

Satellite

Optus Satellite Set-top box Generation 2

DHR 4901 OPT

User Guide

Yes

OPTUS

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The DHR 4901 OPT Basic Viewer's Guide is the subject of intellectual property rights, including copyright, under domestic law and international conventions.

All rights are reserved. The DHR 4901 OPT Basic Viewer's Guide supplements the information supplied with the packaging of the Set Top Box as well as the detailed information available on our website. Due to software upgrades, the features and functionalities in this Basic Viewer's Guide may differ from those on your Set Top Box. Please visit www.uec.com.au/downloads for the latest Viewer's Guide.



Please Note: The Network Operator requires the use of a 10.7 GHz (10700) LNB to receive all available TV services.

1 Warranty and safety / warnings

This product has been manufactured to comply with all the relevant Australian safety standards. Please read the following safety precautions and warnings carefully, and adhere to all safety and warnings notes.

Warranty

The Warranty period begins with the date of purchase of the product. As evidence of the date of purchase please present the according document (sales, check, invoice, delivery note, or similar). Please keep these documents in a safe place, as our guarantee service is based on the time of purchase and the warranty conditions. If the product is faulty and requires repair, please contact NAS Australia.

This product carries the RCM – Logo and is compliant with AS/NZS 4417.2; Radio communications (Low Interference Potential Devices) Class Licence 2015; and Greenhouse and Energy Minimum Standards (Digital Television Set-top Boxes) Determination 2012.

Mains Supply: 100-240V AC 50-60Hz

The power pack is supplied with this Set Top Box. It operates within the range 100-240 V AC 50-60 Hz mains supply only. Connect the power cable to the Set Top Box before connecting the other end to the power outlet. Disconnect the Set Top Box from the power outlet before connecting or disconnecting the Set Top Box from any other equipment.

A well-regulated 12V DC supply is essential for this unit to operate efficiently; contact Optus for the recommended DC regulators.

Overloading: Do not overload a wall outlet, extension cord or adapter as this may result in electric fire or shock.

Liquid: Do not expose this product to liquid of any kind. In addition, do not place objects filled with liquid on near the unit.

Cleaning: Disconnect the product from the wall outlet before cleaning. Use a light damp cloth (no solvents) to dust the product.

Ventilation: Never cover the ventilation slots in this product as these slots allow for a proper airflow through the unit. Covering them may result in the unit overheating and may not function properly.

- Never stand the product on soft furnishings or carpets.
- Never stack electronic equipment on top of the product.

Attachments: Do not use any unsupported attachments, as these may be hazardous or cause damage to the product.

Connection to the LNB or antenna: Disconnect the product from the mains outlet before connecting or disconnecting the cable from the LNB or antenna. Failure to do so can result in damage to the LNB or antenna.

Connection to the TV: Disconnect the product from the mains outlet before connecting or disconnecting the cable from the TV. Failure to do so can result in damage to the TV.

Location: To avoid exposing the unit to lightning, rain or sunshine, place the product indoors.

- Never place the unit on or near a radiator or heat register.
- Do not block the openings with any object, and do not place the product on a bed, sofa, rug, or other similar surface.
- If you place the product on a rack or a bookcase, ensure that there is adequate space and ventilation and that you have followed the manufacturers mounting instructions.
- Do not place the product on an unstable shelf, stand, tripod, bracket, or table where it can fall off. A falling product can cause serious injury to a child or adult and serious damage to the appliance.

Lightning, storm or not in use: Unplug the unit from the wall outlet and disconnect the LNB or antenna during a thunderstorm or when left unattended and unused for long periods. This will prevent damage to the unit due to lightning and power-surges.

Extraneous objects: Do not insert any type of object through the openings in the unit, where they can touch dangerous voltage points, damage electronic components or other parts of the unit.

Replacement of parts: Only an authorised service technician specified by the manufacturer can perform the replacement of parts.

Warnings!

To avoid damaging the mains power cord and plug:

- Do not modify the unit's power cord or plug in anyway.
- Do not bend or twist the power cord.
- Make sure to disconnect the power cord at the mains plug outlet when servicing or away for long periods.
- Always keep heating appliances as far as possible from the mains power cord to prevent the protective plastic cover from melting.

To avoid electrical shock:

- Never open the main body of the unit.
- Do not insert metal or inflammable material inside the product.
- Never touch the mains power plug with wet hands.
- Disconnect the mains power cord in case of lightning.

To avoid damaging the product:

- Do not use the product when it is faulty. If you continue to use the defective product, serious damage may occur. Make sure to contact your authorised local product distributor for repairs to the unit.
- Do not insert metal or alien substance into the smartcard slot.
- Ensure that the unit is placed near an accessible mains socket.

Correct Handling of Batteries:

- Never subject batteries to heat such as extreme sunlight, fire or anything similar.
- Batteries can contain toxic substances. Please keep batteries well out of reach from children as they may put batteries into their mouth and/or swallow them.
- Leaking batteries can cause damage to the remote control. Extract the batteries from the remote control when the Set Top Box is not in use for a long time.
- Batteries can contain toxic substances that can damage the environment. Please make sure that you dispose of batteries in accordance with statutory law. Never throw batteries in your regular household waste.
- Normal batteries may not be charged. Never heat or throw normal and rechargeable batteries into open fire (danger of explosion!).

Disposal



In any case, never dispose of your Set Top Box and the batteries in your regular household waste.

Please contact Optus to arrange the return of your set top box.

Intended use

The purpose of this Set Top Box is for the reception of Digital Satellite and terrestrial private use only.

- This involves also following all information contained in this user manual, especially the safety notes. Any other use is considered as not intended and can lead to damage or even personal injury. This also implies immediate loss of warranty. The manufacturer takes no liability for damages caused by unintended use.

2 Welcome

Welcome to the DHR 4901 OPT Optus Set Top Box designed for receiving digital television services. This Set Top Box features Ultra High Definition (UHD), High Definition (HD) and Standard Definition (SD) capabilities.

Please read and follow all the instructions in this User Manual before using one of the various installation options provided in this manual, as well as becoming familiar with the Front Panel and Remote Control Unit keys.

Identifying your Set Top Box

To identify the Set Top Box, look for a bar code sticker on the underside of your Set Top Box or on the packaging which has a label attached displaying the product serial number and the smart card number respectively.

Keep these numbers in a safe place, as your network provider requires them for troubleshooting purposes.



Example: Bar code sticker on the underside - base of your Set Top Box



Example: Gift box label

3 Main features

- Supports SD / HD (MPEG2, MPEG4, HEVC) /4k-UHD as per broadcast
- Conditional Access – Irdeto CA
- One smartcard slot with VAST smart card
- 16-Digit Vacuum Fluorescent Front Panel Display
- Two USB 2.0 ports on rear
- One USB 2.0 port on front
- Ultra HD video output via the HDMI connector
- Gigabit Ethernet Port
- Internal 1.5TB HDD for user recordings plus 500Gb for EPL recordings
- 10xDVB-S Satellite Tuners
- 4x DVB-T Terrestrial Tuners (Requires valid smartcard and satellite connection to VAST service)
- Digital Audio Output on coax and optical
- On-Screen Display (OSD)
- On-Screen installation wizard for getting started
- Integrated satellite and terrestrial Electronic Program Guide (EPG) “Now” and “Next” 7 days
- Parental control for all channels
- Recording functionality with trick modes on internal HDD
- Records up to 10 x simultaneous programs
- Multi-Video output resolutions from 576i50 up to 4K2160p50
- Various channel edit functions – Favourite Editing, Parental Lock, Channel Rename, Move and Delete etc.
- Software Upgrade support via Over the Air (OTA) and USB
- RF4CE Remote Control Unit (RCU) requires pairing during installation wizard or defaults to infrared.



DHR 4901 OPT

DVB-T2/S2 **DOLBY AUDIO™** **HDMI™**

4 What's in the box

Check that all the following items displayed below are in the box and no damaged occurred. If any items are missing or damaged, contact Optus.



