CERWIN-VEGA®

CVM SERIES MIXERS

CVM8, CVM10, CVM12 & CVM16

GD202212011   070404511

FCC STATEMENT

1. 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.

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

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 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.

FCC Radiation Exposure Statement

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

Introduction:

Thank you for purchasing the new CVM series of rugged compact wired/wireless mixers, you have made a great choice!

For over two plus years we have been carefully crafting and developing a new type of mixer that blends science and wireless high-speed with very low latency technology. Our CVM mixers are now embedded with SKAA Pro technology. This allows us to connect the mixer to our other planned CV wireless products lines (Studio Monitors, CVST Pro Touring Speakers, wireless power amplifiers and our wireless headphones, etc.) all at high speed with very low latency so much so that your brain cannot perceive the very small delay, which results in being able to mix music in real time.

Key Features:

- Embedded High Speed very low latency Wireless Pro Mode.
- Embedded Bluetooth version 5.0+
- Electrical Mains operating voltage of 100-240VAC, can be used worldwide, simply by using the appropriate IEC power cord that is normal for your country.
- Compression functions of each microphone channel allow for crystal clear sound during performances.
- CVM mixers can play audio (music) via the SD card port or through the USB port or through the wireless features such as Bluetooth or our SKAA and SKAA Pro modes. The microphone sound or the music using line-in can be recorded to an SD card / USB to ease the requirement of solo or band performance or conference call recordings.

Applications:
Live Music Events.
DJ parties.
Concerts.
Movie/TV/music recording.
Conference Halls.

Function
1) Multiple CH MIC/line and 2CH stereo inputs.
2) Compression function of mic channels (0-9dB).
3) Built-in USB/SD card/Bluetooth playing/recording function.
4) 48V phantom power for condenser mic.
5) Special adjustable delay DSP effects to aide with mixing.
6) Main outputs displayed on LED level indicators.
7) Universal voltage 100V-240V.
8) USB MP3 playback.

GD202212011   070404511

IMPORTANT SAFETY SYMBOLS

<table>
<tr>
<td></td>
<td>Use only with the 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.</td>
</tr>
</table>

⚡	The symbol is used to indicate that some hazardous live terminals are involved within this apparatus, even under the normal operating conditions, which may be sufficient to constitute the risk of electric shock or death.	
⚠ ⏚	The symbol is used in the service documentation to indicate that specific component shall be replaced only by the component specified in that documentation for safety reasons.	
⚡	Protective grounding terminal	**OFF:** Denotes the apparatus is turned off.
~	Alternating current/voltage Hazardous live terminal	**ON:** Denotes the apparatus is turned on.
WARNING:	Describes precautions that should be observed to prevent the danger of injury or death to the operator.	
CAUTION:	Describes precautions that should be observed to prevent danger of the apparatus.	

The SKAA Compatible Badge found on the Product certifies that this Product has been tested and is fully compliant with all of the requirements of the SKAA Standard and has been granted SKAA Certification. This Product will work seamlessly with other products in the SKAA ecosystem of audio transmitting and receiving devices. For more information on the SKAA Standard, please visit www.SKAA.com. The SKAA® name as well as its associated marks, logos and icons are trademarks or registered trademarks of Eleven Engineering Incorporated.

GD202212011   070404511

IMPORTANT SAFETY INSTRUCTIONS

Read these instructions.
Keep these instructions.
Heed all warning.
Follow all instructions.

WATER & MOISTURE
The apparatus should be protected from moisture and rain, and must not be used near water, for example: near bath-tub, kitchen sink or a swimming pool, etc.

HEAT
The apparatus should be located away from the heat source such as radiators, stoves or other appliances that produce heat.

VENTILATION
Do not block areas of ventilation opening. Failure to do could result in fire. Always install accordance with the manufacturer's instructions.

OBJECT AND LIQUID ENTRY
Objects and liquids should not be dropped or spilled onto the mixer for reasons of safety.

Power Cord and Plug
Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
Do not defeat the safety purpose of the polarized or grounding-type plug.
A polarized plug has two blades with one wider than the other.
A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety.

If the provided plug does not fit into your outlet, please refer to a licensed electrician for replacement.

Power Supply
The apparatus should be connected to the power supply only of the type as marked on the apparatus or described in the manual. Failure to do could result in damage to the
product and possibly the user.

Unplug this apparatus during lightning storms or when unused for long periods of time.
Where the MAINS plug or an appliance coupler is used as the disconnect device, the disconnect device shall remain readily operable.

Fuse
To prevent the risk of fire and damaging the unit, please use only of the recommended fuse type as described in the manual. Before replacing the fuse, make sure the unit turned off and disconnected from the AC outlet.
FUSE: T1AL-250VAC

Electrical Connection
Improper electrical wiring may invalidate the product warranty.

Cleaning
Clean only with a dry cloth. Do not use any solvents such as benzol or alcohol.

Servicing
Do not implement any servicing other than those means described in the manual.
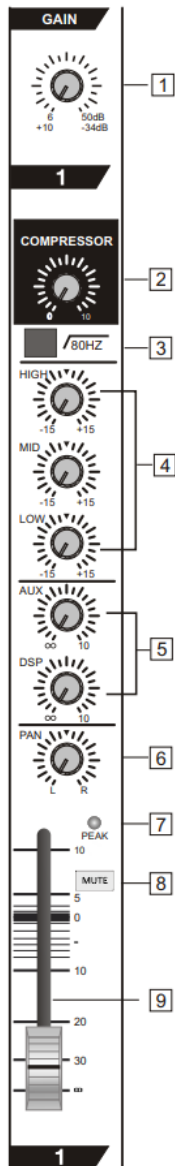Refer all servicing to qualified service personnel only.
Only use accessories/attachments or parts recommended by Cerwin-Vega.

GD202212011   070404511

Specifications:

MONO INPUT	
Mic input	XLR - Balanced Input
Frequency response	10 Hz to 30 kHz, +/-3 dB
THD (THD&N)	0.03% at +4 dBu, 22Hz-20kHz A-weighted
Compression	GAIN:0-9dB, THRESHOLD: 20dB 5dB
S/N ratio	(SNR)115 dB
Line in	XLR Balanced input
Frequency response	10 Hz to 30kHz, +/-3 dB
THD (THD&N)	0.005% at+4 dBu, 22Hz-20kHz A-weighted
MIC MAX GAIN	75 dB FROM MIC INPUT TO MAIN OUTPUT

STEREO INPUT CHANNEL	
Line in	Bal/Un-Bal
Frequency response	10 Hz to 55 kHz, +/-3 dB
THD(THD&N)	0.005% at +4 dBu, 22Hz-20kHz A-weighted

Impedance	
Mic input	1.4 kΩ (Ohm)
Line in	10 kΩ (Ohm)
Other inputs	10 kΩ (Ohm) or more
Recording output	1 kΩ (Ohm)
Other outputs	120Ω (Ohm)

MONO EQ	
HI	+/-15 dB @12kHz
MID	+/-15 dB @2.5kHz
LOW	+/-15 dB @45Hz
Low cut filter	80 Hz, 18 dB / Octave.

