



TERRA X

Digital Terrestrial
Receiver

User's Manual

1. Introduction

1.1 Overview

This terrestrial receiver was designed for digital free-to-air (unencrypted) signals. It enables you to tune in on the hundreds of digital television and radio channels broadcasting to your region, with the highest video, audio and data quality attainable with current technology. It performs numerous functions to provide you with a variety of services.

1.2 Main Features

- Fully Compliant with MPEG-2 and DVB-T Standards
- Digital Audio Output (S/PDIF)
- Built-in Teletext Decoder (STV/VBI)
- Multiple OSD Language
- MPEG-2 Video (MP@ML), MPEG-1 Audio Layer1, Layer2
- 3000 TV and 1000 Radio Programmable Channels
- QPSK, 16QAM, 64QAM demodulation
- Digital Tuner with Loop-Through Output
- Manual PID Insertion
- Direct Channel Selection from EPG
- 8 Colour OSG with 16 Levels of Transparency
- 4 digit 7 segment LED
- Variable Screen Aspect Ratio (4:3, 16:9)
- Favorite Channel and Parental Lock Functions
- RS-232C Port for Additional Information Service and System Software Upgrading

2. Safety/Precautions

2.1 Safety

- Be sure to read this manual before you start operating the unit.
- Do not touch the power cord with wet hands, as that may cause electric shock.
- Never open the cover. It is very dangerous to touch the inside of the unit, due to possible electric shock.
- Place the unit in an adequately ventilated and cool environment.
- When not in use for a long time, it is recommended that the power cord be disconnected from the mains. Also, make sure you do not use the unit with a damaged power cord, as this may cause electric shock or fire.
- A professional installation is required. If reception is interrupted, contact your authorized local service center.

2.2 Precautions

When installing the unit

- Install the unit on a level horizontal plane. Unleveled installation may cause damage to the unit.
- Do not put heavy items, such as a TV, on top of the unit. That may cause damage to the unit.
- Do not install the unit where:
 - it may be subject to vibrations
 - it is exposed to direct sunlight
 - there is humidity
 - temperature may be too high or too low
 - there is no adequate ventilation
- Moving the unit from a cold area to a hot one will cause condensation. In such a case, leave the unit to dry for a couple of hours, before you operate it.

3. Accessories

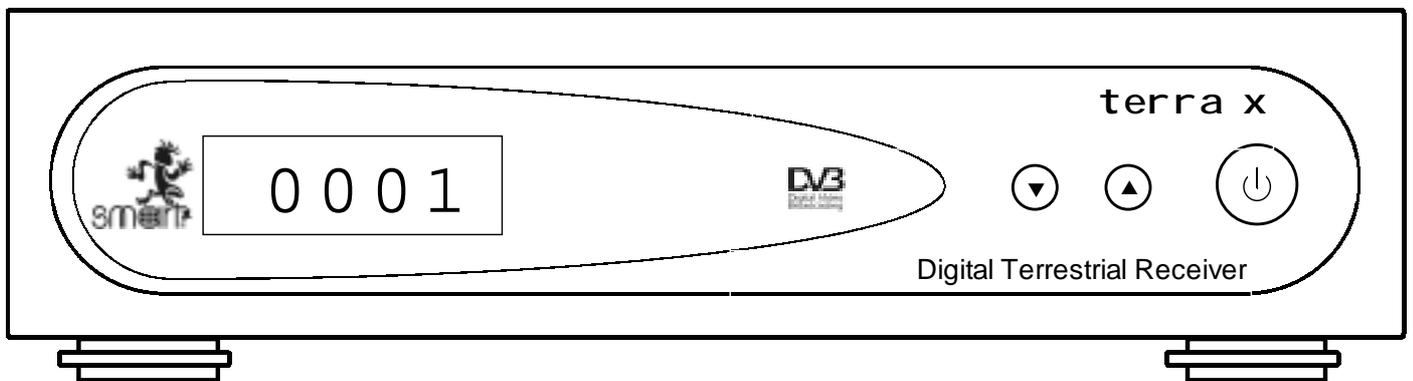
The following have been packed in your receiver box:

User's manual: 1 Pc.
Remote control: 1 Pc.
Batteries (AAA Type): 2 Pcs.
Scart Cable : 1 Pc.

* If any accessory listed above is missing, contact the point of purchase.

4. Controls/Functions

4.1 Front Panel



- Power Button

switches the receiver between “Stand-By” and “On” modes

- LED (4 Digit)

displays the time when in “Stand-By” mode and the channel number when the unit is operating.

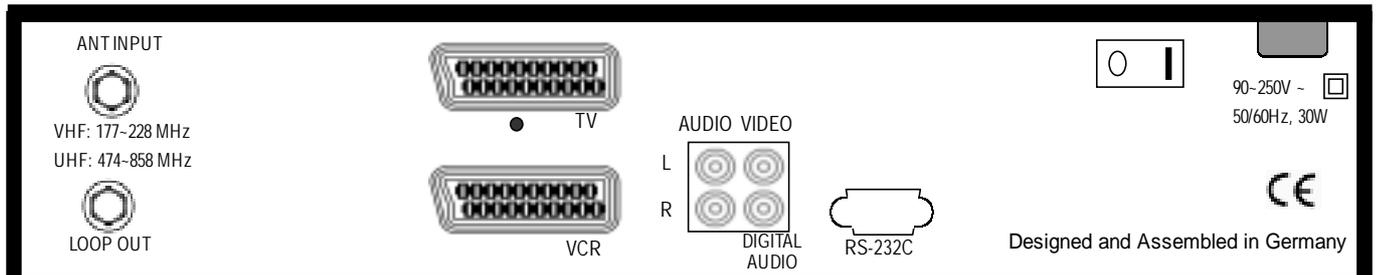
- IR Sensor

detects the infra-red command signals generated by the remote control handset

- Channel ▲ & ▼

move the cursor Up or Down in an application screen or change channels sequentially Up or Down in normal operation.

