

**TOPFIELD**

# **TF 7700 HD PVR TF 7710 HD PVR**

User Guide

*High Definition  
Digital Satellite Receiver  
Personal Video Recorder*



**DVB**  
Digital Video  
Broadcasting





Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

- Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
- The mains plug, which is used as a disconnect device, shall remain readily operable.



The lighting flash with arrowhead symbol, within 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, within an equilateral triangle, is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

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# Chapter 1

## Introduction

The TF 7700 HD PVR/TF 7710 HD PVR digital receiver is fully compliant with the international Digital Video Broadcasting (DVB) standard, and thus is able to receive digital broadcasts of that standard.

For its operation you need an antenna, which must be installed appropriately.

### 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. 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

The TF 7700 HD PVR/TF 7710 HD PVR digital receiver has the following features:

- Supports DiSEqC 1.0, DiSEqC 1.1, DiSEqC 1.2 and US-ALS.
- Can store up to 5000 television and radio services.
- You can edit the services list.
- You can create favourite lists of your favourite services.
- You 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 one service while you are currently watching another.
- The large storage capacity of the hard disk drive allows you to record up to about 60 hours of television—in case of 250 gigabytes—in excellent picture and sound quality.
- Time shift is a special technical feature available on the TF 7700 HD PVR/TF 7710 HD PVR. You can pause the 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 backward search.

### 1.2 Controlling the digital receiver

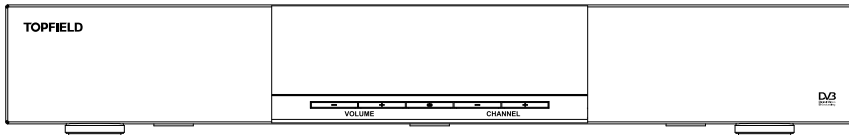
You can operate the digital receiver with the remote control and the buttons on the front panel.

#### **NOTE**

When the digital receiver is off but plugged into a wall outlet, we say that it is in standby mode; on the other hand, when it is on, it is in operation mode. Even when you are not using the digital receiver, you should keep it plugged into a wall outlet to be in standby mode so that it can run timer events at any time.

### 1.2.1 The front panel

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



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

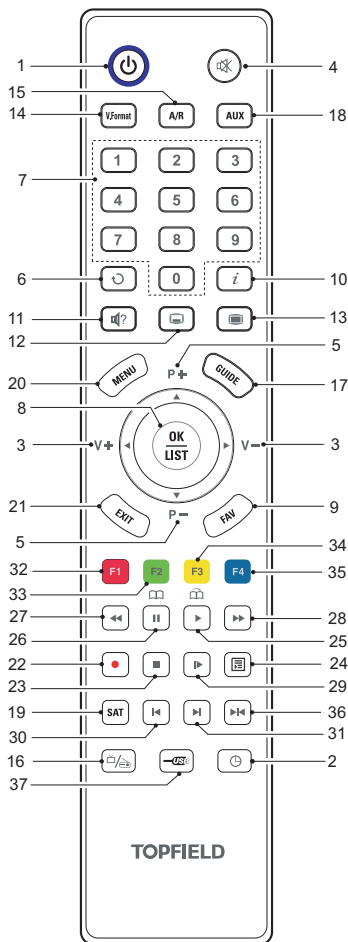
**VOLUME** -, + buttons decrease or increase the volume. They are also used to change values for menu options.

**CHANNEL** -, + buttons switch to previous or next service. They are also used to navigate in menus and interactive screens.

Front display displays the current time in standby mode, and displays the current service in operation mode.

















Pull the right edge of the front panel to open the flap. There is a USB port on the front panel for firmware update and data transfer. You have to insert your subscription card into the front slot to watch pay services.











### 1.2.2 The remote control





- ① button switches the digital receiver between standby mode and operation mode.
- ② is used to set a sleep timer in 10 minute increments.
- ③ decrease or increase the volume. They are also used to change values for menu options.
- ④ mutes the sound. Press again to switch it back on.
- ⑤ switch to previous or next service. They are also used to navigate in menus and interactive screens.
- ⑥ switches between the current service and the previously viewed one.
- ⑦ Numeric buttons are used to enter a service number for service change or to specify values for menu options.
- ⑧ displays the services list. See § 5.2.1 for more details. It is also used to select a menu item.
- ⑨ displays the favourite lists.
- ⑩ displays the service information box. It is also used to display more information about a programme.

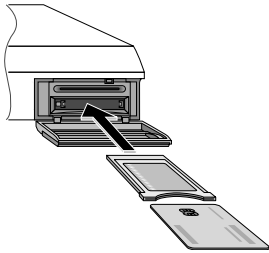
⑪ is used to select an audio track and a sound mode, or a video track of multifeed programme.

- 12  is used to select a subtitle track.
- 13  displays teletext.
- 14  changes video resolution. See § 3.2.4 for more details.
- 15  changes aspect ratio. See § 3.2.3 for more details.
- 16  switches between television services and radio services.
- 17  displays the electronic programme guide.
- 18  switches the output of the TV SCART socket between the digital receiver and the device connected to the VCR SCART socket. See § 3.2.2 for more details.
- 19  displays the satellites list with their services list.
- 20  displays the main menu. It is also used to return to the previous menu from a submenu.
- 21  is used to exit a menu or to hide on-screen info.
- 22  is used to start recording.
- 23  is used to stop playback, to stop recording, or to jump back to live television from time-shifted television.
- 24  is used to display the list of recorded programmes that are stored on the internal hard disk drive. See § 7.2 for more details.
- 25  resumes normal playback speed, or displays the progress bar for navigation on playback or time shift. To play a recorded programme, see button 24.
- 26  pauses live television or playback of a recorded programme.
- 27  is used to start reverse playback. Subsequent presses increase the rewind speed.

- 28  is used to start fast motion playback. Subsequent presses increase the playback speed.
- 29  is used to start slow motion playback. Subsequent presses change the playback speed.
- 30  is used to jump back to beginning of recording during a playback.
- 31  is used to jump to end of recording during a playback.
- 32  has different functions per menu.
- 33  is used to make a bookmark during playback or time shift.
- 34  is used to jump to next bookmark position or to jump forward 30 seconds.
- 35  is used to jump back 20 seconds for an instant replay.
- 36  has different functions per menu.
- 37  is used to display the list of files that are stored on the USB memory stick. For more details, refer to § 7.2.7

The , , ,  and  buttons have additional different functions per menu besides their own function. They will be guided by on-screen help.

### 1.3 What is common interface?



Some broadcasts are scrambled so that only paid subscribers can enjoy them. Scrambled services can only be viewed with a Conditional Access Module (CAM) and a subscription card belonging with the scrambling system.

Common Interface (CI) is the slot on a digital receiver into which a conditional access module may be inserted. The front of the digital receiver has two common interfaces.

To watch a pay service, you should take the following steps:

1. Purchase a conditional access module and a subscription card for the pay service you want to watch.
2. Insert the subscription card into the conditional access module.
3. Insert the conditional access module into a common interface on the front of the digital receiver.



To view the information about the module and subscription card which is inserted into the digital receiver, select the Information > Common Interface menu. You should see a screen like the left figure.

## Chapter 2

# Setup

### 2.1 Unpacking

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

- Remote control unit
- Two batteries for the remote control (AAA 1.5 V)
- One power cord
- One HDMI cable
- A copy of this user guide

#### **NOTE**

Accessories may vary according to your local area.

### 2.2 Safety precautions

Please read carefully the following safety precautions.

- The mains power must be 90 to 250 volts. Check it before connecting the digital receiver to the mains socket. For the power consumption of the digital receiver, refer to Table [2.1](#).



- The mains socket should be near the equipment. Do not run an extension lead to the unit.
- Do not expose the digital receiver to any moisture. The digital receiver is designed for use indoors only. Use dry cloth when cleaning the digital receiver.
- Place the digital receiver on a firm and level surface.
- Do not place the digital receiver close to heat emitting units or in direct sunlight, as this will impair cooling. Do not lay any objects such as magazines on the digital receiver. 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.
- Never open the digital receiver casing under any circumstances, or the warranty will be void.
- Refer all servicing to a qualified service technician.

**Table 2.1: Power specifications**

---

|                   |  |
|-------------------|--|
| Input voltage     | 90 to 250 V AC, 50/60 Hz                       |
| Power consumption | 60 W at maximum in operation<br>7 W in standby |

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**Table 2.2: Physical specifications**

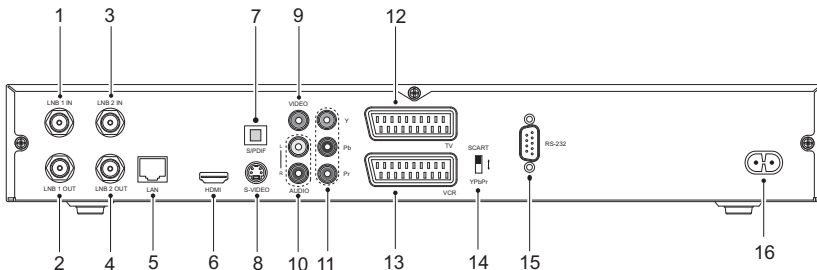
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|                           |                   |
|---------------------------|-------------------|
| Size                      | 430 × 60 × 265 mm |
| Weight                    | 3.8 kg            |
| Operating temperature     | 0 to 45 °C        |
| Storage relative humidity | 5 to 90 %         |

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## 2.3 Rear panel connections

The TF 7700 HD PVR/TF 7710 HD PVR has a wide range of connections on the back.



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

- ① LNB 1 IN Satellite broadcasting signal input socket for the first tuner.
- ② LNB 1 OUT Satellite broadcasting signal output socket through the first tuner.
- ③ LNB 2 IN Satellite broadcasting signal input socket for the second tuner.
- ④ LNB 2 OUT Satellite broadcasting signal output socket through the second tuner.
- ⑤ LAN Local area network port. See § 9.3
- ⑥ HDMI Audio and video output socket for the high definition television set.
- ⑦ S/PDIF Dolby digital output socket for the audio system.
- ⑧ S-VIDEO Super video output socket for the television set.

