

ARION AF-8000HDCI

HDTV CI Receiver

The first thing that strikes your eyes when you see the front panel of AF-8000HDCI is its very nice LCD display. The display shows not only numbers but also text. We can see the number and name of the channel we are tuned to or the title of the menu we are in. Of course, in standby mode, it shows the present time. Letters and figures are composed from white dots, while the background is blue. While its

Next to the button, the infrared light detector and 2 status LED's are placed. Two CI slots are hidden behind a sliding door. Finally, in the left part of the front panel, we can see the round standby button. It has a nice red LED in the center that is lit when in standby mode.

The rear panel is equipped with IF input and output, HDMI interface for HD Ready TV-sets, RS-232 interface for upgrading receiver software and YPbPr output for those who can not use HDMI. Users who plan to buy a HD monitor but have not got it yet, can use analog SDTV outputs: CVBS on RCA or CVBS/RGB on SCART. Classical audio equipment can be connected either via RCA stereo audio output or via optical S/PDIF output (selectable format: Dolby Digital or PCM). ARION did not forget about the power switch – a useful control when software hangs up or we get lost in a strange submenu and are not sure what to do.

Remote control unit is well-shaped and has a good feel when you press a button. Frankly saying, we would make SAT, EPG and TV/RADIO buttons more distinctive but this is purely subjective opinion that may vary from user to user.

readability from a distance leaves something to be desired, it can be really helpful when you need to control or program your receiver without RCU. Using seven buttons located beneath the display, you can do quite a number of operations. The buttons are: Menu, OK, Exit, Channel up/down, Volume up/down. Channel and volume buttons serve as arrows when in a menu tree.

Installation

Since this is a HD TV receiver, it is by default prepared for a 16:9 HD TV-set. If you use it with a 4:3 SD TV-set connected to SCART, you may have some fun before you change the settings for the output device and see the stable picture. The options for video output should make everybody happy. On the HDMI output, we can get: PAL/NTSC 480i/576p/720p/1080i 50/60Hz. More on that later.

The installation itself goes smoothly and the first step is the selection of languages. We have the possibility to set the language of OSD, preferred audio, subtitles and teletext including the second preferred choice. For example you can set your native language as the first audio choice and English as the second one. The second one will be automatically selected only if your native soundtrack is not transmitted. Of course, if none of them is broadcast, the receiver will play the first available audio.

For the audio/subtitles/teletext, we have the following possibilities: English, Spanish, French, German, Italian, Portuguese, Arabic, Turkish, Russian, Dutch, Swedish and Greek. The choice for the OSD language is even wider. Except for the mentioned above, we additionally have the following languages: Spanish, Danish, Finnish, Polish,

Slovak, Hungarian, Czech, Slovenian, Romanian. This choice is quite good as compared to the other models and manufacturers.

After setting languages, we move to antenna settings. It is really nice to see here all DiSEqC versions available from 1.0 to 1.3 (USALS). 60 satellites from all over the world are pre-programmed and there is possibility to add 10 more. This is a big number! Transponder data are not quite up-to-date but we may edit them manually. It would be great if we could load a ready list

(e.g. from SatcoDX) via a serial interface.

We have three modes for channel search: automatic (with network scan on or off), manual and advanced (when you provide video and audio PID's manually). You can set either FTA or ALL channels. This may be an important decision since we have only 4000 entries in the channel memory available. It is not too much if one has a motorized dish

or multifeed system. Some channels may be marked as scrambled being FTA for part of the day. So, if you are an user who must have all possible channels on the list, choose the ALL mode and network scan ON. After searching each satellite, edit its channels getting rid of those you can not descramble in any circumstances. Such approach will make it possible not to exceed the 4000 limit even if you live in such part of Europe where a lot of satellite beams are readable.

In the ALL mode with the network scan set to ON, it took AF-8000HDCI 13 minutes to scan Hotbird (13° East). It is not very impressive but acceptable. Different kinds of HDTV channels were found and processed without any problem. This includes DVB-S, DVB-S2 in QPSK and 8PSK, MPEG-4 and MPEG-2. ARION box handles SCPC from 1 Ms/sec and its tuner is quite sensitive. Everything that we expected to receive in the test location with a 85 cm motorized dish was in fact achievable.



Channel edit functions (delete, rename, move, lock and place in favorite) are quite efficient and comfortable. Of course, it would not harm if ARION provide in the future a PC based channel editor. Dealing with thousands of channels with a RCU is not something we want to do very often.

Everyday use

The first thing you do right after the installation is channel zap-



ping. AF-8000HDCI does change channels within 2 seconds. Evidently, new MPEG-4 processors and DVB-S/S2 tuners are not that mature as the traditional DVB-S MPEG-2 chipsets. Nevertheless, it is not that slow that you can get irritated. Simply, those of us who are already addicted to channels zapping may perceive this HDTV ARION box as slower than our previous SDTV device.