4.2 Rear Panel



- ❖ **ANT IN PUT:**
IF input from Antenna to digital tuner
- ❖ **LOOP OUT**
IF loop-through output from digital tuner
- ❖ **AUDIO-L**
Left audio output
- ❖ **AUDIO-R**
Right audio output
- ❖ **VIDEO**
Composite video output
- ❖ **DIGITAL AUDIO**
Digital audio output (S/PDIF)
- ❖ **TV SCART**
SCART output to TV
- ❖ **VCR SCART**
SCART output to VCR, analog receiver or Hi-Fi
- ❖ **RS-232C**
Low speed serial port

4.3 Remote Control Handset



- Power:** power: switches the receiver between Stand-By & On modes
- TXT:** displays the teletext contents of the viewed channel, if teletext is transmitted
- Mute:** mutes the audio output
- MENU:** accesses the main menu
- SETUP:** accesses the receiver set-up menu
- EXIT:** to return to previous status or menu
- INFO:** displays the available information on the viewed channel
- RECALL:** goes back to the previously viewed channel
- LANG** select sound mode or audio language
- TV/RADIO:** switches between TV & Radio channels lists
- CH (▲/▼):** change channels sequentially up or down in viewing mode and move the cursor up or down in an application screen
- VOL (↵/⇄):** alter the audio output level up or down in viewing mode and change the selected item's setting in an application screen
- OK:** selects an item or confirms a choice
- FAV:** to view your personal channel list
- EPG (Electronic Program Guide):** provides programme content information. Press again to return to viewing mode
- Numeric Keys (0~9):** for direct entry of channel number or input of alphanumeric characters

5. Using The Remote Control

5.1 Batteries

- How to insert the batteries

- . Open the cover at the top of the rear side of the handset
- . Insert two 'AAA' type batteries (1.5V), respecting the indicated polarity +/- signs
- . Close the cover

- When to replace the batteries

- . When the operational range of the handset gets smaller, or when the receiver no longer responds to each and every command. Always replace both batteries at the same time.

- Accident prevention

- . Do not recharge, heat or disassemble the batteries
- . Make sure the intended polarity alignment is respected
- . If the handset is not going to be used for some time, take the batteries out. If not, the batteries may leak and cause damage to the handset

5.2 Range Of Operation

- . The operating range of the handset is within +/- 30 degrees on both the vertical and horizontal planes of the Infra Red sensor
- . Transmission distance does not exceed 7m

* Notes

- When the handset is not operational

- Replace the batteries and make sure the receiver is connected to the power supply

- Abnormal operation

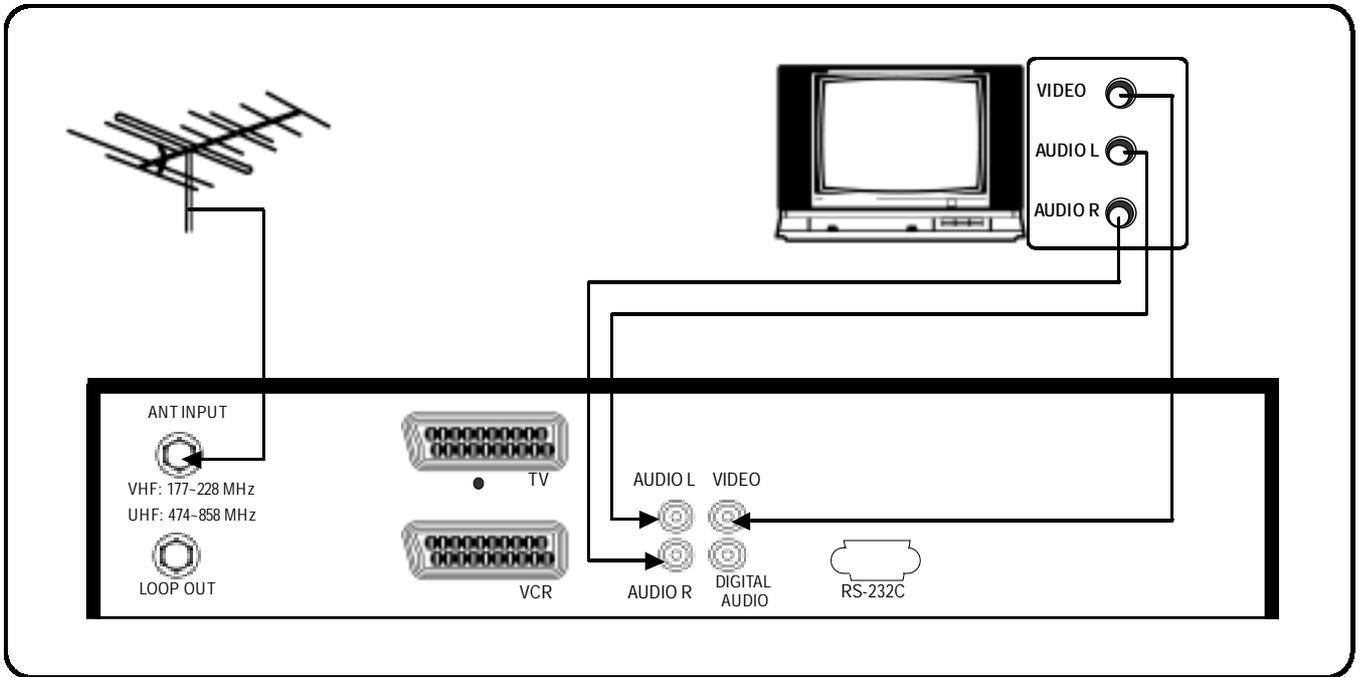
- Disturbance from peripheral devices may occur. You will need to move the object that is generating the disturbance.

