



# The CH Precision D1.5 CD/SACD Player/Transport

Same familiar face,  
all new performance...

by Roy Gregory

If you own, even if you've only read about CH Precision products, you'll probably be aware of the company's "expandable, upgradable" design ethos – although when it comes to actual nuts and bolts, the realities of that approach and the available options it offers might just be a little more hazy. Words like "modular" and "card-cage construction" get bandied about, but what do they actually mean to end-users and are the supposed benefits real? Given the price of CH Precision's products it's a legitimate question. It's also a question that the new D1.5 player/transport is perfectly placed to answer:

The first and most obvious thing about the I Series range is that out of ten different products, eight of them look almost identical. They all share the same casework and basic front-panel design. With the exception of the XI power supply and TI Time Reference clock (which simply don't have that much to say for themselves) they all share the same high-definition, full-colour

AMOLED display. Even the power amps are built into taller versions of the same chassis and also use the same display. Within that chassis, circuitry is modular, with individual circuit blocks transferable between different units that share functionality. Likewise, input cards are user selectable to match specific system requirements: so an end-user might choose to run a DAC with a single set of digital inputs and a pair of dual mono analogue outputs. He might add (or add later) a USB, a high-res streaming input or even a set of analogue inputs. Later still, he might choose to turn that one-box DAC into a three-box unit with separate left and right DAC chassis. He might also choose to add the SYNC-IO input for use with an external clock (like the aforementioned TI Time Reference) or beef up the power supply with anything up to one XI per box – potentially creating a nine-box digital front-end! But what's really impressive is that you can take those steps without cost penalty or redundancy. It's going to



►► cost you exactly the same whether you buy nine boxes in one hit or get there one step at a time. And if you do take the gradual approach, you'll be retaining every single bit of hardware along the way.

So, that covers the “expandable”. How about “upgradeable”? This is where some of the confusion arises. Add an X1 external power supply to an L1 line-stage or a C1 DAC and you'll definitely be upgrading the musical performance. But that's not what CH Precision mean when they refer to their products as “upgradeable”: and that's where the D1.5 comes in...

The original D1 CD/SACD player was CH Precision's first product, a unit that stayed in the range for over 10 years! It

was also the first CH product that I ever reviewed – along with the matching C1 DAC. It was also a product about which I enjoyed very mixed feelings. Frankly, as a CD/SACD player its performance

was flat and disappointing, lacking rhythmic fluidity and poise, dimensionality and tonal colour, while its price was stratospheric compared to the competition. In some respects I wasn't surprised, as the D1 was built around the highly regarded and widely used TEAC/Esoteric VMK-5. At least, it was highly regarded by some. I never regarded the TEAC transport mechanism that highly – and other machines that also used it shared many of the same dynamically and rhythmically flaccid performance traits I heard from the D1. In my experience, the only people who managed to make that thing dance were Wadia – and they were one of the first to move on to (musically) greener pastures. Which made the transformation that occurred when you switched from using the D1 as a player to employing it as a transport to pair the C1 all the more surprising. In fact, at that time, the D1/C1 provided possibly the best SACD replay available, perhaps reflecting the performance of the proprietary CH LINK HD interface for native SACD data transfer, as well as the superiority

of the C1's decoding, especially once the PEtER spline algorithms were introduced.

## What's in a name...

Enter the D1.5: same chassis, same face-plate, same display window and therefore, not surprisingly, outwardly almost indistinguishable from its predecessor. Inside – that's a different story. Inside it's definitely all change, with a number of significant, performance critical features being revised or changed completely.

The first and most obvious of these is the transport. The withdrawal of the VMK-5 left CH (and a host of other companies) looking for a replacement transport.

