

ARCAM DT91 £450



This new tuner is well made and finished. The front panel has the best display of all the tuners reviewed. The centrally mounted logic switching rotary knob which can scroll through the display functions is a delight, being well weighted and a pleasure to use.

Internally the Arcam utilises a Radioscape DSP and routes both DAB and FM through it. Thus you can have analogue and digital outputs for both FM and DAB! Digital signals are taken through a Wolfson 8740 DAC for which Arcam have paid special attention to the clocking circuitry for better sound. The Arcam's digital sampling rate for DAB is 48kHz and for FM, 32kHz. The Arcam uses a linear power supply from a toroid transformer that has separate windings for its digital, analogue and display sections.

At the rear panel are two sets of phono socket outputs, an F-Type aerial socket, gold-plated electrical digital out, optical digital out, remote-in socket, RS232 port, an opening labelled –'program', voltage indicator and IEC mains socket. Casework is aluminium with a thick damped steel base-plate at the bottom, and the aluminium front plate is in three parts, the main panel being a gently curved C-section flanked by two matching end caps. Vital statistics are 435x320x83mm and 3.6kg.

SOUND QUALITY

On Radio Two FM, vocals and speech had a nicely rounded and smooth delivery. While also being natural, speech didn't have that plummy that some tuners have when their electrical design is tailored to sound rich and weighty. For

music, the bass was deep and sonorous while there was a nice overall spatiality to the sound.

The Arcam proved to be continually listenable. On Radio Three FM, the sound had a sustained warm presentation and had a rather nice liquid quality. It was very good actually with fine vocal ability and depth. Strings from the orchestra were lush and expansive. On Radio Two DAB 128kbps, the Arcam was open and dynamic in comparison to the FM section, minimising the trademark DAB splashy sibilant presentation, revealing a slightly rolled off treble. On Radio Three DAB

192kbps, speech was good while the music boasted better than average instrumental detail. I could still discern the typical DAB compression though, but it was not so evident - I was really impressed with the Arcam's sound via DAB as it wasn't only listenable but enjoyable too!

The Arcam is a great all rounder, doing everything to a very high standard. It doesn't offer the best outright DAB and/or FM sound, rather its skill is the way it brings extremely listenable sonics together with superb styling and ergonomics. As the strap line goes, it's 'reassuringly expensive' and no less classy.

MEASURED PERFORMANCE

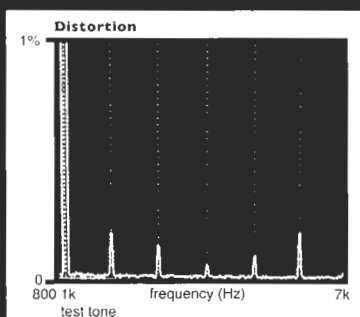
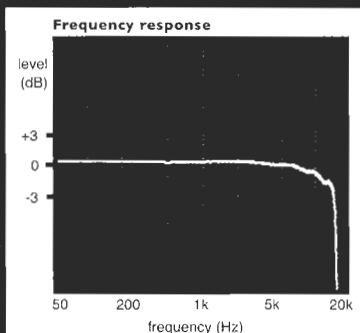
The DT-91's vhf/fm section gives identical results to those from the Cambridge, both using an unusual and, in some areas, advanced chip set from Radioscape. This is software radio, of a form. The bad news here is that the DT-91 is noisy by vhf/fm standards, measuring a poor –63dB hiss (IEC A wtd.). This is 1dB worse than a Leak Troughline from the 1960s and 17dB worse than a Hitachi FT-5500 from the 1980s.

Whilst channel separation was almost infinite, there was some distortion in the quiet channel. However, one has to take a view here; there was no pilot too, so none of the intermod. it raises through non-linearity. Harmonic distortion levels were mediocre at 0.3% but the distortion residual was distinctly digital, unlike that of the Pure. Note the extended harmonic spectrum – not nice. Frequency response was flat, our analysis shows.

The DT-91 was, however, fantastically sensitive, hitting full quieting (i.e. minimum hiss) at just 22uV, and with a stereo sensitivity of 14uV. With a poor aerial the DT-91 will be quieter than rivals, except the Cambridge, by a country mile. A very mixed bag then. NK

Frequency response 10Hz-10.5kHz

Stereo separation	70dB
Distortion (50% mod.)	0.28%
Hiss (CCIR)	-63dB
Signal for minimum hiss (50ohms)	22uV
Output	0.87V
Sensitivity (50ohms)	
mono	1.4uV
stereo	14uV
signal strength meter:	reads up to 6uV



VERDICT

Arcam
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 www.arcam.co.uk

FOR

- build, operation, finish
- warm, engaging sound
- flatters DAB

AGAINST

- cheap control buttons