FREESAT+ HD DIGITAL TV RECORDER



DTR94 HD Freesat



USER MANUAL

ENGLISH



CONGRATULATIONS!

This Recorder is a new generation of Sagem Communications SAS (here after referred to as Sagem Communications) recorder dedicated to Digital Satellite Television and equipped with a hard disk. With this technological advantage, you can make digital audio/video recordings.

Once you have connected your recorder and performed the initial installation, you will be able to watch and enjoy freesat HD and SD channels. You can update your recorder if new functions or services become available.

The Sagem Communications Recorder follows a continuous development strategy. Therefore, we reserve the right to make changes and improvements to the product described in this user manual without any prior notice.

This product complies with EMC directive 89/336/EEC.

CE marking:

The CE marking certifies that the product complies with the essential requirements of the Directive 1999/5/EC concerning radio equipment and telecommunication equipment, and of Directives 2006/95/EC concerning safety and 2004/108/EC concerning electromagnetic compatibility, defined by the European Parliament and Council to reduce electromagnetic interferences and protect the health and safety of users.

The CE marking also certifies that the product complies with the following harmonised standards: EN60065, EN55013, EN55020, EN61000-3-2, EN61000-3-3.

The CE declaration of conformity can be viewed in the support section of the Sagem Communications site www.sagem-communications.com, or it can be obtained from the following address:

Sagem Communications SAS - Customer relations department 250, route de l'Empereur 92500 RUEIL MALMAISON - FRANCE ommunications SAS

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Telephone number for your local store is on your till receipt. Please check the following Website Link for reception:

http://www.freesat.co.uk

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1. PRODUCT OVERVIEW

Your Recorder is a digital recorder that lets you watch and record freesat HD and SD channels. YOUR NEW EQUIPMENT INCLUDES:

- 1 remote control with 2 batteries (AAA)
- 1 power supply unit (power adapter and power cord)
- 1 HDMI lead for connection to the HD TV set
- 1 installation guide
- 1 freesat presentation leaflet
- this user manual

1-1 FRONT PANEL OF THE RECORDER



1. Digital display

- Shows the current time when the recorder is in standby.
- Shows the programme number when the recorder is on.
- Shows hard disk activity (recording in progress, programme playback, ...)

2. Status indicator

3. USB port (for future use)

4. Change channels

5. Standby button

- Put the recorder in standby mode/Wake up the recorder from standby mode (press and let go)
- Restart the recorder (press and hold for 5 sec.)

1-2 REAR PANEL OF THE RECORDER



- 6. Satellite dish input 2
- 7. Satellite dish input 1
- 8. Ethernet port (for future use)
- 9. HDMI Digital video audio connector
- 10. Analogue audio connectors (to hi-fi unit)

- 11. Analog component video (Y Pb Pr)
- 12. Digital audio connector (S/PDIF)
- 13. Scart connector (to VCR or DVD recorder)
- **14. Scart connector** (to TV)
- 15. Power supply unit connector



To fully enjoy the features of your recorder, make sure that you connect the 2 satellite tuners (see "Connection to the satellite dish", page 8).

1-3 REMOTE CONTROL



| Key | Functions |
|-----|--|
| 1 | Put the recorder in standby mode/Wake up the recorder from standby mode. |
| 2 | Access channels and various on-screen options |
| 3 | Display programme information and options |
| 4 | Turn the volume up or down |
| 5 | Turn the sound off or on |
| 6 | Move in a page, a menu |
| 7 | Go back to the previous screen or mode |
| 8 | Launch immediate recording, Schedule a recording from the electronic programme guide (EPG) |
| 9 | On-screen options (MHEG, Teletext pages and menu) |
| 10 | Access the recording library |
| 11 | Select audio tracks and activate/deactivate audio description |
| 12 | Select subtitles |
| 13 | Display the electronic programme guide (EPG) |
| 14 | Change channels |
| 15 | Access menus |
| 16 | Display the channel list, confirm a selection |
| 17 | Exit a screen, a mode |
| 18 | Skip backward / forward |
| 19 | Rewind / fast forward |
| 20 | Stop / Play / Pause |
| 21 | Display Teletext pages when available |
| No | te : undocumented keys are not used on this product. |

Batteries: the remote control needs two batteries (AAA) to operate. The drawing in the battery compartment indicates how to install them. The batteries provided are not rechargeable.

2. SAFETY RECOMMENDATIONS

Use of the recorder is subject to safety measures designed to protect users and their environment.

2-1 WHERE TO PUT YOUR RECORDER?

In order to guarantee the correct operation of your recorder, you must:

- place it indoors to protect it from lightning, rain, and sun rays,
- place it in a dry and well ventilated area,
- keep it away from heat sources such as radiators, candles, lamps, etc.
- protect it from dampness, place it on a flat surface from where it will not fall and is out of reach of the children,
- do not place anything on top of your recorder (as it would restrict ventilation): the ventilation slots located on the casing prevent your recorder from overheating. If you place the recorder in a compartment, leave a space of at least 10 cm on each side and 20 cm on the front and back of the recorder,



 connect it directly to the mains with the provided cords, the socket must be near the recorder and easy to access. The use of an extension cable (with multi neinte) is not recorder.

access. The use of an extension cable (with multi-points) is not recommended.

2-2 WARNINGS AND SAFETY INSTRUCTIONS

NEVER OPEN THE RECORDER OR THE POWER SUPPLY UNIT! YOU RISK GETTING AN ELECTRIC SHOCK.



• Use only the power supply unit supplied with the recorder to connect it to the mains. Other practice may be dangerous.

• As a precaution, in case of danger, the power supply unit acts as a disconnecting mechanism for the 230V power supply. That is why it is imperative that you connect the recorder to a power outlet located nearby and easily accessible.

- You must imperatively connect the power supply unit to the recorder before connecting the power supply unit to the power socket.
- To avoid short-circuits (fire or electrocution hazard), do not expose your recorder to dampness. Do
 not place any object containing liquid (vase for example) on the appliance. The recorder must not be
 splashed with liquid. If liquid is spilled onto the recorder, unplug it immediately from the mains and
 consult your supplier.
- Take care not to allow liquids or metal objects to enter the recorder through the ventilation slots.
- Avoid reconnecting the recorder after it has been subjected to large changes in temperature.

- The recorder must be disconnected from mains supply (from the power outlet or rear panel) before any modification of connection between TV, VCR or dish.
- In the event of a storm, it is advisable to unplug the dish. Even if the recorder and the television set are disconnected from the power supply, lightning can still damage them.

