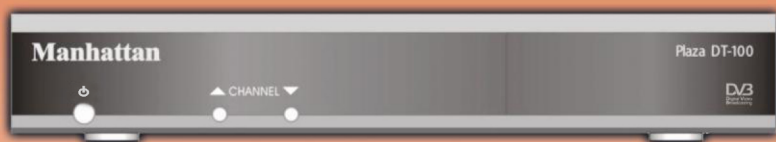


# Manhattan®

TECHNOLOGY WITH VISION



# Plaza DT•100

**Digital Terrestrial TV Receiver  
Owner's Manual**



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## **INTRODUCTION**

Please read this manual and the following general safety requirements carefully before installing the receiver. If you come across a word that you do not understand, please refer to the Glossary at the end of this manual.

The **Plaza DT-100** is a high performance Digital Terrestrial Television (DTT) Receiver, supporting various requirements of broadcast standards. This receiver includes the best possible features together with the most up-to-date electronics hardware and easy to use on-screen menu.

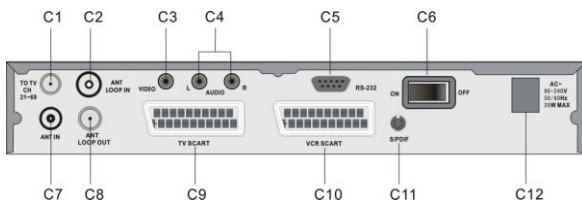
## **GENERAL SAFETY REQUIREMENTS**

Remember that contact with 230V AC mains can be lethal or can cause severe electric shock. To avoid this risk please follow below instructions

- This product is to be operated indoors only. Do not expose the receiver to rain or moisture.
- Do not place your receiver close to sources of heat, such as heater and direct sunlight.
- Never remove the top cover of the receiver. There are no user serviceable parts inside. Refer all servicing to qualified service agents.
- Disconnect the power before connecting or disconnecting anything.
- Do not place anything on your receiver that might drip or spill onto it. Never place the product near objects filled with water.
- Do not obstruct the ventilation slots of the receiver. Do not place the receiver on soft furnishings or carpet. Maintain a free airflow around the receiver.
- Do not use solvents of any kind to clean the receiver, only use a soft-dry cloth.

## **CONNECTORS AND DEFINITIONS**

Please do not connect power to the receiver until all other connections have been made.



**C1: TO TV** Connect this output to UHF input of your TV. This will allow you to tune your TV to analogue terrestrial programs as well as to use the built-in modulator for viewing the digital terrestrial programs.

**C2: ANT LOOP IN** TV aerial input to modulator.

**C3: VIDEO** Composite video output to connect to TV or AV monitor etc.

**C4: AUDIO LEFT/RIGHT** Audio outputs for connecting to a HI-FI system or to the TV audio input.

**C5: RS232** Connector for upgrading software via PC. Use NULL MODEM (female to female) cable to connect to your PC.

**C6: ON - OFF** Main power on/off switch.

**C7: ANT IN** Terrestrial antenna input.

**C8: ANT LOOP OUT** If you want to use loop through, connect this output to **ANT LOOP IN** connector.

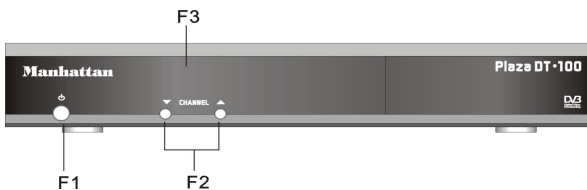
**C9: TV SCART** RGB, CVBS and Audio L & R SCART output to connect to TV.

**C10: VCR SCART** Connect VCR or DVD player via a SCART cable to this connector.

**C11: S/PDIF** To connect your receiver to digital audio amplifier.

**C12: Power Cord.**

## FRONT PANEL CONTROLS

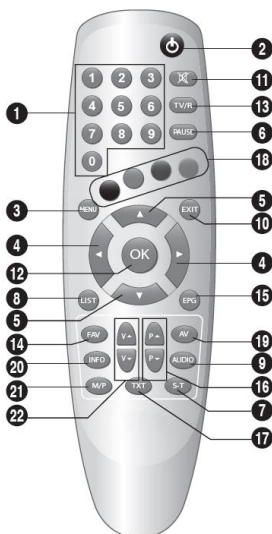


**F1:** Power on/off button.

**F2: CHANNEL** Channel up/down buttons.

**F3:** Status indicators. Red when the product is on standby. Green when it is switched on.

## REMOTE CONTROL FUNCTIONS



**1: 0~9** To enter the channel number you wish to view in normal use or to enter digital values when programming.

**2: STBY** To switch receiver on or to standby.

**3: MENU** To enter the main menu or to go back to the previous menu from a sub-menu.

**4:** Left & Right keys to navigate or modify various parameters.

**5:** Up & Down keys to move up or down when in menu.

**6: PAUSE** To pause the picture. Second press resumes normal view.

**7: S-T** To access the subtitles selection menu. When you activate the subtitles, they will appear after a short while.

