



VANGUARD V1

Multi-Capsule FET Pencil Condenser Microphone Systems

Thank you for choosing your VANGUARD V1 System!

Your **VANGUARD V1** system is carefully packed at our workshop. The padded pinewood mic box is designed to protect the microphone during shipping and storage. In addition, before any microphone is released, the final assembly and testing is performed here in sunny Southern California to make sure your equipment is ready for you to reliably enjoy in professional recording situations.

TO AVOID DAMAGE TO YOUR MICROPHONE, PLEASE READ THIS ENTIRE MANUAL BEFORE PLUGGING IN THE V1 FOR THE FIRST TIME!

OVERVIEW

The Vanguard V1 is a multi-capsule FET pencil condenser microphone system. Lovingly crafted by experts over several years, it is designed to be a versatile, reliable, professional tool. With a “straight-wire” circuit design, premium cryogenically-treated FET componentry, an unparalleled selection of capsules, and a true heavy-duty shockmount, the V1 will be your new studio workhorse.

YOUR KIT

Depending on which V1 system you purchased, you will have the following accessories:

V1 Kit

- V1 Microphone
- Four 22mm Capsules
- VSSM Shockmount
- Pinewood Storage Case

V1+LOLLI Kit

- V1 Microphone
- Four 22mm Capsules
- V34C “LOLLI” Capsule
- VSSM Shockmount
- Pinewood Storage Case

V1S Kit

- Two V1 Microphones
- Eight 22mm Capsules
- Two VSSM Shockmounts
- Pinewood Storage Case
- Stereo Microphone Bar

V1S Kit

- Two V1 Microphones
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PERFORMANCE

We designed the V1 with the character and versatility of iconic pencil condensers in mind, while also utilizing modern technology & design to meet the demands of today's recording professionals.

The V1 kit was created to be your most flexible and adaptable microphone system. The four small capsules allow tonal & directional variety on any number of sources, but we found them to be exceptionally well-suited for close-to-medium-range mic'ing of acoustic guitar, percussion, piano, and stringed instruments. (The wide cardioid capsule in particular deserves special mention here as our favorite, but each capsule has sources and situations in which it excels.)

The V34C "LOLLI" capsule adds another level to your toolkit by coupling the smooth, lush sound of our custom-voiced V13 capsule with the precision and detail of the V1 microphone. The LOLLI excels in almost any recording situation, with vocals being of particular note.

After hundreds of hours of listening and testing exhaustive design variations with world-class engineers, we can confidently say that this microphone will exceed the performance of other pencil condenser microphones in its price range, and rival or exceed the performance of microphones costing several times more.

DESIGN

The VANGUARD V1 is very different from other microphones in its price range. It is designed and precision-built in limited quantities to "no-compromise" standards, with final assembly and 100% testing taking place here in Southern California. We spent more than three years designing, developing, and refining the V1.

Our proprietary small-diaphragm capsules begin with a 16mm 4µm gold-sputtered Mylar diaphragm, carefully positioned in front of a precision-machined, custom-voiced backplate. We engineered the housing to bring the diaphragm as close as possible to the front of the capsule housing, preventing comb filtering.

The V34C "LOLLI" Capsule houses an extra-large 34mm edge-terminated, gold-sputtered 3µm Mylar dual-capsule assembly which is custom-voiced with a proprietary hand-tuning process. It is placed in a shockmount saddle nestled in a retro-aesthetic chassis CNC-machined from solid aircraft-grade aluminum billets. Open-weave mesh, a carefully radiused interior, and precision-machined venting prevent standing reflections and allow for an "open-air" voicing. We engineered the V34C LOLLI head to spin 360 degrees while mounted on the V1, allowing for quick Y-axis positioning adjustments with no futzing around with mic stands.

The capsule is coupled to a transformer-balanced solid-state circuit that matches the unique musical properties of our capsules and is loaded with premium-grade, over-spec components sourced from manufacturers all over the world. We cryogenically treat critical components in the signal & power paths, including an ultra-high-grade hand-biased FET. The circuit is designed with an "In = Out" philosophy, with only four components present in the signal path.

