

Safety Information

WARNING

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT USE THIS PLUG WITH AN EXTENSION LEAD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.



The lightning flash with arrow-head symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within a triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with a dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) which produce heat.
9. Do not expose this appliance to dripping or splashing water and no object filled with liquids (such as a vase) should be placed on this appliance.
10. Do not interfere with the safety aspects of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
11. Protect the power cord from being walked on or pinched, particularly at plugs and the point where they exit from the apparatus.
12. Only use attachments/accessories specified by the manufacturer.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as if the power-supply cord or plug has been damaged, liquid has been spilled, objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

Additional Safety Instructions

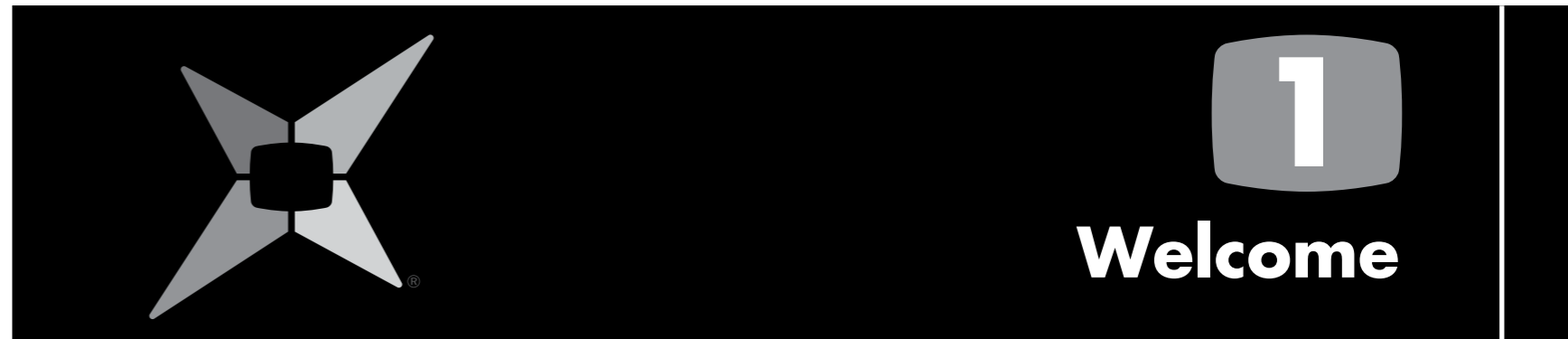
- To ensure maximum performance, please read this manual carefully. Keep it in a safe place for future reference
- Install this unit in a cool, dry, clean place - away from windows, heat sources, sources of excessive vibration, dust, moisture and cold. Avoid sources of humming (transformers, motors). To prevent fire or electrical shock, do not expose the unit to rain or water
- Do not force connection wires. When moving the unit, first disconnect the power plug and the wires connected to other equipment. Never pull on the wires themselves
- The openings on the unit cover assure proper ventilation of the unit. If these openings are obstructed, the temperature inside the unit will rise rapidly. Therefore, avoid placing objects against these openings, and install the unit in a well-ventilated area to prevent fire and damage
- Be sure to allow a space of at least 30 cm behind, 20 cm on both sides and 10 cm above the top panel of the unit to prevent fire and damage
- Digital signals generated by this unit may interfere with other equipment such as tuners, receivers or TVs. Move this unit further away from such equipment if interference is observed
- Do not attempt to clean the unit with chemical solvents; this might damage the finish. Use a clean, dry cloth
- Be sure to read **section 10**: Troubleshooting regarding common operating errors before concluding that the unit is faulty
- When planning not to use this unit for long periods of time, disconnect the AC power plug from the wall outlet

- To prevent lightning damage, disconnect the AC power plug when there is an electrical storm
- Grounding or polarization - Precautions should be taken so that the grounding or polarization of an appliance is not compromised
- This unit is not disconnected from the AC power source as long as it is connected to the wall outlet, even if this unit itself is turned off. This state is called the standby mode. In this mode, this unit is designed to consume a small amount of power

Table of Contents

Safety Information	3	5.3 The Info Banner	38
Additional Safety Instructions	4	5.4 Electronic Programme Guide (EPG)	39
1. Welcome	7	5.5 Aspect Ratio Correction	41
1.1 Package Contents	8	6. Recording and Playback	43
1.2 Basic Definitions	9	6.1 Basic Magic TV™ Recording Terms	44
2. Tour of Magic TV™	11	6.2 Instant Recording	44
2.1 Remote Control	12	6.3 Recording from the EPG	45
2.2 Rear Panel	16	6.4 Timer Recording	46
2.3 Front Panel Display	18	6.5 Viewing and Amending Scheduled Recordings Using the To Do List	46
3. Cabling	19	6.6 Recording Priorities and Conflicts	47
3.1 Power and Aerial/Antenna Connections	20	6.7 Browsing Recorded Programmes	48
3.2 Direct Connection to a TV	21	6.8 Managing Recorded Programmes	51
3.3 Connection via an AV Receiver	23	6.9 Playback of Recorded Programmes	52
3.4 Other Setup Options	25	6.10 TimeShifting, Pausing Live TV and Instant Rewind	54
3.5 Attaching External Hard Disk Drives	26	6.11 Editing Recordings	56
4. Guided Setup	29	6.12 Parental Control	57
4.1 Getting a Picture	30	7. Magic TV™ Gadgets	59
4.2 Welcome to Magic TV™ Guided Setup	30	7.1 News	60
5. Viewing Live TV	35	7.2 Weather	60
5.1 Simple Operations	36	7.3 HD Camcorder Movies	61
5.2 Channel List	37		

8. Magic TV™ Settings	63
8.1 Info Format	64
8.2 Video	65
8.3 Audio	66
8.4 Recording	67
8.5 Playback Setup	69
8.6 Channel Setup	69
8.7 Guided Setup	70
8.8 Parental Control	71
8.9 System	71
9. System Operations	73
9.1 Network Setup	74
9.2 Firmware Upgrade	75
10. Troubleshooting	77
10.1 Common Problems	78
10.2 Setting the Output Format from the Front Panel	80
11. Support & Warranty	83



1.1 Package Contents	8
1.2 Basic Definitions	9

Thank you for purchasing Magic TV™. An exciting new world of digital and high definition television is now at your fingertips.

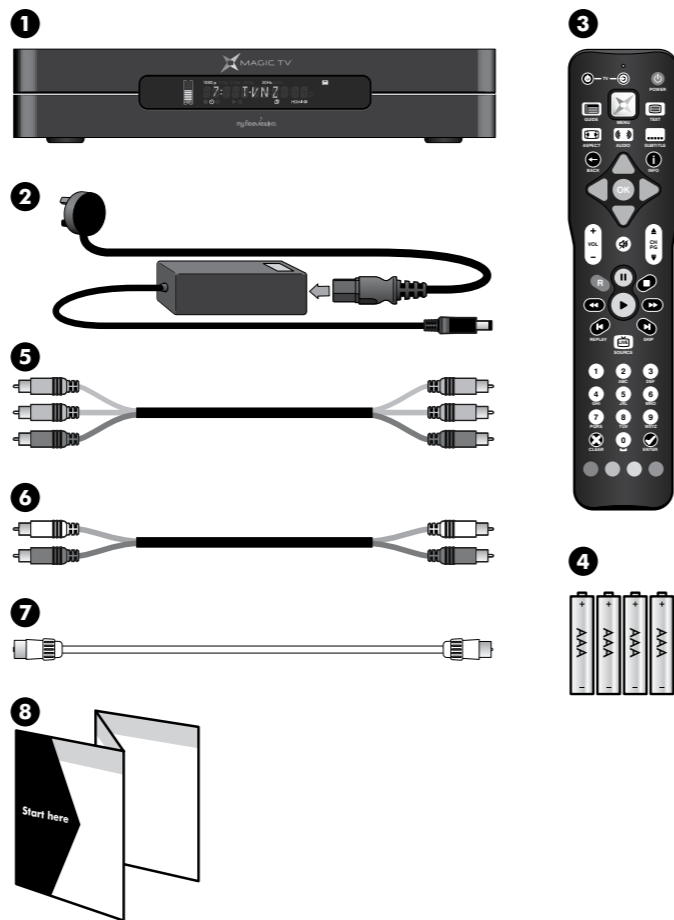
This Owner's Guide helps you learn about the correct operation and features of Magic TV™. Please read it carefully.

1.1 Package Contents

Before starting, please check that the following items are included in your package:

- 1 Magic TV™ HDTV Receiver or Personal Video Recorder
- 2 100-240V AC auto-ranging power adapter
- 3 Magic TV™ Remote Control
- 4 4x AAA batteries for remote control
- 5 Component video cable
- 6 Stereo audio cable
- 7 Aerial/antenna extension cable
- 8 Quickstart Guide
- 9 This Owner's Guide

Please contact your Magic TV™ retailer immediately if any of the above items are missing.



1.2 Basic Definitions

If you are new to Digital Television Broadcasts there are a few terms you may find useful:

High Definition (HDTV). A picture on the TV screen is formed by a large number of small dots called pixels. The higher the number of pixels, the better the picture quality will be. The pictures of conventional analogue TV broadcasting provide a maximum of 720 (horizontal) x 576 (vertical) pixels. Typically HDTV broadcasts contain at least 1024 horizontal pixels and 720 vertical pixels, providing superior picture quality over analogue TV broadcasts. The HDMI output of Magic TV™ is capable of carrying an HDTV signal.

Standard Definition (SDTV). A picture with only 576 or 480 vertical pixels is referred to as Standard Definition. The S-Video and Composite video outputs of Magic TV™ are Standard Definition only.

Digital Terrestrial Television (DTT). Digital TV is a far more efficient and flexible transmission system than the current analogue system. It allows broadcasters to offer viewers a range of new and different services – all through your existing aerial/antenna.

The potential benefits include:

- 'Ghost free' reception
- Widescreen 16:9 pictures
- Standard Definition television (SDTV) and HDTV programmes
- High quality audio and surround sound
- Multi-channel programming
- Closed captioning of programmes for the hearing impaired
- Electronic Programme Guides (EPGs)
- On-screen programme guide channel with today's programme information
- Multi-camera views and enhancements during selected programmes

Interactive Services. Digital TV has the potential to include interactive programmes, alternative camera angles, selected Internet services, home shopping, computer games and more. Some services may require an Internet connection (see **section 9.1**). When available, you can access these features by pressing **Red Green Yellow** and following the on-screen instructions.

HDMI (High Definition Multimedia Interface). HDMI is an uncompressed, all-digital video and audio connection for electronic devices that is capable of transmitting High Definition signals. These signals are usually encrypted using HDCP to prevent unauthorized duplication of copyrighted material. HDMI is the highest quality video output from Magic TV™.

Live TV. If you're watching a programme while it's being broadcast, you're watching Live TV. Pressing the **TV** button on your remote control will immediately jump to Live TV from any menu.

Video Output Format. DTT broadcasts can come in a variety of shapes and sizes. Magic TV™ can cleanly scale the broadcasts to suit your TV. See **section 8.2** for further information.

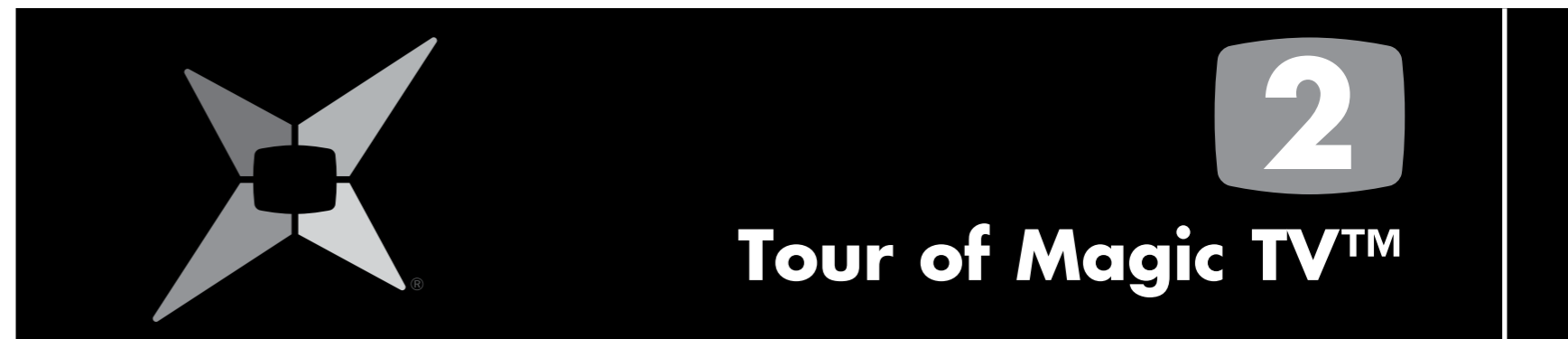
Multi-channel audio. A surround sound system supporting six discrete audio channels. These are Left, Center, Right, Rear Left, Rear Right, and Subwoofer. DTT broadcasters may choose to broadcast some channels/programmes in multi-channel audio. Use a digital audio connection (optical, coaxial or HDMI) to an AV receiver in order to hear all six channels.

Aspect Ratio. A TV's aspect ratio is the comparison of the screen's width to its height. This is typically 4:3 for analogue and standard definition broadcasts and 16:9 for HD broadcasts.

Aspect Ratio Correction. This is required when the shape of the broadcast picture and the TV don't match. The Aspect button on your remote control lets you quickly change the shape of the broadcast picture. See **section 5.5** for further information.

1 Welcome

Firmware Upgrade. From time to time Magic TV™ will receive updates for the software that controls it. Normally these updates will occur automatically Over-The-Air (OTA). Firmware update can also be achieved via USB and over the internet. These updates may provide features not covered in this guide. Details of new features will be available at www.magictv.com → Support. See **section 9.2**.



