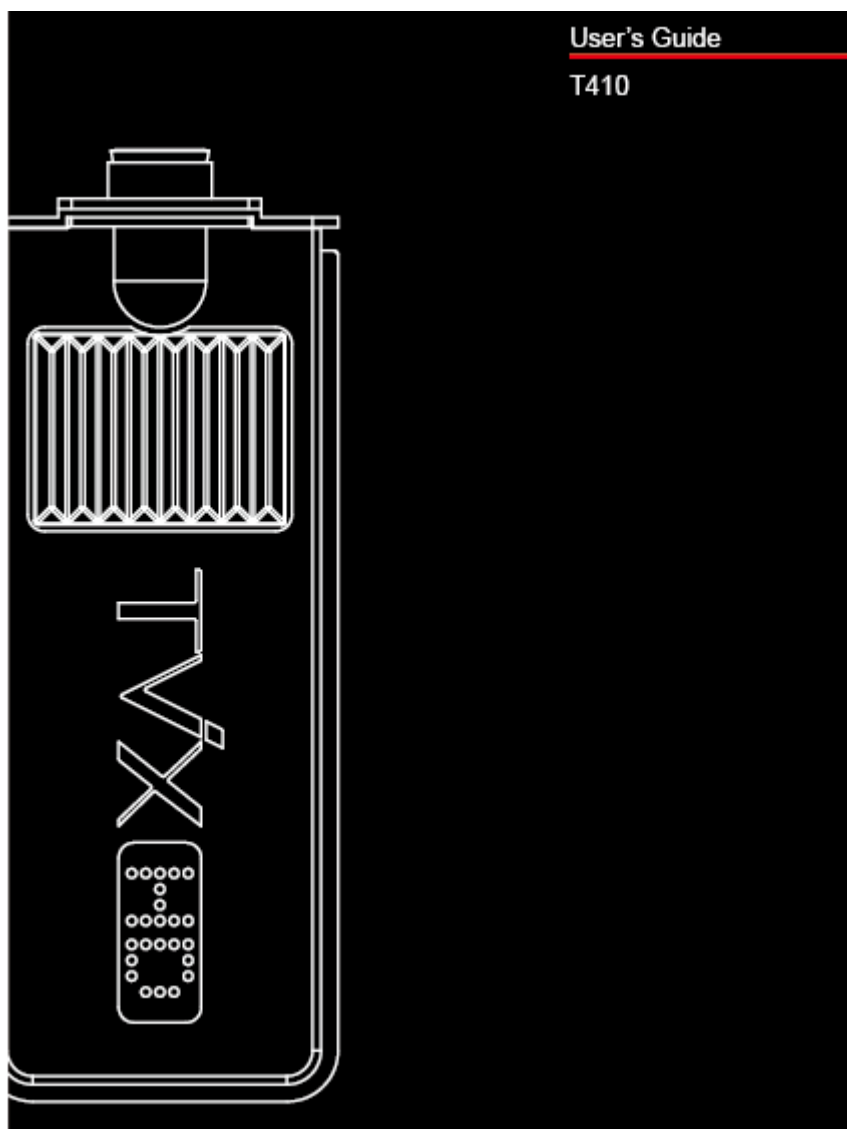


TVIX HD TUNER



- All specifications and information are subject to change without further notices.

TVIX HD TUNER Introduction

1. Features

- TVIX HD TUNER can play HDTV without a digital TV set-top box with excellent and super-clear display on HDTV screens .
- TViX Tuner has the various recording features like direct recording/scheduled recording and repeated manual recording, so you cannot miss single program of digital TV. It's a completely different type of PVR since you can easily upgrade and expand the capacity of HDD by themselves like PC upgrading. And you can backup the recorded file to/from the PC.
- TViX Tuner implements all the ATSC features like EPG/scheduled recording/ PC-connectivity and this will let user enjoy all the fruits of the digital broadcasting as well as the supreme audio and video qualities.
- When using the HDTV mode, you can configure the sleep time. If the sleep time is reached when the recording is in progress, the TViX will shut down after finishing the recording.
- TVIX HD TUNER is available with the TViX HD M-4000PA/SA and M-4100SH.
- You must upgrade to the latest M-4000 firmware if you want to use the Tuner. Old firmware versions do not support this tuner.
- TVIX HD TUNER does not support analog (NTSC) broadcasting or Digital cable.

