

Dani User-manual



PL5580



developed in Canada
built to survive alien invasion

Introduction

Thank you for choosing Dani by Dillinger Labs – a SKAA Pro wireless audio Transmitter designed for pro audio applications.

- SKAA/SKAA Pro dual-mode Transmitter with 50 meter range, DC-coupled Burr Brown input buffers and Burr Brown converters, balanced/unbalanced line level inputs as well as Thrus for daisy chaining
- Companion to the Streethart SKAA/SKAA Pro Receiver – 1 Dani can feed up to 4 Streetharts
- Pro-grade SKAA wireless audio. 100% Bluetooth free. 100% WiFi free.
- Works with all SKAA Receivers and all SKAA Nadja Hubs (in satellite/receive) mode – including all SKAA-equipped speakers such as those from Soundboks
- Designed specifically to upgrade virtually any piece of source-side pro audio gear to SKAA/SKAA Pro wireless
- Perfect for upgrading your DJ deck, live sound mixer or recording interface to SKAA wireless
- Ideal for replacing long XLR or TRS cable runs – for this application we recommend you use Streethart Receiver(s) on the audio sink side
- Accepts 2 discrete audio channels on two ¼” jacks, transmits them wirelessly via SKAA/SKAA Pro and also outputs them on the Thru jacks
- Accepts hot input signals up to +24dBu
- Perfect for creating a wireless headphone solution for DJs or a cue mix system for studio
- Need to add an extra pair of monitor speakers to the “band room” in your studio? Upgrade a pair of powered monitors with a single Streethart to fill that remote room with low-latency audio, and feed them from your control room with Dani

For the curious and intrepid few who’ve always wondered what this meant but were too afraid to ask ...



The SKAA® standard for wireless audio guarantees compatibility between all products bearing the SKAA Compatible Badge. SKAA Transmitters work with iOS & Android mobile devices, Mac & Windows computers, televisions and any product having a line output, S/PDIF output or a headphone jack.

SKAA semiconductor components enable SKAA to be embedded in consumer audio and pro audio products. Not based on Bluetooth or WiFi, SKAA is a global standard built from the ground up specifically for audio. Learn more at www.SKAA.com

- Love your powered PA speakers? Great – convert them to lightning-fast SKAA wireless by adding Streetharts to them – then feed them wirelessly with your Dani
- Connect Dani to your DJ deck to feed your Soundboks speakers directly with low latency SKAA Pro wireless
- Select -10 dBV using the Level Switch on Dani’s input panel and you can feed Dani with consumer-grade audio sources such as your phone or computer
- Dani will run for 14 hours from a full charge using its internal rechargeable Li-Ion battery

We like to make our products easy to use and Dani is no exception!

Still, to fully unleash the considerable capabilities of this shiny new work of art, we vehemently advise you to read the Owner’s Manual. Its pages are brimming with juicy morsels of invaluable insights, irreverent commentary, and other assorted nuggets of paradigm-altering revelation. We really put our foot into this one so we hope you love your Dani as much as we do.

Pretty pics

USER Panel

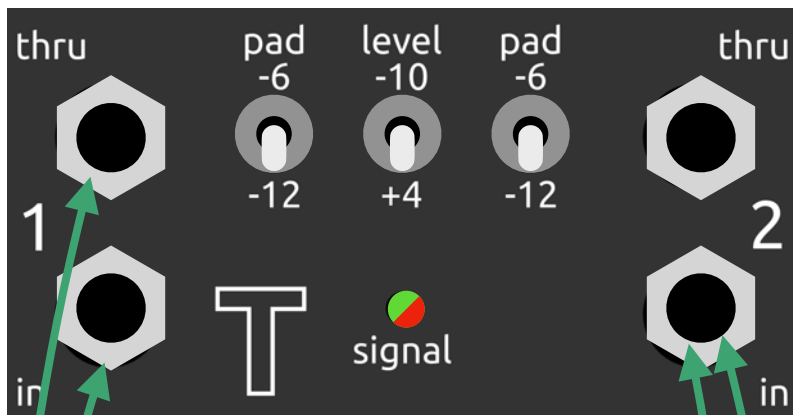


INPUT Panel



Even its feet are AWESOME





INPUT panel: Jacks

- These are balanced/unbalanced ¼" TRS line level inputs with input impedance greater than 20 k ohms
- What's on the other side of those jacks? DC-coupled Burr Brown differential input buffers, followed by Burr Brown analog to digital converters – yes, for you, *only the best!*
- Inputs 1 & 2 are most commonly used for Left and Right audio respectively, but you can use them for anything you want
- For example, you can send your FOH (front of house) mix on channel 1 and your headphone cue mix on channel 2
- Dani's inputs can handle up to +24 dBu of signal each – just engage the pads as needed
- Since you don't have to back down your source outputs to feed Dani, when you've got amplifiers wired up to Dani's Thrus, those amps will be able to achieve their max rated wattage
- Have XLR outputs on your mixer or DJ controller? Perfect; use two XLR-F to ¼" TRS cables to feed Dani with balanced signal. This is *the* best way to connect because the signal is strongest and the noise is lowest.
- Got RCA outputs on your mixer? No problem, Dani's inputs will happily accept unbalanced signals, too
- With an RCA source you can use a standard stereo RCA cable to make your connection – just pop a pair of ¼" TS to RCA adapters into Dani's input jacks and use a stereo RCA cable to connect your device to Dani
- SKAAstore.com has these handy ¼" TS to RCA adapters and also has a great stereo ¼" to RCA cable if you want a one-piece cable for minimum fuss
- Of course ¼" sources (both balanced TRS and unbalanced TS) work great with Dani, too
- When using an unbalanced audio source (keyboard, etc.), always use UNBALANCED (TS) cables. This will guarantee the ring (cold conductor) gets properly grounded on the Ins.
- Want to feed Dani from a 3.5 mm headphone jack from, say, a phone or a computer? No problem; just use a 3.5mm to 2 x ¼" TS cable, set your Level Switch to -10 and you're all set.

This ridiculously-large "T" is a handy reminder that Dani is a Transmitter of wireless audio

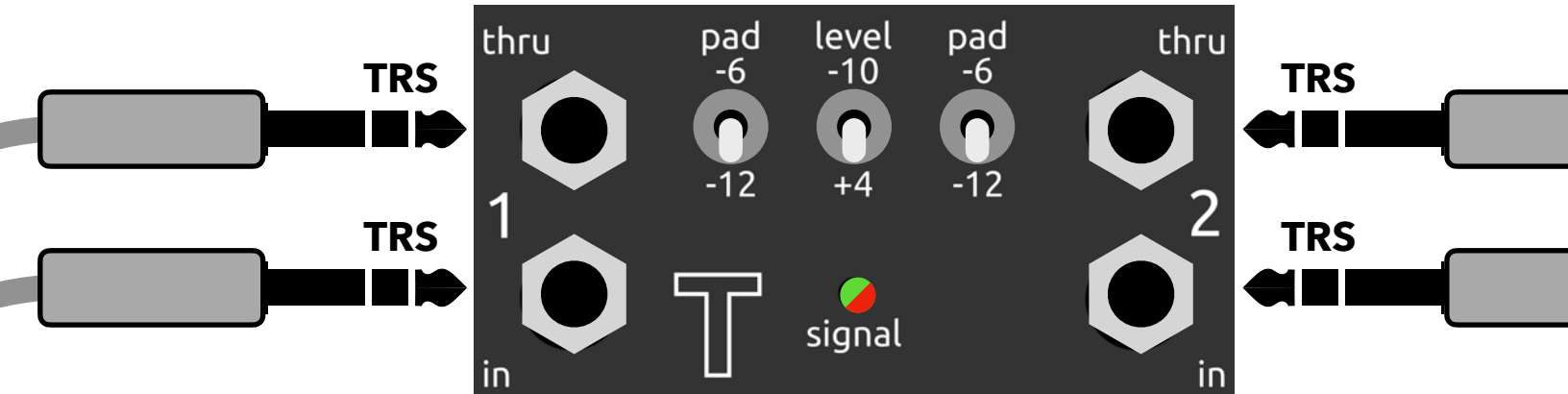
Dani has 2 balanced/unbalanced inputs (2 lower jacks) which are transmitted wirelessly on SKAA channels 1 and 2

The Thrus (2 upper jacks) are outputs which don't output anything until you connect something to the inputs. Each Thru is hard wired directly to its respective In and will output exactly what's entering Dani, completely unaltered and unpadding

Pro Tip for sending mono audio: Plug your mono audio source into In 1. On the latest Dani models, In 2 is normalled to receive the audio from In 1 if you jack into In 1 only, leaving In 2 unconnected. The In 1 audio also appears on both Thrus 1 and 2. If you have an older Dani which doesn't do this, you can achieve the same thing by plugging a patch cable from Thru 1 to In 2 (TRS patch cable is best if you're feeding In 1 from a balanced source)

Cables for your Dani for **BALANCED** audio sources

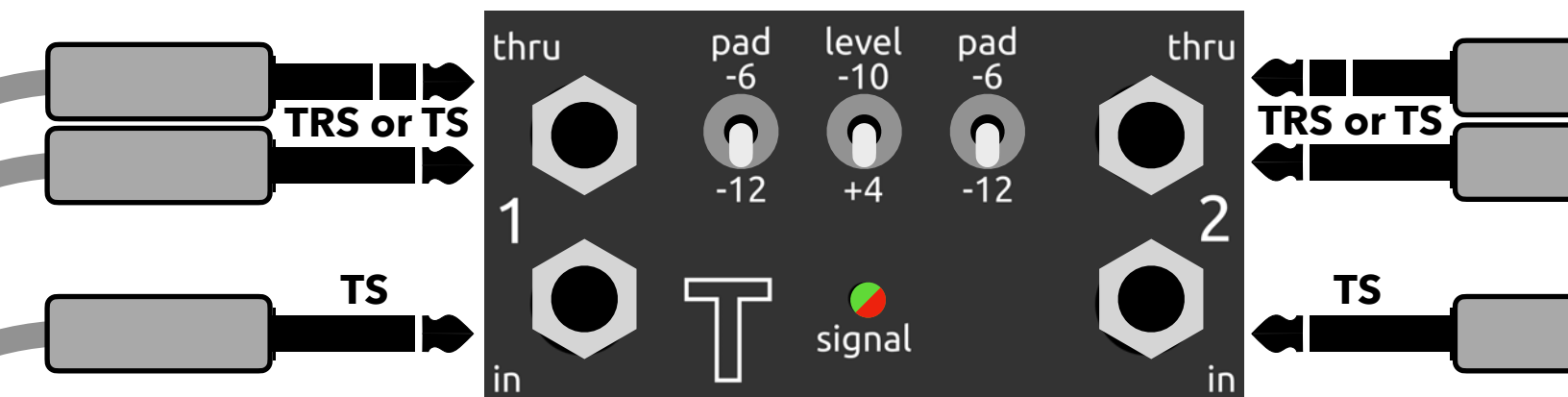
- If your audio source device has balanced outputs, use TRS (balanced ¼" phone) cables to connect it to Dani for best results
- TRS means "Tip, Ring, Sleeve"; so in other words, 3 conductors. Below you can see that there are 3 discrete sections of conducting metal on TRS plugs.
- The other end of a TRS cable will typically be either **TRS** or **XLR female**
- Check out SKAAstore.com for all the cables you need



