

# Tubular Belle

A sister company to Vincent, Tube Audio Company (T.A.C.) has just gained UK distribution. This gave David Price the chance to audition its new hybrid CD player, the shapely C-60...

It's like *deja vu* all over again. That Yogi Berra phrase perfectly encapsulates the way how, just as it had been officially declared 'dead' (or at least fit for the knacker's yard), vinyl suddenly got brilliant - and now Compact Disc is doing the same thing!

I honestly can't remember a time when so many really good mid to high end silver disc spinners were coming out, ten years after they were supposed to have been rendered rubbish overnight thanks to DVD-Audio and SACD.

The T.A.C. C-60 is a perfect exemplar of this. It's a positively postmodern CD player, with mega high upsampling and a switchable tube output stage, to go with its 'old skool' top loading transport. Just for good measure it has a display that looks suspiciously like it has come from a mid nineties Sony - complete with what that company used to call a 'music calendar'. Then there's the battleship build, and the obligatory hewn-from-solid aluminium remote control, to expunge the memory of all those horrid plasticky things we had to live with for twenty five years...

The machine is big at 450x390x100mm, and weighs a not inconsiderable 12kg, pretty much on a par with those 'battleship' Japanese late eighties monsters. This is down in no small part to its casing, which seems to be a steel frame onto which an inch-thick aluminium top plate is bolted. Presumably this is to add mass to damp vibration, which it does reasonably well, but I'm sorry to say that it's still more prone to ring than some machines.

Set into the top plate is the Philips VAM 1202 mechanism, accessible by a little sliding door, akin to the Accoustic Arts CD1 I reviewed a couple of years ago. This runs Philips control electronics, and feeds an eight times oversampling Burr

Brown PCM1792 DAC, upsampled to 24bit/352.8kHz no less. The output stage uses low noise, low distortion Burr Brown 2804 operational amplifiers, with a switchable cathode follower line 6922EH tube output stage. These tubes are visible through cooling vents in the top plate; it's nice to see them glowing away quietly inside! There's also a 6Z4 valve rectifier for the output stage supply voltage, and the company talks of high quality passive componentry throughout, with the coupling capacitors isolated from the signal stages. The power supply, drive stage, and output stage are isolated from one another in physically separated housings, and there's balanced circuitry from top to bottom.

Round the back there are RCA phono outputs, in addition to male XLRs. Digital outs comprise Toslink optical and coaxial. The front panel sports a power switch, the display (dimnable and defeatable) and a 'tube/FET' switch. I tried both analogue output stage options in my system and found, with my 'well lit' NS1000Ms, that the tube stage was preferable. This is in no way a prescription; others may find precisely the opposite; for me the tubes simply took a fraction of what little 'edge' there was off the sound, but made relatively little difference.

Up top, in front of the disc drawer recess, are the transport controls. The whole machine felt well made and sturdy, although it's still not up to high end Japanese standards in this respect;

then again, what is? Via the digital out - which is used to feed a dCS Paganini DAC for reference purposes, I was intrigued to find the dCS reporting it was receiving a '17/44.1kHz' (i.e. 17bit!) signal; if



anyone has an explanation forthcoming I'd like to hear it! But without further ado, the important bit...

## SOUND QUALITY

Here's an archetypal example of a thoroughly modern digital music player, able to elevate CD sound up to the level where it's very hard to fault, and extremely easy to live with. Running out via its balanced XLRs, 4hero's 'Third Stream' came over with a wonderful openness and ease, matched by near absolute lack of grain. Low frequencies were strong and seemingly unconstrained by the limits of the 16bit format; the double bass that underpins the track was taut and tuneful, clean and unsullied. At the same time, the T.A.C. presented a delightfully clean and finely etched midband, the player giving a wonderful rendition of the descending piano cadences, the beautiful cor anglais work, the tight, staccato snare drumming and the gentle violins. Saxophones, so often the bane of Red Book, seemed almost creamy. Instruments were

located with great precision, sitting clearly distinct from one another, while hi hats and cymbals had a faithful metallic sheen, yet a great measure of delicacy. There was no splash, no clang and no ringing; 16bit digital without tears.

