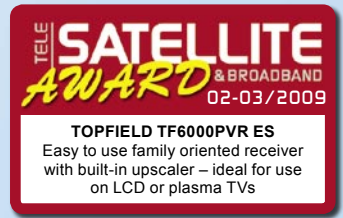


Topfield TF6000PVR ES

Beauty Inside and Out



High definition TV has started its triumphant victory parade. But if you take a look at the statistics from www.SatcoDX.com, you'll see the disappointing reality: HOTBIRD, for example, at 13° east has a grand total of 29 HDTV channels compared to the 1355 SDTV channels in PAL. There are many reasons for this but it is mostly financial in nature; bandwidth costs money and if a provider is already offering service in SDTV, they would only offer HDTV as an added feature. For the end-user this means that despite having a modern flat screen TV, he will still be watching SDTV channels and should it be a large TV, the picture quality might not be so nice.

This problem was recognized by the South Korean manufacturer Topfield. They came up with a very clever solution with their new TF6000PVR ES. It is very similar to the TF6000PVRE except for one decisive feature: the upscaler.

The upscaler takes the incoming signal and increases its resolution by interpolating the missing pixels such that there no longer is any raster, something that would be unavoidable with a simple increase in resolution. We wanted to put this receiver through a thorough test to see how good this feature really worked.

When we opened the box we noticed that the TF6000PVR ES was not quite as wide as we were expecting. While the pre-



decessor model TF6000PVR came in a rack-compatible 43cm width, the TF6000PVR ES was only 38cm wide. But this smaller size did not take away any of its elegance.

In the center of the front panel is a very easy to read alphanumeric VFD display; next to it are three buttons for receiver control should the remote control be absent. The four buttons for volume control and channel switching were placed in the form of a silver-colored circle. This together with the blue-glowing Standby button looks quite impressive.

Behind a flap on the right side can be found two CI slots for PayTV reception. They can accept all of the typical modules such as Irdeto, Viaccess, Seca, Conax, Nagravision or Cryptoworks and work together without any problems. As we've come to expect, the rear panel of the TF6000PVR ES shines with a variety of connection possibilities. In addition to the satellite IF input and looped-through output of the two tuners, you will also find an HDMI output, two Scart connectors, three RCA jacks with video and stereo audio outputs, an S-Video output, an optical digital audio output, a USB 2.0 jack and last but not least an Ethernet interface. Though not used all too much anymore these days, an RS-232 interface is nonethe-

less also available for connection to a PC.

The included remote control sits very nicely in your hand and is properly labeled with all the buttons within easy reach. And, similar to the receiver itself, we also liked the craftsmanship of the remote control. The user manual, as expected from Topfield, is very clearly written, sufficiently illustrated where needed and answers any questions that could pop up while using the receiver quickly and in an uncomplicated manner.

Everyday Use

After turning on the receiver for the first time, the new Topfield box begins by displaying the Main menu and thereby requires the user to set up the

TELE-satellite World [www.TELE-satellite.com/...](http://www.TELE-satellite.com/)

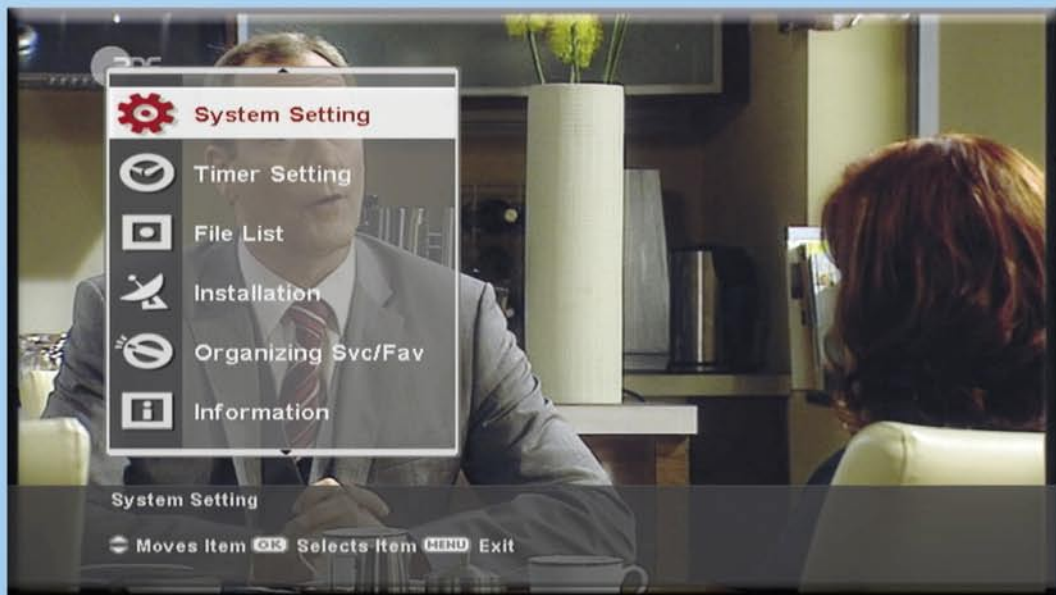
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Swedish	Svenska	www.TELE-satellite.com/TELE-satellite-0903/sve/topfield.pdf
Turkish	Türkçe	www.TELE-satellite.com/TELE-satellite-0903/tur/topfield.pdf

