AB IPBox 55HD
HDTV Linux Receiver

● *Receiver allows remote satellite reception with Internet streaming of video and audio*

● *Easy start of recordings directly from EPG*

● *Easy connection to the receiver's software via FTP*

● *Plenty of additional software available, including a most versatile channel editor*

We've seen several Linux-based receivers over the last few years. It is an exciting prospect for most of us to have a powerful and customisable receiving system at our fingertips. Too often in the past though, the cost of all this power gets a little too much. When twin tuners, large hard drives and lots of interfaces are added to the receiver, it ends up being outside the budget of all but the most fanatical or rich satellite viewers. With the AB IPBox 55HD, the new model of Slovak manufacturer AB IPBox, they have taken a different route. While outwardly similar to the AB IPBox 9900HD - see our test report in TELE-satellite 12-01/2011 - , this receiver has just one tuner and no internal hard drive.

The AB IPBox 55HD comes in the same uniquely styled white case with a stylish design of flowers on the front. I still think they are chrysanthemums, although I have no official confirmation of this. The front panel contains buttons to control the basic functions. One of which, accessed by holding down the menu key when powering on is very important. It forces a change of screen resolution when the machine boots up. Although the machine is supposed to choose its output and resolution based on which are connected, I've found myself in the position of having to use this method to regain a picture on screen a few times.

The front panel is completed with a four-digit LED display which tries to display the first four characters of the channel name. It sometimes looks OK, but if you remember back to those old games of trying to make words on a calculator display, sometimes it doesn't really make too much sense.

Under the flap, there is a single Conax card slot – but no USB port. The single USB is found at the back of the receiver. This would be good to keep cables out of the way if a hard drive was permanently connected, but could be infuriating if a drive

News Flash!
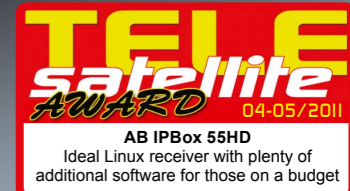## Dual Boot
for AB IPBox 55HD

AB IPBox will soon release a dual boot software for the AB IPBox 55HD: the user can choose between Enigma 1HD and Enigma 2HD. This means the user can simply restart the Enigma 2HD software to the Enigma 1HD within 15 seconds. The big advantage is that the setup files stored in the VAR folder are shared by both software versions. The dual boot feature adds another big bonus to the AB IPBox 55HD.
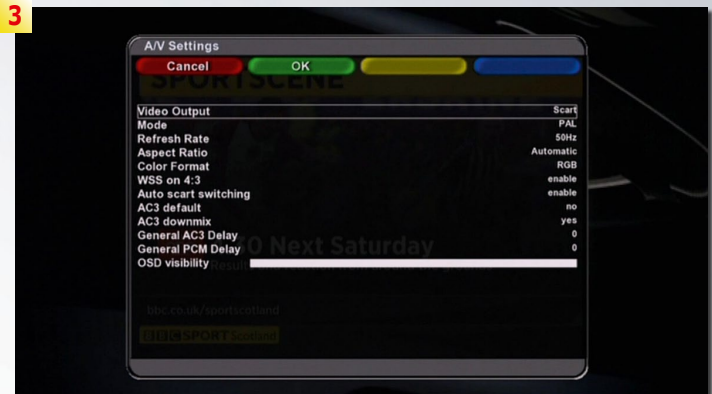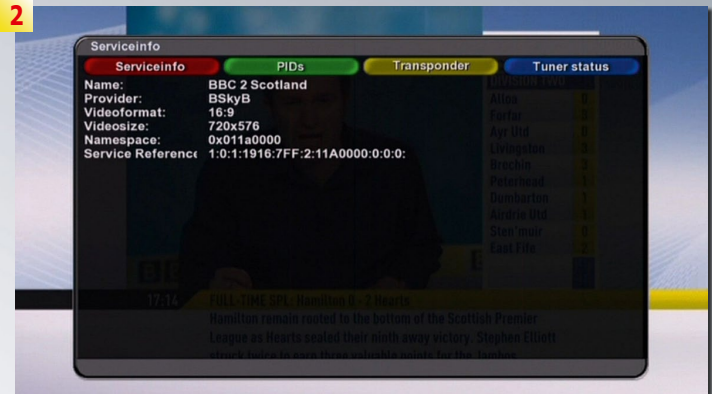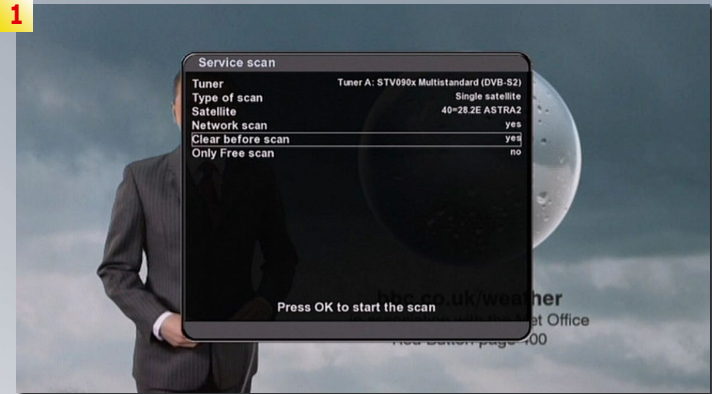
AB IPBox 55HD