With candidates thin on the ground, the best (if not the easiest) solution was to design and engineer their own. Starting from the basis of the top-flight Denon/Marantz CD/SACD unit, CH extract the spindle motor



and laser head. The entire chassis is discarded. The donor elements are then precisely mounted into a precision-machined brass sled and swing-arm assembly. Weighing in at just short of a kilo, this lowers the resonant frequency of the reading platform significantly. In turn, that is mounted on an Alphagel suspension, critically tuned to protect the reading platform from structural and internally generated, mechanical noise, mainly emanating from the power supply. The whole sub-assembly is in turn mounted on a massive and incredibly rigid aluminium alloy frame that couples it securely to the mechanical ground-plane provided by the chassis base-plate and corner-mounted ground spikes. The whole lump – dubbed MORSe (Mechanically Optimised Reading System) – weighs in at a seriously significant 3kgs and is controlled by proprietary operational software.

The new transport places the disc drawer at a different height, which together with the revised dimensions and mounting arrangements for the MORSe ►►

►► mechanism itself, means that it cannot be retrofitted into an existing D1 chassis. Wherever possible, CH Precision try to make all series improvements retro-fittable. Hence the M1.1 update to the M1 power amp, a kit of new parts that could be field installed into existing units, bringing them up to full, current specification. But sometimes that just isn't possible. So when the A1.5 replaced the A1, the requirement for a larger chassis made the physical upgrade of older units impossible. CH responded to the situation by offering A1 owners a substantial trade-in against a new A1.5. The same situation applies to the D1 and D1.5, and CH is offering the same solution. Hence the .5 designation, as opposed to .1 or .2 etc, which refer to interim steps applicable to existing hardware. The D1.5 costs \$41,000 in basic form. Owners of the original D1 can make the step up for \$24,600 by trading in their existing unit, which is a pretty impressive return on a digital component that might be anything up to 12 years old. What's more, their existing option cards (internal DAC boards or SYNC-IO, with a combined purchase price of \$6,500) and the HD-Link cable if they are using it, can be swapped into the new unit, further protecting their original investment.

The on-going compatibility of the various option boards suggests that the D1.5 retains much of the overall topology and physical hardware/card-cage chassis arrangements of the D1 and that is indeed the case. However, there are still a number of significant changes on the processing and output options side. The first is a massive, four-fold increase in on-board signal processing power; a capacity that allows the D1.5 to incorporate the latest iteration of the PETER Spline filter algorithm, improving analogue output quality dramatically. I know reviewers get a bad-rep for over-stating the magnitude of differences, but if you've heard a D1/D1.5 player comparison, you'll appreciate that the difference is dramatic indeed,

elevating the player's one-box performance from 'also ran' to 'serious contender'. That processing power also allows the D1.5 to offer full MQA disc replay capability – which you can read about in detail here <https://gy8.eu/blog/is-mqa-a-new-dawn-for-cd-replay/>

Experience with the D1 has also allowed CH to limit the number of options to those most frequently employed. Originally, the D1 offered a choice of a single board stereo DAC or dual mono DACs mounted on a pair of boards. The stereo DAC was so comprehensively

outperformed by the dual-mono option that few if any were ever sold and (thankfully) it has been consigned to the dustbin of history. Users with the stereo card installed in their D1 will be offered a trade in allowance against a pair of the latest dual-mono DAC cards. Likewise, the option to run fully discrete 5.1 outputs (for replay of surround encoded SACD) is no more.

If the chassis is essentially unchanged, the grounding/stacking spikes that can be mounted in each corner

have been significantly changed and improved. I covered these in detail in the Installation Notes (<https://gy8.eu/blog/installation-notes-2/>) along with the board options and set up. The main thing to note here is that where I had grave reservations about the original, steel spikes, the new composite aluminium/polymer versions are way better. The originals didn't work and these do – very well indeed. I'd still only stack the units if there really is no other option, but the four spike arrangement delivers excellent mechanical grounding and that's never more important than on a player/transport. Getting the best out of the spiking system requires some care, again outlined in detail in the installation notes, as does choice of supporting surface/interface. Finally, there's always the option to upgrade the spikes to the titanium version supplied with the 10 Series. In any system with a proper, coherent strategy for cabling, grounding and supports, that's definitely worth considering.