STEREO EQ	
HI	+/-15 dB @12kHz
LOW	+/-15 dB @60Hz
DSP	A/D & D/A converter sample frequency 24-Bit 16 programs

MAIN MIX	
Noise (BUS noise)	Fader 0dB, all input channel knobs set to minimum, EQ knobs set to middle, -100dBu (reference: +4dBu)
Main Out	XLR Main Out: +27dBu TRS: +22dBu
	AUX: +22 dBu
	DSP: +22dBu

ELECTRICAL MAINS OPERATING VOLTAGE	
CV-WWVA CERTIFIED	100-240VAC @ ~50/60Hz **FUSE**: T1AL 250V

DIMENSIONS (D*W*H) mm	6CH: 330X224X92	8CH: 330X280X92
	10CH: 330X336X92	12CH: 330X392X92

NET WEIGHT	6CH: 3.5kg, 8CH: 4kg, 10CH: 4.5kg, 12CH: 5.2kg

GD202212011   070404511

A. Channel			SETUP PROCEDURE TO OPTIMIZE SNR: (SNR: Signal to Noise Ratio).
	1	PREAMP GAIN	1. Set the channel fader and the main mix fader to unity gain (0 dB). 2. Pull all other faders to their bottom (minus infinity) position. 3. Use the loudest signal you anticipate hearing for this session when playing source audio into the channel inputs (XLR or TRS in). 4. Make sure that the HPF is set as desired, set the compressor completely counterclockwise (turned off), and all EQs and Pan controls are set to their 12 o'clock positions. 5. Adjust the gain knob while keeping an eye on the VU meters until they are generally fluctuating around 0 dB; Note: It is acceptable if, very infrequently, the signal hits +10 dB on the VU, but never more than that. 6. Repeat this process for each additional channel that you'll be coupling audio sources to.
	2	COMP	It adjusts channel compression. Turn clockwise to increase compression ratio and gain will adjust automatically.
	3	HPF	Turns on/off the HPF with 18 dB octave to activate 80 Hz LF filter. You can also use it to reduce mains hum noise or stage mic noise.
	4	EQ CONTROL	HIGH: when set to max, 12kHz frequency level boosts +15dB. To min the 12kHz frequency level cuts -15dB MID: when set to max, 2.5kHz frequency level boosts +15dB. To min the 2.5kHz frequency level cuts -15dB LOW when you set it to max, 45Hz frequency level boosts +15dB. To min the 45Hz frequency level cuts -15dB
	5	AUX-DSP	The AUX knob controls the signal level sent to the AUX bus. The AUX Output (TRS jack) provides access to the total of all signals supplied to this bus, and SKAA may also wirelessly transfer the total of all signals when selected.
	6	PAN	Determines where in the stereo spectrum the audio signal will shift to give a perception of where the sound is coming from (Left / middle/ right or somewhere in between).
	7	PEAK LED	When the signal level is 3dB or less away from hard clipping, the PEAK LED turns on. Back off on the controls if the PEAK LED is on until the PEAK LED is no longer on.
	8	MUTE	Each mute button has a back lit LED. Mute Button Press = MUTE 2nd Mute Button Press = UNMUTE
	9	FADER	This adjusts the level of the channel signal which is sent to main mix out.
	Note: always set unused faders to minimum position.		

GD202212011   070404511

STEREO CHANNEL

1	-10/+4 SENSITIVITY SWITCH		You can use consumer-grade audio sources like phones, computers, and music players to feed either stereo channel strip by pressing this button, which activates the -10dBV mode and increases the gain on both L and R input channels by 11.8dB.
2	**CH 9/10**, LINE/USB/MP3 **CH 11/12** Line/SKAA		**CH 9/10:** Release for stereo line input. Depress button for USB/MP3/Bluetooth input **CH 11/12:** Release for stereo line input. Depress button for SKAA.
3	EQ CONTROL		HIGH: • When set to maximum position, 12kHz frequency level boosts +15dB. • When set to minimum position, and 12kHz frequency level cuts -15dB. MID: • When set to max, 2.5kHz frequency level boosts +15dB. • When set to minimum position, 2.5kHz frequency level cuts -15dB. LOW: • When set to maximum position 60Hz frequency level boosts +15dB. • When set to minimum position 60Hz frequency level cuts -15dB.
4	AUX-DSP		The AUX knob controls the signal level sent to the AUX bus. The AUX Output (TRS jack) provides access to the total of all signals supplied to this bus, and SKAA may also wirelessly transfer the total of all signals when selected.
5	PAN		Determines where in the stereo spectrum the audio signal will shift, to give a perception of where the sound is coming from (Left /middle/ right or somewhere in between).
6	PEAK LED		When the signal level is 3dB or less away from hard clipping, the PEAK LED turns on. Back off on the controls if the PEAK LED is on until the PEAK LED is no longer on.
7	MUTE		Each mute button has a back lit LED. Mute Button Press = MUTE 2nd Mute Button Press = UNMUTE
8	FADER		This adjusts the channel signal level sent to the main mix out.

GD202212011   070404511

XLR CONNECTORS: Balanced and Unbalanced Connections.
- XLR stands for External Line Return.
- This is one of the most commonly used connectors for Pro audio equipment.

- The way XLR balanced works is based upon a noise cancellation principle.
    - Pin 1 acts as the chassis ground shield.
    - Typically, two signals of the same audio source are sent through pins 2 and 3 with each signal being out of phase with the other.
    - Any noise that happens to make its way into the audio lines for whatever reason will be removed once the audio reaches the intended audio equipment and internally the equipment will then combine the two audio signals which results in canceling out the noise.
    - This means XLR cables can be quite long without introducing noise.

