

TIVAX

Innovation for all

DIGITAL TV CONVERTER

USER MANUAL



STB-T9

Tivax Digital TV Converter User Manual- Important Safety Instructions

The Tivax Guarantee

Tivax is dedicated to bring the world of digital television to you, no matter if your TV set is an older model. For questions or technical issues, please visit: www.tivax.com

WARNING

- TO PREVENT FIRE OR SHOCK HAZARD, DO NOT USE THIS PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PRESENT BLADE EXPOSURE.
- TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE
- TO PREVENT ELECTRICAL SHOCK, MATCH WIDE BLADE PLUG TO WIDE SLOT FULLY INSERT.

CAUTION

Risk of Electric Shock Do not open

Caution: To reduce the risk of electric shock, do not remove cover (or back). No user- serviceable parts inside. Refer to qualified service personnel.



This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

Dolby Digital Certification



Manufactured under license from Dolby Laboratories. "Dolby", and the double-D symbol are trademarks of the Dolby Laboratories.

Caution: Do not alter or change the construction of this device without written authorization from Tivax, Inc. Furthermore, any unauthorized alteration of this device without written approval by Tivax, inc. will void any warranty and the owner's right to operate this device.

Note: This equipment has been tested and found to comply with the limits for a Class B Digital Device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This device generates, uses and also radiate radio frequency energy and, if not installed in a proper manner and used in accordance with the instructions provided in this manual, may cause harmful interference with other equipment.

In addition, Tivax does not warrant that interference will not occur when properly installed. If the device does cause interference with other equipment please defer to this manual for suggestions. Options include moving the device or re-orienting it away from equipment.

Important Safety Information

Always use care when using your Tivax. To reduce the risk of electrical shock, fire, or other possible injuries, always keep safety in mind when operating your Tivax

- ✓ Read all safety instructions and warnings before operating your Tivax receiver
- ✓ Keep this manual for future reference
- ✓ Do not use your Tivax near water or anyplace where it may make contact with water, such as swimming pools, sinks, etc.
- ✓ When cleaning your Tivax, always unplug for safety. Do not use liquid cleaners as they may affect the electronics. Instead, use a dry cloth.
- ✓ Your Tivax generates a small amount of heat, so do not block the vents or inhibit normal air circulation. To protect your Tivax from overheating, place it on a flat smooth surface, such as a shelf. Avoid placing it on rugs or other surfaces where air circulation may be blocked.
- ✓ Your Tivax comes with a standard polarized plug (one blade is wider than the other, with a third plug for grounding). Use outlets designed for this type of plug for your safety. If your outlet is not compatible with this plug please consult an electrician.
- ✓ Do not pinch, cut or crimp the electrical cord.
- ✓ Use only UL Certified antennas with your Tivax
- ✓ Unplug your Tivax during storms or when not used for long periods of time to protect from lightning or power surges
- ✓ Operate your antenna according to the safety standards recommended by the antenna manufacturer. When installing a rooftop or outdoor antenna, be sure to ground it to protect your Tivax and other indoor electronic equipment from power surges and lightning.

WARNING: The mains plug is used as disconnect device, the disconnect device shall remain readily operable.

WARNING: The battery (battery or batteries or battery pack) shall not be exposed to excessive heat such as sunshine, fire or the like.

☐ Double Insulation. This is CLASS II apparatus.

Welcome to the world of Digital TV

Welcome to the world of Digital TV

All set top boxes (STB) have been tested in the factory for proper operation. In case you experience any problems, please follow these simple steps to troubleshoot your problems.

Please make sure your TV and STB are plugged in and powered up, and that the STB is properly connected to your TV by either a RF cable or a A/V cable set (red white yellow connectors on each end) following the guideline below. Don't forget to properly insert batteries into the remote control unit.

Connection option RF:

The STB can be operated in RF mode to connect to your TV. In this case the RF-OUT connector of the STB connects to your Antenna Input on your TV. Your TV must be tuned to either channel 3 or 4 and the STB needs to be set to the corresponding channel selected on the back of the STB by utilizing the small slide switch.

Connection option A/V:

If your TV is equipped with an A/V input, sometimes referred to as AV1 or AVin, Then you may want to choose the A/V connection for a better quality picture. A RF connection as described above has some inherent limitation and a somewhat lower quality than A/V.