1 x Set Top Box



1 x Remote Control Unit (RCU)



**1 x 12VDC Power supply adapter
with power lead (PSU)**



2 x 1.5V AAA Batteries



1 x User Manual



1 x HDMI Cable



1 x Optus SmartCard

5 Hardware

5.1 Front panel



1	IR Receiver	IR Receiver for the Remote control unit. The Remote Control Unit (RCU) operates the receiver by sending a beam, which is received by the infra-red window. Do not block the path between remote control and this window.
2	Front Panel Display Vacuum Fluorescent Display status indicators	The following information could be displayed: • Displays the time (when in Standby Mode) • Displays the selected TV channel number being viewed. • Displays any error code numbers when an error occurs.
3	Standby Indicator	RED / GREEN indicates if the Set Top Box is ON or in STANDBY mode.
4	Record Indicator	RED Record Indicator
5	USB	USB port provision for External Hard Drive / USB upgrade and/or future use
6	Smart card	The smart card slot is on the right hand side of the device. Insert a Smart card into this slot for pay TV channels.
6	Standby Button	Switches the Set Top Box between ON and STANDBY

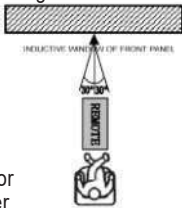
5.2 Rear panel



1	ANTENNA IN VHF/ UHF (future functionality)	Connects to the TV terrestrial antenna. Connect the terrestrial antenna coaxial connector to the to the ANTENNA IN socket on the Set Top Box.
2	SAT IN	Connects to the TV satellite antenna. Connect the satellite antenna coaxial connector to the SAT IN socket on the Set Top Box.
3	DIGITAL AUDIO – OPTICAL	Connects to the Digital Audio Optical (TOSLINK) input on your AV Home Theatre System for Dolby Digital surround sound (if available in the program, and as configured in Setup).
4	DIGITAL AUDIO – COAXIAL	Connects to the Digital Audio Coaxial (SPDIF) input on your AV Home Theatre System for Dolby Digital surround sound (if available in the program, and as configured in Setup).
5	HDMI	Connects to the high definition (HDMI) input on TV or AV Home Theatre System. Use the supplied HDMI cable to connect the HDMI output on the Set Top Box to one of the HDMI inputs on the TV or AV Home Theatre System. Provides both high definition video, and Dolby Digital surround sound (when available).
6	USB ports (2)	USB port provision for External Hard Drive / USB upgrade and/or future use. Connect to external equipment approved by your service provider i.e. external Hard Disk Drive.
7	LAN (future functionality)	Ethernet port for internet connectivity. Connect to external equipment approved by your service provider and to the Internet.
8	DC POWER 12V ---5A MAX	12V DC input from the supplied power pack. Connect the external power supply to the 12V DC socket on the Set Top Box.

53 Remote control unit (RCU)

REMOTE CONTROL	KEY	BUTTON NAME	FUNCTION
	1	Standby	Switches the set top box between ON and STANDBY Flashes red for IR mode, green for RF mode
	2	PIP	Picture in Picture. Allows for a second viewing environment displayed in the bottom right hand or the screen
	3	PVR	Shortcut key to all your recording options
	4	TXT	Functions as required by application or context
	5	PORTAL	Short cut key to launch Portal system
	6	SUBT	Launches subtitles
	7	VOL+	Increases the volume
	8	CH+	Allows channel up navigation
	9	MUTE	Turns the sound ON/OFF
	10	VOL-	Decreases the volume
	11	CH-	Allows channel down navigation
	12	EPG	Short cut key to launch Electronic Program Guide (EPG)
	13	MENU	Short cut key to launch Menu system
	14	INFO	Display information about the current program
	15	Up Arrow	Menu navigation and selection - Up
	16	Left Arrow	Menu navigation and selection - Left
	17	OK	Menu navigation and selection - OK
	18	Right Arrow	Menu navigation and selection - Right
	19	Down Arrow	Menu navigation and selection - Down
	20	EXIT	To exit from the info bar or go one step back in the menu structure
	21	BACK	Navigates back to previous menu or channel
	22	Rewind	Rewinds a recorded program or when time-shifting

REMOTE CONTROL	KEY	BUTTON NAME	FUNCTION
	23	Play	Starts playing recorded program or resumes playing back behind live TV program
	24	Forward	Fast forward a recorded program or when time-shifting
	25	Stop	Stops the recorded program and jumps to live TV
	26	Pause	Pauses live TV of the current channel or recorded program
	27	Record	Records selected program
	28	Red	Functions as required by application or to select various menu options
	29	Green	Functions as required by application or to select various menu options
	30	Yellow	Functions as required by application or to select various menu options
	31	Blue	Functions as required by application or to select various menu options
	32-40	1, 2, 3, 4, 5, 6, 7, 8, 9	Numerical data entry of channel number, PIN, etc.
	41	TV / RADIO	Tunes to TV channels / Tunes to RADIO channels
	42	0	Numerical data entry of channel number, PIN, etc.
	43	FAV	Displays the "Favourites" menu, for adding or removing your most viewed programs
	The Remote Control Unit (RCU) might not operate properly if the RCU is operated beyond the following conditions. RF Mode: Working distance – 10 Metres IR Mode: Working Distance – Up to 8 metres directly in front of Set Top Box. Angle – up to 45 degrees to the left or right from the centre of the decoder (Viewing distance 2 – 5 metres) 		

Installing the Remote Control Batteries

Load the batteries as follows:

- Insert small flat screwdriver or similar to remove the cover
- Insert the batteries with their polarities aligned, as indicated inside the battery compartment and replace plastic cover.

Battery Life

Your remote control batteries under normal everyday use may last a period of six months, though it depends on how often the remote control is used.

Replace the batteries if you have to move closer to the Set Top Box before it functions.

Use good quality batteries and never try to recharge them, short, disassemble, and expose to heat or place them in fire.

Do not drop the remote control and avoid hard impacts, otherwise, parts of the Remote may be damaged which can lead to a malfunctioning Remote Control.

Do not use new and old batteries together.

Please remove the batteries if the remote control is not used for a long periods. This may lead to electrolyte leaking into the battery compartment, resulting in a malfunction or may even cause complete failure. Wipe the electrolyte carefully from the battery compartment of the remote control and install new batteries.

Wash skin with clean water if exposed to any electrolyte.

Remote Control unit modes

The remote control unit has two modes:

- IR mode (Default Mode - Red flash).
- RF4CE mode. (Once paired to the Set Top Box - Green flash).

Pairing / Un-pairing the Remote Control unit to the Set Top Box

Your remote control unit will require synchronisation with the Set Top Box. Follow the instructions in Section 7 of this User Manual – "First time start-up of the Set Top Box"

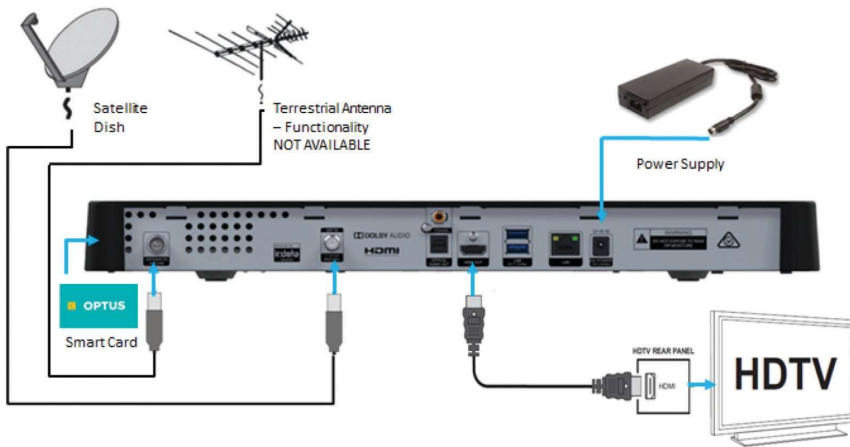
6 How to connect your Set Top Box

6.1 Quick start guide for existing installations

Remove Set Top Box from packaging. Insert supplied batteries into the remote control. Pair the remote control to the Set Top Box. Connect to existing TV and dish installation and re-scan if necessary. The Set Top Box should lock to service and present video.

