

## Notice

This manual provides general information, preparation for use, and operating instructions for the CV-12.

The information contained in this manual is subject to change without notice. Avantone Pro makes no warranties of any kind with regard to this manual, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose. Black Lion Audio shall not be liable for errors contained herein or direct, indirect, special, incidental, or consequential damages in connection with the furnishing, performance, or use of this material.

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Middletown, NY 10940

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# CV-12

## TUBE CONDENSER MICROPHONE



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## IMPORTANT SAFETY INSTRUCTIONS

Exposure to extremely high noise levels may cause permanent hearing loss. Individuals vary considerable in susceptibility to noise-induced hearing loss, but nearly everyone will lose some hearing if exposed to sufficiently intense noise for a period of time. The U.S. Government's Occupational Safety and Health Administration (OSHA) have specified the permissible noise level exposures shown in the following chart.

According to OSHA, any exposure in excess of these permissible limits could result in some hearing loss. To ensure against potentially dangerous exposure to high sound pressure levels, it is recommended that all persons exposed to equipment capable of producing high sound pressure levels use hearing protectors while the equipment is in operation. Ear plugs or protectors in the ear canals or over the ears must be worn when operating the equipment in order to prevent permanent hearing loss if exposure is in excess of the limits set forth here.

Duration, per day in hours	Sound Level dBA, slow response	Typical example
8	90	Duo in small club
6	92	
4	95	Subway train
3	97	
2	100	Very loud classical music
1.5	102	
1	105	That couple screaming at each other
0.5	110	
<0.25	115	Loudest parts at a rock concert



The CV-12 complies with all applicable / RoHS / WEEE European Union directives.

**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 Avantone Pro 5 YEAR warranty will apply to defects in materials and workmanship.

## U.S.A.

Should your Avantone Pro product require service, please contact the Avantone Pro Service Department. +1 845 642 3697-or- e-mail info@avantonepro.com. **You must obtain an RA # (Return Authorization number) from us before shipping a unit back to us. This RA # must be clearly written on the outside of the box.**

**Please safely pack the units...It is best to use the original packing materials. AVANTONE PRO cannot be responsible for any damages incurred in shipping to us due to poor packaging. PLEASE PACK CAREFULLY and FULLY INSURE THE SHIPMENT.**

## INTERNATIONAL

For service or warranty assistance, please contact the Avantone Pro distributor in your country through the dealer from whom you purchased this product.

## LIMITED 5 YEAR WARRANTY



CV-12 is warranted by Avantone Pro 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 Avantone Pro product will be repaired without charge or, at our option, replaced with a new one if delivered to Avantone Pro prepaid, together with a copy of 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.

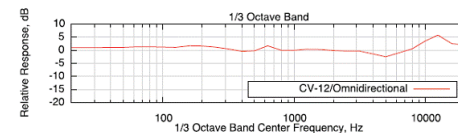
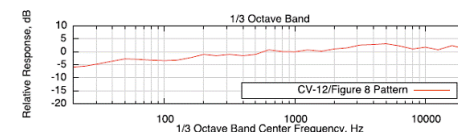
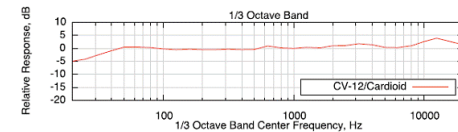
Avantone Pro shall not be liable for damages based upon inconvenience, loss of use of the product, loss of time, interrupted operation or commercial loss or any other damages, whether incidental, consequential, or otherwise. This warranty gives you specific legal rights, and you may have other rights,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

**This warranty is not transferable.**

## CARE AND PRECAUTIONS

When not in use please store your CV-12 in a suitable environment. Always protect your mics from any hard jolts and vibrations. Although they are ruggedly constructed, they are professional tools and should be treated with respect. Always handle with complete care.

For best performance and longevity, do not expose CV-12 to moisture or smoke.



## INTRODUCTION

Congratulations on your purchase of the Avantone Pro CV-12 Microphone! You've done the right thing.

Avantone Pro mics are designed in the USA and manufactured in China. Final inspection and testing are performed in the USA before final packing to make sure the mics are ready for you to reliably enjoy.

