



Instruction Manual



Ultra High Definition Personal Video Recorder

The Beyonwiz U4 digital receiver is fully compliant with the international Digital Video Broadcasting (DVB) standard, and thus is able to receive digital broadcasts of that standard.



Tech Support and Warranty claims.

If you have a problem with your U4 or need some help finding please follow these steps, if you don't find the solution in the first step move to the next.

- 1) Check our FAQs and how to Videos
- 2) Search our user forum for the answer
- 3) Join our user forum and post your question
- 4) Open a Support Request

Frequently Asked Questions

www.beyonwiz.com.au/faqs

How to Videos

www.beyonwiz.com.au/tv

User Forum

www.beyonwiz.com.au/forum

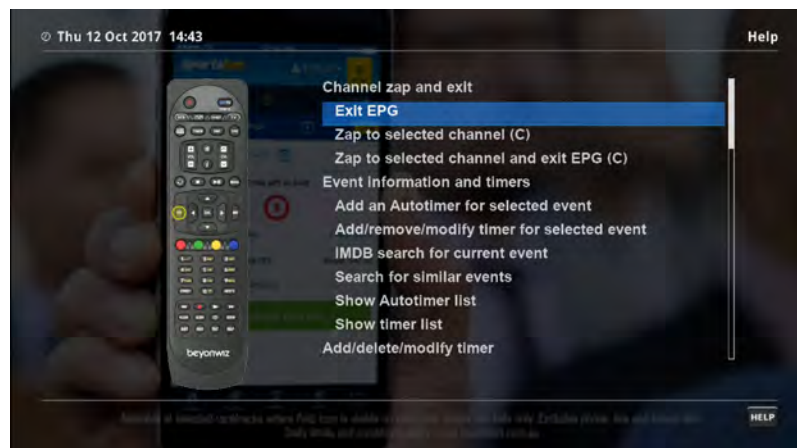
Support and Warranty Requests

www.support.beyonwiz.com.au



Located on the bottom right hand corner of the U4 remote control is the HELP button. You can press this button when there is a HELP button hint on the bottom right of the screen, the feature is also available while watching Live TV, while in timeshift mode, while browsing the EPG and while playing back recordings/media. In addition when in the help screen, pressing HELP gives instructions on how to use the help system.

When you press the HELP button you will get an onscreen interactive menu that explains what each buttons function is in that particular menu or function.



EPG HELP screen

Safety Precautions

This product has been manufactured to act in accordance with the international safety standards. Please read through the safety instructions carefully before using this product as the manufacturer takes no responsibility for any damages due to the consumer's misuse of the product.

1. Power Supply

- Use this product with the type of power supply that is indicated on the marking label. The U4 uses a 12V - 3.5A AC/DC adapter with an operating range is AC 90V~250V and 50/60Hz.
- Use an outlet that has surge suppression or ground fault protection.
- Do not overload a wall outlet, extension cord or adapter as this may result in electric fire or shock.
- Do not alter, bend, or twist the power cord or plug.
- Be sure to route the power supply cords so that they won't be walked on or pinched by items around it.
- Keep the power cord away from any heating appliances to avoid melting the cover vinyl.
- If the cord is damaged, do not plug in the product and be sure to get the cord replaced.
- When unplugging, grip the power plug, not the cord.
- If any of the following occur, unplug the product from the outlet and contact authorized service personnel:
 - The power cord or supply is damaged
 - Liquids of any kind have been exposed to the product
 - The product has been dropped or the casing has been damaged
 - The product is not performing as it should
- If the product won't be used for a long period of time, unplug it

2. Exposure and Placement

- Only operate the product in moderate temperatures.
- Place the product indoors to avoid exposing it to lightening, rain or direct sunlight.
- Do not expose any liquids or sources of open flame (such as candle flame) to the product.
- Do not place the product near any heat emitting appliances. This may cause impairment in cooling.
- Do not place the product on any unstable surface because it may fall and cause serious personal injuries and/or damage the product.
- Always make sure the product has enough space around it for ample ventilation and heat transfer.
- Do not place the product in a closed space (such as a cabinet) without suitable ventilation.
- Be sure to place the product approximately 10 cm away from any appliances that are exposed to electromagnetic influences, such as a TV or a VCR.
- Do not use any attachments or accessories that are not recommended by the manufacturer. This may cause hazards to the product, and may **void the warranty**.

3. Installation and Maintenance

- Before connecting or disconnecting the antenna cable to the product, be sure that the product is unplugged. Failure to do so may cause damage to the antenna.
- Before connecting or disconnecting the cable from the TV, be sure that the product is unplugged. Failure to do so may cause damage to the TV.
- Before cleaning the product, be sure that the product is unplugged.
- Use a damp cloth (do not use any solvents) to clean the exterior of the product.

4. Warnings

- Do not use this product near any flammable or explosive gases as this increases the risk of explosions.
- Do not use the product if any liquids or foreign objects come in contact with it.
 - Turn the product off, disconnect the power cord, and contact your dealer.
 - Do not use the product since this could cause a fire or electric shock.
- Do not operate this product or hold the power cord with wet hands as the risk of getting electronic shock is very high.
- Unplug the product and disconnect the Antenna cable during a thunderstorm or when left unattended and unused for long periods of time. This will prevent damage to the product due to lightening and power-surges.
- Do not use this product when it is out of order. Continued use when defective can cause serious damage to it and you.
- Do not put any alien items into or block the slots or ventilation openings of the product. This can cause damage to the product and reduce the life span.

5. Warranty

Be aware that any adjustments or handling (such as, but not limited to opening the casing) other than what is specified here may **void your warranty**. Attempting to modify the product may result in fire, injury, electric shock, or other severe damage to you or the product.

- Do not remove the cover, as there is risk of electric shock.
 - If it is absolutely necessary, please contact a trained professional.
- Do not try to modify the product as this may cause fires, injuries, electronic shocks or other severe damage to you or the product.

For full warranty info our Terms & Conditions Page
<https://beyonwiz.com.au/Terms/>

Privacy Policy
<https://beyonwiz.com.au/PrivacyPolicy/>

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Chapter 1.

Introduction

The Beyonwiz U4 digital receiver is fully compliant with the international Digital Video Broad-casting (DVB) standard, and thus is able to receive digital broadcasts of that standard.

For its operation you need an antenna, which must be installed appropriately.

1.1 Main Features

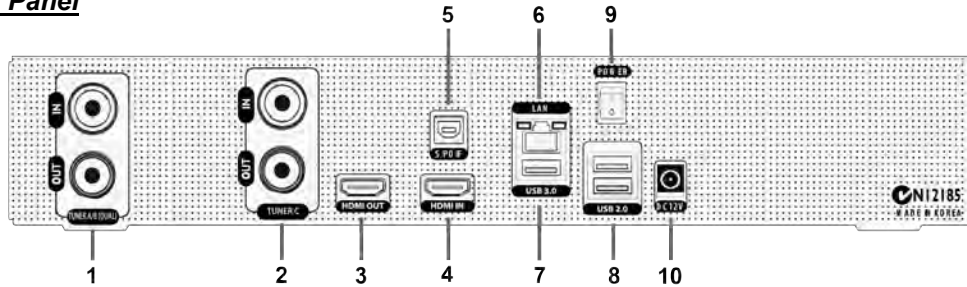
- 1.5GHz ARM Cortex Dual-core
- Linux Operating System
- 4K H.265
- Media Player
- Downloadable Plug-ins supported
- HDMI Input / Output
- MPEG2 / H.264 / H.265 Hardware Decoding
- 4 x DVB-T2 Tuners (3 internal / 1 USB Tuner)
- VFD Front Display
- 2GB NAND Flash
- 2GB DDR SDRAM
- Gigabit 10/100/1000MB Ethernet Interface
- 1 x USB 3.0 / 3 x USB 2.0
- Remote control
- S/PDIF for digital bit stream out (optical)
- EPG supported
- Automatic & Manual Service Scan supported
- 1080P transcoding support
- Skin change supported

1.2 Product Descriptions

Front Panel



- ① **VFD DISPLAY:** Displays current channel and menu information
- ② **USB 2.0 PORT :** Connect external storage and other USB devices.
- ③ **Touch Power Button:** Power on/off also used for USB upgrades.

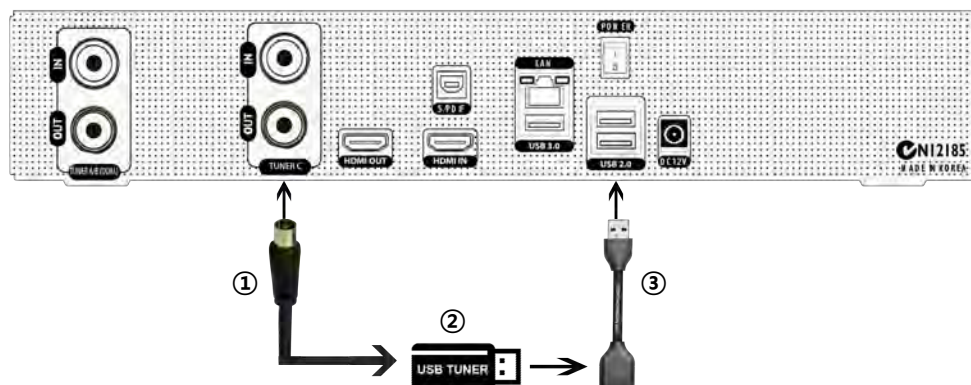
Rear Panel

- ① **Tuner A/B (Dual)** : Single input dual DVBT Tuner. Connect main antenna to IN
- ② **Tuner C** : DVBT Tuner. Connect supplied loop cable from Tuner A OUT to Tuner C IN.
- ③ **HDMI Out** : Connects to TV using a HDMI cable for both audio and video signals.
- ④ **HDMI In** : Recording, Switching and PIP from an external HDMI source.
- ⑤ **S/PDIF** : Connects to a digital audio system using S/PDIF cable.
- ⑥ **Ethernet** : Connect to an Ethernet router or switch for network / internet access.
- ⑦ **USB 3.0** : Connects the USB memory stick or external HDD.
- ⑧ **USB 2.0 x 2** : Connects the USB memory stick or external HDD.
- ⑨ **On/Off Switch** : Powers on/off.
- ⑩ **DC12V Input** : Connect supplied 12V Power Adapter here.

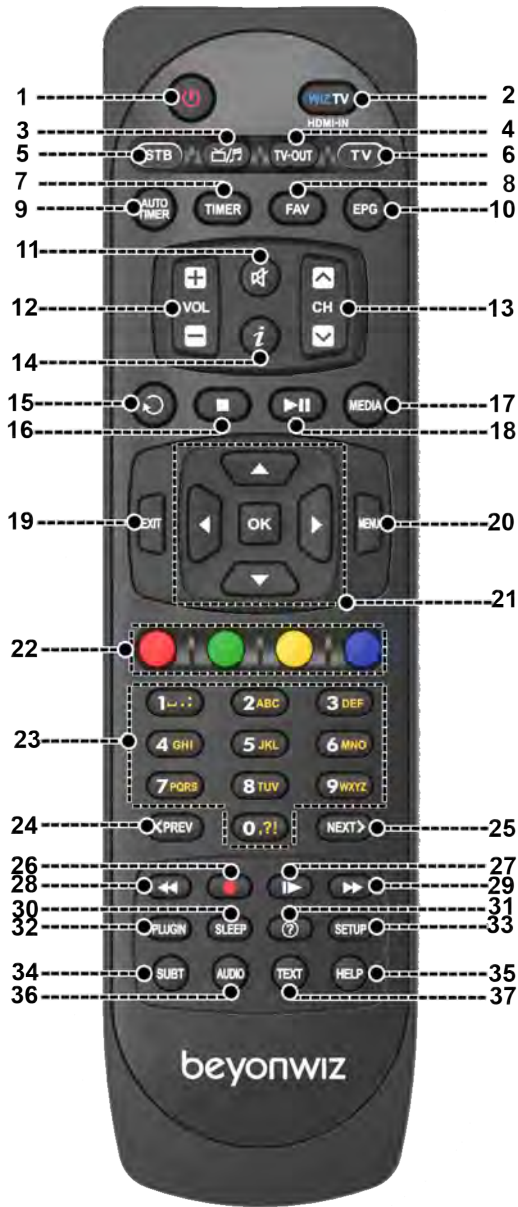
USB Tuner (Tuner D)

Please make sure U4 power switch is off when connecting USB Tuner.

