

User's Guide

HD Satellite PVR Ready STB

XP1000



MAXDIGITAL

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1. Introduction

1.1 Safety Instructions

XP1000 has been designed and manufactured in compliance with EU consumer safety requirements (CE). Please read the following safety precautions carefully

1. Connecting Power

- This product operates only in the range of AC 100V~250V and 50Hz/60Hz. Please check first your power supply to see if it fits in this range.
- Please be noted that you need to disconnect from the mains before you start any maintenance or installation procedures.
- Make sure that the power cord is placed in a position where it is easy to unplug it from the mains in an emergency.

2. Overloading

- Do not overload a wall outlet, extension cord or adapter as this may cause electrical fire or shock.

3. Liquid

- This product is not water-proof and should not be exposed to dripping, splashing, or any type of liquid.
- No objects filled with liquid such as vases shall be placed on the product.
- Please do not clean the product with wet cloth, which may cause a short circuit.
- No wet objects should be placed near the product.

4. Ventilation

- Allow sufficient space between the product and other objects to make sure air ventilation of the product.
- Do not block the top or rear of the product with an object, which will close the ventilation holes and lead to a high temperature of the system. This may cause a failure of the product.
- Do not stack other electronic devices on top of the product.
- Do not insert any kind of pointed objects like screw, gimlet, etc. into the ventilation holes of the product. This will damage the product.

5. Connecting the Satellite Cable.

- Disconnect the power of the product before you connect the satellite cable to the product. Otherwise, it may cause damage to the LNB.

6. Grounding

- The LNB must be earthed to the system earth for the satellite dish.

7. Location

- Place the product indoor.
- Do not expose the product to rain, sun or lightning.
- Do not place the product near any heat appliances such as a radiator.
- Ensure that there is more than 10 cm distance from any electrical devices & wall.

8. Lightning, Storm or Not In Use.

- Unplug the product and disconnect the antenna cable during a thunderstorm or lightning, especially when left unattended and unused for a long period of time. This will prevent possible damages from power surges or lightning.

9. Replacement of Parts

- Unauthorized part replacements, especially by one who is not a qualified technician may result in damage to the product.
- Ensure that when part replacements are necessary qualified technicians perform the task using the components specified by the manufacturer.

10. Hard Disk Drive

- Do not move the product or turn the power off suddenly while the Hard Disk Drive (HDD) is still running. This may result in damage to the HDD and thus the system.
- The company shall not be liable for any corruption of data on the HDD caused by careless use or misuse of users.

11. Battery

- There is danger of explosion if batteries are incorrectly replaced.
- Replace batteries only with the same or equivalent type.

Disposal "WEEE" Symbol instructions



This product should not be disposed with other house hold wastes at the end of its working life. Please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources. This will help prevent harm to the environment or human health from uncontrolled waste disposal.

1.2 Packaging Contents

Please check all package contents before using your product.

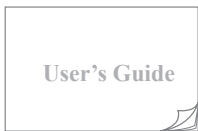
XP1000



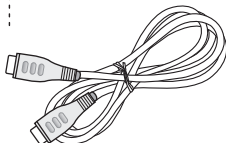
Remote Control & Battery(AAA 1.5V Battery x 2)



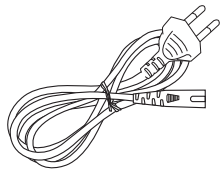
User's Guide



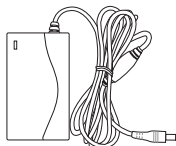
HDMI Cable



Power Cord



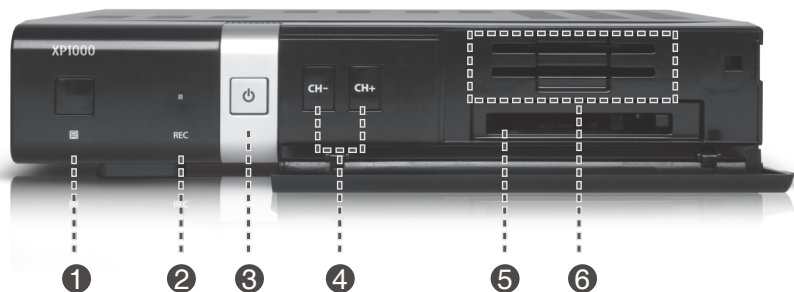
AC Adapter



* The accessories may vary according to area.

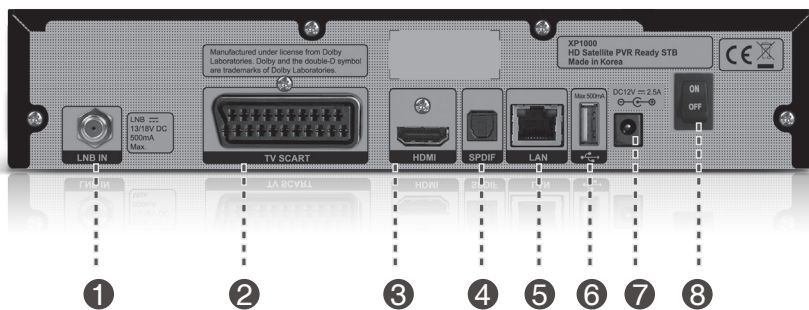
1.3 Product Descriptions

Front Panel



1. IR Receiver: Receive the IR signal from remote controller.
2. Recording Indicator: Display the current recording status of STB.
3. On/Off button and Indicator: Display the current power status of STB. Using this button, you can power on and off your STB.
4. Channel up/down: Using the channel up and down buttons, you can switch the channels directly on your STB.
5. CI Module slot: One CI module slot is provided.
6. Smartcard reader slot: Two Smartcard slots are provided

Rear Panel



1. LNB 1 IN: One Satellite cable can be connected.
2. SCART: One SCART connector is provided for TV using SCART cable.
3. HDMI: Connect to TV using an HDMI cable for both audio and video signals.
4. S/PDIF: Connect to a digital audio system using S/PDIF cable.
5. Ethernet: Connect Network.
6. USB: Connect the USB memory stick or external HDD.
7. DC Power Jack: Connect the provided AC/DC adapter (2.5A@12V).
8. DC power On/Off Switch: Power on/off.

1.4 Conditional Access

Amongst the channels scanned via XP1000, some channels can be properly tuned in only with the corresponding Smartcard and/ or CAM (Conditional Access Module). XP1000 provides two Smartcard Reader slots and one Conditional Interface slot. Users need to purchase those Smartcards and CAMs that are required for viewing such subscription based services.

Insertion of Smartcard

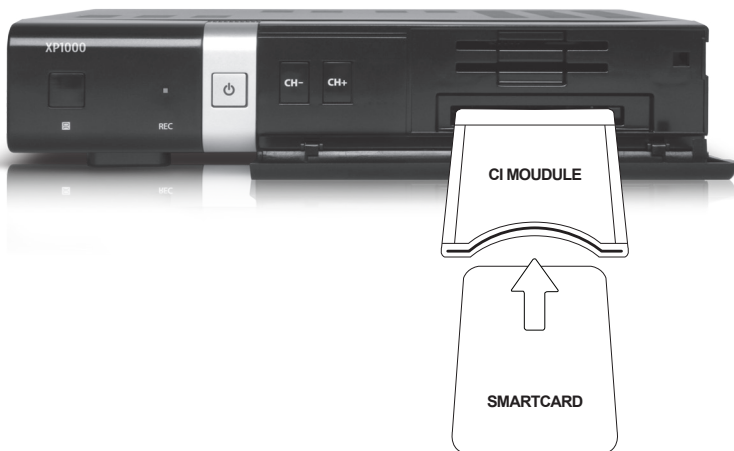
- 1 Open the door on the right side.
- 2 Insert Smartcard as in the following instruction with the IC chip pointing down.
- 3 Make sure that the Smartcard remain inserted while viewing.



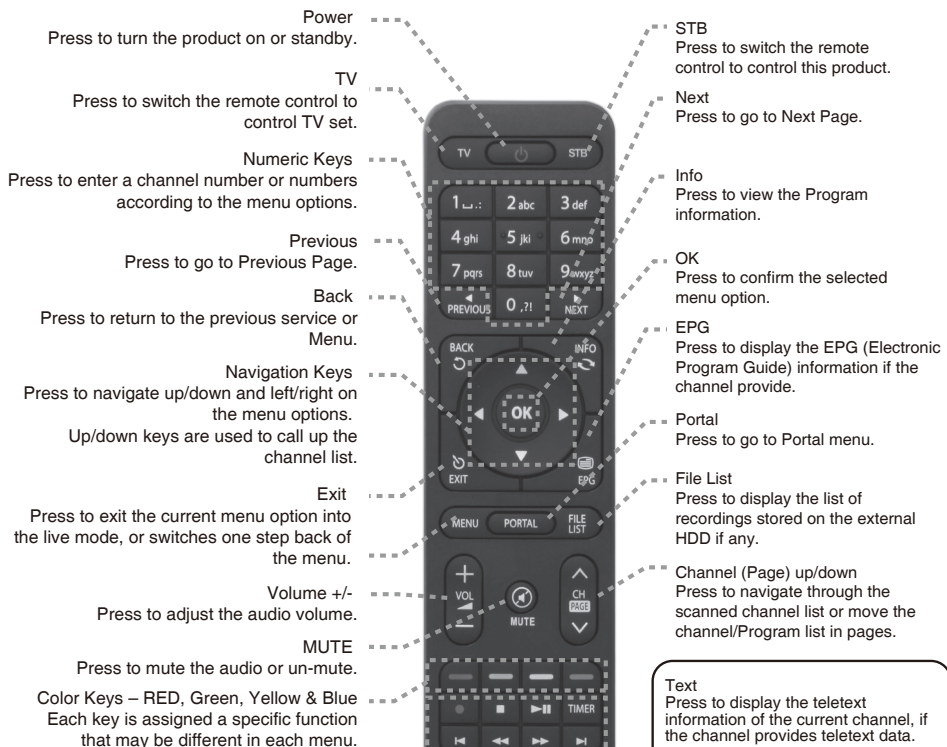
Insertion of CAM (Conditional Access Module)

There are several Conditional Access Systems (CAS) that XP1000 supports. To be able to watch channels encrypted in such CAS as Nagravision, NDS, Irdeto, Viaccess, etc, users need to purchase a CAM corresponding to each CAS, as well as Smartcard to decrypt those encrypted channels.

- 1 Insert a Smartcard into the CAM as in the below picture with the IC chip pointing up.
- 2 Once the Smartcard inserted into the CAM, insert the CAM into the CI slot.
- 3 Make sure that the CAM remains inserted while viewing.



1.5 Remote Control



- Recording []
Press to start or stop recording media.
- STOP []
Press to stop playing media.
- Play / Pause []
Press to play the selected file (e.g. recording) at the normal speed or pause the live program or recording play.
- Timer []
Press to view the Timer Schedule.
- Previous Program []
Press to move to previous program.
- Fast Rewind []
Faster rewind than the normal speed.
- Fast Forward []
Faster forward than the normal speed.
- Next Program. []
Press to move to Next program.

- Text
Press to display the teletext information of the current channel, if the channel provides teletext data.
- Audio
Press to select available audio language and audio type.
- Subtitle
Press to display the subtitle of the current channel, if the channel provides subtitle data.
- Help
Press to display major important operation methods. This provides users with a quick guide of product.
- V. Mode
Press to change the display output ratio: Wide, Zoom or Original.
- TV
Press to display the TV channel list.
- RADIO
Press to display the Radio channel list.
- Sleep
Press to turn off the product sleep timer by user.