Available online starting from 30 January 2009

box to his specific needs, such as matching it to his antenna system, before using it for the first time. There is no installation assistant but in reality it really isn't needed since the menu structure of the Topfield is very logically laid out such that even a beginner should easily be able to find his way around.

The first order of business would be to set up the OSD language in the system settings. The TF6000PVR ES comes with quite a selection to choose from: German, English, French, Spanish, Arabic, Greek, Turkish, Danish, Swedish, Norwegian, Dutch, Polish, Persian, Finnish, Czech and Bulgarian. Once the language



The TF6000PVR ES's nicely arranged main menu



has been selected, the user can move on to the individual menu entries.

Just like every other satellite receiver, the TF6000PVR ES can also set the time automatically via satellite. Unlike most of the competitor models, Topfield provides a number of different setting possibilities. For example, the source of the time adjustment can be limited to encrypted channels or even individual transponders. Unfortunately, this feature is necessary considering that many providers other than the main DTH positions don't necessarily include the correct time with their transmissions thus confronting the receiver with incorrect time information. Even standard time and daylight savings time can be activated or deactivated with the push of one button; you no longer have to worry about the offset from GMT. Of course, the time and date can also be set manually. The TF6000PVR ES operates with a real-time clock – it keeps the correct time even after a power outage and, unlike other receivers, will still automatically start timer recordings after a power outage.

Thanks to the integrated

upscaler, the TF6000PVR ES is ideally suited for use with modern flat-screen TV's. The box comes with an integrated HDMI output with which the receiver can upconvert the video signal to 576p, 720p or 1080i. To make it even easier, the user can make these adjustments using a dedicated button directly on the remote control without having to first muddle through several menu pages.

If you still want to connect the new Topfield box to your TV with the Scart outputs, you have RGB, CVBS, S-Video or YUV at your disposal. The picture display can be set to 4:3 as well as 16:9. Additional display modes are available for 4:3 content viewed on a 16:9 TV. PAL and NTSC are supported as is the automatic switching between the two so that US TV reception in Europe and vice versa is not a problem at all. Thanks to the integrated upscaler, it is also possible to adjust the size of the picture +/- 20% so that the image can be perfectly matched to whatever TV is in use.

Once all of the settings have been taken care of, the receiver can then be made compatible with the exist-

ing antenna system. The two tuners can be supplied with separate satellite signals – this would be the ideal application – or they can share the same input cable. The second variation comes with significant restrictions on one tuner when recording a program on the other tuner. These restrictions would not exist if two independent satellite signals were used.

The new Topfield comes with a preprogrammed list of 156 European, Asian and American satellites. The more popular positions in the list are quite up-to-date although an overhaul of the inactive positions would not be a bad idea.

We especially appreciated the numerous settings possibilities that naturally could be set up for each individual satellite. There are a number of preprogrammed local oscillator frequency (LOF) values to choose from but if necessary manual LOF entry is also available. This lets you use non-standard LNBs with this receiver. All of the available DiSEqC protocols are integrated so that multiple satellite positions can be received. DiSEqC 1.0 allows reception of up to four satellites, 1.1

can be used on multi-focus antennas with up to 16 LNBs and then there's 1.2 and 1.3 (USALS) for the control of motorized antennas.

