Classique Accompaniment C6

User Manual

JAN 2018
Volume 1, Issue 2

Audio electronic excellence for pure listening pleasure

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The Concept

From the early 60s and onwards through the 70s, UK Audio companies produced audio systems that were arguably the best in the World. Over the decades, they proved to be archetypal designs, revered for their style and sound quality. Audio enthusiasts, across the world, still use these classic systems. We lovingly strive to keep them in servicable condition despite their age.

Unfortunately, after decades of use, the functionality and performance often falls short of what we we have come to expect. The 'power amplifier' (PA), section of these systems seems to have withstood the ravages of time far better than the accompanying preamplifier/control unit section, This is due in part, to the few, if any, mechanical parts in a power amplifier.

Each classic PA has a characteristic sonic quality, that we love and strive to retain. The flavours are many and varied, 'Leak Stereo 20s' sound 'sweet', Quad IIs and Quad 303s sound 'warm', etc, etc.. Amplifiers should sound neutral but these classics do exhibit a 'characteristic sound' or 'colouration' that often adds something to an otherwise dull recording. Well designed power amplifiers today, do not exhibit this effect, they just pass on the signal in a more powerful form, i.e, they all sound the same,'neutral', like an 'amplifying wire'.

Unfortunately the preamplifier/control unit (CU) section of these old systems, has not fared so well over the years. They contain numerous mechanical parts, including switches, multi-ganged controls and obscure linkage systems. Servicing and upgrading these old units is becoming more and more difficult as the supply of parts comes to an end. Another important issue is the electrical safety of these old units. This often falls far short of current electrical safety standards. These ailing vintage preamplifiers are often the Achilles heel in an otherwise excellent system.

In view of this and from the many requests received while servicing these lovely old amplifiers, we designed the C6 and named it the 'Classic Accompaniment'. The C6 is a high performance, highly configuarble, pre-amplifier, specifically designed to accompany these old classics. It of course works equally well with any modern day power amplifier.

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The C6 Control unit

The C6 provides high performance and functionality, linking modern and classic signal sources and amplifiers, while maintaining a classic handmade look and finish. Moving mechanical parts are limited to just the selector switch and on-off switch. Which are standard, easily obtainable parts.

The electronics incorporates state-of-the-art ultra low noise, low distortion ICs and absolutely no thermionic valves that can veil your PA performance. This topology was purposely chosen to provide the purest possible signal quality. This allows the sonic performance of your favourite power amplifier/speaker system, to shine through without added distortion, i.e, virtually acting like a passive system but with tone, balance and gain where needed.

As with most classic preamplifiers/control units, the listener can nullify the effects of low volume listening and adjust for poor room acoustics by adjusting tone controls. The C6 is equipped with a high quality 'Baxandall' tone control system, arguably, an essential feature, that some modern control units fail to provide. The volume, balance and tone line up proudly boasts a set of Alps 'blue velvet', potentiometers. The Bass, Treble and Balance controls are centre detented to accurately indicate the 'flat' response and left & right, 'central' position, respectively. The accurate 'flat' position obviates the need for a tone 'in out' switch. One less switch is always a good thing in any audio system as noise and eventual failure, is always on the cards sometime in the future.

The passively equalised phono stage is purposely arranged as a two part system to allow a choice of moving magnet (mm) or moving coil (mc) operation. In preference to a mechanical or digital switch to select between mm and mc, it was decided to avoid switching these sensitive circuits altogether and incorporate the appropriate electronics for both mm and mc in the unit. The user decides which section is wired in (mm or mc). This system also allows the sensitivities to be pre-set accurately at the same time to match the actual cartridge in use.

The bulk of the C6 electronics is incorporated on an industrial quality double sided, glass fibre, circuit board. Manufactured in classic, hand assembled ‘through hole’ technology. This method was chosen, in preference to modern ‘surface mount’ technology, to allow more user friendly servicability. For the best possible performance and longevity 1% metal film resistors, high tolerance foil capacitors and long life electrolytics are used throughout. The active elements use super low noise, low distortion ICs with performances only dreamt of, just a decade or so ago.

INPUTS

Referring to the rear view image of the C6 above:

Line 1 to Line 4

The C6 has six switched stereo inputs. ‘Line 1’, to ‘Line 4’, are normal ‘flat response’ inputs at the same sensitivity. Line 1, & Line 2 each have a level control, allowing full variation of the signal source level. (This feature is ideal for matching high level sources, to low level sources, helping to avoid sudden changes in volume when switching between sources).

