

# Technomate TM-7100 HD

## A great box, but what's the difference?



*Designed in Britain, the Technomate TM-7100 HD is a satellite PVR with a big difference. Able to receive and record both DVB-S and DVB-S2, high definition broadcasts with two smart card slots and space for two CAMs, this box could receive just about any digital satellite channel you can throw at it. All great, but what's the difference? The third tuner is the key: on top of all this it enables the 7100 to receive DVB-T digital terrestrial broadcasts!*

From the first look out of the box, it's clear the 7100 is a true heavyweight contender. Our review model has a sleek black case (it's

also available in silver) and weighs in at 3.5kg – there's a lot of electronics to pack into the case. The remote looks the part too with a

matching glossy black finish. The number of buttons looks daunting at first, but they're logically laid out and soon become easy to remember.

The back of the receiver comes jammed with a full range of connectors to cover just about any situation. There's HDMI and component video for high definition, two SCARTs through to the old-tech composite video and a UHF RF modulator. It's good to see that these latter two are still included – even though their picture quality is much poorer, they still have their uses even in the 21st century. Dolby Digital Plus surround sound is available via the digital S/PDIF



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Available online starting from 2 April 2010

connector and two RCA cinch ports are present for stereo audio. There is also a USB port at the back and another under the front panel, RS232 for software upgrades, and an Ethernet LAN port. The latter one is something of a mystery, as there are setup options for it in the receiver menu, but no mention in the manual of what use it can be given.

### Installation

So when we first get the receiver out of the box, how many of us can't say we just want to get it plugged in and working as soon as we can? Who really reads all the way through the manual first? For us impatient people, the first few pages of the manual contain an Easy Installation Guide. Several common configurations are listed, from a fixed dish to a USALS motor-

ised system or even a mono-block LNB. The receiver comes pre-programmed with 25 satellites and 1500 default channels, so getting a picture on-screen can be as simple as plugging in, selecting your language and the satellite your dish is pointing at.

It's best though to do things properly, and the easy to follow setup menus give plenty of options for the dish connection. The most basic setup is to use a single LNB connected to tuner 1, and loop it though to tuner 2. More flexible recording and playback options can be had from using a twin LNB to feed both inputs. Alternatively, two independent dishes could be used on each tuner. Add DiSEqC options to all this and you have a very flexible system that should

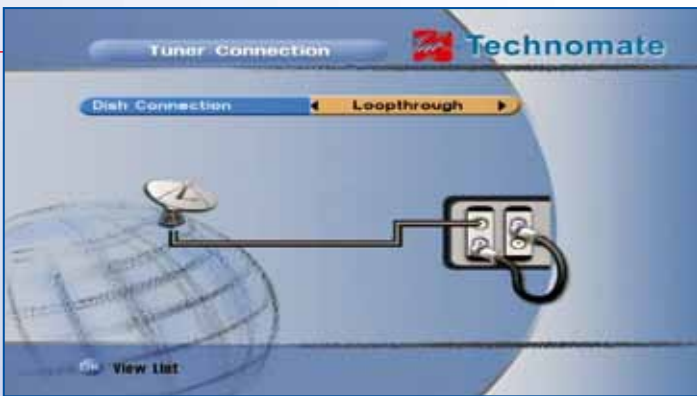
cater for almost everyone's needs.

Scanning satellites for all the channels out there is often a tedious process, but the 7100 has a clever auto navigation function to make it a bit less painful. Once we have our list of receivable satellites set up with all their associated DiSEqC and LNB options, we can head off to the auto navigation menu, select which ones we want to scan and away it goes, scan-

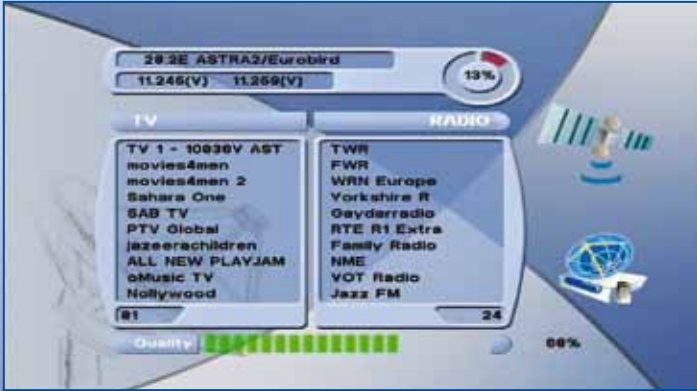
ning each one in turn. It's a far cry from the old days where we had to go to each satellite in turn, scan for channels, drink some coffee, wait forever, go to the next satellite, scan for channels, get caffeine overload, and so on for the rest of the day.

Scanning can be restricted to just free channels if you aren't going to be receiving anything that is scrambled, or to just TV channels if you're not interested in listening





Tuner connection options menu



Blind scan in progress



Terrestrial scan menu



Terrestrial scan in progress



Channel list

to radio. Scanning speed is good – a full scan of Astra 2 takes just under 6.5 minutes to find 117 transponders. A network scan can be used to get all the transponder data and pick up additional ones not already present in the receiver's memory but this nearly trebles the time taken. There's a quicker option for the viewer who needs to find everything ... blind scan! Once just for enthusiasts, the blind scan can now work fast enough to be a viable alternative to scanning the pre-programmed list of transponders.