BALANCED PIN OUT:

1 CHASSIS GROUND
2 ACTIVE SIGNAL IN PHASE (+)
3 ACTIVE SIGNAL PHASE INVERTED (-)

XLR - FEMALE   XLR - MALE   XLR - FEMALE   XLR - MALE
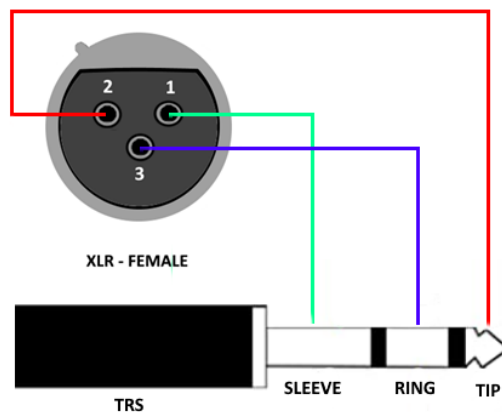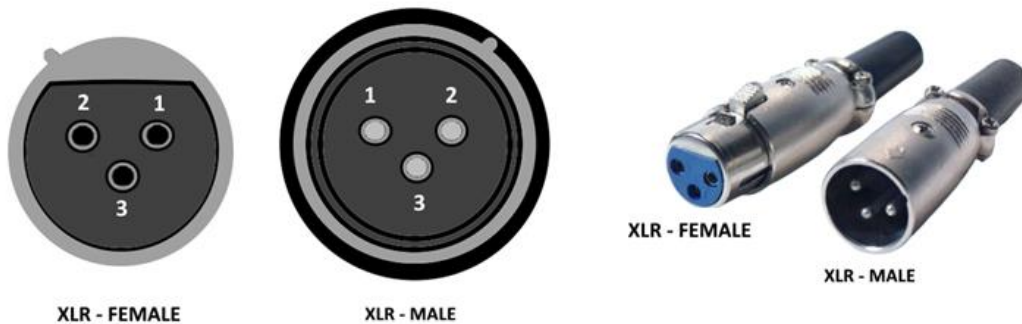
- TYPICAL Pro XLR AUDIO CABLE CONFIGURATIONS:
    - XLR Male BALANCED to XLR Male BALANCED.
    - XLR FEMALE BALANCED to XLR MALE BALANCED.
    - XLR FEMALE to 1/4 Inch (6.35mm) TRS PLUG.

8

- **XLR ADAPTERS**
  - COMMON ADAPTERS SHOWN BELOW

1. XLR FEMALE TO TRS ¼" FEMALE.
2. XLR MALE TO TRS MALE (BALANCED).
3. XLR MALE TO TRS MALE (UNBALANCED).
4. XLR FEMALE TO TRS MALE (BLANACED).
5. XLR FEMALE TO TRS MALE (UNBALANCED).
6. XLR FEMALE TO XLR FEMALE.
7. XLR MALE TO XLR FEMALE (BALANCED).
8. XLR FEMALE TO RCA FEMALE "-" (UNBALANCED).
9. XLR FEMALE TO RCA FEMALE "+" (UNBALANCED).

- **OTHER PRO CABLES:**
  - XLR MALE TO TRS MALE
  - XLR MALE T0 RCA MALE
  - RCA MALE to RCA MALE
  - TRS MALE TO TRS MALE (1/4")
  - TRS MALE TO TRS MALE (3.5MM/1/8").

GD202212011   070404511

TYPICAL MIXER USAGE:
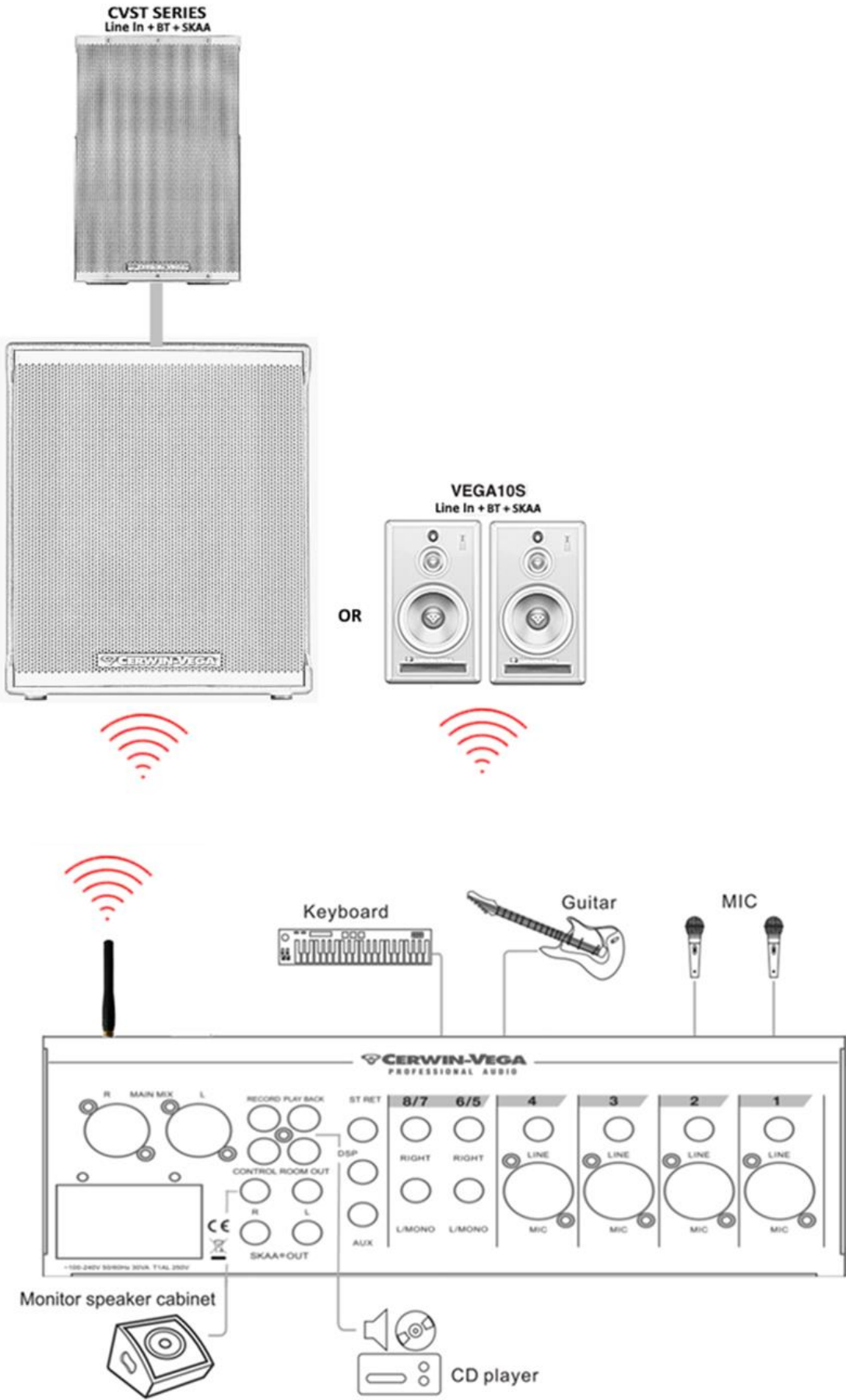
Figure 1: CVM8 shown as example.