Aesthetically, we think a microphone should look at least half as good as it sounds. The precision-machined brass body is coated with our signature Pinot Noir hue, finished with a deep, lustrous gloss, and accented by polished nickel trim and a precision-cast Vanguard badge. Your V1's serial number is laser-engraved on the lower rear of the microphone.

The V1 was designed by a team of experts with more than 65 years of combined experience and vetted by award-winning engineers and producers.

QUALITY

The V1 was designed in the USA, and undergoes final assembly in sunny Southern California. We perform 100% quality control – every single part of your V1 kit undergoes a series of stringent audio and visual tests here in Southern California before being hand-packed. We precision-bias each high-grade JFET by hand on a calibrated analog oscilloscope (a Tektronix 465B, for you fellow EE geeks).

Every part of the V1 was designed to be robust and reliable. Wherever possible, the circuitry is over-spec'ed. Deep-cycle cryogenic treatment improves the lifespan and performance of critical electronic components. Brass, steel, aircraft aluminum, and zinc are part of the heavy-duty construction.

You want your recording tools to be reliable, durable, and rugged, and so do we! Your Vanguard microphone is backed by our FIVE-YEAR WARRANTY.

ACCESSORIES

When you buy a V1, you also get a VSSM Heavy-Duty Shockmount. We wanted to improve on the standard “tube” design that was popularized by our chief designer in the late 2000s. First, we created a windowed design for the shockmount. This allows you to access switches on your microphone without affecting your carefully-placed positioning. Second, we source aerospace-grade suspension bands that won't break, sag, crack, or stretch over time. The bands can be positioned either vertically/horizontally or diagonally, to tightly hold microphones of varying diameter. The V1 has slight insets machined into the body, so the suspension bands “lock in” easily to the microphone for a more secure hold. The main body and knob are precision-cast from a high-grade zinc alloy and finished with a durable powdercoat. The pivot is injection-molded from high-impact ABS to keep your mic placement locked in place. The pivot is also inset with both 5/8”-24 and 3/8”-16 threads to be compatible with any microphone stand. This shockmount was designed to fit any microphone with a diameter below 30mm, so it can be used with several brands of microphone, including almost any pencil microphone – and even ribbon microphones.

When not in use, your V1 should be stored in its padded pinewood box.

USAGE

The VANGUARD V1 system excels in a multitude of recording situations. It is a superior choice for acoustic guitar, strings, drum overheads, and the delicate nuances of piano, choral, and orchestral recording - essentially any acoustic instrument. The optional V34C “LOLLI” adds another dimension, and fits perfectly for vocals as well as adding another flavor for instruments. Tested in a diversity of situations, acoustic environments, styles, and genres, we found that the V1 was often the top option, despite being matched against microphones several times its cost.

CAPSULES

We designed each V1 capsule with the intention of creating the most versatile microphone kit possible. Each capsule is custom-voiced and suitable for a variety of recording tasks.

IMPORTANT - when you handle the small capsules, you must only pick them up by their sides. Touching the top screen can potentially damage the microphone diaphragm, resulting in reduced performance or non-operation.

Cardioid - 22mm - 4 μ m diaphragm thickness

The Cardioid capsule provides optimum pickup performance from the front, less from the sides, and the least from the back of the microphone. It is primarily used to allow precise focusing on a close-miked solo voice or instrument. This pattern allows minimal amount of room sound to get into the signal path if working close up. Cardioid microphones also exhibit "proximity effect". This is a boost in low frequency response at close range. For example, a singer that is 1 inch away from the mic will have a much deeper tone than one 6 inches away. Keep this in mind, and experiment with microphone distance to use it to your advantage.

Hypercardioid - 22mm - 4 μ m diaphragm thickness

The Hypercardioid capsule is an even narrower version of the Cardioid capsule, allowing for isolation of a source within a noisy environment (e.g., a hi-hat or tom-tom on the drum kit). The proximity effect on the Hypercardioid capsule will be more pronounced than the Cardioid capsule.