1.6 Main Features

- MIPS Processor 3300 class
- Linux Operating System
- Media Player
- Downloadable Plug-ins supported
- 2 x Smartcard Readers
- 1 x Common Interface
- MPEG2 / H.264 Hardware Decoding
- DVB-S2 Single Tuner
- 128MB NAND Flash / 512MB DDR Memory
- 10/100MB Ethernet Interface
- 1 x USB 2.0
- HDMI
- 1 x SCART
- SPDIF for digital bit stream out (optical)
- EPG supported
- Automatic & Manual Service Scan supported
- Multiple LNB control (DiSEqC) supported
- Skin change supported
- Stable power adaptor (external)

1.7 Technical Data

1.7.1 Basic Features

PCB Size

WxD	205x117 mm
-----	------------

Reliability

Operating Temp.	0~45°C
Relative Humidity	10% ~ 80% (non-condensing)

RF Reception

Terrestrial DVB-S	950MHz~2150MHz
Terrestrial DVB-S2	DiSEqC 1.2
Number of RF Input/output terminal (75 Ohms F-Type)	LNB-IN 1 port

IO Features

Power Indication	Yes (Blue=on, Red=stand-by)
Recording Indication	Red (PVR Ready)
Network activity Indication	Yes (Rear)
Ethernet	Yes (100baseT)
SCART output	CVBS/RGB+LR Supported
HDMI output	576p, 720p @ 50Hz, 1080i @ 25Hz, 1080p @ 50Hz
USB 2.0	Yes (Rear, 1 port)
Smart Card Slot	x2 (Front)
CI Card Slot	x1 (Front)
Optical Output	PCM / Dolby Digital
Power Supply	AC-DC Adaptor (12V/2.5A)

Packaging	
Gift box	Paper box, coloured design

Accessories	
RCU	Yes
HDMI Cable	Yes
AC Adaptor (+12V/2.5A)	Yes
Battery (AAAx2)	Yes
User Manual Guide	Yes

1.7.2 Basic Functions

Solution	
CPU	MIPS 3300 class
RAM	512MB
ROM	SPI-NOR 4MB
	NAND 128MB
OS	Linux version > 3.5.0

Audio Decoder	
Dolby Digital (AC3)	Yes
MPEG-1 L1/L2/L3	Yes
MPEG-2 AAC	Yes
MPEG-4 HE-AAC	Yes
WMA	Yes
Digital multi-lingual	Yes

Video Decoder	
MPEG-1	Yes
MPEG-2	MP@HL
H.264	HP@L4 (1080p 30fps)
XVID	XVID Highdef (HD)

Video Display	
16:9, 4:3 Monitor Selection	Yes
Aspect ratio control (Normal, Wide, Zoom)	Yes
576i/576p/720p/1080i/1080p	Yes

Control I/F	
Front keypad	3Keys – Power, Ch+, Ch-
IR	Yes
AV Input/Output	
SCART output	Yes (CVBS & RGB + LR)
HDMI output	x1
SPDIF optical output	Yes
USB 2.0	x1
Copy Protection	
HDCP	Yes
Network	
RJ45	10/100 Base-T
Wi-fi (802.11 b/g)	USB type (optional)
DHCP, Static IP	Yes
PPPoE	Optional
Other Functions	
Volume & Mute Control	Yes
Photo viewer	Yes

2. INSTALLATION OF XP1000

This chapter will guide you through the whole installation process of XP1000. Please read each section carefully to make sure that the system runs properly.

2.1 Connecting the TV

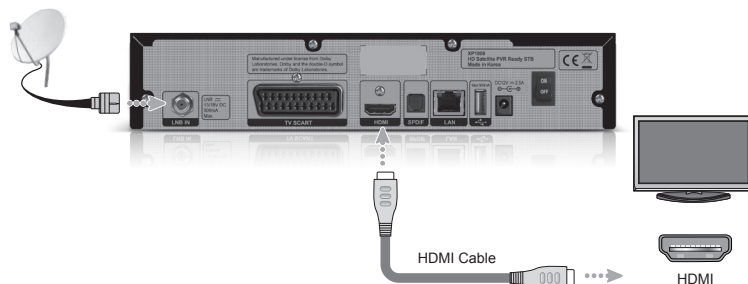
XP1000 provides a variety of audio/video connection methods.

We recommend you to use HDMI connector to get the best picture quality. If your television does not have a matching connector, then use the SCARD connector in the following order for a better picture quality.

You should configure audio and video settings after connecting up the digital receiver.

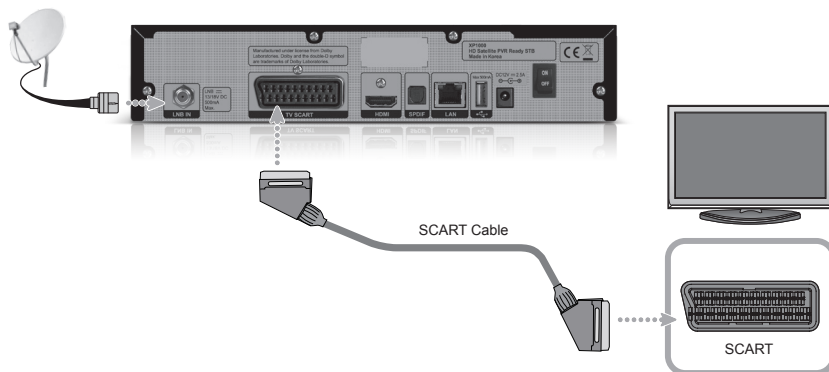
2.1.1 Connecting TV via HDMI cable

For the sake of the best picture quality, especially for digital TV, HDMI connection is recommended. Most HDTVs have HDMI connectors to ensure the highest picture quality. In the rear panel of XP1000 one HDMI connector is available for this purpose. Connect your TV to XP1000 using an HDMI cable as follows.



2.1.2 Connecting TV via SCART Cable

In case your TV is analogue TV, SCART cable is the most common method. Connect your TV to XP1000 using SCART cable as follows.



2.2 Connecting Power


A power adaptor is provided as one of the basic accessories of XP1000.

- 1 Connect the power adaptor to the connector at the rear panel of XP1000.
- 2 Connect the power adaptor to a power outlet.
- 3 Turn on the power switch at the rear panel.


NOTE: AC input condition

- Nominal Voltage Range: 100 - 240 VAC
- Maximum Voltage Range: 90 - 264 VAC

- Nominal Frequency: 50 / 60 Hz
- Maximum Frequency Range: 47 - 63 Hz

NOTE:  means Remote control operation order.

2.3 Power On/Off

[] : Press Power key / Press MENU > Select Standby/Reset
There are several ways to turn your XP1000 ON or OFF.

* Complete Power Shutdown

There is a Power Switch in the rear panel and once it is ON, you do not need to turn it on or off each time. It takes a longer time to boot the system if you turned it off by this switch.

* Standby Mode

POWER key is normally used to turn the power of XP1000 on or off. If you press POWER, it instantly switches your XP1000 off or on. In this mode, the system is not completely shut down and thus it takes a shorter time to turn it on and off.

* Deep Standby Mode [] : Menu > Standby/Restart > Deep Standby]

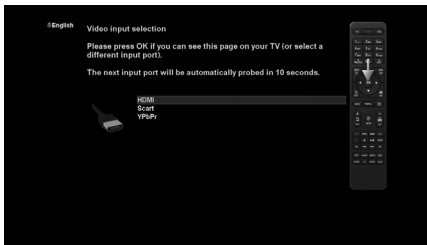
Deep Standby is used to reduce the standby power consumption. XP1000 is designed to be energy efficient and to guarantee the power consumption to be under 1W in the deep standby mode.

3. FIRST TIME INSTALLATION (USING WIZARD)

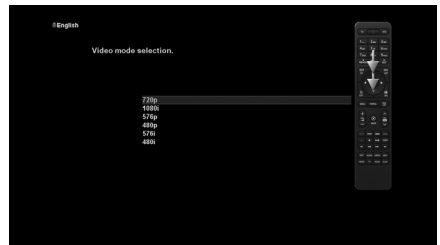
When you turn on XP1000 for the first time after purchase, an installation wizard will begin step by step.

NOTE: OK key is used for confirmation and turns to the next step. Press EXIT key to return to the previous page.

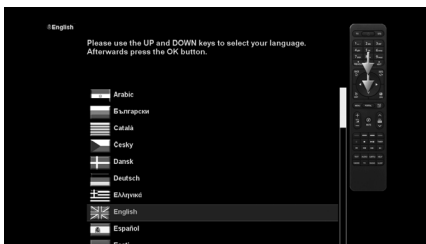
3.1 Video Input Selection



3.2 Video Mode (Resolution) Selection



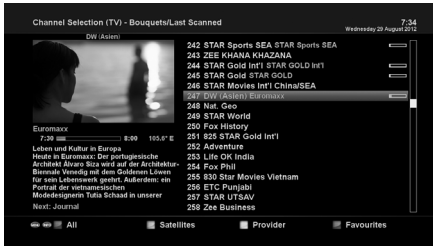
3.3 Language Selection



XP1000 provides various languages and here you can choose the main language for your XP1000 . Use UP/DOWN key to scroll up and down to find the language you want.

4. BASIC OPERATIONS

4.1 Switching Channels



[**i**] : Press ▲/▼, CHANNEL +/- key / Press ◀/▶ to move to the next channels]

XP1000 offers various channel zapping methods. You can switch the current channel by pressing

- UP/DOWN key

If you press UP or DOWN key, Channel Selection menu appears.

You can move up and down to select the channel that you want to tune into

- LEFT/RIGHT key

If you press LEFT or RIGHT key, the previous or subsequent channel of the current channel is tuned in.

- CHANNEL +/- key

If you press CHANNEL + or - key, this will call up the Channel Selection menu.

- Channel Number

Enter a channel number, and it will instantly tune into the channel.

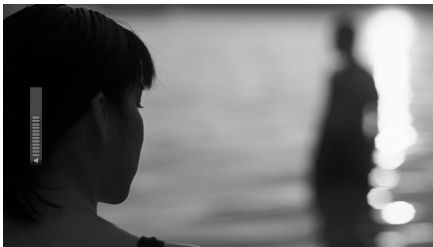
NOTE:

If channel change is not done, it is probably because the selected channel is encrypted and you do not have a proper smartcard.

In order for you to add certain channels to this Favourites list,

- 1 Call up the Channel Selection list by Pressing UP or DOWN key.
- 2 Go to the list of All channels by pressing RED.
- 3 Select the channel that you want to add to the Favourites list.
- 4 Press MENU key on the selected channel and channel list menu appears.
- 5 Choose "add service to bouquet" and press OK.
- 6 Select "Favourites" and press OK.
- 7 Go to the "Favourites" list by pressing BLUE to confirm that the selected channel is correctly included in the list.

4.2 Volume Control

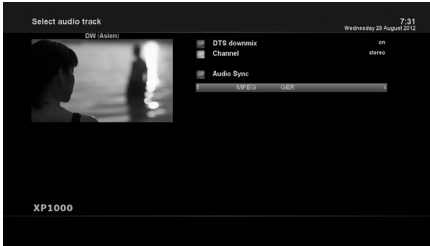


[**i**] : Press VOLUME +/- key]

You can adjust the audio volume by pressing VOLUME +/- key. You can also mute or unmute the audio temporarily by pressing MUTE key (**M**).

Mute icon is on when the audio is muted.

4.3 Selecting Audio Track



[**i**] : Press AUDIO key]

You can check what audio tracks are available to choose by pressing AUDIO key.

By using UP/DOWN key and Colour key, you can select a different audio language or Stereo sound.

NOTE: Available options on this menu will differ depending on the service.

4.4 Subtitle

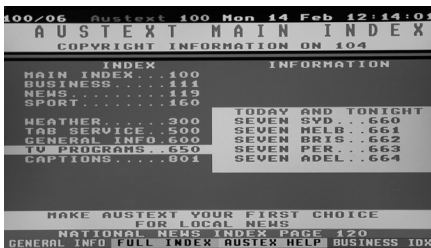


[**i**] : Press SUBTITLE key]

You can view the subtitle of the current program if the program provides the subtitle. Press SUBTITLE key, Subtitle selection menu appears as below.

Available subtitles, if any, will display. By using UP/DOWN navigate the list to select a subtitle that you want to play and press OK to activate it.

4.5 Teletext



[**i**] : Press TEXT key]

You can call up Teletext information by pressing TEXT key. It will take some time to load all the information.

You can navigate through the Teletext page by using UP/DOWN key to select a text page. Also, just simply enter the page number that you want to read.

- MUTE key

Once you activated Teletext, you can toggle between the live mode and the Teletext page by pressing MUTE (**M**) key instantly. In this case, loading of the Teletext page takes place instantly.

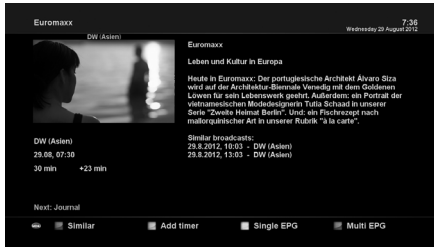
- VOLUME +

If you want to enlarge the page, press VOLUME + key.

- VOLUME -

If you want to reduce the page size, press VOLUME - key.

4.6 Program Information



[**i**] : Press INFO key

Whenever you change the channel, infobar is always displayed for 5 seconds (default setting). Infobar is designed to provide you comprehensive information of the channel that you are currently watching.

4.7 Info Bar

• Press OK to call up infobar.



4.8 Electronic Program Guide (Event View)



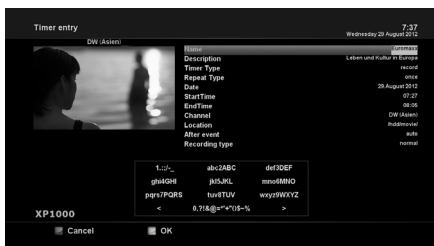
[**i**] : Press EPG key

Electronic Program Guide (EPG) displays the program information of each channel, if provided, in time and date order. Detailed information of the current channel will be displayed on EPG. There are four options in the EPG display.

