User manual

FERGUSON

CF-2220AT

English

SAFETY INSTRUCTIONS....3
SOFTWARE FOR DOWNLOADING....3
USER MANUAL....3
SYMBOLS USED ON THE RECEIVER....4
I GENERAL INFORMATION....5
1 Preface....5
2 Main Features....5
3 For Your Safety....5
4 General Operation of the Receiver....6
5 Front Panel....6
6 Rear Panel....6
7 Remote Control Unit....7
8 Installation of STB....7
II MENU STRUCTURE....8
1 Program List....8
1.1 TV Program List....8
1.2 Music Program List....9
1.3 Sort....9
2 Program Search....9
2.1 Automatic Search....9
2.2 Manual search....9
3 Parental Control....10
3.1 Channel Lock....10
3.2 Parental Setting....10
3.3 Change PIN....10
4 System Setting....10
4.1 Video Setup....10
4.2 Advanced Setting....11
4.3 Language....11
4.4 Time Setting....11
4.5 System Schedule....11
5 Accessory....11
5.1 System Information....11
5.2 Factory Default....12
5.3 System update....12
6 Shortcut Key Functions....12
6.1 Electronic Program GUIDE (EPG)....12
6.2 Program List....12
6.3 Audio Select....12
6.4 Volume....13
6.5 Information....13
6.6 Subtitle....13
6.7 TeleText....13
III TECHNICAL SPECIFICATION....14
IV TROUBLE SHOOTING....15

SAFETY INSTRUCTIONS

Please observe all warnings and instructions on the equipment and contained in these operating instructions. You must install the antenna with correct direction.

Please carefully read this user's manual before using the receiver.

To avoid electric-shock hazards, do not open the cabinet, refer servicing to qualified personnel only. If cabinet is opened warranty will be invalid.

Please switch off completely the receiver during thunder, during abnormal phenomenon, before cleaning it and in case it remains out of service for a long period.

Do not expose the receiver under the sunlight. And keep it away from the heat source or humid environments. Do not block ventilation holes of the receiver so that air can circulate freely.

Please place the receiver in horizontal and stable conditions, keeping it away from vibrating.

If device is moved from warmer place to a colder one some problem might occur. Please switch off the receiver and turn it on after 1 or 2 hours.

Keep the receiver away from flower vases, tubs, sinks, etc., in order to avoid damaging the equipment. Do not touch power supply with wet hands.

Don't put any objects on the player.

Be sure to turn the receiver off and disconnect the AC power cord before cleaning the receiver surface. If the surface is dirty, wipe clean with a cloth which has been dipped in a weak soap/and/water solution and wrung out thoroughly, and then wipe again with a dry cloth.

Do not connect cables while power is plugged.
Do not use damaged cables for connections : you could cause fires.
Please switch off completely the receiver while making all connections.
The product purchased is a sophisticated electronic device which is not suitable for children under 18 years.
We do not assume responsibility for damages caused to people or object , deriving from use of the device made by people under 18 years.

SOFTWARE FOR DOWNLOADING

Ferguson has used all the available means to deliver to its users software updates guaranteeing the best possible parameters of the satellite television receivers. Ferguson reserves the right to make corrections, changes or modifications of the software used in the receiver on any basis whatsoever and without prior notice. The current version of the software is available on the following website http://www.ferguson-digital.eu

USER MANUAL

Ferguson has used all the available means to ensure the latest information regarding its products. Ferguson does not give a warranty regarding the contents of this User Manual and waives any implied warranties regarding market value or fitness for specific purposes. The information contained herein provide guidelines allowing the operation and maintenance of the receiver.

Ferguson reserves the right to make changes, corrections or to translate the User Manual without giving prior notice of such changes. Therefore, it is recommended that users visit our website regularly to receive the latest information.

SYMBOLS USED ON THE RECEIVER

The Digital Video Broadcasting logo.
This logo tells you that this receiver is compliant with the DVB standards.

The caution risk of electrical shock - do not open symbol
This symbol tells you that you are not allowed to open the receiver. Only authorized (service) technicians are allowed to open the box.

The CE mark.
This mark tells you that the receiver is following the provisions of Council Directive 89/336/EEC on the approximation of the laws of the Member States relating to the electromagnetic compatibility and the provisions of Council Directive 73/23/EEC and 93/68/EEC on the approximation of the laws of the Member States relating to low voltage and electrical safety.

The double insulation symbol.
This symbol tells you that the receiver is electrically safe within the normal use of the receiver as stated in the safety chapter.

Environment protection first!
- Your appliance contains valuable materials which can be recovered or recycled.
- Leave it at a local civic waste collection point.