Wide Cardioid - 22mm - 4 μ m diaphragm thickness

The Wide Cardioid capsule is a wider version of the Cardioid capsule, allowing you to capture a wider, more open picture of your source. It will pick up more of the sides of the microphone. It's our personal favorite capsule on acoustic guitars, pianos, and strings. The proximity effect on the Wide Cardioid capsule will be less pronounced than the Cardioid capsule.

Omnidirectional - 22mm - 4 μ m diaphragm thickness

In theory, the Omnidirectional capsule will allow sound to be picked up equally from all sides of the microphone. Since the V1 microphone sits directly behind the capsule, in practice the Omnidirectional capsule will still exhibit some directionality. It tends to have a more natural low frequency response, as well as an very open top end. This capsule allows the most room sound to be present with the recorded signal. We intentionally designed the omnidirectional capsule to sound different from the other capsules, allowing more tonal variety within your V1 kit.

V34C "LOLLI" Multi-Pattern Large Capsule - 34mm - 3 μ m diaphragm thickness

(included in V1+LOLLI and V1S+LOLLI systems)

The Vanguard V34C "LOLLI" is the world's first removable multi-pattern large-diaphragm capsule head. It is made to fit a variety of small-diaphragm "pencil" microphones from several manufacturers. With the V34C, you can convert your instrument mic into a large-diaphragm, multi-pattern recording tool in seconds.

The LOLLI is switchable between Cardioid and Omnidirectional patterns via the toggle switch at the top of the capsule.

HOW TO SET UP YOUR V1 MICROPHONE FOR USE

1) Choose your capsule.

- Choose the desired capsule from your kit and carefully screw it onto the V1 microphone. **IMPORTANT - when handling the small capsules, only pick them up by the sides of the capsule. Touching the top screen can potentially damage the microphone diaphragm, resulting in reduced performance or non-operation NOT COVERED BY YOUR WARRANTY.**

2) Set up the V1 microphone.

- *It's always best to set up your V1 microphone last, and take it down first, whenever setting up or putting away your gear. During other stages of setup, the microphone might accidentally be bumped or knocked over.*
- Remove the VSSM Shockmount from the pinewood box. Thread it onto the microphone stand until tight, and then position the shockmount.
- Remove the V1 microphone from the pinewood box. Stick the XLR end in between the VSSM bands, and slide the microphone into the VSSM until the bands lock in to the ridges on the V1 microphone.
- Plug the XLR cables from your mixer, interface, preamp, or other input device into the corresponding OUTPUT jacks of the splitter box. The V1 requires phantom power to operate. *Do not apply phantom power until all cables are routed and plugged in at both sides. Phantom power should always be off when plugging and unplugging the V1 microphone.*
- Position your V1 microphone as desired towards your sound source. *If you are using the V1 microphone on vocals, it is important to use a high quality Pop Filter to protect the capsule against breath moisture, as well as plosive blasts like "P", "K", "T", etc. Failure to use a pop filter may result in damage to your microphone.*

3) Turn on the phantom power on your mixer, preamp, interface, or other device.

- *NOTE: You won't hear any sound for several seconds as the microphone voltages stabilize.*

FEATURES

CAPSULE & ELECTRONICS

- 4 small-diaphragm 22mm capsule assemblies – cardioid, hypercardioid, omnidirectional, wide cardioid
- Large-diaphragm V34C "Lolli" multi-pattern capsule assembly (V1+LOLLI and V1S+LOLLI only)
- Transformer-balanced solid-state circuit
- Ultra low-noise high-quality hand-biased JFET and other premium-grade components
- Deep-cycle cryogenic treatment of critical signal & power path components
- Transformer-balanced output – custom-wound humbucking dual-bobbin transformer

CONSTRUCTION

- Heavy-duty brass, aircraft-grade aluminum, steel, and zinc construction
- Each V1 comes with its own laser-engraved serial number
- Over-spec componentry
- Deep-gloss Pinot Noir finish
- Polished nickel trim
- Precision-cast Vanguard badge
- Final Assembly & 100% Quality Control in California, USA
- 5-Year Warranty

STANDARD ITEMS SUPPLIED

V1 Kit

- V1 Microphone
- Four 22mm Capsules
- VSSM Shockmount
- Pinewood Storage Case

V1+LOLLI Kit

- V1 Microphone
- Four 22mm Capsules
- V34C "LOLLI" Capsule
- VSSM Shockmount
- Pinewood Storage Case

