



FREE - TO - AIR SATELLITE RECEIVER

28207RF

USER GUIDE



Customer Careline 0901 293 0038*

*Careline calls are charged at £1 per minute from a BT landline. Call charges from other networks may vary.

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Important Safety Instructions

Before installation please make sure you read these instructions carefully and observe the safety guidelines set out below

Avoid exposing your equipment to harsh conditions such as wet or damp places, high humidity, strong vibration, extremely high or low temperatures, strong sunlight and places that are very dusty.

Do not cover or place heavy objects on the receiver unit. Make sure there is sufficient clearance around the unit to allow adequate ventilation.

Never push objects into holes or ventilation slots.

To save power, switch off mains power or pull out the mains power plug when you are not using the equipment.

Don't continue to use this equipment if you have spilt liquids in it, if it is damaged in any way or if it does not work normally. Immediately unplug the equipment and get expert advice.

Pull the mains plug out of the wall socket during thunderstorms and disconnect the satellite antenna.

Cleaning: disconnect the mains supply and use only a lightly dampened soft cloth. Do not use chemical solvents or strong detergents as these may damage the cosmetic finish.

- To prevent electric shock, do not remove any cover.
- If anything goes wrong, don't try and fix it yourself, get a qualified engineer to look at it
- Do not expose this equipment to dripping or splashing
- Never put a naked flame source on or near the equipment
- This product is not a toy. Do not let young children play with the equipment.

Your digital satellite receiver allows you to view digital satellite programs when connected to a properly aligned satellite dish and LNB. This user's manual covers the installation of the receiver and the necessary steps to operate various features. It also explains in detail the special features built in to this receiver.

1.1 Main Features

- Conexant CX24303 single chip solution
- MPEG-II & DVB-S compliant
- Supports 10 OSD languages (English, Arabic, Turkish, German, French, Italian, Russia, Greek, Spanish, Dutch)
- RF modulator with RF IN and RF OUT
- Channel search in automatic, manual, network search and blind Search Max. 4000 channels receivable
- DiSEqC control version 1.0 and 1.2 compatible for multi-satellites (63 satellites max)
- Dish alignment help feature
- Channel list organizer supports Lock, Favorite, Move, Rename and Delete
- Timer function, automatically switches On/Off once, daily, weekly, monthly or one time
- Multi-picture browsing (supports 9,12 & 16 pictures)
- Video picture zooming function
- Auto detect program video format (PAL/NTSC/SECAM)
- User-friendly EPG and information plate
- Teletext supports both OSD and VBI mode
- Supports 256 color On-Screen-Display
- Games included
- Easy and fast software upgrade through RS-232 port

1.2 Satellite Receiver Accessories

Your satellite receiver is supplied with remote control unit (RCU) and SCART lead.

1.3 General Operation of Receiver

This manual contains full instructions for everyday operation of your receiver.

There are a series of user friendly menus displayed on screen when you turn on the unit. These menus will guide you through installation, channel organization, program viewing and many other functions.

All functions can be selected by using the buttons on the RCU, and some functions can also be selected by using the buttons on the front panel.

Please note that any software upgrades uploaded may change the functions on your receiver.

Should you encounter any difficulties with the operation of your unit, please find help from the Trouble Shooting section in this manual, or call our Helpline.

General Information

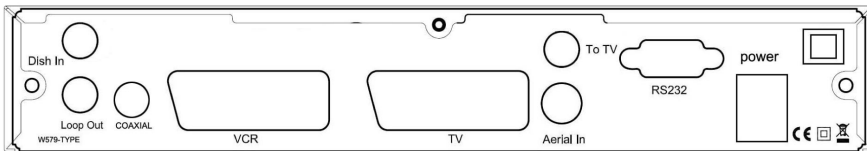
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1.4 Front Panel



KEY	FUNCTION
MENU	Show the main menu and back to previous menu
OK	Confirm the selection, or jump back to last menu
⏻	Power on/off the receiver
CH+/-	Channel change(up/down)
VOL+/-	Volume control(left/right)

1.5 Back Panel



CONNECTION	FUNCTION
DISH IN	Connect to satellite antenna cable
LOOP OUT	RF loop through output to another receiver
RS-232	Connects to PC for software updates
COAXIAL	Phono socket digital stereo output to TV or HiFi audio
VCR SCART	Connect to recording device (VCR/DVD) using SCART cable
TV SCART	Connect to TV using SCART cable
AERIAL IN	Signal input from local CATV network or outdoor TV antenna
TO TV	UHF RF output to TV set's antenna in
POWER ON/OFF	Power on/off the receiver

1.6 Remote Control Unit



KEY	FUNCTION
	Power ON/OFF
	Mutes the sound
TV/RAD	Switches between TV and Radio mode
PAUSE	Freeze frame
FAV	Display the favourite channel list
SAT	Display satellite list
TV/VCR	Switch between TV and VCR mode (Scart)
0-9	Keys to select channel
INFO	Shows current channel information
	Channel change, or move cursor up/down
	Volume up/down, or more cursor left/right
RCL	Return to previous channel viewed
OK	Confirm the selected item in a menu screen or show the Channel list
MENU	Show main menu, or return to previous menu from sub-menu
EPG	Show EPG (Electronic Program Guide)
AUDIO	Enter audio setting menu
MLP	9, 12 or 16 pictures for preview
TTX	Teletext Key
SUB	Subtitle Key
Zoom	Zoom in/out of selected picture
EXIT	Exits current menu

Receiver Installation

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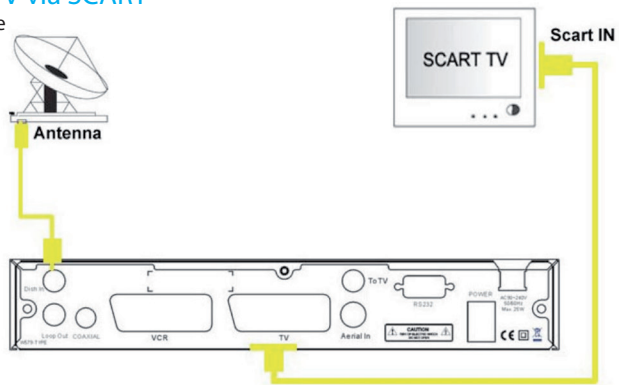
Before connecting equipment to your satellite receiver please check the instruction manual for each device.