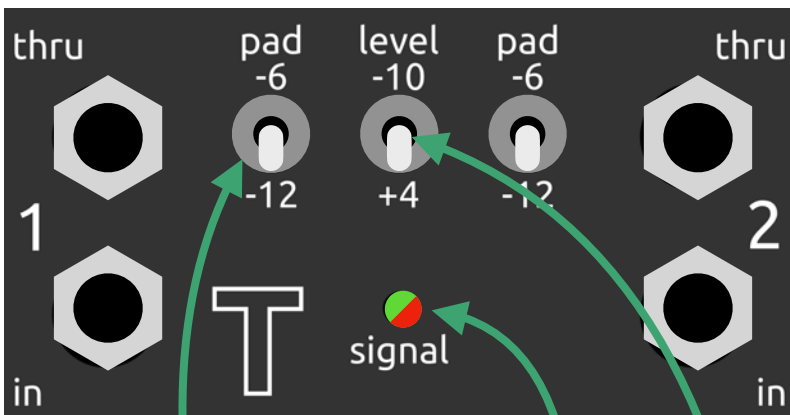
- If you are feeding Dani's inputs with TRS, avoid using TS cables in the Thrus as this will unbalance Dani's inputs and your signal level will be cut in half (made quieter)

Cables for your Dani for **UNBALANCED** audio sources

- If your audio source device has unbalanced outputs, use TS (unbalanced ¼" phone) cables in Dani's Ins and either TS or TRS cables in Dani's Thrus
- TS means "Tip, Sleeve"; so in other words, 2 conductors. Below you can see that there are 2 discrete sections of conducting metal on TS plugs.
- The other end of a TS cable will typically be either **TS** or **RCA**



- A common use case when you'll need to use TS connections is when your audio source device has RCA outputs. SKAAstore.com has cables which are 2 RCA to 2 TS which are perfect for this. You can also use a common 2 RCA - 2 RCA cable and 2 x RCA to TS adapters on one side.
- If your source device is balanced but you're short on balanced cables, you may find yourself feeding Dani with a TS cable to In 1 and a TRS cable to In 2 or vice versa. You'll notice that whichever channel has the TRS connection is louder than the other channel. That's because it has literally twice the signal pouring into it. You can fix the situation by padding the TRS channel by 6 dB (or more accurately, by 6 dB more than the TS channel is padded) – this will lower the TRS signal level to match the TS one.



Each channel has a dedicated Pad Switch – pads are off in the center position

Signal LED
Green = audio
Red = peak

Set the Level Switch to +4 dBu when feeding Dani from pro gear and -10 dBV when feeding Dani from consumer products such as phones and computers

The Signal LED flashes Red when the signal gets within 3 dB of clipping. If the Signal LED is flashing Red a lot, engage the pads until the Signal LED only flashes Red infrequently. Green flashing most of the time is what you want to see.

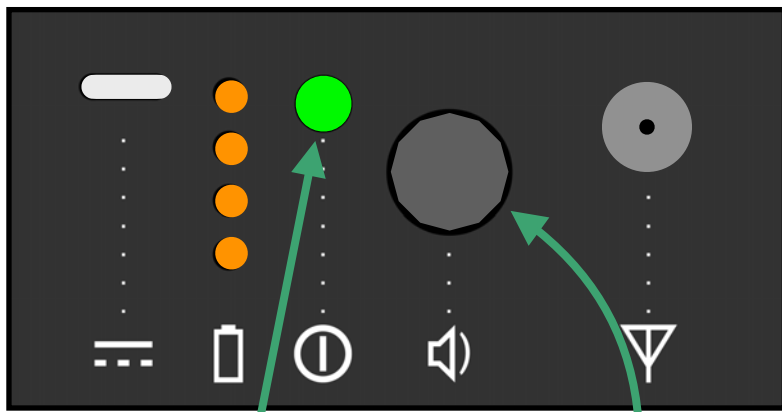
If it's too distracting, you can turn off the Green flashing of the Signal LED. Click the volume knob (single click) on the rear panel (it's a button, too). The Signal LED will then display Red only (peaks only). Click again to get Green back. Green is always enabled when you power on your Dani.

Pro Tip: set all 3 switches to the down position and turn your mixer up – Dani can handle up to +24 dBu signals, so bring it

INPUT panel: Switches and LED

- Dani can handle a wide range of line level signals, from wimpy to paint-peeling
- Start with the 2 pad switches in the middle position (all pads OFF)
- Next, set the Level Switch – the one in the center of Dani's front panel. Set it to -10 dBV for consumer source devices (for example phones, computers, iPads, etc.); or set it to +4 dBu for pro source devices (mixing desks, recording interfaces, DJ decks, keyboards, synths, electronic drums, etc.)
- Connect your source device to inputs 1&2 and play a loud song – turn up the volume on your audio source device nice and high – somewhere in the range of 80 - 100% volume level will usually deliver the best results
- Now have a look at the Signal LED – it will flash Green along with the music when there is signal flowing into Dani and Red when the signal is peaking (when signal is within 3 dB of clipping)
- If the Signal LED flashes Green all the time or if it flashes Red only rarely, you're good to go
- If you see the Signal LED flashing Red quite a lot, try setting the 2 pad switches to -6 dB. If the Red flashing goes away or happens very infrequently, you're good to go
- If you have a super hot source, you can try backing off the output level of the source device – or just set the pads at -12 dB to calm down the Signal LED
- If you want to use Dani with a microphone source, you'll need a preamp between the microphone and Dani to boost the signal from "mic level" to "line level". Most DJ decks and virtually all mixers have mic preamps built in.
- Dani will work with many acoustic guitars so long as they have an active pickup. Use a TS patch cable to connect the guitar directly to In 1. Turn off the pads and try the Level Switch in both -10 and +4 to see which one works better.
- Tip: Dani's inputs don't have the right impedance for electric guitar/bass, but putting almost any guitar pedal in between your guitar and Dani will fix that problem. Take the output of the pedal and plug it into Dani's In 1 jack with a TS patch cable. Try an EQ to get that Fender feeling or an EQ followed by a JHS Charlie Brown to get your Marshall Plexi on.

USER Panel: Power & Volume

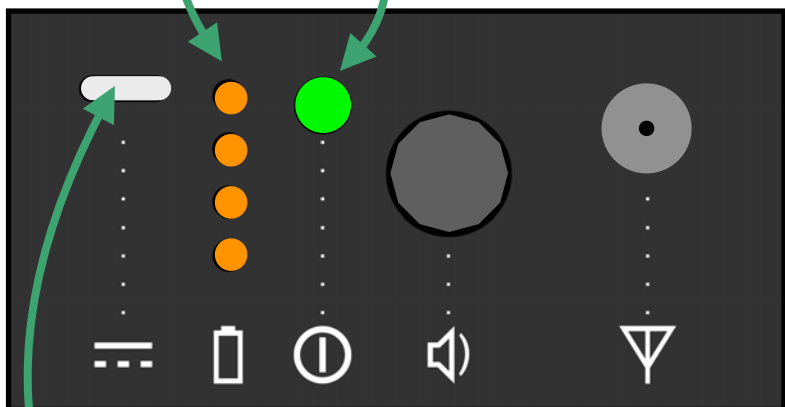


Hold the Power Button for a few seconds to turn Dani ON/OFF

Volume Knob: Rotate to adjust Global Volume – this affects the volume on ALL downstream Receivers

- Triple click Dani's Volume Knob to mute all downstream Receivers – you'll see all their Bond Indicators slow flash when you do this. Triple click again to unmute all downstream Receivers.
- If you want to mute/unmute only specific Receivers, triple click their individual Bond Buttons (see SKAA Receiver User's Guide later in this document)
- All modern SKAA Receivers (those launched in 2019 and later), including the Soundboks Gen 3 speakers, Dillinger Labs Helix headphones and Dillinger Labs Aquarius speakers, are compatible with both **SKAA** and **SKAA Pro** operation – they will automatically kick into whichever mode Dani is in when they Bond to Dani
- When in SKAA mode (Green Power Button), Dani will power off its radio transmitter (which will drop Bond to all downstream Receivers) after 2.5 minutes of no audio (silence) on its inputs – and, if it's operating from its battery, Dani will automatically power itself OFF 60 minutes later
- When in SKAA Pro mode (Red Power Button), Dani will power off its radio Transmitter (which will drop Bond to all downstream Receivers) after 20 minutes of no audio (silence) on its inputs – and, if it's operating from its battery, Dani will automatically power itself OFF 60 minutes later
- Power Dani ON/OFF by holding down the Power Button for a few seconds
- A Green glowing Power Button means that Dani is ON and operating as a **SKAA Transmitter**
- In Green mode, Dani will feed up to 4 SKAA Receivers at 36 ms of latency
- A Red glowing Power Button means that Dani is ON and operating as a **SKAA Pro Transmitter**
- In Red mode, Dani will feed up to 2 SKAA Receivers at 19 ms of latency
- When powered on, you can change Dani's operational mode by triple clicking the Power Button (click 3 times, fast). This reboots Dani and you can watch the Power Button alternate between Green and Red each time you triple click.
- Dani has a Global Volume control knob which affects all downstream Receivers Bonded to this particular Dani. If you want to affect individual Receivers' volumes to balance things out, use the Local Volume controls on the Receivers themselves.
- Turn Dani's volume knob clockwise to increase the volume and counter clockwise to decrease it
- The output level of your Receivers depends on both the Receiver's Local Volume (which is set by the volume buttons or knob on the Receiver) and the Global Volume (Dani's volume knob)
- **Global and Local Volume example:** say Dani is set to 50% and your Receiver is set to 80% then the net output level from your Receiver will be $0.5 \times 0.8 = 0.4$ or 40%
- **Level Setting:** Start by setting the Global Volume on Dani to "full up". Make sure your Receivers are Bonded to Dani (see SKAA Receiver User's Guide later in this manual if you need help with this). Watch the Bond Indicator on your Receiver(s) as you crank the volume on Dani – the Bond Indicator will flash with each volume step as you crank Dani up. When it stops flashing, you know Dani's volume is at the top. Now back it down about 10 steps (you can feel the clicks as you turn the knob). Set your Receivers to around 50 - 75% volume using their Local Volume. Play some music through Dani and adjust the Local Volume on your Receivers to balance them relative to each other. At least one of your Receivers should be at 100% Local Volume. Now you can use the Global Volume knob on Dani to control the whole speaker network as one.

While Dani is powered on, click the Power Button once to display the battery life remaining



Type C power jack – use the included Type A to Type C cable with a USB power adapter to charge your Dani – keep in mind, this jack is for POWER ONLY – if you plug Dani into your computer, nothing magical will happen except Dani's battery becoming fuller!