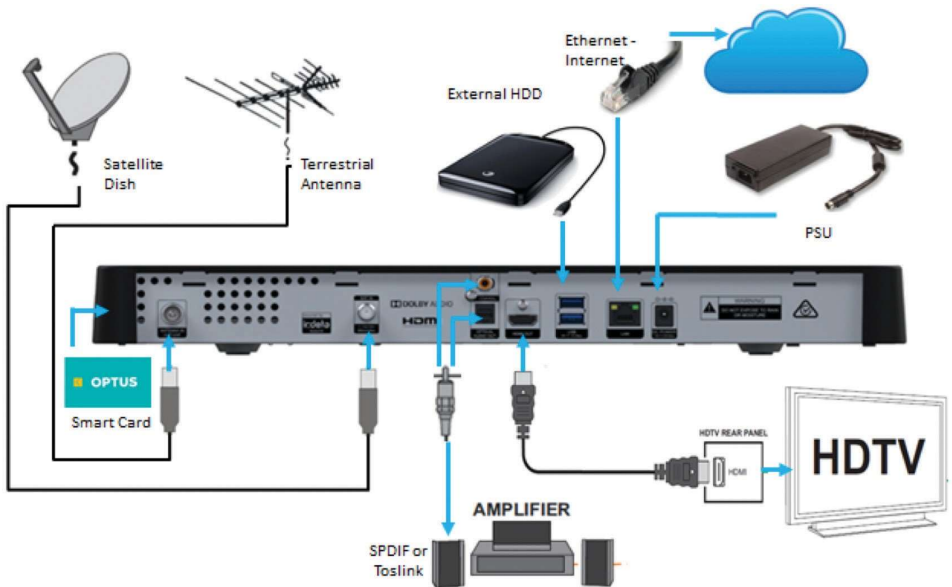
6.2 Quick start guide for new installations

Option 1: HDMI Connector (High Definition TV)



1. Connect the satellite feed (Cable from your Satellite Dish) to the connector marked "SAT IN" on the rear panel of the Set Top Box.
2. Connect the terrestrial feed (Cable from your Terrestrial Antenna) to the connector marked "ANTENNA IN VHF/UHF" on the rear panel of the Set Top Box. (Terrestrial functionality is planned for future support. New user manuals will be available on the website when this feature is available.)
3. Connect an HDMI cable between the HDMI-ports of your HDTV and your Set Top Box.
4. Insert the Smart Card into the slot in the right side of the Set Top Box.
5. Connect the power supply cable from the external PSU to 12V DC socket to your Set Top Box.
6. Once all the relevant cable connections to the equipment are complete, the external Power Supply Unit (PSU) cable can be plugged into your AC wall socket outlet.

Option 2: HDMI Connector (AV Home Theatre system and High Definition TV)



1. Connect the satellite feed (Cable from your Satellite Dish) to the connector marked "SAT IN" on the rear panel of the Set Top Box.
2. Connect the high quality coaxial cable (Cable from your Terrestrial Antenna) to the connector marked "ANTENNA VHF/UHF" on the rear panel of the Set Top Box. (Terrestrial functionality is planned for future support. New user manuals will be available on the website when this feature is available.)
3. Connect an HDMI cable between the HDMI-ports of your HDTV and your Set Top Box.
4. Depending on your AV home theatre system / amplifier, choose to use either the digital audio coaxial (SPDIF) connector or use the digital audio optical (TOSLINK) connector. The necessary cable can be obtained from your local AV equipment retailer. Install the cable between one of the digital audio ports on the Set Top Box and one of the digital audio inputs on your amplifier.
5. Insert the Smart Card into the slot in the right side of the Set Top Box.
6. Using the USB ports, connect the following devices as required:
 - 6.1. External Hard Disk Drive (not supplied)
 - 6.2. USB Thumb drive for personal media or software upgrades (not supplied)
7. Ethernet Port for connection to the internet. This functionality is planned for future support. New user manuals will be available on the website when this feature is available.
8. Connect the power supply cable from the external PSU to 12V DC socket to your Set Top Box.
9. Once all the relevant cable connections to the equipment are complete, the external Power Supply Unit (PSU) cable can be plugged into your AC wall socket outlet.

6.3 Additional information

Restoring Factory Defaults

Resetting to factory defaults can be useful if you have changed some settings and lost some functions. Resetting will restore the decoder back to its original configuration and you will lose all personalized settings.

To restore factory defaults:

1. Launch the Main Menu press the **"MENU"** key.
2. Use the arrow buttons to highlight Settings icon, press "OK".
3. Navigate to Installation, press "OK".
4. Enter your Installation PIN of 1234
5. Navigate to Factory Reset - Restore Default Settings press "OK" and select "YES" to start the restore factory settings process.

Smart Card

The smart card is paired to this Set Top Box which means that the smart card provided with your Set Top Box cannot be used in any other Set Top Box. Similarly you will not be able to use any other card in your Set Top Box.

Reset Button

Reset function is provided by pressing the standby button on the side and holding it for 4 seconds. This can be used to reset your Set Top Box in the case of a video freeze for example. The Set Top Box will reboot after a few seconds and display "boot" on the front panel while it starts up.

Analogue Interfaces

This STB does not support Analogue Video or Audio outputs, if your TV does not have a digital HDMI interface an external converter will be required at an additional cost. The type of converter required will depend on the analogue interfaces available on your TV.

7 First time start-up of the Set Top Box

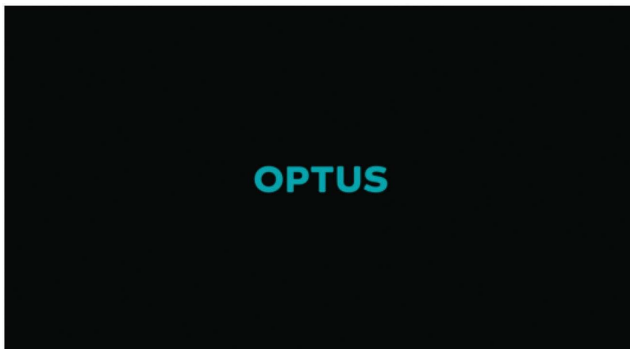
After installing all the cables correctly between the Satellite Dish, Set Top Box and the TV, there are six easy steps to perform before you can activate the Set Top Box with your network provider.

See the following list below for the initial set-up procedures:

- Remote Pairing
- Resolution
- Display Format
- Time Zone
- Satellite Channels Search
- Check the quality of your Dish Installation

Setup Procedures

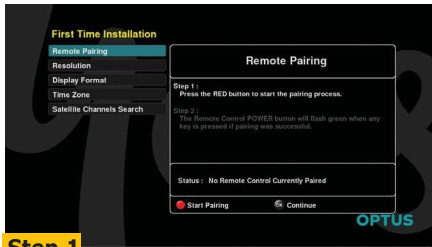
Switch ON the TV and set it to the correct TV channel and then switch ON the Set Top Box, after a few seconds the splash screen will appear followed by the first installation screen.



Note:

IR Mode: The remote will operate in IR mode (Default Mode) before pairing. The remote shall require direct visual access between remote and Set Top Box. When in IR Mode the remote red LED will light up when a key is pressed.

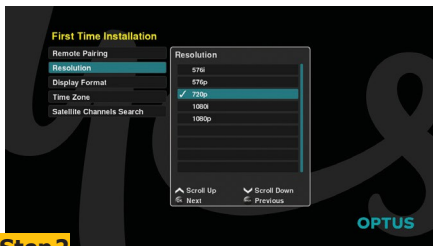
RF Mode: The remote will operate in RF4CE mode after pairing. The remote shall operate without direct visual access between remote and Set Top Box. When in RF Mode the remote green LED will light up when a key is pressed.



Step 1

The "Remote Pairing" option automatically appears.

1. To start the pairing process press "OK" on the remote.
2. Initiate pairing by pressing and holding down the "Red" button.
3. The Pairing success status shall be displayed (Pass / Fail)
4. To Un-Pair Remote Control: Initiate un-pairing by pressing and holding down the "Blue" and "Pause" Buttons simultaneously for a period of approximately 3 to 8 seconds. The Remote control will return to the default IR mode.



Step 2

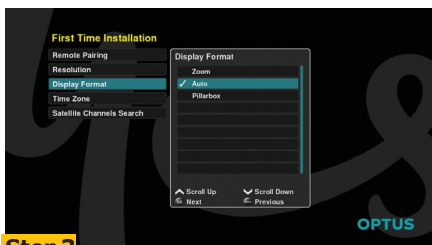
The next setting is the "Resolution".

Press "OK", then use the "▲▼" keys to select your relevant resolution for your TV, and press "OK" to accept and proceed to next screen.