- Notes for handling

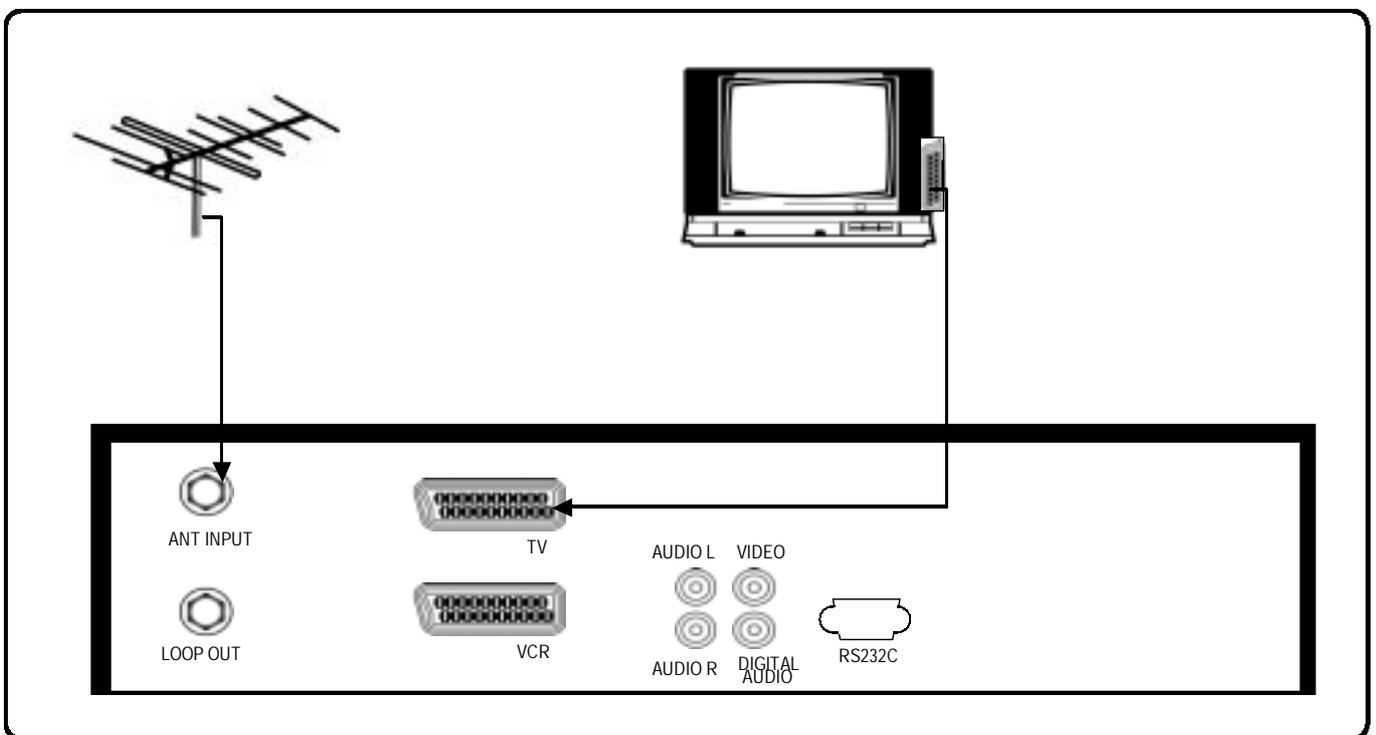
- In the event the receiver is exposed to heat or water, operating it could be dangerous. Have the unit checked by a qualified technician prior to operating it again

6. Connecting The Receiver

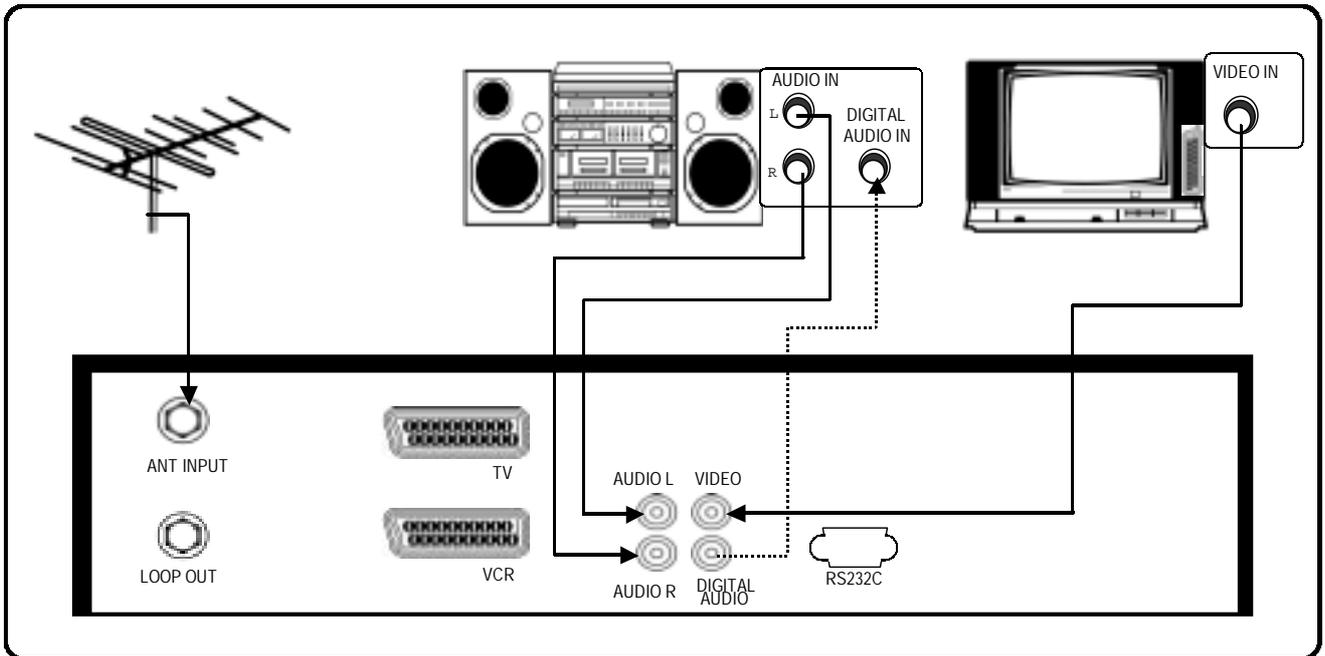
6.1 To a TV set, using both A/V connections