2.1 Remote Control	12
2.2 Rear Panel	16
2.3 Front Panel Display	18

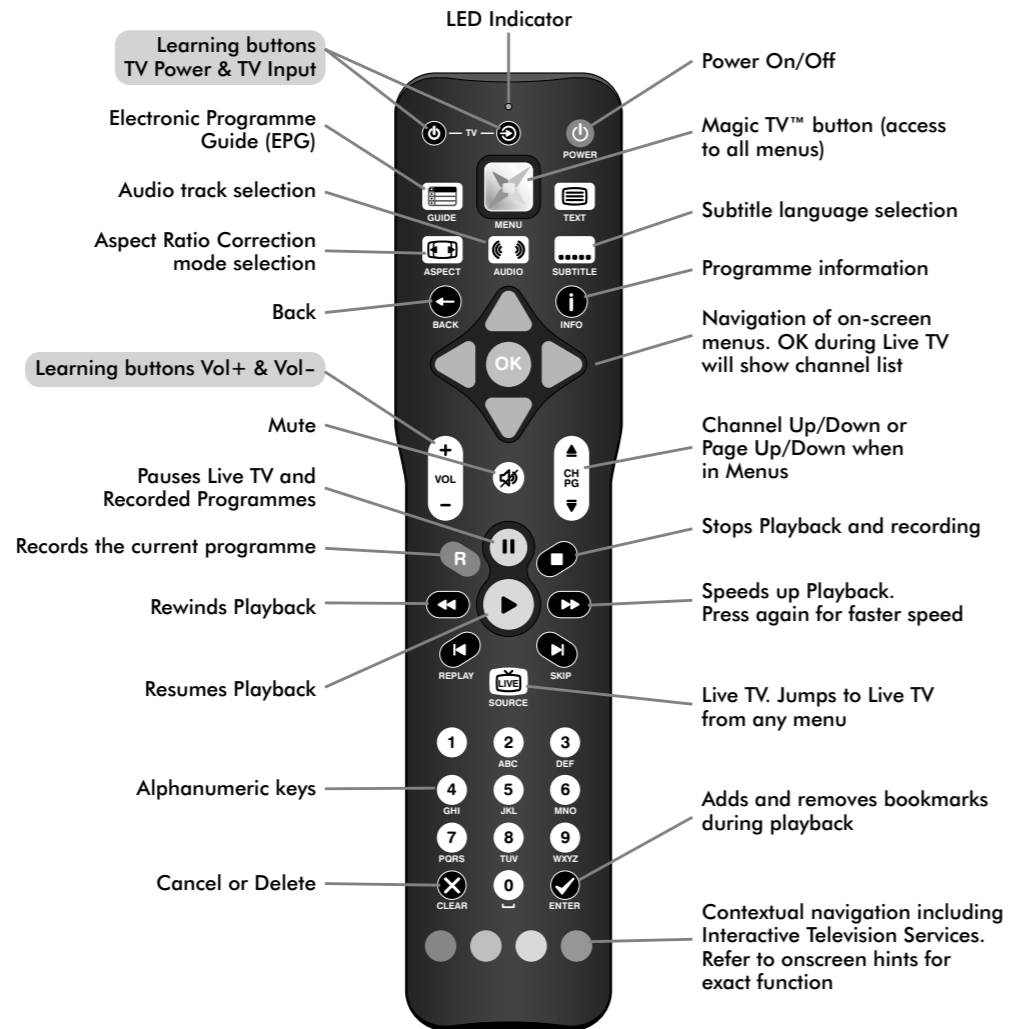
2.1 Remote Control

The Magic TV™ Remote Control is used to control every aspect of Magic TV™. In order to make using the remote as easy as possible, 4 of the buttons can be programmed with commands for your TV.

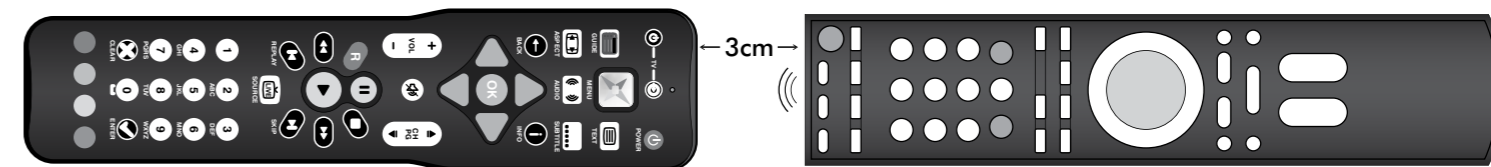
Inserting the Batteries

- Push in the ridged area of the battery cover and slide the cover down
- Insert four AAA batteries (supplied) by matching the + and - marks on the batteries to the + and - marks in the battery compartment. Note that two of the batteries will slide under the casing slightly
- Replace the battery door

If the batteries are working and are inserted correctly, the LED Indicator will flash when any button is pressed.



Programming the Remote Control



Step 1. Place the Magic TV™ Remote Control and the TV remote control on a flat surface, 3cm apart and with the emitters facing each other.

Step 2. Press and hold both the and buttons for 2 seconds until the LED Indicator flashes slowly.

The Magic TV™ Remote Control is now in “learning mode”.

For preloaded TV remote control commands

Press either:

- | | |
|-------------|---------------|
| for Samsung | for Hitachi |
| for Sharp | for Panasonic |
| for Sony | for LG |
| for Philips | for Toshiba |
| for Pioneer | for JVC |

Then go to step 6.

For other TVs

Step 3. Press the button you want programmed (for example). The LED Indicator will light.

Step 4. Press and hold the Power button on your TV remote control until the LED Indicator turns off on the Magic TV™ remote.

Step 5. After 2 seconds the LED Indicator will flash slowly again; please repeat steps 3 and 4 for each button.

Step 6. When finished, press the button to exit “learning mode”.

To reset the buttons to factory defaults, press and hold both the and the button for 2 seconds until the LED Indicator flashes slowly, then press the button.

Controlling Multiple Magic TV™ Units

Up to three Magic TV™ units can be used in the same room without remote control conflicts by using Xbox 360 and Windows MCE remote controls.

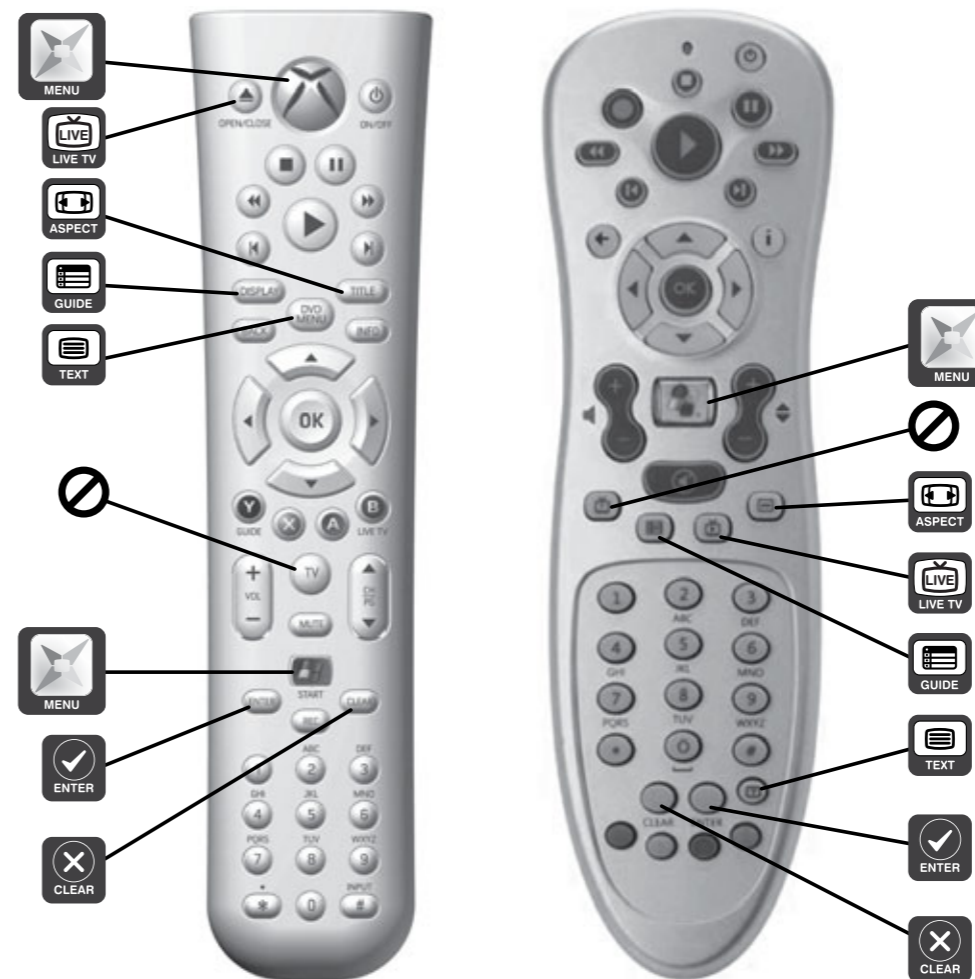
Each Magic TV™ unit needs to be told which remote to listen to in Settings → System → Advanced Settings → Remote Control Selection.



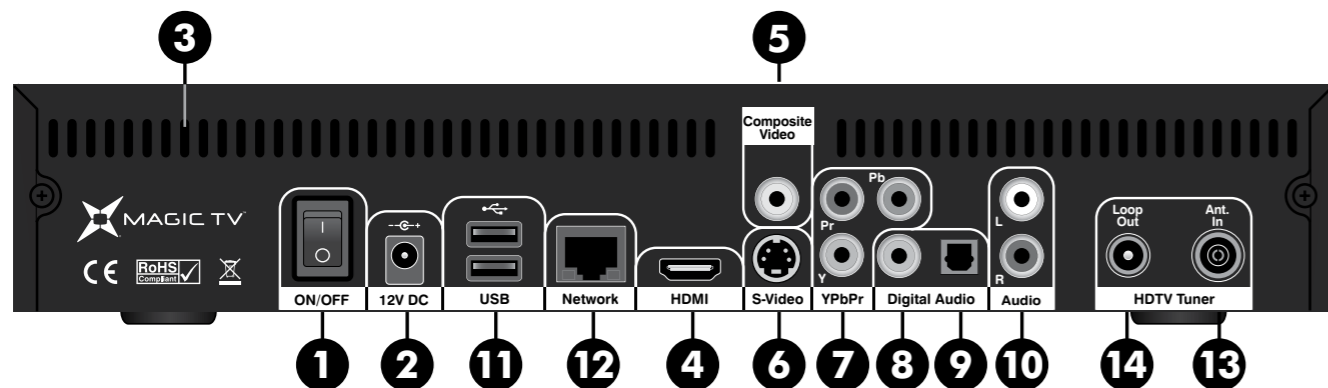
For example, if you wish to use two Magic TV™ units in the same room, then each unit will have to have a different option 'Enabled' and all other options disabled.

Most of the Xbox and MCE remote control buttons match those on the Magic TV™ remote.

This diagram shows the less obvious corresponding buttons.

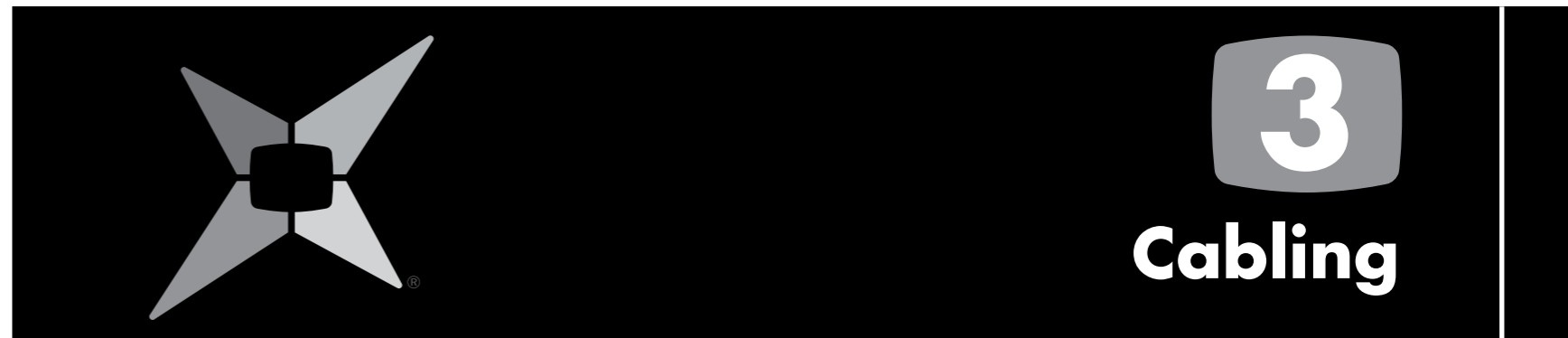
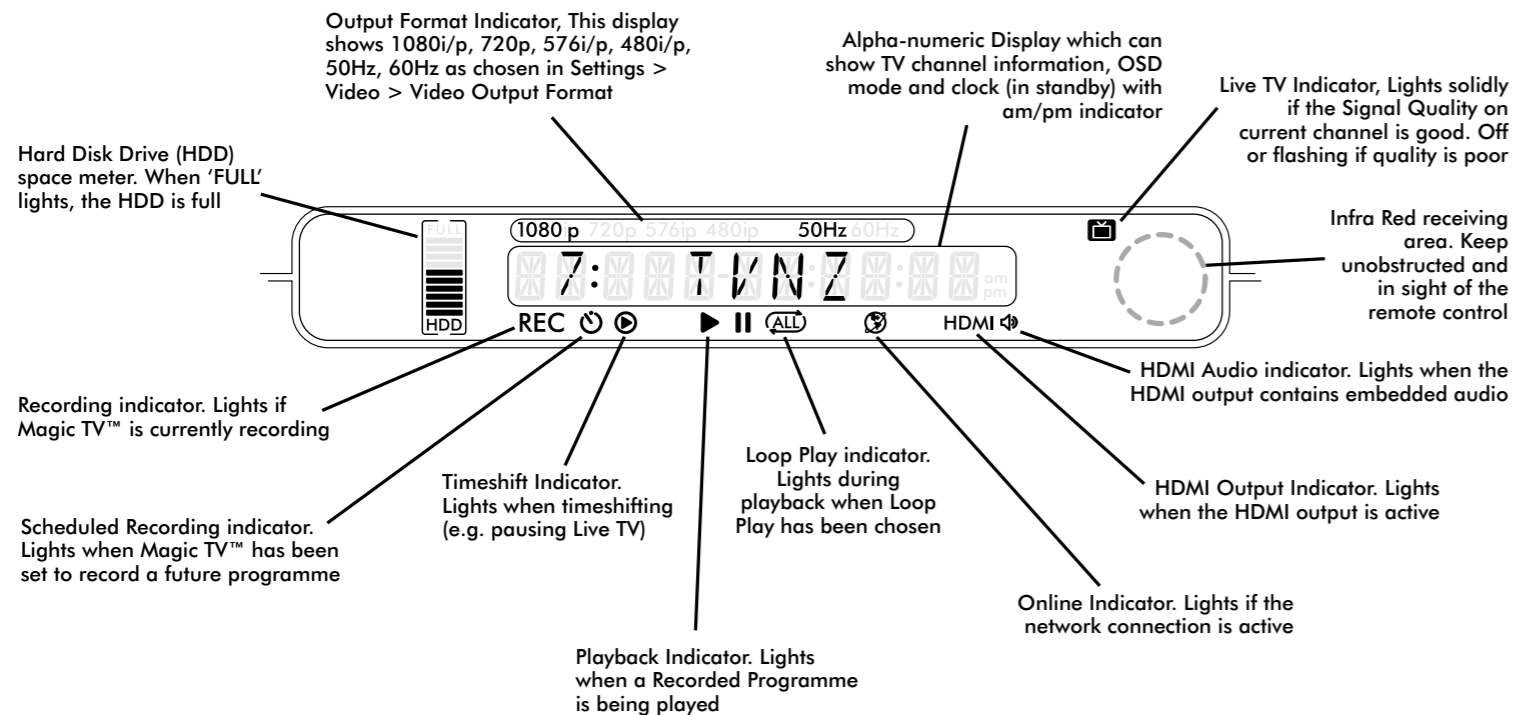