- ⑨ VIDEO Composite video output socket for the television set. (yellow)
- ⑩ AUDIO L/R Stereo audio output socket for the television set or the audio system. (white/red)
- ⑪ Y/Pb/Pr Component video output socket for the television set. (green/blue/red)
- ⑫ TV Audio and video output socket for the television set.
- ⑬ VCR Audio and video input/output socket for the video cassette recorder or suchlike.
- ⑭ YPbPr ↔ SCART Video output selection switch. See § 3.2.4 for more details.
- ⑮ RS-232 Serial port for firmware update and data transfer.
- ⑯ AC INPUT Power socket.

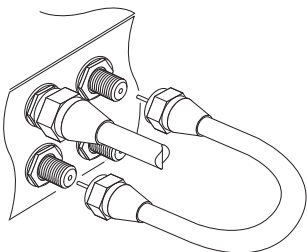
**Table 2.3: Connectors specifications**

|         |  |
|---------|--|
| HDMI    | High definition video output<br>Left & right audio output<br>Dolby digital audio output  |
| VIDEO   | Composite video (CVBS) output  |
| AUDIO   | Left & right audio output  |
| S-VIDEO | Super video (S-Video) output   |
| YPbPr   | Component video (YUV) output   |
| TV      | CVBS/S-Video/RGB video output<br>Left & right audio output   |
| VCR     | CVBS video output<br>Left & right audio output<br>CVBS/S-Video/RGB video input for bypass<br>Left & right audio input for bypass |
| S/PDIF  | Dolby digital audio output   |
| RS-232  | 115.2 kbps at maximum  |
| USB     | 2.0 Host (5 V DC, 500 mA)  |

## 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 appliances. If you have any problem with your setup or need help, contact your dealer.

### 2.4.1 Connecting the antenna



Whatever sort of connection you have between the digital receiver and the television, you need to connect the digital receiver to your television antenna so that it can receive digital television services.

Connect the antenna cable to the LNB 1 IN connector on the back panel of the digital receiver.

Also, you must ensure that there is a connection to both the LNB 1 IN and LNB 2 IN connectors on your digital receiver, so that both tuners work properly.

Normally you do that by using a loop cable to link from the LNB 1 OUT connector to the LNB 2 IN connector.

If you have two antennas without DiSEqC switch, then you have to connect a cable from the other antenna directly to the LNB 2 IN connector rather than using the loop cable. If you have another digital receiver, you may link it from the LNB 2 OUT connector.

#### **NOTE**

The digital receiver can supply a current of 500 milliamperes at maximum for antenna devices including LNB, DiSEqC switch and antenna rotor through each antenna input connection separately but not simultaneously. If there are too many antenna

devices to be supplied with power through antenna input connections simultaneously for a long time, your LNBS may lack power to operate. So it is recommended to link the LNB 1 OUT connector to the LNB 2 IN connector with a loop cable even though the digital receiver is designed to operate over two antennas alternatively.

**NOTE**

Perhaps you are expecting that the satellite antenna could simultaneously catch all frequencies coming from a satellite and send them to the digital receiver. However, the satellite antenna only sends the frequencies that it can catch with the LNB frequency and polarisation specified by the digital receiver. So if you have linked from the LNB 1 OUT connector to the LNB 2 IN connector, you would have some limitations in using some features such as dual recording. Likewise, if you have another digital receiver linked from the LNB 2 OUT connector, you can only use it limitedly. See § 4.1 for more details.

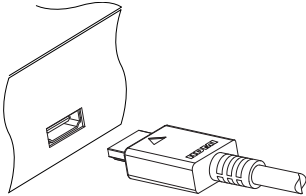
## 2.4.2 Connecting to your television set

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

1. HDMI connector (HDMI)
2. SCART connector (TV)
3. Component connector (YPbPr)
4. S-Video connector (S-VIDEO)
5. Composite connector (VIDEO)

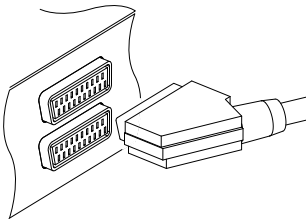
You should configure audio and video settings after connecting up the digital receiver. See § 3.2 for a detailed description.

### To use the HDMI connector



If you have a high definition television set, you should use a 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 the HDMI connector can output stereo audio or Dolby digital audio.

### To use the SCART connector



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.

Some televisions have inputs via S-Video or Component connectors rather than SCART.

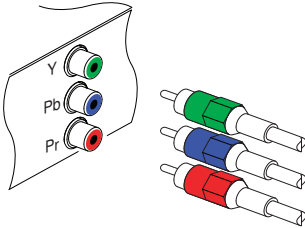
If you have such a television, use an appropriate conversion cable to link the TV socket on the digital receiver to the matching socket on your television.

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

#### **NOTE**

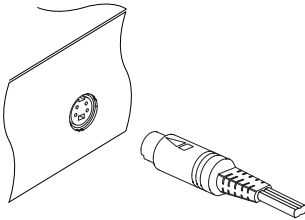
You cannot view high definition video with the SCART connector.

### To use the component video connector



You need to obtain a component video cable (RCA cable) to use the component video connector. Plug one ends of the cable into the Y (green), Pb (blue) and Pr (red) sockets on the digital receiver, and plug the other ends into the matching sockets on your television.

### To use the S-Video connector

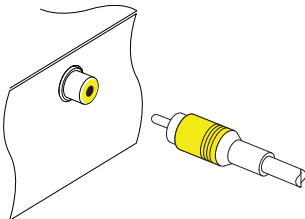


#### NOTE

You cannot view high definition video with the S-Video connector.

You need to obtain a S-Video cable to use the S-Video connector. Plug one end of the cable into the S-VIDEO socket on the digital receiver, and plug the other end into the matching socket on your television.

### To use the composite video connector

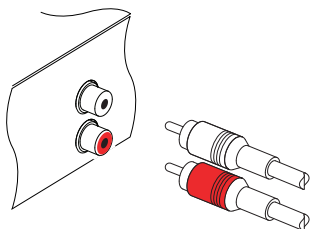


#### NOTE

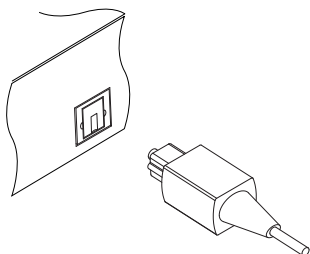
You cannot view high definition video with the composite video connector.

You need to obtain a composite video cable (RCA cable) to use the composite video connector. 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.

### To make the audio connection



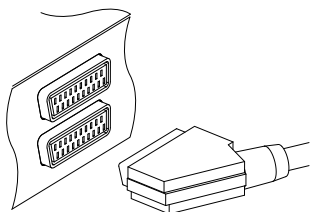
You need to obtain an audio cable (RCA cable) to connect the audio connectors. Plug one end of the cable into the AUDIO L (white) and AUDIO R (red) sockets on the digital receiver, and plug the other end into the matching sockets on your television or audio system.



To enjoy Dolby digital audio, your television or audio system must be able to decode Dolby digital audio, and you need to obtain a 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 system.

### 2.4.3 Connecting to your video cassette recorder

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



You need to obtain a SCART cable to use 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 cassette recorder or suchlike.

### 2.5 Inserting batteries in the remote control

To insert the batteries, 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.



If the digital receiver no longer reacts properly to remote control commands, the batteries may be flat. Be sure to remove used batteries. The manufacturer accepts no liability for the damage resulting from leaking batteries.



**NOTE**

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.

## 2.6 Switching on for the first time

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

### 2.6.1 Powering on and checking picture

Now, press the  button in top left corner on the remote control. After about 10 seconds 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 § 4.1 to search for the 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 on-screen menus in order to configure the video settings.

## Chapter 3

# Preference Settings

### 3.1 Language settings



You can select the language in which the menu would be displayed. In addition to that, you can select the language of audio track and of subtitle track.


Select the System Setting > Language Setting menu. You should see a screen like the left figure.

#### Menu language

The digital receiver supports many menu languages: Dutch, English, German, French, Italian, Russian, Turkish and so forth. Set the Menu Language option to your desired language. Once you select a language, the menu will be immediately displayed in the selected language.


### 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 designated 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 not any 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.

### 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 designated for the 1st Audio Language, it will be output. If the first language is not available but the second language is available, 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.

## 3.2 Video and audio settings



You have to configure the video and audio settings appropriately for your television set and other appliances.

Select the **System Setting** > **A/V Output Setting** menu. You should see a screen like the left figure.

### 3.2.1 Colour model

Through the TV SCART connector, the digital receiver is able to output video in various colour models. If you have the digital receiver linked to your television via this connector, you should set the SCART Output option to your desired colour model. If you have connected via the RCA connector labeled VIDEO on the back panel, you do not have to set this option because the digital receiver outputs CVBS video through the RCA connector independently of the SCART connector.

However, if you have connected via the S-VIDEO connector, you have to set this option to S-Video because the output through S-Video connector comes from the SCART interface. Similarly, if you have done by YUV connectors (Y, Pb and Pr), you have to set this option to YUV for the same reason.

In general, it is known that the RGB colour model provides the best video quality with little difference from the YUV colour model but the CVBS colour model does the least. So RGB would be the most desirable option for this.

### 3.2.2 Video cassette recorder

You can have the digital receiver linked to your video cassette recorder or such an appliance via the VCR SCART connector. 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 the video from the video cassette recorder 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. To pass it, you have to press the **AUX** button.

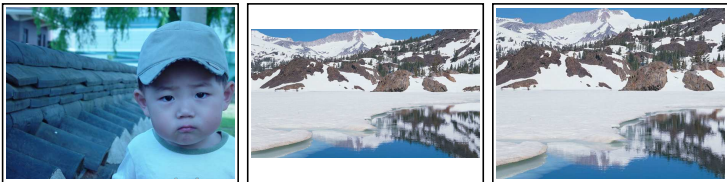
#### NOTE

It is impossible for the digital receiver to record the video that the video recorder plays back because the digital receiver is just a bypass for the video recorder.

