TOPFIELD

HI-SPEED CERTIFIED **USB**

P in P

DVB Digital Video Broadcasting

The User's Manual

Digital Terrestrial Receiver
Personal Video Recorder

TF5000PVRt

TOPFIELD PERSONAL VIDEO RECORDER VOLUME CHANNEL TF5000PVRt

P001 STANDBY MENU

USB ZAP REC PiP

ZAP REC

DOLBY DIGITAL BITSTREAM OUT

Please read this User's Manual carefully.
The menu structure and specification can be changed without notice.

TABLE OF CONTENTS

TABLE OF CONTENTS

Please read the following recommended safety precautions carefully for your safety.

MAINS SUPPLY : 90-250V AC 50/60 Hz.

OVERLOADING : Do not overload wall outlets, extension cords or adapters as these can result in fire or electrical shock.

LIQUIDS : Keep liquids away from the PVR. The apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.

FLAME SOURCES : Do not place naked flame sources, such as lighted candles, on the PVR or near the PVR.

SMALL OBJECTS : Coins or other small objects must be kept away from the PVR as they can fall through the ventilation slots of the PVR and cause serious damage.

CLEANING : Disconnect the PVR from the wall socket before cleaning it. Use a dry cloth lightly dampened(no solvents) to clean the exterior of the PVR.

VENTILATION : Do not block the PVR's ventilation slots. Ensure that a free airflow is maintained around the PVR.
Never stand the PVR on soft furnishings or carpets. Do not use or store the PVR where it is exposed to direct sunlight or near a heater.
Never stack other electronic equipment on top of the PVR.

ATTACHMENTS : Do not use any attachments that are not recommended as these may cause hazards or damage the equipment.

CONNECTION TO THE AERIAL ANTENNA : Disconnect the PVR from the mains before connecting or disconnecting the cable from the antenna. Failure to do so can damage the antenna.

SERVICING : Do not attempt to service this product by yourself. Do not remove the cover. Refer all serving to qualified service agents.
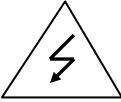
LIGHTNING : For protection we recommend that you connect the PVR via an external surge protection device. Disconnect the antenna cable from PVR during lighting storms.

EARTHING : The antenna cable **must be earthed**.

LOCATION : Locate the PVR indoor place properly to prevent lightening, raining and direct sunlight. Do not allow the PVR to be exposed to hot, cold or humid conditions.

RESPONSIBILITY : Do not use the PVR and its contents for illegal purpose. We are not responsible for any kind of illegal use.
Do not use the PVR to backup important data. It can be deleted.
We are not responsible for any kind of problems caused by TAP application programs.

CAUTION

RISK ELECTRIC SHOCK
DO NOT OPEN

This symbol indicates "dangerous voltage" inside the product that presents a risk of electric shock or personal injury.

This symbol indicates important instructions accompanying the product.

**CAUTION : TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK,
DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.**

Warning

Please do not insert metal or alien substance into the slots for the Modules and Cards.
In doing so can cause damage to the PVR and reduce its life span.

INTRODUCTION

Thank you for purchasing the Personal Video Recorder (PVR).

This PVR is fully compliant with the international DVB standard and thus transmits digital images, sounds, information guides and teletext directly to your TV through the terrestrial broadcasting.

Now you can comfortably see and receive digitally transmitted music, news, movie and sports terrestrial broadcasts in your office or at your home. The PVR records and plays back terrestrial broadcasts. You can enjoy interesting games embedded in PVR.

In the Channel Search section, both the automatic channel search method and the manual search mode are provided. You can save up to 2000 TV or Radio channels and work around with the Favorite, Lock, Delete, Move and Sort functions.

The Menu is very modern and supports multiple languages. All functions can be carried out using the remote control and some of the functions can also be carried out using the front panel. The PVR is easy to use and adaptable for future advances. Please be aware that new software may change the functions of the PVR.

If you have any difficulties concerning the operation of your PVR, please refer to the relevant section of this manual, including the 'Troubleshooting'. This Manual will provide you with useful information on using the PVR.

CONTENTS

Please ensure that the following items are included with the PVR.
1) Remote control unit
2) Batteries (size AAA)
3) User's Guide (this document)
4) Loop through cable (to connect Tuner 1 and Tuner 2)

FEATURES

- Fully Compliant with DVB.
- 2 Common Interfaces for CONAX, CRYPTOWORKS, IRDETO, NAGRAVISION, SECA & VIACCESS
- MPEG-2 Digital and fully DVB compliant
- 2 Tuners
- 2000 channels (TV or Radio) programmable
- Channel switching time less than 1 second
- Channel list editing
- Favorite channel list editing
- True-color On-screen Display (OSD)
- Full Picture In Graphic (PIG) function
- Electronic Program Guide (EPG) for on screen channel information
- Subtitle supported
- Teletext supported by VBI insertion and software emulation
- Parental lock facility by channel and program event
- Program and Channel information transfer from receiver to receiver
- Exciting games embedded
- S/PDIF for digital audio or Dolby AC-3 bitstream output
- Recording capacity : 44 hours for 4Mbps stream with 80GB HDD
- Powerful trick mode supported
- Playback of the selected region repeatedly
- Dual Decoding(PIP)
- Dual Recording and Playback simultaneously
- Time-shifting and Dual recording simultaneously
- USB 2.0 supported for fast PC interface
- MP3 (MPEG-1 Layer 3) decoding

FRONT/ REAR PANELS

1)FRONT PANEL
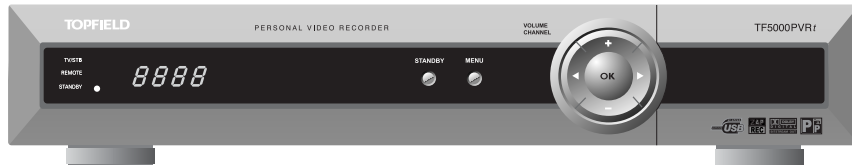
-POWER

The power button of PVR (ON / Stand by)

-LED

T V/STB
REMOTE
STAND BY

-DISPLAY

During the STANDBY mode, the current time is displayed.

When the power is ON, the current status is displayed(TV/Radio/Menu).

-CHANNEL
Change the channels
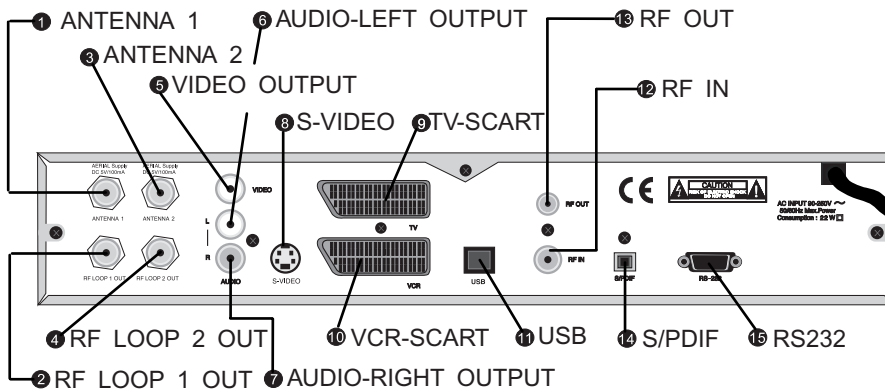
-VOLUME
Change audio volume level

-MENU
Display the Menu on screen.

-OK
Display channel List on screen.
Select an item in the menu.

2)REAR PANEL

① ANTENNA 1
③ ANTENNA 2
⑤ VIDEO OUTPUT
⑥ AUDIO-LEFT OUTPUT
⑧ S-VIDEO
⑨ TV-SCART
⑬ RF OUT
⑫ RF IN

④ RF LOOP 2 OUT
② RF LOOP 1 OUT
⑩ VCR-SCART
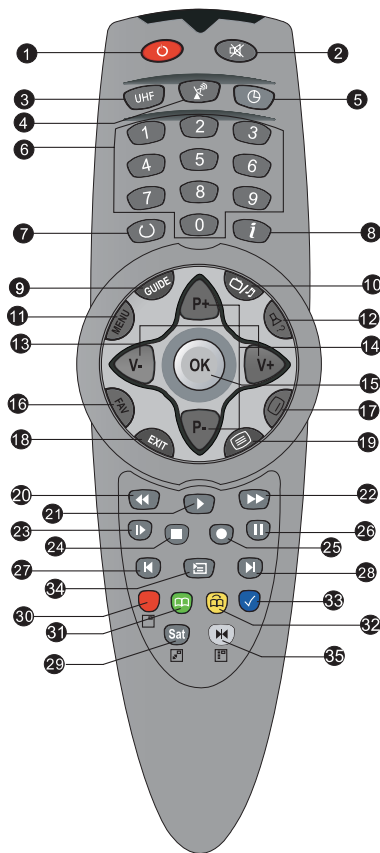⑦ AUDIO-RIGHT OUTPUT
⑪ USB
⑭ S/PDIF
⑮ RS232

8

FRONT/ REAR PANELS

1. Antenna 1 IN
- Connect the terrestrial antenna cable

2. RF Loopout 1
- Use it to connect to another STB or Antenna 2 IN

3. Antenna 2 IN
- Connect the terrestrial antenna cable or RF Loopout 1

4. RF Loopout 2
- Use it to connect to another STB or RF IN of RF modulator

5. VIDEO OUTPUT
- Video output. (YELLOW)

6. AUDIO-LEFT OUTPUT
- Audio output. (WHITE)

7. AUDIO-RIGHT OUTPUT
- Audio output. (RED)

8. S-VIDEO
- S-Video output. Connect the S-Video input of your TV.

9. TV SCART
- Connect the TV SCART

10. VCR SCART
- Connect the VCR SCART

11. USB port
- Connect USB port of PC

12. RF IN
- Connect the TV antenna or RF Loopout 2

13. RF OUT
- Connect the TV RF IN

14. S/PDIF
- Optical output for Digital Audio

15. RS232
- Upgrade the PVR Program & software

REMOTE CONTROL UNIT(RCU)

1． POWER Button (⭕)
• Switch the PVR between Operation and Standby mode.

2． MUTE Button (🔇)
• Enable / Disable the Audio.

3． UHF Button (UHF)
• Display and alter the UHF setting in menu.

4． TV/STB Button (📡)
• Change the terrestrial TV and STB mode.

5． SLEEP Button (🕐)
• Display the sleep time. At the sleep time, the power is automatically turned OFF and the PVR goes to the STANDBY mode.

6． Numeric Buttons (0 ~ 9)
• Select the TV or Radio service channels and menu options.

7． RECALL Button (↻)
• Select the previously viewed channel.

8． INFO Button (i)
• Display the program information box on the Screen and remove it.
• Display the extended event information when the information box is displayed.

9． GUIDE Button (GUIDE)
• Display the EPG on screen when available.
• Remove EPG when EPG is displayed.

10． TV/ Radio Button (📺)
• Select the TV/Radio mode.

11． MENU Button (MENU)
• Display the Menu on screen or return to previous menu from submenu.

12 . SOUND Button (   )
- Select Sound Track and LEFT / RIGHT / MONO / STEREO sound.
- Select the multifeed channel if multifeed is available.

13 . V+/V- Buttons (V-   V+)
- Adjust the volume (Increase / Decrease).
- Change the value of the selected item in Menu.

14 . P+/P- Buttons (P+   P-)
- Service up or down through the available services.
- Move the selection bar in Menu.

15 . OK Button (OK)
- Display Channel List on screen.
- Select an item in the menu.

16 . FAV Button (FAV)
- Display the favorite channel list.

17 . SUBTITLE Button (   )
- Activate the subtitle selection window. Select the subtitle language in the list.

18 . EXIT Button (EXIT)
- Return to the previous menu and the screen.

