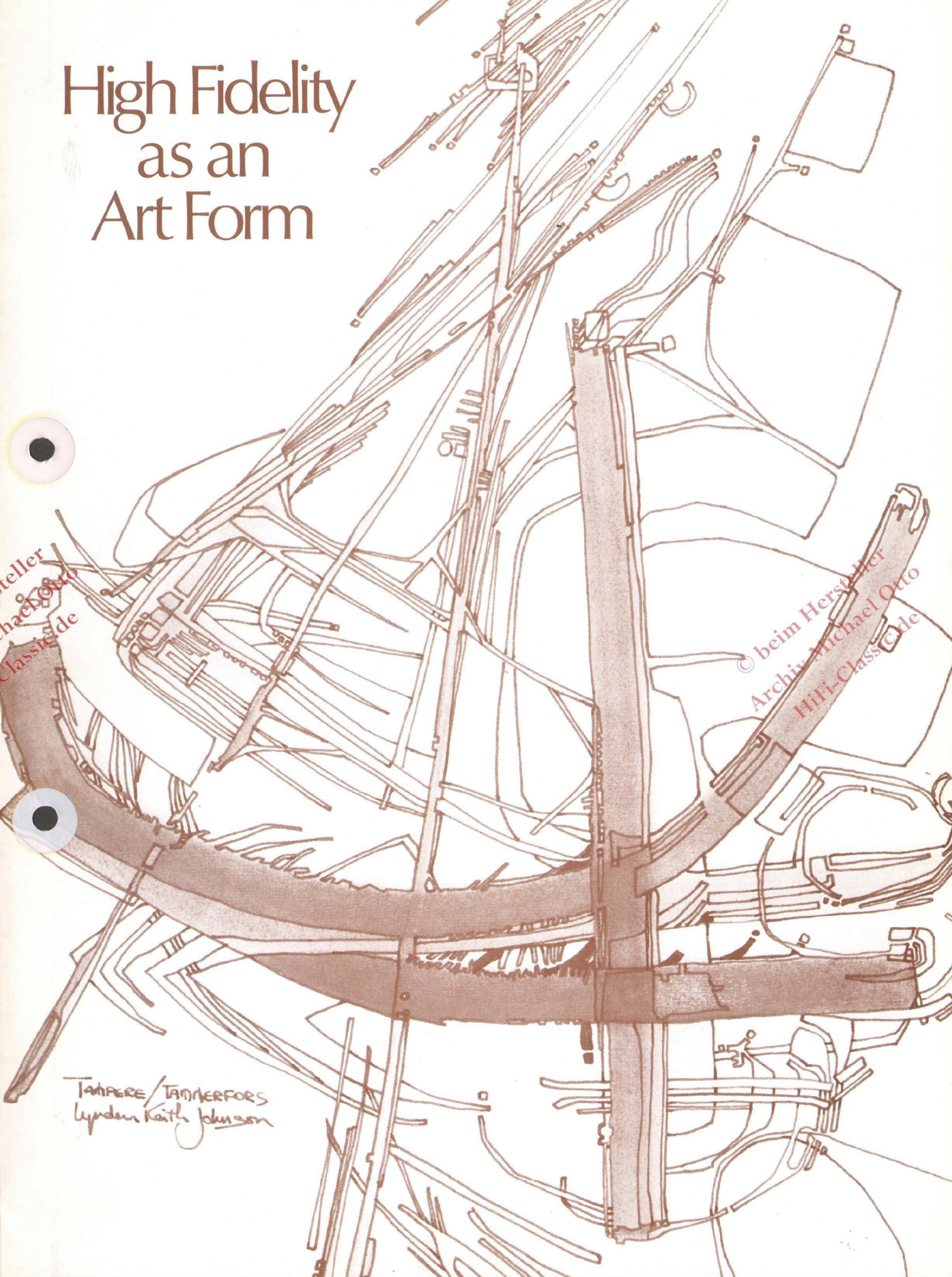


# High Fidelity as an Art Form

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## Stereo Control Center

The most accurate of all preamplifiers available to the advanced audiophile. Hear, as you never have before, the sound the recording engineer had in mind when he mixed his master tape. The C-11 has all the added features you need for tone balance, tape recording and dubbing plus special inputs/outputs for ancillary equipment like equalizers, processors . . . as well as a mono output for your center channel speaker or mono sub-woofer.