### 3.2.3 Television aspect ratio

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

Otherwise, if you have a normal-screen television, set the TV Aspect Ratio option to 4:3.



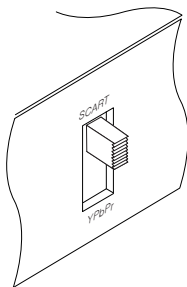
You cannot fully enjoy wide-screen programmes with your normal-screen television as the above figures show. The left figure shows a normal picture displayed in the normal screen. To watch wide-screen programmes in the shape like the centre figure, set the 16:9 Display Format option to Letter Box. Wide-screen 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.

### 3.2.4 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 quality you can enjoy. 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 **V.Format** button. Whenever you press it, the video resolution is changed in turn.



If you have the digital receiver linked to your television via the component video connectors (Y, Pb and Pr) or the HDMI connector, you have to toggle the video output selection switch on the back panel to the **YPbPr** position. Otherwise if you have connected it to your television via the TV SCART connector, you have to toggle the switch to the **SCART** position. The available values of the **Video Format** option vary depending on which position you toggle the switch to.


**NOTE**

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

- Composite video connector (VIDEO)
- S-Video connector (S-VIDEO)
- SCART connector (TV)

### 3.2.5 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.

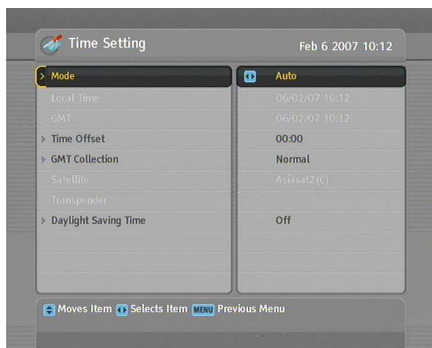
The digital receiver can output two types of digital audio signals via the S/PDIF connector. One is an encoded signal, and the other is a decoded signal. If your digital audio system does not have a Dolby Digital decoder, you have to set the Digital Output (Dolby Digital Only) option to PCM. Otherwise, set it to Bitstream.

**NOTE**

If the service you are currently watching does not provide Dolby digital, you cannot watch the programme with Dolby sound even though you set the Digital Output option to Bitstream.

## 3.3 Local time setting

You should set your local time for timer events. If you do not set the local time correctly, the programme time table provided by the programme guide may be distrustful. For the programme guide, refer to § 5.3.



Select the System Setting > Time Setting 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 3.1.
3. Make sure that your local time is correctly displayed on the Local Time option.

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*.

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.

## 3.4 Parental control

In general, television programmes are classified according to the level of violence, nudity and language of their content.

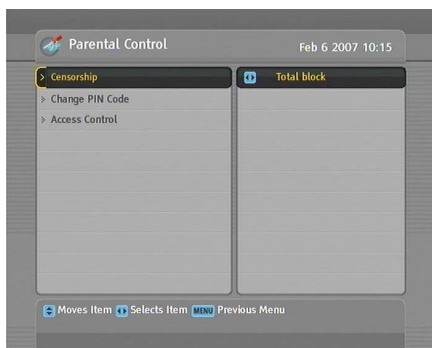


Table 3.1: Time offset table

| Time offset | City                                       |
|-------------|--|
| 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               |
| GMT – 03:30 | Newfoundland                               |
| GMT – 03:00 | Brazil, Georgetown, Buenos Aries           |
| 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      |

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 programme classification.



Select the System Setting > 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'.

If you wish to block 15 or above rated programmes, 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 does not have any programme classification 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 an input box appears. You have to 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 Setting item is set to Locked, you have to enter the personal identification number when accessing the Time Setting menu. If you enter a wrong number, you cannot use the menu. To release a shut item, set it to Unlocked.

## 3.5 Adjusting the On-Screen Display

You can adjust the transparency level of the On-Screen Display (OSD). Select the System Setting menu and set the OSD Transparency option as you desire. Its available range is 0 to 50 percent.

You can adjust the display time of the information box. For the information box, see § 5.2.3. To adjust its display time, select the System Setting menu and 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.

In addition, you can raise or lower the position of the information box. Select the System Setting menu and 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.

## 3.6 To turn on the time shift feature

Time shift means that the most recent hour of the television service you are watching gets saved temporarily on the hard disk of the digital receiver. When this feature is enabled, you can reverse and pause live television as if playing back a recording. To enable this feature, select the System Setting menu and then set the Time Shifting option to Enable. See § 5.5 for how to use this feature.

## Chapter 4

# Service Search

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

### 4.1 Searching broadcasting services

This digital receiver can be operated with both fixed antenna and motorized antenna. You have to configure antenna settings according to your antenna system in the following order:

1. Configure LNB settings. (Refer to § 4.1.1.)
2. Set the position of your desired satellites if you have a motorized antenna. You can control the antenna in DiSEqC 1.2 mode or USALS mode. Refer DiSEqC 1.2 to § 4.1.2, and refer USALS to § 4.1.3.
3. Perform a service search.

#### 4.1.1 Configuring LNB settings

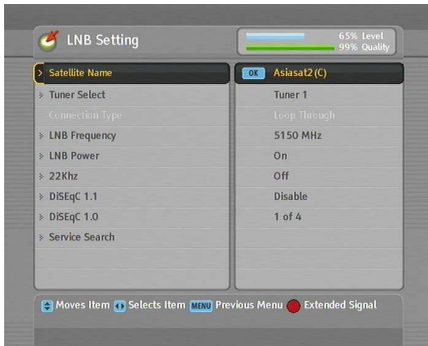
There are two large frequency bands for satellite broadcasts. One is C band which ranges approximately from 4 to 6 GHz.

The other is  $K_u$  band which ranges approximately from 12 to 18 GHz.



The LNB (Low Noise Block converter) is used to take a wide band of relatively high frequencies, amplify and convert them to similar signals that is carried at a much lower frequency, which is called Intermediate Frequency (IF).

High frequencies from satellites are converted into 950 to 2150 MHz by a LNB.



Select the Installation > LNB Setting menu to configure the LNB settings. You should see a screen like the left figure.

Pressing the  $\text{OK}$  button on the Satellite Name option displays the satellite list in alphabetic order. Select the satellite toward which your antenna is set to face. Even if you cannot find your desired satellite, you can add your desired satellite to the satellite list. See § 4.3 for a detailed description.

You have to specify which tuner is connected to your selected satellite. If it is LNB 1 IN, set the Tuner Select option to Tuner 1; otherwise, set it to Tuner 2.

If you have connected the LNB 1 OUT and LNB 2 IN with a loop-through cable, then set the Connection Type option to

Loop Through; otherwise, set it to Separated.

**NOTE**

Both the LNB 1 IN and LNB 2 IN sockets should be connected to your antennas either directly or via the loop-through cable. If you have connected only one socket, some features such as dual recording will not function.

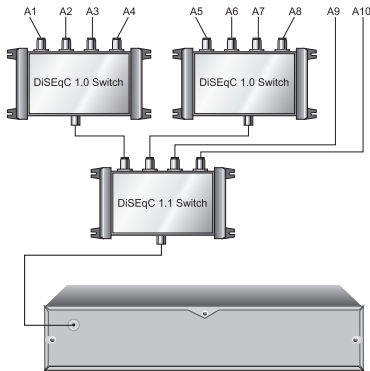
The digital receiver has a database of broadcasting satellites and their transponders, containing the following information: satellite position, frequency range, symbol rate, polarization and LNB frequency corresponding to the frequency range. So you might not have to specify the LNB Frequency option. However, if you have selected the Other entry at the Satellite Name option to specify a satellite that is not in the satellite list, you might have to fill in the correct LNB frequency. The absolute difference between a broadcasting frequency and its LNB frequency must be within 950 to 2150 MHz. For example, if the frequency band of your desired satellite ranges from 3660 to 4118 MHz, you have to set the LNB Frequency option to 5150 MHz.

The LNB has to be supplied with electric power to operate. Set the LNB Power option to On if it does not have any other power supply.

You had better ignore the 22 kHz option.

The digital receiver is designed to be compatible with DiSEqC (Digital Satellite Equipment Control) switches. It is possible to connect several antennas to one digital receiver by DiSEqC switches. A DiSEqC 1.0 switch allows switching between up to four satellite sources and a DiSEqC 1.1 switch allows switching between up to 16 satellite sources.

Set the DiSEqC 1.0 option and the DiSEqC 1.1 option according to your antenna configuration.



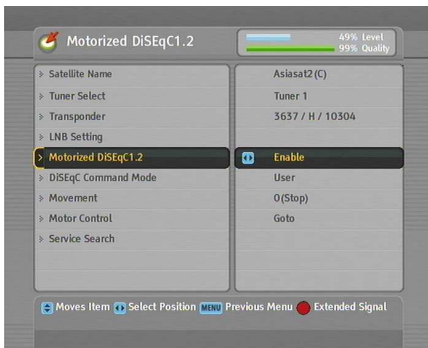
For example, to select the antenna connected to the A5 input in the left figure, set the DiSEqC 1.1 option to 2 of 4 and the DiSEqC 1.0 option to 1 of 4. If you have a mini DiSEqC 1.0 switch which has only two inputs, you should set the DiSEqC 1.0 option to Mini A instead of 1 of 4.

### 4.1.2 Configuring DiSEqC 1.2 settings

Your motorized antenna will turn toward your desired satellites horizontally by DiSEqC 1.2.



When you switch to an service, if the service is provided by a satellite other than current one, it will take longer time than usual because the antenna has to turn to its position.



To use the DiSEqC 1.2 protocol, select the Installation > Motorized DiSEqC 1.2 menu. You should see a screen like the left figure.

At first you have to set the Motorized DiSEqC 1.2 option to Enable.