NOTE: Press and hold EPG key for Multi-EPG.

• GREEN (Add Timer)

If you press GREEN key, Timer entry menu appears as shown left. This option is used to set up a new timer for recording or zapping.



- Name
Displays the name of the selected program.
- Description
Displays a short description of the selected program.
- Timer Type
 - Select Zap for channel tuning reservation.
 - Select Record for recording reservation.
- Repeat Type
 - Select Once for one time of zapping or recording reservation.
 - Select Repeated for repeated zapping or recording reservation.
 - Repeats - This option is given only when you selected "Repeated" in the Repeat Type. You can reserve zapping or recording per Daily / Weekly / Mon-Fri / User-defined.
- Date
Displays the current date. This entry is on when you selected "Repeat Type" as "once".
- Start Time
You can set the time to begin recording or zapping.
- End Time
You can set the time to stop recording or zapping.
- Channel
This entry allows you to change the channel. Press LEFT/RIGHT key to call up Channel Selection menu. You can select a different channel from this list using this option. To return to Timer entry menu, press EXIT.

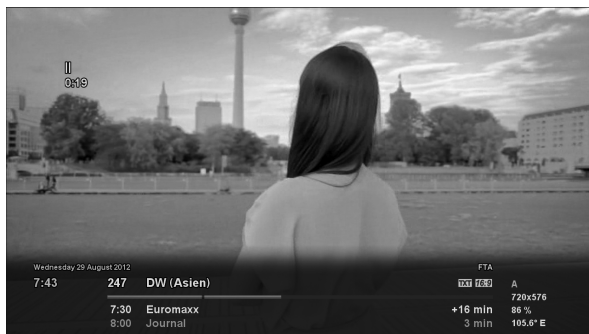
• **Multi EPG**



- You can move the previous or next program within the same channel by using YELLOW (Previous)/BLUE (Next).
- You can switch to another channel by using UP/DOWN key.
- RED key is used to instantly tune into the selected channel.
- GREEN key is used to reserve recording or zapping of the selected program.

NOTE: Not all channels provide EPG information and thus in case of no EPG data, nothing will be displayed except for the channel name.

4.9 Time Shift



[**i**] : Press ►|| key]

For your information, Timeshift is an instant recording of the current program that you are watching. Press ►|| , it will instantly pause the audio and video of the program, and a small window displaying elapsing time information will appear on the left upper side of the screen as below.

In this state, Timeshifted recording is running until you press either PLAY or PAUSE again. You can restart viewing of the program.

If you want to stop Timeshifted recording and to return to the live mode, press ■ key.

You will be asked of Yes or No to stop Timeshift.

NOTE:

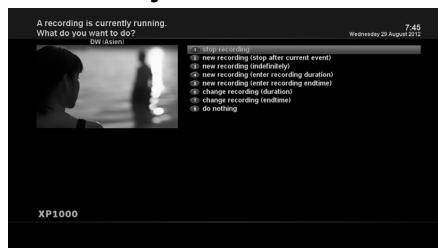
What is different from normal recording is that Timeshifted recording is not meant to be stored on HDD.

If you stop Timeshift, you cannot replay the Timeshifted recording.

4.10 Recording

XP1000 is a Personal Video Recorder with an integrated DVB-S2 tuner. There are two ways to operate and manage recording.

1 Instant Recording



[**i**] : Press REC key]

Press REC key to start the recording of the current program.

Five recording options are given.

- Add recording (stop after current event)

This option is used when you want to end recording when the current program ends.

- Add recording (indefinitely)

This option is used when you want to keep recording running without a specific end time. Recording will continue unless you stop it.

- Add recording (enter recording duration)

This option is used when you want to manually set the length of recording by entering a certain number as below:

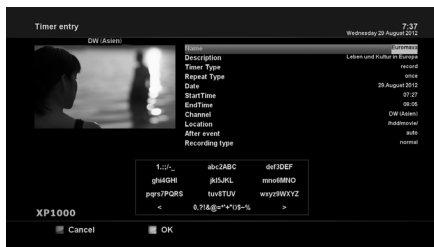
- Add recording (enter recording end time)

This option is used when you want to define a certain date and time when the recording is to stop.

- Exit

This option is used to exit from this menu without recording.

2 Recording by Timer



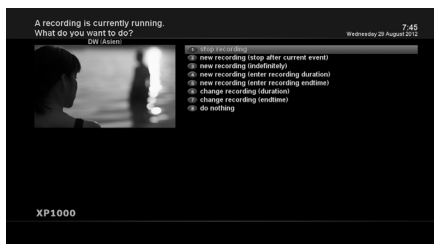
[**i**] : Press MENU key > Select Timer]

- BLUE (Cleanup)

This option is used to remove those finished timers from the Timer List.

NOTE: Make sure that the HDD on your XP1000 has enough free space available for recording. If the free space on the HDD is not sufficient, recording might stop before the defined end time.

3 Stop Recording



[**i**] : Press REC key > Select "Stop Recording"]

You can manage recording process using Timer List menu. Press MENU and select Timer on the menu.

In this menu, color keys are assigned for each different function.

- RED (Delete)

This option is used to delete a timer.

- GREEN (Add)

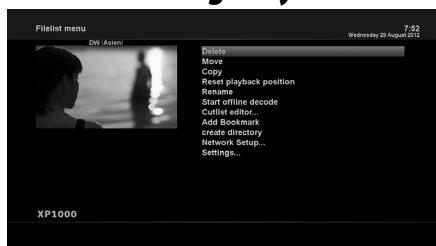
This option is used to add a timer.

- YELLOW (Disable)

This option is used to disable the timer and X mark will appear.

NOTE: if you want to enable the disabled timer, press YELLOW again.

4.11 Recording Play



[**i**] : Press FILE LIST key]

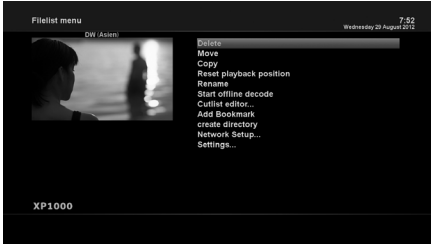
You can view recorded files on the Recorded files menu. Press FILE LIST to activate this menu.

Select the file that you want to play. It will instantly replay the file and display the recording infobar.

This infobar gives you the following information of the recording.

- 1 Title of the recording
- 2 Remaining time
- 3 Progressive bar
- 4 Elapsed time

4.12 Managing Recording Files



[**i** : Press FILE LIST key > Press MENU key]

If you want to delete a recording file, press MENU key while Recorded file menu is on.

Select "Delete" and confirm OK to delete.

4.13 Media Player



[**i** : MENU > Plugins > Media Player]

XP1000 is a multimedia receiver capable of playing media contents. Using Media Player, you can enjoy Music, Photo and Video contents stored on the external HDD and/or a USB memory stick plugged into XP1000.

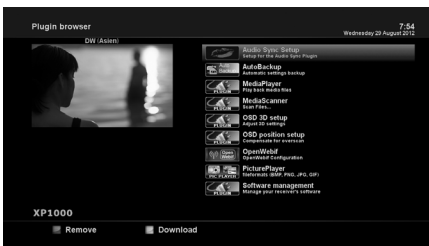
If you play Media Player, the following player will appear.

1. Go into any directory of the HDD or plugged USB.
2. Select a file to play and press OK

* Supported formats are mainly JPG, MP3, AVI, etc.

3. In the same way, you can play the recording files stored on the HDD.

4.14 Plug-ins



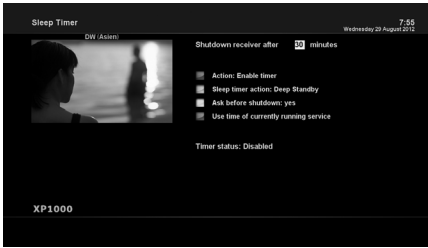
[**i** : MENU > Plugins]


XP1000 is integrated with standard 10/100Mbps Ethernet with RJ 45 connector. You are recommended to use this network capability of XP1000 to fully enjoy the system. If your XP1000's network connection is established, you can directly download plug-ins from a designated website of XP1000 .

- 1 Press MENU and select Plugins menu to active Plugin browser.
- 2 Press GREEN key to download a list of plug-ins available.
- 3 Once the download is done, a list of plug-ins will be displayed.
- 4 Select a plug-in to download.
- 5 You can check if the download is done properly on the Plugin browser.

From this site, you can check available plug-ins to download.

4.15 Sleep Timer



[ : MENU > Power Management > Sleep Timer]

You can set a specific time when your XP1000 goes into Standby mode or Deep Standby mode, using this menu. Three colour keys are used to set up this sleep timer.

1 RED

This option is used to enable or disable Sleep Timer.

2 GREEN

This option is used to choose between Standby mode and Deep Standby mode.

3 YELLOW

This option is used to choose whether to be asked of confirmation before system shutdown.

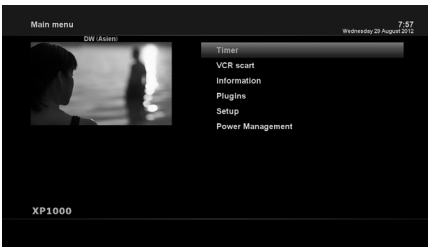
3 BLUE

This option is used to use time of currently running service.

5. MENU

5.1 TOP Main

XP1000 is a very sophisticated device designed to allow users a variety of System Settings options as detailed as possible. You can fine-tune your XP1000 to be your OWN system to fit your taste. This chapter will guide you through the entire menu of system configuration.



[ : Press MENU]

The main menu of XP1000 consists of the following sub menus.

- Timer

Enables you to reserve program watching and recording.

- VCR scart

Switches to VCR scart connection.

NOTE: If your XP1000 is not connected to VCR scart, the screen will go black. In this state, just press EXIT to return to the previous state.

- Information

Has two sub menus for Service / About. Service menu provides the detailed information of the current channel. About menu provides the detailed information of the H/W and S/W system of your XP1000. For more information, please refer to the Information section.

- Plugins

Activates Plugin browser of XP1000. Using this browser, you can log onto the designated website and you can download a variety of new plug-ins.

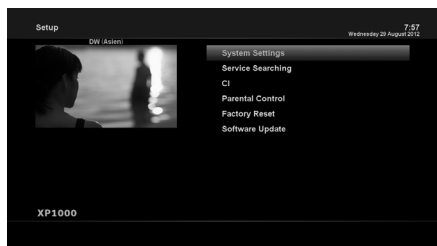
- Setup

Provides all of the System Settings. For more information, please refer to the next section.

- Power Management

Provides options for power on/off and sleep timer. For more information, please refer to the Power On/Off section.

5.2 Setup

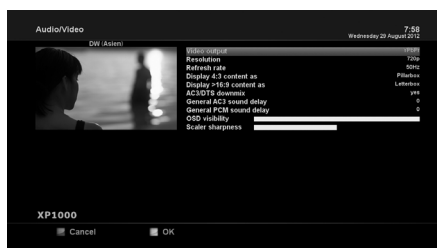


Setup menu consists of the following sub-menus.

- 1 System Settings
- 2 Service Searching
- 3 Common Interface
- 4 Parental Control
- 5 Factory Reset
- 6 Software Update

5.2.1 System Settings

5.2.1.1 Audio/Video



[**i**] : MENU > Setup > System Settings > Audio/Video]

Here you will find options necessary to set up the audio and video configuration of your XP1000.

NOTE: RED is for cancel and GREEN is for OK. OK key of RCU is not working in this mode.

Amongst the parameters given in this menu, the following ones are generally what you need to decide for the audio and video.

1 Video output

Here you need to decide which video output you want to use between your TV and XP1000. The available options are as below.

- HDMI
- SCART

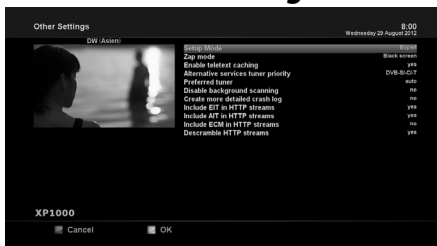
2 Resolution

You need to decide which resolution to use.

3 Downmix

YES is used when you want to set the audio output to be down-mixed to Stereo. NO is used when you do not want to set the audio output to be down-mixed to Stereo. This option is recommended when you are using S/PDIF connection.

5.2.1.2 Other settings



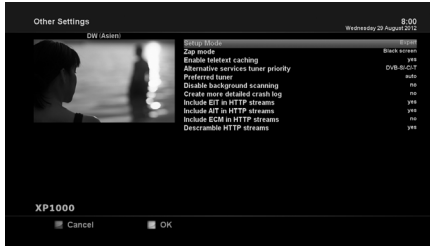
[**i**] : MENU > Setup > System Settings > Other Settings]

In this menu you will find various customization options and this menu can be displayed in three different formats: Simple, Intermediate, and Expert.