Please make your connection before turning on your devices and plug in the yellow terminated cable to the AV-in on your TV and the AV-out on the STB. Similarly, connect the red and white terminated cable to the corresponding Audio-in on your TV and Audio-out on the STB.

Once a connection utilizing option RF or option A/V is made turn on your TV first and then your STB. The STB is turned on by pressing the power button on the front, or using the remote, power up the STB. You should see a logo come up on your TV as the STB turns on.

Since channel programming is different in various regions, you must set up your set top box with your channels by using the auto scan feature.

Make sure a suitable antenna is connected to the antenna input, labeled as RF-In on the STB, and after turning on your TV and STB, press the Menu button on your remote. Use the cursor keys around the OK button to move the highlighted field to Auto Program and press OK. You may need to reorient your antenna to achieve best results. If you have an external antenna, it may have already been oriented such that it point to the transmitter stations.

To help in orienting your antenna, a signal strength indicator can be turned on in the STB. Use the menu button and select signal strength or signal quality item to display a signal quality bar on the screen.

Although digital TV will give a very clear picture when a signal is received in sufficient strength, a weak signal will result in dropouts or no picture at all. Analog stations would just be received with noise in the sound and snow in the picture, Digital transmissions will dropout or have large blocks of images missing if the RF signal is of insufficient strength or quality. Reorienting your antenna or getting a better quality antenna may solve this problem. Some experimenting may be required to obtain the best results.

Thank you for choosing a Tivax Set Top Box and enjoy the new world of Digital Television.

Table of Contents

Tivax Digital TV Converter User Manual- Important Safety Instructions	1
Important Safety Information.....	2
Welcome to the world of Digital TV.....	3~5
Tivax Set Top Box User Manual - Let's Get Started.....	7~9
How to Receive the Best Digital TV Signal with Your Antenna.....	10
1.1 Remote control	11
1.1.1 Installing the batteries.....	12
1.1.2 Using the remote control	12
1.2 Front Panel and Rear Panel Illustration	13
1.2.1 Front Panel.....	13
1.2.2 Rear Panel	13
1.3 Connecting your Atsc Converter Box.....	14
1.3.1 Connecting Antennas.....	14
1.3.2 Connecting to a TV Set.....	15
1.3.3 Connecting to an Audio System.....	16
2.On-Screen Menus.....	17
2.1 Auto Program.....	17
2.2 Manual Channel Set.....	18
2.3 Password	18
2.4 Parental control	18
2.5 Advanced Closed Caption.....	19
2.6 Language.....	20
2.7 Auto Power Down Timer.....	20
2.8 Smart Antenna.....	20
2.9 Time Zone.....	20
3. Troubleshooting	21
4. Specifications	22
5. Glossary.....	23
Tivax Limited Warranty To Original Purchaser.....	24

Tivax Set Top Box User Manual - Let's Get Started!

Congratulations on purchasing your Tivax Set Top Box!

Now you can start to receive the amazing world of Digital Television on your analog TV.

First please read these simple questions.

Question #1: What is a Tivax Set Top Box?

Answer: It is a special receiver that interprets FREE Digital TV signals into analog TV signals.

Question #2: If I can get ABC® or CBS® on my cable or satellite, why do I need a Tivax?

Answer: Because you are only getting a FRACTION of the FREE signals. Cable and satellite providers are not required to give you all FREE Digital TV signals. Why should they? You might be very pleased with better quality FREE Digital Television. That's the "secret" many people do not know. Tivax gives you immediate access to FREE Digital Television signals at no extra cost!

Question #3: If I already have cable or satellite, do I still need a Tivax to receive the FREE Digital Television signals?

Answer: Unless you have a Digital TV set, YES. Don't worry. You can combine your Tivax with your cable or satellite receiver. We'll show you how.