**8: LIST** To display the channel list.

**9: AUDIO** To select an alternative audio track.

**10: EXIT** To exit all menus and go back to the channel you were watching.

**11: MUTE** Press once to stop the sound. Press it again to restore the sound.

**12: OK** To validate a choice in the menus.

**13: TV/R** To select TV or Radio mode.

**14: FAV** To access favorite list. Press several times to select the correct FAV list if you have defined more than one. To exit the FAV mode, go to **Menu / Favorites** and select **OFF**

**15: EPG** (Electronic Programs Guide) To view the program event details playing at the time and the following ones.

**16:** Page Up & Down keys to select next page in the lists.

**17: TEXT** Displays the digital Tele-text service, if available.

**18:** Color keys to navigate in the digital Tele-text if broadcasted by the service provider. The red key launches the digital Tele-text, if available.

**19: AV** To switch AV mode on or off for the TV. It allows you to view an analogue channel on your TV whilst recording a digital channel from your receiver.

**20: INFO** To display information (channel name, program, next program etc) on the current channel you are watching.

**21: M/P** To display a multi channel screen.

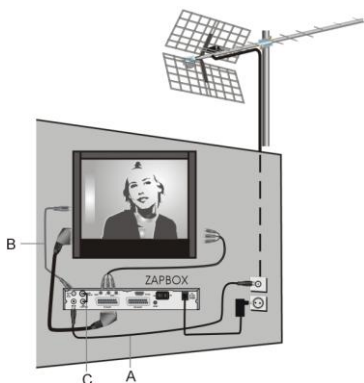
**22:** Volume UP & Down keys to adjust the sound volume.

The remote control requires two AAA 1.5V batteries. Ensure that these are fitted correctly. Please do not dispose of used batteries in your domestic waste bins. You may take them back to your point of sale and place them in the right container.

## **INSTALLATION**

Connect the TV antenna directly to the ANT input of the receiver. Connect the TV using SCART cable to the TV SCART outlet of the receiver (see below). Switch on the TV and connect the receiver to the main source. Switch on the main power switch on rear panel (**C6**) a red indicator appears on the receiver. Press STBY key on remote to switch on the receiver, the red indicator will turn green and the welcome screen appear on the TV.

If this is not the case, please double-check the TV SCART connections and select the correct A/V or EXT mode of your TV (refer to your TV manual).



**A:** Shows Screened CO-AXIAL cable for your TV antenna. Replace this in case of poor reception with a high quality cable.

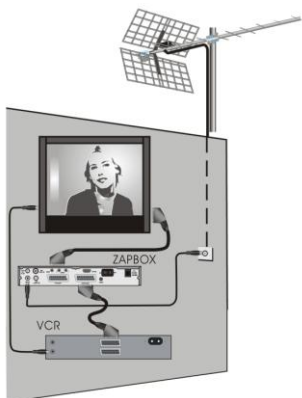
**B & C:** By connecting the Modulator output (**B**) TO TV to your TV and (**C**) LOOP OUT to LOOP IN on the receiver, you will keep the analogue channels on your TV. You can then record a digital channel whilst watching another analogue channel on your TV.

### **Connecting to TV via the TV SCART (C9)**

For clear picture quality, connect receiver to your TV with a full SCART cable. Select AV input on your TV.

### **Connecting to TV via the TO TV (Modulator output C1)**

Connect to your TV with a UHF (co-axial) cable and switch on the receiver. Select a spare channel on your TV and tune it to channel 64 or until you see the welcome screen. Finally store the setting on your TV. The receiver is factory set to channel 64. To change the output channel, see ADJUSTING OUTPUT SIGNAL TO TV on page 8.



## Connecting to VCR

Connect your VCR to the **VCR SCART** on your receiver.

## PROGRAMMING THE RECEIVER

Programming the receiver is achieved through the various menus. In order to simplify this, we will describe accessing a menu as below.

Press **MENU** key to access the main menu.

Press **Down** key to highlight **Setup**.

Press **OK** to confirm.

Press **Down** key to highlight **Service Setup**.

Press **OK** to confirm.

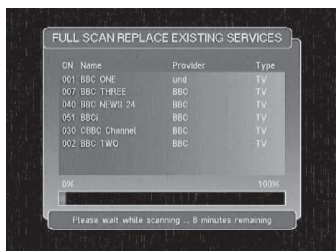
Enter the 4 digits PIN code (0000 on purchase).

Press **Up/Down** key to highlight a scan option (example; **Full Scan Add New Services**).

Press **OK** to start the channel search. Following screen will appear showing the search progress.

## TUNING SERVICES FIRST TIME

After the welcome screen appears on the TV, press **OK** to start the automatic channel search. Below screen will appear showing the search progress. When the search is finished, the first channel will appear.