Only personnel approved by the manufacturer can repair the recorder. Failure to comply with these safety precautions will invalidate the guarantee.

2-3 BATTERIES

Batteries are easily swallowed by young children. Do not allow young children to play with the remote control.

To avoid damaging the remote control, only use identical batteries or batteries of an equivalent type. The batteries provided are not rechargeable.

2-4 INTERFERENCE

Do not place the recorder near appliances that may cause electromagnetic interferences (for example loudspeakers). This could affect recorder operation and distort the picture or sound.

2-5 HARD DISK

This unit contains a hard disk. Please wait for the unit to go into standby mode before unplugging and moving it.

2-6 CLEANING THE RECORDER

The outer casing of the recorder can be cleaned with a soft and dry cloth. Do not use any type of abrasive pad, scouring powder or solvents, such as alcohol or turpentine, as they could damage the surface of the recorder.

3. ENVIRONMENT

Preservation of the environment is an essential concern of the manufacturer. The desire of the manufacturer is to operate systems observing the environment and consequently it has decided to integrate environmental performances in the life cycle of its products, from manufacturing to commissioning, use and elimination.

3-1 MEANING OF LOGOS PRESENT ON THE PRODUCT OR ITS PACKAGING



The crossed-out dustbin sign stuck on the product or its accessories means that at the end of its life, the product is subject to selective collection and must not be thrown away in unsorted household waste.



The looped arrow sign means that the packaging may be recycled and must not be disposed of with household waste.



The green logo means that a financial contribution is paid to an approved national organisation to improve packaging recovery and recycling infrastructures.



The logo with three arrows shown on the plastic parts means that they may be recycled and that they must not be disposed of with household waste.

3-2 PRODUCT RECYCLING AND DISPOSAL

To facilitate recycling, please respect the sorting rules set up locally for this kind of waste.

If your product contains batteries, they must be disposed of at appropriate collection points.

European regulations ask you to dispose of products belonging to the family of electrical and electronic

equipments (A) selectively:

- At the collection points made available to you locally (drop-off centre, selective collection, etc.),
- At sales points in the event of the purchase of similar equipment.

In this way you can participate in the re-use and upgrading of Electrical and Electronic Equipment Waste, which can have an effect on the environment and human health.

3-3 EUROPEAN DIRECTIVE ON WASTE ELECTRICAL AND ELECTRONIC

EQUIPMENT (WEEE)

In the context of sustainable development, the reduction of wastes to be eliminated by reusing, recycling, composting and energy recovery is strongly advised.

In order to comply with this directive which is applicable to EEEs sold after 13/08/2005, your recorder will be taken back free of charge and recycled by the distributor of the EEE within the limits of the quantity and types of equipment bought from them. These appliances which contain substances potentially dangerous to human health and the environment will be recycled.

3-4 DIRECTIVE ON THE RESTRICTION OF USE OF CERTAIN HAZARDOUS

SUBSTANCES IN ELECTRONIC EQUIPMENT (ROHS)

Your recorder along with the batteries supplied comply with the directive relating to the RoHS – dangerous materials such as lead, mercury or cadmium are not used. This avoids environmental hazards and any risks to the health of personnel at the recycling centres. The batteries of the remote control can be removed simply.

Note: When the batteries of the remote control are worn out, please dispose of them at a collection point and not with household waste.

3-5 ELECTRICAL CONSUMPTION OF THE RECORDER

To reduce the consumption of your recorder, you are recommended to place it in standby mode when not in use. We recommend that you turn off the recorder or unplug it from the mains if you will not be using it for a prolonged period of time.

4. CONNECTIONS

Before installing your recorder, please check that the delivery is complete (see "Product Overview", page 1).

Please ensure that the appliances to be connected together (recorder, TV, VCR...) are unplugged before making any connections.

4-1 CONNECTION TO THE SATELLITE DISH

To get all the freesat HD and SD channels, make sure that your satellite dish is oriented towards ASTRA 2, facing 28.2° East.

To fully enjoy the recording and timeshifting features of your recorder, you must connect the 2 satellite tuners, making sure that:

- your 2 satellite signal inputs are fully independent. This implies that you use **2 distinct LNB heads** (i.e. twin LNB-head aerial). The use of a splitter is excluded.
- your 2 LNB heads are both directed towards ASTRA 2, facing 28.2° East.

Contact your satellite installer/dealer for more information on your satellite dish installation and alignment.

- 1. Plug the first satellite dish cable into the IN 1 input connector on your recorder.
- 2. Plug the second satellite dish cable into the IN 2 input connector on your recorder.



4-2-1 Connection to a High-Definition television using a HDMI lead

- 1. To take advantage of HD high-quality definition, you must connect the HDMI connector of your digital recorder to the HDMI connector on your television set.
- 2. To connect other devices to the recorder (VCR, home cinema...), refer to the following pages.
- **3.** Connect the power adapter to the power cable. Then, connect the power cable into the 12V connector on the recorder.
- 4. Plug the power cord into the wall socket.



4-2-2 Connection to a High-Definition television using the component video link (Y Pb Pr)

- 1. Connect the **YPbPr** connectors (red, blue and green) of your recorder to the YPbPr connectors on your television set, respecting the connectors colour (cable not supplied).
- 2. Connect the right and left audio outputs of your recorder to the audio inputs on your television set or your Hi-Fi system (cable not supplied).



Make sure to connect an audio device (TV set or Hi-Fi) otherwise there will be no sound output.

- 3. To connect other devices to the recorder (VCR, home cinema...), refer to the following pages.
- **4.** Connect the power adapter to the power cable. Then, connect the power cable into the 12V connector on the recorder.
- 5. Plug the power cord into the wall socket.



4-2-3 Connection to a Standard-Definition television

- 1. You must connect the television set to your recorder using a Scart connector (not supplied). For optimal quality, preferably connect the Scart lead to the TV Scart socket with 3 dots (RGB).
- 2. To connect other devices to the recorder (VCR, home cinema...), refer to the following sections.
- **3.** Connect the power adapter to the power cable. Then, connect the power cable into the 12V connector on the recorder.
- 4. Plug the power cord into the wall socket.



4-3 CONNECTION TO THE VCR/DVD RECORDER

See the diagram below to connect your recorder to a VCR/DVD recorder.
 Note: If your VCR/DVD recorder has more than one Scart connector, choose the TV or EXT1 socket.



