

# TOPFIELD

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## CRC-1400

### User Reference

*High Definition*


*Digital Cable Receiver*


*Personal Video Recorder*

*CONAX CAS 7 Chipset Pairing*





 The lightning flash with arrowhead symbol, in an equilateral triangle, is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to a person.

 The exclamation point, in an equilateral triangle, is intended to alert the user to the presence of important operation and maintenance instructions in the literature accompanying the product.

## Precautions

- Read, keep and follow these instructions.
- Heed all warnings.
- Clean only with a dry cloth.
- Do not block any of the ventilation openings.
- Do not install near any heat sources or in direct sunlight as this will impair cooling.
- Do not operate this product near water. Do not place any of the objects filled with liquids, such as vases on this unit.
- Do not try to change the plug or defeat its safety purpose. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- This product is designed for indoor use only.
- Place the digital receiver on a firm and level surface.
- Do not lay any objects such as magazines on this unit.
- Do not overload power outlets. Doing so may result in a risk of fire or electrical shock.

- Never open this unit’s casing under any circumstances, or the warranty will be void.
- Unplug this unit during lightning storms or when unused for long periods of time.
- Refer all servicing to qualified service personnel. Servicing is required when the unit has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the unit, the unit became wet from rain or moisture, does not operate normally, or has been dropped.
- Batteries, including those which contain no heavy metals, may not be disposed with other household wastes. Please dispose of used batteries in an environmentally sound manner. Find out the legal regulations which apply in your area.

## About this user reference

Thank you for purchasing our digital receiver. Please read this reference carefully before you use the digital receiver and keep it handy for future reference.

**This User Reference covers the model CRC-1400.**

- Illustrations pictured in this manual may not be exactly the same as the actual product.
- The screenshots used in this manual may not be exactly the same as those you see on the actual on-screen displays.
- Designs and specifications of the digital receiver and other accessories are subject to change without any notice in order to introduce new features or improve the functionality of the product.

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## Chapter 1

# Introduction

The CRC-1400 digital receiver is fully compliant with the international Digital Video Broadcasting (DVB) standard, and thus is able to receive digital broadcasts of that standard.

### NOTE

In general we equate a channel with a frequency. However, unlike analogue broadcasts, digital broadcasts are not all assigned to their own frequencies; instead, multiple television broadcasts are transmitted through a single frequency. The frequency in digital broadcasting is usually called *transponder* or *multiplex*. To reduce confusion in this manual, the word **service** is preferably used than **channel** as a term to indicate one television or radio broadcast.

## 1.1 Features

This digital receiver has the following features:

- Can store up to 2,000 television and radio services.
- Can create lists of your favourite services.

- Can view information about the current television or radio programme.
- Has an electronic programme guide that provides an overview of scheduled programmes.
- You can record up to four services while you are currently watching another.
- You can record many programmes using a built-in hard drive with large storage capacity.
- Time-shift is a special technical feature available on this digital receiver. You can pause a programme you are watching and resume it again at a later time. Then you can quickly go to any part of the current programme by fast forward or rewind search.
- If you have an external hard drive connected to the digital receiver via the USB port, you can record television programmes into it.
- You can make a timer recording for a whole series of a programme at once on the programme guide.
- You can play back video files of various formats including Xvid.
- You can use various Web services including YouTube. (optional)

### 1.2 Controlling the digital receiver

You can operate the digital receiver with the remote control or the buttons on the front panel.

#### **NOTE**

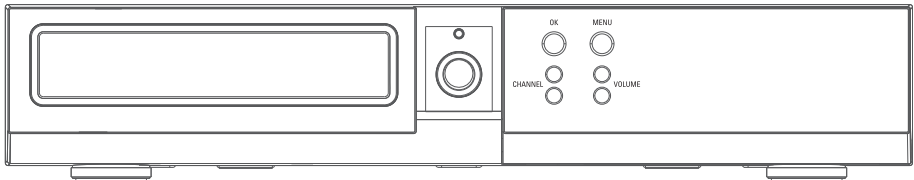
When the digital receiver is off but plugged into a wall socket, we say that it is in standby mode; on the other hand, when it is on, it is in active mode. Even when you are not using the digital receiver, you should keep it plugged into



a wall socket to be in standby mode so that it can run timer events at any time.

### 1.2.1 Front panel

The front panel of the digital receiver has buttons to control the digital receiver, specific lights and a display to indicate its status. The following indicates what they mean.



**Power** button switches the digital receiver between standby and active mode.

**Front display** shows the current time in standby mode, and displays the current service in active mode.

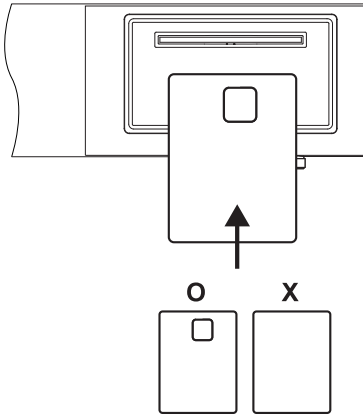
**MENU** button displays the main menu. It is also used to return to the previous menu from a submenu.

**OK** button displays the services list. See §5.2.1 for more details. It is also used to select a menu item.

**CHANNEL** ▼, ▲ buttons switch to the previous or next service.

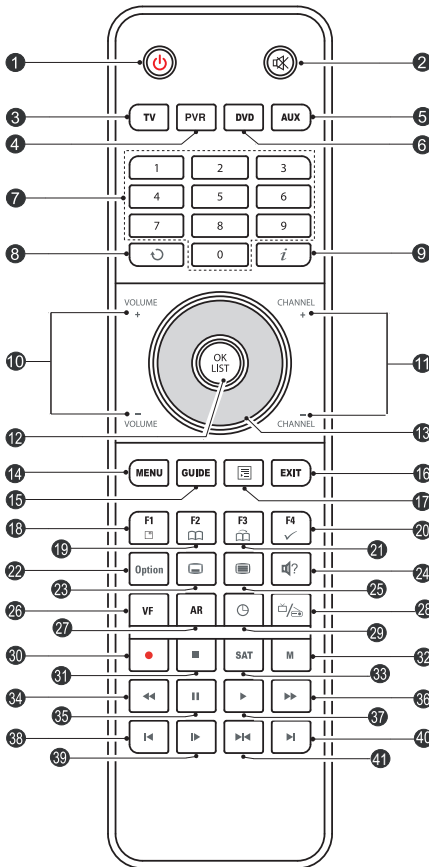
**VOLUME** ◀, ▶ buttons decrease or increase the volume.

You have to insert your subscription card into the front slot to watch pay services.



You have to insert your subscription card into the front slot to watch pay services. When you insert the subscription card, the side on which the chip is mounted must face upward.

## 1.2.2 Remote control



**1** button switches the digital receiver between standby mode and active mode.

**2** mutes the sound. Press again to switch it back on.

**3** switches the remote control to television mode to operate your television.

**4** switches the remote control to receiver mode to operate the digital receiver.























**5** switches the remote control to operate your audio-video receiver.












**6** switches the remote control to DVD mode to operate your DVD player.

**7** Numeric buttons are used to enter a service number for service change or to specify values for menu options.

**8** switches over between the current service and the previously viewed one.

**9** displays the service information box. It is also used to display more information about a programme.

- 10**   buttons decrease or increase the volume.
- 11**   buttons switch to the previous or next service.
- 12**  displays the services list. See §5.2.1 for more details. It is also used to select a menu item.
- 13** Navigation buttons are used to navigate in menus or to change values for menu options.
- 14**  displays the main menu. It is also used to return to the previous menu from a submenu.
- 15**  displays the electronic programme guide.
- 16**  is used to exit a menu or to hide on-screen information.
- 17**  is used to display the list of recorded programmes that are stored in the internal hard drive. See §7.2 for more details.
- 18**  has different functions per menu.
- 19**  is used to make a bookmark on playback or time-shift.
- 20**  has different functions per menu.
- 21**  is used to jump to next bookmark position.
- 22**  has different functions per menu.
- 23**  is used to select a subtitle track.
- 24**  is used to select an audio track and a sound mode.
- 25**  displays teletext.
- 26**  changes video resolution. See §4.2.1 for more details.
- 27**  changes aspect ratio. See §4.2.2 for more details.
- 28**  switches over between television services and radio services.
- 29**  is used to set a sleep timer in 10 minute increments.
- 30**  is used to start recording.

- 31**  is used to stop playback, to stop recording, or to jump back to live television from time-shifted television.
- 32**  switches the output of the TV SCART socket over between the digital receiver and the device connected to the VCR SCART socket. See §4.2.4 for more details.
- 33**  displays connected devices list.
- 34**  is used to start reverse playback. Subsequent presses increase the rewind speed.
- 35**  pauses live television or playback of a recorded programme.
- 36**  is used to start fast forward playback. Subsequent presses increase the playback speed.
- 37**  resumes normal playback speed, or displays the progress bar for navigation on playback or time-shift. To play a recorded programme, see button **17**.
- 38**  is used to jump back to the beginning of the recording on playback.
- 39**  is used to start slow motion playback. Subsequent presses change the playback speed.
- 40**  is used to jump to the end of the recording on playback.
- 41**  has different functions per menu.

#### NOTE

When using the remote control, point it at the remote sensor on the front panel of the digital receiver.

## 1.3 Subscription card information

With this digital receiver, you can view pay services scrambled with the CONAX conditional access system. Probably you have a subscription card. If you would like to view information in detail about your subscription card, select the **Information > Conditional Access** menu. There you can also check the messages from the broadcasting operator.

## Chapter 2

# Setup

### 2.1 Unpacking

Before going any further, check that you have received the following items with the digital receiver.

- Remote control
- Two batteries for the remote control (AAA 1.5 V)
- One HDMI cable
- A copy of the User manual

#### NOTE

Accessories may vary according to your local area.

### 2.2 Safety precautions

Please read carefully the following safety precautions.

- The mains voltage must range between 90 and 250 volts. Check it before plugging the digital receiver to the wall socket. For the power consumption of the digital receiver, refer to Table [2.1](#).

- The wall socket should be near the equipment. Do not run an extension lead to the unit.
- The mains plug shall remain readily operable so that it can be removed easily to disconnect the power.
- When placed in a cabinet, make sure there is a minimum space of 10 centimetres around it. For the physical specification of the digital receiver, refer to Table 2.2.
- Protect the power cord from being walked on or pinched. If the cord is damaged, do not use the digital receiver and get the cord replaced.
- Refer all servicing to a qualified service technician.
- To maintain proper ventilation, always leave sufficient space around the digital receiver.