## ► Long-term listening...

For the purposes of this review, I'm considering the D1.5 as a standalone player. Its use as a transport makes most sense in the context of a separate CH DAC, where you can take advantage of both the CH LINK-HD interconnection and the clocking priorities that allow you to designate a clock master for the pairing. What I am going to include is the X1 power supply option (\$17,000), what might seem an unusual facility in the context of a CD player. However, the use of external power supplies, either as an integral part of a two-box machine or as an upgrade option has long been a central (and extraordinarily effective) part of both the Naim and Cyrus CD replay architecture. Needless to say, I wouldn't have bothered in this instance if I didn't think it was worthwhile.

So let's start with the basic character of the D1.5, and first up, its sense of musical articulation. Playing the MQA encoded John Coltrane album, *Ballads* (UCCU-40111) demonstrates this CD player's way with shape, pace and pattern, but it also demonstrates its note-to-note continuity and rhythmic agility. From the drummed opening of 'All Or Nothing At All', the precision with which notes are placed and spaced was immediately apparent, underlined by the front-foot pacing of the bass line and the way they combine with McCoy Tyner's stabbed phrasing, to create that insistent, propulsive quality that drives the track. It's a million miles away from the old D1 playing CD – and a goodly distance from most other CD players too, especially once Coltrane enters the fray. The rhythm section are doing just that – laying down and shaping that urgent, pushy tempo but Coltrane's sax takes more meandering, elongated lines. The D1.5 ensures that for all their temporal fluidity, Coltrane's phrases still lock step with the rhythm defined by the other three members of the quartet. It's an object lesson in spatial and musical coherence. But at the same time, the

player also highlights the contrast in pace and the fluid, expressive quality of Coltrane's playing. It's this ability to combine tempi and expressive range that makes the D1.5 both special and very listenable.

Let the track run through to the next cut, 'I Wish I Knew' and you hear another example of that unforced, rhythmic flexibility. McCoy Tyner's opening phrases are almost throwaway, the naïve melody rushed through with no consideration of shape or phrasing, but as he reaches the end of the intro he suddenly starts to slow the tempo and add shape to the phrases, stretching them out and setting the pace for the beautifully languid but perfectly on point entry of bass and drums.

It's a master class in musical articulation, the ability of the D1.5 to track time

domain information and relationships within the musical whole. The bass notes in particular are lucidly spaced and pitch perfect, carrying the track forward rather than dragging it back. It's a function of attack and emphasis (shape) combined with

the precise placement of each note – and the spaces in between them. It's also the

thing that most CD players have the most problem with – the D1 amongst them. In fact, it is exactly this sense of musical articulation and temporal flexibility that has elevated the Neodio Origine S2 above the crowd for so long, a player that despite its relatively modest price has eclipsed the musical performance of many far more ambitious and costly, multi-box solutions. I haven't had a chance to sit the D1.5 directly alongside the Neodio, but with its newfound sense of pace, rhythm and timing it's certainly snapping at the French player's heels.

In many ways, the acid test of any source component should be expressed not so much in the way it sounds, but how much sense it makes of the music. On one level, that might mean the sort of structural details that the D1.5 effortlessly reveals on the Coltrane disc. On another, it relates to the differences between performances of the same piece. Lurking at the further reaches of the Pentatone catalogue there is a series



▶▶ of discs re-mastered to multi-channel SACD from Quadraphonic original recordings. If that doesn't sound too promising and you don't play multi-channel SACD anyway, despair not: most of these recordings were made by Philips in the late '70s and while they might lack the audiophile credibility of some other labels, make no mistake, Philips knew a thing or two about sound and they could afford some serious talent.