NOTE: RED is for cancel and GREEN is for OK. OK key of RCU is not working in this mode.

Amongst the options given in this menu, the following ones are generally what you may need to know.

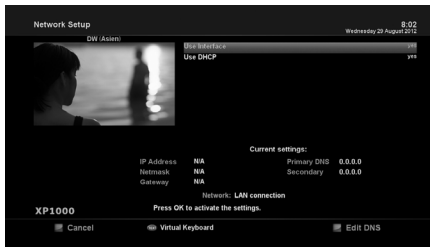
5.2.1.3 Network Setup



[**i**] : MENU > Setup > System Settings > Network Setup] XP1000 is integrated with standard 10/100Mbps Ethernet with RJ 45 connector standard. You are recommended to use this network capability of XP1000 to fully enjoy the system. You can set up the network settings through this Network Configuration menu.

In the Network Configuration menu, you will see five sub menus as follows:

1 Adapter settings



Use Interface

YES is used to activate the Ethernet. If you set this option at NO, the Ethernet will not work.

Use DHCP

YES is used to use DHCP (Dynamic Host Configuration Protocol). If you set this option at YES, it will automatically detect the correct IP address. NO is used when you want to use a certain fixed IP address. In this case, you need to enter correct addresses in each field.

2 Nameserver settings

This option is required if you selected not to use DHCP. You need to enter the address of the Nameserver.

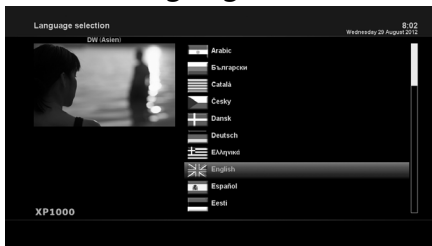
3 Network test

When you are not sure whether the network configuration has been done correctly or not, you can run this test.

4 Restart Network

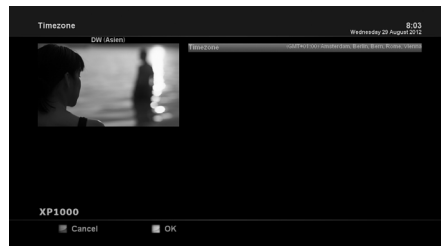
This option is used when you want to reboot the Ethernet of your XP1000 .

5.2.1.4 Language Selection



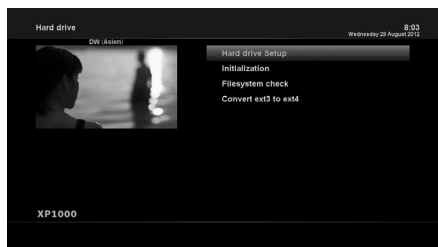
[**i**] : MENU > Setup > System Settings > Language] A variety of languages are available for the OSD of XP1000.

5.2.1.5 Time zone



[**i**] : MENU > Setup > System Settings > Timezone] You can set your time zone in this menu. Using LEFT/RIGHT key, you can find a time zone that you want to use for your XP1000. After selecting a time zone, press GREEN to confirm and save the changed setting.

5.2.1.6 Hard Disk Set Up



[**i** : MENU > Setup > System Settings > Hard drive > Hard drive Setup]

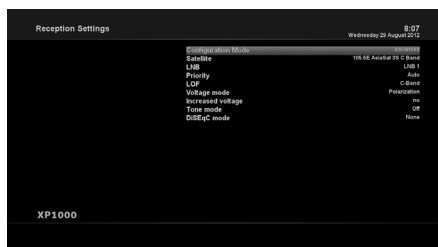
You can set the duration of time after which HDD is to be put into standby mode.

Here, you can choose from No standby to various duration.

Once you set this option, press GREEN key to confirm the change.

5.2.2 Service Searching

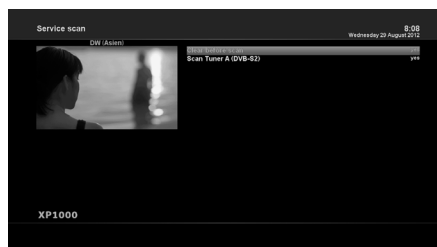
5.2.2.1 Tuner Configuration



[**i** : MENU > Setup > Service Searching > Tuner Configuration]

If you run the First Time Installation process, the Tuner A is already configured.

5.2.2.2 Automatic Scan



[**i** : MENU > Setup > Service Searching > Automatic Scan]
The easiest way to scan services is to use Automatic Scan. In the Automatic Scan menu, there are two options to choose from as below.

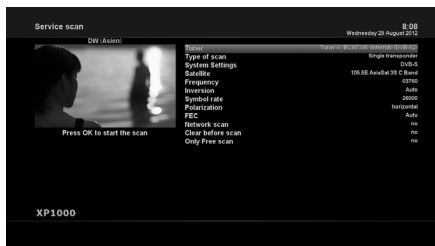
- **Clear Before Scan**

YES is used when you want to delete the existing channel list before you start the automatic scan. If you want to keep the existing list, select NO.

- **Scan Tuner A (DVB-S2)**

Press OK to activate the automatic scan. This will take some minutes. As the scan proceeds, you will see the progressive bar and the newly found services underneath.

5.2.2.3 Manual Scan



[**i**] : MENU > Setup > Service Searching > Manual Scan
If you know well enough to configure each exact setting required for manual search of services, you can do manual scan as well. There are many parameter values that you need to decide as below.

Amongst other things, the below parameters are what you need to decide prior to performing manual scan.

1 Tuner

You need to decide which tuner you want to use for manual scan.

2 System Settings

Here you have two options between DVB-S (SD) and DVB-S2 (HD).

3 Frequency

You need to enter the exact frequency of the transponder that you want to scan.

4 Symbol Rate

You need to enter the exact symbol rate of the transponder that you want to scan.

5 Polarization

Here, you have options for Horizontal, Vertical, Circular Left and Circular Right. You need to know the polarity of the transponder that you want to scan.

6 FEC (Forward Error Correction)

You need to enter the exact FEC value of the transponder that you want to scan.

7 Network Scan

Here you have two options for YES and NO. NO is used to scan the transponder (TP) based on the data that your XP1000 currently has. YES is used to scan the TP not just based on the existing TP data but also using new TP data, if there is TP data newly transported from the TP. Naturally, YES option takes longer while it may result in a better scan result.

8 Clear Before Scan

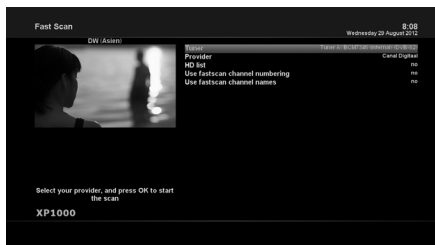
YES is used when you want to delete the existing channel list before you start the automatic scan. If you want to keep the existing list, select NO.

9 Only Free Scan

Here you have two options for NO and YES. If you want to scan only Free to Air channels without any encryption, select YES. Otherwise, select NO to scan all FTA and CAS channels.

Press OK to activate the manual scan. This will take some minutes. As the scan proceeds, you will see the progressive bar and the newly found services underneath.

5.2.2.4 Fast Scan



[**i**] : MENU > Setup > Service Searching > Fast Scan

In case there are service lists available for certain satellites, for example, Astra or Hotbird, you can install the lists in the channel list of your XP1000.

If default service lists are not available, you can run the service scan automatically or manually to add TV and radio channels to the channel list of your XP1000.

5.2.3 Checking CAM

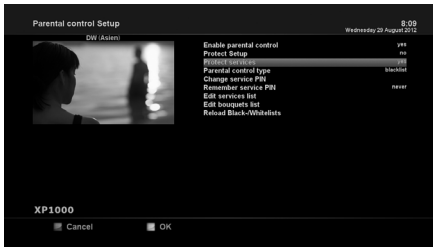


[**i** : MENU > Setup > CI > Common Interface]

To be able to watch CAS channels, you need to have a proper CAM and a Smartcard. XP1000 is integrated with a Common Interface slot and two Smartcard slots.

If you have inserted CAM, you can check the information of the inserted CAM, through this menu as below:

5.2.4 Parental Control



[**i** : MENU > Setup > Parental Control]

If you want to prevent certain channels from being accessed by others, you can do so using this menu.

- 1 Go to Parental Control menu by pressing MENU > Setup > Parental Control.
- 2 Set the parental control option at YES using LEFT/RIGHT key. The menu will change as below.

Protect setup

If you set this option at YES, you will be asked to enter PIN code when you enter this Parental setup menu.

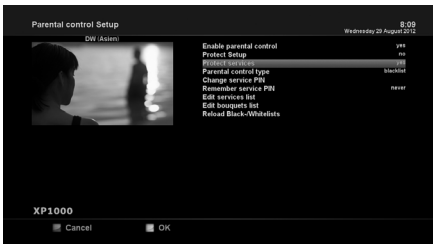
Change setup pin

If you want to change the existing PIN code for Parental setup, you can do so using this menu. You need to enter a new PIN code twice.

Protect services

You need to set this option at YES, if you want to lock certain channels with PIN code.

Parental control setup

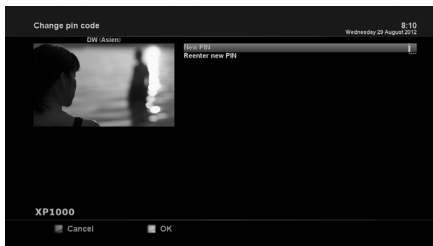


This option will be activated only if you set Protect services at YES.

Here there are two options:

- White list: This option is used to block all channels except those channels in the parental control list.
- Black list: This option is used to block only those channels included in the parental control list.

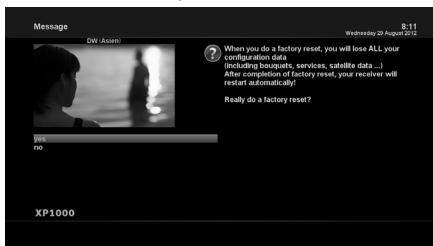
Change service pin



Here you can define a PIN code required to change services to be included in the parental control list.

NOTE: PIN code here is used for Change service and thus you are recommended to use a PIN code different from that used for Protect services.

5.2.5 Factory Reset



[ : MENU > Setup > Factory Reset]

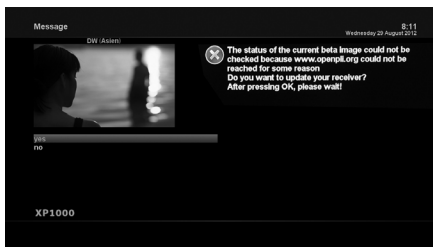
If you want to erase all installed service list as well as all configurations, run the Factory Reset process. Select YES in the below menu to run the factory reset.

Upon the completion of factory reset process, your XP1000 will reboot automatically and start the First Time Installation process.

NOTE:

If you do this factory reset, all of your configuration data including bouquets, service lists, satellite parameters, and so on will be erased.

5.2.6 Software Update



XP1000 can be updated in two ways. Firstly, you can update XP1000 software by going into Menu > Setup > Software Update. You can also try USB update as in the following step.

Step1: Download new software image from www.xp-support.tv.

Step2: Extract new software image using winrar, winzip or other extracting tool and copy on a USB stick. All files shall be under /XP1000 directory.

```
/xp1000/kernel.bin  
/xp1000/rootfs.bin  
/xp1000/imageversion  
/xp1000/noforce
```

Step3: Power down the XP1000 by the power switch.

Step4: Place USB stick in the USB slot at the rear side of the XP1000.

Step5: Power up the XP1000 by the power switch. Then, the record LED and standby LED will become red.

Step6: After about 3 seconds, open the front panel cover and press CH+ button.

Step7: The standby LED will become light red and record LED is still on.

Step8: Wait couple of minutes till the standby LED will become blue.

Your box is now updated with a "clean" factory default image.

Note: If the box boots in a normal way in step6, press CH+ button earlier.

5.3 Information

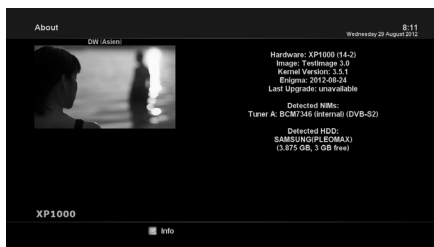
5.3.1 Service Information



[**i**] : MENU > Information > Service]

In this menu, you can see the service information of the current channel such as service name, service provider and video format & size.

5.3.2 Checking H/W & S/W Information



[**i**] : MENU > Information > About]

This menu is for you to check the current system of your XP1000. You can see the following information:

- 1 S/W version
- 2 Detected NIMs for Tuner A
- 3 Detected HDD

6. REMOTE CONTROL UNIT (RCU) SETUP

In order to use the universal remote control feature, you must correctly setup for TV control. This section explains how to setup the universal remote control. For the setting up, we have presented the list of supported TV codes.

