# User Manual High Definition Digital Set Top Box With Recording Via USB

XC4929

# **Important Safety Instructions**

- 1) Read these instructions.
- 2) Keep these instructions.
- 3) Heed all warnings.

may cause damage.

- 4) Follow all instructions.
- 5) Do not use this apparatus near water.
- 6) Clean only with dry cloth.
- 7) Do not block any ventilation openings, install in accordance with the instructions.
- 8) Do not install near any heat sources such as air conditioners, stoves, or other apparatus (including amplifiers) that produce heat.
- 9) Ensure mains plug fits correctly in its socket. Poor connection can result in picture interference and potential safety hazards.
- 10) Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- 11) Only use attachments/accessories specified by the manufacturer.
- 12) Unplug this apparatus and its antenna connections before the approach of lightning storms or when unused for long periods of time.
- 13) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
- 14) This device does not have an AC mains switch. The mains plug is used as the primary power disconnect device, and it must remain readily accessible and operable.
- 15) Ventilation should not be impeded by covering the ventilation openings with items such as newspapers, table-cloth, curtains, etc.
- 16) No naked flame sources, such as lighted candles, should be placed on or near the apparatus.
- 17) Your attention is drawn to the environmental aspects of battery disposal.
- 18) This device is not warranted for use in unreasonably hot, cold, or humid environments
- 19) The apparatus shall not be exposed to dripping or splashing, and no objects filled with liquids, such as vases, shall be placed on or near the apparatus.
- 20) This device is designed for indoor, fixed location use only.

  It must not be used in portable or mobile applications as vibration or excessive forces.





This symbol indicates that dangerous voltages constituting a risk of electric shock are present within this unit.



This symbol indicates that there are important operating and maintenance instructions in the literature accompanying this unit.



This symbol indicates that this product incorporates double insulation between hazardous mains voltage and user accessible parts. When servicing, use only identical replacement parts.

#### CAUTION:

If the apparatus has been exposed to an electrostatic discharge, (lightning or similar) it may malfunction and need to be reset by the user. Remove the mains power lead from the wall socket for a few minutes, then re-apply mains power. You may need to re-scan the TV channels and check that any programmed events (eg. PVR recording) have been correctly retained.

#### WARNING:

When using a USB memory stick with this unit, it should be plugged into the unit directly. USB extension cables or hubs should NOT be used, to avoid data transfer errors or interference caused to TV reception.

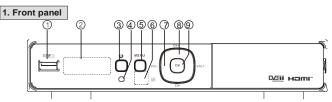
#### WARNING:

To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

# **Table of Contents**

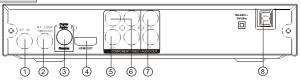
Front and Rear Panel.	1
Remote Control.	2
Connecting to a Television.	3
Connecting to a DVD Recorder or VCR	3
Connecting to an Audio System	4
First Time Installation.	4-5
Menu settings.	5-9
Electronic Program Guide (EPG).	6
USB Personal Video Recorder (PVR)	9-11
Troubleshooting	12
Technical Specifications.	12
Using the XC4929 in New Zealand	13
Frequently Asked Questions	14
Remote Control Quick Guide	15

# Front and Rear Panel



- ① USB: Data input from USB storage devices.
- 2 LED DISPLAY WINDOW: Used to display the channel number.
- 3 STANDBY: used to switch the set top box between On and Standby modes.
- STANDBY INDICATOR: Green in normal operation, turns to red in standby mode.
- MENU: Turns on the Main Menu.
- 6 REMOTE CONTROL SENSOR: Used to receive the infra-red signal from the remote control (Make sure this is not blocked by cables).
- VOLUME+/-: Used to increase/decrease the volume without using the Remote control.
- **® CHANNEL +/-:** Used to change channels without using the remote control.
- OK: Confirms an entry or selection.

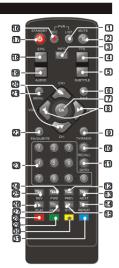
# 2. Rear panel



- 1 RF IN: Connect to your TV antenna.
- ② RF LOOP THROUGH: Feeds auxiliary TV antenna signal to your TV (Allows you to watch one channel while recording another)
- ③ COAXIAL: Connects to the Coaxial digital audio socket on a surround sound system.
- HDMI: High Definition Multimedia Interface: Connects high definition audio and video to an HDMI equipped device (eg. flat screen TV).
- (5) VIDEO: (Yellow socket) Composite video signal for older model TVs
- 6 COMPONENT VIDEO OUT: Y, Cr, Cb analog outputs for older model TVs
- AUDIO L/R: Analog Audio L/R signals for older model TVs.
- 1 8 MAINS CABLE: This is used to connect to the 240V mains power supply.

