

CH Precision D1, C1, and A1 system

by Alan Sircom

This must rank as one of the most expensive one-make audio systems we've ever explored. CH Precision is based in Switzerland and it's designed and built by people who used to design and build Goldmund audio equipment. Each component is built like a brick outhouse, without even an implication of a suggestion of compromise. It's hyper-flexible, engineer's engineering. And the whole package costs well north of £60,000. Cor!

The system tested here is comprised of a D1 SACD/CD player, which becomes a transport to the C1 digital to analogue controller that in turn drives an A1 power amplifier. This last is perhaps the easiest way to define the 'hyper-flexible' nature of the system, because it's designed to be used as a lone 2x 100W amplifier, or with another A1 amp as a dual-mono, a passive or active bi-amplified system, or as a bridged design, delivering up to 350W per channel. All are equally good and valid ways to make sound, and all depend on what best suits your system. There is also an X1 power supply, designed to feed the D1 or C1, and this can be factory configured to feed one or two units. There is also an M1 reference two-channel amplifier. This has all the flexibility options of the A1, but doubles the power throughout. At twice the height and 75kg per chassis, it makes the 43kg A1 seem almost sylph-like. Like the X1, the M1 was not available at the time of review, in part because I wouldn't be able to get this into my room without having to resort to structural changes to the property.

There's a common theme to all CH Precision components in terms of design and overall look. They all share the same wave-like front panel with centre display panel and all use the same chassis: large, heavy, and allowing the designs to be built on a common modular motherboard/card layout akin to a desktop PC. This not only means shared chassis components, but extends the working life of the design, by allowing up-coming changes to the design to be implemented by card additions and substitutions. The common chassis also allows a clever stacking arrangement, where decoupled screw-in bars fit in the place of the four feet, meaning the system becomes its own rack. Of course, this means whatever the three or four components rest on needs to be structurally sound, because it's taking a load that tips the scales at an impressive 99kg (142kg if you use two A1 amps) – that's almost 220lb in the developed world.

The 'no-quarter' build quality extends throughout. Take the D1 for example; it is a SACD/CD player based around a modified Esoteric VMK-5 VRDS transport mechanism. CH Precision uses that big, weighty chassis to its advantage by mounting the VMK-5 on a 15kg steel plate and heavy steel rails, thereby conferring even more vibration immunity to the disc replay mechanism. You could do this on a smaller, lighter player, but run the risk of the steel plate buckling the chassis. If you take the top off the player (no mean feat in and of itself) you

are met with a series of custom-made circuit boards, each one isolated from the others (which helps explain why all the CH Precision products come with a transit screws to lock things in place). Then, the modular layout underpins the flexibility of the system. There are five slots for daughter cards at the back of the player, allowing the D1 to be configured as a stereo player, a stereo transport, a dual-mono player (one dedicated output card per channel), a multichannel player, a multichannel transport (for a multichannel DAC), or a multichannel transport for multiple DACs. There's also a clock board for connection to an external clock, or syncing to the D1. You can also control the D1 through Ethernet and update its firmware through USB. It's a potentially bewildering array of options, made no simpler by reading the manual, but is explicable by someone who understands the CH configuration options.

The C1 is no less flexible, and no less daunting in configuration. There are options for digital and analogue inputs, USB and Ethernet connections, and clock connections, as well as the aforementioned X1 power supply upgrade block. It's ultimately best to pick and choose what you need instead of just stacking the C1 up with extra features. There are fewer options on the A1 (as befits a Class AB power amplifier), although there is a USB input for software updates, Ethernet for remote control, and the mono buffer boards for dual mono use.

Card options aside, the CH Precision components can be neatly summed up as products made the way they should be made, to deliver their best. Where possible, discrete components abound. CH Precision developed its own 'CH Link' allowing PCM up to 32bit, 768kHz, and one bit DSD to 5.6448MHz, as

EQUIPMENT REVIEW / CH PRECISION D1, C1, AND A1 SYSTEM



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▶ well as asynchronous USB to 24/192 PCM and 2.8224MHz DSD and asynchronous Ethernet to 24/192 PCM and 5.6448MHz DSD.

There are superbly clever aspects to the design (small remote controls with magnetic bases that attach to one side of the cabinet), but with these come some frustrations. Until recently, the player and DAC controller were controlled by a series of menus on the AMOLED screen, driven by a dual concentric knob with a central push button. Functions change relative to what 'state' the device is in at the time you access these menus, and whether you tap the push button, or press it for two seconds (the former puts it into shortcut mode, the latter puts it into standby). The manuals describe the processes needed to access these menus accurately, but they are BIG manuals. The A1 has a more conventional array of five buttons, but these also allow you to adjust global feedback levels in 20% steps and precise adjustable gain control to match your loudspeakers in room.