6.1 Setting up as a TV Remote Control

When you press TV button, supplied remote control unit is working as TV remote controller. To do this, you have to setup with corresponding TV codes. Valid buttons at TV mode are Power, Volume +/-, Mute, TV (for switching sources), Menu, numeric keys (0~9), directional buttons (up/down/left/right) and colour buttons (Red/Green/Yellow/Blue).

6.1.1 4-digit Setting Method

1. Power on TV using TV power button or TV remote control.

From this step all further remote controls should be done using the universal remote control and the remote control should be directed towards the TV.

2. Press and hold the TV button more than 3 seconds. Then, two LED lamps from TV and STB buttons are flickering. Release the TV button. Then, LED lamp from the TV button is flickering.

3. Enter 4 digits with reference to the "TV Brand List" section. If 4-digit code is in the list, LED lamp from the TV button will flicker 3 times and corresponding 4-digit code is stored. Otherwise, TV LED lamp will turn off and 4-digit code is not stored.

NOTE: In case that the POWER (**⏻**) button for TV is working but other important keys are not working, then repeat the above procedure or follow "Smart Scan Method".

6.1.2 Smart Scan Method

1. Power on TV using TV power button or TV remote control.

From this step all further remote controls should be done using the universal remote control and the remote control should be directed towards the TV.

2. Press and hold the TV button more than 3 seconds. Then, two LED lamps from TV and STB buttons are flickering. Release the TV button. Then, LED lamp from the TV button is flickering.

3. Press ▲ (up) or ▼ (down) button until TV turns off.

4. Once TV turns off, press OK button to store current setting. Then TV LED lamp will flicker 3 times and corresponding 4-digit code is stored.

In case that the POWER () button for TV is working but other important keys are not working, then follow the above procedure again to set different code.

6.1.3 Changing Factory Default Status

By default, remote control unit is supplied with volume-unlocked, channel-locked and master power reset status. However, you can change lock status or set/reset status by following procedures.

6.1.3.1 Volume Key

Volume-unlocked status:

- In TV mode, volume related buttons (Volume +/-, Mute) are only working for TV.

- In STB mode, they are only working for STB.

Volume-locked status:

- Regardless of modes (TV or STB mode), volume related buttons (Volume +/-, Mute) are only working for TV.

How to set Volume-Locked status:

1. Press and hold the STB button more than 3 seconds.

2. If Vol+ button is pressed and then released, STB LED will be turned off and on.

3. Then, press Vol- button and release.

4. Press and release TV button to change the status. Then STB LED lamp will flicker 3 times.

How to set Volume-Unlocked status:

1. Press and hold the STB button more than 3 seconds to enter STB setting mode.

2. If Vol+ button is pressed and then released, STB LED will be turned off and on.

3. Then, press Vol- button and release.

4. Press and release STB button to change the status. Then STB LED lamp will flicker 3 times.

6.1.3.2 Channel Key

Channel-unlocked status:

- In TV mode, channel related buttons (CH+/-) are only working for TV.

- In STB mode, they are only working for STB.

Channel-locked status:

- Regardless of modes (TV or STB mode), channel related buttons (CH+/-) are only working for STB.

How to set Channel-Locked/Unlocked status (Locked/Unlocked status is toggled each other):

1. Press and hold the STB button more than 3 seconds to enter STB setting mode.

2. If CH+ button is pressed and then released, STB LED will be turned off and on.

3. Then, press CH- button and release.

4. Press and release OK button to change the status. Then STB LED lamp will flicker 3 times.

6.1.3.3 Master Power



Master Power Reset:

- In TV mode, power button is only working for TV power.
- In STB mode, they are only working for STB power.



Master Power Set:

- Power button is working both for TV and STB power.

How to reset Master Power

1. Press and hold the STB button more than 3 seconds to enter STB setting mode.
2. Press and release POWER () button. STB LED lamp will be turned off.
3. Press and release STB button.
4. Press and release POWER () button. Then STB LED lamp will flicker 3 times.

How to set Master Power

1. Press and hold the STB button more than 3 seconds to enter STB setting mode.
2. Press and release POWER () button. STB LED lamp will be turned off.
3. Press and release STB button.
4. Press and release TV button.
5. Press and release POWER () button. Then STB LED lamp will flicker 3 times.

6.2 Supported TV Brand List

Please refer to the appendix.

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8. TROUBLESHOOTING

Before you contact your local service centre, please read the following tips carefully.

NOTE: if the antenna is covered with snow or the RF signal is weakened by heavy rain, the quality of audio and video may become temporarily poor. If you experience poor audio and video quality due to bad weather conditions, please check if your satellite antenna is oriented in the original direction. And see if it is covered by snow. Also, check if your LNB is not damaged.

1. No video on TV

- Check first if the product is powered on and in operation mode.
- Check if the video cable is properly connected between TV and XP1000.
- Check if the satellite cable is properly connected to XP1000.
- Check if the selected channel is currently on air.
- Check if the selected channel is encrypted and if you have a corresponding access smartcard.

2. Problem with audio quality

- Check if your audio cable is connected correctly.
- Check the volume level of your TV and the product.
- Check if the product or TV is on mute.
- Check the audio option if it is correctly selected for the program that you are currently watching.

3. Remote control problem

- Check if the batteries are correctly mounted.
- If your remote control has been used for long, change the batteries.
- Point the remote control directly toward the product.
- Make sure that nothing blocks the front panel display.

4. Channel search problem

- Make sure if tuner configurations are all correctly made.
- Check if the antenna cable(s) are properly connected.

5. Encrypted channel viewing problem

- Check if you have the appropriate Smartcard and/or CAM.
- Take the Smartcard and CAM out and re-insert them to re-initialize.
- Check if your system correctly detects the smartcard and CAM.

6. Recording problem

- Check if the HDD has a sufficient space for recording.
- Check if there is a conflict between recording timers.

7. Noise

- XP1000 has an integrated FAN. This may create a noise but is inevitable to make sure the safety of the product.
- Also, when HDD is running, you may hear a noise.

APPENDIX

Brand	Codes
A.R. Systems	8644 7213 6896 5090 7014
Accent	7647 8644 6896 3637
Acer	3857
Action	4523 5510 3637 4648
Adcom	4884
ADL	7855
Admiral	3193 2438 5553 5605 3488 3637 4648
Adventura	5874
Adventuri	5874
Adyson	4469 4523 4648
AEA	8644 6896
AEG	5952 6305 5319
Agashi	4469 3488
AGB	8568
Aiko	7647 8644 6896 4469 4530 6482 5739 3350 3518 3488 3637
Aim	8644 6764 6896 3036 7910 8435 8484
Aiwa	5448 7733 6736
Akai	3350 7910 4530 3011 8644 5739 6669 3518 6482 7647 3036 4016 2429 8060 5605 8568 6381 2810 6896 4783 8020 8394 4469 3488 5393 2796 6305 3840 7733 4659 3451 5905 4925 4523 3802 3637 5874 4648
Akashi	7314 7647
Akiba	4016 5896 7014 8644 6896
Akira	5553
Akito	8644 6896
Akura	8644 6896 5355 6764 7647 4016 5896 3488 8060 7066 3637 4648
Alaron	4469
Alba	8644 3840 6896 8060 7647 5553 7287 4530 5355 7384 4016 4469 5531 5605 6230 6812 7733 5119 4925 3637 4648
Alfa	4648
Alkos	6482
Allstar	8644 6896 4648
All-Tel	4677
American High	5510
Americana	5510
Amplivision	7287
Amstrad	7647 8568 3488 4530 4016 8644 6896 5739 6764 8377 3840 3451 7066 3637
Anam	8644 6896 7647 4526
Anam National	8644 6896 4526
Andersson	5319 7660
Anglo	7647 3488 3637
Anitech	7647 3488 8644 6896 5896 4523 3637 4648
Ansonic	7287 8644 6896 7647 5355 5090 5605 2620 5531 4917 3637

AOC	4523 4648
Apollo	4659
Arcam	4469
Arc en Ciel	7430
Ardem	2590 8060 8644 5613 6896
Aristona	6896 8644 4648
ART Tech	4648
Arthur Martin	5605
ASA	4819 6092 4265
Asberg	8644 6896 4648
Asora	7647 3637
Astra	8644 6896 3637
Asuka	4016 4469 3488 5896
ATD	2924
Atlantic	8644 6896 4469 4648
Atori	7647 3637
Atoro	3637
Auchan	5605
Audiosonic	7647 8644 5090 8033 6896 7430 8060 6381 7287 3488 4016 2590 3637 4648
Audioton	2590 7287 3488 3637
Audiovox	4648
Audioworld	2924
Autovox	5531
AVP	7733
AWA	7507 6812 7647 5090 6764 8644 6896 4469 6305 5620 3488 4698 3637
Axcent	7647
Axxon	8060
B&D	7855
Baird	7430 6127 6982 5301 7910 3453
Barco	5605
Basic Line	3637 4648 5090 8644 5605 5355 6896 7647 4016 5896 7014 6559 3840
Bauer	8484 7647
Baur	7647 6640 5265 3835 8644 6896 3518 3350 6736 3637 5874 4648
Beaumarck	5393
BEC	4648
Becrese	4523 3802 5874 4648
Beko	8060 6482 2590 7287 8644 5553 3840 6896 6305 6381 7361 4648
Bell & Howell	4648
Belson	4156 4706
Benchmark-Beaumarck	4523 5510 3637 4648
Bennett	6896 8644
BenQ	8016
Beon	8644 6896 5553 4648
Berthen	5355
Best	7287
Bestar	8644 6896 7287 5090 4648
Bestar-Daewoo	5090

Bigston	3637
Black Diamond	5319 8033 3840 6896 7837 3036
Black Star	5531
Black Strip	6482 3802 5510
Black Way	5896 4016
Blaupunkt	3518 6640 5265 6538 7839 5186 7014 4849 6812
Blue Sky	8644 8060 3840 6230 5355 6381 2499 6896 4016 5896 7014 7733 4156 7361 6685 4648
Blue Star	5896
Bondstec	5531
Boots	7647
Bosch	7839
BPL	8644 6896 5896
Brandt	4884 7430 4422 3270 6982 3847
Brandt Electronique	4422 3270
Brend Star	3637
Brinkmann	8644 6896 5355 7350 5553 2590
Brionvega	8644 6896 8377 4648
Briorryega	4648
Britannia	4469
Brockwood	4523 3802 5874
Broksonic	4523 3802 5874
Brother	3488
Bruns	2590
BSR	5605 3350
BTC	4016
Bush	5355 4016 5605 7647 6812 8644 4530 5896 7384 2438 5090 7350 3488 3350 3840 6230 7910 5952 5905 2924 6896 8060 5832 7733 5453 3802 4648
Cample	4523 3802 5874
Candle	4523
Canton	4016
Capehart	4523 3802 4648
Capsonic	3488
Carad	2696 8644 6896 5355 3840
Carena	7014 8644 6896
Carrefour	6812 4265 8644 6896 4648
Carver	4849 4648
Cascade	7647 8644 6896
Casio	8644 6896 5605 4648
Cathay	8644 6896
CCE	8644 6896
Celestial	6498 8033 7837
Centrex	7046 5397
Centrum	3840
Centurion	8644 6896 4648
Century	5531
CGE	4752 6634 5553 5531 7287 5605 3637
CGM	3637
CIE	3637

Cihan	4648
Cimline	7647 4016 3637
Cinex	3451 5952
Circuit City	4523 3802 5874
Citizen	4523 5510 4648
City	7647 3637
Clarivox	5553 8644 6896 4265
Clatronic	8644 7287 4530 8060 4016 3488 6896 5531 7647 3451 6305 5319 3637
Clayton	3840
CMS	4469
Cobolt	5397
Colortyme	5510 4648
Combitech	7733
Computron	3637
Concorde	7647 3637
Condor	8644 6896 7287 4469 7647 5896 5531 5553 2620 5605 3488 3637 4648
Conia	3491 7837 4706 8033
Conic	4523 3802 4648
Conrac	7361
Conrad	8644 6896
Contec	4469 7647 7507 6812 3488 8644 6896 3802 3637
Continental Edison	7430 4422 6230
Coronado	4523
Cosmel	7647 8644 6896 3637
Craig	4648
Crosley	5531 4752 6634 5605 3802 5874 4648
Crown	7647 5716 7287 2590 8644 6896 6230 8060 6305 6381 5553 7910 4638 6559 3840 4523 3637 4648
Crystal	4648
CS Electronics	4469 4016 5531
CTC	5531
CTX	8016
Curtis Mathes	4523 3802 5510 4648 3193
Cybertron	4016 3802
Cytronix	3191
Daewoo	5295 5090 2499 4874 3876 8644 6896 7647 4469 4016 6286 7733 3118 2016 3620 4677 4523 3637 4648
Daichi	3637
Dainichi	4016 4469
Daitso	4201
Dansai	8644 6896 3488 6482 4469 7647 6812 7910 4523
Dansette	6764
Dantax	7287 2590 8060 6305 6381 7733
Datsura	7910
Dawa	7647 8644 6896 4648