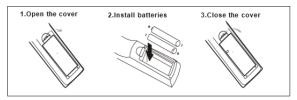
# Remote Control

- 1. LIST: Displays a list of recorded programs on the currently connected USB drive
- 2. MUTE: Mute or restore Audio Output.
- 3. INFO: Displays additional channel information.
- 4. TTX: Displays Teletext Information.
- 5. SUBTITLE: Selects Subtitles Language.
- 6. EXIT: Exits the current inset Menu or returns to the previous Menu.
- 7. OK: Confirms an entry or selection. Also displays list of channels.
- 8. RIGHT / LEFT: A. Increases or decreases volume B. Navigates through the Menus.
- 9. TV/RADIO: Switches between TV function and Radio function.
- 10. RECALL: Switches between current channel and last viewed channel.
- 11. GOTO: Selects the play time of CDV media
- 12. PREV: Skips to the previous file during media playback.
- 13. NEXT: Skips to the next file during media playback
- 14. REPEAT: Selects Playback Repeat mode.
- 15. STOP: Stops media playback and record.
- 16. REC: Starts recording of current TV program.
- 17. STANDBY: Switches between On and Standby.
- 18. EPG: (Electronic Program Guide) Also used for timer recording.
- 19. AUDIO: Selects the Audio Language or Audio Mode.
- 20. UP / DOWN: Selects the next or previous Channel in normal mode:
- Navigates through the Menus in menu mode.
- 21. MENU: Turns Main Menu on and off.
- 22. FAVOURITE: Displays the Favourite Menu.
- 23. 0-9 (Numeric Buttons): Direct entry of channel or setting.
- 24. FWD: Searches forwards during media play.
- 25. REV: Searches backwards during media play.
- 26. PLAY: Starts or resumes media play.
- 27. PAUSE: Pauses media play.
- 28. Red button: In Teletext mode, it is the teletext "Red" button.
- 29. Green button: In Teletext mode, it is the teletext "Green" button.
- 30. Yellow button: In Teletext mode, it is the teletext "Yellow" button.
- 31. Blue button: In Teletext mode, it is the teletext "Blue" button.
- (NOTE: 28-31 are also used with the USB play/record functions.)



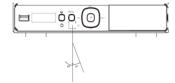
#### Installing the Batteries

Remove the battery cover from the Remote Control and put 2xAAA size batteries inside the compartment. Alkaline batteries are recommended for longer life. The diagram inside the Battery Compartment shows the correct way to install the batteries.



#### Using the Remote Control

To use the Remote Control, point it towards the front of the Digital Set Top Box. The Remote Control has a range of up to 5 metres from the Set Top Box at an angle of up to 60 degrees.



The Remote Control will not operate if the path between it and the Set Top Box is blocked

Sunlight or very bright light will decrease the sensitivity and reduce the range of the Remote Control.

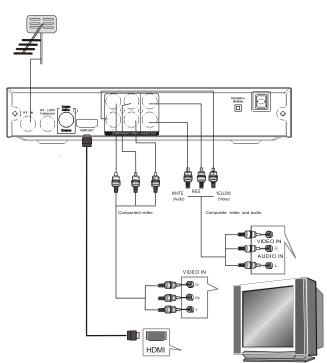
# **Connecting to a Television**

For a basic connection from this Set Top Box to your television, use the Composite video connection outlined below.

For a higher quality connection, use the Component Video connection outlined below combined with the L/R Audio outputs.

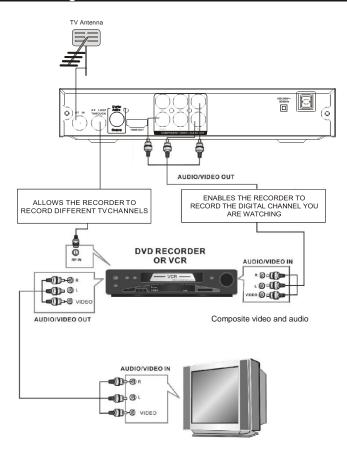
For the highest quality connection use a direct HDMI connection, see below.

TV Antenna



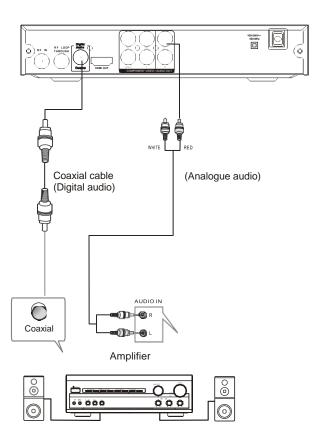
NOTE: HDMI does not normally require setup. It just "works". If you don't have an HDMI cable, you can use the supplied red-yellow-white cable in the meantime.

# Connecting to a DVD Recorder or VCR





# Connecting to an Audio System



# First Time Installation

#### **Getting Started:**

Once you have connected this Set Top Box (STB) to the appropriate video and audio input sockets on your TV, and have selected the matching inputs on the TV to receive these signals, you will need to be comfortable with selecting several basic operations before setting up your Set Top Box for the first time.

Firstly, the STB has two power modes: Standby and On. In Standby mode, the STB is powered up, but awaits a "Power On" command from either the Remote Control or from the Standby push-button located on the front of the STB. In this mode, the front panel LED indicator glows red.

When the STB is switched from Standby to the On mode, the power LED indicator on the front panel will change from Red to Green to indicate that the unit is fully powered up.

As most receiver operations are accessed using the supplied Remote Control, please take the time to review the button designations on page 2 of this manual. Especially take note of the most commonly used buttons; the cursor arrow buttons (LEFT, RIGHT, UP, DOWN) surrounding the OK button in the middle section of the remote control, as well as the MENU button at the top-left of the cursor keys, and the EXIT button at the top-right of the cursor keys. (If you get stuck, pressing "exit" several times should always get you back to the main screen).

# First Powering on the STB:

When you first power up your STB, (or you reset the STB to its factory settings), it will automatically display the Installation Guide menu. This is where the Set Top Box searches for available TV stations and stores the station details it finds. Make sure a suitable TV antenna is connected before proceeding with this operation.

Alternatively, at any time you can select the Channel Search menu and use the "Auto Search" option" to force the receiver to locate all the available TV stations.