4-4 CONNECTION TO A HOME CINEMA AMPLIFIER

Some digital channels are shown in DTS or DOLBY DIGITAL quality sound. To fully enjoy this sound quality, it is best to connect your recorder to a home cinema with a coaxial input.

Use a coaxial cable (not supplied) to connect the DIGITAL audio output on the recorder to the input of your home cinema amplifier.



4-5 CONNECTION TO A HI-FI UNIT

To make the most of the digital quality sound and listen to radio channels with the TV turned off, just connect the right and left audio outputs of the recorder to the auxiliary input of your hi-fi system (cable not supplied).



5. FIRST INSTALLATION

Once the recorder is physically connected, you need to go through the setup procedure to get your freesat HD and SD channels.

- 1. Switch on your TV.
- 2. Press the Standby button on your remote control to wake the recorder up from standby mode.
- 3. The first installation screen should appear.

Freesat Settings

4. Press it is start the installation.

The recorder searches for the freesat satellite signal. Please wait until the recorder successfully detects it.



5. If the detection fails, press to view the reception strength and quality of the satellite signal(s). Check the dish cable connections. When the signal level is satisfactory, press to resume the installation. If the level and quality of reception remain insufficient, contact your satellite installer.



 Enter your full postcode (without space) using the alphanumeric keys on the remote control. <u>Example</u>: to enter the letter S, press 4 times key 7.

Use the character.

Press (to continue.



- 13 -
- Note : the postcode is used to install local TV and radio channels.

key to delete an incorrect

Main Settings

7. Select the settings better suited to your needs.

Use the up and down keys to highlight a setting, use the left and right arrows to select a value.

Preferred Audio: programmes will be broadcast in the selected audio language provided it is available.

TV Screen Size: 16:9 (widescreen) or 4:3 (standard TV).

HDMI Resolution: 1080i, 720p or 576p,



depending on your HD TV Set. If you have a standard TV set, set the resolution at 576p. **Parental code**: enter a parental four-digit code using the remote control (0000 is not accepted). Enter the same code to confirm it.

Press of to continue.



The parental code is used to lock access to the recorder. Make sure you remember it for future use. You can change the code at any time (see "Changing your Parental code", page 16).

Channel Search

8. The recorder automatically searches for available freesat TV and radio channels.



You recorder is now set. You can start watching and enjoying all your freesat HD and SD channels.

Should any problem that prevents you from completing the installation arise, please contact your retailer or the Sagem Communications SAS Hotline.

UK Hotline: 08450 900 316*

* 3.95 pence per minute from all fixed lines, tariff cost effective from 01/09/2009

6. INSTALLATION MENUS

To move around the screens and change various settings, just use the keys (,), and and to highlight your selections, press () to confirm, and () to leave a screen.

6-1 ICONS



To access the user settings screen, press (). Once you are in the main menu, select USER SETTINGS.

6-2-1 Selecting your language

In USER SETTINGS, select LANGUAGES.

Select the audio and subtitle language you want.

Programmes will be broadcast in the selected audio language, provided it is available. Your choice of subtitle language will be applied if available.

You can also activate the audio description feature. Programmes providing this service will be broadcast in the selected audio preferred language if available.



6-2-2 Hiding Adult channels

In USER SETTINGS, select ADULT GENRE.

This feature lets you hide adult genre channels.

If you activate this function, all adult genre channels will be hidden : you will not be able to switch to an adult genre channel, or browse this category in the electronic programme guide.

Use this feature to protect your children from this type of exposure.



6-2-3 Recorder locking

In the USER SETTING menu, select INSTALLATION LOCK.

You can lock access to the recorder installation settings.

If you activate the installation lock, you will need to enter the parental code every time you want to access the recorder menus (Recorder settings, Channels, etc.).

Installation Lock

6-2-4 Changing your Parental code

In USER SETTINGS, select CHANGE PARENTAL CODE.

The parental code is initially defined during the first installation, and is used to lock the installation (access to recorder settings).

To change your parental code, enter the current fourdigit code using the remote control.

Then enter your new parental code and confirm it (0000 is not accepted).



In USER SETTINGS, select RECORDINGS.

This menu lets you set general recording preferences.

Timers margin for EPG: You can programme recording margins which will be automatically added to the recordings carried out via the electronic programme guide. You can thus set the recorder so that it starts to record a programme before its announced start time, and stops after its announced end time. To activate this feature, just select the desired starting and ending times (5, 10 or 15 minutes).



Skip: By default; the (m) and (m) keys are set to skip 1 minute backward and forward when pressed during a video playback. You can change this setting to your convenience, and independently decrease or increase each action.

6-3 MANAGING CHANNELS AND FAVOURITE LISTS 🙆

To access the channels settings screen, press 🐽. Once you are in the main menu, select CHANNELS.

freesat

6-3-1 Managing Channels

In CHANNELS, select MANAGE CHANNELS.

By default, all TV channels and radio stations found during the recorder installation are saved and available.

You can however hide the unwanted channels, or lock access to specific channels. Each time you switch to a locked channel, you will be asked to enter your parental code.

 103
 TV1 London

 104
 Chartost 4

 105
 Five

 106
 BSC Five

 107
 BSC FIVE

 108
 BSC FIVE

 109
 BSC FIDE

 109
 BSC FIDE

 110
 BSC ALBA

 1113
 FTV2

EDIT CHANNEL LIST

Use the navigation arrows to browse the channel list.

To **hide / unhide** a channel, highlight it and press the **red** key on the remote control. Hidden channels appear with the mention 'Hidden'.

To **lock / unlock** access to a channel, highlight it and press the **green** key. Locked channels appear with a 'key' symbol.

6-3-2 Creating Favourite lists

In CHANNELS, select FAVOURITE LISTS.

To create a favourite list, press the **yellow** key to select an empty list (list A to D).

Highlight a channel in the Main channels list and press the **green** key to add it into your favourite list.

To remove a channel from the favourite list, use the **red** key.

 Found If List A
 Flath Classes List

 No favourities, is: Bit
 101
 High Classes List

 103
 HDS Classes List
 103
 HDS Classes List

 104
 HDS Classes List
 103
 HDS Classes List

 105
 HDS Classes List
 105
 HDS Classes List

 105
 HDS Classes List
 105
 HDS Classes List

 105
 HDS Classes List
 105
 HDS Classes List

 106
 HDS Classes List
 105
 HDS Classes List

 107
 HDS Classes List
 108
 HDS Classes List

 108
 HDS Classes List
 108
 HDS Classes List

To save your favourite list, press

To edit or empty a list of favourite channels, use the **yellow** key to select it and carry out the desired modifications.