- ① **Loop Cable** connects at one end to Tuner C Out and the other end to USB Tuner
- ② **USB Tuner** connects at one end to Loop Cable and other end to USB Extension Cable
- ③ **USB Extension** Cable Connects at one end to USB Tuner and other end to USB 2.0 port



1.3 Remote Control



**For TV Mode Codes
Turn to Page 47**

No.	Name	Description
1	Power	Switch between standby / On. Long press for power options menu.
2	HDMI In	Switch to HDMI IN - WizTV Smart TV Device Sold Separately
3	TV/Radio	Switch between TV and Radio Services
4	TV-Out	Change Video output mode - 567i - 576p - 720p - 1080i - 1080p - 2160p
5	STB	Puts remote in STB mode - Must be in this mode to control your U4.
6	TV	Puts remote into TV mode - You can control your TV's basic functions
7	Timer	Opens the Timer List menu
8	Favourites	Opens your Favorites channel list
9	Auto Timer	Launches Auto Timer list
10	EPG / Guide	Launches the Electronic Program Guide (TV Guide) - Long press Options
11	Mute	Mute / Unmutes Sound
12	Volume Up/Down	Volume controls
13	Channel Up/Down	Channel changing controls
14	Information	List current program information - Long-press for more options
15	Back	Go back to previous viewed channels
16	Stop	Stops recordings / Returns to Live TV when in Timeshift
17	Media	Launches recording list
18	Play/Pause	Pause Live TV and Recordings and press Play to resume
19	Exit	Exits to previous Menus
20	Menu	Enters the Main Menu
21	Navigation / OK	Brings up Info Bar in Live TV and Recordings - Used to Select menu items
22	Coloured Nav	These buttons are utilized in the EPG and Menus for options
23	Numbers / Keyboard	Zap to channel directly - Enter Keyboard text when required
24	Previous	Previous page / Zap history. Previous program in timeshift mode
25	Next	Next page / Zap history. Next program in timeshift mode
26	Record	Press record in Live TV to start instant recordings - Press in EPG for options
27	Slow Motion	Enters slow motions mode
28	Rewind	Rewind live TV or recordings - Press again for next speed
29	Fast Forward	Fats Forward Live TV or recordings press again for next speed
30	Sleep	Open Sleep menu
31	About	Launches information menu for Firmware version etc
32	Plugin	Launches Plugins menu
33	Setup	Launches Setup Menus
34	Subtitle	Toggle Subtitles / Closed Captions On / Off
35	Help	Launches Help Screens
36	Audio	Toggles Audio format (e.g. AC3, Stereo). Long press for more options
37	Text	Launches onscreen Keyboard in text entry screens

1.5 Technical Specifications

Front Panel

- Display: VFD display can display Channel, time,current program and menu navigation.
- USB: 1 x USB 2.0

Rear Panel

- | | |
|---------------------------------|----------------------------------|
| ▪ Power Switch: | Rear switch |
| ▪ Terrestrial-RF input/output: | 2 input / 2 loop outputs |
| ▪ Video/Audio output (digital): | HDMI |
| ▪ Audio output (digital): | S/PDIF Optical |
| ▪ USB: | 1 x USB 3.0 / 2 x USB 2.0 |
| ▪ Ethernet: | 1 x 10/100/1000 GIGA LAN |
| ▪ HDMI Input | HDMI Input |

Power

- Mains voltage: 240 - 12V 3.5A
- Power consumption: Power Adapter
(Max./typ. operation/stand-by) 65/40/<1 Watts

10 Introduction

RF

- RF range: 177.5 ~ 816.5 MHz
- Modulation, FEC, de-multiplexer: DVB-T/DVB-T2 standard

Video

- Video resolution: 3840x2160 interlaced, progressive
2160p,1080p@60,1080i and other size
- Video decoding: H.265, H.264, MPEG-2, MPEG-4
- Input data rate: compatible 2~45 MSymb/s
- S/N: > 53 dB

Audio

- Decoding: AC3, MPEG-4(AAC-HE), MPEG-1 Layer1, 2 and 3
- Sampling rate: 32 / 4.1 / 48 KHz
- S/N: > 65 dB

General

- Dimensions (W x H x D): 260 x 45 x 225 mm
- Weight (without HDD): App. 3 KG

Chapter 2 .

Installation of Beyonwiz U4

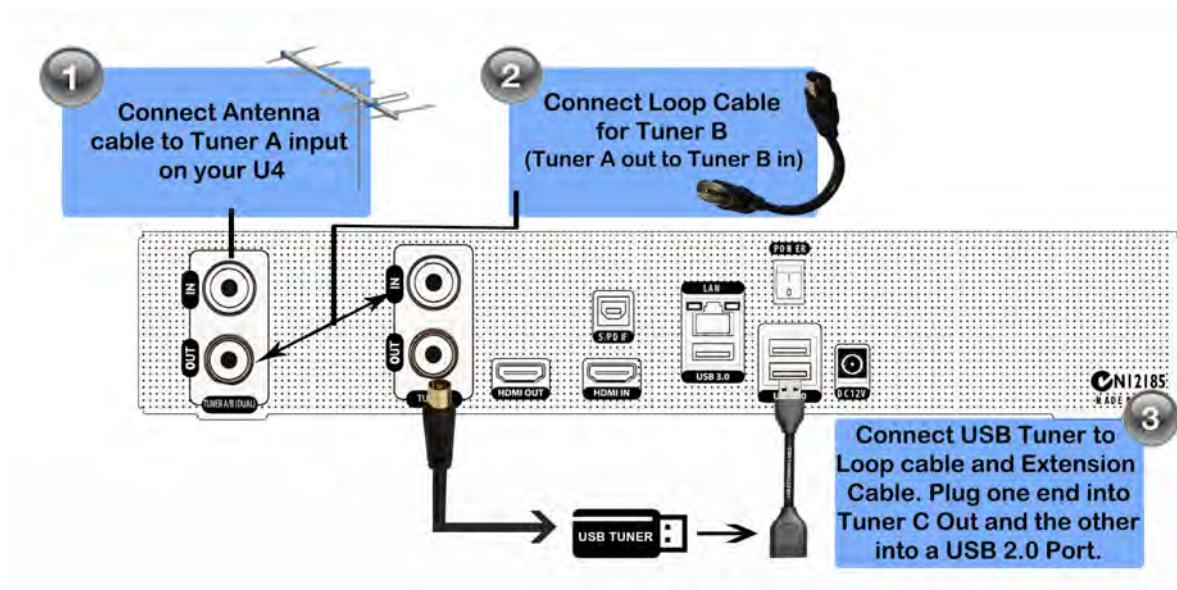
This chapter will guide you through the whole installation process of Beyonwiz U4. Please read each section carefully to make sure that the system runs properly.

2.1 Connecting Antenna Cables

Beyonwiz U4 is integrated with 3 digital tuners and 1 USB Tuner, and one of the first steps is to connect antenna cable(s) to Beyonwiz U4 in order to gain optimal signal quality. You can either choose one of the following connection methods depending on the equipment you have.

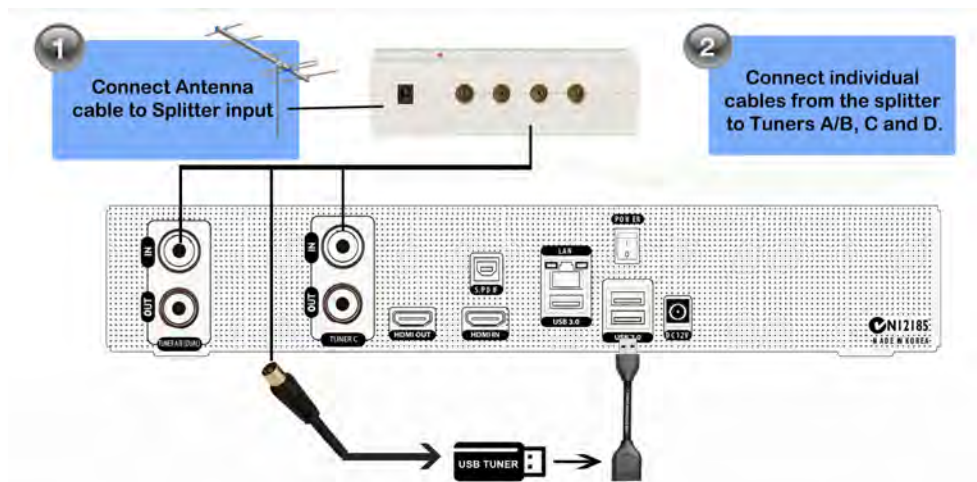
A. External Loop-through

Where you have only one Antenna cable, connect the cable to TUNER 1 Input and then use the provided loop cables to loop the signal through to the other tuners as pictured.



B. Indoor Antenna Amplifier / Splitter

If you find that you are losing too much signal by the time you get to Tuner 3 or 4 the use of an indoor Amplifier splitter is a good option, you can usually pick up a 4way splitter for \$35 - \$50.



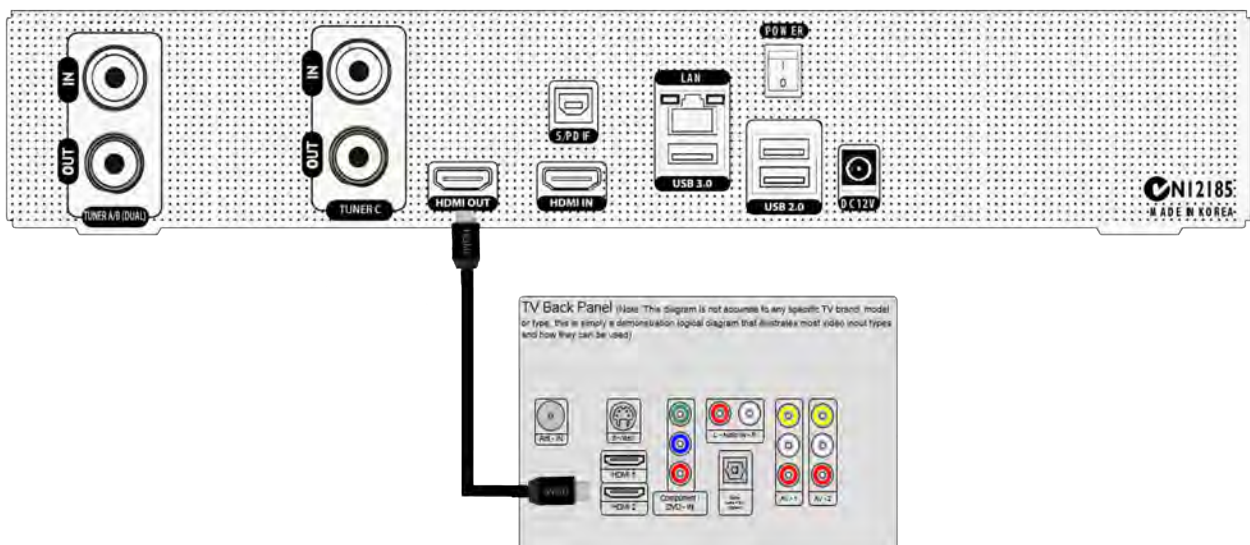
2.2 Connecting the TV (and VCR)

Beyonwiz U4 provides a variety of audio/video connection methods.

A. Connecting TV via HDMI Cable

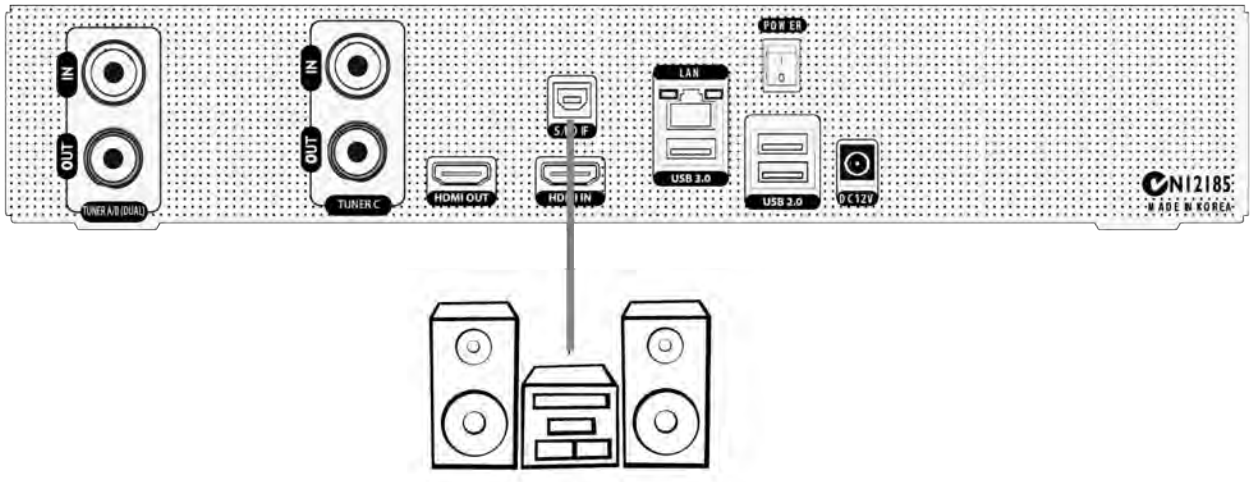
Most HDTVs have HDMI connectors to ensure the highest picture quality. In the rear panel of Beyonwiz U4 one HDMI connector is available for this purpose.

Connect your TV to Beyonwiz U4 using a HDMI cable as follows.



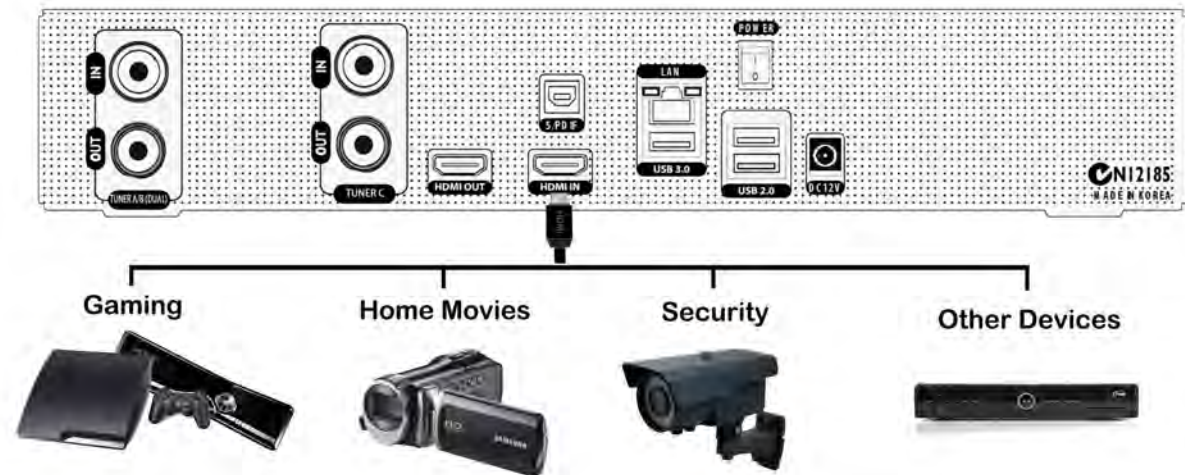
C. Connecting S/PDIF Optical Cable

When you have an A/V receiver with S/PDIF digital audio input, this connection is recommended to enjoy the best audio quality, especially for the Dolby Digital sound.



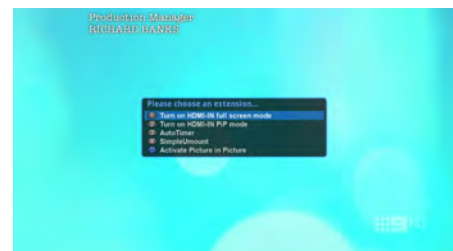
HDMI Input

Beyonwiz U4 provides a HDMI input that can be used for Recording, Timeshifting, Switching, Picture in Picture and Network Share after Transcoding.