GD202212011   070404511

Selecting and playing individual tracks from USB Thumb Drive or SD card.

Insert your properly formatted USB Thumb Drive or SD Card that is preloaded with either WMA, WAV or MP3's audio files.

Please reference the graphic shown below.

Press and hold the PLAY/PAUSE button.
Use the forward/back buttons to select the required track.
Release the PLAY/PAUSE button.
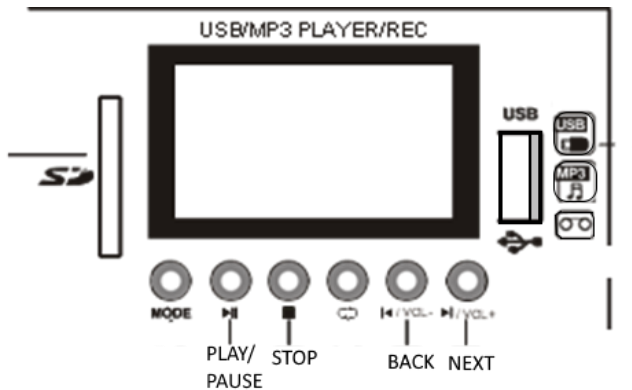
Your selected track will now be cue'd and paused and will play when the PLAY/PAUSE button is pressed again.

Useful tips for getting most out of your playback during a live performance:
You may want to record a track with no sound on it., say 30 seconds long. Call this track '001 - Silence' and make sure it's always the first track in your file. The reason to do this, is to allow you sufficient time when inserting your memory stick in the SD or USB port to allow you to enter the play/pause track cueing facility without accidentally playing a track. You can then select the wanted track leaving the player in PAUSE ready for the performance.

Add a few seconds (up to about 30 seconds) of no sound to the end of all of your recorded tracks. The player will automatically play the next track in sequence if you have multiple tracks, by adding this quiet section to your tracks allows you some time to stop your player and cue your next track thus avoiding the player selecting and playing an unwanted track.

Installation

1. Ideally, you do not want obstacles in front of your speakers potentially creating unwanted acoustical absorptions and acoustical reflections that affect the best possible sound setup. You should consider where practical in your equipment setup environment by putting the speaker cabinets on speaker stands. Elevating the speakers will often help to deliver best overall results.

2. When using suspension gear to suspend speaker cabinets it recommended to only use professional gear for your and others safety.

3. Use high quality audio cables to ensure the best possible connections and longevity.

4. Always match the correct power and impedance of power amplifier and your speakers.

5. Do not place or orientate the microphone near the speaker to help avoid feedback.

(CVM8 SHOWN ABOVE)

OUTPUT AND REAR PANEL
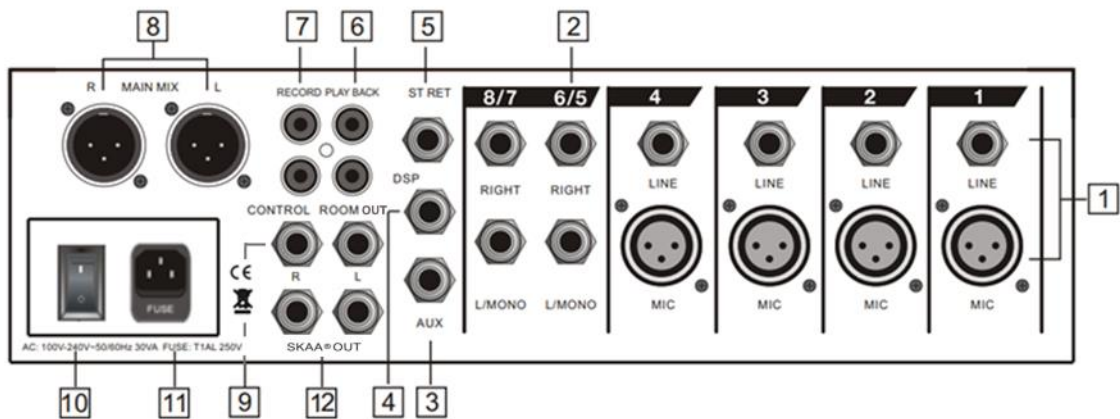
(CVM12 SHOWN ABOVE)

1. MIC/LINE CHANNEL (CH1-6)

Balanced XLR input connector (1: ground, 2: hot, 3: cold).

KG08 Is designed with 4 low noise mic pre-amp (06 CH has 2, 10 CH has 6, 12 CH has 8) and phantom power, 45dB gain and >100 dB S/N ratio. The phantom power is used for condenser mic. If you use dynamic-mic please turn off phantom power first. These channels are designed with 1/4inch TRS Bal/Un-Bal line in connectors to connect with keyboard, electric drum, DSP, etc.

2. STEREO CHANNEL INPUT

Unbalanced connectors. If signal input from LEFT/MONO, the signal outputs from L/R main mix outputs. If signal inputs from RIGHT connector, signal outputs from R main mix output. This connector can be connected with keyboard, electric drum, DSP, etc.

3. AUX SENDS

1/4" phone jacks to send signal from AUX BUS to external equipment, e.g., Effect equipment or stage monitor, etc.;

4. DSP output

1/4" phone jack to output DSP signal and the level is controlled by channel DSP.

5. AUX RETURNS input

Stereo 1/4" phone jacks to return effect equipment stereo signal to Main Mix. Or you can Use AUX RETURN knob to adjust volume. The input AUX signal will be sent to MAIN MIX.

6. PLAYBACK

Un-Bal RCA and 3.5 connectors to input signal from CD player/computer, etc.

7. RECORD

Un-Bal RCA connector to output signal to recording equipment.

8. MAIN MIX output

Bal XLR connector. The level is adjusted by Main Mix fader.

9. CTRL ROOM output

1/4" phone jacks send Control Room signal to monitor speaker cabinet.

10. POWER switch

Turns the mixer on/off.

11. POWER socket

An IEC mains power socket with a built-in fuse holder. Please replace the fuse with only the same type and rating.

12. SKAA @ OUTPUT

When using SKAA in the output mode then this is used when multiple speaker deployment is necessary to cover a venue/large room to provide the necessary audio delay using either SKAA Mode (38ms) or SKAA Pro Mode (19ms) to ensure all audio arrives to all speakers at the same time.

Note: when SKAA is placed into the INPUT receive mode then there is no audio output on SKAA OUT jacks.