To get the correct position of your desired satellite, perform the following steps:

1. Choose your desired satellite at the Satellite Name option.
2. Select the tuner that is connected to the motorized antenna at the Tuner Select option.
3. Set the DiSEqC Command Mode option to User.
4. Set the Motor Control option to Goto. Then the antenna will turn toward your selected satellite by the position data that the digital receiver has.
5. If the receiving quality, which is displayed at the bottom right of the screen, is not good, tune the antenna finely with the Movement option. If you set it to 2(E), the antenna will move to the east by two degrees. At this time you had better check the receiving quality of every transponder and choose the best one at the Transponder (or Frequency) option. It will be helpful to your fine tuning.
6. Finally set the Motor Control option to Store to save the tuned position when the receiving quality is best.

There are more motor control options for installers, but this guide does not describe them. If you are an installer, refer them to the manual about the *STAB* rotor.

### 4.1.3 Configuring USALS settings

USALS (Universal Satellite Automatic Location System), also known as DiSEqC 1.3, calculates the positions of all available satellites from your location. Compared to DiSEqC 1.2, it is no longer required to manually search and store every satellite position. Just pointing to a known satellite position is enough. This position will act as a central point. The USALS will then calculate positions of visible satellites.





To use the USALS protocol, select the Installation > USALS Setting menu. You should see a screen like the left figure.

At first you have to set the Motorized DiSEqC 1.3 option to Enable.

To get every satellite position calculated, perform the following steps:

1. Choose your desired satellite at the Satellite Name option.
2. Select the tuner that is connected to the motorized antenna at the Tuner Select option.
3. Enter your location to the My Longitude option and the My Latitude option with the ◀, ▶ and numeric buttons.
4. Enter the position of your selected satellite to the Satellite Angle option if it is not correct.
5. Select the Goto the position option; then the antenna will turn toward your selected satellite as calculating its position.
6. If the receiving quality, which is displayed at the bottom right of the screen, is not good, then tune the antenna finely with the Move option. The changed position is automatically saved. At this time you had better check the receiving quality of every transponder and choose the best one at the Transponder (or Frequency) option. It will be helpful to your fine tuning.

### 4.1.4 Searching services



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

There are four service search methods:

- Searching every service of a satellite.
- Searching every service of a transponder.
- Searching one service of a transponder.
- Searching every service of a SMATV (Satellite Master Antenna Television) system.

#### Searching every service of a satellite

To search every service of a satellite, perform the following steps:

1. Choose your desired satellite at the Satellite Name option.
2. Set the Search Mode option to Auto.
3. If you set the Network Search option to On, the digital receiver will check up the up-to-date channel information as searching services, but it takes rather longer time.

#### Searching every service of a transponder

To search every service of a transponder, perform the following steps:

1. Choose your desired satellite at the Satellite Name option.
2. Set the Search Mode option to Manual.
3. Choose your desired transponder at the Frequency option or enter it with the numeric buttons.
4. Enter the symbol rate of your desired transponder to the Symbol Rate option with the numeric buttons.
5. Set the Polarization option to the polarization of your desired transponder.
6. If you set the Network Search option to On, the digital receiver will check up the up-to-date channel information as searching services, but it takes rather longer time.
7. Set the Modulation option to the modulation type of your desired transponder. If your desired transponder has high definition broadcasts, you should set this option to DVB-S2 QPSK or DVB-S2 8PSK. Then the FEC option and the Pilot option will become enabled. You also should set these options correctly.

**NOTE**

You may get transponder information from a satellite magazine or web site such as <http://www.satcodx.com> or <http://www.lyngsat.com>.

**Searching one service of a transponder**

To search one service of a transponder, perform the following steps:

1. Choose your desired satellite at the Satellite Name option.
2. Set the Search Mode option to Advanced.
3. Choose your desired transponder at the Frequency option or enter it with the numeric buttons.

4. Enter the symbol rate of your desired transponder to the **Symbol Rate** option with the numeric buttons.
5. Set the **Polarization** option to the polarization of your desired transponder.
6. Specify the packet identifiers of your desired service at the **PID** option with the numeric buttons. A packet identifier is used to verify audio and video streams.

### Searching every service of SMATV system

To search every service of a SMATV system, if the digital receiver is connected to it, perform the following steps:

1. Choose your desired satellite at the **Satellite Name** option.
2. Set the **Search Mode** option to **SMATV**.
3. Choose your desired transponder at the **Frequency** option or enter it with the numeric buttons.
4. Enter the symbol rate of your desired transponder to the **Symbol Rate** option with the numeric buttons.

You can search pay services as well as free services as follows:

- To search only free services, set the **FTA/Scrambled** option to **FTA** only.
- To search only pay services, set it to **CAS** only.
- To search both free services and pay services, set it to **FTA + CAS**.

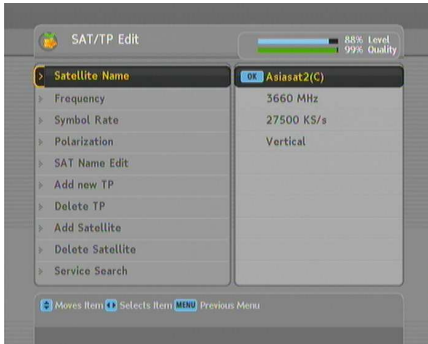
To start service search, select the **Start Search** item; then a list box appears, in which found services will be listed. When it has completed, press the **(OK)** button to save found services. To stop at any time or to exit without saving, press the **(EXIT)** button.

## 4.2 Copying services

The digital receiver maintains a separate services list with each tuner. If a certain service is registered on only one tuner, it may be impossible to watch one service while recording. You can copy entries of one tuner's services list to the other tuner's services list to avoid such inconvenience.

To copy service entries, select the **Installation > Services Copy** menu. There are three copy options. To copy service entries of the first tuner to the second tuner's services list, select the **Tuner 1 to Tuner 2** option. To copy on the contrary, select the **Tuner 2 to Tuner 1** option. To copy reciprocally, select the **ALL** option.

## 4.3 Editing the transponder list



You can add, delete or modify satellite or transponder information.

Select the **Installation > SAT/TP Edit** menu. You should see a screen like the left figure.

To add a satellite entry, select the **Add Satellite** option; then the on-screen keyboard appears. Enter your desired name and save it. See § 6.3 for how to use the on-screen keyboard.

To change a satellite entry's name, select your desired entry at the **Satellite Name** option and select the **SAT Name Edit** option. Then the on-screen keyboard appears. Change the name as you desire and save it.

To delete a satellite entry, select your desired entry at the **Satellite Name** option and select the **Delete Satellite** option; then

you get asked for confirmation. If you select **Yes**, it will be deleted.

To add a transponder entry, select your desired entry at the **Satellite Name** option and select the **Add new TP** option. Then the transponder information box appears. Enter a frequency and its symbol rate with the numeric buttons, and specify its polarization.

To delete a transponder entry, select your desired entry at the **Frequency** option and select the **Delete TP** option; then you get asked for confirmation. If you select **Yes**, it will be deleted.

## 4.4 Resetting to factory settings

The digital receiver maintains the following data:

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

You can reset all data of the digital receiver. To do that, select the **Installation > Factory Setting** menu, and then you get asked for confirmation. If you select **Yes**, service entries, favourite entries and timer events will all be deleted, and preference options will be reset to the manufacturer's factory settings.

### **NOTE**

A factory reset will not delete any recorded programmes.

## Chapter 5

# Daily Usage

### 5.1 Volume control

Use the ◀ and ▶ 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 ▲ or ▼ 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 ⊞ button.



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

- Service number and name
- Transmitting satellite
- Receiving tuner: T1 stands for the first tuner; T2 stands for the second tuner.
- Transponder 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 **OK** button; then it 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 **CA** button.

Pressing the **F3** button performs an alphabetic browse. For instance, when the highlight bar is on an entry of which initial is B, pressing the **F3** button puts the highlight bar on the first entry of which initial is C.

To sort the services list by service name, press the **F2** button. Pressing this button once more makes it sorted by service number.

Pressing the **F4** button displays the additional options, with which you can do the following:

- Select your desired satellite at the **Satellite** option, then only services provided by the selected satellite will be listed.

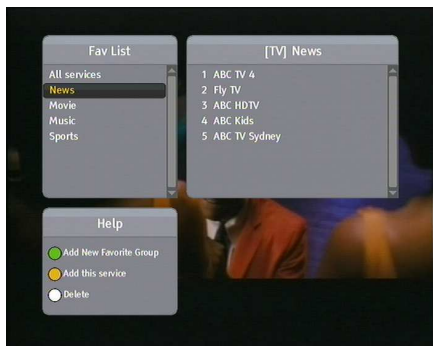


- Select your desired tuner at the Tuner option, then only services provided through the selected tuner will be listed.
- By setting the Show Provider option to On, you can view service entries by groups of broadcasters.
- To change the name of the highlighted service, select the Rename option; then the on-screen keyboard appears, with which you can enter a new name. See § 6.3 for how to use the on-screen keyboard.
- You can prevent other family members from watching the highlighted service by setting the Lock option to Locked. You have to enter your personal identification number to watch or unlock it.
- To delete the highlighted service, select the Delete option; then you get asked for confirmation. If you select Yes, it will be deleted. If you want to restore it as before, you have to perform service search again. See § 4.1 for service search.
- To add the highlighted service into a favourite group, select the Add to Fav option; then the favourite groups will be displayed. Put the highlight bar on a desired group and press the **OK** button.
- You can additionally sort the services list with the Sorting option as follows:
  - Default by service number
  - Alphabetic by service name
  - Satellite by satellite
  - FTA–CAS from free services to pay services
  - CAS–FTA from pay services to free services
  - Provider by broadcaster
  - Fav–NoFav from favourite services to unfavourite services.

Pressing the **(SAT)** button displays the satellite list. Once you select a desired satellite, only services provided by the selected satellite are listed.

## 5.2.2 The favourite services list

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



To display the favourite lists, press the **(FAV)** button. You should see a screen like the left figure. As you move the highlight bar up or down on the favourite group list at the left box, favourite services belonging to the highlighted group are listed on the right box.

For how to edit the favourite lists, refer to § 6.2.