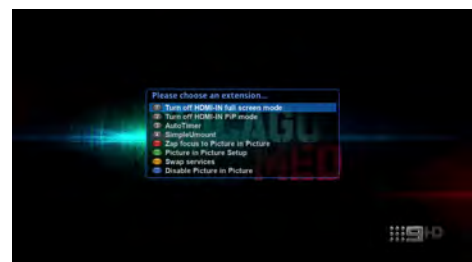


HDMI input Picture in Picture (PiP)


To activate Picture in Picture with your externally connected HDMI device press the Blue button on your U4 Remote and then select Turn on HDMI-IN PiP mode.



Once in PiP mode you can press the Blue button again to turn PiP mode off, you can also access more PiP features including Swap and Zoom. In PiP settings you can resize and reposition the PiP screen to your liking.



HDMI input Switching and Recording

To Launch HDMI IN pres the  button.

You can also find the HDMI In in your U4 channel list on channel 202.

HDMI input Transcoding and Timer Recording

These features are currently under development and may or may not become available via Software update in the future.

2.3 Connecting Power

A 12V power adapter and cable is provided as one of the basic accessories of the Beyonwiz U4.

- Connect the power cord to the 12V power adapter and connect to the rear panel of Beyonwiz U4.
- Connect the power cord to a power outlet and switch on.
- Turn on the power switch at the rear panel of the U4.

NOTE: AC input condition

- Nominal Voltage Range: 100~240 VAC
- Maximum Voltage Range: 90~264 VAC
- Nominal Frequency: 50/60 Hz
- Maximum Frequency Range: 47~63 Hz

2.4 Power ON/OFF

There are several ways to turn your Beyonwiz U4 ON or OFF

Tip: A short press on the Remote Control power button will place the U4 in standby mode but a long press (hold down for 3secs) will open the Power Options Menu. You can program the short press option via the menu to go into a different mode if you wish.

- **Complete Power Shutdown**

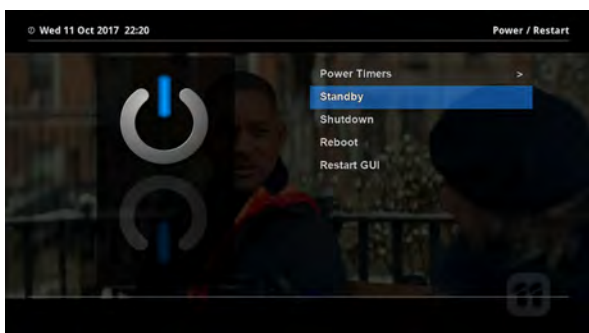
There is a Power Switch in the rear panel and once it is ON, you do not need to turn it on or off each time. It takes a longer time to boot the system if you turned it off by this switch.

- **Standby Mode**

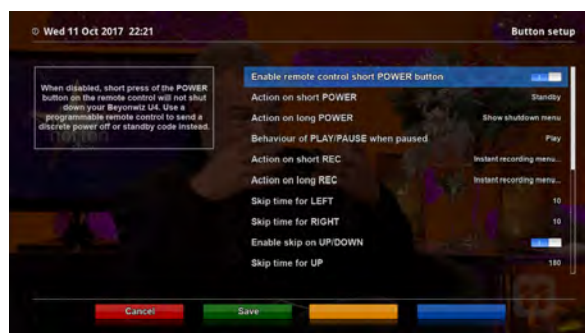
POWER key is normally used to turn the power of Beyonwiz U4 on or off. If you press POWER, it instantly switches your Beyonwiz U4 off or on. In this mode, the system is not completely shut down and thus it takes a shorter time to turn it on and off.

- **Shutdown Mode**

Shutdown is used to reduce the standby power consumption. Beyonwiz U4 is designed to be energy efficient, to guarantee the power consumption of under 1W use shutdown mode. In this mode the U4 will automatically go to standby mode to make recordings that start while in this mode and return back to full shutdown on completion.



Long press on Power Button for the Power/Restart Menu



Change the power button function by pressing the **SETUP** on your remote control, then go into System and then Button settings.

Chapter 3.

First Time Installation

When you turn on Beyonwiz U4 for the first time after purchase, an installation wizard will begin step by step.

NOTE: 'OK' key is used for confirmation and turns to the next step. Press 'EXIT' key to return to the previous page.

Tip: If you do not see the Setup menu appear on the screen after boot then your TV may not support the default video mode. Use the TV-OUT button on the Beyonwiz remote to scroll through the available modes until a picture appears. Please refer to your TV manual for advice on supported video modes.

Starting your Beyonwiz



Make sure the Beyonwiz is connected to the mains and that the switch on the rear of the PVR is set to ON, now press the On button on your Remote Control or on the front touch panel.

If the message Booting doesn't appear on the Beyonwiz's front panel, press the POWER button on the remote control.

After a short delay you should see the Beyonwiz logo on your TV screen. The logo may flash off and back on and you will see a booting spinner, this process could take up to 1min to boot from a cold start.



Formatting HDD (First Setup)

If your U4 detects that your HDD is not formatted in the correct format the first message you will see is to format the HDD so that your U4 works as designed. If you purchased a U4 with a Hard Drive installed you will most likely not see this step in the setup.



Setting your time zone

Use the UP and DOWN buttons to select the time zone that applies to your area, and press OK to set it and move to the next screen. Your Beyonwiz will automatically adjust to Daylight Savings when it is needed.



Scanning for digital TV services

If your location is listed please scroll to it and press "OK" on your U4 Remote, this will shorten the scan time as it only scans the frequencies used in your area. If your location is not listed or if you are unsure please select "Full Scan", it will take a little longer but it will ensure that you get the correct channels in your area. If you perform a location scan and you find that you are missing channels you can enter the Antenna Setup menu at a later stage and perform a full scan.

18 First Time Installation



Once you scan is complete you will get a message in the info box on the left hand side, simply press "ok" to move the next part of the set up.



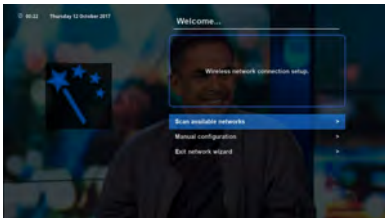
Internet Setup

The Beyonwiz is now ready to configure its Internet connection. Even if you don't want to have your Beyonwiz connect to the Internet, you still need to press OK here to move to the next screen.



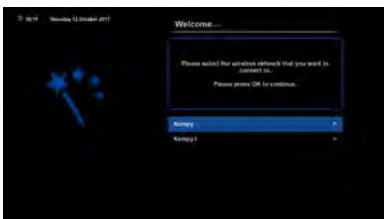
Wired LAN Set-up

If you want to connect your Beyonwiz to the Internet and are using a LAN Cable leave both Use Interface and Use DHCP "On" and simply press OK, this should then give you a message that your internet is connected and list your U4's IP address. Press "OK" to move to next screen. (Go to Step 8)



Wireless LAN Setup

You must have a USB Wifi Dongle inserted. Select WLAN connection and press "ok", in the next screen click on Scan available networks. Select the network you wish to join and press "ok".



Make sure that the encryption is correct, highlight and use the right / left arrow to change, WPA or WPA2 would cover most modern wireless routers.

Now enter your wireless password in the encryption key, you can use the buttons on your remote to type or press the "TXT" button to launch the onscreen keyboard. Once you enter the password press the "ok" button on your remote.

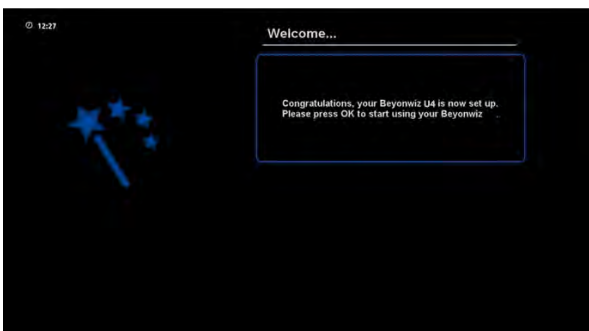
You should now get a successful message and an IP Address confirmation. For troubleshooting network connections please visit our user forum and click on 'Networking your U4'. (Go to Step 8)



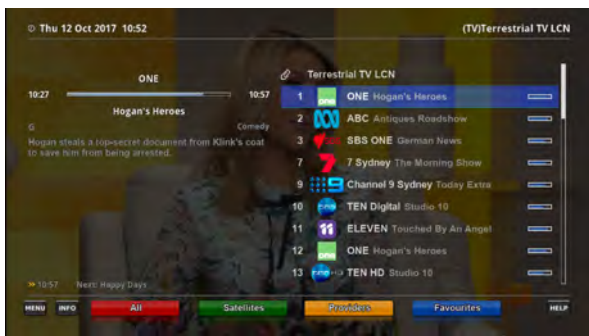
Skipping Internet Setup

Set-up Without Internet

If you do not want to connect your U4 to the internet at this time, don't worry you can easily set it up at a later time. Scroll down to 'Exit network wizard' and then press 'ok'.



Your U4 is now almost ready to use, press ok when you get the Setup conformation message below on left.



Once the Scan is complete press OK and you will launch your Live TV channel list, scroll to any channel and press OK to launch Live TV

Tip: On first setup you need to load the data for the EPG (Guide) that is transmitted individually from each TV Network. So when you get to Live TV switch to one of the channels for each TV Station for around 30secs to load the EPG for all of their channels. e.g. In Sydney you would change channel to ABC, SBS, 7, 9 & 10 for 30secs each and that would load the EPG for all of the channels.



Chapter 4. Basic Operations

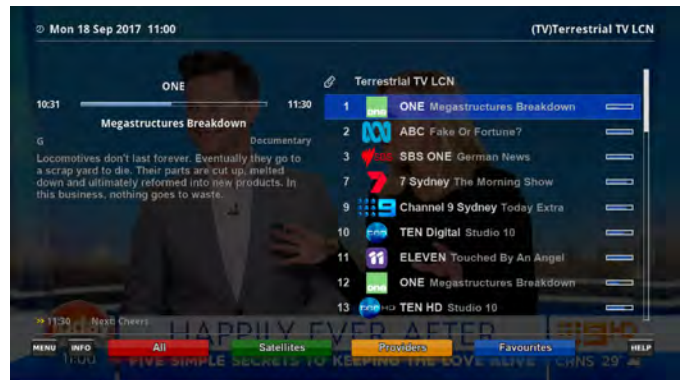
Important Information: This feature used to be assigned to Up/Down Arrows which have now been assigned to Ad Skip buttons by default. If you would like to change this to behave as it previously did press **SETUP** >>System>>Button Settings and Disable "Enable Skip Up/Down.

4.1 Channel List

How to use > Press **FAV**

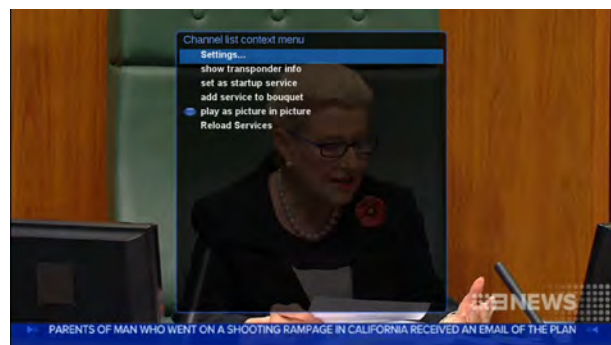
If press **FAV** key, this will activate Channel Selection Menu.

Four types of the channel lists are available to help you manage your channel selection.



In order for you to add certain channels to this favorites list.

- ① Call up the Channel Selection list by Pressing **FAV** key.
- ② Go to All lists by pressing **RED** key.
- ③ Select the channel that you want to add to the Favorites list.
- ④ Press **MENU** key on the selected channel and the following menu appears.
- ⑤ Choose add service to bouquet and press **OK**.
- ⑥ Go to the Favorites list by pressing **BLUE** key to confirm that the selected channel is correctly included in the list.



4.2 Switching Channel

How to use > Press CHANNEL to the next channels



or press



Beyonwiz U4 offers various channel zapping methods. You can switch the current channel by pressing. Zapping is another name for changing channels.

CHANNEL +/- key

If you press in.

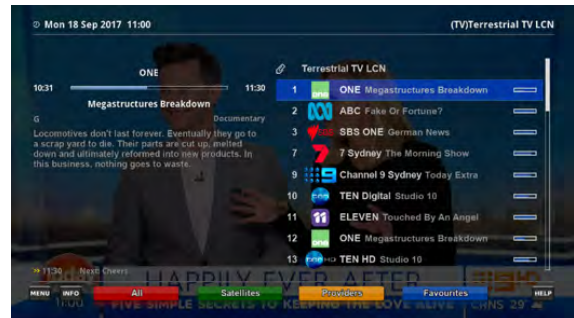


key, the previous or subsequent channel of the current channel is tuned



If you press **FAV** key, Channel Selection menu appears.

You can move up and down to select the channel that you want to tune into.



Channel Number

Enter a channel number and then OK, and it will instantly tune into the channel.



4.3 Program Information

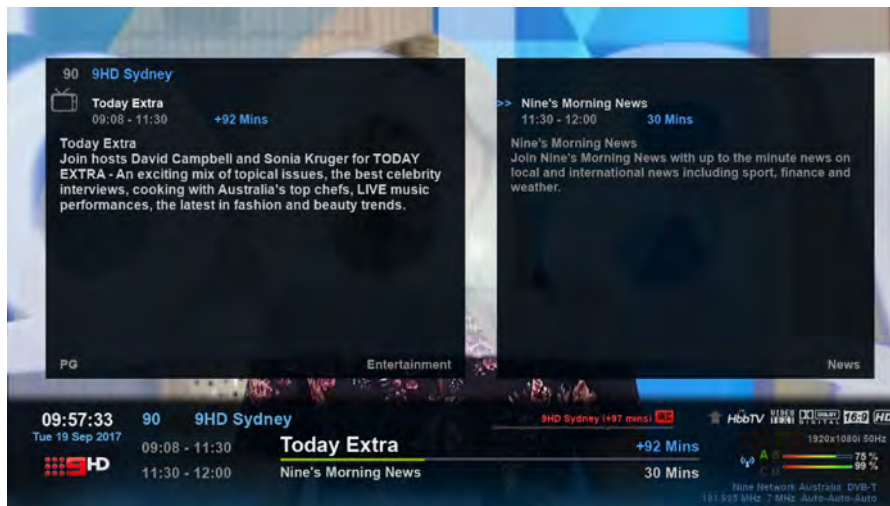
How to use > Press **OK**

Whenever you change the channel, infobar is always displayed for 5 seconds (default setting). Infobar is designed to provide you comprehensive information of the channel that you are currently watching.

