

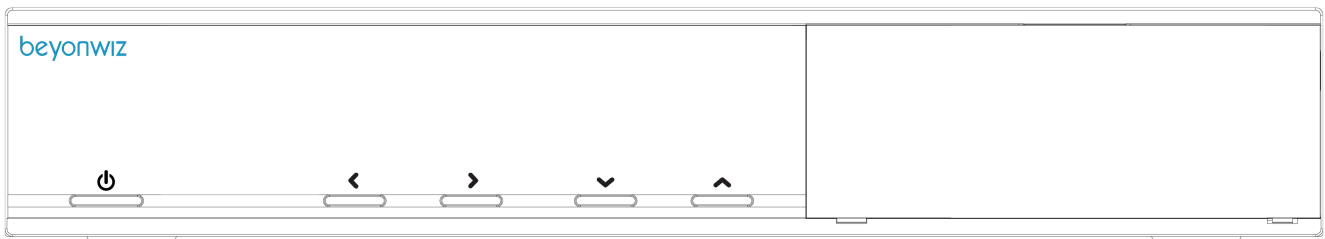


Instruction Manual

T2

High Definition Personal Video Recorder

The Beyonwiz T2 digital receiver is fully compliant with the international Digital Video Broadcasting (DVB) standard, and thus is able to receive digital broadcasts of that standard.



Questions? Learn more about using your new T2! Check out the following links.

User Forum

www.beyonwiz.com.au/forum

How to Videos

www.beyonwiz.com.au/tv

Frequently Asked Questions

www.beyonwiz.com.au/faqs

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 T2 uses a 12V - 5.0A 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 lightning, 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 will **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 LNB cable during a thunderstorm or when left unattended and unused for long periods of time. This will prevent damage to the product due to lightning 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 will **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.

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Chapter1. Introduction

The Beyonwiz T2 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.

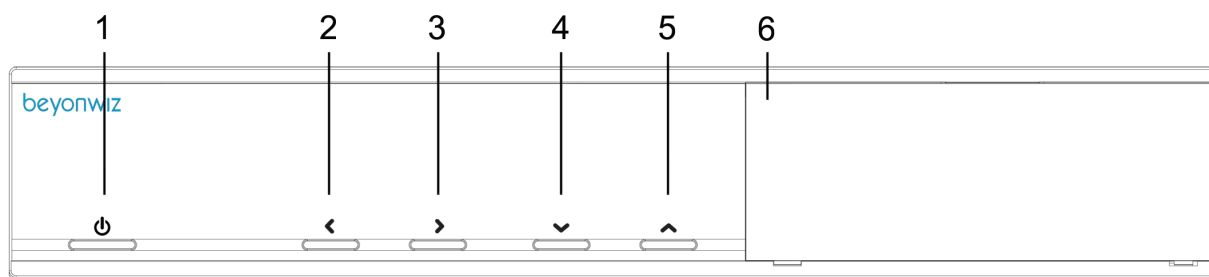
For its operation you need an antenna, which must be installed appropriately.

1.1 Main Features

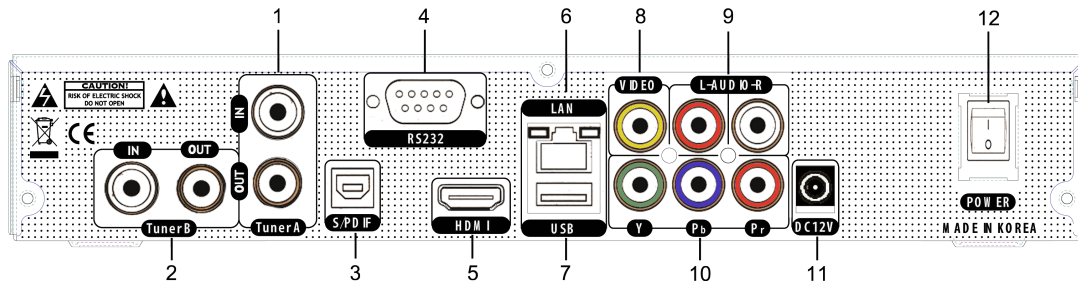
- 500MHz MHz 1500MIPS Processor
- Linux Operating System
- Media Player
- Downloadable Plug-ins supported
- MPEG2 / H.264 Hardware Decoding
- 2 x DVB-T2 Tuners
- 512MB NAND Flash
- 500MB DDR SDRAM
- 10/100 Ethernet Interface
- 2 x USB 2.0
- RS-232
- HDMI
- Remote control
- S/PDIF for digital bit stream out (optical)
- EPG supported
- Automatic & Manual Service Scan supported
- Skin change supported

1.2 Product Descriptions

Front Panel



- ① **Power** : Standby On / Off
- ② **V-** : Volume down
- ③ **V+** : Volume up
- ④ **CH▼** : Switches channel
- ⑤ **CH▲** : Switches channel
- ⑥ **USB** : Connect a USB storage device (Pull flap down) to access ⑥

Rear Panel

- ① **TUNER A** : An antenna cable must be connected to receive TV signal.
- ② **TUNER B** : An antenna cable or Loop cable from tuner A must be connected to receive TV signal.
- ③ **S/PDIF** : Connects to a digital audio system using S/PDIF cable.
- ④ **RS-232** : RS-232 data port is provided.
- ⑤ **HDMI** : Connects to TV using a HDMI cable for both audio and video signals.
- ⑥ **Ethernet** : Connect to an Ethernet router or switch for network / internet access.
- ⑦ **USB** : Connects the USB memory stick or external HDD.
- ⑧ **Video output** : Connects to TV using RCA cable.
- ⑨ **Audio output** : Connects to TV using RCA cable.
- ⑩ **Component (YPbPr)** : Connects to TV using a component cable.
- ⑪ **Power DC input** : Connect the supplied power adapter here.
- ⑫ **On/Off Switch** : Powers on/off.

1.3 Remote Control

Power
Press to turn the product on or standby.
Long press power options.

TV
Press to switch the remote control to control TV set.

Numeric Keys
Press to enter a channel number or numbers according to the menu options.

Previous
Press to go to Previous Page / Zap History

Exit
Press to exit the current menu option into the live mode, or switches one step back in the menu.

Navigation Keys
Press to navigate up/down and left/right on the menu options.
Up/down keys are used to call up the channel list.

Back
Press to return to previous channel or menu.

Color Keys – RED, Green, Yellow & Blue
Each key is assigned a specific function that may be different in each menu.

Volume +/-
Press to adjust the audio volume.

MUTE
Press to mute the audio or un-mute.

Timer
Press to view the Timer Schedule.

STB
Press to switch the remote control to control this product.

Next
Press to go to Next Page Zap History

Menu
Press to access the main menu

OK
Press to confirm the selected menu option.

Info
Press to access program information

Channel (Page) up/down
Press to navigate through the scanned channel list or move the channel/Program list in pages.

Media
Access your recordings

EPG
Press to display the EPG (Electronic Program Guide) information if the channel provides.

Recording [●]
Press to start or stop recording media.

STOP [■]
Press to stop playing media.

Play / Pause [▶||]
Press to play the selected file (e.g. recording) at the normal speed or pause the live program or recording play.

Fast Rewind [◀◀]
Faster rewind than the normal speed.

Fast Forward [▶▶]
Faster forward than the normal speed.

FAV
Press to view your favorite folder & bouquets.

Web
Press to open the Web Browser Plugin

Plugin
Press to open your Plugin Browser

See pages 47 - 49
to learn how to
program your
T4 Remote.

Audio
Press to select available audio language and Audio Type.

PIP
Activate Picture in Picture when used on supported models (PIP not available on T2)

Subtitle
Press to display the subtitle of the current channel, if the channel provides subtitle data.

Sleep
Press to turn off the product sleep timer by user.

Text
Press to display the teletext information of the current channel, if the channel provides teletext data.

TV
Press to display the TV channel list.

RADIO
Press to display the Radio channel list.

Help
Press to display major important operation methods. This provides users with a quick guide of product.

1.5 Technical Specifications

Front Panel

- USB: 1 x USB 2.0
- Buttons: 5 (Power, Channel Up/Down, Volume +/-)

Rear Panel

- Power Switch: 1 ea
- Terrestrial-RF input/output: 2 x DVBT-type socket
- Video/Audio output (digital): 1 x HDMI
- Audio output (digital): Standard optical (S/PDIF)
- USB: 1 x USB2.0
- Ethernet: 1 ea
- RS-232: 1 ea
- Composite AV 1 ea
- Component AV 1 ea

Power

- Mains voltage: 95~250 / 50~60 V/
- Power consumption: Hz 65/40/<1 Watts
(Max./typ. operation/stand-by)

10 Introduction

RF

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

Video

- Video resolution: CCIR601 (720 x 576 lines), 576p, 720p, 1080i, 1080p@30
- Video decoding: MPEG-2, MPEG-4 compatible
- Input data rate: 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 60 x 175
- Weight (without HDD): mm App. 1.5 KG

Chapter2

. Installation of Beyonwiz T2

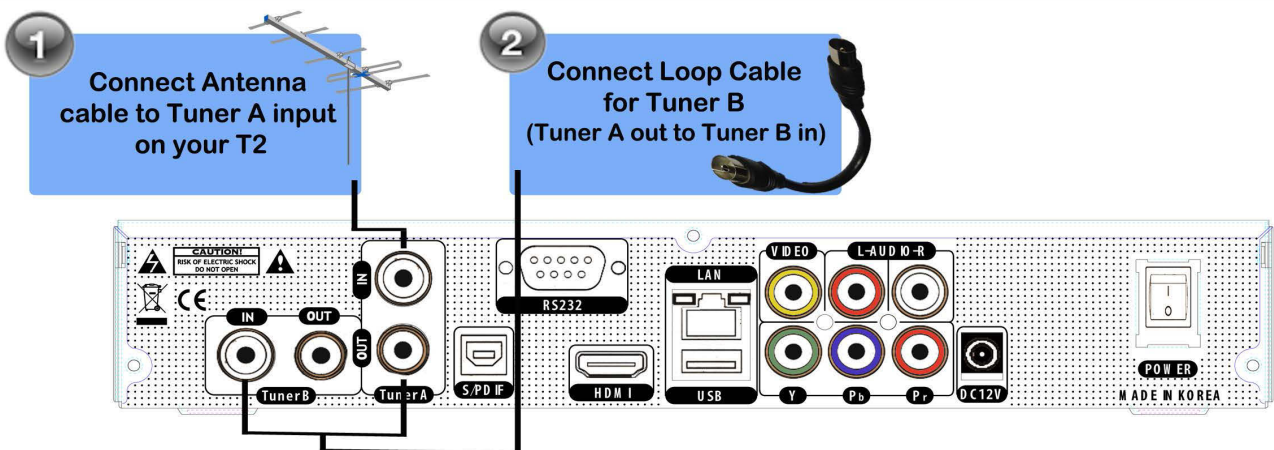
This chapter will guide you through the whole installation process of Beyonwiz T2. Please read each section carefully to make sure that the system runs properly.

2.1 Connecting Antenna Cables

Beyonwiz T2 is integrated with Dual (2) digital tuners, and one of the first steps is to connect antenna cable(s) to Beyonwiz T2 in order to gain optimal signal quality. You can either choose one of the following connection methods depending on the equipment you have.