GD202212011   070404511

DSP & PHANTOM POWER & Misc. Controls

SEE GRAPHIC SHOWN ON THE RIGHT

1. **+48V phantom power switch/red when on**
   It is used for condenser mic operation. Please set all faders to minimum before turning on the switch to protect speaker cabinets.

2. **Stereo return**
   It adjusts stereo return signal level.

3. **AUX SEND**
   It adjusts aux send level.

4. **PLAYBACK**
   It adjusts the playback signal level.

5. **CTRL MP PHONES**
   It adjusts the phone signal level.

6. **PLAYBACK switch**
   Press the switch to send signal to monitor and phones.

7. **MAIN MIX switch**
   Press the switch to send MAIN signal to monitor and phones.

8. **Phone output**
   This connector send signal to phones.

9. **DSP ON switch**
   Press this DSP back lite LED switch to start DSP operations and illuminate the switch.

10. **DSP fader**
    It adjusts the DSP signal level.

11. **PARAMETER**
    It adjusts the delay time.

12. **PROGRAMS**
    (SEE PRG#'S BELOW)

13. **POWER LED**

14. **PEAK LED**

15. **MAIN OUTPUT LEVEL LED**

16. **MAIN MIX fader**
    It adjusts the MAIN MIX output level.
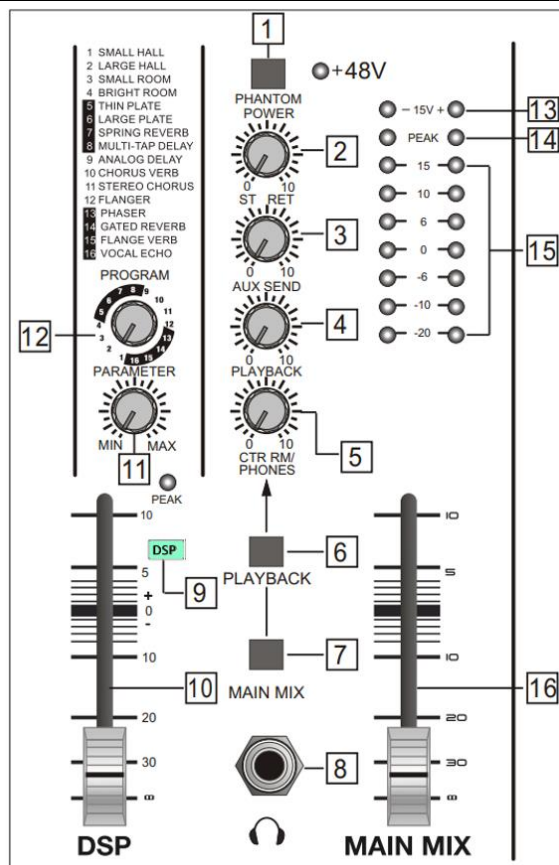
PRG #	Description	Parameter 1
1	Small Hall	Rev Time 0.9sec~3.5sec
2	Large Hall	Rev Time 1.5sec~8.6sec
3	Small Room	Rev Time 0.28sec~0.82sec
4	Bright Room	Rev Time 0.36sec~1.38sec
5	Thin Plate	Rev Time 0.44sec~1.54sec
6	Large Plate	Rev Time 0.72sec~10sec
7	Spring Reverb	Rev Time 0.4sec~2.3sec
8	Multi-tap Delay	Delay Time 0~680ms
9	Analog Delay	Delay Time 0~680ms
10	Chorus Verb	Rev Time 0.56sec~3.5sec
11	STEREO CHORUS	Rate 0.58Hz~6Hz
12	Flanger	Rate 0.58Hz~4.35Hz
13	Phaser	Rate 0.58Hz~11Hz
14	Gated Reverb	Gate Time 0.25sec~0.78sec
5	Flange Verb	Rev Time 0.34sec~2sec
16	Vocal Echo	Delay Time 0~400ms

GD202212011   070404511

SD/USB/BLUETOOTH CONTROLS

Please see graphic to the right

1. MODE
Press this button to select mode: SD card, USB, Bluetooth, recording.
SD/USB mode: insert SD card/USB to play music directly.
Bluetooth mode   press the button to select Bluetooth, then match the Bluetooth, then play music.
Recording mode   press the button to select recording mode. Input signal from mic or line, then press play button to record.
The LCD displays recording symbol flashing.

Note: a long button press on the mode button will turn off the player.

2. Play/pause button
3. Stop button
4. Repeat button
5. Previous button
6. Next button
7. Sd card connector for playback and recording
8. USB interface for MP3 playback and recording

SD card/USB details Loop Functions

1 = play one chosen track on loop (repeat)

Note in this mode individual tracks cannot be selected.

F = play all tracks within same folder on your SD card or USB drive in sequence on loop (repeat).

R = shuffle - plays all tracks randomly no loop (no repeat)

A = plays all tracks in sequence on loop (repeat)

SD/USB/BLUETOOTH

USB/MP3 PLAYER/REC

7 SD   USB   8

MODE ▶❚ ■ ⟳ ❚◀/VOL- ▶❚/VOL+
1   2   3   4   5   6
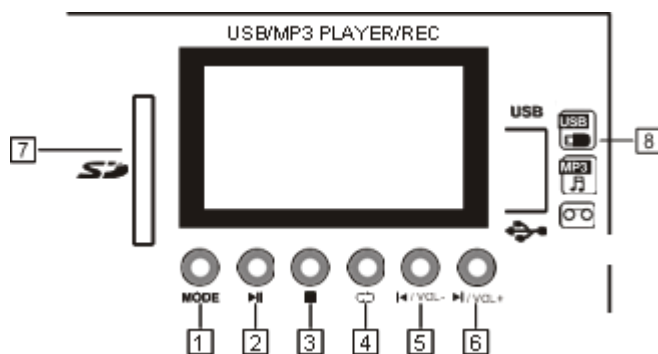
PLAYING MP3'S FROM USB/SD AND OUTPUT TO SKAA:

Note: full view of channel controls shown on the left graphic.
Example: graphic shown on the left is for CVM16.
CVM8 this would be channel 5/6 as marked.
CVM10 this would be channel 7/8 as marked.
CVM12 this would be channel 9/10 as marked.
CVM16 this would be channel 13/14 as marked.

Please reference the graphic above for the following:
1. The flash media player will only play WMA, WAV and MP3's.
2. Insert your flash media drive into the USB port (5) or your SD card into port (4).
3. Depress the Line/USB/MP3 button (1).
4. Select the USB mode (3) if you have not already done so.
   Note: the player may autodetect and select this connection type upon insertion of the USB flash drive or SD card input.
5. Select SKAA output (6).
   Recommendation use SKAA Pro Mode (OUT LED will illuminate red in color when selected).
6. Bond your Cerwin-Vega SKAA Speaker to the mixer:
   For more information, please see SKAA® RECEIVER USER'S GUIDE appearing on subsequent pages within this manual.
7. Press the play button located just below the LCD screen.
8. Sound levels/tones, etc. are controlled via column channel 13/14 controls and slider volume control (shown on the left graphic).