19 . TELETEXT Button (   )
- Enable the teletext with software emulation.

20 . ◀◀ Button
- Fast rewind when the progress bar is displayed.
- Start reverse playback.
- Change the speed of reverse playback.

21 . ▶ Button
- Display the progress bar of time shifting or playback when no progress bar is displayed.
- Start playback with normal speed.
- Return to normal speed from trick mode.

22 . ▶▶ Button
- Start fast forward or fast motion playback.
- Change the speed of forward playback.

23 . I▶ Button
- Start slow motion playback.
- Change the speed of slow motion playback.

11

24 . ▢ Button
• Stop time shifting, playback or recording.

25 . ⬤ Button
• Start recording.

26 . ⏸ Button
• Pause the playback and live picture.

27 . ⏮ Button
• Move the position of Sub-picture at the PIP by counter clockwise.

28 . ⏭ Button
• Move the position of Sub-picture at the PIP by clockwise.

29 . Sat (⤢) Button
• Exchange main-picture with sub-picture at the PIP.

30 . ⬤ (Red) Button
• Enable, Resize and Disable the Sub-picture.

31 . 📖 Button
• Make a bookmark while playback or time shift.

32 . 📖 Button
• Go to the bookmarked position.

33 . ✓ Button
• Go to backward by 10 seconds per each pressing of this button.

34 . 🗐 Button
• Display file list. (Recorded service list, MP3 file list, Application file list)

35 . ⏮ (🗐)Button
• Select the period for repeated playback or cutout.
• Display the channel list of Sub-picture.

⁕ ⓪ Button
• Change 4:3 Center Extract -> 4:3 Center box -> 16:9 Full srceen.

⁕ ⬤ 📖 📖 ✓ ⏮ Buttons
Above buttons are a kind of function key. So, the function in each OSD Screen can be referred in each instruction message in help window.

INSTALLATION (Connection)

First, connect both the aerial antenna and the TV to the PVR.
- There are some of the most common ways to connect the equipment in this manual.
- There are several ways of connecting the PVR to the existing Audio/TV system.
  We recommend one of the following setups.
- If you have problems with your connections and need help, contact your dealer or service provider.

Connection to TV, VCR and Hi-Fi

1) Connection to the TV with the SCART Cable.
Connect one end of the SCART cable to the
TV SCART socket on the PVR and the other
end to a SCART socket on the TV.
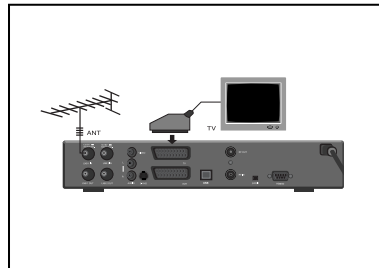
2) Connection to the VCR with a SCART Cable.
Connect one end of the SCART cable to the
VCR SCART socket on the PVR and the
other end to a SCART socket on the VCR.
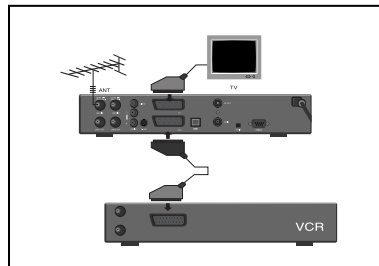
3) Connection to the TV with the CINCH Cable.
Connect one end (3 connectors) of the
CINCH cable to the AUDIO-RIGHT (red),
AUDIO-LEFT (white) and the VIDEO output
(yellow) socket on the PVR.
Connect the other end (3 connectors) to the
AUDIO-RIGHT (red), AUDIO-LEFT(white)
and the VIDEO input (yellow) socket on the
TV or Hi-Fi.

13

4) Connection to the TV using the RF cable.

Connect an aerial antenna or RF Loopout2 to RF IN socket on the PVR.

Connect one end of the RF cable to the RF OUT socket on the PVR.

Connect the other end to the ANT IN socket on the TV.

* The output signal from RF Loopout2 can be weak because the signal is decreased in the tuners. If the signal is too weak, use aerial antenna instead of RF Loopout2.
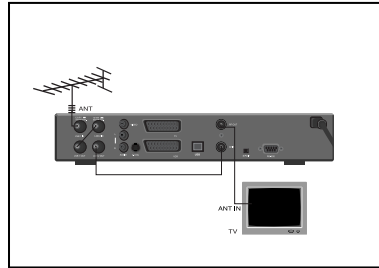
5) Connection to the TV using the S-VIDEO.

Connect one end of the S-VIDEO cable to the S-VIDEO socket on the PVR and the other end to a S-VIDEO socket on the TV.
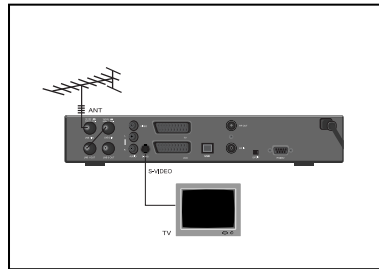
Connection to the Antenna.

Connect the aerial antenna cable to the Antenna In1 and connect the RF Loopout1 to Antenna In2.

* The signal from antenna can become weak at second tuner if connected from RF Loopout1 to Antenna In2.

Separate antennas for each tuner are recommended if the signal level of cascaded tuner is too weak.

14
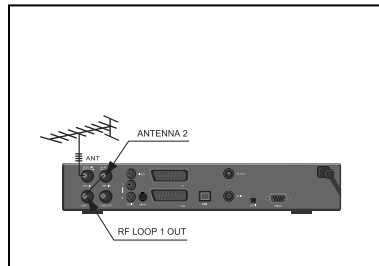
GETTING STARTED

Press the Power (⏻) button to operate the PVR from the STANDBY mode. Now, the Info Box will appear for a given time and disappear. By pressing (i) button, the Info Box will remain on the screen. The display time of the Info Box is adjustable in the **System Setting** menu of the **Main** menu.

IMPORTANT: Before taking charge of your new PVR, some important technical settings are essential.

- First, press the **MENU** (MENU) button on the RCU to make the Main Menu appear.
- Go to the **Installation** item and press button.
- Then, press (OK) button at **Channel Search** item and go to the **Channel Search** menu.
- Set the **Search Mode** to the **Auto**. (**Manual** or **advanced**)
- Select the **Antenna Supply 5V** to **On** or **Off** according to your antenna.
- Select the **Start Search...** item and press (OK) button.
- The search procedure will take a while. Press (OK) button when the searching process is finished to confirm and save the new channel list.
- For further information, please refer to the MENU OPERATIONS in this manual.

MENU OPERATIONS

Now this chapter assumes that the PVR system has been installed correctly, meaning:
• The aerial antenna for the PVR has been installed, connected to the PVR.
• The PVR is connected to the TV.
• The RCU has batteries and ready to control the PVR.

If the PVR has not been installed or connected properly, please refer to the **INSTALLATION** menu on this manual.

Many of the functions of the PVR are available from the **Main** Menu. Press   button to open it.

Main Menu	
System Setting	
Organizing Channels	
Organizing Favorites	
Recording	
Installation	
Information	
Common Interface	
Game	

Shows information

↕ Moves Item, ⊙ Selects Item, MENU Exit

System Setting

```
                    System Setting

         Time Setting
         Timer Setting
         Parental Control
         Language Setting
         A/V Output Setting
         OSD Transparency                ↔ 5%
         Info Box Display Time             5 Sec
         Info Box Position                +0 line
         Time Shifting                    Enable

           Change OSD Transparency

           ↔ Changes Transparency,  MENU  Previous Menu
```

Time Setting

The exact local current time can be adjusted by using the **GMT**, the **Time Offset** and the **Mode** sub menus.

```
                     Time Setting

         Mode                        ↔ Auto
         Local Time                    08:19
         GMT
         Time Offset                   00:00

           Changes the time setting mode.
           In order to change the local time, set it to manual mode.
           ↕ Moves Item,  ↔ Select Item,  MENU Previous Menu
```
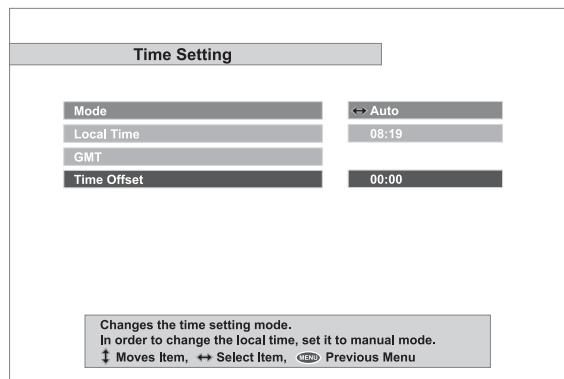
A. Mode

By using V- , V+ buttons, you can select on of the **Auto**/**Manual** mode. The **Auto** mode updates the time settings automatically by the GMT received from the broadcast and the **Time Offset** you have inserted. The **Auto** mode is recommended.

17

B. Local Time

The Local Time is adjustable only when the Mode is in the **Manual** mode. Adjust the current time, if necessary, by using the numeric buttons and ⟨V-⟩ , ⟨V+⟩ buttons.

C. GMT

GMT is referred to the standard time of Greenwich. It cannot be changed.

D. Time Offset

The current time of the local area can be inserted. In another words, insert the time difference of the local time zone from the GMT. For example, if the local area is Seoul (the time difference from the GMT is 9), insert 9:00. The time is adjustable by using ⟨V-⟩ , ⟨V+⟩ buttons, 15 minutes at a time.

Timer Setting
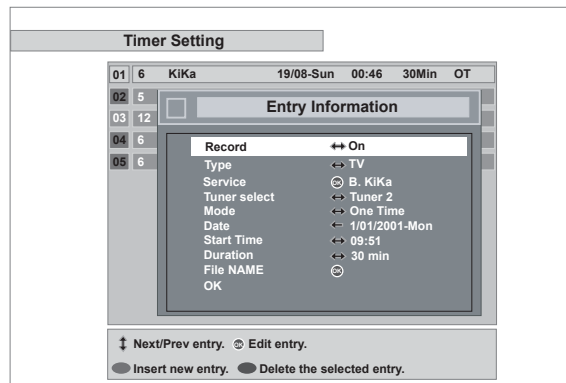
To insert new entry of Timer Setting, press 🔴 (Red) Button. Press (OK) button to edit the entry, and press 📖 (Green) button to delete the selected entry.
There are **Record ON** and **OFF** modes in **Timer Setting**.

| 01 | 21 FASHION TV | 08/03-Wed | 11:39 | 30Min | OT | R |
| **02** | 70 DWtv | 07/02-Mon | 13:00 | 60Min | WL | |

Service Number

Service Name

Reseved Date and Time to Start recording

Mode

Duration

Record

A. Record ON : This function is used for the delayed recording to the HDD of PVR.
- **Type** : Select TV or Radio by pressing (V-), (V+) buttons.
- **Service** : Select the service to be reserved for recording by pressing (OK) button.
- **Tuner Select** : Select **Tuner1** or **Tuner2** by pressing (V-), (V+) buttons.
- **Mode** : By using (V-), (V+) buttons, select one among **One Time**, **Everyday**, **Every Weekend**, **Weekly**, and **Every Weekday**.
- **Date** : Select the recording start date by pressing (V-), (V+) buttons.
- **Start Time** : Select the recording start time. (V-), (V+) buttons and (0) – (9) buttons are available.
- **Duration** : Select the recording duration by pressing (V-), (V+) buttons.
- **File Name** : To change file name as you want, press (OK) button. The keyboard will appear.
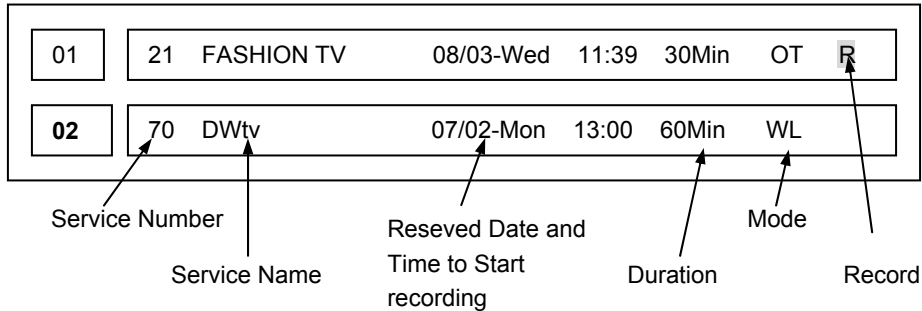- **OK** : To confirm the setting for the reserved recording, press (OK) button.