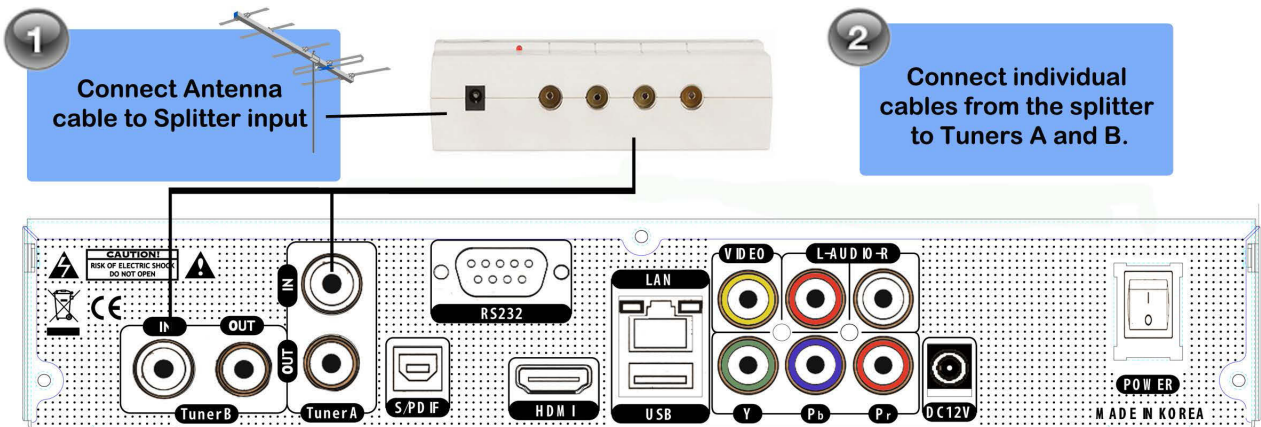
A. External Loop-through

Where you have only one Antenna cable, connect the cable to TUNER A Input and then use the provided loop cable to loop the signal through to Tuner B as pictured.



B. Indoor Antenna Amplifier / Splitter

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

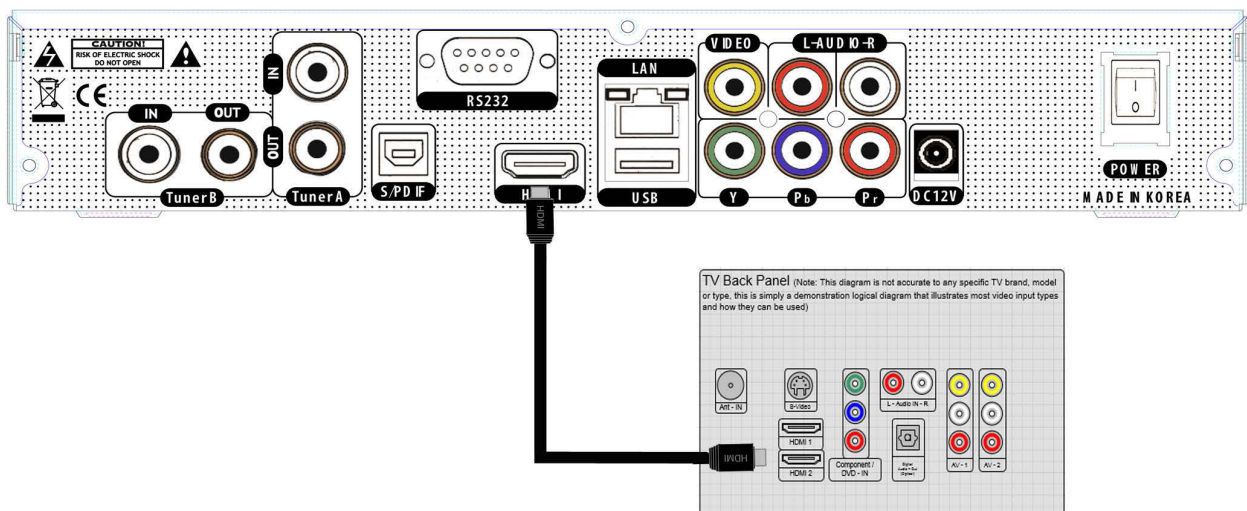


2.2 Connecting the TV (and VCR)

Beyonwiz T2 provides a variety of audio/video connection methods.

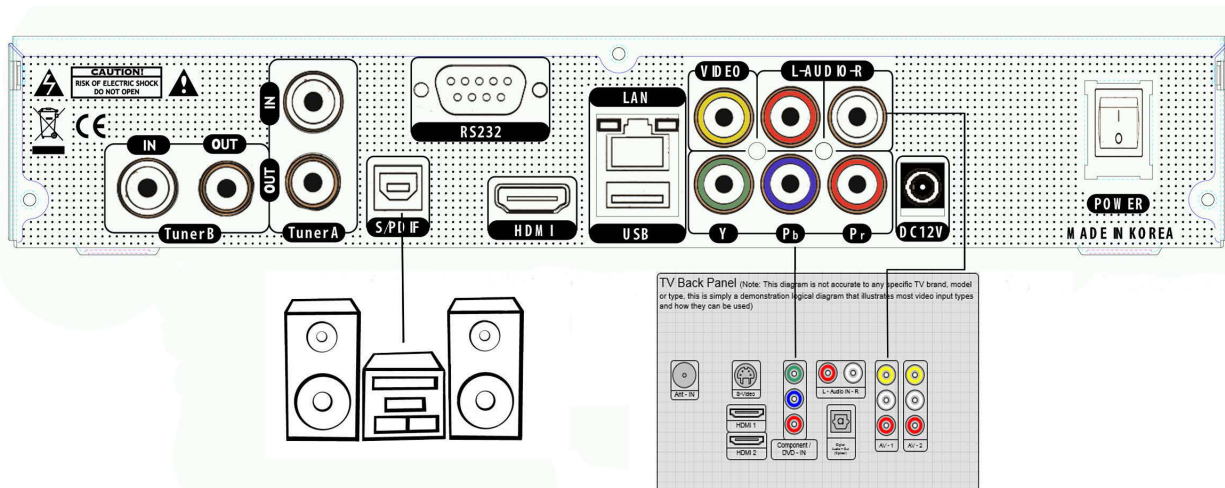
A. Connecting TV via HDMI Cable

For the sake of the best picture quality, especially for digital TV, HDMI connection is recommended. Most HDTVs have HDMI connectors to ensure the highest picture quality. In the rear panel of Beyonwiz T2 one HDMI connector is available for this purpose. Connect your TV to Beyonwiz T2 using a HDMI cable as follows.



B. Connecting TV via Component Cable

The secondly recommend TV connection for digital TV is via component cable (YPbPr). However, unlike the HDMI connection which delivers audio and video signal at the same time, YPbPr connection requires additional audio connection either via RCA cable (Stereo L/R) or S/PDIF as follows.



C. Connecting TV via RCA (Video) Cable

Beyonwiz T2 provides Composite video connection as well. Composite cable has normally three connectors at the both end; one Video (Yellow) and two Audio (White/Red). Connect your TV to Beyonwiz T2 as follows:

D. 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.

Blank page for Notes:

2.3 Connecting Power

A power cable and 12V power adapter is provided as one of the basic accessories of the Beyonwiz T2.

- Connect the power cord to the 12V power adapter and then insert the connector in the rear panel of Beyonwiz T2.
- Connect the power cord to a power outlet.
- Turn on the power switch at the rear panel.

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 T2 ON or OFF

Tip: A short press on the Remote Control power button will place the T2 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**

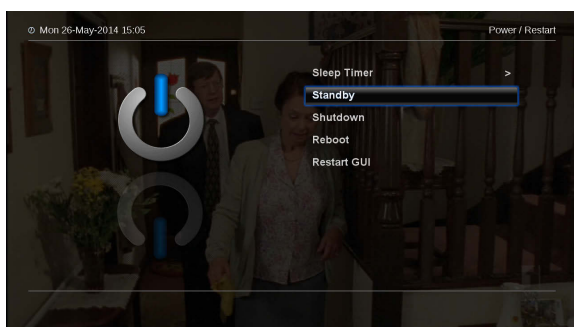
There is a Power Switch in the rear panel and once it is ON, you do not need to turn it on or off each time. It takes a longer time to boot the system if you turned it off by this switch.

- **Standby Mode**

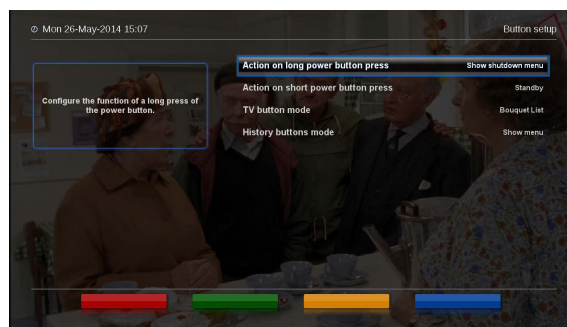
POWER key is normally used to turn the power of Beyonwiz T2 on or off. If you press POWER, it instantly switches your Beyonwiz T2 off or on. In this mode, the system is not completely shut down and thus it takes a shorter time to turn it on and off.

- **Deep Standby Mode**

Deep Standby is used to reduce the standby power consumption. Beyonwiz T2 is designed to be energy efficient and to guarantee the power consumption to be under 1W in the deep standby mode.



Long press on Power Button for the Power/Restart Menu



Change the power button function by pressing the menu button on your remote and scrolling to Setup and pressing ok and then go into system and Button settings.

Chapter3. First Time Installation

When you turn on Beyonwiz T2 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.

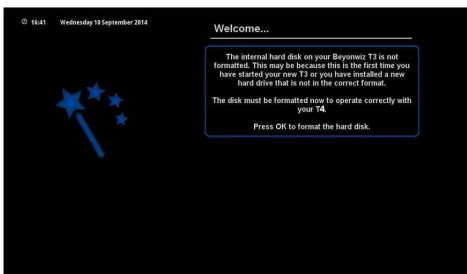


Starting your Beyonwiz

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.

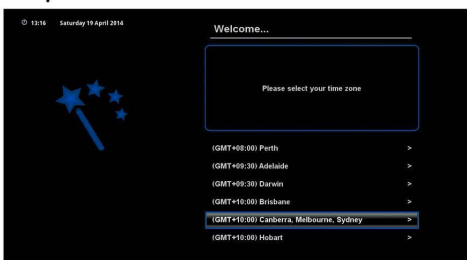
After a short delay you should see the Beyonwiz logo on your TV screen. The logo may flash off and back on and you will see a booting spinner, this process could take up to 1min to boot from a cold start.



Formatting HDD (First Setup)

If your T2 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 T2 works as designed. If you purchased a T2 with a Hard Drive installed you will most likely not see this step in the setup.

Step 1

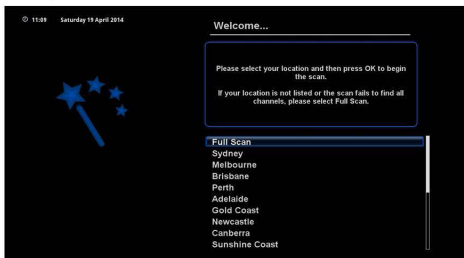


Setting your time zone

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.

18 First Time Installation

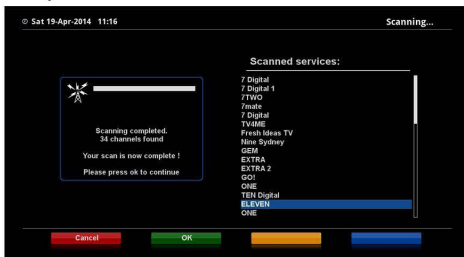
Step 2



Scanning for digital TV services

If your location is listed please scroll to it and press “OK” on your T2 Remote, this will shorten the scan time as it only scans the frequencies used in your area. If you 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.

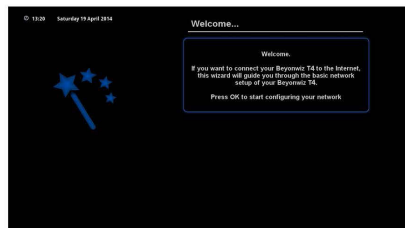
Step 3



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.

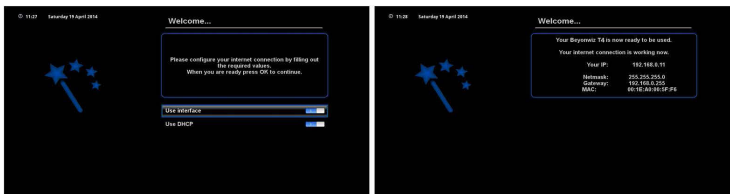
Step 5. Internet Setup

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.