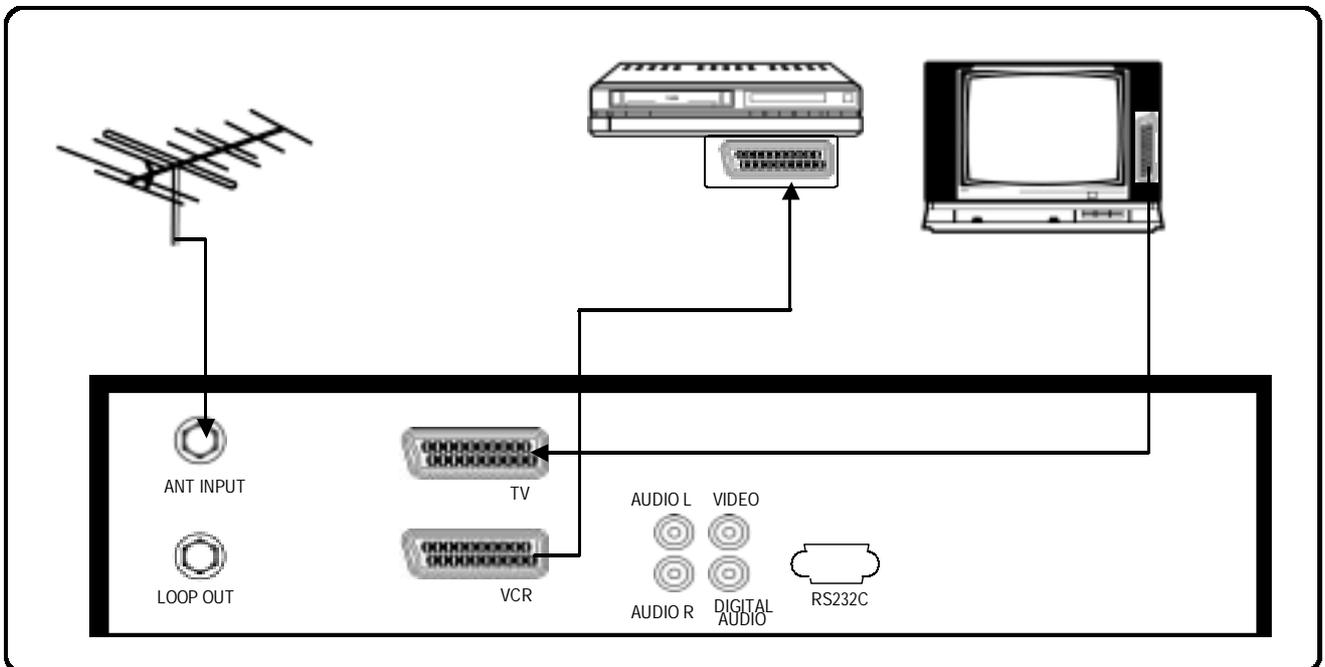
6.2 To a TV set, using both SCART connections



6.3 To a Hi-Fi system and a TV set, using both A/V connections



6.4 To a VCR and a TV set, using both SCART connections



7. Setup and Operation

7.1 Before Setup

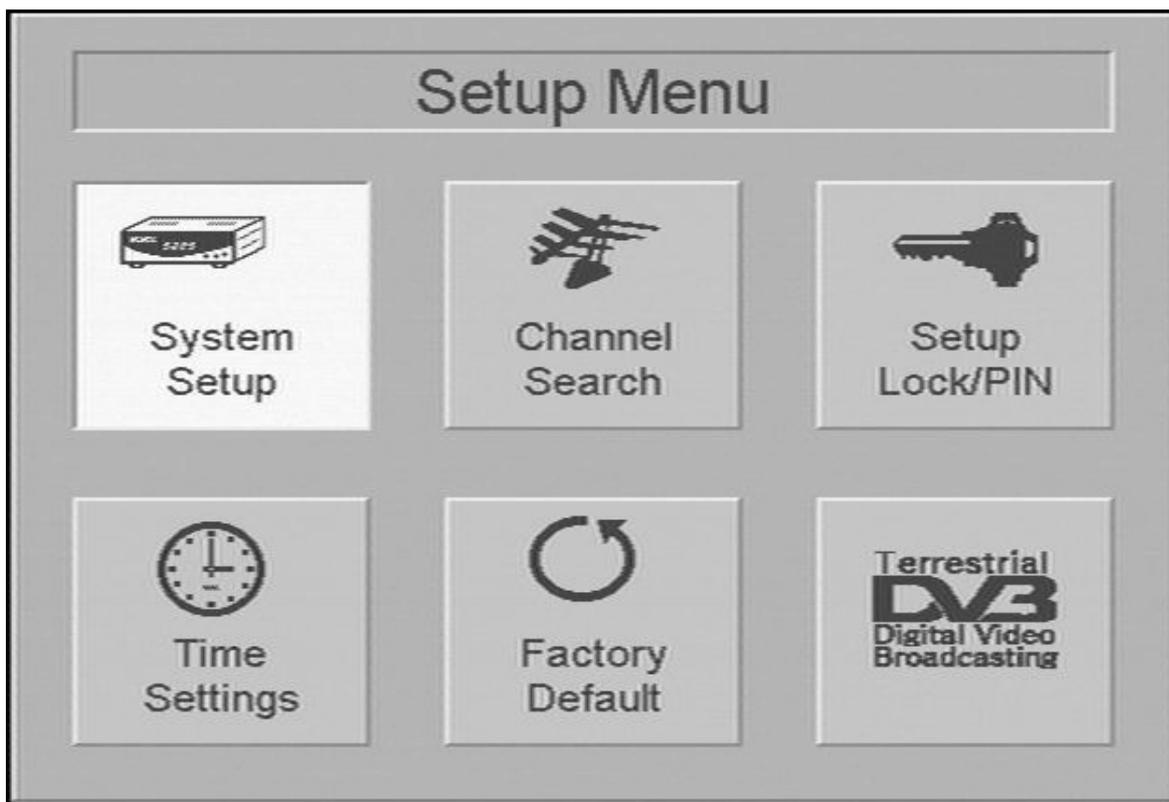
- Information

A menu is a field of text, displayed on the TV screen. Selectable menu items are generally highlighted. Items that are not highlighted cannot be selected. Most menus display explanatory information at the bottom of the screen.