B. Record OFF: It is a useful function for reserved recording to a VCR or for wakeup function like VCR Timer. If the **Record** item is set to **Off**, the PVR wake up and play it by the reserved conditions, but does not record it to the HDD of PVR.

For details, refer to the explanation of **Record ON**.

Parental Control

```
┌─────────────────────────────────────────────────┐
│                                                 │
│              Parental Control                   │
│                                                 │
│   Censorship                     ↔ No block     │
│   Change PIN Code                               │
│   Access Control                                │
│                    □   PIN Code required        │
│                        Enter PIN Code           │
│                                                 │
│                        #   #   -   -            │
│                                                 │
│                                                 │
│   Sets  the age limit to restrict the viewing of certain │
│   programmes.                                   │
│   ↕ Moves  Item, ↔ Selects  Item, ⬚ Previous Menu │
│                                                 │
└─────────────────────────────────────────────────┘
```
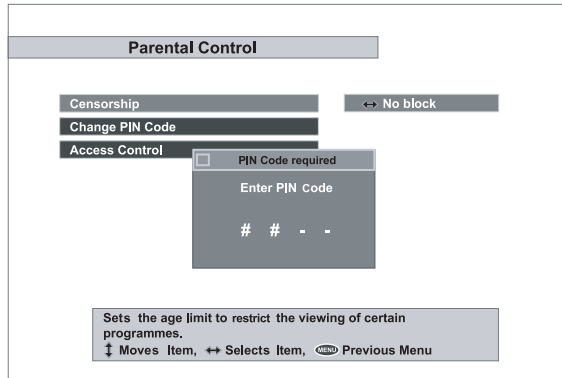
Password to various menus can be configured. The PIN Code box will automatically appear when this menu is selected. The default PIN Code is **0000**.

A. Censorship

The **Censorship** item blocks programs according to each specific setting.

Use V- , V+ buttons to select the items below.

No Block : Access to everyone.

Total Block : Access to no one without PIN code.

If the channel is limitation free, the block function will not work.

4~18(age): Inaccessible for viewers within each minimum age limit if a maturing rating of the event is same or lower than the age limit.
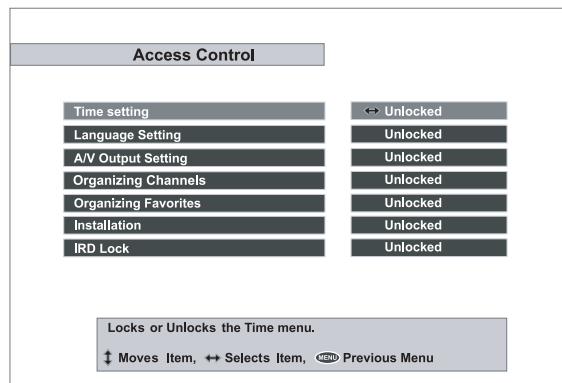
In case of inaccessible, the PVR asks the PIN Code and check the age limit.

B. Change PIN Code

Go to the **Change PIN Code** item to configure new PIN Code. Press (OK) button, then a box will appear on the screen. Enter the PIN code by using the numeric buttons on your RCU.

C. Access Control

The **Access Control** menu controls access to following items: **Time Setting**, **Language Setting**, **A/V Output Setting**, **Organizing Favorites**, **Installation** and **IRD Lock**. Press ⬦V-⬦ , ⬦V+⬦ buttons to **Locked** / **Unlocked** the access. **Locked** means controlling the access to the specific menus with the PIN Code system. The default PIN Code is **0000**.

Language Setting

There are many languages available for the menu.

21
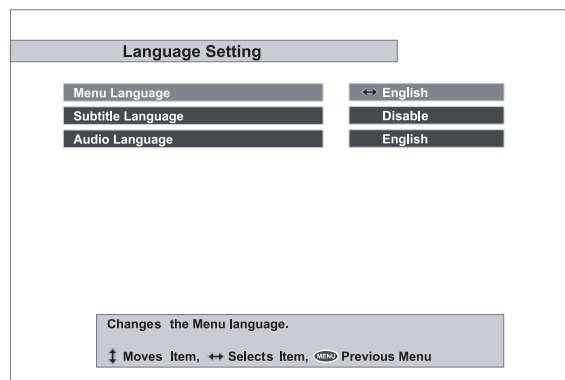
A. Menu Language

It is an item for changing the language of the Main menu.

Select the language that the menus will be shown in.

[English / French / Deutsch / Italian / Spanish / Arabic / Greek / Turkish / Danish / Swedish / Norwegian / Dutch / Russian / Polish / Persian]

* The supported language can be changed without any notice.

B. Subtitle Language

It is an item for changing the language of the subtitle.

As long as the services support it, the subtitle language is changeable by pressing button on your RCU.

[English / French / Deutsch / Italian / Spanish / Arabic / Greek / Turkish / Danish / Swedish / Norwegian / Dutch / Russian / Polish / Persian / Disable]

* The supported language can be changed without any notice.

C. Audio Language

It is an item for changing the language of the Audio.

If more than one audio language is transmitted, you may select one language among the languages transmitted by pressing button.

[English / French / Deutsch / Italian / Spanish / Arabic / Greek / Turkish / Danish / Swedish / Norwegian / Dutch / Russian / Polish / Persian]

* The supported language can be changed without any notice.

A/V Output Setting

The PVR has many A/V Outputs. Control this menu properly according to external components connected to the PVR. Configurations concerning Audio and Video can be made here.

A. TV Type

Select your TV standard. For automatic **PAL**/**NTSC** selection, set it to **Multi**.

B. Video Output

Select the mode of Video output among **RGB**, **S-Video**, **YUV** and **CVBS** on TV SCART by using ,   buttons.

C. VCR SCART Type

Select the VCR SCART type either **Standard** or **External A/V**. In case of **External A/V**, the source of TV SCART Output will be selected between VCR SCART input and internal AV by pressing [icon] button on the RCU. In case of **Standard**, it will be done automatically by the SCART functionality.

D. TV Aspect Ratio

Select your TV screen format. Select **4:3** or **16:9** mode by using [V-], [V+] buttons.

E. 16:9 Display Format

If you have a TV set with the 4:3 picture format and transmission is in 16:9, you can select the display format. Select the **Letter Box** or **Center extract** by using [V-], [V+] buttons.

F. Sound Mode

It allows you to configure the sound mode. Select the **Stereo**, **Mono**, **Left** and **Right** mode by using [V-], [V+] buttons. The Sound mode is configurable later on by using [icon] button on your RCU.
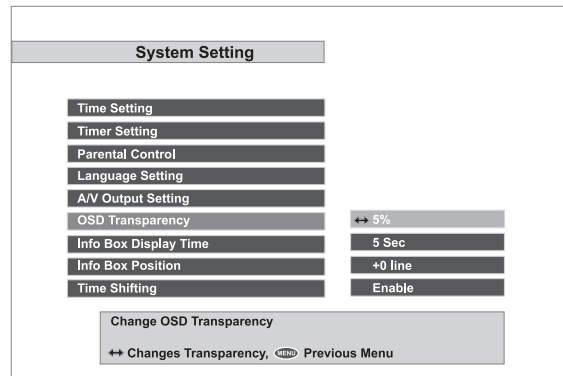
G. UHF Type

When the PVR is connected to the TV by an RF cable, you may need to select the correct TV standard system. Select the **PAL G**, **PAL I**, **PAL K** mode by using [V-], [V+] buttons.

H. UHF Channel

Select a UHF channel by using [V-], [V+] buttons. The default UHF channel is CH36. When you change the UHF channel number, you must also change to the same value on the TV. If you do not, there will be no picture and sound.

OSD Transparency

```
                    System Setting

        Time Setting
        Timer Setting
        Parental Control
        Language Setting
        A/V Output Setting
        OSD Transparency              ↔ 5%
        Info Box Display Time         5 Sec
        Info Box Position             +0 line
        Time Shifting                 Enable

          Change OSD Transparency

          ↔ Changes Transparency,  ▣ Previous Menu
```

Adjust the OSD transparency of all the menus. The available levels are ranging from **0%** to **50%**.

Info Box Display Time

Adjust the time-out of the Info Box. Set the period of time that the Info Box is displayed on screen. The adjustable time is **0** to **30** seconds, **No info box** and **Never Hide**.

Info Box Position

Adjust the position of the Info Box. It allows you to change the position by using V- , V+ buttons.

Time Shifting

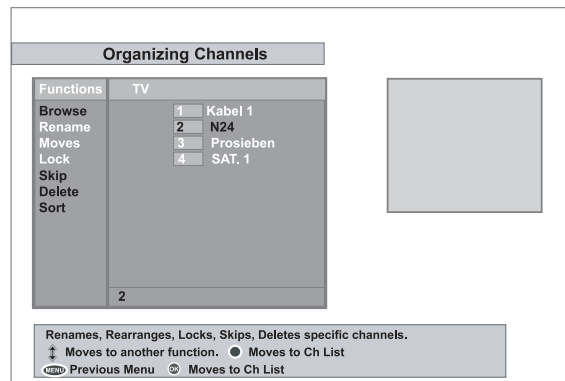To enable the time shifting function, select **Enable**.
If the Time Shifting is enabled, the PVR records the current channel in live. And, you can take advantage of the time shifting function.
To disable time shifting function, select **Disable**. If you don't want to use time shifting function or reduce the power consumption, let the time shifting disable .

Organizing Channels

This menu can be used to rename, reorder, lock, hide and delete TV Services.

```
                    Organizing Channels

        Functions    TV

        Browse              1      Kabel 1
        Rename              2      N24
        Moves               3      Prosieben
        Lock                4      SAT. 1
        Skip
        Delete
        Sort




                    2

        Renames, Rearranges, Locks, Skips, Deletes specific channels.
          ↕ Moves to another function.  ● Moves to Ch List
        MENU Previous Menu   ☺ Moves to Ch List
```

A. Browse

Press ⏺ button. Now, browsing through the **Organizing Channels** is possible.
Press assigned buttons on the help message.

B. Rename

Use P+, P- buttons to select **Rename** item and press ⏺ button to move the cursor to the Channel List. Press ⏺ button to display keyboard, and rename the channel. After renaming it, be sure to save it by pressing ⏺ button at **Save** item.

C. Move

You can reorder and move the service to the preferred position. Mark the desired channel to move and press ⏺ button. Use P+, P- buttons to choose the **Move** mode.

D. Lock

You can restrain and lock the services. From here, locking (and later unlocking) channels in any of the lists is possible e.g. in order to prevent children from watching it. If a locked service is selected, you should enter the PIN code in order to enjoy it.

E. Skip

You can hide and skip the services. In order to unlock the skip function, press (OK) button on the skipped channel. The skipped channels will not be visible on the channel list.