Step 6 (a). Wired LAN Set up

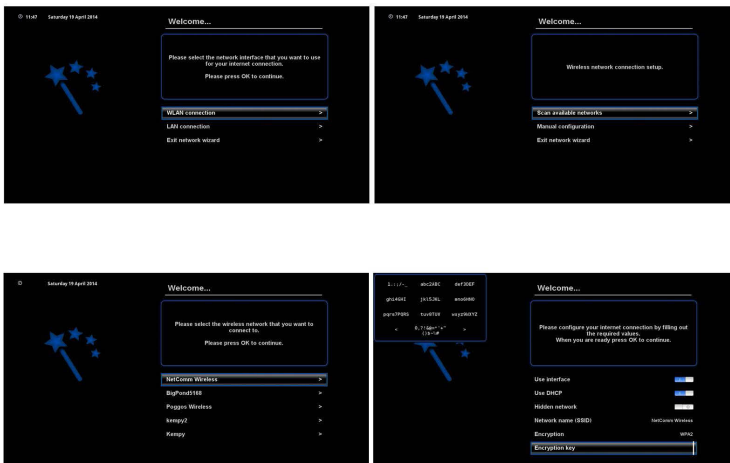
(For Wireless LAN via USB go to Step 6(b) or for no Internet connection go to Step 6(c))



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 T2's IP address. Press “OK” to move to next screen. (Go to Step 8)

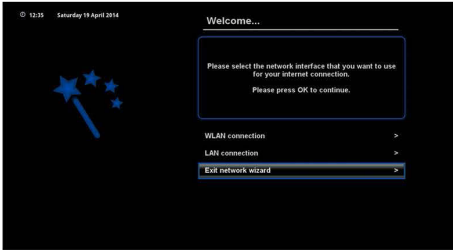
(b) Wireless LAN Set up. (Optional Wifi USB Dongle required)



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 T2’. (Go to Step 8)

(c) Skipping Internet Set up

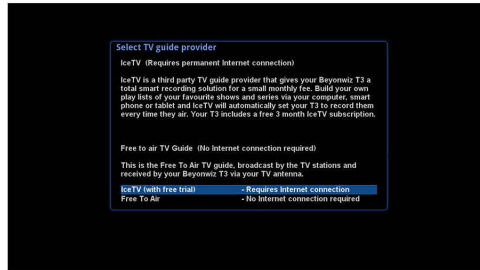
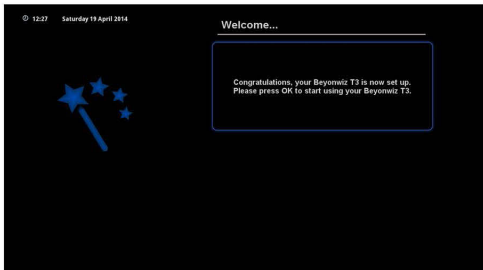


Set-up Without Internet

If you do not want to connect your T2 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'.

Step 8.

Your T2 is now almost ready to use, press ok when you get the Setup conformation message below on left. If your T2 is connected to the internet you will get an option to select your TV guide provider, you can choose between the Free to Air guide that is delivered via your Antenna guide or the IceTV that is delivered over the internet.



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





Live Tv with info bar



Graphical EPG

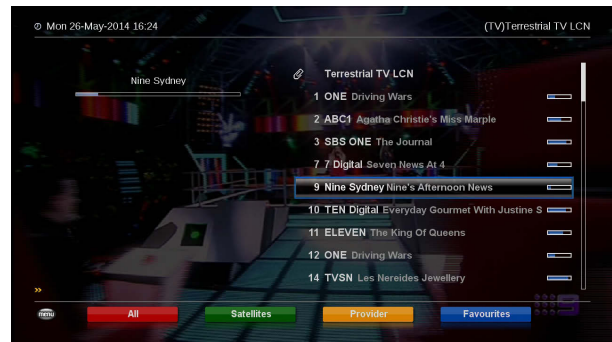
Chapter4. Basic Operations

4.1 Channel List

How to use > Press  / 

If press **Navigation UP/DOWN** 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 **UP** or **DOWN** 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  /  or press  / 
to the next channels

Beyonwiz T2 offers various channel zapping methods. You can switch the current channel by pressing. Zapping is another name for changing channels.

CHANNEL +/- key

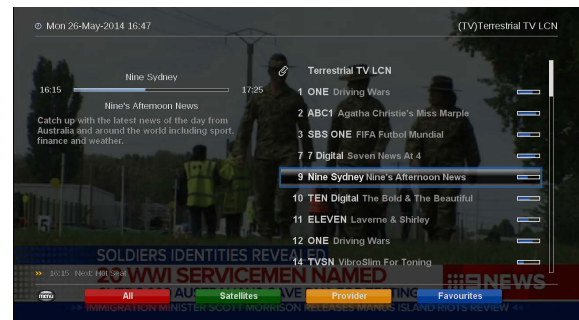
If you press **CHANNEL +/-** key, the previous or subsequent channel of the current channel is tuned in.



UP/DOWN key

If you press **UP** or **DOWN** 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 it will instantly tune into the channel.

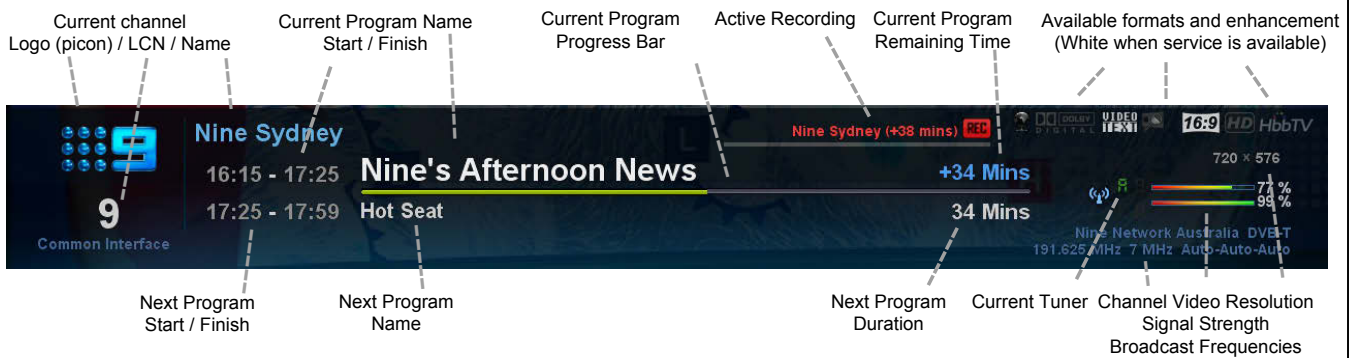


4.3 Program Information

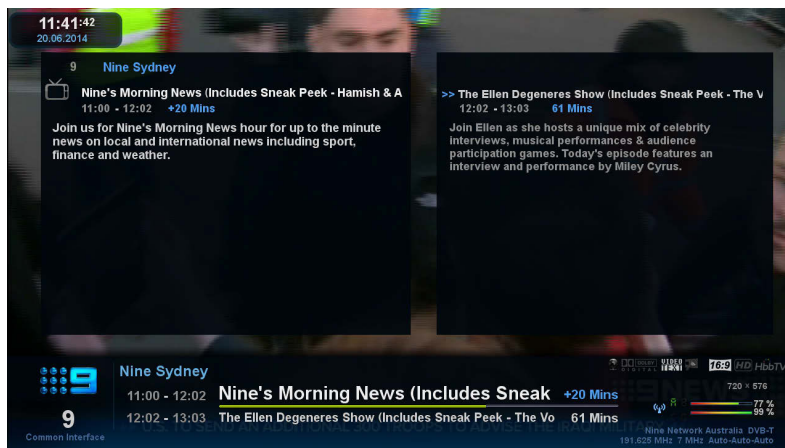
How to use > Press **OK**

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

Press OK to call up info bar.



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

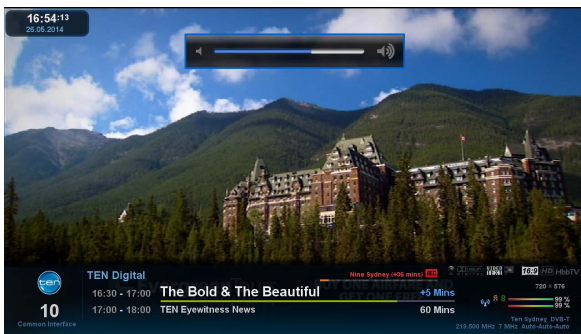


The 2nd info bar will give you further program information for the "current" and the "next" program and will timeout in 10secs by default, you can press 'OK' again to close it earlier or you can change the timeout settings for both the 1st and 2nd info bar by pressing the Menu button and browsing Setup>System>OSD 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

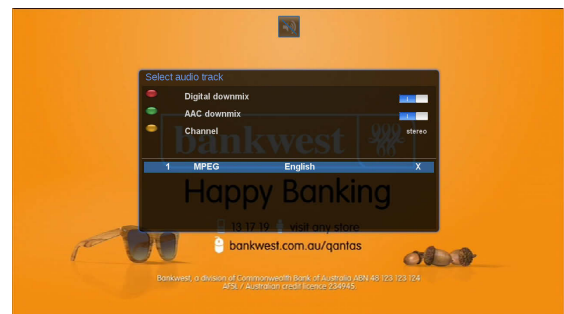


4.5 Selecting Audio Track

How to use > Press **AUDIO**


You can check what audio tracks are available to choose by pressing **AUDIO** key.

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

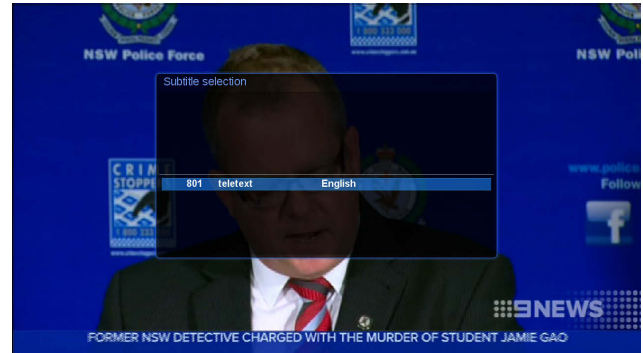


NOTE: Available options on this menu will differ depending on the service.

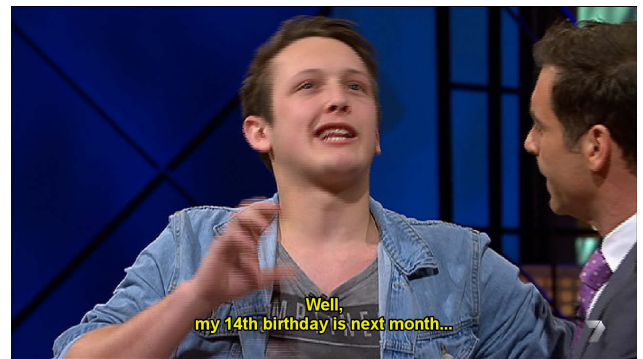
4.6 Subtitle

How to use > Press 

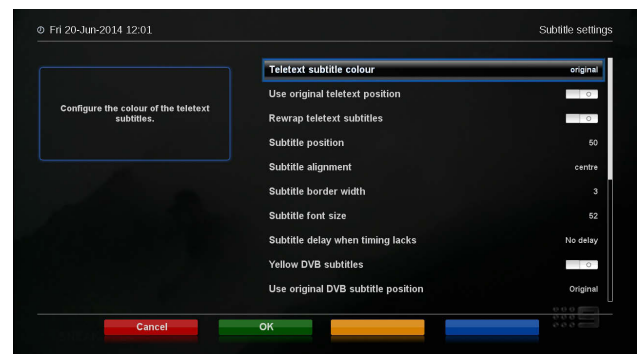
You can view the subtitle of the current program if the program provides the subtitle. Press **SUBTITLE** key and **Subtitle selection** menu appears as below.