Note: You can replace Dani's 18650 battery cell say 5-8 years down the road, when the battery is showing its age – remove 2 screws and you have access – do so only if you're "handy." Also make sure to properly dispose of your old battery by placing a piece of tape on both ends and dropping it off at your local recycling depot.

USER Panel: Battery and Charging

- Dani will run for 14 hours from a full charge, using its internal battery
- Dani will automatically power OFF when the battery is fully depleted
- Virtually any 5V USB power adapter, such as an ordinary mobile phone charger, will charge your Dani
- Charge time depends on the electric current supply capability of your USB power adapter – Dani is capable of fast charge if your adapter can supply at least 2 A
- Dani's battery will charge in 2 hours (from fully depleted) – it will take longer if your USB Power Adapter can't provide at least 2 A
- Note: If you use your computer's USB port to charge Dani, it may take a long time
- You can continue using Dani while it charges
- Pro Tip: If you hear hum or buzz while you're charging Dani, make sure you're charging it from a standalone wall charger. Sometimes the mixer or deck you're feeding Dani audio from will have a handy USB charging port, but using it can create a ground loop which can cause hum or buzz in your audio. If you want to charge Dani from it go ahead; just disconnect the charging cable before the gig.
- To find out how much battery life remains: make sure Dani is powered on (the Power Button must be glowing either Red or Green) – then click the Power Button once to activate the Battery Life Indicator (the stack of 4 orange LEDs)
- The Battery Life Indicator gives you a visual indication of the amount of energy remaining in Dani's internal battery – it stays on for a few seconds and then automatically shuts off
- When there is about 45 minutes of operating time remaining, the bottom LED in the stack will start to flash slowly (the one right beside the battery icon) – a click on the Power Button is NOT necessary to see this "low battery" flashing indication
- When Dani's internal battery is being charged, the top LED in the stack (the one right beside the Type C connector) will glow solid, even if Dani is powered off. When the charging cycle finishes, this LED will turn off to let you know that Dani's battery is fully charged.

USER Panel: Antenna

Included +2 dBi
Antenna



- Dani is capable of up to 50 meter reliable range with the included +2.33 dBi screw-on 1/2 λ Swivel Type Dipole Antenna
 - Your actual reliable range will also depend on how well the Antenna is implemented in the receive-side device
 - For example, a Streetheart SKAA Pro Receiver is also rated for 50 meter range and therefore, you can count on actually getting 50 meter range in practice when you use Dani and Streetheart together
 - If your Receiver is rated for less than 50 meter range, then the lower of the 2 rated ranges will apply
 - Dani's Antenna can be removed by unscrewing it – do this to protect Dani from damage during transport. Just like you always unplug the audio cables from Dani, get into the habit of removing the Antenna before you toss Dani into your gig bag.
 - The SMA stud, as well as all switches, buttons, indicators and jacks, are protected by the protruding lip of Dani's aluminum enclosure – but for sure you still need to remove the Antenna for transport and not doing so may void your warranty
 - Normally, you should orient Dani's Antenna vertically (point it straight up) – see the diagrams on the next page
 - For best results, get Dani, and therefore its Antenna, *elevated*, as high as possible. Forget about the dog, let's get *Dani high!*
 - If you're using multiple Danis in your setup, separate them from each other by at least 2 meters. If you need to have them close together and you're getting poor range, try orienting their antennas up to 45° from vertical (and 90° from each other).

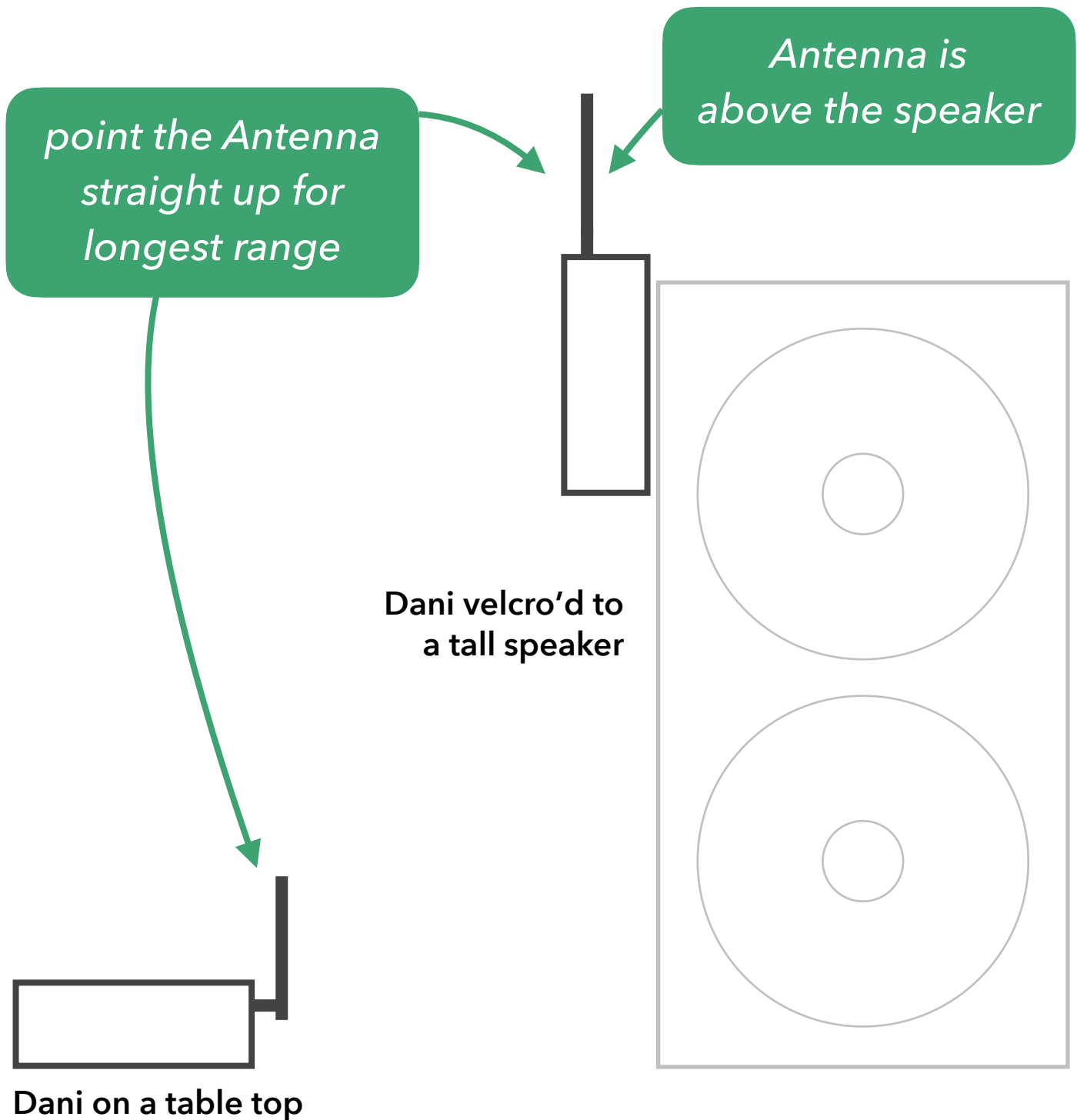
Antenna Positioning Tips:

1. Place your Dani in an elevated location for maximum range
2. Keep the Antenna pointed straight up



USER Panel: Antenna (cont.)

- If you've velcro'd Dani to a vertical surface such as one of your front-of-house speakers, re-orient the Antenna so it's pointed straight up and make sure the Antenna clears the speaker grill – in other words, make sure the entire length of the Antenna is above the top of the metal grill of the speaker – see the diagram below




Wondering how to get Streetheart and other SKAA Receivers, speakers and headphones to Bond to your new Dani Transmitter?














... discover the power of the Bond Button, found on all SKAA Receivers, in the next 2 pages










SKAA® RECEIVER USER'S GUIDE

Each SKAA receiver uses a *Green List* to remember your *favourite* audio sources (SKAA transmitters). A Green glowing Indicator on your receiver means you are listening to a favourite, or hunting for one. You can also *explore* to find new transmitters—an Amber Indicator means you are *exploring* for transmitters which are not on your Green List. The  Bond Button on your receiver lets you select which audio source (SKAA transmitter) you're listening to.








Essentials

 <i>Button</i>	<i>Command</i>	<i>Indicator</i>
Hold a few seconds	<u>Add / Delete</u> Manually add / delete the current transmitter to / from your Green List	 to  = Added  (flash) = Deleted
-	<u>Auto Add</u> SKAA will automatically add the current Amber transmitter to your Green List if you listen to it for 30 minutes	 to  = Added
1 Click	<u>Green Mode</u> Rotate through your list of <i>favourite</i> transmitters (Green List) — when a favourite transmitter is found, the search stops and audio plays from that transmitter	 (dim) = Hunting  (flash) = Next one  (bright) = Bonded
2 Clicks	<u>Amber Mode</u> <i>Explore</i> for new, unknown transmitters (ones which are not already on your Green List)	 (dim) = Hunting  (bright) = Bonded

More Commands

 <i>Button</i>	<i>Command</i>	<i>Indicator</i>
3 Clicks	<u>Mute</u> do again to Unmute; any Click command will first Unmute and then do its function	 ,  or  = Muted (slow flash)
4 Clicks	<u>Red Mode</u> If you have 2 or more transmitters on your Green List, power on just the one you want to hear and it plays automatically.	 (dim) = Hunting  (bright) = Bonded
6 Clicks	<u>Factory Reset</u> Clear Green List. Start Over!	 (flash) = Reset Done
Hold during power on	<u>Make a Cluster of Receivers:</u> <ol style="list-style-type: none"> 1. Power off all transmitters and receivers 2. Power on the Master receiver while holding down its Bond Button—hold the button down until the Indicator begins to flash Red 3. With the remaining receivers within 3 meters of the Master receiver, power on the first one, wait for its Indicator to flash Red and then power on the second one; continue until all of them are powered on 4. Once all of the Indicators stop flashing (turn solid Red), power off all of the receivers 	 (flash) = Receiver has entered 'Cluster Up' mode  (bright) = The Cluster has been successfully made