I GENERAL INFORMATION

1 Preface

The Set top Box is a high cost-effective digital receiver. It is fully compliant with MPEG-2 and DVB-T standards. It can receive digital terrestrial TV signal transmitted at the rate of 3.7~23.8Mb/S on the specific frequencies within the VHF or UHF band. It provides the enhanced OSD Multi-language-menu. Equipped with the latest technology and design, the receiver is ensured to offer high reliable performance for your digital life.

2 Main Features

- ✧ Fully DVB-T & MPEG-2 Compliant
- ✧ Software upgrade via RS-232 serial port
- ✧ Parental lock
- ✧ Multi-language Subtitle output supported
- ✧ Teletext output with both VBI and OSD
- ✧ Multi-language OSD and friendly user menu
- ✧ Aspect ratio 4:3 and 16:9
- ✧ Multi-language Audio supported
- ✧ 1000 channels memory space
- ✧ 7 days Electronic Program Guide and Information Plate
- ✧ True color on screen display (OSD) supported
- ✧ Closed Caption
- ✧ Auto program update
- ✧ Timer function supported
- ✧ Program parameters memorization when power-off
- ✧ PAL supported
- ✧ Digital Reception covers VHF & UHF band
- ✧ Logical channel number (LCN) Supported
- ✧ Signal level & quality indicator
- ✧ Standby with low consumption
- ✧ Time adjustment
- ✧ TV/AV conversion, VCR automatic conversion
- ✧ Antenna Feed 5V Supported

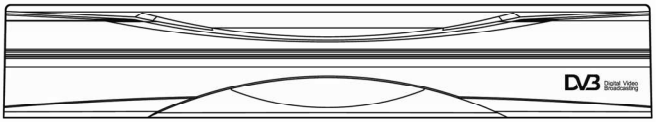
3 For Your Safety

- ❖ Allow clear space around the receiver for sufficient ventilation
- ❖ Do not cover the receiver's ventilation slots or place it on a unit that emits heat
- ❖ Use a soft cloth and mild washing solution to clean the case
- ❖ Do not connect or modify cables when the receiver is plugged in
- ❖ Do not remove the cover
- ❖ Do not allow the unit to be exposed to extreme heat, cold or humid conditions
- ❖ Never allow liquids, spray or other materials to come into contact with the circuit boards inside.

4 General Operation of the Receiver

The everyday operation of your receiver is accessed via user friendly on screen displays and menus. These menus can help you get the most from your STB, guiding you through installation and channel manager with its various functions to enhance your viewing pleasure. All functions can be accessed through the Remote Control Unit. Please be aware that new software may change the functionality of the receiver. Should you experience any difficulties with the operation of your unit, please consult the relevant section of this manual or Trouble Shooting. Alternatively call your dealer or a customer service adviser.

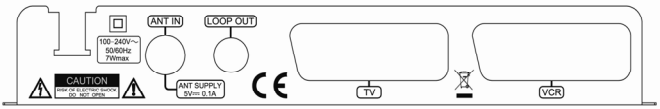
5 Front Panel

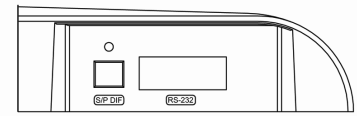


Green diode: The light shows green when the receiver turns ON.

Red diode: The light shows red when the receiver is at STAND BY mode

6 Rear Panel





100-240V~: Power supply

ANT IN: Connect to a terrestrial antenna

LOOP OUT: Connect to another receiver (IF loop through output from digital tuner)

TV: Connect to the TV using SCART cable

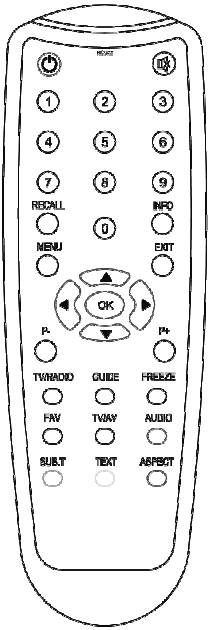
VCR: Connect to VCR using SCART cable

S/P DIF: Connect to a hi-fi system

RS232: Connect to a PC for software upgrade.

NOTE : The power supply must equip a all-pole mains switch to support the receiver.

