

**Quality has a Name**



# **T-101 FTA**

***Digital Terrestrial Receiver***

***usermanual***

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***Digital Terrestrial Receiver***

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## **dearCUSTOMER**

Thank you for purchasing an EchoStar digital terrestrial receiver. This easy to use receiver has been designed to receive Free-To-View digital television and digital radio signals broadcast over the UK digital terrestrial television system. This document should be kept for future reference. It should help you to quickly set up and install the T-101 FTA to enjoy UK Free-To-View digital television. It should be used in conjunction with the comprehensive on-screen Help facility on the receiver itself.

Please make a note of the serial number of the receiver in the space below. This may prove to be useful in the future. You will find the serial number label on the underside of the receiver.

S/N: .....

## **disCLAIMER**

EchoStar International Corporation has to the best of its abilities, done everything to supply you with a terrestrial receiver built to the most up-to-date software and hardware, and to supply you with the most up-to-date information. EchoStar International Corporation makes no warranties with respect to the reception of the channels provided by the broadcast service providers. The information provided in this User Manual is meant as a guideline for the installation and use of the receiver.

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# T-101 FTA QUICK REFERENCE GUIDE

## unpackingRECEIVER

Unpack your receiver carefully. Electronic equipment is easily damaged if handled roughly. Examine all parts for damage that may have occurred during shipment. Please check that you have all the items listed on the packaging.

## connectingEQUIPMENT

Please connect your equipment in accordance with the diagram. Do not plug the power lead into the mains until all other connections are made and you are ready to set up the receiver.

The available connectors on the rear are:

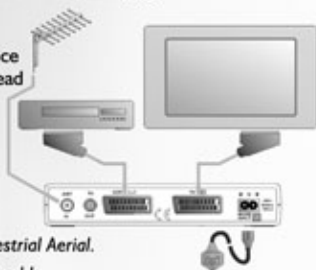
**MAINS INPUT** - for the mains power lead.

**ANT IN (IEC)** - for the connection of a terrestrial Aerial.

**VCR (SCART)** - Use a fully featured SCART cable.

**TV (SCART)** - Use a fully featured SCART cable.

**TV OUT (IEC)** - This can be used to loop through the RF to, say, a VCR or to your TV to receive analogue television.




## remoteCONTROL

The EchoStar Remote Control Unit (RCU) is used to control the receiver. The RCU requires two AAA/RC03 batteries (as supplied). The RCU keys perform the following functions:

**ON/STANDBY** - To switch to standby or on.

**HELP** - To view the on-screen Help information when a menu is displayed.

**SUBTITLE**  - To turn subtitles on or off, or to change the subtitle language.

**NUMBER KEYS** - To enter numerical settings such as a channel number.

**P-** - Select the next logical channel down.

**P+** - Select the next logical channel up.

**NAVIGATION KEYS** - These are used when menus are displayed.

The arrows are used to move **LEFT**, **RIGHT**, **UP** or **DOWN**.

**OK** confirms a selection.

**MENU** - This activates the Main Menu.

**i** - View information about the current programme. Press again to view more detailed information. Press again to remove the information.

**GUIDE** - View the Electronic Programme Guide. This key steps through the TV, Radio and Text Guides.

**EXIT** - To leave a menu or feature.

**RED** - To activate the related option as indicated by the digital text/interactive data service.

**GREEN** - To activate the related option as indicated by the interactive data service.

**YELLOW** - To activate the related option as indicated by the interactive data service.

**BLUE** - To activate the related option as indicated by the interactive data service.

**TXT** - To access or exit the interactive data service.



## systemSETUP

### 1. TUNE IN YOUR RECEIVER

Your receiver has been designed to self install and tune in all the digital channels available in your area.

When all your equipment is connected in the manner described above, apply power to the receiver and select the appropriate AV channel on your TV to see the Welcome screen. Press OK on your Remote Control Unit to start the installation process.

Congratulations on selecting an EchoStar product

Please ensure that the aerial is plugged into the socket marked 'ANT', press OK and wait for Freeview services to be scanned

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Tuning will take a few minutes during which time a Tune screen will appear. When tuning is complete, the Tune screen will disappear and the receiver will display Channel 1.

## 2. TV SETUP

Use the TV Setup menu to match your receiver to the type of TV you are using:

Press **MENU** to gain access to the Main Menu.

