

zapbox twin

2-in-1 Digital Receiver

Ref : 441525

3500 channels

Parental lock

2 scarts

Wide screen ready

DiSEqC 1.0

Sound volume equalizer

SATELLITE + FREEVIEW



MET531

METRONIC

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CAUTION

Your receiver has ventilation slots. These slots must not be obstructed, even partially, in order to ensure proper ventilation. The lifetime of your device depends on these factors. The device may not be exposed to dripping or splashing and no object filled with liquid, such as vases, must be put on the device. Installation in premises which are confined or subject to temperature or dampness changes (sheds, attics, cellars, tiny rooms, dry risers etc.) may cause an overheating of the device or a premature ageing resulting in failures that are not covered by the guarantee.

Never open the receiver even when it is not connected, because it contains electrical components, which can be dangerous for you. In general, electrical appliances are not earthed, so you can get electrical discharges (which are not risky), while implementing the connections. Our advice is to connect the equipment after all the sockets connections have been made.

To clean the receiver or its remote control, do not use any solvent or detergent. Use only a dry cloth for dust or slightly dampened with water for the front panel. Always carry out this operation after having disconnected the receiver from the mains.

For your own safety:

Never open the device. It contains no item that can be serviced by the user. If you open it, make some changes on circuits or connections of non-compliant equipment it will cancel the guarantee. If necessary, please return the receiver, for service, only to the point of sale.

In order to reduce the risks of fire, electrocution or damage caused to another equipment or someone, do not expose the device to dampness, bad weather, dust, sand, sun, cold or high temperature. You must use the device between 0°C to 40°C; 32°F to 104°F. Place your receiver in a dry place, safe from dust. It is not designed for outdoor use.

The remote control needs two AAA 1.5V batteries. Check the polarity before fitting them into the remote control. Do not throw your used battery in the bin, take them to your local store where special containers are provided to recycle them.

The installation and the use of the receiver are based on pre-programmed channels. In the event of problem on a channel, get a specialised magazine to find out if this channel is still broadcasting in Free To Air. For your information, the operators frequently change the channel's characteristics without notice.

Your receiver is compatible with DiSEqC* 1.0 standard. As a consequence, you can drive up to 4 dishes, each fitted with one single universal head (LNB). It can also handle monoblocs (dual head with integrated switch). Since it is not compatible with DiSEqC* 1.2 standard, you can't drive a motor.

The device doesn't allow to watch a channel while recording another one.

Some channels, even broadcast in free to air (FTA), are reserved for adult audience. To prevent children from viewing these channels, we strongly recommend you to lock them and install a secret code.

* DiSEqC is a trademark registered by Eutelsat.

The first time you switch your AccessBOX on, you are prompted to enter the desired language for On Screen Display. Just press ◀ and EXIT to select English. This language selection window is also shown after resetting the unit (factory settings).

Altering the settings of the receiver requires to go through the menus. For an easy reading of this User Guide we have shortened the operations as: MENU / menu / sub-menu. For example, when you read:

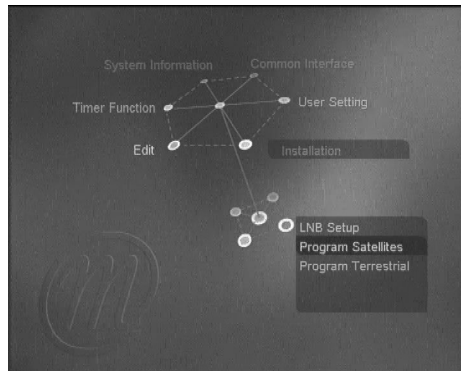
- Go to MENU / **INSTALLATION** / **Program Satellites**,

You will have to:

- Press on **MENU** key to go to the main menu.
- Press on ▶ key to highlight the **Installation** menu.
- Press on OK to select this menu.
- Press on ▼ key to highlight the sub-menu / **Program Satellites**.
- Press OK to select.



You will notice that the words in bold letters in this user manual are those which appear on the screen of your television.



This symbol indicates that the product must not be treated as household waste. The harmful substances possibly contained in the equipment may have negative consequences on the environment and / or the human health. At the end of its life, bring any electronic equipment back to your retailer or at the collection point that your city or town puts at your disposal.

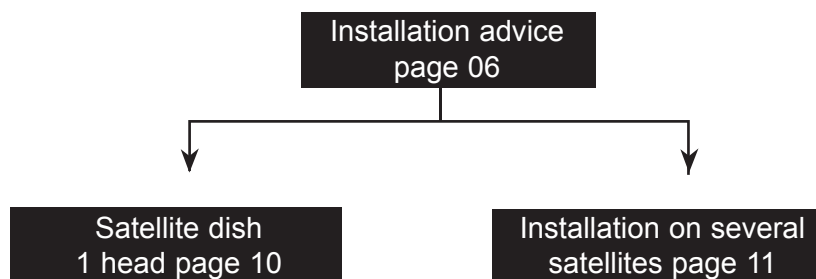
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Installation shortcut:

Purchase of the receiver alone (your satellite dish is already aligned) page 13

Purchase of the receiver + satellite dish:



1 - Installation advice

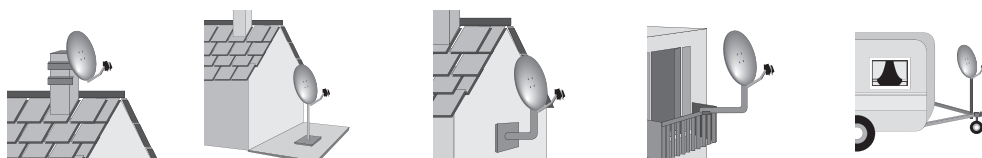
Foreword

Your Zapbox twin terminal allows you to receive satellite digital channels, as well as Freeview (terrestrial) channels. In the case of satellite channels, these can be pre-programmed. Your Zapbox twin receiver therefore includes satellite channels which you can start viewing immediately, if a satellite dish has already been installed. Please be aware that the frequency of terrestrial channels varies from one region to another. You will therefore need to search for these channels.

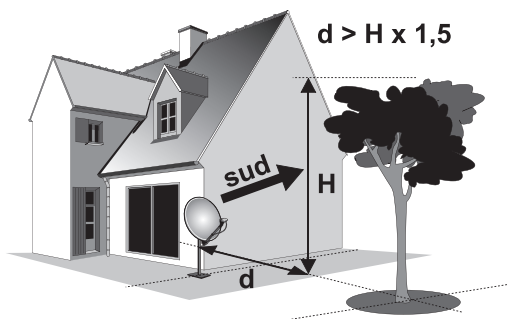
To make this manual easier to read, the installation procedure has been divided in two parts. First, you will start by installing the receiver and the satellite dish only. The terrestrial installation is carried out in the second part (page 15).

A - Choice of the location and satellite dish assembling

Whatever your choice of installation, your fixing must be stable and vertical.



In the event of an obstacle, respect the rule of distances explained below.



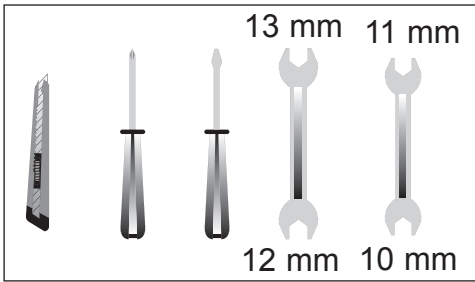
Eg : if the dish is 3 meters above the ground, and a 7m high tree might hide the satellite, the tree must be at least 6m far from the dish ($7-3=4$, $4 \times 1,5=6$).

For the satellite dish assembly, look at the assembly sheet provided with the satellite dish.

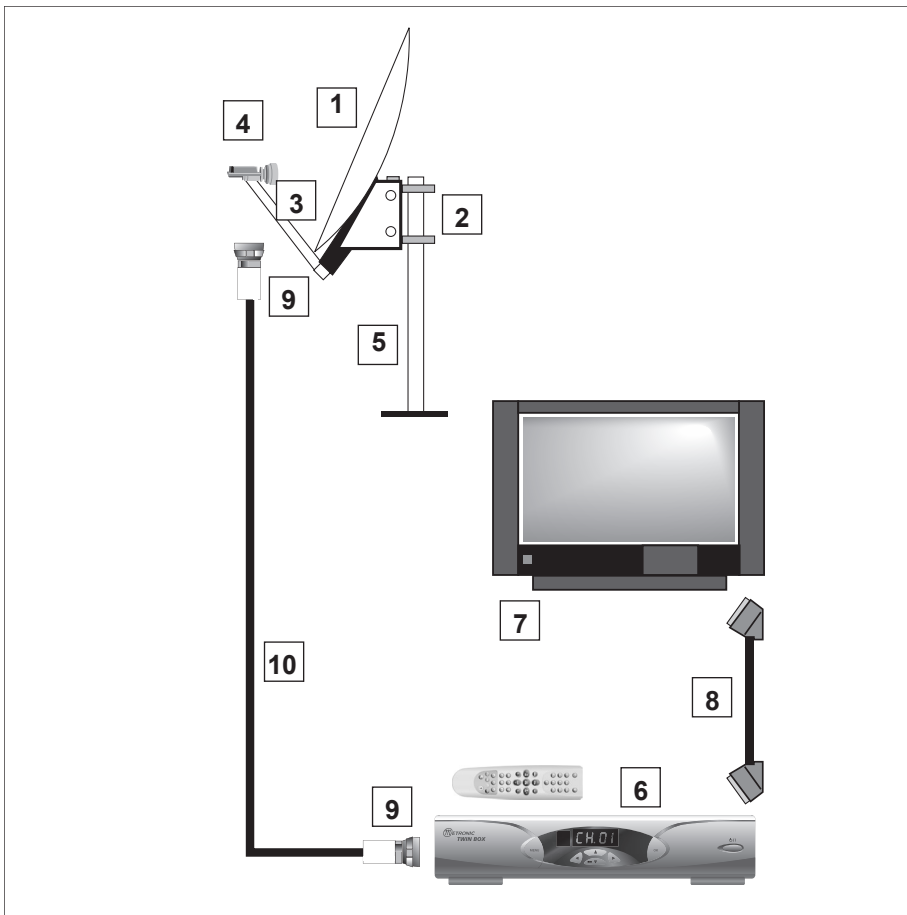


CAUTION: Please handle the satellite dish with caution because its fringes may be sharp.

B - Necessary elements:



- 1 Satellite dish
- 2 Screw and fixing
- 3 Offset arm
- 4 Universal LNB
- 5 Mast or stand off arm
Recommended diameter minimum: 40 mm (1,6")
- 6 Satellite receiver
- 7 TV set PAL for digital reception and PAL/SECAM for analogue (to be able to watch it in colour)
- 8 Scart lead male/male 21 pin
- 9 «F» plug
- 10 Cable special for satellite, (regular TV cable may not work)



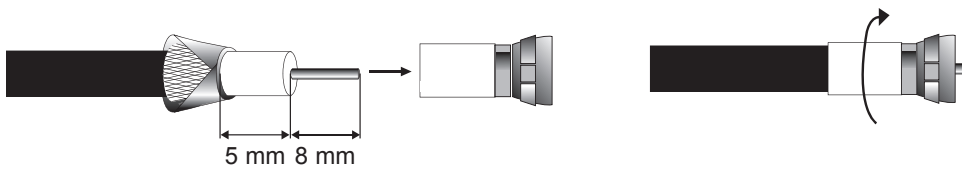
This scheme doesn't mention terrestrial connections.

C - Assembly and insulation of the «F» plug

- The plug must be screwed on the strip iron aluminium. Take care that there is not a strand of the braid in contact with the central heart of the coaxial cable
- When your installation is finished, do not forget to protect the LNB with appropriate water-proof material. (see picture below).



