

User's manual
Bock Audio model 241

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1) The Bock Audio model 241 is a high quality cardioid directivity studio condenser microphone utilizing vacuum tube electronics. Modeled after AKG's classic ela M251, originally built in the 1950's, this mic takes that platform and expands the electronics bandwidth. It utilizes it's own proprietary cable and power supply. 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. The 241 has a unique "HF cut" switch, which allows the user to effect a gentle rolloff of highs starting at 5kHz, ending with a 1dB cut @ 10kHz.

2) The Bock Audio 241 uses classic single triode circuitry with no additional negative feedback and high quality through hole components. Through hole components are more mechanically robust than surface mount and allow for worldwide ease of repair. Single triode mic circuits demand excellent capsules before them and excellent transformers after them, with a reward of low noise, simplicity of troubleshooting, and classic sound unachievable otherwise. The Bock 241 departs from the classic 251 of the 1950's in it's expansion of the bandwidth of the electronics, which has had it's low frequency cutoff frequency decreased from 80Hz to 30Hz, by use of a larger transformer. As well, the cathode bias cap has been increased to maximize warmth. The "HF cut" switch engages active, not passive shunt circuitry.

3) It is recommended that the user place the mic in it's shockmount on a stand and connect all the cables before applying power to the unit. Allow a few minutes for the mic to warm up.

4) The Bock Audio P-251 full linear power supply features simple shunt B+ regulation and active current source for the heater. The outputs and cable pinouts are:

- 1) audio (-)
- 2) audio (+)
- 3) pattern (if applicable)
- 4) heater (5.9v typical)
- 5) B+ (120v typical)
- 6) ground
- case) shield

5) CAUTION: Shock Hazard: Do not open microphone or power supply when connected to power source. No user serviceable parts inside. Refer failed units to qualified service personnel.

VORTICHT: Shock gefar: Bitte nicht das 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 une connexion avec une source d'électricité. Aucune pièce réparable par l'utilisateur. Référez les unités échouées à un personnel qualifié.

ATTENZIONE: Rischio di scossa: Non aprire il microfono quando è attaccato all'elettricità. Non contiene parti riparabili. Riferimento unità riuscite a personale qualificato.

Specifications:

Patterns:	Cardioid
Frequency Range:	30Hz to 16kHz, +/-2dB
Sensitivity:	22mv/Pa
Equivalent Noise:	18dB ("A" weighted) 32dB (unweighted)
Distortion vs.SPL @1kHz:	112dB = 0.5% THD 118dB = 1% THD 129dB = 2% THD (increasing distortion is non-exponential, nearly linear, and primarily 2nd harmonic)
Impedance:	200 Ohms true transformer balanced
Recommended load:	2k Ohms
Dynamic range (maxSPL-"A"noise):	94dB
S/N (94dB-noise):	76dB "A", 62dB unweighted
Capsule size:	1" diameter, dual asymmetrical backplate CK12 type
Tube type:	New Old Stock EF800
Dimensions:	2" dia x 8.5" oal (52x216mm)
Weight:	1lb 9.3oz (1.58lbs) =716g
Shipping weight:	12 lbs
Power Supply:	P251 true linear, factory wired 115v or 230v operation