Press OK to call up infobar.



Pressing OK again while the first infobar is up will call up the 2nd infobar.



The 2nd infobar will give you further program information for the "current" and the "next" program and will not timeout by default, you can press 'OK' again to close it or you can change the timeout settings for both the 1st and 2nd infobar by pressing **SETUP** > System > GUI Settings.

4.4 Volume Control

How to use > Press **VOLUME**



or press

You can adjust the audio volume by pressing **VOLUME +/-** key. You can also mute or unmute the audio temporarily by pressing **MUTE** key



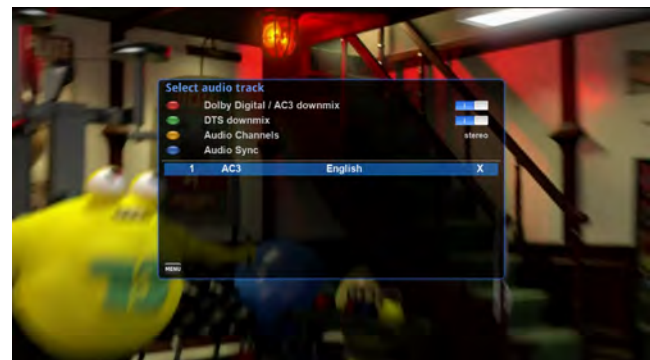
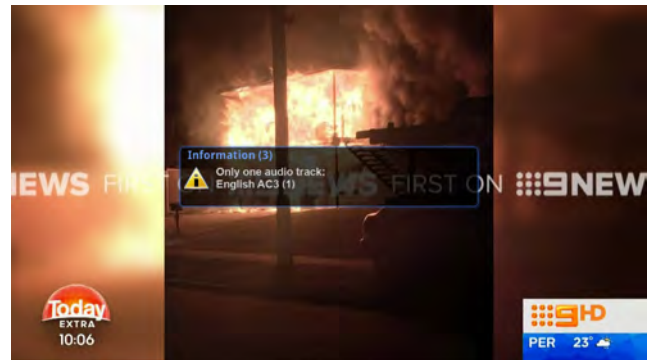
4.5 Selecting Audio Track

How to use > Press

Pressing the Audio key once will toggle between any available audio tracks that are being broadcast.


For more detailed info do a **long press** on the Audio button and you can check what audio tracks are available to choose.

By using **UP/DOWN** key and **Colour** key, you can select a different audio language or Stereo sound.



NOTE: Available options on this menu will differ depending on the service.

4.6 Subtitle

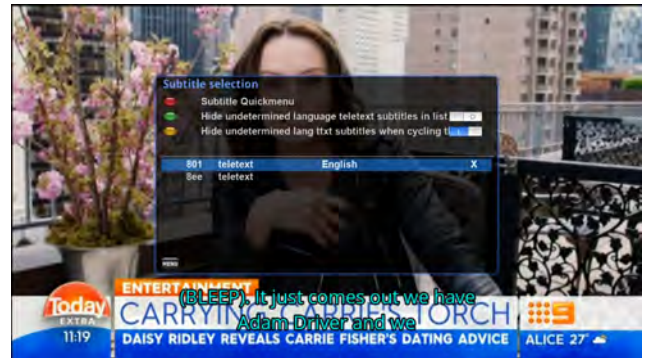
How to use > Press 


You can view the subtitle of the current program if the program provides the subtitle. Press **SUBTITLE** key and subtitles will be activated for that channel, press again to switch them off. The U4 will remember your subtitle settings for that channel.

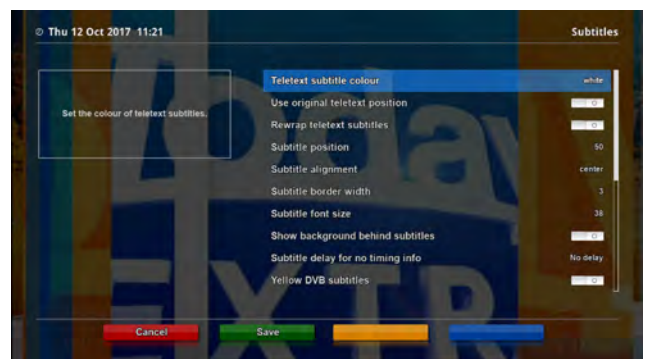


> Subtitle Settings

You can also customize your subtitles Live by a long press on the SUBT button (hold down for 2 secs) and then the Menu button to access the subtitle quick menu, here you can see your changes live on the screen. (Subtitles but first be active to utilize this feature)



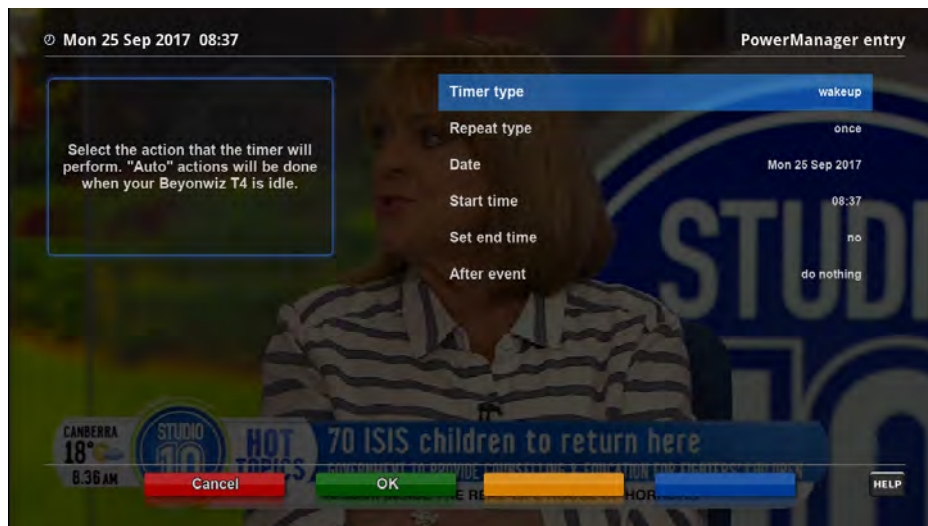
You can also your subtitles by pressing  > TV> Subtitle Settings.



4.8 Sleep Timer

How to use > Press "SLEEP" on your U4 Remote Control

You can set a specific time when your Beyonwiz U4 goes into Standby mode, Shutdown mode or even when the U4 wakes up using this menu.




4.10 Electronic Program Guide

How to use > Press "EPG" key

The Electronic Program Guide (EPG) displays the program information of each channel for a minimum of 7 days in advance where broadcast. The Beyonwiz U4 EPG is one of the most advanced in the market giving users multiple features and customization options.


We have created a couple of videos outlining both the basic and more advanced features of the Beyonwiz U4 EPG, simply visit www.beyonwiz.com.au/tv to view these and more helpful videos.

Hot Tips: Press the  button while in the EPG for all the EPG control options

From Live TV press and hold the EPG button for 2 secs (long press) for more EPG options

Recording via the EPG

Single / One off Recording

Scroll to the show that you wish to record using the arrows on the U4 Remote, press the  button and then press OK on Add timer or press the green button.

Auto Timer / Series Record

Scroll to the show that you wish to record every time it is on using the arrows on the U4 Remote, this time when you find the show press the "BLUE" button and you will get some popup options. To get the most effective result you should un-check the 2nd and 4th option that pops up (Exact match / Only on weekday xx)

Press "Green" button to Save and then press it again in next screen, this should record the series in most cases, you may have to modify a little for non general series that are on at completely different times of the day.

There is a good Auto Timer overview written by our users in our forum under the Tips and Tricks section.



4.11 Timeshift

The best way to activate Timeshift mode is to Press PLAY/PAUSE ►|| or by pressing the left or the down arrow on your U4 remote, you can also press the rewind button but we highly recommend the skip arrows.

10 seconds after changing to a channel a timeshift buffer will be saved so you can rewind or record from any point after that time. As soon as you change channels the timeshift buffer will be deleted from the previous channel and a new buffer will start on the current channel.

When in timeshift mode you can Pause, Rewind and Fast Forward Live TV or you can use the fully programmable Skip buttons.

Skip Buttons on your Remote

Press '◀' skip back or '▶' forward 15secs
Press '▲' forward 180secs

Press '▲' forward 60secs

You can customize to your liking by pressing **SETUP** >System>Button Settings

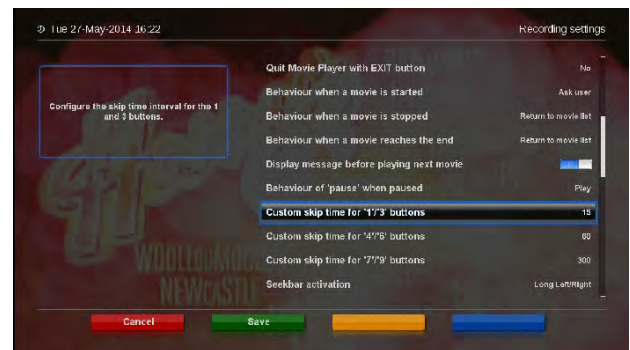
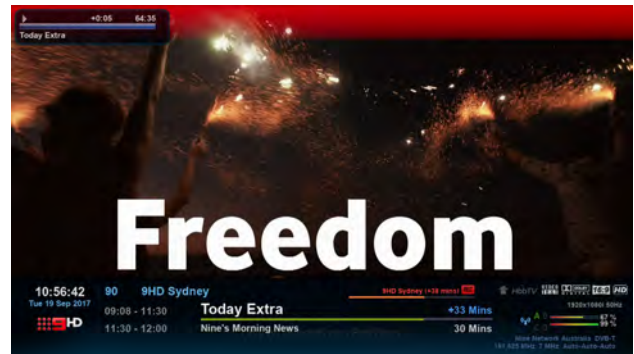
Here you can also activate the numbers buttons to be skip keys.

If you want to stop Timeshift mode and to return to the live mode, press **STOP** key.

Recording Timeshift

Timeshift is saved as events for as long as the U4 has been idle on a particular channel, so if the U4 has been on a channel for 3 hours and there have been 4 programs on it that time you can save any of them permanently by pressing the 'Red' button or the 'Rec' button on the remote and then selecting Timeshift save recording (select event) and then simply click on the show you missed that you wish to record.

If you try to change channel while in Timeshift mode you will be warned and asked to confirm.



Tip: The timeshift default start time can be modified by pressing **SETUP** >TV>Timeshift Settings, you can also disable timeshift in this menu



4.12 Recording

Beyonwiz U4 is a Personal Video Recorder with 3 integrated and 1 USB DVB-T2 tuners. You can record multiple programs at the same time. There are three ways to operate and manage recordings.

1 EPG Recording

How to use > Press  (See Page 26)

2 Instant Recording

How to use > Press  or 

Three recording options are given.

Create instant recording...

This option is used when you want to create a recording straight away on the current channel, in the next screen you can customise start and stop times, by default it will have the stop time set to record to the end of the current program.



Select and event to save


This option will be visible when you have a timeshift buffer. If you have been on a channel for a few hours you can choose this option and save one of the programs that has been on earlier in the day, it will save the show in your recordings list.



Stop or change active recording

This option will only be visible if you have an active recording running. When selected you can stop the recording or change the duration.

2 Recording by Timer

How to use > Press 

You can manage all your record timers here.



In this menu, color keys are assigned for each different function.

RED (Delete)

This option is used to delete a timer.

GREEN (Add)

This option is used to add a timer.

YELLOW (Disable)



This option is used to disable the timer and X mark will appear.

NOTE: if you want to enable the disabled timer, press YELLOW again.

BLUE (Cleanup)

This option is used to remove those finished timers from the Timer list.

Stop Recording

How to use > Press RED  or  →
'Stop Recording'

If you want to stop recording, press **RED** again while recording is running. Select Stop Recording.



4.13 Recording Playback

How to use > Press 'Media'

You can view recorded files on the **Recorded files** menu. Press **Filelist** to activate this menu.

Select the file that you want to play. It will instantly replay the file and display the recording info bar. The info bar can be called upon at any time during the recordings by pressing the "OK" button on the remote.

This info bar gives you the following information of the recording.

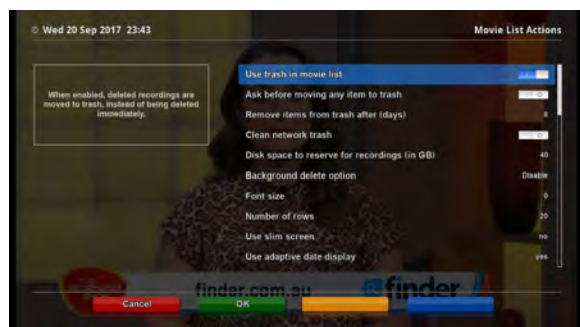
- ① Title of the recording
- ② Total duration of recording
- ③ Remaining time
- ④ Progressive bar
- ⑤ Elapsed time

Recordings list Options

While in your recording list you can press the menu for extended options and settings.


Here you can sort, move or even edit your recordings.

If you click on Setting you will access the movie list actions settings where you can fully customize your recording list and features.



4.15 PiP & Interactive Media

Please note at the time this manual was printed the PiP function was not confirmed due to chipset limitations. The PiP function has not been an advertised feature of the U4 but we are including the info in the manual as there may be further developments that will allow this feature in the future.

How to use > Press Blue 

In the interactive media popup menu you can quickly access and launch interactive media such as hbbtv and interactive plugins.



To activate Picture in Picture press the **Blue button "twice"** on the U4 remote control and the current channel will popout, you can then change the main channel to another channel as normal and the PIP window will remain.