If the search has not found all the available channels in your area, it probably means that you need to better the installation. See next paragraph.

If no channels are found, it probably means that your area may not be covered by the transmission or the antenna is not pointing to the digital transmitter. See next paragraph.

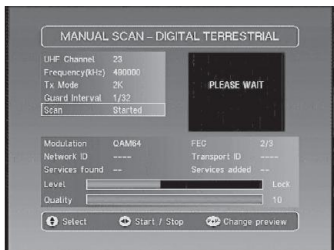
## WEDGING / ADJUSTING THE ANTENNA

If no channels are found through your current antenna, it means that, it is probably pointing towards an analogue only transmitter. If your area is covered by digital, it means that the programs are coming from another transmitter. Hence you will have to

adjust the antenna. See following options.

### **Option 1**

If you know at least one network between channel 21 and 69 is used in your area follow below setup.



**1.** Go to **Menu / Setup / Service Setup / enter PIN / Manual Scan.**

**2.** Press Left/Right key to select the channel number of the UHF network that transmits digital channels (see channels list on page 13).

**3.** On **Tx Mode**, select **2K** with the Left or Right key.

**4.** On **Guard Interval**, select **1/32** with the Left or Right key.

**5.** Wait for a few seconds and monitor the **Level** and **Quality** graphs.

**6.** Realign the antenna for maximum Level/Quality reception. When aligned correctly to the transmitter, the Signal Level and Quality should increase. On the Quality, 6 is minimum number for a stable image. If the Level does not increase, it means that you have selected an incorrect network number, or the transmitter is too far from your antenna.

**7.** Once you have achieved the maximum Level / Quality, fix the antenna position firmly.

**8.** Press **EXIT**.

**9.** Go to **Menu / Setup / Service Setup / enter PIN / Full Scan Replace Existing Services.**

**10.** Press OK to start scan.

### **Option 2**

You are able to receive national channels in analogue, but have no idea what you can receive in digital quality or if you are certain that you can receive additional channels, but you do not know which network is used for these channels, we advise that you do the following.

Install a UHF antenna with high gain (at least 15 dB) and connect it to the ANT input of the receiver. Adjust the antenna so it is in the same position as the previous one and start an automatic channels search. (Go to **Menu / Setup / Service Setup / enter PIN / Full Scan Replace Existing Services**).

If you find channels that you were unable to receive with your previous antenna, simply replace it with the new one. Otherwise align the antenna 1/8 of a turn and start another automatic search. Continue this process until you find at least a few channels.

**1.** Select one of the new channels received.

**2.** Go to **Menu / Setup / Service Setup / enter PIN/ Manual Scan.**

**3.** At the bottom of the screen, observe the signal level and quality.

**4.** Align the antenna to optimize the level and quality (quality must be at least 6).

**5.** Fix the antenna firmly.

**6.** Press **Menu** to go back to the previous menu.

**7.** Perform an automatic search (Go to **Menu / Setup / Service Setup / enter PIN / Full Scan Replace Existing Services**).

### **EDITING THE CHANNEL LIST**

There are two ways of editing the channel list. The first is to create Favourite channels.

The second is to delete, move or rename existing channels.

## Creating Favourite channels list



1. Go to **Menu / Favourites**. The first line indicates OFF, meaning that the favourites mode is inactive.
2. Press the green key to create a list and then the yellow key to edit its content. The screen will change to **EDIT FAVOURITES** with the main channel list on left and favourites list on right.
3. Use the Up & Down keys to highlight a channel and press **OK** to add to your Favourite list.
4. Press EXIT when you have finished.

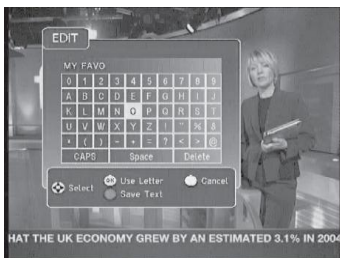
**NOTE:** A FAV list may contain TV and Radio services together.

## Selecting a Favourite channel

Go to **Menu / Favourites** then using Up / Down keys, highlight a list that you have created. Press **OK** and the menu will close meaning you have selected a list. Press Up / Down keys to select the required channel. You will remain in the Favourite list until you exit this list via the menu or change the list via the **FAV** key.

To exit the Favourite channel list, go to **Menu / Favourites** and highlight the first line **OFF** and press **OK**.

## Renaming a Favourite list



1. Go to **Menu / Favourites**.
2. Use Up / Down keys to highlight the list you wish to rename.
3. Press the yellow key and then the Right key followed by yellow key again. EDIT keyboard will appear.
4. Go to **Delete** using the Up / Down / Left / Right keys and press OK to delete the letters on current name.