To access the recorder settings screen, press (). Once in the main menu, select RECORDER SETTINGS.

If the installation lock is activated, enter your parental code (to change your parental code, see "Changing your Parental code", page 16).

6-4-1 Searching for channels

In RECORDER SETTINGS, select CHANNEL SEARCH.

Enter your full postcode (without space) and press

Make sure you enter a valid postcode, otherwise you will not be able to launch a channel search.

Press again to launch the channel search.

A bar shows you the search progress.



Once the search is complete, press on to save the channel list.



The Channel search function installs all available freesat HD and SD channels.

If you want to install non freesat channels, please refer to "Adding Non freesat channels", page 22.

6-4-2 Picture settings

In RECORDER SETTINGS, select PICTURE.

- TV Screen Size: select the display mode for your TV: 16:9 (widescreen TV) or 4:3 (Traditional TV).
- Resizing on 4:3 TV: if your display mode is 4:3, select the desired resizing mode: Centre Cut Out or 16:9 Letterbox.
- **OSD Display Time**: select how long you want the information banner to stay onscreen.



6-4-3 Lip Sync

In RECORDER SETTINGS, select LIP SYNC.

If the sound and picture are not synchronized, adjust the LIP SYNC delay setting (default value is 0

millisecond) using (and)

This setting will apply to all programmes watched on all channels.



6-4-4 Audio and Video Output settings

In RECORDER SETTINGS, select A/V OUTPUT.

Check the manuals of your video equipment to know what settings you need.

- HDMI RESOLUTION: select the output resolution for your HD TV set (1080i, 720p or 576p). If you have a standard TV, leave the setting at 576p.
- **TV SCART**: select the video standard (RGB, PAL) for the TV output.

| heesat | | _ | | VOUTPUT | |
|-------------------------|-----------|----|-------|---------|---|
| IDMI Resolu TV SCART | tion | | | 720p | • |
| | (C) North | Ow | Olter | Ow | |

6-4-5 Recorder upgrade

The recorder automatically checks if new software is available for download. You can however manually launch this operation and download updated software if available.

In RECORDER SETTINGS, select RECORDER UPGRADE.

The recorder searches for new software.

For more information on this feature, refer to "Software Update", page 35.



6-4-6 Formatting the hard disk

If you format the hard disk, you lose all the recordings saved in the library.

This operation does not reset the channels and settings you made.

| In RECORDER SETTINGS, select FACTORY RESET. | freesat | FACTORY RESET |
|---|---------|--------------------------|
| Enter your parental code and press o. | | Enter your parental code |
| Select FORMAT HARD DISK DRIVE and press | | Carton @ Inter |

A warning message appears.

To cancel the operation, press 🕥 or 🔕.

To confirm the formatting, press .



6-4-7 Resetting the recorder





6-4-8 Adding Non freesat channels

You can manually add non freesat channels by entering the transponder parameters (frequency, symbol rate, etc.).

In RECORDER SETTINGS, select ADD NON FREESAT CHANNEL.

Enter the required transponder parameters, then press the **red** key to launch the scanning.

To save the scanning results, press on





Non freesat channels that are manually added will start with channel number 3000, and will not be available in the EPG.

7. INFORMATION MENU

The information contained in this menu may be requested if you contact your supplier or another technical service.

You will find here important information about the recorder, the hard disk and the embedded software.

To access the recorder technical information, press 💿. In the main menu, select INFORMATION 🧶

7-1 SIGNAL INFORMATION

In INFORMATION, select SIGNAL.

This menu lets you find out the signal level and quality of your satellite installation, for the currently watched programme.

| Satellite | ASTRA | | | |
|-----------------|---------|----|---|--|
| Frequency | 10773 M | Hz | | |
| Signal Strength | 56% C | | | |
| Signal Quality | 60% | _ | _ | |
| | | | | |

7-2 RECORDER INFORMATION

In INFORMATION, select RECORDER.

This menu provides information on the recorder software.



7-3 HARD DISK INFORMATION

In INFORMATION, select HARD DISK.

This menu provides information on the hard disk.



8. EVERYDAY USE

8-1 SELECTING A CHANNEL



The operations described in this section apply to television channels and radio stations.

8-1-1 Using the keys 凾 and 🕞, or keys 0-9

Press 💽 or 🕞 on your remote control to change channel or enter its number on the numeric keypad to switch to the channel you want.

8-1-2 Using the channel list

Press on to display the channel list, select your channel then press again to confirm.

8-1-3 Programme information banner

Each time you switch channels, the information banner appears onscreen. You can also display it by pressing
 once while watching a programme.

You can set the display time of the information banner in the Recorder settings (see "Picture settings", page 19).

- A Channel number and name
- B Name of programme
- C Start time of programme
- D Elapsed time
- E Current time
- F End time of programme
- G Signal level
- H Favourite list
- I Audio description available
- J Number of subtitle languages available
- K Audio output
- L Number of audio tracks available
- M Programme resolution
- N Programme broadcast in HD





The availability and accuracy of the programme information depend on the channel broadcaster.

8-1-4 Detailed programme information

If you want more information on the current and following programme, press () twice while watching a programme to display the extended information banner.

Press / to view information on the next/ current programme.

Use *and* and *to see information on the current/next programme on other channels.*

To switch to the selected channel, press on.

Press again
or
or to hide the extended information banner.



8-2 ADJUSTING THE AUDIO VOLUME

Volume: Use and and to turn the volume up and down.

Mute mode: Use 💿 to turn the sound off. Press the same key again to turn the sound back on.

These operations do not affect the sound on the AUX Scart socket or on the hi-fi and digital audio outputs.

8-3 CHANGING THE FAVOURITES LIST

You can create and manage favourite channels lists in the FAVOURITES menu (see page 17).

To switch from one channel list (main channel list included) to an existing favourite list, press () twice to display the detailed information banner.

Press the **blue** key to switch to the next available favourite list.

Repeat this operation until the favourite list of your choice is selected, or to return to the main channel list.

8-4 TEMPORARILY SELECTING AUDIO LANGUAGES AND SUBTITLES



All modifications take place immediately. However, temporary adjustments are not retained when you change channel.