7 Remote Control Unit



: Press to switch between Operation and Standby modes

: Press to temporarily cut off the sound

0-9 : Enter required numbers in the input box or select a channel to watch

RECALL: Press to switch back to previous channel

INFO : Show information of the current channel

MENU : Display the Main Menu on the screen

EXIT : Press to return to the previous menu or escape from the item

OK : Press to execute the selected item in the menu, or to confirm the desired value in input mode

▲◀▶▼: Move cursor up/down/left/right, Page up/down, Volume +/-

p- / p+: Press to move up/down a page in the channel list

TV/RADIO: Switch between TV and Radio modes

GUIDE : Display EPG (Electronic Program Guide) menu

FREEZE : Switch between Pause and Play

FAV: Display the favorite channel list

TV/AV : Switch between TV and AV modes

AUDIO : When watching a channel, press to switch the audio languages

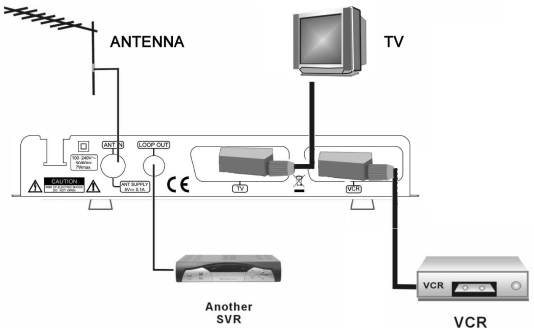
SUB.T: Subtitle hotkey will select DVB bitmap type titles. Note that subtitles may not always work as the broadcaster may not provide the service

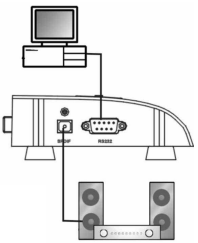
TEXT : Press to enter teletext mode

ASPECT: Use this hotkey to select your television screen format. Continuously press this button to toggle through the different modes.

8 Installation of STB

This section explains the installation of the receiver. Refer to the manuals supplied with the equipment for the installation of outdoor equipment such as the dish antenna. When adding new equipment, be sure to refer to the related parts of the manual for the installation.





NOTE: This connection figure is for reference only. Connectors on the rear panel may be in different places or even be omitted due to different STB models.

II MENU STRUCTURE

Pressing the **MENU** key will display the **Main Menu**. This menu provides five options.

- **Program List**
  - TV Program List
  - Music Program List
  - Sort
- **Program Search**
  - Automatic Search
  - Manual Search
- **Parental Control**
  - Channel Lock
  - Parental Setting
  - Change PIN
- **System Setting**
  - Video Setup
  - Advanced Setting
  - Language
  - Time Setting
  - System Schedule
- **Accessory**
  - System Information
  - Factory Default
  - System update

Use the ▲▼ keys to move from one item to another. Press the **OK** key and the selected sub menu will display. To escape the menu system at anytime, press the **EXIT** or **MENU** key on the Remote Control Unit.

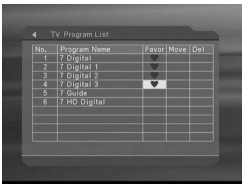
1 Program List

Use ▲▼ keys to select Program List item from Main Menu and press the **OK** key.

1.1 TV Program List

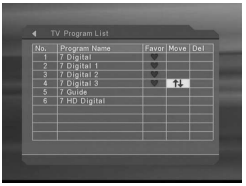
Select the TV Program List item in the Program List and press OK to enter the sub-menu.
From here, you can set favorite channels, move channels and delete channels.

- **Favorite**



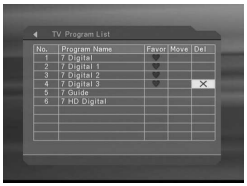
▲▼keys are used to select the desired channel. Once OK key is pressed on this channel, the mark ♥ will be displayed on the FAV column. In the same way, you can set more favorite channels.
If you want to cancel the favorite channel, just press OK key at this channel.

♣ **Move**



Select the channel that you want to move and press OK key, the ↑↓ mark will be displayed on the Move column. Use ▲▼ keys to move this channel to the desired position, and press OK again to confirm.
The Move mark will disappear and the channel list are the newly sorted list.

♣ **Del**



Select desired channel and press **OK** key. A ✕ mark will be displayed on the Del column. If you want to cancel this operation, please press **OK** key again at this channel.

1.2 Music Program List

This has the same operation as the 1.1 TV Program List. please refer to point 1.1 above.

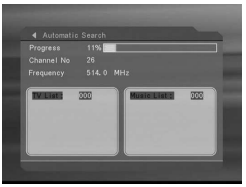
1.3 Sort

In this menu, the program is sorted by Name, Service ID and Channel No. You can also set favorite channels, move channels and delete channels in the different sorting list.