2.2 Rear Panel



- 1 Power On/Off Switch.** Turn Magic TV™ on using this switch. Magic TV™ consumes very little power on Standby. It is therefore unnecessary to turn Magic TV™ off with this switch during normal operation.
- 2 DC Power In.** The included 100-240V AC auto-ranging power adapter should be attached here. Please see “Safety Information” before proceeding.
- 3 Ventilation holes.** It is important that all the ventilation holes in Magic TV™ are kept clear, in order for hot air to escape.
- 4 HDMI.** (Connects to a TV, AV receiver or home theatre system.) HDMI provides a pure digital connection for high definition video and audio all in one cable.
- 5 Composite Video.** (Connects to a TV, AV receiver, VCR, DVD recorder or home theatre system.) Composite is the most basic of video connections and is Standard Definition only.
- 6 S-Video.** (Connects to a TV, AV receiver, VCR, DVD recorder or home theatre system.) S-Video offers a higher quality signal than Composite for compatible equipment but is Standard Definition only.
- 7 Component Video (YPbPr).** (Connects to a TV, AV receiver or home theatre system.) Component provides an excellent quality HD and SD analogue video connection.
- 8 Coaxial Digital Audio.** (Connects to an AV receiver or home cinema system.) If you are not using the audio over HDMI, then this connection will provide multi-channel digital audio to your surround sound system.
- 9 Optical Digital Audio.** (Connects to an AV receiver or home cinema system.) If you are not using the audio over HDMI, then this connection will provide multi-channel digital audio to your surround sound system.
- 10 Analogue Stereo Audio.** (Connects to a TV, VCR or DVD recorder.) Connect the left and right audio cables (included) for analogue stereo sound.
- 11 USB x2.** USB devices can be attached and used for expanding storage space (see **section 3.5**), importing and exporting recordings (see **section 6.8**) and also for Magic TV™ firmware upgrades (see **section 9.2**).
- 12 Ethernet Network.** Use this connection to link Magic TV™ to your home network. This may be needed for some of the Interactive Services.
- 13 Antenna In.** A coaxial RF cable needs to be connected to this input to allow Magic TV™ to receive the new DTT signals.
- 14 Loop Out (Antenna Out).** Connect the included Aerial/Antenna extension cable from this output to another device if you wish to retain analogue TV reception (on your TV for example).

2.3 Front Panel Display

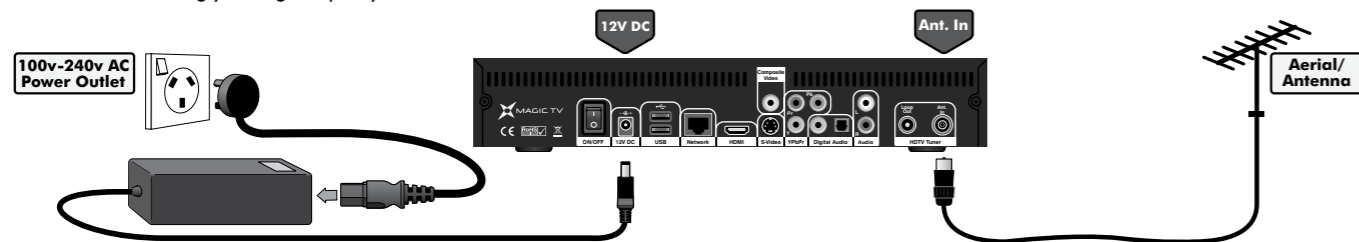


3.1 Power and Aerial/Antenna Connections	20
3.2 Direct Connection to a TV	21
3.3 Connection via an AV Receiver	23
3.4 Other Setup Options	25
3.5 Attaching External Hard Disk Drives	26

3.1 Power and Aerial/Antenna Connections

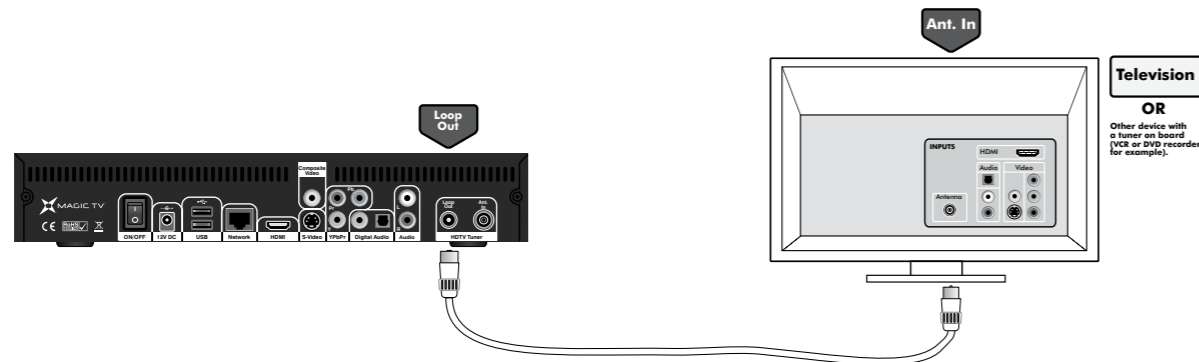
Power + Antenna

Insert the power cord into a suitable power outlet and the 12v DC plug into Magic TV™. Leave the power outlet switched off or unplugged until all the wiring work has been completed. Then connect Magic TV™ to your antenna using the **Ant. In** connector. A roof-mounted antenna is recommended for best reception. For information on monitoring your signal quality, see **section 8.6**.



Optional: Antenna loopthrough

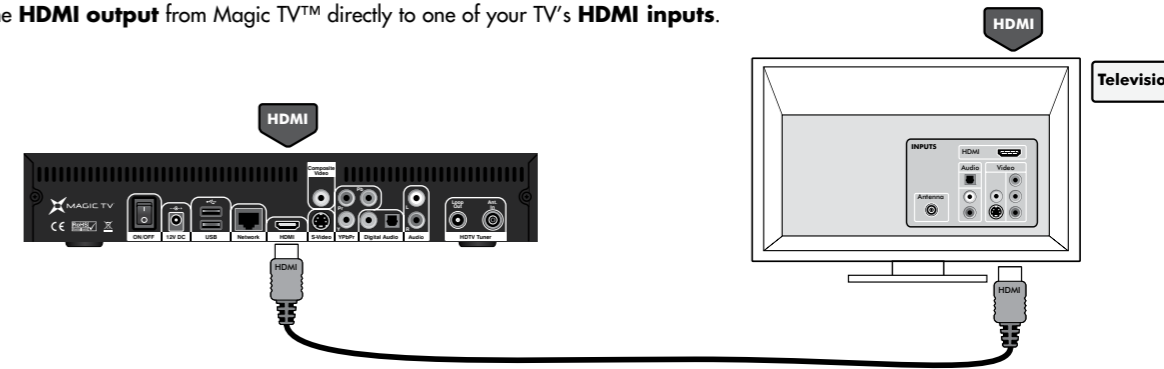
If you want to retain analogue TV reception on your television or on any other devices with a TV tuner (VCR or DVD recorder for example), connect the included extension cable to the **Loop Out** connector of Magic TV™ and to the **Antenna In** on your other device. Many devices can form part of the antenna loop, by chaining together the **Antenna Outs** to **Antenna Ins** on each device. We recommend using Magic TV™ as the first component on the chain and your television as the last.



3.2 Direct Connection to a TV

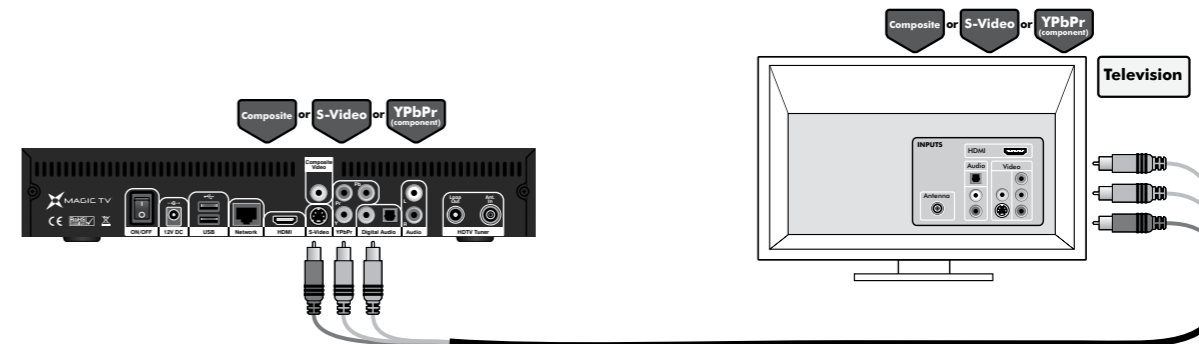
Video + Audio: For HDMI equipped HDTVs

HDMI is the highest quality video output from Magic TV™. It can also carry multi-channel audio, which conveniently reduces cabling. Simply connect the **HDMI output** from Magic TV™ directly to one of your TV's **HDMI inputs**.



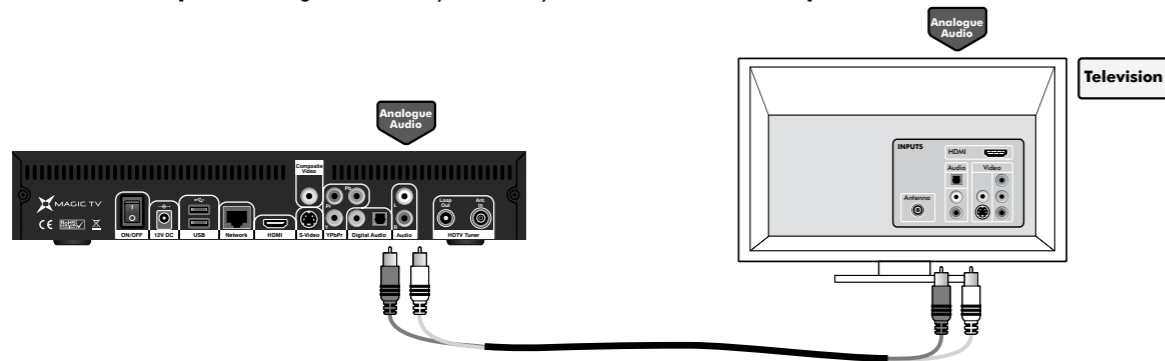
Video: For HDTVs without HDMI

In order to get High Definition video from Magic TV™ without HDMI, Component (YPbPr) must be used. Simply connect the **Component output** from Magic TV™ directly to one of your TV's **Component inputs**. Component doesn't carry audio, so a separate connection is needed. See below.



Audio: For HDTVs without HDMI

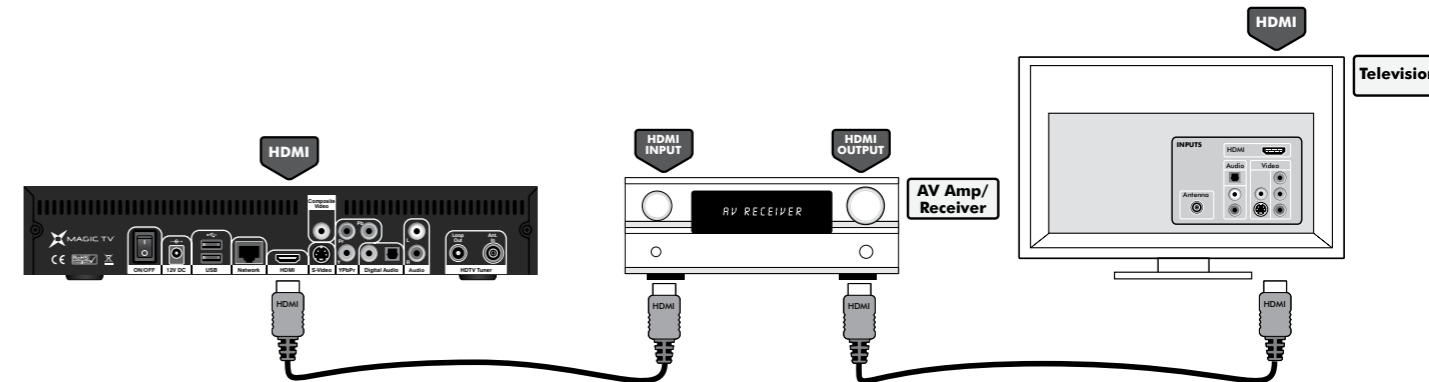
Not many televisions can accept a digital audio signal, in which case you may be limited to using the Stereo audio outputs of Magic TV™. Simply connect the **Stereo Audio output** from Magic TV™ directly to one of your TV's **Stereo Audio inputs**.