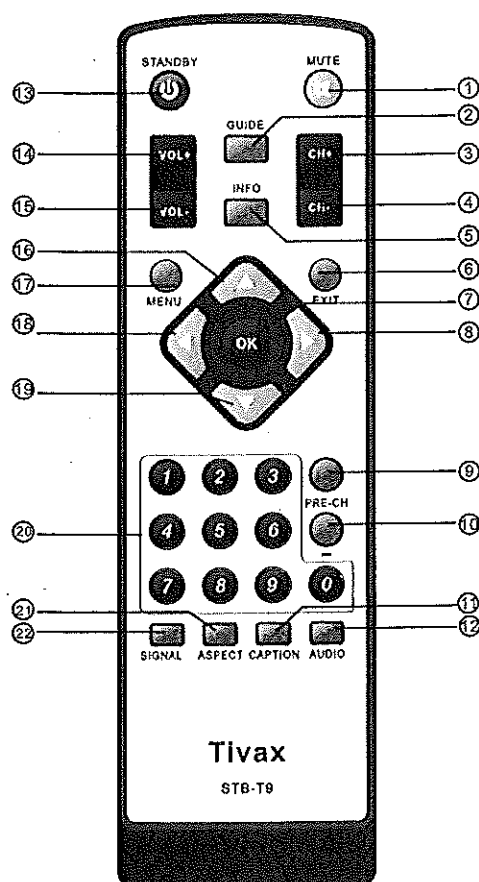
Question #4: Do I need an antenna to receive FREE Digital television signals?

Answer: Yes. Digital TV is just like old-fashioned Analog TV, only better. You still need an antenna to get the signal. Just about any antenna will do, but an antenna designed for Digital TV is better. While some antennas are better than others, it also depends on where you live. If you cannot receive Analog TV signals, you will not be able to get Digital TV signals. This is very important as your Tivax will not work.

Question #5: How do I test my TV to see if I can use my Tivax?

Answer: This is very easy. Simply disconnect your Analog TV from your cable or satellite receiver. Connect the antenna to your Analog TV. If you can receive a picture, your Tivax will work. Don't worry if the picture is not perfect. That's another special feature of Digital TV. It's BETTER! Digital TV signals don't have the same problems Analog TV signals do. That's why this new standard is so much better!

1.1 Remote Control



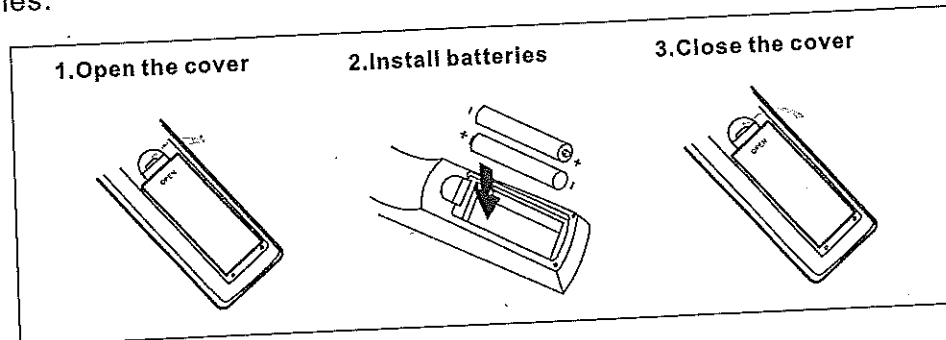
Remote Key Function:

1. **MUTE:** Press to mute or unmute the audio output.
2. **GUIDE:** Press to display the on-screen Electronic Program Guide (EPG).
3. **CH+:** Press to change the channels in non-menu state.
4. **CH-:** Press to change the channels in non-menu state.
5. **INFO:** Press to display information about the channel being viewed.
6. **EXIT:** Press to completely exit from the on-screen menus.
7. **OK:** While using the on-screen menus, press ENTER to activate (or change) a particular item.
8. **►:** Press to move around the menu screens
9. **PRE-CH:** Press to return to the previous channel you viewed.
10. **-:** Press to input dash to select a channel, for example 14-1.
11. **CAPTION:** When a digital signal is received, Service1, Service2,... or Service6 can be selected. When an analog signal is received, CC1, CC2, CC3, or CC4 can be selected.
12. **AUDIO:** Press to select the available multi-tracks. (Depending on the particular broadcast, one or more foreign language translations might be available.)
13. **STANDBY:** Press to turn the Converter Box on or standby.
14. **VOL+:** Press to increase the output volume level.
15. **VOL-:** Press to decrease the output volume level.
16. **▲:** Press to move around the menu screens
17. **MENU:** Press to display the main menu or to switch back to the previous menu screen that was displayed.
18. **◀:** Press to move around the menu screens
19. **▼:** Press to move around the menu screens
20. **NUMBER KEYS:** Press to directly tune to a particular channel or input digits in menus.
21. **ASPECT:** Press to change the screen format (Normal/ Zoom/Wide/Cinema) according to the screen aspect ratio and the input signal format.
22. **SIGNAL:** Press to show the signal strength.