F. Delete

Press (OK) button to delete channels. The delete function differs from the skip function as it deletes the channel completely. Whereas, the skip function just makes the channel invisible.
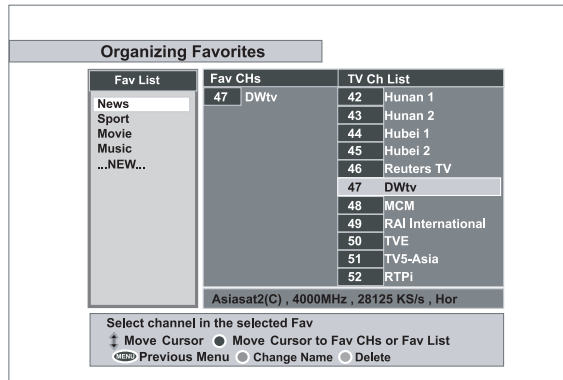
NOTE: Deleted channels are permanently deleted. The only way to recover them is to perform a new channel search.

G. Sort

You can sort and rearrange the channel list.

Organizing Favorites

```
                    Organizing Favorites
         Fav List      Fav CHs            TV Ch List
                       47   DWtv          42    Hunan 1
         News                             43    Hunan 2
         Sport                            44    Hubei 1
         Movie                            45    Hubei 2
         Music                            46    Reuters TV
         ...NEW...                        47    DWtv
                                          48    MCM
                                          49    RAI International
                                          50    TVE
                                          51    TV5-Asia
                                          52    RTPi
                       Asiasat2(C) , 4000MHz , 28125 KS/s , Hor
         Select channel in the selected Fav
           Move Cursor    Move Cursor to Fav CHs or Fav List
            Previous Menu    Change Name    Delete
```

This mode is helpful in adding and deleting services to and from the favorite group. Under the menu **Organizing Favorites**, there are three different modes: **Fav List** , **Fav CHs** and **TV** or **Radio Ch List**.

On the **Fav List** mode, four standard lists are selected as the default menus: **News**, **Sports**, **Movie** and **Music**. Up to 30 lists including these lists can be added and renamed. When deleting a service, select a service in the **Fav CHs** section and press the assigned button on the help message.

To add services into **Favorites**, locate the cursor to the desired service in **Ch List** and press ⓞⓚ button. To delete a service from Favorites, locate the cursor to the service in **Fav CHs** and press ⓞⓚ button.

Recording

Recording	
Record NO.	1
Service	53 sat
Mode	↔ Quick
Duration	2 Hour 0 Min
File Name	sat-1
Start	
Stop	
Timer Setting	

No recording
18706 MB Free

Select the record mode.

↕ Moves Item, ↔ Selects Item, 🔲 Exit

To record the service you want, you have to set the following options. You can record the service immediately. To reserve a recording, you have to use **Timer Setting** function in System Setting at Main menu. You can go to the **Timer Setting** menu directly by selecting **Timer Setting** item in this menu, too.

A. Record NO.
Two services can be recorded simultaneously. You can distinguish between the two records by this Recording NO. Press (V-) , (V+) button to select **Record NO.1** or **2**.

B. Service

Press (OK) button to display the service list. Select a channel to be recorded.

C. Mode
There are two recording modes.
To record the selected service immediately, select the **Quick** mode.
To record current event including the data in the time shifting buffer, select **Current Event** mode. The **Current Event** mode is valid only when the event information of the channel exists.

28

D. Duration

To change the duration of the recording time, press V- or V+ button.

E. File Name

To change the file name of the service to be recorded, press OK button at this item. You can change the file name by keyboard on screen.

F. Start

To start recording immediately, press OK button at this item. For reservation you may use **Timer Setting** in **System Setting** menu.
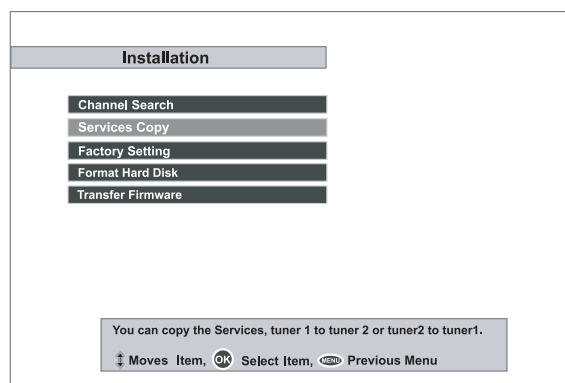
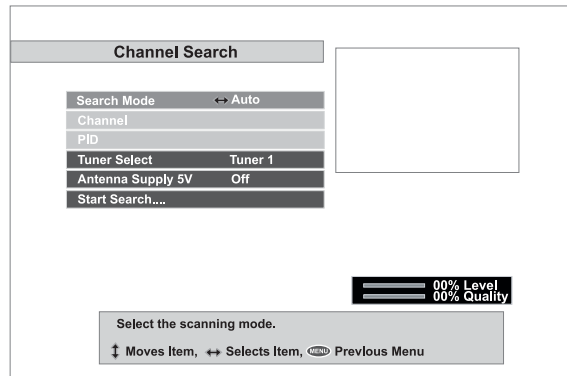**G. Stop**

To stop recording immediately, press OK button at this item.

H. Timer Setting

Press OK button at this item to go to the **Timer Setting** menu directly.

Installation

Channel Search

```
┌─────────────────────────────────────────────────────────┐
│        ┌──────────────────────────┐  ┌───────────────┐   │
│        │     Channel Search        │  │               │   │
│        ├──────────────────────────┤  │               │   │
│        │ Search Mode      ↔ Auto   │  │               │   │
│        │ Channel                   │  │               │   │
│        │ PID                       │  │               │   │
│        │ Tuner Select     Tuner 1  │  │               │   │
│        │ Antenna Supply 5V  Off    │  └───────────────┘   │
│        │ Start Search....          │                      │
│        └──────────────────────────┘                      │
│                                         ▬▬▬▬▬ 00% Level   │
│                                         ▬▬▬▬▬ 00% Quality │
│        ┌──────────────────────────────────────────┐      │
│        │ Select the scanning mode.                  │     │
│        │ ↕ Moves Item,  ↔ Selects Item, ▭ Previous Menu │  │
│        └──────────────────────────────────────────┘      │
└─────────────────────────────────────────────────────────┘
```

A. Search Mode

There are 3 search modes, **Auto**, **Manual** and **Advanced**. The **Auto** mode enables you to search all the services you can receive. The **Manual** mode enables you to search the services in the channel you want. On the **Advanced** mode, you can search the service by setting the **Audio PID**, **Video PID** or the **PCR PID**.

B. Channel

The available Channels are VHF 6~12 & UHF 21~69, which is based on the Australian specification. The Channel item is valid on **Manual** mode and **Advanced** mode

C. PID

This item is valid when the Search Mode is set to **Advanced** only.

Press (ok) button to enter Video, Audio and PCR PID's.

   1) Video PID

   Insert the Video PID by using the numeric buttons on your RCU.

   2) Audio PID

   Insert the Audio PID by using the numeric buttons on your RCU.

   3) PCR PID

   Insert the PCR PID by using the numeric buttons on your RCU.

4) SAVE

To ensure the above Video, Audio and PCR PID change, press (ok) button at this item.

D. Tuner Select

Select a tuner for channel searching from the selected channel.

E. Antenna Supply 5V

When using an active antenna, it should be set to **On** to supply power to the Amplifier of the Antenna. (5V/max 100mA)

F. Start Search...

To start the searching process, press (ok) button at this item.

To stop the searching process on the way, press either the (MENU) button or the (EXIT) button. This menu will be shown as long as the PVR is searching for channels. All channels found will be listed in two columns on the screen with TV channels in one column and Radio channels in the other. Please note that the search procedure may take a few minutes.

When the search procedure is completed, the screen will show how many TV and Radio channels have been found. Press (ok) button to save the channels.

Services Copy

In this menu, you can copy the existing channels between Tuner 1 and Tuner 2.

A. Tuner 1 to Tuner 2

Copy the service list of Tuner 1 to that of Tuner 2.

B. Tuner 2 to Tuner 1

Copy the service list of Tuner 2 to that of Tuner 1.

C. All

Add the service lists of Tuner 1 and Tuner 2 and save it to service list of Tuner 1 and that of Tuner 2.

Factory Setting

```
Installation

Channel Search
Services Copy              Caution
Factory Setting         Reset All Data?
Format Hard Disk
Transfer Firmware     Yes          No



Resets all stored data.
↕ Moves  Item, OK  Select Item, MENU  Previous Menu
```
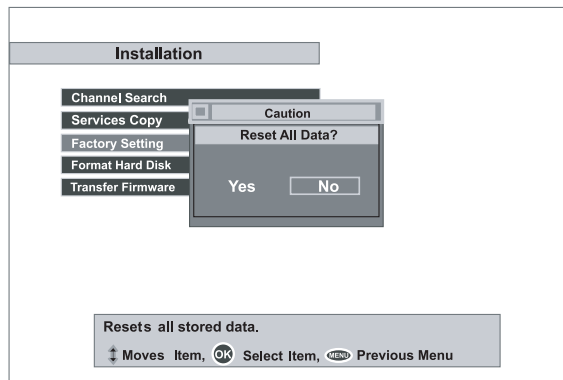
All the stored data can be reset just like it was manufactured.

Format Hard Disk

To format the HDD in PVR, Press (OK) button at this Item.
Formatting Hard Disk will delete all the data and the files recorded in HDD permanently.
If a new HDD is installed, it should be formatted because the file structure of PVR is different from others.
You can not use the Time shifting, Recording and playback functions with an unformatted HDD.

Transfer Firmware

A. Transfer Program to Other IRD
It is used to transfer PVR firmware to other PVR for upgrading the PVR.
Notes: Please proceed this menu with connecting the PVR of same model and same specification.

B. Transfer Data to Other IRD
It is used to transfer PVR Data such as service information to other PVR for upgrading the PVR.

Notes: Please proceed this menu with connecting the PVR of same model and same specification.

Transfer Firmware

Transfer Program to Other IRD
Transfer Data to Other IRD

Confirm

**Transfer program
to other IRD?**

Yes   No

You can transfer program to other IRD.

‡ Moves Item, OK Select Item, MENU Previous Menu
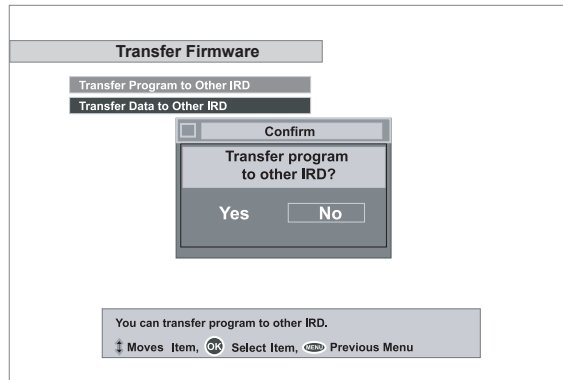
Information

You can check the IRD(PVR) version and refer the calendar.

IRD Status

IRD Status

System ID   - - -
Loader Version   - - - -
Device Version   - - - - - - - -
Application Version   - - - - - - - -
Last Update   - - - - - - - - - -
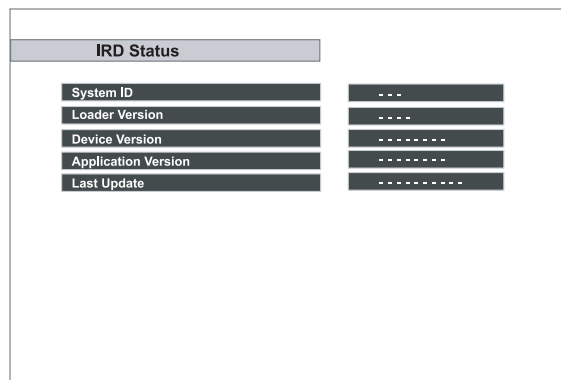
Check the PVR's system information here. It shows the System ID, Loader Version, Device Version, Application Version and Last Update.