LNB's badly insulated or not insulated at all are not covered by the guarantee.



D - Mounting of the LNB

- It must be vertically positioned. As shown on figure D2, the cable runs out vertically.



Attention : Never pull off the protection horn of the LNB.



E - Pre-programmed channels and satellites

Your receiver is delivered pre-programmed on the main satellites available in Europe. Some satellites require a one-meter satellite dish, you will not be able to receive them with a lower size satellite dish, even if this satellite appears in your pre-programmed channels list. You will use these channels to point your satellite dish towards the satellite you want. The Table 1 gives you the satellite dish necessary size, in the United Kingdom and the Republic of Ireland, for each satellite, as well as references channel that will be useful for you to align with a satellite.

Tableau 1 : chaînes de référence

(*) The channel numbers apply to the TV list at output of the factory.
If you modify the organisation of the channels, these numbers are not valid any more.

#	SAT Name	Position	Ø	Channel# *	Channel Name	TP (freq / SR / pol)
1	Atlantic Bird 3	5°W	80 cm	1483	GCPE1	12543 / 27500 / H
3	Astra 19	19,2°E	60 cm	1266	TV 5	11568 / 22000 / V
4	Hot Bird	13°E	80 cm	1033	ZDF	11054 / 27500 / H
5	Eutelsat W2	16°E	95 cm	1492	Georgian Re.	12608 / 27500 / H
7	Tuksat 1C	42°E	80 cm	1568	TRT1	11096 / 27500 / V
8	Astra 28	28,2°E	60 cm	1381	BBC ONE	10773 / 22000 / H
9	Hispasat 1A	30°W	80 cm	1609	TV GALICIA	11811 / 27500 / V
10	Arabsat 2A3A	26°E	120 cm	1506	Kuwait	11747 / 27500 / V
11	Sirius 2	5°E	80 cm	1550	Moscow o. w.	12380 / 27500 / H
12	Eutelsat W3	7°E	85 cm	1560	M6 Suisse	11283 / 27500 / V

Important notes:

- Table 1 does not mention the satellites which do not broadcast (or with a very low signal) on Digital Free to Air. The reference channels were validated at the time of the drafting of this user manual, we cannot guaranty they will still be there. In the event of problem at the time of searching for a satellite, get specialised magazine (like What satellite and Digital TV) to check that the reference channel is still a Free to Air channel.

For the alignment, you must imperatively know which satellite you wish to receive. If you have any doubt, check the pre-programmed channels at the end of this user manual.

F - Language selection

When you first switch on your receiver, you will need to select the language required with the ◀ ▶ keys. Confirm your choice by pressing EXIT. If this option is not available, we strongly advise you to reset the receiver (see page 30). This selection will also be required after a factory reset.

2 - Installation of a fixed dish on a satellite

Read the installation advices, and particularly the paragraph E (page 9).

A - Connections

The receiver must be disconnected from the mains, connect directly the LNB to the LNB input of the receiver. Connect the television to the receiver scart socket output. Switch on the television and connect the receiver to the mains. The green LED lights on. The red LED is ON. Press the power key (⏻) of the remote control, the green LED lights on. If the television does not display a black screen with a message «BAD OR NO SIGNAL», check the scart leads connections and/or force the A/V or EXT mode of your television (see your TV user manual).

B - Alignment / Satellite dish orientation

Find in Table 1 (page 9) channel number of the reference channel of the satellite that you wish to receive (example: 1381 = BBC ONE for Astra 28°). Type on the remote control the channel number.

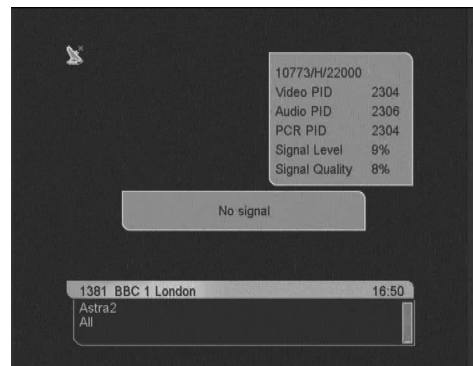
Press on the remote control INFO key to show the reception level. This indicator shows normally 0%; the alignment will consist in directing the satellite dish toward the satellite, leading to a maximum level and quality.

Beware, it may be useful to search for the south with a compass. However, never use a compass to find the supposed location of a satellite. For instance, you may guess that Astra 28° is located 28° left from south. It's false! Just sweep the dish as explained, this method works better.

Put the satellite dish in a vertical position (the graduations on the back show 20-25°) and roughly direct it towards the south. Make a slow sweeping (about 20 seconds) of a quarter of a spin on the left then a quarter of a spin on the right while checking on the television. The indicator should not show anything at this stage.

Incline the satellite dish of 2 degrees (a little less than 1 inch at the top of the dish) towards the top and then start again the sweeping.

Proceed by 2 degrees steps until the indicator goes up and that the channel appears. Tighten all the screws definitively, except those which fixing the LNB in its holder. If the indicator increases, but no images appear on the screen, it means you are on another satellite, it is necessary to continue sweeping.



C - Adjustment of the polarisation

Rotate the LNB clockwise in its holder for a few degrees to further increase the quality of signal. If the signal decreases, rotate it in the opposite direction.

Once you obtain the best signal, tighten definitively all the screws. Your installation is finished. Press on EXIT to hide the information banner. You can now watch all the satellite channels from the satellite you just aligned your satellite dish on.

3 - Installation on several satellites

A - Installation of a bi-head satellite dish Astra / HotBird

This paragraph explains how to install a separated switch or a monobloc (dual LNB with integrated switch)

In both cases, you must first declare the switch input for each satellite, and then align the dish(es)

Switch declaration

- Go in MENU / **Installation** / **LNB Setup**.
- On the **Satellite** line, select **Hotbird** with ◀ ▶ arrows.
- On the **DiSEqC switch** line, select **Tone A** with ◀ ▶ arrows.
- On the **Store** line, press OK to save this setting.
- On the **Satellite** line, select **Astra1** with ◀ ▶ arrows.
- On the **DiSEqC switch** line, select **Tone B** with ◀ ▶ arrows.
- On the **Store** line, press OK to save this setting
- Press EXIT to quit the menus.

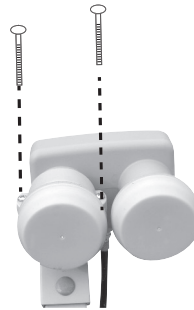
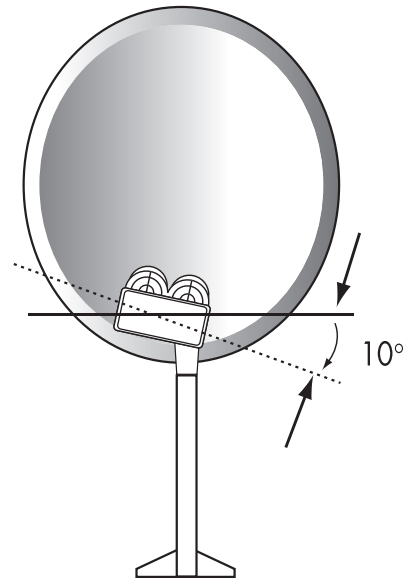


Alignment of the dish

- Install the monobloc on the dish arm as depicted on the figure
- Align the dish on HotBird as explained in the previous paragraph
- Check that you receive channels from both Astra and HotBird
- If not, adjust the alignment to receive perfectly both satellites.



Attention, some models of monobloc may have a reverse setting. In that case, you must change the programming of the receiver (Astra on input port 1 and HotBird on input port 2).



B - Installation of a DiSEqC 1.0 switch

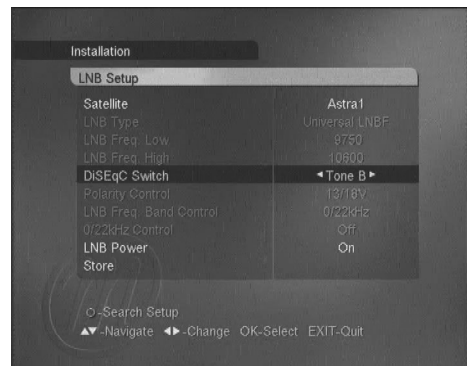
If you install 2 or more dishes, or 2 LNB on the same dish, you must connect all the LNB to a switch, featured with one single output, allowing to run one cable between the dish and the receiver. For the installation, align each dish / each LNB just as if it was alone, connecting directly this LNB to the receiver with one cable, without any switch. Once all the dishes are aligned, install the switch and alter the settings of the receiver to properly drive the switch.

Example for 2 dishes on Astra and Hotbird, Astra being connected to the input 2 (or B) of the switch, and Hotbird being connected to 1 (or A):

Programming

- Go in MENU / **Installation / LNB Setup**.
- On the **Satellite** line, select **Hotbird** with ◀ ▶ arrows.
- On the **DiSEqC switch** line, select **Tone A** with ◀ ▶ arrows.
- On the **Store** line, press OK to save this setting.
- On the **Satellite** line, select **Astra1** with ◀ ▶ arrows.
- On the **DiSEqC switch** line, select **Tone B** with ◀ ▶ arrows.
- On the **Store** line, press OK to save this setting
- Press EXIT to quit the menus.

✍ You can now watch channels from both Astra (19) and Hotbird (see «Day to day operation» page 19).



4 - Connection to an already installed dish

The receiver being disconnected from the mains, connect directly the LNB to the LNB receiver input. Connect a scart lead from the television to the receiver TV output scart socket. Switch on the television, connect the receiver on the power supply, the red LED is ON. Press the power key (⏻) of the remote control, the green LED lights on. Check in the list of the pre programmed channels at the end of the user manual. You can select and watch the channel of this satellite.

5 - Connection on a dual-head system Astra 19,2° + Hotbird already aligned

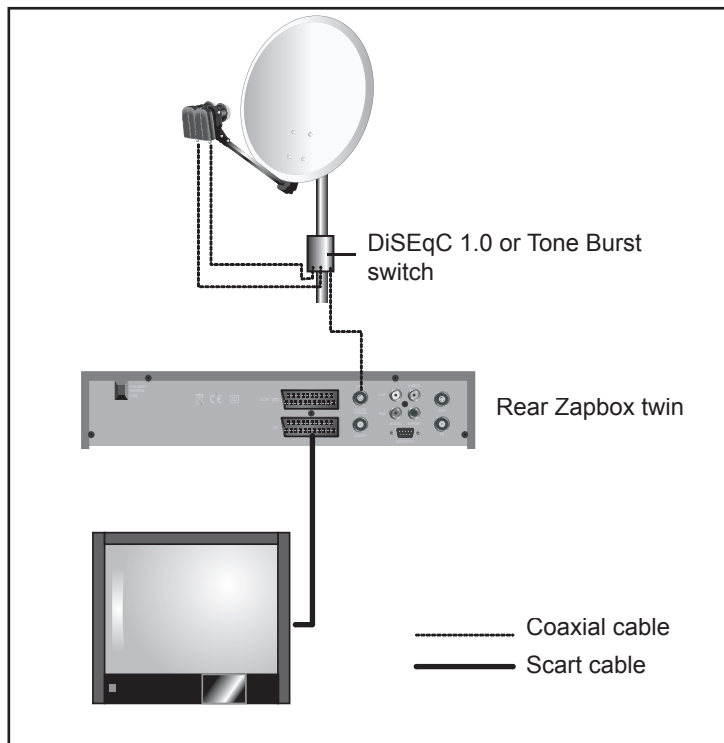
Connect the cables and the leads as indicated on the figure below (figure n°4). It is useful to know on which inputs of the switch the heads Astra and Hotbird are connected. If you do not know it and the installation is difficult to reach, test the 2 possible combinations:

Astra on A and HotBird on B or Astra on B and HotBird on A.

