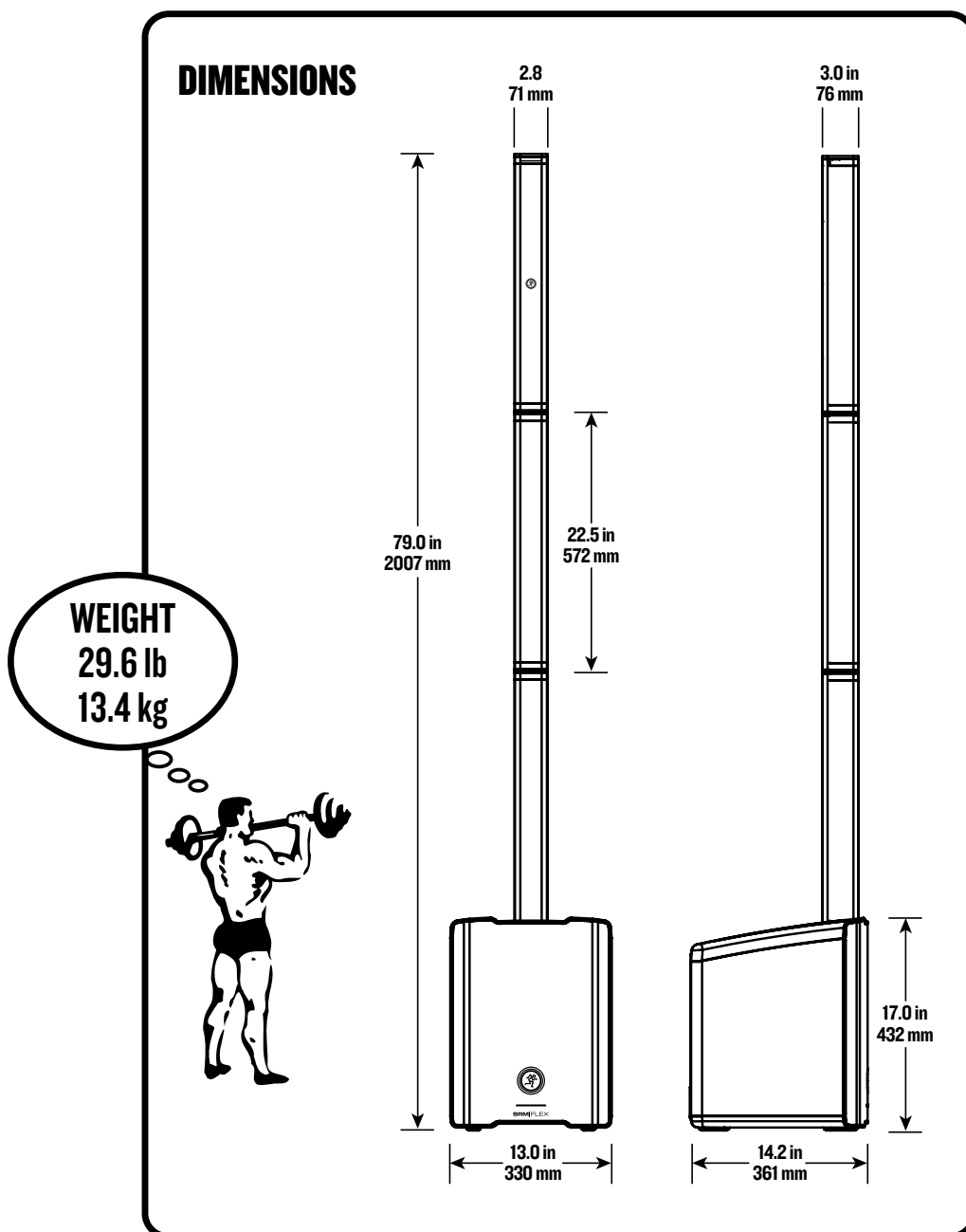
Limited Warranty

Please keep your sales receipt in a safe place.

This Limited Product Warranty ("Product Warranty") is provided by LOUD Audio, LLC ("LOUD") and is applicable to products purchased in the United States or Canada through a LOUD-authorized reseller or dealer. The Product Warranty will not extend to anyone other than the original purchaser of the product (hereinafter, "Customer," "you" or "your").

For products purchased outside the U.S. or Canada, please visit www.mackie.com to find contact information for your local distributor, and information on any warranty coverage provided by the distributor in your local market.

LOUD warrants to Customer that the product will be free from defects in materials and workmanship under normal use during the Warranty Period. If the product fails to conform to the warranty then LOUD or its authorized service representative will at its option, either repair or replace any such nonconforming product, provided that Customer gives notice of the noncompliance within the Warranty Period to the Company at: www.mackie.com or by calling LOUD technical support at 1.800.898.3211 (toll-free in the U.S. and Canada) during normal business hours Pacific Time, excluding weekends or LOUD holidays. Please retain the original dated sales receipt as evidence of the date of purchase. You will need it to obtain any warranty service.

For full terms and conditions, as well as the specific duration of the Warranty for this product, please visit www.mackie.com.

The Product Warranty, together with your invoice or receipt, and the terms and conditions located at www.mackie.com constitutes the entire agreement, and supersedes any and all prior agreements between LOUD and Customer related to the subject matter hereof. No amendment, modification or waiver of any of the provisions of this Product Warranty will be valid unless set forth in a written instrument signed by the party to be bound thereby.

Need help with the SRM-Flex?

• Visit www.mackie.com/support to find: FAQs, manuals, addendums, and other documents.

• Email us at: www.mackie.com/support-contact

• Telephone 1-800-898-3211 to speak with one of our splendid technical support chaps (Monday through Friday, normal business hours, Pacific Time).

MACKIE.