33

Calendar

Press ⟨V-⟩ or ⟨V+⟩ button to select the year. Press ⟨P+⟩ or ⟨P-⟩ button to select the month.

```
┌──────────────────────────────────────────┐
│  ┌──────────────────────────┐             │
│  │        Calender          │             │
│  └──────────────────────────┘             │
│                                            │
│       ┌────────────────────────┐          │
│       │     Auguest 2002       │          │
│       │ Sun Mon Tue Wed Thu Fri Sat │     │
│       │              1   2   3  │          │
│       │  4   5   6   7   8   9  10 │        │
│       │ 11  12  13  14  15  16  17 │        │
│       │ 18  19  20  21  22  23  24 │        │
│       │ 25  26  27  28  29  30  31 │        │
│       └────────────────────────┘          │
│                                            │
│   ┌──────────────────────────────────┐    │
│   │ P-/P+ : Next / Previous month     │    │
│   │ V+/V- : Next / Previous year.     │    │
│   └──────────────────────────────────┘    │
└──────────────────────────────────────────┘
```

Common Interface

```
┌──────────────────────────────────────────┐
│  ┌──────────────────────────┐             │
│  │     Common Interface     │             │
│  └──────────────────────────┘             │
│    ┌────────────────────────────┐         │
│    │ Slot 1 : Irdeto Access     │         │
│    ├────────────────────────────┤         │
│    │ Slot 2 : Not Installed     │         │
│    └────────────────────────────┘         │
│                                            │
│                                            │
│   ┌──────────────────────────────────┐    │
│   │ If the CAM is inserted in Slot 1 ,│    │
│   │ you can see the name of the CAM   │    │
│   │ manufacture.                      │    │
│   │ ↕ Moves Item, ⊙ Select, Previous  │    │
│   │   Menu                            │    │
│   └──────────────────────────────────┘    │
└──────────────────────────────────────────┘
```
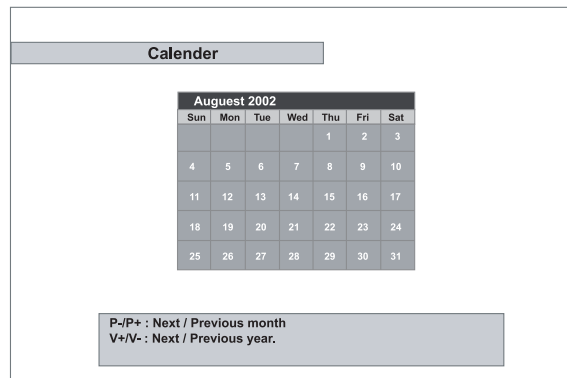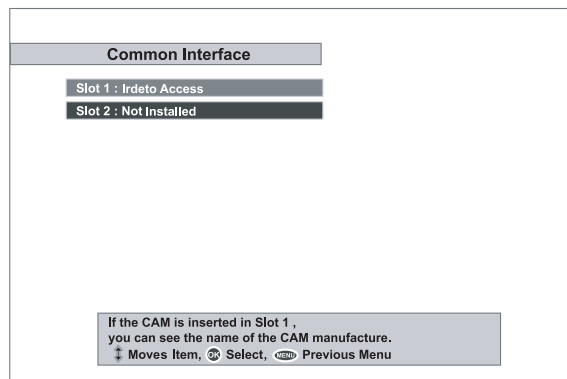
The menu differs according to each inserted CAM. If the module has not been installed yet, the phrase **Not Installed** will be indicated.

Game

ExBlock

Bomb Hexa

35
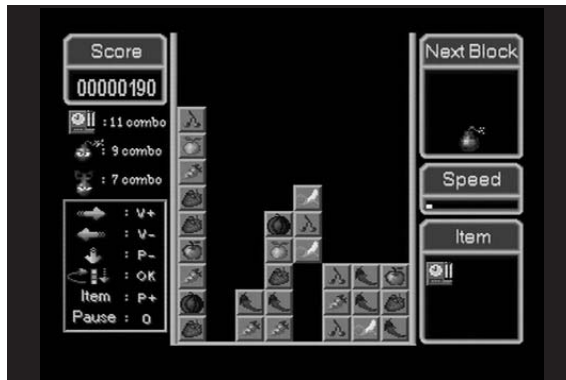
Pac Man
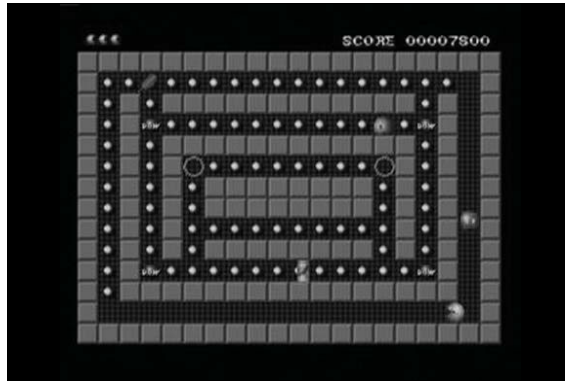
FUNCTION GUIDE

Channel List

TV Services (All Tuners)		Help
3	MBC TV-LINGK	Tuner
52	Medi TV	Sorting
66	N24	phabetic Search
60	ProSiebe	otions
65	SAT.1	
53	SkyCast	
54	SkyCast	
55	SkyCast	
56	SkyCast	

List Options

Tuner	↔ All Tuner
Show Provider	Off
Sorting	Default
Rename	
Lock	Unlocked
Delete	
Add to FAV	

DVBT ch54 850.0 MHZ

Help
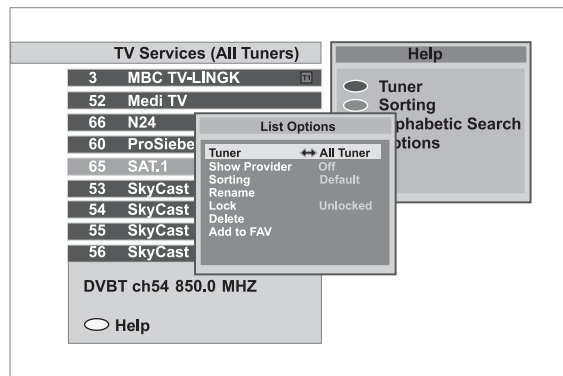
Press (ok) button to see the Channel List. The Channel List displays as follows.

• Service provider. (It can be displayed by pressing   button.)

• Channel List by *T1* (Tuner 1) or *T2* (Tuner 2).

• Scrambled Mark by **$** .

By using (White) button in the Channel List, you can use the functions as follows.

• (Red) button: Display the channel List of Tuner 1 or Turner 2.

• (Blue) button: Display the options. You can use this options by pressing (V-),
(V+) or (ok) button.

  - **Tuner** : Selects among Tuner 1, Tuner 2 and all Tuner.

  - **Show Provider** : Displays the channels by service provider.

  - **Sorting** : Selects among **Default**, **Alphabetic**, **FTA~CAS**, **CAS~FTA** and **Provider**.

  - **Rename** : Renames the marked channel.

  - **Lock** : Makes the marked channel **Unlocked** or **Locked**.

  - **Delete** : Deletes the marked channel.

  - **Add to FAV** : Adds the marked channel to the FAV List.

37

Information Box

Press (*i*) button on the RCU to see the program information. The Information box displays as follows:

. Channel Number
. Channel Name
. Detailed Program Information
. Signal Level and Quality
. Tuner Information
. Information of subtitle and / or teletext
. Parental Lock
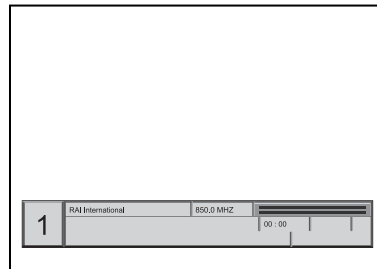
You can hide the Information Box by pressing (*i*) button.

A. Live picture

Service Number	Service Name	Freq / BW	Signal Strength	
	Event Name	Time Information	CAS, Dolby Subtitle, Teletext	Parental Lock Mark
	Event Description	Start Time ~ End Time		

You can see the Current/Next event by pressing v- / v+ button in the information box. To control the volume in the information box, you have to press v- / v+ button two times without interval.
If EPG is available on programs, by using v- , v+ buttons, you can see the EPG. You can see extended information of the event by pressing (*i*) button once more.

B. Playback

▷	File Name	Freq / BW	Progress Bar	
	Event Name	Time Information	CAS, Dolby Subtitle, Teletext	
	Event Description	Duration		

C. MP3

	Title	Bitrate	Progress Bar	
▷	Artist	Time Information		
	Album	Duration		

EPG (Electronic Program Guide)

To display the information about currently being broadcasted as well as those that will be broadcasted next, press ![GUIDE] button on the remote control unit.

If EPG is available on programs, you will see the detailed description of the programs, start/end time and programs schedules etc.

![Program Guide screen showing DWtv channel with JOURNAL News - Busin..., Germany Today, JOURNAL Nachrichten..., Im Focus, JOURNAL News - Busin..., Insight]
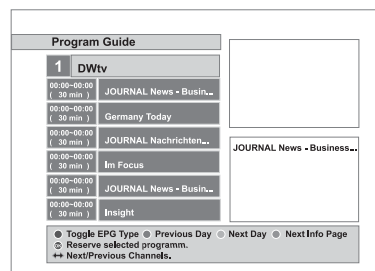
(P+), (P-) buttons will be used to move program and to see next program schedules.

(V-), (V+) button will be used to switch the channel.

(OK) button makes the reservation for the next program.

(i) button shows extended information of the event.

button will change the contents of EPG between TV and Radio services.

(Red)button switches the EPG from Single Service to Multi Service and in opposition.

Subtitle

You can choose a language of subtitle using button on the RCU.
If the broadcaster provides subtitles, you can see ⊟ symbol in the Information Box.

Teletext

If the broadcaster supports teletext, you can see ≡ symbol in the Information Box. There are VBI insertion mode and software emulation mode in teletext. In the VBI insertion mode, which is always on, you can watch the teletext with your TV using the RCU of your TV. To watch teletext with VBI insertion, your TV must support teletext.

39

In the software emulation mode, you can watch the teletext even though your TV does not support teletext. You can watch the teletext using the RCU of PVR.

Press **Teletext** ( ) button to watch the teletext with software emulation mode.

Press button once more or **EXIT** ( ) button to escape from teletext.

Sound Track

You can choose a language of soundtrack by pressing button when a broadcaster supports various languages of soundtrack.

Also, it is possible to choose a mode among Stereo, Mono, Left and Right using , buttons. button is used for multifeed function, too. If the multifeed is available in current service,

Sound Track
AUTO
eng
deu
fra

Sound Mode
← Mono →

Multifeed Track will be displayed first. You can change the display to Sound Track selection menu by pressing button once more.
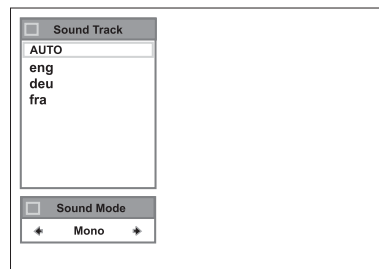
Multifeed

If multifeed is available in the channel, Multifeed Icon ( ) will appear at the right side of the Information box. If available, the Multifeed Track and Sound Track are toggled by button. It is possible to choose one of the multifeed channel.