To program your receiver, go to page 11, installation of a Bi-head satellite dish Astra 19,2° + Hot Bird.



Caution: you should not alter the satellite dish adjustments or the switch, it is only necessary to program your digital receiver.



6 - Terrestrial installation

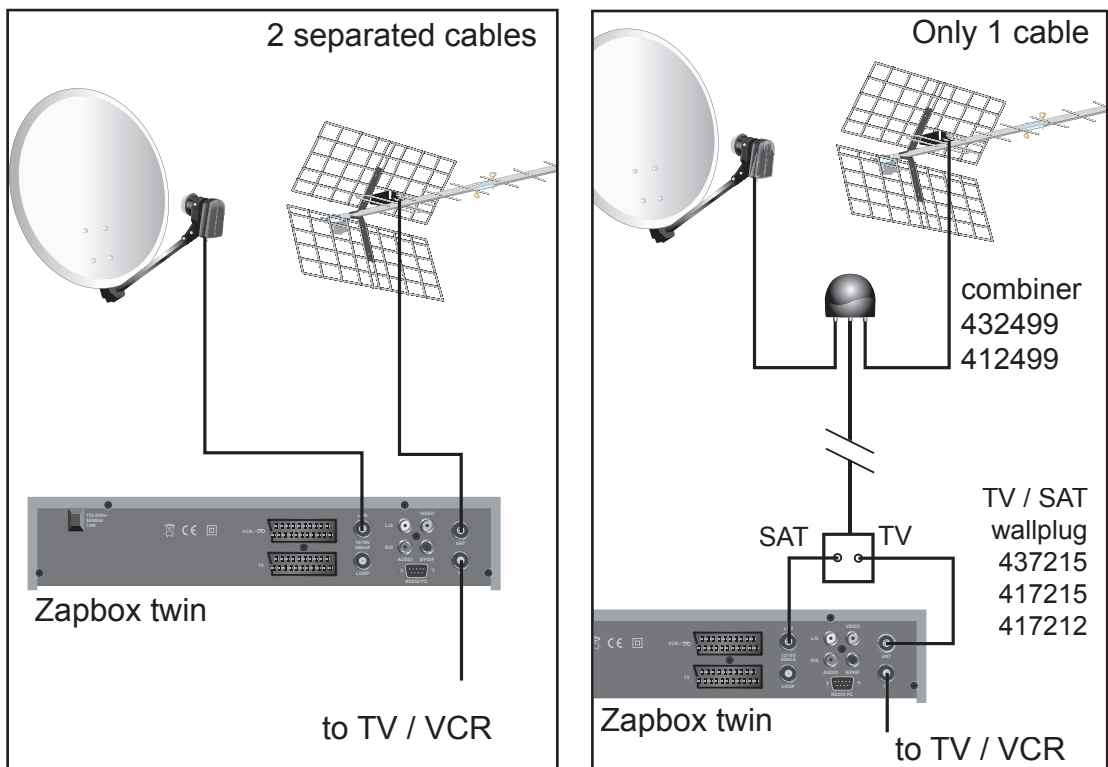
Your terrestrial aerial currently points towards a transmitter broadcasting national channels in analogue mode. The installation process of your Zapbox twin receiver will vary, depending on whether the digital channels are also broadcasted by this transmitter or not. We'll consider three possible scenarios.

If the digital programs are broadcasted by the transmitter through which you already receive your analogue programs, your installation will not require any modification. This is the ideal - and also most common - scenario. However, if some or all of the channels are broadcasted via another transmitter, you will need to install another aerial in order to receive channels associated to that particular transmitter. Two more possibilities exist, depending on whether you know the channel number corresponding to each digital channel or not. If such is the case, your new aerial can be adjusted in a few moments. If (as most viewers) you do not have this information, we have suggested a method for you to follow to try and adjust the aerial before calling a professional. If you have no idea which scenario applies to you, proceed as explained in Scenario 1 (ideal), then follow the steps described in Scenario 3 (adverse), if required.



If a compatible logical number is available for the terrestrial channels, they will be correctly positioned in the channels list (for example, 1 for BBC1). To display all the terrestrial channels found, you can view the list of channels by terrestrial group (LIST key), as you would display the channels broadcasted by a particular satellite (see section 14).

Example of installation :



1 - Ideal scenario

- Got into MENU / **Installation / Program Terrestrial**
- On the **Search Type** line, leave **Auto**
- On the **Active Antenna** line, leave **No**
- Go to **Start Search** and press OK
The terrestrial channels search window appears; it lists all the channels found. If no channel is found, proceed to Scenario 2.
- Once the search is finished, press OK. All the channels found are automatically added to the channels list (either at the end or the beginning of the list, depending on their logical number).

2 - Favourable scenario

You know at least one channel number (between 21 and 69) broadcasting in your region.

- Go to MENU / **Installation / Program Terrestrial**
- On the **Search Type** line, select **Manual** with ◀ ▶ keys
- On the **Active Antenna** line, leave **No**
- On the **Channel** line, select the channel number required with ◀ ▶ keys
- You can now adjust the aerial in order to optimize the **Signal Level** and the **Signal Quality**.
Once the signal obtained is satisfactory, tighten the screws of the aerial.
- Go to **Start Search** and press OK

The terrestrial channels search window appears; it lists all the channels found.


- Once the search is finished, press OK. The channels found are automatically added to the channels list (either at the end or the beginning of the list, depending on their logical number).
- Now that your aerial is correctly orientated, you must scan all other channels. To do so, start an automatic search, as explained in Scenario 1.

3 - Adverse scenario

You receive national channels in analogue mode and you have no idea which digital channels are available to you.

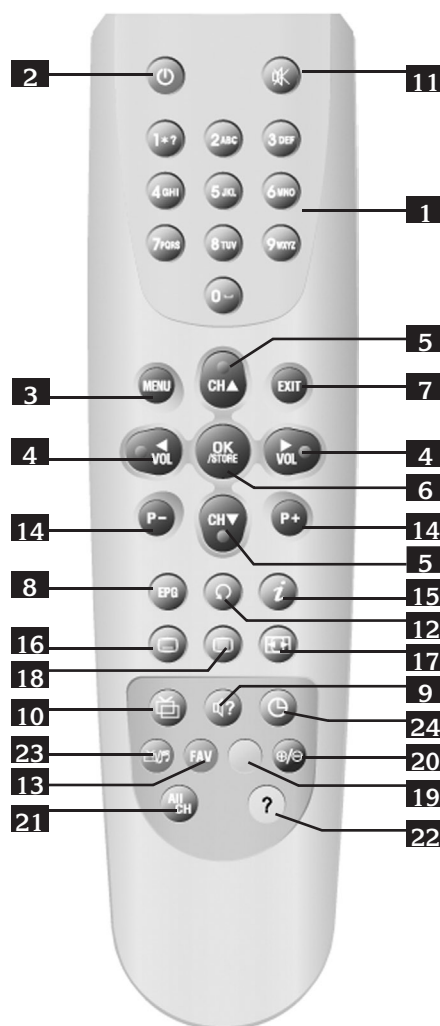
Start an automatic search, as detailed in Scenario 1. It may identify some channels.

If you are certain that you can receive additional channels, but don't know the corresponding channel numbers, we suggest you proceed as follows:

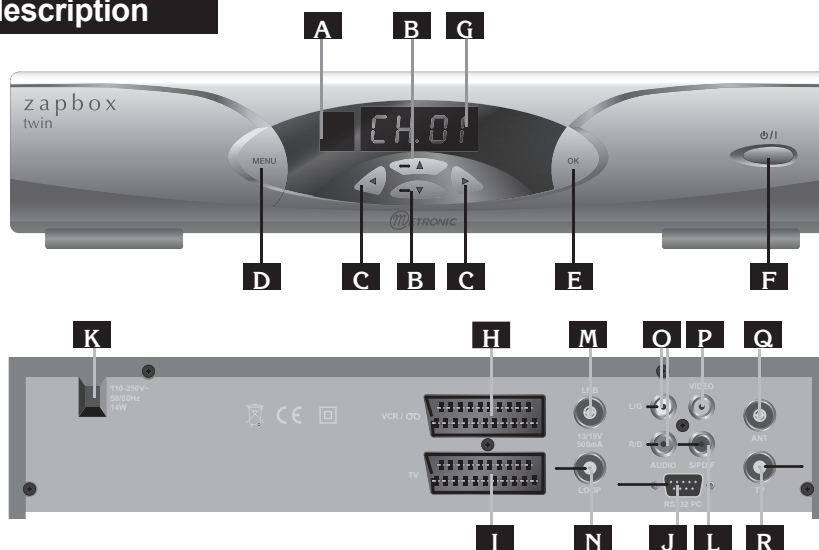
Purchase a UHF aerial with a high gain (at least 15 dB) and connect it to the ANT input socket of your Zapbox twin receiver. Orientate your new aerial in the same direction as the existing one and launch an automatic search (see Scenario 1). If it locates channels that were not found by the existing aerial, simply replace the old aerial with the new one. Otherwise, move the aerial slightly, by an eighth of a turn, and start a new automatic search. Continue to rotate the aerial by an eighth of a turn, launching a new automatic search each time. You should be able to pick up a few channels. Switch to one of these channels, then press the  key twice to display the signal level. Adjust the orientation of the aerial slightly, until you get a satisfactory signal level and quality. Tighten the screws of the aerial securely and launch one more search. Finally, link both aerials through a combiner. You will now be able to receive your analogue and digital channels through the same cable.

7 - Remote control description

- 1** Digit keys. In normal use, press these keys to enter a TV or radio channel number. In programming mode, use to enter numerical values. Can also be used to rename a channel.
- 2** ON/OFF. To switch the receiver on/off or to put in standby mode.
- 3** MENU. To enter or exit the main menu. Also allows you to return to the previous menu.
- 4** ◀ VOL ▶. In normal use, press to adjust the volume. While in a menu, press to modify various parameters. Also display the next page (▶) or the previous page (◀) in a long list.
- 5** ▼ CH ▲. In normal use, press once to change channel. In menus, use to move from one line to another.
- 6** OK. To display the channels list. In menus, use to confirm a setup modification. Also displays a list of options available when ◀ ▶ keys allow you modify a setting.
- 7** EXIT. To exit all menus.
- 8** EPG (Electronic Program Guide). To display information about the current program and also programs scheduled later (if this information is supplied by the broadcaster). Press OK to select the channel or the program you want to watch.
- 9** LANG. When several audio channels are available (for example, Euronews on Hot Bird), allows you to select the language of the program. Press twice to quickly access the volume adjustment setting.
- 10** Unused key on the Zapbox twin receiver.
- 11** MUTE. Press once to turn the sound off. Press again to return to normal mode.
- 12** PRE. To return to previous channel - the one you were watching just before the current one.
- 13** FAV. To access your favourite channels.
- 14** Page + / Page -. To quickly browse through a long list.
- 15** INFO. Displays technical information about the current channel. Press three times to display a description of the current program (if this information is supplied by the broadcaster).
- 16** To access subtitles (if available).
- 17** To quickly access the TV Aspect Ratio menu (4:3 or 16:9 format).
- 18** To access Teletext (if available).
- 19** To access the channels list by displaying the list selection by satellite window.
- 20** To access the channels list by displaying a window which lets you sort/organise channels (by alphabetical order, frequency, etc...).
- 21** To access the channels list while removing all filters and sorting criteria.
- 22** In the channels list, use to open a channel editing menu (Delete, Rename, Lock, etc...).
- 23** To toggle between TV and Radio mode.
- 24** Sleep Timer. By pressing this key several times, you can set the receiver to turn off after a specific interval (15 mns steps).