5. Use the Up / Down / Left / Right keys to select one by one the letters and press OK for every letter.

6. After renaming press green key to store the settings. Finally press **EXIT**

## Editing the contents of a Favourite list

1. Go to **Menu / Favorites**.
2. Use the Up / Down keys to select the list you wish to edit.
3. Press the yellow key and then the Right key.
4. Highlight the channel you wish to delete.
5. Press the red key to delete the channel.
6. To move a channel, highlight it and press green key. Choose a new place for it with the Up / Down keys and press **OK** to confirm. Press **EXIT** to quit.

## Deleting channels

1. Go to **Menu / Service Organiser**.
2. Use the Up / Down keys to select the channel you wish to delete.
3. Press the red key. You are then requested to enter the PIN to allow service deletion.
4. Enter your PIN code (0000 on purchase).

5. Press **EXIT** to quit.

### **Moving channels**

1. Go to **Menu / Service Organiser**.

2. Use the Up / Down keys to select the channel you wish to move.

3. Press the green key and move the channel to the required position with the Up / Down keys.

4. Press **OK** to confirm the new position.

5. Press **EXIT** to quit.

**NOTE:** The channel will keep its logical number.

### **Renaming a channel**

1. Go to **Menu / Service Organiser**.

2. Use the Up / Down keys to select the channel you wish to rename.

3. Press the yellow key to view the keyboard.

4. Go to **Delete** using the Up / Down / Left / Right keys and press **OK** to delete the current name.

5. Use the Up / Down / Left / Right keys to select one by one the letters and press **OK** for every letter.

6. Press the green key to store the settings.

7. Press **EXIT** to quit.

### **ADJUSTING OUTPUT SIGNAL TO TV**

1. Go to **Menu / Setup / TV Setup**.

2. On **Television type**, select **4:3** or **16:9** depending on your screen format.

3. On **Widescreen** option if you have a 4:3 screen, you can choose on the way a 16:9 image will appear on your TV. See below.

a) The **Center Cutout** mode increases the image size without distorting it to fill the whole screen.

b) The **Full Frame** mode resizes the image horizontally in a 4:3 screen. The image is therefore distorted.

c) The **Letterbox** mode shows a full image, with black strips at the top and bottom of the screen.

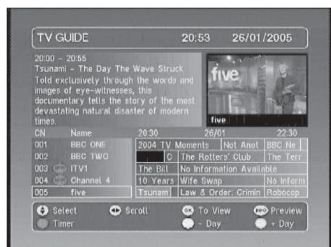
4. On **Standard**, choose between **RGB** and **CVBS**. The CVBS mode (composite) gives an image of lower quality than the RGB, but is compatible with all TVs.

5. On **UHF Standard** choose **PAL I** (for UK)

6. On **UHF Channel**, if you are using the UHF connection and you are getting some interference on the picture, select a different channel and retune your TV to the new channel.

### **ACCESSING THE EPG (Electronic Program Guide)**

Pressing the **EPG** key will allow you to access the details of current and next program playing for that channel as well as details for other channels.



The name of the program playing at the time appears in orange in the middle right window. You can select the following program with the Left / Right keys. A description of the program selected appears in the top left window.



Select another channel using Up / Down keys and you can pre-view its program details in the top left window and then by pressing the **INFO** key you can also view the picture for that channel in the top right window. Press **OK** if you wish to change to this channel or press **EXIT** to go back to previous channel.

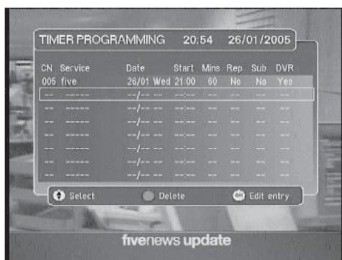
The blue key allows you to view the following days programs (as long as the information is being transmitted). Use the yellow key to go back on day.

When a program has been selected, you can press the red key to enter the information details directly in the recordings Timer Programming. If you press the red key for a program that is playing at that time, the recording will start and you must confirm all changes by pressing **EXIT**.

If the selected program has not started yet, you can press the green button to activate a reminder on this program. A reminder will appear regardless of what channel you are watching.

## **TIMER PROGRAMMING FOR VCR**

### **Programming**



**1.** Go to **Menu / Timer Programming**. This menu, lists the programs to be recorded.

**2.** To program a new recording, press **OK** on an empty line the menu will change. See following.



**3.** On **CN**, select the channel you wish to record using the Left / Right keys.

**4.** On **Date**, enter the date of the program with the **0~9** keys.

**5.** On **Time**, enter the time at which the program starts.

**6.** On **Duration**, enter the duration (hours & minutes) of the program.

**7.** On **Repeat**, select **No** if this is a one off recording, **Weekly** if you wish to record on the same day every week, or **Daily** if to be recorded every day at the same time.

**8.** On **Subtitles**, select **Yes** or **No** depending whether you wish to record these as well.

**9.** Press **OK** to store the settings.

You must then program your VCR in the similar way so that it starts recording at the same time. When recording on your VCR, remember that you have to select AUX or EXT input on the VCR that shows the corresponding channel you have selected on the receiver. Please refer to your VCR manual if necessary.