eco friendly
Energy Efficiency Rating
0.5
Power factor
tested by TELE-satellite

TELE satellite AWARD 04-05/2011
AB IPBox 55HD
Ideal Linux receiver with plenty of additional software for those on a budget

is shared with other devices. Also on the back panel, there is a single Scart socket, HDMI and SP/DIF connectors for digital video and audio, an HDMI output, and the antenna socket and its corresponding loop-through output. And that's it. Some people might miss a second Scart, or component video, or stereo audio jacks, but the set of connections has been trimmed to only those that are most popular and most necessary.

Switching on the receiver takes quite a while to get the operating system loaded: two minutes or more depending on if a hard drive is connected. The 55HD comes already pre-programmed with settings and channels for packages and satellites worldwide. The world of satellites never stands still though, so there are plenty of options for adding satellites and channels. A full range of DiSEqC controls are present, allowing for fixed dishes, switches and motors. USALS is supported for simple setup from just the input of the receiving location's coordinates.

For a receiver with such a powerful operating system, scan speeds are surprisingly slow. A full scan of ASTRA 2 clocks in at just under 25 minutes. Adding the network scan option to gather any new channels from the providers doesn't add any extra time to the scan.

Pressing OK brings up the channel list which can be sorted in a number of ways. The channel storage system is a little bewildering at first, with channels being arranged in a master list that is not editable – which caught me out again on my second experience of Enigma.

After giving in and referring back to the manual, I am reminded that everything needs to be done through the concept of "bouquets". This term is not to be confused with the sometimes-used definition of a bouquet being a group of channels on a single transponder, or even a bunch of black chrysanthemums. In Enigma-land this is the equivalent of a favourites list. In fact, the standard pre-programmed bouquet is indeed called Favourites.

Whilst channels can be selected and viewed from the master list, taking the time to copy them into a set of organised bouquets makes the whole experience much better. And once the channels are in the list, they can be edited, sorted and moved around as you'd expect. It's quite a long process, but a read of the manual helps you find the best ways to do it for each situation. An even better way is to use some software on a PC to do it – more on this a little later.

1. Scan options
2. Service information
3. AV settings
4. Main menu
5. Antenna setup

AB IPBox

as Formula 1 racing where more than one video stream can be selected.

A picture-in-picture mode is available, and it is much more flexible than most – not only can the secondary picture be moved into a different position on the screen, but it can also be resized. Of course, with only one tuner the choice of channels to display together is limited to the transponder currently in use, or the main or secondary picture can be used to play a recording.