8 - Receiver description

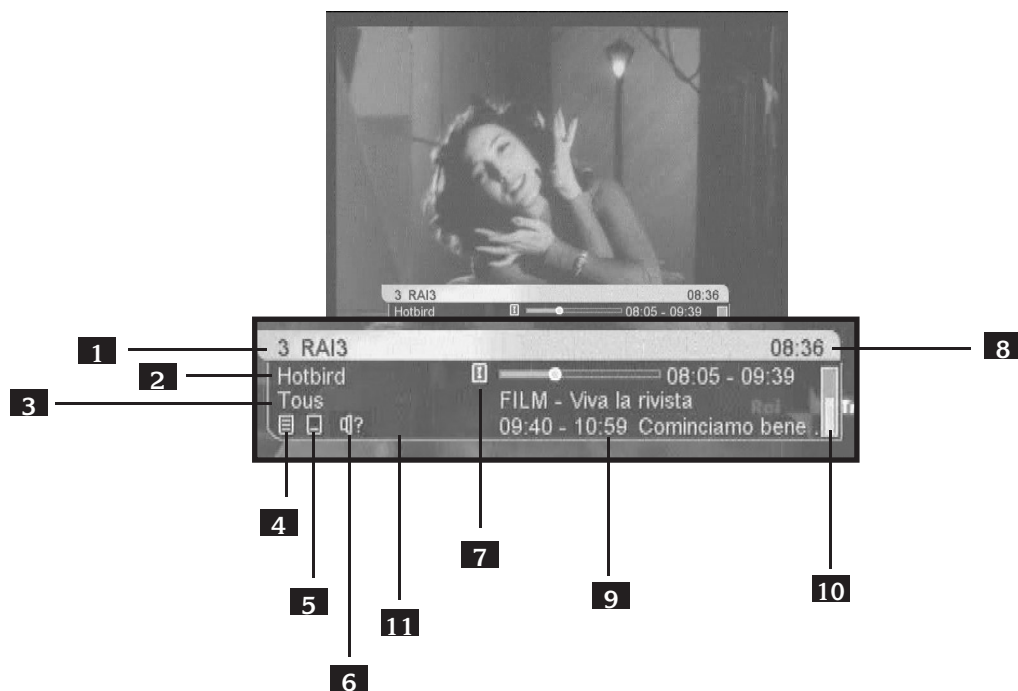


- A** Infrared receiver (detects signals from the remote control)
- B** CH+ / CH- - As on remote control
- C** VOL+ / VOL- - As on remote control
- D** MENU - As on remote control
- E** OK - As on remote control
- F** ON/OFF
- G** Front Panel Display - Shows the program channel number when TV is switched on; otherwise shows the current time. 4 dashes are displayed when the receiver is first switched on, or after a power cut.
- H** VCR SCART Input/Output - When playing a video tape, the video recorder automatically takes over. Can also be used to connect a video transmitter, for example.
- I** TV SCART Output - To connect the receiver to a TV.
- J** RS232 Connector - For service use only.
- K** Mains Power Input
- L** Digital Audio Output - Only valid for channels broadcasting using Dolby Digital/A3 format (very rare).
- M** LNB Input - To connect a satellite lead.
- N** LOOP Output - For serial connection of another digital satellite receiver.
- O** Analogue Audio Outputs - To connect a Hi-Fi system or a video transmitter, for example.
- P** Video Output - To connect a video transmitter, for example.
- Q** Terrestrial Aerial Input
- R** TV (or Video Recorder) Output

9 - Day to day operation

In normal use, only the following keys will be required, as described above:

- ◀ ▶ to adjust the sound volume.
- ▼ ▲ to change channel.
- ✖ to switch the sound on/off.
- Digit keys for direct access to a channel.
- EPG to display program guide.
- OK to access a TV or radio channel.



When you change channel, a banner displays information about the current channel. Points 4 to 9 are optional (only if this information is supplied by the broadcaster).

- 1 Number and name of the channel
- 2 Satellite
- 3 FAV Group
- 4 Indicates that teletext is available
- 5 Indicates that subtitles are available
- 6 Indicates that several audio channels are available
- 7 Indicates that a description of the current program is available (press **i** three times to access this information)
- 8 Current time (supplied by broadcaster and not necessarily accurate)
- 9 Description of the current program (with progression bar) and title of next program scheduled
- 10 Signal level
- 11 Indicates that a digital audio channel is available

10 - Accessing a channel

When the original (factory) settings are left unchanged, or after resetting the unit, the ▲ ▼ keys allow you to select channels in the list of pre-programmed TV channels. You can also enter a channel number to access it directly. Press OK to display the TV channels list.

11 - Adding channels

Before adding channels, you must first declare the satellites that you can receive. Once this is done, you can either add a particular channel of which you know the technical parameters (manual search), or you can add all the new channels (automatic search).

A - Declaration of the satellites

The declaration of the satellites is something you must do once and for all. It consists in declaring how many LNB's you have (2 for a monoblock). So, you will affect a number to each received satellite (eg 1 for Hotbird and 2 for Astra).

1. Go in MENU / **Installation / Program Satellite**.
2. On the **Number of Antenna** line, select the number with ◀ ▶ arrows (for example 2 for a monoblock).
3. On the **Current Antenna** line, select **1** with ◀ ▶ arrows.
4. On the **Satellite** line, select with ◀ ▶ arrows the satellite for which you affect the number 1 (for example Hotbird).

If you receive more than one satellite, go back to step 1 and redo the same steps for the other satellites (for example, 2 = Astra1, ...)

Press EXIT to quit the menus

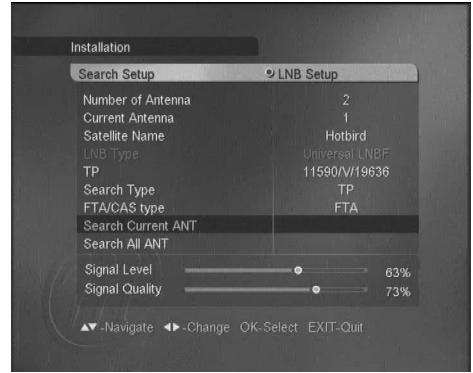
B - Manual shearch

A channel is transmitted by something called a transponder (TP). It is a satellite relay of which you must know the 4 technical parameters:

- The frequency (eg 12551 MHz)
- The Symbol Rate (eg 22000)
- The polarity (eg Vertical)
- The satellite that carries this TP (eg Hotbird)

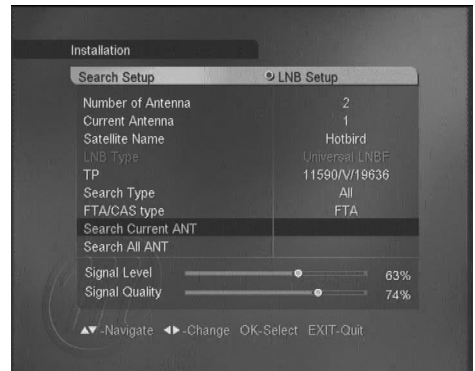
You will find these parameters in specialized magazines, or in dedicated websites (www.satcodx.com or www.lyngsat.com for example).

- Go in MENU / **Installation** / **Program Satellite**
- On the **Current Antenna** line, select with ◀ ▶ arrows the number that makes the correct satellite appear on the **Satellite Name** line.
- On the **TP** line, press OK to show the TP list window (Freq, Pol, SR)
- With ◀ ▶ and ▲ ▼ arrows, select the relevant TP. If the TP is not listed, you must add it as explained in the next section.
- Press OK and check that the signal is correct (**Signal Quality** >50%). Should the opposite occur, you will have to check again the technical parameters, or check the DiSEqC settings in the LNB setup menu.
- On the **Search Type** line, select **TP** with ◀ ▶ arrows.
- On the **FTA/CAS type** line, select **FTA** with ◀ ▶ arrows.
- Go to the **Search Current ANT** line and press OK. The **Search channels** window appears, and the newly found channels are listed and stored.
- Press OK and then EXIT to quit the menus.



C - Automatic channel search

- Go in MENU / **Installation** / **Program Satellite**.
- On the **Current Antenna** line, select with ◀ ▶ arrows the number of the first satellite declared (generally, 1).
- On the **Search Type** line, select All with ◀ ▶ arrows.
- On the **FTA/CAS type** line, select **FTA** with ◀ ▶ arrows.
- Go to the **Search All ANT** line and press OK. The **Search channels** window appears, and the newly found channels are listed and stored.
- Press OK and then EXIT to quit the menus.



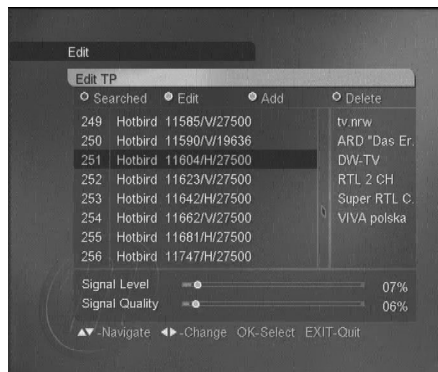
🔍 Note: the automatic search scans the channels using the TP list associated with each satellite. If the automatic search doesn't find a channel, though you are sure it exists, it is probably because you need first to update the TP list.

D - Add / Delete / Modify a transponder

To delete a transponder

note : deleting out-of-date transponders speeds up the automatic search

- Press the blue key, a small circle is displayed after each TP.
- With the arrow keys, put the selection bar on the TP you want to delete and press OK. The small circle turns blue. The window on the righthand side of the screen lists the channels carried by the selected TP. If you delete the TP, these channels will be deleted as well. You can select as many TP's as you want, all of them will be simultaneously deleted.
- Once your selection is over, press EXIT, a confirmation window is shown. Select **Yes** and press OK to confirm deletion.



To add a transponder

- Put first the selection bar on a TP belonging to the same satellite as the one for which you want to add a TP. If you can't find any, press the red key to turn in **All** mode. If you still can't find any, it means that the satellite is not pre-programmed ; you will have to add it as explained in the paragraph called **Adding a satellite**.
- Press the yellow key, the **Add** window pops up.
- Enter the 5 figures of the frequency and press ▼
- Select the polarity with ◀ ▶ arrows and press ▼
- Enter the 5 figures of the Symbol Rate and press ▼
- Press OK on the **Store** line to save this new TP.

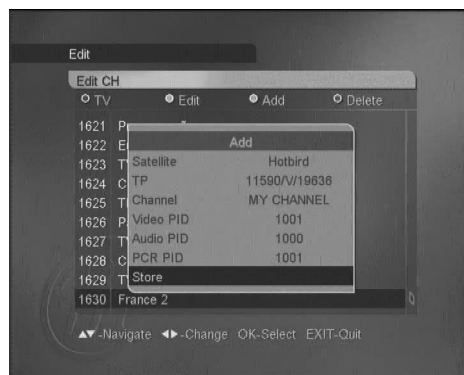
To modify a transponder

- Put first the selection bar on the TP you want to modify.
- Press the green key, the **Edit** window pops up.
- Enter the 5 figures of the frequency and press ▼
- Select the polarity with ◀ ▶ arrows and press ▼
- Enter the 5 figures of the Symbol Rate and press ▼
- Press OK on the **Store** line to save this new TP.