**NOTE:** If you switch on the receiver whilst a program is supposed to be recorded, you will be requested to confirm any changes by pressing **EXIT**. You cannot record a channel other than the one you are watching.

To playback a VCR tape, the receiver should be on standby. Simply insert the tape and start playing. The image will appear on the screen. If this is not the case, press the TV/VCR key on your VCR remote.

## **PARENTAL CONTROL**

Your receiver is supplied with a Factory default code (**PIN**) that is **0000**. This code allows you to lock channels that you do not wish others to access, or to protect the settings of the receiver. We advise you to change this code.

### **Modifying the PIN code**

1. Go to **Menu / Setup / Parental Control**.
2. Enter the 4-digits code **0000**.
3. Select **Change PIN** and press **OK**. Menu will change.
4. Enter the new 4-digits code using the **0~9** keys.
5. Enter this code once more.
6. Press **EXIT** to quit and save the settings.

**IMPORTANT!** Please keep your PIN code safe incase you forget your PIN code. You will require this for accessing the menus in future.

### **Locking channels**

1. Go to **Menu / Setup / Parental Control / enter PIN**
2. On **Lock/Unlock Services** press **OK**, channel list will appear.
3. Use Up / Down keys to highlight the channel you wish to lock.
4. Press **OK** and a lock symbol will appear next to the channel.
5. Press **EXIT** to quit and store the settings.

### **Censorship (Moral level)**

The **Censorship** parameter in the menu allows you to adjust an age limit. The standard value is OFF (no limits). To change, press Left / Right keys. If you change to a new limit, the PIN code will be requested to view the program that the operator decides can only be viewed by people older than the existing limit.

## **SELECTING RADIO CHANNELS**

Apart from TV channels, terrestrial digital also allows you to receive radio channels. As soon as you press the **TV/R** key, you enter the radio mode. From then on, the Up / Down keys will allow you to select from one radio channel to another. To go back to the TV mode, press **TV/R** key again.


## **RESETTING THE RECEIVER**

Follow this process if you have modified the settings and hence the receiver has become inoperative or is showing unexplainable problems. Resetting the receiver means that you will lose all the settings you have made including Favorites, Parental lock etc.

1. Go to **Menu / Setup / Service Setup / enter PIN / First Time Setup**.
2. Enter your PIN code again and confirm by pressing **OK**.

3. The menu will disappear and after this the receiver will re- initialize and the welcome page will be displayed.
4. The receiver is now back in its original Factory Default configuration.
5. Press **OK** to start the full scan of the channels again.

### **ASSISTANCE AND ADVICE**



**THIS PRODUCT HAS A 12-MONTH WARRANTY FROM THE DATE OF PURCHASE. DURING THIS PERIOD, IN AN EVENT OF ANY PROBLEMS, PLEASE RETURN TO THE RETAILER WITH PROOF OF PURCHASE.**

### **FREEVIEW™ coverage**



**Check FREEVIEW coverage in your area by texting your postcode followed by your house number or name to 83331\* or go to [www.freeview.co.uk](http://www.freeview.co.uk)**

(\*e.g. NW9 6NY 1, costs no more than a normal text)

### **What to do if you experience a reception problem**

To help you figure out the problem you have come across, it is useful for you to obtain more information on the locations of the digital transmitters, as well as the UHF networks that are used.

**IMPORTANT!** If you experience a problem with the digital terrestrial reception, it is necessary to define as clearly as possible the symptom of the occurring problem.

In the table below, you will find various solutions for problems you may come across.

<b>Symptom</b>	<b>Possible Cause</b>	<b>Solution (to try)</b>
You receive analogue channels without a problem, but not the digital channels.	Antenna is pointing to an analogue only transmitter. Digital channels may be on a different transmitter.	Adjust the orientation of your antenna see <b>Wedging / adjusting the antenna</b>
You receive analogue channels without a problem, but not the digital channels. You live in a flat	The installation of collective antenna is not adapted to terrestrial digital	Contact the flat owner or the residence union
You receive analogue channels without a problem, but not the digital channels.	Your area is not covered by the digital terrestrial yet.	There is no immediate solution.

Some channels are not received at all. The channels you are receiving do not have adequate signal and quality levels. The picture on analogue channels is not clear.	You are located far away from the transmitter.	1.Try an indoor amplifier 2.Try a mast amplifier 3.Try a high gain antenna.
You receive all digital channels but the reception is disrupted at times (i.e. when another electrical product is switched on).	You are experiencing electrical interference.	1. Replace the antenna cable with a screened cable. 2. Replace the accessories (splitters etc) with screened type.
You are receiving some networks but others are disrupted or not received at all.	You are experiencing echoes.	1. Slightly adjust the antenna. 2. Replace the antenna with Anti-Echoe Screens.
You receive some networks but others above channel 60 are disrupted or not received at all.	Your antenna has high loss for the upper UHF band.	You need a more powerful antenna for the whole UHF band.
You receive networks between 21 and 35 but none of those between 36 and 39.	Your antenna only receives one part of the UHF band	You need a more powerful antenna for the whole UHF band.
Your reception is fine most of the time but is disrupted when it rains or at some other random moments.	You are on the limit of the transmitters coverage area.	You need a more powerful antenna.