You can fully customize the size and position of your PiP window and also switch between the main service and PiP service by pressing the **Blue button** while PiP is active.



Chapter 5. System Configuration

Beyonwiz U4 is a very sophisticated device designed to allow users a variety of system setting options that go into a huge amount of detail. You can fine-tune your Beyonwiz U4 to be your OWN system to fit your taste. This chapter will guide you through the basic menu system configuration. Prior to System Configuration, please take some time to get to know the menu structure of Beyonwiz U4 first.

5.1 Main Menu

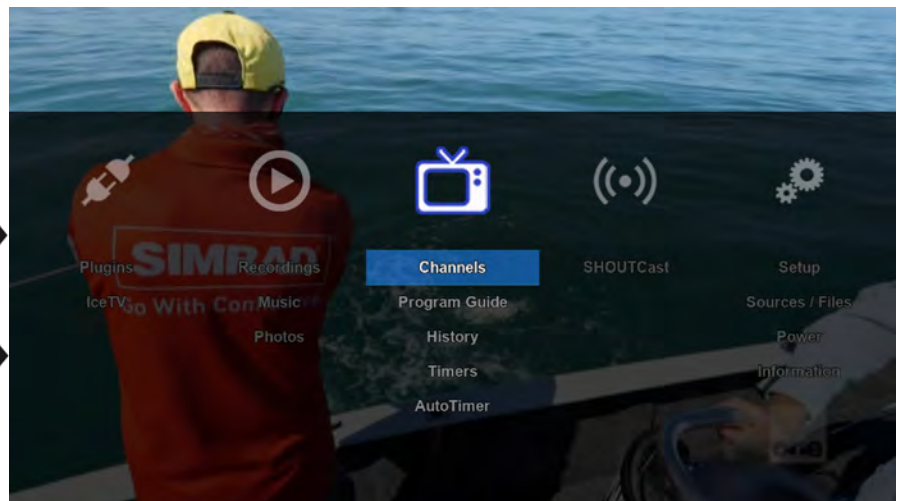
How to use > Press



Navigation

Scroll using left/right arrows on your remote and press 'ok' to enter the highlighted menu

The items below the main menu bar are shortcuts, you can access those by your up/down arrows on your remote and then pressing 'ok'



Menu Items (From Left to Right)

Plugins: This is where you will find your installed plugins and will also be able to download, install or delete plugins.

Channels: Access channels list, EPG, Zap History and your saved Timers

Internet: Your Internet plugins such as Shoutcast and Youtube

Setup: This is the main menu to access all your system and customization settings. (more details below)

The main 'Setup' menu of Beyonwiz U4 consists of the following menus and sub menus.

Menu Structure

AV setup

- AV Settings
- Audio Sync
- Video Enhancement
- OSD Position
- OSD 3D Setup
- Skin Setup
- HDMI-CEC

System

- GUI settings
- Button settings
- Time Settings
- Front panel settings
- Remote control code settings
- Factory reset

Tuners

- Tuner Allocation
- Tuner Configuration
- Location Scan
- Manual Scan

TV

- Channel selection
- Recording settings
- Timeshift settings
- Auto language
- Subtitle settings
- EPG settings
- Parental control

Media

- Picture Player
- Media Player

Network

- | | |
|-----------------------------|---------------|
| - Network Browser | - Samba |
| - Mount Manager | - NFS |
| - Network adapter selection | - FTP |
| - Network Interface | - DNLA Server |
| - Password | - DYN-DNS |
| - Network Restart | - Telnet |

Storage

- Hard disk setup
- Format hard disk
- File system check

Plugins


- Plugin Browser
- Download Plugins
- Remove Plugins
- Package Installer

Software Manager

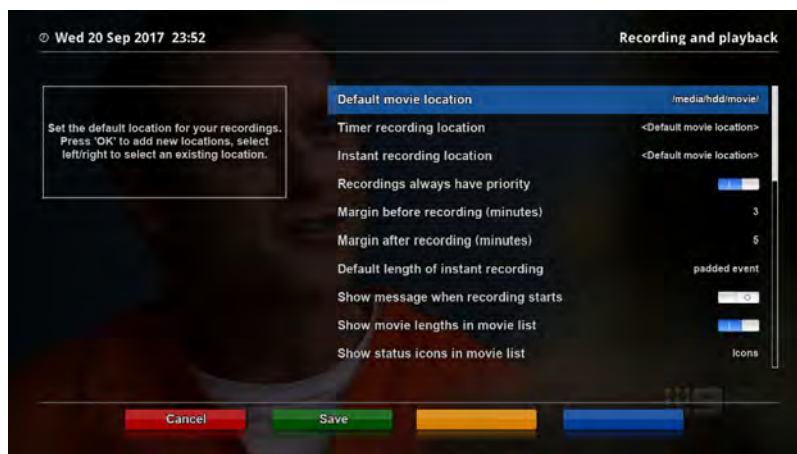
- Create Backup
- Restore Backup
- Configure Backups
- Check for updates now
- Configure update check

5.2 System Setup

Recording Settings

How to use > Press  → 'TV' → 'Recording Settings'

This menu is where you set your timer padding, recording location and many other custom settings



- ① **Margin before record (minutes):** If you enter a number here, for example, 5, the recording will begin 5 minutes before the defined time. If it is '0', it means that the recording starts exactly at the defined time. This option comes in handy in the event that a program starts earlier than the original schedule.
- ② **Margin after record (minutes):** If you enter a number here, for example, 5, the recording will stop 5 minutes after the defined time. If it is '0', it means that the recording stops exactly at the defined time. This option comes in handy in the event that a program ends later than the original schedule.

Subtitle Settings

How to use > Press **SETUP** → 'System' → 'TV' - Subtitle Settings'

You can set subtitles in this menu.

Using **LEFT/RIGHT** key, you can set a color, position, etc. After setting, press **GREEN** to confirm and save the changed setting.

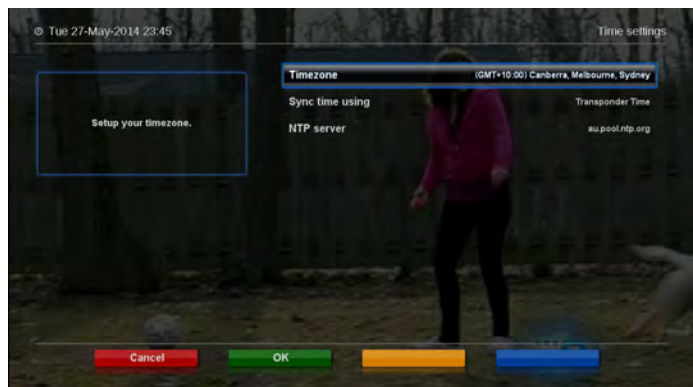


Selecting Time Zone

How to use > Press **SETUP** → 'System' → 'Time settings'

The Beyonwiz U4 will set your timezone in the initial setup wizard and will automatically adjust to daylight savings but if you should have to change it then you can do it via the Time Settings menu.

Using **LEFT/RIGHT** key, you can find a time zone that you want to use for your Beyonwiz U4. After selecting a time zone, press **GREEN** to confirm and save the changed setting.



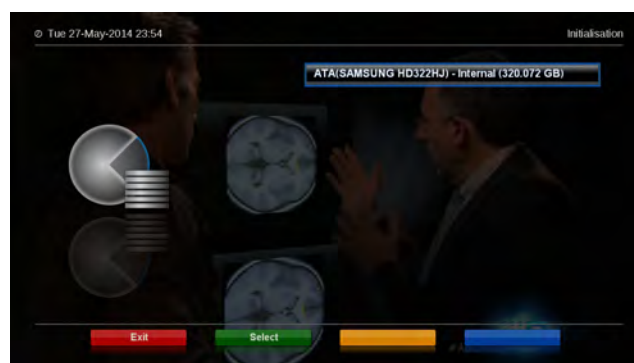
Initialize / Format Hard Disk

How to use Press **SETUP** → 'Storage' → 'Format Hard disk'

Please note this will delete any recordings or files you have on the HDD

You can format both internal and External Hard Drives

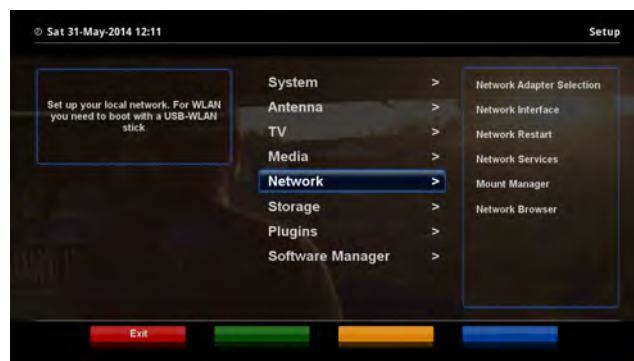
- Select the Hard drive you wish to format and press the Green button the 'select'
- Next press the 'Red' button to Initialize
- You will see a pop up asking you to confirm, select Yes to format the HDD



Network Setup

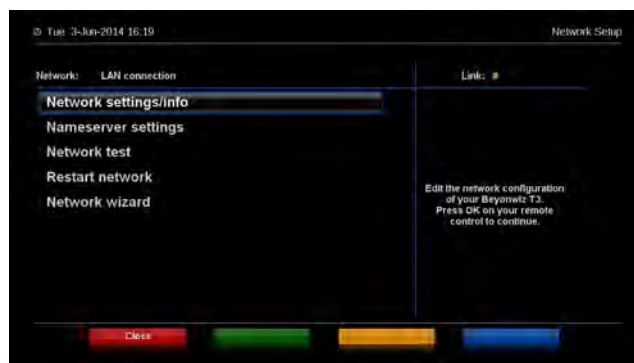
How to use > Press **SETUP** → 'Network'

Beyonwiz U4 is integrated with Gigabit LAN Ethernet with RJ 45 connector. You are recommended to use this network capability of Beyonwiz U4 to fully enjoy the system. You can setup the network settings through this **Network Configuration** menu.

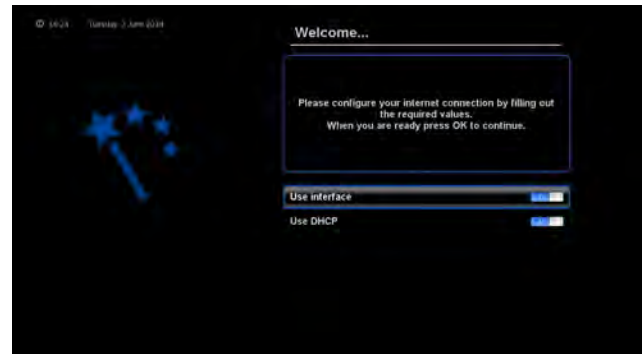


LAN Connection

The easiest way to connect to your wired home network is via the LAN connection and using the Network Wizard either in the initial set up or by going into the Network menu as pictured above. Once in the Network menu select Network Adapter Selection and press 'OK' if you then get a choice between LAN and WLAN choose LAN and then pres 'OK' and you will get this screen >



Scroll down to Network wizard and press 'OK' in the next screen you will get the Welcome message for the Network wizard, press 'OK' to start and you will get this page>
Make sure both options are switched on as pictured and then press 'OK'



If connection is successful you will get a screen similar to this, please take note of your IP address as you can use this to access your U4 via your PC for controlling, streaming and setting timers. If unsuccessful please check your network and cables or try manually entering your network info in 'Network settings/info' and 'Nameserver settings' as pictured on previous page.




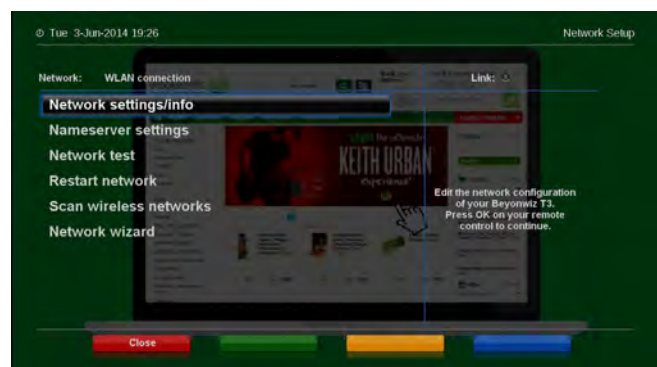
Wireless LAN Connection

The Beyonwiz U4 will work with a variety of wireless dongles or wireless network adapters but we recommend the ones that are sold at www.shop.beyonwiz.com.au as they have been fully tested and integrated.

To connect your U4 to your wireless network first place the wireless USB stick into one of the ports on the U4 and then 'Reboot' (hold down the power button on your remote for 3 seconds and then select 'Reboot' from the power menu).

Once your U4 reboots press

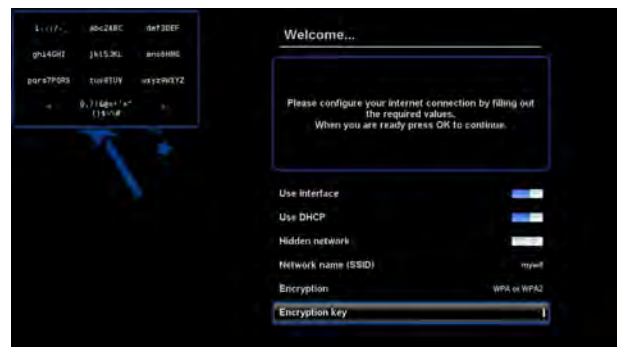
The easiest way to connect to your wireless home network is via the WLAN connection and using the Network Wizard either in the initial set up or by going into the Network menu  → 'Setup' → 'Network' Once in the Network menu select Network Adapter Selection and press 'OK' if you then get a choice between LAN and WLAN choose WLAN and then press 'OK' and you will get this screen >



Scroll down to Network wizard and press 'OK' in the next screen you will get the Welcome message for the Network wizard, press 'OK' to start and you will get this page>
 Select Scan available networks and then press 'OK'



In the next screen it will list the available wireless networks, scroll to the network that you wish to connect to and press 'OK' and you will see this screen>
 Use interface and Use DHCP should be 'On' and Hidden network should be 'Off' as pictured. Choose your encryption type with your left / right arrow.