QUESTIONS AND ANSWERS

Question	Answer
How does the Green List work?	You can store up to 10 SKAA transmitters on your Green List. These are your “favourite” audio sources. Every time you add a transmitter, it is assigned the first open spot on the Green List. When you single click the  Bond Button, the receiver hunts through the Green List much like a car radio hunts for radio stations when you press seek. If the Indicator is dim Green and flashes every few seconds, this tells you the receiver is hunting through the Green List. Say you have 5 transmitters on your Green List; your receiver will hunt through the list one by one: 1, 2, 3, 4, 5 and then back to 1 and so on. The dim Green Indicator flashes every time the receiver moves to the next spot on the list. This hunting goes on for up to 1 minute. If your receiver doesn't find any of your favourite transmitters, it stops hunting and just waits for the last bonded favourite. If your receiver does find one of your favourite transmitters, the hunting stops, the Indicator turns bright green, and your receiver starts playing audio from that favourite. A dim Green Indicator that is NOT flashing means the receiver is just sitting on one spot, waiting for a specific favourite transmitter to show up.
How do I bond with a specific Green transmitter?	Play audio from your source device and ensure it has a SKAA transmitter connected. Click the  Bond Button on your receiver. The receiver hunts through the Green List, flashing the Indicator as it goes. Once your receiver finds one of your favourite transmitters, it bonds to it and plays audio from that transmitter. If that isn't the transmitter you wanted, click the Bond Button once more. Repeat until your receiver bonds with the transmitter you want and you're hearing the correct audio playing.
How do I select transmitters if I can't reach my Bond Button?	Say you want to put your receiver on a high shelf where you can't reach the Bond Button easily. First, set up your Green List: add all of the transmitters you'll want to use. Then 4-click the  Bond Button to enter Red Mode. Now put the receiver up on the high shelf. Power on just one of your transmitters and power off all others. The receiver automatically bonds to the transmitter that's on.
How do I delete a transmitter from my Green List?	Factory Reset (6 Clicks of the Bond Button) clears the Green List and lets you start over from scratch. If however, you'd like to delete just one transmitter from your Green List, first bond your receiver to the transmitter you wish to delete. See the section above: How do I bond with a specific Green transmitter? . Once you are bonded to it, hold down the  Bond Button for a few seconds until you see the Indicator flash Red –this Red flash means the transmitter has been deleted.
What is a Cluster?	Clusters are an optional convenience for “power users”. A Cluster is several SKAA receivers behaving as one product. A left & right speaker pair, for example, or a sound bar and subwoofer.
What is the Master receiver?	In any Cluster, there is a single Master receiver, and all of the other receivers in the Cluster follow its behaviour. You can control the entire Cluster by operating the  Bond Button of the Master. A receiver must have a physical Bond Button in order to become the Master.
How do I “uncluster” several receivers?	Do the Make a Cluster of Receivers procedure once for each receiver, but omit Step 3. Do them one at a time. This gives each of the receivers a functioning  Bond Button, and each of them will thereafter operate independently.
What are some tips for making Clusters?	Each step in the Make a Cluster of Receivers procedure has a 10-second time limit. When you see the Master's Indicator start to flash Red, you have 10 seconds to power on the next receiver. When that receiver's Indicator starts to flash Red, you have 10 more seconds to power on the next one, and so on.
Why does only one of my Bond Buttons work?	When you make a Cluster from several receivers, the first one powered on in the Make a Cluster of Receivers procedure becomes the Master of the Cluster. Only the Master's  Bond Button works because a Cluster uses just one Green List –the Master's Green List. The Bond Button of each of the other receivers will work only for the Mute / Unmute function (3-Click of the Bond Button).
Can any group of receivers be made into a Cluster?	No. The receivers must be members of the same product family. If they are not, the Make a Cluster of Receivers procedure won't work. This is because only receivers which were designed to work together (as a single product) can be made into a Cluster.

Specifications

Parameter	Conditions	Value
Inputs		2 x ¼" TRS Balanced or TS Unbalanced
Thrus		2 x ¼" TRS wired in parallel to each respective input
Input Impedance	Line-GND, Balanced or Unbalanced	> 20 kΩ
Qty. Discrete Audio Channels		2
Standard Compatibility	SKAA OS 2.1 and later	Any SKAA speakers, SKAA headphones, SKAA Receivers
Input Pads (Each Channel)		0 dB, -6 dB, -12 dB, user selectable
Max Input Level (0 dB FS)	Level -10, No pad, <0.1% THD+N, 997 Hz	1 V rms
Max Input Level (0 dB FS)	Level -10, -12 dB pad, <0.1% THD+N, 997 Hz	4 V rms
Max Input Level (0 dB FS)	Level +4, No pad, <0.1% THD+N, 997 Hz	+12 dBu
Max Input Level (0 dB FS)	Level +4, -12 dB pad, <0.1% THD+N, 997 Hz	+24 dBu
Signal LED Thresholds	Reference: 0 dB FS at the ADC input	Green: -20 dB, Red: -3 dB, of the greater of channel 1&2
Frequency Response	Reference: 997 Hz @ 0 dB FS	20 Hz - 20 kHz, +/- 0.3 dB
THD+N	-1 dB FS, 20 Hz -20 kHz, 24 kHz BW	<0.03%
SNR Unweighted	997 Hz @ 0 dB FS, 24 kHz BW	>91 dB
SNR A-weighted	997 Hz @ 0 dB FS, 24 kHz BW	>94 dB
Crosstalk, Unbalanced	Channel to Channel, 0 dB FS, 20 Hz -20 kHz	>58 dB
Crosstalk, Balanced	Channel to Channel, 0 dB FS, 20 Hz -20 kHz	>66 dB
Digital Resolution		48 kSamples/second, 16 bit, each channel
SKAA Transport Latency	I2S digital to I2S digital	36.72 ms, +/- 1.5 samples
SKAA Max Qty. Receivers	Concurrently Bonded	4
SKAA Pro Transport Latency	I2S Digital to I2S Digital	19.39 ms, +/- 1.5 samples
SKAA Pro Max Qty. Receivers	Concurrently Bonded	2

CONGRATULATIONS on your new bouncing baby Dani

Subscribe to SKAAwireless channel on YouTube for HOW-TO vids!

Need audio cables, mics or adapters? SKAAstore.com has what you need!

Join us on social media ... visit SKAA.com and follow the links



support: dillingerlabs.com/contact

FCC Statement

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 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.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

IC Warning

This device complies with Industry Canada license-exempt RSS standard(s).

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.

Changes or modifications not expressly approved by the party responsible for compliance could void the user' s authority to operate the equipment. This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Cet équipement est conforme aux limites d'exposition au rayonnement ISED établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé à une distance minimale de 20 cm entre le radiateur et votre corps.

This radio transmitter [IC:3534A-PL5550] has been approved by Innovation, Science and Economic Development Canada to operate with the antenna types listed below, with the maximum permissible gain indicated. Antenna types not included in this list that have a gain greater than the maximum gain indicated for any type listed are strictly prohibited for use with this device.

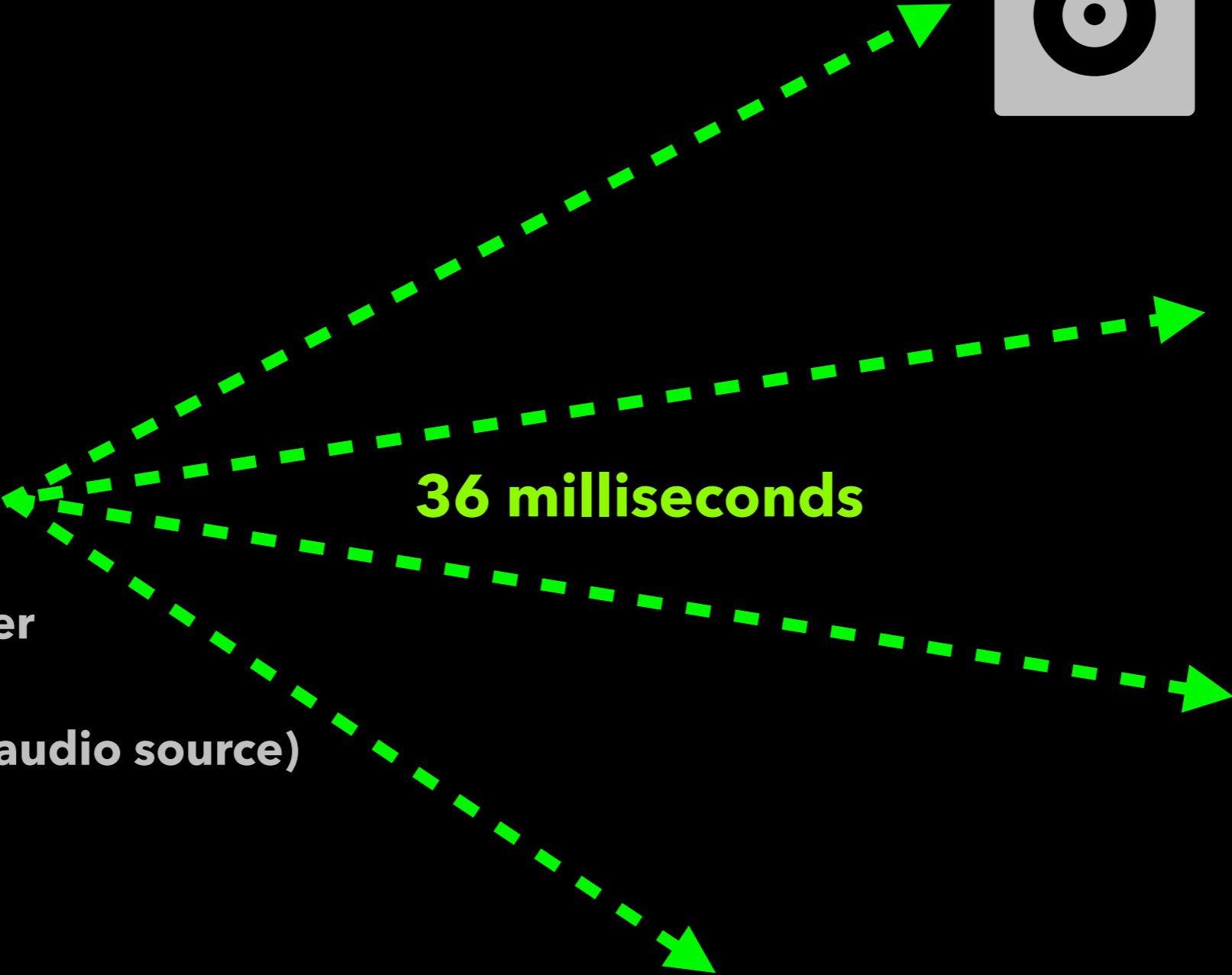
Antenna Types

Antenna Types	Maximum gain (dBi)	Impedance
Dipole	2.33	50

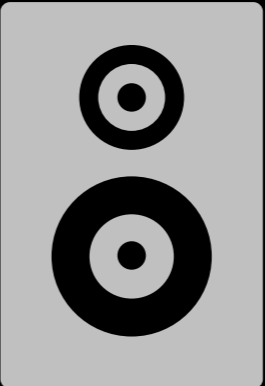
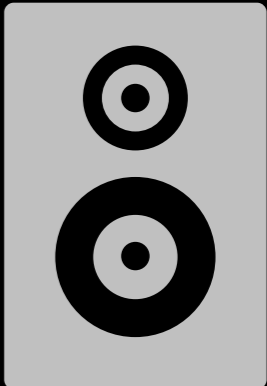
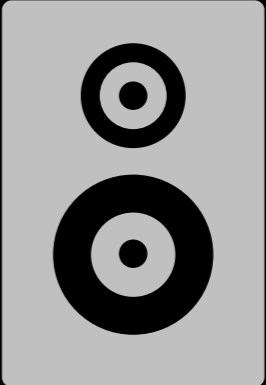
One **SKAA** cell