CVM16 SHOWN ABOVE

GD202212011   070404511

RECEIVING INCOMING SKAA SIGNAL SOURCE CONNECTION:
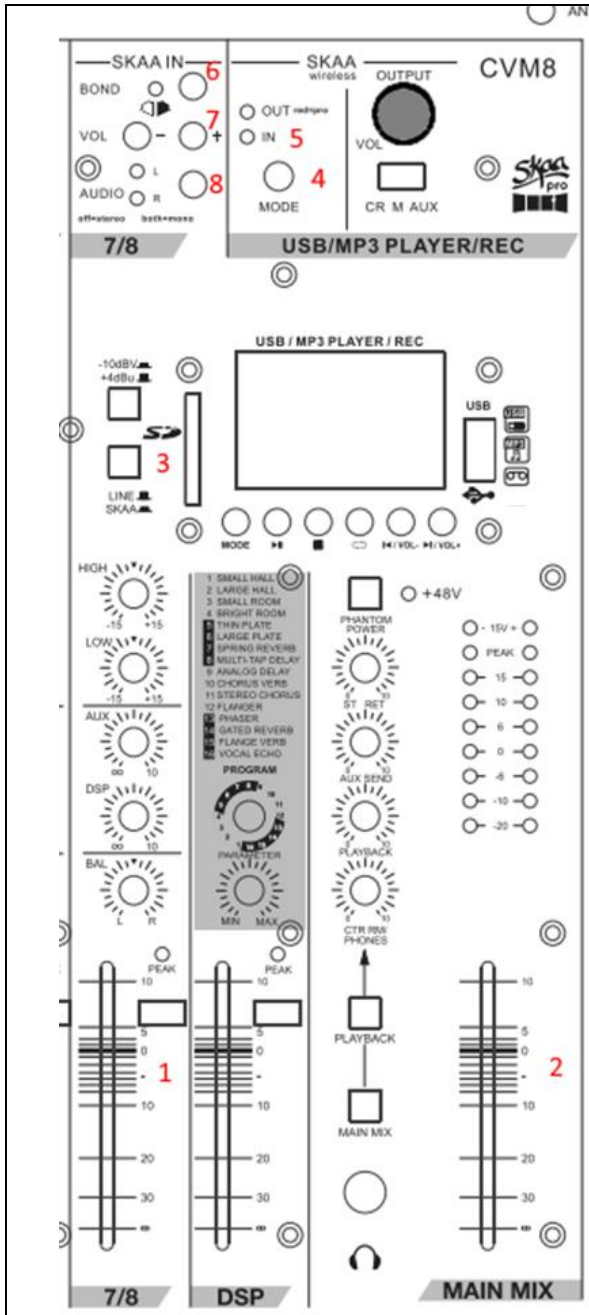
Please reference the graphic to the left.

Example Shown is for CVM8, other CVM's done in a similar manner as shown in the example below.

Note: when receiving audio via the SKAA input method it is expected that wired speakers are connected to the mixer via XLR.

1. The Mixer main output lines are wired to your speakers via XLR cables.
2. Set your SKAA transmitter source to be online/functioning.

   Example: Android with attached SKAA Transmitter playing music.

On the Mixer
3. Set "SKAA IN" channel volume to min (1).
4. Set Main Mix output volume to min (2).
5. Depress SKAA/Line button (3) for SKAA mode.
6. Select SKAA IN Mode (4).
   SKAA IN led will light up (5).

7. Double tap the SKAA IN bond button (6) to bond your SKAA audio source to the mixer.

   Please see SKAA® RECEIVER USER'S GUIDE on page 15 for more features and operational functions regarding SKAA.

8. Slowly adjust the SKAA volume (1) & (2) & (7) until audio is heard.
9. Select Audio L & R modes desired (8).
10. Other manual controls are available to the SKAA IN Channel column (i.e., High adjust HF, LOW adjusts LF, etc.)

Note: CVM8 shown above but applies to all mixers, should you desire to have both SKAA inputs and also SKAA outputs at the same time, then an additional SKAA accessory transmitter (not included) can be added to the mixer outputs.

GD202212011   070404511

RECORDING AUDIO FROM MAIN MIX TO MEMORY DEVICE:
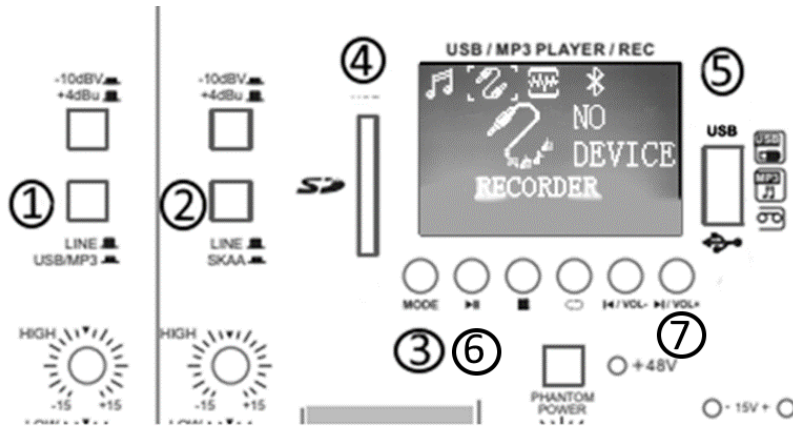
Please reference the graphic above for the following.
1. Recordings are in mp3 format at 128kbps, mono.
2. The mixer will create a folder on the memory device called (RECORD) and will store the recorded audio in that folder.
3. Use the mode button (3) to select other files stored on the memory device from previous or other recordings, etc.
4. Insert your SD memory card into the slot (4) or insert your USB drive into the USB port (5).
5. Press the VOL- and VOL+ buttons (7) and select the record function, the recorder image will appear on the LCD screen.
6. Enter the recording mode by pressing the PLAY button (6).
7. Pressing the play button starts the recording, pressing the play button again will pause the recording.

SKAA APP: CELL PHONE CONNECTIONS

Where to download the app?