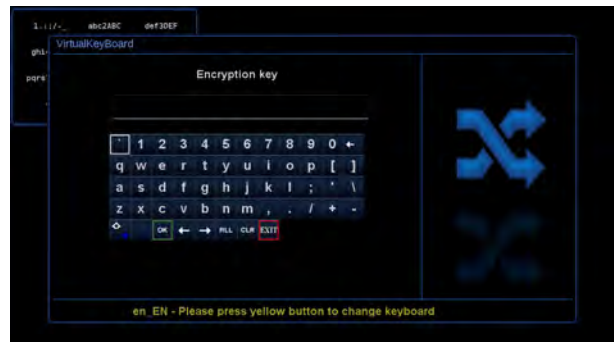
Encryption types: Unencrypted - WEP - WPA or WPA2 (If your network detects WPA2 use the right arrow to change to WPA or WPA2)

Next you need to enter your WiFi encryption key or password, you can do this two ways:

1) Scroll to Encryption key and use the numbers on your remote control to enter the password in an old sms style of texting. Press 'OK' to save settings and connect to your network.

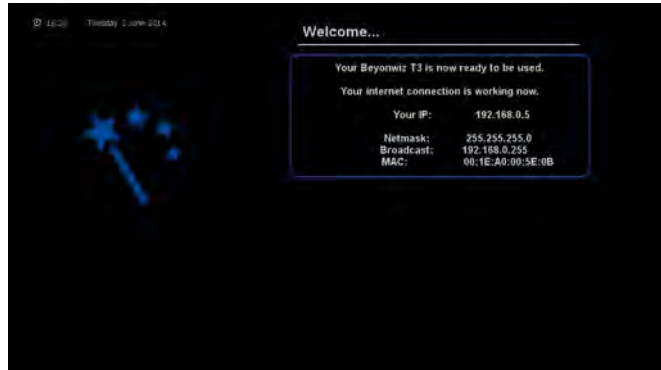
'or'

2) Press the 'TEXT' button on the bottom right corner of your U4 remote and a virtual keyboard will popup as pictured > Once you enter the password scroll to the OK button and press 'OK' and then in the next screen you should see the key in the Encryption key field, press 'OK' again connect to the network.



You may be asked if you wish to continue and if you wish to disable the LAN adapter, select Yes on both occasions, it will then attempt to connect.

If connection is successful you will eventually get a screen similar to this, please take note of your IP address as you can use this to access your U4 via your PC for controlling, streaming, setting timers plus more. If unsuccessful please check your network settings or try manually entering your network info in 'Network settings/info' and 'Nameserver settings' You can also check our user forum for tips at www.beyonwiz.com.au/forum




Skin

How to use > Press **SETUP** → 'AV Setup → 'Skin Setup'

Beyonwiz U4 comes standard with 2 skins to choose from in this menu. As the U4 software is Open Source users can create and submit their own skins, check our user forum for available skins or download our SDK to build your own.

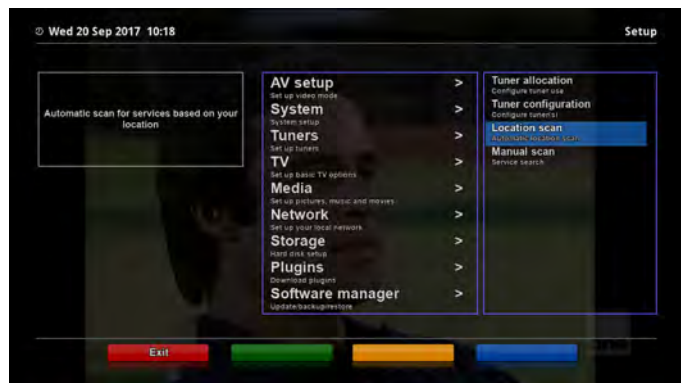
NOTE: It can take over a minute after the change of Skin and requires a complete system shutdown. Please wait patiently until the system reboots with a newly selected Skin.

Channel Scanning

How to use > Press  → 'Tuners'

You will usually scan all your channels in when you do the initial Setup Wizard but from time to time you may need to perform a channel scan if channels change frequency, new channels become available or some channels were not found in the initial scan.

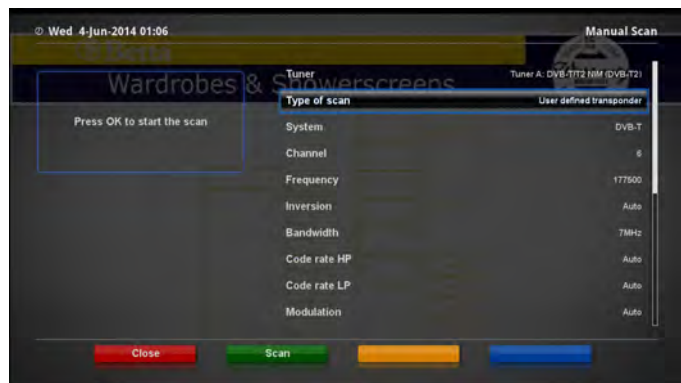
Once in the Tuners menu you will see 2 options **Location Scan & Manual Scan**



Location Scan allows you to select your location, this drastically speeds up the scanning process as it will only scan the frequencies assigned to your area. **Full Scan** should be used if your location is not listed, you are unsure or a location scan failed to find all the channels, it will scan all the Digital TV frequencies used in Australia, this takes a lot longer. Just select your location or Full Scan and press 'OK' for the scan to start.



Manual Scan allows you to enter a particular frequency and scan just one channel at a time, in most cases all the default settings in manual scan will stay the same, you will just need to change the **Frequency**. There are many online resources that list the channel frequencies in your area or you can check with your local TV providers. Once you enter the desired frequency press the Green button to scan,



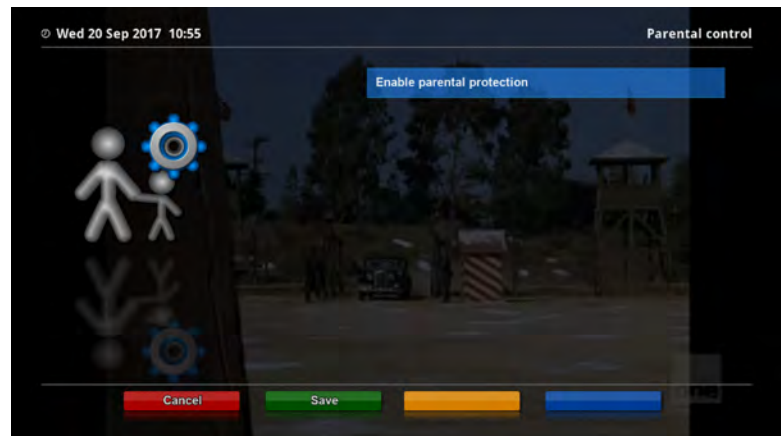
Parental Control

How to use > Press  → TV - 'Parental Control'

The parental Control feature allows you to block broadcasted content based on ratings, if you enable Parental control and a blocked program comes on based on your settings it will require a pin to view the program. Please note that the U4 relies on the broadcaster or EPG provider to broadcast the rating in their guide data.

Step 1

When you enter the Parental Control menu for the first time press OK on Enable parental protection and you will be asked to create your pin, key in your 4 digit pin number and then confirm.

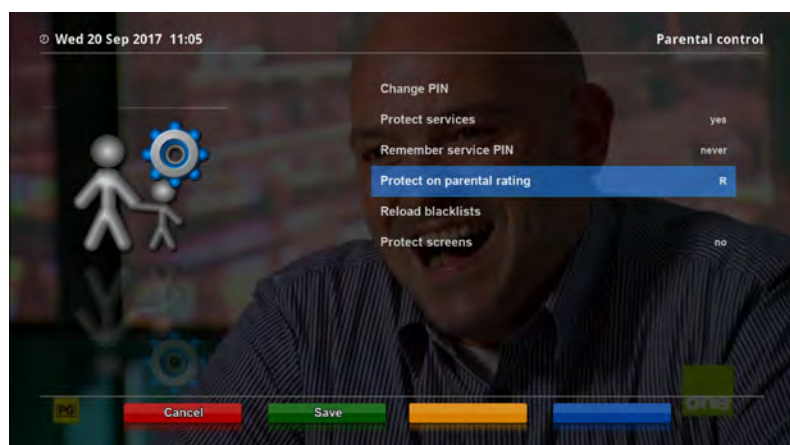


In the next screen you have 3 options

- * Change Pin - Use this to change your pin
- * Protect Services - This is where you set the rating that you want to block
- * Protect Screens - Here you can lock menu screens

Step 2

Scroll to Protect service and use your Right arrow to change from No to Yes, you will then get the options pictured, select your desired options and press the Green button to save.



Backing up & Restoring your Settings

The U4 allows you to Backup your settings, this is a very useful tool that backs up your Timers, Channels, Favorites, network and other custom settings so that in the event you have to perform a factory reset or you upgrade the software you can restore these settings so you do not have to spend time setting these things up again.

Create a Backup

Press **SETUP** > *Software manager* > *Create Backup* and you should get a confirmation that backup is done.

Restore Backup

To restore from back up press **SETUP** .> *Software manager* > *Restore backup* and you will get an on screen confirmation message, once you choose Yes your U4 will reboot and the backup will be applied.

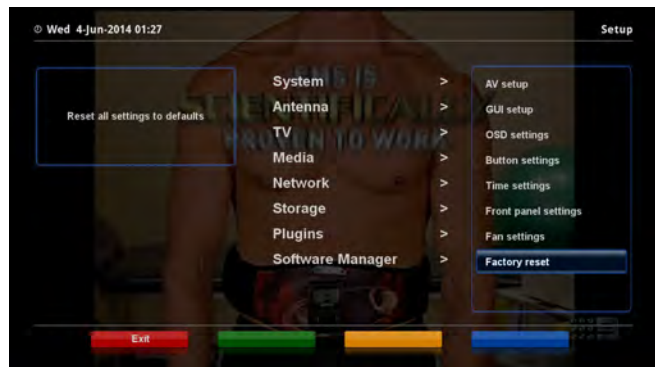


Factory Reset

From time to time you may be required to reset the factory settings, it may be required when applying a particular upgrade or for troubleshooting problems, you can back up your settings before hand as explained at the top of this page.

To reset to factory setting go to **SETUP** > *System* > *Factory setting*

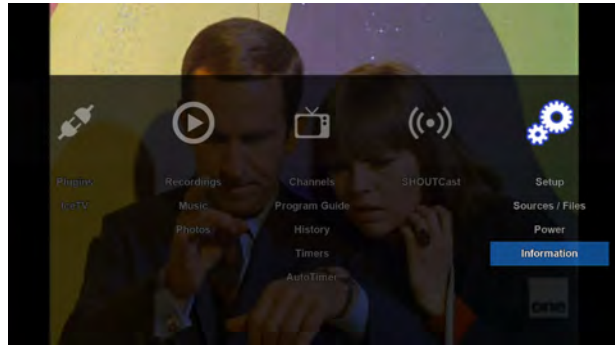
Press 'OK' on Factory reset and you will a popup message to confirm, read the caption and then select 'YES' to continue. Your U4 will then reboot, once it has rebooted it will give you the option to **Restore Settings** from the back up you made.



Checking Software Version and other information

How to use > Press 

The information screens on your U4 is where you will find useful information for connectivity, firmware and troubleshooting any problems.



About

Here is where you will find what version firmware your U4 is running and you can cross check that with the Beyonwiz Website and forums to make sure that you stay up to date.

Devices

Lists the attached devices including tuners, hard drives and USB devices.

Memory

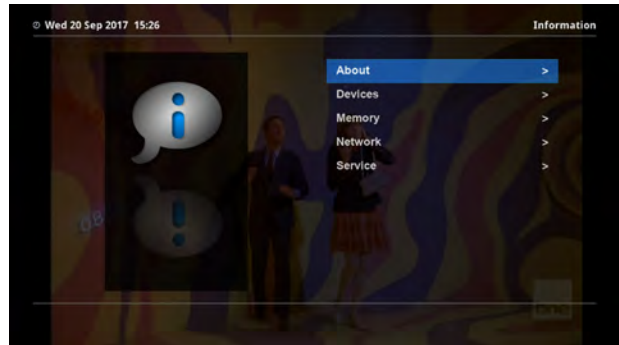
Information on RAM and Flash

Network

You will find your U4 IP address here and confirm you are connected to your PC network and internet.

Service

Information about the TV station your are viewing.

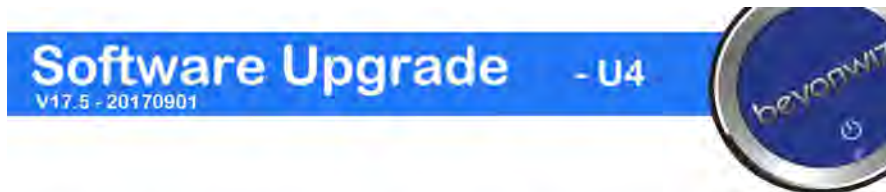


Upgrading the U4 Software

There are currently 2 methods for upgrading your U4 Firmware.

USB: For major Firmware Image updates. These will be less frequent but will include any major system updates and also include all online and USB updates up to the date of the Images release.


Online: For minor Firmware Image updates. These will be release more frequently and will include small fixes and enhancements as they become available. *Internet Connection Required.



This guide will take you through upgrading the software on your Beyonwiz U4 via USB.