The download from your satellite dish is connected via the F connector on the back of your receiver marked **Dish In**.

There are two options for connecting your satellite receiver to your TV shown below and opposite.

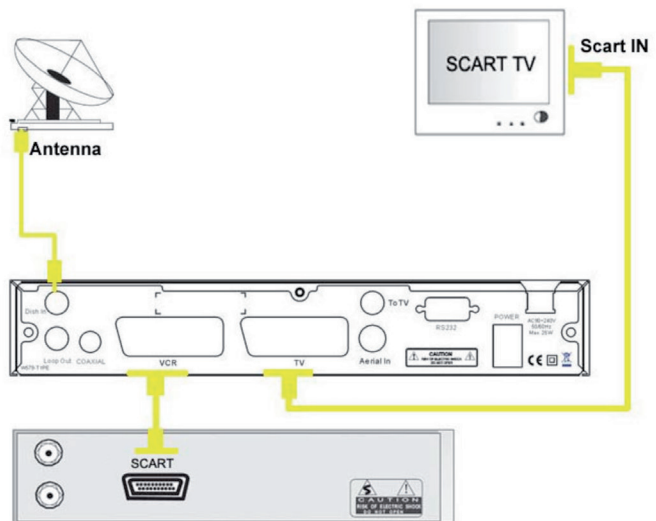
2.1 Connection to Dish and TV via SCART

Connect the SCART lead supplied to the SCART socket on back of receiver marked **TV** and to either of the SCART sockets on the back of the TV marked **AV1** or **AV2**

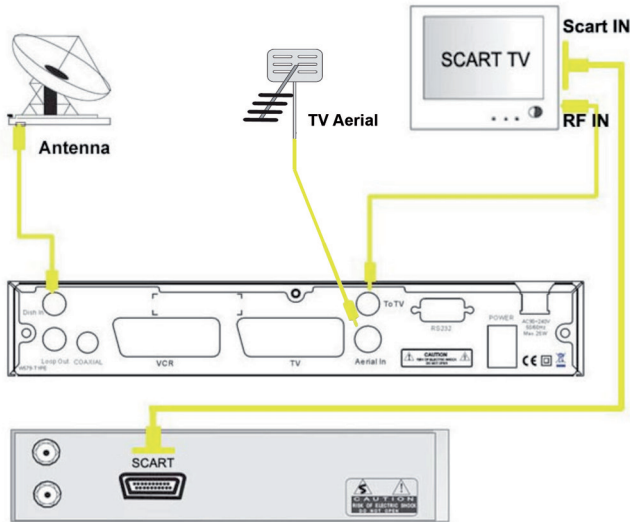


2.2 VCR SCART Connection

Connect the TV to the receiver as shown in 2.1 and connect the **VCR** SCART socket to your recording device using a SCART lead.



2.3 Connecting to TV using RF support



3. Menu Information

After completing all your connections switch on the receiver, the main menu will be displayed, which consists of the 4 menu items listed below.

- Channel Manager
- Installation
- Preferences
- Game

During installation the OK Keys confirms a selection and the ▲/▼ Keys shows the menu options. You can also use the numeric Keys on the RCU to select a channel while watching TV.

Use the ▲/▼ Keys to move up or down from one line to another line. Use the ▲/▼ Keys to move the cursor up or down in the sub-menu. To quit the menu system at anytime, press the EXIT Key on the RCU.

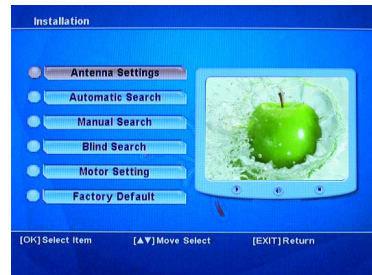


System Installation Menu

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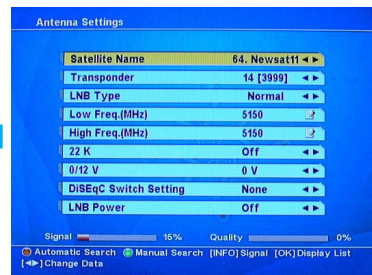
This menu consists of 6 sub-menus.

- Antenna Setting
 - Automatic Search
 - Manual Search
 - Blind Search
 - Motor Setting
 - Factory Default
- Use the ▲/▼ Keys to move up or down from one sub-menu to another. Use the OK Key to open the sub-menu selected.



4.1 Antenna Settings

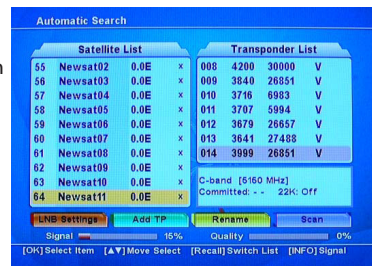
1. Satellite Name: Choose the satellite you want to view
2. Transponder: Set to TP search - this only needs to be altered if you need to view new transponders, see www.lyngsat.com
3. LNB Type: Select **Universal**
4. LNB Freq. - Low Freq. MHz this should be already set to **9750** (use the RCU number Keys to reset if necessary).
5. LNB Freq. - High Freq. MHz this should be already set to **10600** (use the RCU number Keys to reset if necessary).
6. 22k - should be set to **Off**
7. 0/12V - this should be set to **0 V**
8. DisEqC Switch Setting - should be set to **NONE**
9. LNB Power - should be set to **AUTO**



After selecting your antenna settings, you can enter the Automatic Search Menu by pressing the **Red (TTX)** Key, or press the **Green (Sub)** Key to enter the Manual Search Menu.