2 Program Search

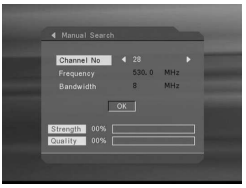
The STB has provided two ways to search program: Automatic Search and Manual Search.

2.1 Automatic Search



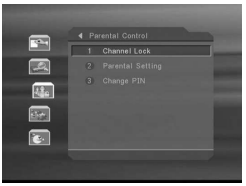
After pressing OK to enter the Automatic Search menu, the message with "Do you want to erase your previous channel list?" will be displayed on the screen. If you want to erase the previous channels, please press OK key, otherwise press Exit. After executing your decision, the system will start to search program automatically.
During the searching process, **EXIT** key is used to finish the whole process. After searching well, new searched TV and Music programs will be added to the corresponding program list.

2.2 Manual search



In this mode, only one RF channel can be searched.
Select the desired Channel No. by◀▶ keys, and move the cursor to the OK button on the menu, then press **OK** key on the RCU to search program.

3 Parental Control

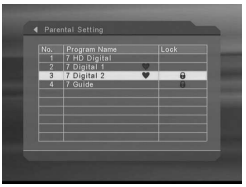


Before entering this mode, you have to use **numeric keys (0~9)** on the RCU to input a password. The default STB password is 0000.

3.1 Channel Lock

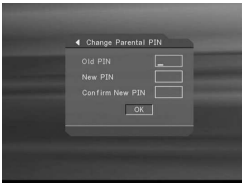
Select NO or YES by using ◀▶ keys. If YES is selected, a password is needed before you enter the Program Search menu.

3.2 Parental Setting



This function allows you to lock the channel with a password in order to prevent children from accessing the channel.
You can also protect your installed data and information using the Channel Lock.
In this menu, move the cursor to the channel which you want to lock, and press OK, the locking mark will be display on the selected channel name. If you want to cancel the operation, press OK key again on the selected channel.
NOTE: Unless you enter the correct password, you can not watch the locked channel.

3.3 Change PIN



First enter the current password by using numeric key on the RCU at the Old PIN option.
Second enter a new password at the New PIN.
Enter the new password again to confirm.
After setting well, move the cursor to OK button on the menu and press OK key on the RCU to finish.

4 System Setting

Select System Setting item under Main Menu and press OK key to engage menu.

4.1 Video Setup

Display Type:. Press ◀▶ keys to select among 16:9, 4:3 PS and 4:3 LB.
Video Output: Select between CVBS+RGB, RGB+PSCAN and CVBS+S-Video.

4.2 Advanced Setting

Antenna Power : By pressing ◀▶ keys, select the option to be ON or OFF.
LCN(LOGICAL CHANNEL NUMBER) : By pressing ◀▶ keys, select the option to be ON or OFF. If it is ON, then all the channels will be listed according to their logical channel number.

4.3 Language

Select proper option by using ◀▶ keys

4.4 Time Setting

In order to display the local time correctly, it may be necessary to set a time offset indicating the difference between local time and GMT.
GMT usage: Select the ON or OFF.

If select OFF, you can set Date and Time by using numeric key on the RCU.
If select ON, you can select proper option according to the time zone you are in.

4.5 System Schedule

You can store ten channels at one time by using the function.
Select a task from Schedule list, and press OK to move the cursor to the Detail window.
Mode: select Stop, Once, Daily or Weekly by using ◀▶ keys.
Start Date: Enter the start date by using the numeric key on the RCU.
Start Time: Enter the start time by using the numeric key on the RCU.
End Time: Enter the end time by using the numeric key on the RCU.
Channel No.: Select the desired channel No.

After setting well, press OK to finish.
The task can be set to inactive or active by using ◀▶ keys in the schedule.

5 Accessory

5.1 System Information

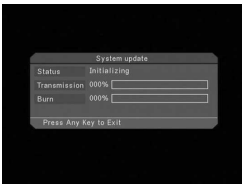
In this menu, you can view the system version.

5.2 Factory Default

Select the Factory Default item in the **Accessory** menu and press the **OK** key. A sub-menu will seek your confirmation. Select YES key to restore factory defaults.

Note : Reset to Defaults should be used with care as all programs found will be erased and Parameters re-set to factory default using this function.

5.3 System update



The STB can upgrade new system version by using RS232.
1. Power off the master and slave STB.
2. Connect master STB to slave STB by an crossed 'RS232 serial cable'.(data will transfer from master STB to slave STB)
3. Power on the master receivers.
4. Enter the System update window,
5. Power on the slave STB, the upgrade will start automatically,
6. Power off the two STBS.
6. Plug off the 'RS232 serial cable'.
7. Now reset the STB and enjoy the fantastic DTV programs.