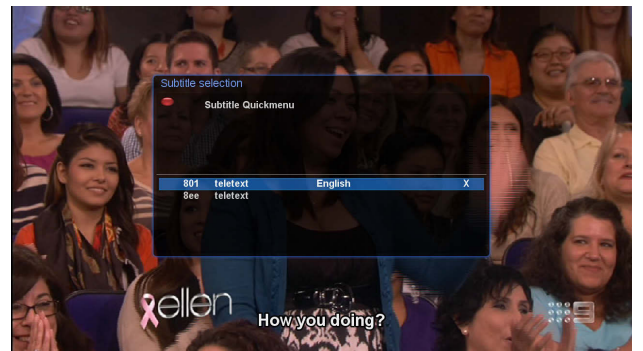
Available subtitles, if any, will display. By using **UP/DOWN** navigate the list to select a subtitle that you want to play and press **OK** to activate it.



You can customize your subtitles either by pressing Menu then browsing to **Setup > TV > Timeshift Settings**



You can also customize your subtitles Live when Subtitles are enabled by pressing the Subtitle button and then the red button to access the subtitle quick menu, here you can see your changes live on the screen.

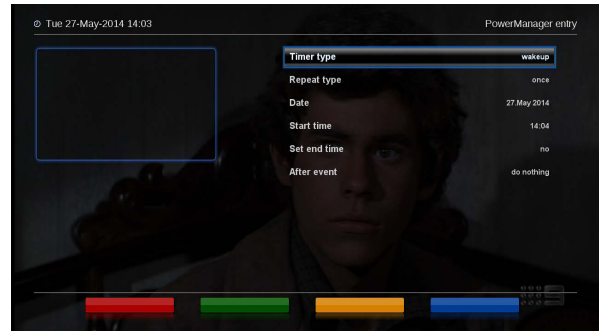
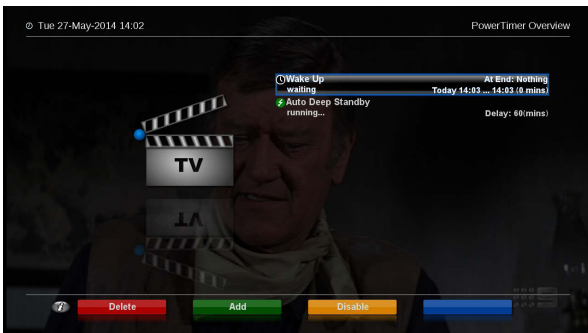


4.8 Sleep Timer

How to use > Press "SLEEP" on your T2 Remote Control

You can set a specific time when your Beyonwiz T2 goes into Standby mode or Deep Standby mode, using this menu. Three color keys are used to setup this sleep timer.

- ① **RED:** This option is used to enable or disable *Sleep Timer*.
- ② **GREEN:** This option is used to choose between *Standby mode* and *Deep Standby mode*.
- ③ **YELLOW:** This option is used to choose whether to be asked of confirmation before system shutdown.
- ④ **BLUE:** This option is used to use time of currently running service.



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 T2 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 T2 EPG, simply visit www.beyonwiz.com.au/tv to view these and more helpful videos.



4.11 Timeshift

The best way to activate Timeshift mode is to Press PLAY/PAUSE ►|| or by pressing the left arrow on your T2 remote.

10 seconds after changing to a channel a timeshift buffer will be saved so you can rewind or record up to that point at any 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 10secs
 Press 'v' skip back or '^' forward 60secs

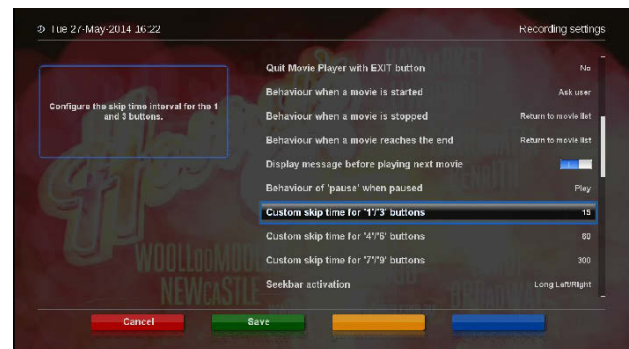
You can also add the following skip buttons by going into Menu>>Setup>>System>>Button Settings and enable skip for Number buttons.

Press '1' skip back or '3' forward 15secs
 Press '4' skip back or '6' forward 60secs
 Press '7' skip back or '9' forward 300secs

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 T2 has been idle on a particular channel, so if the T2 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.



You can customize to your liking



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

4.12 Recording

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

⑤ Instant Recording

How to use > Press  or 

Five recording options are given.

Add recording (stop after current event)

This option is used when you want to end recording when the current program ends.

Add recording (indefinitely)

Start recording and set no finish time, the only way to stop the recording is to press the 'Red' button and then click on Stop Recording.

Add recording (enter recording duration)

This option is used when you want to manually set the length of recording by entering a certain amount of time in minutes.

Add recording (enter recording end time)

This option is used when you want to define a certain date and time when the recording is to stop.

Don't record

This option is used to exit from this menu without recording.

Timeshift save recording

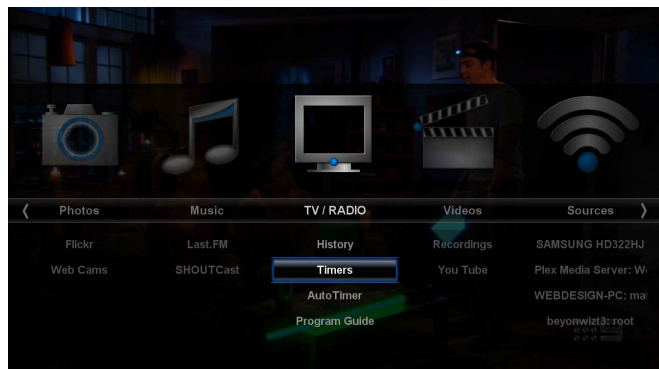
This option will only be visible when there is a timeshift buffer, see 'timeshift' in the manual for more info



⑥ Recording by Timer

How to use > Press  → 'Timer'

You can manage recording process using Timer List menu. Press **MENU** and select **Timer** on the menu.



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.

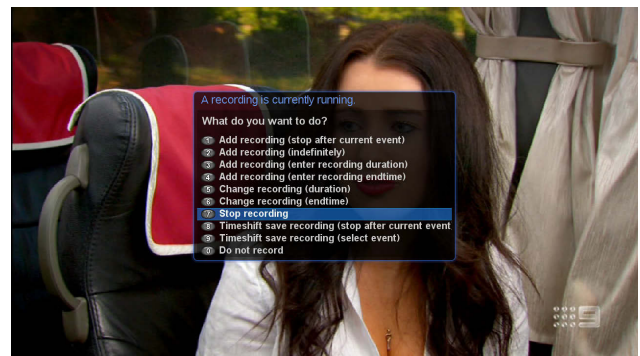
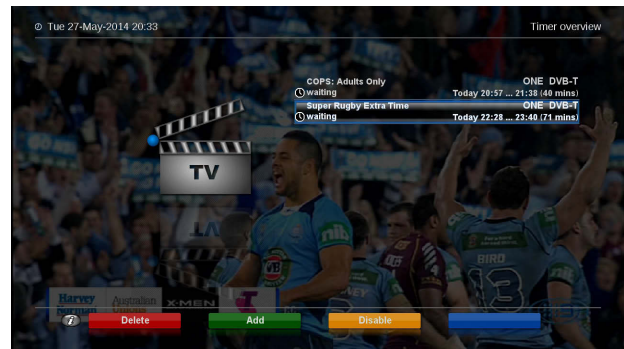
BLUE (Cleanup)

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

Stop Recording

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

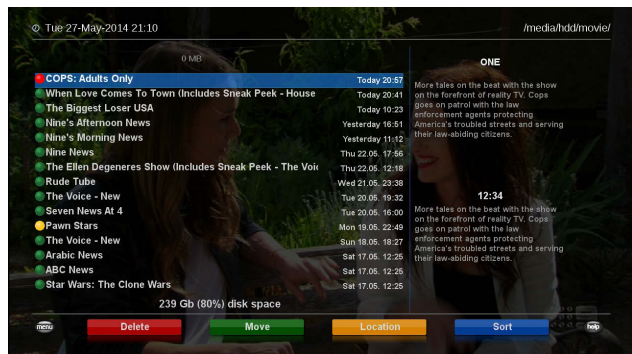
If you want to stop recording, press **RED** again while recording is running. Select Stop Recording.



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 infobar.

This infobar 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

Red Button: Delete Recording

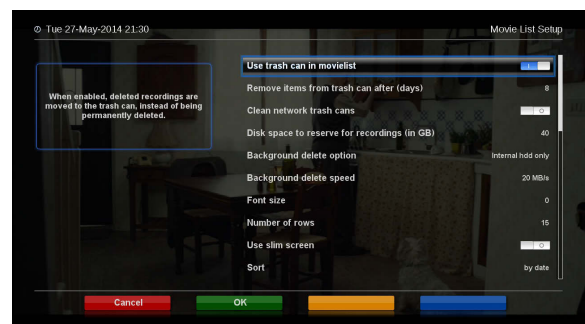
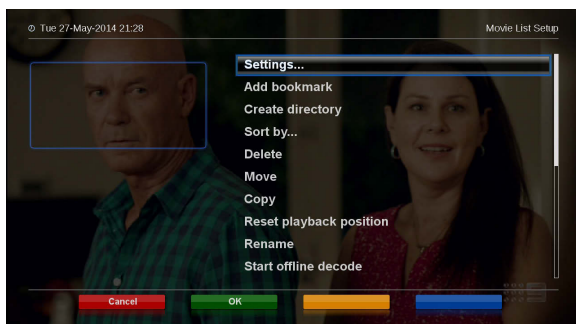
Green Button: Move recording to another folder

Yellow Button: Change the Recording location


Blue Button: Sort recordings (Name, Date, type etc..)

Menu Button: Recording options and Settings

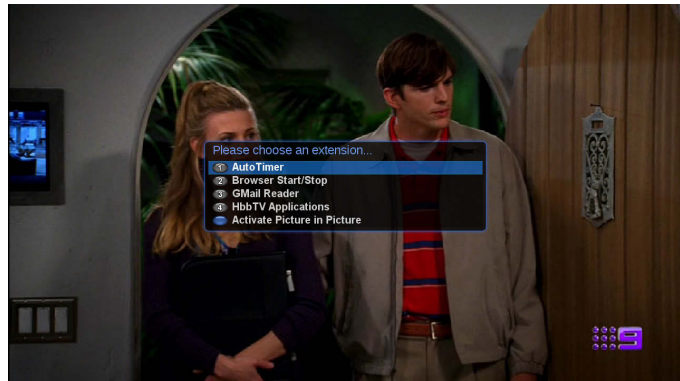
Help Button: Recording Help info



4.15 Interactive Media

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.



Chapter5. System Configuration

Beyonwiz T2 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 T2 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 T2 first.

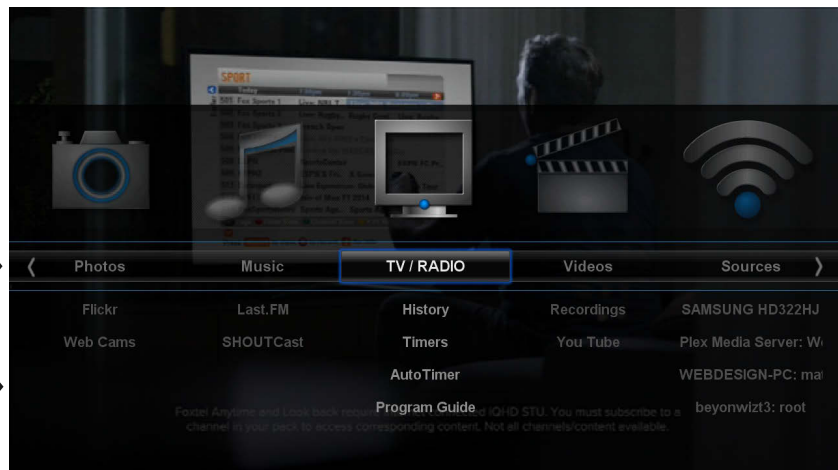
5.1 Main Menu

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.