To select a favourite service, put the highlight bar on a desired group and press the **▶** button; a highlight bar appears on its favourite services list. Once you select a desired service with the **(OK)** button, it will be presented. Otherwise, to select other group, press the **◀** button.

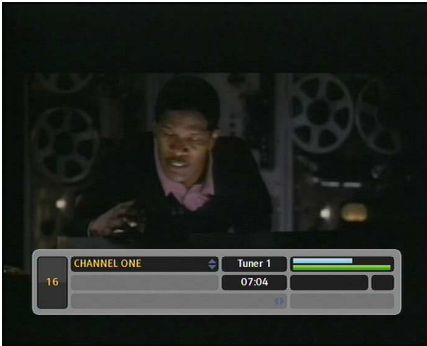
After you have selected a favourite service, if you then switch to another service using the **▲** or **▼** button, it will be also another favourite service of the selected group. The digital receiver will remind you what group you have selected by displaying its name at the top right of the screen whenever you switch services. If you wish to get out of the current group, select the **All services** group on the favourite group list.

Besides that, you can add or delete a favourite group or service. To add the service you are currently watching into a favourite group, put the highlight bar on a desired group and press the

**F3** button. To create a new group, press the **F2** button; then the on-screen keyboard appears. Enter your desired name and save it. See § 6.3 for how to use the on-screen keyboard. To delete a group or a service, press the **+\*** button; then you get asked for confirmation. If you select **Yes**, it will be deleted.

### 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
- Transmitting satellite
- Receiving tuner
- Transponder information
- Signal level and quality
- Programme name
- Programme classification symbol
- 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 symbol (Dolby) if a Dolby 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.
- Multifeed symbol (☐) if the current programme is provided as a multifeed programme. To use this feature, refer to § 5.4.



When you are not using time shift, if the electronic programme guide is provided on the current service, you can see the information about the current and next programmes with the ◀ or ▶ button. To adjust the sound volume in this case, hold down the ◀ or ▶ button until the sound bar appears and reaches your desired level.

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, it will be sounded. In addition, you can enjoy audio tracks in four sound modes: Stereo, Mono, Left or Right. However, if a multifeed programme is provided at the moment, video tracks will be displayed. In this case, you have to press the  button once more to select an audio track.

### 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 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 displays the programme guide in the form of spreadsheet. To switch it back, press the **F1** button again.

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

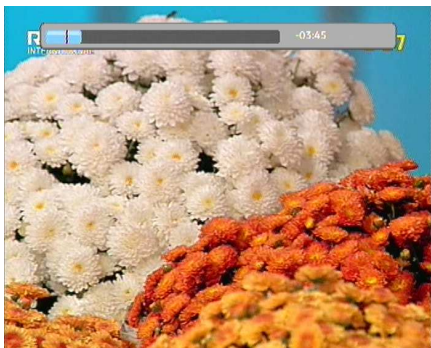
## 5.4 Watching multifeed programme

Some broadcasts such as sports channels can provide a variety of perspectives on a programme at the same time. We call it a multifeed programme. You can select and watch a perspective you prefer.

If a multifeed programme is provided on the current service, the multifeed symbol (⏏) will be marked on the information box. Press the (⏏?) button, then available video tracks will be listed. Once you select one, it will be presented. At this time, you have to press the (⏏?) button once more to select audio tracks.

## 5.5 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 it and resume it a short time later without losing any of it.









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

In order to use the time shift feature, the Time Shifting option must be set to Enable. See § 3.6.

When enabled, the digital receiver will keep as much as one hour recording buffer of current service by utilizing the hard disk drive storage. The buffer will reset each time you change to another service.

With time shift enabled, 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 forward 30 seconds at a time by pressing the  button.
- You can jump backward 20 seconds at a time by pressing the  button.
- You can change playback speed. For slow motion see § 7.3.2. 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 screen. A value of -02:00 means two minutes behind live programme.
- To end time shift, press the  button. The live programme will be presented.

When the time shift feature is disabled and a pause is kept for more than 10 seconds, the time shift feature will be enabled for saving the missing part of the programme. In such case it will remain enabled until you change services.

## Chapter 6

# Listing Services

### 6.1 Editing the services list

You would have got the services list after service search. You can rename, move, lock or delete service entries on the services list.




Select the Organizing Svc/Fav > Organizing Services menu. You should see a screen like the left figure.


There are editing options on the left column and service entries on the right column.



Once you put the highlight bar on a desired option on the left column and press the **OK** button, you can select a desired service to edit on the right column. To go over to the other column, press the **F1** button.





To edit the radio services list, press the  button; then radio service entries will be listed on the right column. To switch back to the television services list, press it again.

To change the name of a service, select the **Rename** and select a desired service; then the on-screen keyboard appears. See § 6.3 for how to use the on-screen keyboard.

Unlike analogue broadcasts, each service does not have a proper service number in digital broadcasts. Service numbers are just assigned to services in the order that they were found in service search. So you can reassign a service number by moving a service entry. To move a service entry, select the **Move** option and select a desired service; then the selected service becomes darker. As you move it up or down, it gets renumbered according to the position. Press the  button to fix it.

You can lock some services to prevent your children from watching them. To lock a service, select the **Lock** option and select a desired service; then the selected service gets marked with a lock symbol  on it. If anyone tries to watch a locked service, the person has to enter the personal identification number that is set to the **Change PIN Code** option. See § 3.4 for this option. Pressing the  button on a locked service entry turns it back to be unlocked.

To delete a service, select the **Delete** option and select a desired service with the  button, and then press the  button; you get asked for confirmation. If you select **Yes**, the selected service will be deleted. If you want to undo the deleted service, there is nothing you can do but perform a service search again.

Once you select the **Sort** option on the left column, sorting options are displayed as follows:

- Default by service number

- Alphabetic by service name

- Satellite by satellite

- FTA–CAS from free services to pay services

CAS–FTA from pay services to free services

Provider by broadcaster

Fav–NoFav from favourite services to unfavourite services.

Transponder by transponder

## 6.2 Editing the favourite list

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



Select the Organizing Svc/Fav > Organizing Favorites menu. You should see a screen like the left figure.

There are three columns:

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

The services list contains all available services, whereas the favourite 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 group, select the NEW option in the group list; then the on-screen keyboard appears. See § 6.3 for how to use the on-screen keyboard.

To rename a group, put the highlight bar on the group entry you want and press the **F2** button; then the on-screen keyboard appears. See § 6.3 for how to use the on-screen keyboard.

To delete a group, put the highlight bar on the group entry you want and press the **F3** button; then a message box appears asking you for confirmation. If you select **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 **OK** 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 **OK** button. The selected service entry gets added to the favourite list. Repeat this step to add more entries.
3. Press the **F1** button and the highlight bar gets moved to the favourite list. You can delete a favourite entry with the **OK** button.
4. To select another group, press the **F1** button again. By pressing the **F1** button, the highlight bar gets moved to each column.

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.

With your favourite services list, you can select your favourite services more easily. Refer to § 5.2.2 for detailed description.

### 6.3 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 (OK) button on a key enters its letter in the input line. To type a space, select the Space key. To type lower case letters or numerals, select the Other key.

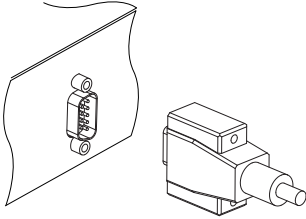
To delete a letter, put the cursor to the right of the desired letter on the input line and then select the Del key. You must select the Save key to complete naming; otherwise if you press the (EXIT) button, it will not be named.

### 6.4 Transferring receiver data

The digital receiver retains the following data:

- Satellite and transponder data
- Services list
- Favourite lists
- Preference settings

It is possible to transfer the receiver data from the digital receiver to another same digital receiver by connecting them with a RS-232 cable. To have the receiver data transferred, perform the following steps:



1. Plug one end of a RS-232 cable (9 pin D-sub cable) into the RS-232 port on the digital receiver, and the other end into the matching port on the other digital receiver.
2. Turn on the source digital receiver.
3. Select the Installation > Transfer Firmware > Transfer Data to Other IRD menu, then you get asked for confirmation; select Yes.
4. To start the data transfer, turn on the target digital receiver.
5. A progress bar appears showing the progress of the data transfer.
6. Restart the target digital receiver when the data transfer is complete.

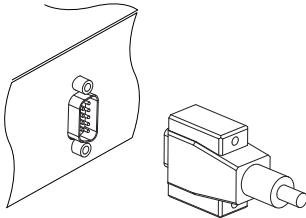
## 6.5 Editing channel data on your computer

You can edit the channel data on your computer by using a channel editor programme, *Vega*. With *Vega* you can do the following:

- Adding, deleting or modifying satellite entries
- Adding, deleting or modifying transponder entries
- Deleting or modifying service entries
- Adding, deleting or modifying favourite groups

You can not only transfer your channel data to the digital receiver but also save it as a file, the extension name of which is *std*. *Vega* is available from the Topfield web site, <http://www.i-topfield.com>.

To use *Vega*, you have to prepare a RS-232 cable to link the digital receiver with your personal computer. If your computer does not have a RS-232 port, use a USB to RS-232 converter cable. When connecting with a RS-232 cable using a USB to RS-232 converter cable, you have to set a COM port number of the connection to COM1 or COM2. Otherwise, the computer cannot recognize the connection to the receiver.



Plug one end of a RS-232 cable (9 pin D-sub cable) into the RS-232 port on the digital receiver, and the other end into the matching port on your computer.