- For Android Phones the SKAA cmd app can be found on the Google Play store: www.skaa.com/TLC

- For iPhone the SKAA cmd app can be found on the Apps Store https://www.apple.com/app-store/

- To see a complete listing of the SKAA cmd app commands/functionality the PDF can be downloaded at: www.skaa.com/TLC and download the SKAA Receiver Users 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

◁▶ Button	Command	Indicator
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 *favourite* 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> *Explore* for new, unknown transmitters (ones which are not already on your Green List)	🟡 (dim) = Hunting 🟡 (bright) = Bonded

More Commands

◁▶ Button	Command	Indicator
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>: 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

GD202212011   070404511

QUESTIONS AND ANSWERS

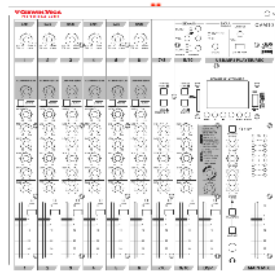| Question	Answer
How does the Green List work?	You can store up to 10 SKAA transmitters on your Green List. These are your "favourite" audio sources. Every time you add a transmitter, it is assigned the first open spot on the Green List. When you single click the ◁▶ Bond Button, the receiver hunts through 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.

LEGEND
- SKAA
- SKAA Pro
- XLR Cable

USE CASES

basic studio setup

hub (in SKAA mode)

satellite

SKAA Pro

Cerwin Vega Pro
SKAA-enabled
mixer

add a sub
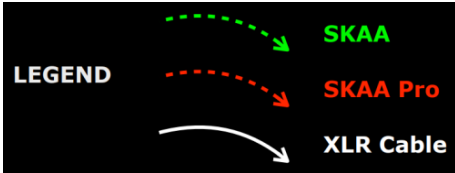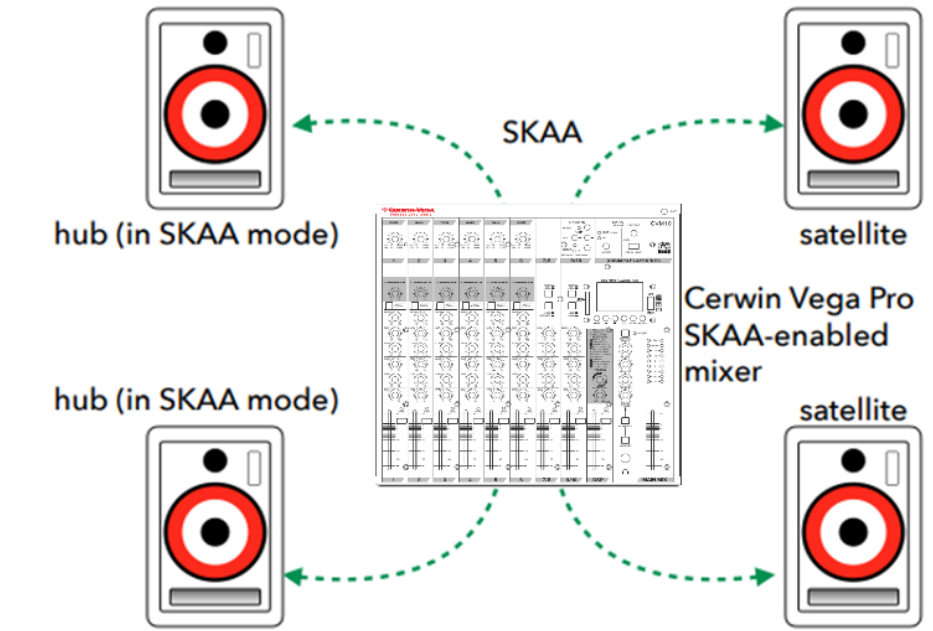
hub (in SKAA mode)

satellite
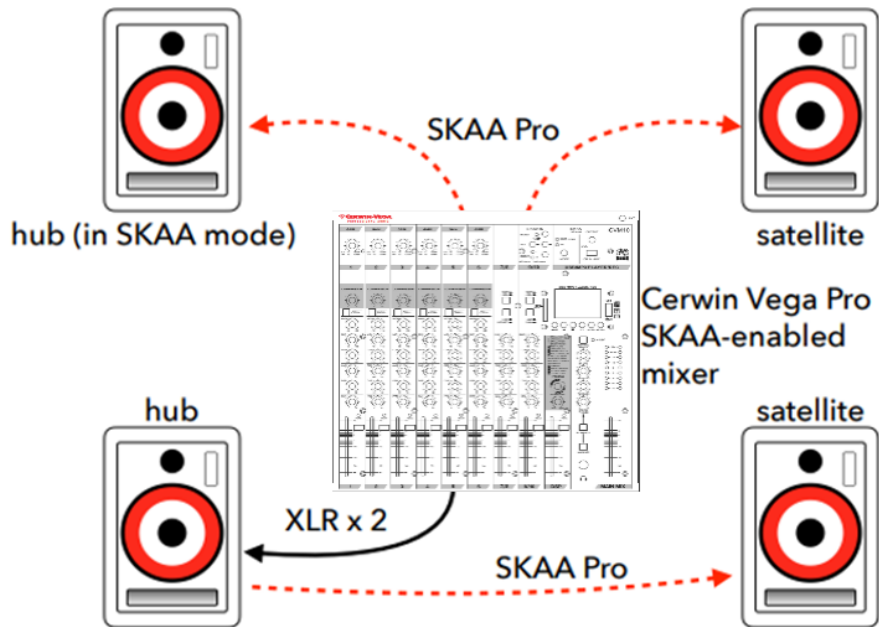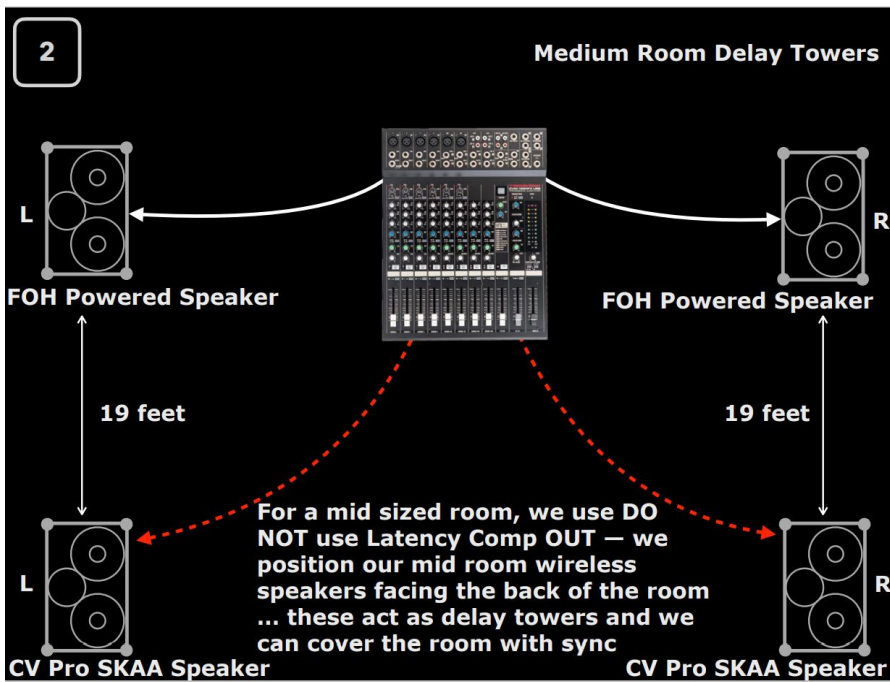
SKAA