PTC 5186 237 features the Beethoven and Bruch's *First Violin Concerto* (with Salvatore Accardo, Kurt Masur and the Gewandhausorchester Leipzig – see what I mean?) and it's a gem. Played on the D1.5 the

full of light and shade, shifting density, dynamic contrast and sudden impact. Repin is beautifully articulate, with elegant phrasing and an almost effortless grace to his playing. But the real difference here is the clarity with which the D1.5 defines the changed balance of soloist and orchestra. This is a real conversation, if not exactly an exchange between equals then at least a mutually supportive endeavour. The fascination in the Accardo/Masur recording lies in its sheer energy and stunning virtuosity, documenting a performance by SOLOIST and orchestra. Repin and Muti deliver a far more holistic view of the piece, exploiting the contrasts within the

score and between soloist and orchestra to deliver a wider expressive range. The beauty of the D1.5 is that it doesn't just allow each recording its own space and nature, the distinctions between the two performances/

recording is unmistakably, classic Philips: big, warm and sumptuous. The performance is both fascinating and of its time. Masur delivers smoothly massive, rich and dense orchestral playing, full of scale, power and vigour. The sense of bowed energy

and texture brings purpose to the performance while the sheer density is boldly impressive. Those qualities of energy, texture and substance carry over to the solo playing. Accardo is slightly spot-lit, the recording making the most of his virtuoso style. The energy and sense of direction in his bowing is so vivid as to be almost pictorial. Bigger, bolder, smoother and way more sweeping than more modern interpretations, it is nonetheless a wonderfully entertaining performance.

Wind the clock forward 30-years and we find Vadim Repin recording the Beethoven too, with Riccardo Muti and the Wiener Philharmoniker (DGG 477 6596). Play the two recordings back to back and the passage of years is clear. Muti gives us a more dramatic reading,

readings are clearly laid out for the listener, without undermining their musical integrity.

You can take this comparison further. Move on a year and why not embrace the young Lisa Batiashvili directing the Deutsche Kammerphilharmonie Bremen on Sony (886973 34002)? Smoother and less dramatically dynamic than the Muti, here's a recording that vividly captures the shape and structure of the music as a whole, while Batiashvili is predictably brilliant in the solo part. What's less predictable is the deft vitality and muscular grace she instils in the orchestral playing, an impressively mature performance for one so young. One more year and there's also Decca's famous recording with Janine Jansen, Paavo Järvi and once





▶▶ again, the Bremen (Decca 4781530). Lauded at the time of its release, listening now it's hard not to wonder how critics warmed to Järvi's forced and inflexible tempo and the stilted orchestral playing that resulted. Jansen is her normal, boldly fluid self, but that merely highlights the contrast between the smooth elegance of the solo playing and the hesitant rigidity of the accompaniment.

It's exactly this sort of musical journey that the D1.5 encourages, exactly these sorts of musical distinctions that it highlights and makes sense of. And it does it without pulling performances and recordings apart. The Masur, Muti and Batiashvili discs are all excellent



in their own way, each asking questions of the others. The Järvi reading might be beyond help – at least as far as I am concerned – but that's because I don't like his perspective and what I feel it does to the music. You may well disagree. The beauty of the D1.5 is that it will allow you to do so.

Do such subtle distinctions matter? If the appeal of music lies in its emotional and expressive range, its ability to engage the listener, then yes, they absolutely do. The reason to highlight them here is that the capability to reveal them, to enlighten the listener is

far from a given. A few years ago, a highly regarded manufacturer of digital replay systems asked to borrow my listening room/system. They were finalising the filter choices they would offer on their latest DAC and wanted to do some listening in a different system and environment. I always try to help, so on arrival I set them up in the listening room and left them to it. After an hour or so, the MD appeared and asked if I'd mind taking a listen? Apparently, they'd started with around 30 different filters and narrowed it down to their four suggested options – in a little over an hour! Having sat and listened to the four different 'contenders', they asked for my reactions, to which I replied: "Filter 1 sounds like your old models; filter 2 sounds like your current models; filter 3 sounds more like your major competitor and filter 4? Filter 4 sounds disjointed and a-musical." At which point the person who developed the filters got very upset indeed. Naturally, filter 4 was his new, super accurate, super linear baby. It simply HAD to be better. All the numbers, all the evidence proved it!

