



### **PS.40RDT Special Edition 2022**

**Continuing** in the spirit of the TITAN Pro and a whole new chapter in the Whest Audio phono stage design range, comes the new 40 Series all discrete Class-A Special Edition (SE)

#### **The Technology**

Getting more resolution from vinyl isn't easy and it certainly isn't about the 'KISS' (keep it simple, stupid) principle. Getting higher resolution from a phono stage and vinyl is much like getting higher resolution from an MRI scanner used in the medical field. The reason why today's MRI scanners are so much better than their early cousins is because of more processing power/ more electronics. A modern MRI machine has hundreds of times the processing power of its distant cousin. The same goes for our phono stages.

The only way we found we could achieve extremely high resolution at this price level was to borrow much of the technology and ideas from the **TITAN Pro** which was designed to be the very best single box phono stage in the world, which it has accomplished, so we felt 'why not just scale it down' and use the essential parts to bring the TITAN Pro's high-resolution sound to a market place that REALLY needs it.

The new 40 Series pushes the boundaries of what is capable at this price level. No other phono stage in the world at this price range has the abilities of the 40 Series thanks to its BIG brother.

### **The Chassis**

Starting with the chassis w430mm x d290mm x h78mm – is manufactured using the same precision computer controlled machining technique, hand-welded and finished seams to give it high rigidity as the TITAN Pro and MC REF V MK4. Internally the chassis incorporates the suspension system used in the MC REF V Mk4. The combination of this suspension system and ultra strong chassis means that all unwanted vibrations from airborne or structure sources are very well damped.

### **Ultra High Purity Copper**

The 40 Series circuit board uses ultra low impurity copper throughout and its copper weight is nearly 4 times that used in nearly all audio electronics. Small signal integrity is of the highest importance and with this in mind a new regulator system has been designed and employed for the 40RDT Special Edition. The new discrete input stage for the 40RDT Special Edition is based ENTIRELY on the MC REF V MK4 input stage but has been ‘trimmed’ for the 40RDT Special Edition. The input stage of the 40RDT uses an ultra low noise/ hand-matched monolithic amplifier. Because all of the major amplifying and filter sections of the 40 Series are channel matched, they are capable of incredible realism.



### RIAA active filtering

The hybrid RIAA filters have been kept in the 40 Series design because not only is it used throughout the full Whest Audio range, but in the 40 Series it is now trimmed to a far tighter tolerance for both curve and channel matching. Channel matching now is to within 0.12dB and RIAA curve accuracy to 0.15dB. Both these figures are across a bandwidth with spans from 9Hz and 62KHz. Any non-Whest Audio phono stage would be at least 18dB-30dB down at these extremes, but having experience in pro-audio, vinyl cutting and mastering means we at Whest Audio know what it takes to get the very best from playing back the vinyl format at all price levels.

### Gain and load selection

This section is accessed under the chassis like all Whest Audio phono stages. Maximum gain is 72dB and with the internals' ultra low-noise levels it means you will never be stuck for gain ever again! All units are setup for standard low output moving coil 65dB/100 ohms but if you do want to experiment it just takes 30secs to change over.

**MM gain** is at a very healthy and modern 43dB not the older 1970s standard 39dB like our competitors. This with a *total capacitance* value of 91pf gives a beautifully flat response from your high performance MM cartridge and an unmatched sublime audio output that can only be achieved from a Whest Audio phono stage.

### Signal inputs and outputs

These are on 'audiophile grade' RCA and XLR connectors identical to that used in the TITAN Pro. Because Whest Audio phono stages are used in archiving both professionally and domestically we have included a second set of RCA outputs to allow the user to send the output to their computer for transfer while 'monitoring' the output through their main audio system. The 40 Series noise levels are so low that using 24bit or 32bit conversion is possible without the fear of unwanted signals getting to the soundcard. With the PS.40RDT and PS.40RDT Special Edition we now have a new standard – no other company in the world designs with this much attention to detail for the end-user.

## **Tech stuff...**

40RDT – **Reference Dual Transformer** with an ultra low noise discrete **MATCHED** transistor input stage

**ALL discrete transistor design SE Pack**, further channel matching of critical transistor pairs and filter components, higher operating voltage throughout and power transformer matched pairs.

**Ultra matching critical components** in the audio and DC paths (40RDT Special Edition). The matching is by channel so that each channel behaves as closely as possible to the other (ALL). This is translated in far better stable, realistic and etched images with far far better musicality.

The internal cabling borrowed from the TITAN Pro is high performance **Pro-Audio grade OFC** type designed for high-frequency stability and phase performance.

**High Voltage and elevated voltage rails** for better dynamic range and contrasts.

The new input stage **Zero Voltage Float** means far better signal transfer tracking and a higher resolution signal into the discrete output stage.

For testing and listening we used the following cartridges:

Ortofon MC Anna

Ortofon A90/A95

Lyra Atlas

EMT JSD6

Ortofon Cadenza Black

Lyra Kleos

Audio Technica 50ANV

Audio Technica ART 9

Transfiguration Proteus

Dynavector DRTXV-1T

Van Den Hul The Condor