2. Specifications

MODEL	TVIX TUNER T410
TUNER	Xceive XC3028
Resolution	Resolutions up to 1920 * 1080i
Internal Power	Via Pin connector to M-4000PA/SA (included)
Power	3.7 (W)
Input	over-the-air Digital TV (ATSC)
Size	114 x 42 x 20 (mm)
Weight	80g

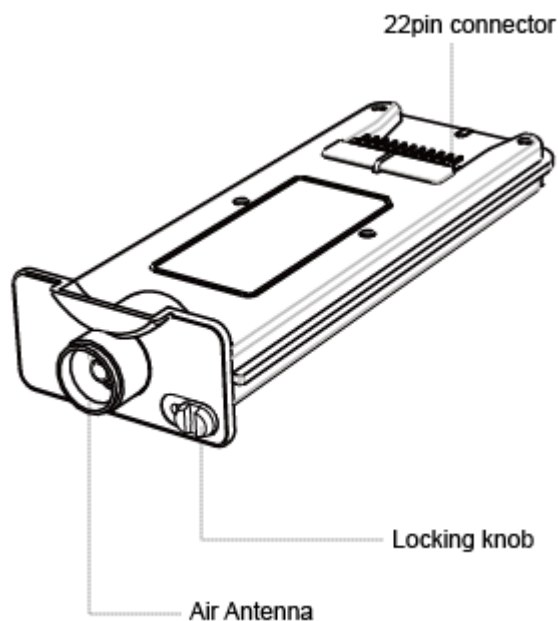
Usage Precautions and Notes

- Do not drop the device. It may cause critical damage to the hard drive.
- Do not touch the power plug with wet hands or use defective power cables & electric outlets. It may cause electric shocks or fire.
- Keep all magnetic materials away from the TViX. Magnetic materials such as speakers or magnets may erase or cause damage to the data stored in the hard disk.
- Do not try to disassemble or remodel the device. It may cause malfunction or fire.
- Starting TViX HDTV mode can take about 12~13 seconds.
- Do not detach the tuner box when the TViX is working. It may damage the TViX or the tuner and void your warranty.
- We recommend using a threaded-type antenna connector.
- TV out, ZOOM, and default volume depend on the TViX's setting.
- Checking Digital signal Reception
 - Press the INFO button on the remote control. The Signal strength meter will appear on the left-bottom.
 - If signal strength meter indicates less than 14.9db, adjust your antenna to increase the signal strength. Continue to adjust the antenna until you find the best position with the strongest signal.
- You can resolve the following problems by pressing O.K button.
 - When the audio and video are not synchronized.
 - When there is noise on the audio.
 - When there are video-freezing problems.
- Record Notice
 - The first partition of the internal hard disk must use the NTFS format. FAT32 format can cause an error message.
 - When the signal is weak or unstable, recording cannot work properly.
 - When the hard disk is unstable, recording cannot work properly. So you must run Check Disk sometimes.
 - Hard disk requires the Check Disk, you must run the Check Disk sometimes
- Unplug this apparatus when they are lightening storms or unused for a long time.
- Do not connect the USB host or network when the HDTV mode is active.

These can be cause stuttering or jerky motion. We recommend connecting the USB host or network only in the file mode.