By default, the Installation Guide will be locked to English as the On-Screen Display (OSD) language. Use the DOWN cursor key on the Remote Control to select the Country entry line (which should be pre-set to AUSTRALIA), and then use the DOWN cursor key to select the Channel Search line. Press OK to start the channel tuning process and display a Channel Search progress screen. Your STB will now scan through all the digital TV stations that it can receive using the connected antenna. This process may take several minutes, but once completed, the STB will skip to the first DTV program that was located during the Search process.

NB. For operation in New Zealand, you will need to set country to "Italy". You will also need to manually set the time zone to GMT+12 (or GMT +13 for summer time). Please also see pages 10 and 13.

Any "Radio" programs located during the channel tuning process are sound-only services associated with the TV networks, they are <u>not DAB+</u> radio broadcasts.

#### **Basic Operation:**

Once your STB has completed the tuning process and is receiving a digital TV service, you can either use the UP/DOWN cursor keys to manually change the channel, or enter it directly with the numeric keypad. To adjust the sound level, set the volume control on your TV to a commonly used level, and then use the STB LEFT/RIGHT cursor buttons to increase or decrease the volume to a comfortable level.

To gain better use of your Set Top Box, please now review the Menu settings on the following pages of this User Manual.

# (1) Program Settings

To access this Menu, press the MENU button on the Remote and select [Program] from the icon selections at the top of the screen. This Menu provides options to adjust the Program Settings. Select an option and press OK or RIGHT to adjust that setting. Press the EXIT button to exit the Menu.



# (2) Program Edit

To edit your program viewing preferences (lock, skip, favourite, move or delete), you will need to enter the Program Edit Menu. This Menu requires a password to access. Enter the default password '000000'.



# Set Favourite Program

You can create a shortlist of favourite programs that you can easily access. Set Favourite TV or Radio program:

- Select the preferred program then press the FAVOURITE button on the remote control.
  - A Favourite Type sub-menu will appear, use the cursor keys on the Remote Control to select one of the 4 types of favourites, then press OK.
- 2. Repeat the previous step to select more Favourite programs.
- To confirm and exit the Menu, press the EXIT key
  Disable favourite TV or Radio Program:
  Select the TV channel from the list on screen, the press the FAVOURITE button
  on the Remote Control. Use the favourite Type sub-menu to select Disable, then
  press OK.

#### View Favourite Program

- 1. Press the Favourite button on the remote and the Favourite Menu will appear.
- Press the LEFT/RIGHT cursor buttons on the remote to select the type of Favourite channel to recall. Options are: Movies, News, Sport, Music.
- 3. Press UP/DOWN to select your Favourite Programs.
- 4. Press OK to select your favourite program.

# Delete a TV or Radio Program

- Select the Program and then press the BLUE button on the remote.
   A message will appear on screen. Press OK to delete the program
- 2. Repeat the previous step to select more programs to delete.
- 3. To return a deleted channel to the Program list, perform a Channel Scan.

# Skip TV or Radio Program

- Select the program you would like to skip and press the GREEN button.
   A skip symbol is displayed. The program is marked as a skip.
- 2. Repeat the previous step to select more programs.
- To confirm and exit the menu, press the EXIT key.
   Disabling a skip TV or Radio program:
   Press the GREEN button on the skip program when a TV channel with the skip symbol is shown.

#### Move a TV or Radio Program

- 1. Select the preferred program then press the RED button. A move symbol will appear
- 2. Press UP/DOWN to move the program within the list of TV or Radio stations.
- 3. Press OK to confirm
- 4. Repeat the above steps to move more channels

## **Lock Program**

You can lock selected programs for restricted view.

To Lock a TV or Radio Program:

- 1. Select the preferred program then press the YELLOW button. A lockshaped symbol is displayed. The program is now marked as locked
- 2. Repeat the previous step to select more programs
- 3. To confirm and exit the menu, press the EXIT button
- 4. Press the YELLOW button to disable the locked program
- 5. To view the locked program, you will then be required to enter the default password '000000' or your last set password.

# (3) EPG - Electronic Program Guide (NZ users please see Page 13)

The EPG is an on-screen TV guide that shows scheduled programs up to seven days ahead for every tuned channel. It also allows you to automatically set timer recordings (see page 10). Press the EPG button on the Remote Control to access, press again to remove.



Use the UP/DOWN keys to step through the listing; the red and green buttons allow you to jump through the listing a page at a time. On the right side, a program description is displayed for the highlighted program. If there is more than one page of information, the yellow and blue buttons allow you access to the second page, or you can simply use the up and down cursor buttons to step through the available programs. Use the left and right cursor buttons to step through the different TV or radio stations.

# (4) Sort

Sort your channels from the following options:

[LCN] - Sorts the channels in ascending order, (Logical channel Number) [Name] - Sorts the channels in alphabetical order.

[Service Name] - Sorts the channels according to the station.

[Service ID] - Sorts the channels by station ID.

# (5) LCN (Logical channel number)

Sets LCN On or Off. If LCN is off, during tuning, stations are simply numbered in the order they are found.

If LCN is on, station numbers are assigned by the TV station themselves, eg ABC is number 2. 7 network is number 7. 9 in number 9 and so on.

Note: If you want to use the "Sort by LCN" method, LCN must be set to "on" before scanning the channels.

#### (6) Video Setting

To access this Menu, press MENU then select [Picture]. The Menu provides options to adjust the video settings. Press UP/DOWN to select an option and press RIGHT/LEFT to adjust that setting. Press EXIT to exit the menu and save the changed setting.