### **What is a disrupted reception in digital?**

In digital reception, a disrupted reception results in frozen picture (partially or totally) or the appearance of mosaic effect. The sound may disappear for a while, or strange effect can be heard. The consequences are totally different from the consequence in analogue (snow effect).

### **What about indoor reception?**

The transmission parameters are not optimised for indoor reception. As a consequence, even though it is possible to receiver Freeview channels with an indoor antenna, it is not guaranteed. Coverage areas are defined for a roof-aerial. Indoor reception is only possible at a short distance from the transmitter. Electronic interference from home

appliances such as washing machines, switches etc often cause fleeting reception problems when using indoor aerial.

## **GLOSSARY**

**Receiver:** Equipment that allows you to receive digital TV, like Free To View channels.

**Analogue Channels:** Nature of the signals used for terrestrial television since the middle of the 20th Century. Since digital has come along, analogue will disappear (starting 2008).

**Network:** Number given to a frequency band. In UHF, networks are numbered from 21 to 69.

**Transmitter:** Pylon that transmits digital or analogue signals, and towards which your antenna must be pointed.

**EPG:** Electronic Program Guide.

**FTA:** Free To Air = free channels.

**Digital:** Nature of the signals used in modern transmissions. Digital allow you to view more channels than analogue. Digital channels have existed for a few years on satellite and cable. They will replace the terrestrial analogue channels. One channel (e.g. BBC1) can be transmitted both in analogue and digital.

**Polarization:** Orientation of the transmitter wave. Most UHF transmissions are horizontal. The elements of your aerial must therefore be horizontal.

**Terrestrial:** Refers to transmissions in the air, as opposed to cable or satellite.

## **MULTIPLEXES & CHANNELS**

(please check <a href="http://www.dtg.org.uk/retailer/dtt_channels.html">http://www.dtg.org.uk/retailer/dtt_channels.html</a> for channels updates)					
MULTIPLEX 1	MULTIPLEX 2	MULTIPLEX A	MULTIPLEX B	MULTIPLEX C	MULTIPLEX D
BBC One	ITV 1	Channel 5	BBC Four	Sky Three	The Hits
BBC Two	Channel 4	abc1	Cbeebies	UKTV History	UKTV Bright Ideas
BBC Three	ITV 2	QVC	BBC Parliament	E4+1	f tn
CBBC	ITV 3	UK Gold	The Community Channel	SmileTV	TMF
BBC News 24	More E4	Bid TV	301 - BBC	Sky News	Ideal World
BBC i	E4	price-drop tv	302 - BBC	Sky Sports News	Film 4
	ITV 4	UK TV Style	303 - BBC	Sky Text	ITV 2+1
	Film 4+1	Eurosport	305	tvv digital	4TV Interactive
	CITV	Setanta Sports	1 Xtra BBC	talkSPORT	BBC World Service
	Teletext	Five Us	Radio 5 Live	Clyde1 Radio	The Hits Radio
	Teletext Holidays	Five Life	BBC Five Live Sports Extra	Premier Radio	Smash Hits!
	Teletext Cars	TopUpAny-time 1	BBC 6 Music	Virgin Radio	KISS
	Teletext on 4	TopUpAny-time 2	BBC 7		Magic
	Heart	TopUpAny-time 3	BBC Asian Network		Q
	Radio Music Shop	Thomas Cook TV			Oneword
		BBC radio 1			Smooth FM
		BBC radio 2			Kerrang!
		BBC radio 3			
		BBC radio 4			
		Teachers' TV			
		Television X			
		heat			
		MOJO			

## CHANNEL LIST

CENTRAL SCOTLAND AND TAYSIDE	TRANSMITTER NAME	CHANNEL N°	MULTIPLEX
	Black Hill	41	1
		44	A
		47	2
		51	B
		55	C
		65	D
	Torosay	21	C
		23	1
		26	2
29		A	
31		D	
33		B	
Darvel	22	1	
	26	2	
	28	B	
	30	C	
	32	A	
	34	D	
Rosneath	48	D	
	53	2	
	57	A	
	60	B	
	63	C	
	67	1	
Craigkelly	23	A	
	26	B	
	29	2	
	33	1	
	39	D	
	42	C	
Angus	56	C	
	59	A	
	62	B	
	65	D	
	66	2	
	68	1	