Once these parameters have been set, the next step would be to fill up the receiver's memory capacity of 5000 channels (TV 3500, Radio 1500). This task can be handled not only with a manual scan but, of course, with an automatic scan as well with the help of the preprogrammed transponder data. There's also an expanded scan with manual PID entry. Just as with the other scans, a network scan can also be limited to free-to-air-only channels or encrypted channels.

The receiver's channel scan speed was also quite impressive: just about four minutes was needed to scan our 100+ transponder test satellite. Don't forget though that the TF6000PVR ES is not an HDTV receiver and therefore cannot receive any DVB-S2 and/or MPEG4/H2.64 signals. The receiver does however take standard SDTV signals and upscales them so that a much better quality picture can be viewed on a modern LCD or plasma TV.



After scanning one of the larger DTH satellite platforms, it is highly likely that the channel list will be filled with hundreds of channels that the user might not even be interested in because, for example, they are encrypted and are thus not receivable. For reasons like this it is all too important to be able to edit the channel list and set it up the way you want. For years Topfield has been showing the world how this is done and it is no different with the TF6000PVR ES. Channels within the channel list can be easily deleted, renamed, moved or locked out with a PIN code so the kids can't nose around and land on channels not meant for them. The list can be sorted automatically a number of different ways and the more popular channels can be moved to any number of different Favorites lists so that they can be easily found with the push of a button on the remote control.

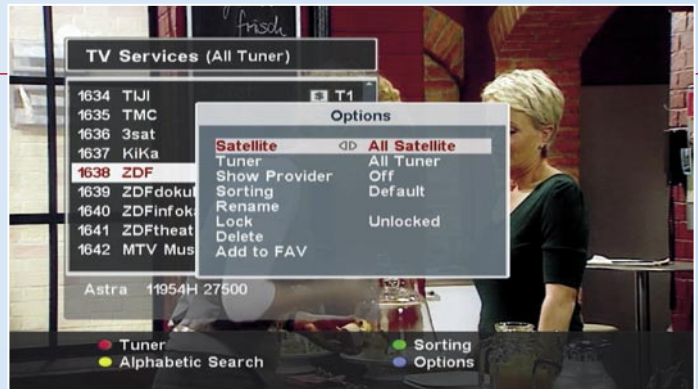
Once all settings have been taken care of and a scan is completed, the user can exit the main menu and the receiver will then switch to the first receivable channel in the list. With the appearance of the first channel, an Info bar also appears momentarily that provides information on the particular channel and its technical parameters and features (DD-audio, subtitles, teletext, encryption, etc.) plus information on the actual program currently running - assuming, of course, that this data is available from the pro-

vider in the first place. This same Info bar also appears when switching between channels.

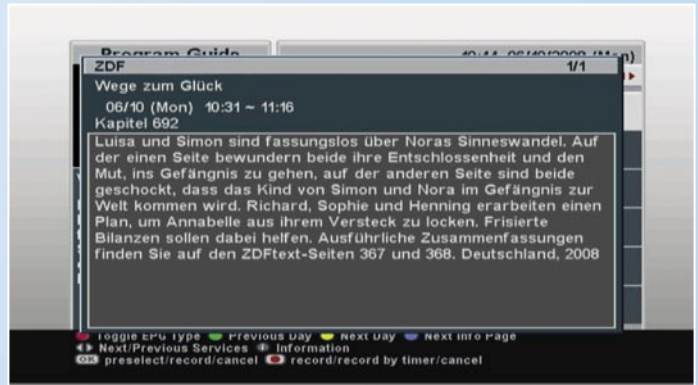
A push of the Info button displays expanded information for the currently running program. The Guide button displays a preview of upcoming programs including detailed programming information for up to a week in advance. Again, this all assumes that the provider makes this data available. There are also two display modes that the user can choose from. Especially practical is the ability to program timer recording entries directly from the EPG. All it takes is the push of one button to mark a program for recording.

Topfield's detailed channel list can be accessed simply by pushing the OK button. There are numerous sorting and search modes that let you easily find the channel you want. If necessary, the user can choose which tuner to receive the selected channel or the choice can be left to the receiver. The latter option might be a better choice if a recording is currently active. The switching time between channels is quite good and even if the two channels are not on the same transponder, the switching time is still reasonable at about one second.