Fortunately, at CES this year, CH Precision showed a handy app that took over these functions, as well as acting as the control point for a streaming solution. This means you no longer need to be a safecracker with an eidetic memory just to know how to fast forward.

The CH Precision system is pretty damn outstanding in its default settings, but if you don't delve through the manual, you may never know there are five PCM filter settings and four DSD settings, or that it allows you to synchronise the clock in the D1 to the C1, the clock in the C1 to the D1, synchronise both to an external clock, or simply ignore the clock options altogether, depending on your tastes and the rest of the system.

Although I received two A1s, my system (culminating in Wilson Duette Series 2) needed just one. The second used in bridged mode didn't justify its inclusion. Your speakers and room may make different demands.

CH Precision's 'thing' is one of gradually winning over the listener. It's impressive by not being impressive, although there's some of the typically Goldmund 'writ large' presentation about the overall sound. But more importantly, it's one of those systems that defies description, because the flexibility allows it to adapt to the demands of the loudspeaker so well, it becomes something of a shape-shifter. It does the big, bold Wilson loudspeaker signature sound, but when you move from Wilson to Wilson-Benesch, it delivers the kind of tight, controlled, and authoritative sound you expect from Wilson-Benesch. And when you plug in a pair of loudspeakers that don't have the word 'Wilson' in their name, CH Precision adapts to them too. ▶



TECHNICAL SPECIFICATIONS

D1 Digital CD/SACD player/transport

Transport: TEAC VMK-5 VRDS-NEO
Formats supported: CD, CD-R/RW, SACD (single-layer, dual-layer, and hybrid)
D/A conversion: 1x Wolfson WM8742/ch
Digital filter: user selectable:
Connections: CH Link, AES/EBU, S/PDIF, Toslink, Clock input/output
Dimensions (WxHxD): 440x120x440mm
Weight: 32kg
Price: £22,800

C1 D/A Controller

Digital inputs: CH Link (PCM to 32bit, 768kHz, DSD to 5.6448MHz), AES/EBU, S/PDIF, Toslink (all to 24bit, 192kHz)
Streaming inputs: USB (PCM to 24bit, 192kHz, DoP to 2.8224MHz), Ethernet (PCM to 24bit, 192kHz, DSD to 5.6448MHz)
Streaming formats supported: PCM: WAV, AIFF, FLAC, ALAC, AAC, MP3, DSD: DSF, DFF
Analogue inputs: 1x XLR pair, 1x RCA pair
Analogue outputs: 1x XLR pair, 1x RCA pair
DAC: 4x PCM1704 per channel
Dimensions (WxHxD): 440x120x440mm
Weight: 24kg
Price: £18,500

A1 power amplifier

Inputs: Balanced: 2x XLR
 Single-ended: 2x RCA, 2x BNC
Power output: 2x 100W/eight ohms (stereo), 1x 350W/eight ohms (bridged)
Bandwidth: DC-450kHz (-3dB)/1W/8Ω
Dimensions (WxHxD): 440x120x440mm
Weight: 43kg
Price: £21,000

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▶ If there is a 'house' sound for CH Precision, it's one of dry precision and infinite dynamic range. By 'dry' I'm talking more 'Martini' than 'Gobi desert', because the whole package is sophisticated, refined, elegant, and mature. I'm making this sound a little cool and distant, and that's not the way the CH Precision system sounds. Instead, it's so fundamentally correct that it makes other amplifiers and digital sources sound like they have some kind of overhang and bloat, and there's often no way back once you hear that.

Talking musical examples is invalid here. Everything is a musical example. If you find yourself thinking how good the backing vocals are on Funkadelic albums, you know that you are in the presence of audiophile royalty, and yet CH Precision wears the crown well. While it gives you insight into the music, it doesn't do so at the expense of the music. Of the three components tested, the D1 is the breakout star of the show. That's not an easy statement to make, because that show has one hell of a cast. But if the rest are Oscar winners, the D1 is Brando in *The Godfather*.

The CH Precision D1, C1, and A1 are in our Formula One; precision products, custom made for uncompromising users to deliver the ultimate performance. This top elite remain an ultimate, a goal towards which we should all strive, even if not all of us can reach it. And that's the thing; CH Precision is one of that select list of products we as audiophiles should try at least once in our lives. And for a lucky few (who not only have the financial clout, but are prepared to take time to learn how to really use the system), they get to live with one of the best systems ever. +