About the TViX HD Tuner

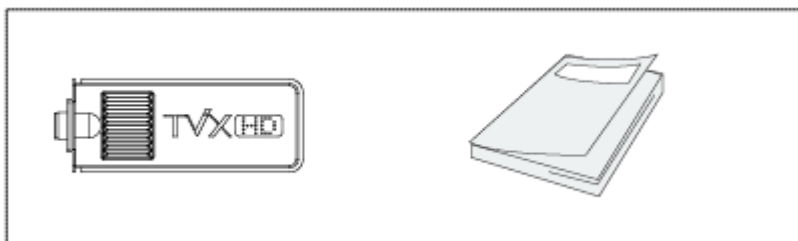
3. Name of Each Part



- 22 pin connector : Connects to the TViX 4000PA/SA main unit.
- Air Antenna : Connects to the terrestrial TV antenna signal
- Locking knob : This knob is used to lock or unlock the body.

4. Package Contents

The TViX HD TUNER package contains the following items.
Some packages may change depending on other conditions.



TUNER Box Unit

Manual

Installation and Connection

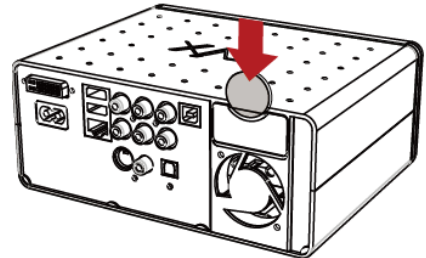
1. TUNER Connection

Before the TViX is connected to the tuner, the power of TViX should be turned off. Connecting the tuner when the power of TViX is "ON" will damage the TViX or the tuner and void your warranty.

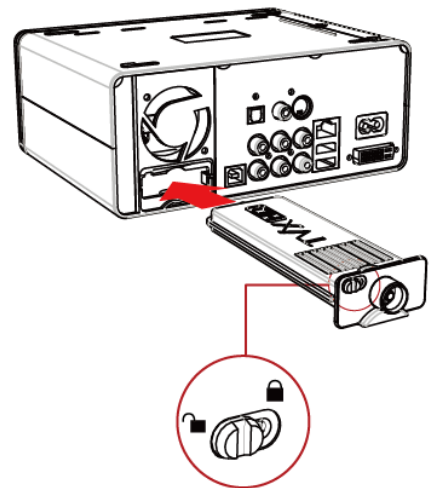
- ① Separate Tuner Cover from TViX.

(You can easily detach the Tuner Cover from TViX body using coins.

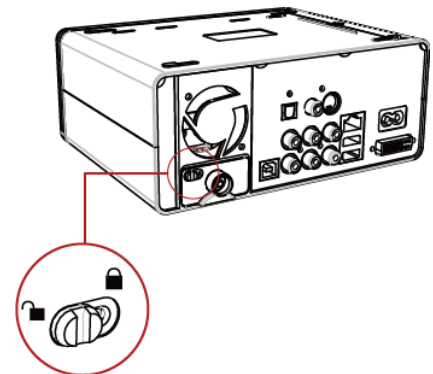
After slightly pushing the tuner cover in the direction of an arrow mark, please pull the tuner cover.)



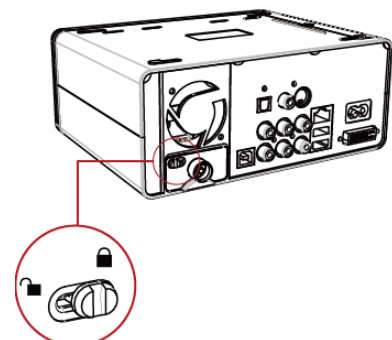
- ② Insert the tuner turning tuner box's bottom toward upside.
(Please notice the sticker marked on the tuner box) The locking knob should be "OPENED"



- ③ Insert inside. The locking knob should be "OPENED".



- ④ After inserting inside, please change the locking knob to "LOCKED".