Daytek	2924 4979 8435 4698
Dayton	4979
Daytron	7647 5090 8644 6896 4523 3637
DEC	4167 7314 5397
Decca	8568 8644 6896 6286 7733 4648
de Graaf	7910 5605 4783 2438
Deitron	8644 6896 5090 4016
Denko	3488
Denver	8644 6896 6305 4485 8299 3637
DER	6127
Desmet	8644 6896 7647 3637 4648
Diamant	8644 6896
Diamond	3488 2924 7647 4777 4469 4530 7314 8033 3637
Digatron	8644 6896
Digihome	7660
Digiline	8644 6896 4819 5355
DigiLogic	8644 6896
Digitek	8033
Digitor	8644 6896 6641
Digivision	3350
DigiX	3118
DiK	8644 6896
Dixi	7647 8644 6896 5531 3637 4648
DL	5397 7046 8644 8299 4677
Domeos	5355
Domland	3158
Dream Vision	8561
DSE	6641 5952 8033
DTS	7647 3637
Dual	6982 7350 8644 6896 7213 3158 5605 6286 8394 7660 3840 4648 3637
Dumont	4265 4523 3802 5874
Dunai	5605
Durabrand	8644 4917 6896
Dux	8644 6896
D-Vision	8644 7066 6896
DVX	5397
Dynamic	3637
Dynatech	4523 3802 5874
Dynatron	8644 6896
Easy Living	4596 5905
Eaton	5510
Ecco	2335 8435
ECR	3802
Edison- Minerva	6230
Elbe	3444 8377 7287 5605 8644 6896 4016 3518 2620 2696 8568 3350
Elbe-Sharp	8568
Elbit	4648
Elicit	5531 8568 5605
Elecs	4648
Electratune	4523

Electro Tech	3637
Electrobrand	5874
Electrohorne	4523 3802 5874
Electronika	4648
Elekta	7647 8644 6896 3488 5896 3637
Elfunk	3573 3840
ELG	8644 6896
Elin	4469 8644 6896 4819 4783 3350 5605 7647 3637 4648
Elite	4016 8644 6896 4523 3802 5510 4648
Elta	7647 3488 4469 3637
Emco	5531
Emerson	8060 5393 5531 8644 6896 4530 4265 5896 3350 2499 2590 7287 5605 5355 4523 3802 5874
Emperor	5896
Enzer	3036
EON	3802 5510
Erres	8644 6896 4648
ESC	8644 6896
Estèle	5605
Etron	4709 8644 6896 7647 5605 8033 3637
Eurofeel	3488
EuroLine	8644
Euroman	4469 3488 8644 6896 7287
Euromann	4648
Europa	8644 6896
Europhon	8644 8568 5605 6896 5531 4469 4648
Evesham	4596
Excel	8644 6896
Expert	5605
Exquisit	8644 6896 5531
Fagor	8644 6896
Fairtec	4156
Family Life	8644 6896
Fast	3634
Fenner	5090 7647 3637
Ferguson	5301 4884 4422 3270 6127 7430 3847 8644 6896 6482 6982 4638 5620 3350 4783 5119 3840 4648
Fidelis	3637
Fidelity	5605 3835 2438 8644 6896 4530 6764 6127 4469 3488 7733 3350
Filsai	3637
Finlandia	7910 6092 4783 3350 5605 2438 4422 6982
Finlux	4819 8644 6896 8060 6092 5605 8568 6381 4265 2620 8394 6753 8020 5952 4659 5553 6305 7361 3637 4648
Firstline	8644 6896 5090 5355 8060 5605 7647 4469 5531 2499 2620 7910 3350 3840 4156 7361 6685 5319 3637 4648

Fisher	8812 7910 7287 3350 5605 3802
Flint	8644 6896 2696 4016 7014 3488 4648
Force	7660
Forgestone	6127
Formenti	5605 8644 6896 2590 4469 4648
Formenti-Phoenix	4469
Fortress	3193 4523 3802
Fraba	8644 6896 7287
Friac	7647 8644 6896 7287 4874 2696
Frontech	5531 3488 2438 7647 5605 3637
Fujimaro	4677
Fujitsu	5605 7647 7213 8644 6896 3350 8360 4523 3802 5874
Fujitsu General	7647 5605
Fujitsu Siemens	3191 5905 5319
Funai	5355 3488 6764 4523 3802 5874
Furichi	7314
Futronic	3488 4167 7314
Future	8644 6896
Galaxi	8644 6896 3350 5605
Galaxis	7287 5553 8644 6896
Galeria	7647 3637
GBC	5605 7647 5090 4016 2438 3637
GE	6982 5393 5896 3847 4422 7430 3270 4884
Geant Casino	5605
GEC	5605 3350 8644 8568 6896
Geloso	5531 7647 2438 5605 5090 3637
Gemsound	3637
General	7430 4422 3637
General Electric	3637 7647
General Technic	6982 4422
Genesis	7647 8644 6896
Genexxa	4016 8644 6896 6764 5605 7647 4648
Gericom	4677 3191 7855 3118
Gitem	4648
GM	3637
GMG	3637
Goldfunk	5355
Goldhand	4469 3637
GoldStar	8644 7647 7287 4709 2796 5393 5531 4469 6896 5605 3350 7430 2438 6305 8060 6381 7014 4523 5510 4648
Gooding	6230
Goodmans	5295 5905 3840 8644 4874 6896 8060 5355 2499 5090 6812 3488 8568 7647 6230 4530 6982 6482 8020 3847 3270 4016 7733 3876 5832 3118 6948 8299 4698 3637 4648
Gorenje	7287
GPM	4016 3637

Gradiente	4638 4849 8644 6896
Gradin	3637 4648
Graetz	8060 3350 4530 5605 8644 6559 6896 5319
Granada	8644 6896 3001 5620 4659 3270 3847 5605 7910 6812 6559 8568 2438 3952 6982 4783 4648
Grandin	8644 6896 7647 5605 5090 5896 4016 7014 2696 8060 6381 5355 3840 4677 4156 3118
Granprix	3451
Grenadier	3637
Gronic	5605
Grundig	5265 4679 6640 3518 8435 6896 8299 7647 4265 6230 8644 5119 6812 7287 4925 7733 6948 5393 4698 6982
Grunkel	5319
GTT	3637
H&B	7361
Haaz	8435
Haier	2924 3488
Halifax	3488 4469
Hallmark	4523 3802 5874
Hammerstein	3488
Hampton	4469
Hanimex	4016 7733
Hanseatic	8644 6896 4874 7350 5605 3350 5896 3158 5295 7287 3876 7647 7361 2590 3637 4648 2796 8060
Hantarex	7647 8644 6896 8568 3637 4648
Hantor	8644 6896
Harley Davidson	4523 3802 5510 5874
Harrad	4523 3802 5874
Harsper	4677
Harvard	4523 3802 5874
Harwa	2335 3453 7789
Harwood	7647 6764 8644 6896 6230
Hauppauge	8644 6896
HCM	7647 6764 8644 6896 4016 5553 5896 3488 3637
Heathkit	5874 4648
Hedzon	6896 8644
Hema	7647
Hicon	2519
Hifivox	7430
Higashi	4469
Highline	3488 8644 6896
Hikona	4016
Hiline	3637
Hinari	7910 8644 6896 7647 4016 6812 5605 7384 5119 6230 3488 7733 3802 3637 4648

Hisawa	5896 4016 7014 2696 7733 8060
Hisense	6685 7910
Hitachi	3952 6069 4889 6812 6896 7430 2438 4783 5620 4659 5605 6982 6619 5295 7040 5393 8568 6972 4874 8644 6286 4819 6753 4737 3350 3835 8020 3840 8374 7660 3802 5874 4648
Hitachi Fujian	5620 3952
Hitsu	7647 2696 7014 4016
HMV	6127
Höher	8060 5952 4677
Home Electronics	6305
Horizont	4648
Hornophon	8644 6896 4648
Hoshai	4016 7014 5896
Huanyu	5090 4469
Hugoson	3094 7855
Hygashi	4469
Hyper	7647 4469 5531 3637 4648
Hypersonic	3350
Hypson	8644 6896 8060 6381 3488 5896 7014 7733 3840 5355 2590 3637 4648
Hyundai	8644 4677 6896 8435 7314 3036 3620 5952
Iberia	8644 6896
ICE	3488 8644 4530 7647 6896 4016 4469 3637 4648
Ices	4016 4469
Ict	8644 6286 6896
IIsonic	4698
Iiyama	7855 3094
IMA	4523 3802 5874
Imperial	8644 5605 7287 4752 6634 6896 2620 3350 5553 5531 4648
Indiana	8644 6896 4648
Infinity	4648
InFocus	3251
Ingelen	6230 2696 8060 5605 3350
Ingersoll	7647 3637
Inno Hit	7647 8644 6896 4016 3637 4648 5896 5319 8568 5531
Innovation	7350 8644 6896
Innowert	4677 3191
Inotech	2335 8033
Interactive	8644 6896 3835 7839 5605 3350 7287 7430 2620
Interbuy	7647 8644 3488 5531 3835 6896 3637
Interdiscount	4648
Interfunk	8644 6896 3835 7839 5605 3350 7287 7430 5531 6538 4648
Internal	8644 6896 4874 5090 2499

International	4469
Intervision	5896 7014 8644 4530 2796 7350 2590 7287 3488 5531 7647 6896 3158 6230 4016 5605
Irradio	7647 8644 6896 4016 5531 4530 3637 4648
IST	4648
Isukai	4016 8644 6896 5896 7014 4648
ITL	3637
ITS	8644 4530 4016 5896 3488 4469 7647 6896 3637
ITT	5605 8020 3350 4659 4783 6127 6092 6559 7910 2696
ITT Nokia	3350 4783 5605 4659 6305 2696 8394 2438 8020 6092 7910 6559
ITV	3488 8644 6896 5531 5090
JBL	4648
JCB	5874
JDV	7066
Jean	6812
JEC	6482
Jetpoint	5510 4648
JMB	8644 4874 5295 5090 6896 5119 7733
Jocel	5716
Jubilee	6896
Jumbotronic	4648
JVC	4638 6812 6127 4530 4016 6305 5553 3193 4526 3802 4648
Kaiser	4648
Kaisui	4016 5896 8644 6896 4469 7014 7647 3637 4648
Kambrook	2796
Kamp	4469
Kapsch	5605 3350
Karcher	8644 6896 7287 2696 5605 5896 3488 5453 8060 5952 6305 3637 4648
Kathrein	6896 8644
Kawa	4530
Kawasho	4469
KB Aristocrat	5605
Kendo	2696 8644 6896 5605 7350 3835 7287 2796 2438 2620 5531 8377 3451 3840 4917 2590 3637 4648
Kendwood	4523
Kennedy	5605 3444
Kennex	
Kenwood	4819
Kingsley	4469
Kiota	4709 3637
Kiton	6896 8644 5355
KLH	4523 3802 5874
Kloss	5510
Kneissel	8644 7287 2696 2620 5090 4874 6896 3444 8377 7733

Kobic	3637
Kobra	2519
Kolster	8644 6896 5531 4016 4648
Konichi	7647 3637
Konka	8644 6896 4530 8060 5553 4016 8485 8299 3491 4706
Kontakt	6230
Korpel	8644 6896 4648
Korting	7287
Kosmos	8644 6896
Kotron	6764 3488
Koyoda	7647
KTV	4523 3802 5874
Kuasho	4523 4648
Kuba	5605
Kuba Electronic	5605
Kyoshu	6764 5553 3488
Kyoto	5605 4469
L&S Electronic	4677 8060
LaSAT	2590 7287
Lavis	3840 8644 5605
Leader	7647 3637
Lecson	8644 6896
Legend	7647 3637
Lemair	2620
Lenco	8644 7647 5605 5090 6896 8299 3840 3637 4648
Lenoir	3637 7647
Lesa	5531
Levis Austria	8644 6896
Lexsor	3453
Leyco	3488 8644 6896 4648
LG	8644 5393 7287 7647 7430 2924 6381 8265 2796 5447 4709 6896 4156 6944 4312 5531 8060 4469 5605 6305 3350
Liesenkötter	7839 8644 6896 4648 8644 7839 5186 6896
Life	3637
Lifetec	8644 7647 7350 5090 5355 3835 3840 6286 6896 4016 3488 4596 8060 3637 4648
Linatron	4523 3802
Lloyd	4523 3802 3637 5874
Lloyd's	4709 7647
Lodos	3840 7660
Loewe	3835 5613 7337 8644 6896 7287 8377 8568 4648
Logik	7507 2924 2335 7647 6127 3488 4530 4709 3118 7855 3840
Logix	5355 7350
Luker	7066