The receiver's standard EPG is a little different than most – the EPG button on first press brings up the information for the current programme, with the arrow keys moving forward and back to the next and previous shows. Pressing blue for "Multi EPG" gives a list of the channels in the chosen bouquet with their programmes listed – again the arrow keys are used

to move to the next programme. For those more used to the grid-style EPG, one is available from either the blue button, which loads extensions or plugins, or by pressing and holding the EPG button. Yes, there are so many functions on this receiver some are even hidden under long keypresses. The "help" button is always a good friend – showing a picture of the remote and a list of available commands.

The EPG is the easiest route into recording onto an external hard drive if one is connected. To be able to hold recordings, the drive needs to be formatted

Navigating channels is nice and easy, although zapping between them using the up and down buttons feels a little sluggish. A recall button is available, and there seems to be a more comprehensive channel history list that could be navigated, although this is only available from the help menu as it has been mapped onto the same key as the less useful function to move between sub-services - those very rare events such

1. FTP via Filezilla
2. Telnet
3. The DreamSet settings editor
4. Web interface
5. Timer access via web interface
6. The web remote

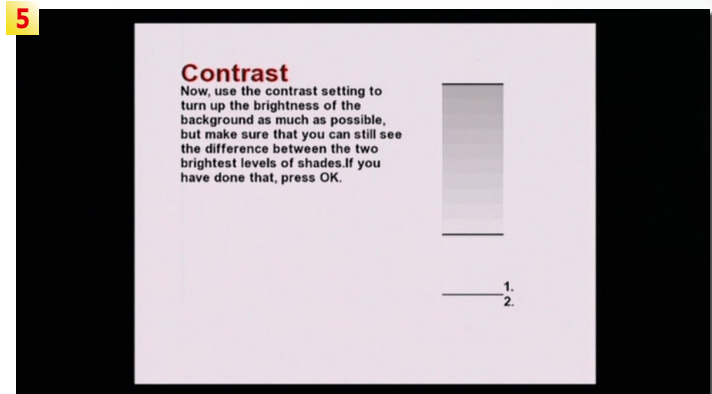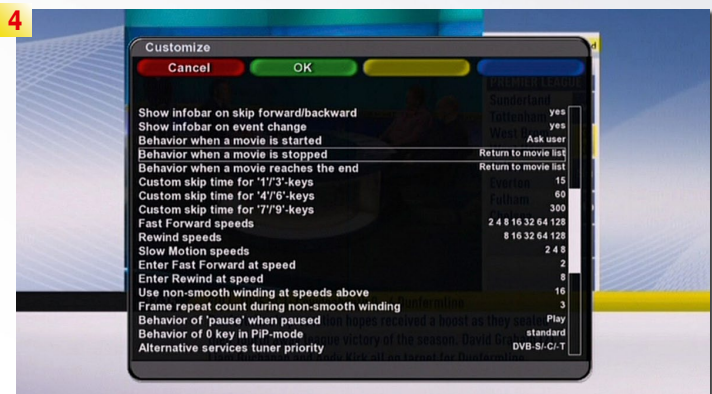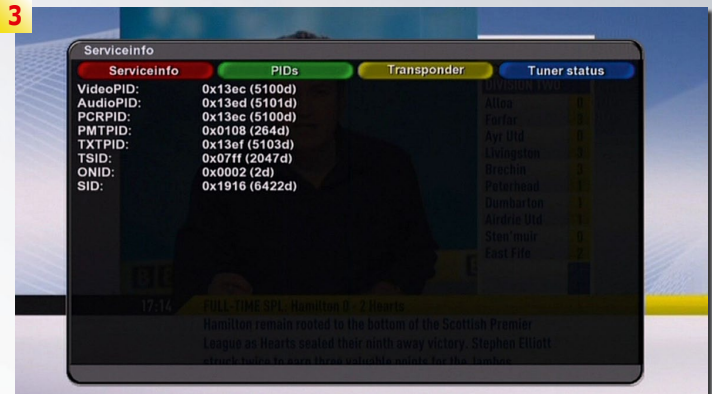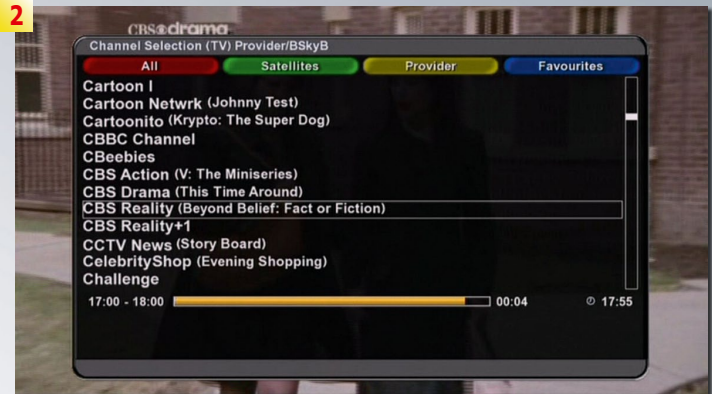in the Linux EXT3 format, which the receiver will do if required When the programme information is on screen, a press of the green button adds it to the timer. The start and end times, repeat recording options and filename can all be changed if required before pressing green again to submit it to the recording schedule. For a quick one-off recording, it's a quick sequence of pressing OK, green, green from the EPG.