Dani transmitter
in SKAA mode
(connected to audio source)



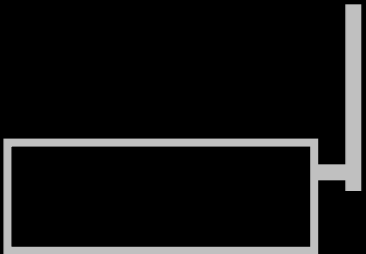
36 milliseconds



the 4 receivers can
be any combination
of SKAA speakers,
SKAA headphones,
and SKAA receivers

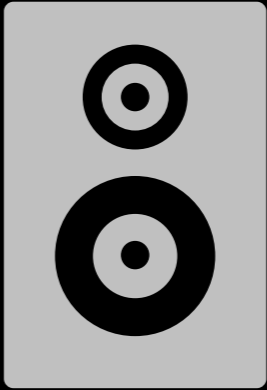


One **SKAA Pro** cell

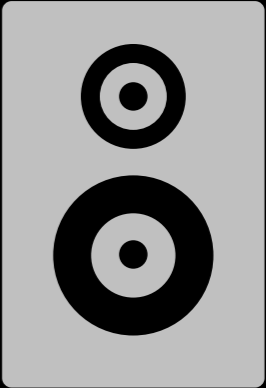


Dani transmitter
in SKAA Pro mode
(connected to audio source)

19 milliseconds

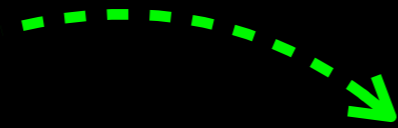


the 2 receivers can
be any combination
of SKAA speakers,
SKAA headphones,
and SKAA receivers

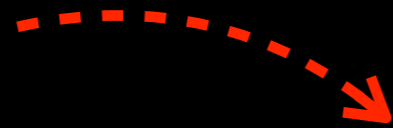


All SKAA receivers work in both SKAA and SKAA Pro modes – mode is determined by the transmitter class

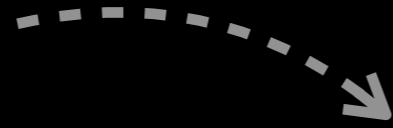
LEGEND



SKAA



SKAA Pro



WiFi



Wire

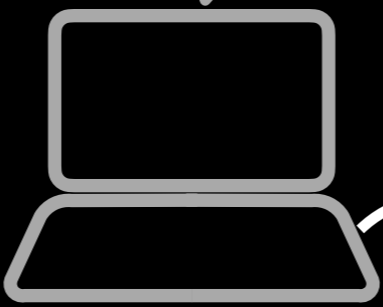


1

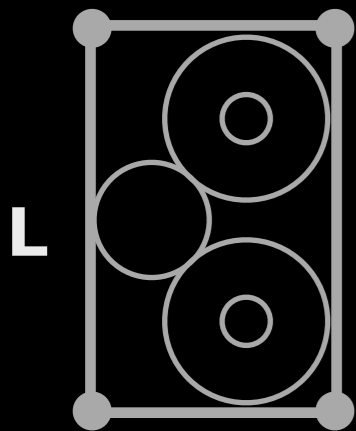
Hi Fidelity Party



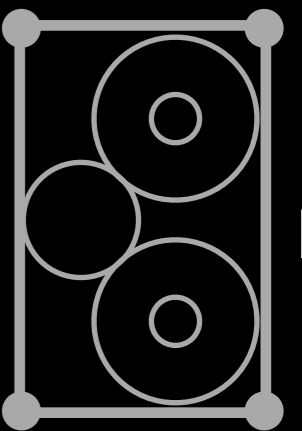
streaming music



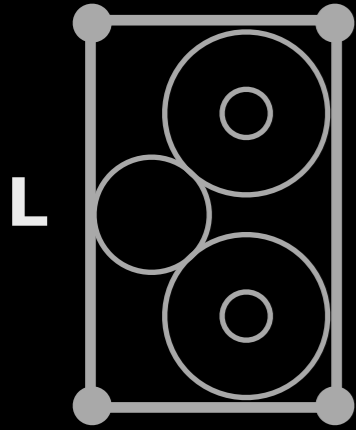
Dani



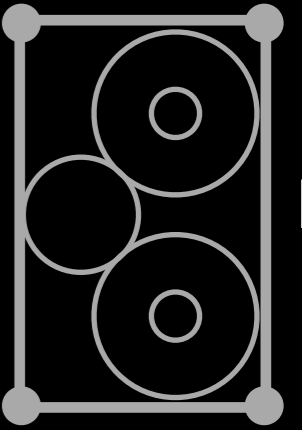
SKAA Speaker



SKAA Speaker



SKAA Speaker



SKAA Speaker

Pump up the fidelity by keeping Bluetooth out of the signal chain. Just use computer, tablet or phone with a Spotify account

L

R

L

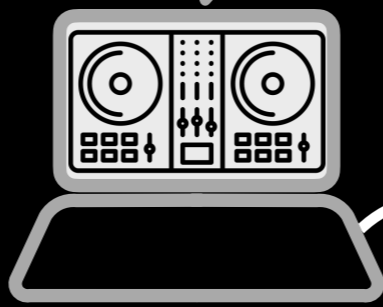
R

2

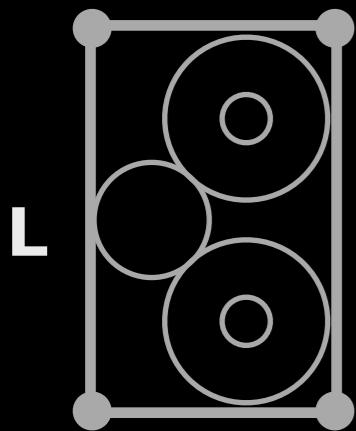
Keep it Simple DJ Party



DJ Music Service
BPM Supreme etc.

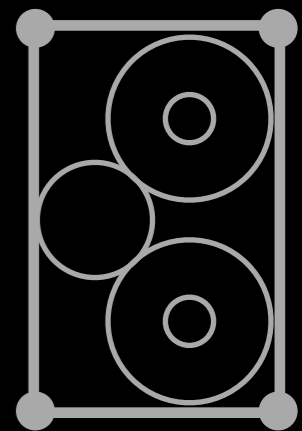


Dani



L

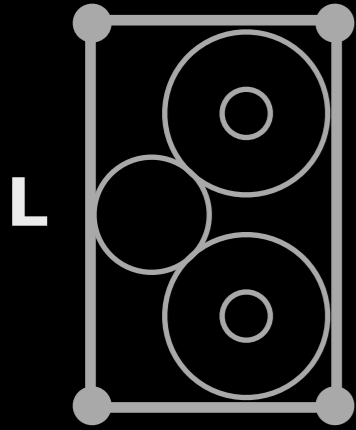
SKAA Speaker



R

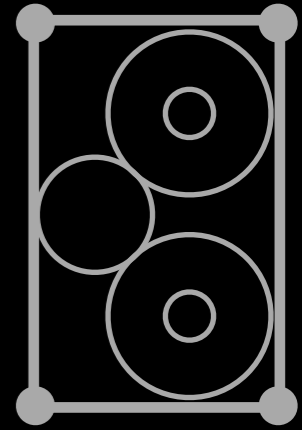
SKAA Speaker

SKAA Speaker



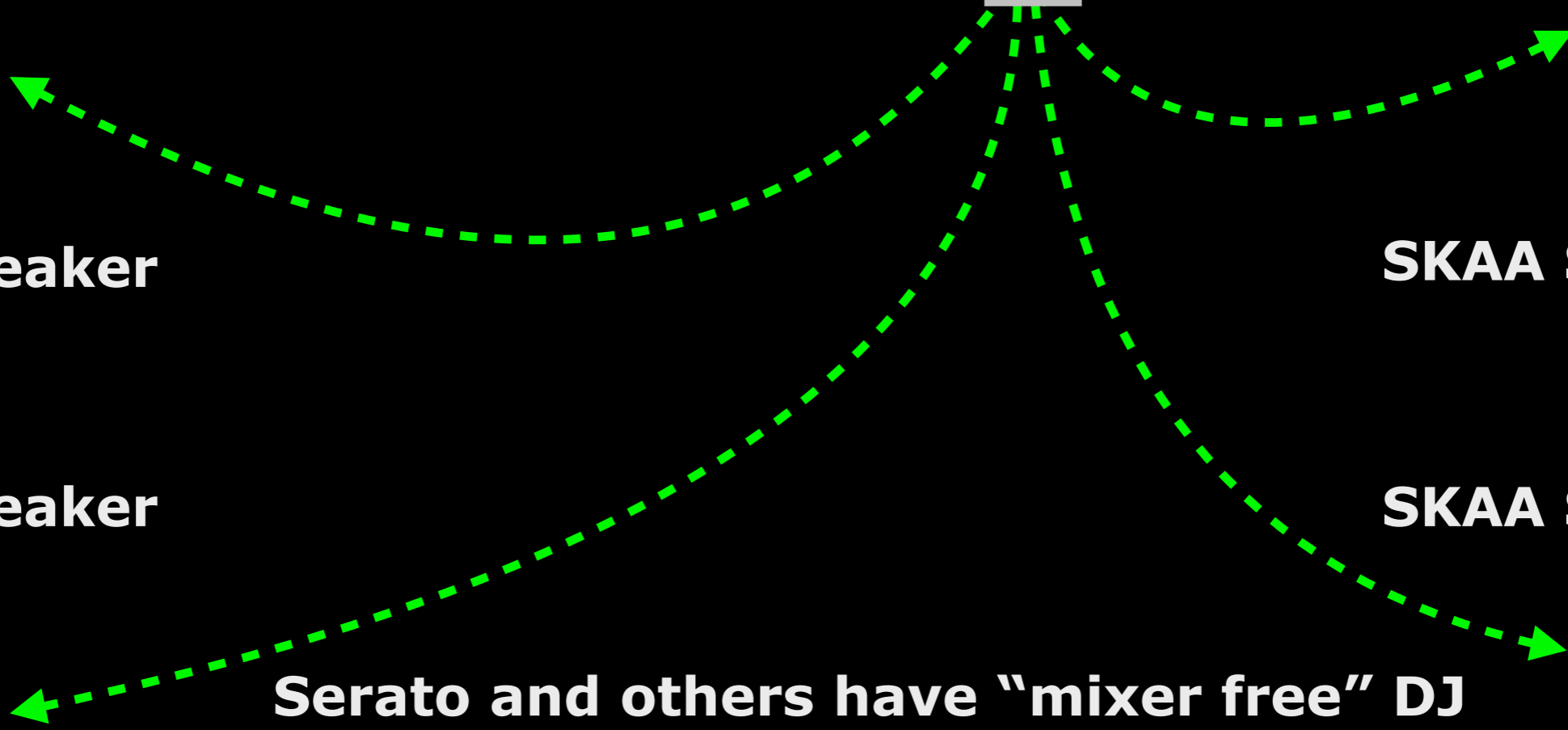
L

SKAA Speaker



R

Serato and others have "mixer free" DJ solutions (software and laptop only) so this setup is ideal for DJs who want a light-weight rig which is easy to set up

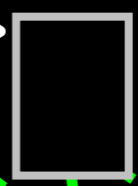
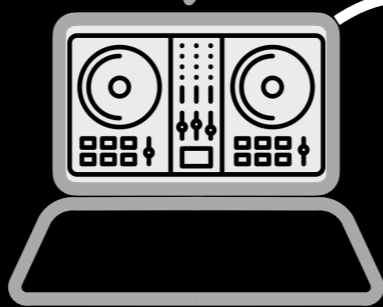


3

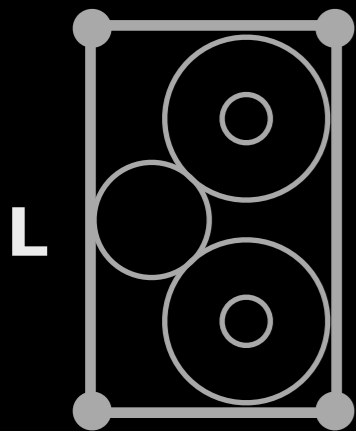


DJ Music Service
BPM Supreme etc.