4.2 Automatic Search

The Automatic Search function allows the Satellite receiver to search multiple satellites in one operation. If you have a fixed dish and a single LNB it is best to search one satellite at a time. Press ▲/▼ to scroll through available satellites press OK to select the highlighted satellite, for the UK (English language channels) set to Astra 2A, B 28.2E, a tick will appear. Before going any further check the quality bar in the bottom right hand corner of the screen (or press Info to magnify quality and signal bars) - Quality should read at least 50%.



If quality is sufficient press the Blue Key. A sub-menu will appear giving two options.

1. The option of **NIT On** or **NIT Off**. NIT stands for Network Information Table and is a table of service information included in the data stream from the transponder if you wish to search this information set the NIT search to On, usually we would advise you to leave this set to **NIT Off**.
2. Option 2 allows you to choose the type of channels to search for:
 - FREE**: Only searches the Free to air (Unencrypted) TV and Radio Channels
 - CAS**: Only searches the Conditional Access Channels/Encrypted Channels (not available on this receiver).
 - ALL**: Includes both of the above.

We advise you to set this to **FREE** and press OK to start the search.

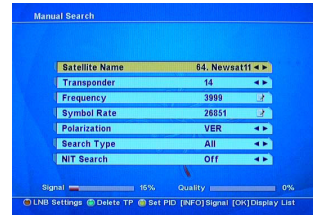
A window will open to show when the search is complete, press EXIT to quit the menu.

System Installation Menu - Searches

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4.3 Manual Search

1. Satellite Name: Press the ◀/▶ Keys to select the satellite you want to search, for the UK (English Language Channels) normally Astra 2.
 2. Transponder: Press the ◀/▶ Keys to select a transponder to search, or press the OK Key to activate a transponder list, settings for the transponder can be found on www.lyngsat.com or www.satcodx.com
 - 3 & 4. Frequency and Symbol Rate: Enter the Frequency and Symbol rate of the Transponder with the number Keys on the RCU.
 5. Polarization: Enter the correct polarization for transponder HOR for Horizontal Polarization, VER for Vertical polarization, if you select the wrong polarization the Signal Quality will show Zero.
 6. Search Type allows you to choose the type of channels to search for:
FREE : Only searches for the Free to air (Unencrypted) TV and Radio Channels
CAS : Only searches for the Conditional Access Channels/Encrypted Channels (not available on this receiver).
ALL : Includes both of the above. We advise you to set the Search Type to **FREE** .
 7. Select **NIT On** or **NIT Off** . NIT stands for Network Information Table and is a table of service information included in the data stream from the transponder if you wish to search this information set the NIT search to On, usually we would advise you to leave this set to **NIT Off** .
- When you have made all your settings press the Blue Function Key to start the channel search.



Red Function Key: To switch to the LNB Settings. Green Function Key: To Delete an Unwanted or Inactive TP (Transponder) from the default TP list. Yellow Function Key: Allows the user to input the Audio, Video and PCR PID's with the numeric Keys on the RCU these can again be found in the channel information at www.lyngsat.com or www.satcodx.com Blue Function Key: To start the Search function.

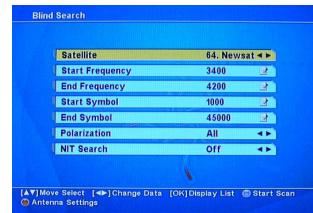
4.4 Blind Search

If you do not know the channels or transponders that are available on a particular satellite then you can use this function to scan the satellite for all the active transponders and channels, this will also find TV, Radio and Data feeds which you may not want.

Satellite: Press the OK Key to activate the satellite list then use the ◀ or ▶ Keys to select the Satellite you wish to search, for the UK (English Language Channels) this will normally be Astra 2. Use the numeric Keys on the RCU to set the following:

- Start Frequency: set to 10700 for a Universal LNB. End Frequency: set to 12750 for a Universal LNB.
- Start Symbol: Set to the Lowest Symbol rate you wish to search normally 1000
- End Symbol: Set to the Highest Symbol rate you wish to search normally 45000
- Polarization: Set to All to search both Horizontal and Vertical Transponders this is the default setting, Select HOR to search for Horizontal Polarization Transponders only or VER to search for Vertical Polarization Transponders only.
- NIT Search: Allows you to search the Network Information Table

Red Function Key: To change the Antenna Settings (See 4.1 opposite)
Blue Function Key: To start the Search function



System Installation Menu - Searches

4.5 Motor Setting

Satellite Name

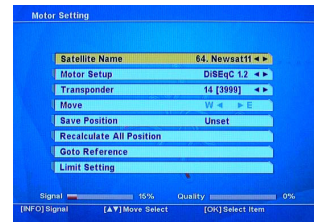
Press the ◀/▶ Keys to select the satellite you want to set.

Motor Setting

Disabled: This is the default setting and will only need to be changed if you are using a motorized dish system

DiSEqC 1.2: Consult the manual which came with the DiSEqC Motor on installation.

USALS: Consult the manual which came with the USALS Motor on installation.