It's also worth noting that when specifying the filename here, and in fact anywhere else in the receiver where text input is needed, that the numeric keys on the keypad can be used to input text in the same manner as a mobile phone. Eagle-eyed readers may notice from the pictures that the Q and Z characters are in different positions than on a phone keypad – but in the menus themselves they are on the 7 and 9 keys as they would be on a phone!

Recordings can be replayed via the list under the Files button, and it's not necessary to wait for a recording to finish before starting the playback. Recordings can also be viewed through the media player, this also handles MP3 audio and AVI files very well. The media player does not pos-

sess the most intuitive of interfaces, and I find myself regularly returning to the help button to refresh my memory of how to add and remove files to the playlist. It's great to see that the programme information from the EPG is saved along with the file, something too often forgotten.

The IPBox runs a version of Linux which means several options exist to connect it to the outside world. Once hooked up via the Ethernet LAN port, the box can be accessed by Telnet and FTP. Telnet could be useful to those who have a good understanding of Linux and the receiver, FTP is more useful to the rest of us. If accessing the rear USB port becomes just too annoying, just use FTP to access your files over the network, using root as the username and ipbox as the default password.

When I reviewed the AB IPBox 9900HD IPBox in TELE-satellite 12-01/2011, I was somewhat disappointed by the lack of software available via the box's update service. In meantime, a few more programs have appeared, some which work better than others. There is a Youtube player – which is awaiting an update to the Enigma2 software before it will work; a Google maps viewer that comes preloaded with landmarks around the world including motor racing venues and mostly works well; and a live football scores application that

1. EPG programme information
2. Channel list
3. PID details
4. The customize menu
5. Picture fine-tuning

is a great idea, gave me up to the minute scores from all around the world, yet the English Premier League and German Bundesliga were not included in the list. I am surprised that as internet connectivity is working perfectly from the IPBox, that a web browser is still not available.

The most useful plugin is still the web interface which allows control of the receiver and timers from a browser. With the right router setup it could be accessed from anywhere on the internet, so luckily it can be password protected so that someone doesn't log in and delete that show from the timer you were looking forward to watching when you get home. The receiver's picture and sound can even be streamed from here,

and recordings may also be streamed or downloaded.

Recordings once on a PC are in .ts format, and after some processing in software such as TSRemux are able to be viewed and processed as required. I've made use of radio recordings also, converting them with only a few problems to load onto an MP3 player.

A small amount of software is also available at www.satupdate.net. As well as firmware updates, there is a fully featured settings editor. This one works with many other Linux receivers which means a much larger internet community is opened up, as bouquet lists created for the other receivers can be loaded and sent to the receiver. The editor connects easily via the LAN

and makes editing bouquets so easy it should be the first choice if at all possible.