- Step 1. Download the latest version of the Firmware Image by clicking on the link that corresponds with your model from our downloads section <https://beyonwiz.com.au/downloads/>.
- Step 2. Insert a USB stick into a USB slot on your computer, if there are previous Beyonwiz upgrade files on the stick you "Must" delete them. If it is a new USB stick that you have not used for an upgrade before you should format it in FAT32 format. Now Copy and Paste the Downloaded file to a USB stick, it should not be inside a folder, it must be in the root or top level of the USB stick.
* Tip: Older, small USB sticks seem to work the best.
- Step 3. Unzip or Extract the Zip file to the USB stick, once extracted you should have a folder on the stick named 'beyonwiz', do not change the name of this folder.
- Step 4. Make sure that your Beyonwiz is in Shutdown mode or the rear switch is turned off, also make sure that no other USB devices are connected to the PVR.
- Step 5. Connect the USB stick to either the front or rear USB ports and power the PVR 'ON' and watch the front display.
- Step 6. The Front Display and / or your TV will now advise you to press the Power touch button on the front of the PVR to start the Update, do this now.
The process will be displayed on the PVR display and / or TV, it will display scrolling text such as "Flash Kernel" and "Flash Rootfs", DONOT turn the PVR off during the process, it will take anywhere from 5 - 10mins depending on the speed of your USB stick.
- Step 7. Once the Upgrade is complete the PVR front display and / or TV will show "Remove USB, Press Power." You now pull the USB out and press the Power button on the front Touch Panel, you can also switch the PVR off at the rear switch, wait 30seconds and switch back on.
- Step 8. Your PVR will now boot up into the Setup Wizard, if you backed up your settings you will be prompted to restore, you can do this unless advised otherwise in firmware release notes of by Beyonwiz support when troubleshooting and issue.

**** Upgrade instructions may have changed since printing this manual, please check our website for latest upgrade instructions in our downloads section ****

To check for **Online Updates** Press  > Software Manager > Check for updates now
Your U4 will now Automatically check for any available updates. If updates are available you the best option to select is "Update and ask to reboot", if no updates are available you will just go back to previous menu.

Chapter 6. Troubleshooting

Before you contact your local service center, please read the following tips carefully.

1. No Video on TV

- Check first if the product is powered on and in operation mode.
- Check if the video cable is properly connected between TV and Beyonwiz U4.
- Check if the antenna cable is properly connected to Beyonwiz U4.
- Check if the selected channel is currently on air.
- Check your TV is on the correct AV channel.

2. Problem with audio quality

- Check if your audio cable is connected correctly.
- Check the volume level of your TV and the product.
- Check if the product or TV is on mute.
- Check the audio option is selected and/or compatible with the U4 and your TV.

3. Remote control problem

- Make sure that the remote is in STB mode by pressing the STB button.
- Check if the batteries are correctly mounted.
- If the remotes batteries are old, try changing the batteries.
- Point the remote control directly toward the product.
- Make sure that nothing is blocking the front panel display.

4. Channel search problem

- Make sure that tuner configurations are all correctly made.
- Check whether the antenna cable(s) are properly connected.
- If you ran a "Location" search try a "Full" search.

5. Recording problem

- Check whether the HDD has a sufficient space for recording.
- Check that the HDD has a sufficient space for recording.

Chapter 7.

TV Remote Codes

Programming The Remote Control

There are two ways to program the remote control ; Automatic Code Search or Direct Entry

Using Automatic Code Search

1. Turn on the TV set you want to control.
2. Press and hold the TV component key you want to program. Holding the TV component key until the LED on the remote control turns on, then release the key.
3. Point the remote at the TV set, press and release the UP (▲) button, then wait three seconds or until the LED stops flashing.

At this point the remote control is searching for the correct code to program. If, after three seconds, the component you want to control does not muting, press and release UP (▲) button again to tell the remote to search the next set of codes.

4. If the TV set you want to control does muting;
Press and release OK button, then the LED blinks three times.

Using Direct Entry Method

1. Turn on the TV set you want to control.
2. Locate the enclosed Code List. Find your brand of the TV set you want to control.
3. Press and hold the TV component key you want to program. Holding the TV component key until the LED on the remote control turns on, then release the key.
4. Enter 3-digit code from the code list, then the LED blinks three times.
; if you get no response by muting, re-enter the next code listed for your brand until the TV set responds to the remote control command.
5. If the TV set you want to control does muting;
Press and release OK button, then the LED blinks three times.

Changing Volume Lock

Locking the volume controls to a single device makes it easier to control volume, without having to guess whether the volume will change. If you lock the remote's volume controls to the TV, you will always be able to change the volume to the level you want, without having to adjust it on multiple devices.

If you want to lock the volume for the STB component ;

1. Press and hold the STB component key until the LED on the remote control turns on.
2. Enter 3-digit code, 2 2 2 .
3. Press and release the 'OK' key, then the LED blinks three times.

Unlocking volume control ;

If you want to unlock the volume for the STB component ;

1. Press and hold the STB component key until the LED on the remote control turns on.
2. Enter 3-digit code, 2 2 2 .
3. Press and release the 'OK' key, then the LED blinks three times.

STB Power Macro

It realize users to switch on/off both STB & TV simultaneously, to relieve extra efforts with adjusting device key on the RCU.

If you want to lock the power macro function ;

1. Press and hold the STB component key until the LED on the remote control turns on.
2. Enter 3-digit code, 1 1 1 .
3. Press and release the 'OK' key, then the LED blinks three times.

Unlocking power macro function ;

If you want to unlock the power macro function ;

1. Press and hold the STB component key until the LED on the remote control turns on.
2. Enter 3-digit code, 1 1 1 .
3. Press and release the 'OK' key, then the LED blinks three times.

TV Codes Short List



Smart HDMI Dongle 819 (Factory Default)

Brand	3 DIGIT SET CODE							
Samsung	826	828	701	705	709	713	715	718
	719	724	737	759	762	765	770	771
Philips	882	858	705	875	880	701	716	730
	733	739	762					
LG	831	837	844	854	868	700	701	705
	712	713	715	719	723	733	737	740
	762	767	781	785	786			
Panasonic	777	807	869	700	705	711	713	715
	722	733	736	758	761	762		
Sony	849	856	702	704	705	709	714	731
	762							
Thomson	705	712	719	726	728	730	762	763
	771							
Grundig	839	842	861	863	701	704	705	706
	715	716	717	730	737	746	752	756
	760	762	765	783				
Sharp	818	843	875	704	709	758	778	794
JVC	875	704	709	720	738	743	767	777
	778							
Toshiba	819	831	835	843	851	855	861	863
	701	703	704	705	706	712	716	717
	756	770	777	781	785	787		
Funai	724	742	780					
Hyundai	808	810	851	853	705	762	783	792
Loewe	705	734	737	757	758	762	773	798
MANTA	881							
Mascom	915							
Akai	815	829	850	861	863	701	703	705
	713	715	716	718	719	720	724	733
	738	740	744	748	749	758	761	762
	766	767	772	776	785	786	789	791
	792							
Daewoo	900	901	902	903	905	906	907	
Anam	900	901	902	904	905	908	909	910
	911	912	913	914				

TV Codes Full List

Brand	3 DIGIT SET CODE							
[A]								
A.R.Systems	705	739	762					
Accent	701	705	762					
Adcom	771							
Admiral	709	713	724	743				
Adyson	719							
AEA	705	762						
AEG	767	843	851					
Agashi	719	724						
AGB	758							
Aiko	701	703	705	716	719	724	733	738
	744	762						
Aim	705	718	742	762	783	792		
Aiwa	856	861						
Akai	701	703	705	713	715	716	718	719
	720	724	733	738	740	744	748	749
	758	761	762	766	767	772	776	785
	786	789	791	792	815	829	850	861
	863							
Akashi	701	808						
Akiba	705	720	762					
Akira	743							
Akito	705	762						
Akura	701	705	720	724	742	762	780	785
Alaron	719							
Alba	701	704	705	713	719	720	723	737
	738	743	746	752	762	780	785	815
	861	863						
Alkos	703							
Allstar	705	762						
All-Tel	810							
Amplivision	737							
Amstrad	701	705	720	724	734	738	742	744
	758	762	776	815				
Anam	701	705	762	777	900	901	902	904
	905	908	909	910	911	912	913	914
Anam National	705	762	777					
Andersson	843							
Anglo	701	724						
Anitech	701	705	724	762				
Ansonic	701	705	713	723	737	739	762	780
Apollo	748							
Arcam	719							
Arcen Ciel	712							
Ardem	705	762	773	785				
Aristona	705	762						
Arthur Martin	713							
Asberg	705	762						
Asora	701							

Astra	705	762						
Asuka	719	720	724					
ATD	781							
Atlantic	705	719	762					
Atori	701							
Auchan	713							
Audiosonic	701	705	712	720	724	737	739	762
	785	786						
Audioton	724	737						
Audioworld	781							
Autovox	723							
AVP	861							
AWA	701	702	704	705	711	719	724	739
	742	762	767	842				
Axxent	701							
Axxon	785							
[B]								
Baird	712	718	730	875				
Barco	713							
Basic Line	701	705	713	720	739	762	780	815
Bauer	701							
Baur	701	705	716	717	733	757	760	762
	856							
Beaumark	715							
Beko	703	705	737	743	762	767	785	786
	815							
Belson	868							
Bennett	705	762						
BenQ	880							
Beon	705	743	762					
Berthen	780							
Best	737							
Bestar	705	737	739	762				
Bestar-Daewoo	739							
Black Diamond	762	792	815	843				
BlackStar	723							
BlackStrip	703							
Blackway	720							
Blaupunkt	704	714	716	717	760			
BlueSky	705	720	752	762	780	785	786	815
	861	868						
Bondstec	723							
Boots	701							
BPL	705	762						
Brandt	712	726	728	730	763	771		
Brandt Electronique	726	728						
Brinkmann	705	743	759	762	780			
Brionvega	705	734	762					
Britannia	719							
Brother	724							

BSR	713	733						
BTC	720							
Bush	701	704	705	713	718	720	724	733
	738	739	752	759	762	780	781	785
	815	829	851	861				
[C]								
Canton	720							
Capsonic	724							
Carad	705	762	780	815				
Carena	705	762						
Carrefour	704	705	762					
Carver	714							
Cascade	701	705	762					
Casio	705	713	762					
Cathay	705	762						
CCE	705	762						
Centrum	815							
Centurion	705	762						
Century	723							
CGE	713	723	737	743				
Cimline	701	720						
Cinex	776	851						
City	701							
Clarivox	705	743	762					
Clatronic	701	705	720	723	724	737	738	762
	767	776	785	843				
Clayton	815							
CMS	719							
Combitech	861							
Concorde	701							
Condor	701	705	713	719	723	724	737	743
	762							
Conrad	705	762						
Contec	701	702	704	705	719	724	762	
Continental Edison	712	726	752					
Cosmel	701	705	762					
Crosley	713	723						
Crown	701	705	718	737	743	752	762	767
	778	785	786	815				
CS Electronics	719	720	723					
CTC	723	880						
Curtis Mathes	709							
Cybertron	720							
[D]								
Daewoo	701	705	719	720	739	762	810	853
	861	900	901	902	903	905	906	907
Dainichi	719	720						
Dansai	701	703	704	705	718	719	724	762
Dansette	742							
Dantax	737	767	785	786	861			

Datsura	718							
Dawa	701	705	762					
Daytek	781	783	842					
Daytron	701	705	739	762				
DEC	799	808						
Decca	705	758	762	861				
DeGraaf	713	718	761					
Deitron	705	720	739	762				
Denko	724							
Denver	705	762	765	767				
DER	875							
Desmet	701	705	762					
Diamant	705	762						
Diamond	701	719	724	738	781	808		
Digatron	705	762						
Digiline	705	762	780					
DigiLogic	705	762						
Digitor	705	762						
Digivision	733							
DiK	705	762						
Dixi	701	705	723	762				
DL	705	765	810					
Domeos	780							
Dream Vision	855							
DSE	851							
DTS	701							
Dual	705	713	730	759	762	772	815	
Dunai	713							
Durabrand	705	762						
Dux	705	762						
D-Vision	705	762						
Dynatron	705	762						
[E]								
Easy Living	829							
Ecco	783							
Edison-Minerva	752							
Elbe	705	713	716	720	733	734	737	758
	762							
Elbe-Sharp	758							
Elcit	713	723	758					
Elekta	701	705	724	762				
Efunk	815							
ELG	705	762						
Elin	701	705	713	719	733	761	762	
Elite	705	720	762					
Elta	701	719	724					
Emco	723							
Emerson	705	713	715	723	733	737	738	762
	780	785						
Enzer	792							
Erres	705	762						
ESC	705	762						
Etron	700	701	705	713	762			
Euro-feel	724							
EuroLine	705							
Euroman	705	719	724	737	762			
Europa	705	762						
Europhon	705	713	719	723	758	762		
Excel	705	762						
Expert	713							

Exquisit	705	723	762					
[F]								
Fagor	705	762						
FairTec	868							
Family Life	705	762						
Fenner	701	739						
Ferguson	703	705	711	712	726	728	730	733
	746	761	762	763	771	778	815	875
Fidelity	705	713	719	724	733	738	742	757
	762	861	875					
Finlandia	713	718	726	730	733	761		
Finlux	705	713	743	748	749	758	762	767
	772	785	786	851				
Firstline	701	705	713	718	719	723	733	739
	762	780	785	815	843	868		
Fisher	704	713	718	733	737			
Flint	705	720	724	762				
Forgestone	875							
Formenti	705	713	719	762				
Formenti-Phoenix	719							
Fortress	709							
Fraba	705	737	762					
Friac	701	705	737	762				
Frontech	701	713	723	724				
Fujimaro	810							
Fujitsu	701	705	713	733	762	807		
Fujitsu General	701	713						
Fujitsu Siemens	829	843						
Funai	724	742	780					
Furichi	808							
Futronic	724	808						
Future	705	762						
[G]								
Galaxi	705	713	733	762				
Galaxis	705	737	743	762				
Galeria	701							
GBC	701	713	720	739				
GE	712	715	726	728	730	763	771	
Geant Casino	713							
GEC	705	713	733	758	762			
Geloso	701	713	723	739				
General	712	726						
General Electric	726	730						
General Technic	701							
Genesis	701	705	762					
Genexxa	701	705	713	720	742	762		
Gericom	810							
Goldfunk	780							
Goldhand	719							
GoldStar	700	701	705	712	713	715	719	723
	733	737	740	762	767	785	786	
Gooding	752							
Goodmans	701	703	704	705	720	724	728	730
	738	739	749	752	758	762	763	765
	780	785	815	829	839	842	861	
Gorenje	737							
GPM	720							
Gradiente	705	714	762	778				
Graetz	705	713	733	738	762	785	843	
Granada	704	705	711	713	718	722	728	730
	748	758	761	762	763			

