

# Mild Seven?

**Audio Technica has a new flagship for its entry level 'F' range of moving coil cartridges, the AT-F7. Tony Bolton wonders if it's a more sophisticated performer than its high spirited siblings...**

**S**ince its foundation in 1962 Audio Technica have built for themselves a reputation for making fine quality microphones and headphones, as well as a distinguished line in moving magnet and moving coil pick-up cartridges. At the top of the UK range sits the AT-OC9 ML3, and now a new model, the AT-F7 has been launched based on the established but newly updated F3/III model. Think of the F series as the company's entry-level moving coil range; they lack some of the whizz-bang technology of the OC series, but are still very conscientiously engineered pick-ups. Whilst the original AT-F3 (and hitherto the AT-F5) have been around since the late eighties, the 7 is a brand new model.

Its looks are unmistakably Audio Technica, with the body sharing the same high rigidity VC mould, which is combined with potassium titanate. The body structure is described as a 'hard resin' which is chosen for its resonance control properties. Inside there are dual moving coils around neodymium magnets with pure iron yokes. The cantilever is an aluminium tube, tipped with an elliptical stylus which measures 0.7 x 1.7 mil. The suspension is 0.07mm stainless steel wire. All of this weighs in at a reasonable 5g so most arms should have no problems in balancing out at the recommended 2g tracking weight. Recommended cartridge loading on the phono stage is 100 ohms, which seems to be a fairly standard figure these days, so should make for easy equipment matching.

The body had well defined edges, and the cantilever was clearly on view so alignment was a very



straight-forward affair.

I initially used the 'visitors' Hadcock 242 Cryo arm on the Sondek for running in and a lot of the listening. It is a unipivot design that simply unplugs from the base and lifts off, allowing another to take its place, so I have one arm set up with the resident MusicMaker MkIII, and another equipped with my 78 rpm modified Denon DLI03. Afterward, the cartridge found itself attached to the Clearaudio Carbon Satisfy arm on the Master Solution turntable.

"there's no denying that the AT-F7 is a real fan of rhythms..."

It visited at the same time as I was doing the phono stage group test elsewhere in this issue, so ended up as part of the procession of turntabular items that have been wandering around my house for the last few weeks!

## SOUND QUALITY

After setting the F7 up I cued up the first disc and was unsurprised to find a very tight, rather hard and edgy sound. I went and made a cuppa and came back in time to change the record. A couple of sides later and things has noticeably improved.

The bass had got going and was beginning to stretch its legs a bit. After a couple of hours things had started to balance out and the tightness began to ease somewhat, to reveal a very crisp, spry and open performer.

Over the next week the F7 found itself plugged in to all of the phono stages discussed this month as well as the resident GSP Audio Revelation (Sondek) and the Leema

Agena (Clearaudio deck). After, I would estimate, about forty hours use, the sound seemed to be stable enough, although I've found Audio Technica phono cartridges, rather like Honda motorcycle engines, can never have too much running in!

With such a variety of equipment around it became very easy to pinpoint its key characteristics that will not alter with time. One was the detailed and good sized image that the cartridge produced with both stereo and mono records. The two channel image was very precisely framed by the speakers, but seemed



to extend quite well forward into the room. Lead vocalists and instruments were positioned ready for my inspection, each occupying a well defined area.

Mono records were well treated in this respect, with the perception of a layering of the performers, so although they were grouped within the centre two thirds of the soundstage, each still felt as though they were individuals, not the amorphous mass that sometimes occurs when playing older records.

Fine midrange separation allowed a lot of insight into the nuances of a piece, be it the subtleties of Moira Lympny's touch on the keyboards playing Chopin's Twenty-four Preludes, or the delicate thoughtfulness of the Halle and Barbirolli playing Delius's 'In A Summer Garden'. Having said that I did find that the cartridge began to get a little crowded when playing heavier orchestral pieces. To be honest I didn't really feel that there was enough passion in the F7's rendition of classical music. Less complex passages were, as I have said, beautifully detailed, but just a little detached at the same time. As per many Audio Technica moving coils, there's always something of the cerebral about the sound.

Keeping the classical theme going I updated things to a Speaker's Corner 180g re-release of

The Jacques Loussier Trio's 'Play Bach I'. The gentle 'swinging' of Johann Sebastian was far more suited to the F7's presentation. Bass flowed along with good depth and a quite merry tunefulness. I found myself focusing more on the detailing of the frequency range than

I normally do. This was partially because of the definition given to sounds, and partly because I felt that there was a spotlighting effect on certain aspects of the tonal spectrum. Small sounds such as brush strokes on a snare, or the usage of the bells on a tambourine were picked out quite clearly. Pierre Michelot's bass line was described with a gentle sway that was beguiling.

The fluid roll to the bassline came across during Massive Attack's 'Karmakoma' on the 'Protection' LP. It just ebbed easily, with a rolling gate that was very relaxing. Since the F7

seemed happier with rhythmic music I went for a wander through the pop collection and it found itself tracking various fifties and sixties singles and long players. The timing of the sound causing me to get into the 'just one more track before I go to bed' headspace, which I am sure all music lovers have experienced some time in their lives! There's no denying that the AT-F7 is a real fan of rhythms.