# (1). Aspect Ratio (ie Width to height of your TV screen)

Your choices are 4:3 PanScan, 4:3 Letter Box,16:9 Wide Screen, 4:3 Full, 16:9 Pillar Box, 16:9 PanScan, or Auto to get the maximum display available from your TV.

# (2). Resolution

If the video does not appear correctly, change this setting. This setting is to match the most common setting for HDMI.

[576i] for PAL system TV (most common old analog TVs)

[576P]: for progressive scan CRT TV (more recent CRT TVs)

[720P]: for older flat panel TV

[1080i]: for more modern flat panel TV

[1080p]: for most recent flat panel TV.

# (3). TV format

If the TV reception does not appear correctly, you may need to change this setting. This should match the most common setting for TVs in your country. [NTSC]: for NTSC system TV.

[PAL]: for PAL system TV.

(PAL settings are the ones most commonly used in Australia and NZ).

## (7) Channel Search (In NZ please see page 13)

To access the menu, press MENU and select [Channel Search]. The Menu provides options to adjust the Search Channel settings.

Select an option and press RIGHT/LEFT to adjust the settings.

Press EXIT to exit the Menu.



#### 1. Auto Search

Search and install all DTV and Radio channels automatically. This option overwrites all preset channels.

- 1. Select [Auto Search] and press OK or RIGHT to start the channel search.
- 2. To cancel channel search, press EXIT.



#### 2. Manual Search

Install new channels manually. This option adds new channels without changing the current channels list.

1. Select [Manual Search] then press OK or RIGHT. The channel search

screen will appear.



- 2. Press the RIGHT/LEFT key to select the channel frequency
- 3. Press OK to start searching channels

If a channel is found, it is saved and added to the channels list. If channels can't be found, please exit the menu and check your antenna connection.

(3) Country (default is Australia)

Select your country of residence. ("Italy" or "Russia" for New Zealand)

(4) Antenna power

Enables Antenna Power (5V dc, 100mA) to be connected to the RF IN socket for use by an external active antenna.

Warning: Do not activate the Antenna Power option unless you are certain that any devices in the coax line between your TV antenna and set top box are compatible with passing or operating from 5V dc. If in doubt, consult with a TV or installation technician.

# (8) Time Setting (In NZ please see page 13)

To access the Menu, press MENU then select [Time]. The Menu provides options to adjust the time settings.

Press UP/DOWN to select an option and press RIGHT/LEFT to adjust the settings. Press EXIT to exit the menu.



#### (1) Time offset

Select Auto or Manual for GMT offset adjustments.

(2) Country Region

Select the Country Region when [Time Offset] is set to Auto.

(3) Time Zone

Select the Time Zone Offset when [Time Offset] is set to Manual.

(4) Auto Standby

When this setting is on, the Set Top Box will go into sleep mode after 3 hours of no user-operation. (ie no button presses detected.)

# (9) Option

Press MENU and select [Option]. The menu provides options to adjust the OSD Language, Subtitle Language and Audio Language.

Select an option and press RIGHT/LEFT to adjust the setting. Press EXIT to exit the Menu.

7



# (1). OSD Language

The OSD (On Screen Display) language is fixed to English. (2).

## Subtitle Language

Selects the preferred subtitle language. When on, subtitles will always be shown during DTV reception (but only when subtitles are available).

#### (3). Audio Language

Selects the preferred audio language for watching TV channels.

If the language is not available, the default program language will be used.

## (4) Digital Audio

Selects the digital audio output mode. Refer to your audio amplifiers user manual for its required input format.

# (10) System Setting

To access the Menu, press MENU and select [System]. The menu provides options to adjust the system settings.

Press the UP/DOWN key to select an option and press RIGHT/LEFT to adjust the setting.

Press EXIT to exit the Menu and save any changed settings.



# (1) Parental Guidance

You can restrict access to channels that are unsuitable for children.

To restrict/lock the channel you will need to enter either password '000000' or your own password if you have changed it. Use the RIGHT cursor button to select the required classification restriction, then press OK to confirm and press EXIT to exit the menu.

#### (2) Set Password

Set or change the password for locked programs. Enter your old password or the default password '000000'. You will then be asked to enter your new password. To confirm, re-enter your new password again.

Once it is confirmed, press EXIT to exit the Menu.

#### (3) Restore Factory Default

Resets your Set Top Box to the "out of box" settings.

In Main Menu select [Restore Factory Default] and press OK or RIGHT to select. Enter your password or the default password '000000' and press OK to confirm. This option will delete all preset channels and settings.

# (4) Information

View model, hardware and software information.

# (5) Software update



# 1. OAD ("Over the Air Upgrades)

If the status is set 'ON', it will look for new software upgrades in TV broadcasts at your preferred time in "Start time". We recommend this be left 'OFF' unless advised otherwise.

# 2. USB upgrade

This is for updating the STB's internal software. DO NOT activate this function unless you have valid software as the only file on a USB drive that is connected to the STB. If you load the wrong software the STB will be destroyed ("Bricked").

# (11) USB Multimedia playback:





To access this Menu, press the MENU button and select [USB] using the RIGHT/LEFT keys. The menu provides options to playback Music, Photo and Multimedia files. It can support off-air DTV recordings made by this unit, as well as various AVI, MPEG4, MP3, JPEG and BMP format files.

#### (a) Multimedia:

When a USB device is attached you can select from Music, Photo, Movie or PVR options using the RIGHT/LEFT keys and OK to select. If a USB device is not connected, the warning message "No USB device is Found" will appear.