1.1.1 Installing the Batteries

Remove the battery cover from the remote control and put 2xAAA size batteries inside the compartment.

The diagram inside the battery compartment shows the correct way to install the batteries.



1.1.2 Using the Remote Control

To use the remote control, point it towards the front of the Digital Converter Box. The remote control has a range of up to 7 meters from the Digital Converter Box at an angle of up to 60 degrees.

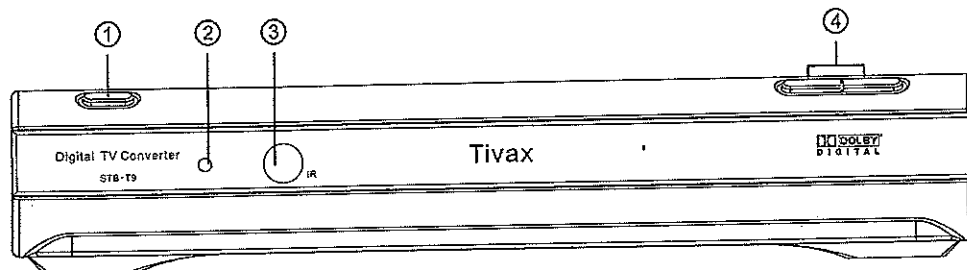
The remote control will not operate if its path is blocked.



Sunlight or very bright light will decrease the sensitivity of the remote control.

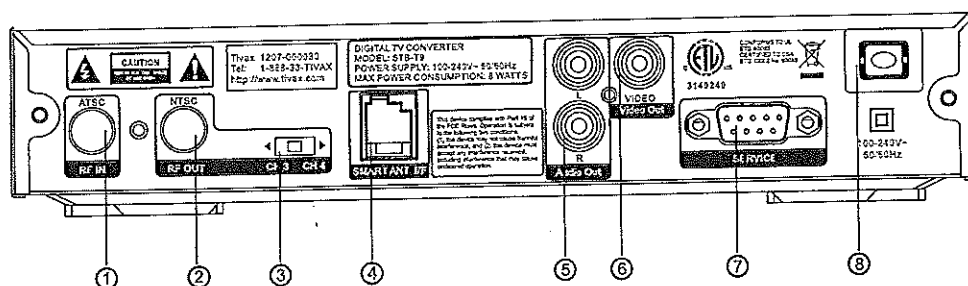
1.2 Front Panel and Rear Panel Illustration

1.2.1 Front Panel



- ① **STANDBY BUTTON:** Used to turn the set top box on or standby.
- ② **STANDBY INDICATOR:** Used to visually show power state of the Digital Converter Box, the red LED will be on if the Digital Converter Box enters standby mode.
- ③ **REMOTE CONTROL SENSOR:** Used to receive the signal from the remote control.
- ④ **CHANNEL UP/DOWN:** Used to change channels in the non-menu state.

1.2.2 Rear Panel



- ① **RF IN :** Connect the antenna or CATV cable here.
- ② **RF OUT:** This socket transmits the NTSC CH3/4 RF signal to your TV ANT in socket.
- ③ **CH3/4 SWITCH:** Select NTSC channel (Channel3, Channel4).
- ④ **SMART ANT I/F:** Connects to an external smart antenna.
- ⑤ **AUDIO L/R:** Connect these terminals to the analog audio inputs of a TV set (i.e., to a TV that has jacks for L/R inputs). Or connect these terminals to the L/R inputs of a separate audio component.
- ⑥ **Video output:** Connect this jack to the Video Input jack on your TV using an Audio/Video cable. This output port supports only the SD output.
- ⑦ **SERVICE:** Future use for software upgrade.
- ⑧ **MAIN POWER:** Connect to main power supply using the power cord.