**Table 2.1: Power specification**

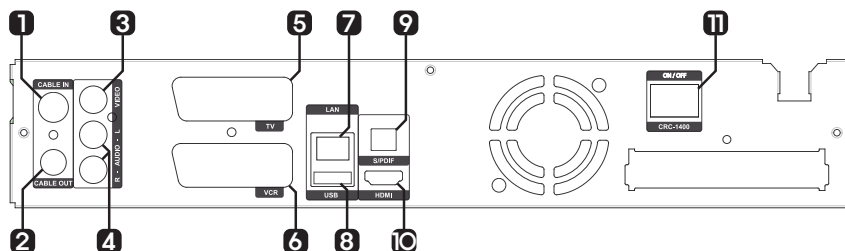
Input voltage	90 to 250 V AC, 50/60 Hz
Power consumption	30 W at maximum in active Under 1 W in passive standby

**Table 2.2: Physical specifications**

Size	340 × 60 × 265 mm
Weight	2.6 ~ 3.1 kg (may vary due to HDD kind)
Operating temperature	0 to 39 ° C
Storage relative humidity	5 to 90 %

## 2.3 Rear panel connections

The CRC-1400 has a wide range of connections on the back.



Check what connections your television set has in comparison with the digital receiver.

- 1** CABLE IN Cable broadcasting signal input socket
- 2** CABLE OUT Cable broadcasting signal output socket through the CABLE IN socket for another digital receiver
- 3** VIDEO Composite video output socket for the television set (yellow)
- 4** AUDIO L/R Stereo audio output socket for the television set or the audio-video receiver (white/red)
- 5** TV Audio and video output socket for the television set
- 6** VCR Audio and video input/output socket for another device such as a video recorder
- 7** LAN Local area network port
- 8** USB USB port for firmware update and data transfer
- 9** S/PDIF Digital audio output socket for the audio-video receiver
- 10** HDMI Audio and video output socket for the high definition television set
- 11** ON/OFF Power switch (You have to turn on this switch first to use this digital receiver.)



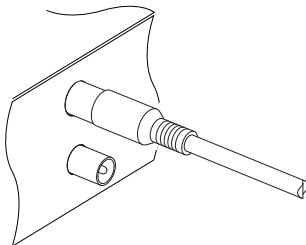
Table 2.3: Connectors specifications

HDMI	High definition video output Left & right audio output Digital audio output
TV	CVBS/S-Video video output Left & right audio output
VCR	CVBS video output Left & right audio output CVBS/S-Video video input for bypass Left & right audio input for bypass
VIDEO	Composite video (CVBS) output
AUDIO	Left & right audio output
S/PDIF	Digital audio output
USB	2.0 Host (5 V DC, 500 mA)
LAN	10/100 Ethernet

## 2.4 Connecting up your digital receiver

There are several ways to set up the digital receiver. Set up the digital receiver suitably to your television and other devices. If you have any problem with your setup or need help, contact your dealer.

### 2.4.1 Connecting to the broadcasting cable



Whatever sort of connection you have between the digital receiver and the television, you need to connect the digital receiver to the broadcasting cable so that it can receive digital television broadcasts. Connect the broadcasting cable to the **CABLE IN** connector. If you have another digital receiver, you may link it from the **CABLE OUT** connector.

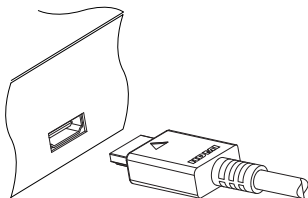
## 2.4.2 Connecting to your television set

For all the following connections of the digital receiver, we recommend you to use the first connector to get the best picture quality. If your television does not have a matching connector, then use the next connector in the following order for a better picture quality.

1. HDMI connector (HDMI)
2. SCART connector (TV)
3. Composite connector (VIDEO)

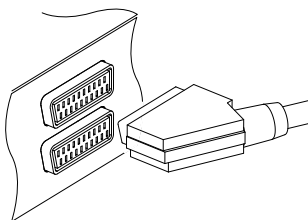
You should configure audio and video settings after connecting up the digital receiver. See §4.2 for a detailed description.

### To use the HDMI output



If you have a high definition television set, you should use an HDMI cable for best results. Plug one end of the cable into the HDMI socket on the digital receiver, and plug the other end into the matching socket on your television. In this case, you do not have to make audio connection because it can output stereo audio or digital audio as well.

### To use the SCART output

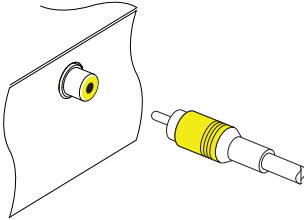


For best results with a standard television set, you should use a SCART cable. Plug one end of the cable into the TV socket on the digital receiver, and plug the other end into a free SCART socket on your television.

If you connect with a standard SCART cable, you do not have to make audio connection because it can output stereo audio as well. But if you use a conversion cable such as SCART-to-Component, then you have to make audio connection.

**NOTE**

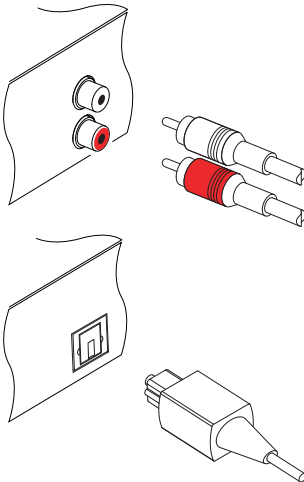
You cannot view high definition video by means of the SCART output.

**To use the Composite video output**

You need to obtain a Composite video cable (RCA cable) to use the Composite video output. Plug one end of the cable into the VIDEO (yellow) socket on the digital receiver, and plug the other end into the matching socket on your television.

**NOTE**

You cannot view high definition video by means of the Composite video output.

**To make the audio connection**

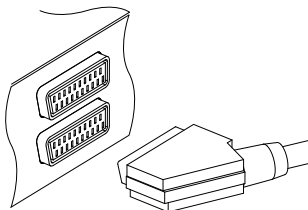
You need to obtain an audio cable (RCA cable) to link the audio connectors. Plug one ends of the cable into the AUDIO L (white) and AUDIO R (red) sockets on the digital receiver, and plug the other ends into the matching sockets on your television or audio-video receiver.

To enjoy Dolby Digital audio, your television or audio-video receiver must be able to decode Dolby Digital audio, and you need to obtain an S/PDIF cable.

Plug one end of the cable into the S/PDIF socket on the digital receiver, and plug the other end into the matching socket on your audio-video receiver.

### 2.4.3 Connecting to your video recorder

The digital receiver can also output video through an auxiliary SCART connector to another device such as a video recorder.





You need to obtain a SCART cable to link the auxiliary SCART connector. Plug one end of the cable into the VCR socket on the digital receiver, and plug the other end into the matching socket on your video recorder or suchlike.

## 2.5 Switching on for the first time

Now that you have your digital receiver connected, you should plug it into a wall socket. Ensure that your television set is turned on and on the correct video channel so that you will be able to see the display from the digital receiver.

Before switching on the digital receiver, you should insert batteries into the remote control. Open the battery compartment by removing the lid, and then insert the batteries observing the polarity, which is marked on the base of the battery compartment.

Press the  button on the top left corner on the remote control. In a little time, you may see a picture displaying a menu.

If you do not see a picture, try pressing the  button on the remote control. If after several tries you still get no picture, check that the television is set to the correct input. If the picture is good, you can skip to §3.1 to search for available television and radio services. Otherwise, you may need to temporarily connect the Composite video connector (VIDEO) to your television set so that you can see the menu in order to configure the video settings.

**CAUTION**

If the digital receiver no longer reacts properly to the remote control commands, the batteries may be flat. Be sure to replace only with 1.5V AAA size batteries, and observe the following precautions.

- Do not mix different types of batteries, or new and old batteries.
- Do not use rechargeable batteries.
- Do not recharge the old batteries.
- In order to avoid any risk of explosion, observe the polarities indicated inside the battery compartment.
- Do not subject to excessive heat such as the sun and fire.
- If you are not using the remote control for a long period of time, remove the batteries. The manufacturer accepts no liability for the damage resulting from leaking batteries.
- Batteries, including those which contain no heavy metals, may not be disposed with other household wastes. Please dispose of used batteries in an environmentally sound manner. Find out the legal regulations which apply in your area.

## Chapter 3

# Service Search

After connecting up the digital receiver, you will need to perform a service search.

### NOTE

If there is no service stored, you will be not able to access all menus. A **SERVICE** is another name for a **CHANNEL**.

### 3.1 Searching for broadcasting services



To perform service search, select the **Installation > Searching** menu. You should see a screen like the left figure.

You should set the **Search Mode** option to **Auto** at the first service search after installing the digital receiver. The digital receiver will search all available services with the automatic search mode within the frequency range from the frequency of the **Start Frequency** option to the frequency of the **End Frequency** option. **Symbol Rate** stands for data transfer rate, and **QAM** is a form of modulation used in digital broadcasting. Broadcasting operators send their services in a symbol rate by a modulation method. Perhaps you do not have to specify the **Symbol Rate** and **QAM Mode** options since they are seldom changed. However, you should set the **QAM Mode** option to **Auto** for more certainty. You can specify the **Start Frequency**, **End Frequency** and **Symbol Rate** options with the numeric buttons if you want to change them.

To search only one frequency, set the **Search Mode** option to **Manual** and specify your desired frequency at the **Frequency** option with the numeric buttons.

If you want to search services quickly, it is most recommended that you should set the **Search Mode** option to **Quick Scan**. With this option, you can search every service rather quickly.

To start service search, move down to the **Start Search** item, and press the **OK** button. The digital receiver will start to search for services and display a list of television and radio services as they are found. It is common for no channels to be found until quite late in the process. When the scan is complete, you will see a message telling you how many services have been found. Press the **OK** button to save the list.

## 3.2 Resetting to factory settings

The digital receiver maintains the following data:

- Services list
- Favourite list
- Timer list
- Preference settings

You can reset all data of the digital receiver. Select the **Installation > System Recovery > Factory Setting** menu, and then you get asked for confirmation. With the choice of **Yes**, the services list, favourite list and timer list will all be cleared, and preference options will be reset to the manufacturer's factory settings.

**NOTE**

A factory reset will not delete any recorded programmes. However, you have to search services again after a factory reset.

### 3.3 Resetting to user settings

You can store your own data including the following:

- Services list
- Favourite lists
- Preference settings

Also you can restore them at any time.

To store your data, select the **Installation > System Recovery > Store System Data** menu, then you get asked for confirmation. If you select **Yes**, your data will be stored. Whenever you store your data, they are all overwritten. To restore your data, select the **Installation > System Recovery > Recover System Data** menu, then you get asked for confirmation. With the choice of **Yes**, your data will be restored.

### 3.4 Clearing the services list

If you only want to clear the services list, select **Installation > System Recovery > Reset Service List**, then you get asked for confirmation. With the choice of **Yes**, the services list will be cleared. After this, you have to do service search again.



## Chapter 4

# Preference Settings

### 4.1 Language settings




You can select the language in which the menu will be displayed. In addition to that, you can select the language of audio track and of subtitle track. Select the **Settings > Language** menu. You should see a screen like the left figure.