The tuners used by Topfield have an excellent input sensitivity and don't have any problems with weaker signals such as those on ASTRA2D 28.2°



Channel list with multiple settings capabilities |



Expanded EPG Information |



Info bar |

east or NILESAT 7° west. We were also happy with the receiver's SCPC capability; it locked on signals starting at 1.0 Ms/sec and displayed an interference-free picture. We haven't seen too many receivers in our test lab that could master the difficult RSP chan-

nel on EUTELSAT SEASAT 36° east with a symbolrate of only 1.0 Ms/sec.

There are still a number of other additional features that perfectly complete the overall picture of the TF6000PVR ES. Included in this list, of course,



would be the numerous programmable timer entries that are available (weekly, daily, weekday or weekend-only recording capabilities are available), the incredible ease-of-use of this receiver, the nicely functioning teletext decoder as well as the numerous practical extras that also are available.

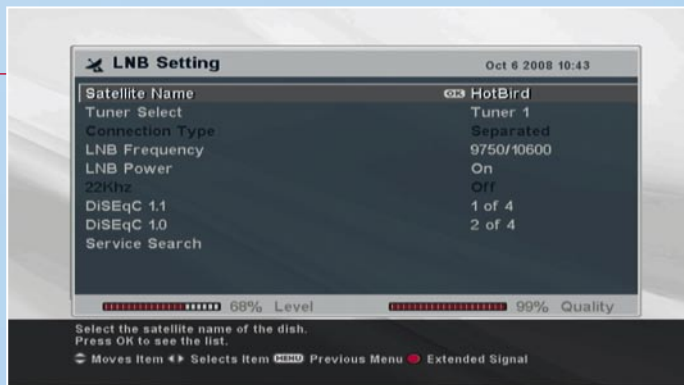
The PVR function is undoubtedly at the top of the list. The receiver can record two channels at the same time on the integrated hard drive and play them both back without any degradation in quality. Thanks to the time shift function, it is also possible to pause a currently running program should there be an interruption such as a ringing telephone. The program can be resumed from where it was left off after the interruption has passed. The bookmark function is also a very practical feature. A specific spot can be marked during a recording with the push of a button so that this point in the recording can easily be found at a later time.

The USB 2.0 and network interfaces on the rear panel provide a link to a Windows PC. Recordings can be transferred to a PC through these two interfaces and from there, for example, can be burned to a DVD. Naturally, data can be transferred in the other direction as well making it just as easy to turn the TF6000PVR ES into an MP3 jukebox by copying MP3 files to the receiver.

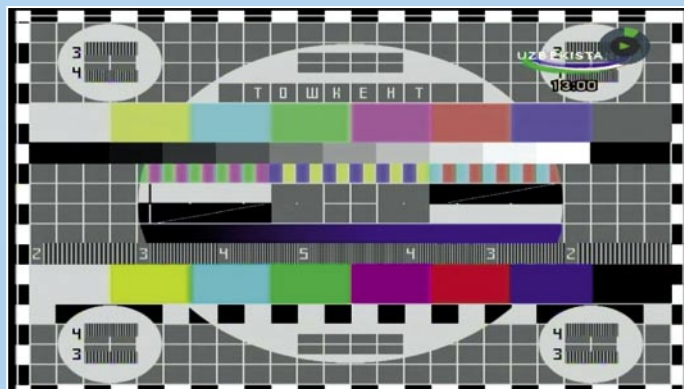
A web and FTP server is available via the network interface with which recordings on the hard drive can be managed. Even timer recordings can be set up directly on a PC. Unfortunately, the data transfer speed via the network interface is a mere 1MB/sec. This could result in lengthier download times for longer recordings. The configuration of the network connection can be handled from the DSL modem or router that is being used since the TF6000PVR ES supports the DHCP protocol.

The receiver's picture-in-picture function is also quite practical. It lets you, for example, switch to a second channel or a previously recorded program while the main channel is in a commercial break. The main channel would then be visible in a small window. At the end of the commercial break, a single push of a button is all that is needed to switch the receiver back to the main channel.