# (b) Photo configure:

- -Slide Time: adjust slide show interval to 1~8 seconds.
- -Slide Mode: adjust slide show effect as mode 0~59 or random.
- -Aspect Ratio:

[Keep]: Play picture in its original aspect.

[Discard]: Play picture in full screen mode.

# (c) Movie Configure:

- Subtitle Font:

[Small]: Displays the subtitle as small mode.

[Normal]: Displays the subtitle as normal mode.

[Big]: Displays the subtitle as big mode.

- Subtitle Background:

[White]: Displays the subtitle in white background. [Transparent]: Displays the subtitle in transparent background. [Grey]: Displays the subtitle in grey background.

[Yellowgreen]: Displays the subtitle in yellowgreen background.

- Subtitle Font Color:

Choose the subtitle font colors from Red, Blue, Green, Black or White.

#### Note:

- We cannot guarantee compatibility (operation and/or bus power requirement) with all USB mass storage devices and assume no responsibility for any loss of data that may occur when connected to this unit.
- With large amounts of data already recorded, it will take longer for the system to read the contents of a USB device.
- Some USB devices may not be properly recognized.
- Even when they are in an apparently supported format, some files still may not play or display, depending on the content.
- USB extension cables should be avoided as they may degrade performance.

#### PVR FUNCTION

The XC4929 can also function as a Personal Video Recorder (PVR), allowing you to record off-air Digital TV programs onto a (minimum) USB 2.0 flash drive or USB 2.0 hard drive.

## Media Requirements and Limitations:

- FAT32 and NTFS-formattable USB drives are suitable. Standard drives in a USB adaptor harness are unlikely to work.
- Most modern USB Hard drives use the NTFS format file system. This STB can format most USB hard-drives and flash drives to either the FAT32 or NTFS formats.

Press "Menu", select USB > PVR Configure > Format. There will be a short delay while the drive is inspected, followed by details of the drive size and format type. Select the File System line, press ◀ or ▶ to select the format type, then select the Format line (typically "USB I/C") then press OK to format the drive.

**Warning:** All existing data and recordings will be erased by the formatting process. Desired programs should first be copied onto another storage medium (eq. via a computer's USB connection).

- The USB PVR function relies on the use of high quality USB 2.0 drives (or USB 3.0 drives operating in USB2.0 compatibility mode), and as such may not be compatible with all USB devices.
  - USB drives up to at least 2 Terabytes (2,000GB) can be used; however:
  - USB-powered drives larger than 500MB may exceed the USB socket's power rating and need to be powered using an external power supply.
  - Drives above 500GB may also take an unacceptably long time to start recording or playing back material.
- Most Flash Drives can record Standard Definition TV; drives with slower memory components may not reliably record HDTV.
- Camera Cards (SD etc) may work through a card-to-USB adaptor; but not all adaptors are compatible with this unit.
- There are no line inputs; recording is only possible from digital TV broadcasts.
   Recordings are made by directly storing the unaltered data stream, so playback quality is identical to transmitted quality (unlike VCRs and DVD recorders).

#### Data Rates:

**Australia:** About 2GB/hr for SD broadcasts and about 4GB/hr for HD broadcasts, although this can vary considerably depending on the program. **NZ** Approximately 2GB/hr regardless of resolution (See Page 13)

#### RECORDING:

#### To record the program the Set-top Box is currently tuned to:

With a USB drive connected, press "Record" (next to the red "Standby "button on the remote control). An on-screen message "Record Initializing" will appear briefly, followed by "Record 30 Minutes". This means it will stop recording after 30 minutes. Successive presses of the Record button will increase this in 30 minute increments. After 300 minutes you will get a message: "Records until Disk Full" meaning the record time is no longer limited.

Once recording is under way, only the STOP, EXIT, CHANNEL and STANDBY buttons will be operative. An elapsed time counter will appear in the top left hand corner of the screen.

This will disappear after a few seconds, or you can press the "EXIT" button to hide it. Press the INFO button once to display the elapsed time counter, or press INFO twice to display a detailed INFO screen showing remaining space on the USB drive, recording bit rate and file name.

- During recording, it is possible to watch one program while recording another, but only if the second program is from the same transmitter as the one being recorded. For example, you can record ABC1, while also watching ABC2, ABC3, or ABC News 24, but not a program from another network (such as 7, 72 or 7 Mate). If you attempt to change to a program on a different network, you will get a "RECORD" message, meaning you need to terminate the recording first. NB:
- The "Pause" button is non-functional during recording.
- If the USB drive is full or is an unsuitable format, you will get an error message. If the USB device has an indicator light, it may also blink when recording is taking place.
- •To stop recording, simply press the Stop button (above the yellow button on the Remote Control), then OK to confirm.

#### PLAYBACK

(**NOTE:** you can remove the USB drive and play back the recordings on another XC4929, rather like changing tapes on a VCR).

To view a list of recorded DTV files on the USB drive, press the LIST button on the Remote Control (next to the Mute button), or use the Menu function to select USB>Multimedia>PVR>HBPVR>OK.

A list of the recorded files will appear in the following format: {TV Channel name} {Month/Day/Year} {Start time of Recording}.mts The ".mts" at the end of each recording is the file name extension for the recorded dioital TV data stream.

For example, a program recorded from channel ABC2 at 10.30am on 27<sup>th</sup> July 2016 would appear in the recorded file list as:

#### ABC2-02272016-1030.mts

The names of the recordings can be altered to something more meaningful using the Rename function (see below).