#### 4.1.1 Menu language

The digital receiver provides menus in several different languages. Set the **Menu Language** option to your desired language. Once you select a language, the menu will be immediately displayed in the selected language.

### 4.1.2 Subtitle language

Set the 1st Subtitle Language option and the 2nd Subtitle Language option to your desired languages. When you watch a programme, if the programme has a subtitle track of the language that is specified for the 1st Subtitle Language, it will be displayed. If the first language is not available but the second language is available, the subtitle of the second language will be displayed. If there is no available language, no subtitle will be displayed.


Apart from this setting, you can select a subtitle track with the  button. See §5.2.5 for a detailed description.

### 4.1.3 Hard of Hearing

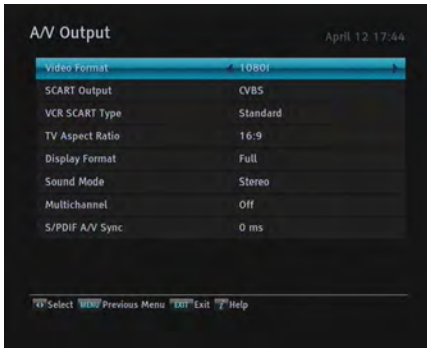
Some broadcasters may send a subtitle track dedicated to the hard-of-hearing. Even when a subtitle track or more is available, that subtitle track will be displayed prior to those you have specified for the 1st Subtitle Language and the 2nd Subtitle Language options if the Hard of Hearing option is set to On.

### 4.1.4 Audio language

Set the 1st Audio Language option and the 2nd Audio Language option to your desired languages. When you watch a programme, if the programme has an audio track of the language that is specified for the 1st Audio Language, it will be output. If the first language is not available but the second language is, the audio of the second language will be output.

Apart from this setting, you can select an audio track with the  button. See §5.2.4 for a detailed description.

## 4.2 Video and audio settings



You have to configure the video and audio settings appropriately for your television set and other devices. Select the **Settings > A/V Output** menu. You should see a screen like the left figure.

### 4.2.1 High definition television

The digital receiver supports various video resolutions from 576 to 1080. In general, a resolution of 720 or more is considered high definition. The higher the resolution is, the better the quality is. However, if your television set does not support high definition, you cannot enjoy high definition quality picture.

Set the **Video Format** option as you desire. If you set this option to 576P, the digital receiver will present even high definition programmes in resolution of 576. On the contrary, if you set it to 1080i, the digital receiver will present even standard definition programmes in resolution of 1080.

It is recommended to set it to **Auto** if you have a high definition television. With that setting the digital receiver will present a programme as it is without any resolution conversion. While watching television you can change the resolution with the **(VF)** button. Whenever you press it, the video resolution is changed in turn.

**NOTE**

You can enjoy only standard definition video with the following video outputs:

- Composite video output (VIDEO)
- SCART output (TV)

### 4.2.2 Television aspect ratio

If you have a wide-screen television, set the TV Aspect Ratio option to 16:9.



You can enjoy both wide-screen programmes and normal-screen programmes with your wide-screen television as the above figures show. To watch normal-screen programmes in full screen like the left figure, set the Display Format option to Full. Normal-screen pictures then will be inflated to fit to the width of the wide screen. Otherwise, to watch them in the original ratio like the right figure, set it to Center. If you have a normal-screen television, set the TV Aspect Ratio option to 4:3.



You cannot fully enjoy wide-screen programmes with your

normal-screen television as the above figures show. The left figure shows a normal picture displayed in the normal screen. To watch wide-screen programmes in the shape like the centre figure, set the Display Format option to Letter Box. Wide-screen pictures then will be reduced to fit to the width of the normal screen. Otherwise, to watch them in the shape like the right figure, set it to Center extract. Then wide-screen pictures will be cut out on the left and right sides equally to fit to the width of the normal screen.

### 4.2.3 Colour format

Through the TV SCART output, the digital receiver is able to output video in various colour formats. If you have the digital receiver linked to your television via this output, you should set the SCART Output option to your desired colour format.


If you have connected via the RCA socket labeled VIDEO on the back panel, you do not have to set this option because the digital receiver outputs CVBS video through that RCA output independently of the SCART output.

### 4.2.4 Another video device

You can have the digital receiver linked to another video device like a video recorder or a DVD player via the VCR SCART output. In this case, the digital receiver will operate differently depending on the setting of the VCR SCART Type option. If the option is set to Standard, the digital receiver will pass along the video from the video device to your television when it starts playback. But if the option is set to External A/V, the digital receiver will not pass the video automatically. You have to press the **(M)** button to pass it along. It is impossible for the digital receiver to record the video from the video device since the digital receiver is just a bypass for the video recorder.

### 4.2.5 Audio mode

Basically, there are two audio sources as you can find two audio sockets on the back panel of the digital receiver. You can enjoy only one source or both of them in either stereo or mono. Set the **Sound Mode** option as you desire.

Apart from this setting, you can change the sound mode with the  button. See §5.2.4 for a detailed description.

The digital receiver can output two types of digital audio signals via the S/PDIF output. One is an encoded signal, and the other is a decoded signal. If you have the digital receiver linked to your audio-video receiver via the S/PDIF output, you have to set the **Digital Audio** option to **PCM**, which means that the digital receiver will output encoded Dolby Digital audio without decoding so that your audio-video receiver can decode it. Otherwise, set it to **multi-channel**, then the digital receiver will output decoded Dolby Digital audio, scaling it down to two channels.

#### NOTE

Only if the service you are currently watching provides a Dolby Digital audio track, you can enjoy Dolby Digital sound.

If you feel that the audio from the S/PDIF output does not synchronise with video, you can straighten it by adjusting the value of the **S/PDIF AV Sync** option.

## 4.3 Local time setting

You should set your local time for timer events.



Select the Settings > Time menu. You should see a screen like the left figure. You can set the clock manually or use the time signal, Greenwich Mean Time (GMT), carried as part of the digital television broadcast. To use Greenwich Mean Time, take the following steps:

1. Set the Mode option to Auto, then the Time Offset option becomes enabled.
2. Set the Time Offset option to the time difference between your time zone and GMT referring to Table 4.1.
3. Make sure that your local time is correctly displayed on the Local Time item.

To set the local time manually, set the Mode option to Manual and enter your local time to the Local Time option with the numeric buttons. The time format is *day/month/year 24-hour:minute*. To change the time format to 12-hour format, set the Time Format option to 12 Hours.

If daylight saving time is observed in your state at the moment, set the Daylight Saving Time option to On.

**NOTE**

Daylight saving time adds one hour to the time when the option is set to On. When setting the time offset from Greenwich Mean Time, make sure that time offset does not include daylight saving time.

**Table 4.1: Time offset table**

<b>Time offset</b>	<b>City</b>
GMT – 12:00	Eniwetok, Kwajalein
GMT – 11:00	Midway Island, Samoa
GMT – 10:00	Hawaii
GMT – 09:00	Alaska
GMT – 08:00	Pacific Time US, Canada
GMT – 07:00	Mountain Time US, Canada
GMT – 06:00	Central Time US, Canada, Mexico City
GMT – 05:00	Eastern Time US, Canada, Bogota, Lima
GMT – 04:00	Atlantic Time Canada, La Paz, Dominican Republic
GMT – 03:30	Newfoundland
GMT – 03:00	Brazil, Georgetown, Buenos Aires
GMT – 02:00	Mid-Atlantic
GMT – 01:00	Azores, Cape Verde Islands
GMT	London, Lisbon, Casablanca
GMT + 1:00	Paris, Brussels, Copenhagen, Madrid
GMT + 2:00	South Africa, Kaliningrad
GMT + 3:00	Baghdad, Riyadh, Moscow, St. Petersburg
GMT + 3:30	Tehran
GMT + 4:00	Abu Dhabi, Muscat, Baku, Tbilisi
GMT + 4:30	Kabul
GMT + 5:00	Ekaterinburg, Islamabad, Karachi, Tashkent
GMT + 5:30	Bombay, Calcutta, Madras, New Delhi
GMT + 6:00	Almaty, Dhaka, Colombo
GMT + 7:00	Bangkok, Hanoi, Jakarta
GMT + 8:00	Beijing, Perth, Singapore, Hong Kong
GMT + 9:00	Tokyo, Seoul, Osaka, Sapporo, Yakutsk
GMT + 9:30	Adelaide, Darwin
GMT + 10:00	Eastern Australia, Guam, Vladivostok
GMT + 11:00	Magadan, Solomon Islands, New Caledonia
GMT + 12:00	Fiji, Auckland, Wellington, Kamchatka

## 4.4 Parental control

In general, television programmes are classified according to the level of violence, nudity and language of their content. When you are watching a programme, you can check its programme classification on the information box. For the information box, see §5.2.3. You can prevent your children from watching specific programmes by specifying a maximum permissible level.





Select the **Settings > Parental Control** menu. You should see a screen like the left figure, and you will be asked your Personal Identification Number (PIN). The number is initially set to '0000' as default.

If you wish to block programmes for viewers aged 15 or above, set the **Censorship** option to 15 (age). Setting it to **No block** blocks no programme; on the other hand, setting it to **Total block** blocks every programme.

#### NOTE

If a programme has no rating information, your censorship setting will not take effect.

If anyone is trying to watch a programme that is of or above the censorship setting, the person has to enter the personal identification number to override. To change the number, select the **Change PIN Code** menu, then a box pops up, asking a new PIN. Enter a desired number twice for confirmation.

You can also restrict uses of some menus. Selecting the **Access Control** menu displays a list of menus that you can lock. If the **Time** item is set to **Locked**, you have to enter the PIN when accessing the **Time** menu. If you enter a wrong number, you cannot use the menu. To release a locked item, set it to **Un-locked**.

## 4.5 Options for recording



To set the options for recording, select the **Settings > Recording** menu. You should see a screen like the left figure.

To enable the time-shift function, you should set the Time Shifting option to anything other than **Disable**. The available range for this option is 30 minutes to 5 hours. You will have the latest of the current programme as long as the duration specified at this option.

You can record a programme into both an external and the built-in hard drive. If you want to record a programme into an external hard drive, set **Recording Drive** option to **External**; otherwise, set this option to **Internal**.

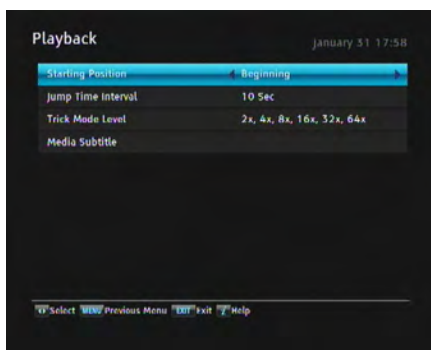
If you set the **Time Shift Storage** option to **Enable**, the time-shifted programme will be saved in the **TimeShift** folder of the hard drive.