7.2 Setup Menu

To install the receiver properly you have to perform a "Setup Procedure". After you finish the setup procedure, you can start watching TV or listening to Radio. During the basic settings, a short information is displayed at the bottom of the menu screen.

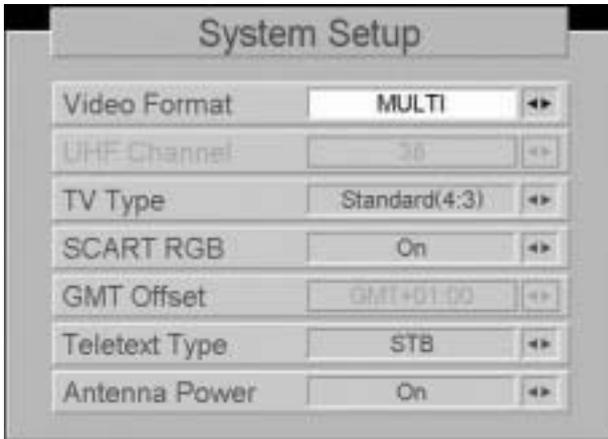
- . Turn on your TV and receiver
- . Press the **SETUP** button to display the setup mode.



- . Use the **CH ▲/▼**, and **Vol ◀/▶** buttons to move across a menu page.
- . When you have reached the required item, press the **OK** button to confirm your choice.
- . Press **EXIT** to return to quit the mode.

- System Setup

Press the **OK** button on 'System Setup' in the Setup Menu. The following window will appear. Set the Video Format, TV Type, Scart RGB output, GMT Offset, TTX Type and Antenna Power.



Video Format: PAL I, B, G or K/ SECAM/ NTSC/ MULTI

TV Type: Standard (4:3) / Wide (16:9)

Scart RGB: On / Off

GMT Offset: +12:00 ~ -12:00

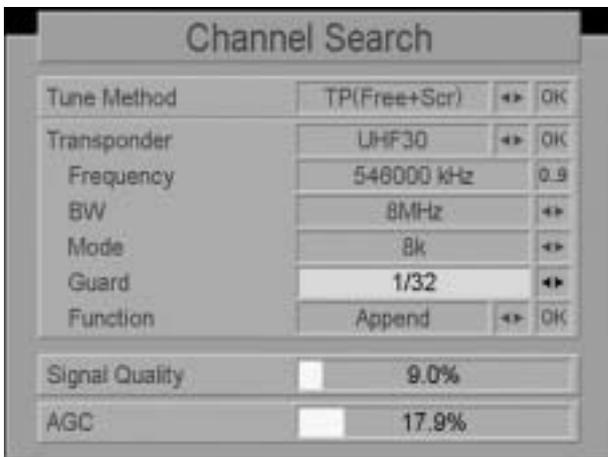
Teletext Type: STB (Normal TV Mode) / VBI

Antenna Power: On / Off

- . Use **CH** ▲/▼ to move up and down the list.
- . Use **Vol** ◀/▶ to change the setting.
- . Upon reaching the required menu line, press **OK** to enter the setting.
- . Press **EXIT** to go back to the previous mode.

- Channel Search

Press **OK** on 'Channel Search' in the Setup Menu. The following window will appear. Set the Tune Method, Transponder, Frequency, Bandwidth, COFDM Spectrum Mode, Guard, and Function.



Tune Method: ALL (Free+Scr) / ALL (Free) / TP (Free+Scr)

Transponder: VHF 05~12 CH
UHF 21~69 CH

Frequency: Auto / Manual

BW: 6 / 7 / 8 MHz

Mode: 2k / 8k

Guard: 1/4, 1/8, 1/16, 1/32

Function: Append / Delete / Change

Signal Quality:

AGC: Indicates received signal strength level.

- . Use **CH** ▲/▼ to move up and down the list.
- . Use **Vol** ◀/▶ to change the setting.
- . Upon reaching the required menu line, press **OK** to enter the setting.
- . Press **EXIT** to go back to the previous mode.

- Setup Lock/PIN

Press **OK** on 'Setup Lock/PIN' in the Setup Menu. The following window will appear. Set the Menu Lock, Change the PIN, enter the New PIN and confirm the Confirm PIN.



Menu Lock: On/Off

Change PIN: Press **OK** if you want to change.

New PIN: Enter your new 4-digit code

Confirm PIN: Confirm your new 4-digit code

* **Note:** The default PIN is '1234'

- . Use **CH ▲/▼** to move up and down the list.
- . Use **Vol ◀/▶** to change the setting.
- . Upon reaching the required menu line, press **OK** to enter the setting.
- . Press **EXIT** to go back to the previous mode.

- Time Setting

Press **OK** on 'Time Setting' in the Setup Menu. The following window will appear. Set the Local Time, Sleep Time, Timer Status and Program the Timer.



Local Time: dd/mm/yyyy - day – hh:mm

Sleep Time: 0~180 min

- . Use **CH ▲/▼** to move up and down the list.
- . Use **Vol ◀/▶** to change the setting.
- . Upon reaching the required menu line, press **OK** to enter the setting.
- . Press **EXIT** to go back to the previous mode.