E - Search of a particular channel (PID entry)

In some (rare) cases, a manual or automatic search may not find a channel that does exist however. You must then add this channel by entering the PID's that you will find in specialized magazines or websites :

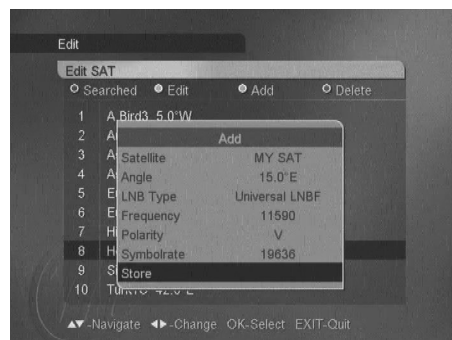
- Go in MENU / **Edit** / **Edit CH**.
- Press the yellow key, the Add channel pops up.
- On the **Satellite** line, select the satellite with ◀ ▶ arrows.
- On the **TP** line, select with ◀ ▶ arrows the TP that carries the channel to add. If the TP is not listed, you must add it in the Edit TP menu as explained above in this manual.
- On the **Channel** line, press OK to display the window allowing to edit the channel name.
- To write a letter at the cursor location, press the 0-9 keys as you would do with a cellular mobile phone (for example, press twice the key 3 to write a E). Press the ▶ arrow to edit the next letter, press one of the color keys to insert or delete a letter. Press OK when your edition is over.
- Press OK and check that the signal is correct (Signal Quality >50%). Should the opposite occur, you will have to check again the technical parameters, or check the DiSEqC settings in the LNB setup menu.
- On the **Search Type** line, select **TP** with ◀ ▶ arrows.
- On the **FTA/CAS type** line, select **FTA** with ◀ ▶ arrows.
- Go to the **Search Current ANT** line and press OK. The **Search channels** window appears, and the newly found channels are listed and sorted.
- Press OK and then EXIT to quit the menus.
- On the next 3 lines enter the **Video PID**, the **Audio PID** and the **PCR PID**. The **PCR PID** is usually equal to **Video PID** for a TV channel, and equal to **Audio PID** for a radio channel.
- Go down to Store line and press OK to save.
- The channel is add at the bottom of the channel list.



F - Add a satellite


If the channel is broadcast by a satellite which is not factory pre-programmed, you need to create the satellite before making any channel addition on this satellite.

- Go in MENU / **Edit** / **Edit SAT**.
- Press the yellow key, the **Add** channel pops up.
- On the **Satellite** line, press OK to display the window allowing to edit the satellite name.
- To write a letter at the cursor location, press the 0-9 keys as you would do with a cellular mobile phone (for example, press twice the key 3 to write a E). Press the 4 arrow to edit the next letter, press one of the color keys to insert or delete a letter. Press OK when your edition is over.
- On the **Angle** line, input the position of the satellite (eg 130 for Hotbird) and select East / West with ◀ ▶ arrows.
- In the **Frequency**, **Polarity** and **Symbolrate** lines, enter the data of a valid TP for the present satellite.
- Go down to **Store** line and press OK to save.
- The channel is add at the bottom of the channel list.




12 - Channel management

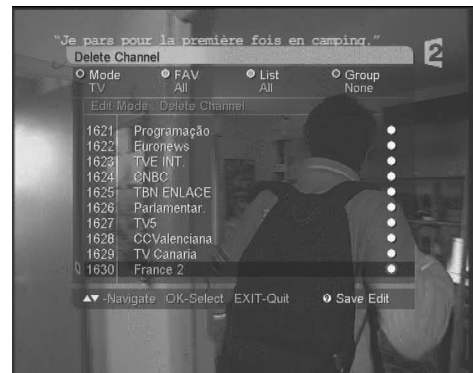
For the TV channel list, as for the radio channel list, you can move a channel, delete it, rename it or lock it. To be watched a locked channel needs a secret code to be entered.

While viewing channels, press OK to display the channel list, press then on the  key, the mode selection window will appear.

A - Delete one or more channels

- Select the **Delete Channel** mode and press OK
- Enter the PIN code (0000 for factory settings)
- a small circle appears after each channel.
- Select with the arrow keys each channel you want to delete and press OK. the small circle turns blue.
- Once your selection is over, press EXIT, you will be prompted to confirm
- Select **Yes** and press OK, the selected channels will be deleted.


 Note: if you want to delete all the channels in one operation, go to MENU / **Edit / Delete All Channels**



B - Move a channel

- Select the **Move Channel** mode and press OK
- With the arrow keys, place the selection bar on the channel you want to move and press OK. The channel is shifted a bit on the right.
- With the arrow keys, move the channel to its new position.
- When you have reached the correct position, press OK to drop the channel at its new position.
- While you are in the **Move Channel** mode, you can select and move other channels.
- Press EXIT and confirm on **Yes** when you have finished your organisation.

C - Rename a channel

- Select the **Rename Channel** mode (on the second page) and press OK
- With the arrow keys, place the selection bar on the channel you want to rename and press OK to display the window allowing to edit the satellite name.
- To write a letter at the cursor location, press the 0-9 keys as you would do with a cellular mobile phone (for example, press twice the key 3 to write a E). Press the  arrow to edit the next letter, press one of the color keys to insert or delete a letter. Press OK when your edition is over.
- Press EXIT and confirm on **Yes** when you have finished your organisation.


D - Lock a channel

This menu also allows to lock channels. Please refer to section “Parental Lock” on page 29 to check how to proceed.

13 - Favorite channels management

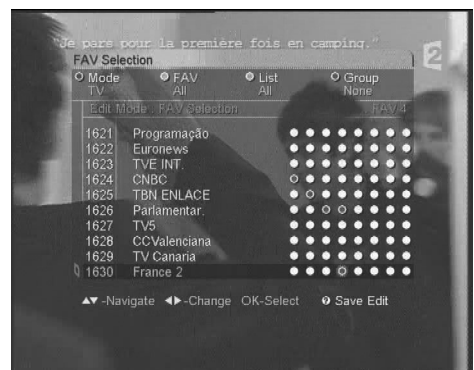
Among the huge amount of channels you are able to receive, you will probably only watch a few tens of them. If you declare these channels as favorite channels, you will be able to reach them more easily.

You can manage 8 FAV lists. Each channel can be put in one or more FAV lists.

While viewing channels, press OK to display the channel list, press then on the  key, the mode selection window will appear.

- Select the **FAV Selection** mode and press OK
- A dot matrix appears on the right side of the screen.
- Each line is related to the channel on the left. Each column is related to a FAV list (FAV 1, FAV2,...FAV8)
- To put a channel on a given FAV list, simply press OK on the intersection. If you tick all the dots of a line, the related channel will be put on all FAV lists.
- Press EXIT and confirm on Yes when you have finished your organisation.

In order to select the favorite mode, simply press the FAV key, select then the FAV list you want to enable and press OK. From now on, changing channel with **▼ CH ▲** keys will change channels among the chosen list. To come back to normal mode, press the FAV key and select the **All** mode.



14 - Locating a channel in a list

While the channels list is displayed, you can use the coloured keys to sort and organise the channels, based on various criteria:

TV / Radio

Press the red key to select a TV or radio channels list.

When you watch a TV channel or listen to a radio channel, this key automatically toggles to the other mode, without displaying the channels list.

FAV groups

Press the FAV key to display the list of FAV groups, as detailed in section 13 on page 25.

Sorting by satellite

Press the yellow key to display the satellites. For a satellite to be listed, at least one channel must have been saved to memory. A group is dedicated to all terrestrial channels.

Other sorting possibilities

Press the blue key to display channels sorted:

- by satellite (**SAT** option)
- by transponder (**TP** option)
- by type of operator (**Network** option)
- by access control (**Scrambled** option)
- by parental lock (**Locked** option)
- by alphabetical order (**A to Z** option)

When a sorting option is active, each group is represented by a +, followed by the group name. To open the group, simply select it and press OK. All the channels included in the group are then displayed, and the + sign changes to -. To close a group, select its name and press OK.

When you activate a grouping option, this affects the way the channels are displayed, until you deselect this option. To do so, select the group named **None** or simply press the ALL CH key.

15 - Miscellaneous settings

A - Language selection

To choose the language to be used for the menus, select MENU / **User Setting** / **Language Settings**. Note: if you select an unknown language by mistake, access the menu situated to the left of the **Common Interface** menu (which only has one sub-menu). On the first line of the **Language Settings** menu, choose the correct language using the ◀ ▶ keys. You can then select the same language for the **Main Audio**, **Main Subtitle** and **Teletext** options. Confirm your selections by pressing EXIT.

B - TV output settings

From MENU / **User Setting** / **TV Output**, you can set the format of the picture displayed on your TV screen.

- On the **Aspect Ratio** line, select **16:9** if the aspect ratio of your TV is 16:9 (widescreen). If the format is 4:3 (standard), the **4:3 LetterBox** and **4:3 Full** settings enable you to select how 16:9 images will display on the 4:3 screen. Please note that free to view channels using the 16:9 format are very rare (BBC on Astra 28, mainly). When you select **4:3 Letterbox**, the picture is displayed in full, with black strips at the top and bottom of the screen. In **4:3 Full** mode, the 16:9 picture fills the whole of the 4:3 screen, but the left and right edges of the picture are cropped. These two settings have no impact on 4:3 images.
- On the **Contrast** line, adjust the contrast of the pictures and menus as required (from **0** to **10**).
- On the **Dolby Digital** line, enable the digital audio output, if required. Please note that free channels using this audio format are extremely rare.
- On the **Video Output** line, select a **RGB** or **CVBS** (composite) output for your TV. The composite mode works in all cases, but the RGB mode, handled by most TV sets, produces an image of much higher quality.

C - Clock / Timer

Warning

The time displayed on the receiver (in the menus and on the front panel, in standby mode) is transmitted by the broadcaster. In many instances, it does not match the real time. Furthermore, when in standby mode, it is impossible to guarantee the precision of the circuit updating the time. Therefore, Metronic cannot guarantee the exactness of the time displayed and an incorrect time will not be considered as a malfunction of the receiver.

Time setting

When you install your receiver, you must set up the clock. This will allow the EPG to display correct time and date, and will enable the timer setting.

Watch for a few minutes a channel that broadcasts the time (Euronews, or ZDF, for example)

- Go to MENU / **Timer Function** / **Local Time Setup**.
- On the **GMT Usage** line, leave **Yes**.
- On the **Time Zone** line, press OK to display the city list and select the city in your timezone.
- On the **Summer Time** line, select **On** in summer and **Off** on winter.
- Press EXIT to save and exit.

Basic timer

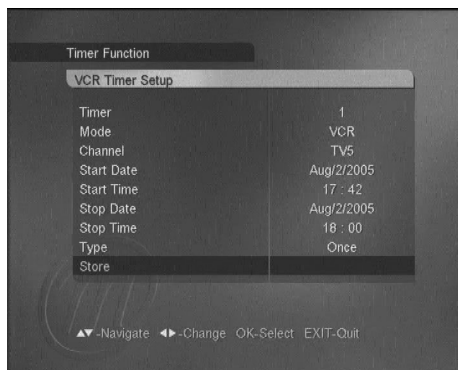
To switch the receiver on/off at a specific time, the basic timer is all you need. For example, it allows you to switch the receiver on at the start of your favourite program, or to program a single recording at a later time. If a more complex programming is required, please refer to the next section. To program the basic timer, proceed as follows:

- Put the receiver on the channel you want to record
- Go to MENU / **Timer Function / Timer Setup**
- On the **Turn on** line, Select **On** with ◀ ▶ arrows
- On the **Turn on time** line, enter the time for wake-up
- If you want the receiver to switch off automatically, select **On** on the **Turn Off** line and enter the sleep time on the **Turn off** time line.
- Press EXIT to save and exit

Advanced timer

The basic timer allows to program simple event : wake up on one channel. The advanced timer allows more complex operations (up to 20 events), especially multiple events on different channels or recurring events.