You can set the duration of the timer recording. Set the **Timer Recording Duration** option as you desire. Its available range is 10 minutes to 3 hours.

Time padding is the feature of adding extra recording time to the beginning or end of a programme, so that you do not miss any part of the programme. Set the **Timer Record Padding** option as you desire.

You can adjust the duration of the instant recording. Set the **Instant Recording Duration** option as you desire. Its available range is 30 minutes to 5 hours.

## 4.6 Options for playback



To set the options for playback, select the **Settings > Playback** menu. You should see a screen like the left figure.

If you want to play back a recorded file from beginning, set **Starting Position** option to **Beginning**. To play back a recorded file from the part where you were watching, set this option to **Continuing**.

You can adjust the jump interval that is for playback. Set the **Jump Time Interval** option as you desire. Its available range is 10 seconds to 3 minutes.

If you want to enjoy more levels of playback speed, set the **Trick Mode Level** option to 2x, 4x, 8x, 16x, 32x, 64x; otherwise, set it to 4x, 16x, 64x.

### NOTE

You can enjoy video files such as Xvid with the digital receiver. However, the above options might not be effective depending on the video files to be played. For detailed description on how to play back a video file, refer to §8.5.

If you have subtitle files such as .smi, .sub, .idx, and .srt, the digital receiver can also display them. The **Media Subtitle** item provides some options for video subtitle. When you play back a video file with a subtitle file, if the subtitle does not match the video, then you can synchronise them by adjusting the value of the **Sync** option. In addition, you can change the colour and


size of subtitle by setting the Font Color and Font Size options to one you prefer.

## 4.7 Options for on-screen display



To set the options for the on-screen display (OSD), select the **Settings > OSD** menu. You should see a screen like the left figure.

To adjust the transparency level of the OSD, set the OSD Transparency option as you desire. Its available range is 0 to 50 percent.

To adjust the display time of the information box, set the Info Box Display Time option as you desire. Its available range is 1 to 30 seconds. If you set this option to **No Info Box**, the information box will not be displayed when you switch services. However, pressing the  button will display the information box. If you set this option to **Never Hide**, the information box will always be displayed. For the information box, see §5.2.3.

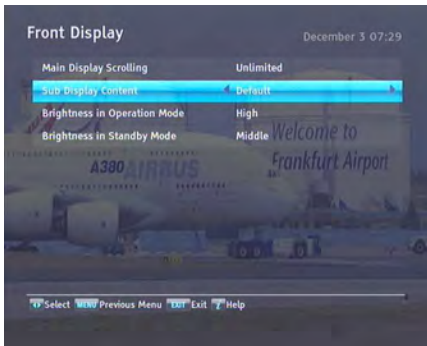
In addition, you can raise or lower the position of the information box. Set the Info Box Position option as you desire. Its available range is -10 to +3 lines. The higher you set the option, the lower the information box will be positioned.

To use an animation effect when changing menu, set the Animation option to **Enable**.

If any service's name is too long to fit the width of the service name column on the services list screen, you can get it to scroll

by setting the Text Scroll option to anything other than Disable. With the choice of Full Scroll, it will be fully scrolled until its end disappears; with the choice of Part Scroll, it will be scrolled only to its end.

## 4.8 Options for the front display



To set the options for the front display, select the **Settings** > **Front Display** menu. You should see a screen like the left figure.

The front display shows the currently viewed service's number and name. If any service's name is too long to fit the width of the service name column, you can get it to scroll by setting the **Main Display Scrolling** option to anything other than **Disable**. With the choice of **Unlimited**, it will be repeatedly scrolled; with the choice of **Once**, it will be scrolled only once. If you want to have the current time displayed instead of the service number, set the **Sub Display Content** option to **Time**.

You can also adjust the brightness of the front display in active mode and standby mode by setting the **Brightness in Operation Mode** option and the **Brightness in Standby Mode** option to any as you like.

## 4.9 Options for Photo Album

You can change a time interval and effect of slideshow in the photo album. For the photo album feature, see §8.4.

To change the time interval of slideshow, select the **Settings > Miscellaneous** menu, and then set the **Slideshow Time Interval** option as you desire. Its available range is 3 to 10 seconds.

To change the effect of slideshow, select the **Settings > Miscellaneous** menu, and then set the **Slideshow Effect** option as you desire. There are four types of effects as follows:

**Overlap** overlaps the current picture and a following picture.

**Cover** covers the current picture with a following picture.

**Move** moves the current picture and displays a following picture.

**Mosaic** displays a following picture with a mosaic effect.

To use those effects randomly, set this option to **Random**. The default value is **Random**.

## 4.10 Options for standby mode

You can have the current time displayed on the front display in standby mode. Select the **Settings > Miscellaneous** menu and set the **Standby Mode** option to **Active**; otherwise, set it to **Passive**. When you set the **Standby Mode** option to **Active**, the receiver can also bypass the signal from the antenna. To save power consumption, you might as well set the **Automatic Power Down** option to **Enable**. With this option enabled, the receiver will be turned off automatically when there is no manipulation over three hours.

## 4.11 Options for EPG style

In the EPG mode you can toggle the basic EPG plate to a matrix format or a single display format.



The matrix style as shown in the left figure shows a matrix of several services at one time.


Meanwhile the single display style shows a column of a single service but with details on programme classification and information in a full view as you browse through each programme.

If you want the matrix style of display, select the **Settings > Miscellaneous** menu and set the **Type of Epg** option to **Matrix**; otherwise, set it to **Single**. See §5.3 for details on how to toggle the EPG mode.


## Chapter 5

# Every Day Use

### 5.1 Volume control

Use the **VOLUME-** and **VOLUME+** buttons to alter the volume to a comfortable level. You may need to adjust the volume on your television set too. To temporarily switch off the sound, press the  button. Press it again to restore the sound to previous level.

### 5.2 Watching television

To change services, press the **CHANNEL-** or **CHANNEL+** button. Pressing the  button switches to the previously viewed service. In addition, you can switch to your desired service by entering its service number with the numeric buttons. You can also select a service to watch in the services list.

#### 5.2.1 The services list

To view the services list, press the **OK** button.





On the services list, you can see the service information as follows:

- Service number and name
- Multiplex information

A dollar sign (\$) may be marked on some entries, indicating pay service. To watch pay services, you need a subscription card.

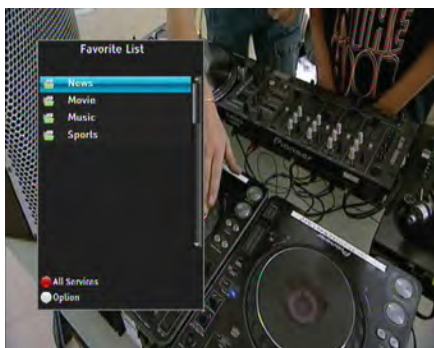
To select a desired service, put the highlight bar on its entry with the or button and press the button, then the selected service will be presented.

Pressing the or button skips over 10 entries up or down. Entering a service number with the numeric buttons puts the highlight bar on its entry.

You can switch between the television services list and the radio services list by pressing the button.

### 5.2.2 The favourite service lists

You can select a service on a favourite list as well as on the services list.



To display the favourite lists, press the **F2** button at the services list screen. For the services list, see §5.2.1.

To select a favourite list, put the highlight bar on a desired favourite group list and press the **OK** button, then the selected favourite group's services will be listed.

As to how to edit the favourite lists, refer to §6.1.

To select a favourite service, put the highlight bar on a desired service and press the **OK** button, then it will be displayed. To select another group, press the **↺** button.

After you have selected a favourite service, if you then switch to another service using the **⦿** or **⦿** button, it will be also another favourite service of the selected group. The digital receiver will remind you what group you have selected by displaying its name at the top right of the screen whenever you switch services.

To return to the services list, press the **F1** button. Besides that, you can add or delete a favourite group or service.

To add the service you are currently watching into a favourite group, press the **Option** button to display additional options, and then select **Add this service** item.

To remove the currently highlighted favourite group or service, select **Delete** item in the additional option box, then you get asked for confirmation; with the choice of **Yes**, it will be removed.





### 5.2.3 Viewing programme information



Pressing the **i** button displays the information box, on which you can see all of the following:




- Service number and name
- Signal level and quality
- Programme name
- Programme classification sign
- Programme summary
- Broadcasting time
- Current time

In addition, you might see the following symbols:

- Subtitle symbol () if subtitle tracks are provided on the current programme.
- Teletext symbol () if teletext pages are provided on the current service.
- Dolby Digital symbol ( D) if a Dolby Digital audio track is provided on the current programme.
- Lock symbol () if the current service is locked.
- Dollar symbol (\$) if the current service is a pay service.

Pressing the  button once more displays detailed information about the current programme. To hide the information box, press the  button.

## 5.2.4 Selecting audio tracks

Some programmes are provided with audio tracks in one or more languages. Pressing the  button displays available audio tracks. Once you select an audio track, that track will be heard. In addition, you can enjoy audio tracks in four sound modes: Stereo, Mono, Left or Right.

## 5.2.5 Selecting subtitle tracks

Some programmes are provided with subtitle tracks in one or more languages. If the current programme provides subtitle

tracks, the subtitle symbol (≡) will be marked on the information box. Pressing the [≡] button displays available subtitle tracks. Once you select a subtitle track, it will be displayed.

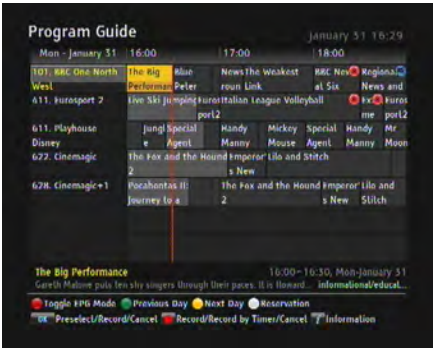
5.2.6 Viewing teletext

On some services, such information as weather reports, news or stock quotations is provided by means of teletext. If the current service provides teletext, the teletext symbol (≡) will be displayed on the information box. Press the [≡] button to view teletext pages.

Select a page to view by entering its page number with the numeric buttons. You can zoom into a teletext page with the [F3] button, and adjust its transparency level with the [F4] button. To clear the teletext screen, press the [EXIT] button.

5.3 Viewing electronic programme guide

The Electronic Programme Guide (EPG) shows the current and scheduled programmes that are or will be available on each service with a short summary for each programme.



Pressing the [GUIDE] button displays the electronic programme guide, on which you can see the following:

- Scheduled programmes
- programme summary
- Broadcasting date
- Broadcasting time

To see detailed information of a desired programme, put the highlight bar on the programme with the [⏮] or [⏭] button and press the [i] button. To switch to another service, press the [⏮] or [⏭] button.

You can travel over previous days with the **F2** button, and can travel over next days with the **F3** button.

To see the programme guide for radio broadcasts, press the **□/△** button. To switch it back, press the **□/▽** button again.