1.3 Connecting The Digital Converter Box

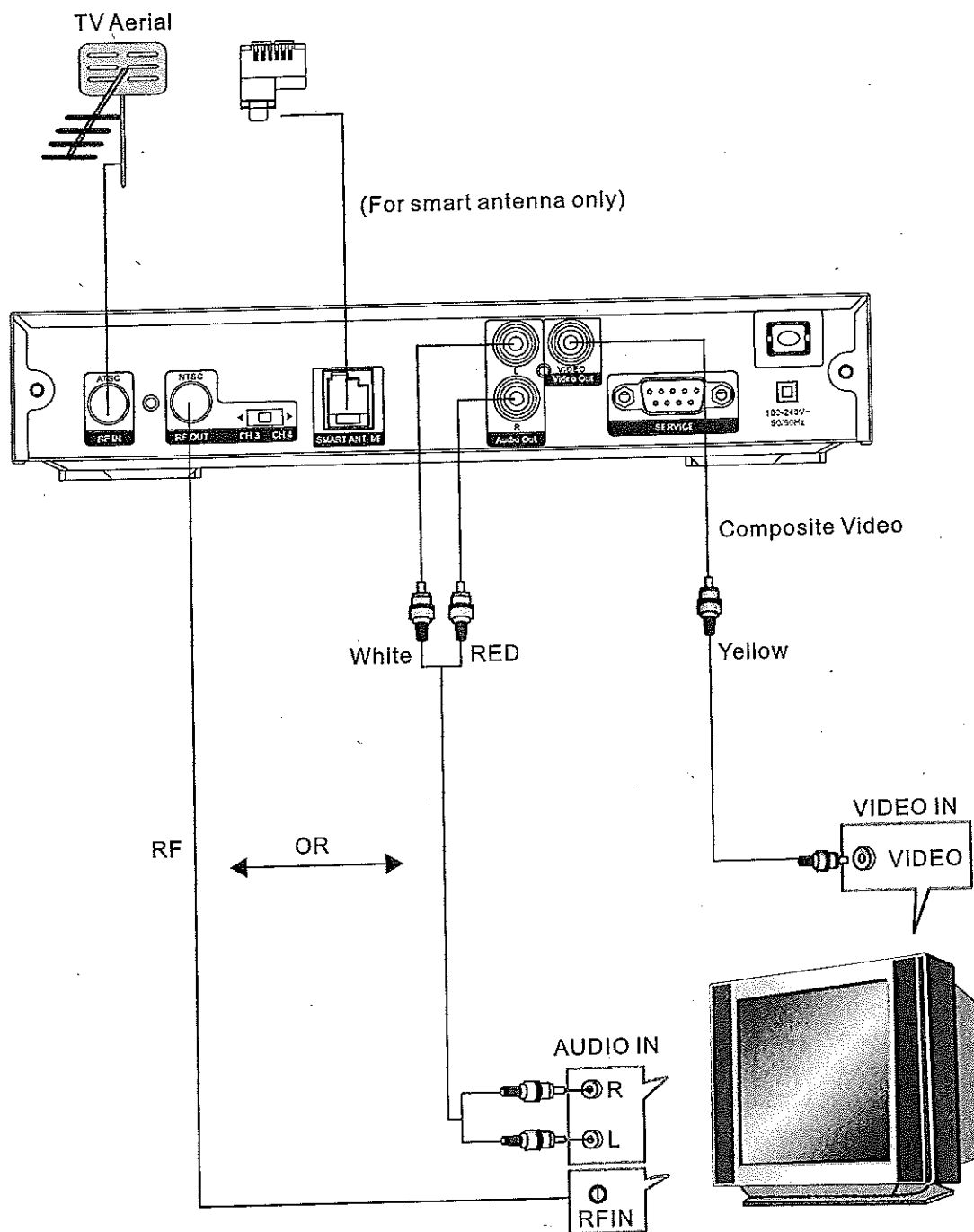
1.3.1 Connecting Antennas

This section tells how to connect an indoor or outdoor antenna to your Digital Converter Box. You may need a 75 Ω adaptor or a combiner.

