

# USER MANUAL



## **KRK V SERIES 4 BI-AMPLIFIED DSP CONTROLLED STUDIO MONITOR**

"They deliver a clean and detailed sound with a strong sense of focus, they make good mixes sound good, and if there are any problems with, they'll let you know." Sound on Sound Magazine

"It's no exaggeration to say that the V8s are among the best monitors we've tried in this price range, and some of the nicest of this size at any price!" DJ Magazine

"I love tracking on my 8s! I can turn them up for starting my drum sounds and they sound nice and full and loud. Then I can turn them down, even dim them and still hear the fullness and clarity of my recording." Steve Marcantonio Legendary Nashville recording engineer/mixer



**-dB LEVEL ATTENUATION** starts set to zero to be at +4 dBu or -10 dBV. Reduce this on both monitors in half dB steps to level match these to other monitors you may use with them up to -3 dB.

**SYSTEM SETTINGS** use these to adjust overall system preferences.

**A - GROUNDLIFT** If you have a ground loop and need to get rid of ground related noise, use this switch. It may also increase noise from other sources.

**B - INPUT** - We ship the monitors -10 on the input sensitivity. This makes them compatible with most gear; choose +4 setting for most pro gear. This will reduce your output level from the -10 setting so you will need to apply a higher-level signal at the input; this will increase the dynamic range and lower the noise floor.

**C - STANDBY** Use this to engage or disengage the standby. If standby is engaged the unit will go into sleep mode 30 minutes after no signal is detected. The monitors will wake up once you send signal to them again.

**D - LOGO LED** Turns the front KRK logo on and off

**E - LOGO LED DIM** With the KRK logo on this sets it to dim or bright. Set it to your desired setting according to the ambient light in your studio.

## LOW CONTROL

**LOW SHELF** Cut (minus) settings are wall-coupling filters. These EQ settings roll off the low end that can build up the closer you get to walls or if you have low ceilings. Boost (plus) settings add low end if you need more thump, set these to your taste. Most studios will achieve plenty of low-end with the setting in the flat position.

**LOW MID PEQ** This is a parametric EQ with a wide Q. It does not cut your low end as it cuts low mid frequencies. We call it a desk filter. If you have a large mixing board aka “desk” or a large desk, you can get a buildup in the low mids that can cause audio muddiness.

Note: one setting utilizes both the wall coupling filter and the desk filter.

## HIGH CONTROL

**HIGH SHELF** and **HIGH MID PEQ** All these settings are for you to set to your mixing taste. If you feel you need more, or less high mids or highs, adjust these until you are happy. Some studios are bright and need less highs and some studios are dark and need more highs. We give you Shelf and PEQ EQ's. PEQ EQ adjusts high mid frequencies up or down without changing the high frequencies.

**USB JACK** is for possible future updates and/or features.



The KRK design team has painstakingly modeled and analyzed hundreds of monitor placement and room acoustic situations to ensure that KRK delivers the most useful eq tools with minimal adjustments. Room acoustics are the biggest issue in today's studios because we are not in the perfectly built rooms now. Many great studios are just in revamped houses. We are giving you control to correct some of the anomalies you get from these types of situations.

With the **LOW CONTROL** and **HIGH CONTROL**, we have given you 49 different combinations of eq voicings to help you correct for your studio's acoustics to deliver more accurate monitoring. Start with **LOW CONTROL** and **HIGH CONTROL** switches set to L4 and H4 respectively, which is flat, no cut or boost and the **-dB LEVEL ATTENUATION** on 0. Set them up in your room per the information and diagrams below. Listen to some of your favorite songs and mixes. Try different positions in your room and placement before making eq adjustments and then adjust the eq to give you your best listening and monitoring experience.

**SYSTEM SETUP** Overall system setup is crucial to avoid unnecessary room acoustic interaction. A room's natural acoustics may alter the sound level at various frequencies due to abnormal dampening or reflections. Follow the checklist below for more details.

- 1 The system setup (studio monitors and work table) should be placed within the front 1/3 of the room. Doing so will reduce reflection buildup of peak frequencies.
- 2 The left and right sides of the system setup should be centered an equal distance from the left and right walls. This will produce even mid and low frequency response and preserve stereo imaging.
- 3 Avoid a listening position (your ears) that is closer than 3 feet (1 meter) from any wall. Also avoid large objects (such as lamps or decorations) near the studio monitor and listening position.
- 4 Diffusers and absorption material in the corners and back of a room will help remove room interaction by preventing reflections.
- 5 Carpeting will help prevent reflections from hard floor surfaces.
- 6 Studio monitor isolators (foam or rubber pads) will help remove low frequency coupling between the stands and desk. Low frequency coupling will cause the stand or desk to vibrate causing unwanted sounds.
- 7 A low noise floor (no outside interference from refrigerators or fans) is important to prevent the masking of low frequency detail. Rattles due to studio monitor playback should be removed as well.