Pressing the **F1** button will rearrange the form, swapping the columns and rows. To switch it back, press the **F1** button again.

You can make a timer recording including a series recording on the electronic programme guide. See §7.1.3 for detailed description.

## 5.4 Using time-shift







You can pause and resume a live television programme, and even rewind and replay it. When you are watching a programme and you miss something, you can rewind and replay it. Or when your attention is needed elsewhere, you can pause a live TV and resume a short time later without losing any of the programme.



When you do this, you are no longer watching the live programme, instead you are watching a delayed presentation. This is called time-shifted television. You can skip commercials until you catch up to the live broadcast.

In order to use the time-shift feature, set the Time Shifting option to desired duration of time. Then the digital receiver will archive the programme as much time as you set in the option. See §4.5.

The time-shift will be reset each time you change to another service. With the time-shift, the following operations are possible:

- To go back in time, hold down the  button; to go forward, hold down the  button. The progress bar is displayed momentarily with a preview window.
- You can navigate using the progress bar, refer to §7.3.1.
- You can jump backward and forward by pressing the  and  buttons. You can change the jump time at the Jump Time Interval option. See §4.6.
- You can change playback speed. See §7.3.2 for slow motion. For fast motion, see §7.3.3.
- To check your current position in time-shift, press the  button. The time difference compared to live programme is displayed momentarily in top right corner of the screen. A value of -02:00 means two minutes behind the live programme.
- To make a recording of the time-shifted programme,, see §7.1.5.
- To end time-shift, press the  button. The live programme will be displayed.

**NOTE**

You can adjust some options for time-shift. Refer to §4.5.

## Chapter 6

# Organising Services

### 6.1 Editing the favourite lists

You can make your own favourite service lists. In fact, you can define multiple favourite service lists, each being a 'group' of chosen services.





Select the Installation > Edit Favorite List menu. You should see a screen like the left figure. There are three columns:

- Group name (left)
- Favourites list (centre)
- Services list (right)






The services list contains all available services, whereas the favourites list contains only chosen services that have been added to the highlighted group. As you move the highlight bar up or down on the group list, favourite services belonging to the highlighted group get shown in the favourites list.









You can add up to 30 groups. To add a new group, select the **NEW** item in the group list, then the on-screen keyboard appears. See §6.2 as to how to use the on-screen keyboard.

To rename a group, put the highlight bar on the group entry you want and press the  button, then the on-screen keyboard likewise appears.

To delete a group, put the highlight bar on the group entry you want and press the  button, then a message box appears, asking you for confirmation. With the choice of **Yes**, it will be deleted.

You can add a favourite service to a group by taking the following steps:

1. Put the highlight bar on a desired group entry in the group list and press the  button to select it. The highlight bar then moves to the services list.
2. To add a service to the selected group, put the highlight bar on a desired service entry and press the  button. The selected service entry gets added to the favourite list. Repeat this step to add more entries.
3. Press the  button, and the highlight bar gets moved to the favourite list. You can delete a favourite entry with the  button.
4. To select another group, press the  button again, then the highlight bar gets moved to each column.






Furthermore, you can rearrange a group's favourites by moving a favourite entry. To move a favourite entry, put the highlight bar on the favourite entry you want and press the  button. Press the  and  buttons or  and  buttons to move it to a desired place and press the  button. To add radio services, press the  button, then radio service entries get listed in the services list. To recall the television services list after adding radio services, press the  button again.






As to how to use the favourite service lists you organised, refer to §5.2.2.



## 6.2 How to use on-screen keyboard



You can move the highlight key horizontally with the  and  buttons and vertically with the  and  buttons. Pressing the  button on a key enters its letter in the input line.

To type a space, select the Space key or alternatively press the  button. To type lower case letters or numerals, select the Shift key or alternatively press the  button. To delete a letter, put the cursor to the right of the desired letter on the input line and then select the Del key or alternatively press  button. You must select the Save key or alternatively press the  button to complete your typing; otherwise if you press the  button, it will not be saved.

## Chapter 7

# Recording and Playback

You can record TV programmes into an external hard drive as well as the built-in hard drive.

### NOTE

To use an external hard drive, you must connect the external hard drive to the USB port of the digital receiver.

### CAUTION

Do not disconnect the external hard drive while recording or playing back. It may cause damage to recorded programmes. You should disconnect the external hard drive in standby mode only.

The digital receiver has two tuners that allow you to record up to four different services at once while watching another one. However, this quadruple recording and one playback is only possible when they are provided from the same transponder or not more than two different transponders. For example, if you attempt to record services from three different transponders an

alert message appears to remind you to cancel one of the services currently being recorded. You can also enjoy the following features:

- You can record four different services while playing back a previously recorded programme.
- You can record four different services while watching one of them using the time-shift feature. See §5.4 for the time-shift feature.

## 7.1 Recording a programme




Once a recording gets started, a symbol like the left figure will be displayed at the top right of the screen for a few seconds.



When you are watching a different service from the service being recorded, you will see a number on the centre of the symbol, this indicates the order that the recording has started. To record four programmes simultaneously, two tuners are allocated for the recording. Therefore, you can only change to a limited number of services while the four programmes are being recorded.

### CAUTION

**Do not move the digital receiver nor pull out the power plug while it is running. It may cause damage to recorded programmes. Topfield is not responsible for damages inflicted on files that are stored on the hard drive.**


### 7.1.1 Instant recording




To instantly record a programme you are watching at present, press the  button.

Pressing the  button will not pause the current recording like it does with a video recorder. Instead, pressing the  button will pause the live show and begin time-shifting within the

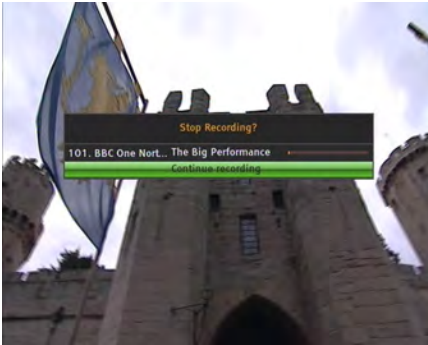
current recording even with the Time Shifting option disabled. In short, it is still possible to pause a recording, but literally recording continues in the digital receiver.







After a recording has started, pressing the  button displays a menu like the left figure, in which you can set the recording duration.

To specify an arbitrary recording duration, set the Duration option as you desire with the  and  buttons and press the  button; the recording will end at the specified time.

If the information about the next programme is provided by the electronic programme guide, the After this program and After next program options will be enabled. Once the After this program option is selected, the current recording will stop at the time when the current programme is scheduled to end. Likewise, once the After next program option is selected, the current recording will stop at the time when the next programme is scheduled to end.

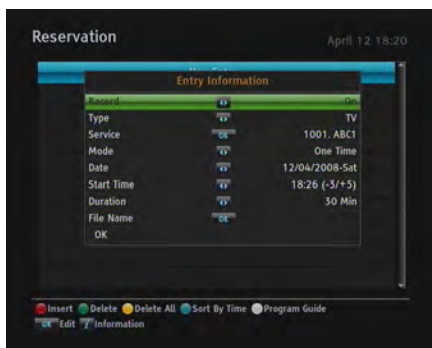


To stop recording, press the  button; then a box like the left figure appears, which shows the programmes currently being recorded. Select recording by using navigation buttons then press  button to stop the recording.

While a recording is going on, you can watch or record another service. To additionally record another service, switch to the service you want to record, and press the  button. Once a recording is started, it is put on the recorded programme list even though it is not finished yet. The recording file is named the program name if available or after its service name with a suffix of a number. To view the recorded programme list, press the  button or alternatively select the **Recording > Recorded Program** menu. See §7.2 for detailed description about the recorded programme list.

### 7.1.2 Timer recording

You can set a programme to be recorded at a specific time. Even if the digital receiver is in standby mode, it will switch into active mode and start recording at a specified time. When the recording comes to the end, the digital receiver will switch back into standby mode again in one minute. However, if you press any button on the remote control or on the front panel even just one time, the digital receiver will not switch into standby mode.



To add a timer recording, select the **Recording > Reservation** menu, then the timer list will be displayed. To add a new timer event, press the **[F1]** button, and a box like the left figure appears. Take the following steps:

1. Set the **Record** option to **On** to make a recording. If this option is set to **Off**, the digital receiver will turn on at the specified time but not record; instead, you may record with your video recorder or suchlike in this case.
2. You may have two sources for recording, TV and radio. Set the **Type** option to your desired source.
3. Set the **Service** option to the service which provides the programme you want. Pressing the **[OK]** button on this option displays a services list, from which you can select your desired service.
4. Set the **Mode** option as you desire. There are five timer modes:

**One Time** means literally 'one time'.

**Every Day** means literally 'every day'.

**Every Weekend** means 'Saturday and Sunday every week'.

**Weekly** means 'one day every week'.

**Every Weekday** means 'from Monday to Friday every week'.

If your favourite programme is broadcast at weekends and you wish to record every episode of the programme, set the **Mode** option to **Every Weekend**.

5. Set the **Date** option to a desired date, on which the digital

receiver will turn on. The date format is *day/month/year-day of the week*.

Set the Start Time option to a desired time, at which the recording will be started. The time format is *hour:minute*.

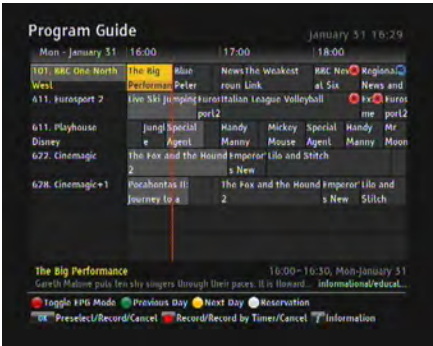
6. Set the Duration option to a desired time, in which the recording will be finished.
7. Pressing the **OK** button on the File Name option displays the on-screen keyboard, with which you can specify a file name for the timer recording. If you do not specify anything, it will be named after the service name. See §6.2 as to how to use the on-screen keyboard.
8. To set a recording reservation with the above settings, select the OK item; otherwise, it will not be saved and will not occur.

You can also edit or delete timer events in the timer list. To edit a timer entry, put the highlight bar on the entry you want and press **OK** button; then appears a box in which you can change its settings in the same manner as making a new one.

To delete a timer event, put the highlight bar on the entry you want to remove and press the **F2** button, then you get asked for confirmation. With the choice of Yes, it will be deleted. To delete all timer event, press the **F3** button.

You can sort timer events by time with the **F4** button.

7.1.3    Scheduling recordings using the programme guide



If the electronic programme guide is properly provided, you can make timer events on it. The instructions on how to make timer recordings using the electronic programme guide are as follows:

1. Press the **[GUIDE]** button to display the electronic programme guide.
2. Select a programme you want to record with the navigation buttons.
3. To make a timer event without recording, press the **[OK]** button; the letter **P** is displayed. To make a timer event with recording, press it once more or alternatively press the **[RECORD]** button, then the letter **R** is displayed.