- Factory Default

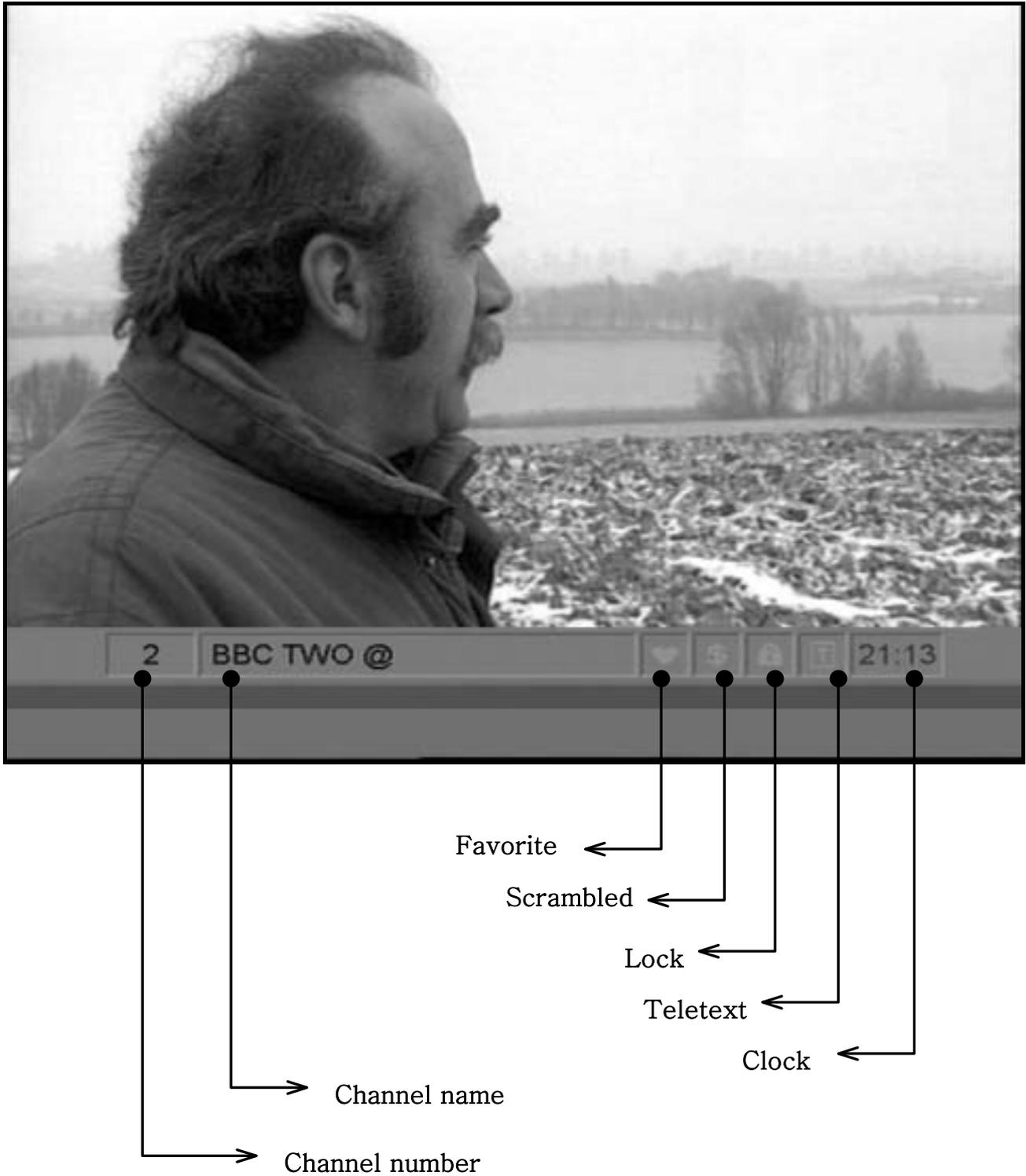
Press **OK** on 'Factory Set' in the Setup Menu. Confirm whether you wish to go back to the factory default settings.



7.3 General Viewing Information

- Program Information

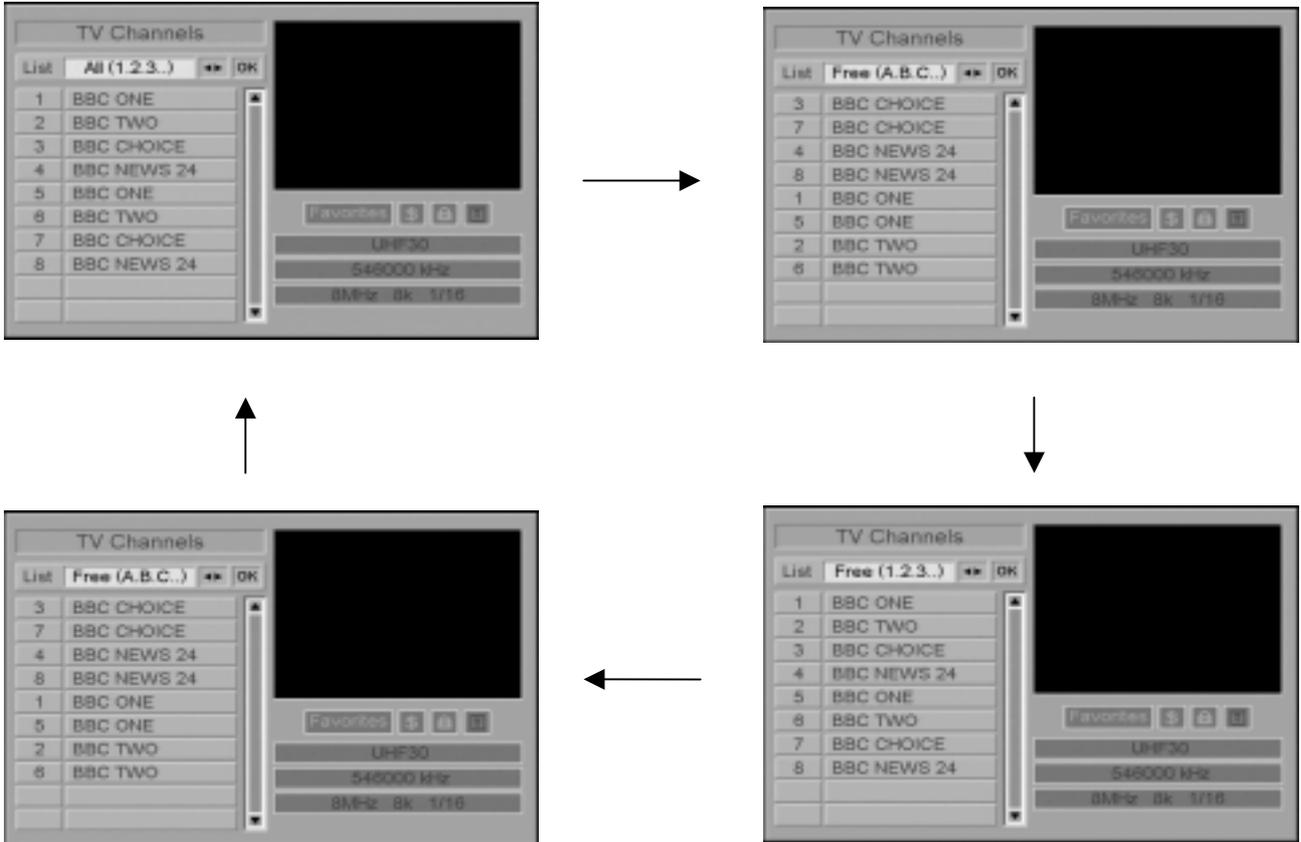
Information on the currently viewed program appears for a few seconds, when you press **INFO**.