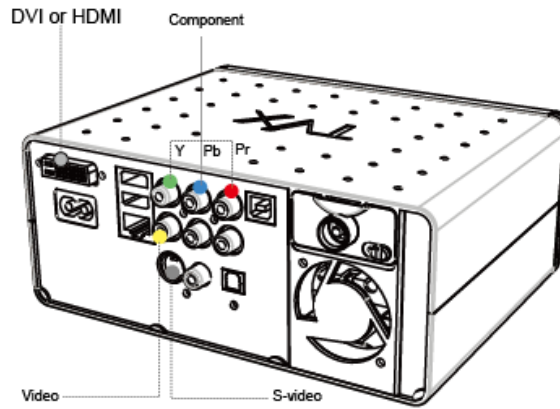
2. Video/Audio Connection

Connect the audio and video cables from the TViX's output jacks to the TV input jacks.

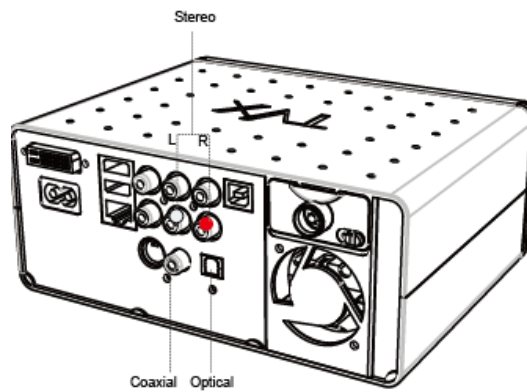
Please refer to 3.2 Video Connection and 3.3 Audio connection on the TViX 4000 series manual.

You can download the latest manual on the tvix homepage. (www.tvix.co.kr/eng)

VIDEO Connection

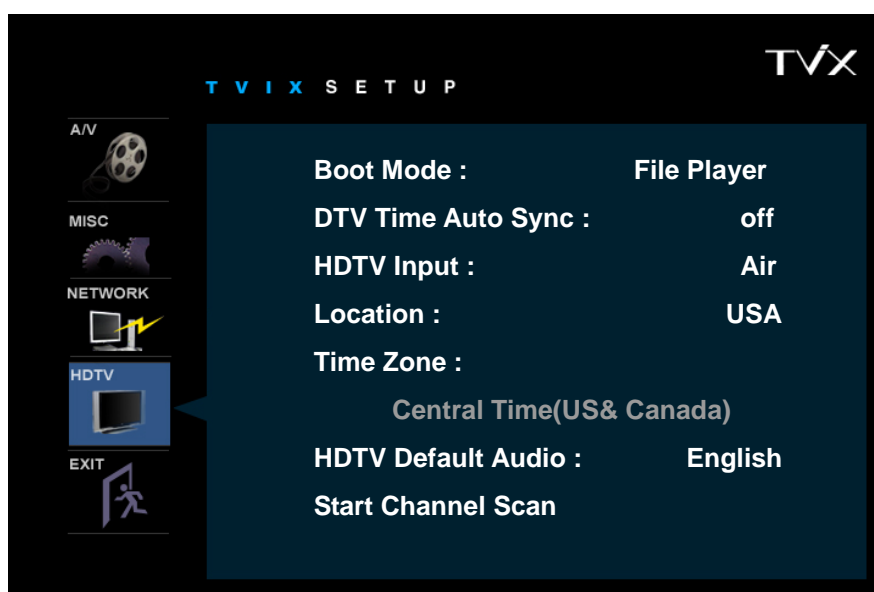


AUDIO Connection

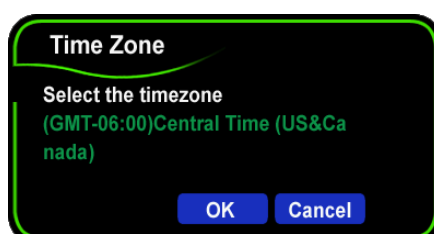


3. TViX HDTV SETUP Setting

The HDTV setting can be shown on the screen when the tuner is connected.



- boot mode : Select HDTV to start in HDTV mode or File Player to start in File mode (main menu).
If the HD tuner is not connected, TViX will start in file mode automatically.
- DTV Time Auto Sync : is used to adjust the EPG time and VFD time. VFA time is changed to real EPG time.
- HDTV Input : Select your input. This model is supports free-to- air ATSC digital only.
- Location : Select your location.
- Time Zone : If you want to use exact EPG guide, you have to configure your time zone using Up/Down button.