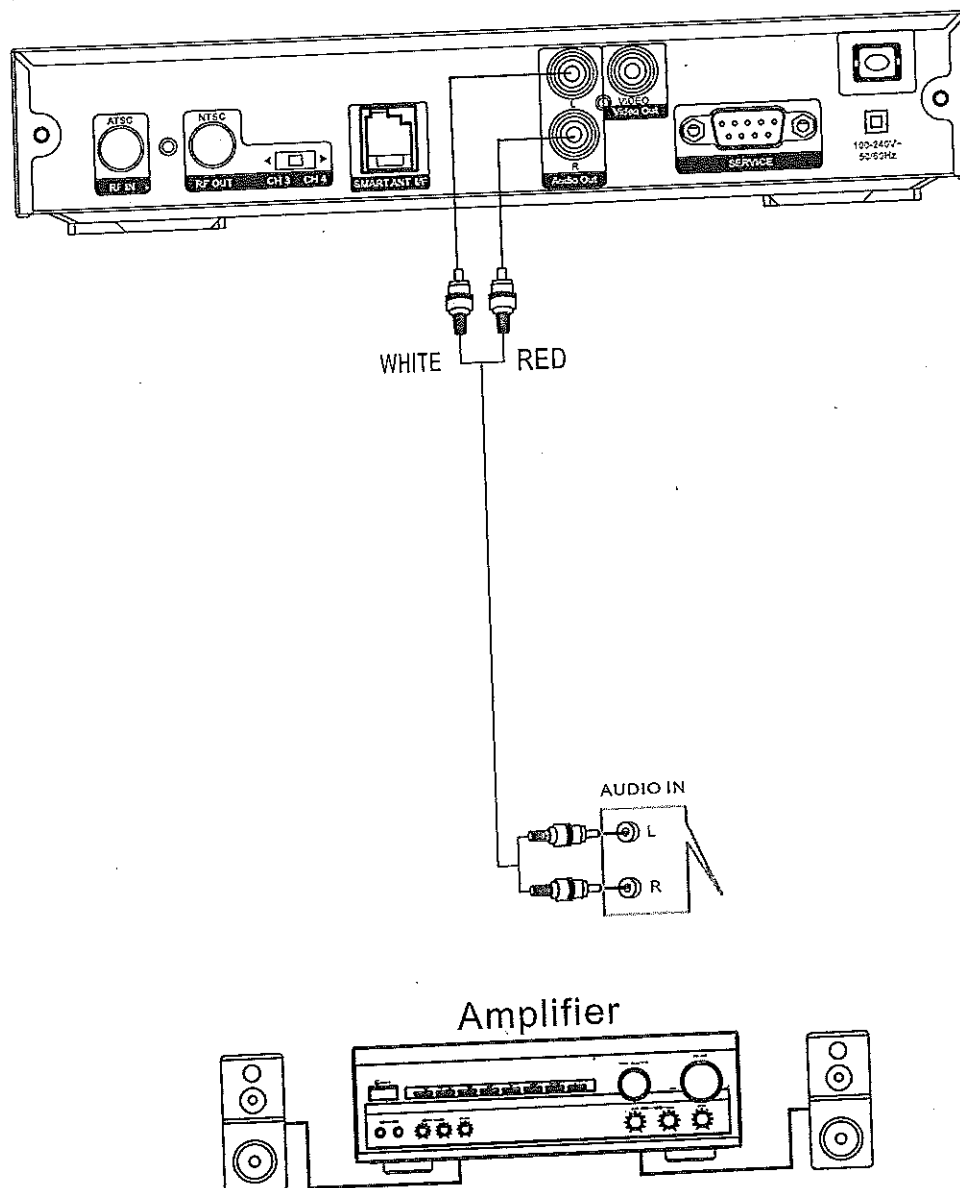
NOTES:

- A. If your antenna has separate leads for VHF/UHF signals, you will need to purchase a combiner to combine it before connect to the receiver.
- B. The Digital Converter Box can receive DTV signals in the event that a local cable provider is passing 8VSB through on their system. (8VSB is the RF modulation format utilized by the DTV(ATSC) digital television standard to transmit digital bits over the airwaves to the home consumer.)
- C. When receiving digital cable signal : If your cable service signal does not comply with the ATSC requirement, this product may not operate properly.

1.3.2 Connecting to a TV



1.3.3 Connecting to an Audio System



2. On-Screen Menus

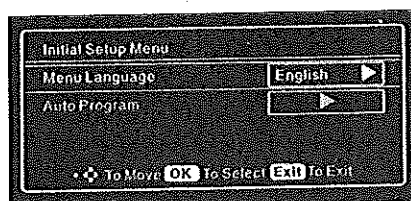
Ensure all connections have been made following the diagrams on the previous pages for reference.

When you plug the power cord of this set-top box into a power outlet, the box will be turn on for the first time.

Press **STANDBY** button on the front panel or remote control will switch the set-top box to or from standby mode.