V1S Kit

- Two V1 Microphones
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- Stereo Microphone Bar

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SPECIFICATIONS

Capsule Type:	V34C: 34mm / 3-micron Gold sputtered Mylar-True Condenser (DUAL CAPSULE) Small Capsules: 22mm / 4-micron Gold sputtered Mylar-True Condenser
Polar Pattern/s:	V34C: Cardioid / Omnidirectional Small Capsules: Cardioid, Hypercardioid, Wide Cardioid, Omnidirectional
Frequency Range:	V34C: 20Hz-20,000 Hz Small Capsules: 20Hz-20,000Hz
Output Impedance:	200 Ohms / electronically coupled
Output Connector:	Male XLR 3 pin, gold-plated
Included Accessories:	V1 Microphone, Four 22mm Capsules, V34C "LOLLI" Capsule (OPTIONAL), VSSM Shockmount, Stereo Microphone Bar ("S" kits only), Padded Pinewood Storage Box
JFET Type:	Proprietary Select Premium Grade, Ultra-Low-Noise and Ultra-Low-Capacitance
Power Requirement:	Phantom Power (48V ideal)
Finish:	Polished Nickel trim / Pinot Noir Body
Warranty:	5 Years

CARE AND PRECAUTIONS

- When not in use, please store your V1 microphone and accessories in the provided padded wooden microphone case. We recommend keeping the plastic sleeve that the microphone is shipped in, and keeping it on the microphone when not in use to prevent debris build-up on the capsule.
- When using for close-mic'd vocals, it is important to use a high quality Pop Filter to protect the capsule against breath moisture, as well as plosive blasts like "P", "K", "T", etc. Failure to use a Pop Filter may result in damage to your microphone.
- Always protect your V1 from any hard jolts, drops, and vibrations. Although it is ruggedly constructed, it is a professional tool and should be treated with respect. Always handle with care.
- For best performance, stability, & longevity, do not expose the microphone to any moisture or smoke.
- **DO NOT** open the V1 microphone, V34C capsule, or small capsules, as this will void your warranty.

SERVICE & WARRANTY

LIMITED 5 YEAR WARRANTY

VANGUARD microphones purchased in the U.S.A. are warranted by Vanguard Audio Labs to be free from defects in materials and workmanship for the period of 5 YEARS to the original purchaser. In the event of such defects, the Vanguard Audio Labs product will be repaired without charge or, at our option, replaced with a new one if delivered to Vanguard Audio Labs prepaid, together with the sales slip or other proof of purchase date. The warranty excludes problems due to normal wear, abuse, shipping damage or failure to use the product in accordance with the specifications. This warranty does not apply if the product has been damaged by accident or misuse, or as a result of repair or modification by other than a Vanguard Audio Labs customer service facility authorized to service this product.

All parts except tubes (90 days) are covered under this Limited 5 Year Warranty.

Vanguard Audio Labs shall not be liable for damages based upon inconvenience, loss of use of the product, loss of time, interrupted operation or commercial loss or any other damages, whether incidental, consequential or otherwise. This warranty gives you specific legal rights, and you may have other rights, which will vary from state to state.

Specifications and prices are subject to change without notice or obligation.

Do not attempt to service this unit yourself, as it will void your warranty. Please check your unit carefully upon receipt and return to place of purchase immediately if there are any problems with the product. After that, the standard VANGUARD AUDIO LABS 5-YEAR WARRANTY will apply to defects in materials and workmanship.

(U.S.A.) Should your VANGUARD microphone require service, please contact the VANGUARD AUDIO LABS Service Department. (909) 920-5600 -or- e-mail service@vanguardaudiolabs.com

To claim warranty in USA, microphones and accessories must be delivered in their entirety to VANGUARD AUDIO LABS freight prepaid, IN PROPER/SAFE PACKAGING. All returns must have prior authorization before shipping. Please contact VANGUARD AUDIO LABS for a Return Authorization Number (RA). A sales slip or other proof of purchase must be included.