Grandin	701 786	705 810	713 815	720 868	739	762	780	785
GranPrix	776							
Gronic	713							
Grundig	701 746 842	704 752 861	705 756 863	715 760	716 762	717 765	730 783	737 839
Grunkel	843							
[H]								
Haaz	783							
Haier	724	781						
Halifax	719	724						
Hammerstein	724							
Hampton	719							
Hanimex	720	861						
Hanseatic	701 785	705	713	733	737	740	759	762
Hantarex	701	705	758	762				
Hantor	705	762						
Harsper	810							
Harwood	701	705	742	752	762			
Hauppauge	705	762						
HCM	701	705	720	724	742	743	762	
Hedzon	705	762						
Hema	701							
Hifivox	712							
Higashi	719							
Highline	705	724	762					
Hikona	720							
Hinari	701 752	704 762	705 861	713	718	720	724	746
Hisawa	720	785	861					
HISense	718							
Hitachi	704 748	705 749	711 757	712 758	713 761	715 762	730 790	733 815
Hitachi Fujian	711							
Hitsu	701	720						
HMV	875							
Hoher	785	810	851					
Home Electronics	767							
Hornyphon	705	762						
Hoshai	720							
Huanyu	719	739						
Hygashi	719							
Hyper	701	719	723					
Hypersonic	733							
Hypson	705	724	762	780	785	786	815	861
Hyundai	705	762	783	792	808	810	851	853
[I]								
Iberia	705	762						
ICE	701	705	719	720	724	738	762	
Ices	719	720						
Ict	705	762						
IIsonic	842							
Imperial	705	713	723	733	737	743	762	
Indiana	705	762						
InFocus	819							
Ingelen	713	733	752	785				
Ingersoll	701							

Inno Hit	701	705	720	723	758	762	843
Innovation	705	759	762				
Innowert	810						
Interactive	705	712	713	733	737	757	762
Interbuy	701	705	723	724	757	762	
Interfunk	705	712	713	723	733	737	757 762
Internal	705	739	762				
International	719						
Intervision	701	705	713	720	723	724	737 738
	740	752	759	762			
Irradio	701	705	720	723	738	762	
Isukai	705	720	762				
ITS	701	705	719	720	724	738	762
ITT	713	718	733	748	749	761	875
ITT Nokia	713	718	733	748	749	761	767 772
ITV	705	723	724	739	762		
[J]							
Jean	704						
JEC	703						
JMB	705	739	746	762	861		
Jubilee	762						
JVC	704	709	720	738	743	767	777 778
	875						
[K]							
Kaisui	701	705	719	720	762		
Kambrook	740						
Kamp	719						
Kapsch	713	733					
Karcher	705	713	724	737	762	767	785 851
Kathrein	705	762					
Kawa	738						
Kawasho	719						
KB Aristocrat	713						
Kendo	705	713	723	734	737	740	757 759
	762	776	815				
Kennedy	713						
Kennex	815						
Kingsley	719						
Kiota	700						
Kiton	705	762	780				
Kneissel	705	734	737	739	762	861	
Kolster	705	720	723	762			
Konichi	701						
Konka	705	720	738	743	762	765	785
Kontakt	752						
Korpel	705	762					
Korting	737						
Kosmos	705	762					
Kotron	724	742					
Koyoda	701						
Kuba	713						
Kuba Electronic	713						
Kyoshu	724	742	743				
Kyoto	713	719					
[L]							
LaSAT	737						
Lavis	705	713	815				
Leader	701						
Lecson	705	762					
Legend	701						
Lenco	701	705	713	739	762	765	815
Lenoir	701						
Lesa	723						

Levis Austria	705	762						
Leyco	705	724	762					
LG	700	701	705	712	713	715	719	723
	733	737	740	762	767	781	785	786
	831	837	844	854	868			
Liesenk & Tter	705	762						
Liesenkotter	705	762						
Lifetec	701	705	720	724	739	757	759	762
	780	785	815					
Lloyd's	700	701						
L&S Electronic	785	810						
Lodos	815							
Loewe	705	734	737	757	758	762	773	798
Logik	700	701	702	724	738	781	815	875
Logix	759	780						
Luma	701	705	713	734	739	762		
Lumatron	705	713	724	733	734	762		
Lux May	701	705	762					
Luxor	713	718	733	748	749	761	772	815
	843							
LXI	715							
[M]								
Madison	705	762						
Magnadyne	713	723	758					
Magnafon	719	758						
Magnavox	704	705	762					
Magnum	705	762	776	785	786	835		
Mandor	724							
Manesth	703	705	713	724	762			
Manhattan	705	713	762	780	815			
Manta	858	881						
Marantz	705	742	762					
Mark	701	705	719	739	762	785	786	
Mascom	915							
Master's	705							
Masuda	701	705	720	724	738	762		
Matsui	701	702	703	704	705	713	716	717
	718	728	738	744	746	752	758	762
	785	815	861					
Matsushita	777							
Matsuiama	765							
Maxam	724	851						
MCE	701							
Mediator	705	762						
Medion	705	757	759	762	780	781	785	815
	835	861						
Megatron	715							
MEI	705	762	815					
Melectronic	701	705	712	713	716	717	719	723
	726	730	733	739	749	757	762	785
Memorex	701	715	777					
Memphis	701							
Mercury	700	701	705	762				
Merritt	713	733	761					
Metz	705	716	717	736	760	762	765	780
	815	843						
MGA	705	715	720	762				

Micromaxx	705	762	780	815				
Minato	705	762						
Minerva	711	716	717	752	758	760		
Minoka	705	742	762					
Mistral Electronics	875							
Mitsubishi	704	705	709	711	715	718	757	760
	762	815	875					
Mitsuri General	713							
Mivar	719	737	758					
Monaco	701							
Morgan's	705	762						
Motorola	709							
MTC	713	719	733	737	757			
MTlogic	785	839						
Multibroadcast	875							
Multitec	705	762	780	815	851			
Multitech	701	705	719	723	724	737	762	
Murphy	713	719						
Musikland	705	720	723	762				
MyCom	715	842						
Myryad	705	762						
[N]								
NAD	713	715	733					
Naiko	705	762	767					
Nakimura	705	739	762					
Naonis	713							
NAT	722							
National	722							
NEC	701	702	704	705	714	739	762	765
	778	855						
Neckermann	705	713	716	723	737	743	757	762
	856							
NEI	705	713	738	762				
Neovia	810	842						
Nesco	723	861						
Netsat	705	762						
Neufunk	701	705	720	762	785			
NewTech	701	705	730	762				
NewWorld	720							
Nicamagic	719							
Nikkai	701	703	704	705	719	720	724	762
	785							
Nikko	715							
Nobliko	719							
Nogamatic	712							
Nokia	712	713	718	733	739	748	749	761
	767	772						
Nordmende	705	712	713	717	726	728	730	762
	763	785	829					
Norfolk	713							
Normerel	705	762						
Novak	705	762						
Novatronic	705	739	762					
Nurnberg	713	733						
NU-TEC	781							
[O]								
Oceanic	713	718	733	748	749	761		
Odeon	724							
Okano	701	705	724	737	762			
Olidata	842							

Omega	724							
Omni	781							
Onwa	720	738	744	766				
Opera	705	762						
Optimus	777							
Optonica	709							
Orbit	705	762						
Orion	701	702	705	724	742	746	758	762
	785	861						
Orline	705	720	762					
Ormond	705	762	780	815				
Orsowe	758							
Osaki	705	720	724	739	742	762		
Osio	705	762						
Oso	720							
Osume	704	705	720	762				
Otto Versand	701	704	705	709	712	716	717	722
	723	730	733	757	758	759	760	762
	856							
[P]								
Pace	861							
Pacific	705	746	762	785	815			
Pael	719							
Palladium	705	713	716	723	737	743	759	762
	785	856						
Palsonic	700	705	720	724	740	742	743	762
	781							
Panama	701	705	719	723	724	762		
Panashiba	700							
Panasonic	700	705	711	713	715	722	733	736
	758	761	762	777	807	869		
Panavision	705	762						
Papouw	705	762						
Pathe Cinema	713	719	737					
Pathe Marconi	712							
Pausa	701							
Perdio	705	713	719	762				
Perfekt	705	762						
Philco	705	713	723	737	743	759	762	
Philex	713	875						
Philips	701	705	716	730	733	739	762	858
	875	880	882					
Phocus	785	835	839					
Phoenix	705	713	719	737	762			
Phonola	705	719	762	875				
Pilot	705	762	783					
Pioneer	702	705	712	713	714	726	730	733
	737	757	762	794	737			
Plantron	701	705	724	762				
Playsonic	705	785	786					
Policom	712	713	733	760				
Poppy	701							
Portland	739							
Powerpoint	705	752	762	781				
Prandoni-Prince	723	733	758					
Premier	701	724						
President	808							
Prima	701	724	742					
Princess	781							
Prinston	815							

Prinz	733							
Profex	701	713	733					
Profi	701							
Profi Tronic	705	762						
Proline	705	762	771	842				
Prosonic	705	719	737	738	739	762	780	785
Protech	701	705	713	723	724	743	762	780
	815							
Proton	715							
Provision	705	762	785	815				
PVision	868							
Pye	705	739	742	762				
Pymi	701							
[Q]								
Quadral	720							
Quasar	701	723	777	810				
Quelle	701	702	704	705	712	716	717	723
	724	733	757	760	762	780	815	856
Questa	704							
[R]								
Radialva	705	712	713	720	726	762		
Radiola	705	762						
Radiomarelli	705	723	758	762				
RadioShack	705	715	762					
Radiotone	701	705	724	737	742	743	762	776
	780	815						
Rank Arena	704	766	792					
RCA	709	728	730	763	771	792		
Realistic	715							
Recor	705	743	762					
Rectiligne	705	762						
Rediffusion	704	733	761					
Redstar	705	762						
Reflex	705	762	780	815				
Relisys	810							
Reoc	785							
Revox	705	737	762					
Rex	713	723	724					
RFT	705	724	737	762				
Rhapsody	719							
Ricoh	705	762						
Rinex	743							
R-Line	705	713	762					
Roadstar	701	705	720	724	743	762	780	785
	815							
Rodex	705	762						
Rover	704							
Rowa	701	705	719	724	762	765	781	
Royal Lux	728	737	742					
Rukopir	705	762						
[S]								
Saba	712	713	726	728	730	733	758	761
	763	771	777	785				
Sagem	770							
Saisho	701	702	713	724	758			
Saivod	705	762	780	815	843			
Salora	713	718	733	749	758	761		
Salsa	728							
Sambers	758							
Samsung	701	705	709	713	715	718	719	724
	737	759	762	765	770	771	826	828
Sandra	719							

Sansui	705	738	762	766	783	789	792	
Santon	701							
Sanyo	701	702	704	705	711	713	714	718
	719	737	762					
Save	705	762						
Saville	861							
SBR	705	762	875					
Schaub Lorenz	733	739	761	767	785	868		
Schneider	705	713	720	723	730	733	738	759
	762	776	780	785	815	861		
Scotland	713							
Scott	715							
Sears	715							
Seelver	705	762	815					
SEG	701	704	705	713	719	720	723	724
	734	752	762	780	785	815	843	
SEI	705	713	758	762	856			
Sei-Sinudyne	705	758	762	856				
Seleco	704	713	724	734	738			
Sencora	701							
Sentra	701	703	720					
Serino	709	719						
Sharp	704	709	758	778	794	818	843	875
Shintoshi	705	762						
Shivaki	705	715	739	746	762			
Show	701	743						
Siarem	713	758						
Siemens	705	716	717	733	760	762		
Siera	705	762	765					
Siesta	737							
Silva	705	719	733	762	776			
Silva Schneider	851							
Silver	704	705	713	733	762	786		
Silver Crest	705	762	815					
Singer	701	705	713	723	728	762	850	
Sinudyne	705	713	733	758	762	856	861	
Sky	705	715	762					
Skysonic	792							
Sliding	810							
SLX	780							
Smaragd	752							
Soemtron	810							
Solavox	705	713	733	761	762			
Sonawa	720							
Soniko	705	762						
Sonitron	718	737						
Sonneclair	705	762						
Sonoko	701	705	724	762				
Sonolor	713	718	733	761	856			
Sontec	701	705	737	762				
Sony	702	704	705	709	714	731	762	849
	856							
Sound & Vision	705	720	739	762				
Sound Wave	705	743	762	786				
Soundesign	715							
Spectra	701							
Ssangyong	701							
Staksonic	701							

Standard	701	705	720	739	762	815		
Starlite	701	705	713	724	742	762		
Stenway	720							
Stern	713	724						
Stevison	851							
Strato	701	705	724	762				
Strong	705	762	815	843				
Sunic Line	705	762						
Sunkai	705	720	752	762	810			
Sunstar	701	705	724	738	762			
Sunwood	701	705	762					
Super Tech	701	705	719	720	762			
Superla	719	758						
Supersonic	718	724	762	781				
Supra	701	715	739					
Susumu	720	726	728					
Sutron	701							
Swissline	723							
Sydney	719							
Sysline	705	762						
Sytong	719							
[T]								
Tandberg	712	713	733	734	736			
Tandy	709	713	720	723				
Tashiko	704	713	714	719				
Tatung	702	705	758	762	829	851	861	868
	880							
TCM	785	835						
Teac	701	705	714	715	724	742	743	757
	762	780	781	783	785	815		
TEC	701	705	713	723	728	733	762	
Techica	720							
TechLine	705	762	780	843				
Technics	777							
TechniSat	705	713	762					
Technisson	785	835						
Technosonic	705	762						
Techwood	843							
Tecnimagen	762							
Tedelex	701	705	718	743	762	765	767	781
	783	850						
Teiron	701							
Teleavia	712	726	730					
Telecor	705	713	720	762				
Telefunken	705	712	726	728	730	762	763	765
	771	781	785	851				
Telefusion	705	762						
Telegazi	705	713	720	724	762			
Telemeister	705	762						
Telesonic	705	762						
Telestar	701	705	742	762				
Teletech	701	705	723	762	780	815		
Teleton	704	713						
Televideon	713	719						
Television	705	762						
Tempest	701	705	724	762				
Tennessee	705	762						
Tensai	701	705	713	720	723	738	739	740
	762	786	815					
Tenson	701							