Transponder

Press the ◀/▶ Keys to select the transponder you want to set, you can also press the OK Key to activate a transponder list, the parameters (settings) of the transponder can be found on www.lyngsat.com or www.satcodx.com, some dish motor manuals come with a preferred transponder setting for each satellite this is usually the strongest transponder on the Satellite.

Move

Use the ◀ Keys to turn the dish further West or the ▶ Key to turn the dish further East.

Save position

This saves the position of the Dish for the satellite selected above.

Recalculate position

This function automatically calculates and sets all the pre-programmed satellites positions with reference to the position of a single satellite.

Go to Reference

This function positions the dish motor at the 0 degree (Due South) position and resets the internal counter of the dish motor, all the position settings in the memory are calculated from this position

Limit Setting

This function allows limits to be set in cases of obstructions which may cause damage to the dish to be avoided, (See the Manual for your Dish motor for further information)

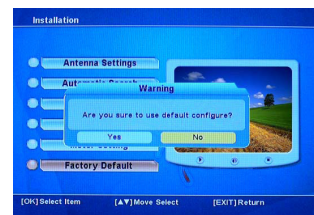
USAL (Universal Satellite Automatic Location System) calculates the position of the satellites from a geographical position. Use the numeric Keys on the remote control to set the following which can be found at www.dishpointer.com or www.multimap.com

Local Longitude: Degrees, East or West of Greenwich Meridian use ◀/▶ Keys to toggle between East and West.

Local Latitude: Degrees, North or South of the Equator use ◀/▶ Keys to toggle between North and South.

4.6 Factory Default

If you want to reset the box to its factory settings, Select Factory Default and press the OK Key, a warning message will be displayed as you will lose all the data and channel information you have previously installed so only do this as a last resort, if you still want to proceed then press the OK Key again.



Preferences

5. Preferences

Preferences consists of 7 sub-menus, as follows:

- System Options
- AV Setting
- Video Adjust
- Time Settings
- Timer
- Parental Control
- About Receiver

5.1 System Options

You can change the following options by pressing the OK Key to activate a list and then using the ▲/▼ or alternatively ◀/▶ Keys.

OSD Language This changes the On Screen Display Language to the most convenient language.

OSD Transparence This alters the transparency of the On Screen Display so a picture can easily be seen underneath the display.

OSD Timeout This alters the time that the On Screen Display is shown on screen.

Audio Language This changes the audio to a more convenient language if available.

5.2 AV/RF Setting

Screen Ratio Set this to the aspect ratio of your screen most older CRT Screens are 4:3, more modern LCD Screens are 16:9.

Screen Mode If you are watching a wide screen picture, Pan Scan removes part of the width of the picture; Letterbox shows the entire picture with reduced height.

Monitor Type Different monitor's types can be used, Default should be Auto.

Video Output Set to RGB (Red, Green, Blue) if your display allows it, otherwise set to CVBS (Composite Video).

RF Type PAL B/G, PAL I, PAL D/K, NTSCM - select appropriate type - for UK select PAL I.

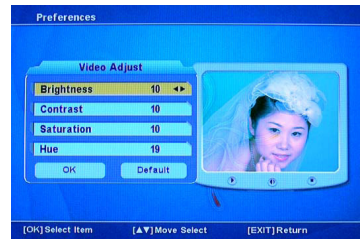
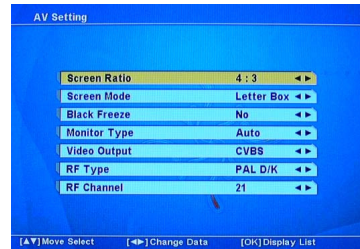
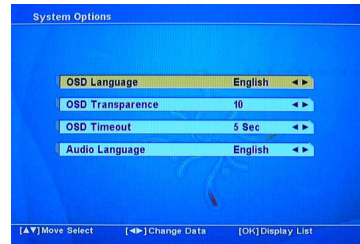
RF Channel Enter the number of the RF channel you want to tune your TV to, to watch the RF input (any channel with no signal).

5.3 Video Adjust

Use the ◀/▶ Keys to adjust the Brightness, Contrast, Saturation and Hue, then move the OK in the dialogue box, press OK to confirm (use the ▲/▼ Keys to navigate up and down).

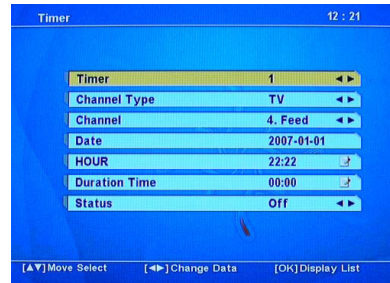
5.4 Time Setting

Using the cursor ◀/▶ ▲/▼ and OK Keys, enter the difference between your local time and GMT (Greenwich Mean Time) for the UK this should be set to GMT London. If your region is currently using Summer Time then set this option to On, this will advance the time by one hour when activated during the summer time. Using the Red Function Key to toggle between the Date Keys, Enter the current day, month and year. Enter the current time by using the numeric Keys; the receiver will also automatically get time information from the Satellite channel when you have a signal.



5.5 Timer

If you want to automatically switch the satellite channel at a specific time so you do not miss an important program, you can use the Timer function. Using the cursor ◀/▶ ▲/▼ and OK Keys, set the **Timer** event number and then set the **Channel Type** (TV or Radio), next enter the **Channel** from the channel list by pressing the OK Key and use the ▲/▼ Keys to select the channel then press the OK Key. Enter the **Date** (see Time Setting) and then use the numeric Keys to enter the **HOURL** (start time) and the Duration Time finally set the **Status** to either Once, Daily, Weekly or Off.