Time Shifting

-01:52
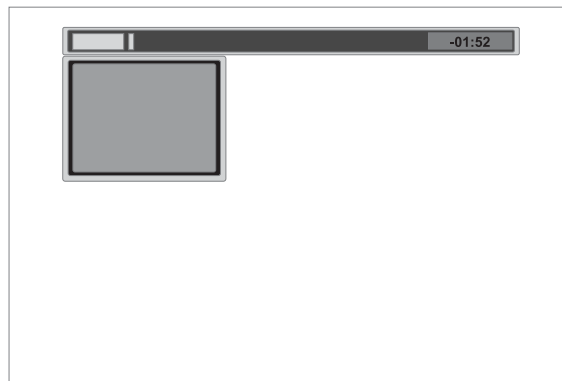
1. To use **Time Shifting** function, the **Time Shifting** option should be enabled.
   To find the Time Shifting option menu, follow the steps below.

   Main Menu ⟶ **System Setting** ⟶ **Time Shifting** ⟶ **Enable**

2. Press ▶ button to display Time Shifting progress bar. You have to press ▶ button once more to display Time Shifting progress bar during Trick mode. (such as Fast Forward, Reverse Playback, Slow motion)

3. To go to the desired playback position, press V+ , ▶▶ button or V+ , ▶▶ button. This function is valid while the Time Shifting progress bar is displayed.

4. To remove the Time Shifting progress bar at once, press OK , EXIT or ▶ button.

5. To go to the live video, press ▢ button.

6. To start Instant Time Shifting, press ✓ button. The start position of the playback goes 10 seconds back per each pressing of ✓ button.

Recording while Time Shifting
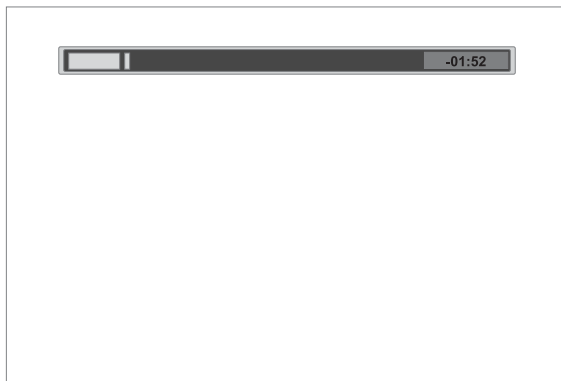
1. Press ▶ button to display Time Shifting progress bar.
2. To go to the desired position, V+ , ▶▶ button or V- , ◀◀ button.
3. Press ● button to start recording.
4. The recording will be started from the selected position.
5. Press ▢ button to stop Time Shifting.
6. Press ▢ button once more to stop recording.

Caution : If the recording time is less than about 1 minute, the recorded file will not be saved.

41

Recording, Checking and Editing the reserved delayed recording

To record services, refer to the following steps. There are four kinds of recording references.
Caution : If the recording time is less than about 1 minute, the recorded file will not be saved.

Immediate Recording by RECORD button
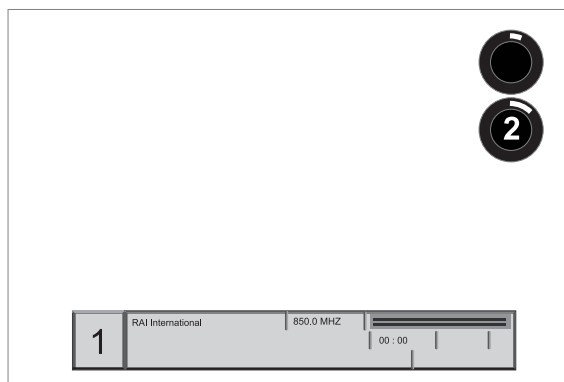
A. Recording

Press ⬤ button to record the service you are watching. To specify the stop time, go to **Recording** menu and modify **Duration** item. To go to the **Recording** menu, press ⬤ button once more or go to **Recording** item of Main Menu.

B. Checking and modification

A **Recording Icon** (◯) will be displayed on the upper rightmost of the TV screen for several seconds if the recording is initiated. Press 𝒊 button to see the **Recording Icon**.
To check and modify the recording options, go to **Recording** menu.

C. Stop

Press ▢ button and select the service to stop the Recording by confirming OK button. If only one service is being recorded, it is possible to stop the recording by pressing ▢ button twice.

42

Immediate Recording by Menu Selection

Recording	
Record NO.	1
Service	53 sat
Mode	⟷ Quick
Duration	2 Hour 0 Min
File Name	sat-1
Start	
Stop	
Timer Setting	

No recording
18706 MB Free

Select the record mode.

↕ Moves Item, ↔ Selects Item, 🖵 Exit

---
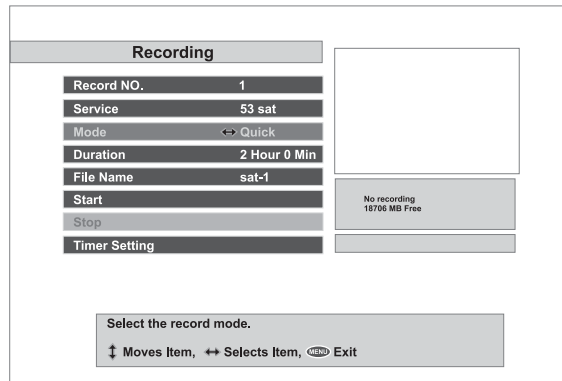
* Precaution (Dual Recording)

Before starting recording on the Menu, you have to select one of the **record NO**. There are **Record NO.1** and **2** to distinguish between the two records for dual recording. In case of one channel is recorded at **Record NO.1**, only **Duration** and **Stop** item of **Recording** menu will be enabled. But, all the sub-menu of **Record NO.2** will be enabled.

A. Recording

To go to **Recording** menu, press ⟳ button and select **Recording** item by pressing ⓞⓚ button. Select the options that you want to record with. Select **Start** item and press ⓞⓚ button. For detailed information, refer to the explanation of **Recording** menu in Menu operations.

B. Checking and modification

A Recording Icon (◯) will be displayed on the upper rightmost of the TV screen for several seconds if the recording is initiated.
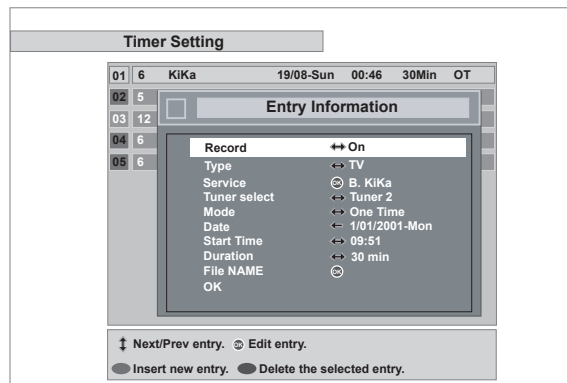To check and modify the recording options, go to **Recording** menu.

C. Stop

Press ▭ button and select the service to be stop the Recording by pressing ⓞⓚ button.
Otherwise, go to **Recording** menu and press ⓞⓚ button at ▭ item.

Delayed Recording

Timer Setting						
01	6	KiKa	19/08-Sun	00:46	30Min	OT

Entry Information

Record	↔ On
Type	↔ TV
Service	⊙ B. KiKa
Tuner select	↔ Tuner 2
Mode	↔ One Time
Date	← 1/01/2001-Mon
Start Time	↔ 09:51
Duration	↔ 30 min
File NAME	⊙
OK	

↕ Next/Prev entry. ⊙ Edit entry.

⬤ Insert new entry. ⬤ Delete the selected entry.

A. Record

Go to **System Setting** menu and press (ok) button at the **Timer Setting** item. At **Timer Setting**, press (Red) button to insert a new recording entry. Set the options that you want to record with by using (V-) or (V+) button. For detailed information, refer to the explanation of **Timer Setting** menu in **Menu operations**.
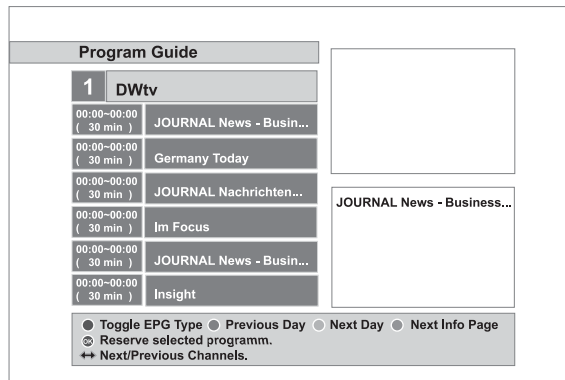
B. Checking and modification

To check the delayed recording options, go to **Timer Setting** menu. You can change the options there.

C. Cancel

To cancel the delayed recording, go to **Timer Setting** menu. Press (Green) button and confirm with (ok) button at **Cancel** item.

Recording by EPG

```
           Program Guide
        ┌──────────────────────┐
        │  1   DWtv            │
        ├──────────────────────┤
        │00:00~00:00│          │
        │( 30 min )│JOURNAL News - Busin...│
        │00:00~00:00│          │
        │( 30 min )│Germany Today│
        │00:00~00:00│          │     JOURNAL News - Business...
        │( 30 min )│JOURNAL Nachrichten...│
        │00:00~00:00│          │
        │( 30 min )│Im Focus  │
        │00:00~00:00│          │
        │( 30 min )│JOURNAL News - Busin...│
        │00:00~00:00│          │
        │( 30 min )│Insight   │
        ├──────────────────────┤
        │ ● Toggle EPG Type ● Previous Day ● Next Day ● Next Info Page │
        │ ◎ Reserve selected programm. │
        │ ↔ Next/Previous Channels. │
        └──────────────────────┘
```

A. Record

Press ![GUIDE] button to display EPG. Select a service that you want to record, and press ![●] button. Instead of ![●] button, two times pressing of ![OK] button is valid for delayed recording.

The Recording mark (**R**) will be displayed by pressing ![OK] button two times.

For reference, if you press button one time, you can reserve the event, which means switching to the reserved event automatically at the event time.

This button toggles CANCEL successively.

B. Checking and modification

Press ![GUIDE] button to display EPG. The reserved services for delayed recording will be marked with a Recording mark (**R**) or Reserved Event mark (**P**).

C. Cancel

Press ![GUIDE] button to display EPG. To cancel a reservation of delayed recording, select the service you want to cancel and press ![●] button again. Instead of ![●] button, ![OK] button is valid by toggling. The Recording mark (**R**) will disappear.

Playback a Recorded Service
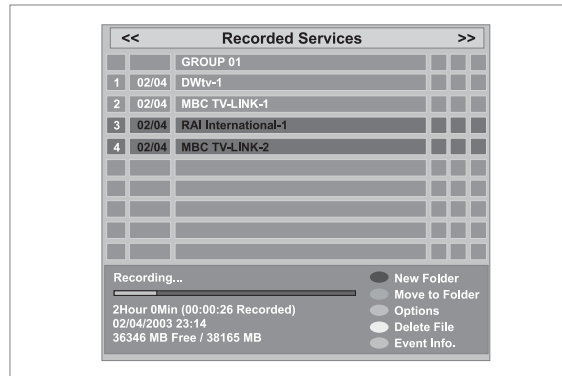
1. Press ⬛ button to display the recorded service list.
2. You can use several useful editing functions at **Recorded Services** menu as followings.
   A. **New Folder** : Press 📖 (Green) button to make new folder.
   B. **Move to Folder** : Press 📒 (Yellow) button to move the Service to a folder.
   C. **Option** : By pressing ✓ (Blue) button, you can use optional functions such as
      - **Sorting by Alphabetic, Size, Time.**
      - **Rename**
      - **Lock**
   D. **Delete File** : Press ▶◀ button to delete the recorded service.
   E. **Event Info** : Press 🅘 button to display extended event information.
3. Select a recorded service at the list.
4. Press ⓞⓚ button to start playback.
5. Press ▶ button to display Time Shifting progress bar. You have to press ▶ button once more to display Time Shifting progress bar during Trick mode. (such as Fast Forward, Reverse Playback, Slow motion)
6. To go to the desired playback position, press V+ , ▶▶ button or V- , ◀◀ button. This function is valid while the progress bar is displayed.
7. If you enter the position by percent with numeric button of RCU, the playback position will be moved to the point. This function is valid while the progress bar is not displayed.