At which point I walked over and selected a CD from the shelf at random (it was actually a Chandos recording of the Taneyev *2nd Symphony*). Putting it in the drawer, selecting filter 1 and pressing play, I asked him, "What nationality is the composer?" He looked so utterly dumbfounded that it was immediately (shockingly!) apparent that not only did he not know the answer (which is fine – Taneyev isn't exactly mainstream) he'd never even considered that this might be a question (and that definitely isn't fine)... Listening to that disc on filter 1, you might well have guessed that the composer was English. Filter 2, Russian romantic – probably pre-Tchaikovsky. Filter 3, definitely Russian, probably contemporary with Tchaikovsky. Filter 4 simply sounded alien, musically incoherent, processed and unidentifiable. That filters sound different should come as no surprise. That those differences should be so fundamentally critical to the very nature of the music itself – and that a company should consider including all four – that's scary. After all, musically speaking only one of them can ever be right – no matter what the maths tell you...

The ability to give each recording its natural voice and character is a vital and surprisingly elusive aspect of high-end audio reproduction. From the above it



▶▶ should be clear that the D1.5 is essentially neutral in the true sense of the word. It's temporal sophistication and intelligibility (its ability to make sense of complex and overlapping rhythmic patterns) means that it doesn't have to indulge in the overt, colour-by-numbers tonal shaping that many DACs resort to in search of a more "analogue" sound. Instead, the D1.5 projects a natural tonal balance, natural perspective and natural sense of scale, allowing the recording to set the tonal and dimensional agenda rather than imposing one of its own. You hear that clearly on the Philips-sourced Masur recording, but it's equally apparent on more modern material, such as the packed orchestral soundstage of the Savall Beethoven *Symphonies* (<https://gy8.eu/blog/beethoven-revolution/>) or the beautifully dimensional piano captured on Víkingur Ólafsson's *Debussy-Rameau* disc (DGG 58522 182). Highs are extended and airy, sweet rather than cold or spot-lit, while the bass is deep, linear, transparent and unusually well textured. It's a recipe for well-developed but natural (as opposed to heightened) sound-staging and the D1.5 throws both a convincing sense of acoustic spread and space and one that reflects each individual recording. In short, don't look to this player to shape or compensate for imbalances elsewhere in the system. Instead, revel in its ability to differentiate performers and playing, recordings and production, while still maintaining a coherent sense of the musical whole.

The degree to which most systems and particularly most transducers collapse these subtle distinctions passes almost unnoticed – until you hear a product that doesn't compress expressive range. That's exactly what the D1.5 achieves. It not only differentiates the various Beethoven performances, establishing the character or 'voice' of each in turn, it locates them in time, both in terms of the style of the performance and the style of the recording. It also achieves it irrespective of disc format and it's both the musical qualities and their universal nature that advances it so fundamentally compared to its predecessor. It speaks volumes about the coherence with which the MORSe transport

extracts the data – and with which the DAC processes it. Which is in turn significant as the D1.5 isn't simply a standalone player, it's the foundation stone on which the entire CH disc replay chain rests. Which in turn brings us to the X1...

For those unfamiliar with the X1, it's a universal, external power supply that can be added to any of the CH Precision front-end components, from the transport and DAC to the phono and line-stage. Built into the same elegantly sculpted chassis as the other 'standard' CH components (the amplifiers share the styling, footprint and construction but are built into taller versions of the 'standard' chassis) it is a modular component that can be user specified with one or two highly regulated DC output cards. As noted above, a single output X1 is priced at \$17,000, while an additional output card (to drive a second, separate unit, such as the CI DAC) can be installed for \$3,500.