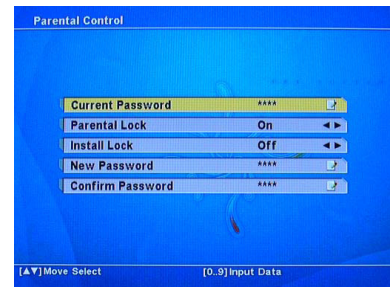


5.6 Parental control

If you want to prevent access to certain channels by children for instance then you can set a password (Default 0000), (See Section 6 Channel Manager, Lock for details).

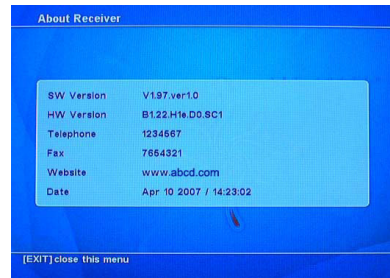
To change the password

1. Enter the **Current Password**
2. Set the **Parental Lock** to On
3. If you want to prevent unauthorised installation, set the **Install Lock** to On
4. Enter your new password with the numeric Keys in the **New Password** Box
5. Re enter you new password in the **Confirm Password** Box
6. Press MENU or EXIT



5.7 About Receiver

Hardware and Software revision information for the receiver can be found here.



Channel Manager

6.1 Edit Channels

Press the **Recall Key (RCL)** to choose **Delete**, **Lock**, **Move**, **Rename** and **Sort** functions. To manage the existing channels.

Delete To delete selected channels from channel list. Press OK to select a channel for deletion, press OK again to deselect. An X symbol will appear in front of selected channel names which are selected for deletion. Use the **Red function Key** to delete all channels. Use the **Green function Key** to delete unwanted transponder. Use the **Yellow function Key** to delete whole satellite.

If you want to delete the selected channels press **EXIT**, a message will appear - "Do you want to delete" - choose Yes or No to execute or cancel the deletion. Note: The deleted channels cannot be recovered unless you search again

Lock Lock the channel to be accessed by password. The parental Lock must be set up in advance before using this function.

Move You can move channels to a better or more logical place in the channel list. Select the channel(s) you wish to move by using the **▲/▼** Keys and then the **OK** Key if you wish to move a block of channels then repeat this step for all of the channels, then press the **Red Function Key** to confirm the selection, use the **▲/▼** Keys to move your selection to the required place in the channel list and then press the **OK** Key to confirm.

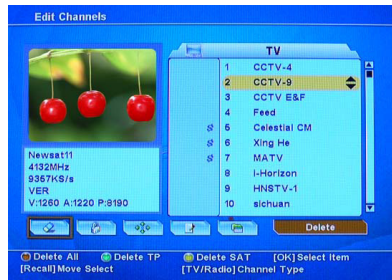
Rename Choose the channel you want to rename some channels are listed as TV Ch in the channel list these can be renamed to make identification easier. Press the **OK** Key, a Keyboard will be displayed on the screen use the **◀/▶ ▲/▼** Keys to edit the channel name when you have finished move the cursor to the **OK** Icon and then press the **OK** Key.

Sort You can sort the channels by Alphabet, Satellite, FTA/CAS Channels or Favorite channels. Press **TV/Radio** Key to change between TV and Radio channels. Radio channel management is the same operation as TV channels.

6.2 Set Favourite

Press the **FAV** Key to select the Favourite list you wish add the channel to, select the channel with the **▲/▼** Keys and then press **OK**, a **♥** (Heart Symbol) will be displayed on the left hand side of the selected channel, repeat for any other favourite channels, when you have finished press the **EXIT** Key to save.

Red Function Key To change the name of a Favourites channel group, press the red function Key, a Keyboard will be displayed on the screen use the **◀/▶ ▲/▼** Keys to edit the Favourites name when you have finished move the cursor to the **OK** Icon and then press the **OK** Key.



The following describes the basic functions of your satellite receiver while watching satellite TV or listening to satellite radio. While watching, the current channel information will be shown on the bottom of the screen if you press the INFO button on the remote control.

7.1 Channel list

In channel display mode, press the OK key to view the channel list. The list of existing channels will be shown.

RED function Key to go to advanced Channel list mode. (List by Alphabet, Satellite, FAV, CAS).

BLUE function Key to switch channel list Mode between FTA, CA and All Channel.

TV/RAD Key switch between TV/Radio Channels list.



7.2 Select Channel

To select a Radio or TV channel use the ▲/▼ Keys on the front panel of the receiver or the ▲/▼ Keys or the numeric keys on the remote control unit (RCU). Also while listening to a Radio Channel or Watching a TV channel press the OK key this will display a channel list on the right hand side of the screen to select a channel use the ▲/▼ on the RCU when you have selected the desired channel press the OK key to watch or listen. Pressing the EXIT key removes the channel list from the screen.

7.3 Recall

Press **RCL Key** on the RCU to move to the channel you watched previously.

7.4 TV/Radio Mode

Press the TV/Radio key on the RCU to toggle between TV and Radio channel modes

7.5 TV/VCR Mode

The **TV/VCR Key** on the RCU lets you change the Scart control between VCR and TV. Press once to move to the TV mode, Press twice to come back to the VCR mode.

7.6 Channel Information

Everytime you change channels, you will receive program information for a few seconds. While watching the channel you can see the current channel information at anytime by pressing the **INFO Key** on the RCU. Note: Channel information will be displayed for 5 seconds by default and will disappear. You can adjust the display time interval from 1 to 10 seconds. (see section 5.1.3)

7.7 Favourite List

To select a favourite group list press the **FAV Key** on the RCU. You can access the next favourite group by pressing the **FAV Key** again

7.8 Volume & Audio Control

Volume Control To increase or decrease volume, use the ◀/▶ Keys on the RCU.

