



GE 4BA21 REV. A

MICROPHONE PRE-AMPLIFIER PAIR

SPECIFICATION SHEET

A matched pair, racked and restored by Round Sound — Nashville, Tennessee.

A pair of General Electric 4BA21 (Rev. A) plug-in microphone pre-amplifiers, originally built for the GE BC-21-A broadcast console. Each is a fully transistorized, high-fidelity gain stage on a printed board, using germanium transistors (three 2N508 and one 2N320) in a Darlington input. The pair has been racked in a custom solid walnut enclosure and fitted for current studio use, with phantom power and a polarity switch added. The unloaded input-transformer front end gives the lowest noise and the full microphone signal into the stage.

TECHNICAL SUMMARY — ELECTRICAL

GAIN 40 or 50 dB (factory-set 50 dB).	MAXIMUM INPUT LEVEL −35 dBm at 50 dB gain; −25 dBm at 40 dB gain.
FREQUENCY RESPONSE ±1 dB, 50 – 15,000 cps.	OUTPUT LOAD IMPEDANCE 300 – 1000 Ω (nominally 600 Ω), unbalanced.
DISTORTION ½% or less at −10 dBm out (50–15,000 cps).	POWER INPUT 8 mA at 25 V d-c.
OUTPUT NOISE −70 dBm (60 dB below −10 dBm program).	TRANSISTOR COMPLEMENT 3 × GE 2N508 (Q1–Q3), 1 × 2N320 (Q4).
SOURCE IMPEDANCE 30 / 150 / 250 / 600 Ω, balanced or unbalanced.	INPUT MODE Unloaded input transformer (lowest noise).

TECHNICAL SUMMARY — MECHANICAL

LENGTH 9½	WEIGHT 1¾ lb
WIDTH 3	FRONT PANEL 45° slope (original module).
HEIGHT 4-7/16	MOUNTING Plug-in board, custom walnut rack.

ROUND SOUND ADDITIONS

REF	ADDITION	DETAIL
1	Phantom power	48 V, switchable, per channel.
2	Polarity switch	Per-channel phase reverse.
3	Walnut rack	Matched pair racked in solid walnut.
4	Restoration	Serviced and recalibrated for studio use.

NOTE. Electrical and mechanical figures are GE manufacturer specifications for the 4BA21, given for reference. This is a restored pair with phantom power and polarity switching added; measured performance is available on request.