

Two big news items this month: The Terra Firma "Lite" clock, and the Terra Firma "ÜberClock"

These are early pix of the Vacuum State Terra Firma ÜberClock.

This is the very first one off the production line, so fresh that we didn't get time to have the front panel engraved with a logo before I was off to Singapore with it. It is the exact same unit that was well reviewed on the *AA HiRez* forum by Mark Hoepfl at:

<http://www.AudioAsylum.com/forums/hirez/messages/25/252126.html>

The Terra Firma ÜberClock is our shot at an ULTIMATE reference clock for all CD, SACD, DVD-A players, Music Servers, and in fact, all digital audio devices. Our research shows that even with the current level of clock technology, there is still a huge amount of jitter left in the clock signal, and as the clock signal is the *timekeeper* for the whole player, it's vital to have the very best clock possible!

Vacuum State is well known for it's Sony SACD player Upgrades, with many great reviews and awards to our name. But until now, we didn't have an Upgrade available for *all* players, from *all* manufacturers, that will make a major improvement to them all.

The ÜberClock is the extreme embodiment of the Terra Firma powersupply concept, and the Terra Firma "Lite" a less extreme version. Either will boost the sound of your digital player or recorder.

The ÜberClock is an external box that sends its ultra pure clock signal to your player on a matched coax cable, connecting to your player by a rear panel BNC connector (photo below) as installed by one of our agents, or any competent technician in about one hour. To use it, you simply turn on the ÜberClock some 30 minutes before you turn on your player, connect the coax cable, wait the 30 minutes for the ÜberClock to come fully on line, and then listen to the improvements.

It's called Terra Firma because we have created a supply that has the stability & solidity of Mother Earth itself—and it's far far quieter than any battery supply. They were tested as part of this research but found to be seriously wanting—being actually very noisy.

As well as the extreme power supply, the ÜberClock also presents another unique feature long missing from upmarket clocks: correct matching of the signal transfer via 75 Ohm cable and connectors. We're dealing with *very* high frequency signals, up to 66 MHz, and these need to be treated with real care or all sorts of jitter worsening signal reflections can occur if the source and reception ends of a cable are not correctly terminated & matched.

All previous aftermarket replacement clocks (and 99% of factory installed original internal clocks) send from a non specific (but lowish) impedance into a non specific (but highish) impedance, and seldom make any allowance for the length or type of wiring used. But here we send a specific 75 Ohm impedance signal and load it at the player end with a matching 75 Ohm, all transferred by a genuine 75 Ohm coax cable connected with 75 Ohm BNC connectors—as professional VHF engineering requires.

This ÜberClock project was advanced after reading the Stereophile review on the *Esoteric* Rubidium clock—and realising that this was the wrong way to do an extreme clock for digital audio. More data on the ÜberClock brochure on the Vacuum State website.



Vacuum State ÜberClock, external & internal views



Rear panel BNC connection

*"I believe the UberClock is a breakthrough in digital sound, at least for me. Those who have heard the Level 6 modified VSE machines will know they are great but I have to tell them that they haven't heard anything yet!"*

*"There is an improvement in definition across the entire spectrum but while this sonic improvement is important, what is more important is how the machine loses the last vestiges of what I can only describe as a "mechanical" presentation, which I have heard in every single disc player I have heard until now, and replaces that with [a sense of] ease. Music simply breathes; expands and contracts in volume without strain, is achingly pure yet full bodied. I am now hearing more than ever but without any sense of etching or over-emphasis of detail. SACD's on this machine fulfil the promise of the medium, and surpass what I had thought possible". R.F. (NZ)*

*"I reeled off disc after disc, SACD's and even the much maligned RBCD's and was shocked at what I was hearing.*

*"More weight, much greater clarity and an expanded sound stage that brought me far further into the recording space than I had ever heard before in my system (and any other system I have heard). On one RBCD I clearly heard the very faint voice of the singer before she actually sang...I was hearing her voice from a previous take that was still there that had "bled" onto the master tape!! I had never heard this before with this disc.*

*"People talking in the distance, background noises, just so many little things that I had never heard before on a mixture of recordings. Recordings sounded very "analog like" with no hint of "digi-itis"...Recordings had more "liquidity", PRAT was also significantly improved.*

*"Other listeners have since come and gone and are also flabbergasted. A mate of mine has duly bought a used Sony 777 and will be getting it modded immediately. We also heard a new stock player (I won't mention the brand) that costs around USD5.5K playing a SACD in a hi-fi dealers shop and couldn't get out of the place quickly enough, it gave us a headache.*

*"I can go on and on and all I can say is this:*

*If you have a player that has been modded by VSE then it is an absolute no brainer to get this mod done. I understand we are in hard times but save your pennies, curtail your spending and save hard for this one..it's worth every penny!" (MH Singapore)*



This is the *Terra Firma* Clock "Lite", and is intended to be installed within the existing case of your SACD or CD player. But it can just as well be used with huge advantage on any piece of equipment that uses a A-D or D-A converter, because they are all sensitive to clock jitter and will sound far better if that is reduced by a dramatic amount. This suggests its use in Music Servers, digital recorders, digital room EQ systems, etc etc, and even certain DACs. As long as we can supply the *Terra Firma* "Lite" in the required frequency, you will hear a stunning improvement—the frequency list is below.

The purpose of the *Terra Firma* "Lite" is to offer as much of the sonic benefits of the *ÜberClock* as possible in a much smaller and lower priced package. It uses similar *extreme* subsonic filtering of the clock power supply voltage as the *ÜberClock*, but dispenses with the 75 ohm matched impedance coax drive. This is possible because the *Terra Firma* "Lite" own circuit board can be snapped into two or three separate sections to allow positioning the actual signal source very close to the clock input point on the player's circuit board—hence making impedance matching problems less critical. Overall, we claim 2/3rds of the sound advantage of the *ÜberClock* for around 1/3 the price, and it can be fitted DIY as well as by our Agents.

Available frequencies: • 2.8224 MHz • 8.4672 MHz • 11.2896 MHz • 12.0000 MHz • 12.2880 MHz • 16.9344 MHz • 18.4320 MHz • 24.5760 MHz • 27.0000 MHz • 33.8688 MHz • 45.1584 MHz • 67.7376 MHz

## Pricing

Terra Firma *ÜberClock*: CHF2000 including fitting of the BNC connection to your player. (Price includes Swiss VAT)

Terra Firma "Lite": CHF700 including fitting to your player, whether it's a Vacuum State Upgraded player or something else. (Includes Swiss VAT)

Terra Firma "Lite" kit for DIY installation: CHF600 (Such kits only available direct from Vacuum State Switzerland)

This is an export price, Swiss residents or visitors will have to pay Swiss VAT extra.

Please note, these prices are what we charge here at Vacuum State Central (Switzerland) and don't be upset if your local Agent needs to charge a little more—he may have much higher taxes and freight charges to pay than we do. Please contact him for prices in areas outside of Europe.

## Agents who can supply and fit both the *ÜberClock* and the *Terra Firma* "Lite"

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