Photos: Browse you hard drive, network shares and browse your photos on the TV.

Music: Browse you hard drive, network shares and browse and listen to your music on the TV or Amp.

TV/Radio: Access your TV and Radio channels.

Videos: Playback your recordings.

Sources: Browse your Hard Drive and Network folders.

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

The main 'Setup' menu of Beyonwiz T2 consists of the following menus and sub menus.

Menu Structure

① System

- **AV Setup** - AV Settings / Audio sync / Video Enhancement / OSD Position / OSD 3D Setup / Skin Setup / HDMI-CEC
- GUI setup
- Button settings
- Time Settings
- Front panel settings
- Remote control code settings
- Factory reset

② Tuners

- **Tuner Setup**
- Location Scan
- Manual Scan

③ TV

- **Channel selection**
- **Recording settings**
- **Timeshift settings**
- **Subtitle settings**
- **EPG settings**
- **Parental control**
- **Zap history**

④ Media

- **Picture Player**
- **Media Player**

⑤ Network

- **Network Adapter Selection - Network settings info / Nameserver settings / Network test Restart network / Network wizard**
- **Network interface**
- **Network Restart**
- **Network Services - Samba / NFS / FTP / DNLA Server / DYN-DNS / Telnet**
- **Mount Manager**
- **Network Browser**

⑥ Storage

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

⑦ Plugins


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

⑧ Software Manager

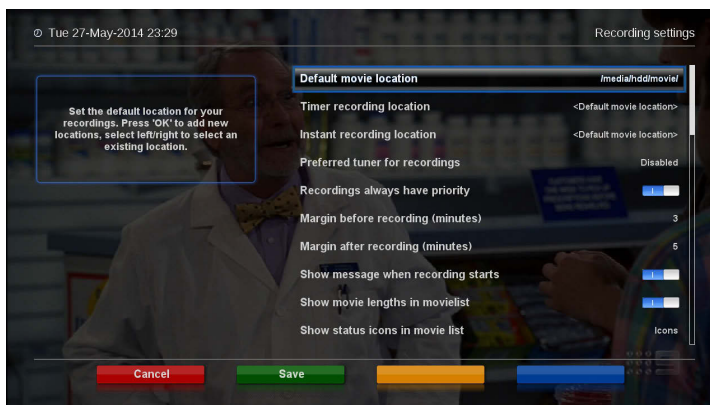
- **Software Update**
- **Backup Settings**
- **Select Backup files**
- **Restore Settings**

5.2 System Setup

Recording Settings

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

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



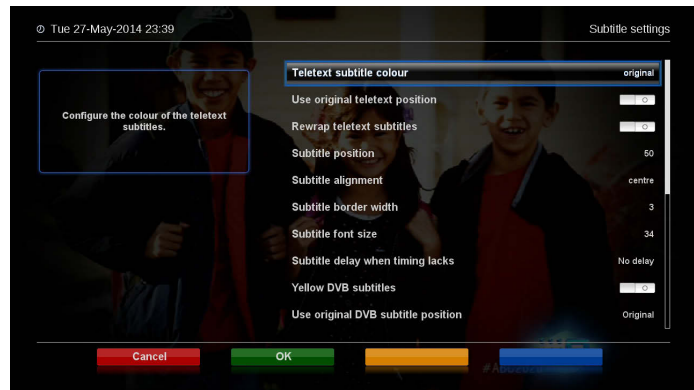
- ① **Margin before record (minutes):** If you enter a number here, for example, 5, the recording will begin 5 minutes before the defined time. If it is '0', it means that the recording starts exactly at the defined time. This option comes in handy, just in case that a program starts earlier than the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

Subtitle Settings

How to use > Press **MENU** → '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.

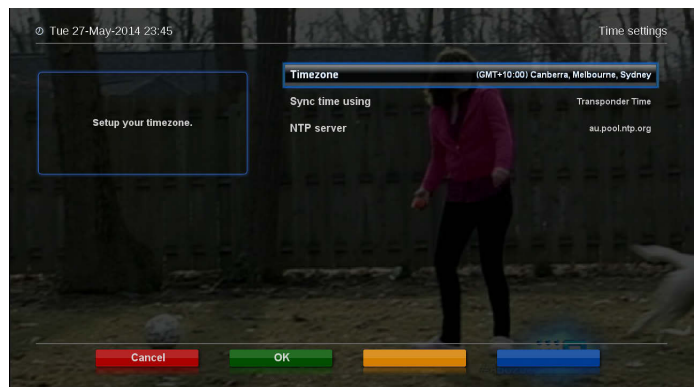


Selecting Time Zone


How to use > Press **MENU** → 'Setup' → 'System' → 'Time settings'

The Beyonwiz T2 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 T2. After selecting a time zone, press **GREEN** to confirm and save the changed setting.



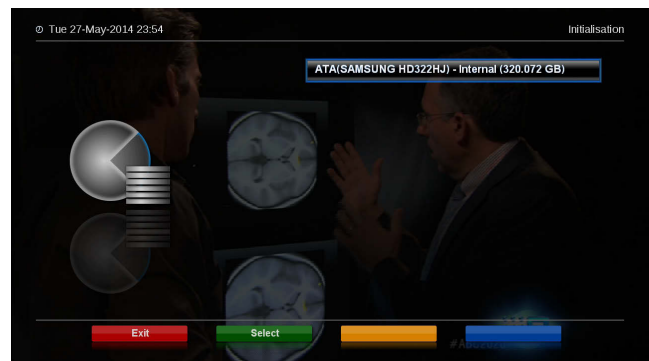
Initialize / Format Hard Disk

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

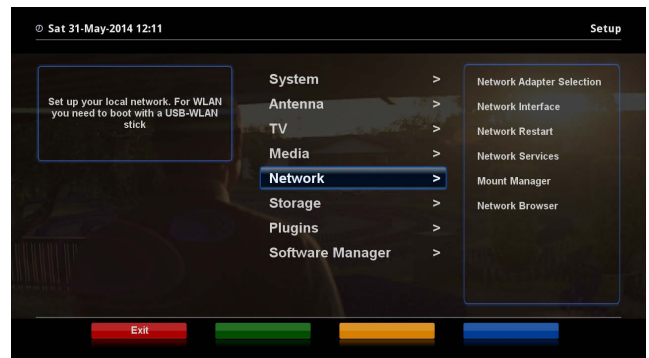
- Select the Hard drive you wish to format and press the Green button the 'select'
- Next press the 'Red' button to Initialize
- You will see a pop up asking you to confirm, select Yes to format the HDD



Network Setup

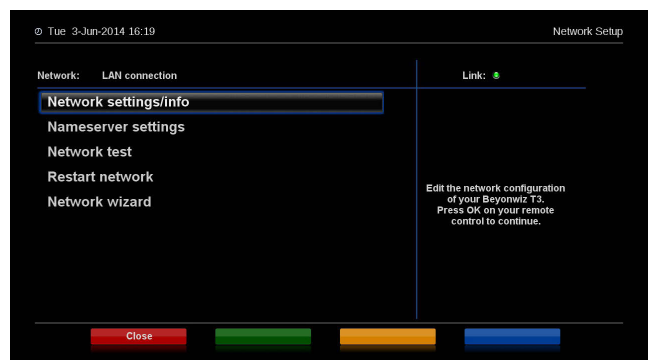
How to use > Press  → 'Setup' → 'Network'

Beyonwiz T2 is integrated with Gigabit LAN Ethernet with RJ 45 connector. You are recommended to use this network capability of Beyonwiz T2 to fully enjoy the system. You can setup the network settings through this **Network Configuration** menu.



LAN Connection

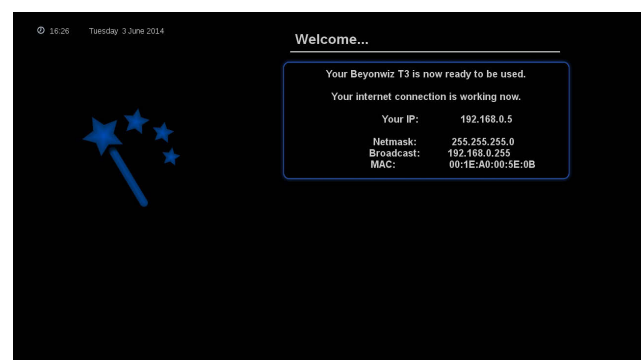
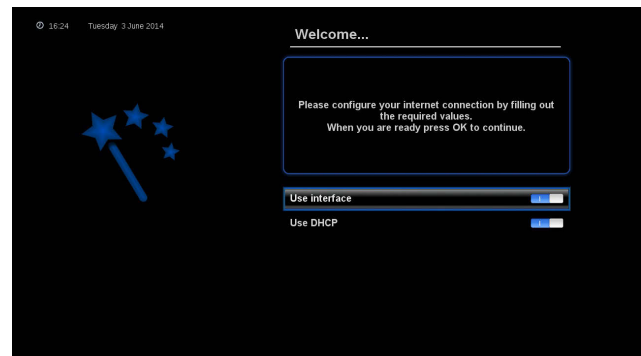
The easiest way to connect to your wired home network is via the LAN connection and using the Network Wizard either in the initial set up or by going into the Network menu as pictured above. Once in the Network menu select Network Adapter Selection and press 'OK' if you then get a choice between LAN 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 T2 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.



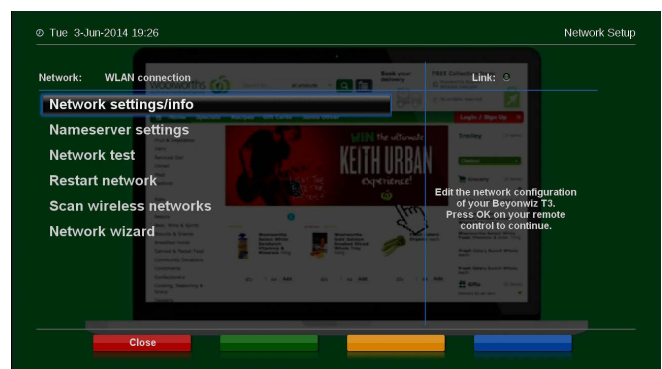
Wireless LAN Connection

The Beyonwiz T2 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.

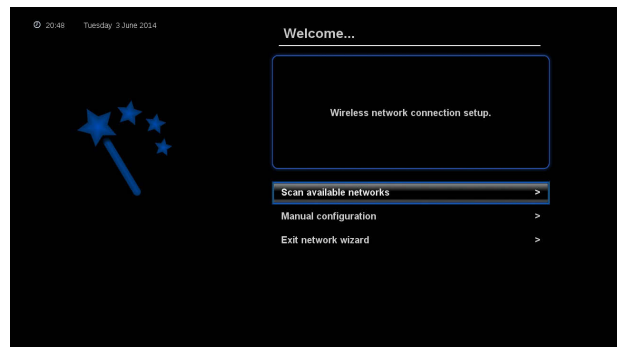
To connect your T2 to your wireless network first place the wireless USB stick into one of the ports on the T2 and then 'Reboot' (hold down the power button on your remote for 3 seconds and then select 'Reboot' from the power menu.