Standard Definition – 576

HD Ready – 720

High Definition – 1080



Step 3

The next setting is the "Display Format".

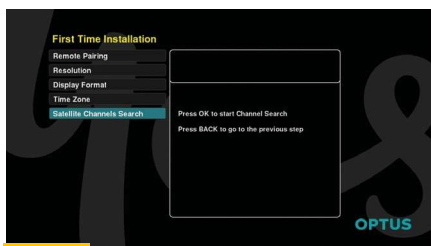
Press "OK", then use the "▲▼" keys to select your preferred display format for your TV, press "OK" to accept and proceed to next screen.



Step 4

The next setting is the "Time Zone".

Press "OK", then use the "▲▼" keys to select your preferred Australian time zone, press "OK" to accept and proceed to next screen.



Step 5

The final setting is the "Satellite Channels Search".

Note: To continue your Satellite Dish must have been installed correctly

Press "OK" to begin searching for all the available channels, this may take a few minutes to complete.



Step 6

Note: Signal information will be displayed and provide an indication as to the quality of your Dish Installation.

Once the search is finished, the number of channels and radio services found are shown.

Press "OK" to Close First Time installation and go to live TV.

If no channels or radio services are found, retry the channel search.

8 General functions

Standby/Power On

The "Standby/Power On" button  key places your Set Top Box into standby or powers up the Set Top Box so you resume watching TV (ensure your TV is also ON).

Volume Control

Press "VOL" buttons **+** or **-** to increase or decrease the volume. A volume bar shown on-screen indicates the volume level.



Mute Key

Press "MUTE" button  will mute the audio. A volume mute bar as shown on-screen indicating the volume is in mute mode.

There are two ways to regain the volume:

1. If the volume is muted, press the  key again to regain volume.
2. If the volume is muted, press either the VOL **+** or **-** keys to regain volume.



Switching between TV and Radio Channels

(please note: not all customers will be able to receive Radio channels)

Use the "TV/RADIO" key to change between the TV Channels and radio stations.

The radio screens and procedures are similar to your TV procedures in this User Manual.

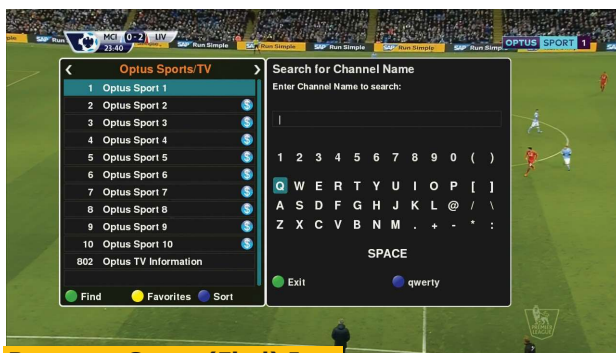
Error Banners

An error banner is displayed when there is a network error or input error from the user or in the instance where signal is lost.



OK Key

While viewing a full screen program, if you press “OK” a list shows all the TV channels available to you. This list does not show any program information. You can scroll through the list or use the colour icons below the TV channels to Find or Sort channels.



Remote - Green (Find) Icon

Use this option to search for channel or other content. Use the colour keys on the Remote Control to perform these functions.

1. To search for a channel, press the  key. This presents you with another window where you enter the channel or program title.
2. To select the letters, numbers or symbols use the “◀▶▶▼” keys; press “OK” to accept each letter until title is complete.
3. To begin the search, press . If found the channel or program title results are shown.
4. To delete the name of the channel or program title, press . The name will be removed from the search area, or.
5. Use the  to backspace a single letter at a time.
6. You can close these screens at any time, press “EXIT” until clear.



Remote - Yellow (Favourites) Icon

You can use this option to go to Favourites list.

1. To go the Favourites channel list, press  key for the lists you created to appear.
2. To select the channel from list, use the “▲▼” keys to highlight your selection, press “OK” to tune to that channel.



Remote - Blue (Sort) Icon

From this TV Channel list, you also have the option to sort your channels.

1. To sort channels, press the key. Another window is opened where you can select how you want the channels sorted.
2. To select an option of what you want sorted, use the “▲▼” keys to highlight your option, press “OK”.
3. You can close these screens at any time, press “EXIT” until clear.



Plate Information Banner

Press the "INFO" button **INFO** at any time to see more information about the current program you are watching, as well as get schedules on what is coming up next and for the next 24 hours.

1. Press the "CH v" buttons on the remote to change the channel to the next/previous channel respectively, or
2. When the I-Plate is open, press the "LEFT/RIGHT" arrow buttons on the remote. This allows you to browse the programme information of the other channels without changing the channel you are presently viewing.
3. When the I-Plate is displayed, press the "◀▶" arrow buttons on the remote. This allows you to browse between the Current and Next event of the channel you are presently viewing.
4. When the I-Plate channel is displayed, Press the  button on the remote to launch the recording menu. Follow the on screen prompt for various recording options.

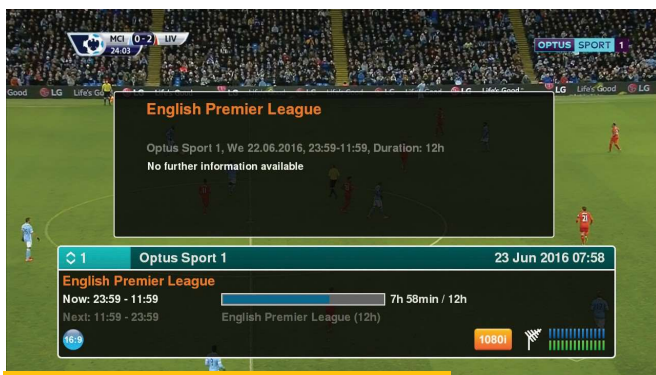


Plate Extended information Banner

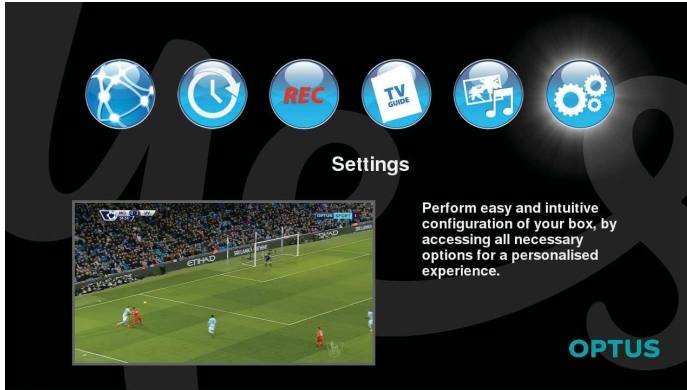
With the Information Banner displayed press the "INFO" button **INFO** again to view more information on the current program you are watching.

I-Plate Icons



9 Main menu screen

The Main Menu provides access to the most important features of the Set Top Box. These features are divided into following Menus. Each Menu contains corresponding sub-menus. See main menu icons below for a brief description on each of them.



To launch the Main Menu press the "MENU" key.



TV Portal: Your ultimate guide to interactivity with a collection of popular and highly useful applications right on your fingertips.



Timers: Discover all of your programmed and scheduled events, by creating new or editing saved reminders, fast and easy.



Recordings: Manage all of your stored events, whether manually or automatically recorded, through a clean-cut straight-forward list.



EPG: Use the Electronic Program Guide to be informed on current and upcoming events, on all channels that support it.



Media: Plug your storage device in the USB port and playback any supported media file of your choice on your big screen.



Settings: Perform configuration of your Set Top Box by accessing all necessary settings options.

9.1 TV Portal

The TV Portal menu provides access to online or interactive applications.

1. To launch the Main Menu press the "MENU" key.
2. Use the arrow buttons to highlight TV Portal icon.
3. To access the TV Portal content, press "OK".



NOTE: This functionality will be available at a later date.

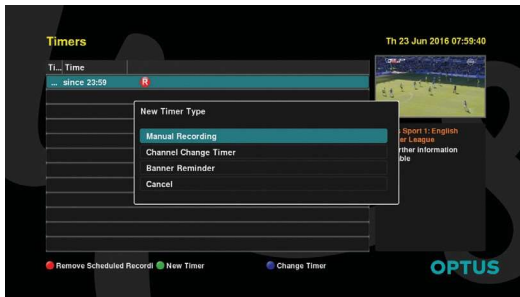
9.2 Timers

The Timers menu provides functionality for the user to set up and manage scheduled timers either set from EPG, I-plate or custom schedules/recordings.