3.3 Connection Via an AV Receiver

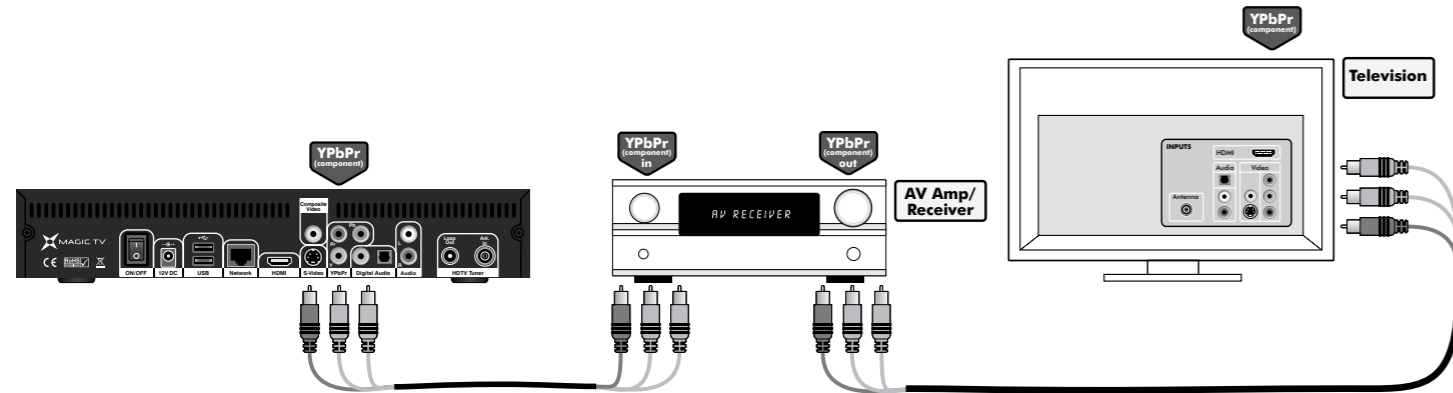
Video + Audio: For HDMI equipped receivers and HDTVs

HDMI is the highest quality output from Magic TV™. It can also carry multi-channel audio, which conveniently reduces cabling. Simply connect the **HDMI output** from Magic TV™ to one of your receiver's **HDMI inputs** and connect one of your receiver's **HDMI outputs** to one of your TV's **HDMI inputs**.



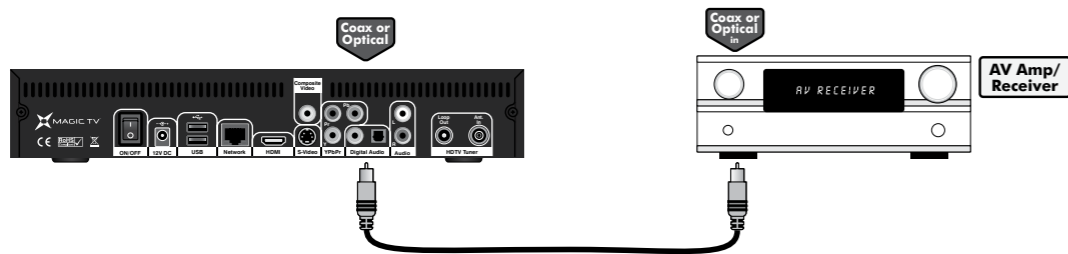
Video: For receivers or HDTVs without HDMI

If your receiver or television doesn't have HDMI, you can still get a very high quality High Definition image using Component (YPbPr). Simply connect the **YPbPr output** from Magic TV™ to one of your receiver's **Component or YPbPr inputs** and connect one of your receiver's **Component or YPbPr outputs** to one of your TV's **Component or YPbPr inputs**. Component doesn't carry audio, so a separate connection is needed. See below.



Audio: For receivers or HDTVs without HDMI

If your receiver doesn't have HDMI, you need to make a separate audio connection. Magic TV™ has both Coaxial and Optical digital audio outputs. Use whichever is more convenient. Simply connect one of the **Digital Audio outputs** from Magic TV™ to one of your receiver's **Digital Audio inputs**.



3.4 Other Setup Options

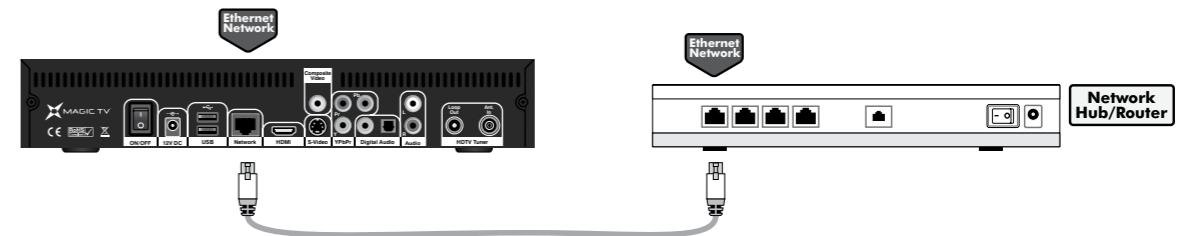
Network connection for Magic TV™ Gadgets and Interactive Services

An internet connection is required to unlock the full potential of Magic TV™. Magic TV™ Gadgets can access News and Weather bulletins from popular and trusted sources (See **section 7**) and some features present in Interactive Services broadcasts may require an internet connection (competition entries, voting, subscribing and purchasing, for example).

You can connect either wired or wirelessly.

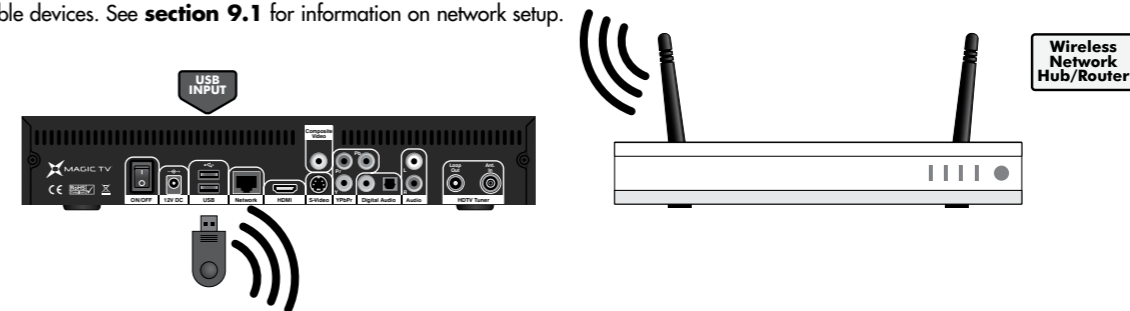
Wired:

You will need to have an existing Ethernet Network present in your home. Simply use a CAT-5 cable to connect the **Network port** of Magic TV™ to your network router or hub. See **section 9.1** for information on network setup.



Wireless:

A Magic TV™ USB Wi-Fi Adapter can be attached to Magic TV™ in order to connect with your Wireless Network Hub/Router. See www.magictv.com for a full list of compatible devices. See **section 9.1** for information on network setup.



3.5 Attaching External Hard Disk Drives

External HDDs can be used to seamlessly expand storage space or to export recordings for other Magic TV™ users to view.

🔗 **Recordings made on a New Zealand Magic TV™ MTV3700TD unit are encrypted and can only play on the unit which originally made the recordings.**

You can choose a preferred HDD for recording in Settings → Recording Setup → Preferred Recording HDD and Magic TV™ will use that when possible. If you select 'Auto', Magic TV™ will record on the disk with the most available space at the time of recording each programme.

You can Copy and Move recordings from one disk to another and also filter the Recording Programme list to an individual HDD by pressing the 'Blue' button whilst in the left hand panel.

When selecting HDDs, the list will be displayed as follows:



Your preferred HDD is illustrated with a ✓

🔗 *When a Preferred Recording HDD is set and it runs out of space, Magic TV™ will record to the connected HDD with the most available space. If two programmes are on the same channel and recording times overlap (perhaps because Magic TV™ is set to start recording before the EPG time), both recordings will always be stored on the same HDD.*

Formatting a disk for use with Magic TV™

The HDD will need to be formatted either FAT32 or EXT2. The EXT2 format is highly recommended. Simply attach the drive and use the Magic TV™ menus to choose Settings → Recording → Advanced Options → Format External Harddisk. This process can take a long time for large disks. Note that all data on the disk will be lost and that the file system will be EXT2, which may not be readable on a PC without third party software.

If you prefer to format your drive using Windows, there are several third party applications available that will format to EXT2.

If the attached HDD supports the "Auto Power On/Off" function, then Magic TV™ will be able to tell the unit to power up and down when needed. Otherwise the HDD may be running constantly.

Congratulations!

Magic TV™ is now wired up and ready to go.

- Switch on your system at the mains
- Switch on the devices (Magic TV™ has a power switch on the rear panel)
- Select the correct input on your TV

You will now see the Magic TV™ Guided Setup welcome screen.

- 🔗 **When connecting or disconnecting an HDD, ensure that Magic TV™ is in standby**
- If you are using FAT32 and you experience any problems, please try reformatting to EXT2 first
- 2.5" HDDs that require power via USB may not function correctly. The problem may be solved by using a 1USB to 2USB adapter to supply the drive with power from both USB ports, but there may still be instability
- USB thumbdisks, memory cards and microdrives may not have fast enough read and write times to function correctly with Magic TV™
- External Hard Disk Drives can now be formatted up to 2TB (2000GB). Please note that 'Check and Repair HDD' may not work with disks of this size

Summary of recommendations for best reliability:

- Use a 3.5" HDD with its own separate power supply
- Format the drive with the EXT2 file system. Magic TV™ can format the disk for you or you can format the disk using third party software on a PC
- Use a drive with an "Auto Power On/Off" function to allow Magic TV™ to control the power consumption of the HDD



Guided Setup

4.1 Getting a Picture	30
4.2 Welcome to Magic TV™ Guided Setup	30



4.1 Getting a Picture

- Turn Magic TV™ on
- Turn your TV on
- Change input on your TV to the one used by Magic TV™
- If this is the first time Magic TV™ has been switched on, the Guided Setup will be shown
- The default video output is 1080i (50Hz). If you can't see the Welcome Screen, please check that your TV supports this format. If not, please read **section 10.2** to change the Video Output Format using the front panel display



4.2 Welcome to Magic TV™ Guided Setup

Do you want to continue?

Choose **yes** to be taken through Magic TV™ setup.



Step 1:

Please select the best Video Output Format for your TV

Choose the most appropriate option from the list.

To ensure that you can always see a picture, Magic TV™ will automatically revert back to the previous format after 15 seconds if you haven't responded to the on-screen prompt.

1080i (50Hz) *	The default setting – accepted by all HDTVs
1080p (50Hz)	A good choice if your TV accepts a 1080p HDMI input
720p (50Hz)	A good choice if your 'HD Ready' TV has 720 or 768 lines of resolution
576i (50Hz)	Use only if your TV is Standard Definition
576p (50Hz)	Use these only under special circumstances – see section 8.2
1080i (60Hz)	
1080p (60Hz)	
720p (60Hz)	
480i (60Hz)	
480p (60Hz)	

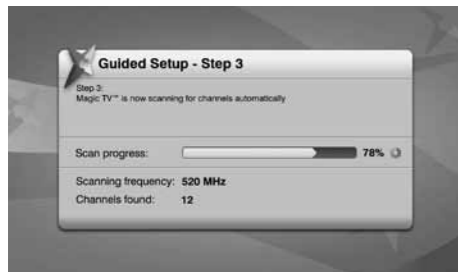
Step 2:

Please select the Aspect Ratio of your TV

16:9 (widescreen) *	Choose this if your TV is widescreen (most modern Plasma and LCD TVs)
4:3	Choose this if you have a traditionally shaped TV
16:10 (computer monitors)	Choose this if you are using a widescreen computer monitor as your display



4 Guided Setup



Step 3: Scan for channels automatically

This step will scan through all the available frequencies looking for channels. Once complete, Magic TV™ will display a list of the channels found.

Guided setup is now complete

You can now view Live TV, view the Electronic Programme Guide or take a look at some of the other setup options.

If you wish to return to 'Guided Setup' at any time, it can be found under Settings → Guided Setup.



5.1 Simple Operations	36
5.2 Channel List	37
5.3 The Info Banner	38
5.4 The Electronic Programme Guide (EPG)	39
5.5 Aspect Ratio Correction	41

5.1 Simple Operations

Changing Channels

You can change channels in four different ways:



During Live TV, change channel Up/Down quickly. In menus scroll Page Up/Down.



Enter the channel number directly if known.



Use the Electronic Programme Guide (EPG) to browse and select a channel.



During Live TV press OK to show a Channel List. Use Up/Down arrows to select a channel and OK to confirm.

Interactive Services

During some programmes, Interactive Services will be available.



Navigate the Interactive screens and menus using the arrow/OK buttons and also the coloured buttons according to onscreen instructions.

Remote Control Shortcuts



If you want to record during Live TV, press R to see a menu of options.



Pauses Live TV and starts recording the current programme so that you can catch up later (see **section 6.10**).



Jumps to the Recorded Programmes List.



Cycles through the available Audio languages.



Cycles through the available Subtitle languages.

Magic TV™ Menu

Press at any time to access the Main Menu. From here you can access all of the Magic TV™ features and options.



The Info Banner - current program information

The info banner will show every time the channel is changed; however you can also view it while you're watching a programme by pressing .

Programme name

Programme start and finish times

Channel number and name

Programme description

Title of the next programme on on this channel

Current time

Press these remote control buttons for extra functions during Live TV

Icons to show information about the current programme

- HD** Programme is High Definition
- Contains Dolby Surround Sound
- Multiple audio tracks are available
- Subtitles are available
- Programme is being recorded
- Playback of a Recorded Programme
- Currently TimeShifting (see section 6.10)

5.2 The Freeview Guide

The Freeview Guide enables you to view 8 days of programme listings on all Freeview channels. It also contains a Now/Next screen that shows what is on now and next for each channel. When new channels are added to the Freeview service they will automatically appear on the Freeview Guide.

EPG Listings

When you press the button on your remote, you'll see 'loading...'. This tells you that the Freeview Guide is being downloaded to your digital receiver. You will then see a screen like the one below.

Press yellow on your remote to go to the previous day's listings or blue to go to the next day's listings for the current channel. You can loop through 8 days this way.

Press on a highlighted programme and, if it is currently on, you will be tuned in to that highlighted channel and programme.

Press on your remote to exit the Freeview Guide and return to the programme you were watching.

Channel logo and date for the listings shown below

Programme times and names.

- Scroll through the programmes
- Scroll through channels

Press the channel number button (e.g. 3 for TV3) to move directly to that channel's listings page

Button hints. Press these buttons for extra features

A mini-screen showing the programme you were previously watching with channel name and current time

Synopsis for the currently highlighted programme

Parental Rating and Captioning information

Channel number of current listings

What's on Now/Next

Press when viewing the EPG Listings to display the 'What's On Now/Next' page.

Press on your remote to watch the channel and programme you've highlighted.

Press on your remote to exit the EPG and return to the programme you were watching.

Press again to return to the current day's listings page for the highlighted channel.

What's on Now/Next. 5:23pm Tue 28th July

Channel numbers and name

- Scroll through the programmes

Press the channel number button (e.g. 3 for TV3) to jump that channel to the top

Programmes currently showing and up next including start times

Button hints. Press these buttons for extra features


1 ONE	Now 5.00pm	Better Homes and Gardens
	Next 6.00pm	One News
2 TV 2	Now 5.00pm	Neighbours
	Next 6.00pm	Family Feud
3 TV 3	Now 5.00pm	The Simpsons
	Next 6.00pm	Home and Away
4 C4	Now 5.00pm	Vodafone Select Live
	Next 6.00pm	King of the Hill
5 Maori Television	Now 5.00pm	Inuk
	Next 6.00pm	Toi Whakaari











Chnl OK Watch TV or EXIT EPG/Guide Listings freeview

5.5 Aspect Ratio Correction

Digital HD channels are always broadcast in 16:9 widescreen format. If the programme is 4:3, then black bars will be included in the broadcasted image on the sides of the programme.