Within the system setup, the studio monitors and listening placement should be positioned in a near field configuration as follows: The left and right studio monitors should be approximately 3 to 5 feet (1 to 1.5 meters) apart and directed at a 60 degree angle towards the listening location. Measure the distance between the left and right studio monitors and note the listening position is equal distance to both sides. This will form an equilateral triangle. It is important that both left and right studio monitors are level matched. The V Series 4 is a two-way studio monitor with a tweeter (producing high frequencies) and a woofer (producing mid and low frequencies) in one enclosure. In between the tweeter and woofer is the acoustic axis point where the full frequency range comes together. The ideal location for the acoustic axis point is located at ear level in the listening position. It is acceptable to angle the studio monitors so the acoustic axis is in the correct direction.

### Grills

We included a user installable grill with your monitors. While most producers/mixer prefer a monitor to have exposed drivers, there are some instances where having a grill is important or useful.

If you want to use the grills, you can have confidence that they will not affect the sound of the V Series. Because of the design of the grill, for all intents and purposes, there is no change in frequency response from grill to no grill. So if you just like how they look with the grills on, feel free to use them. To see how they look with the grills on before you install them, you can go here. [http://www.krksys.com/images/high\\_rez/vseries/KRK\\_V\\_fam\\_front\\_grill.jpg](http://www.krksys.com/images/high_rez/vseries/KRK_V_fam_front_grill.jpg)

But they are really included for high traffic situations to the protection of your monitor's drivers. For instance, in mobile recording trucks or studios with a lot of foot traffic. You can use them in your home studio to protect them from little pokey fingers. Use them if you bring your own V Series with you as you go to different studios to protect them while you travel. Because the tweeter is much more fragile than the woofer, if you just want to protect the tweeter you can cut the grill and just use the section that covers the tweeter only.

To install the grill, simply unscrew the 6 cap-head screws from the brushed aluminum faceplate and then attach the grill with the included screws to the aluminum baffle and then replace the brushed aluminum faceplate.

### Built in stabilizer

EVA foam cushion on the bottom and the cast-aluminum front gives the V Series what is in essence a monitor stabilizer built in. This aids in reducing the recoil of the woofer when playing music. It adds punch and clarity because when the woofer moves, it doesn't lose energy due to cabinet movement. The foam keeps the monitor in place and isolates the monitor from your desk.

### Input sensitivity

+4 vs -10 uses. Input sensitivity is not volume. Our amplifier runs wide open and then you adjust how "hard" you hit it with input sensitivity, also known as a pad. The -0.5dB increments of up to -3dB cut on the Input sensitivity adjustment on the back of the unit is for level matching with your other monitors.

Running at +4 is "quieter" than -10. -10 hits the amp a lot harder so it is perceived as "louder". But in essence this is incorrect. All you are doing is reducing your headroom and dynamic range. The bigger issue is that you will have a much worse signal-to-noise ratio running at -10, again, because the amp is wide open and you are now putting more gain in front of it. So, because of all of that, the more "pro" way to run the monitors is at -4 for almost all situations. You will have way less "hiss" coming from the amp. You will have more headroom and dynamic range and that will make your music and mixes feel better and more "open" as you work.

So, when would you want to use -10? Well, we ship in -10 because in the store, we battle the "volume" wars at the retail store. Some associates in the store will a/b and put a 155 watt, 115 dB SPL V6 in +4 next to a 98 watt, 107dB SPL Rokite 6 running at -10 (volume all the way up) and declare that the V6 is not as loud as the Rokite 6. But in actuality, using your volume interface, if you turned the Rokite up as loud as it could go before hitting the limiter and then switch to the "quieter" V6 and continued to turn up the volume of your source, you will get way louder with the V6 before hitting the limiter. We must be prepared to win that war in the store by shipping it in -10. Also, you could run it at -10 if you don't have a way to run two different sets of monitors in your studio from two separate volume knobs. If your other monitors don't have a way to bring them back down to a matching volume with your Vs then you can use -10 and the -3dB input sensitivity adjustment to level match your two sets of monitors.

**Universal threaded mounting bracket points** are on each model to use with wall mounting brackets.

## Power on

When you first power up the V Series, there is a 3 second delay and the light on the front of the unit comes up and then one second later there is signal to the speakers. The same is true for coming out of standby.

## Standby

Your monitors have the ability to power down when you are not using them for 30 minutes. If you don't want them doing that, you simply switch the standby feature off on the back. But if you use standby to save energy or because the power switches are hard to reach in your studio, leave the standby on. You will know that the Vs are in standby because the KRK logo will pulse (even if you normally have the KRK logo light off).

To wake up your monitors after they go into standby. Just like when you first turn them on, there is a three second delay until the light on the front comes on and a second later you get signal to the speaker. If your speakers go into standby, ease your source volume up slowly. You only have to break -50 dBu for them to come out of standby. This will keep you from excessive volume spikes if you ease it up slowly. Also, as you raise the volume, you can use the light going solid as an indication to turn your source back down to avoid any loud spikes. Or if your setting is KRK logo light out, you can use the pulsing light going off to indicate you are about a second from the speaker coming on.