- TV/Radio Channels List

While watching TV you can call the channel list by pressing **TV/Radio**. The picture in the preview screen is that of the highlighted channel, which can be changed with the **CH ▲/▼**. **Vol ◀/▶** scrolls Channel List pages Down or Up. Pressing **OK** on a highlighted channel calls that channel and exits the Channel List. Press **EXIT** to close the Channel List.

<TV Channel List>



<Radio Channel List>



- Favorite Channels Lists

While watching TV or listening to Radio you can call the respective favorite channels list by pressing **FAV**. If the list is empty, it will not appear.

<Favorite TV>

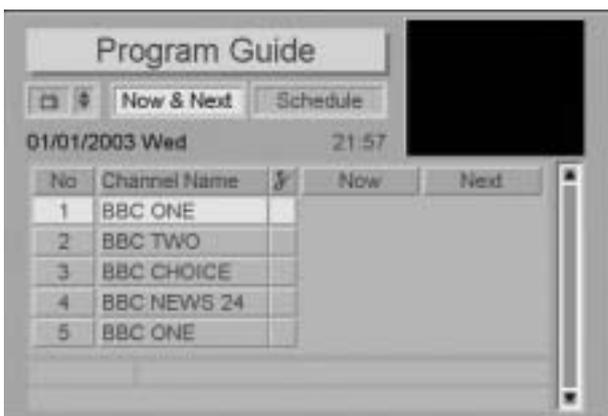


<Favorite Radio>



- Program Guide

Press **EPG** to access the electronic program guide, if available from the broadcaster.



- Language

Press **LANG** to access the audio language selection screen.



Track: 1 of 1,2...

Mode: Stereo / Mono Left / Mono Right

Level: Normal / High / Low

Language: unknown

- Recall

Press **RECALL** to recall the previous channel.

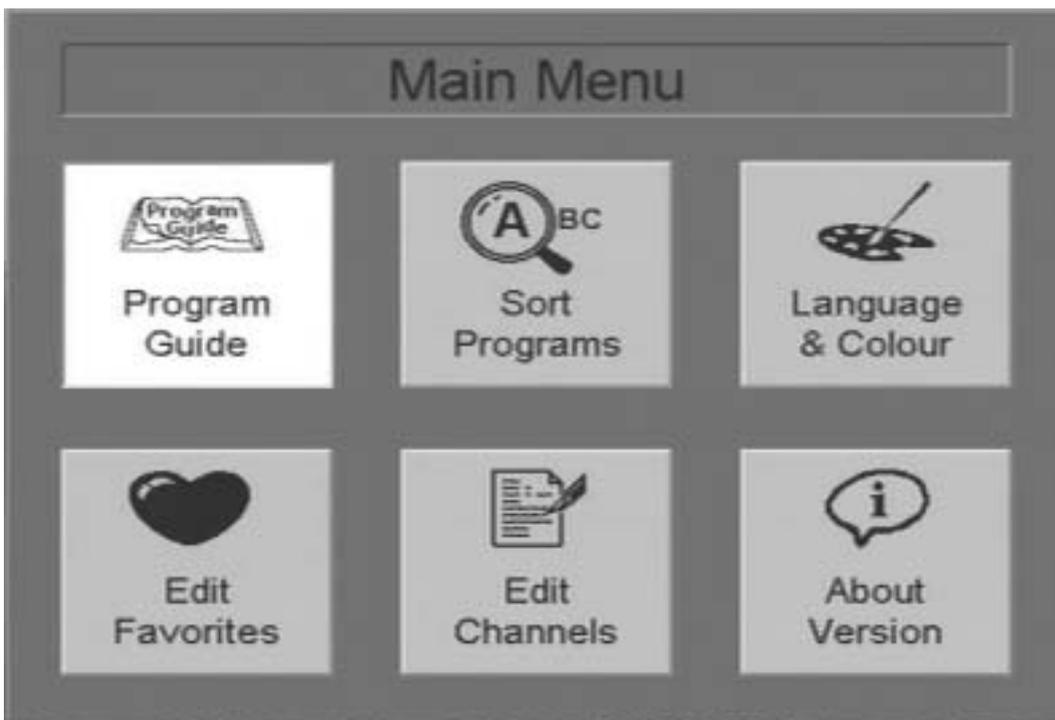
- Teletext

Press **TXT** to access the teletext service if available from the broadcaster.



7.4 Main Menu Settings

From the Main Menu you access the Program Guide, Channel Sorting, Language & Color Preference Settings, Favorites Editing, Channel Editing and Software Version information.



- . Press **MENU**
- . Use **CH ▲/▼** to move up and down the list.
- . Use **Vol ◀/▶** to change the setting.
- . Upon reaching the required menu line, press **OK** to enter the setting.
- . Press **EXIT** to go back to the previous mode.

- Program Guide

Press **OK** on 'Program Guide' in the Main Menu. The following window will appear.



Use **CH ▲/▼** to move up and down the list.

Use **Vol ◀/▶** to move sideways across a channel line.

Pressing **OK** on the highlighted channel calls that channel to the background.