One of the reasons Topfield receivers have been so successful is the freely available TAP interface that allows users to upload home-made expansion software to the receiver. The TF6000PVR ES is no different. Thanks to its hardware similarity to the TF6000PVRE, almost all of the available TAPs should also work in the new TF6000PVR ES. We tested a popular EPG TAP, 3PG, and found that it functioned perfectly in the receiver and compliments the



LNB Settings



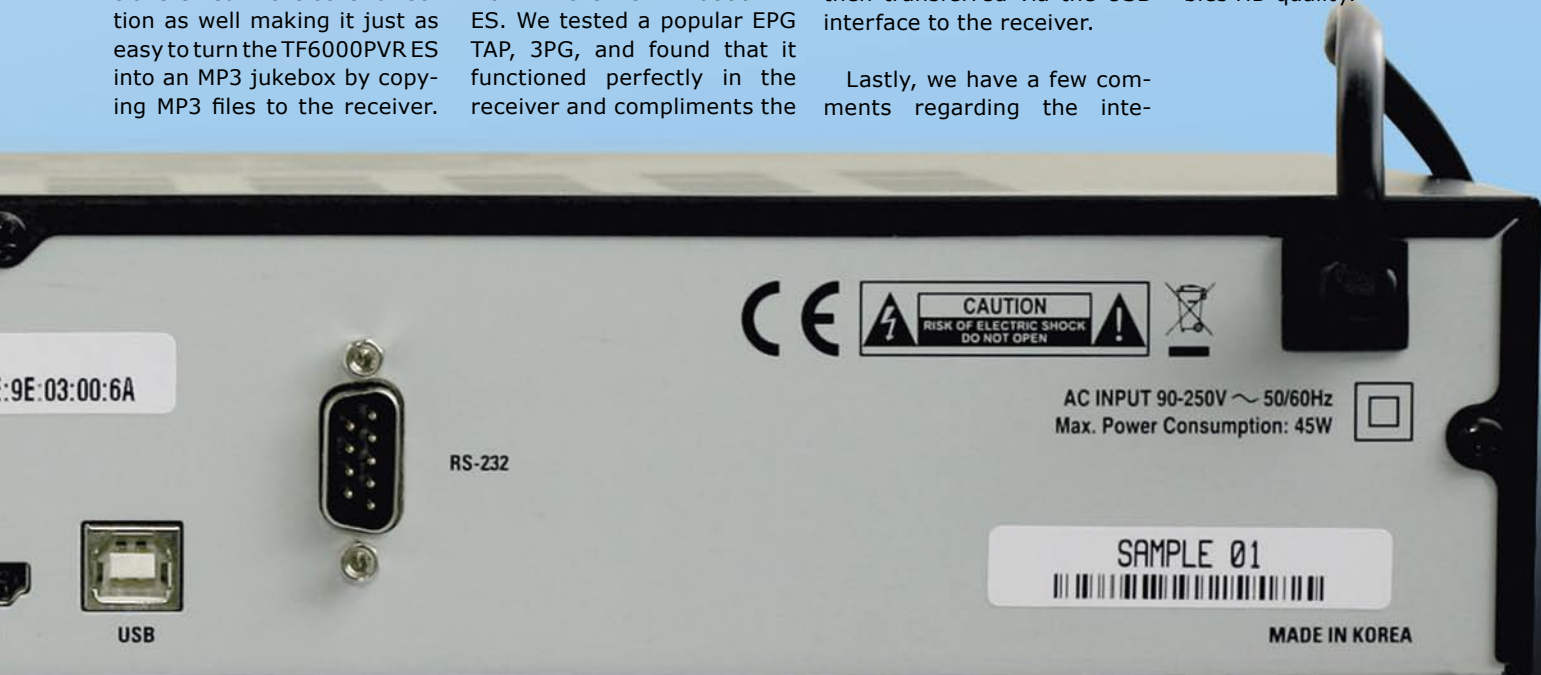
Weaker signal reception such as on EXPRESS AM1 40° east

already excellent Topfield EPG with a number of added features such as the automatic collection of EPG data at a specific time so that this data is always available and perfectly sorted for the user.

Topfield is constantly at work improving their receivers and therefore offers a number of ways to upload a software upgrade. It can be handled via satellite, via the Internet through the network interface or the necessary file can be downloaded from the Topfield website to a PC and then transferred via the USB interface to the receiver.