#### Immediate Playback:

Once you have the list of recorded files visible, use the Up/Down cursor buttons on the Remote Control to select the required file for playback, and press the PLAY button (directly above the Red coloured button at the bottom of the Remote Control). The file will play back in full screen mode, and you can use the Forward, Reverse, and Pause buttons on the Remote during playback. For Fast Forward or Fast Reverse operation, press the Forward or Reverse buttons repeatedly to select between 2x to 32x speed options.

#### PLAYBACK FILE MANAGEMENT:

Select your preferred recorded file as above, but press "OK" instead of "Play". The list of files now remains on the screen and a small window shows playback of your selected file, plus information about its length etc. To switch between full-screen playback and the small window, press the Red button at the bottom of the remote.

**Deleting files:** To delete a selected file that is playing, you must first press Stop; then press the yellow button on the Remote control. A tick symbol will appear beside the selected file. Further files may be selected by using the up and down arrows and further presses of the yellow button; (To see what you are deleting, press the OK button before the yellow button; this will start windowed playback). When you have selected all the files to be deleted, press OK. You will see a "confirm deletion" option message; pressing OK a second time will delete the files. The deletion process may take several minutes for larger files.

Renaming files: Select a file using the up and down arrows and press the Green button. An image of a keypad will appear in screen. Use the arrow keys to select the letters, OK to confirm selection. "Extend" gives an alternative character set, "Back" deletes the last character entered, "OK" completes the task, "Cancel" exits without changing the file name.

10

Note: you can also rename and delete the files more conveniently using a computer (see FILE FORMAT on page 11)

#### TIMER FUNCTIONS:

This device can carry out "Scheduled" recordings, similar to the timer record function in a VCR or DVD recorder. As well as allowing the user to manually enter the date and time, the timer can also be automatically set using the Electronic Program Guide (EPG). Timer functions will activate whether or not the PVR is switched to standby. When the timer is ready to activate, a warning message will appear.

#### IMPORTANT:

- Make sure the time zone is set correctly! (see "Time" Menu)
- In NZ see Page 13

Manually setting the timer: During normal DTV reception press the blue button, then the red button on the Remote control. A box titled "Schedule" should appear. Select the desired channel with the left and right arrow buttons, select start and finish boxes with the up and down arrows, and enter the dates and times using the number keys on the remote control.

Mode: This has two options: "Record" and "View". If MODE is set to "view", at the set time the PVR will automatically turn itself on and switch to the selected channel, but not record. This is useful if you want to record onto a separate device such as a VCR or DVD recorder. (You must also set a matching record time on your recording device). It can also be used to ensure that you do not miss the start of a particular program while you are watching another. (For example it will automatically switch to the 6PM news while you are watching another channel, or something you recorded earlier). If MODE is set to "Record" (default), the PVR will record the program.

**Repeat:** This allows you to record the same program on a daily or weekly basis. For example, the evening news or favourite weekly program(s). Options are "once" (default), "daily" or "weekly". If set to daily or weekly, when the recording is completed, the scheduled record time shown is automatically advanced by another 24 hours (or 7 days).

When you are done, press "OK", then press "Exit".

# Setting the timer using the EPG: (In NZ see page 13)

The PVR's timer can also be set automatically by the Electronic Program Guide. Press "EPG", find your desired program using the arrow buttons, then press "OK. The "Event Add" box will appear, except this time all the information from the selected EPG item will have been automatically inserted. Press "OK" to add it to the Schedule list.

# TIME SHIFT ("LIVE PAUSE")

When a live program is being viewed while a USB device is inserted, pressing the "Pause" button will effectively freeze the live program. What actually happens is that the PVR starts recording the program, and when you press "Play" it starts playing back the recording from the beginning, while

simultaneously recording the rest of the program. If you allow at least 15 minutes before pressing "Play" you will be able to Fast Forward through undesired parts of the program. (However, once you "catch up" with the live recording point, obviously you cannot Fast Forward past that!)

#### CAUTION:

1. Programs are not always transmitted at the time stated in the EPG: programs often run a few minutes late. To avoid missing the end of a program, you can modify the finish time manually. For example, a finish time of 14:30 can be manually "bumped" to 14:40 to ensure the entire program gets recorded. Use the left and right arrows to select the character position, and enter the new time numbers with the numeric keypad.

Alternatively the coloured buttons at the bottom of the remote can be used to advance or retard settings one minute per press.

2 The timer function always over-rides the record off-timer setting. (ie the 30-60-90 etc setting)

#### FILE FORMAT:

All recordings are stored in a main folder named "HB PVR". The actual program data is stored as "MTS" files in subfolders carrying the recording's name e.g.

#### ABC2-02272012-1030.mts

MTS format files are similar to MPEG files and can be read by most programs that can read MPEG files. **NB**: Each .mts file is accompanied by a metadata file ending in ".mts.meta". You can rename the .mts files to something more meaningful using your computer, but if you do so you *must* change the metadata file to the same name. For example, if you change ABC2-02272012-1030.mts to CoffeeTime.mts, you also must change ABC2-02272012-1030.mts.meta to CoffeeTime.mts.meta. Otherwise the .mts file will not play in the XC4929.

#### PLAYING BACK OTHER MEDIA FILES:

This unit can also play back other types of video files, including various resolutions of MPEG4 /H264 movie downloads, files from tapeless video cameras and JPEG image files (see page 8).

# Note: This unit will <u>not play</u> DV-AVI files from MiniDV and Digital-8 video cameras.

It some cases it is possible to play directly from camera SD cards via an SD to USB adaptor, but the preferred procedure is to transfer the files onto a USB type drive first, to avoid risk of losing your original files.