This is an easy and quick way to view all your scheduled content. Using this application allows you to edit existing or create new schedules, this screen shows you start times and program titles.

1. To launch the Main Menu press the "MENU" key.
 2. Use the use the "◀▶" keys to highlight Timers icon.
 3. To access the Timers content, press "OK".
- Once this list is populated, you can then edit the list.



Setting a Manual Recording

1. After pressing, the the “New Timer” banner shows you the various options.
2. To confirm the Manual Recording, press “OK”.
3. The following banner appears showing the information about that channel.
4. To change the duration, press “OK”. The duration (mins) row is highlighted.
5. The duration time increments in 5-minute segments i.e. 60 to 65 up or down, use the “◀▶” to change the minutes.
6. To re-schedule the current program, press .
7. To Cancel and close this function, press the “EXIT” key.
8. Once you have programs saved into the list, three coloured icons at the bottom appear where you can perform various functions; use the red icon to remove a channel from the list, green icon to set new timer, yellow icon to lock a channel or blue to edit a timer.

The procedures for “ChannelChangeTimer” and “ScheduleReminder” are same or similar to those of Manual Recording above.

93 Record

The Recordings menu presents a playlist which provides information about the recorded content as well as functions to lock and protect recordings from deletion.



1. To launch the Main Menu press the "MENU" key.
2. Use the "◀▶" keys to highlight the Record icon.
3. To access the Record content, press "OK".
4. The system shall display the recording information.

94 Electronic program guide (EPG)

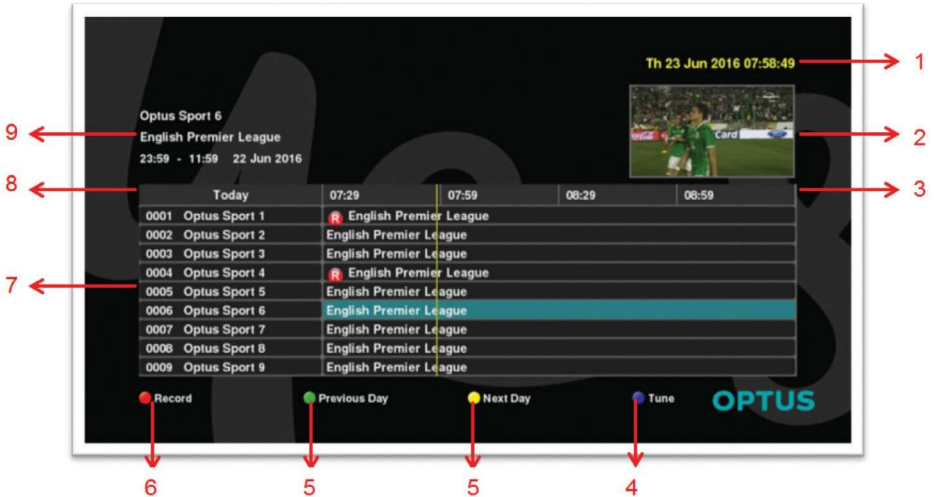
This chapter describes how to use the EPG while watching TV and how to change to and from the Radio services. One of the great advantages of Digital TV transmissions is to add extra features to the broadcast, such as information about the current and next programs and extra options such as the ability to choose between different languages for Audio and Subtitling.



1. To launch the Main Menu press the "MENU" key.
2. Use the "◀▶" keys to highlight EPG icon.
3. To access the EPG content, press "OK".

NOTE: Available options may vary, depending on what material is being broadcast.

EPG Layout



1. Year/date & time

Display the current time, you will know when the next program, series and sport begins.

2. Mini screen

The mini screen will always keep you in the action, while looking at other programs or setting your parental control level.

3. Program schedule

Displays the start and end time of all programs.

4. Tune icon

Allows you tune to a different channel that is currently on air.

5. Navigation icons

Allows you to navigate forward to view what programs are coming up and again to the present day.

6. Record/ remind icon

Allows you record a program from within EPG or set a reminder when it begins.

7. Channel & programs

Displays all the available channels and programs.

8. Week day

Allows you to see what day of the week you are looking, while navigating through the seven day schedule.

9. Currently showing

Displays basic information on your current content you are viewing.

Electronic Program Guide (EPG)

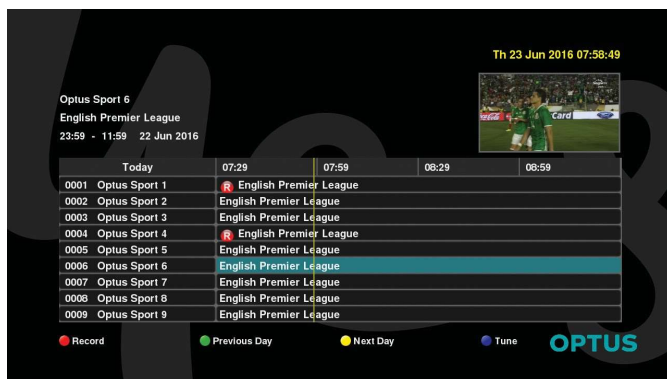
View program information for Now and the Next 8 days.

To activate the EPG application, press the EPG key while watching a TV program or listening to a Radio Channel. You can still watch your program while looking at other program schedules and information on the mini screen.

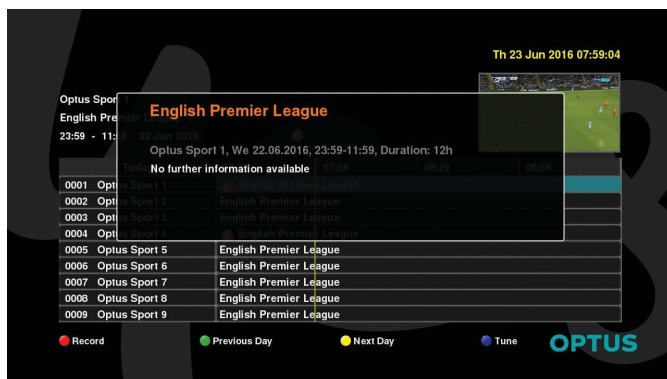
Pressing the EPG key again will toggle various views of the EPG.

EPG application shows seven channels per page giving you an overview of channels with information about present and forthcoming programs.

As you scroll through the guide, information of all available events for the selected channel for the next 7 days appears. The availability of Program information data is dependent on the individual broadcaster.



1. To scroll through schedule, use the “◀▶” and “▲▼” keys.
2. To scroll through to the Next Day, press or Previous Day press keys.
3. To close the EPG, press “EXIT”.

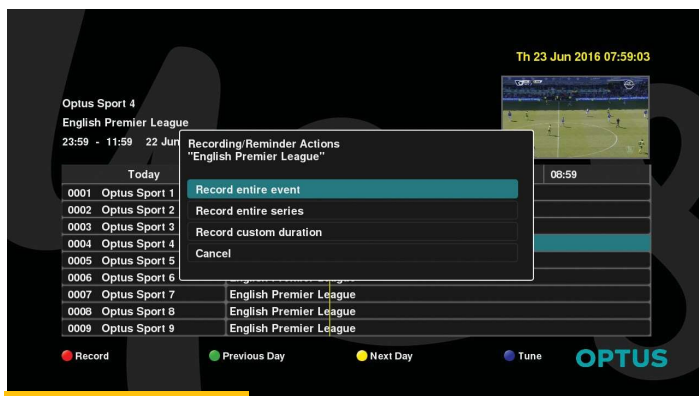


As you scroll through the guide, you can also view a short description of the highlighted program.

1. Press the “INFO” key launch the information Banner.
2. If required use “▲▼” keys to scroll down.

Recording from the EPG

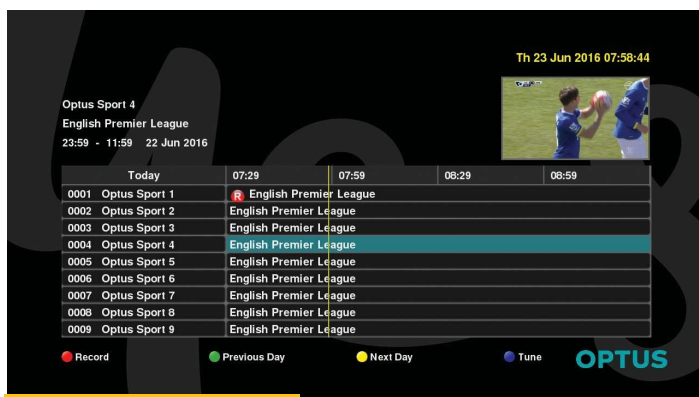
A Recording/Reminder opens a banner displaying three timer options.