The editor is reminiscent of DVBEdit for the good old DVB2000 on the D-Box and I felt quite at home using it. It can even load settings from DVB2000, and this is a reminder that the Enigma 2's software family tree can be traced right back to the old days of the D-Box. It almost brings tears to the eyes of a satellite geek of too many years to see such formats as DVB2000's .DVB, Nokia .N98 and even Sat-coDX .SDX being importable alongside their modern day counterparts. Taking the trouble to connect via the LAN port even just for this function is well worth it, and much easier than the headaches I remember from using RS232 and SCSI connec-
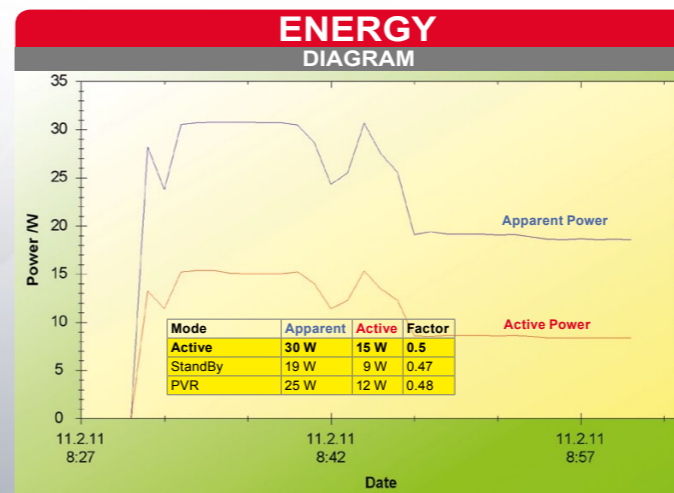
tions in the past!

As with all Linux receivers, learning how to use it and all it can do is a much greater task than other satellite receivers. But the rewards are great and the power and flexibility are unmatched. The AB IPBox 55HD has only one tuner, no hard drive and less output options than other receivers of its type – but this would only be a problem if those that are absent were specifically required. Taking this route, the receiver's purchaser can choose the size of hard drive they require – or choose not to have one at all if they wish. All the power of Enigma 2 remains, so it's ideal for those on a budget or the enthusiast who just wants to experiment without the extra cost of two tuners and a hard drive.

Expert Opinion

+

includes Internet streaming of video and audio

flexible picture-in-picture mode
easy recording from EPG
EPG information is recorded in PVR
easy connection via FTP
easy download of additional software

Andy Middleton
TELE-satellite
Test Center
UK

-

Q and Z on remote control are on different positions than in menue

ENERGY DIAGRAM

Mode	Apparent	Active	Factor
Active	30 W	15 W	0.5
StandBy	19 W	9 W	0.47
PVR	25 W	12 W	0.48

TECHNICAL DATA

Distributor	AB IPBox s.r.o., M. Razusa 4795/34, 955 01 Topolcany, Slovak Republic
Tel	+421 38 5362 667
Website	www.abipbox.com
Contact	info@abipbox.com
Model	55HD
Function	HDTV Linux Receiver with single tuner and USB for PVR
SCPC compatible	Yes
USALS	Yes
DiSEqC	1.0/1.1/1.2/1.3
Scart connectors	1
Symbol rates	DVB-S QPSK – up to 45000 DVB-S2 QPSK – up to 36000 DVB-S2 8PSK – up to 30000
MPEG2 modes	MPEG-2, MPEG-4, H.264
Audio outputs	none
Video outputs	HDMI
Resolutions	720x576 (PAL). 720x480 (NTSC) 1080i, 720p, 480i, 480p
UHF output	No
0/12 volt output	No
Digital audio output	S/PDIF
EPG	Yes
C/Ku-band compatible	Yes
Power supply	100-240V AC
Common interface	None
Card slots	1 (Conax)

Just like Linux on a computer, documentation is not always the best and the answers to some questions are found only after some searching around on the internet. There are many functions that are not cov-

ered at all in the receiver's manual, but to be fair if everything inside the box was covered, it could grow to be a very big book. Part of the fun, or infuriation, of using this receiver is they voyage from initial confusion

to enlightenment as you figure out just how everything works. And now I've found a channel editor that makes organising the machine a pleasure rather than the usual pain, I'd love to have one even more.