OPTO

'Opto' has two input sockets, one for a TOSLINK optical cable and the other, for a digital source via screened cable. Either one or the other socket can be used but not simultaneously. Typical opto/digital sources include TVs, DACs and PCs fitted with a TOSLINK optical output or digital phono cable output. This effectively provides a basic DAC facility for such sources.

PHONO

Phono input, selected via switch position 6, provides a low distortion, low noise, input for magnetic cartridges. This can be configured internally by a competent technician to suit most 'moving coil 'or 'moving magnet' cartridges.

Note: In the event of ordering a C6, it is important to let us know what cartridge and other peripheral equipment you will be using, to gain full advantage of the C6's adjustability..

OUTPUTS

Power amplifier connection

The C6 has three pairs of outputs that connect to your power amplifier, labelled high, medium, and low. These are set internally to allow a wide variety of power amplifier sensitivities to be accommodated.

Example 1: Quad II amplifiers require 1.4V rms for full output whereas a Leak Stereo 20 requires just 220mV. The former would therefore be connected to left & right 'high' output pair, and the latter to the 'low' output pair.
Example 2: Quad 303, 405, requires 500mV rms for full output therefore you would connect it to the 'medium' output pair.

Monitoring/recording output

The L & R outputs are pre-volume and at a high output level, allowing the monitoring or recording of the selected source even when the volume is turned off or at a low level.

Typical Specification Settings

Note 1: Actual sensitivities on your C6 depends on customisation settings.

Typical Setup 1

Line 1 to 4 sensitivity: 200mV rms for 1Vrms output on 'high' output, 500mV on medium output and 250mV rms on low output.

Phono input sensitivity: Moving coil 220uV for 1V rms output on the high output. Frequency response standard RIAA

Frequency response: Lines 1 to 4 : 8Hz to 100kHz. (-3db down points)

Tone Control response: Bass +/- 15dB @20Hz. Treble +/-15db @21kHz

Total Harmonic Distortion line 1 to 4: <0.005%

Typical Setup 2

Line 1 to 4 sensitivity: 100mV rms for 1Vrms output on 'high' output, 500mV on medium output and 250mV rms on low output.

Phono input sensitivity: Moving coil 400uV for 1V rms output on the high output. Frequency response standard RIAA

Frequency response: Lines 1 to 4: 8Hz to 100kHz. (-3db down points)

Tone Control response> Bass +/- 15dB @20Hz. Treble +/-15db @21kHz

Total Harmonic Distortion line 1 to 4: <0.005%

Typical Setup 3

Line 1 to 4 sensitivity: 100mV rms for 1Vrms output on 'high' output, 500mV on medium output and 250mV rms on low output.

Phono input sensitivity: Moving magnet 2mV for 1V rms output on the high output. Frequency response standard RIAA

Frequency response: Lines 1 to 4 : 8Hz to 100kHz. (-3db down points)

Tone Control response> Bass +/- 15dB @20Hz. Treble +/-15db @21kHz

Total Harmonic Distortion line 1 to 4: <0.005%

Typical Setup 4

Line 1 to 4 sensitivity: 100mV rms for 1Vrms output on 'high' output, 500mV on medium output and 250mV rms on low output.

Phono input sensitivity: Moving magnet 5mV for 1V rms output on the high output. Frequency response standard RIAA

Frequency response: Lines 1 to 4: 8Hz to 100kHz. (-3db down points)

Tone Control response> Bass +/- 15dB @20Hz. Treble +/-15db @21kHz

Total Harmonic Distortion line 1 to 4: <0.005%

Note: The active devices used on the C6 are capable of extending to video frequencies. The upper frequency response of the C6 has been purposely designed to roll- off sensibly at not too low or too high a frequency, i.e. typically 200kHz.

Care of the unit

The solid Walnut side pieces are made of natural untreated wood requiring the occasional wipe over with 'Walnut oil' obtainable from most super-markets for less than a pint of beer. To keep the metal case looking like new an occasional wipe with a damp cloth is all that is required to minimise dust build up.

Connecting phono cables:

Don't twist the phono plug when connecting or disconnecting leads, simply push and pull them respectively. This will lessen the chance of loosening the associated sockets.

Connecting the TOSlink OPTO Fibre cable

Make sure the small soft plastic protectors at each end of the supplied cable are removed. Position the plug with the flat end corresponding with the flat on the socket and push home firmly.