- HDTV Default Audio : select default audio.
- Start Channel Scan : Press this menu if you want to scan the channel.

Using TViX HD TUNER

1. Channel scanning

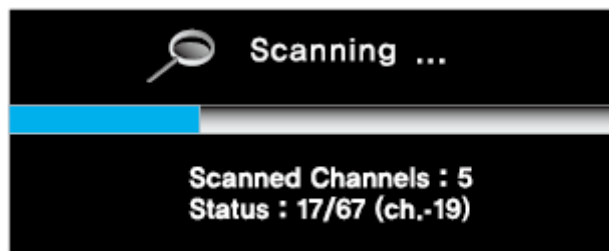
① Before you can use any of the special channel buttons, the available channels must be scanned and memorized.

Press DTV button on the remote control, and the Tuner LED lights.

② HDTV Tuner will scan and store all of the digital (DTV) channels that are available in your local area automatically.

If you want to scan the channel manually, you can use Start Channel Scan option on the SETUP-HDTV menu.

③ It takes about 2~3 minutes



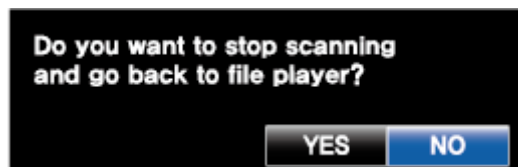
④ To stop the scanning, press STOP(■) button on the remote control.



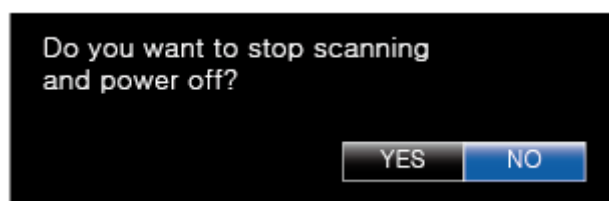
⑤ After scanning, you have to configure the time zone, If you want to use exact EPG guide, you have to set your time zone exactly.

⑥ If you press the VIDEO button on the remote control to change to file mode while scanning channels, the following message appears.

Press YES, and TViX is changed to file mode.



⑦ If you press power button while scanning, the following message appears. Press YES, and TViX will shut down.



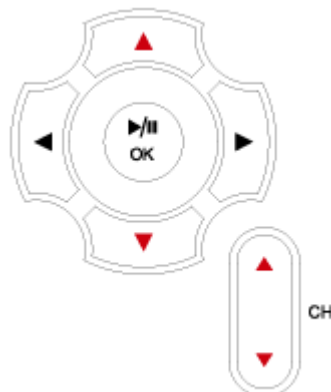
※ Checking Digital signal Reception

- ① Press the INFO button on the remote control.
- ② The Signal strength meter will appear on the left-bottom.
- ③ If signal strength meter indicates less than 14.9db, adjust your antenna to increase the signal strength. Continue to adjust the antenna until you find the best position with the strongest signal.

2. Changing the channel

Press CH +/- or ▲ ▼ button to change the TV channels.

You can also enter the channel number by using the numeric keypad on the remote and the channel will change after a few seconds.



3. Instant Record

This function records the current displayed channel.

- Select the desired channel to record while watching and then press the REC button to record.
You cannot change the channel while recording.
- Press the STOP(■) to stop recording, or, when the recording duration is reached, the TViX will stop recording.
- The recorded file is stored to the hard disk of the TViX in a folder named DTV_REC
The file is saved with a name of the form “YY-MM-DD day station named AM/PM HH:MM.tp”
The hard disk must be used under the NTFS file system. If the FAT32 file system is used, an error message appears.