- Put the receiver on the channel you want to record
- Go to MENU / **Timer Function / VCR Timer Setup**
- On the **Timer** line, select the number of the timer you want to edit (1 for the first time)
- On the **Mode** line, select VCR with ◀ ▶ arrows. (you can use Reminder if you just want to be warned when a program starts)
- On the **Channel** line, check that the channel name is correct. If not, you can change with ◀ ▶ arrows but it's faster to exit, go to the correct channel and come back in this menu.
- On the **Start date** line, press OK to display the calendar and select the date of the program.
- On the **Start time** line, enter the time for wake-up
- On the same way, select **Stop Date** and **Stop time**.
- On the **Type** line, select if the event happens **Once, daily, weekly** or **monthly**.
- Press OK on the **Store** line to save and exit





D - Parental lock

Several channels, although broadcasted free-to-air, show adults only programs, not suitable for a younger audience. We therefore recommend that these channels be locked with a confidential parental code, to prevent viewers who do not know the code from watching these channels. The parental lock can be activated in two stages:

1 - Locking channels

- Press OK to display the channels list.
- Press the key  to access the channels edit menu.
- Select **Lock / Unlock** and confirm by pressing OK.
- Enter the confidential code (factory preset is 0000).
- You can view each channel by highlighting its name in the list.
- Press OK for each channel to be locked. A padlock appears next to it.
- Once you have finished, press the  key and, with **Yes** displayed, confirm your selections by pressing OK.

2 - Locking a menu and channels




- Go to MENU / **User Setting / Parental Lock**.
- Enter the confidential code (factory preset is 0000).
- On the **Channel Lock** line, make sure that **Yes** is displayed. This is the factory preset by default; therefore, you should not need to change it.
- On the **Install Lock** line, display **Yes** by pressing the  key.
 -  Note: When activated, the **STB Lock** setting requires that the PIN code be entered each time the receiver is switched on, even when viewing unlocked channels.
- Move to the **Change PIN** line and press OK.
- Enter the current 4 digit confidential code (factory preset is 0000).
- Enter the 4 digits of the new PIN code.
- Confirm the new confidential PIN code by entering its 4 digits one more time.
- Exit this option by pressing EXIT.



Important: Keep the new PIN code in a safe place. Do not forget it, as otherwise you will need to send the receiver back to our Service Department, for the PIN to be reset.

E - Digital audio output

Some channels may broadcast Dolby Digital audio (AC3). In order to take advantage of this technique, you must connect your receiver to your audio amplifier thanks to a coaxial cable.

- Go to MENU / **User Setting / TV Output**.
- On the **Dolby Digital** line, select **On** with   arrows .
- Press EXIT to save and exit.
- Put the receiver on a channel that broadcasts AC3 (eg Pro Sieben on Astra 19).
- Press the  key, the audio menu appears on the top left of the screen.
- With arrows, select the line AC3.
- Press OK to confirm. The analog audio outputs on RCA or scart are then muted. The sound volume must now be adjusted with your amplifier.

16 - Resetting the receiver

This procedure allows to recover the factory settings, as well as the factory channel list. To reset the unit, proceed as follows :

- Put the receiver on the channel you want to record
- Go to MENU / **System Information / Factory Reset**
- On the **Reset** line, select **No** with ◀ ▶ arrows
- Go on the **Start** line and press OK.

The receiver will come to its original settings, you are prompted to select language, as for the first installation.

17 - Using the receiver with a VCR

Simply connect your VCR to the VCR SCART on the receiver.


To record a digital channel, the receiver must be switched on the channel you wish to record. Start the recording on the AV channel of the VCR (0, AV, EXT,...). Refer to your VCR's User Guide to check how to proceed.

To view a video recording, simply start playing the tape. The VCR should take over the receiver. Should this not happen, press the TV/VCR key on the remote control of your VCR.

 Note: These instructions also apply to DVD recorders.

18 - Adjusting the volume

The volume may vary from one channel to another. It may therefore be necessary to rectify the volume level difference.

- Press twice on . The **Volume Offset** menu appears in the top left corner of the screen.
- Use the vol ◀ and vol ▶ keys to adjust the volume level, to match other channels.
- Press OK to confirm your selection.

19 - Troubleshooting

• The screen displays “NO SIGNAL”

Two possible causes:

- 1 The program (channel) that you are trying to watch is no longer available via the transponder. Buy a specialised magazine to check if the channel settings have changed or if the channel has disappeared.
- 2 You are on another satellite broadcasting channels on the same frequency as the one you are trying to watch.

• The screen remains black on one or more channels

The channel you are trying to watch is probably scrambled. Please note that an operator can broadcast a scrambled channel with information that leads the receiver to believe that the channel is free to view. The opposite scenario is also possible, for example with Canal + programs which are not scrambled at specific times of the day.



Tip: The channel can be free to view at specific times of the day.

• The receiver requests a PIN code when you try to watch a channel

If you have not set up a confidential PIN code, enter “0000”.

If you have installed a confidential PIN code but can't remember it, the receiver will need to be reset. Please contact our Hotline for help.

• The receiver does not seem to be working properly or is locked

Proceed as follows, in the specified order:

- 1 - Switch the terminal off, then switch it back again.
- 2 - Disconnect the receiver from the mains power supply.
- 3 - Reset all factory settings (see section 16 on page 30).

• The volume level varies from one channel to another

Adjust the volume level as required.

Glossary

Analogue	Method of terrestrial television broadcast signal delivery used since the middle of the 20th century. The switch-over to digital television means that analogue television is expected to disappear in the next few years.
Channel number	Number allocated to a frequency band. In the case of the UHF band, the channels are numbered from 21 to 69.
Transmitter	Pylon fitted with a large number of aerials, which retransmits a wide range of channels (digital or analogue). Your aerial must point towards this transmitter. Please note that a transmitter may not relay all the channels available.
EPG	EPG: Acronym of Electronic Program Guide.
Free-to-air (FTA)	Non-subscription and unscrambled television channels. Your Zapbox twin terminal is designed to receive all unscrambled terrestrial digital and satellite channels, and exclusively those channels.
Multiplex broadcast	Group of terrestrial channels broadcasted onto a single frequency, i.e. on the same UHF channel number. This is equivalent to a transponder in satellite television broadcasting.
Digital	Type of broadcast signal used in modern transmissions. It uses up less space than analogue broadcasting in the spectrum. Digital television can carry more channels in the same amount of bandwidth than analogue television ever could. Cable and satellite TV has already been using digital channels for a few years. They will eventually replace analogue channels in terrestrial transmission. Please note that some channels (for ex., BBC1) can be broadcasted in both analogue and digital format.
PID	Number which helps identify specific data (audio, video, clock) in a digital data flow.
Polarization	Orientation of the wave sent by the transmitter. Most UHF transmissions use horizontal polarization, which means that the elements of your aerial need to horizontal.
Terrestrial	In this context, refers to the transmission of programs over-the-air (OTA), as opposed to via «cable» or «satellite».
DTT	Acronym of Digital Terrestrial Television, i.e. Freeview, for FTA inUK.

ASSISTANCE AND ADVICE

You will find in the following pages, the channel parameters which we programmed in the receiver. This programming was established according to information's, which are at our disposal to date, and according to programs which are broadcast to date. The operators responsible for the television broadcasts by satellites sometimes change without notice the frequencies and the transponders, we cannot unfortunately guarantee you the exactitude of these programming in time, please accept our apologies on this matter. You will be able to update these parameters if you follow the instructions on page 29. In spite of the care that we brought to the design of our products and the realization of this user manual, you may have encountered problems.

Please do not hesitate to contact us, our specialists are at your disposal to advise you:



hotline@metronic.com

IMPORTANT : in the object of your message, make sure the word METRONIC appears.

- **Hardware ref.: Zapbox Twin**

CERTIFICATE OF GUARANTEE

The Zapbox Twin receiver is guaranteed one year parts and labour. In the event of a breakdown, the transport charges outward are the customer responsibility, the costs carriage back is our responsibility.

To be valid, the certificate of guarantee must be dully filled and send back with the invoice photocopy or the sales slip.

Hardware ref.: Zapbox Twin

Date of purchase: _____ Serial number : _____

METRONIC - Node Park Touraine - BP 1 - Tauxigny - 37310 REIGNAC CEDEX, FRANCE
Fax : 02 47 346 347 • www.metronic.com



Product made in Asia.

CHANNELS GUIDE

#	NAME	SR- Freq - Pol	#	NAME	SR- Freq - Pol
Hotbird-----			1064	PEOPLE TV-RETE7	11200 V 27500
1001	RAI1	11766 V 27500	1065	ROMA SAT	11200 V 27500
1002	RAI2	11766 V 27500	1066	AL HAYAT	11200 V 27500
1003	RAI3	11766 V 27500	1067	Punto Sat	11262 H 27500
1004	Retequattro	11919 V 27500	1068	Olisat VV Cont	11304 H 27500
1005	Canale 5	11919 V 27500	1069	Olisat TV CHILE	11304 H 27500
1006	Italia 1	11919 V 27500	1070	Olisat TV Colombia	11304 H 27500
1007	RaiMed	11766 V 27500	1071	Olisat Mundovision	11304 H 27500
1008	Rai Edu1	11804 V 27500	1072	Olisat Cubavision	11304 H 27500
1009	RaiEdu2	11766 V 27500	1073	DEFENCE TV	11304 H 27500
1010	4fun.TV	10719 V 27500	1074	MediterranSat2	11304 H 27500
1011	MTA INTL	10723 H 29900	1075	MANGO 24	11408 V 27500
1012	Météo Express	10911 V 27500	1076	Polsat 1	11413 H 06200
1013	Mediatel	10949 V 27500	1077	Polsat 2	11413 H 06200
1014	Tele Lumiere	10949 V 27500	1078	TV POLONIA	11513 H 27500
1015	ANB	10949 V 27500	1079	Tele5	11513 H 27500
1016	Vectone Urdu	10949 V 27500	1080	Polonia 1	11513 H 27500
1017	Vectone Bangla	10949 V 27500	1081	ITV	11513 H 27500
1018	Al Mustakillah	10949 V 27500	1082	DAYSTAR	11585 V 27500
1019	Vectone Tamil	10949 V 27500	1083	ROJ	11585 V 27500
1020	Vectone Hindi	10949 V 27500	1084	NTD TV	11585 V 27500
1021	Prime TV	10949 V 27500	1085	MAHARISHI	11585 V 27500
1022	TRT INT	10957 H 04340	1086	BET NAHRAIN	11585 V 27500
1023	God TV	11034 V 27500	1087	PEN TV	11585 V 27500
1024	Beur TV	11034 V 27500	1088	Majadahonda TV	11585 V 27500
1025	CCTV9	11034 V 27500	1089	OMID E IRAN	11585 V 27500
1026	RTR	11034 V 27500	1090	TAPESH	11585 V 27500
1027	Euronews france	11034 V 27500	1091	JAAM E JAM	11585 V 27500
1028	TFJ	11034 V 27500	1092	IPN	11585 V 27500
1029	RTL Television	11054 H 27500	1093	IRAN	11585 V 27500
1030	VOX CH	11054 H 27500	1094	EWTN	11585 V 27500
1031	RTL CH	11054 H 27500	1095	ITC	11585 V 27500
1032	NBC	11054 H 27500	1096	PODROZE TV	11585 V 27500
1033	ZDF	11054 H 27500	1097	ICC	11585 V 27500
1034	ARTE GERMAN 1	11060 V 06510	1098	tv.nrw	11604 H 27500
1035	ARTE FRENCH 1	11060 V 06510	1099	ARD "Das Erste"	11604 H 27500
1036	Kurdsat	11096 H 27500	1100	DW-TV	11604 H 27500
1037	Tele A	11096 H 27500	1101	RTL 2 CH	11604 H 27500
1038	TV 5 - FBS	11137 H 27500	1102	Super RTL CH	11604 H 27500
1039	TV 5 Europe	11137 H 27500	1103	VIVA polska	11604 H 27500
1040	Roma Uno	11137 H 27500	1104	Chai TV	11623 V 27500
1041	ANN	11137 H 27500	1105	CartomanziaLOTTO	11623 V 27500
1042	Videolook	11137 H 27500	1106	102.5 HIT CH	11623 V 27500
1043	Kurdistan TV	11137 H 27500	1107	CANAL CLUB	11623 V 27500
1044	TBNE	11137 H 27500	1108	ITALIA CLUB	11623 V 27500
1045	Videolina	11137 H 27500	1109	TV ROMANIA	11623 V 27500
1046	Telegenova	11137 H 27500	1110	Telegenova	11623 V 27500
1047	RTB	11137 H 27500	1111	123LIVESAT/69XTV	11623 V 27500
1048	starMarket	11137 H 27500	1112	Live ShowTV	11623 V 27500
1049	DW-TV Amerika	11143 V 05500	1113	Ultra Blue TV	11623 V 27500
1050	Napoli Nova	11179 H 27500	1114	Bloomberg Europ TV	11642 H 27500
1051	Spectrum	11179 H 27500	1115	Bloomberg German TV	11642 H 27500
1052	ELITE SHOPPING	11200 V 27500	1116	Bloomberg Engl TV	11642 H 27500
1053	Sailing Channel	11200 V 27500	1117	Miracle TV	11642 H 27500
1054	NOELLO SAT	11200 V 27500	1118	DUBAI TV	11747 H 27500
1055	MTI	11200 V 27500	1119	EDTV SPORTS	11747 H 27500
1056	SuperPippa	11200 V 27500	1120	EDTV_BUSINESS	11747 H 27500
1057	ODEON SAT	11200 V 27500	1121	PMC	11747 H 27500
1058	TAXI channel	11200 V 27500	1122	SHARQIYA	11747 H 27500
1059	TLC SAT	11200 V 27500	1123	NOJOOM TV	11747 H 27500
1060	STARSAT	11200 V 27500	1124	INFINITY	11747 H 27500
1061	NOELLO SILVER	11200 V 27500	1125	EDTV RADIO 2	11747 H 27500
1062	NOELLO GOLD	11200 V 27500	1126	Senato	11766 V 27500
1063	PLAY TV ITALIA	11200 V 27500	1127	TVE INTERNACIONAL	11785 H 27500
			1128	CANAL 24 HORAS	11785 H 27500