Press the **DOWN** navigation key twice to highlight TV Setup.

Press the **RIGHT** key to gain access to the TV Setup menu.

With the **Signal Type** highlighted, use the **RIGHT** key to access the **Signal Type Menu**.

Use the **UP**, **DOWN** and **OK** keys to select the correct signal for your TV

The receiver produces two types of signals for your TV. RGB gives the best quality picture so should be tried first. The receiver will ask if you can see pictures. If you reply No, or do not reply within 10 seconds, the receiver will set CVBS video.

Use the **UP/DOWN** keys to highlight the

**Television Type** and **RIGHT** key to access the **Television Type Menu**.

Use the **UP**, **DOWN** and **OK** keys to select the correct Television Type

If you are watching a widescreen TV select 16:9, otherwise select 4:3, which is a normal TV. Press **OK** to set the highlighted type.

If you are watching a 4:3 (normal) TV, use the **UP/DOWN** keys to highlight **Widescreen** and **RIGHT** key to access the **Widescreen Menu**.

Use the **UP**, **DOWN** and **OK** keys to select your preferred picture format.

Letterbox shows the true widescreen picture on a normal screen.

Centre Cutout shows the centre portion of the image using the full area of the TV.

Full Frame stretches the full image to the full area of the TV.

The **Volume** and **Radio Blanking** options can be set later if required. Use the on-screen Help to gain information about these options.

Press **LEFT** to return to the main menu.



## 3. SET LANGUAGE

Use the Language Menu to select the preferred languages for Audio and Subtitles: (If the preferred language is not available the receiver defaults to English.)

Use the **UP/DOWN** key to highlight Languages.

Press the **RIGHT** key to gain access to the Languages Menu.

Use **UP**, **DOWN** and **OK** keys to select audio.

Use **UP**, **DOWN** and **OK** keys to select the preferred audio language.

Use **UP**, **DOWN** and **OK** keys to select subtitles.

Use **UP**, **DOWN** and **OK** keys to turn off or select the preferred subtitles language.

Press **EXIT** to complete the system setup.

## changing CHANNEL

You can change channels in a number of ways:

- Use the **P+** and **P-** keys to move up and down the logical channels.
- Use the number keys to directly enter the required channel number. Three digits are required for an immediate channel change, or Press **OK** to force the channel change after fewer than three digits, or Wait for five seconds after the last digit is pressed.
- Use the **OK** key after browsing the channel information by using the *i* key. This is more fully described overleaf.
- Use the **OK** key after browsing the Programme Guide. This is more fully described overleaf.

An on-screen banner will appear for a few seconds after a channel change.

001 BBC ONE

NOW 22:25

22:00 - 22:30

News at Ten

## ***1. general SAFETY***

The T-101 FTA receiver is supplied for the reception of digital terrestrial television picture and sound, and radio signals. It must not be used for any other purpose. To help avoid possible damage to the receiver's electronics, allow the receiver to adapt to the ambient temperature and humidity level before connecting to the mains. This avoids condensation caused by a sudden change in temperature (e.g. from a cold car into a warm and humid room).

When you use or connect electrical equipment, always obey safety regulations to reduce the risk of fire, electrical shock and personal injury.

- Your receiver is designed to be powered from an electrical mains supply that is 230V AC 50/60Hz. Do not power the receiver from any other supply.
- Only use an approved extension lead suitable for the electrical power consumption of the installed equipment.

Disconnect the receiver from the mains before you start any maintenance procedures. Do not use alcohol or ammonia based liquids to clean the receiver. If required, clean with a soft lint-free cloth slightly made damp with a mild soap solution.

If the receiver does not perform as expected, or as described in this User Manual, do not attempt to open the receiver, as you will be exposed to a shock hazard. Consult the fault finding guide at the end of this manual and take the appropriate action advised. If in doubt consult your retailer or a competent technician.

Do not put any objects on top of the receiver which could fall through the ventilation slots or which could cover them and prevent proper cooling of the components inside. Do not put any objects into the ventilation slots. This can cause damage, fire or an electrical shock. Do not place any water filled object such as a vase on or near the receiver. This might fall and spill water into the receiver and cause damage, fire or an electrical shock. No naked flame sources, such as lighted candles, should be placed on the apparatus.