However, the most important thing for the owner of a HDTV receiver is the video quality the box provides. And this is where we have to nothing but praise ARION. Not only HDTV channels are displayed perfectly but also the traditional channels can be output as 576p, 720p or 1080i. The secret here is the built-in scaler (see report in previous issue of TELE-satellite to learn what a scaler does). This feature converts like magic any regular standard definition SD channel into a high definition HDTV channel - at least it does look like a HDTV channel on your HDTV monitor.

We watched SD channels scaled up to 1080i with a great pleasure. The final effect was much better than supplying the HD TV-set with a standard signal (for example via SCART or RCA) and allowing it to expand it. The processor of AF-8000HDCI does it much, much better. So if you have a HD Ready TV-set with HDMI interface, using AF-8000HDCI will not only enable you to view HD channels but also significantly improve the video of your old favorite SD channels.

All CAM's that we inserted into CI slots worked flawlessly. If you currently use a CA module, it should be no problem whatsoever to move it to ARION receiver. In this way, you can get access to more HD channels since they are usually scrambled.

Extensive EPG guides are not very popular on FTA channels available in Europe. More often than not, satellite providers limit the broadcast data to the current and next events only, or even do not send program information at all. However those channels that broadcast full EPG data were

processed by AF-8000HDCI without any problem. EPG can work in 2 modes: either showing detailed program guide for one channel or shortened guides for a number of channels at once.

Except for the EPG, the current program description is also presented in the information bar. As usually, more information is available after pressing the Info button for the second and for the third time. Infobar timeout, as well as the transparency of the whole OSD can be adjusted in OSD Settings menu.

AF-8000HDCI generates subtitles and teletext in both ways: as VBI and OSD. You can choose what suits you better. If your TV-set does not have a TV TXT decoder, you can use OSD mode. If it has such a decoder and your language is not in the receiver language list for teletext, you better use VBI mode and the decoder in a TV-set.

When exploring the menu system, we discovered among the others: setting TV aspect (4:3 and 16:9), setting screen adjusting mode (Letter Box and Pan Scan), setting time generation either as a local system of from the data stream (as an offset from GMT) and 8 event timer. It also has 2 small utilities: a calendar and a calculator. Having a closer look at the RCU, we found a sleep timer and a pause button (quite regular in PVR's but not always present in receivers without a hard drive).

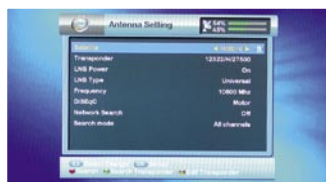
Generally, the control of AF-8000HDCI is very straightforward. Its menus are logically composed in a tree structure and everything is where you expect it to be. Menu screens have video insets as well as hints prompting us which button does what. So the user's manual is hardly ever needed. However, if you decide to skim it, you will see that it is also well arranged and not too lengthy.

ARION box can exchange software between receivers. Normal software upgrade is possible via serial interface. We expect that in the future, it will also be available via satellite.

TECHNIC DATA



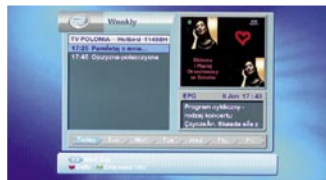
Manufacturer	ARION Technology Inc., Korea, www.arion.co.kr
Fax	+82-31-361-3099
E-mail	info@arion.co.kr
Model	AF-8000HDCI
Function	HDTV digital satellite receiver
Modulation	DVB-S and DVB-S2: QPSK, 8PSK
Decoding	MPEG-2 and MPEG-4
Channel memory	4000
Symbol rate	DVB-S: 1-45 Ms/sec, DVB-S2: 10-30 Ms/sec
SCPC compatible	yes
DiSEqC	1.0/1.1/1.2/1.3
USALS	yes
HDMI	yes
SCART connectors	2
Analog audio/video outputs	3 x RCA
Component outputs (YPbPr)	3 x RCA
S-Video output	no
UHF modulator	no
0/12 V control output	no
Digital audio output	yes (optical)
EPG	yes
C/Ku band compatibility	yes
Power supply	AC 90-250 V 50/60 Hz, 45 W max.



Antenna setting |



Video output format |



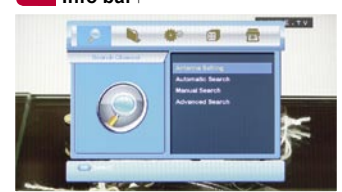
EPG |



Info bar |



Channel list |



Main menu |

Expert conclusion

+ AF-8000HDCI is a really good family receiver. It handles all kinds of HDTV signals very well. Its excellent video scaler makes watching SD channels a brand new experience. Some features like all DiSEqC protocols or advanced channel search place it in the upper segment of the class and may even make it a choice for an advanced satellite enthusiast.



Peter Miller
TELE-satellite
Test Center
Poland

- As typical for the very new products, there are a few small things that can be improved. For example, when you press a button on the RCU a bit too long, you can get a double or even triple action due to too sensitive self-repeating feature. The firmware in our sample box ARIA1000S8000HDCI is the very first release. It should only be a matter of weeks for ARION to make these small inconveniences gone forever.