**NOTE**

If you press the **[RECORD]** button on a programme whose series are recordable by the broadcasting plan, the letter **RS** (Recording of Series) will be displayed upon your selection to Record whole series option. See §7.1.4 for details on scheduling a series recording.


4. Pressing the **[OK]** button once more will cancel the timer.



### 7.1.4 How to make a series recording




You can also make a timer recording for a whole series of your desired programme. This recording function is called 'series recording.' With series recording you can not only set a timer recording for the show but also for all of the other episodes of the show found on the EPG.

1. Press the **GUIDE** button to display the EPG.
2. Highlight a programme you want to make series recording with the navigation buttons.
3. Press the  button on the selected programme, then the Recording Option box pops up.
4. To record all other series of the show, select the Record whole series, then the letter **RS** in a blue circle appears on the programme name. If you want to record only the selected episode this time, select the Record single program option, then the letter **R** will be appeared.
5. To cancel the series recording, press the **OK** button, then select Yes.









At the same time you set the series recording on a programme, the other series of the programme are automatically reserved for a timer recording. You will see the letter **RS** in gray circle on all the other series of the programme that are scheduled on the next days.

**NOTE**

Series recording can be scheduled on the EPG only. Not all programmes are available for series recording according to your broadcasting operator's service plan. You can check the reservation list by pressing the  button.

### 7.1.5 Recording a time-shifted programme

While watching a programme with time-shift, you can record it by performing the following steps:

1. Press the  button to display the progress bar.
2. To move to the beginning of the desired scene, hold down the  or  button until it is reached.
3. Press the  button to start recording. The time-shift buffer from that position onwards will now be recorded.
4. Press the  button to stop recording.
5. Press the  button once more to stop time-shift.

See §5.4 for detailed description about the time-shift feature.

### 7.1.6 Recording a pay service programme

You can record a pay service programme without the subscription card. However, you need the subscription card to play it back because it has not been descrambled. So it is recommended to record pay service programmes with a proper subscription card so that they can be descrambled and recorded. In that case, you can enjoy them without the subscription card like free services.

To record a programme of a pay service in descrambled form, take the following steps:

1. Select a programme of a pay service you want to record.
2. Make sure that the subscription card is inserted in the slot on the front of the digital receiver.

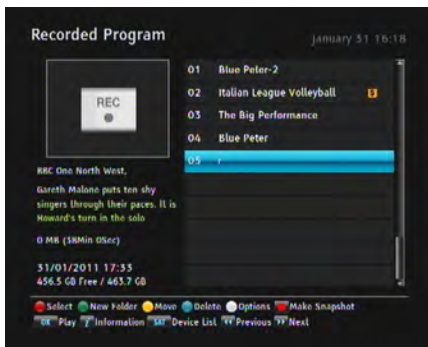
3. Start recording.
4. Do not switch to other service nor use time-shift until recording is finished.


### NOTE

If you switch to other service or use time-shift in the middle of recording a pay programme, it will be recorded without descrambling from that moment. Even if the recording is only partially descrambled, you need the subscription card to play it back.

## 7.2 File archive

When a programme is recorded, it is stored as a file on the hard drive of the digital receiver. You can select a recording to play back from the recorded programme list.



Select the Recording > Recorded Program menu or alternatively press the  button to display the recorded programme list. The file information is comprised of the following elements: file number, file name, recording time, running time, file size and so on.

You can play, move, delete, rename and lock a recording file. You can also sort the recording files by file name, running time or file size. In addition, you can make a new folder.

### 7.2.1 To delete a recording

To delete a recording, put the highlight bar on it and press the **F4** button, then you get asked for confirmation. With the choice of Yes, it will be deleted.


### 7.2.2 To sort recordings

To sort the recordings, take the following steps:

1. Press the **Option** button to display additional options.
2. Set the Sorting option to Alphabetic, Time or Size as you want.
3. Press the **EXIT** button.
4. They will be sorted by the specified option.

### 7.2.3 To lock a recording

To lock a recording so that other persons cannot play or delete it, take the following steps:

1. Put the highlight bar on a desired recording.
2. Press the **Option** button to display additional options.
3. Set the Lock option to Locked.
4. Press the **EXIT** button.
5. The lock symbol () is displayed on it.

If you select a locked recording to play it back, you will be asked for your personal identification number.

### 7.2.4 To rename a recording

To change a recording's name, take the following steps:

1. Put the highlight bar on a desired recording.
2. Press the **Option** button to display additional options.
3. Select the **Rename** option, and the on-screen keyboard appears. Change the name and save it. See §6.2 as to how to use the on-screen keyboard.

### 7.2.5 To make a new folder

To make a new folder, press the **F2** button, then a new folder named **GROUP #** is created. You can change its name in the same manner as renaming a recording. See above.

### 7.2.6 To move a recording to another folder

To move a recording to another folder, put the highlight bar on a desired recording and press the **[F3]** button. If an external hard drive is connected to the digital receiver, you get asked to select between the built-in and external hard drive. Select **Internal**, then the folders are listed. Once you choose a folder, the recording is moved to it.

## 7.3 Playing back a recording

When a programme is recorded, its additional contents such as audio track or subtitle track are also recorded together. So you can enjoy them while playing back a recording.

The instructions on how to play a recording are as follows:


1. Select the **Recording > Recorded Program** menu or alternatively press the **[Menu]** button to display the list of recorded programmes.
2. Put the highlight bar on a desired recording and press the **[OK]** button, then an option box pops up.
3. To play from beginning, set the **Starting Position** option to **Beginning**; to play from the point that you have stopped at the last time, set it to **Continuing**. To start playback, select the **Play** item.
4. To stop playback, press the **[Stop]** button.







During playback, you can enjoy the following tricks:

- To see the detailed information about the currently played recording, press the **[i]** button; then the information box appears and shows its file name, running time, programme information, and so on.
- To pause playback, press the **[Pause]** button. To resume it, press the **[Play]** button.
- To view the progress bar, press the **[Progress]** button; to hide it, press the **[Progress]** button again.



- When the progress bar is hidden, you can move to a desired scene by entering a progress percentage with the numeric buttons.

### 7.3.1 To navigate using the progress bar



First press the  button to display the progress bar.



- To go forward, hold down the  button; to go backward, hold down the  button.
- If there are no bookmarks, you can jump forward by the minute set to the Jump time Interval option with the  button. See §4.6 for that option. Refer to §7.3.4 as to how to bookmark a position.
- To jump to the beginning, press the  button.
- To jump to the end, press the  button.
- To hide the progress bar, press the  button again.

### 7.3.2 To play in slow motion

To watch in slow motion during a playback, press the  button. If you press it repeatedly, the playback speed changes in 4 steps: 1/2, 1/4, 1/8 and 1/16 times. To resume normal speed, press the  button.

### 7.3.3 To play in fast motion

To watch in fast motion during a playback, press the  button. If you press it repeatedly, the playback speed changes. To resume normal speed, press the  button.




You can play not only forward but also backward in fast motion. To play backward, press the  button. If you press it repeatedly, the playback speed changes. To resume normal speed, press the  button.

You can change the playback speed in 3 steps (4, 16 and 64 times) or in 6 steps (2, 4, 8, 16, 32 and 64 times). See §4.6.

### 7.3.4 To make a bookmark






You can mark favourite parts of a recording by creating bookmarks and then jump to them in sequence. Bookmarks are stored with the recording so that you can use them again afterwards. To make bookmarks, take the following steps during playback:





1. Press the  button to display the progress bar.
2. To add a bookmark, press the  button at a desired scene, then you will see a small pointer appear above the progress bar like in the picture above.
3. To jump forward to the next bookmark, press the  button.



### 7.3.5 To play back a recording repeatedly

You can play back a recording repeatedly both in whole and in part.

To play back in whole, press the  button when the progress bar is hidden, then the repetition symbol () is displayed on the information box. To cancel it, press the  button again.






To play back in part, take the following steps:

1. Press the  button to display the progress bar.
2. Move to the beginning scene of the part you want to play repeatedly by holding down the  or  button.
3. Press the  button, then the pointer starts to blink.
4. Move to the end scene; the selected part is marked in black.

5. Press the  button again to start repeated playback.
6. To cancel it, press the  button when the progress bar is displayed.

### 7.3.6 To play back recordings in sequence

You can play several recordings continuously in sequence by performing the following steps:

1. Press the  button or alternatively select the **Recording > Recorded Program** menu to display the list of recorded programmes.
2. Select each desired recording with the  button. Once a recording is selected, it gets numbered.
3. Press the  button to start playback.
4. The selected recordings are played in the sequence that they are numbered.
5. To jump to the beginning of the next recording in the queue, press the  button to display the progress bar, then press the  button.

### 7.3.7 To play back a scrambled recording





If you have recorded a programme of a pay service with the subscription card, you can play it as freely like that of a free service. Otherwise you need the subscription card to play it back because it has been recorded without descrambling even though it may have been partially descrambled.

On the recorded programme list, a purely green **\$** indicates the recording has been wholly descrambled; on the other hand, a yellowish green **\$** indicates it has been partially descrambled, and a purely yellow **\$** indicates it has not been descrambled at all.




## 7.4 Copying a recording

You can record the file in whole or in part during a playback by performing the following steps:

1. Start playback of a recording you want.
2. Move to a scene from which you want to start copying by holding down the  or  button.
3. Press the  button, then it will be copied in a new file which is named after the original recording with a suffix of 'COPY' and a number.
4. To stop copying, press the  button.

## 7.5 Formatting the hard disk

If a new hard drive is installed, it must be formatted because you can neither record nor use time-shift with an unformatted hard disk.

You can delete permanently all contents stored in a hard drive by formatting it. Select the **Installation > System Recovery > Format Hard Disk** menu, and then select the hard drive you want to format. To format the built-in hard drive, select the option to **Internal**; otherwise to format the external hard drive which is connected to the digital receiver, select the option to **External**. With pressing the  button, you get asked for confirmation. Formatting will start with the choice of **Yes**.

### NOTE

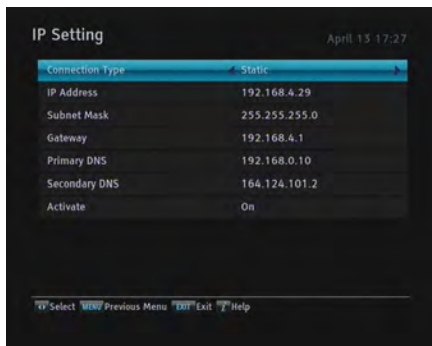
The hard drive on the digital receiver will be formatted in the JFS file system.

## Chapter 8

# Entertainment

This digital receiver provides several special features for entertainment.

### 8.1 Configuring the network setting



You should configure the network settings to enjoy a variety of web services. Select the Installation > Network Setting > IP Setting menu.

The easiest way to configure the network settings is to assign a dynamic IP address to the digital receiver by setting the Connection Type option to DHCP.

