Townshend Maximum Supertweeter

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I remember the good old days when we had horn loaded Decca ribbons as supertweeters for Magnepan loudspeakers or even for Elipsons. They gave us space, speed and a more detailed sound. We couldn't hear them like you can hear a normal tweeter but when you turned them off the sound seemed to collapse and become dull. But times have passed and loudspeakers have become better and better, so the need for supertweeters, even ones like the Coles 4001 I had in my Rogers TLs has passed.

Besides, CD won't give you any information beyond the steep 22kHz brick wall filters. It's no surprise that only a handful of companies make supertweeters and remain convinced you need them. One of those companies is Townshend Audio whose Seismic Isolation Podiums have transformed my speakers, so I thought why not deal with the other end of the frequency spectrum and try some Maximum Supertweeters.

A small package arrived and while I was expecting small boxes I was surprised that the Maximum Supertweeters only measure 3x5x10cm. The metal case can be had in chrome, black or titanium matte and you get deep cryogenically treated wires made to order with bananas, spades or bare ends as part of the package. The front is a silver mesh grille to protect the very small ribbon tweeter inside and the box has two openings on the side. The magnets inside produce a strong field, my metal tape-measure stuck to the casing at once.

The back holds the banana terminals and a switch to adjust the sensitivity of the Supertweeter which has six settings between 74dB and 89dB. The impedance is 11 Ohms at 20kHz and reaches its peak of 20 Ohms at 80kHz, the spec suggests they to go up to 90kHz. From 20-70kHz they are calibrated to work within +/-3dB or from 14-90kHz within +/-6dB.
Looking at the frequency curves provided by Townshend Audio the tweeter contributes just a little under 20kHz and reaches full potential at 40kHz an area where even AMT (air motion) tweeters stop. Power rating is 350 Watt for music, but less if you use them with very efficient speakers like horns. A lot of the supposed benefits and the theoretical underpinning are available on Townshend Audio's website which is very clear to read and highly informative.

Set up
The first step is connecting the Maximum Supertweeters in parallel with the tweeters in my PMC fact.12 loudspeakers. I keep them switched off at this point and place them in the middle on the edge of the baffle. I play some well-known tracks and listen carefully. Next step is to turn the switch on the back step by step until output reaches the desired level. Since my PMCs are not very efficient only a few steps are needed. It's easy to hear because step 1 has almost no impact on the system performance, step 3 is too much and step 2 is just about perfect.

Before I go deeper into the effect of the tweeter you should know that I use a NAD M50/M52 combination as digital player, a Metrum Acoustics Pavane DAC, an Audio Strumento No.1 preamp and Pass Labs X250.5 power amp. The claim that supertweeters are the best in an analogue set-up is investigated with my record player and has the same sort of results. Later I will move the Maximum Supertweeters to my second system and place them on Harbeth P3ESR mini-monitors. But first the large PMCs play FLAC, ALAC and WAV files, either ripped from CDs or downloaded as high res files with an extended frequency range (I hope).

While adjusting was easy and hear the changes easily, my wife did not notice the Maximum Supertweeters at all in the beginning, probably a good thing. I switched them on and off for her. Later I picked music that made the most difference for me and had her seated again. Now, specifically pointing to the areas where the Supertweeters make the difference she could hear with ease what they do and recognised their strengths.

Audiophile friends that came over were easy to convince no matter what kind of music or tracks I played. I guess this has to do with listening habits. My wife never really listens to the system, she just enjoys music on a low level during the day. She does not care that much about matters like sound stage and/or speed, while trained ears tick all the boxes one by one. So which boxes are the most important?

First of all I did not get the impression that the higher frequencies are louder, say from 5kHz up. Instruments certainly do not alter their tonal balance when the Supertweeters are on, cymbals don't become forward and a piccolo or triangle will not be louder.
But wind up the switch on the back of the Townshend devices one step too high and violins suddenly become harsh and unnatural. Which proves that they are doing somethin, but remember less is more as they say.

Playing Avratz from Infected Mushroom there is absolutely no doubt whether the Supertweeters are on or off. When 'on' the stereo image reaches far beyond the left and right loudspeaker to build a wide and deep stage with great height. The electronic bells have extended decay, the bass is tight, fast and deep, while small details are noticed with ease. After turning the Maximums off the stage collapses and stops almost at the edge of the left and right speaker baffle. Depth is also reduced. Decay gets shorter, bass is a little loose although the stereo image is more compact and more precise. I have no idea how this recording was created and what the musicians had in mind, but after experiencing the wideness and drowning myself in the musical energy in front of me there is no way to go back to playing without the Townshend toys if I do not have to.