Moving to the more compressed, early nineties digital strains of Annie Lennox's 'Medusa' album, and the densely layered grandeur of 'Don't Let it Bring You Down' showed the C-60 again as a smooth but tremendously incisive performer. Here's a song that can strip paint on my system when fed with a poor source; Annie's voice is icily cold and hard at all times, tempered of course by her wonderfully heart-felt delivery. This CD player carried it as precisely as this, resolutely failing to let her voice grate. Rather, it towered above my loudspeakers, pushing relentlessly out into the room and hitting me upon the brow, but never hurting or searing. The (now very dated) electronic backing track fizzed behind, but whereas so many lesser machines turn it into a hazy, bright mush, the C-60 picked out all the strands of the mix, flashing up its little intricacies (that gentle piano accompaniment,

that soft guitar part) with relish. Drum machine (Roland TR909?) hi hats sparkled softly, keyboard pads glided dolefully, and Annie's voices cut through with wonderful poignancy, occasionally augmented with overdubbed backing vocals. The result was a truly affecting rendition of what's surely one of the greatest covers of this majestic Neil Young song. Gregory Isaacs' 'Night Nurse',

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a magnificent analogue recording from the very early eighties with the great Sly and Robbie doing rhythm section duties, showed that all that openness and clarity hadn't robbed the C-60 of a keen sense of rhythm. Whilst it's true to say it's not the

most emotionally charged and exuberant performer, the T.A.C. machine supplied an easy musicality which made listening a pleasure at all levels. It caught that amazing syncopation between snare, hi hat and bass guitar brilliantly, punching out a big, fat bass guitar sound which was framed so deftly by the drum kit, guitar and piano. Again, the CD player was sublime with vocals, sounding so natural and direct, communicating Isaacs' vocal timbre in all its rich, smoky glory.

Another track which relies heavily for its percussive groove is Simple Minds' 'Someone, Somewhere, In Summertime'. The opening track to the band's 'New Gold Dream' album, it's a long, languid slowburn of a song, bristling with filigree detail and



atmospheric, reverb infused vocals. Again, I loved the way the C-60 delved deep into what's something of a murky mix and got to the heart of the action. The drum work was carried with unexpected energy, with some striking dynamic contrasts; it really flagged up the differences between a softly brushed snare and a rim shot, for example. The four-on-the-floor bass drum and cymbal interplay was a joy, and I loved the clarity and bite of the cymbals. Those classic early eighties analogue synths sounded positively majestic, and Jim Kerr's voice - not the standout feature of the band - was beautifully rendered. Again, this CD player caught his vocal timbre superbly, but also his phrasing too. The result was a haunting but impassioned delivery of a somewhat meandering song; on lesser silver disc spinners it sounds precisely thus.

Frankie Goes to Hollywood's 'The Power of Love' was another delight. All it took was to hear the opening piano chords, shimmering with rich harmonics, and I knew the C-60 was genius at work. It's fair to say I've rarely heard this mid-eighties epic smoocher in such high fidelity; again this CD dazzled with its beautifully spacious, finely wrought midband. Soaring strings set within a vast soundstage, underpinned by a seat-shakingly powerful bass guitar and crashing piano work together had me locked to my seat, in awe at this classic Trevor Horn production.

Despite the fact it was all recorded on a 44.056kHz sampling frequency 16bit Sony PCM-FI (the staple of Horn's Sarm West studios at the time), it sounded massive.

Even with the relatively crudely recorded 'Sex and Drugs and Rock'n'Roll' by Ian Dury, the genius of the sadly now deceased singer and the skill of his backing band, The Blockheads, was clear to hear. The C-60 left you in no doubt you were in a 'spit and sawdust' late seventies recording studio, but it didn't obsess on the rough edges. It locked on the lead guitar and cymbal work, giving the song real rhythmic drive, and let



the brilliance of Dury's vocals shine out. Despite the somewhat curtailed stereo width of this track, the centre stage was so solid it might as well have been nailed to my front room's chimney breast. Nor was there much stage depth (on this track), yet somehow the song still came over as multilayered, sounding as if it had great scale nevertheless!