Luma	8644 2438 5605 2620 6896 5090 7647 8377 3637 4648
Lumatron	2438 8644 6896 8377 5605 3350 3488 5301
Lux May	4648 8644 7647 6896
Luxor	5319 2438 8020 6753 6092 4659 3840 8394 3350 7910 4783 5605
LXI	5393 4648
M Electronics	3637 4648
Macys	4523 3802
Madison	8644 6896
Magnadyne	5531 8568 5605 3637 4648
Magnafon	4648 8568 4469 5301
Magnasonic	4523 3637 4648
Magnavox	8644 6896 6812 7046 3802 4648
Magnum	3451 8060 8644 6896 6381 3730
Mandor	3488
Manesth	8644 6896 3488 6482 5605 2438 4648
Manhattan	8644 6896 5355 3840 4201 5605 5453
Marantz	8644 6896 6764 4648
Marcys	3802
Mark	8644 6896 4469 5090 7647 8060 6381 4648
Master's	4874 8644
Masuda	4016 4530 7647 3488 8644 6896
Matsui	8644 6896 6230 7647 5605 8568 6482 7910 7507 7384 6812 4530 5265 3518 3270 8060 5739 5119 2438 7014 7733 3840 3637 4648
Matsushita	4526
Matsuyama	8299
Mava	4523
Max-Multi	4648
Max-Tip1	3637
Max-Tip4	4648
Maxam	3488 3637
Maxdorf	2335
Maxell	3637
Maxim	7066 5952
MCE	7647 3637
Mediator	8644 6896 4648
Medion	8644 8060 7361 7350 2924 7733 3840 4917 5355 6896 3835 6286 5832 4596 3118 3730
Megas	2696
Megatron	5393
MEI	3840 8644 6896
Melectronic	6092 8644 3835 7430 2620 5605 4422 6896 6982 5531 4819 5090 5295 3350 3518 5265 7647 8020 6753 4469 3876 8060
Memorex	7647 5393 4526 3637
Memphis	3637 7647
Mercury	4709 8644 7647 6896 3637

Merritt	4783 3350 5605
Metz	2769 6975 5313 2410 8644 6896 8299 5355 5319 5265 6640 3518 3840 7324
MGA	5393 8644 6896 4016
Micromaxx	8644 6896 5355 3840 7361
Microstar	7361
MicroTEK	8033
Midland	4523
Mikomi	7660
Minato	8644 6896
Minerva	6230 6640 5265 4265 3518 8568 5620
Minoka	6764 8644 6896 4648
Mirror	5832
Mistral Electronics	6127
Mitsubishi	5620 3193 3835 8644 5393 6812 6127 6640 6896 7910 3840 3802 3637 4648
Mitsuri General	5605
Mivar	7287 4469 4318 8568
Monaco	7647
Monitor	5510
Morgan's	8644 6896
Motorola	3193 4648
MTC	3835 5605 4469 3350 4523 5510
MTlogic	8060 6948
Multibroadcast	6127
Multifec	8644 6896 2590 5355 3840 5952
Multitech	7647 2438 2590 8644 7287 6896 4469 5531 3488 4523 3802 3637 5874 4648
Murphy	4469 5605
Musikland	8644 4016 5531 6896
MyCom	4698 5393
Myryad	6896 8644
NAD	5393 3350 5605 3802
Naiko	8644 7066 6305 6896
Nakimura	5090 8644 6896
Namsunc	3637
Naonis	2438 5605
NAP	4648
Narita	7066
NAT	3001
National	3001 4648
NEC	4849 8299 7976 3726 8644 6896 7507 8561 6812 7014 7647 5090 4874 4638 3876 3637 3802 5510
Neckermann	8644 3518 7287 6736 5553 5531 2620 2438 6538 6896 5605 7839 3835 3637 5874 4648
NEI	8644 6896 4530 5605 4648
Neovia	4677 4698
Nesco	5531 7733

Netsat	8644 6896
Neufunk	8644 7647 6896 2696 4016 5896 8060 8644 7647 6896 6982 3637 4648
New World	4016
Nicamagic	4469
Nikkai	4016 8644 6896 3488 6482 4469 7647 6812 4523 4648
Nikkei	8060
Nikko	5393
Nissan	5510
Noblex	3637
Noblisko	4265 4469
Nogamatic	7430
Nokia	3350 5605 8020 4783 5090 8394 6305 6092 6753 4659 6559 7910 2696 7430 5510 3637 4648
Noname	4648
Nordmende	7430 8060 5397 4422 6896 3270 5605 5905 3847 6982 5265 8644 4648
Norfolk	5605
Normerel	8644 6896
Novabeam	4648
Novak	8644 6896
Novatronic	8644 4819 5090 6896 3637 4648
Nurnberg	5605 3350
NU-TEC	7014 2924
O General	3637
Oceanic	5605 3350 7910 4659 4783 8020
Odeon	3488
Okano	7287 8644 6896 3488 7647 3637
Olidata	4698
Olympic	3637
Omega	3488
Omni	7046 5397 2924
Onceas	3637
Onwa	4530 2810 4016 5739
Opera	8644 6896 4648
Optimus	4526
Optonica	3193
Orava	4648
Orbit	8644 6896 4648
Orcom	4262
Orient	3637
Orion	8644 5119 7384 6896 6764 8568 7733 3118 8060 7507 7647 3488 3453 3637 5874 4648 4523 3802
Orline	8644 4016 6896
Ormond	5355 3840 8644 6896
Orsowe	8568
Osaki	4016 3488 8644 6764 5090 7384 6896
Osio	8644 6896
Oso	4016
Osume	6812 4016 8644 6896

Merritt	4783 3350 5605
Metz	2769 6975 5313 2410 8644 6896 8299 5355 5319 5265 6640 3518 3840 7324
MGA	5393 8644 6896 4016
Micromaxx	8644 6896 5355 3840 7361
Microstar	7361
MicroTEK	8033
Midland	4523
Mikomi	7660
Minato	8644 6896
Minerva	6230 6640 5265 4265 3518 8568 5620
Minoka	6764 8644 6896 4648
Mirror	5832
Mistral Electronics	6127
Mitsubishi	5620 3193 3835 8644 5393 6812 6127 6640 6896 7910 3840 3802 3637 4648
Mitsuri General	5605
Mivar	7287 4469 4318 8568
Monaco	7647
Monitor	5510
Morgan's	8644 6896
Motorola	3193 4648
MTC	3835 5605 4469 3350 4523 5510
MTlogic	8060 6948
Multibroadcast	6127
Multitec	8644 6896 2590 5355 3840 5952
Multitech	7647 2438 2590 8644 7287 6896 4469 5531 3488 4523 3802 3637 5874 4648
Murphy	4469 5605
Musikland	8644 4016 5531 6896
MyCom	4698 5393
Myryad	6896 8644
NAD	5393 3350 5605 3802
Naiko	8644 7066 6305 6896
Nakimura	5090 8644 6896
Namsunc	3637
Naonis	2438 5605
NAP	4648
Narita	7066
NAT	3001
National	3001 4648
NEC	4849 8299 7976 3726 8644 6896 7507 8561 6812 7014 7647 5090 4874 4638 3876 3637 3802 5510
Neckermann	8644 3518 7287 6736 5553 5531 2620 2438 6538 6896 5605 7839 3835 3637 5874 4648
NEI	8644 6896 4530 5605 4648
Neovia	4677 4698
Nesco	5531 7733

Netsat	8644 6896
Neufunk	8644 7647 6896 2696 4016 5896 8060 8644 7647 6896 6982 3637 4648
New World	4016
Nicamagic	4469
Nikkai	4016 8644 6896 3488 6482 4469 7647 6812 4523 4648
Nikkei	8060
Nikko	5393
Nissan	5510
Noblex	3637
Nobliko	4265 4469
Nogamatic	7430
Nokia	3350 5605 8020 4783 5090 8394 6305 6092 6753 4659 6559 7910 2696 7430 5510 3637 4648
Noname	4648
Nordmende	7430 8060 5397 4422 6896 3270 5605 5905 3847 6982 5265 8644 4648
Norfolk	5605
Normerel	8644 6896
Novabeam	4648
Novak	8644 6896
Novatronic	8644 4819 5090 6896 3637 4648
Nurnberg	5605 3350
NU-TEC	7014 2924
O General	3637
Oceanic	5605 3350 7910 4659 4783 8020
Odeon	3488
Okano	7287 8644 6896 3488 7647 3637
Olidata	4698
Olympic	3637
Omega	3488
Omni	7046 5397 2924
Onceas	3637
Onwa	4530 2810 4016 5739
Opera	8644 6896 4648
Optimus	4526
Optonica	3193
Orava	4648
Orbit	8644 6896 4648
Orcom	4262
Orient	3637
Orion	8644 5119 7384 6896 6764 8568 7733 3118 8060 7507 7647 3488 3453 3637 5874 4648 4523 3802
Orline	8644 4016 6896
Ormond	5355 3840 8644 6896
Orsowe	8568
Osaki	4016 3488 8644 6764 5090 7384 6896
Osio	8644 6896
Oso	4016
Osume	6812 4016 8644 6896

OTF	3637
Otto Versand	3802 3637 5874 7350 3518 3350 7430 3001 6736 6812 3193 3835 5531 7647 5896 6982 8644 6896 6640 5265 8568
OVP	4648
Pace	7733
Pacific	8644 6896 6286 8060 3840 5119
Pael	4469
Palladium	7287 8644 2620 8060 5553 6896 5531 7839 6286 3518 6736 6538 5605 7350 2438 4648
Palsonic	3488 6764 8644 2796 4709 5553 5453 3453 4016 2924 6896 2335
Panama	7647 3488 4469 8644 6896 5531 3637
Panashiba	4709 3637
Panasonic	4526 5620 3001 3350 5605 4783 7605 4709 2410 8568 8644 6896 8360 5393 4648
Panavision	8644 2620 6896
Panavox	3637
Panorma	3637
Papouw	8644 6896
Pathe Cinema	5605 4469 7287
Pathe	7430
Pausa	7647 3637
PCE/PEC	4523 3802 5510
Penney	4523 5510
Perdio	5605 8644 4469 5896 6896
Perfekt	8644 6896 4648
Performance	3802 5874
Philco	6634 4752 5553 5531 5605 7287 8644 6896 3802 3637 4648 7350
Philex	6127 5605
Philips	6896 8644 3518 6127 6538 8016 3802 5874 6982 5090 3350 7647 4648
Phocus	3730 6948 8060
Phoenix	8644 6896 7287 2590 5605 4469 4648
Phonola	8644 6896 6127 4469 4648
Pilot	6896 8644 5716 8435 5510
Pioneer	4174 7507 8644 4849 3350 7430 5605 4422 6896 8209 7287 6982 2590 3835 4648 7287 2590
Plantron	8644 6896 3488 7647 3637 4648
Playsonic	8060 8644 6559 6381
Policom	7430 3350 5605 4265 4752 6634 6640
Polytron	5896
Poppy	7647 3637
Portland	5090 2499 4523 5874 4648
Powerpoint	6230 8644 6896 2924
Prandoni-Prince	5531 8568 3350 2438

President	7314
Prima	7647 3488 6764 7789 4523 3802 5510 3637 4648
Princess	2924 3637
Prinston	3840
Prinz	3350
Proelco	4648
Profex	7647 5605 3350 2438 3637
Profi	7647
Profronic	8644 6896 4648
Proline	8644 6896 4884 5295 2620 4698
Proscan	5510
Prosonic	8644 6896 7287 5090 4530 5355 8060 4469
Protec	3637 4648
Protech	8644 6896 7647 5531 3488 5553 5355 5896 5605 2590 3840
Proton	5393 4523 3637
Provision	4874 8644 6896 3840 8060
Pulser	4523 5510 3637 4648 4156
Pye	8644 6896 5090 6764 4648
Pymi	7647 3637
Qty1	4648
Quadral	4016
Quasar	5531 4526 4677 7647 6634 5186 4265 4819
Quelle	8644 6736 7507 7430 5355 6896 5265 6538 3835 6640 3518 3350 3488 3840 6092 7647 6812 5531 4752 7839 4523 3802 3637 5874 4648
Questa	6812 3802
R Line	4648
Radialva	7430 4016 5605 8644 6896 4422
Radio Shock	4523
Radiola	8644 6896 4648
Radiomarelli	8568 5531 8644 6896
RadioShack	8644 6896 5393
Radiotone	7647 8644 6896 7287 3488 3840 3637 4648 5553 6764 3451 5355
Rank	4265
Rank Arena	6812 2810 3036
RBM	4265
RCA	4884 3193 3847 3270 6982 3036 5510
Realistic	5393
Recor	8644 5553 6896 4648
Record	4648
Rectiligne	8644 6896
Rediffusion	3350 4783 6812 6092
Redstar	8644 6896
Reflex	8644 6896 3840 5355
Regente	3637
Relisys	4677 2108 4979 3191
Reoc	8060 5295 2499