Press or contraction of the audio tracks, subtitles or audio description selection screen.

Use (,), or to select your

settings then press on to confirm.



To temporarily activate the audio description feature, select Audio description and set it to Yes.

Programmes providing this service will be broadcast in the selected audio preferred language if available.

8-5 TELETEXT AND INTERACTIVE SERVICES

Whenever Teletext or interactive services are available (news, local weather information, etc.), an invitation to press the red key appears on screen.

You can then press on or the red key on your remote control to access available services.

You can then browse the services, teletext pages and local information available following the onscreen indications.

8-6 ELECTRONIC PROGRAMME GUIDE 🥥

The electronic programme guide displays programme information for all available channels (depending on the information provided by channel broadcasters). You can also record programmes directly from the electronic programme guide (see "Recording programmes from the Electronic programme guide", page 31).

Press () to access the electronic programme guide. You can also access it by pressing () and selecting GUIDE.

Select the channel genre you are interested in with

the navigation keys and press

You can PIN-lock access to adult genre using the parental control feature (see "Hiding Adult channels", page 16).

| Chann | el Genre |
|---------------|------------------|
| All Charmels | Special Interest |
| Entertainment | Kada |
| News & Sport | Shopping |
| Movies | Gening & Deting |
| Lifestyle | Instan active |
| Music | Regional |
| Oildren | |

The electronic guide shows programme information for the selected genre on all available channels.

| 7 51 | 07 BBC 6Music - 5 tave plays extraordinary deales in the Reundtabl | tove Lemacq new music and discusses the week's e. | 16:90 | All Channel 19:00 |
|------|--|---|---------------------------|----------------------|
| | The 2 Colomon | nes s | 1862 | 1000 |
| | 707 BBC GMusis | Steve Lamaca | Marc Riley | |
| | 708 B&C Radie 7 | Doctor Who Eryo | on Ded Made Me Laug The P | ersenality Te |
| | 709 BBC Asien Net | Asian Network Rep Gagan Gruwal | | |
| | 710 B&C Radio 4 LW | Six O'Clock News Count Arthur Stro | n The Arch Front Row | Crawto |
| | 711 BBC World Sv | BB World, Have Your Say | 68 World Br Werld World | Business Del |
| | 712 BBC R Scotland | Redio Spor sound | | |
| | 715 88C InGaidheal | Slubhal gu Beachd | Cettic | v Rapid Vien |
| | 714 BBC R Wales | Good Evening Wales Eye on Wales | N Serum V Radio | |
| | The1/10 1/ 02/ | 10 5x 03/10 5x 04/10 Ma 05/10 | Tu 06/10 We 07/10 | 15 08/10 |

To help you navigate in the electronic programme guide, a vertical line shows the current time.

You can perform the following actions:

- To see extended information on a programme, highlight it and press (1)
- To zap to a selected channel, select it and press .
- To jump to the next/previous two-hour slot, use the red / green key. Press the key several times to scroll over the time slots.
- To jump to the next/previous day, press the yellow / blue key.
- To schedule the recording of a programme, select it and press the **()** key (see "Recording programmes from the Electronic programme guide", page 31 for more information on this feature).

You can at any time go back to the current programme and channel information by pressing the 🕥 key.

To exit the electronic programme guide, press the 🔘 key.

8-7 LIVE MODE/DEFERRED MODE

The recorder automatically saves the previous minutes of the channel that is watched (last 60 to 120 minutes depending on the signal characteristics).

This sliding recording mode makes it possible to stop live mode, rewind and review the programme that was recorded moments before.

Press (4), (1), (1) and (1) to enter the time shift recording.

A banner with the Deferred/Live time shift is displayed at the top of the screen.



8-7-1 Pause / Play

You can pause a programme without missing what's next by pressing the 🕕 key. To resume the current

programme where you left it, press the () key.

8-7-2 Rewind

You can rewind by pressing the (key.

You will then see the Deferred/Live delay increase. By pressing the key several times, you can increase the rewind speed (up to 100 times the normal speed).

Therefore, it is possible to rewind 1 or 2 hours. Please note that to do so, the current programme must have been watched for that period of time at least.

8-7-3 Fast forward

You can fast forward by pressing the () key.

You will then see the Deferred/Live delay decrease. By pressing the key several times, you can increase the fast forward speed (up to 100 times the normal speed).

If you remain in fast forward, you will finish by reaching the live programme.

8-7-4 Stop

You can exit the Deferred mode at any time and go back to the live programme. To do so, press the exercise key.

9. VIDEO RECORDINGS

The recording capacity of your recorder depends on the capacity of the hard disk and the selected programme. On average, one hour of recording requires from 1 GB (SD programme) to 2.5 GB (HD programme) of hard disk space.

If the recorder is fed with two satellite signal inputs (as reccommended in "Connection to the satellite dish", page 8), you can simultaneously:

- record a programme and watch another programme,
- record 2 programmes and watch any of them.

In the same way, you can simultaneously:

- · watch a programme in deferred mode while recording another programme,
- watch a recorded programme and record one or 2 programmes.

Please note if MHEG services are available on the programme you are recording, they will be discarded.

9-1 IMMEDIATE RECORDING (LIVE OR DEFERRED PROGRAMME)

To record a live programme, select the desired channel and press O. The recorder will by default record the programme until its announced end time.



You can then change channel without the recording being affected.

The number of the channel being recorded is displayed in the upper banner.

To stop a recording, press the 🔳 key.

In the same way, if you decide to record a programme that you have been watching for a certain time (1

| to 2 hours maximum), enter the deferred mode using | €, | ;€ | 🕕 and | then press | \odot | when |
|--|----|----|-------|--------------------------------|---------|------|
| you want to start recording. | | | | | | |

You can then put the recorder in standby: the recording will stop automatically at the end of the recording time.



When recording in deferred mode, the recorder can add a few seconds of video at the beginning.

Once a recording is launched, you can no longer rewind before the start time.

9-2 RECORDING PROGRAMMES FROM THE MENU

Press the 💿 key to access the main menu. Once you are in the main menu, select TIMER O

The event timer screen shows the list of your scheduled recordings.