Once your T2 reboots press

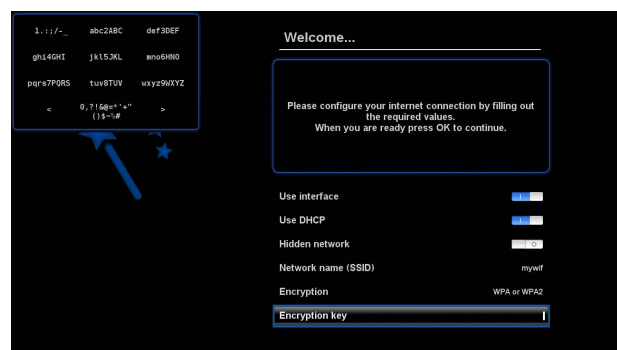
The easiest way to connect to your wireless home network is via the WLAN connection and using the Network Wizard either in the initial set up or by going into the Network menu **MENU** → 'Setup' → 'Network' Once in the Network menu select Network Adapter Selection and press 'OK' if you then get a choice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

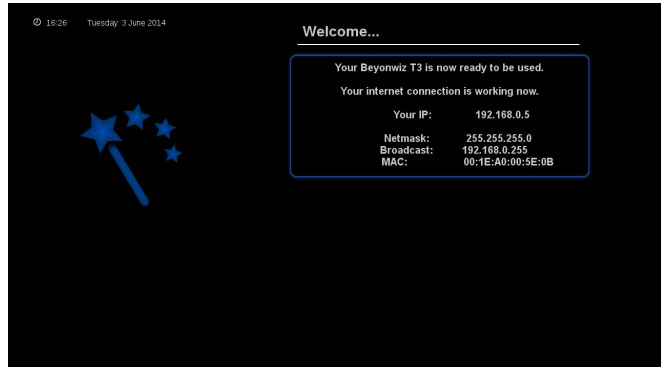
'or'

2) Press the 'TEXT' button on the bottom right corner of your T2 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 T2 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' → 'System' → 'Skin'

Beyonwiz T2 is a Linux based set top box and there are a lot of Skins available for Linux set top box. Using this menu, you can use a different Skin other than the default one.

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

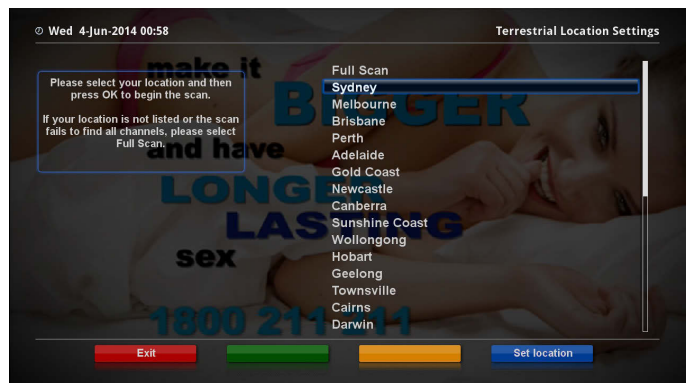
How to use > Press  → 'Setup' → 'Antenna'

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.

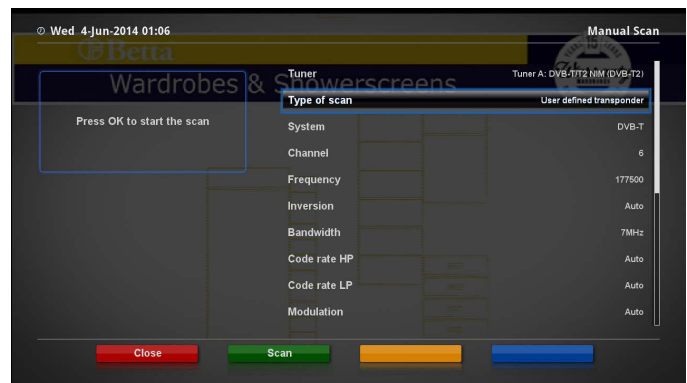
Once in the Antenna menu you will have 2 options **Location Scan** & **Manual Scan**




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  → 'Setup' → 'Parental Control'

Please note that the Parental Control feature was currently being redesigned at the time that this manual version was released, please check for a later version manual at www.beyonwiz.com.au soon.

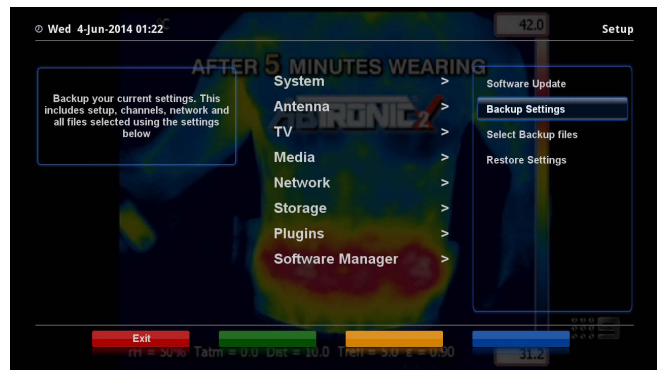
Backing up & Restoring your Settings

The T2 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.

 → 'Setup' → 'Software Manager' > Backup Settings

Press 'OK' on **Backup Settings** and that is it, you will get a message "Backup is Done"

To **Restore Settings** simply follow the same menu path and click on **Restore Settings**, your T2 will automatically restore your settings from you Backup file and reboot.

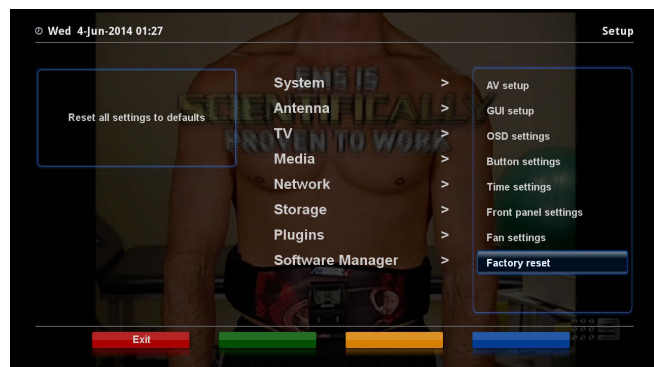


Factory Reset

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.

How to use > Press  → 'Setup' → 'System' > Factory reset

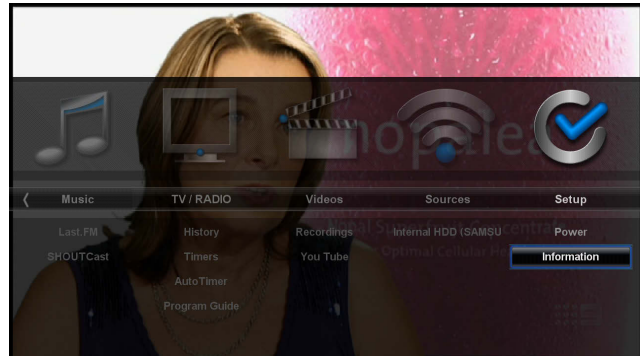
Press 'OK' on Factory reset and you will a popup message to confirm, read the caption and then select 'YES' to continue. Your T2 will then reboot, once it has rebooted it will give you the option to **Restore Settings** from the back up you made.



Checking Software Version and other information

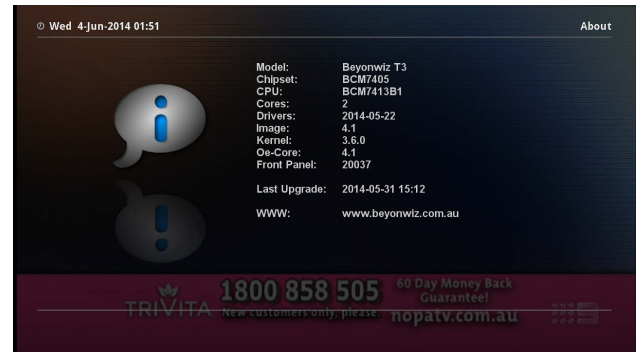
How to use > Press  → 'Information'

If you want to check the H/W or S/W system of your Beyonwiz T2, this is the menu that you need to use. Also, here you can check very detailed information of a specific service.



The Beyonwiz T2 uses Dates to track software versions instead of version numbers. To find out what **Firmware Version** you are running simply press 'OK' on information and then 'OK' on

About in the sub-menu and you will get this screen> The software version is the Date listed under **Last Upgrade**:



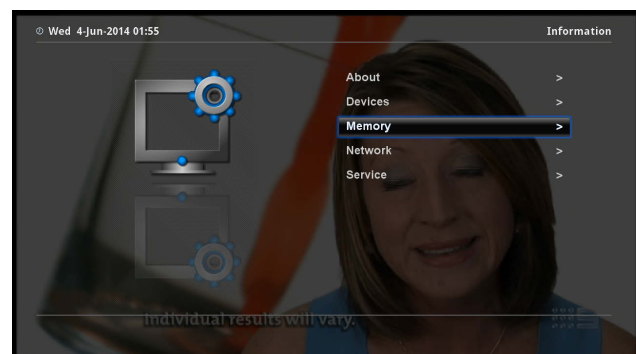
You can find other useful information in the sub-menu

About: Software info as above **Devices:** Lists devices connected to the T2 including tuners, hard drives and network devices.

Memory: Lists the available Flash and RAM

Network: Lists all your network connection settings including your IP Address

Service: Technical information on the channel you are currently viewing.

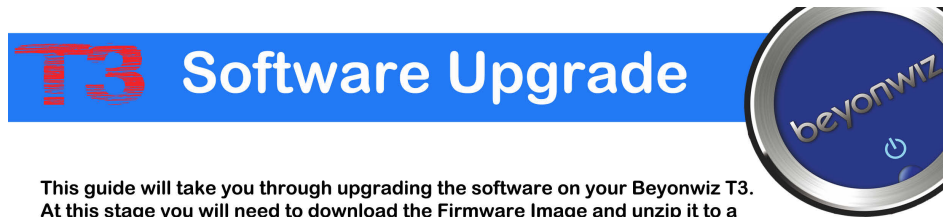


Upgrading the T2 Software

There are currently 2 methods for upgrading your T2 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 T3. At this stage you will need to download the Firmware Image and unzip it to a USB stick to apply, in the near future you will be able to upgrade your Firmware Image directly over the internet, this guide will be modified with those instructions when the feature becomes available.

- Step 1. Download the latest version of the T3 Firmware Image from either the downloads page at www.beyonwiz.com.au/downloads.php or in the Beyonwiz User Forum under Firmware Images in the T3 section. If you are viewing this How To guide in the Forum then the link to download the latest Firmware Image is at the top of this page.
- Step 2. Copy and Paste the Downloaded file to a USB stick, it should not be inside a folder, it must be in the root of the USB stick.
- 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 T3 is in Shutdown mode or the rear switch is turned off, also make sure that no other USB devices are connected to the T3.
- Step 5. Connect the USB stick to either the front or rear USB ports and power the T3 'ON'
- Steps 6. You will get a message on the T3 Display 'Press OK to upgrade!', you **MUST** press the OK button on the front Touch Panel of the T3 itself, it will not work by using the Remote Control. You will then get a message "Flashing" or "Upgrading", **DONOT** turn the T3 off during the process, it will take anywhere from 1 - 5mins
- Step 7. Once the Upgrade is complete your T3 will reboot, you may get another message to "Press OK to upgrade" again, you can just ignore this as it will go to booting after 5 - 10secs, when the display says booting you can remove the USB stick.

To check for **Online Updates** Press  > Setup > Software Manager > Software Update

Your T2 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.

Chapter6. 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 T2.
- Check if the antenna cable is properly connected to Beyonwiz T2.
- 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 if it is correctly selected for the program that you are currently watching.

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 your remote control has been used for long, change 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 if tuner configurations are all correctly made.
- Check if the antenna cable(s) are properly connected.
- If you ran a "Location" search try a "Full" search.

5. Recording problem

- Check if the HDD has a sufficient space for recording.
- Check if there is a conflict between recording timers.

Chapter7.

TV Remote Codes

Program the Remote to control other Beyonwiz PVRs.

The T4 remote can be programed to work on any of the Beyonwiz T-Series PVRs. Additionally the T4 IR software can be set to work in any of those modes (see page 49). STB mode has 3 custom codes as follows and T4 (02F4) is the factory default for STB.

1. Custom code "02F2" for T2.
2. Custom code "02F3" for T3.
3. Custom code "02F4" for T4.

If you want to change custom code to T2 or T3, please program the remote control for STB following these steps.

