

MUSIC

HALL

mmf-1.3

turntable



It is a long time since SILICON CHIP reviewed a turntable – almost 20 years, in fact. Since then, vinyl records and turntables had experienced a long decline . . . but more recently quite a strong revival, with many groups and musicians releasing new vinyl recordings. To meet this new demand, a number of new turntables have appeared on the market, including the Music Hall mmf-1.3 reviewed here.

Review by Leo Simpson

The mmf-1.3 is a 3-speed belt-driven manual turntable fitted with an Audio-Technica AT-3600L moving magnet cartridge and an inbuilt RIAA preamplifier, providing line-level signals which can be fed to any modern sound system.

If you have a stereo amplifier or surround-sound receiver with its own RIAA preamplifier, you have the option of switching the turntable's outputs to the unequalised (ie, no RIAA equalisation or preamplification).

And while the turntable is belt-driven, it is powered by an electronically-controlled low voltage motor; probably a crystal-controlled brushless DC motor (often described as a DC servo motor) which provides speeds of 33.33, 45

and 78 RPM. This is a more elegant approach than used in most belt-driven turntables of the past which typically had a mains-power synchronous motor driving a stepped pulley to provide, usually, just two speeds.

There are several benefits in using the low voltage electronically-controlled motor. One of these is that the Music Hall turntable can be used virtually anywhere that 12V DC is available (OK, perhaps not in a car or on a boat!). It is not affected by the mains frequency (ie, 50Hz or 60Hz) as it uses a 12V DC plugpack.

And since it does not use a synchronous motor locked to the local mains frequency, the turntable's speed can be set to the exact value.



Here's the adjustment end of the tone arm, with the tracking dial at the rear and the anti-skate control closest to the camera. The tone arm is raised and lowered by the lever in the foreground.

The presentation of the Music Hall turntable is very clean and simple: a shallow glossy black plinth supported on four large vibration-damping feet and fitted with a removable, moulded clear Perspex dust cover. Lifting the cover gives access to the 4-position switch which turns on the power and selects the three speeds: 33.33, 45 or 78 RPM.

The tonearm is a straight (not curved) design with a removable EIAJ headshell and adjustable counterweight which allows the tracking force to be set between 1 and 4 grams (once it has been balanced). There is also an anti-skating force adjustment.

Note that since this is a manual turntable, moving the arm off the rest does not start the platter revolving – that is done by the speed selector/power switch. And nor does the platter stop revolving once the stylus runs into the central groove.

So the playing procedure is to start the turntable, position the stylus over the run-in groove and then flick the damped lift/lower lever to gently lower the cartridge into the groove. At the end of play, you use the lever to raise the tonearm and then you move it back to the rest position.

This is simplicity itself and the way most record enthusiasts like it.

The Audio-Technica AT-3600L moving magnet cartridge is a middle-of-the-road model with a 0.6 mil conical stylus



The belt drive fits right around the turntable inner rim thence to the capstan, seen here in its access window. You have to remove the platter mat to gain access to this window but fitting the belt is neither difficult nor time consuming.

and a recommended tracking force of 3.5 grams. It does have a removable stylus (AT-91R) so it can be replaced at some time in the future (after you have played a lot of records!)

By the way, the AT-3600L cartridge is not suitable for playing 78 RPM records. This will not affect most people since 78 RPM discs are quite rare – but if you did want to play them, to get the best results, you will need a cartridge with larger stylus, typically 3 mil.

The much smaller stylus of any cartridge intended for microgroove (ie, 33 and 45 RPM) records will ride in the bottom of the groove of 78 RPM records and be very noisy. In that case it is best to go for a dedicated 78 RPM mono cartridge such as the Audio-Technica VM670SP.

The turntable itself is a lightweight aluminium casting which has a thick rubber mat. Total weight of the platter and rubber mat is 785g.

We like the inbuilt preamplifier on the Music Hall turntable as it means its output leads can be plugged into any amplifier which can accept line level inputs, ie, with signal levels up to 1 or 2V.

Setting up

The mmf.1.3 turntable requires very little assembly out of the box. The main task is to install the platter on the spindle and make sure the belt is sitting on the motor shaft.



On unpacking the mmf-1.3 turntable, we checked the speed of the turntable with the SILICON CHIP strobe disc and white LED strobe (December 2015) and found it was spot on at all speeds, straight out of the box. . .