Mute To mute the sound, press the ✕ Key on the RCU. To restore volume press the ✕ Key again.

Audio Control You can change the Audio language and Audio output modes, by pressing the AUDIO Key, if more than one language is shown then use the ▲/▼ Keys to select the required language, pressing the ◀/▶ Keys toggles the Audio output between Stereo, Left, Right or Swap. The current audio setting is displayed in the channel information screen.

7.9 Sat

If you have a motorised system or multiple LNB's fitted to your system, you can select the required Satellite by pressing the **SAT Key** on the RCU (Remote control unit) a satellite list will be displayed use the ▲/▼ Keys to select the required satellite then press the OK Key

7.10 ZOOM function

The Zoom function allows you to enlarge part of the picture, press the **ZOOM (Yellow) Key** and use the ◀/▶ ▲/▼ Keys to select the area to be enlarged then press the OK Key, the selected area will be enlarged on the screen.



7.11 PIP (Multi-screen preview)

Press the **MLP (Blue) Key** to go into the multi-picture preview mode, use the ▲/▼ Keys to select 9, 12 or 16 pictures for previewing then press the OK Key, pictures will start to appear on the screen this may take a while, one of the pictures will be highlighted in orange this will be the live picture and sound, use the ◀/▶ ▲/▼ Keys to move the highlighted picture, press the Exit key to view full screen.



7.12 SUB

Pressing the **SUB (Green) Key** will show any sub-title information available for the satellite channel selected.

7.13 TXT

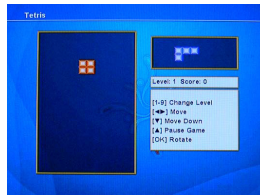
If a satellite channel is transmitting Teletext information this can be viewed by pressing the **TXT (Red) Key**, some providers use a specific coded signal on there transmissions these will not be able to be viewed on this receiver.

7.14 Pause Function

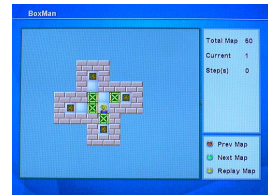
If you want to temporarily pause (Freeze Frame) the picture then press the **Pause Key**.

8. Games

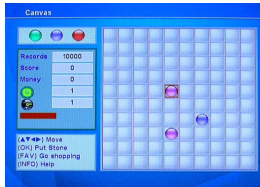
There are four games programmed into the receiver. They can be played using the remote control.



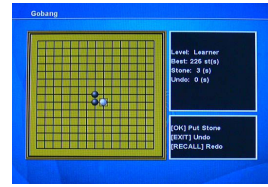
Tetris



Box Man



Canvas



Gobang

9.EPG(ElectronicProgramGuide)

The receiver provides an EPG function this provides the information from the channel or network like program titles, times, Satellite, Transponder etc, some European satellite networks provide a 7/10/14 day guide, while others only provide Now and Next program information

Red Function Key Shows yesterdays guide

Green Function Key Shows tomorrows guide

Blue Function Key Shows a more detailed guide to the program information

Press the OK to activate the Timer function; use the ◀/▶ ▶/▼ Keys to change the Timer number as required and Timer Status to either Once, Daily, Weekly or Off, then select either OK or cancel and then press the OK Key (see also 5.5 Timer Setting)

10. Technical Specification

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TRANSMISSION STANDARDS

DVB, MPEG-2

INPUT/ DEMODULATION

Connector Type	2x F Type, 3/8-32UNEF-2A (1 input/1 loop through)
Input Frequency	950 to 2150 MHz
Signal Input level	-65 to -25 dBm
Band Switch control	22 KHz
LNB Supply	13.0V + 0.5V / 18V + 0.7V, max 400mA
Demodulation Type	QPSK / FEC Coding (DVB ETS 300 421)
Symbol Rate	$2 < R_s < 45$ Mbaud (SCPC/MCPC)

TV SCART

Video output	CVBS/75Ω unbalanced
RGB bandwidth	5MHz
Fast blanking	0V to 3V
Function switch	6V - 16:9 aspect ratio image (AV Mode) 12V - 4:3 aspect ratio image (AV Mode)
Audio output	"Left, Right" / 600Ω unbalanced
Level	1.0V rms ± 2dB into 10kΩ

VCR SCART

Video output	CVBS/75Ω unbalanced/5MHz
Video input	CVBS/75Ω unbalanced/5MHz
Audio output	"Left, Right" / 600Ω unbalanced
Level	1.0V rms ± 2dB into 10kΩ
Audio input	"Left, Right" / 10kΩ unbalanced
Level	1.0V rms ± 2dB into 10kΩ

AUDIO/VIDEO PROCESSING

Audio Decompression	MPEG-1 layer I and II / Musicam
Audio Outputs	Stereo Digital Coaxial
Video Decompression	MPEG-2 Main Profile @ Main Levels With Letter
Video buffer	64 Mbits of SDRAM is provided
Data rate	Up to 15Mbits/s (Max. burst rate: 228 Mbits/s)
Video output	PAL-25 frame @720 x 576 NTSC-30 frame @720 x 480
Video format	4:3, 16:9

10. Technical Specification

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DATA SERVICE PORT

Connector	9-pin D-sub female
Data protocol	RS232C interface. The DVB-DSR is seen as the Data Communication Equipment (DCE) and the PC (or other terminal) is seen as the DataTerminal Equipment (DTE).
Data rate	Maximum of 625K bits/s

POWER SUPPLY

Main input voltage	230VAC
Nominal power consumption	12W

SAFETY

Insulation resistance	More than 10M Ω @500VDC Ambient conditions of 28 \pm 2% & 70% RH
Withstand Voltage (Hi-Pot)	I/p to O/p: 3kV(1 min)
Temperature Rise	< 75°C on winding & core < 50°C on casting At 264Vac @ 50Hz
Safety Standard	Designed to meet IEC 9