- 1) Press and hold the [STB] key and [OK] key at the same time until the red LED on [STB] key turns on and then release both keys.
- 2) Enter the three (3) digit code, "003" or "004"
[002] = Custom Code "02F2"
[003] = Custom Code "02F3"
[004] = Custom Code "02F4"
- 3) Press [OK] key.
- 4) When the [OK] key is released, if the code is valid, red LED on [STB] key blinks 3 times.
The LED doesn't blink if the entered code is invalid.

Program your remote to control your TV.

This remote control is initially programmed for STB only.

If you want to program a TV into the remote, you need to go to "Program the remote to control your TV" below.

When batteries are inserted in a remote and no previous settings exist from prior usage, the factory default is to have Philips TV code setting

Calls from the TV, Vol +/-, Mute, Ch +/-, 0~9, Up, Down, Left, Right, Ok, Red, Green, Yellow, Blue are activated in the TV mode.

48 Remote TV Codes

Program the Remote to control your TV.

- 1) Turn on your TV manually.
- 2) Press and hold the [TV] key and [OK] key at the same time until the red LED on [TV] key turns on and then release both keys.
- 3) Find the three (3) digit device code in your brand list for your TV brand and enter the three (3) numeric keys in order until the TV device is powered off.
- 4) If TV is off, then press [OK] key.
- 5) When the [OK] key is released, red LED on [TV] key blinks 3 times.
The LED doesn't blink if the entered code is invalid.

Automatic TV code search to control your TV.

If the device code for your TV brand can't be found in the list, please try to search the device code database following these steps.

- 1) Turn on your TV manually.
- 2) Press and release the [CH +] key key to scan forward through the database or press and release the [CH -] key key to scan backward search.
- 3) If TV is off, then press [OK] key.
- 4) When the [OK] key is released, red LED on [TV] key blinks 3 times.
The LED doesn't blink if the entered code is invalid.

Long Key Press Limit (Couch Mode)

In any mode, the remote discontinues IR transmissions when any key is held for longer than 1 minute.

Back Lighting

In any mode, the remote will be on back lighting for 3 seconds when any key is pressed.

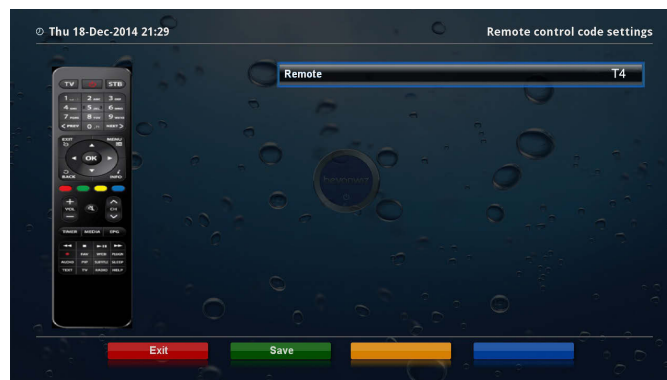
49 Remote TV Codes

T4 Infra Red (IR) Setting.

The T4 IR signal can be customised and switched between the three T4 remote control settings listed on page 47. This is particularly handy if you want to operate multiple Beyonwiz T-series model in a location where the remote signals could clash such as custom installs.

Program the T4 IR setting.

- 1) Press the Menu button on your T4 Remote, scroll right to Setup and press 'OK'
- 2) Press 'OK' on System, scroll to 'Remote control code settings' and press 'OK'
- 3) Use your Right arron on the remote to scroll to the desired code and press the 'Green' button to save
- 4) You will get a confirmation message, select yes to confirm the change, your remote in its current mode will stop working.
- 5) Now you need to program your remote control to the same setting that you set above. Please refer to page 47.



TV Remote Codes

BRAND) NAME	CODE NUMBER (3DIGIT) LIST
A.R. SYSTEMS	049 152
ACCENT	049 152
ACEC	112
ACER	484 329
ACURA	195
ADMIRAL	065 076 163 171 190 307 324 369
ADYSON	379
AGASHI	076 379
AGEF	324
AIKO	049 076 102 141 152 172 195 225 379
AIWA	377 459
AKAI	049 050 055 066 076 102 107 123 139 141 150 152 172 182 195 209 225 379 428 433 437
AKIBA	049 123 152 378 380
AKITO	049 106 152
AKURA	049 076 123 195 378 426
ALARON	042 379
ALBA	018 049 050 107 123 134 163 168 195 225 232 379 421 457
ALBIRAL	371
ALCYON	407
ALLORGAN	050 094 236 379
ALLSTAR	049 152
AMPLIVISION	113 379 421 425
AMSTRAD	004 049 076 123 131 152 172 195 225 426
ANAM	049 152 195
ANAM NATIONAL	049 152
ANGLO	076 195
ANITECH	049 076 152 195 407
ANSONIC	045 049 107 112 152 195 210 226 391 421
ARC EN CIEL	074 182 186 424 453 463
ARCAM	379 424
ARISTONA	049 050 065 079 112 152 160
ARTHUR MARTIN	107 127 136 139 153 307 425
ASA	020 065 078 080 091 146 171 197 307 324 375 408 449
ASBERG	049 152 407
ASORA	195
ASTRA	195
ASUKA	050 076 123 378 379
ATLANTIC	049 050 071 113 152 236 379
ATORI	195
AUCHAN	107 425
AUDIOSONIC	049 074 076 152 182 195 213 379 421
AUDIOTON	050 076 379 421
AUSIND	090 407
AUTOVOX	050 071 078 079 080 083 090 156 236 324 379 407 449
AWA	018 049 131 152 195 226 320 379 426 433
AYOMI	411
BAIRD	074 102 182 209 218 379 409

CONTEC	018 131 195 320 379
CONTINENTAL EDIS	008 074 182 186 232 424 453 462 463
COSMEL	195 213
CROSLEY	065 090 093 094 104 107 139 324 407
CROWN	049 152 163 170 195 209 232 407 421
CS ELECTRONICS	123 379
CTC CLATRONIC	045
CURTIS MATHES	126 190
CYBERTRON	123
DAENYK	042
DAEWOO	049 123 152 193 195 226 379 456 464
DAINICHI	123 379
DANSAI	049 076 141 152 195 379
DANSETTE	426
DANTAX	421
DATSURA	209
DAWA	049 152
DAYTON	049 152 195 226
DE GRAAF	107 139 209 307
DECCA	049 102 106 120 217
DECCA(UK)	046 049 050 102 106 131 152 379
DEITRON	049 152
DENKO	076
DENON	126
DERWENT	105
DESMET	049 113 152
DIGATRON	049
DIGILINE	049 152
DIXI	049 152 195 379
DORIC	104 105
DREAN	049 152
DTS	195
DUAL	049 050 107 139 152 156 168 182 243 379 414 417 424
DUAL TEC	040 050 168 195 379
DUMONT	045 065 080 102 139 146 324 375 379 449
DUMONT-FINLUX	020 045 078 091 104
DUX	049 112 152
DYNATRON	049 152
ELBE	049 107 123 152 172 210 243 369 391 411 421 435
ELBIT	217
ELCIT	045 046 065 104 107 150 168 324
ELECTA	076 378
ELECTRO TECH	195
ELEKTA	076 378
ELG	049 152
ELIN	020 049 107 139 152 172 195 379
ELITE	049 123 152
ELMAN	045 168
ELTA	195 076 379
EMERSON	004 042 049 065 113 152 225 324 378

ERRES	049	112	152																							
ESC	049	152																								
ETRON	049	107	139	152	195																					
EURO-FEEL	076																									
EUROMAN	049	076	152	379	421																					
EUROPA	049	152																								
EUROPHON	045	046	049	050	068	107	120	152	168	379																
EXPERT	071	107	236	425																						
EXQUISIT	049	152																								
FAMILY LIFE	049	152																								
FENNER	152	195	226																							
FERGUSON	049	050	074	076	080	082	102	103	182	218	247	409	411	436	452											
FIDELITY	049	050	076	107	152	225	307	379																		
FILSAI	050	379																								
FINLANDIA	033	139	172	197	209	307	375																			
FINLUX	020	042	045	049	078	080	090	091	102	104	107	139	146	152	163	197	210	324	375	379	407	408	428	429	437	449
FIRST LINE	045	049	094	102	107	134	139	152	191	195	209	210	226	379	411	457										
FISHER	018	041	050	065	069	102	104	107	139	156	172	209	320	324	379	408	414	421								
FLINT	049	102	123	152	380																					
FNR	045																									
FORMENTI	049	090	107	113	139	307	324	379	407																	
FORMENTI-PHOENIX	050	104	113	307																						
FORTRESS	190	324																								
FRABA	049	152	421																							
FRIAC	045	049	152	195																						
FRONTECH	066	076	139	195	307	379																				
FUJITSU	042	045	071	102	107	195	236	379																		
FUJITSU GENERAL	195	379																								
FUNAI	042	076	094																							
GALAXI	045	049	152																							
GALAXIS	045	049	152	163	421																					
GBC	104	107	139	168	195	226																				
GE	074	182	218	378																						
GEANT CASINO	107	425																								
GEC	049	102	104	107	120	152	171	172	307	379																
GEC(UK)	046	050	102	107	150	162																				
GELOSO	104	107	139	168	171	195	226	307																		
GENERAL	064	074	182																							
GENERAL TECHNIC	195																									
GENEXXA	049	123	152	307	426																					
GOLDHAND	379																									
GOLDLINE	213																									
GOLDSTAR(LG)	049	050	055	107	139	152	168	172	182	195	379	414	421	460	011											
GOODMANS	018	042	049	076	102	134	139	141	152	182	193	195	218	225	226	232	379	428	450	456	464					

GORENJE	421
GPM	123
GRADIENTE	049 152 170 177
GRAETZ	049 090 104 136 139 152 153 162 171 172 198 225 307
GRANADA	013 018 033 041 049 102 104 105 112 120 152 171 172 198 209 218 238 241 307 379 407 425
GRANADA(UK)	046 050 090 107 139 162 307
GRANDIN	049 107 113 123 152 195 378 380 425 435
GRONIC	045 379
GRUNDIG	049 080 090 152 232 247 249 407 454 455
HAIER	327
HALIFAX	076 379
HAMPTON	379
HANIMEX	094
HANSEATIC	018 049 050 094 104 107 113 152 172 195 241 324 378 379 391 421 455
HANTAREX	045 046 049 152 195
HANTOR	049 152
HARLEY DAVIDSON	042
HARWOOD	049 152 195 426
HAUPPAUGE	049 152
HAVERMY	190
HCM	049 076 123 152 163 195 378 379 426
HEMA	195 379
HEMMERMANN	150
HIFIVOX	074 182 186 424 453 463
HIGASHI	050
HIGHLINE	049 076 152
HIKONA	123
HINARI	004 018 042 049 066 094 107 123 134 139 195 209 232 307
HISAWA	123 378 380 425
HISENSE	009 326 025
HIT	324
HITACHI	018 020 033 049 050 074 086 099 102 104 107 110 126 127 139 150 152 162 168 171 182 186 218 238 307 379 014 309
HITACHI FUJIAN	013
HITSU	123 195 380
HORNYPHON	049 112 152
HOSHAI	123 380
HUANYU	193 226 379
HUMAX	317
HYGASHI	379
HYPHER	050 168 195 379
HYPERSONIC	172
HYPSON	049 076 152 217 378 379 380 425
IBERIA	049 152
ICE	049 076 123 152 195 225 379
ICES	123 379
IMPERIAL	002 049 090 093 094 107 142 152 163 168 307 369 407 421
INDIANA	049 152