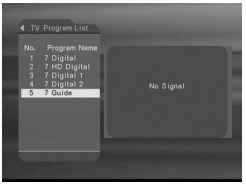
6 Shortcut Key Functions

The basic TV and Radio functions of your receiver are described below:

6.1 Electronic Program GUIDE (EPG)

In normal view mode, press **GUIDE** key on the RCU to get into **EPG Info**. The up-left side of this window is program list where you can use ▲▼ keys to select desired program. The content is shown in up-right PIG (picture in graphic).
In program list: If you want to know details about one EPG, pressing ▶ key at this EPG. Press **EXIT** to return to previous menu, or press **MENU** key to close this window.

6.2 Program List



Display the **Program List** by pressing the **OK** key on the RCU (whilst not in Menu mode). Use ▲▼ keys to step through the programs available. Press the **OK** key on RCU to select a different program.
The program list extinguishes after pressing **EXIT** or **MENU** keys.

6.3 Audio Select

Should a particular program be available in more than one language, under the non-menu mode, pressing AUDIO key on the RCU will display Audio Select menu. ◀▶ keys are used to switch among the preprogrammed options.

6.4 Volume

Audio Volume can be adjusted using ◀▶ on the RCU, for TV or Radio services. MUTE function is also available on the RCU.

6.5 Information

On the non-menu mode, by pressing ▲▼ keys to select a channel, a channel bar, which includes current channel's information and short EPG, will be shown at the bottom of the screen.
If you want to know details about the current channel, pressing **INFO** key on the RCU to display the Program Info window.

6.6 Subtitle

The Green **SUB.T** key on the RCU opens and closes the Subtitles or Closed Captions function, when the broadcaster provides this service. Activating any menu closes Subtitles or Closed Captions automatically. Powerful built in error correctors ensure Closed Captions display flawlessly.

6.7 TeleText

Press the Yellow **TEXT** key on the RCU to open Teletext function. Teletext starts at main index page 100. Pages can be called up using the RCU number keys. Press the **TEXT** key again to close it. A comprehensive Teletext service is provided on 7 and Prime Network programs. Powerful built in error correctors ensure Teletext displays properly, without characters missing.

III TECHNICAL SPECIFICATION

TUNER	
Input frequency	174 ~ 860MHz UHF & VHF
Bandwidth	7MHz or 8 MHz
Input level	-72 ~ -20 dBm
Input impedance	75Ω
DEMODULATION	
Demodulation	QPSK, 16QAM, 64QAM
FEC	1/2, 2/3, 3/4, 5/6, 7/8
Mode	2K, 8K
Guard	1/4, 1/8, 1/16, 1/32
DEMULTIPLEXER	
Standard	ISO/IEC 13818-1
Input max. bit stream rate	104Mbps(Serial) / 7.5MBps(Parallel)
VIDEO DECODING	
Standard	ISO/IEC 13818-2 MPEG-2 MP@ML
Aspect ratio	4:3, 16:9
Video resolution	720×576 (PAL), 720×480 (NTSC)
AUDIO DECODING	
Standard	ISO/IEC 13818-3
Output mode	Mono, Dual-channel, Stereo
Sample frequency	32, 44.1, 48KHz
AV OUTPUT	
Video de-emphasis	CCIR REC.405-1, 625LINES
Video bandwidth	5.5MHz
Video output impedance	75Ω
Video output level	1.0Vp-p
Audio output frequency	20Hz~ 20KHz
Audio output Impedance	Low
POWER	
Input voltage	100-240~
Power consumption	7W max
AMBIENT	
Operation temperature	0°C ~ 40°C

IV TROUBLE SHOOTING

Note : If you cannot solve the problem by referring to the above trouble shooting, please contact your re-seller.

Problem	Possible Causes	What To Do
The display on the front panel does not light up.	Main cable is not connected.	Check that the main cable is plugged into power socket.
No sound and picture, but the front panel shows time.	The unit is in standby mode.	Press the key on the RCU.
No sound or picture.	Poor signal quality or bad interconnections	Check the antenna system Check cable connections.
Bad picture/ Blocking error.	Signal is too strong.	Try a signal attenuator to the RF IN port.
No picture appears on the TV screen.	The system is connected by SCART leads and TV is not in AV/EXT mode.	Check that you have selected the correct channel or Video Input on your TV.
There is interference on your digital terrestrial channel.	The system output channel of the receiver interferes with an existing terrestrial channel or Video signal.	Remove or turn off source of interference.
The RCU is not working.	Battery exhausted.	Change the battery.