There are two types of recordings:

- recording scheduled from the EPG (the last column displays the programme name)
- recordings that you schedule manually (the last column displays the 'Timer' mention)

9-2-1 Scheduling a recording manually

To manually schedule a recording:

- Press the green key. An edition screen appears allowing you to select your recording options.
- 2. Select the recording repetition:
 - **Once**: only once at the scheduled time.
 - **Daily**: at the scheduled time, every day and every week.
 - **Daily except WE**: at the scheduled time, every day from Monday to Friday.
 - Weekly : once a week at the scheduled time.
- 3. Select the channel you want to record.
- 4. Enter the recording date.
- 5. Enter the recording start and end time.
- 6. Confirm the schedule by pressing one.

9-2-2 Editing scheduled recordings

To modify an existing scheduled recording, just select it in the list and press (): the edition screen then appears allowing you to modify the recording options. Please note that changing the repetition cannot be undone.



Editing a recording scheduled from the EPG is possible, but by doing so, you will lose all automatic information update (automatic reschedule, series recording, etc...). We recommend that you delete instead the event in the Timer list and reschedule the recording from the EPG.

| frees | a | | EVENT TIME | |
|--------------------------------------|--|--|---|---|
| Series Series Series Series | Ho 05/10 23:00 - 01:00 1x 06/10 04:30 - 05:30 1x 06/10 05:30 - 06:00 1x 06/10 18:00 - 18:30 1x 06/10 18:50 - 20:00 | 302 139 139 139 101 209 | True Movies Zone Horror+1 Zone Horror+1 BBC 1 London HHK WORLD TV | Witness to the Ho Hutant X The Twilight Zone BBC News at Six Today's Close-up |
| Series. | We 07/10 17:00 - 18:00 | 104 | Channel & | The Simpsons |
| Settes | Th Dis/10 21:30 - 22:00 | 309 | NHR WORLD TV | BEGIN Japanolo |
| | Ma 12/10 17:30 - 18:90 | 20.8 | NHE WORLD TV | Your Japanese 63 |

| | EDIT EVENT | | | | _ |
|------------------|-----------------------|----------------|----------|-----------|------------------------------|
| Series Series | Repetition Channel | - 9467 0108 | RECHD | | wa at 50s ufficiences The |
| Series | Date | 02/1 | 0/2009 | | IGO QUICE L |
| Once | Start Time | 13:51 | End Time | 14:51 | Cipita . |
| Crace | Lock | No | Type | | Wasted |
| Once | Title | | | | Noy of The John St |
| | | 0- | - 3 | () Katyre | a second second |
| 0 | 0 | Balata () (| O MI | () Annual | 0.0 |

9-3 RECORDING PROGRAMMES FROM THE ELECTRONIC PROGRAMME GUIDE

The advantage of recording from the electronic programme guide is that you can record specific programmes instead of choosing channel time slots. You can only do this if the programme information is provided by the channel broadcaster.

By default, the recorder records a programme based on its announced time. To avoid missing parts of the programme, you can customise timers margins in your User Preferences (see "Recording preferences", page 17).

Press (IIII) to access the electronic programme guide.

- 1. Select the channel and programme you want to record.
- 2. Press () to schedule the recording of the selected programme.

The record symbol appears next to the programme and the programme cell becomes red.

3. Repeat the operation for all the programmes you want to record.

| 200 BBC NEWS - BBC The latest national and int News lisans, followed by w | News at Six temational news ph wather: [1] | | | All Channe |
|---|--|--------------------|---|------------|
| | | | | |
| 138 Zane Harrar 1 178 Zane Herrart | Martal Rooman C | inguest inguest | O Hilamian Adlessian | _ |
| Tel: 801+1 | Hell Date Lift Every Volce | Time & Taxa | No information profiable the information available | |
| 201 MIC Parliament | Convergations 200 | LBC New No offe | matter avetable | Generat |
| 212 54(2 | Fishelanas Swyth | ndietth | | |
| 203 AC jearers ting | Real | Inside Story | We internation available | |
| the party of the | - | | ta ter to think a | 1111 |

- If a recording is conflicting with another recording (scheduled at the same time), the recorder will ask you to resolve the schedule conflict.
- If the programme you want to record is part of a series (symbolised by a multipage icon above the programme start time), the recorder will ask if you want to record the single episode or all announced forthcoming episodes.
- 4. To cancel the recording of a programme, press () again. The record symbol next to the programme disappears.

The scheduled recordings appear in the Timer list, as 'Once' or 'Series' depending on your repetition choice.

Please note that if you edit a recording that has been scheduled from the EPG, you will lose all automatic information update made available by the EPG (automatic reschedule, series recording, etc...).

9-4 RECORDING LIBRARY 🥥

Press the
key to access the recording library. You can also access it by pressing
and selecting LIBRARY.

You will be able to create folders to organise your recordings, and control the disk space available.

The left panel displays the existing folders, and the programmes you recorded.

Highlight a recording using the navigation arrows,

then press on to play it.

Depending on the genre of the recorded programme, you may be asked to enter the parental PIN-code before you can play it.

In Play mode:

- Use (), () and () to move in the recorded programme.
- Press (III) to stop and return to the list.

To exit this menu, press 💽.

| and the second se | and the second se | |
|---|---|---------------|
| K News - BIK 1 Lundon - NEW | Divir Documentary | |
| | THE REPORT FOR DR. SHOP | |
| E AMOL | Pr 02/10 | _ |
| a) Alone In The Dark | 54 05/10 | |
| #D BBC HD Preview | Fr 02/10 | |
| 40 BBC HD Presiew | Fr 02/10 | |
| all BBC News | 34 04/10 | |
| 60 BDC News | 54 03/10 | |
| 40 BBC News at Six | Th 01/10 | ALC: North |
| (i) BDC News at Six. | Fr 02/10 | Sun 4 Debuler |
| # BEGIN Japanology | Th 01/10 | 00167440 MB |

9-5 MANAGING THE RECORDING LIST

The coloured keys let you manage the recording list and offer you the following actions:

- red: select an operation
- green: select the highlighted recording
- blue: sort the recordings by date or name

9-5-1 Selecting recorded programmes

You can work with several recordings at the same time. To handle several files simultaneously, it is preferable to select them beforehand.

To select several recordings:

- Highlight one recording.
- Press the green key, a 'check mark' symbol appears next to the recording.
- Perform the same action to select other recordings.



 Once all the desired recording are selected, press the red key to access the recording management menu.



The operations described in this section apply to recordings and folders.

9-5-2 Sorting your recordings

Press the **blue** key to sort your recordings by date or name.

9-5-3 Creating folders

You can create folders to organise your recordings.

- Press the red key.
- Select the action "Create folder" and press on.
- Use to delete the default name, then enter the desired name using the numeric keypad on the remote control.