Over the same satellite, the blind scan takes 10 minutes 20 seconds. Not too big a difference over a well-populated satellite, and quicker than the network scan along with the reassurance that everything you can receive is really there. Again, we can restrict the search to only free channels, and additionally set a frequency band to be scanned for those satellites that don't use the whole spectrum. Auto navigation is even available here too making the blind scan a true alternative to the traditional method. With blind scanning becoming fast enough to rival pre-programmed transponders, how long will it be until this becomes the standard way to scan a satellite?

While we're still setting up, it's a good time to look at the third tuner in the box. I had been concerned that my first experience of satellite and terrestrial in the same machine might be reminiscent of the early days of digital satellite, when it sometimes felt like we had two almost unconnected analogue and digital receivers in the same box. But here the implementation is reassuringly simple. There's

a separate terrestrial scan in the installation menu which gives us the usual choices – scan all UHF channels or a single one.

At my location we have a whole two transponders to receive so it's quicker to scan them individually. Or if you are as lazy as me, input the first and use the network scan, just like on satellite, to pick up the other. Later in the year when we are given a third transponder to play with, it would save me even more button pressing! Of course, if you don't have your local channel numbers to hand, a scan over the whole UHF spectrum takes just 2.5 minutes.

Once scanned into the receiver, the terrestrial channels appear in the channel list alongside their satellite counterparts. The list can be limited to a specific satellite using the SAT key, and here the terrestrial channels appear as if they were on a satellite of their own – simple. The list can also be sorted into A-Z order or filtered by the first letter of the channel name. Navigation around the list isn't quite the most user-friendly experience it could be, but it gets easier with experience.

## Everyday use

Dealing with hundreds of channels off multiple satellites makes a favourites list invaluable, and the 7100 has sixteen sets of favourites to use. The groups come pre-named as high-definition, sports, movies etc., but these can be renamed as required. Pressing the FAV button while watching TV brings up a channel list filtered by the last-used favourites list. This filter setting remains and is used by both the channel list and the

EPG until changed again later – just how it should be.

The EPG is clear and easy to use. I found using the favourites system the best way to navigate the channels but we can also view channels by individual satellite as with the channel list – including just the terrestrial channels. The EPG for satellite channels is as always limited to the now and next shows, but for terrestrial a full seven days can be seen. From here future shows can be added into the timer for viewing or recording. After selection here they are available in the 32-event timer screen, accessible from the EPG.

With three tuners to record from, some serious recording weaponry is needed. Our review machine was supplied with an internal 500GB hard drive. The manual gives clear instructions and pictures showing how to install or upgrade the internal drive, which can go up to an enormous 1 terabyte in size. Now

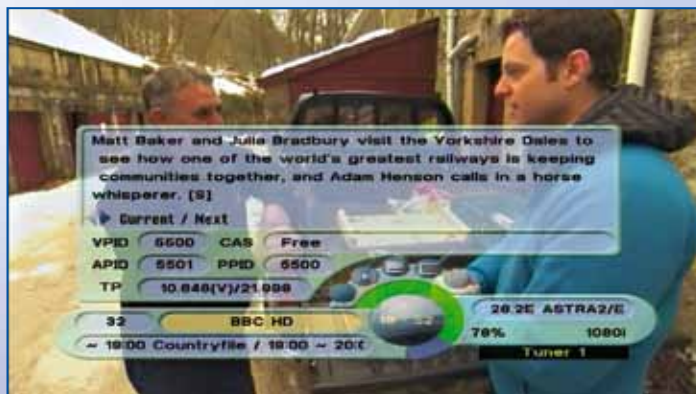
surely even I couldn't run out of space with that much at my disposal, although I do like a challenge. If I ever did achieve that, there's no need to panic: the receiver can be set to record to a USB drive and recordings can be archived there also.

All three tuners can be recorded at the same time, and there's usually no slow-down in the receiver's operation while this is happening. I've successfully recorded from all three at once, including an HD channel, and watched an HD recording at the same time.

There's sometimes a little bit of a jump when a recording starts, but apart from that it's very smooth. When recording has used up all the available tuner capacity, an alternative channel can be still viewed from a transponder already in use. Helpfully, the channel list and EPG show channels unavailable for this reason in grey – selecting one gives the



EPG |



Programme info |



Recorded programmes list |



Recorded file editing |



option to stop the conflicting recording or abort the channel-change. Similarly, in the EPG menu a polite message asks you to remove a show from the timer if you want to record one that conflicts.

Time shifting is available too. This can be achieved manually by pressing the pause button, or can be set to automatic with a buffer of between ten minutes and a huge two hours. Overall the recording system seems to work very well, I did however seem to cause a few problems when removing scheduled recordings to make way for another, the show that was eventually recorded had the name of the one that was removed. A little confusing, but at least the edit function allows recordings to be renamed.