All playback modes (PVR and Movie) will play sequentially. That is, when one program finishes, the next one will automatically start playing. By pressing the blue "repeat" button you can also set the unit to continuously repeat the current program, repeat the entire list of programs, or play back programs in a random sequence.

# Troubleshooting

Problem	Potential Reasons	What to do
No picture	240V Power isn't connected	Check Power Socket
	Unit is in standby (red light)	Switch to "on" (green).
Screen shows "No Signal"	Antenna not connected	Check antenna cable and plug
	Box not tuned in	Check setup
No sound from speaker	Audio cable not connected, wrongly connected or faulty.	Check plug colours match sockets
	Sound is muted or turned right down	Adjust volume control or Press Mute button
	Incorrect sound track	Press "Audio" button
Only sound, no image on the screen	Video cable not connected, wrongly connected or faulty.	Check plug colours match sockets
	HDMI or Component output incompatible with TV  (You may have inadvertently	Press green button repeatedly to select compatible format. Troubleshooting Hint: Red-Yellow-
	pressed the green button)	White AV connection will always work.
	The program is a radio program	Press <tv radio=""> button to switch to TV mode</tv>
Remote control unit not working	The batteries are exhausted	Replace batteries, and ensure they are fitted correctly
	Remote not actually pointed at set top box or is too far away from it.	Adjust the way you hold the remote control unit and/or operate it closer to the Set Top Box (Try pointing it at wall opposite TV).
The image stops or freezes suddenly or produce mosaic patterns	The signal is too weak, or could be mobile phone (4G) interference	Improve the antenna and/or its cabling (or fit 4G filter)
USB Playback has onscreen message "Resume Restart" that "exit" won't remove	STB is asking whether you want to start from the beginning or jump to where you were up to last time.	Select "Restart" or "Resume" and press "enter"
Aspect Ratio wrong	You may have inadvertently pressed the blue button.	Press blue button repeated to restore correct aspect ratio

# **Technical Specifications**

Item	Sub Item	Parameter
Tuner	Input Frequency	177.5MHz~226.5MHz 522.5MHz~830.5MHz
	RF Input level	-25~-78dBm
	IF Bandwidth	7MHz and 8MHz
	Modulation	QPSK,16QAM,64QAM
Video	Decoder Format	MPEG4 AVC/H.264HP@L4 MPEG2 MP@ML.HL
	Output Format	576p, 720p, 1080i, 1080p, 50/60Hz 4:3 and 16:9
	Output Port	HDMI via HDMI-A Socket Composite/Component via RCA phono sockets
Audio	Supported Formats	MP3, Dolby digital, AAC, PCM, WAV, DTS, OGG, FLAC, ABR, CBR, M4A
	Audio output	HDMI via HDMI-A Socket Digital audio: S/PDIF RCA Black Analog audio: RCA sockets R & W
Power	Voltage	100-240V~ 50/60Hz
	Power (less USB)	Max 8W Less than 1W standby (Typically 0.3W)



# Using the XC4929 in New Zealand.

Although the XC4929 was not specifically designed for New Zealand, we are aware that people there have been ordering Set Top Boxes from Australia, as they are considerably cheaper than "Freeview Compliant" boxes, and generally have better instruction manuals and user interfaces than the cheaper non-compliant models available in NZ.

The XC4929 can be made to work in NZ, with certain limitations:

#### 1. Your box may not have a New Zealand "country" setting.

(A Software upgrade with an "NZ" setting is now available from the Jaycar website). Otherwise, you need to select another country that uses the same TV channel frequency spacings. **Italy and Russia** give the same spacings as NZ, but you won't be able to use the automated time setting feature because they are in the wrong time zones. Thus, you will need to **manually set the time zone** to +12 GMT for winter time and +13 GMT for summer time (You will only need to do this twice a year).

2. The New Zealand Digital TV transmissions (usually called "Freeview" in NZ) are not exactly the same as Australian "Digital TV" (which is now generally just called "TV"). This means the XC4929 has not been exhaustively tested with NZ transmissions.

#### WHAT EXACTLY IS "FREEVIEW"?

This is a bit of a can of worms. In Australia, "Freeview" is a privately-run consortium of broadcasters and content providers, mostly known for their efforts to encourage the public to change to Digital TV when Analog broadcasts were still available. Currently, their efforts are directed toward promoting the benefits of "Free" TV programming, (vs Pay-TV and Downloading). Freeview Australia does not have any authority to regulate TV broadcast standards, which are independently controlled by the ACMA (Australian Communications and Media Authority).

In New Zealand, Freeview is a similar organization except that it does have government input, and has some legislative control of NZ broadcast standards.

Both organizations offer licensing for "Freeview Compliant" TVs and Set Top boxes. As far as the user is concerned, the principal advantages are:

- 1. Access to a more advanced Electronic Program Guide (EPG) and
- 2. Guaranteed MPEG4 compatibility

What is not generally known is that "Freeview" also represents the interests of "Content providers", and in particular "Freeview Compliant" Set Top Boxes are *specifically engineered* to defeat the copying of High Definition Copyrighted material as follows:

- 1. The HDMI outputs will not operate unless they are plugged into an HDCP (Highbandwidth Digital Content Protection) compliant recording or display device.
- The analog component outputs (Y, Cr, Cb) are deliberately downgraded to Standard Definition resolution, to prevent full-quality copying by HD Component recorders (such as the VHS-based D9).