Turn off the digital receiver if it is on, and then Run *Vega*. To import the channel data from the digital receiver, perform the following steps:

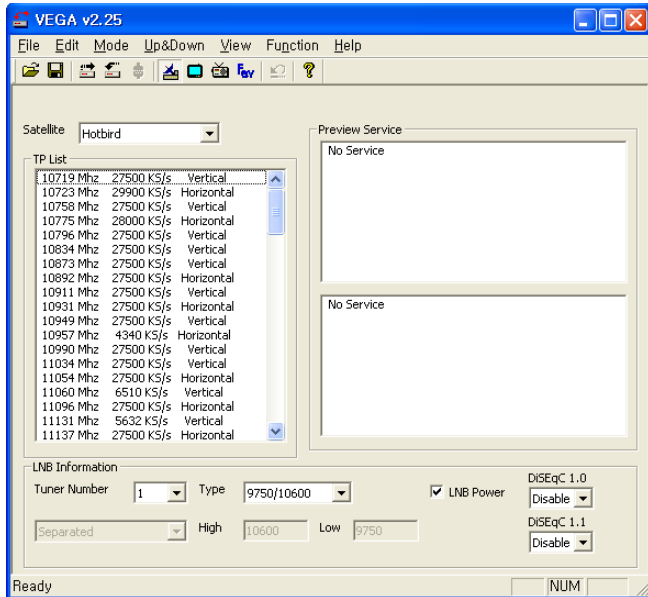
1. Select the **Mode > Serial** menu.
2. Select the **Up & Down > Upload from STB** menu.
3. A box appears asking for your confirmation. Press the **Upload** button on it.
4. Turn on the digital receiver. Data transfer will start as soon as it is turned on.

Of course, you can open a *std* file instead of importing the channel data from the digital receiver if you have one. When you have finished your work, you have to perform the following steps to export the channel data to the digital receiver.

1. Select the **Up & Down > Download to STB** menu.
2. A box appears asking for your confirmation. Press the **Download** button on it.
3. Turn on the digital receiver. Data transfer will start as soon as it is turned on.

### 6.5.1 Editing satellite and transponder list

To edit the satellite list, first select the View > Satellite Information menu item. Alternatively you can click the Satellite icon on the toolbar or press the F1 key on your keyboard. Then the satellite information is displayed and related menus become enabled.



To add a satellite entry, select the Function > Satellite, TP > Add Satellite menu, then a box appears. You should enter a new satellite name into the Satellite Name field. If you know the position index of the new satellite for DiSEqC 1.2, enter the value into the Position Index field. If you do not, you have to perform the Motorized DiSEqC 1.2 menu of the digital receiver. Refer that menu to § 4.1.2. After making a new satellite entry by pressing the OK button on the box, you should configure LNB settings for it. Refer LNB settings to § 4.1.1.

To delete a satellite entry, choose your desired satellite entry at the Satellite drop-down list box, and then select the Function > Satellite, TP > Delete Satellite menu item. Then a box appears asking for your confirmation, the selected satellite entry will be deleted by pressing the Yes button on it.

To modify a satellite entry, choose your desired satellite entry at the Satellite drop-down list box, and then select the Function > Satellite, TP > Edit Satellite menu item. How to modify is the same as in adding a new satellite entry.

To add a transponder entry, select the Function > Satellite, TP > Add Transponder menu item. Then a box appears, in which you should specify frequency, symbol rate, polarity and stream identification for your new transponder. Pressing the OK button will save a new transponder entry.

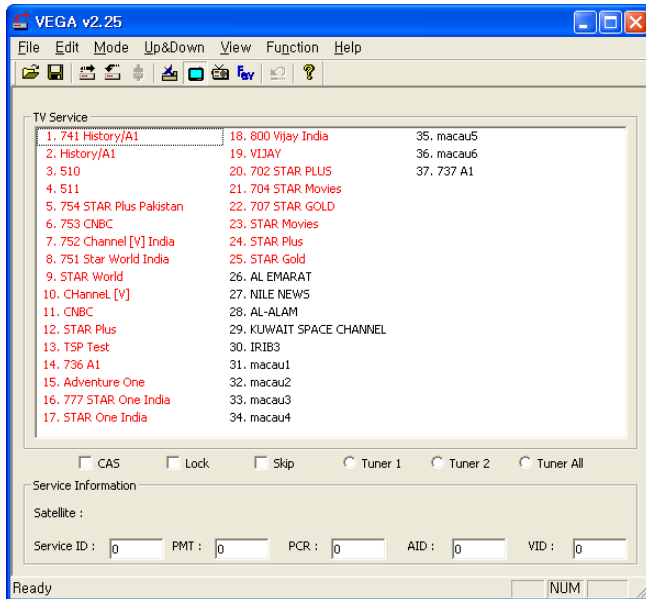
To delete a transponder entry, choose your desired transponder entry at the TP List list box, and then select the Function > Satellite, TP > Delete Transponder menu item. Then a box appears asking for your confirmation, the selected transponder entry will be deleted by pressing the Yes button on it.

To modify a transponder entry, choose your desired transponder entry at the TP List list box, and then select the Function > Satellite, TP > Edit Transponder menu item. How to modify is the same as in adding a new transponder entry.



## 6.5.2 Editing television and radio services list

To edit the television services list, first select the **View > TV Service** menu item. Then the television services list is displayed and related menus become enabled.



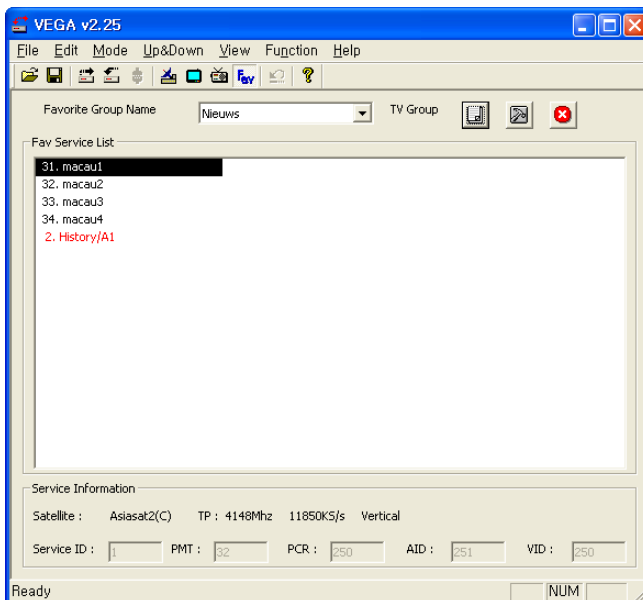
To delete a service entry, choose your desired service entry at the TV Service list, and press the **Delete** key on your keyboard. When a confirmation dialog box appears, the selected service entry will be deleted by pressing the **Yes** button on it.

Checking the **CAS** check box designates a selected service entry as a pay service. If there is a service that you want to prevent your children from watching, select it and check the **Lock** check box.

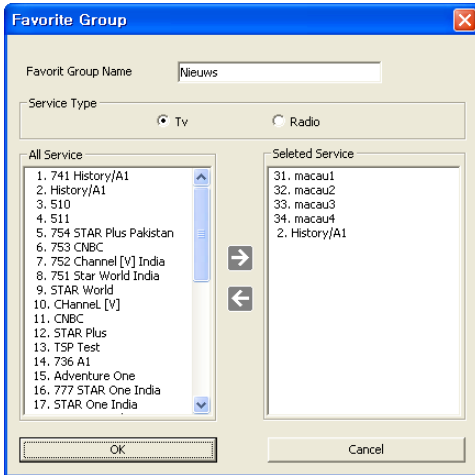
To edit the radio services list, first select the **View > Radio Service** menu item. How to edit is the same as in editing the television services list.

### 6.5.3 Editing favourite list

To edit the favourite list, first select the **View > Favorite Group** menu item. Then the favourite group list is displayed and related menus become enabled.



To delete a favourite group, choose your desired favourite group at the Favorite Group Name drop-down list box, and then select the **Function > Fav Group > Delete Current Fav Group** menu item. When a confirmation dialog box appears, the selected favourite group will be deleted by pressing the **Yes** button on it.



To add a favourite group, select the Function > Fav Group > Add New Fav Group menu item. Then you will see a dialog box like the left figure. Enter your desired name into the Favorite Group Name text box to name a new group. If you make a radio favourite group, select the Radio option button.

To add services to the new group, choose your desired services at the All Service list box on the left of the screen, and then press the right arrow button (→) on the centre of the screen. Then the selected services will be added to the new group. To remove a service entry from the group, press the left arrow button (←) after choosing one. Pressing the OK button will create your new favourite group.

To modify a favourite group, select the Function > Fav Group > Edit Current Fav Group menu item. How to modify is the same as in adding a favourite group.

## Chapter 7

# Recording and Playing

You can record two different services while watching another if two of the services are provided through the same transponder. The TF 7700 HD PVR/TF 7710 HD PVR digital receiver has two tuners so that you can enjoy the following:

- You can record two different services while playing back a previously recorded programme.
- You can record two different services while watching one of them using the time shift feature. See § 5.5 for the time shift feature.

### 7.1 Recording a programme



Once recording has 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 service different from the service being recorded, you can view a number on the centre of the symbol, which indicates the order that the recording is started. To record two programs simultaneously, two tuners are allocated for the recording. Therefore, you can only change to a

limited number of services while the two programs are being recorded.

### CAUTION



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

### NOTE


If a recording lasts less than one minute, the digital receiver will not save the recording.




## 7.1.1 Instant recording

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

Pressing the  button will not pause the current recording like it does with a video cassette 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. However, it is still possible to pause a recording.

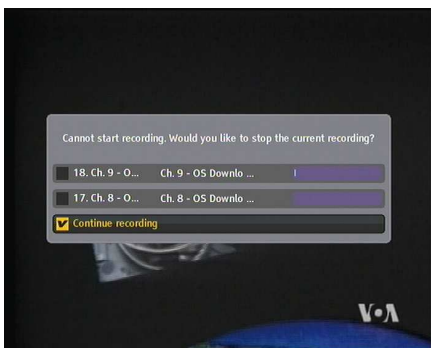


After a recording is started, pressing the  button displays a menu like the left figure, in which you can set the recording duration.

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 available. Once the **After this program** option is selected, the current recording will stop when the current programme is scheduled to end. Likewise, once the **After next program** option is selected, the current recording will stop when the next programme is scheduled to end.

Selecting the **Record pause** option pauses recording. When you press the  button again, you will see this option is changed to **Record continue**. To resume recording, select it.



To stop recording, press the  button; then a box like the left figure appears, which shows programmes currently being recorded. If you select one, its recording will stop.

