



Soundelux Model U195

User Manual



Introduction

Soundelux USA U195 is custom built, hand made cardioid patterned, phantom powered, large diaphragm FET microphone. In designing the U195, David Bock set out to create an extreme value in studio mics that could satisfy a wide range of demands for highly experienced engineers that own many more expensive microphones, yet need additional mics within a budget. It delivers superb results on lead vocal tracks as well as in instrument and guitar amp use, providing remarkable fullness and presence with exceptionally low background noise.

Description

Soundelux USA U195 is a FET amplifier cardioid microphone powered by P48 phantom voltage. The microphone's audio output is standard male XLR3, with positive excitation of the diaphragm at the front of the mic resulting in a positive voltage at the output XLR's pin 2. Audio output is fully transformer balanced.

Additional Circuit Notes

The U195 circuitry is based on an optimized version of the venerable U87, with a much larger transformer and more sophisticated bias circuitry to eliminate the classic "honk" midrange emphasis of the U87. In addition it offers the user unrivaled control of the amplifier, providing voltage divider pad function (rather than a capacitive pad), active low cut function, and a unique "fat/norm" switch which allows a gentle low mid/bass EQ in the circuit. This "fat" switch provides a greater sense of impact and power, as well as conveying a warm, intimate sound.

Getting Started

It is recommended that the user place the mic in its shockmount on a stand and connect all the cables before using the unit. This mic (especially in "fat" mode) is very sensitive to low frequencies below 20 Hz, and the mic may be sensitive to rumble, HVAC, and other sub-sonic activity that were previously unapparent. Any combination of switch settings may be used for a nearly infinite variety of tonal variations.

Power Supply and Cable

Soundelux U195 is powered by P48 phantom power. Operation with less than 40V phantom may result in compromised performance. For more detail on phantom powering, please see DIN 45 596/IEC268-15A. Remember to use good quality as-new cables whenever possible, as older cables with internally frayed shield wires often result in poor performance with phantom powered mics.

Specifications

Patterns:	Cardioid
Frequency Range:	20 Hz to 16 kHz, ± 2 dB
Sensitivity:	8 mv/Pa (-42 dBm = 94 dB SPL)
Equivalent Noise:	12 dB ("A" weighted), 23 dB (unweighted)
Distortion vs. SPL @ 1 kHz:	(increasing distortion is exponential, complex 3rd harmonic) 126 dB = 0.5% THD 127 dB = 1% THD 129 dB = 2% THD
Impedance:	200 Ohms true transformer balanced
Recommended load:	2K Ohms
Dynamic range	111 dB (max SPL - "A" noise):
S/N (94 dB - noise):	81 dB ("A" weighted), 72 dB (unweighted)
Capsule size:	1" diameter, dual symmetrical backplate K67 type
Power consumption:	0.5 mA @ 48VDC
Amplifier type:	Minimalist Class A FET/transformer, no switching supplies or oscillators
Amplifier Controls:	"fat/norm" bass contour switch "locut" rumble filter switch "pad" -10 dB @ 30 Hz relative to 100 Hz sensitivity switch
Dimensions:	2" dia x 7.7" oal (50 x 195 mm)
Weight:	1lb 9.6 oz (1.6 lbs) = 725 g
Shipping weight:	2 lbs
Power Supply:	User provided

Safety

- CAUTION: Shock Hazard: Do not open microphone when connected to power source. No user serviceable parts inside. Refer failed units to qualified service personnel.
- VORTICHT: Shock gefar: Bitte nicht daf mikrofon offen wenn es eingeschaltet ist einen stoppkontakt.
- Keine zu wartenden Teile im Inneren. Beziehen gescheitert Einheiten qualifiziertem Service-Personal.
- ATTENCIONE: Choc hazard: N'ouvrez pas le microphone quand il y a un connectionne avec un source d'electricity. Aucune pièce réparable par l'utilisateur. Référer unités échoué à un personnel qualifié.
- ATTEZIONE: Riscchio di scossa: Non aprire il microfono quando e attaccato al'elettricità. Non contiene parti riparabili. Riferimento unità riusciti a personale qualificato.
- Read the instructions.
- Keep these instructions.
- Heed all warnings.
- Follow all instructions
- Do not use this apparatus near water.
- Clean only with dry cloth.
- Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- Do not install near any heat source such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 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.
- Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- Only use with attachments/accessories specified by the manufacturer.
- Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
- Soundelux USA U195
- UL 62368-2
- EN 62368-1
- Part 10004700 v201210