The external design continues the Quad tradition of practical simplicity, which has won prizes and worldwide acclaim. The internal appearance is unmistakably Quad and reflects concern with quality of manufacture and ease of service.
QUAD 33
Control Unit

The Quad 33 selects and controls the radio tuners, gramophone pickup and tape recorder connected to it and feeds the loudspeakers via the power amplifier, providing for stereo, or mono on either or both channels, from all inputs, plus monitoring and track selection facilities for tape.

Quad units may be used either free-standing or mounted in a cabinet, with plenty of scope for individual preference in layout design.

The standard Quad system of mounting is used, requiring only a rectangular cut-out for which a template is provided.

Controls
The controls are comprehensive but simple and are logically grouped to facilitate selection and control of the programme.

Filters
The filter is essential with modern good quality speakers and helpful at any time. It removes surface noise, tracking distortion and similar shortcomings in the upper frequency range of the recording or broadcast, and the two control filter systems* achieves this to a very fine degree without intruding unnecessarily into the harmonic range so essential for realistic reproduction.

Another fixed, built-in filter cuts out twelfth affecting the normal low-frequency response of the equipment unwanted signals at frequencies below 20Hz, due to mechanical causes in motors and turntable mechanisms.

Bass and treble
Entirely separate from the filters are the bass and treble controls which provide independent adjustment of tonal balance when required. This operation is symmetrical and smooth without any unpleasant 'steps' in the response.

Every pickup correctly matched
To change the pickup matching, merely remove the Disc Adaptor and plug it in again with another edge loading: four matching circuits on one board with provision to accommodate any future development in pickup design simply by changing the board.

The input load is purely resistive over the entire audio bandwidth.

Tape
Any signal passing through the Quad 33 may be recorded without affecting normal reproduction or monitored off the tape (AB monitoring) as desired. The plug-in tape adaptor carries independent pre-set adjustments of signal level for both recording and replay on each channel, to suit the tape recorder in use. Again, since this is a plug-in board, any future or special requirements can be met merely by replacing the board, thus adding further to the versatility of the Quad 33.
Quad 33 Control Unit

Specification

Distortion: All controls level, 0.5V rms output, with any input 0.02%; any control settings and any level within overload ratings <0.1%; both at 30-10kHz.

Residual Noise: 0-30 phon weighting 15-7kHz bandwidth: <90dB controls level or cancel.

Frequency Response: Any input, any output, RIAA or flat as appropriate ±0.5dB 30-20kHz.

Tone Controls: ±1dB of curves shown opposite.

Filters: To curves shown opposite at 5kHz, 7kHz and 10kHz ±5%.

Interchannel Balance: Within 1dB with volume control varied from maximum to -45dB.

Balance Control Range: 9dB either way.

Crosstalk: Dependent on output source impedances. Any source typically better than 70dB; interchannel typically better than 40dB, both at 30-10kHz.

Power Input: 100-130 or 200-260V, 50-60Hz. 1.5 watts.

Weight: 3Kg.

Dimensions: Width 260mm. Height 92mm freestanding, 83mm panel only. Depth 105mm freestanding, 140mm behind cabinet panel when mounted. (Allow 84mm beyond rear panel for connectors).

Inputs (all voltages rms)

<table>
<thead>
<tr>
<th>Source</th>
<th>Load Impedance</th>
<th>Input Maxi Input</th>
<th>Signall to noise</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radio</td>
<td>20KΩ or less</td>
<td>100KΩ 100mV 2V</td>
<td>&gt;50dB</td>
</tr>
<tr>
<td>Tape H</td>
<td>40KΩ</td>
<td>400mV 10V</td>
<td>&gt;50dB</td>
</tr>
<tr>
<td>High M</td>
<td>40KΩ</td>
<td>400mV 10V</td>
<td>&gt;50dB</td>
</tr>
<tr>
<td>Low M</td>
<td>48KΩ</td>
<td>2mVat 40mVat</td>
<td>&gt;50dB</td>
</tr>
<tr>
<td>M2</td>
<td>60KΩ</td>
<td>5mVat 120mVat</td>
<td>&gt;50dB</td>
</tr>
<tr>
<td>CT</td>
<td>Special 100mVat 1.2Vat</td>
<td>1kHz 1kHz</td>
<td></td>
</tr>
</tbody>
</table>

Outputs (all voltages rms)

<table>
<thead>
<tr>
<th>Level</th>
<th>Source Impedance</th>
<th>Recommended Load Impedance</th>
<th>Maximum Cable Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>To Power Amplifier</td>
<td>0.5V 1KΩ</td>
<td>10KΩ or over</td>
<td>100 feet</td>
</tr>
<tr>
<td>To Tape H</td>
<td>160Ω 500Ω</td>
<td>250Ω or over</td>
<td>any</td>
</tr>
<tr>
<td>Recorder M</td>
<td>200Ω 600Ω</td>
<td>150Ω or over</td>
<td>any</td>
</tr>
<tr>
<td>L 3 180Ω</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*30% programme modulation

Bass and treble controls
Variable high frequency filter
Fixed low frequency filter (at limits of bass control settings)

Quad for the closest approach to the original sound