MICROPROCESSOR

Microprocessor	CONEXTANT
Clock frequency	130MHz
SDRAM Memory	8Mb
Flash memory	1Mb

PHYSICAL CHARACTERISTICS

Front panel	
Keys	7 Keys
Indicators	Power ON/OFF
Remote control input	Infra-red receiver
Display	4Digital (7 Segment)
Rear panel	
Connectors	1 LNB Input / 1 Loop through output (2F-type) 1 x Scart output , 1 x VCR Scart 1 x Digital stereo audio coaxial 1 x RS-232 (9-pin D-sub male) 1 x RF in/TV aerial in 1 x RF out

PROBLEM	POSSIBLE CAUSES	WHAT TO DO
No display on front panel	Powercord is not plugged in	Check powercord is plugged properly into power socket
No sound or picture, but the front panel red light is ON	The unit is in standby mode	Press the standby button
No sound or picture	The satellite dish is not pointing at the satellite	Adjust the dish Check the Signal Level in the Antenna Setup menu
	No signal or weak signal	Check the cable connections, LNB and other equipment connected between the LNB and receiver, and/or adjust the dish
Bad picture/Blocking error	The satellite dish is not pointing at the satellite	Adjust the dish
	Signal is too strong	Connect a signal attenuator to the LNB
	Satellite dish is too small	Change to a larger dish
No picture (Video)	LNB noise factor too high	Change to an LNB with lower noise factor
	The LNB is faulty	Change the LNB
No picture (Video)	The system is connected by SCART cable and TV is not in AV/EXT mode	Select AV/ EXT mode on the TV Consult the manufactures instruction manual
	The Remote Control is not working	Battery Exhausted
RCU is aimed in the wrong direction		Aim the RCU at the unit, and make sure there are no obstacles between the front panel and RCU

12. Satellite dish alignment settings

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Satellite dish alignment settings for Astra 2A, 2B, 2D and Eurobird 1

28.2 Degrees East for the UK and Eire (English Language Channels)

For other satellite settings see www.dishpointer.com

Town	County	Elevation	Azimuth	Polarization
Aberdeen	Aberdeenshire	19.76	145.17	-10.55
Abergavenny	Gwent	23.96	142.37	-14.66
Aberystwyth	Dyfed	23.05	141.46	-14.84
Alnwick	Northumberland	21.39	145.06	-11.48
Ampthill	Bedfordshire	24.77	145.24	-13.03
Athlone	West Meath	20.62	137.71	-16.14
Aviemore	Highland	19.12	143.34	-11.37
Ayr	Ayrshire	20.32	141.85	-13.04
Banff	Aberdeenshire	19.16	144.87	-10.43
Barnstaple	Devon	24.16	140.96	-15.81
Basingstoke	Hampshire	25.22	144.29	-13.92
Bath	Avon	24.61	142.91	-14.61
Belfast	Antrim	20.53	140.27	-14.24
Berwick-Upon-Tweed	Northumberland	20.96	144.86	-11.38
Birmingham	West Midlands	23.84	143.83	-13.57
Blackpool	Lancashire	22.27	143.06	-13.28
Bodmin	Cornwall	24.38	139.98	-16.66
Boston	Lincolnshire	24.10	146.10	-12.12
Bournemouth	Dorset	25.37	143.19	-14.80
Brecon	Powys	23.71	142.02	-14.79
Brighton & Hove	East Sussex	25.95	145.16	-13.65
Bristol	Avon	24.44	142.68	-14.70
Bude	Cornwall	24.17	140.33	-16.29
Burnley	Lancashire	22.59	143.95	-12.84
Bury Saint Edmunds	Suffolk	25.02	146.66	-12.16
Caernarfon	Gwynedd	22.36	141.52	-14.41
Cambridge	Cambridgeshire	24.85	145.97	-12.56
Campbeltown	Argyll & Bute	19.96	140.89	-13.47
Cardiff	Mid Glamorgan	24.19	142.06	-15.01
Cardigan	Ceredigion	23.08	140.69	-15.41
Carlisle	Cumbria	21.40	143.56	-12.48
Carmarthen	Carmarthenshire	23.42	140.98	-15.39
Cavan	Cavan	20.41	138.52	-15.41
Chelmsford	Essex	25.37	146.21	-12.64
Chester	Cheshire	22.86	143.01	-13.63
Colwyn	Clwyd	22.43	142.12	-14.03
Cork	Cork	21.57	136.57	-17.60
Coventry	West Midlands	24.05	144.26	-13.37
Crainlarich	Stirlingshire	19.53	142.26	-12.31
Dingwall	Highland	18.58	142.81	-11.40
Dolgellau	Gwynedd	22.84	141.78	-14.49
Douglas	Isle of Man	21.44	141.64	-13.81
Dover	Kent	26.23	146.91	-12.53
Dublin(Baile Atha Cliath)	Dublin	21.36	139.47	-15.30
Dundee	Angus	20.02	144.02	-11.43
Edinburgh	Midlothian	20.39	143.60	-11.91
Elgin	Grampian	18.91	144.01	-10.83
Exeter	Devon	24.69	141.40	-15.76