The modular components can even be redeployed to create a pair of single-supply X1s, all without cost penalty. Why would you want to do that? Because not only does a pair of single supply units outperform a dual supply unit, it's an integral part of the four-box "true-monaural" P1, L1 or expanded

DAC configurations. But all that lies in some possible future. What we are talking about here is a single-supply X1, driving the D1.5, creating what at least appears to be a classic two-box CD player.

What does adding the X1 add to the D1.5's performance? Poise and purpose – at least if we are talking in musical terms. Sonically, you are going to hear a significant drop in noise floor along with all the other benefits that implies: increase in dynamic response and range; a quieter, blacker background; greater focus and definition; a greater sense of space and dimensionality; increased tonal palette and density; and not just more clearly defined notes, but even better definition of those all-important spaces between those notes. If those sound like significant changes it's because they are. This is no subtle, "listen carefully



▶▶ and you'll hear it" difference. This is smack you in the face obvious.

Let's revisit that Taneyev *2nd Symphony* (Polyansky and the Russian State Symphony Orchestra, Chandos CHAN 9998). You only need to listen to the first few bars of the opening movement to hear what the XI adds to the D1.5. Played on the standalone player, the sound is already big and bold with that unmistakably Russian tonality and orchestration. But plug in the XI and the sound simply expands in every sense and every direction. The big opening chord carries more weight, more physical volume and far greater complexity. Suddenly you can hear not just how many instruments are involved but their individual textures and tonalities. That tonal and spatial separation carries over into the extended opening bars, the different instruments much more distinct and spatially defined. When the basses rumble up below the haunting wind melody, it's with a real sense of bowed energy and texture. But along with the more developed sense of acoustic space and character, the real difference is musical as opposed to sonic. The XI brings with it a sense of expectant tension in the playing, a sense of control (on the part of the players) and a singular direction (on the part of the conductor and orchestra). The precise separation, the placement of notes, the lower noise floor and the increased instrumental texture that results bring the orchestra and the performance to life, with a vivid sense of energy and colour. It's not just that it's easier to tell what instrument is playing and where it's placed. You get a far greater sense of why it's playing and how its part contributes to the whole. If the D1.5 is like a really clear and detailed map, guiding you from musical A to B, then adding the XI is like making that map 3D. Suddenly the system seems so much more capable of portraying colour and density, dynamic levels, which way they're moving and how fast, the difference between quiet and loud, the shape of a melody or phrase – and to do

all that simultaneously without muddle or confusion. Of course, that impression of heightened clarity and intelligibility is relative: in this case relative to the D1.5 as a standalone unit. Add the TI Time Reference clock and you'll gain still further shape and articulation, texture and harmonic development.

That sense of stable presence and purpose is just as audible on other musical genres. Play 'Skateaway' from Dire Straits' album *Making Movies* (Japanese SHM SACD Vertigo UICY-9636) and the XI adds an insistent drive to the repetitive drum machine pattern that opens the track, poise and attack to the chopped rhythm guitar notes. It holds each layer separate and distinct as the track builds and gains density, until the avalanche snare pattern and lead guitar explode into the soundstage at the top of the first verse. The building complexity and power is musically compelling, but not