All folders created will be saved at the root of the hard disk. You can not create a folder in a folder.

Use alphanumeric characters (letters and numbers) when naming folders. Do not use special characters. Accepted signs are ".", "_" and "-".

Press on to confirm the creation.

9-5-4 Erasing recordings

- Select the recording(s) or folder(s) you want to erase with the green key.
- Press the red key.
- Select the action "Delete" and press .
 A warning message appears for each item to erase.
- Press on to confirm.

9-5-5 Moving recordings

- Select with the green key the recording(s) you want to move.
- Press the red key.
- Select the action "Move" and press (
- Use and to select the new location then press

9-5-6 Renaming recordings

- Select with the green key the recording or folder you want to rename.
- Press the red key.
- Select the action "Rename" and press (
- Use to delete the existing name, then enter the desired name using the numeric keypad on the remote control.



Use alphanumeric characters (letters and numbers) when naming folders. Do not use special characters. Accepted signs are ".", "_" and "-".

Press on to confirm.

10. SOFTWARE UPDATE

Your recorder automatically checks if new software is available for download and will ask you if you want to accept, postpone until the next wake up or refuse the download.

You can also manually request that the recorder searches for new software upgrade in the RECORDER SETTINGS > RECORDER UPGRADE menu.

When a new software is available for download, the following screen appears:

| (inclusion) | - | | | |
|-------------|---|---|---|--|
| | New suffmare version detected Your receiver will be suggraded The screen will be black for several minutes Canfirm the upgrade by pressing OK | | | |
| | | 0 | - | |

To accept the download, press

The recorder will start downloading, which can take from 5 to 30 minutes. You will not be able to use the recorder until it has finished downloading:

- The screen goes black.
- The display shows the download phases (0 to 4).
- Once the process is complete, the recorder

switches on automatically. Press the key to go back to the last programme you were watching.



• If you refuse the download (by pressing ()), the recorder will ask you again regularly.

Please check www.sagem-communications.com for new versions of this manual after the software is updated.

11. TROUBLESHOOTING

| The remote control is not working. | 13 13 | Point the remote control at the recorder. Check the battery life and check the batteries are inserted properly. |
|---|------------|--|
| The recorder display shows no information (no time, no channel number, etc.). | 13 13 | Switch the recorder on by pressing the On/Off button. Check all the connections (see "Connections", page 8). |
| The recorder displays: in standby mode. | 13 13 | Take the recorder out of standby mode by pressing the key. Check that the satellite signal is correctly detected (see "Signal Information", page 23). |
| The recorder displays a black screen or an error message. | 13 | Search for programmes (see "Searching for channels", page 18). |
| The picture is frozen ./ unclear. | 13 | Check all the connections, check the antenna and search for programmes again (see "Searching for channels", page 18). |
| The recorder cannot find any channels. | 167 167 | Check the dish reception (see "Signal Information", page 23). Search for programmes (see "Searching for channels", page 18). Contact your satellite installer/dealer for more information on your satellite dish installation and alignment. |
| The TV set does not switch to the recorder when it leaves standby mode. | 13 13 | Check that your TV set is connected to the TV Scart socket (see "Connection to the TV set", page 9). If necessary, select the Scart input directly on your TV set. |
| There is no sound in HOME CINEMA mode on some channels. | 13 | Check that the recorder is connected to a HOME CINEMA amplifier with a digital link (see "Connection to a home cinema amplifier", page 12). |
| Black and white video on AUX output (during VCR/ DVD recording). | 13 | Check that the signal type chosen for AUX Scart output is compatible with your VCR (select PAL on VCR, see "Audio and Video Output settings", page 20). |
| I cannot channel-surf between all my channels during a double recording. | 13 | In the case of a double simultaneous recording, you can only channel-surf between a restricted number of channels. You will be able to channel-surf between all your channels again when at least one of the recordings ends. |
| I cannot record any programmes. The message "Recording failed" appears when I press the the key. | 13 | The recorder is set to record using the IN 2 satellite input signal. You must therefore connect the 2 satellite tuners (see "Connection to the satellite dish", page 8). |

A black screen (no video) appears at the end of a recording. Some channels stop their broadcast with a fixed image or no video. When a recording ends on such programmes, the video recording stops but the time counter continues until the end of the scheduled recording time. Make sure that you set your manual recordings with the correct end time.

For any other problem.

Perform a default factory reset (see "Resetting the recorder", page 21).

12. SPECIFICATIONS

TRANSMISSION STANDARDS

DVB-S/DVB-S2, MPEG-2/MPEG-4

SATELLITE FRONT END

Satellite RF input Input frequency range: 950 to 2150 MHz RF input level: -60 to -25 dBm Input impedance: 75 Ohms unbalanced IF bandwith: 36 MHz Electrostatic Overload protection: 15 KV

LNB supply

Vertical supply voltage: 12.5V to 14V Horizontal supply voltage: 17V to 19V Current: 350 mA max, Overload

protected

SATELLITE DEMODULATOR

Constellation: QPSK Roll off factor: 0.35 Symbol rate: 10-30 MS/s Code rate: 1/2, 2/3, 3/4, 5/6, 7/8

DVB-S2

Constellation: QPSK or 8PSK (CCM mode) Roll off factor: 0.20 ; 0.25 ; 0.35 Symbol rate: 10-30 MS/s Code rate: 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10 (QSPK) 3/5, 2/3, 3/4, 5/6, 8/9, 9/10 (8SPK)

PROCESSOR AND MEMORIES

Processor: ST 7101 - 450 Mips RAM memory 128+64 Mbytes Flash memory 32 Mbytes EEPROM emulated into Flash

3,5" HARD DISK DRIVE EMBEDDED

Capacity: 250 or 500 Gbytes depending on the model Scrambled TS recording: AES

VIDEO DECODING

MPEG2

Standard MPEG-2 MP@HL for 50 Hz

Input rates (max): 15 Mbit/s

MPEG-4 Part 10 / H.264

- MPEG4 AVC HP@L4 (HD) for 50 Hz Input rates (max): 20 Mbit/s for

HP@L4

- MPEG4 AVC HP@L3 (SD) for 50 Hz Input rates (max): 10 Mbit/s for HP@L3

AUDIO DECODING

<u>Stereo 2.0</u> MPEG-1 layer I & II (Musicam) MPEG-2 layer II Mode: Mono, stereo, joint stereo Sampling rates 32, 44.1 or 48 KHz