Aspect Ratio Correction can be used to remove these black bars and stretch the image in different ways to achieve the desired result.

Use the  button of the Magic TV™ Remote Control to cycle through the available modes.

Original broadcast (and also how the image will look if 'Full' is selected)	Aspect Ratio Correction mode used	Result on 16:9 TV
	Full	 The broadcast fills the screen
	WideZoom	 Magic TV™ removes the sides and non-linearly stretches the image keeping the centre of the screen undistorted
	Zoom 1	 Magic TV™ zooms in on the centre of the screen - retaining the original shape
	Zoom 2	 Magic TV™ removes the sides and evenly stretches the image to fill the screen
	Letterbox / Pillarbox	 If a programme appears stretched in 'Full' mode, this mode could correct it by adding black bars to the sides or top and bottom

6 Recording and Playback

6.1 Basic Magic TV™ Recording Terms	44	6.8 Managing Recorded Programmes	51
6.2 Instant Recording	44	6.9 Playback of Recorded Programmes	52
6.3 Recording from the EPG	45	6.10 TimeShifting, Pausing Live TV and Instant Rewind	54
6.4 Timer Recording	46	6.11 Editing Recordings	56
6.5 Viewing and amending Scheduled Recordings using the To Do List	46	6.12 Parental Control	57
6.6 Recording Priorities and Conflicts	47		
6.7 Browsing Recorded Programmes	48		

There are many easy ways to record programmes with Magic TV™. You can record the programme you're watching instantly, choose a programme to record from the EPG, set a traditional timer or record at the same time every day.

6.1 Basic Magic TV™ Recording Terms

Instant Recording. Recording the programme currently being viewed.

Scheduled Recording. Recording a future programme.

Series Recordings. Recordings which have been made with the "Record the whole series" option (see **section 6.3**). These are shown on the EPG as an [S] instead of an [R] for single recordings."

Timer Recording. Manually setting a time for Magic TV™ to record.

To Do List. This is where you can view and amend Scheduled Recording tasks.

TimeShifting. You are in TimeShifting mode when you are watching a delayed version of Live TV. For example when you pause Live TV because of an interruption, you are now in TimeShifting Mode (see **section 6.10**).

Keep. This term refers to how long Recorded Programmes will be kept before being deleted.


Trash. Once Recorded Programmes are deleted, they are placed in Trash. When a programme is in Trash, it will no longer appear in any other list, until it is either restored, overwritten or permanently deleted (see **section 6.8**).

Conflict. When 2 or more scheduled recordings overlap.

Disk Space. Magic TV™ uses a Hard Disk Drive to store Recorded Programmes. When this disk is full, no more recordings can be made. See **section 6.8** on how to manage recordings so that you can free up disk space and keep important recordings.


Remaining Recording Time: This is displayed on many screens and is labelled in hours for HD (High Definition) and SD (Standard Definition) programmes. All programmes broadcast in HD will be recorded in HD.

6.2 Instant Recording

Recording the programme you're watching is easy - just press  on your remote control. Magic TV™ will start recording the current programme instantly.

The current programme now behaves like a Recorded Programme and you can control it as shown in **section 6.9**.

6.3 Recording from the EPG



The easiest way to record future programmes is to find them on the Freeview Guide. Simply highlight your chosen programme and press  on your remote control.

Series recordings

If the programme is part of a series you will be presented with the option to either record this single episode or record the whole series.



This useful service allows Magic TV™ to record and store every episode of a series without you having to remember.

Press yellow  to record the whole series or blue  to record just this episode.

Series recordings will be shown in the Magic TV™ menus with a [S] before the programme name.

One-off recordings have [R] before their name.

6.4 Timer Recording

By navigating to Main Menu → Recording → Timer Recording, you can set Magic TV™ to record a particular channel at a particular time.

You can select the Channel, Date, Time and Length of recording.



6.5 Viewing and Amending Scheduled Recordings Using the To Do List.

The To Do List can be found under Main Menu → Recording → To Do List. This list allows you to browse and amend all future Scheduled Recordings.

Once a task has been completed, it will be removed from this list.



[R] before the programme name means that only one episode has been recorded.

[S] means that this recording is part of a Series Recording (see **section 6.3**)

If you highlight a Scheduled Recording and press you will be presented with the following options:

Cancel this Scheduled Recording	
Extend/Delay Start Time	You can set the Start Time earlier or later than the EPG start time by none, 1, 2, 3, 5, 10 or 15 minutes. <i>Note: This value will be used instead of the global value set in Main Menu → Settings → Recording → Extend/Delay Start Time for this particular programme</i>
Extend Stop Time	You can set the Stop Time later than the EPG stop time by none, 1, 2, 3, 5, 10, 15 or 30 minutes, or 1, 2 or 3 hours. <i>Note: This value will be used instead of the global value set in Main Menu → Settings → Recording → Extend Stop Time for this particular programme</i>
Move recorded programme to folder	Once the programme has been recorded it will be moved to the selected folder
Re-arrange Recording Priority	See the next section
Exit	

Tasks can also be cancelled by pressing the button on your remote control and answering 'yes' to the confirmation.

6.6 Recording Priorities and Conflicts

Magic TV™ will constantly check to see whether any new recordings or changes to a Scheduled Recording cause an overlap.

Dual Tuners reduce the likelihood of conflicts by allowing programmes to be viewed and recorded on 2 different frequencies simultaneously.

If Magic TV™ detects an overlap or conflict when making or amending a Scheduled Recording, a message will appear asking you to set the priority for that programme.



Higher	This programme will be recorded instead of lower priority Scheduled Recordings
Lower	If a higher priority scheduled recording conflicts with this one, the other will be recorded
Cancel	This will cancel the new recording/adjustment

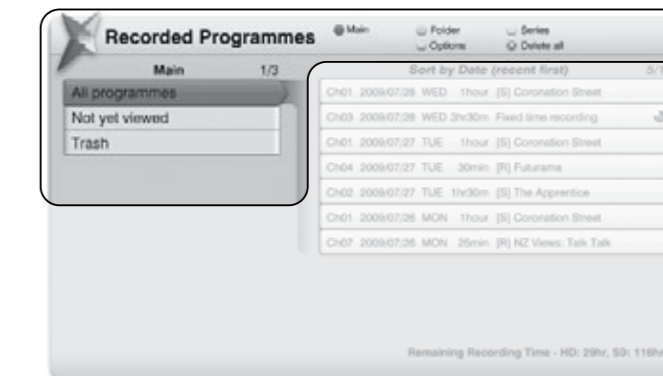
Unless the programme start and stop times match exactly, Magic TV™ will still record some of the lower priority programme.

6.7 Browsing Recorded Programmes

A full list of the recorded programmes can be found under Main Menu → Recorded Programmes.

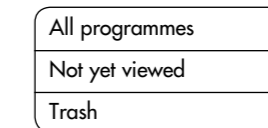
The Recorded Programmes list can also be accessed by pressing whilst watching Live TV.

As the number of recorded programmes can run into the hundreds, Magic TV™ has a number of ways to help find them fast.



Browsing Categories can be:

Filter View (Main): Use these to quickly narrow your search by reducing the number of recordings shown in the right-hand list.






Folder View: Organise your recordings into folders to help you find them. See **section 6.8** about managing folder contents. A programme can only appear in one folder at once.

Not in Folder	Performance	Finance
My Favourites	Arts	Food
Series	Music	User 1
Sport	Culture	User 2
Movie	Education	User 3
Concert	Entertainment	User 4
Travel	Documentary	
Children	News	


Series Recordings: By pressing yellow you can view a list of programme names in the left hand menu. Once a name is selected, a list of individual episodes will be shown on the right.

Trash: Here you can view programmes that have been deleted. See **section 6.8** for further details.

Once you've entered a list, you can still swap between the Browsing Categories by using the coloured buttons:


	Filter View (Main)
	Folder View
	Repeat Recordings

HDD Selection

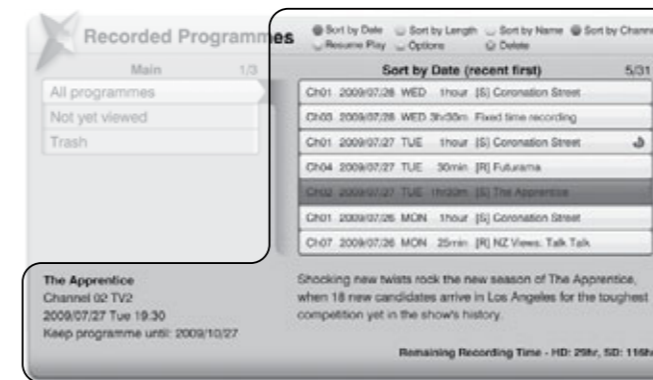
If there are multiple Hard Disk Drives attached to Magic TV™ you can browse Recorded Programmes on individual disks by pressing  whilst in the left-hand column.



After choosing a HDD to browse, only programmes on that HDD will be listed in the right-hand column.





To return to browsing recorded programmes on all disks, highlight an item in the left-hand column, press  and select 'All Hard Disks'.

Programme list



Black	File is located on the internal HDD
Blue	File is located on an external USB drive

On the right of the screen is a list of programmes. Once your highlight bar is in the right-hand column, the list can be sorted in many ways by pressing one of the coloured buttons. Pressing the button again will toggle between an ascending or descending list.

	Sort by date
	Sort by programme length
	Sort by name (In Chinese OSD mode, programmes will be sorted by length of programme title)
	Sort by channel number

Press on a highlighted recording and you will be given the following options:

Resume Play	The programme will begin playing from the point it was last stopped at
Play from the beginning	The programme will begin playing from the beginning of the recording
Remove all Bookmarks	Deletes all the previously set bookmarks and cut-marks from the recording (if any). See sections 6.9 and 6.11
Delete this programme	You will be asked to confirm that you want to move this recording to Trash
Rename this programme	You can rename the title of programmes using the alphanumeric keys of the remote control
Keep programme for	You will be asked how long you want to keep this recording for. Select from various lengths of time, or 'Forever'. See section 6.8
Move to folder	This recording will be viewable under the selected folder
Move to USB HDD	The original will be deleted after creating a copy on the external USB disk. If the programme is on the USB disk, the option will change to 'Move to System HDD'
Copy to USB HDD	A duplicate will be made on the USB disk. If the programme is on the USB disk, the option will change to 'Copy to System HDD'

You can also perform these operations on multiple files at once. Simply press on all the files you wish to select and then press .

Press on a highlighted recording and Magic TV™ will begin playing the programme (from the last stop point if one exists).

You can play multiple recordings without interruption by selecting multiple recordings (by pressing) and then pressing . Recordings will play in the order they were selected.

Press on a highlighted recording to delete the file.

Files can be 'undeleted' later (see next section).

Depending on the Parental Control settings in **section 6.12**, you may be asked to enter your PIN before playback will start. Files can be 'undeleted' later (see next section).

6.8 Managing Recorded Programmes

Organising programmes into folders

In order to find recorded programmes faster, Magic TV™ has a folder system where you can move recorded programmes into folders with meaningful names. This can be done from either the To Do List or Recorded Programme List.

After pressing on a highlighted programme in either list, you can select 'Move to Folder'. The available folders are as follows:

Not in Folder	Performance	Finance
My Favourites	Arts	Food
Series	Music	User 1
Sport	Culture	User 2
Movie	Education	User 3
Concert	Entertainment	User 4
Travel	Documentary	
Children	News	

To view the contents of the folders, simply go to the Recorded Programme List and press .

Deleting and undeleting files

When browsing your recorded programmes, you can delete them by pressing and choosing "Delete this programme" or by pressing .

Magic TV™ then marks these files as 'deleted' and removes them from the listings. The HDD space is now available for further recordings.

However, it is still possible to recover deleted files provided that they have not been overwritten.

In the main Recorded Programme List, there is a Filter called 'Trash'. When a programme is highlighted and is pressed, you will have the following options:

Undelete this programme	This will restore the programme and it will behave exactly like it did before deletion
Permanently remove this programme	Once this has been selected, the file cannot be restored
Exit	

Pressing on a programme in Trash will permanently remove it after confirmation.

Keeping Files

By default, Magic TV™ will keep all files until the Hard Disk Drive is full. At this time, if another recording is made, Magic TV™ may delete the oldest programme in order to make room.

This default setting of 'Until Disk Full' can be changed in Main Menu → Settings → Recording → Keep Recorded Programme For, and options include numbers of weeks, months, 1 year and 'Forever'.

Keep settings can also be set for individual recordings by highlighting them in the Recorded Programmes list, pressing and choosing the required time period.

'Forever' will not overwrite recordings unless they have been manually deleted. If you keep programmes 'Forever', it is possible that Magic TV™ will not be able to make a new recording if the disk is full. However, the front panel display and many of the menus contain the disk space information so that you can be aware of a potential problem.

After the keep period has passed, Magic TV™ will move the file to Trash and the space will be made available for new recordings.

Moving Recordings Between Disks

You can copy and move recordings between any connected Hard Disk Drives.

Recordings made on a New Zealand Magic TV™ MTV3700TD unit are encrypted and can only play on the unit which originally made the recordings.

After the drive is connected (using either of the USB ports), you can select a recording (by highlighting it and pressing) or multiple recordings (by highlighting and pressing on each of them and then pressing) and choose to copy or move them to another disk. If multiple discs are connected you will be provided with a list to choose from.

Copy	A duplicate will be made on the other disk
Move	The original will be deleted after creating a copy on the other disk

During Copy or Move, only Live TV can be accessed. Press to view, to change channels and to view the Channel List. All other remote keys will return you to the Copy/Move/edit screen.

6.9 Playback of Recorded Programmes

Once a recording has been selected from the Recorded Programmes List, playback will begin. During playback you get all the features you would expect from a video recorder such as pause, fast forward and rewind, but there are some other features too.