Ironically, neither product ever really materialized in the marketplace! In any event, there turned out to be much simpler and cheaper ways of copying digitally broadcast material, for anyone so inclined.

However, this deliberate (and now largely pointless) "nobbling" of the component outputs means that it is then not possible to use them to legitimately display HD images on older model HDTVs or monitors, that lack a digital tuner or HDMI input.

In Australia, it is possible to buy an HD Set Top box and convert an old Flat Panel display to a perfectly serviceable HDTV for well under \$100; no such option is available with a much more expensive Freeview-Compliant product.

Aside from that, virtually all Set Top Boxes manufactured since 2008 are fully MPEG4 compatible anyway, even sub-\$30 units available in supermarkets...

# EPG (Electronic Program Guide) issues.

Freeview-compliant Set Top Boxes use a system called MHEG-5 (Multimedia and Hypermedia Experts Group) for their Electronic Program Guide, which offers a number of advanced "interactive" programming features if an Internet connection is available.

The European Terrestrial Digital TV standard (DVB-T) allows MHEG-5 to be added to the Digital TV signals as "Metadata", but a properly compliant DVB-T transmission also includes a more basic Electronic Program Guide, basically a "plain text" recitation of a transmitter's entire program schedule for the next 7 days, repeated every 30 seconds or so.

To reduce the appeal of Non-Freeview-Compliant equipment, the Freeview Consortia in Australia and NZ sought to have this "basic" EPG removed from the transmissions. The New Zealand regulators agreed to this, but the ACMA (Australian Communications and Media Authority) did not, as they regarded it as an unnecessary impediment to the rapid phasing out of Analog TV.

The Australian experience has been that few viewers require anything more complicated than the standard DVB-T EPG, and a significant percentage never even use that. Thus "Freeview-Certified" equipment has not sold particularly well here.

In New Zealand, if the user wants a fully operational EPG, they have no choice but to purchase a "Freeview Compliant" TV or Set Top Box. A limited Electronic Program Guide is available for non-compliant equipment, but it only guarantees the current and upcoming programs (so called "Now-Next" data). At one point the NZ broadcasters were supplying the next couple of hours of program information, but this practice has apparently now ceased.

(The XC4929 can however still be directly programmed with Channel, Date and Time, the same way you would do it with a VCR or DVD recorder).

Unlike Freeview-Compliant devices, the recordings are simply a direct transcription of the MPEG data stream, so there is no transcoding or other degradation of quality.

You can also plug the USB device into any other XC4929 and play back the recordings, much the same way you can interchange VHS tapes or recordable DVD discs.

(Unlike VHS, you can't usually do this with other brands of Set Top box, although it sometimes works).

In this product the component and HDMI outputs are not restricted or "crippled" in any way. (Component outputs are not regarded as suitable for output resolutions higher than 1080i or 720o. but these can still give an excellent picture).

# Frequently Asked Questions

#### Q. Do I need to format a USB drive before I use it?

A. It's not essential; the XC4929 makes its own recording folder and ignores any other files or folders on the drive. If it finds what looks like a media file it will try to play it, but you have to direct it to the file manually by treating it as a movie file. However, for best results we recommend you let the XC4929 reformat the drive, to de-fragment it.

#### Q. I have another brand of Set Top Box; can I play recordings from it on the XC4269?

A. It depends on the file format it uses. You will have to treat the recordings as movie files and direct the XC4269 to the folder they're in. Most likely you will see something like this: data001.ts

data002.ts

data003.ts

Those three files are segments of the recording. The Set Top Box that recorded them joins them seamlessly to give continuous playback. If you play them on the XC4929 you will occasionally get a brief "Please Wait" message at the end of each segment while it loads up the next file. Other than that they should play OK. If it doesn't "see" any files in the folder then you can be fairly sure it can't play them.

## Q: Why do I sometimes get the sound out of sync with the screen action, on HD playback?

**A.** This is normally caused by the USB drive being too slow. Cheap drives are generally slow drives. It can also be caused by other files fragmenting the drive. Try a re-format.

#### 4. Q. What is the largest USB drive I can use?

A. There doesn't seem to be any specific limitation, but large USB-powered Hard Discs may overload the USB socket's power supply. We have successfully run 2 terabyte drives without needing external power. However, your other problem is that

larger drives take a long time to get indexed, so there can be a lengthy delay in commencing record and playback. We don't recommend drive sizes larger than 1 terabyte for this reason.

# Q. Is there any way to record from local video sources (Cameras etc)?

A: No. The XC4929 simply records the incoming digital data stream directly onto the USB drive. It does not have the necessary Analog to Digital converter needed for line inputs. The only way you could do that would be to buy a digital TV modulator to convert the AV signal to a digital TV (DVB-T) signal. Such devices are available, but are quite expensive. We currently don't sell such a device.

#### Q: Will the XC4269 work overseas?

A. Generally, it will work in countries that formerly used the CCIR PAL system, but you have to find the appropriate "Country" setting. Former NTSC countries (US, Canada, Japan etc) use the ATSC digital system, and many Asian countries use DVBT-2. neither of which are compatible with this product.

- 7. Q. What is the power consumption of this product?
  - **A.** Typically about 4 Watts in operation, 0.3 Watts standby. If a USB drive is used it will increase the power consumption.
- Q. Can I change the recording quality to get more recording time, as I can with a DVD recorder?

**A.** No, the recording function simply records the incoming data stream "as is". Whatever the received data rate is, that is what it records.

# 9. Q. Is there any way to improve the range of the remote control?

**A.** Using fresh, good quality alkaline batteries will improve the range significantly.