Lastly, we have a few comments regarding the inte-

grated upscaler. We want to make it clear that it cannot take a weak signal, one with a low data rate, and turn it into a super sharp HD picture. That would be asking too much. But it can improve the picture such that what you see on an LCD or plasma TV would be similar in quality to what you would get on a standard 80cm picture tube TV. Other channels that already transmit in SD with a higher data rate can be processed by the Topfield upscaler and provide a visibly improved picture that the end user would say closely resembles HD quality.



Expert Opinion

+

The TF6000PVR ES is an easy-to-use, family-friendly digital receiver. Thanks to the integrated upscaler, it is ideally suited for use on LCD or plasma TVs and provides visibly improved picture quality. The PVR functions are quite practical and once you use it for the first time, you'll never want to be without it.



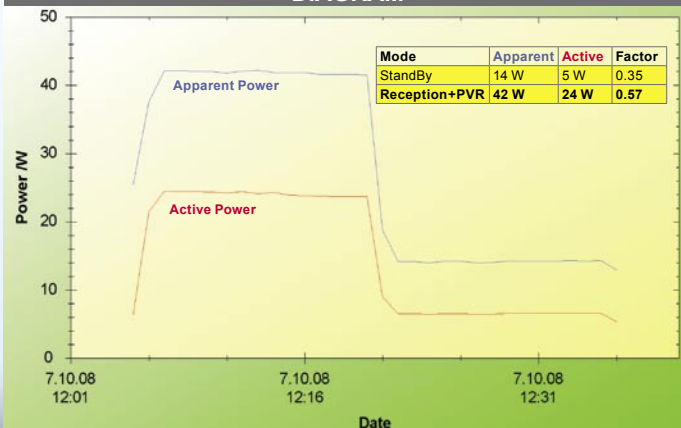
Thomas Haring
TELE-satellite
Test Center
Austria

The available channel memory of only 5000 is somewhat small. A main power switch on the back panel would also have been nice.

TECHNIC DATA

Manufacturer	Topfield, Seongnam/Korea
Fax	+82-31-7082607
E-Mail	inquiry@topfield.co.kr
Model	TF6000PVR ES
Function	Digital SDTV DVB-S receiver with built in upscaler
Channel Memory	5000
Symbolrate	1-45 Ms/sec.
SCPC Compatible	yes (> 1000 Ms/s)
DiSEqC	1.0 / 1.1 / 1.2 / 1.3
USALS	yes
HDMI Output	yes
Scart Connector	2
Audio/Video Outputs	3 x RCA
Component Video Output	yes, via Scart
S-Video Output	yes
UHF Modulator	no
0/12 Volt Connector	no
Digital Audio Output	yes
EPG	yes
C/Ku-Band compatible	yes
PVR-Function	yes
USB 2.0 Connector	yes
Ethernet	yes
Power supply	90-250 VAC, 50/60 Hz
Dimensions	38/26.5/6cm
Weight	3.4kg

ENERGY DIAGRAM



First 15 Minutes: active operation with channel switching, recording, playback, etc. Next 15 Minutes: Standby



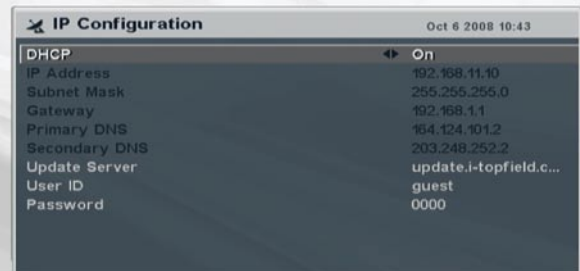
3PG TAP for expansion of the EPG |



Select the HDMI Output Resolution.

← Moves Item → Selects Item [M] Previous Menu

Audio/Video Settings |



← Moves Item [OK] Selects Item [M] Previous Menu

DHCP support for easy network set up |



Renames, Rearranges, Locks, Skips, Deletes specific services.

← Moves to another function. [OK] Moves to Service List [M] Previous Menu [OK] Moves to Service List

Channel list editor |



[OK] Toggle EPG Type [M] Previous Day [M] Next Day [M] Next Info Page [M] Next/Previous Services [M] Information [M] preselect/record/cancel [M] record/record by timer/cancel

Standard EPG