* **Successive Playback of Services**

Press ⬤ (Red) button to number the services among the recorded services list and press 〔ok〕 or ▶ button to playback the multi-services in sequence automatically.

This function is very convenient for you to descramble the pay TV service with proper CAM module and smart card. You can descramble the scramble services and copy it while you are not using this PVR.

* **MP3 and TAP**

Press ◀◀ , ▶▶ buttons at recorded service list to go to MP3 files and program files(TAP).

Stop

1. This function is available for playback.
2. To stop playback, press ⬜ button.
3. You can stop the recording in the recorded service list, too. To stop the recording, press ⬜ button at the selected recording file.

Pausing

To pause the live picture or playback, press ⏸ button.

Press *pause* button again or ▶ button to quit pausing.

1. Pause from live video

If the PAUSE is kept more than 10 seconds with enabled Time Shifting mode, the live picture is changed to time-shifted playback. The video continues from the paused image when resumed from PAUSE.

2. Pause from Time Shifting

The video continues from the paused image when resumed from PAUSE.

3. Pause from Playback

The video continues from the paused image when resumed from PAUSE.

47

Slow Motion Playback

1. To playback in slow motion (without sound), press the [▶] button.
2. Slow motion speed can be adjusted by pressing the [▶] button repeatedly.
3. There are 3 steps (1/2, 1/4, 1/8) in slow motion playback.
4. Press [▶] button to resume playback with normal speed.
5. The slow motion function is available for the playback and the time-shifted playback.

Fast Motion Playback

1. If there is a Time Shifting or Playback progress bar, remove the progress bar by pressing   button.
2. Press [▶▶] button for fast motion playback. To change the playback speed, press [▶▶] button repeatedly.
3. There are 3 steps (2, 4, 6) in fast motion playback.
4. Press [▶] button to resume playback with normal speed.
5. The fast motion function is available for the playback and the time-shifted playback.

Fast Forwarding and Rewinding

1. Press [▶] button to display Time Shifting or Playback progress bar.
2. To go to the desired playback position, press button [◀◀] or [▶▶] button. This function is valid while the progress bar is displayed.
3. To remove the progress bar at once, press [▶] button.

Reverse Playback

1. If there is a Time Shifting or Playback progress bar, remove the progress bar by pressing [▶] button.
2. Press [◀◀] button for reverse playback. To change the playback speed, press [◀◀] button repeatedly.
3. There are 3 steps (1,2,3) in reverse playback.
4. Press [▶] button to resume playback with normal speed.
5. The reverse playback function is available for the playback and the time-shifted playback.
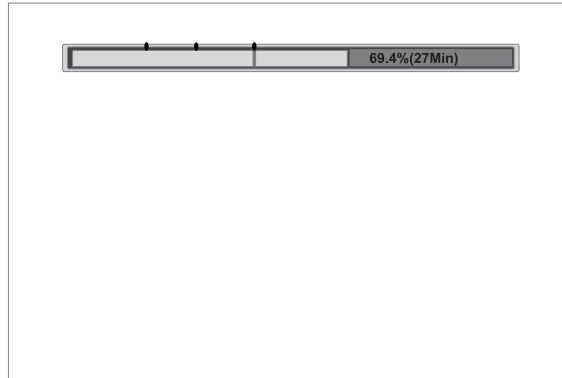
Bookmark

You can jump to a position directly by bookmark function in playback and time-shifted playback. To search positions very quickly and easily, use bookmarks.
It is impossible to use the bookmark in the following conditions.
  - Timeshifting is disabled and you are watching live picture.
  - You are recording 2 services, and you are watching the other sevice.

1. Add a bookmark
To add a bookmark, press **BOOKMARK** (📖) button at the position you want to add it. You can make the bookmark at maximum 64 positions.

2. Go to a bookmark
Press **GO TO BOOKMARK** (📖) button to jump to the next bookmark. Then, the PVR plays from the book marked position.

3. Delete a bookmark
To remove a bookmark, you have to display the progress bar by pressing ▶ button. Select the bookmarked position by **GO TO BOOKMARK**(📖) button and press **BOOKMARK** (📖) button.

4. 30 seconds forward
If there is no preset bookmark, the PVR plays every 30 seconds forward by pressing **GO TO BOOKMARK** (📖) button.

Recording The Descrambled Live Service

1. Select the live picture you want to record. Descramble the service with a proper CAM and smart card. The live service should be decoded well with the proper CAM and smart card.
2. Start recording according to the recording procedure.
3. During recording, don't change the channel neither try the time shifting function.

Caution : If there is any disturbance such as channel changing or time shifting during recording, the recorded file will be changed to the scrambled format from this position. If the recording time is less than about 1 minute, the recorded file will not be saved.

Descrambling Recorded Services

1. Select and playback a service you want to descramble. Descramble the service with a proper CAM and smart card. The playback service should be decoded well with the proper CAM and smart card.
2. Press ▶ button to display Playback progress bar.
3. To go to the desired position, press ◀◀ button or ▶▶ button.
4. Start playback and the picture should be descrambled with a proper CAM and smart card. The fast/slow motion descrambling is possible by fast/slow motion playback.
5. Start recording by **RECORD** (⬤) button.
6. The video displayed on TV will be recorded.
7. Press **STOP** (⬜) button to stop recording.
8. Press **STOP** (⬜) button again to stop playback.
9. You can playback the multi-service(Pay TV) in sequence. For detailed explanation, refer to **Playback a Recorded service**.

Caution : If the descrambling time is less than about 1 minute, the recorded file will not be saved.

Repeated Playback mode

The repeated Playback mode works only in playback mode. It does not work in time shifting mode. There are two repeated Playback modes.

1. Repeating the whole selected service.
   a. Start playback a recorded service.
   b. Press ⏮ button without the progress bar to repeat the whole selected service.
   c. Press ⏮ button once more to cancel the repeating playback.

2. Repeating the selected region.
   a. Start playback a recorded service.
   b. Press ▶ button to display Playback progress bar.
   c. To specify one end of region, press the ⏮ button with the progress bar.
   d. Move the cursor by ⏩ pressing (or V+) or ⏪ (or V-) button.
   e. To specify the other end of region, press the ⏮ button once more. The color of the selected region will be changed to green.
   f. Press ⏮ button once more to cancel the repeating playback.

Copying from Recorded Services

1. Select and playback a service to copy.
2. Press ▶ button to display Playback progress bar.
3. To go to the desired position, press ◀◀ button or ▶▶ button.
4. Start playback the recorded video you want to copy. The fast/slow motion copying is possible by fast/slow motion playback.
5. Start copying by ● button.
6. The video displayed on TV will be copied.
7. Press ☐ button to stop copying.
8. Press ☐ button again to stop playback.

Caution : If the copying time is less than about 1 minute, copying will not be done successfully. It is recommended not to change the playbck speed.

Cut Out / Save Selected Region
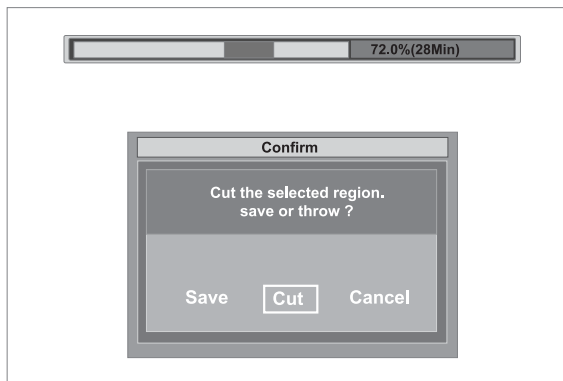
1. Start playback a recorded service.
2. Press ▶ button to display Playback progress bar.
3. To specify one end of region, press the ▶◀ button with the progress bar.
4. Move the cursor by pressing ▶▶ (or V+) or ◀◀ (or V-) button.
5. Press ✓ button to cut or save the selected region. Then, a message box appears.
6. To cut out selected region, press the OK button at **cut** item in the message box.
7. To save the selected region, press OK button at **save** item in the message box.

Time Shifting while Recording

During single recording, Time Shifting is possible. But, if you are recording 2 services at the same time, Time Shifting is possible only in the recorded channel.

Zapping while Recording

For the tuner being recorded with, all the channels in the same Channel can be selected. For the other tuner, all the scanned channels can be selected.

Picture In Picture (PIP)
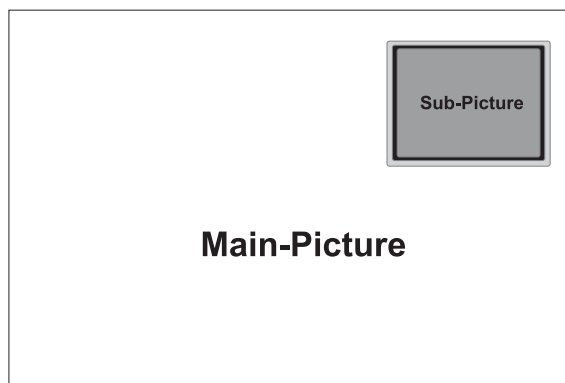
1. Press ⬤(Red) button to display PIP. Press ⬤(Red) button repeatedly to change the size of sub-picture or to remove the sub-picture.
2. At PIP screen, press (Sat)(⬚) button to exchange main-picture with sub-picture.
   Remarks: It is not possible to exchange main-picture with sub-picture when a recorded service is in playback in main-picture and a live service plays in sub-picture.
3. Press ⏮ or ⏭ button to move the position of sub-picture.
4. To display the service list of main-picture, press (OK) button. You can select a service in the service list.
   To display the service list of sub-picture, press ⏯ (⬚) button.
5. If the both of main and sub-picture are scrambled, only the main-picture will be played.

Dual Recording

1. Press ⬤ button to start Recording.
2. You can use the Time-shifting function while recording another service. It is possible to record two services at the same time, too.
3. To record the 2nd service, press ⬤ button at the service you want to record.
4. You can check the status of recordings in the recorded service list. To check it, move the cursor to the file that is being recorded.
   You can stop the recording there, too. To stop the recording, press ▢ button at the selected recording file.
5. It is possible to stop the recording in the live picture. To do it, press ▢ button and press ⬤ok button after selecting the recording by P+ , P- button.

File List

The file list has 3 lists. They are **Recorded Services**, **MP3** and **Program Files**. The lists are selected by ◀◀ , ▶▶ buttons. The File list is displayed by pressing 🗐 button.

File List (Recorded Services / MP3 / Program Files)

1	22/0	File Name 1			

File

Selection

Date of

Scrambled

Recording Number

Lock Icon

Information of selected file

Help Messages
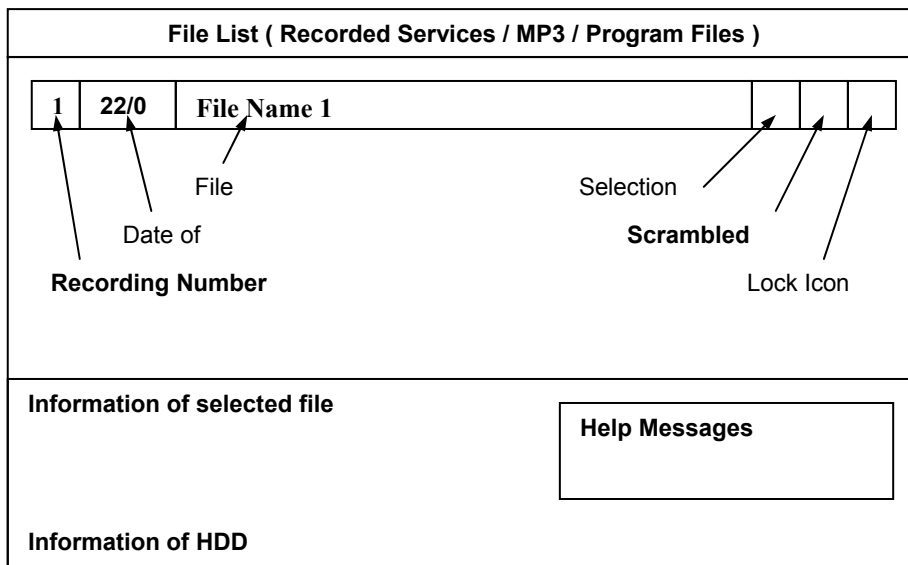
Information of HDD

Recorded Services List

The file list is displayed by pressing 🔲 button. The file list of **Recorded Services** can be selected by ⏪ , ⏩ buttons from other list.