Make sure that nothing rests on the receiver's cables and that the cables are not located where people might trip over them or pets might damage or be damaged by them.

### ***Do not install the receiver:***

- in a closed or poorly ventilated cabinet;
- directly on top of or under other equipment;
- on a surface which will obstruct the ventilation slots.

### ***Do not expose the receiver and its accessories to:***

- rain or excessive moisture;
- direct sunlight, heaters, stoves or any other heat generating equipment;
- any magnetic objects such as speakers, electric motors, transformers, etc.;
- excessive vibration.

### ***To help avoid possible damage to the receiver's electronics:***

- wait 5 seconds after you have switched off the receiver before you move the receiver or disconnect any equipment.

## **2. storageAND TRANSPORT**

The receiver and its accessories are delivered in protective packaging. This packaging is designed to protect against excessive shocks and not against ingress of moisture.

If the receiver is to be stored or transported, pack it in the original or other equally protective packaging. Store the receiver in a dry room.

## **3. toUNPACK YOUR RECEIVER**

### **WARNING**

**KEEP THE PLASTIC PACKAGING AWAY FROM CHILDREN. THE PLASTIC PACKAGING MAY CLING TO NOSE AND MOUTH AND PREVENT BREATHING.**

When you unpack the contents of the box, confirm that all the parts are included, in accordance with the list printed on the box.

Unpack the contents of the box carefully. Electronic equipment is easily damaged if handled roughly. Examine all parts for damage that may have occurred during shipment. If you find any damage, stop unpacking the box and return the box and all the contents to the retailer from where you bought the receiver.

To help avoid possible damage to the receiver's electronics, allow the receiver to adapt to the ambient temperature and humidity level. This avoids condensation caused by a sudden change in temperature (e.g. from a cold car into a warm and humid room).

#### **3.1 THE DISPOSAL OF THE BOX**

If you have purchased this receiver in a protective box then it is recommended that you keep the packaging materials for a period of time. If you need to transport the receiver then it is preferable that you do so in this protective box.

#### **ENVIRONMENTAL REMARK**

Most of the packaging materials can be recycled. Dispose of the packaging in an environmentally safe manner. Please inform yourself of local regulations with respect to the disposal of reusable materials.

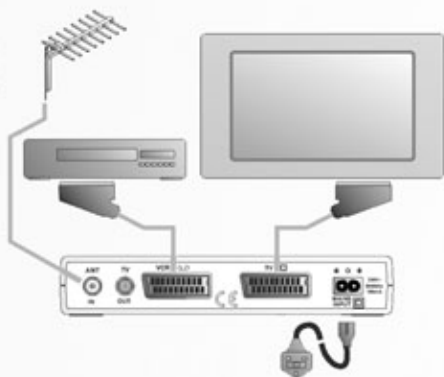
## **4. yourTERRESTRIAL AERIAL**

The T-101 FTA digital terrestrial receiver has been designed to receive UK digital television signals through your aerial in areas where such reception is possible. If you have a TV aerial for analogue television this may be suitable for the reception of digital signals provided that the aerial, cables and connectors are in good condition. In some areas of the UK the digital signals are transmitted from a different transmitter or are on a different frequency band to the analogue signals. In these areas you will probably need to purchase a new aerial.

Most retailers, aerial installers, the Digital Television Group and Freeview have information about areas of the UK covered by this service and the type of aerial needed.

## 5. connecting YOUR EQUIPMENT

The Quick Reference Guide overleaf contains simple information about installation and connecting your TV and VCR using fully featured SCART cables. In order to use the T-101 FTA in this manner you need to have a television with a SCART connector. This arrangement will allow you to record digital television on your VCR and playback tapes from your VCR.



If you also want to record analogue television from the same aerial, connect a UHF cable from the TV OUT connector on the T-101 FTA to your aerial in connector on your VCR. If you also want to watch analogue television on your TV, connect another UHF cable from your VCR to your TV aerial socket. If you have more than one SCART connector on your VCR and TV, you may want to connect a second SCART cable from the VCR to the TV to give you more options on how you view your VCR.

If your TV does not have a SCART connector you can watch digital television via most VCRs. Connect your SCART cable from the T-101 FTA to your VCR as described above. Connect your VCR to your TV using a UHF cable as described above. On your TV select your usual VCR channel to watch digital television.