Record entire event

The first option is to record the show according to broadcaster time schedule, with a few minutes of overlap on each end of the time slot.

1. To select your program, use the “▲▼” or “◀▶” keys to highlight the desired program.
2. Press the  Record to set the timer.
3. To select Record Entire Event, press “OK”
4. A  icon is placed next to the programme you want to record.



Record custom duration

The Record custom duration allows you to set your own time duration. The duration is set in minutes; the allocation for this function is a maximum 120 minutes.

If timer settings for the program overlap, an error message is displayed. You have to either change or delete one or the other timer settings, or look at re-setting it later.

PVR Function

The Set Top Box has PVR (Digital Video Recorder) capabilities. Whilst recording, you can watch any other channel you wish.



Direct recording

To start a recording press the  record key, choose a recording option with the ""

" keys and confirm with the "OK" key.

EPG Recording

You can programme a Timer options from the EPG.

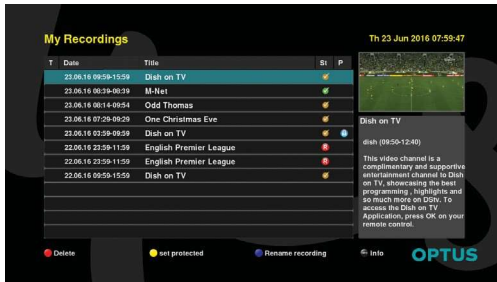
Time-shift-Function

1. During Live TV you can press the  pause key to activate the Time-Shift function. The Set Top Box pause's the program until you want to continue watching.
2. Use the  play key to continue watching the time-shifted program.
3. Press the  Fast Forward or  Rewind keys to increase the playback speed to 2 to 256x in both directions.
4. To stop playback, press the  stop key
5. To return to live TV, press the "EXIT" key.
6. The Time-Shift function de-activates after changing to another channel.

Playback List

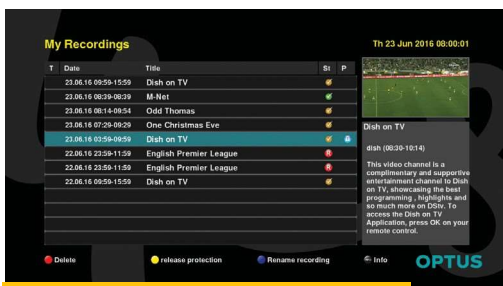
The playback list is where you will find all recorded programs. Pressing the “PVR” key displays a list of all the recorded programs on your HDD.

To select a program use the “▲▼” keys to highlight the desired program and to start the playback press the “OK” key. If supported by the Channel operator, press the “INFO” key for brief details about the recorded program.



Deleting a recorded program

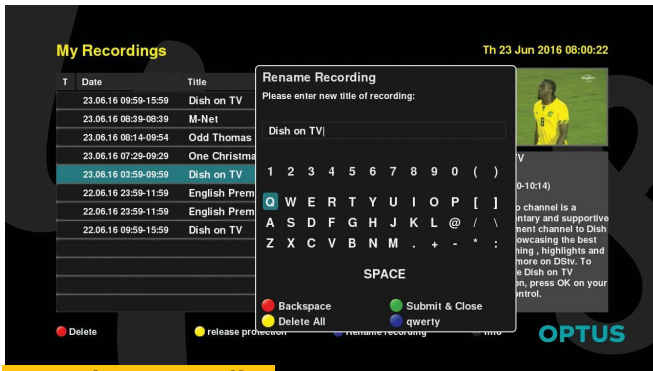
1. Use the “▲▼” keys to highlight the program you want to delete, press “OK”.
2. A confirmation banner appears, “Yes” to delete or “No” to cancel.
3. To accept, press “OK”.



Locking and unlocking a program

Programs that are locked can't be viewed until a password has been entered.

1. Use the “▲▼” keys to highlight the movie/series you want to lock then press **lock** key, a lock icon appears at the end of the selected program.
2. Removing the lock icon, highlight the program, press to unlock.



Renaming a recording

1. To rename a program use the "▲▼" keys and highlight the movie/series, press  this opens the renaming banner.
2. To delete part of the name use the backspace key or delete the name completely press  delete all key.
3. To type in a new name use "▲▼" keys to select the letters then press "OK" to accept, do this procedure until you have entered the name.
4. Once the name is done, press to submit and close.

9.5 Media

The Media menu provides functionality for personal media playback of Pictures, Music and Videos.

Use this application to plug-in your storage device into the USB port and playback any supported media file of your choice on your big screen.

NOTE: This functionality will be available at a later date.



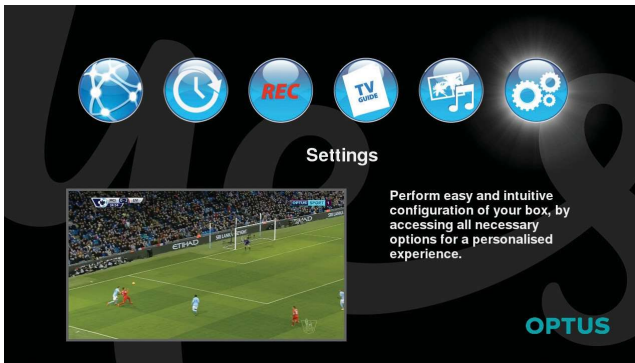
1. To launch the Main Menu press the "MENU" key.
2. Use the "◀▶" buttons to highlight Media icon.
3. To access the Media content, press "OK".
4. If the media list is blank, insert your storage device into the USB port.
5. After a few seconds, your folders and files will appear.
6. If required use "▲▼" keys to scroll up/down to select the folder.
7. To enter a folder, press "OK".
8. You can cancel and close this list at any time, press "Back".
9. To play a single file, use the "▲▼" keys to highlight the file and then press "OK".
10. You can play the complete playlist, press ▶ to start playing.

9.6 Settings

The Settings menu provides functionality for the user to set up and manage the Set Top Box.

The Settings Menu includes the following functional sub menus:

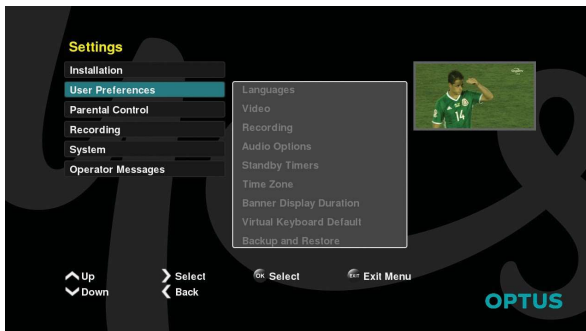
- Installation
- User preferences
- Parental Control
- Recording
- System
- Operator Messages



1. To launch the Main Menu press the “MENU” key.
2. Use the “◀▶” keys to highlight Settings icon.
3. To access the Settings content, press “OK”.
4. To close the menu and return to live TV, press “EXIT”.

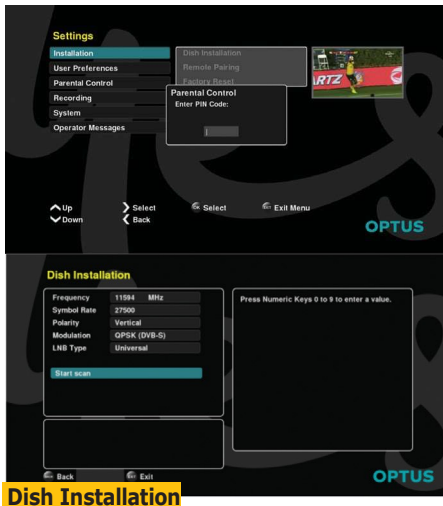
All settings menus can be navigated in the following way:

1. To view the selected menu, use the “▲▼” key to highlight “Selected menu”, press “OK” to select.
2. From this list, you can choose the relevant option you want to change.
3. To navigate through the options, press “OK”, scroll through options using the “▲▼” keys, select the required option using the “OK”, remote bottom.