To assign a static IP address, set the Connection Type option to Static, then the IP Address, Subnet Mask, Gateway, Primary






DNS and Secondary DNS options become enabled. You have to set these options to match with the configuration of your router.

## 8.2 Copying files





### NOTE

If your external hard drive is formatted in the FAT16/32 or NTFS, it can only be read. To enable to write and read, the hard drive must be formatted in the JFS or Ext2/3 file system. As to how to format hard drive on the digital receiver, refer to §7.5.

You can copy files between the built-in hard drive and external hard drive. To copy from the internal to the external hard drive take the following steps:

1. Connect an external hard drive to the digital receiver.
2. Press the  button and then press the  or  button to select a desired file list except the External list.
3. Put the highlight bar on a desired file and press the  button, then you get asked to select between the built-in and external hard drive.
4. Select External, then the folders are listed.
5. Select a destination folder and press the  button, then the selected file will be copied into the external hard drive.

To copy from the external to the internal hard drive, take the following steps:

1. Connect an external hard drive to the digital receiver.
2. Press the  button and then press the  or  button to select the External List.
3. Put the highlight bar on a desired file and press the  button, then the list of folders gets displayed.

4. Select a folder in the built-in hard drive.
5. Press the **OK** button, then the selected file will be copied into the built-in hard drive.

## 8.3 Playing back MP3 files



You can enjoy music or audio books in MP3 format on the digital receiver. Refer to §8.2 as to how to copy a file from an external hard drive into the built-in hard drive of the digital receiver. To play an MP3 file, take the following steps:

1. Select the Entertainment > MP3 Player or press the **[MP3]** button and then the **[◀]** or **[▶]** button to display the MP3 file list.
2. Put the highlight bar on a desired file; if you want to play several files, select them with the **[F1]** button.
3. Press the **[▶]** button to start playback.
4. To stop playback, press the **[■]** button.

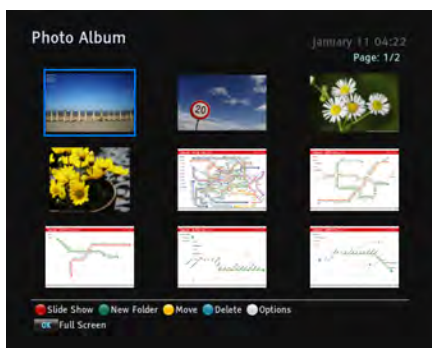
To play all MP3 files in a subfolder, put the highlight bar on a desired folder, and press the **[▶]** button. To change from one file to the next or previous file, use the **[▶]** or **[◀]** buttons.

## 8.4 Viewing image files

### 8.4.1 How to move a file to the photo album

You must move the jpg files into the Photo Album folder first. Please ensure your external hard drive is connected to your unit.

1. Select **[MENU]** button on your remote then go to **Entertainment > Media Player**.
2. Press the **[SAT]** button on your remote to bring up your external hard drive.
3. Select the external hard drive name and then press **[OK]**.
4. You will then get access to your external hard drive. Navigate through the external hard drive file and folders until you have selected the image file you want to transfer.
5. With the file selected, press the **[F3]** button, then another screen will appear. Select **Photo Album** and press **[OK]**.



Now, you can view the image files in jpg format by performing the following steps:

1. Select the **Entertainment > Photo Album** menu, and then press the **[◀]** or **[▶]** button to display the list of image files.
2. Put the highlight bar on a desired file and press the **[OK]** button; if you want to view several files using a slide show, press the **[F1]** button. You can change a time interval and effect of slideshow. See §4.9.
3. To stop viewing, press the **[EXIT]** button.

## 8.5 Playing back a video file

You can play back media files such as photos, videos and music with this digital receiver. Media file formats that you can play back with the digital receiver are as follows:

- video: XviD, VOB, MKV, MP4, and AVI
- photo: JPG
- music: MP3



Refer to §8.2 as to how to copy a file from an external hard drive into the built-in hard drive of the digital receiver. To play a video file, take the following steps:

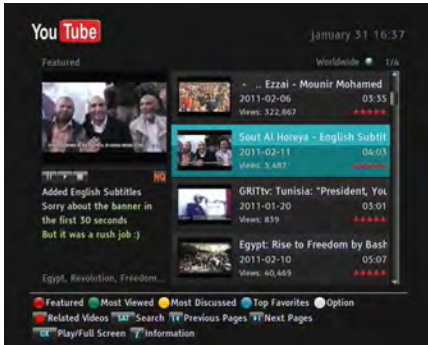
1. Select the Entertainment > Media Player, then press the **(SAT)** button on the remote or press the **(Menu)** button, and then the **(Left Arrow)** or **(Right Arrow)** button to display the video file list.
2. Put the highlight bar on a desired file; if you want to play several files, select them with the **(F1)** button.
3. Press the **(Play)** button to start playback.
4. If it has its own one or more subtitle files, you can select one you prefer with the **(Sub)** button to display subtitle.
5. To stop playback, press the **(Stop)** button.

#### NOTE





Due to the variations of video/audio codec types, there could be certain files not playable.

## 8.6 Playing back YouTube contents (optional)






YouTube is a video sharing website where users can upload, view and share video files. With the CRC-1400, you can access YouTube and play back various contents.





When you select the Entertainment > YouTube, you should see a screen like the left figure.



To play back a YouTube content, select a content with the  and  buttons and press the  button. To play back the content with full screen, press the  button again.

You can sort the contents with the option buttons as follows:

-  button by most featured
-  button by view count
-  button from most discussed to least discussed
-  button by top favourites
-  button related contents

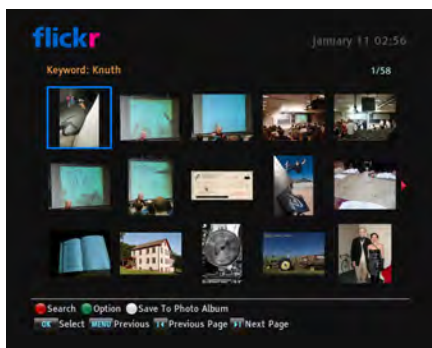
By pressing the  button, you can sort the contents by the updated date, country and quality.

You can also search contents by a specific keyword. To search contents by a keyword, press the  button, then the on-screen keyboard appears. See §6.2 as to how to use the on-screen keyboard.

To see detailed information about the current one, press the  button. To hide the information box, press the  button.



## 8.7 Sharing image files by Flickr (optional)

Flickr is an image hosting website and on-line community platform. You can search an image file from the network server and view the file using the Flickr.



To use this function, select the Entertainment > Flickr.

You can see image files which belong to a specific user by adding a user. To add a user, take the following steps:

1. Press the **[F1]** button, then the on-screen keyboard appears.
2. Enter a desired user name. As to how to use the keyboard, refer to §6.2.
3. After adding a user, select the user with the  and  buttons and press the **[OK]** button.

To delete a user, put the highlight bar on a desired user and press the **[F2]** button, then you get asked for confirmation. If you select YES, it will be deleted.

You can also search image files by a specific keyword. To do that, take the following steps:

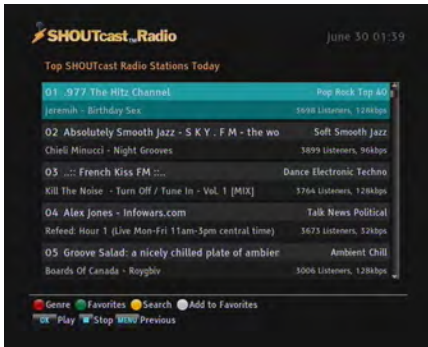
1. Press the **[F3]** button to go to the keyword search mode.
2. Press the **[F1]** button, then the on-screen keyboard appears.
3. Enter a keyword as you desire. As to how to use the keyboard, refer to §6.2.
4. Select the **Save** key on the on-screen keyboard to start searching image files.

To save an image file to the photo album, press the **[Option]** button. For the photo album see §8.4.






## 8.8 SHOUTcast Internet radio (optional)

SHOUTcast™ Radio is one of the largest directories of professionally and community programmed online radio stations in the world. Today SHOUTcast™ Radio features over 25,000 stations from around the globe. If you are into pop or rock music, want to check out local or world programming, you're sure to find something you like on SHOUTcast™ Radio.






To use SHOUTcast, select the Entertainment > SHOUTcast.

To listen to a radio station, select a radio station with the  and  buttons and press the  button.

To search radio stations by genre, press  button.

You can also search radio stations by a specific keyword. To do that, take the following steps:

1. Press the  button, then the on-screen keyboard appears.
2. Type a keyword you desire. As to how to use the keyboard, refer to §6.2.
3. Select the Save key on the on-screen keyboard to start searching radio stations.

To add a radio station to a favourite list, put the highlight bar on a desired radio station and press the  button. To display the favourite list, press the  button.

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For more details, visit the SHOUTcast web site, <http://www.shoutcast.com>. You can check their terms of service at the <http://www.shoutcast.com/disclaimer>.

## 8.9 Weather forecast (optional)

You can view the weather of your city or other cities.



To view the weather, select the Entertainment > Weather, then you should see a screen like the left figure.

To change a city, take the following steps:

1. Press the **F1** button to see additional options.
2. Set the Continent, Country and City options as you desire with the navigation buttons.
3. Press the **EXIT** button.

Pressing the **Option** button toggles between the Centigrade and Fahrenheit.

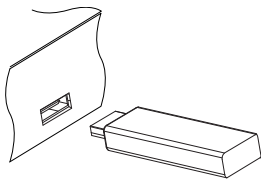
## Chapter 9

# Firmware Update


The digital receiver has a stable and convenient firmware to use. However, once in a while a new firmware may be released to improve the digital receiver. You can get the latest firmware and the firmware update tool, which runs on most versions of Windows, from the Topfield website, <http://www.i-topfield.com>.

### 9.1 From a memory stick

If you have a USB memory stick, you can update the firmware from it by taking the following steps:



1. Download a new firmware from the Topfield website.
2. Copy the firmware file to your memory stick.
3. Insert the USB memory stick into the USB port on the digital receiver.
4. Select the **Installation > Firmware Upgrade > USB Firmware Upgrade** menu, and the files in the USB memory will be listed.

5. Place the highlight bar on the right firmware file and press the  button, and a countdown will be displayed on the front display of the digital receiver.
6. When the message of 'END' appears, restart the digital receiver.

## 9.2 Over the air(optional)

It is possible to update the firmware to the latest version over the air.(optional) If a new version is available at any time, then a message box pops up, asking you whether to start firmware update. With the choice of Yes, you will be moved to the SSU Software Upgrade menu, and the firmware update will be started.

## Appendix A

# Universal Remote Control

The universal remote control allows you to operate the most important functions such as power on/off and volume control on your television, audio-video receiver, or DVD player. For the use of buttons, refer to Table A.1. To be able to control the device, you must adapt the remote control to the device first.