The C-11 M serves you with two professional peak reading VU meters for exact monitoring of your output signal, in place of the tone control circuits of the C-11.

Their specifications place them in the professional category. They are designed to be used with only the highest quality components.



### Model C-11 C-11 M

**Frequency Response** 10 Hz to 100,000 Hz, minimum;  $\pm 0, 25$  dB at rated output.

**Distortion** THD or IM, 20 to 20,000 Hz, less than 0.05% at 2.5 Volts rms.

**Total Hum and Noise** Low level input, better than 80 dB below 10 mv input; High level input better than 100 dB below rated output.

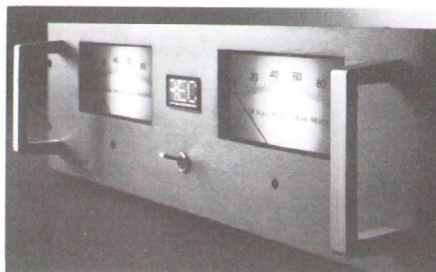
**Maximum Output** 10 Volts.

**Tone Controls** Separate Bass and Treble stepped switch controls for each channel with 3 dB per step at 50 Hz and at 5 kHz respectively. Total boost and attenuation  $\pm 15$  dB per control. Completely out of circuit in Flat position.

**Overall Dimensions** 483 mm (Standard 19" rack mounting) wide x 133 mm panel height x 250 mm deep.

## Professional Grade Power Amplifier

"An amplifier that can deliver over 250 watts per channel with negligible distortion". So says the equipment test report of this "super power" amplifier. It has no special sound quality or coloration of its own. It acts only as the catalyst between the source of the sound and the speaker, delivering the most faithful reproduction possible.



### Model C-21

**Output Power** 250 watts (rms) per channel into 8 ohms. Total available peak power greater than 1 kw.

**Frequency Response** 20 Hz to 20 kHz,  $\pm 1$  dB; 1 Hz to 100 kHz,  $\pm 3$  dB.

**Distortion** IM or THD less than .1% between 1 watt and 250 watts, into 8 ohm load.

**Hum & Noise** Better than 100 dB below rated output into 8 ohms

**Phase shift** Less than  $2^\circ$  degrees 20 Hz - 20 kHz

**Rise Time** Better than  $2.0 \mu$  seconds at 20 kHz, 1 watt into 8 ohms

**Slew Rate** Better than 60 volts/ $\mu$ second.

**Propagation Delay** Less than 150 nano sec.

**Group Delay** Less than 10 nano sec.

**Step Response** Undershoot and overshoot less than 1%.

**Damping Factor** Greater than 200 at 8 ohms.

**Overload Response** Recovery from 100% clipping overload, 10 microseconds maximum. Automatic protection circuitry provided against short circuits and grossly mismatched loads.

**Overall Dimensions** 483 mm (19") wide x 133 mm panel height x 385 mm deep.

## Professional Grade Power Amplifier

Designed for the professional with certain properties that are unique in the field of audio amplification. It provides wide power bandwidth, fast recovery from clipping overloads, stable performance and negligible distortion at all power levels. Developing 150 watts per channel into 8 ohms, with 600 watts peak, it provides superior performance where performance counts.



### Model C-22

**Output Power** 150 watts (rms) per channel into 8 ohms. Total available peak power 600 watts.

**Frequency Response** 20 Hz to 20 kHz,  $\pm 1$  dB; 1 Hz to 100 kHz,  $\pm 3$  dB.

**Distortion** IM or THD less than .1% between 1 watt and 150 watts into 8 ohm load.

**Hum & Noise** Better than 100 dB below rated output into 8 ohms

**Phase shift** Less than  $2^\circ$  degrees 20 Hz - 20 kHz

**Rise Time** Better than  $2.0 \mu$  seconds at 20 kHz, 1 watt into 8 ohms

**Slew Rate** Better than 40 volts/ $\mu$  second.

**Propagation Delay** Less than 150 nano sec.

**Group Delay** Less than 10 nano sec.

**Step Response** Undershoot and overshoot less than 1%.

**Damping Factor** Greater than 200 at 8 ohms.

**Overload Response** Recovery from 100% clipping overload, 10 microseconds maximum. Automatic protection circuitry provided against short circuits and grossly mismatched loads.