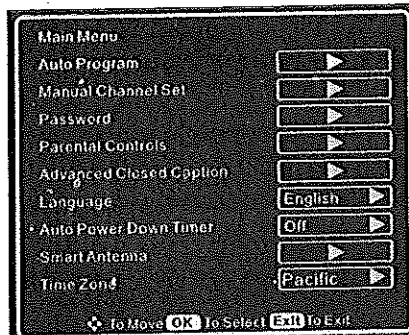
Turn on the TV set and switch it to external AV mode, you will see the picture come from the box.

If it is the first time you use this device, an Auto Program menu appears to let you to scan all the available channels in your area.



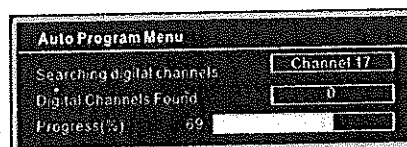
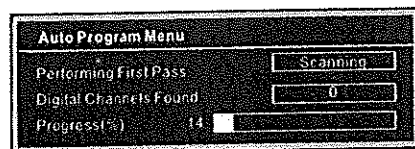
Main Menu

Press the **MENU** button on the remote control, the main menu will display as below. the **Auto Program** focus is highlighted as default.



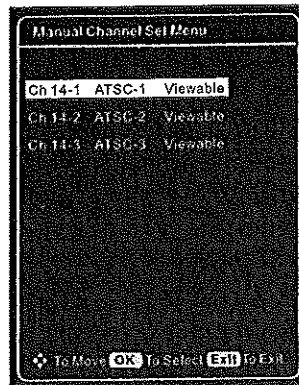
2.1 Auto Program

If it's the first time you use the box, you should scan all the TV channels first, press the arrow buttons to move the cursor to **Auto Program** in main menu, press the **OK** button to confirm, you will see below menu which indicates auto search is in process. After all channels in your area are found, you will see the first found channel showing on the screen. Any time if you want to start auto channel search again, you can follow the above procedure.



2.2 Manual Channel Set

You can highlight this item and press **OK** button to confirm it, you will see below menu showing on screen. You can specific the selected channel "Viewable" or "Not viewable", the not viewable channels will be skipped when you do zapping next time.



2.3 Password

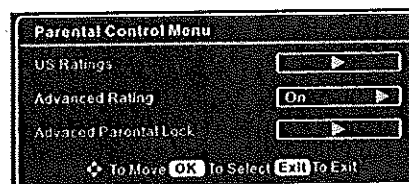
When this item is highlighted, press the **OK** button will enter the **Enter Old Password** menu as below.



When you entered the correct password (the default password is 5555), the **Enter New Password** and **Confirm New Password** will pop up sequentially, if the new input passwords verified successfully, the **Password Changed** message will pop up in the right up corner.

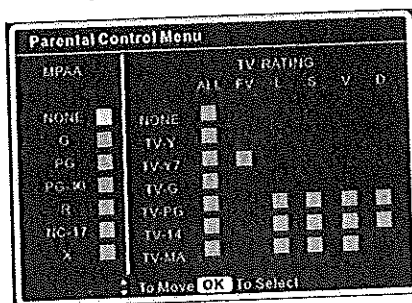
2.4 Parental Control

When this item is highlighted, press the **OK** button will enter the **Enter Password** menu, you will enter the **Parental Control Menu** as below if the password you entered is correct. You will be allowed to download the **RRT (Region Rating Table)** in the **Advanced Parental Lock** option if you switched on the **Advanced Rating** option, then blocking of programs shall occur when a program rating is received that meets the pre-determined user requirements. You will see **Not Available At This Time** if no downloadable RRT available.



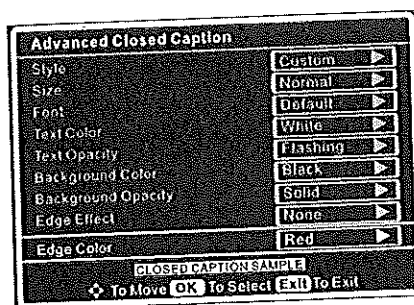
This device support 2 rating systems used in the United States:
 1), **The Motion Picture Association of America's (MPAA)** ratings include the following ratings: **G**(General Audiences-All Ages Admitted), **PG**(Parental Guidance Suggested. Some Material May Not Be Suitable For Children), **PG-13**(Parents Strongly Cautioned. Some Material Maybe Inappropriate For Children Under 13), **R**(Restricted, Under 17 Requires Accompanying Parent Or Adult Guardian), **NC-17** (No One 17 And Under Admitted).