Tonally, this new cartridge is vintage Audio Technica moving coil, inasmuch as it has a 'well lit' upper midband and treble. Obviously this suits some systems more than others; I felt that my attention was being drawn away from the mass of midrange information flowing towards me and being focused always to the upper frequencies. The spotlight effect could be quite interesting with some records, but it was a double edged sword, providing a bit too much detail about non musical sounds, such as the condition of the groove wall. Even the Loussier LP, which is a mint condition record, bought new only about three years ago, displayed the odd bit of crackle which it certainly didn't do when played with either the Ortofon or the Musicmaker III. Both are quite honest transducers, but neither have the same detail in the top end that the Audio Technica possessed.

Trying different phono stages only partially

ameliorated this. I found there was a better synergy between the softer sounds of the Astin Trew AT8000 and the gentlemanly nature

of the ANT Audio Kora 3T, than with

the less forgiving Icon Audio PS 1.2 Signature or the Microgroove Plus. Trying different impedance settings on those stages so equipped, altered the tonality slightly, but not enough to win me over completely.

Such a detailed display of the groove contents will delight some and have others backing away, describing it as too bright. It's

certainly ideal for those who feel that their vinyl front end is a little lacking in detail and projection, or tonally warm like a classic Linn Sondek.

Others though may prefer the softer all round nature of Ortofon's Rondo Red, for example, which is ultimately less capable in terms of information retrieval and tracking ability, but an altogether more relaxing listen.

## CONCLUSION

At its price point, this cartridge offers good performance, although I have little doubt that the more expensive OC9 ML3 offers a more sophisticated take on things, and would be worth the extra money if you regularly play Beethoven or Wagner. If your tastes are more towards guitar driven sounds then have a listen, but be a bit wary if your records are past the first flush of youth.

The sound of Audio Technica's new AT-F7 is a bit like Marmite. Those who like it will probably have an ongoing love affair with it, those who don't will find it a touch too spicy to take. In its own way, this is an exceptional cartridge at the price, but it's not for everyone all the same.

Thanks to Sound Hi-Fi for providing the review sample. See panel for contact details.

## VERDICT

Pacey, punchy, crisp and detailed performer but some may find it too explicit for their tastes.

## AUDIO TECHNICA

AT-F7 £299

Sound Hi-Fi

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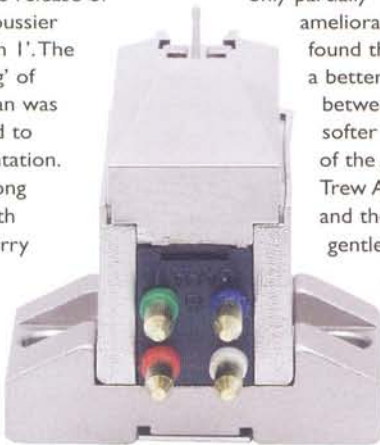
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## FOR

- detail retrieval
- imaging precision
- tuneful bass
- secure tracking

## AGAINST

- well lit upper midband



## MEASURED PERFORMANCE

Our frequency response graph clearly shows the AT-F7 measures flat within tight 1dB limits from 24Hz to 9kHz, making it very accurate in its basic tonal balance. There is the usual rise in output at high frequencies due to tip mass resonance, resulting in +2dB plateau lift from 10kHz to 18kHz, just enough to give the sound a little extra high frequency zest. Compared to many rivals though this is a restrained increase and subjectively is likely to be obvious but not intrusive. Inner groove losses (red trace) were acceptably low, amounting to 1dB loss at 10kHz, resulting in a net flat response to 16kHz, a nicely balanced result.

Tracking ability was exceptional, the cartridge staying confidently in the groove even at a torturously high 25cms/sec at 1kHz, a rare result. At lower frequencies the cartridge cleared a high 90µm peak amplitude, the most difficult test available. So the AT-F7 is a top tracker, able to clear the most difficult test tracks. In a likely trade off to get these results, coil turns have been reduced to minimise effective tip mass, resulting in low output of 0.4mV at 5cms/sec rms; Ortofon's manage almost double this. So the AT-F7 needs a quiet preamp with plenty of gain.

Distortion was low both laterally and vertically, the latter due to correct

measured vertical tracking angle of 23degrees; most cartridges measure out too high here at 30 degrees or more.

The AT-F7 measures very well all round, but it has low output. It will however, give a smooth, confident sound, possibly bright. NK

Tracking force	1.8-2.2gms
Weight	5gms
Vertical tracking angle	23degrees
Frequency response	20Hz - 20kHz
Channel separation	27dB
Tracking ability (300Hz)	
lateral	90µm
vertical	45µm
lateral (1kHz)	25cms/sec.
Distortion (45µm)	
lateral	0.5%
vertical	1.2%
Output (5cms/sec rms)	0.4mV

## FREQUENCY RESPONSE