Take the following steps:

1. Turn on the device you want to operate.
2. Point the remote control at the remote sensor on the device.
3. Hold down the **OK** and device button simultaneously for two seconds until the light flashes on. For example, if you want to operate your television with the remote control, press the **OK** and **TV** buttons simultaneously.
4. Find the manufacturer of the device from the codes list.
5. Enter the three-digits code you have found for your device and press the **OK** button.
6. If the setting is finished correctly, the light blinks twice and the device will be turned off. Otherwise, repeat from the step 2.

If you cannot find a code for your device, do as follows:

1. Turn on the device you want to operate.
2. Point the remote control at the remote sensor on the device.
3. Hold down the **OK** and device button simultaneously for two seconds until the light flashes on. For example, if you want to operate your television with the remote control, press the **OK** and **TV** buttons simultaneously.
4. Press the **CHANNEL+** or **CHANNEL-** button until the device turns off.

If you want to find out the number which you set for your device, do as follows:

1. Hold down the **OK** and device button simultaneously for two seconds. For example, if you want to know the number which you set for your television, press the **OK** and **TV** buttons simultaneously.
2. Press the **i** button. Then the light will show the number with blinks. For example, if the number is 3, the light will blink three times. In case of 0, the light will blink ten times.



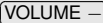



























You can reset the settings by doing as follows:

1. Hold down the **TV** and **0** buttons simultaneously for more than five seconds.
2. Each device button blinks three times in the following order: **PVR** → **DVD** → **AUX** → **TV**
3. After that, all settings will be reset to the manufacturer's factory settings.

#### **NOTE**

Some buttons may not work properly depending on a device. If your device code is not listed on the following pages, you will not be able to use this remote as a universal remote for your specific device.

Table A.1: Operating buttons

PVR	TV	DVD	AUX
	Power on/off	Power on/off	Power on/off
	Volume up	Volume up	Volume up
	Volume down	Volume down	Volume down
	Mute	X	Mute
	X	X	Channel up
	X	X	Channel down
	0	0	X
	1	1	1
	2	2	2
	3	3	3
	4	4	4
	5	5	5
	6	6	6
	7	7	7
	8	8	8
	9	9	9
	TV INPUT	X	X
	X	Up	X
	X	Down	X
	X	OK	X
	Left	Left	X
	Right	Right	Right
	X	Menu	X
	X	Guide	X
	X	Exit	Exit
	X	Stop	X
	X	Rewind	X
	X	Pause	X
	X	Play	X
	X	Fast forward	X

## A.1 Code list for television sets

### A

ACCENT	049, 063
ACEC	112
ACURA	195
ADMIRAL	065, 076, 163, 171, 190, 307, 324, 369
ADYSON	379
AGASHI	076, 379
AGEF	324
AIKO	049, 063, 076, 102, 141, 172, 195, 225, 379
AIM	049, 063
AIWA	376, 377
AKAI	019, 049, 050, 055, 063, 076, 102, 107, 123, 133, 139, 141, 150, 172, 174, 182, 195, 209, 225, 326, 333, 379, 428, 432, 433, 437
AKIBA	006, 049, 063, 123, 380
AKITO	049, 063, 106
AKURA	006, 049, 076, 096, 123, 195, 419, 426
ALARON	042, 334
ALBA	018, 044, 049, 050, 107, 123, 134, 163, 179, 184, 195, 225, 228, 232, 239, 379, 413, 421, 431
ALBIRAL	121, 326, 372
ALCYON	407
ALLORGAN	050, 094, 236, 334
ALLSTAR	049, 063
AMPLIVISION	113, 379, 421, 425
AMSTRAD	004, 011, 049, 063, 076, 123, 131, 172, 195, 225, 426
ANAM	049, 063, 195
ANGLO	076, 195

ANITECH	049, 063, 076, 195, 407
ANSONIC	045, 049, 063, 107, 112, 195, 210, 242, 391, 413, 421
APOLLO	165
ARC EN CIEL	029, 034, 074, 182, 186, 415, 424
ARCAM	029, 379, 424
ARDEM	392
ARISTONA	049, 050, 063, 065, 079, 112, 158, 160, 188
A.R.SYSTEM	049, 063
ARTHUR MARTIN	075, 107, 127, 133, 136, 139, 148, 153, 307, 425
ASA	003, 020, 065, 078, 080, 091, 117, 146, 171, 197, 235, 307, 319, 324, 341, 375, 406, 408
ASBERG	049, 063, 407
ASORA	195
ASTRA	195
ASUKA	006, 050, 076, 123, 379
ATLANTIC	049, 050, 063, 113, 236, 242, 379
ATORI	195
AUCHAN	107, 425
AUDIOSONIC	031, 049, 063, 074, 076, 195, 213, 379, 392, 421
AUDIOTON	050, 076, 379, 392, 421
AUSIND	075, 090, 407
AUTOVOX	050, 071, 078, 079, 080, 083, 090, 147, 156, 236, 254, 305, 319, 323, 324, 379, 407, 413, 416
AWA	018, 049, 063, 131, 195, 206, 320, 379, 426, 433
AYOMI	411
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BAIRD	074, 102, 182, 209, 321, 329, 379, 409
BANG & OLUFSEN	324



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BASIC LINE	006, 031, 049, 107, 123, 159, 195, 207, 226	BUSH (UK)	107, 147, 168
BASTIDE	379	<b>C</b>	
BAUR	012, 049, 053, 063, 107, 150, 172, 244, 245, 246, 247, 301, 357, 414, 416	CAPSONIC	076
BAZIN	379	CARAD	049, 063
BEKO	063, 184, 240, 241, 392, 421, 433	CARENA	049, 063, 380
BEON	049, 063, 163	CARREFOUR	018, 406
BEST	213, 421	CARVER	177
BESTAR	049, 063, 421	CASCADE	049, 063, 064, 195
BINATONE	379	CASIO	049, 063
BLACK STAR	413	CATHAY	049, 063
BLACKTRON	006	CCE	049, 063, 379
BLACKWAY	006	CENTURION	049, 063
BLAUPUNKT	019, 053, 057, 060, 113, 118, 244, 245, 246, 247, 248, 249, 308	CENTURY	044, 054, 065, 163, 189, 324, 411, 413
BLUE SKY	006, 049, 063, 123, 195, 232	CGE	002, 044, 054, 090, 093, 094, 096, 107, 139, 142, 163, 168, 189, 369, 407, 413, 421
BLUE STAR	006	CIHAN	111
BONDSTEC	413	CIMLINE	031, 123, 134, 195
BOOTS	050, 106, 379	CITY	195
BPL	006, 049, 063	CLARIVOX	056, 121, 125, 163, 406
BRANDT	074, 182, 218, 415, 424, 436	CLATONIC	076, 123
BRANDT ELECTRONIQUE	029, 034, 074, 182, 186	CLATRONIC	031, 045, 049, 063, 076, 113, 123, 195, 225, 379, 407, 413, 421, 431
BRINKMANN	049, 063, 163	CMS HIGHTEC	379
BRION VEGA	049, 063, 065, 083, 167, 172, 173, 181, 196, 324, 356	COMTEL	111, 125
BRITANNIA	379	CONCORDE	195
BROTHER	076	CONDOR	006, 045, 049, 050, 063, 113, 163, 195, 210, 379, 413, 421
BRUNS	056, 065, 324	CONTEC	018, 131, 195, 206, 302, 320, 379
BSR	094, 107, 110, 139, 168, 314	CONTINENTAL EDISON	029, 034, 074, 182, 186, 232, 415, 424
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CROSLEY	054, 065, 090, 093, 094, 104, 107, 139, 324, 407, 413
CROWN	049, 063, 154, 163, 170, 195, 209, 232, 372, 407, 419, 421, 431
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CTC	413
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CURTIS MATHES	126, 190, 212
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DECCA	049, 063, 102, 106, 111, 120, 200, 331, 379
DECCA (UK)	046, 050, 102, 106, 131
DEITRON	049, 063
DENKO	076
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DESMET	049, 063, 113
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DIGILINE	049, 063
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DREAN	049, 063

DTS	195
DUAL	049, 050, 063, 095, 107, 139, 156, 168, 182, 242, 243, 379, 414, 416, 423, 424
DUAL-TEC	195, 168, 050, 040
DUMONT	045, 065, 080, 102, 139, 146, 319, 324, 339, 341, 375, 379, 406, 408
DUMONT-FINLUX	020, 045, 061, 075, 078, 091, 104, 117, 147
DUX	049, 063, 112
DYNATRON	049, 063

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ELBE	049, 063, 107, 121, 123, 172, 194, 210, 242, 337, 368, 369, 391, 411, 421, 435
ELBIT	111
ELCIT	045, 046, 047, 062, 065, 104, 107, 150, 168, 324, 413
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ELECTRO TECH	195
ELEKTA	006, 076
ELEKTRONSKA	318
ELG	049, 063
ELIN	003, 020, 049, 063, 107, 139, 172, 195, 379, 408, 416
ELITE	031, 049, 063, 123
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EUROPHON	044, 045, 046, 049, 050, 063, 068, 107, 120, 168, 318, 336, 379, 413	FORMENTI	090, 107, 113, 139, 307, 324, 379, 407
EXPERT	107, 236, 242, 425	FORMENTI-PHOENIX	050, 075, 104, 113, 148, 307
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GRAETZ	049, 063, 090, 104, 136, 139, 153, 159, 162, 171, 172, 198, 225, 307
GRANADA	013, 018, 033, 041, 063, 102, 104, 105, 112, 120, 148, 164, 165, 171, 209, 218, 237, 238, 240, 241, 252, 307, 325, 363, 379, 407, 418, 419
GRANADA (UK)	046, 050, 090, 107, 139, 143, 162, 307
GRANDIN	006, 031, 049, 063, 107, 113, 123, 195, 379, 380, 425, 431, 435
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INTERVISION	006, 045, 049, 055, 063, 076, 107, 123, 225, 232, 378, 379, 380, 381, 382, 384, 385, 386, 387, 388, 389, 413, 421, 423
IRRADIO	031, 049, 063, 066, 075, 090, 123, 155, 195, 254, 407, 413
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KARCHER	003, 006, 020, 031, 045, 049, 050, 063, 068, 076, 107, 195, 207, 217, 421, 435
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KENDO	044, 045, 049, 055, 063, 134, 172, 210, 413, 421, 435
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KOLSTER	045, 049, 063, 416
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LUX MAY	049, 063, 195
LUXOR	042, 050, 090, 107, 122, 127, 133, 139, 150, 155, 159, 165, 172, 185, 197, 209, 307, 312, 330, 416, 418, 428, 429
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MADISON	049, 063
MAGNADYNE	045, 046, 047, 062, 065, 104, 107, 120, 139, 150, 168, 318, 324, 413

MAGNAFON	045, 046, 050, 068, 075, 090, 120, 235, 336, 379, 407
MAGNAVOX	018, 042, 049, 063
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