**Overall Dimensions** 483 mm (19") wide x 133 mm panel height x 385 mm deep overall (measured from rear of front panel).

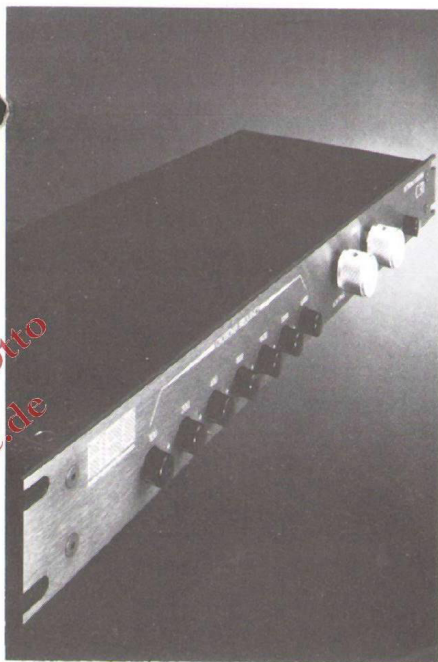


## Electronic Crossover

The C-31 electronic crossover allows multi-amplification of speakers with the absolute minimum of coloration so that smooth transitions from driver to driver can be accomplished without loss of transparency in other areas.

The exceptional speed of the circuitry insures total freedom from slew-rate limiting. The very basic design uses a minimum of feedback. The low noise of the system is well below the noise of all power amplifiers, so that no hiss or hum is created at the residual level.

In addition to the stereo LOW PASS output it provides MONO LOW PASS outputs both NON INVERTED and INVERTED. These are to be used in systems with single subwoofers.



### Model C-31

**Frequency Response** High pass output – from selected cut off to 100 kHz +0 dB, -3 dB. Low pass output – from selected cut off to 5 Hz, +0 dB, -3 dB.

**Crossover Points** 128 total possibilities from 100 Hz to 12.7 kHz in 100 Hz increments with the added feature of a 60 Hz crossover point when all buttons are out.

**Crossover Slope** 12 dB/octave both high and low pass outputs.

**Outputs** All outputs rated at 2.5 V rms into IHF load. 10 V rms maximum.

**Output Loading** 600 ohms minimum.

**Distortion** Less than .05% total harmonic distortion at rated output 20 Hz to 20 kHz. Less than .05% intermodulation distortion SMPTE at rated output.

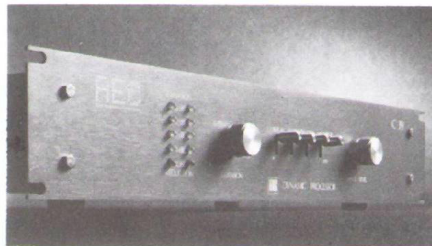
**S/N Ratio** better than 100 dB.

**Gain** 0 dB,  $\pm 1$  dB maximum.

**Dimensions** 483 mm (19") wide x 44,75 mm panel height x 178 mm deep.

## Dynamic Processor

If you are looking for the thrill of a live performance, you will be amazed at the improvement the C-39 can bring you. It reduces noise by as much as 7 dB and expands dynamics by up to 9 dB, a total dynamic range improvement of up to 16 dB, without prior encoding of the signal. The C-39 interfaces easily with any hi-fi system, and works with any possible source: tape; disc; FM tuner; etc. It incorporates newly-patented circuitry, representing a major advancement in audio technology.