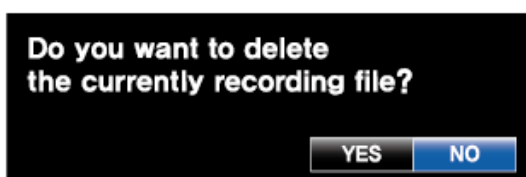
- Each press of the REC button changes the recording duration in the sequence shown below.
Free Space->30min->45min->60->75->90->105->120->150->180->210->240. When recording, you can see red-round OSD on the left-top of the screen.
You can also add recording time by pressing the REC button during instant Record.



- When recording, if the available storage space lacks, the recording will automatically stop.
- When recording, Press the INFO button on the remote control, and you can see Disk info/file size/Elapsed recording time.



- To delete the schedule list, Press BOOKMARK button and delete the scheduled list.
- To cancel a current recording, Press the CAPTURE/DELETE button on the remote control, and recording is canceled and the file is not stored.



- If you press the power button while recording, you will see the following OSD. Press YES, and the file to the present time is stored and the TViX will shut down.



- If available hard-disk space is less than 50MB, recording will not work. If available hard-disk space is 10MB or lower when recording is in progress, it will stop automatically and show “No space” on the OSD.

Record Notice

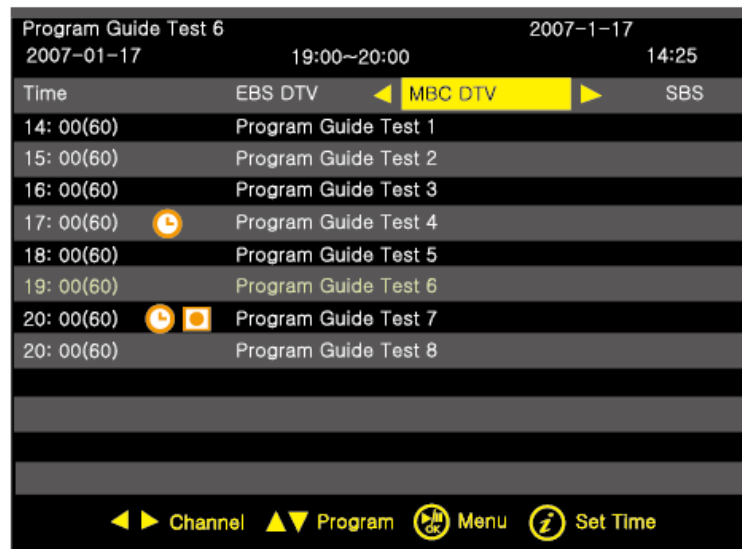
- The first partition of the internal hard disk must use the NTFS format. FAT32 format can cause an error message.
- When the signal is weak or unstable, recording cannot work properly.
- When the hard disk is unstable, recording cannot work properly. So you must sometimes run Check Disk.

4. Using HDTV EPG Guide

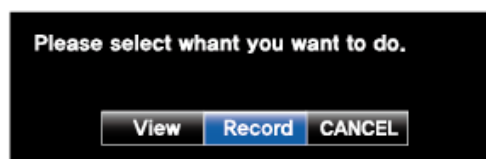
HDTV EPG(Electronic Program Guide) shows the stream guide of real time.

You can use the scheduled recording and scheduled watch using this EPG window.

If you want to use this EPG guide, you must view the digital channels in advance. Press GUIDE button.



- Select the desired channel to record or watch and then press the View or Record button to schedule.



- If you select another channel with present time, channel will be changed.
- Press INFO button and VFD time is changed to EPG time to schedule with exact time.
- To check the schedule list, Press BOOKMARK button. You can delete the list on this window.

5. Manual Recording

- ① Manually scheduled recording is available in the DTV mode.

Scheduled times are based on the TViX internal clock, as shown on its VFD, so please adjust it to the correct time under the setup menu. Press BOOKMARK-MENU button.

- ② You can set Date/Time/Duration/channel in this menu. Press the CH button to change the station.

The cycle option is depending the day of the week.



③ To Edit/delete the scheduled list, press the BOOKMARK button on the DTV mode. Press the up/down button to select a specific listing and then you can edit or delete it by pressing the OK or DELETE buttons. Press stop or BOOKMARK button on the remote control to exit the list.