## 6. system SETUP

If you are unsure about the use of the Remote Control Unit or the on-screen menus then please read the section below on User Interface before starting the tuning process described here.

Your receiver has been designed to self install and tune in all the digital channels available in your area. When all your equipment is connected in the manner described above, apply power to the TV and receiver and tune your TV to the output of the receiver to see the Welcome screen. Press OK on your Remote Control Unit to start the installation process.

Congratulations on selecting an EchoStar product

Please ensure that the aerial is plugged into the socket marked 'ANT', press OK and wait for Freeview services to be scanned

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Tuning will take a few minutes during which time a Tune screen will appear. When tuning is complete, the Tune screen will disappear and the receiver will display Channel 1. You should then follow the instructions in the Quick Reference Guide to setup your receiver to match the type of television you are using with this receiver.



## 7. userINTERFACE

The T-101 FTA has a series of on-screen displays and menus which have been designed to be self explanatory without the need to refer to documentation such as this User Manual. However this manual explains some of the basic functions.

The Remote Control Unit and the TV Programme Guide are described overleaf. The latter is referred to as 'GUIDE' on both the Remote Control Unit and the on-screen Menus.

The **MENU** key is used to access the main menu system. The **EXIT** key will remove all digital menus except persistent banners where the message needs to stay.

The T-101 FTA also has a comprehensive on-screen Help function, designed to help you through the menus should you need this. To access the help screens from the menus, press the **HELP** key on the Remote Control Unit and the help screen will be initialised. Help can be accessed at any point whilst using the menus. To exit the help menu press **HELP**.

The other keys on the Remote Control Unit are described overleaf.

### 7.1 PROGRAMME INFORMATION

The *i* key on the Remote Control Unit will bring up the first level of programme information.

This shows the logical channel number, channel name, time, and information about the current programme. ("Now"). The information banner appears at the bottom of the screen.



Use the left and right arrow keys to access information about programmes at other times on the same channel.

Use the up and down arrow keys to access information about programmes on other channels. If you want to watch the channel to which the banner refers, press OK. The information banner will be removed after a few seconds.

Press the *i* key again to display more detailed information about the programme. Press the *i* key again to remove the information banner.

The following icons are used to give you some information about the displayed event:



**DVB Subtitles are available for this event.**



**An MHEG application (Digital Text) is available for this event.**

### 7.2 PROGRAMME GUIDE

The Programme Guide shows a list of TV, Radio, and Text channels that are being broadcast now and later. To access the Guide press the **GUIDE** key. Use repeated presses of the **GUIDE** key to step around the TV, Radio and Text channels and to exit the Guide.

Use the **UP** and **DOWN** keys to highlight a channel.

Press the *i* key for information about the programme. Press the *i* key again to remove the information.

Press **OK** to select the highlighted channel. Press the **YELLOW** key to set a reminder for a highlighted later programme.

Press **EXIT** to immediately exit the Guide.

## 8. softwareUPDATES - OVER AIR DOWNLOADS

The T-101 FTA is of the latest generation of digital television receivers where the software can be upgraded to enable you to keep up with the latest developments. The upgrade takes place 'over the air' using one of the digital terrestrial multiplexers and is technically known as Over Air Download or OAD. When a new version of the software is available, the receiver will automatically display an on screen message where you will be asked if you want to download the new software now or later. It is recommended that you download it 'Now' to immediately enjoy the benefits of any improvements. The new software may be available for a fixed period only.

If you choose Download Now, then the software will be downloaded and a progress menu will be displayed. You will also see a telephone number that you should call in the unlikely event that the download fails. When the download is complete you should carefully follow the on screen instructions.

If you choose to Download Later, then the message will be removed. It will re-appear when the receiver next comes out of standby.

Some downloads may be signalled as high priority which means that EchoStar wants you to perform the download immediately. In this case, if the receiver is on, the download will automatically start when detected. If the receiver is in standby the download will commence on leaving standby.

OAD information is shown on the EchoStar UK website at [www.echostaruk.co.uk](http://www.echostaruk.co.uk).