It's clearly good for electronic music, what about jazz played by The Bobo Stenson Trio? On Cantado I find 'Song of Ruth' with a piano intro, percussion in various forms and bass. Without the Supertweeters the music sounds very real, deep bass, good punch and a lifelike piano, the percussion is extremely well recorded on this 2008 CD.

Switching the Supertweeters on brings the percussion forward, with more decay on the cymbals, the sound stage is more loose, although again less defined, which is probably closer to the real thing. Most audiophiles would say that there is more 'air' around the instruments. But there is more, like better defined bass, more slam, faster sound and added details. These aspects must have always been there, now they escape from the system. Playing Kate Royal, singing a part of Die Lusitige Witwe, her voice doesn't change at all when I turn the Supertweeters on and off. Neither does it change the balance of the orchestra.

It just makes the music less easy on the ear and less engaging when you turn them off. Turning up the volume would help a bit, but not all. When a choir joins Kate Royal they sound a lot more natural and bigger with the Supertweeters, like a choir does, given enough space in a concert hall. Needless to say I tried pop music, singer/songwriter, orchestral classical music and a lot more before writing the review.

Moving the Supertweeters to the other room and placing them on my Harbeths I noticed another effect. First of all I have to mention that the little speakers already throw a soundstage that seems to move the sidewalls out of the way. Therefor depth is the main area for improvement and that is exactly what happens when I play Max Richter's version of 'Spring' from the Four Seasons. Violins in the front stay where they are but the orchestra moves backwards, not a bit, a lot. Bass, not usually the strongest area for small speakers seems to have more impact, probably because it is tighter. The Supertweeters even take away a tiny bit of the harshness from the violins that is always there in this system. Bobo Stenson is different. On this recording detail comes forward more easily and when a bongo is hit you know for sure it is a bongo and nothing else. More space around the instruments is another bonus.

One of my references in this room is Melody Gardot's 'If the Stars Were Mine', which I play first without the Supertweeters. I love her voice and the way she expresses herself. After switching the Supertweeters on the voice is smoother than before, comes more forward too, but I would not mind if she could move back again a bit. Strangely enough bongos seem to disappear into the background unlike 'Song for Ruth' where they became more noticeable. Overall the Supertweeters improve the sound of the P3ESR but contrary to what happens with the PMCs they do alter the character of the Harbeths, more than I would have thought (because the Supertweeter volume should have been reduced, read on). With Avratz the step forward in reproduction is obvious and without any doubt better with the Supertweeters on. Last but not least I play 'The Summer We Crossed Europe In The Rain' by Stacey Kent. With this I decide to reduce the Supertweeter output to position 1 for the best results.

Playing all the other songs again confirms this, the efficiency of the Harbeth is very, very low and indeed: less is more. But without the pair of Maximums listening is less enjoyable even on this lowest output position.

Before the Supertweeters both my systems sounded great to my ears. I had no idea of how to get a real improvement other than changing some components for far more expensive alternatives. Mostly swapping equipment gave small improvements or sometimes a disappointment, changing a bit of speed, slam, definition, image etc. Moving house and getting a bigger room would have been the best upgrade. So I was happy with the situation. Two changes really made a difference: the Townshend Audio Seismic Isolation Podiums that decouple my room and floor from the loudspeakers and vice versa and adding a pair of Maximum Supertweeters from the same company.

I should have remembered earlier on what a supertweeter can do, but it took some pressure from other Dutch reviewers to give them a try again after so many years. Compare it to driving in an expensive sports car, where your limit is the road. You know you have the power, the brakes, the engine, tyres and more to drive very fast yet safely, but since the road is crowded or bumpy you are only able to drive safely.

Take the same car to the German Autobahn on a Sunday morning and you finally unleash all of its potential. It's the same car, only another road. That is how I feel about the Townshend Maximum Supertweeters, my system was already very good, it only needed to be given free rein. I love these Supertweeters and will keep them on top of my PMCs to have that extra portion of adrenaline flowing in my veins when listening to my favourite music. Now I'm wondering if should I invest in a second pair for the Harbeths?

SPECIFICATIONS:
Frequency Response: Up to 90kHz
Amplifier power: Up to 400W, unclipped music
Rating to DIN IEC 268: 500w peak
Max sensitivity (2.8V @ 1m): 89dB
Nominal impedance: 11 ohm (min), rising to 20 ohm
Drive unit: Pure aluminium ribbon. 5mm wide, 25mm long, 0.01mm thick, Mass 0.003 grammes
Magnet: Ultra powerful rare earth neodymium magnets
Crossover: First order
Level control: 1: 74dB, 2: 79dB, 3: 83dB, 4: 85dB, 5: 87dB, 6: 89dB
Dimensions (WxHxD): 50 x 30 x 100mm
Weight: Each 0.5 Kg (1.1lb)
Cable: Banana or spade 1.5m

PRICE:
£899 pair

MANUFACTURER DETAILS:
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