2), **The TV Rating system** include the following ratings: **TV-Y**(all children) and **TV-Y7**(directed to older children), **TV-G** (general audience), **TV-PG**(parental guidance suggested), **TV-14**(parents strongly cautioned), and **TV-MA**(mature audiences only). The letters **FV**(Fantasy Violence), **V**(moderate Violence), **S** (mild Sexual situations), **L**(mild coarse Language), **D**(mature themes suggestive Dialogue) were added to indicate the presence of violence, sex, language, suggestive dialogue respectively.



2.5 Advanced Closed Caption

When this item is highlighted, press the **OK** button will enter the **Advanced Closed Caption** menu as below.



If you choose the **Style** as **Automatic**, the caption **Size/Font/Text Color/Text Opacity/Background Color/Background Opacity/Edge Effect/Edge Color** will be set to **Automatic** also, and you will see help information **DECIDED BY BROADCASTING** at the bottom of the menu.

If you choose the **Style** as **Custom**, you will see help information **CLOSED CAPTION SAMPLE** at the bottom of the menu, you can change all above caption related parameters separately as you wish.

2.6 Language

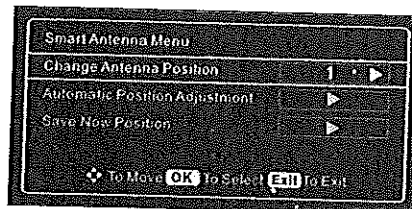
When this item is highlighted, you can press **OK** button to change the OSD menu language as you want, there are 3 options: **English, Spanish, French.**

2.7 Auto Power Down Timer

When this item is highlighted, press the **OK** button you can choose the options: **Off, 2 hours, 4 hours.** The receiver will enter standby mode according to the specific setting if the latter 2 options were chosen.

2.8 Smart Antenna

When this item is highlighted, press the **OK** button you can enter the below menu if a smart antenna is presented at the rear panel of your box,



If the smart antenna not presented you can not enter above menu, you will see below **No Smart Antenna Detected** message.



2.9 Time Zone

You can change the **Time Zone** as: **Alaska, Hawali, Eastern, Central, Mountain** and **Pacific.**

3. Troubleshooting

Q: It takes a while to display picture on the screen after turning power on or after changing channel.

A: It will take several seconds for this receiver to show the logo or picture after power on since the system have to finished the initialization of the main chip and demodulator. In case of digital broadcasting, it could take 1 to 2 seconds to receive data. Therefore, it is not a faulty receiver if the picture display is delayed.

Q: There is no picture on the screen.

A: Make sure the power is on.

Make sure the cable between the receiver and the TV is connected properly.

Make sure the TV's external video input mode is selected correctly.

Make sure the video output is selected correctly.

Make sure the antenna is positioned correctly.

Try turning the receiver off and then back on again.

Q: Poor video quality or screen flickering.

A: This is a result of a poor broadcast signal.

Rotate the antenna to a different direction.

Q: No Sound.

A: Make sure the cable between the receiver and the TV audio jack or your audio system is connected properly.

Try pressing the MUTE button on the remote.

Try pressing the VOL+ button on the remote continuously.

Try turning the receiver off and then back on again.

Q: The remote control does not work.

A: Make sure there is no obstruction between the remote controller and the remote sensor of the receiver.

Make sure the distance and degree is not out of range.

Check to insure the batteries are installed correctly.

Install a pair of new batteries.

4. Specification

Product Name

Digital TV Converter

Power Supply

Input Voltage: 100 - 240V~ 50/60Hz

Power Consumption: Maximum 8W, Standby <1W.

Decoder

Video Format: Standard definition CVBS.

Audio Format: Dolby Digital audio

R F Signal Input/Output

ATSC Antenna/Cable RF In: F-Connector

NTSC Ch3/4 RF out: F-Connector

Antenna Impedance: 75 Ohms

Channels: VHF 2 -13 , UHF 14 - 69

Smart Antenna interface

Video Outputs

Composite Video Output for standard analog sets: RCA Connector

Audio Outputs

Analog Audio Outputs (L/R): RCA Connectors

Service

Software upgrade through RS-232 port: 9 pin D-Sub type