CHANNELS GUIDE

#	NAME	SR- Freq - Pol	#	NAME	SR- Freq - Pol
1129	TVE INTER. ASIA	11785 H 27500	1194	OASI.TV	12303 V 27500
1130	RaiNotizie24	11804 V 27500	1195	TV Puls	12322 H 27500
1131	Camera Deputati	11804 V 27500	1196	PilotTV	12360 H 27500
1132	RaiUtile	11804 V 27500	1197	Syria Satellite Chan	12380 V 27500
1133	RaiSportSat	11804 V 27500	1198	SAT 7	12380 V 27500
1134	RaiNettunoSat2	11804 V 27500	1199	Abu Dhabi TV	12380 V 27500
1135	RaiNettunoSat1	11804 V 27500	1200	RTV Montenegro	12380 V 27500
1136	SAT2000	11804 V 27500	1201	Telepace	12380 V 27500
1137	RaiDoc	11804 V 27500	1202	Jordan TV	12380 V 27500
1138	Zona Giochi	11843 V 27500	1203	IRIB1 PER	12437 H 27500
1139	SKY Assist	11843 V 27500	1204	IRIB1 ENG	12437 H 27500
1140	Sky Assist	11843 V 27500	1205	IRIB2 PER	12437 H 27500
1141	Suroyo TV	11938 H 27500	1206	IRIB2 ENG	12437 H 27500
1142	IQRAA - ARABESQUE	12015 H 27500	1207	IRINN	12437 H 27500
1143	ART - ARABESQUE	12015 H 27500	1208	SAHAR1	12437 H 27500
1144	Telesierra	12092 H 27500	1209	SAHAR2	12437 H 27500
1145	Italiasat	12092 H 27500	1210	AL-ALAM	12437 H 27500
1146	Erotic TV	12092 H 27500	1211	IRIB1/QURAN	12437 H 27500
1147	HB CHANNEL	12111 V 27500	1212	Xstream	12476 H 27500
1148	ARM 1	12111 V 27500	1213	metv	12476 H 27500
1149	Made In Italy	12111 V 27500	1214	2M Maroc	12476 H 27500
1150	Ceramicanda	12111 V 27500	1215	SET	12520 V 27500
1151	AL JAZEERA	12111 V 27500	1216	SARDEGNA UNO	12520 V 27500
1152	RADIO ARMENIA	12111 V 27500	1217	PUGLIA CHANNEL	12520 V 27500
1153	UNOSAT	12111 V 27500	1218	OpenSky_EN	12539 H 27500
1154	Coming Soon TV	12111 V 27500	1219	Bulgaria TV	12539 H 27500
1155	MediterraneoSat1	12111 V 27500	1220	Nile TV Interna	12539 H 27500
1156	GAY.TV	12111 V 27500	1221	Nile News	12539 H 27500
1157	DunaTV	12149 V 27500	1222	MEDIOLANUM	12539 H 27500
1158	TV7 Tunis	12149 V 27500	1223	Sports test	12539 H 27500
1159	Khabar TV	12149 V 27500	1224	24ore.tv	12558 V 27500
1160	LIDER TV AZE	12149 V 27500	1225	TELE PADRE PIO	12558 V 27500
1161	TizianaSat	12149 V 27500	1226	GOD TV	12577 H 27500
1162	Canal Algerie	12149 V 27500	1227	F Men	12577 H 27500
1163	A3	12149 V 27500	1228	Hope Channel	12577 H 27500
1164	CCTV4	12169 H 27500	1229	Hope Channel 2	12577 H 27500
1165	TV PIREAS	12188 V 27500	1230	Liberty TV	12577 H 27500
1166	RTS SAT	12188 V 27500	1231	Al Arabiya	12597 V 27500
1167	TV MAGIC	12188 V 27500	1232	BBC World	12597 V 27500
1168	EXTRA 3 CHANNEL	12188 V 27500	1233	CH 1 RUS-ORTi	12597 V 27500
1169	ERT SAT	12188 V 27500	1234	EuroNews	12597 V 27500
1170	HOLIDAYS IN GR CHAN	12188 V 27500	1235	SKY Prima Fila	12616 H 27500
1171	TELEASTY	12188 V 27500	1236	Sharjah	12654 H 27500
1172	Music Box Italia	12207 H 27500	1237	Qatar	12654 H 27500
1173	INDIAVISION	12207 H 27500	1238	Saudi 1	12654 H 27500
1174	CNL	12207 H 27500	1239	Kuwait	12654 H 27500
1175	BK TV	12207 H 27500	1240	Libya	12654 H 27500
1176	Thai Global Network	12207 H 27500	1241	Sudan	12654 H 27500
1177	TCT	12207 H 27500	1242	Oman	12654 H 27500
1178	Arirang TV	12207 H 27500	1243	ESC	12654 H 27500
1179	FASHION	12245 H 27500	1244	Al manar	12654 H 27500
1180	ADJARA TV	12245 H 27500	1245	3ABN	12673 V 27500
1181	SEXY SAT	12245 H 27500	1246	Tv Moda	12673 V 27500
1182	DCTV-german	12265 V 27500	1247	Studio Europa	12673 V 27500
1183	902	12284 H 27500	1248	Emi.Li TV	12673 V 27500
1184	BVN-TV	12303 V 27500	1249	Playlist Italia	12673 V 27500
1185	NAPOLI INT.	12303 V 27500	1250	Telemarket	12673 V 27500
1186	MAGIC	12303 V 27500	1251	GAME NETWORK	12673 V 27500
1187	COUNTDOWN	12303 V 27500	1252	E-TV Tech C.	12673 V 27500
1188	PLEASURE TV	12303 V 27500	1253	PASSIONS	12692 H 27500
1189	NAPOLI MUSIC	12303 V 27500	1254	ONYX	12692 H 27500
1190	BLU LINE TV	12303 V 27500	1255	AB SAT PROMO	12692 H 27500
1191	DANCE TV	12303 V 27500	1256	DAN MUSIC	12692 H 27500
1192	ITALIAN MUSIC	12303 V 27500	1257	HSE	12713 V 27500
1193	SAT8	12303 V 27500			

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#	NAME	SR- Freq - Pol	#	NAME	SR- Freq - Pol
Astra 19 -----					
1258	Bibel TV	10832 H 22000	1321	SAT.1-CH	12148 H 27500
1259	TV TRWAM	10832 H 22000	1322	lastminute.tv	12148 H 27500
1260	Tango TV	10832 H 22000	1323	RNFplus	12148 H 27500
1261	RAZE TV	10832 H 22000	1324	TV TRAVEL SHOP	12148 H 27500
1262	Ocko TV	10832 H 22000	1325	TV.BERLIN	12148 H 27500
1263	E-Games TV	10832 H 22000	1326	RTL Television	12188 H 27500
1264	TV CANARIA	10979 V 22000	1327	RTL2	12188 H 27500
1265	CANAL ALGERIE	11568 V 22000	1328	Super RTL	12188 H 27500
1266	TV 5	11568 V 22000	1329	VOX	12188 H 27500
1267	ESC1 - EGYPT	11568 V 22000	1330	RTL Shop	12188 H 27500
1268	RAI 1	11568 V 22000	1331	FRANCE 5	12207 V 27500
1269	RTPI	11568 V 22000	1332	LCP	12207 V 27500
1270	TV7	11568 V 22000	1333	MTV2 Pop Channel	12226 H 27500
1271	ARTE	11568 V 22000	1334	RTL Austria	12226 H 27500
1272	Al Jazeera	11568 V 22000	1335	VOX Austria	12226 H 27500
1273	2M Maroc	11568 V 22000	1336	RTL2 Austria	12226 H 27500
1274	TVEi	11597 V 22000	1337	Super RTL A	12226 H 27500
1275	RTM MAROC	11597 V 22000	1338	BTV	12226 H 27500
1276	DW-TV	11597 V 22000	1339	ZIK/XXL	12285 V 27500
1277	CNBC Europe	11597 V 22000	1340	BBC WORLD	12285 V 27500
1278	Sky News	11597 V 22000	1341	FASHION-TV	12285 V 27500
1279	TVC INT.	11686 V 22000	1342	TERRA NOVA	12285 V 27500
1280	ANDALUCÍA TV	11686 V 22000	1343	CANAL CLUB	12324 V 27500
1281	EUSKADI TV	11686 V 22000	1344	BEUR TV	12324 V 27500
1282	TM SAT/LAOTRA	11686 V 22000	1345	WDR Aachen	12422 H 27500
1283	TV GALICIA	11686 V 22000	1346	ARD MHP-Test	12422 H 27500
1284	PREMIERE DIREKT	12032 H 27500	1347	VIC-TV.NET DE2	12460 H 27500
1285	MTV Central	11739 V 27500	1348	hollywood cinema	12460 H 27500
1286	CNN Int.	11778 V 27500	1349	Sonnenklar TV	12480 V 27500
1287	EURONEWS	11817 V 27500	1350	HSE24	12480 V 27500
1288	Das Erste	11836 H 27500	1351	SAT.1	12480 V 27500
1289	Bayerisches FS	11836 H 27500	1352	N24	12480 V 27500
1290	hessen fernsehen	11836 H 27500	1353	TELE 5	12480 V 27500
1291	arte	11836 H 27500	1354	AstroTV	12480 V 27500
1292	SR Fernsehen Südwest	11836 H 27500	1355	NEUN LIVE	12480 V 27500
1293	WDR Köln	11836 H 27500	1356	ProSieben	12480 V 27500
1294	BR-alpha	11836 H 27500	1357	KABEL1	12480 V 27500
1295	SÜDWEST BW	11836 H 27500	1358	DSF	12480 V 27500
1296	Phoenix	11836 H 27500	1359	QVC Deutschland	12552 V 22000
1297	KTO	11895 V 27500	1360	VIVA PLUS	12552 V 22000
1298	ZDF	11954 H 27500	1361	Bloomberg TV Germany	12552 V 22000
1299	3sat	11954 H 27500	1362	Chamber TV	12552 V 22000
1300	KiKa	11954 H 27500	1363	BVN	12574 H 22000
1301	Eurosport	11954 H 27500	1364	RTBF SAT	12610 V 22000
1302	ZDFfokanal	11954 H 27500	1365	Liberty TV.com	12610 V 22000
1303	ZDFdokukanal	11954 H 27500	1366	CNBC Europe	12610 V 22000
1304	EuroNews	11954 H 27500	1367	TV5 Europe	12610 V 22000
1305	ZDFtheaterkanal	11954 H 27500	1368	M6 Boutique	12610 V 22000
1306	ProSieben Schweiz	12051 V 27500	1369	LibertyTV.com	12610 V 22000
1307	ProSieben Austria	12051 V 27500	1370	TV6	12610 V 22000
1308	Kabel 1 Schweiz	12051 V 27500	1371	Bahn TV	12633 H 22000
1309	Kabel 1 Austria	12051 V 27500	1372	K-TV	12633 H 22000
1310	SAT.1 A	12051 V 27500	1373	XXP	12633 H 22000
1311	EinsExtra	12110 H 27500	1374	rhein main tv	12633 H 22000
1312	EinsFestival	12110 H 27500	1375	K1010	12633 H 22000
1313	EinsMuXx	12110 H 27500	1376	Spielekanal TV	12633 H 22000
1314	MDR FERNSEHEN	12110 H 27500	1377	n-tv	12670 V 22000
1315	rbb Brandenburg	12110 H 27500	1378	VIVA	12670 V 22000
1316	ARD-MHP-TEST-6	12110 H 27500	1379	TW1	12692 H 22000
1317	NDR FS MV	12110 H 27500	1380	GOTV	12692 H 22000
1318	MDR SACHSEN	12110 H 27500	Astra28 -----		
1319	MDR THÜRINGEN	12110 H 27500	1381	BBC 1 London	10773 H 22000
1320	SÜDWEST RP	12110 H 27500	1382	BBC 2 England	10773 H 22000