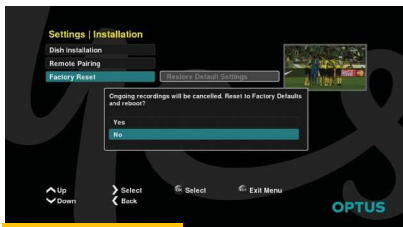
Settings - Installation

To perform any of the functions under “Installation” the user is required to enter their PIN code before gaining access to these options.



Dish Installation

1. Dish Installation is the default-highlighted option when the entering Installation sub-menu.
2. Press “OK” to open, the Dish Installation screen.
3. Select the correct Frequency, Symbol Rate, Polarity, Modulation and LNB type.
4. On completion of settings, press “Start scan”.
5. The system starts the scan. Once the rescan has completed the results of all the channels appear.
6. To go to previous menu, press "BACK" key or “EXIT” to go back full screen.



Factory Reset

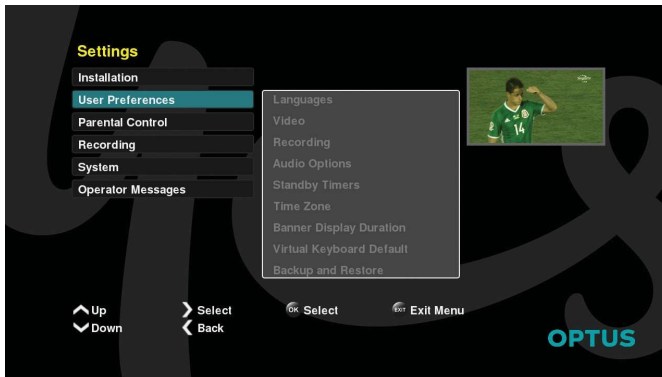
Performing a Factory Reset will erase any personal settings and/or data. The parental PIN code will change to the default of “1234”. To reset your decoder back to the factory defaults, carryout the following procedures.

1. Use the “▲▼” keys to scroll to Factory Reset. Toopen, press “OK”.
2. A confirmation banner appears with two options: “Yes” to reset to factory defaults and reboot, or “No” to cancel this function.

Settings - User Preferences

The Settings - User Preference sub-menu includes the following functional sub menus:

- Language
- Video
- Recording
- Audio Options
- Standby Timers
- Time Zone
- Banner Display Duration
- Virtual Keyboard Default
- Backup and Restore



Languages

The Language menu allows you to select your preferred languages for menus, audio and subtitles. Sometimes TV programs send out multiple audio tracks in two or three different languages. If there are no audio tracks available that match your settings, it defaults to another language. You can also select subtitling if no audio exists for a program.

Selectable Language settings include:

- Audio Language
- Subtitle language

Video

In the Video menu, you can modify the properties of the video signals to suit your TV and theatre equipment.

Selectable Video settings include:

- Resolution
- Display Format

Recording

For more information on the Recording function, go to Recording section for all the options and procedures.

Audio Options

Use the Audio options in the Settings menu to identify the type of audio connection to the TV. Choose an option that your TV can output.

Depending on the broadcast content and the Set Top Box audio capabilities, you may not hear the sound effects when selecting Dolby Digital as the audio output mode.

Selectable Audio settings include:

- SPDIF Digital Audio Output
- HDMI Digital Audio Output

Subtitle On/OFF

Use the Subtitle setting to select whether you want Subtitles On or OFF by default.

Standby Timers

Use the Standby Timers to set preferred Sleep timer duration and Set Top Box Auto standby Timers.

Selectable Standby Timers settings include:

- Sleep Timer
- Auto Standby Timer

Time Zone Settings

Use the Time Zone setting to select your Australian region, the system shall adjust to the region time zone.

Banner Display Duration

The Banner Display Duration setting is selectable between 1 and 29 seconds.

Virtual Keyboard Default

The Virtual Keyboard Default setting is selectable between ON / OFF.

Backup and Restore

System settings can be backed up to USB or restored back to factory settings.

Settings - Parental Control

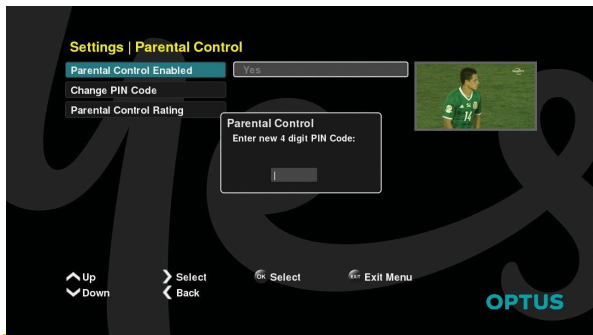
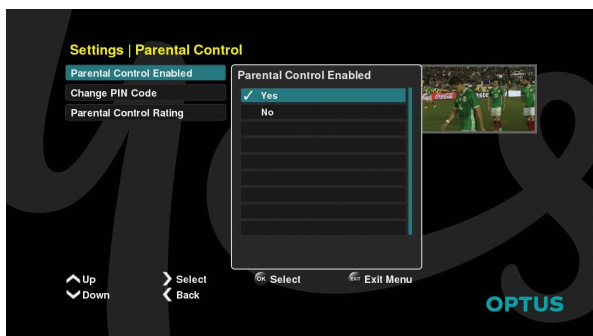
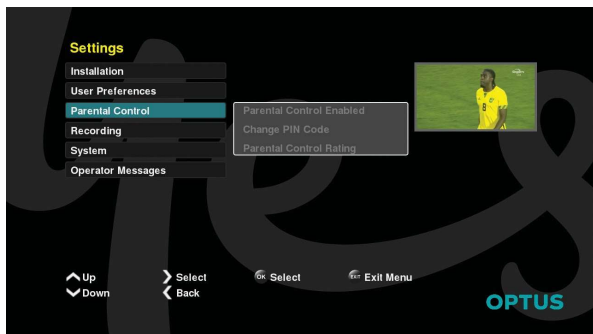
Your PIN code enables you to control the programs viewed in your home.

The default [Parental PIN is 1234](#) - This PIN may be changed.

Keep your PIN secret and choose a PIN you can remember. If you forget your PIN, use the FACTORY RESET to reset the Set Top Box back to the default. To find customer service numbers, go to Manufacturer Information for telephone numbers.

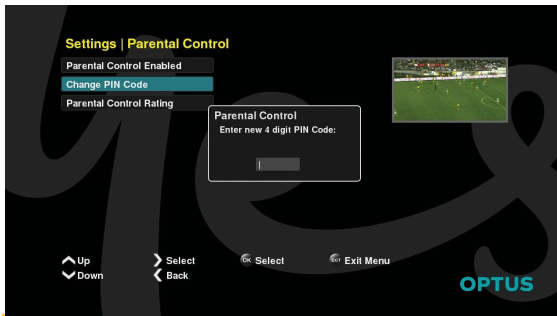
If you start changing your PIN code but decide keep the same code, press "EXIT", to keep your same PIN code.

When using the Parental Control function you will always have to enter the PIN code to gain access.



Enabling Parental Control

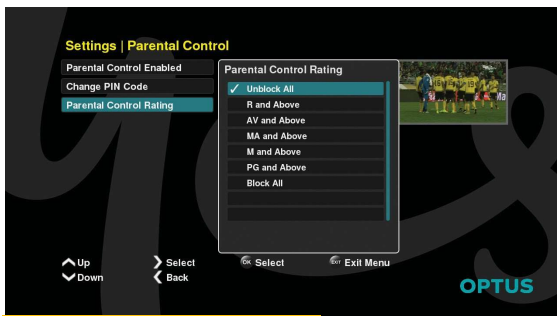
1. To view the Parental Control screen, use the "▲▼" keys to highlight "Parental Control", press "OK" to open. This displays various options for you to restrict the viewing.
2. Upon entry to "Parental Control Enabled" which is the first option, press "OK" key.
3. From the Parental Control Enabled menu, choose either "Yes" or "No" using the "◀▶" arrows.
4. To accept the highlighted option, press "OK".
5. Use the numeric keys on the remote control to enter your PIN code, press "OK".



Changing PIN Code

Use the “▲▼” to highlight “Change Pin Code” from the Parental Control menu, press “OK” to display the PIN code window.