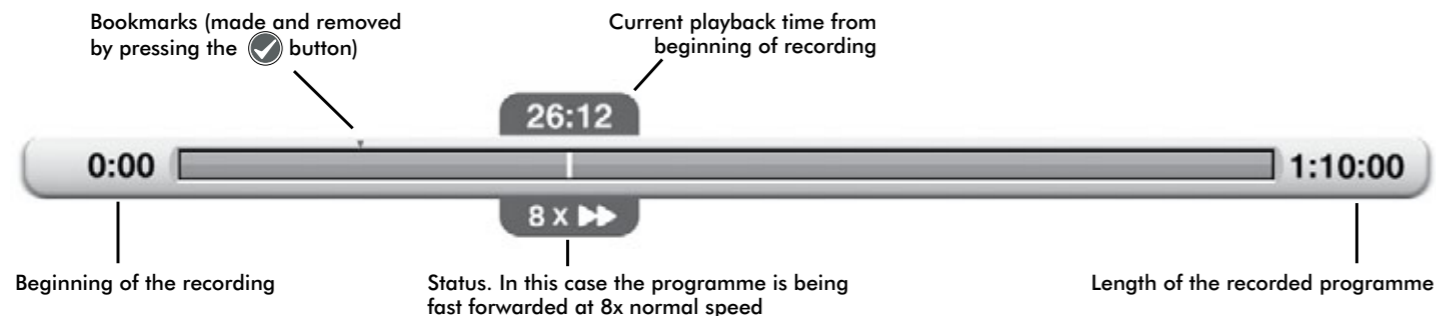
The table opposite shows the functions of remote control buttons during playback:



Press during playback to see programme information

	Stops playback and returns to the Recorded Programme List. Magic TV™ will remember this point and you can choose to resume playback from this point later
	If already playing, this button can be used to display the Timebar for 30 seconds. Pressing will hide it again
	Rewind. The programme will rewind at double the normal speed. Press the button again to increase Rewind speed to 2x, 4x, 8x, 16x and 32x
	Fast Forward. The programme will move forward at double the normal speed. Press the button again to increase Fast Forward speed to 2x, 4x, 8x, 16x and 32x. Press during pause for slow motion
	Skips backwards to the previous bookmark or 10 minutes if no bookmark exists
	Skips forward to the next bookmark or 10 minutes if no bookmark exists
	Cycles through the available subtitles (if any)
	Cycles through the available audio tracks (if any)
	Creates a bookmark at the current playback time. You can use the buttons to skip between bookmarks. Pressing the button again within 10 seconds of a bookmark will remove it
	Creates a cut-mark at the current playback time. Magic TV™ will now miss out the section between a cut-mark and bookmark pair during playback (see section 6.11). Pressing the button again within 10 seconds of a cut-mark will remove it
	Shows an Info Banner about the recorded programme

The Playback Timebar



6.10 TimeShifting, Pausing Live TV and Instant Rewind

If your Live TV viewing is interrupted and you don't want to miss anything, you can press to freeze the action.

If you want to watch something again, you can also rewind and skip backwards during Live TV.

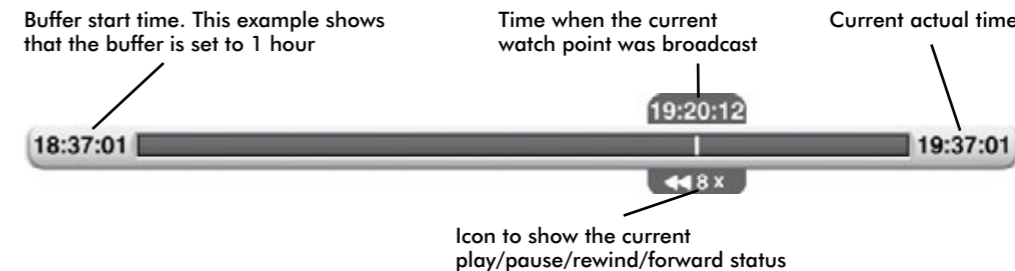
This mode is called Timeshifting and is available because Magic TV™ constantly records the current channel just in case it is needed.

Timeshifting can be activated by pressing Pause , Skip Backward , Scan Backward or Green Left Arrow .

During Timeshifting, the icon will occasionally show in the top-left of the screen. This icon can be turned off in Settings → Info Format → Timeshift OSD Logo.

Timeshifted TV behaves like a Recorded Programme (see previous section) and you can rewind, fast forward, pause and skip in exactly the same way within the segment of the programme that has been recorded.

Instant Rewind Timebar



To return to the live broadcast, you can either fast forward/skip to the end of the recording or press at any time.

The amount of time available to rewind can be set in Settings → Timeshift Setup → Instant Rewind → Instant Rewind Period. Choose between 1,2,3,5,8,12 and 24 Hours.

This recorded time can also be used for making full recordings. For example, if you start to watch a programme and then after 10 minutes want to record it, Magic TV™ can add the full programme to the Recorded Programmes List. This works by simply pressing whilst watching Live TV, when choosing a programme from the EPG that has already started or when using Timer Recording.

Magic TV™ can only add the currently watched channel to the recording buffer, and will discard this recording as soon as the channel is changed.

The recording buffer will only be used if sufficient Hard Drive Disk space is available. When the disk becomes full, Instant Rewind may not be available.

When Magic TV™ is recording two channels concurrently; Instant Rewind is only available on the two channels being recorded.

The recording buffer is automatically reset after using certain system operations such as RF Signal Monitor, Manual Scan and Guided Setup.

6.11 Editing Recordings

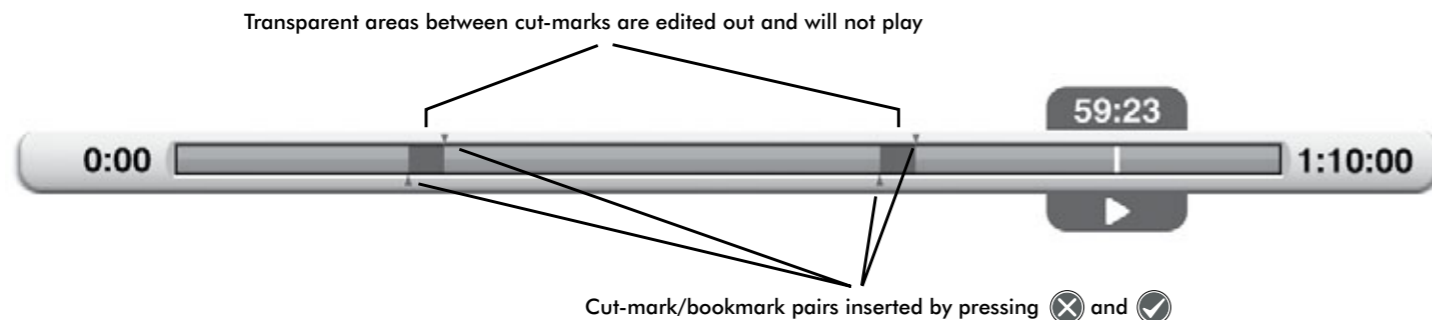
Magic TV™ allow you to edit recordings by choosing which parts of recordings are shown and which are hidden. The original recording is always kept intact and edit points can be removed at any time.

To edit out a section (a commercial break for example), carry out the following steps:

1. During Playback, at the start of the section to be cut, press to add a 'cut-mark' to the recording.
2. At the end of the section to be cut, press .
3. Magic TV™ will now miss out the section between these marks during future playback. Any section to be missed will be shown on the Timebar as transparent.
4. Multiple sections can be edited out by inserting another cut-mark and bookmark pair.

Edits can be removed by deleting a cut-mark or bookmark, or by highlighting the programme on the Recorded Programme List, pressing and selecting "Remove all Bookmarks" from the menu.

Edits can be made permanent by highlighting the programme on the Recorded Programme List, pressing and selecting "Edit and Move" from the menu. From the same menu, you can also select "Edit and Copy" which will create a duplicate file. The original will be intact and the copy will have the edited sections permanently removed.



6.12 Parental Control

The Magic TV™ Parental Control system works in tandem with the Freeview Parental Ratings to enable you to effectively control what your family views.

Every programme on Freeview NZ includes a rating in accordance with the Codes of Practice formulated by New Zealand broadcasters and the government-appointed Broadcasting Standards Authority.

Unrated	
G	General Programmes which exclude material likely to be unsuitable for children. Programmes may not necessarily be designed for child viewers but must not contain material likely to alarm or distress them.
PGR	Parental Guidance Recommended Programmes containing material more suited for mature audiences but not necessarily unsuitable for child viewers when subject to the guidance of a parent or an adult.
AO	Adults Only Programmes containing adult themes and directed primarily at mature audiences.

Programme ratings can be viewed in the white area of the Freeview Guide (see **section 5.2**).

You can control which rating level of programmes can be viewed freely and which require the input of your PIN.

Simply go to Settings → Parental Control → Level Setting and select the level you want blocked. Levels above this will also be blocked.



The default PIN is 0000 and you can change this in Settings → Parental Control → Change PIN Code. Please make a note of your number as the only way to reset the PIN is to do a full factory reset of Magic TV™, which will lose your personal setup options.

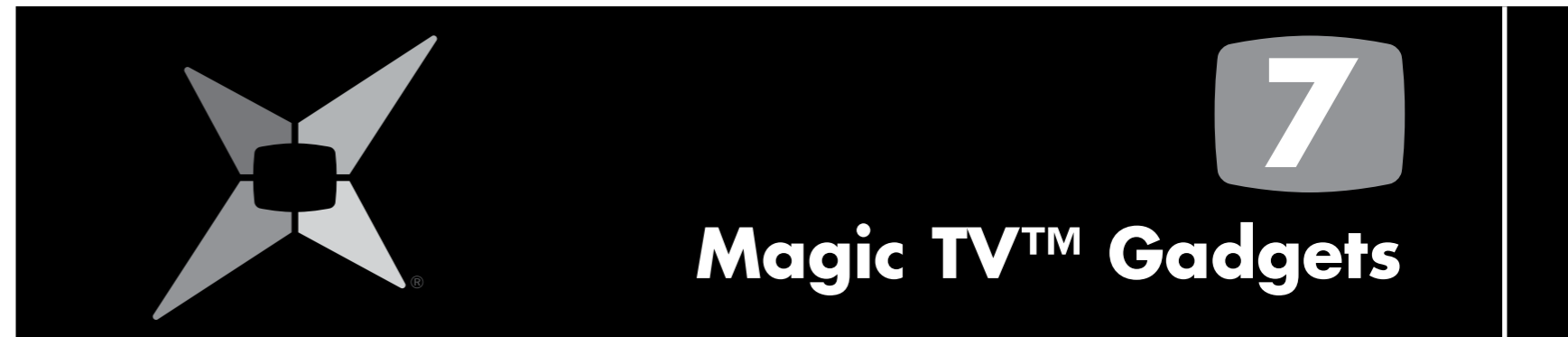
6 Recording and Playback

You can control which rating level of programmes can be viewed freely and which require the input of your PIN.

Simply go to Settings → Parental Control → Level Setting and select the level you want blocked. Levels above this will also be blocked.



The default PIN is 0000 and you can change this in Settings → Parental Control → Change PIN Code. Please make a note of your number as the only way to reset the PIN is to do a full factory reset of Magic TV™, which will lose your personal setup options.



7.1 News	60
7.2 Weather	60
7.3 HD Camcorder Movies	61



For live News and Weather updates, an Internet connection and local network is required. Please connect Magic TV™ to your broadband router or network (connection instructions are in sections 3.4 and 9.1). For other network and Internet related support issues, please consult your Internet Service Provider (ISP).

7.1 News



Magic TV™ can keep you updated on local and global news stories by displaying News bulletins from popular and trusted sources. Simply choose your preferred news supplier from the list and browse an up-to-date list of news stories.



When viewing a news story, you can quickly jump to the next or previous story by pressing ◀ or ▶. Pressing ⏪ will return you to the previous menu. If a news item is long, press ▼ to scroll the text and reveal more.

*News and Weather information is obtained from the Internet. Pixel Magic does not guarantee the accuracy or reliability of any information.

7.2 Weather



Magic TV™ can also display New Zealand weather information. Simply choose your preferred region and browse the latest updates.



If a weather bulletin is long, press ▼ to scroll the text and reveal more.

*News and Weather information is obtained from the Internet. Pixel Magic does not guarantee the accuracy or reliability of any information.

7.3 HD Camcorder Movies

Magic TV™ can browse, copy and play AVCHD and HDV camcorder files from many of the latest HD camcorders. When you select this option, Magic TV™ will automatically search all folders named "AVCHD" or "VIDEO" for movies with the .m2t (HDV) or .mts/m2ts (AVCHD) extensions.

The files found are presented in alphabetical order of folder name, then file name.



Colour coding

Black	File is located on the internal HDD
Blue	File is located on a USB drive

Pressing ⏪ on a movie name will reveal the following options:

Play	Plays the highlighted movie(s)
Play All	Plays all the movies in the list
Copy to System HDD	Copies the camcorder movie onto the System Hard Disk Drive for convenient future playback

Playback functions and options are very similar to normal recorded programme playback. You can also select multiple movies by using the ⏪ button and then pressing ⏩. Multiple movies will play in the order they were selected.

Due to the different ways in which camcorder manufacturers encode video, there may be some minor playback issues. Sometimes these 'problem' files can be fixed with third party computer applications. Pixel Magic cannot guarantee playback quality of non-broadcast videos.



Magic TV™ Settings

8.1 Info Format	64	8.6 Channel Setup	69
8.2 Video	65	8.7 Guided Setup	70
8.3 Audio	66	8.8 Parental Control	71
8.4 Recording	67	8.9 System	71
8.5 Playback Setup	69		

8.1 Info Format

Auto Info Banner

Normal *
Slow
Off

When the channel is changed, or Live TV is first accessed, the 'Info Banner' will show. This setting allows you to choose the time taken before it disappears.

Front Panel Brightness

Normal *
Dim

From here, you can select a reduced brightness setting for the front panel.

Front Panel Clock

AM/PM *
24-hour
Off

Normally, when Magic TV™ is in 'Standby', the front panel will display the current time in 12-hour AM/PM format. This menu allows you to change the display to a 24-hour clock, or turn it off.

OSD Transparency

Solid
Low *
Medium
High

When the Magic TV™ menus overlay a TV programme, they are transparent so that you can still see the moving image below. The level of transparency can be set here.

Adjust OSD Size

Normal*, -1%, -2%, -3%, -4% and 5%

If your TV overscans the image from Magic TV™ so that the menus spill off the edge of the screen, you can shrink the On-Screen Display (OSD) by -1% to -5% here.


USB Storage Message

Off
On *

When Magic TV™ is initially turned on, it will display a message telling you if you have a USB device attached and if it is suitable for recording. If you want to remove this message, set this option to 'Off'.


Recording OSD Logo

Off
On *

During recording, Magic TV™ will display a  logo for 3 seconds at 10 second intervals. This setting allows you to turn the logo off.