CHANNELS GUIDE

NAME SR- Freq - Pol

Arabsat 2/3A-----

1505	Saudi 1	11747 V 27500
1506	Kuwait	11747 V 27500
1507	Libya	11747 V 27500
1508	Sudan	11747 V 27500
1509	Saudi 2	11747 V 27500
1510	Almajd	11747 V 27500
1511	Oman	11747 V 27500
1512	AL-IRAQIA	11747 V 27500
1513	AlManar	11785 V 27500
1514	Future	11785 V 27500
1515	LBCI	11785 V 27500
1516	Star Academy	11785 V 27500
1517	TeleLiban	11785 V 27500
1518	NBN	11785 V 27500
1519	AL Arabiya	11785 V 27500
1520	NEW TV	11785 V 27500
1521	channel 2	11785 V 27500
1522	MBC	11785 V 27500
1523	Bahrain TV	11843 H 27500
1524	Bahrain 55	11843 H 27500
1525	Bahrain Sport	11843 H 27500
1526	Bahrain FM	11843 H 27500
1527	Al Emarat	11862 V 27500
1528	ABU DHABI - A	11862 V 27500
1529	Syria	11938 V 27500
1530	Almustakilla	11938 V 27500
1531	Yemen TV	11938 V 27500
1532	Tunis TV	11938 V 27500
1533	Sharjah tv	11938 V 27500
1534	Aljazeera TV	11938 V 27500
1535	Algeria TV	11938 V 27500
1536	Jordan TV	11938 V 27500
1537	SAUDI-1	12010 V 18500
1538	SAUDI-2	12010 V 18500
1539	SAUDI SPORTS	12010 V 18500
1540	Alekhbaria	12010 V 18500

Sirius 2-----

1541	RTV21-RADIO21	11739 H 08029
1542	KTV-R-DUK	11739 H 08029
1543	NOVY KANAL	11766 H 27500
1544	TET	11766 H 27500
1545	ENTER-FILM	11766 H 27500
1546	INTER	11766 H 27500
1547	ENTER	11766 H 27500
1548	TRK UKRAINA	11766 H 27500
1549	Global 1	12111 H 27500
1550	Moscow Open World	12380 H 27500
1551	bTV	12465 H 10790
1552	ICTV	12633 V 03720
1553	Realitatea TV	12697 V 14685
1554	ETNO TV	12697 V 14685
1555	ATOMIC TV	12697 V 14685
1556	OTV	12697 V 14685
1557	RTL9	11370 V 03260

Eutelsat W3-----

1558	TV Polonia	11175 V 27500
1559	OpenSky_EN	11262 H 27500
1560	M6 Suisse	11283 V 27500

NAME SR- Freq - Pol

1561	TRT4	11492 V 30000
1562	TRT1	11492 V 30000
1563	TRT2	11492 V 30000
1564	TRT3	11492 V 30000
1565	DIGITURK	11575 V 30000
1566	SKYTURK	11658 V 30000
1567	unnamed	11658 V 30000

Turksat 1C-----

1568	TRT 1	11096 V 27500
1569	TRT 2	11096 V 27500
1570	TRT INT	11096 V 27500
1571	TRT 3	11096 V 27500
1572	TRT 4	11096 V 27500
1573	Supersport	11025 V 06510
1574	Viva	11025 V 06510
1575	Gala	11025 V 06510
1576	Cine5	11025 V 06510
1577	KANAL7 INT	11135 V 04444
1578	EURO TV	11135 V 04444
1579	MMC Euroturk	11135 V 04444
1580	TV 8	11830 V 06666
1581	Service 1	11129 V 04268
1582	KANAL A	11158 V 03150
1583	EGE TV	12697 H 02400
1584	E MEDYA INTERNA	12705 H 02400
1585	KANAL 6	12685 H 02400
1586	meltem tv com.tr	11873 V 03400
1587	mesaj tv	11877 V 02600
1588	NUR TV	12693 H 02285
1589	yeni tv	12638 V 02200
1590	Tatlisles TV	11856 V 02400
1591	EAS_PROMO	12133 V 11719
1592	BBC WORLD	12133 V 11719
1593	atv	12633 V 04800
1594	NTV INT	12715 V 02965
1595	LIFE CHANNEL	12590 V 03003
1596	IMEDI TV	12605 V 03700
1597	GOD	12620 V 06161
1598	GOD REVIVAL	12620 V 06161
1599	RR2-TR	12620 V 06161

Hispassat-----

1600	VIT TV	11583 H 20150
1601	Mana Europa 1	11682 V 03800
1602	EHS	11731 H 28120
1603	ATLAS SERVICIO AGEN	11731 H 28120
1604	NUEVA ERA	11731 H 28120
1605	Canal 4	11731 H 28120
1606	Andalucía TV	11811 V 27500
1607	TMSat/La Otra	11811 V 27500
1608	TVC Int	11811 V 27500
1609	TV Galicia	11811 V 27500
1610	TV Euskadi	11811 V 27500
1611	Movida Local	11931 H 27500
1612	Max Local	11931 H 27500
1613	Gigashopping	11931 H 27500
1614	Canal 7 Tv	11931 H 27500
1615	REDE RECORD	11931 H 27500
1616	Popular Tv	11931 H 27500
1617	Cibernos	11931 H 27500

GUIDE DES CHÂÎNES

N°	Nom	SR- Freq - Pol
1618	Cadena Milagro	11972 V 27500
1619	Cadena Local	11972 V 27500
1620	Tv Amistad	11972 V 27500
1621	Programação	12012 V 27500
1622	Euronews	12092 V 27500
1623	TVE INT.	12092 V 27500
1624	CNBC	12092 V 27500
1625	TBN ENLACE	12092 V 27500
1626	Parlamentar	12226 V 27500
1627	TV5	12226 V 27500
1628	CCValenciana	12456 V 27500
1629	TV Canaria	12456 V 27500

N°	Nom	SR- Freq - Pol
1040	RTL 2	12207 V 27500
1041	SKYROCK	12207 V 27500
1042	FUN RADIO	12207 V 27500
1043	LE MOUV	12207 V 27500
1044	RADIO NOVA	12207 V 27500
1045	RADIO FG	12207 V 27500
1046	VIBRATION	12207 V 27500
1047	CONTACT FM	12207 V 27500
1048	RADIO LATINA	12207 V 27500
1049	RFM	12207 V 27500
1050	CHERIE FM	12207 V 27500
1051	ALOUETTE	12207 V 27500
1052	VOLTAGE	12207 V 27500
1053	OUI FM	12207 V 27500
1054	ADO	12207 V 27500
1055	COULEUR 3	12207 V 27500
1056	RFI MUSIQUE	12207 V 27500
1057	RADIO NOTRE-DAME	12207 V 27500
1058	RADIO ALPHA	12207 V 27500
1059	RCJ / SHALOM	12207 V 27500
1060	BEUR FM	12207 V 27500
1061	MEDIA TROPICAL	12207 V 27500
1062	AFRICA N1	12207 V 27500
1063	MEDI 1	12207 V 27500
1064	France CULTURE	12207 V 27500
1065	WRN	12207 V 27500
1066	RADIO DU VOYAGE	12207 V 27500
1067	PARIS LIVE RADIO	12207 V 27500

RADIOS

Hotbird-----

1001	Beur	10796 V 27500
1002	France Musiques	10796 V 27500
1003	Hector	10796 V 27500
1004	FIP	10796 V 27500
1005	France Inter	10796 V 27500
1006	France Info	10796 V 27500
1007	France Culture	10796 V 27500
1008	France bleu	10796 V 27500
1009	Le Mouv	10796 V 27500
1010	Europe 1	10873 V 27500
1011	Europe 2	10873 V 27500
1012	RFM	10873 V 27500
1013	RTL	10873 V 27500
1014	NRJ	10873 V 27500
1015	Radio Classique	10873 V 27500
1016	Chérie FM	10873 V 27500
1017	HITWEST	10873 V 27500
1018	Nostalgie	10873 V 27500
1019	RFI	10911 V 27500
1020	Radio Courtoisie	10911 V 27500

Astra19-----

1021	FRANCE MUSIQUES	12207 V 27500
1022	FIP	12207 V 27500
1023	France INFO	12207 V 27500
1024	France INTER	12207 V 27500
1025	France BLEU	12207 V 27500
1026	RFI INT	12207 V 27500
1027	RADIO CLASSIQUE	12207 V 27500
1028	EUROPE 1	12207 V 27500
1029	RMC	12207 V 27500
1030	RTL	12207 V 27500
1031	RIRE ET CHANSONS	12207 V 27500
1032	SUD RADIO	12207 V 27500
1033	M FM	12207 V 27500
1034	TSF	12207 V 27500
1035	NOSTALGIE	12207 V 27500
1036	BFM	12207 V 27500
1037	PARIS JAZZ	12207 V 27500
1038	NRJ	12207 V 27500
1039	EUROPE 2	12207 V 27500



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