④ The TViX will automatically start 5 minutes before a scheduled recording time.

If you set schedule on 4 o'clock, your TViX will be turned on 3:55 as scheduled recording. Therefore, you need to shut down the TViX before 3:54.

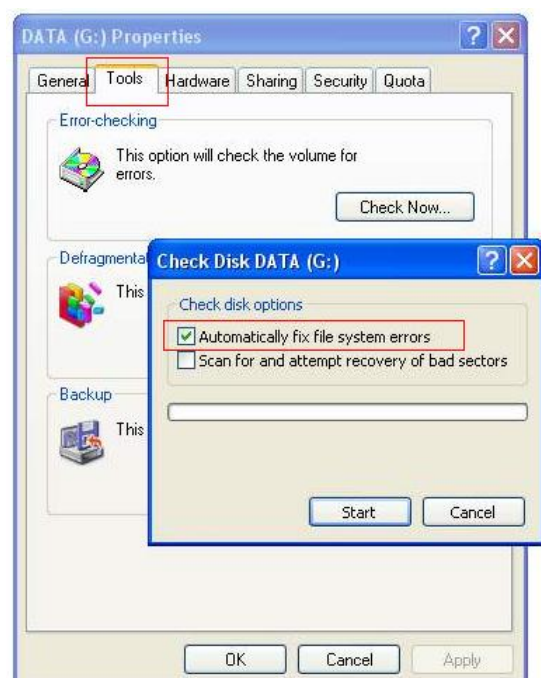
6. Using Check Disk

To delete files or folders, you must sometimes run the Check Disk.

The TViX player will show the following message when you need to check the hard disk.



- ① Connect the TViX to the PC's USB port.
- ② Select the TViX hard disk -properties-Tools-Check now. You must select the hard disk without showing its contents in Windows Explorer, or Check Disk cannot run on it.
- ③ Check "Automatically fix file system errors"
- ④ You normally don't need to check the Scan for and attempt recovery of bad sectors option.



Extra Features

● INFO button

- First Press : Show station name and signal strength. While recording, show file name and disk space.



- Second Press : Show signal strength only.
- Third Press : Information off

● SETUP button

Picture adjustment. Contrast-->Brightness-->Saturation. You can change the level using the direction keys.



● Go to previous Channel

Press the REPEAT button to jump back to the previously tuned channel.

● Scheduled List/BOOKMARK button

Press the BOOKMARK button to see the reservation list while in the HDTV mode, as in the image below.



To delete the reservation list, Press the list and select delete button.



In the file mode, the GUIDE button opens the recording schedule for editing.

● **VIDEO button**

Changes from HDTV mode to file mode. Please refer to the TViX 4000 manual for operation in file mode.

● **AUDIO button**

Changes to second audio when the program has multi audio.

● **ZOOM button**

- 4:3 ratio TV : Full screen→Letter Box→Pan/Scan
 - Letter Box : Choose this when receiving a 16:9 image and you want to see the original wide format.
 - 4:3 Pan & Scan : Choose this when you want the TV to adjust the 16:9 image vertically so it fills your 4:3 screen.
- 16:9 ratio TV : Full screen→zoom1→Zoom2

The availability of changing the screen format feature depends on the resolution selected and the current broadcasting signal format.

● **OK button**

Press OK button, and you can see current program information for about 3 seconds.

● **Sleep function**

When using the HDTV mode, you can configure the sleep time 30->60->120->180->240->OFF using the Function Key.



- If the sleep time is reached when the recording is in progress, TViX will shut down after finishing the recording. (If the record time is "Free Space", TViX will record until the hard disk space is exhausted and then shut down.)
- SLEEP ON blinks for 30 seconds before turn off.

● **Scanned channel / Delete Channel button**

• GOTO button : Shows the scanned-channel list.
 To delete scanned channel, press CAPTURE/DELETE button or press OK button on the channel and then delete the channel. To exit this mode, press GOTO button again.



Using Remote