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 after its service name with a suffix of a number. To view the recorded programme list, press the  button or alternatively select the **File List** menu.

See § 7.2 for detailed description about the recorded programme list.

## 7.1.2 Timer recording

You can set a service to be recorded at a specific time. Even if the digital receiver is in standby mode, it will switch into operation 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 input a timer recording, select the **Timer Setting** 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 cassette recorder or suchlike in this case.
2. If you want a radio programme, set the **Type** option to **Radio**; otherwise, set it to **TV**.
3. Set the **Satellite** option to the satellite which transmits the service you want. Pressing the **OK** button on this option displays a satellite list, from which you can select your desired satellite. Set the **Tuner Select** option to a tuner to receive your desired service.
4. 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.

5. 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**.

6. 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*.

7. Set the **Duration** option to a desired time, in which the recording will be finished.
8. 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 § 6.3 for how to use the on-screen keyboard.
9. To set a timer recording 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. If you select **Yes**, it will be deleted.

#### NOTE


You had better give no operation to the digital receiver while it is working on a timer event. If you press any key on the remote control or on the front panel, it will not turn off automatically even after the timer event is complete.



### 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 service you want to record with the **◀** and **▶** buttons.
3. Select a programme you want to record with the **▲** and **▼** buttons.
4. 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  button; then the letter **R** is displayed.

5. This timer event is placed on the timer list. To change its settings, press the  button to show a box in which you can edit. Refer to § 7.1.2 for detailed description.
6. Pressing the  button once more will cancel the timer.

### 7.1.4 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 the subscription card so that they can be recorded in descrambled form. 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, perform 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 it 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 built-in hard disk drive of the digital receiver. You can select a recording to play back from the recorded programme list.



Select the File List menu or alternatively press the **[F4]** button to display the recorded programme list. The file information is comprised of the following elements: file number, file name, recording time, playing duration, 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, playing duration 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. If you select Yes, it will be deleted.


### 7.2.2 To sort recordings

To sort the recordings, perform the following steps:

1. Press the **[F4]** button to display the additional options.
2. Set the Sorting option to Alphabetic, Time or Size as you want.
3. Press the **[EXIT]** button.
4. They are sorted by the specified option.

### 7.2.3 To lock a recording

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

1. Put the highlight bar on a desired recording.
2. Press the **F4** button to display the 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 the name of a recording, perform the following steps:

1. Put the highlight bar on a desired recording.
2. Press the **F4** button to display the additional options.
3. Select the **Rename** option, and the on-screen keyboard appears. Change the name and save it. See § 6.3 for 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; then the folders are listed. Once you choose a folder, the recording is moved to it.

### 7.2.7 To copy files between a USB storage and the digital receiver

You can copy files between a USB storage and the internal hard disk drive of the digital receiver via USB connection.

To copy files, perform the following steps:

1. Make a connection between a USB storage and the digital receiver.
2. Press the  button and then the  or  button to select the file list.
  - To copy a file to the internal hard disk drive, select the Recorded programme list.
  - To copy a file to the USB storage, select the USB storage list.
3. Put the highlight bar on a desired file and press the  button.; then the list of folders gets displayed.
4. To copy a file to the USB storage, select the USB Storage (External) folder. To copy a file to the internal hard disk drive, select the Recorded Services (Internal) folder.
5. Press the  button; then the selected file will be copied into the specified folder.




#### NOTE

Your USB storage must be formatted in the FAT file system. Otherwise, the digital receiver cannot recognize your USB storage. In addition, the digital receiver can only recognize files and directories which are named with only alphabetic, numeric and underscore letters. If there is a file or folder named with other letters, the digital receiver cannot recognize not only it but also its subsequent files and folders.








## 7.3 Playing back a recording

When a programme is recorded, its additional contents such as audio tracks or teletext 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 File List menu or alternatively press the  button to display the list of recorded programmes.
2. Put the highlight bar on a desired recording.
3. Press the  button to start playback.
4. To stop playback, press the  button.

During a playback, you can enjoy the following tricks:



- To see the detailed information about the currently played recording, press the  button; then the information box appears and shows its file name, playing duration, programme information, and so on.
- To pause playback, press the  button. To resume it, press the  button.
- To go forward, hold down the  button; to go backward, hold down the  button.
- To display the progress bar, press the  button; to hide it, press the  button again.
- When the progress bar is hidden, you can move to a desired scene by entering the percentage with the numeric buttons.

### 7.3.1 To navigate using the progress bar





First press the  button to display the progress bar, then:

- To go forward, hold down the  button; to go backward, hold down the  button.
- To bookmark a position, refer to § 7.3.4.
- If there are no bookmarks, you can jump forward 30 seconds at a time by pressing the  button.
- To jump to start of recording, press the  button.
- To jump to end of recording, 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 3 steps: 1/2, 1/4 and 1/8 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 in 3 steps: 2, 4 and 6 times. 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 in 3 steps: 1, 2 and 3 times. To resume normal speed, press the  button.

### 7.3.4 To make a bookmark



You can mark favourite parts of a recording by creating bookmarks, and then jump to them. You can have up to 64 bookmarks. Bookmarks are stored with the recording so that you can use them again afterwards. To make bookmarks, perform 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 dot appear above the progress bar like in the picture above.
3. To jump forward to next bookmark, press the button.
4. To jump to first bookmark, press the button then the button.
5. To delete a bookmark, jump to it and then 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, perform 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 part is marked in purple.
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 File List 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 start of next selected recording, 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 one of a free service. Otherwise you need the subscription card to play it, because it has been recorded without unscrambling 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.

Refer to § 7.1.4 for how to record a pay service programme.

## 7.4 MP3 playback

You can enjoy music or audio books in MP3 format with the digital receiver. Refer to § 7.2.7 for how to copy a file from the USB memory stick into the internal hard disk drive of the digital receiver.






To play an MP3 file, perform the following steps:

1. Press the  button and then the  or  button to display the MP3 list.
2. Put the highlight bar on a desired file; if you want to play several files, select them with the  button.
3. Press the  button to start playback.
4. To stop playback, press the  button.

## 7.5 DivX playback

You can enjoy video files in DivX format with the digital receiver.

To play a DivX file, perform the following steps:

1. Press the  button, and then the  or  button to display the list of video files.
2. Put the highlight bar on a desired file and press the  button to start playback.
3. To stop playback, press the  button.

Refer to § 7.2.7 for how to copy a file from the USB memory stick into the internal hard disk drive of the digital receiver.

## 7.6 Formatting the hard disk

You can delete all contents stored in the hard disk drive by formatting it. If you wish to do that, select the **Installation > Format Hard Disk** menu, then you get asked for confirmation. If you select **Yes**, formatting will start.

### **CAUTION**

Formatting the hard disk will delete all files permanently.

### **NOTE**

If a new hard disk drive is installed, it must be formatted because the file system of the digital receiver is different from any of the personal computer. You can neither record nor use time shift with an unformatted hard disk.

## Chapter 8

# Accessing to The Digital Receiver via The Internet

### NOTE

The following section describes complex functions that should only be used by owners with advanced computer knowledge.

TF 7700 HD PVR/TF 7710 HD PVR provides a web service. You can make scheduled recordings via the web service. Here you need a router, which will connect the digital receiver to your computer or to the Internet. To use the network features of the digital receiver, you should take the following steps:

1. Configuring your router for the digital receiver.
2. Configuring the Local Area Network (LAN) settings on the digital receiver.
3. Accessing the home page of the digital receiver. Refer to § 8.3 for detailed description about things you can do by way of the web service of the digital receiver.

**NOTE**

The web server of the digital receiver doesn't work in standby mode. So it must be powered up all the time if you wish to use the web service at any time.

## 8.1 Configuring the router

In this section, the setup program of *WRT54G*, which is a router manufactured by *Linksys*, will be referred to as an example of how to configure the router for network access.

**NOTE**

For detailed description about how to set up the router, refer to the manual of your router.

### 8.1.1 To access within the local area network

Once your router is powered up, a local area network gets created whether or not it is connected to the Internet.

|   |  |
|---|--|
| Local IP Address :  | <input type="text" value="192"/> <input type="text" value="168"/> <input type="text" value="1"/> <input type="text" value="1"/>                                    |
| Subnet Mask :   | <input type="text" value="255"/> <input type="text" value="255"/> <input type="text" value="255"/> <input type="text" value="0"/> <input type="button" value="v"/> |
| DHCP Server : <input checked="" type="radio"/> Enable <input type="radio"/> Disable |  |
| Starting IP Address :   | <input type="text" value="192.168.1.100"/>   |
| Maximum Number of DHCP Users :  | <input type="text" value="50"/>  |
| Client Lease Time :   | <input type="text" value="0"/> minutes (0 means one day)   |
| WINS :  | <input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="0"/>  |

You can let the router automatically assign a dynamic IP address to the computers or devices connected to the network by enabling the DHCP server of the router. In this case, you can access the digital receiver with the IP address which is assigned to the digital receiver by the router.

If the digital receiver reboots, a new dynamic IP address will be assigned to it. You had better assign a static IP address to the digital receiver to avoid this inconvenience. For how to assign a static IP address, refer to the manual of your router. For how to specify a static IP address on the digital receiver, see § 8.2.

### 8.1.2 To access over the Internet

When you are away from home, you can access the digital receiver inside your home if your router is configured to route access to the digital receiver by means of port forwarding. Via this feature, your router will lead you to the digital receiver when you access your router with its IP address.

| Port Range  |       |       |          |               |                                     |
|-------------|-------|-------|----------|---------------|-------------------------------------|
| Application | Start | End   | Protocol | IP Address    | Enable                              |
| PVRHTTP     | 80    | to 80 | Both     | 192.168.1.161 | <input checked="" type="checkbox"/> |
| PVRFTP      | 20    | to 21 | Both     | 192.168.1.161 | <input checked="" type="checkbox"/> |
|             | 0     | to 0  | Both     | 192.168.1.0   | <input type="checkbox"/>            |
|             | 0     | to 0  | Both     | 192.168.1.0   | <input type="checkbox"/>            |

Your router may be assigned to a dynamic IP address by an Internet service provider. So if the router has rebooted, you cannot access it unless someone in your home can inform you of the changed IP address. However, many routers support Dynamic Domain Name System (DDNS) service, which can settle this problem. The following image is an example of one such DDNS service provider.