So, the T.A.C. liked svelte soul-jazz fusion, fine female vocals, classic reggae, cowering stadium rock, polished eighties power pop and scratchy new wave; what then of classical? Unsurprisingly the C-60 was just at home here as anywhere else. An Esoteric release of Mozart's 'Piano Concerto No. 20 in D minor' (English Chamber Orchestra/Clifford Curzon, Britten) was breathtaking. Once again that deft midband had me swimming in a vast soundstage. In absolute terms, compared to my reference (and vastly more expensive) dCS Paganini DAC, there was a fraction less stage depth and a scintilla less low level detailing, but the C-60 was far closer than I'd expected. It is marginally brighter than the dCS too, but then again so is every other CD player I've heard, which shows that the C-60 is very, very close to the right side of neutral. Its rendition of the music's massed strings was wonderfully natural, as was its delicious piano sound.

**CONCLUSION**

Well yes, I loved it. The T.A.C. C-60 is a prime example of twenty first century Compact Disc best practice. It's very straight down the line in its nature, doing no embellishing or denuding, and steadfastly refusing to editorialise. It just says, "there's the music, go have fun with it". There are a number of rivals at this price that have

more character; one example that springs to mind is the Naim CD-X2 which gives a more pronounced presentation, pushing rhythms right to the fore at the expense of a deep, tangible soundstage and rich instrumental timbre. However, the T.A.C. instead chooses to give the bigger picture, offering a remarkably even and open sound that's fractionally less enthralling than the Naim but just as enjoyable - and if the truth be told, a bit more accurate. I've heard better, but it's not until I start thinking of £5,000-plus designs that I think the C-60 would in any way be shamed. Think of it this way; it has most of the power, punch and poise of Oracle's £8,500 CD1500/II, but comes in at a good deal less than half the price. As such, it's a super 'mid-to-high end' buy, and one to shortlist if you're looking for your 'last' CD player.

**VERDICT** Open and expansive yet subtle and svelte this is a brilliant modern silver disc spinner that deserves to succeed.

**TUBE AUDIO COMPANY C-60** £3,599  
MV Audio  
+44 (0)1495 791220  
www.mv.audio.co.uk

**FOR**  
- powerful dynamics  
- expansive soundstage  
- instrumental & vocal timbre  
- silky, delicate treble  
- decent remote control

**AGAINST**  
- nothing at the price



**MEASURED PERFORMANCE**

Frequency response exhibits a small lift at high frequencies, measuring +0.1dB at 10kHz. This is a miniscule amount but it does mean that the C60 will not be a warm sounding player; whether it sounds overtly bright can only be decided by listening. Frequency response was identical through both phono and XLR outputs.

There was an unexpected difference between phono and XLR in distortion, phono suffering distortion (0.7%) at high levels whilst XLR did not, with either FET or TUBE selected. XLR gives double the output of phono too, a healthy 5V, so it is the output to use. There was little difference between TUBE and FET in distortion characteristics.

Channel separation was high and noise low at -107dB, with TUBE actually being fractionally quieter than FET.

Jitter on the S/PDIF output was well suppressed, a 1kHz tone at -60dB inducing just 30pS of signal related jitter, whilst random jitter hovered around 10pS.

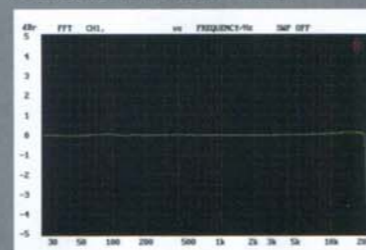
The TAC C60 measured well in all areas, except for non-linearity at high levels via the unbalanced phono socket outputs. As the distortion was mainly second and third order it will not be easily audible though. NK

Frequency response (-1dB)  
CD 2Hz - 21.4kHz

Distortion % (Phono/XLR)	
0dB	0.7 / 0.05
-6dB	0.32 / 0.02
-60dB	0.22 / 0.22
-80dB	4.4 / 4.4

Separation (1kHz)	121dB
Noise (IEC A)	-108dB
Dynamic range	99dB
Output (phono / XLR)	2.7 / 5V

**FREQUENCY RESPONSE**



**DISTORTION**