## TROUBLESHOOTING

### If there is no power, check to see if...

- Check to see if the power cord is plugged into both the IEC socket on the rear panel of the active speaker and into the AC mains. Verify that the AC mains are active by using an approved AC tester or simply connect a lamp with a working light bulb. In some cases, the AC mains may be controlled by a light switch or power strip with suppressor that may not be in the 'on' position.
- Verify that the power switch on the active speaker is in the 'on' position.
- Check to see if the power light is illuminated. The power light is the KRK logo on the front panel of the monitor. If the power light is not illuminated, turn the power switch OFF and check the A/C mains fuse(s). The fuse is located directly below the power receptacle.
- Be sure that dipswitch 4 on the back of the unit is in the up position.

### NEVER USE A LARGER AMPERAGE FUSE THAN SPECIFIED!

- After the fuse has been checked and replaced, turn the power switch back on. The power light should illuminate.
- Check to see if a fuse change was needed. If you power the monitor back on and the fuse blows again, the monitor needs to be returned to the dealer or distributor where you purchased it or to KRK for servicing.

### If you can't hear certain sounds...

- Repeat steps in the previous troubleshooting section above before continuing to the next steps.
- Check to see if all other audio devices using the same AC outlet are still operating.
- Check to see if the audio source cable is plugged into both the source output and the monitor input.
- Check to see if the signal source (E.g. mixing console, work station, CD player, etc.) is turned up to a level that can properly send a signal to the monitors.
- Check to see if the audio source is in mono or stereo, or information in the mix may also be panned differently which will result in differing cancellation. Audio heard in stereo and not heard in mono may be a result of phase cancellation due to long delays between left and right channels or polarity inversion. Avoid polarity inversion by using matching cables.
- Check to see if one of the monitors is working. Exchange the audio input cable from the non-working monitor to the working unit. This will determine whether it's really the monitor, a faulty cable, or some other glitch in the audio chain.
- If the monitor is still not responding, it should be returned to the dealer where you purchased it or to KRK for servicing.

### If the monitor suddenly stops working...

- Turn the monitor level down or off.
- Repeat steps in the troubleshooting sections above before continuing to the next steps.
- Carefully check to see if the amplifier's back plate is hot! If the monitor has been running at highest power output for an extended period of time, it could be that the unit has become overheated and the protection circuitry has shut the system down momentarily. The monitor provides maximum circuitry protection against AC power surges, amplifier overdrive, and overheating of the amplifiers. Turn the monitor off then wait 30 minutes to allow the back plate to cool down. Turn the power switch back on.
- Increase the volume to check for normal operation.
- If the monitor is still not responding, it should be returned to the dealer where you purchased it or to KRK for servicing.

### **The sound quality changes...**

- Repeat steps in the previous troubleshooting section above before continuing to the next steps.
- It is possible that the change in sound quality is due to changes in the room or listening position. Low frequencies (bass response) can be increased or reduced by changes such as furniture and/or large equipment placement. Try moving the speakers or listening area a different position or return the room back to where the sound quality was acceptable.
- A reduction in bass frequencies may be a result of polarity inversion between the left and right channels or long delays between the left and right channels. Information in the mix may also be panned differently which will result in differing cancellation. Check the audio source and verify if one channel is polarity flipped or long delays are being used. Avoid polarity inversion by using matching cables.
- Disconnect the signal cable at the input of the monitor and adjust the volume control to the minimum setting. With power on, place your ear close to each driver (tweeter/woofer) and listen for noise (i.e., a slight hiss or hum) while slowly increasing the volume from the minimum setting. It is important that the volume is slowly adjusted from minimum setting to avoid any spike in sound levels while the ear is close to the driver (tweeter & woofer). If there's absolutely no sound whatever, it could be that the driver is at fault. It's also possible that the problem lies somewhere in the electronics.
- Play some non-distorted source material at a low volume. Carefully cover the woofer (to block the sound) without touching the diaphragm. Is the woofer producing a clean sound? If there is not a clear tonal quality or any sound at all then the woofer probably needs to be replaced.
- Verify the source signal level has not changed or source has changed. This can be tested by connecting the source headphone outputs to a set of headphones and verifying the sound is not loud or distorted. If the sound is poor at the source (preamp stage) then it is not the active speakers.

### **The monitor hisses, hums or makes other loud noises...**

- Make sure that the power cord is plugged snugly into the IEC socket on the rear of the monitor.
- Check the connections between the signal source and the monitor. Make sure all connections are secure and that the cable is not damaged or wired incorrectly.
- If you are using an unbalanced output to balanced cable conversion, make sure it is correct. The shield is connected to the unbalanced ground of the source and pins 1 and 3 of the XLR (or the sleeve and ring on the ¼" TRS jack).
- All audio equipment should use the same ground point. Check all other devices using the same AC output in the building like light dimmers, neon signs, TV screens, and computer monitors. These devices should not be using the same circuit.
- Verify that the signal cables are not routed near AC power lines or other EMI sources (including wall power adapters and computers).
- Excessive hiss may be a result of an incorrect gain setting before the speaker connection. Verify the source signal is not noisy before connecting the monitors. This can be tested by connecting the signal source headphone outputs to a set of headphones. Once you have a better idea of what may be at fault then contact our service department. They will help you determine the best solution to correct your issue.