### Model C-39

**Total Expansion** (continuously variable) 4 dB/16 dB.

**Downward Expansion** -4 dB/-7 dB.

**Upward Expansion** 0/+9 dB.

**Expansion Attack Rate** 500 microseconds.

**Expansion Decay Rate** 80 milliseconds

**Max. Output Voltage** (at 0.5% distortion, 1 kHz; max. expansion into 50 kohm load) 6.5 V.

**Rated Output Voltage** 1 V.

**Minimum Sensitivity** (level control maximum) 50 millivolts.

**Harmonic Distortion** (at 1 kHz, max. expansion) at 1.0 V out: .08%. at 0.5 V out: .04%.

**Intermodulation Distortion** (60 Hz and 2 kHz mixed 1 : 1, at 1 V output) .1%.

**Hum and Noise** 80 dB.

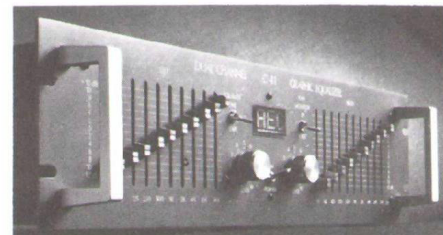
(referenced to 1 V output, expansion maximum)

**Dimensions** 483 mm (19") wide x 89 mm panel height x 280 mm deep.

## Equalizer

The C-41 offers a high quality graphic equalizer for home music systems that is equally suited to use in sound recording, reproduction and measurement systems. It has been designed to meet the stringent specifications demanded by professional users, where exceptionally low noise and distortion figures are of prime importance.

All controls may be adjusted at any time without causing circuit instability or switching transients, or adding noise. This important feature allows adjustment to be made unnoticeably, even during live performances.



### Model C-41

**Controls** The gain at the center frequency of each octave is continuously variable  $\pm 12$  dB, controlled by low-noise, calibrated linear potentiometers.

**Center Frequencies** 31.5 Hz, 63 Hz, 125 Hz, 250 Hz, 500 Hz, 1 kHz, 2 kHz, 4 kHz, 8 kHz, 16 kHz.

**Input Impedance** 10 kOhms, unbalanced, nominal.

**Output Impedance** < 10 ohms, unbalanced, short circuit protected.

**Calibration Accuracy**  $\pm 0.5$  dB.

**Frequency Response** (controls flat) 20 Hz - 20 kHz  $\pm 0.5$  dB.

**Distortion** < 0.01% 1 kHz at +4 dBm into a 600 ohm load. < 0.05% 20 Hz - 20 kHz at +18 dBm into a 600 ohm load.

**Dimensions** 483 mm (19") wide x 133 mm panel height x 170 mm deep.



## Stereo Tuner

Originally built for off-the-air monitoring and radio relay work, the Model C-61 stereo tuner is probably the finest piece of radio gear ever offered for high-fidelity use. Designed to incorporate the latest developments in the state of the art and utilizing rugged oversize components, the unit provides a quality of performance and a high degree of reliability found only in the most sophisticated professional equipment.



### Model C-61

**Tuning Range** 87.5 to 108.5 MHz.

**IHF 50 dB Quieting Sensitivity** Stereo: 32.2 dBf (25  $\mu$ V), Mono: 13.18 dBf (2.5  $\mu$ V).

**Total Harmonic Distortion at 65 dBf** (970  $\mu$ V): Mono 100 Hz, 0.1%, 1000 Hz 0.12%; Stereo 100 Hz, 0.13%, 1000 Hz 0.15%.

**Signal to Noise Ratio at 65 dBf** (970  $\mu$ V): Mono: 70 dB; Stereo: 65 dB.

**Capture Ratio** 1.0 dB.

**Alternate Channel Selectivity** 85 dB.

**IHF Adjacent Channel Selectivity** 100 dB.

**IHF Stereo Separation** 100 Hz, 48 dB, 1000 Hz, 55 dB, 10,000 Hz, 40 dB.

**IHF Subcarrier Product Ratio** 65 dB.

**IHF Spurious Response Rejection** 120 dB.

**IHF Image Rejection** 120 dB.

**IHF AM Rejection** 65 dB.

**IHF IF Rejection** 120 dB.

**IHF Frequency Response**  
Mono: 20–15,000 Hz  $\pm 1.0$  dB;  
Stereo: 30–15,000 Hz  $\pm 1.0$  dB.

**Automatic Stereo Threshold**  
14.77 dBf (3.0  $\mu$ V).

**Muting Threshold** 0–45.23 dBf  
(0–100  $\mu$ V).

**Output** 100% Modulation (Mono and Stereo): 0–1 V.

**Antenna Inputs** 300  $\Omega$  balanced, 75  $\Omega$  unbalanced with screw and shielded input jack.

**Dimensions** 483 mm (19") wide x 133 mm panel height x 250 mm deep.

## Transcription Turntable

AEC's new direct-drive C-81 is a quiet, vibration-free turntable incorporating a servo-controlled brushless DC motor rotating the platter directly without belts or idler wheels.