. . . but if it proved to be slightly “out”, it’s a simple matter of adjusting the speed by holding down the push button for two seconds then turning the knob. Unfortunately, it is under the turntable so takes a bit of juggling to get to!



The mmf-1.3 is a fully manual turntable, which means it doesn't start operating when you lift the tone arm. The motor is controlled via the speed selection knob. Unusually, this turntable offers a 78RPM speed.

But anyone using a turntable for the first time would be wise to check that the tonearm is correctly balanced and that the tracking for and anti-skating settings are correct. The instruction manual is quite good in this respect but anyone who has never set up a turntable would probably be wise to ask their audio retailer how it is done or have a look at video on the internet.

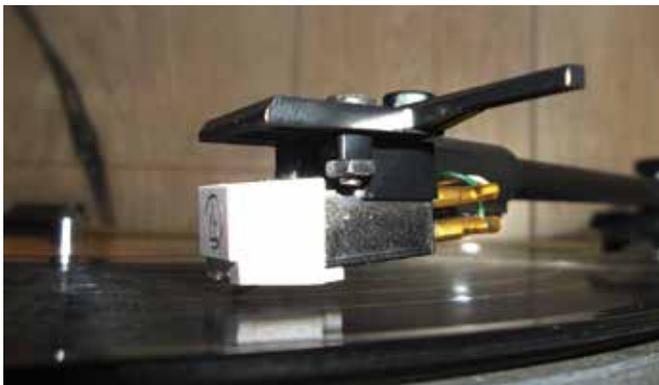
RCA leads are supplied so it is simply a matter of connecting these to the line inputs on your amplifier and you are ready to play. Before we did that, we checked the speeds of 33.33, 45 and 78 RPM using our 100Hz white LED strobe and strobe disc.

This showed that the speed settings were exact, with no drift of the disc strobe markings on any speed setting (see SILICON CHIP, December 2015: www.siliconchip.com.au/Article/9640).

If the speeds had been slightly off, the turntable has a facility for slightly increasing or decreasing the speed. This is a small pushbutton and knob on the underside of the turntable, at the lefthand side.

To change a speed setting, you first select the speed, then press and hold the button for two seconds and a LED comes on. You can then turn the knob to increase or decrease the speed to the desired setting. After that, you press the button again, the LED will flash and then turn off and the new speed setting will be stored by the unit's microprocessor.

We then set up the arm for balance, set the tracking for



The mmf-1.3 is supplied with an Audio-Technica AT-3600L moving magnet cartridge, a middle-of-the-road model with a 0.6 mil conical stylus and a recommended tracking force of 3.5 grams. Note that this stylus will not play 78RPM records!



The rear panel sports the 12V DC input socket (plugpack supplied), a "GND" terminal and stereo RCA output sockets. You can choose RIAA line-level or "straight" phono output via the switch alongside the output sockets.

3.5 grams and adjusted the anti-skating force accordingly, prior to testing the tracking ability of the cartridge using a variety of test records, some of which provide very stringent testing. In summary, the supplied Audio-Technica cartridge is adequate for average listening but records with very high recording levels will cause it to seriously mistrack.

By the way, we regard 3.5 grams as a fairly high tracking force – we tried it at 2 grams and found that this made little difference in tracking performance.

Our next series of tests involved frequency response and we were able to confirm that the fitted Audio-Technica 3600L cartridge has a response within ± 2 dB from 20Hz to 20kHz. Channel balance is within 1.5dB and channel separation averages between -15 and -20dB. The waveform on sinewaves is good. These tests were performed with the CBS STR100 test record.

Wow & flutter was quite low and difficult to measure, as was rumble. We would expect that result with this belt-drive/electronically controlled motor system.

And then it was on to playing records. This was the most enjoyable part of this review, being satisfied that the Music Hall turntable and cartridge performs well. The Audio-Technica has a clean, bright sound which does not emphasise surface noise and clicks – most important if you are playing older records which will inevitably have their share. You can buy it with confidence.

The Music Hall mmf-1.3 turntable has a recommended retail price of \$499 inc GST.

For further information, contact the Australian distributors, Convoy International Pty Ltd, Phone (02) 9774 9900; website www.convoy.com.au **SC**



The hinged perspex lid on the mmf-1.3 turntable is completely removable, for those who prefer to operate that way (or to house the turntable in a hifi unit, for example). Size (without lid) is 435 W x 106 H x 367 D.