1. You can see the file number, file name, date of recording, information of scramble, locking, Service name, event information, file size, HDD information, etc.
2. Folder

   A new folder can be made by pressing 📖 (Green) button. The new folder will be named as GROUP #. The name can be changed by option (Blue) button. The keyboard will be displayed if you select the **Rename** there.
3. Move

   Press 📖 (Yellow) button after selecting a file you want to move. The lists of Folders will appear. You can select a folder you want.
4. Delete

   Press ⏮ (White) button after selecting a file you want to delete. You have to confirm it to delete at confirmation box.
5. Sorting, Rename, Lock

   Press ✅ (Blue) button to display option list. You can sort, rename and lock the selected file or folder. If a file is locked here, the **Lock icon** will appear in the file list.
6. Icons

   Scarmbled Icon

Icon (color)	Description
$ (Yellow)	Scrambled
$ (Yellow/Green)	Partially Scrambled
$ (Green)	Decrambled
None	Non-scrambled (FTA)

   Lock Icon (🔑)

   It means that the file is locked. To play the files you have to enter the PIN code.
7. Playback

   To playback the selected file, press ▶ button or OK button.
8. Successive Playback of Services

55

Press ⬤ (Red) button to number the services among the recorded services list and press ⓞₖ or ▶ button to playback the multi-services in sequence automatically. This function is very convenient for you to descramble the pay TV service with proper CAM module and smart card. You can descramble the scramble services and copy it while you are not using this PVR.

9. Successive copy of Services

Select the services you want to copy by pressing ⬤ (Red). You can start copying by pressing ◯ button.

10. Event information

If there was Event information when the service was recorded, you can see the information by pressing *i* button.

MP3 File List

The file list is displayed by pressing ▦ button. The file list of **MP3 files** can be selected by ◀◀, ▶▶ buttons from other list.

1. You can download the MP3 files via USB from PC using Altair.exe.(You can get it from www.topfield.co.kr) The list of MP3 files will be displayed here.

2. **Folder**

A new folder can be made by pressing 📖 (Green) button. The new folder will be named as GROUP #. The name can be changed by option (Blue) button. The keyboard will be displayed if you select the **Rename** there.

3. **Move**

Press F3 (Yellow) button after selecting a file you want to move. The lists of Folders will appear. You can select a folder you want.

4. **Delete**

Press ▷◁ (White) button after selecting a file you want to delete. You have to confirm it to delete at confirmation box.

5. **Sorting, Rename**

Press ✓ (Blue) button to display option list. You can sort, rename the selected file or folder.

6. **Play**

To play the selected file, press ▶ button or ⓞₖ button.

7. **Successive Playback of MP3 files**

Press ⬤ (Red) button to number the files among the file list and press (ok) or (▶) button to play the files in sequence automatically.

8. **Play by folder**

To play the files in specific folder, select a folder and press (▶) button.

Program File List

The file list is displayed by pressing (⊟) button. The file list of **Program files** can be selected by (◀◀), (▶▶) buttons from other list.

1. You can download the TAP(Topfield Application Program) via USB from PC using Altair.exe.(You can get it from www.topfiled.co.kr). The list of the TAP will be displayed.

2. **Folder**

A new folder can be made by pressing (📖) (Green) button. The new folder will be named as GROUP #. The name can be changed by option (Blue) button. The keyboard will be displayed if you select the **Rename** there.

3. **Move**

Press F3 (Yellow) button after selecting a file you want to move. The lists of Folders will appear. You can select a folder you want.

4. **Delete**

Press (▶▌) (White) button after selecting a file you want to delete. You have to confirm it to delete at confirmation box.

5. **Sorting, Rename**

Press (✓)(Blue) button to display option list. You can sort and rename the selected file or folder.

6. **Run**

To run the selected file, press (ok) button.

7. **Auto Run**

If you want a program runs automatically when the PVR starts up, move the program to the **Auto Start** folder.

If you are pressing the (0) button when the PVR starts up, the program in the **Auto Run** folder will not run. Remove the program from the **Auto Run** folder if you do not want to auto run.

Progress Icon

There will be Icons during Playback, Time Shifting, Recording and Copying. They will be displayed for a seconds. To display it again, press (*i*) button.

Icon (color)	Description
(Red)	Recording. - Small Circle in the large circle means the current service you are watching is being recorded. - The number in the large circle means recording number. And, the service being recorded is not the service you are watching. - The outer circle mean displays the rate of progress.
(Green)	Playback. - The figure in the circle shows you the playback speed. - The outer circle displays the rate of progress.
(Red)	Copying. - The character **C** in the circle means copying. - The outer circle displays the rate of progress.

SOFTWARE UPGRADE AND PC INTERFACE

Software Upgrade

The PVR has stable and convenience software to use. But, to improve the PVR the new software of the PVR may be released.

Whenever a problem is found or functions are added or modified, the software in the PVR has to be upgraded to enjoy better function.

The latest news, software, utility, driver, product and manual will be found at Topfield website **http://www.topfield.co.kr.**

There are some methods to download the new software.

(a) PVR to PVR download via RS232C

It is possible to download the firmware or channel data from PVR to another PVR.

(b) PC to PVR download via RS232C

You need the **TFD-down.exe** to download the software.

Start download at PC and turn on the PVR.

(c) PC to PVR download USB

You need to the **TFDN_USB.exe** to download the software.

Start download at PC and turn on the PVR.

For more information, refer to the **transfer firmware** chapter of **Menu Operations**.

File download and upload via USB

You can upload or download the **TAP**(Topfield Application Program), MP3 and the recorded services to or from your PC. You need to the **Altair.exe** to enjoy it.

You can download the **TFD-down.exe, TFDN_USB.exe, Altair.exe** at Topfield website **http://www.topfield.co.kr.**

The **TAP** application can be developed and used by users. The users can make their own functions by **TAP**. Topfield does not confirm the **TAP** developed by users, and does not have any responsibility.

MENU MAP

```
Main ─ System Setting ─┬─ Time Setting ─────┬─ Mode
                       │                    ├─ Local Time
                       │                    ├─ GMT
                       │                    └─ Time Offset
                       │
                       ├─ Timer Setting
                       │
                       ├─ Parental Control ─┬─ Censorship
                       │                    ├─ Change PIN Code
                       │                    │
                       │                    └─ Access Control ─┬─ Time Setting
                       │                                       │  Language Setting
                       │                                       │  A/V Output Setting
                       │                                       │  Organizing Channels
                       │                                       │  Organizing Favorites
                       │                                       │  Installation
                       │                                       └  IRD Lock
                       │
                       ├─ Language Setting ─┬─ Menu Language
                       │                    ├─ Subtitle Language
                       │                    └─ Audio Language
                       │
                       ├─ A/V Output Setting ─┬─ TV Type
                       │                      ├─ Video Output
                       │                      ├─ VCR SCART Type
                       │                      ├─ TV Aspect Ratio
                       │                      ├─ 16:9 Display Format
                       │                      ├─ Sound Mode
                       │                      ├─ UHF Type
                       │                      └─ UHF Channel
                       │
                       ├─ OSD Transparency
                       ├─ Info Box Display Time
                       ├─ Info Box Position
                       └─ Time Shifting
```

60

```
         ┌─ Organizing Favorites
         │
         │                          ┌─ Record No.
         │                          ├─ Service
         │                          ├─ Mode
         │                          ├─ Duration
         ├─ Recording ─────────────┤─ File Name
         │                          ├─ Start
         │                          ├─ Stop
         │                          └─ Timer Setting
         │
         │                                              ┌─ Search Mode
         │                                              ├─ Channel
         │                                              ├─ PID
         │                          ┌─ Service Search ─┤─ Tuner Select
Main ────┤                          │                   ├─ Antenna Supply 5V
         │                          │                   └─ Service Search
         │                          │
         ├─ Installation ──────────┤─ Service Copy
         │                          ├─ Factory  Setting
         │                          ├─ Format Hard Disk
         │                          │                   ┌─ Transfer Program to…
         │                          └─ Transfer Firmware┤
         │                                              └─ Transfer Data  to…
         │
         │                          ┌─ IRD Status
         ├─ Information ───────────┤
         │                          └─ Calendar
         │
         ├─ Common Interface
         │
         │                          ┌─ ExBlock
         └─ Game ──────────────────┤─ Bomb Hexa
                                    └─ Pac Man
```

SPECIFICATIONS

Tuner & Service Decoder

Item	Specification
2 Tuners	
Input/Loop through Connector	75W, IEC 169-2, Female/Male
Frequency Range	50 ~ 870MHz
Signal Level Input	-78 ~ -20dBm
Modulation	OFDM
Carrier Mode	2k and 8k hierarchical/non-hierarchical
Constellation	QPSK, 16 and 64 QAM
Guard Interval	1/4, 1/8, 1/16 and 1/32

MPEG Transport Stream A/V Decoding

Item	Specification
Transport Stream	ISO/IEC 13818-1 MPEG-2
Profile Level	2 x MPEG-2 MP@ML (PIP)
Aspect Ratio	4:3, 16:9, Pan & scan, Letterbox
Video Resolution	720 x 576
Audio Decoding	MPEG-1 Layer 1, 2 & 3

Main System

Item	Specification
Main Processor	MIPS
Memory	Flash-ROM: 2MB
	RAM: 64MB
	EEPROM: 2Kb
HDD	80GB, 120/160GB(optional)

Front Panel & RCU

Item	Specification
7 Keys	CH-/+, VOL-/+, MENU, OK, STANDBY
4-digit 7-segment LEDs	Service number or Time display
3 LEDs	TV/SAT, REMOTE, STANDBY
RCU	46 Keys

Conditional Access Interface

Item	Specification
PCMCIA	2 slots
	DVB Common Interface Standard

A/V & Data In/Out

Item	Specification
TV-SCART	Video CVBS/S-VIDEO/RGB output
	Audio L/R output
VCR-SCART	Video CVBS output, Audio L/R output
	Video CVBS/S-VIDEO/RGB input bypass
	Audio L/R input bypass
S-VIDEO	Video S-VIDEO output
RCA A/V	Video CVBS output
	Audio L/R output
S/PDIF	Digital audio or Dolby AC-3 bitstream output
RS-232C	9 pin D-sub type
	Transfer rate 115.2Kbps
USB	USB2.0 Device

RF-Modulator

Item	Specification
RF-Connector	75W, IEC 169-2, Female/Male
Frequency	470 ~ 860MHz
Output Service	CH21 ~ 69
TV standard	PAL G/I/K selectable by Menu

Power Supply

Item	Specification
Input Voltage	90 ~ 250VAC, 50/60Hz
Type	SMPS
Power Consumption	Running: Max. 22W, Standby: 8W
Protection	Separate internal fuse.

Physical Specification

Item	Specification
Size(W x H x D)	340 x 60 x 265 mm
Weight(Net)	4.2Kg

* **Specifications and functions may be changed for improvement without notice in advance.**