GRAMPIAN AND THE HIGHLANDS	TRANSMITTER NAME	CHANNEL N°	MULTIPLEX
	Durris	30	1
		34	2
		41	C
		44	D
		51	B
		52	A
	Knock More	30	2
		34	1
		53	A
56		D	
57		B	
60		C	
Rosemarkie	41	A	
	44	B	
	46	C	
	47	1	
	50	D	
	51	2	
Eitshall	22	A	
	25	B	
	28	C	
	30	2	
	32	D	
	34	1	
Rumster Forest	22	2	
	25	A	
	28	1	
	32	B	
	59	D	
	62	C	
Keetylang Hill	41	A	
	44	B	
	47	C	
	48	1	
	51	D	
	52	2	
Bressay	21	1	
	24	2	
	27	A	
	31	B	
	66	C	
	68	D	

LONDON AND SOUTH EAST	TRANSMITTER NAME	CHANNEL N°	MULTIPLEX
	Crystal Palace	22	2
		25	1
		28	B
		29	D
		32	A
		34	C
	Guildford	41	A
		44	2
		47	C
49		1	
51		B	
54		D	
Reigate	21	2	
	24	A	
	27	B	
	31	1	
	39	C	
	66	D	
Tunbridge Wells	39	C	
	42	A	
	45	B	
	55	1	
	59	D	
	61	2	
Hemel Hempstead	48	1	
	55	2	
	59	B	
	60	A	
	62	C	
	65	D	
Bluebell Hill	24	2	
	27	A	
	39	D	
	42	C	
	45	B	
	59	1	
Dover	55	A	
	57	C	
	58	B	
	60	D	
	61	2	
	68	1	

EAST ANGLIA	TRANSMITTER NAME	CHANNEL N°	MULTIPLEX
	Tacolneston	53	A
		58	B
		60	2
		61	C
		63	1
		64	D
	Sudbury	39	B
		48	A
		49	1
50		D	
54		C	
68/68		2	
Sandy Heath	40	C	
	42	1	
	43	A	
	45	2	
	46	D	
	67	B	

TRANSMITTER NAME	CHANNEL N°	MULTIPLEX
Sutton Coldfield	41	1
	44	2
	47	A
	51	B
	52	C
	55	D
Brierley Hill	56	A
	59	B
	62	D
	65	2
	66	C
	68	1
Bromsgrove	23	B
	26	C
	29	2
	30	D
	33	A
	34	1
Maivern	39	2
	41	D
	44	B
	47	A
Larkstoke	51	C
	52	1
	21	1
	24	A
	27	B
	31	2
Fenton	57	C
	60	D
	22	A
	25	B
	28	C
	30	2
The Wrekin A	32	D
	34	1
	21	1
	24	A
	27	B
	31	2
The Wrekin B	53	C
	57	D
	39	1
	42	A
Ridge Hill	45	B
	49	2
	42	C
	45	D
	53	1
	57	2
Oxford	60	A
	63	B
	29	D
	34	1
	48	C
	51	A
Waltham	52	B
	68	2
	23	2
	26	A
	33	B
	42	D
Nottingham	45	C
	49	1
	29	C
	39	1
	53	A
	59	D
	63	B
	67	2

TRANSMITTER NAME	CHANNEL N°	MULTIPLEX	
Blisdale	21	2	
	24	B	
	27	C	
	31	A	
	34	1	
	42	D	
Pontop Pike	48	1	
	53	D	
	55	2	
	59	A	
	62	B	
	65	C	
Fenham	22	2	
	25	A	
	28	B	
	30	1	
	32	C	
	57	D	
Chatton	40	1	
	43	A	
	46	B	
	47	C	
	50	2	
	51	D	
Caidbeck	23	2	
	25	1	
	26	A	
	39	B	
	42	D	
	45	C	
Sandale	67	2	
	Selkirk	53	1
		56	D
		57	2
		60	A
		63	B
66		C	

TRANSMITTER NAME	CHANNEL N°	MULTIPLEX
Winter Hill	56	1
	60	C
	63	D
	66	2
	67	B
	68	A
Winter Hill B	43	C
	40	D
Pendle Forest	21	1
	24	2
	27	A
	30	C
	31	B
	34	D
Saddleworth	39	C
	41	2
	44	A
	47	1
	51	B
	56	D
Storeton	23	A
	26	B
	29	C
	30	1
	33	D
	34	2
Lancaster	22	2
	25	A
	28	1
	30	D
	32	B
	34	C
Emley Moor	40	2
	43	A
	46	B
	49	D
	50	C
	52	1
Sheffield	39	1
	42	D
	46	C
	53	2
	57	A
	60	B
Chesterfield	34	1
	40	2
	43	A
	46	B
	50	C
	52	D
Keighley	30	C
	34	D
	48	1
	53	B
	66	A
	68	2
Idle	30	C
	34	A
	42	D
	46	1
	53	2
	56	B
Belmont	30	1
	48	2
	57	D
	60	C
	66	B
	68	A
Olivers Mount	49	1
	54	A
	58	B
	61	C
	64	D
	67	2