Press **EXIT** to go back to the previous mode

- Sort Programs

Press **OK** on 'Program Search' in the Main Menu. The following window will appear.



Use **Vol ◀/▶** to select an alphabetical letter.
Press **OK** to confirm your choice.

Use **CH ▲/▼** to move up and down the list.

Use **Vol ◀/▶** to scroll pages Down or Up.

Pressing **OK** on the highlighted channel calls that channel and closes this menu.

Press **EXIT** to go back to the previous mode.

- Languages & Colours

Press **OK** on the 'Language Preference'. The following window will appear. Select the menu language, default audio language, menu opacity, palette and Radio Ch Logo setting.



Menu Language: Select English / Arabic / Deutsch / François / Italian / Russian / Spanish / Turkish

Menu Opacity: 20~100 %

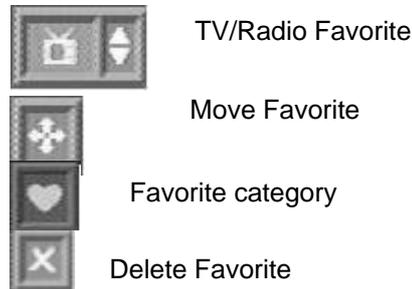
Palette: Spring / Summer / Autumn / Winter / Jungle / Undersea / Sun Flower / Sky

Radio CH Logo: On / Off

- . Use **CH ▲/▼** to move upwards and downwards in the menus.
- . Use **Vol ◀/▶** to change the values in the alternatives.
- . When you have reached the required subject menu, press **OK** to confirm your selection.
- . Press **EXIT** to go back to the previous mode.

- Edit favorites

Press **OK** on the 'Edit Favorites'. The following window will appear. Select the Edit favorites menu.



- Edit Channels

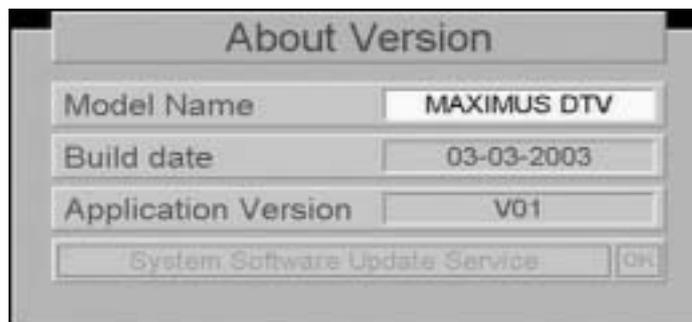
Press **OK** on the 'Edit Channel'. The following window will appear. Select the Edit channel menu.



- . Use **CH ▲/▼** to move upwards and downwards in the menus.
- . Use **Vol ◀/▶** to change the values in the alternatives.
- . When you have reached the required subject menu, press **OK** to confirm your selection.
- . Press **EXIT** to go back to the previous mode.

- About

Press **OK** on the 'About'. The following window will appear. It shows model name, application version, and device version.



- . Press **EXIT** to go back to the previous mode.

Problem solving

There may be various reasons for the abnormal operation of the unit. Therefore, if the unit does not work properly, check it according to the procedures shown in the table below:

Problem	Possible causes	Remedy
LED on front panel does not light.	AC power cord disconnected	Connect power cord properly into the power socket
No Picture or sound	Wrong connection of the video/audio output to TV input terminal	Connect two terminals correctly with scart cable or RCA or RF cable
	Wrong connection of satellite antenna cable	Connect the antenna cable correctly
	No signal or weak signal	Check the cable connections, LNB and other equipment connected between the LNB and the receiver or adjust the antenna
	Wrong setting of channel information n MENU screen	Type the setting value correctly
Black-and- white screen or V-Hold	Your TV mode is different from satellite broadcasting mode	Use same mode as TV Use the NTSC/PAL converter connected to the receiver and TV
The remote controller is not working	Battery exhausted	Change the batteries
	Fluorescent light interfering with the remote controller Remote controller is incorrectly aimed	Switch off the light Aim the remote control at the receiver

Specifications

-. System capabilities	Full DVB-T compliant
-. Tuner input	
Connector:	IEC 169-24, female
Frequency range:	VHF: 178MHz ~ 228MHz UHF: 474MHz ~ 858MHz
Signal level:	-90dBm ~ -35dBm
Bandwidth:	6 / 7 / 8 MHz type.
-. Demodulator	
Front end:	QPSK, 16QAM, 64QAM
COFDM Spectrum:	2k, 8k Carrier
FEC Mode:	Rate 1/2, 2/3, 3/4, 5/6, 7/8
-. System resource	
Processor:	32bit processor (60MHz)
SDRAM:	8Mbyte
FLASH:	2Mbyte
-. Video Decoder	
MPEG 2:	Main Profile @ Main Level
Data Rate:	Up to 15Mbit/s
Resolution:	720x576(PAL), 720x480(NTSC)
Video format:	NTSC, PAL, MULIT
Aspect Ratio:	4:3, 16:9
-. Teletext	
DVB compliant:	STV (Normal TV) / VBI
-. MPEG Audio	
MPEG 1 layer 1&2	
Type :	Mono, Dual mono, Stereo
Sampling rates:	32, 44.1 and 48KHz
-. Serial data interface	
Connector:	9pin D-sub male, Max 115Kbps
-. Remote control	
Operating condition:	Up to 7 Meter
-. Power supply	
Power consumption:	Max 30W
Supply voltage:	90-250V/AC
Supply frequency:	50/60Hz
-. Rear panel connectors	
Video out:	1 x RCA cinch
Audio L/R:	2 x RCA cinch
Digital Audio:	1 x RCA cinch:
Serial data:	9pin D-sub
Digital tuner input:	IEC 169-24
Loop-through Digital tuner:	IEC 169-24
TV SCART:	RGB, CVBS, Y/C, Audio
VCR SCART:	CVBS, Y/C, Audio
-. Physical Specification	
Size (W x H x D):	260 x 60 x 185 mm
Weight (Net):	2.0 Kg