Whilst the receiver isn't able to do the type of "series

link" that can be found on proprietary systems like the Sky Plus, once an event has been put into the timer it can have its frequency changed from a once-only recording to weekly, daily or Monday to Friday. The recording functions are rounded off with a basic editing function. Portions of a recording such as commercials can easily be chopped out, which is great to use before archiving the recording onto disk.

### Extra Features

The 7100 has some more useful features up its sleeve. Possibly most important in the energy-conscious times we now live in, is a power saving standby mode. When chosen, it turns off the SCART and RF modulator loops and the front display. As you can see from the

power consumption graph, this makes a dramatic difference with power consumption in standby going down to just 0.01 amps.

There's also an MP3 player that can play files direct from a USB device, or copied onto the main hard drive from the disk menu. It's well designed, and looks something like the Winamp player on a PC. There's also a JPG picture viewer and the familiar Snake, Tetris and Sokoban games. The games menu also includes a calculator, just in case you need to do some armchair hex-to-dec conversions!

Menu language choices are good – in addition to the major western-European languages, Arabic, Persian, Turkish, Romanian and Czech can also be chosen. Subtitles are also available, via both DVB and teletext

– the latter available both through the receiver itself or passed through to the TV's text decoder.

### Summary

Overall, this is a great receiver. The addition of DVB-T adds much to the receiver's reception flexibility, what a pity it isn't a worldwide standard so those in the Americas can't take advantage too. It also won't receive DVB-T2, which could render future terrestrial broadcasts out of its reach.

But apart from this, the wide range of connection options, access to huge amounts of hard drive space, the ability to record three broadcasts at once, and an opportunity to save precious electricity make this a great choice of receiver. I found some of the menus a little hard to navigate at first – a little polishing here could



MP3 player



Power save option



help, and the manual is just a little too basic after the initial set up pages. But a little experience helps a lot – a day or two of experimenting teaches you all you need to know.

The sensitive tuner and speedy blind scan might also give it a good home in the enthusiast's set-up – the auto navigation makes it great for a little unattended feed-hunting. Video and

audio quality are as good as we've come to expect from an HD receiver with a digital sound output. The biggest problem now is harder to get around. Technomate don't yet make an accom-

panying machine to expand the number of hours in a day: all this TV, all this hard drive space to fill, until such a device appears I think I'll need to miss a lot of sleep to keep up with it all.

## Expert Opinion

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Two satellite tuners, one digital terrestrial tuner, great connectivity, large hard drive and USB support, power saving standby mode

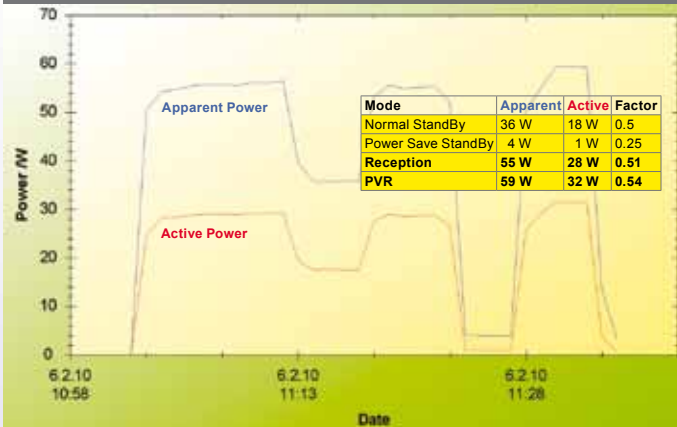
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Occasional instances of confusion in the recording system, some menus harder than necessary to navigate, basic manual



Andy Middleton  
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## ENERGY DIAGRAM



Standby twice: first time normal standby mode, second time with power save option turned on

## TECHNICAL DATA

Distributor	Technomate Ltd, Unit 11 Nobel Road, Edmonton, London, N18 3BH, UK
Tel.	+44 20 8884 0545 / + 44 20 8884 0701
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Homepage	www.technomate.com
email	info@technomate.com
Model	TM-7100 HD Triple Tuner PVR
Satellites	64
SCPC compatible	Yes
USALS	Yes
DiSEqC	1.0/1.1/1.2/1.3
Scart connectors	2
Symbol rates	DVB-S: 2000-45000
DVB-S2	10000-30000 (QPSK & 8PSK)
Terrestrial range	170-230 & 470-862Mhz
Carrier modes	2K & 8K hierarchical/non-hierarchical
MPEG2 modes	MPEG-2, MPEG-4, H.264
Audio outputs	2 (left & right)
Video outputs	Composite, Component, HDMI, RF modulator
Resolutions	1080i, 720p, 576i, 570p
UHF output	Yes
0/12 volt output	No
Digital audio output	S/PDIF
EPG	Yes
C/Ku-band compatible	Yes
Power supply	100-250V AC, 50/60Hz