Playback OSD Logo

Off
On *

During playback of recorded programmes, Magic TV™ will display a  logo for 3 seconds at 10 second intervals. This setting allows you to turn the logo off.


Timeshift OSD Logo


Off
On *

During Live Pause and Instant Rewind, Magic TV™ will display a  logo for 3 seconds at 10 second intervals. This setting allows you to turn the logo off.

Exporting OSD Logo


Off
On *

During the process of moving or copying a recorded programme onto another Hard Disk Drive (HDD), Magic TV™ will display a  logo for 3 seconds at 10 second intervals. This setting allows you to turn the logo off.

 *Magic TV™ functions are limited during the export process. See **section 6.8** for further details.*

8.2 Video

Video Output Format

 **50/60Hz.** As New Zealand DTT programmes will normally be broadcast in 50Hz, selection of a 50Hz format from the list below is recommended. However, some TVs (perhaps from Japan or America where broadcasts are in 60Hz) may not happily accept a 50Hz signal. In this case choose from the list of 60Hz formats provided.

1080i (50Hz) *	The default setting – accepted by all HDTVs
1080p (50Hz)	A good choice if your TV accepts a 1080p HDMI input
720p (50Hz)	A good choice if your 'HD Ready' TV has 720 or 768 lines of resolution
576i (50Hz)	Use only if your TV is Standard Definition
576p (50Hz)	
1080i (60Hz)	
1080p (60Hz)	
720p (60Hz)	
480i (60Hz)	
480p (60Hz)	

Standard Definition analogue outputs will output PAL if a 50Hz setting has been chosen and NTSC if a 60Hz output has been chosen.

To ensure that you can always see a picture, Magic TV™ will automatically revert back to the previous format after 15 seconds if you haven't responded to the on-screen prompt.

Black Enhancer


Off
On *

This feature can provide more image depth when used in certain systems. Try it and see which you prefer.

Image Mode


Natural *
Dynamic

This option can help boost contrast in channels if they appear flat or ‘washed out’.

 This setting is saved for each channel, so ensure that you are tuned to the channel you want to adjust before making the adjustment.

Aspect Correction Mode

Zoom 1
Zoom 2
Letterbox
Full *
Widezoom

This menu allows you to select the default Aspect Ratio Correction Mode. See **section 5.5**. You can also cycle between modes by using the  button on the remote control.

TV Aspect Ratio


16:9 (widescreen) *
4:3
16:10 (computer monitors)

Use this menu to set the shape of your display. This option is also included as part of the Guided Setup process. 16:9 is the shape of most modern digital Plasma and LCD TVs. 4:3 is the traditional shape of analogue displays. 16:10 is the shape of modern widescreen computer monitors.

Test Pattern

This option will display a geometry test pattern to help you set your display’s Position and Overscan controls.

Advanced Settings

HDMI Color Space	RGB */ YcbCr	
HDMI Startup Mode	Fast */ Normal	
Adjust Video Size	-5% to +5% for each side	Use this setting to shrink or enlarge the image  This setting is saved separately for each TV channel

8.3 Audio

HDMI Audio Out

Off
On
Auto *

HDMI is unique in that it can transmit both video and audio along the same cable. This menu allows you to select whether or not to do this. In Auto mode, Magic TV™ will send audio if it detects that the TV/receiver can accept it. You may want to turn HDMI audio off if you are sending audio separately to an AV receiver via the digital audio outputs.

Bitstream

Off *
On

By default the digital audio is transmitted in PCM format (Bitstream off) for maximum compatibility with TVs. However, if you want to receive broadcasts in 5.1 digital surround sound (to be passed to an AV receiver, for example), Bitstream should be tried.

Sound Level

Normal *
Enhanced

The Enhanced setting will boost the volume of analogue and digital audio output from Magic TV™. Dolby Digital bitstream output is unaffected.

Preferred Format

Dolby Digital *
AAC
MPEG Audio

When a programme has an audio track that matches your preference it will be selected automatically. Note that Audio Languages will be given higher priority than Audio Codec.

8.4 Language

Audio Preference

English *	Italian	Cantonese
Maori	Spanish	Japanese
French	Korean	Hindi
German	Mandarin	

When a programme has an audio language track that matches your preference it will be selected automatically.

Subtitle Preference

Disable *	German	Mandarin
English	Italian	Cantonese
Maori	Spanish	Japanese
French	Korean	Hindi

When a programme has a subtitle language that matches your preference it will be selected automatically.

Subtitle Hard of Hearing

Yes
No *

If 'Yes' is selected, Subtitles for the Hard of Hearing will be shown when available. The availability of these subtitles is displayed in the Info Banner (see **section 5.3**).

8.5 Recording

Extend/Delay Start Times

None *
Extend 1/2/3/5/10/15 minutes
Delay 1/2/3/5/10/15 minutes

When a Scheduled Recording is made from the EPG, Magic TV™ will start at exactly the time shown. However, if programmes are delayed or don't match with the EPG data, the beginning of the programme may be missed. Choosing an Extend time here tells Magic TV™ to start recording all programmes earlier than the scheduled time.

You can also set this time for individual programmes on the To Do List by pressing on a highlighted programme.

Extend Stop Times

None *
1/2/3/5/10/15/30 minutes
1/2/3 hours

64 * = default setting

When a Scheduled Recording is made from the EPG, Magic TV™ will stop recording at exactly the time shown. However, if programmes are delayed or don't match with the EPG data, the end of the programme may be missed. Here you can tell Magic TV™ to stop recording all programmes later than the scheduled time.

You can also set this time for individual programmes on the To Do List by pressing on a highlighted programme.

Keep Programme For

1/2 weeks
1/2/3/6/9 months
1 year
Until Disk Full *
Forever
Protected

Here you can set the length of time before Magic TV™ will move a Recorded Programme to Trash. "Forever (protected)" means that the programme cannot be deleted until its "Keep Programme For" setting is changed. You can also set this time for individual recordings. See **section 6.8** for further information on 'Keeping Recordings'.

Auto Standby

Off *
On

If Auto Standby is switched on, Magic TV™ will automatically switch to standby after a recording has been made.

Remaining Disk Space

This section displays how much space is left on the internal Hard Disk Drive.

- Remaining Disk Space in gigabytes and megabytes
- HD recording time in hours
- SD recording time in hours

(See other advanced options for the way we format these)

Preferred Rec HDD



Auto *
System hard drive
eSATA hard drive

Here you can choose a preferred Hard Disk Drive for recording. Magic TV™ will use that when possible. If you select 'Auto', Magic TV™ will record on the disk with the most available space at the time of recording each programme. See **section 3.5** for further information.

Advanced Settings

Format USB Harddisk	Please see section 3.5 for disk formatting instructions.
Check and Repair System HDD	If recording or playback becomes unstable, please try the Check and Repair option to fix the HDD.
Check and Repair USB HDD	The Check and Repair process may take up to a few hours depending on HDD size. Please note that there is no need to perform Check and Repair if you are not experiencing problems.

8.6 Timeshift Setup

Instant Rewind

Auto
On*
Off

During **Live TV** Magic TV™ automatically starts recording in the background so that you can rewind at any point (see **section 6.10** for further information). You can turn this feature off here.

If 'Auto' is selected, Magic TV™ will only begin background recording of Live TV when the 'pause' button is pressed.

Instant Rewind Period

1/2/3*/5/8/12/24 hours

This setting determines the length of time available for Instant Rewind during Live TV. Note that Magic TV™ can only start recording from the point the current channel was selected (see section 6.10 for further information).

8.7 Playback Setup

Loop Play

Off *

On

When enabled, recorded programmes and files will auto repeat. During Loop Play the front panel icon will light (see section 2.3).

8.8 Channel Setup

Channel List

Here, you'll see a list of all the channels currently found by Magic TV™. If you select a channel, you will be given the option to either:

View this channel

Delete this channel

Exit

Deleting a channel will make it unavailable to view or browse on the EPG. To restore the channel, a new channel scan will have to be performed.

Interactive Channel

Off

On *

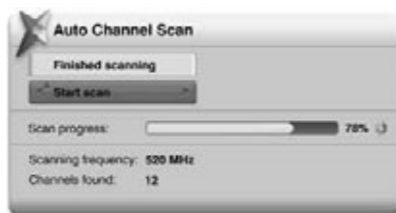
In the future, interactive TV (MHEG-IC) features may be available on certain channels. Here you can choose to turn off this feature on a per-channel basis (i.e. MHEG-IC is only turned off for the channel currently being viewed).

MHEG-IC features require an Internet connection for transmitting data back to the broadcaster (see sections 3.4 and 9.1 for connection instructions).

One-Touch Channel Select

One-Touch Channel	On / Off *
Key 1-9 channel assignment	Once enabled, you can assign a channel to each remote control number key for quick access to your favourite channels.

Auto Channel Scan



After entering Auto Scan, you will be asked to confirm that you want to delete all current channels. After proceeding, Magic TV™ will begin scanning for channels. A yellow bar will represent the scanning process. The scan can

be stopped at any time and any found channels will be available to view. When the scan has finished, Magic TV™ will jump to Live TV.

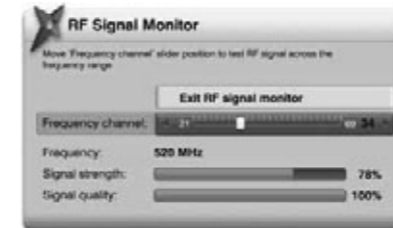
Manual Channel Scan



Magic TV™ can be made to scan certain frequencies for channels. Use the slider to select the desired frequency channel. The presence and quality of a broadcast signal can be seen below. After selecting 'Start Scan', Magic TV™ will report the number of channels found (if any).

After you've finished scanning, you can view the new channels by selecting 'View Channel List'.

RF Signal Monitor



The strength and quality of your DTT signal can be viewed in this section.

The Frequency Channel slider will automatically show the channel of the current viewing channel (or 35 if none).

Use the left and right arrow keys to move the slider to a different frequency channel and Magic TV™ will automatically display the Strength and Quality of the broadcast.

Signal Strength: This shows the aerial/antenna receiving power of the current channel frequency. Moving your aerial/antenna will change this value. For the best viewing quality, please tune the antenna for a signal value above 50.

Signal Quality: 100% indicates error free reception. A lower value may cause the TV picture to deteriorate and produce visible image artefacts.

To help with installation, the signal can also be monitored without a TV. During signal monitoring, the Front Panel Display will show the UHF channel number, signal quality and signal strength.

For example, a display of "CH:35 100:70" indicates a UHF channel of 35, a signal strength of 100% and a signal quality of 70%.

Last Channel Switch

Off *

On

If this is set to On, the back button on the remote control can be used to switch to the last viewed channel.

8.9 Guided Setup

Selecting this option will restart the initial setup sequence outlined in section 4.

8.10 Parental Control

Level Setting

Here you can block programmes that you don't wish some Magic TV™ users to see. Your PIN must now be entered before you can view programmes rated at and above the level chosen below.

No block *	
Block all programmes	
G	This option PIN protects all programmes rated G and above. A general guideline is for children under the age of 9
PGR	This option PIN protects all programmes rated PGR and above. A general guideline is for children under the age of 11
AO	This option PIN protects all programmes rated AO and above. A general guideline is for children under the age of 15.

See **section 6.12** for more information about Parental Control and the New Zealand Broadcast Codes of Practice.

Change PIN Code

The default PIN is 0000

To change this PIN you must first enter the old PIN and then enter a new one.

Please make a note of your number as the only way to reset the PIN is to do a full factory reset of Magic TV™, which will lose your personal setup options.

8.11 System

System Info



This selection will display a system information panel. This information is mainly for diagnostic purposes in the event of a problem.

Network

The News and Weather features under the Magic TV™ Gadgets require an internet connection.

You will need to have an existing Ethernet Network present in your home. See **section 9.1** for information on network setup.

Restart

Choosing 'Yes' to this option will result in Magic TV™ turning itself off and back on. After restarting, Live TV will be shown as normal.

Factory Reset

Choosing 'Yes' to this option will result in Magic TV™ deleting all channels and resetting all options to the factory defaults. After this has been performed, Magic TV™ will start as if for the first time and you will be taken through the Guided Setup process.

Firmware upgrade

From time to time Magic TV™ will receive updates for the software that controls it. It is important that your firmware is up-to-date, as new features, bug fixes and enhanced operation may be available.

Normally these updates will occur automatically Over-The-Air (OTA). Firmware can also be updated via a USB drive and over the internet.

Upgrading the firmware will **not** change, reset or delete any current settings.

See **section 9.2** for Firmware Upgrade instructions.

Advanced Settings

Sleep Timer	Magic TV™ can be set to Sleep, Standby or Wake up at a specific time each day
Start-up Timer	
Standby Timer	

Remote Control Selection

Magic TV Remote	Enable*/Disable
Xbox 360 Remote	Enable/Disable*
MCE Remote	Enable/Disable*

Up to three Magic TV™ units can be used simultaneously in the same room. This menu is where you tell each unit which remote controls to listen to.

See **section 2.1** for full details.

System HDD Idle Standby

On
Off *

When this option is enabled, the system Hard Disk Drive will spin down (reducing noise and power consumption) after 15 minutes of inactivity. There may be a few seconds' delay when the HDD is required again (e.g. for recording or playback).

Standby Mode

Fast Startup *	Normal operation. The main CPU runs in standby mode which enables Magic TV™ to display a picture a few seconds after powering up	
Energy Saving	Everything except the Front Panel Display is turned off in standby mode. It can take approximately 40 seconds for Magic TV™ to power up	<i>In these modes, Magic TV™ cannot receive any changes to schedule information. If schedules change during the time that Magic TV™ is in standby, Series Recordings may no longer match broadcasts.</i>
All Off	Everything is turned off during standby. It can take approximately 40 seconds for Magic TV™ to power up	

Magic TV™ will automatically power up to make a scheduled recording in all three modes.