## 9. troubleSHOOTING GUIDE

### 9.1 INSTALLATION RELATED PROBLEMS

PROBLEM	POSSIBLE CAUSE	WHAT TO DO?
My television does not receive any signal from the receiver.	Incorrect A/V channel selected on the TV.	Select the correct A/V channel on the TV.
	Incorrect SCART cable used.	Use a fully featured SCART cable.
My television shows black areas on the left and right of the screen.	Incorrect aspect ratio selected.	Check the receiver settings in the TV setup menu.
After receiver setup there are no TV channels tuned in.	Your aerial is not connected.	Make sure your aerial is connected.
	You are not in an area covered by UK digital terrestrial television.	Check with your aerial installer, retailer, Digital Television Group ( <a href="http://www.dtg.org.uk">www.dtg.org.uk</a> ), or Freeview ( <a href="http://www.freeview.co.uk">www.freeview.co.uk</a> ) that signals are available in your area.
	Your current TV aerial is not suitable for digital terrestrial television signals in your area.	Check with your aerial installer, retailer, Digital Television Group ( <a href="http://www.dtg.org.uk">www.dtg.org.uk</a> ), or Freeview ( <a href="http://www.freeview.co.uk">www.freeview.co.uk</a> ) and arrange for a new aerial to be installed
I did not get the 30 channels I was expecting.	There are not 30 channels available in your area.	
	Your current TV aerial is not suitable to receive all the available channels.	If there are significantly fewer than 30 channels you probably need a new aerial.

## 9.2 TV OR RADIO RELATED PROBLEMS

PROBLEM	POSSIBLE CAUSE	WHAT TO DO?
No picture or sound in the TV or radio mode.	Receiver is in standby.	Switch the receiver on.
	Cable related problems.	Check the cable connections.
	Aerial related problems.	Make sure the aerial is correctly adjusted.
Bad picture or noisy sound in the TV or radio mode.	Bad reception of the signal.	Make sure the aerial is correctly adjusted.
The TV shows a No Signal message.	Bad reception of the signal.	Make sure the aerial is correctly adjusted. Check the connection at the rear of the receiver.

## 9.3 (Remote Control Unit) RCU RELATED PROBLEMS

PROBLEM	POSSIBLE CAUSE	WHAT TO DO?
Receiver does not respond to the RCU.	Batteries are flat.	Insert new batteries.
Receiver sometimes does not respond to the RCU.	Direct sunlight onto the receiver or the RCU.	Use curtains or blinds to reduce the amount of sun onto the units or reduce the distance between the RCU and receiver
	RCU not aimed at receiver.	Aim the RCU at the receiver.
	Batteries are almost flat.	Insert new batteries.

## 9.4 HELP DESK

If you have tried the solutions outlined above and still have problems, you can call the EchoStar Digital Terrestrial UK help desk on 0870 080 2310. Calls are charged at UK national rates.

## **technical INFORMATION**

The T-101 FTA receiver conforms to 89/336/EEC (EMC) & 73/23/EEC (LVD), as amended, by meeting relevant UK standards.

### **POWER**

Mains Voltage: 230V AC 50/60Hz  
Power Consumption: Approximately 7.25W

### **AUDIO VISUAL**

TV SCART: CVBS Out, RGB Out, Audio Left and Right Out  
VCR SCART: CVBS In/Out, Audio Left and Right In/Out

### **AERIAL (ANT) IN**

Receiving Frequency: UHF 474-858MHz  
Input Impedance: 75 Ohm  
Input Signal Level: between -75dBm and -25dBm  
IF Bandwidth: 8MHz  
Transmission Mode: COFDM, 2K  
Constellation: 16QAM, 64QAM

### **TV OUT**

RF Loop through from AERIAL (ANT) IN

### **GENERAL**

Operating Temperature: 0°C - 40°C  
Storage Temperature: -5°C - 50°C  
Dimensions: 230 x 125 x 40 mm (WxDxH)

### **INDICATOR LIGHT**

Red: The receiver is in STANDBY.  
Green: The receiver is ON.  
Orange: The receiver is currently performing a Timed Event  
(See the on-screen Help for information about Timed Events.)



[www.echostaruk.co.uk](http://www.echostaruk.co.uk)

EchoStar International Corporation  
Schuilenburglaan 5a  
7604 BJ Almelo  
THE NETHERLANDS

EchoStar International Corporation  
Avenida de los Pirineos, 23  
San Sebastian de los Reyes  
28700 Madrid, SPAIN



**Digital Terrestrial Receiver**