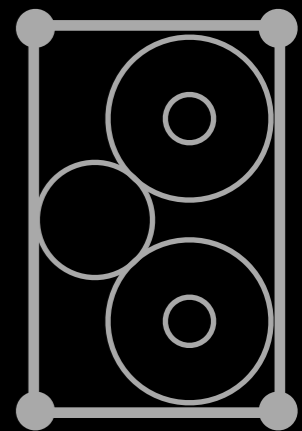
Serious DJ Party



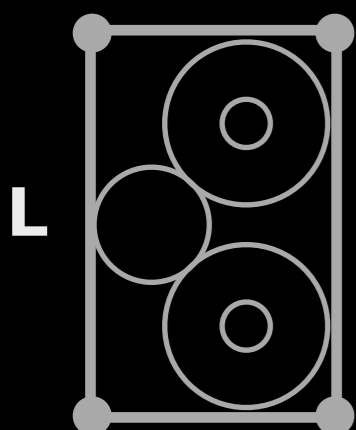
Dani



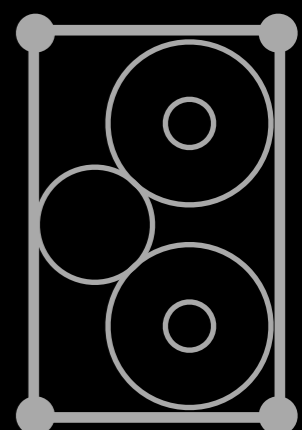
SKAA Speaker



SKAA Speaker



SKAA Speaker



SKAA Speaker

Serious DJs will want to use a
 mixer ...

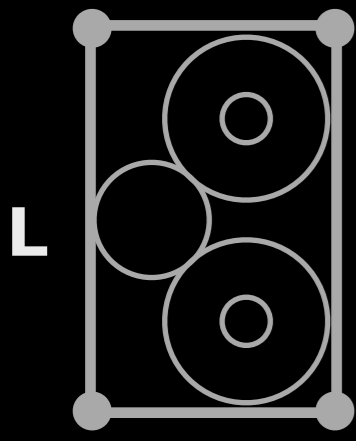
L

R

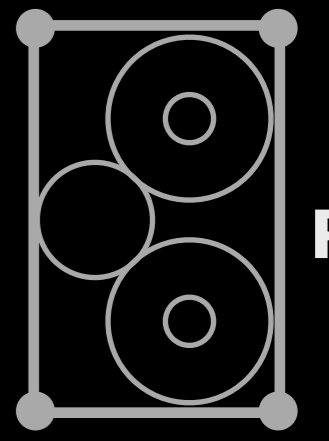
L

R

Hybrid Speaker DJ

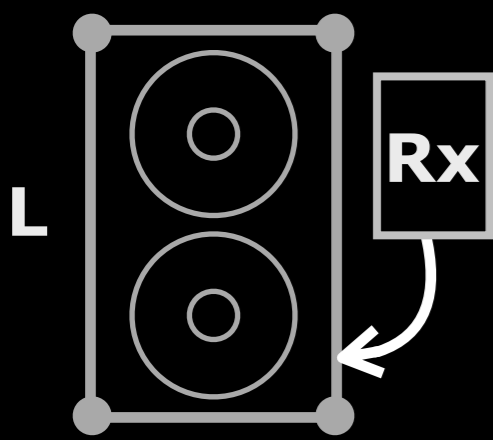


SKAA Speaker

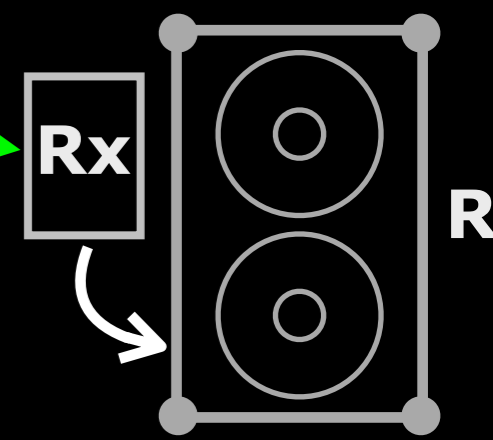


SKAA Speaker

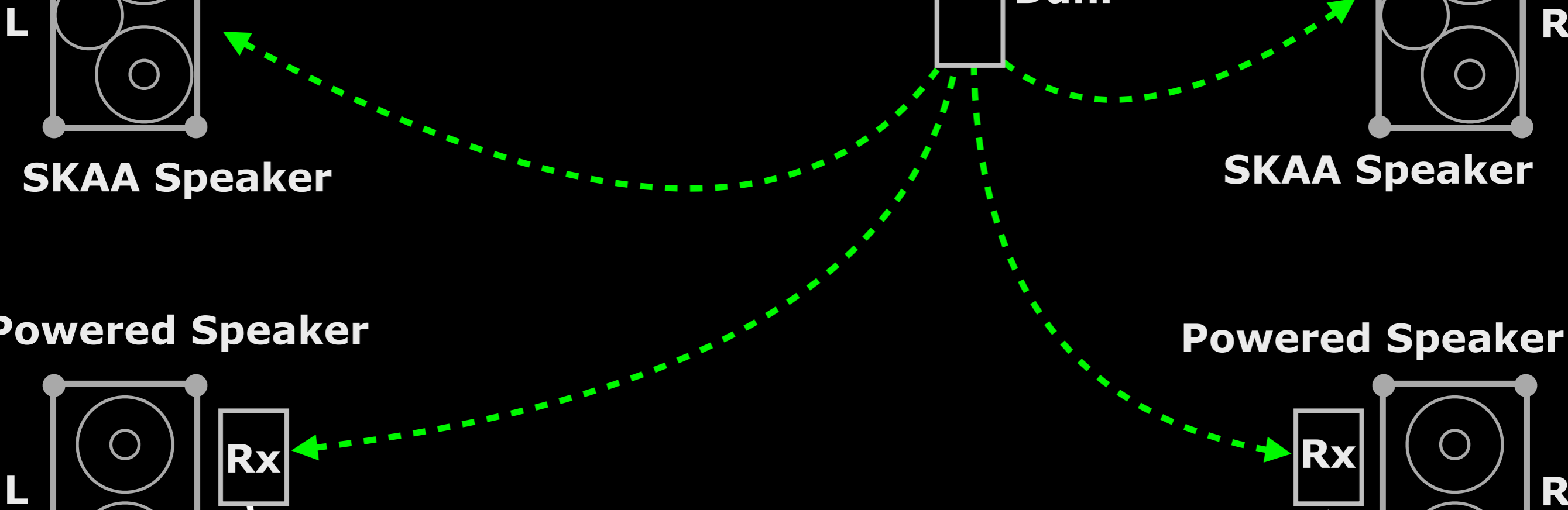
Powered Speaker



Powered Speaker

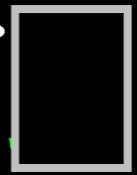
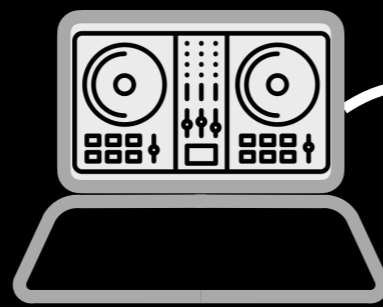
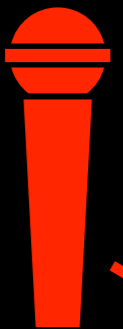


Not all powered speakers have SKAA built in, but SKAA receivers (eg. Rush) fix that problem