Revov/Studer	4648
Rex	2438 2620 5531 5605 3488
RFT	7287 3488 8644 6896 2590
Rhapsody	4469
Rice Club	5510
Ricoh	8644 6896
Rinex	2335 5553
R-Line	8644 6896 5605
RMB	4523
Roadstar	3840 7647 5553 8644 3488 5896 4485 5832 6896 8060 5355 4016 3637
Rodex	8644 6896
Rosita	3637
Rover	6812 2108
Rowa	3488 2924 5716 7647 4469 8299 8644 6896 3637
Royal	3637
Royal Lux	7287 6764 3270
Rukopir	6896 8644
Runco	5510
Saba	4884 7430 3847 6982 2104 3270 4783 4526 4422 5605 8568 3350 8060
Sagem	2696 7014 5896 2820 2517
Saisho	8568 7647 7507 5605 3488 4648
Saivod	8644 7066 6896 5319 5355 5716 3840
Sakaï	5605
Sakio	3637
Sakura	3637
Sakyno	7014
Salora	5605 3350 8568 2438 4783 6559 7910 8020
Salsa	3270
Sambers	8568
Sampo	4523
Samsung	2517 8299 8644 5393 7910 7350 5605 4884 6896 7736 3193 4495 4523 5510 3637 4648 7647 7287 3488 4469
Samsux	4523
Sandra	4469
Sanky	4523
Sansui	8644 2429 6896 8435 4530 2810 7014 6641 3036 4523 5510 3637 4648
Santon	7647
Sanyo	7910 3573 6812 7507 5605 8644 5620 6896 7287 6559 4469 7647 2590 4849 3802 3637
Save	8644 6896
Saville	7733
SBR	8644 6896 6127 4648
Schaub Lorenz	4783 8060 3350 6305 2590 5090 4156
Schneider	6286 8644 6896 7350 3840 5605 3451 8060 3158 7213 6982 5531 2499 7733 7066 4265 4530 3350 4016 5355 3637 4648

Scotland	5605
Scott	4485 5393 4523 3802 5874
Sears	5393
Seaway	5295
Seelver	6896 3840 8644
SEG	8644 6896 3840 4917 8377 4469 5319 4016 5355 6230 7647 5605 2499 3634 8060 3637 3488 5295 6812 5531 4523 3802
SEI	6736 5605 8568 8644 6896
Sei-Sinudyne	8568 6736 8644 6896 5874 4648
Seitech	7855
Seleco	2438 8377 5605 2620 3444 3488 6092 6812 4530
Semua	4523
Sencora	7647 3637
Sentra	6482 4016 7647
Serino	2696 7014 4469 3193
Sharp	3193 7138 6812 4638 6127 8568 6538 4174 7409 5319 4523 3802
Shintom	5874
Shintoshi	8644 6896
Shivaki	8644 6896 5119 5090 5393
Show	5553 7647 3637
Siarem	5605 8568
Siemens	3518 6640 6538 5265 7839 5186 8644 6896 3350
Siemes	4523 4648
Siera	8644 6896 8299
Sierra	4648
Siesta	7287
Sigmax	5510
Signature	5874
Silma	4648
Silva	8644 6896 4469 3350 3451 3637
Silva Schneider	5952
Silver	6812 8644 7014 3350 6896 6381 5605 3802
SilverCrest	3840 8644 6896
Singer	7647 3011 8644 6896 5531 3444 3270 5605 3637 4648
Sinotec	2335
Sinudyne	5605 3350 8568 6736 8644 6896 7733
Sky	8644 5896 3118 5393 6896 4262
Skymaster	4819
Skysonic	3036
Sliding	4677 3118
SLX	5355
Smaragd	6230
Snyder	4648
Soemtron	4677 3191
Solavox	3350 5605 4783 8644 6896

Sonawa	4016
Soniko	8644 6896
Soniq	2519
Sonitron	7910 7287 6559
Sonneclair	8644 6896
Sonoko	8644 6896 7647 3488 3637 5896 4648
Sonolor	7910 5605 6736 4783 3350 5896
Sontec	8644 6896 7287 7647 4648
Sony	6736 2762 7507 6219 3193 4849 4752 5874 3078 6812 8644 6896 3802
Sound & Vision	4016 5090 8644 6896
Soundesign	4523 3802 5510 5874 5393
Soundmaster	3637
Soundwave	8644 6896 5553 6381
Soyea	2335
Specrician	4523 4648
Spectra	7647
Ssangyong	7647
Staksonic	7647
Standard	8644 6896 3840 4016 7647 5090 3637
Starlite	7647 5605 8644 6896 3488 6764 3637
Starlux	3637
Stenway	5896 4016
Stern	5605 2438 3488 2620 3444
Stevision	7066 5952
Strato	8644 6896 3488 7647
Strong	5319 7660 3840 8644 6896
Sunic Line	8644 6896
Sunkai	7384 7014 4016 2696 8644 6896 6230 4677
Sunstar	4530 8644 6896 7647 3488 3637
Sunwatt	7014
Sunwood	8644 6896 7647 3637 4648
Superla	8568 4469
Supersonic	7910 6896 2924 3488 8484 7014
Supertec	3637 4648
Supertech	7647 8644 6896 4469 4016 3637
Supra	5393 5090 7647 3637
Supremacy	4523 3802
Supreme	5874
Susumu	3270 4016 4422
Sutron	7647 3637
Svasa	8484
Swissline	5531
Swisstec	4262 3118
SYC Line	3637
Sydney	4469
Sylvania	4648
Symphonic	4523 3802 5874
Sysline	8644 6896
Sytong	4469
T+A	6975
Tandberg	2410 2620 7430 8377 3350 5605
Tandy	4016 5531 3193 5605

Tashiko	6812 4849 4469 5605 2438 3802
Tatung	5952 8644 6896 8568 7507 7733 8016 5905 4156 4648
TCM	8060 3730 7361
Teac	2924 3835 8644 4917 5393 7647 6764 5896 3840 6896 5716 5355 5553 4849 8060 7660 7014 8435 3488 2499 5991
Teak	3637
TEC	7647 5531 3270 8644 6896 3350 5605 3637 3637
Techica	4016
Tech Line	8644 6896 5355 4917 5319
Techlux	4485
Technica	7066
Technics	4526 4648
Techniland	4648
TechniSat	8644 6896 5605 4201
Technisson	8060 3730
Technosonic	8644 6896
Techwood	5319 5510 5874
Tecnimagen	6896
Tecnison	3637
Tedelex	5553 6305 3011 7647 8435 7910 2924 8299 5397 8644 6896 3637
Teh nol	3637
Teiron	7647
Teknant	3637 4648
Teknika	4523 5510
Tekon	5510 3637
Teleavia	7430 4422 6982
Telecor	8644 6896 5605 4016 3158
Telefac	3637
Telefunken	4884 3847 4752 8299 4262 4422 6634 3270 7430 2924 6982 5716 5301 8644 6896 2590 2104 8033 2707 3491 8060 5952 6092 7837
Telefusion	8644 6896
Telegazi	8644 5605 4016 3488 6896
Telemeister	8644 6896
Teleopta	3637
Telesonic	8644 6896
Telestar	7647 8644 6896 6764 3637
Teletech	8644 6896 5355 7647 5531 3840 3637
Teleton	5605 6812 2438
Televideon	5605 4469
Television	8644 6896
Tempest	7647 8644 6896 3488 3637
Tennessee	8644 6896
Tensai	4016 8644 6896 7647 4819 5090 4530 2796 5531 6381 5605 3840 3637 4648
Tenson	3637 7647
Tesla	8644 4648

Tesla Orava	4648
Tevion	7350 4706 5905 3191 3451 5355 6286 8060 8644 5952 6896 7361 3840 4596 3730
Texet	5090 7647 4469 4016
Thomas	4523 5510 3637 5874 4648
Thomson	4884 3847 6982 4422 7430 3270 8644 6896 4469
Thorn	5620 6127 7430 5301 8644 6896 7507 3270 3952 6982 3350 6736 3835 6812 5090 6482 4752 6634 4874 6640 4265 3802
Thorn-Ferguson	5620 7430 6127 3350 3270 4874 5301 6482
Tiny	3453 7789 5393 5510
Tobishi	4016
Tobo	3637
Tokai	8644 6896 5355 5605 5090 7647 3840 4648
Tokaido	3840
Tokyo	4469 6482 5510
Tomashi	5896 4016
Tongtel	7046 8299
Topline	3840 5355
Toshiba	4679 4081 6482 3730 7733 7647 2924 8644 6812 4265 8060 7430 3251 5319 4925 5952 4940 5265 3518 2517 5447 4526 8561 3802 5510
Tosonic	4523 5510
Totevision	4523
Toyoda	7647 4530 3488
Trakton	7647 3488
TRANS-continents	5355 3840 8644 6896 2590 4677
Transonic	8644 6896 7014 8299 3835 3488 2924 5716 5553 7647
Transtec	4469
TRC	3637
Trevi	3637
Triad	8644 6896 4016 4648
Trident	8568
Trilux	4648
Tristar	3488 4016 6127
Triumph	8568 6092 6896 8644
Trivision	3637
Tsoschi	5896
TVTEXT95	6896
Uher	8644 6896 5090 5553 2590 7287 8020 4648
Ultravox	5090 5531 4469 5605 8644 6896
UMA	4648
Unic Line	8644 6896 4659 7014
Unimor	4648

United	8060 8644 6381 6896 7733 3840 8299 7066
Universal	8644 6896
Universum	6092 4819 5265 4659 2620 4752 7839 5186 6640 3350 5531 6753 6736 5355 7430 8377 8020 7287 6538 5553 8394 7647 6634 3634 7507 8644 3835 6812 3840 4917 4849 5319 4265 5605 3488 6896 7660 2517 3637 4648
Univox	8644 6896 5605
Uranya	3637
Utax	5605
V7	
Videoseven	5991 5393 3118 4698 7855
Vanguard	3637
Veco	3637
Vestel	8644 5605 6896 5355 3840 5319 4648
Vexa	7647 8644 6896 3637 4648
Victor	4638
Video System	4648
Videologic	4016 4469
Videologique	4469 4016
Videosat	5531
VideoSystem	8644 6896
Videotechnic	4469 5090
Videoton	5605
Vidion	3637
Vidtech	6812 5393
ViewSonic	5991
Visiola	4469
Vision	8644 3488 6896 3637 4648
Vistar	3350
Vocson	4648
Vortec	8644 6896 4648
Voxson	8644 6896 2438 5553 5605 5393
Waltham	5553 4422 8644 6896 5355 7430 3840 5605 5119
Wards	4648
Watson	3840 4596 8644 6896 5605 7647 5355 4016 4698 7839 3637 4648 7350 3158 7733 4917
Watt Radio	5605 4469
Wega	8644 6896 6812 3802
Wegavox	7647 8644 6896 3637 4648
Welltech	8060
Weltblick	8644 6896 4648
Weston	8644 6896
Wharfedale	8644 6641 7350 2707 6896 5952
White Westinghouse	4648 4469 8644 6896 2499
Windsor	5355 3840
Sindstar	5896
Windy Sam	6896
Winston	3637 4648
Wintel	8060

United	8060 8644 6381 6896 7733 3840 8299 7066
Universal	8644 6896
Universum	6092 4819 5265 4659 2620 4752 7839 5186 6640 3350 5531 6753 6736 5355 7430 8377 8020 7287 6538 5553 8394 7647 6634 3634 7507 8644 3835 6812 3840 4917 4849 5319 4265 5605 3488 6896 7660 2517 3637 4648
Univox	8644 6896 5605
Uranya	3637
Utax	5605
V7	
Videoseven	5991 5393 3118 4698 7855
Vanguard	3637
Veco	3637
Vestel	8644 5605 6896 5355 3840 5319 4648
Vexa	7647 8644 6896 3637 4648
Victor	4638
Video System	4648
Videologic	4016 4469
Videologique	4469 4016
Videosat	5531
VideoSystem	8644 6896
Videotechnic	4469 5090
Videoton	5605
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Vidtech	6812 5393
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Vision	8644 3488 6896 3637 4648
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Vortec	8644 6896 4648
Voxson	8644 6896 2438 5553 5605 5393
Waltham	5553 4422 8644 6896 5355 7430 3840 5605 5119
Wards	4648
Watson	3840 4596 8644 6896 5605 7647 5355 4016 4698 7839 3637 4648 7350 3158 7733 4917
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