TRANSMITTER NAME	CHANNEL N°	MULTIPLEX
Divis	23	A
	26	B
	29	1
	33	2
	34	D
	46	C
Limavady	53	A
	57	B
	58	2
	60	C
	63	D
Broughe Mountain	67	1
	23	A
	26	B
	29	C
	30	1
	33	D
34	2	

TRANSMITTER NAME	CHANNEL N°	MULTIPLEX
Rowridge	23	1
	26	C
	30	A
	32	B
	33	D
	28	2
Salisbury	52	D
	55	1
	56	2
	59	A
	62	B
	65	C
Whitehawk Hill	48	B
	50	2
	55	A
	58	C
	61	D
	66	1
Hannington	40	A
	41	D
	43	2
	44	C
	46	B
	50	1
Midhurst	55	1
	59	B
	60	D
	62	A
	64	C
	65	2
Heathfield North	29	2
	34	1
	47	B
	48	A
	51	D
	54	C
Hastings	21	A
	24	B
	27	2
	31	1
	60	D
	63	C

TRANSMITTER NAME	CHANNEL N°	MULTIPLEX
Mendip	55	2
	56	C
	59	1
	62	A
	65	B
	67	D
	22	1
	25	2
Bristol KW	28	A
	30	C
	32	B
	34	D
	39	2
	41	A
	44	B
Bristol IC	47	C
	49	1
	51	D
	22	1
	25	A
	28	2
Stockland Hill	30	C
	32	B
	34	D
	52	1
	54	B
	56	C
	58	A
Beacon Hill	61	2
	64	D
	53	C
	54	1
	58	2
	61	A
	64	B
Huntshaw Cross	47	D
	51	C
	21	B
Huntshaw B	24	C
	27	D
	31	2
	34	1
	48	A
	52	1
Caradon Hill	56	D
	60	B
	63	C
	66	A
	67	2
	39	1
Plympton	42	2
	43	C
	45	A
	49	B
	50	D
	39	1
Redruth	42	2
	43	C
	45	A
	49	B
	50	D

TRANSMITTER NAME	CHANNEL N°	MULTIPLEX
Wenvoe	30	1
	34	2
	40	A
	43	C
	46	D
	50	B
Kilvey Hill	21	C
	22	2
	25	1
	28	A
	31	D
	32	B
Aberdare	23	A
	26	B
	28	1
	29	C
	32	2
	33	D
Pontypool	42	A
	45	B
	48	2
	52	1
	66	C
	68	D
Carmel	55	1
	59	A
	62	B
	65	2
	66	D
	68	C
Fresell	39	A
	42	B
	45	C
	47	1
	49	D
	51	2
Blisepwylf	22	2
	26	A
	28	1
	29	C
	32	B
	33	D
Llanddona	45	D
	54	2
	58	A
	61	B
	64	C
	67	1
Moel-y-Parc	30	C
	34	D
	54	1
	58	2
	61	A
	64	B



## **GENERAL SPECIFICATIONS**

### **Digital Tuner**

Input Connector	Co-axial 75 Ohm, IEC 169-2, Female
Output Connector	Co-axial 75 Ohm, IEC 169-2, Male
Input Frequency	470 MHz ~862 MHz (UHF)
Signal Level	-10 ~ -82 dBm

### **System Memory**

Flash	1MB
SDRAM	16MB

### **Decoder**

Transport Stream	MPEG-2 ISO/IEC 13818
Profile Level	MPEG-2 Main Profile @ Main Level
Input Rate	Max. 60 Mbit/s
Video Formats	4:3 / 16:9 Selectable

### **A/V & Data In / Out**

TV SCART	Video Output (CVBS, RGB). Audio output with Volume Control (Resolution: 16 bits DAC, Max 2Vrms)
VCR SCART	Video Output (CVBS) Video Input (CVBS) Audio Output (Resolution: 16 bits DAC Max.2Vrms)
Video	RCA / Cinch, Video Output (CVBS)
Audio Format	MPEG Layer I & II, 32 / 44.1 / 48KHz
Audio R/L	RCA/Cinch Volume & Mute Control
Digital audio	S/PDIF Output, RCA (IEC958)
Data Port	RS-232. Transfer rate 115.2 Kbps 9-Pin D-sub male type

### **RF-Modulator**

Connectors	75 Ohm, IEC 169-2 Male/Female
Frequency	470 to 850 MHz
Output Channel	CH 21 – 69 for the re-modulator
TV Standard	PAL G, I, K
Preset Channel	CH 64 (software changeable by Menu)

### **Power Supply**

Input Voltage	AC230~240V, 50Hz
Type	SMPS
Power Consumption	Max 10W (Standby 7.3W)

### **Physical Specifications**

Size (W X H X D)	W 260 mm, H 45 mm, D 200 mm
Weight (Net)	1.8KG

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