## DESCRIPTION

The CV-12 is a large-diaphragm tube-based condenser mic, designed to perform like the world-famous European tube mics of the 40s, 50s and 60s. CV-12 utilizes its vacuum tube circuit and gold-sputtered 32mm diaphragm to full potential.

While the CV-12 particularly shines on vocals, its 9 selectable polar patterns, high-pass filter, and -10 dB pad make it a versatile choice for nearly any recording application.

We advise the use of a pop filter for vocal recording.

## USING YOUR CV-12

The CV-12 requires the included power supply (PS-12) to operate. It employs the included 7-pin XLR cable for power, and standard 3-pin XLR cables for the audio signal (not included.) Do not connect the power supply before connecting the 3-pin XLR cables. Always connect the power supply to the wall AC last.

- Connect the included Retro Shockmount to your mic stand. Thread the base of the CV-12 into the threaded shockmount until finger-tight, allowing enough tolerance for adjustments if needed later.
- Connect the male end of a 3-pin XLR cable into the mic input of the PS-12 power supply, and connect the female end to the CV-12.
- Connect the female end of a second XLR cable into the output of the power supply, and connect the male end to your mixer, interface, or preamp.
- Position your CV-12 as desired towards your sound source.
- Connect the 7-pin XLR power cable to the power supply and connect the power supply to the AC mains (wall power).
- Turn the power supply on. You do not need to engage phantom power on your mixer or interface.
- You're ready to start recording!

## POLAR PATTERNS

The included PS-12 power supply uses a 9-position switch for selection of polar patterns. The three primary patterns are Cardioid, Omni, and Figure 8, but you can also select from variations *between* these settings to shape the mic's capture exactly the way you want it.

## Cardioid

Cardioid mode is most sensitive to sound from the front while rejecting much of the sound from the sides and rear. This should be your go-to setting for close-miked applications like vocals, where you would prefer to capture less room reverberations. Note that cardioid mode will exhibit some proximity effect, adding bass when placed closer to the sound source - which you can use to deliberate effect.

**Applications:** Vocals, strings, piano, guitar, horns, etc.

## Omnidirectional:

Omnidirectional mode captures sound equally from all directions—front, sides, and rear. It's ideal for recording natural, ambient sound or multiple sources in a room without favoring any particular angle. Because it doesn't reject off-axis sound, it's less susceptible to proximity effect.

**Applications:** Drum room, choirs, old-timey single-mic style bluegrass recordings.

## Figure-8

Figure-8 captures sound equally from the front and back while rejecting sound from the sides. This unique pattern is especially useful in stereo recording techniques like mid-side (M/S) or Blumlein, and in interviews or duets where two sound sources face each other.

**Applications:** Duets, room capture, Mid/Side recording, environmental.

## FEATURES

### Pad

Engage this switch to activate a -10 dB pad to lower the mic's input level when recording louder sound sources.

### High-Pass Filter

Engage this switch to activate a high-pass filter at 70 Hz, to cut low-end rumble from your recordings.

## SPECIFICATIONS

- **Type:** Tube-Type True Condenser
- **Capsule:** Dual-sided 32 mm center-terminated gold-sputtered Mylar (6 micron)
- **Polar Pattern/s:** 9 Patterns selectable at PS-12 Power Supply
- **Frequency Response:** 20-20,000 Hz +/- 3 dB
- **Output Impedance:** <=250 Ohms / transformer isolated
- **Maximum SPL :** 136 dB (0.5% THD @ 1000Hz) 146 dB with pad engaged
- **Equivalent noise level** 17 dB (A weighted EC651)
- **S/N Ratio re 1Pa :** 78 dB
- **Sensitivity** -38 dB
- **Output Connector:** Male XLR 7 pin with special power supply and cables
- **High-Pass Switch** 80 Hz 6 dB/octave
- **Attenuation Switch** -10 dB
- **Included Accessories:** Wood Box, Shockmount, 7-pin cable, metal Road Case, PS-12 Power Supply
- **Power Requirement:** Dedicated PS-121 Power Supply, 115/230 VAC selectable
- **Weights.** .8 kg / 1.8 lb.
- **Dimensions:** 237 mm x 46 mm (9.5" x 1.8")
- **Finish:** Polished Nickel trim / Metallic Cabinet Red Body

Specification and design subject to change for improvement purposes without prior notice.