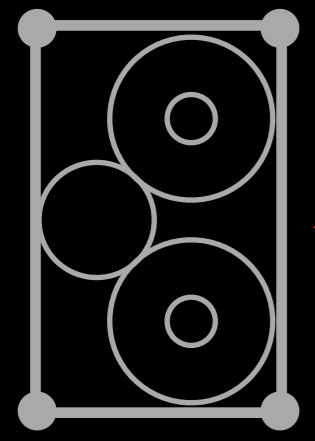


5

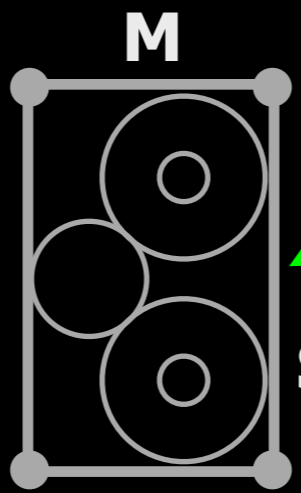
DJ with Mic & Headphones



Dani

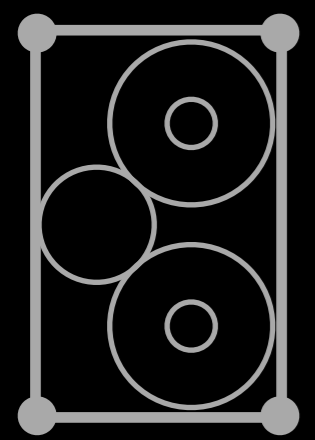


SKAA Speaker



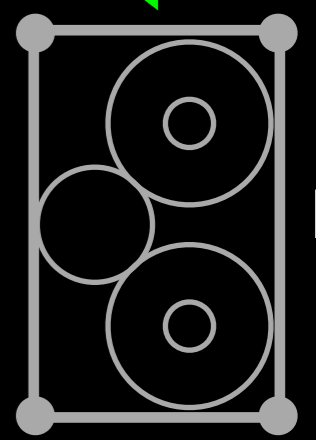
M

SKAA Speaker



L

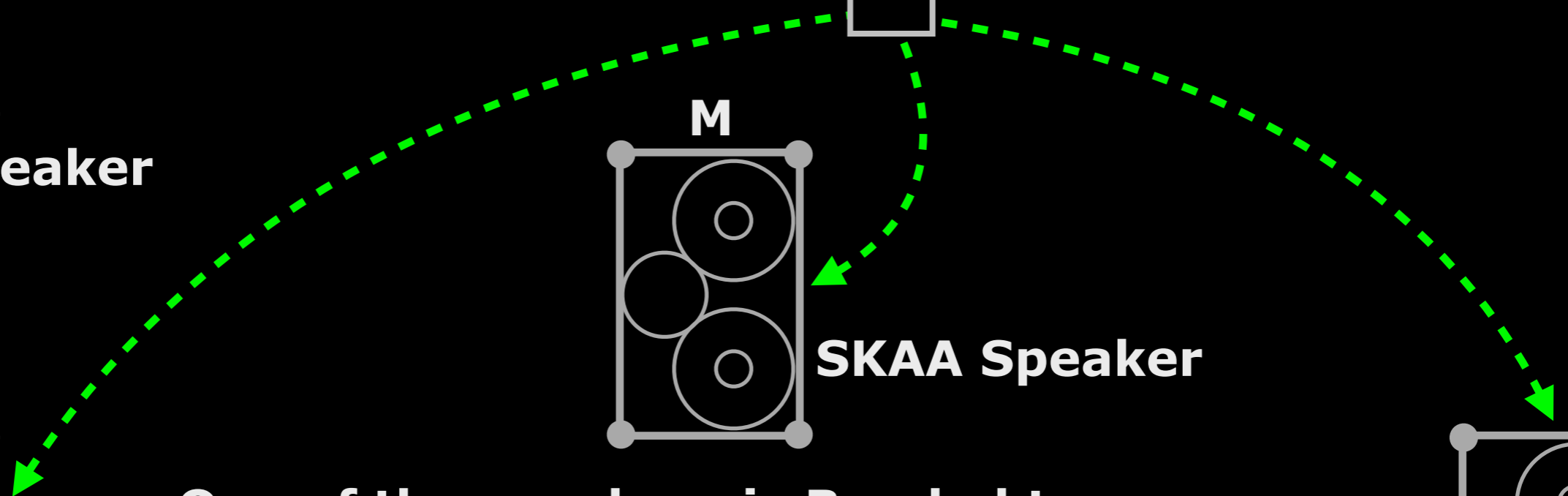
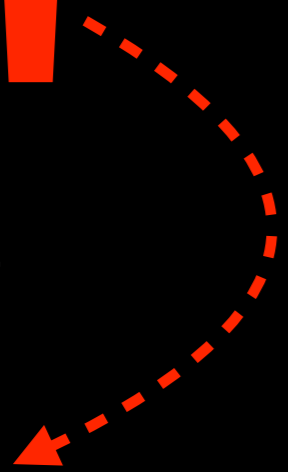
SKAA Speaker



R

SKAA Speaker

One of the speakers is Bonded to a SKAA Pro microphone (eg. Valerie) — and this frees up a SKAA connection to feed SKAA headphones (eg. Helix)

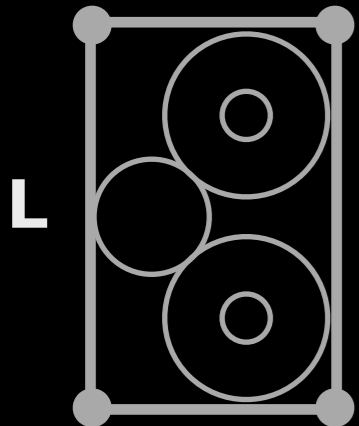




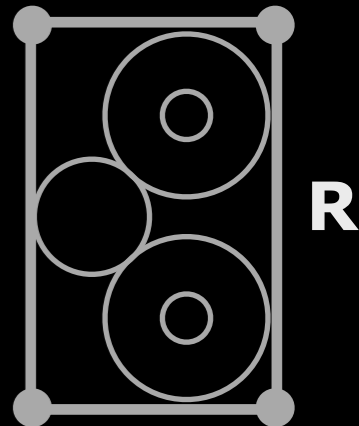
Dani



SKAA Speaker



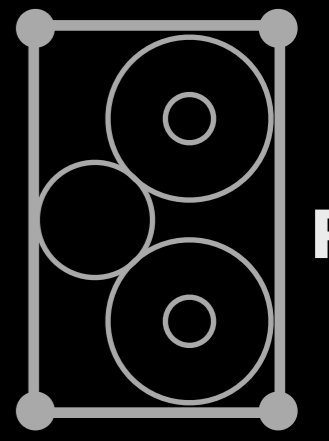
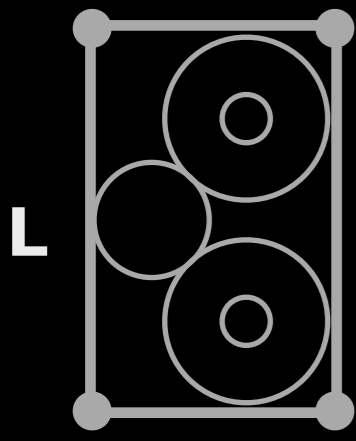
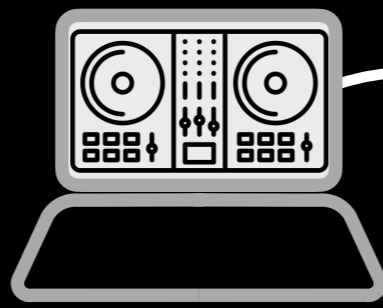
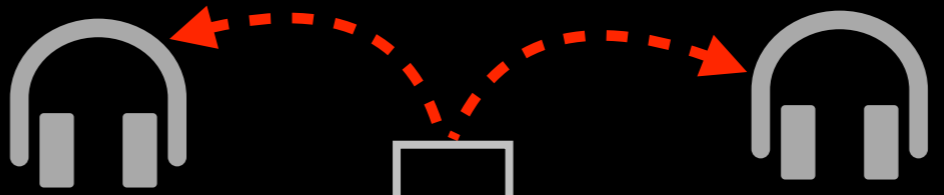
SKAA Speaker



Lightning-fast scratching DJs will use Dani's ultra-low-latency SKAA Pro mode to feed the front of house

7

Low Latency DJ Headphones

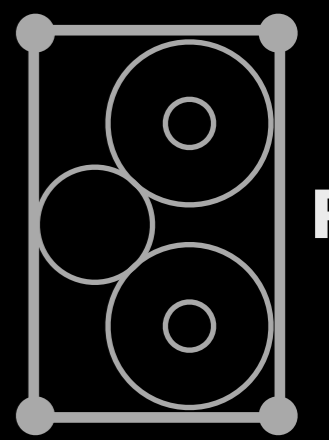
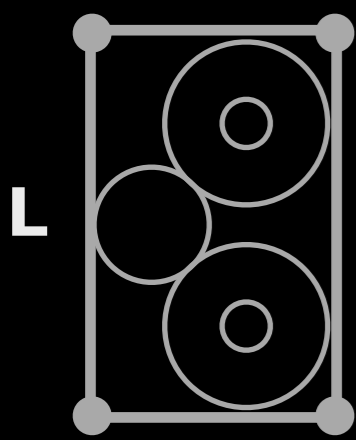


SKAA Speaker

SKAA Speaker

SKAA Speaker

SKAA Speaker



This DJ wants a separate low-latency CUE mix to headphones (up to 2) so he uses one Dani in SKAA Pro to feed the headphones and another one in SKAA mode to feed the front of house