SKAA subwoofer

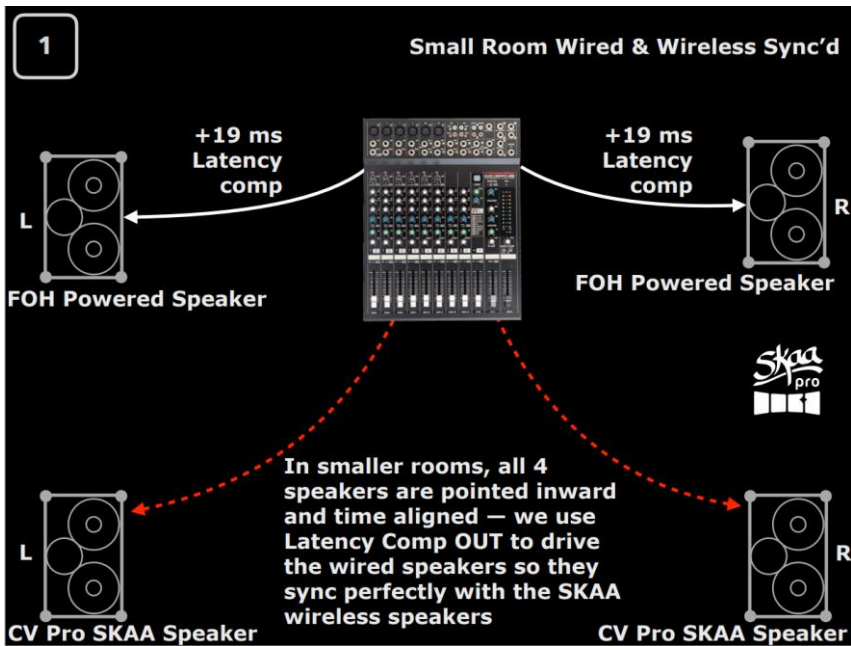Cerwin Vega Pro
SKAA-enabled
mixer

20

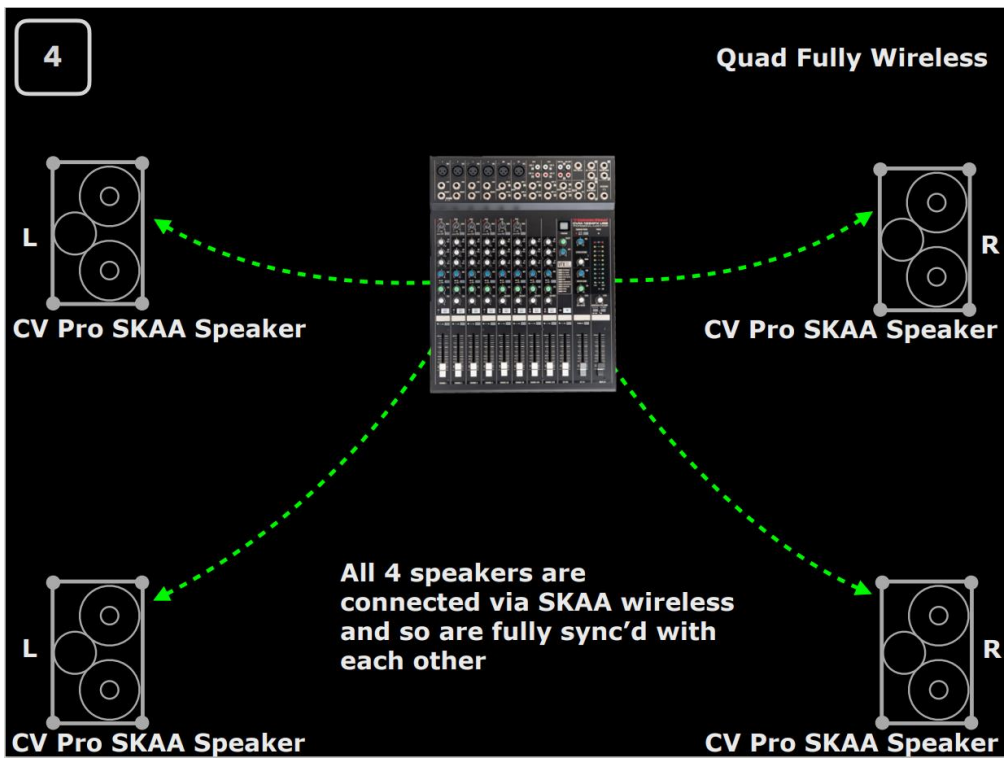## dual pair studio setup

hub (in SKAA mode)

SKAA

satellite

Cerwin Vega Pro
SKAA-enabled
mixer

hub (in SKAA mode)

satellite

pro pro studio setup

hub (in SKAA mode)

SKAA Pro

satellite

Cerwin Vega Pro
SKAA-enabled
mixer

hub

XLR x 2

SKAA Pro

satellite

21

GD202212011   070404511

3   **Large Room Delay Towers**

L   R

FOH Powered Speaker   **FOH Powered Speaker**

36 feet   **36 feet**

For a large room, we DO NOT use Latency Comp OUT, we use SKAA mode and position our mid room wireless speakers facing the back of the room ... these act as delay towers and we can cover a larger room with sync

L   R

CV Pro SKAA Speaker   **CV Pro SKAA Speaker**

4   **Quad Fully Wireless**

L   R

CV Pro SKAA Speaker   **CV Pro SKAA Speaker**

All 4 speakers are connected via SKAA wireless and so are fully sync'd with each other

L   R

CV Pro SKAA Speaker   **CV Pro SKAA Speaker**

23

Stereo Wireless Keyboard

Transmitter

For years, keyboard players have been using SKAA to connect their keyboards to mixers / amps ... now with SKAA Pro, things become even snappier — and those ground loop problems, the need for a DI box ... those headaches all disappear

L

FOH Powered Speaker

R

FOH Powered Speaker

Wireless Mic for Live Sound

SKAA Pro mic

L

FOH Powered Speaker

R

FOH Powered Speaker

GD202212011   070404511