Magic TV™ Settings

Auto Firmware Upgrade

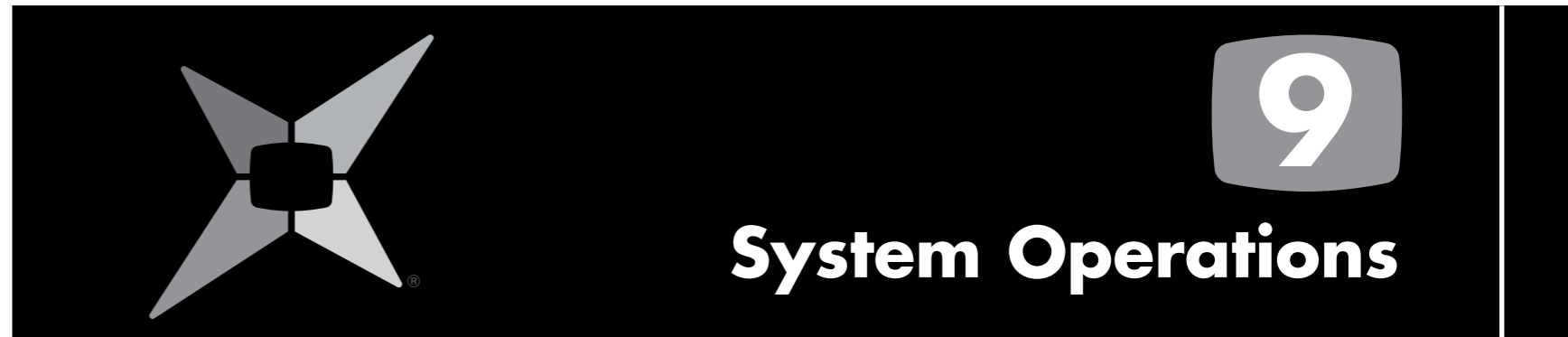
On
Off *

If Magic TV™ is connected to the Internet, it can automatically download and install firmware updates. You can turn this feature off here..

User Prompt to Upgrade

Yes *
No

If Auto Firmware Upgrade is 'On', Magic TV™ will by default ask permission to start downloading and installing the new firmware. If you select 'No', Magic TV™ will start downloading without asking.



System Operations

9.1 Network Setup

74

9.2 Firmware Upgrade

75

9.1 Network Setup



Get IP Address from DHCP Server

The most common way to get Magic TV™ on your network is to get the IP information from a DHCP Server (usually on a network router).

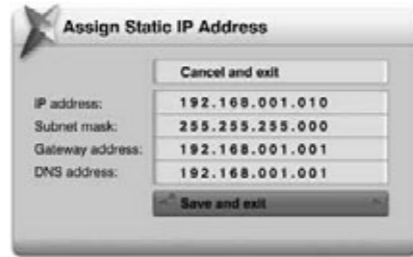
After selecting this option, Magic TV™ will start searching for the IP information.

If found, a message will appear and selecting "Save and exit" will finish the process.

If no DHCP server is found, please check that your network supports DHCP and that your network cable is connected correctly at both ends.

Restart Magic TV™ for it to be seen by the network.

Assign Static IP Address



Select this option if your network doesn't support DHCP, or you would rather assign a particular IP Address to Magic TV™.

You will be asked to input the following information:

- IP Address
- Subnet Mask
- Gateway Address – (often the IP Address of your router)
- DNS Address – (often the IP Address of your router)

Please refer to your network equipment and computer's documentation for information about IP settings.

Use the number keys on the remote control to enter the numbers directly.

Restart Magic TV™ for it to be seen by the network.

9.2 Firmware Upgrade

It is possible that these updates will provide features not covered in this guide. Details of new features will be available at www.magictv.com → Support.

Magic TV™ uses a safe firmware upgrade process. The previously working firmware will only be overwritten if the upgrade firmware is successfully loaded. This process safeguards against power cuts and similar interruptions.

Automatic Upgrade over the Internet

If Magic TV™ is connected to the internet (see **sections 3.4** and **9.1**), upgrades will normally be downloaded and installed automatically.

When new firmware is available a message will be shown when you next switch Magic TV™ on. You will be asked if you want to upgrade to the new firmware.

If you select 'Yes' you will see the following progress bar.



Caution: it is important that the power to Magic TV™ is not interrupted during the upgrade process.

Once the firmware has been upgraded, Magic TV™ will restart automatically.

Manual upgrade from USB

Step 1: Firmware Version Check

- On Magic TV™, go to Settings → System → System Info. The installed firmware version and date will be shown
- Compare the version and date with the firmware available on www.magictv.com → Support to see if you want to change/upgrade
- If Magic TV™ is connected to the internet **skip to step 3**. Otherwise follow step 2

Step 2: Downloading and transferring the new firmware to a USB disk

- Download the new firmware zip file from www.magictv.com → Support to a PC
- Extract the contents of the zip file and put **all files** into the root directory of a USB storage device (a thumbdisk for example)
 - ⚠ *The USB storage device used for firmware upgrade needs to be formatted FAT32 and must only have one version of the Magic TV™ firmware on it.*
- Connect this portable USB device to one of the Magic TV™ USB ports

Step 3: Updating Magic TV™



- Navigate to Settings → System → Firmware Upgrade
- Magic TV™ will search online for a new version of the firmware (if connected to the internet) and then look on any connected USB drives. If the correct files are found it will say either “New Internet firmware found!” or “New USB firmware found!”
- Select ‘Start upgrade’ and Magic TV™ will begin the upgrade process and show progress bars for any downloading or installing process
- Caution: it is important that the power to Magic TV™ is not interrupted during the upgrade process

Finish: Once the firmware has been upgraded, Magic TV™ will restart automatically.

☑ If Magic TV™ finds new firmware online it will always upgrade to that instead of any USB firmware. If you want to force Magic TV™ to ignore online firmware you must temporarily disconnect it from the internet.


Automatic upgrade Over-The-Air (OTA)

Occasionally, Magic TV™ may broadcast new firmware Over-The-Air (OTA). If this happens, you will be given a prompt to proceed with the upgrade in exactly the same way as the Internet upgrade process (see previous page).



10.1 Common Problems	78
10.2 Setting the Output Format from the Front Panel	80











Problem	Possible causes	Solution
No picture	<p>Magic TV™ is not plugged in and switched on at the back.</p> <p>Magic TV™ is still in Standby mode.</p> <p>Video cable isn't correctly attached.</p> <p>Your display is unable to display the current Output Format (the current Output Format is displayed on the front panel).</p>	<p>Check the front panel. If nothing has illuminated, then it is a power issue – please check the power cable and plug socket.</p> <p>Press the Power button on the remote control.</p> <p>Please check that you are using the correct cable and connectors for your TV and that they are inserted correctly.</p> <p>Please see the next section for instructions on how to change Output Format without a picture.</p>
Poor results in the RF Signal Monitor	<p>Aerial/antenna not connected.</p> <p>Aerial/antenna not pointing in the correct direction.</p> <p>Broadcast coverage doesn't reach your area.</p> <p>Your apartment building isn't yet set up to receive the broadcasts.</p>	<p>Please make sure a good quality (preferably roof mounted) aerial/antenna is connected to the Magic TV™ 'Ant.In' connector using good quality cable.</p> <p>If you can reach safely, adjust the direction of the aerial/antenna until a signal is received. Please seek help from a professional for external aerials/antennas.</p> <p>Please check that your area is currently able to receive DTT broadcasts.</p> <p>Please seek advice from your building management personnel about Communal Aerial Broadcast Distribution (CABD).</p>


Problem	Possible causes	Solution
Remote control is not working	<p>No batteries or batteries incorrectly inserted.</p> <p>Batteries are flat.</p> <p>Infrared receiver on Magic TV™ is obstructed.</p>	<p>Insert the supplied 4x AAA batteries as described in section 2.1.</p> <p>Insert fresh batteries as described in section 2.1.</p> <p>Check that there is clear 'line of sight' from the remote control to the sensor on the front panel of Magic TV™ (see section 2.3).</p>
No sound	<p>Audio cables are not connected.</p> <p>HDMI Audio Output is not active.</p> <p>HDMI audio is not supported on the display/receiver.</p> <p>PCM/Bitstream is not supported by the display/receiver.</p>	<p>Please check that your desired audio cable is connected properly.</p> <p>Please check that Settings → Audio → HDMI Audio Out is turned on.</p> <p>Please try changing Settings → Videos → Advanced Settings → HDMI Startup Mode from Fast to Normal.</p> <p>If you are using HDMI audio, please check that your TV or receiver is compatible.</p> <p>Try setting Settings → Audio → Bitstream to the opposite option.</p>
Picture is distorted (people look either too wide or narrow)	<p>Wrong TV shape is set.</p> <p>Wrong Aspect Ratio Correction Mode is set.</p>	<p>Please make sure that Settings → Video → TV Aspect Ratio is set to match the shape of your display.</p> <p>Please read section 5.3 about Aspect Ratio Correction modes.</p>
Live TV signal is not stable	<p>Signal quality not good enough (Live TV Indicator  on the front panel not on solidly).</p>	<p>Check your antenna. The Signal Strength Indicator on the Front Panel Display and RF Signal Monitor in the menus can also help diagnose any signal problems for the current TV channel. See RF Signal Monitor in section 8.6.</p>

Problem	Possible causes	Solution
Picture not stable when using HDMI to DVI	HDMI audio is switched on, causing instability.	Please check that Settings → Audio → HDMI Audio Out is turned off when using a DVI connection to your TV.

10.2 Setting the Output Format from the Front Panel

If you can't see a picture when you first connect Magic TV™ to your television, it might be because the default 1080i 50Hz format isn't recognised. In this case, you can use the front panel display to change the format to one supported by your TV.

1. Press .
2. The front panel should read "Live TV".
3. Press  until the display reads "Settings". Press .
4. The front panel should now read "Info Format". Press  until the display reads "Video". Press .
5. The front panel should read "TV Aspect". Press  until the display reads "V Format". Press .
6. Use  /  arrows to select a suitable Output Format.
E.g. "1080i (60Hz)" Press .

7. The front panel should read "OK / Cancel".
8. If you can now see a correct image on the TV, press .
9. If the image still hasn't appeared, wait a few seconds until the front panel reverts to the previous resolution e.g. "1080i (50Hz)" then return to step 6 to try another resolution.



Support & Warranty

Product Support

Magic TV™ is designed to provide you with many years of viewing pleasure. If for any reason you encounter a problem with your unit, please follow these steps:

1. Carefully follow the instructions shown in this manual.
2. Refer to **section 10**: Troubleshooting to try and rectify the problem.
3. If you still cannot get the information you need, please contact our support team using the following details:

Email: support@magictv.co.nz

Tel: **07 825 5254**

Caution: Under NO circumstances should you attempt to repair or modify Magic TV™ as this could expose you to electrical shock and/or severely damage Magic TV™.

Warranty Conditions

1. Where required by Magic TV only the original invoice/receipt issued by the dealer will be accepted as proof of purchase.
2. Magic TV may reject warranty claims on equipment which it believes to be illegally acquired or when the “owner” is unable to provide proof of purchase or where security labels or serial numbers have been tampered with or removed.
3. The warranty covers only defects in the material and workmanship of the product for a period of 12 months from the date of original purchase.
4. This warranty is on “Return to Base” basis. The owner is responsible for the delivery of the equipment to the point of purchase and for collecting the repaired or replaced equipment from the same location.
5. The warranty is void if failures arise as a result of any of the following. i) Abuse, misuse, physical impact, normal wear and tear. ii) Alteration or repairs carried out without written authorization from Magic TV. iii) Upgrades that are not registered by Magic TV iv) Operating or maintained other than in accordance with the manual supplied.

6. This equipment will not be considered defective as a result to incompatibility with other equipment or accessories other than the ones supplied with the unit at the time of purchase.
7. This unit should be returned in its original carton and protective packaging or alternatively in a packing suitable to prevent damage. Magic TV will not accept any responsibility for goods damaged whilst they are in transit.
8. Repair or replacement under the terms of this warranty does not give the right to extension or a beginning of a new warranty period. Repairs or replacements may be carried out with functionally equivalent reconditioned parts or equivalent part. Parts that have been replaced become the property of Magic TV.
9. The customer acknowledges that no promise representation or undertaking has been given by Magic TV or its dealer in relation to equipment other than as contained in this warranty.
10. A service charge will apply if the fault is not covered within the conditions of this warranty or if there is no fault found. The charge will be based on the current market rate.
11. Magic TV is not liable for any other loss other than the unit itself.
12. Nothing contained in this warranty shall be read or applied so as to affect the right of the consumer in relation to the provisions of the trade practices act or other statutory rights provided by legislation of the state or territory. In the absence of applicable legislation this warranty will be purchaser’s sole and exclusive remedy and neither Magic TV nor its distributors or agents shall be liable for any incidental or consequential damages for breach of any express or implied warranty of this equipment.

For further warranty information or to make a claim please contact Hook Technologies Ltd. by phone on **07 825 5254** or via email support@magictv.co.nz

Limitation of Liability (for all customers)

BOTH YOURS AND PIXEL MAGIC SYSTEMS’ LIABILITY SHALL BE LIMITED TO THE PRICE PAID FOR PRODUCT. IN NO EVENT SHALL EITHER YOU OR PIXEL MAGIC SYSTEMS LTD. BE LIABLE TO THE OTHER FOR ANY INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM PERFORMANCE OR FAILURE TO PERFORM UNDER THIS AGREEMENT, OR USE OF ANY GOODS OR SERVICE SOLD PURSUANT HERETO, WHETHER DUE TO A BREACH OF CONTRACT, BREACH OF WARRANTY, NEGLIGENCE, OR OTHERWISE. NEITHER YOU NOR PIXEL MAGIC SYSTEMS LTD. SHALL HAVE ANY LIABILITY TO THE OTHER FOR INDIRECT OR PUNITIVE DAMAGES, OR FOR ANY CLAIM BY ANY THIRD PARTY EXCEPT AS EXPRESSLY PROVIDED HEREIN.

Software License

This product incorporates the following software:

- (1) the software developed independently by or for Pixel Magic Systems Ltd.,
- (2) the software owned by third party and licensed to Pixel Magic Systems Ltd.,
- (3) the software licensed under the GNU General Public License, Version 2 (GPL v2),
- (4) the software licensed under the GNU LESSER General Public License, Version 2 (LGPL v2) and/or,
- (5) open sourced software other than the software licensed under the GPL v2 and/or LGPL v2

For the software categorized as (3) and (4), please refer to the terms and conditions of GPL v2 and LGPL v2, as the case may be at <http://www.gnu.org/licenses/old-licenses/gpl-2.0.html> and <http://www.gnu.org/licenses/old-licenses/lgpl-2.0.html>

Please refer to this link for the detail software and package used.

http://www.magictv.com/downloads/magictv_opensource.txt

The GPL/LGPL software is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY, without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.

At least three (3) years from delivery of products, Pixel Magic Systems will give to any third party who contact us at the contact information provided below, for a charge no more than our cost of physically performing source code distribution, a complete machine-readable copy of the corresponding source code covered under GPL v2/LGPL v2.

Contact Information: info@pixelmagicsystems.com

Dolby Digital:

Manufactured under license from Dolby Laboratories.

Dolby and the double-D symbol are trademarks of Dolby Laboratories.