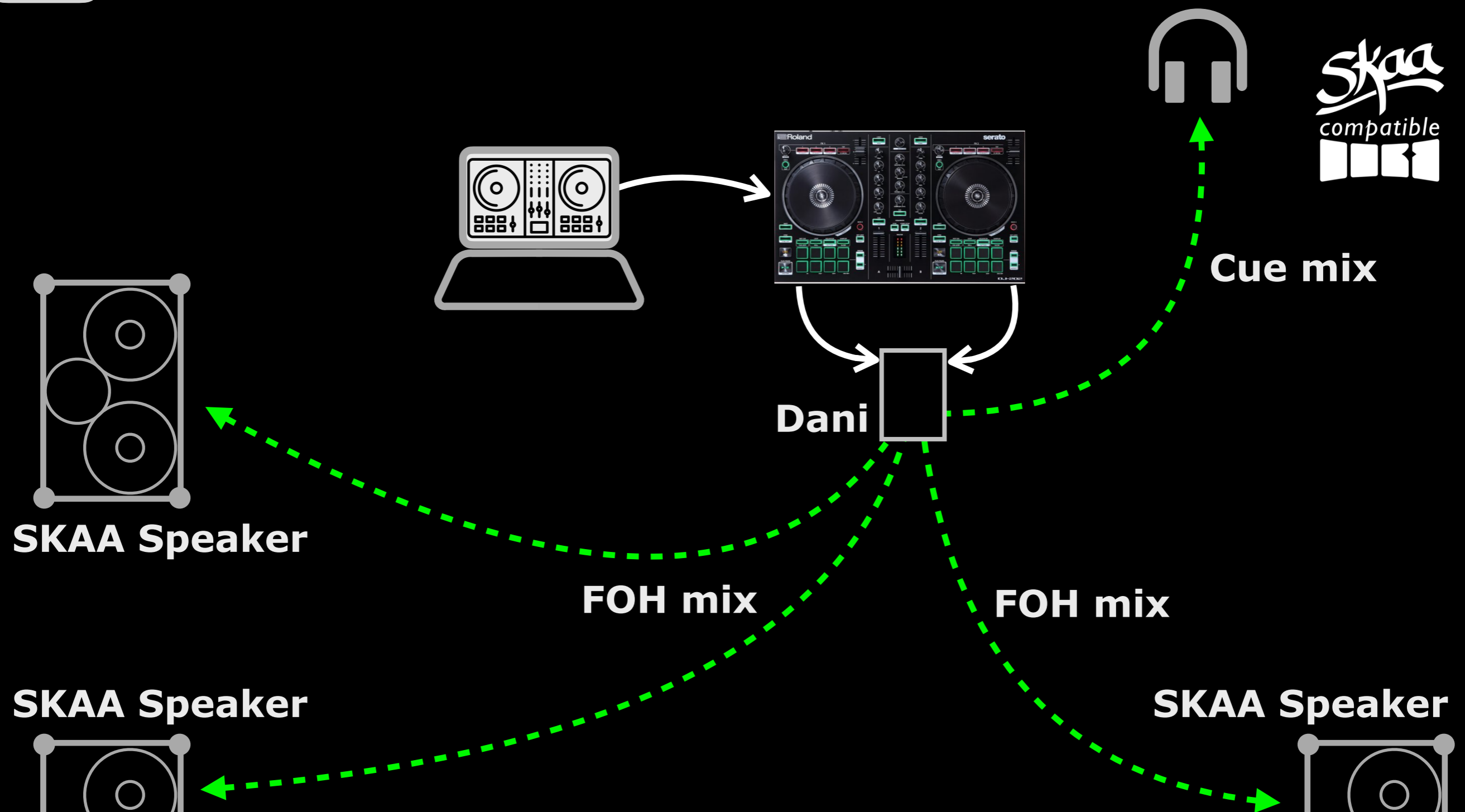
L

R

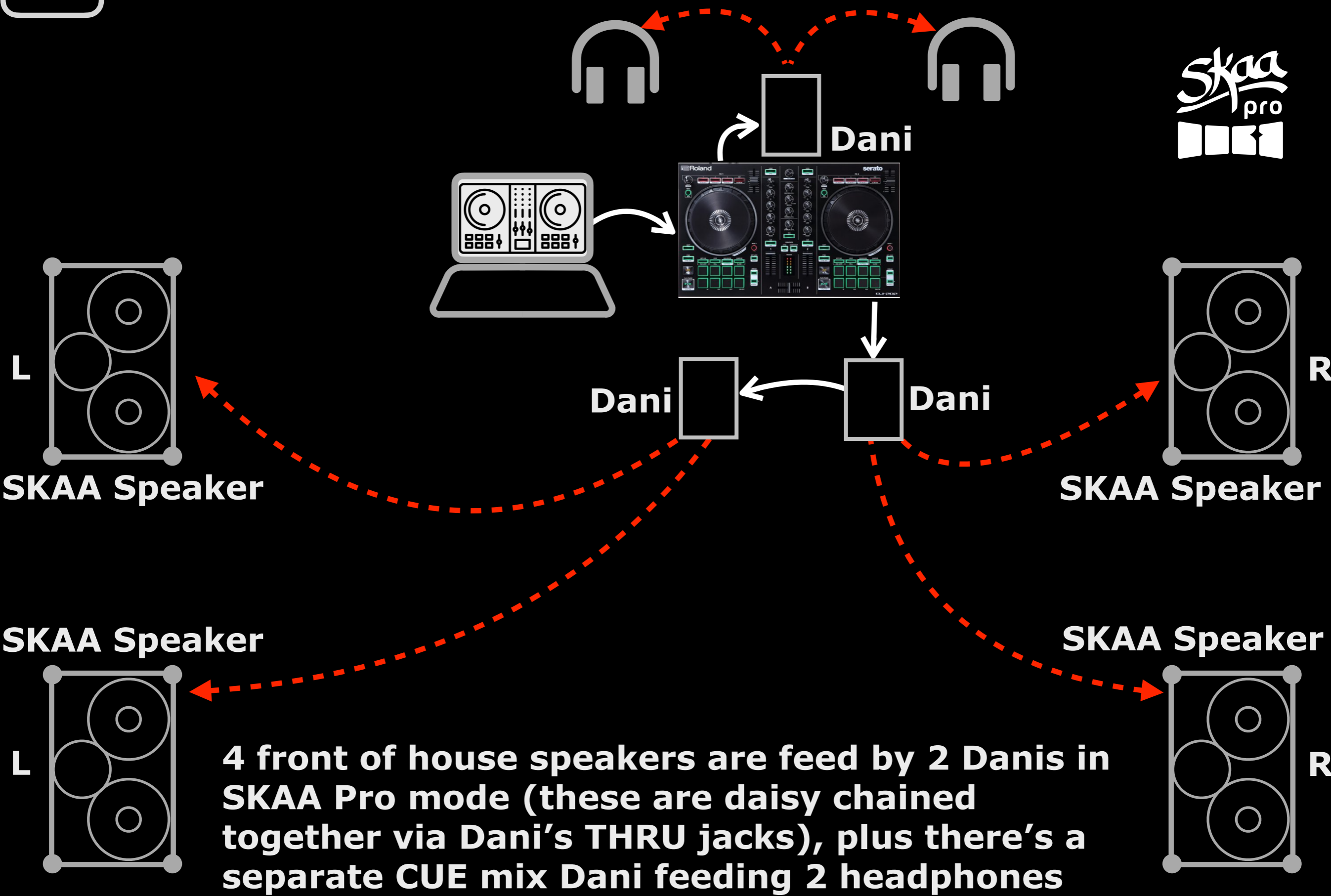
L

R

Split Channel Mono DJ



Dani's 2 channels of SKAA are used in split mode. One feeds front of house (mono) and one feeds the headphone with the CUE mix (also mono) ... see hookups 10 and 11 also



SKAA Speaker

SKAA Speaker

SKAA Speaker

SKAA Speaker

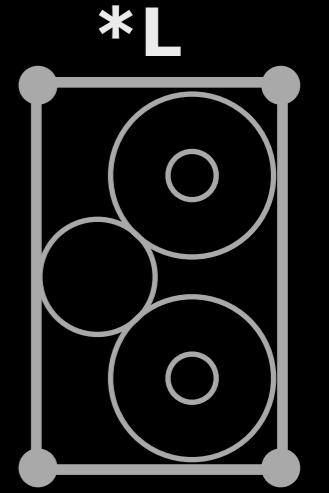
4 front of house speakers are feed by 2 Danis in SKAA Pro mode (these are daisy chained together via Dani's THRU jacks), plus there's a separate CUE mix Dani feeding 2 headphones



using Dani in split channel mode

XLR main out (set to mono in deck)

cable XLR-F to 1/4" TRS



Dani TRS 1 = FOH 2 = CUE TS

headphone out (set to mono in deck) TRS

SKAA Pro

stereo to L & R splitter cable

Leave one end unconnected



* channel routing in receiver set using SKAA cmd app



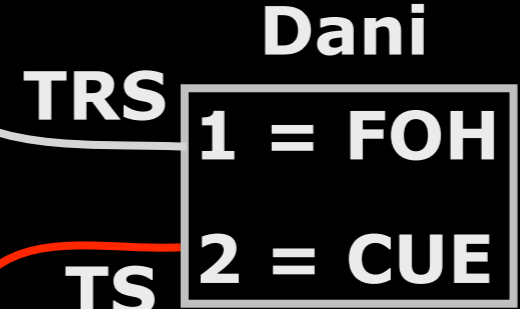
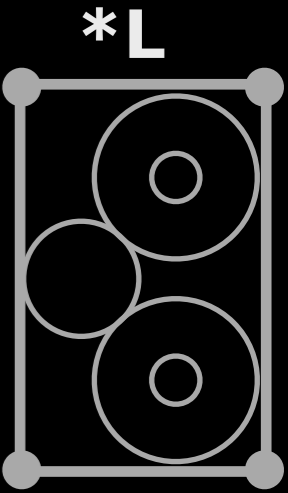
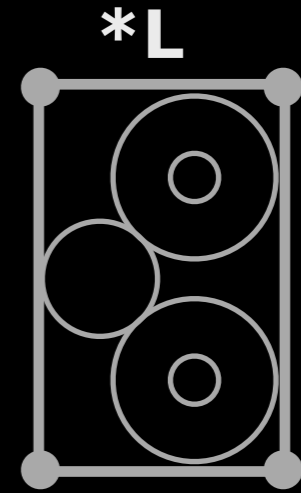
using Dani in split channel mode



XLR

main out (set to mono in deck)

cable XLR-F to 1/4" TRS



SKAA

headphone out (set to mono in deck)

TRS

stereo to L & R splitter cable

one end unconnected



*R

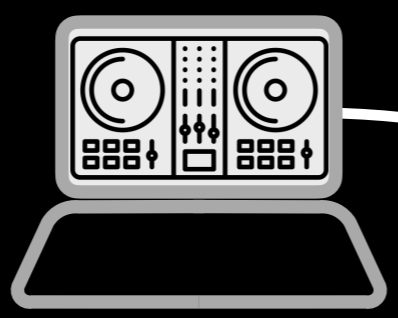
*R



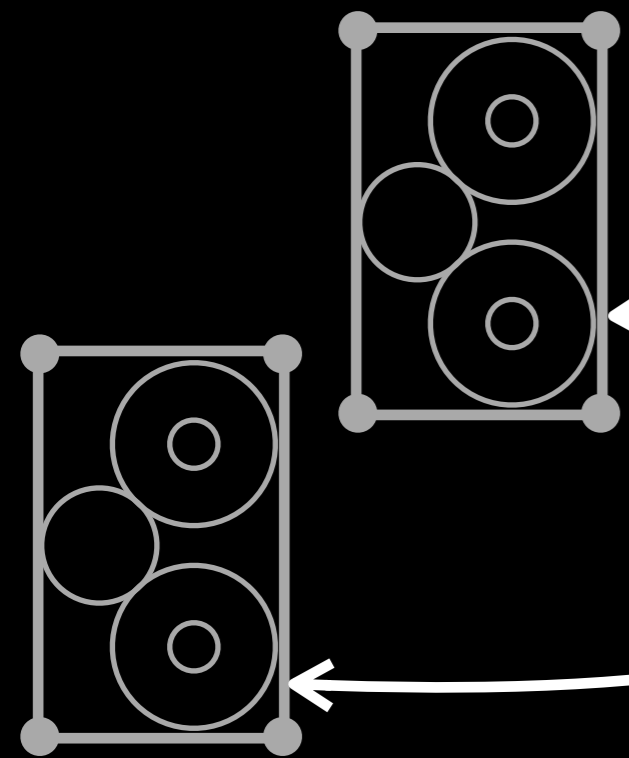
*R

* channel routing in receiver set using SKAA cmd app

Wired & Wireless Hybrid



Passive Speakers

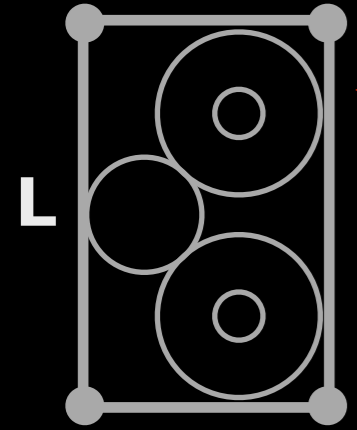


rack amp

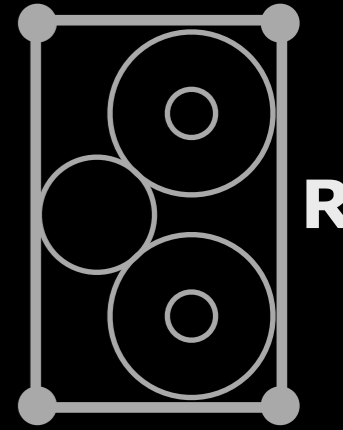


Dani

SKAA Speaker



SKAA Speaker



Dani's THRU jacks are used to pass the mixer's output to rack amplifiers which feed wired speakers — so for example, WIRED could be used for the front and WIRELESS for the rear of the room

L

R