You may change your PIN at any time. To change your PIN you must type in your new PIN twice.



Parental Control Ratings

To view the Parental Control, move to the “Settings” icon and press “OK”.

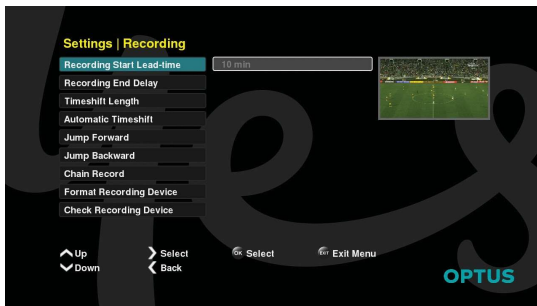
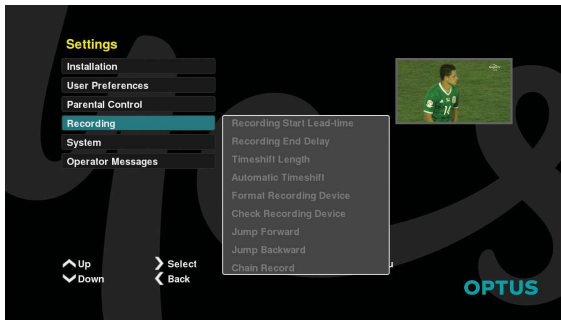
1. To see the Parental Control Rating menu, use the “▲▼” keys to highlight “Parental Control Rating”, press “OK”. The Parental Control Rating window allows you to specify the age categories that are inappropriate for viewing, unless you first enter your PIN code.
2. To block the age category of program, use the “▲▼” keys to highlight it and then press “OK”. This places a tick next to the category you have blocked.
3. To remove an age restriction, highlight the category and then press “OK”. This removes the tick and the restriction. When you have finished changing viewing restrictions, press “EXIT”. You can watch blocked programmes, but first you must enter your PIN number.

Settings - Recording

In the Sub-menu “Recording”, you have various options to change the settings of your connected Hard Disk Drive (HDD). Some of the PVR functions are select recording time, setup devices and format the HDD.

This Sub Menu includes the following functions:

- Recording Start Lead-time
- Recording end delay
- Time-shift length
- Automatic time-shift
- Setup USBstorage device
- Format storage device
- Check recording device
- Jump Forward
- Jump Backward
- Chain Record



Select USB Storage Device

For these functions to be available, your Set Top Box must have an external Hard Disk Drive connected to the USB port located on rear or side panels. If no HDD is connected, all functions will be grey and not selectable. You can select the following device options:

- Device not connected
- Safely eject recording device
- Remount recording device
- Device 1
- Device 2

Recording Start Lead-time

The Recording Start Lead-time can be set between 0 and 29 minutes

Recording End Delay

The Recording End Delay can be set between 0 and 29 minutes

Time-shift length

The Time-shift length can be set between 5 and 120 minutes

Automatic time-shift

The Automatic time-shift can be activated or deactivated, ON / OFF.

Setup USB storage device

The USB storage device can be setup by selecting a connected storage device and selecting a file format.

Format storage device

In this Sub-menu, you can see all information about your connected Hard-Disk-Drive as well as an option to format the HDD. Information includes details about the HDD Information file system, the total and the used capacity.

NOTE: By performing this task, when the formatting is complete, you will lose all existing content on the Hard-Disk-Drive.

Check recording device

Connected Recording devices are checked for compatible formats.

Jump Forward

The Jump Forward time can be set 10, 20 or 30 minutes.

Jump Back

The Jump Back time can be set 10, 20 or 30 minutes.

Chain Record

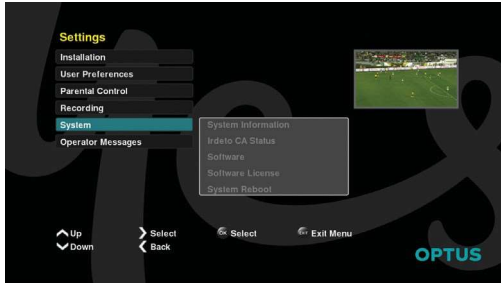
Chain recording can be selected to record the current channel or all channels.

Settings - System

In the Sub-menu “System”, you have various options to view the system information.

This sub menu includes the following functions:

- System Information
- Irdeto CA Status
- Software
- Software licence
- System Reboot



System Information

This system information option gives you statistics about the Set Top Box’s system and attached peripherals.

Irdeto CA Status

The Irdeto CA Status provides information which may be required by your service provider. The following information screens are available:

- Smart Card Status
- Softcell Service Status
- Loader Status

Software

The Software settings provide access for you to update your Software from a USB device or over the air.

- USB Software Update
- Software Update Over the Air

Software License

The software licence information can be viewed.

System Reboot

If the need arises and the Set Top Box requires rebooting, due to some minor problems, a system Reboot can be performed.

Settings - Operator Messages

In the Sub-menu “Operator Messages”, you have options to view the operator messages, which could be sent from your service provider to your Set Top Box.

10 Troubleshooting

PROBLEM	WHAT TO DO
The Set Top Box will not switch ON. None of the LEDs are ON.	Check the connection of the external power supply unit at the wall socket and ensure it is switched ON. If it is connected correctly the Green power LED on the power supply should be lit. Check if the power connector on the Set Top Box's rear panel is securely connected.
No picture	Check if TV and Set Top Box are "ON" (not in standby mode). Check that all the cables connections to the Set Top Box and TV are secure. Check and adjust the direction of antenna if necessary. Check that the TV has the correct input source selected (TV, PC, AV1, AV2, HDMI1 and HDMI2 etc.)
No sound	Check the mute button on the TV or Set Top Box, to restore the sound press the mute button again. Check the volume is not turned all the way down. To increase the volume, press the "Vol+" button. Check connection of the Audio cables to the Set Top Box and TV.
Remote control does not work	Check if TV and Set Top Box are "ON" (not in standby mode). Check that your RCU Standby Key lights up when a key is pressed, if not change your batteries If the RCU Standby Key lights up RED: Check that there are no obstructions between you and the Set Top Box, aim directly at the Set Top Box and not the TV and then try again. If the RCU Standby Key lights up Green: Un-pair the remote (see instructions in Section 7 of this User Manual- "First time start-up of the Set Top Box"). Thereafter the RCU should light up RED when a key is pressed and then the RCU is now in IR mode and requires direct line of sight to the STB when pressing keys. See above procedure to troubleshoot (Go back to your Menu Setting and re-pair your remote after it starts working fine).
Distorted menu screen	Check and adjust brightness and contrast to a lower level.

11 Legal matters

Important NOTICE to all purchasers of a DHR 4901 OPT Set Top Box.

The DHR 4901 OPT Set Top Box is designed, manufactured and sold to receive selected network services only. It will therefore not be fully functional unless it is used with the network operator's enabled Smartcard supplied with the DHR 4901 OPT Set Top Box, deployed within the Australian broadcast footprint, and installed so as to receive the network specific signal.

- ! The smartcard is unique to each decoder and cannot be replaced or changed with another decoder without first contacting the call centre.
- ! The network operator is entitled to upgrade the software by downloads to your decoder, to ensure that only approved services are being received, and that the decoder remains compatible with the networks platform.

Obsolescence Disclaimer

Digital Satellite Technology is rapidly evolving. As a result of this, it is not possible to predict what the requirements will be in a few years' time. The manufacturer cannot guarantee that this DHR 4901 OPT Set Top Box will be able to run all available services in future.

DIY Installations Disclaimer

Due to the many potential configurations in each home and the variety of equipment available, it is not possible to cover every potential installation scenario in this Viewer's Guide. An Accredited Installer or the supplier / manufacturer of the specific equipment should be consulted if any doubt exists when doing an installation.

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DVB T2/S2 (Digital Video Broadcasting)

DVB is a registered trademark of the DVB Project.



RCM

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Hacking of the conditional access system or facilitating anyone else doing so is STRICTLY PROHIBITED. Failure to adhere to this prohibition is a criminal offence.

Some components are licensed under GPL and LGPL licenses. For further information regarding the licenses and which components are licensed under these licenses please visit **www.uec.com.au**

Support Information – NAS Australia

Online Website: www.nasaustralia.com.au/uec-support