<u>AC3</u>

- Originally received beatstream (pass through)

- Two channels PCM down-mixing

OUTPUT RESOLUTION FORMAT For HD broadcast

1280x720 @ 50 Hz (progressive) 1920x1080 @ 25 Hz (interlaced) Unscaled (original format) or scaled 576i and 720p by set up menu

For SD broadcast

720x576 @ 50 Hz interlaced Unscaled (original format) or scaled 720p and 1080i by set up menu

Format function on TV SCART

4/3 and 16/9 with conversion Pan and Scan, Letter box

SD INPUT/OUTPUT

TV SCART RGB out, CVBS, Audio R/L VCR SCART CVBS, Audio R/L

HD OUTPUT

<u>HDMI version 1.3 with HDCP</u> <u>version 1.1</u>: Rely on the (E)EDID HDMI information returned by the display device

AUDIO OUTPUT

HiFi audio output Mono stereo in case of MPEG1 layer II, Two channnels down mixed in case of AC3, E-AC3 reception <u>Electrical S/PDIF</u> Two channels PCM in case of MPEG1-layer II Originally received beatstream in case of AC3 Transcoded or AC3 in case of E-AC3

DATA PORT

Ethernet 10/100BT

- Fully integrated IEEE 802.3/802.3u 10/100 base T-Physical layer
- Auto-negotiation 10/100, Full/Half Duplex
- Adaptive equaliser, Baseline wander correction

Host USB

2.0 High speed (480 Mbits/s)

FRONT PANEL

4 x 7-segment amber display 1 x IR sensor: 38 kHz 1 x Bicolor LED 3 x Buttons (P+,P-, Standby) 1 x USB 2.0 connector (Type A Host)

REAR PANEL

2 x IEC169-24 female (satellite in) 2 x SCART (TV, VCR) 1 x HDMI 2 x RCA Stereo L/R 1 x RCA S/PDIF 3 x RCA YPbPr 1 x RJ45 (Ethernet 10/100BT)

POWER SUPPLY

External AC/DC adapter AC: 220-240 V ~50 Hz Max. Power consumption (including LNB control): < 35 W Standby mode: < 10 W

PHYSICAL SPECIFICATIONS

Recorder:

- Size (wxdxh): 411x219x41 mm
- Weight:

~1,6 Kg (250 GB model) ~1,8 Kg (500 GB model) (package: ~1,4 Kg)

- Operating temperature: 0°C to +40°
- Storage temperature: -25°C to +65°C

ACCESSORIES

- 1 x External AC/DC adapter (1.2 m)
- 1 x Power cord
- 1 x Remote control (range: 7 m)
- 2 x Saline 1.5 V batteries (AAA type)
- 1 x HDMI cord (1.5 m)
- 1 x Installation guide
- 1 x freesat presentation leaflet
- 1 x User manual

13. CUSTOMER SUPPORT

At Sagem Communications we believe that a high quality product should come with the highest quality customer service.

In the design of this product we have taken great care to ensure the maximum quality possible and are sure that you will be delighted with your purchase.

However, in the rare event that you have any problems with the product and need advice or support you can be confident that we will do our best to help you.

Our dedicated technical helpdesk can be contacted from 09:00 – 17:00, Monday to Friday and will offer expert guidance on your product.

In the event of any trouble, please do not hesitate to call them on:

08450 900 316*

* 3.95 pence per minute from all fixed lines, tariff cost effective from 01/09/2009

14. GUARANTEE TERMS

ATTENTION

In order to apply the guarantee, you should contact your retailer or Sagem Communications SAS helpdesk at 08450 900 316*. Proof of purchase will be required. Should any malfunctioning arise, the retailer or Sagem Communications SAS helpdesk will advise you what to do.

If you bought your equipment from Sagem Communications SAS directly, the following shall apply:

1) Sagem Communications SAS undertakes to remedy by repair, free of charge for labour and replacement parts, any defects in the equipment during a period of twelve (12) months from the date of original delivery of the equipment, where those defects are a result of faulty workmanship.

During this twelve-month guarantee period, the defective equipment will be repaired free of charge; the customer must however return the defective equipment in its original package with all accessories at his/ her own expense, to the address given by Sagem Communications SAS After Sales Department, the phone number of which can be found on the delivery slip. Unless the customer has concluded with Sagem Communications SAS a maintenance contract for the equipment which specifically provides for repairs to be carried out at the customer's residence, the repairs will not be carried out on the equipment at the customer's residence.

The following sentence applies to purchases of equipment for the customer's trade, business or profession.

Except as otherwise expressly provided in this Document and to the extent permitted by law, Sagem Communications SAS makes no representations or warranties, express or implied, statuette or otherwise, and to such extent, all terms and conditions implied by law are hereby excluded.

This guarantee does not affect the Customer's statutory rights.

2) Exclusions from Guarantee

SAGEM shall have no liability under the guarantee in respect of:

- damage, defects breakdown or malfunction due to:
 - failure to properly follow the installation process and instructions for use, or

- an external cause to the equipment (including but not limited to, lightning, fire, shock or water damage of any nature),

- or

- modifications made without the written approval of Sagem Communications SAS, or
- a failure or neglect to maintain the equipment or inappropriate maintenance, or
- unsuitable operating conditions, particularly of temperature and humidity, or

- repair or maintenance of the equipment by persons not authorised by Sagem Communications SAS, or

- the removal and/or destruction of the label positioned on the fixation screw of the lower plastic cover,

• wear and tear from normal daily use of the equipment and its accessories,

- damage due to insufficient or bad packaging of equipment when returned to Sagem Communications SAS,
- supply of new versions of software,
- •work on any equipment or software modified or added without the prior written consent of Sagem Communications SAS,
- •malfunctions not resulting from the Equipment or from software installed in user workstations for the purpose of use of the equipment,
- •communication problems related to an unsuitable environment, including:
- problems related to access and/or connection to the Internet such as interruptions by access networks or malfunction of the line used by the subscriber or his correspondent,
- transmission faults (for example poor geographical coverage by radio transmitters, interference or poor line quality),
- the local network fault (wiring, servers, workstations) or the failure of the transmission network,
 - •the normal servicing (as defined in the user guide supplied with the equipment) as well as malfunctioning due to servicing not being carried out, servicing costs are in any event always borne by the customer.

* 3.95 pence per minute from all fixed lines, tariff cost effective from 01/09/2009



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