The screenshot shows the DynDNS website interface. At the top, there is a navigation bar with links for 'About', 'Services', 'Account', 'Support', and 'News'. Below this, a sidebar on the left lists various account management options like 'My Account', 'My Services', 'Account Upgrades', 'MailHop Outbound', 'Recursive DNS', 'SLA', 'Premier Support', 'My Zones', 'Add Zone Services', 'My Hosts', 'Add Host Services', and 'Dynamic DNS'. The main content area is titled 'New Dynamic DNS Host' and contains a form with the following fields:

- Hostname:** ffvr (selected from a dropdown menu)
- IP Address:** 221.132.76.1
- Enable Wildcard:**
- Mail Exchanger (optional):**  Backup MX?

An 'Add Host' button is located at the bottom right of the form.

If you use a DDNS service, you can access your router with a domain name. The instructions on how to use the DDNS service are as follows:

1. Make an account on a web site providing DDNS service, which should be supported by your router.
2. Configure your router with the account so that it can communicate with the web site.

|                       |   |
|-----------------------|---|
| DDNS Service :        | <input type="text" value="DynDNS.org"/>       |
| User Name :           | <input type="text" value="ylihoze"/>          |
| Password :            | <input type="password" value="*****"/>        |
| Host Name :           | <input type="text" value="ffpvr.dyndns.org"/> |
| Internet IP Address : | 221.132.76.3                                  |
| Status :              | DDNS is updated successfully                  |

Whenever a new dynamic IP address is assigned to the router, it will inform the DDNS service provider of the new IP address. This makes it possible that you access the router with a domain name at any time.

## 8.2 Configuring the network settings on the digital receiver

You should configure the LAN settings to enable the web service.



Select the Installation > LAN Setting > IP Configuration menu.

You may get the digital receiver to be assigned a dynamic IP address. Set the DHCP option to On to do that. You can view the dynamic IP address assigned to the digital receiver by your router at the LAN Status menu.

Sometimes when the digital receiver is restarted, the dynamic IP address will be changed and you will have to check it at the LAN Status menu to access the digital receiver. To avoid this cumbersome thing, you had better assign a static IP address rather than dynamic one.

Set the DHCP option to Off, then the IP Address, Subnet Mask and Gateway options become enabled. You have to set these options to match with the configuration of your router.



## 8.3 Accessing the web server

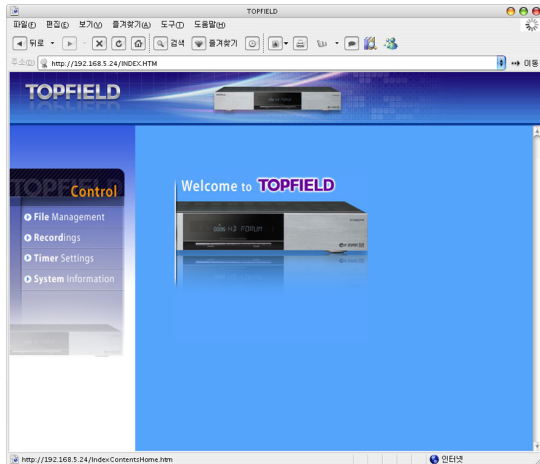
In way of the web server of the digital receiver, you can do the following:

- Download recording files.
- Create new recording timers.
- View information about the programme currently being recorded.
- View the system information of the digital receiver.

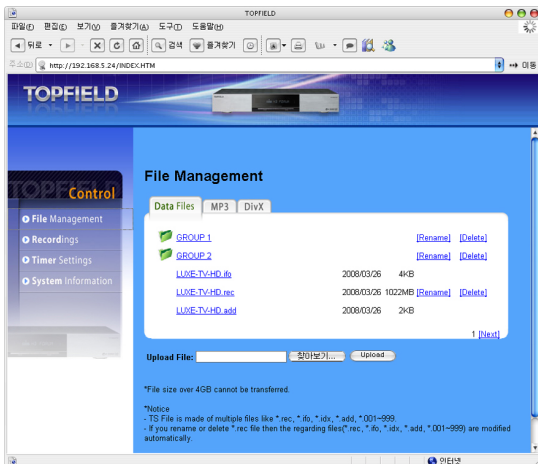
### NOTE

It is recommended to use the *Internet Explorer* web browser in order to fully enjoy the above facilities. If you use a different web browser such as *Netscape Navigator*, some problems may occur.

To access the digital receiver's home page through your web browser, enter its IP address, or domain name if you use a DDNS service. For the DDNS service, refer to the user manual of your router.



You cannot only download but also upload recording files or MP3 files in the File Management page.



### NOTE

The maximum number of user connections is only one. This means that you cannot access the web server while someone else is occupying it.

## 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 a firmware update tool, which runs on most versions of Windows, from the Topfield web site, <http://www.i-topfield.com>.

### 9.1 Checking the firmware information



You have to check up the firmware information of your digital receiver before downloading a new firmware. Select the Information > IRD Status menu. You should see a screen like the left figure.

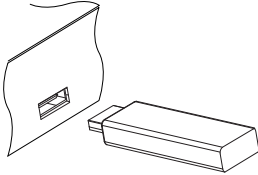
Remember the number of the System ID item, and download the latest firmware with the same system identification.

**NOTE**

It is only allowed to update with the firmware of which system identification is identical to that of yours. Otherwise you will fail in firmware update.

## 9.2 From a USB memory

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



1. Download a new firmware from the Top-field web site.
2. Copy the firmware file to your USB memory stick.
3. Insert the USB memory stick into the USB port on the front panel of the digital receiver.
4. Select the Installation > USB Firmware Upgrade menu, then the files in the USB memory are listed.
5. Place the highlight bar on the right firmware file and press the **OK** button, then a countdown will be displayed on the front display of the digital receiver.
6. When the 'END' message appears, restart the digital receiver.

### NOTE

Your USB memory must be formatted in the FAT file system. Otherwise, the digital receiver cannot recognize your USB memory. In addition, the digital receiver can only recognize files and directories which are named with only alphabetic, numeric and underscore letters. If there is a file or folder named with other letters, the digital receiver cannot recognize not only it but also its subsequent files and folders.

### 9.3 From the firmware server via the Internet

You can update the firmware from the firmware server which is run by Topfield via the Internet. Make sure that the digital receiver is connected to your router before configuring the network settings on the digital receiver.

#### NOTE

For detailed description about how to set up the router, refer to the manual of your router.



Select the Installation > LAN Setting > IP Configuration menu. You should see a screen like the left figure.

You may get the digital receiver to be assigned a dynamic IP address. Set the DHCP option to On to do that.

If you desire to use static IP address, set the DHCP option to Off; then the IP Address, Subnet Mask and Gateway options become enabled. You have to set these options to match with the configuration of your router.

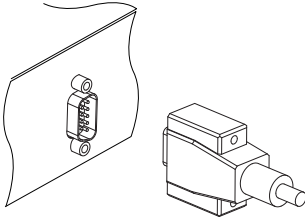
To enable the digital receiver to update the firmware automatically when a new firmware is available, set the Auto LAN Firmware Upgrade option to On.

Otherwise if you want to do that by yourself, select the Installation > Firmware Update via Network menu; then you get asked for confirmation. If you select Yes, it checks up whether a new firmware is available, and if any, it will start firmware update.

## 9.4 From your computer via RS-232 port

It is possible to transfer a new firmware to the digital receiver from your computer by connecting them with a RS-232 cable. You need *TFD-Down*, a firmware transfer utility for this, which is available from the web site, <http://www.i-topfield.com>.

To update the firmware by this method, perform the following steps:



1. Download a new firmware applicable to your digital receiver from the Topfield web site.
2. Turn off the digital receiver.
3. Plug one end of a RS-232 cable (9 pin D-sub cable) into the RS-232 port on the digital receiver, and the other end into the matching port on your computer.
4. Run *TFD-Down*.

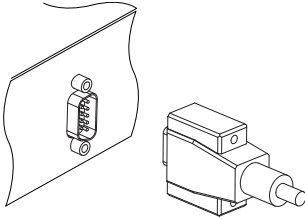
The instructions on how to use *TFD-Down* are as follows:



1. Press the Find button to select the new firmware file.
2. Press the download button, and then turn on the digital receiver to start the file transfer.
3. A countdown will be displayed on screen or on the front display.
4. Restart the digital receiver when the file transfer is complete.

## 9.5 From another digital receiver via RS-232 port

It is possible to transfer the firmware from the digital receiver to another same digital receiver by connecting them with a RS-232 cable. To update the firmware with this method, perform the following steps:



1. Turn off the target digital receiver.
2. Plug one end of a RS-232 cable (9 pin D-sub cable) into the RS-232 port on the digital receiver, and the other end into the matching port on the other digital receiver.
3. Turn on the source digital receiver if not already on.
4. Select the Installation > Transfer Firmware > Transfer Firmware to Other IRD menu, then you get asked for confirmation; select Yes.
5. Turn on the target digital receiver to start the firmware transfer.
6. A progress bar appears showing the progress of the firmware transfer.
7. Restart the target digital receiver when the firmware transfer is complete.



## 9.6 Over the air



You can get a new firmware over the air.

Select the Installation > OTA Firmware Upgrade menu. You should see a screen like the left figure.

Selecting the Start command starts firmware update.

|              |                |
|--------------|----------------|
| Satellite    | Astra (19.2°E) |
| Frequency    | 12603 MHz      |
| Symbol Rate  | 22000 KS/s     |
| Polarisation | Horizontal     |
| PID          | 347            |

On the left table is presented the transponder information appointed by the manufacturer, Topfield, for firmware update.

This transponder information can be changed. You can get the information from the web site, <http://www.i-topfield.com>.

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Topfield continues to improve the digital receiver which this guide explains. So some explanations and illustrations in this guide could be different from the actual digital receiver.