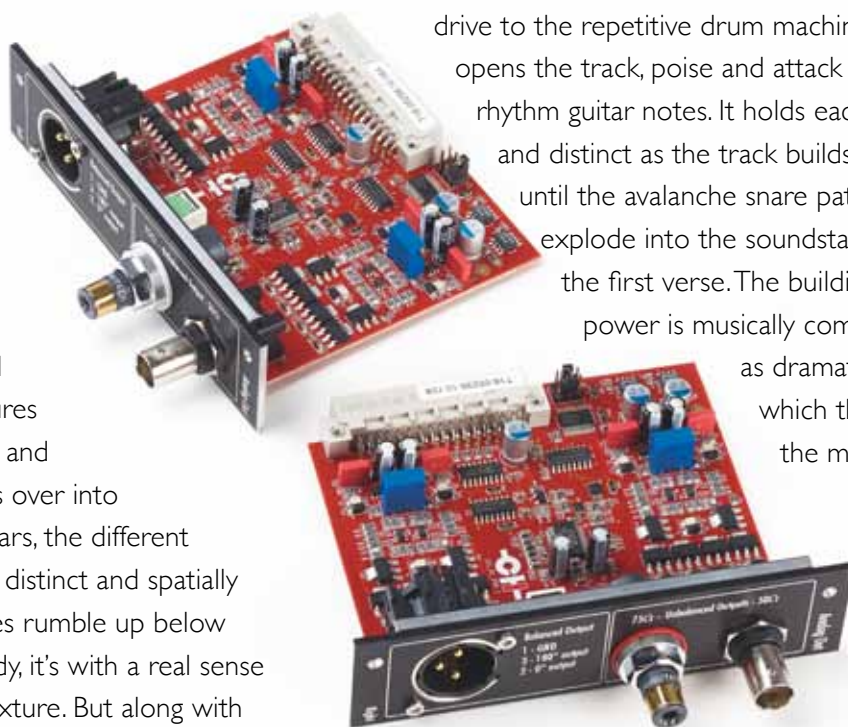
as dramatic as the way in which the D1.5/XI tracks the musical down-shift that immediately follows. This ability to trace the changes in musical density, dynamic contrasts and tonal shifts

is as impressive as it is engaging.

It makes the two-box D1.5 an immensely entertaining musical all-rounder.


Does that mean that you HAVE to buy an XI in order to really enjoy the D1.5? Not at all. The fundamental musical virtues are all present and correct in the one-box machine. But for customers buying that single-box disc replay solution, it's nice to know that there's a ready made and extremely cost effective upgrade path already mapped out.

Using the D1.5 in one, two, three, four and five box set-ups, I've been beguiled and impressed in equal parts. More often than not, presented with a multi-box upgrade path, once you climb the ladder, it's somewhere between difficult and impossible to go back. That's not the case here. Each step on the ladder is both musically significant and easily demonstrable/justifiable. But that's the point. Each step is itself substantial, meaning that





whether you go one, two or three box, the fundamental quality of the components is such that each iteration stands in its own right. Dropping from the top of the tree back down to the base model, sure you hear the difference – but such is the inherent musical integrity of the D1.5 that it stands up to the comparison. Which is perhaps the most telling observation of all. Whether you simply want a one-box disc player or the first

step on the CH upgrade path, the D1.5 will meet your musical needs. In a house where the Wadax Reference system is in permanent residence, the (considerably more affordable) CH Precision one-box player has proved to be as engaging as it has been welcome. From that you'd be correct to conclude that the D1.5 gets an awful lot of the really important things right. There's a new one-box solution in town – and it sings! 

### The CH Precision D1.5 CD/SACD Player/Transport

Type:	CD/SACD player transport with user definable card-cage construction
Formats Played:	CD, SACD, MQA CD
Outputs (Digital):	CH LINK-HD, AES/EBU (XLR), 2x S/PDIF (RCA and TosLink)
Output Formats:	Native SACD (via CH Link-HD), MQA A, MQA B, RedBook CD
Outputs (Optional):	Dual-mono analogue outputs on balanced XLR, RCA and BNC SYNCH-IO clock in/out module
Digital Processing:	CH Precision PEtER spline algorithm

Remote Control: IR Handy Remote  
CH Control App for Android

#### Dimensions:

Width	000 mm
Depth	000 mm
Height	000 mm

#### Prices:

D1.5 CD/SACD Transport	€35,600/\$41,000
Dual mono analogue o/p cards	€4,700/\$5,000
SYNC-IO external clock card	€1,350/\$1,500
XI external power supply	€16,000/\$17,000

Euro prices include 20% sales tax,  
US prices are excluding local sales tax