Its hand-assembled tonearm features precision operation in either the normal or fully-damped mode (silicon fluid is supplied), a jewelled uni-pivot bearing for freedom from friction, magnetic antiskating compensation, and ultra low mass for perfect interface with your chosen cartridge. Result? Optimum response from your cartridge and the perfect tracking your record collection deserves.



### Model C-81

**Drive System** Direct Drive with DC Servo Motor.

**Turntable Platter** Die-cast aluminium 32 cm diameter, 1.5 kg weight.

**Speeds** 33 $\frac{1}{3}$  and 45 rpm. Fine speed adjustment:  $\pm 6\%$ .

**Rumble** Weighted according to DIN 45500 "B" better than  $-65$  dB.

**Wow and Flutter** less than 0.03% RMS according to DIN.

#### Arm Specifications

**Length** nominal 236 mm pivot to stylus.

**Rear Overhang** 65 mm radius clearance to rear from pivot center.

**Tracking Error** 1.3°.

**Effective Mass** 9 grams.

**Lead Capacitance** less than 130 pF per channel, arm plus leads combined.

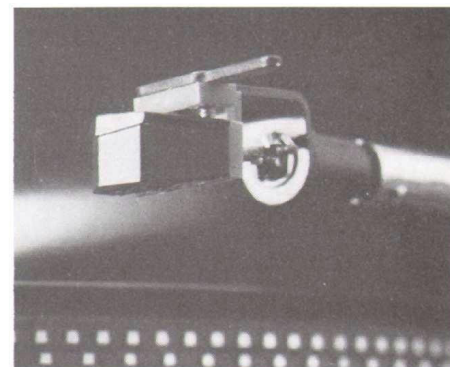
**Cartridge Acceptance** Suitable for use with cartridges weighing between 4 and 11 grams, tracking force adjustment 0–3 grams.

**Dimensions** 475 mm wide x 350 mm deep x 150 mm high (incl. dustcover).

## Cartridge

The "Positive Scanning Cartridge". The greatest of its advantages is the extreme clarity and liveness of the sound of this cartridge, which can only be compared to that of master tapes.

Or in the words of J. Gordon Holt: "It seems to be more 'alive' than any other transducer."



### Model C-91/C-91E

**Output** 5 mV for 5 cm/sec.

**Frequency Range** 20 Hz to 20 kHz  $\pm 2$  dB.

**Stylus** Diamond.

**Stylus Radius** .0006/.7" conical, .0006/.0003" elliptical.

**Vertical tracking angle** 15°.

**Compliance** Lateral:  $15 \times 10^{-6}$  cm/dyne  
Vertical:  $7.5 \times 10^{-6}$  cm/dyne.

**Balance** Within 1 dB.

**Recommended Input Impedance** 50 k $\Omega$ /200–250 pF.

**Tip mass** less than 1 milligram.

**Recommended Playing Weight** 1.5 to 2 pond C-91 / 1 to 1.5 pond C-91 E.



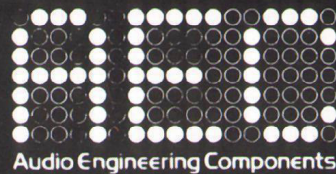
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...the AEC Monitor,  
the near-perfect, massless, point-source radiator.





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## Credo

At Audio Engineering Components, a unit's performance is measured by its ability to recreate the original sound source. It has been designed, engineered and manufactured to provide the ultimate in listening pleasure. Only then is it given the AEC label.

Because of the high standards of excellence in all AEC solid state audio equipment, each unit is unconditionally guaranteed against defects in materials and workmanship for a period of five years from the date of purchase.

AEC components are available only through select audio dealers, those in whom you can place your confidence.

For detailed specification sheets, write to:

Audio Int'l, P.O. Box 560229, 6 Frankfurt/M. 56, W. Germany.