12. Satellite dish alignment settings

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Town	County	Elevation	Azimuth	Polarization
Felixstowe	Suffolk	25.51	147.27	-11.96
Fishguard	Dyfed	23.02	140.32	-15.65
Folkestone	Kent	26.24	146.76	-12.64
Fort William	Highland	19.00	141.86	-12.26
Gairloch	Highland	18.08	141.56	-11.90
Galway/Gaillimh	Galway	20.28	136.52	-16.80
Glasgow	Lanarkshire	20.09	142.45	-12.50
Gloucester	Gloucestershire	24.24	143.22	-14.20
Great Yarmouth	Norfolk	25.04	147.96	-11.29
Grimsby	Lincolnshire	23.61	146.25	-11.78
Guildford	Surrey	25.45	144.84	-13.64
Hastings	East Sussex	26.22	146.01	-13.17
Hereford	Hereford and Worcester	23.89	142.79	-14.33
Holyhead	Gwynedd	22.09	141.17	-14.51
Ipswich	Suffolk	25.35	147.08	-12.02
Kendal	Cumbria	21.95	143.56	-12.77
Killarney	Kerry	20.99	135.57	-17.99
Kilmarnock	Ayrshire	20.22	142.13	-12.79
King's Lynn	Norfolk	24.45	146.46	-12.04
Kingston upon Hull	Humberside	23.30	145.98	-11.82
Kyle of Lochalsh	Highland	18.42	141.37	-12.23
Lancaster	Lancashire	22.17	143.40	-12.99
Largs	Ayrshire	19.97	141.80	-12.86
Larne	Antrim	20.35	140.47	-14.00
Leeds	Yorkshire	22.83	144.69	-12.45
Leicester	Leicestershire	24.00	144.74	-13.00
Limerick	Limerick	20.93	136.72	-17.07
Lincoln	Lincolnshire	23.70	145.62	-12.26
Liverpool	Merseyside	22.63	142.99	-13.52
London	Greater London	25.37	145.48	-13.15
Londonderry	Londonderry	19.65	138.93	-14.64
Ludlow	Shropshire	23.63	142.89	-14.12
Luton	Bedfordshire	24.93	145.26	-13.09
Lyme Regis	Dorset	24.92	142.04	-15.41
Maidstone	Kent	25.83	146.07	-12.95
Mallaig	Highland	18.59	141.16	-12.47
Manchester	Greater Manchester	22.87	143.85	-13.05
Middlebrough	North Yorkshire	22.30	145.38	-11.73
Moffat	Dumfries and Galloway	20.85	143.14	-12.46
Montrose	Angus	20.01	144.64	-11.02
Newark upon Trent	Nottinghamshire	23.74	145.24	-12.53
Newcastle upon Tyne	Tyne and Wear	21.78	145.03	-11.69
Newhaven	East Sussex	26.07	145.35	-13.57
Newry	Down	20.70	139.69	-14.75
Newtown	Isle of Wight	25.58	143.72	-14.51
Northampton	Northamptonshire	24.45	144.93	-13.09
Norwich	Norfolk	24.89	147.45	-11.56
Nottingham	Nottinghamshire	23.69	144.81	-12.81
Oban	Argyll & Bute	19.21	141.36	-12.71

12. Satellite dish alignment settings

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Town	County	Elevation	Azimuth	Polarization
Oxford	Oxfordshire	24.75	144.27	-13.71
Peebles	Borders	20.69	143.56	-12.09
Pembroke	Pembrokeshire	23.30	140.27	-15.84
Penrith	Cumbria	21.68	143.70	-12.53
Perth	Perth & Kinross	19.94	143.52	-11.71
Peterborough	Cambridgeshire	24.40	145.70	-12.54
Peterhead	Aberdeenshire	19.54	145.63	-10.16
Pitlochry	Perth & Kinross	19.57	143.31	-11.65
Plymouth	Devon	24.69	140.59	-16.37
Portree	Skye	18.13	140.90	-12.37
Reading	Berkshire	25.10	144.44	-13.76
Rosslare	Wexford	22.20	138.93	-16.21
Scarborough	Yorkshire	22.82	146.12	-11.49
Settle	Yorkshire	22.35	144.00	-12.68
Sevenoaks	Kent	25.70	145.72	-13.13
Sheffield	South Yorkshire	23.22	144.63	-12.70
Shrewsbury	Shropshire	23.32	143.02	-13.87
Sligo	Sligo	19.74	137.48	-15.74
Southampton	Hampshire	25.40	143.80	-14.37
Stafford	Staffordshire	23.49	143.74	-13.45
Stirling	Stirlingshire	19.99	142.84	-12.18
Stoke on Trent	Staffordshire	23.28	143.71	-13.36
Stranraer	Dumfries and Galloway	20.61	141.31	-13.56
Stratford-upon-Avon	Warwickshire	24.18	143.95	-13.65
Swansea (Abertawe)	Swansea	23.76	141.28	-15.35
Swindon	Wiltshire	24.24	143.41	-14.06
Tain	Highland	18.54	143.28	-11.08
Thirsk	North Yorkshire	22.55	145.07	-12.06
Thurso	Highland	18.05	144.11	-10.28
Torquay	Devon	24.92	141.31	-15.96
Tralee (Tra Li)	Kerry	20.73	135.45	-17.92
Truro	Cornwall	24.40	139.56	-17.00
Uig	Skye	17.20	140.31	-12.17
Ullapool	Highland	18.08	142.14	-11.54
Waterford	Waterford	21.90	138.12	-16.62
Watford	Hertfordshire	25.13	145.20	-13.24
Westport	Mayo	19.65	136.21	-16.62
Weymouth	Dorset	25.22	142.51	-15.22
Wick	Highland	18.32	144.51	-10.19
Worcester	Hereford and Worcester	23.97	143.38	-13.95
Workington	Cumbria	21.37	142.79	-12.98
Yeovil	Somerset	24.86	142.45	-15.08
York	North Yorkshire	22.88	145.25	-12.10



Waste electrical and electronic products must not be disposed of with household waste. Please recycle where facilities exist. Check with your Local Authority for recycling advice.