INGELEN	090 104 136 139 153 162 171 198 232 435
INGERSOLL	195
INNO HIT	046 049 050 066 102 123 152 195 217 379 407
INNOVATION	049 152
INTERACTIVE	210
INTERBUY	076 195
INTERFUNK	049 065 067 074 090 104 107 112 139 150 152 153 172 182 307 324 421 453 463
INTERNAL	049 152
INTERVISION	045 049 055 076 107 123 152 225 232 378 379 380 421
IRRADIO	049 066 090 123 152 195 407
ISUKAI	049 123 152 378
ITC	379
ITS	049 076 123 152 225 378 379
ITT	042 090 107 134 139 150 162 171 172 193 197 198 209 307 375 428
ITT-NOKIA	042 090 104 107 134 136 139 150 153 162 171 172 193 197 198 209 307 375 428 433 435 437
ITV	076 049 152
JEAN	018
JEC	141
JET POINT	365
JVC	018 103 123 170 182 225 409 433 439 465 007
KAISUI	049 050 123 152 195 378 379 380
KAMOSONIC	050
KAMP	379
KAPSCH	071 107 172 236
KARCHER	020 045 049 050 068 076 107 152 195 217 378 421 435
KATHREIN	455
KAWASHO	379
KB ARISTOCRAT	107
KENDO	045 049 055 134 152 172 210 421 435
KENNEDY	071 079 104 107 139 236 369
KINGSLEY	379
KLARMAX	371
KNEISSEL	049 152 210 243 369 391 411 421 435
KOLSTER	045 049 152
KONKA	049 123 152 225
KONTAKT	232
KORPEL	049 152
KORTING	065 094 113 324 421
KOSMOS	049 152
KOTRON	076 426
KOYODA	195
KRAKING	411
KRIESLER	050 065 079 112 152 160
KTV	050 379
KURO	445
KYOSHU	076 163 426
KYOTO	107

LECSON	049 152
LEGEND	054
LEMAIR	210
LENCO	049 107 152 195 226
LENOIR	050 195
LEYCO	049 076 094 102 152
LIESENK & TTER	049 112 152
LIFE	440 441 443 444
LIFETEC	049 076 123 152 195 226 440 441 443 444
LLOYD_S	195
LOEWE	035 049 089 120 152 324 391 421 001
LOEWE OPTA	035 046 049 065 120 144 152 213 324
LOGIK	131 225
LOGIX	195
LUMA	071 107 110 152 171 172 195 210 226 236 307
LUMATRON	049 076 107 152 172 236 379
LUX MAY	049 152 195
LUXOR	042 050 090 107 127 139 150 172 197 209 307 375 428 429
LYCO	076
MAAZ	371
MADISON	049 152
MAGNADYNE	045 046 065 104 107 120 139 150 168 324
MAGNAFON	045 046 050 068 090 120 379 407
MAGNAVOX	018 042 049 152
MAGNUM	440 441 443 444
MANDOR	076
MANESTH	076 094 113 134 141 152 379
MANHATTAN	049 195
MARANTZ	049 152 455
MARELLI	324
MARK	049 152 195 226 379
MASUDA	123 195 225
MATSUI	004 018 041 049 050 094 100 102 106 107 131 134 141 150 152 171 195 209 218 225 232 247 307 379 380
MAXIMAL	139
MAXWELL	371
MEDIATOR	049 112 152
MEDION	049 152 195 217 457 328
MEGAS	435
MEGATRON	126
MELECTRONIC	020 049 074 152 182 193 195 197 210 226 375 379 408 428 429
MELVOX	425
MEMOREX	099 195 217
MEMPHIS	102 125 195 213
MERCURY	049 152 195
METZ	049 065 067 070 092 247 324 412 420 454
MICROMAXX	049 152 195
MICROSTAR	440 441 443 444
MINERVA	080 090 232 247 249 407 454

MINOKA	049 152 426
MITSUBISHI	013 018 049 065 105 131 152 190 247 324 454 053
MIVAR	046 050 072 081 090 120 379 391 407 414 421 434
MONACO	195
MORGAN_S	049 152
MOTION	407
MOTOROLA	190
MTC	152 379 421
MTEC	106
MULTISTANDARD	045
MULTITEC	049 152 195
MULTITECH	045 046 049 050 120 152 195 379 407 421
MURPHY	102 104 105 107 171 307 379
MURPHY(UK)	162
MUSIKLAND	123
MYRYAD	455
NAD	172 209
NAIKO	049 152
NAKIMURA	049 152 226
NAONIS	040 071 079 110 171
NAT	085 151
NATIONAL	033 085 104
NEC	018 049 113 131 152 177 195 226 379 380 010 025
NECKERMANN	002 049 050 065 107 139 152 163 210 247 249 307 324 357
	379 421 455
NEDIATOR	152
NEI	049 125 152 225
NESCO	042
NETSAT	049 152
NETWORK	213
NEUFUNK	049 152 195 435
NEW TECH	049 050 152 182 195 379
NEW WORLD	123
NICAMAGIC	379
NIKKAI	018 049 076 102 123 125 139 141 152 195 213 379 066
NOBLEX	049 076 152
NOBLIKO	045 050 080 090 379 407
NOGAMATIC	074 182 186 424 453 463
NOKIA	090 104 107 134 136 139 150 153 162 171 172 193 197 198
	209 226 307 375 428 429 433 437 465
NORDMENDE	049 074 083 150 152 182 186 218 247 307 424 453 463
NOVATRONIC	020 049 152 226
OCEANIC	086 094 104 107 108 109 139 172 209 425
OCEANIC(F)	150
ODEON	076
OKANO	049 076 102 152 421
OMEGA	076
ONCEAS	050
ONWA	123 225
OPERA	049 152

OPTIMUS	099
OPTONICA	190
ORBIT	049 152
ORION	004 042 045 049 076 094 113 131 134 139 150 152 191 195 216 366 367 426
ORLINE	049 123 152
ORMENTI-PHOENIX	104
ORMOND	195
OSAKA	066
OSAKI	049 066 076 102 106 123 152 226 379 426
OSIO	049 152
OSO	123
OSUME	018 102 123
OTAKE	450
OTTO VERSAND	018 049 050 074 094 104 107 113 134 139 152 172 190 218 247 249 357 362 379 414 454 455
P.T ACTRON	217
PACIFIC	316
PAEL	050 379
PALLADIUM	049 107 152 163 210 247 324 357 379 421
PALSONIC	049 055 076 152 379 426 019 023 052
PANAMA	049 076 152 195 379
PANASONIC	016 049 099 104 107 139 151 152 172 396 420 461 304 305
PANAVISION	049 152 210
PATHE CINEMA	107 113 379 391 411 425
PATHE CINEMA(F)	050 168
PATHE MARCONI	008 074 182 186 424 453 462 463
PAUSA	195
PAUZA	195
PERDIO	049 102 107 113 152
PERFEKT	049 152
PERSHIN	425
PHILCO	002 016 049 065 090 093 094 104 107 126 142 152 163 168 324 369 407 421
PHILHARMONIC	379
PHILIPS	008 049 050 065 079 089 112 152 160 182 193 216 217 220 226 247 249 324 427 455 482 025
PHOENIX	049 050 102 104 107 113 152 324 379 421
PHONOLA	049 050 065 079 112 152 160 324 379
PILOT	049 152
PIONEER	049 074 152 172 182 209 218 307 421 427 003
PLANTRON	049 076 152 195
PLAYSONIC	379
POLICOM	074
POPPY	195
PORTLAND	226
POWERPOINT	232
PRANDONI-PRINCE	046 090 120 171 172 307 407
PRECISION	379
PREMIER	142

PRIMA	076 195 307
PRINCE	046 171
PRINZ	102
PROFEX	107 139 195 407
PROFI-TRONIC	045 049 152
PROLINE	049 102 112 191 366 436
PROSONIC	049 085 151 152 195 225 226 379 421
PROTECH	045 049 076 125 139 152 163 195 379 457
PROVISION	049 152
PYE	050 065 079 112 152 160 226 324
PYMI	049 112 152 195 226 324
QUADRA VISION	425
QUASAR	045 046 068 099
QUELLE	018 020 049 050 074 076 078 080 090 091 094 113 131 139
	146 150 152 153 172 195 247 249 320 357 379 408 449 454
QUESTA	018
RADIALVA	049 074 107 123 152
RADIOLA	008 049 050 065 079 112 152 160
RADIOMARELLI	045 046 065 104 105 150 152 168 324
RADIONETTE	020 150
RADIOSHACK	049 152
RADIOTONE	049 076 152 163 195 421 426
RANK ARENA	018
RCA	190 218 436
RECOR	049 152
RECTILIGNE	049 152
REDIFFUSION	018 059 104 105 139 171 172 307
REDIFFUSION(UK)	150 162
REDSTAR	049 152
REFLEX	049 152
REOC	460
REVOX	049 152 421
REX	040 071 079 107 110 152 171 210 236 243 307
RFT	076 102 241 324 391 421
RHAPSODY	379
R-LINE	049 152
ROADSTAR	049 076 123 152 163 195
ROBOTRON	065 324
RODEX	049 152
ROWA	458
ROWSONIC	050
ROYAL LUX	421 426
RTF	065
SABA	046 065 074 077 107 120 139 172 182 186 218 307 324 424
	436 452 453 463
SACCS	411
SAGEM	378 380 435 311
SAISHO	004 050 076 107 131 134 195 307 379
SALORA	033 107 127 136 139 150 153 171 172 198 209 307
SAMBERS	045 046 068 090 120 407

SAMSUNG	049 050 066 076 102 152 195 209 217 365 379 414 421 455 486 488 318
SANDRA	379
SANELA	411
SANSUI	049 152 225
SANTON	195
SANYO	018 020 041 049 050 065 102 107 131 152 195 198 209 320 379 391 408 421 314
SAVE	049 152
SBR	049 112 152
SCHAUB LORENZ	090 104 136 139 153 162 171 198 307 433 005
SCHNEIDER	008 040 049 050 065 069 079 104 107 112 123 139 152 156 160 168 172 182 195 225 243 307 379 382 414 417 457
SCOTT	042
SEARS	042
SEG	018 045 049 050 076 107 152 172 195 232 379 407 457
SEI	004 045 049 094 107 139 152 236 324 357
SEI SINUDYNE	446
SELECO	040 071 079 107 110 152 171 172 210 236 243 307 369
SENCORA	195
SENTRA	123 139 141 195
SERINO	380 435
SHARP	018 094 170 190 320 362 308
SHORAI	042 094
SIAM	049 152
SIAREM	045 046 065 104 107 120 139 324
SIEMENS	018 049 066 113 152 247 249 307 320 454
SIERA	050 065 079 112 152 160
SIERRA	049 112 152
SIESTA	421
SILVA	049 152 379
SILVER	018 042 049 076 152 172
SINGER	045 049 065 104 152 195 324 369 425
SINUDYNE	004 045 065 094 104 107 134 139 150 152 172 210 216 236 324 357 366 367
SKANTIC	307
SKY	049 152 487 490
SKYWORTH	448
SOGERA	113
SOLAVOX	066 102 107 139 172 307
SONAWA	123
SONIQ	322 323 325
SONITRON	209 379 421
SONNECLAIR	049 152
SONOKO	049 050 076 152 195 378 379
SONOLOR	107 139 172 209 357 425
SONTEC	049 094 152 421
SONY	018 045 131 211 357 358 370 301 302
SOUND & VISION	045 123 226
SOUND WAVE	049 113 163

SOUNDESIGN	042
SPECTRA	195
SSANGYONG	195
STANDARD	049 050 113 123 152 195 226 379
STARLIGHT	049 076 107 152 195
STENWAY	123 378
STERN	040 071 079 107 110 152 171 236 243 307
STRATO	049 076 152 195
STRONG	312
SUNKAI	049 094 123 134 152 191 232 367 380
SUNSTAR	049 152 195 225
SUNWOOD	049 152 195
SUPERLA	379
SUPERTECH	049 123 152 195 379
SUPRA	195 226
SUSUMU	123 218
SUTRON	195
SYDNEY	379
SYSLINE	049
SYTONG	379
TACTUS	106
TANDBERG	065 074 078 172 182 210 213 420 449
TANDY	050 102 123 190 307 379
TASHIKO	018 050 107 177 379
TATUNG	049 050 102 106 120 131 152 217 379
TCM	440 441 443 444
TEAC	049 076 152 163 195 217 378 380 426 457 458 012 010
TEC	040 050 064 168 195 213 218 243 379
TECH LINE	049 152 195
TECHICA	123
TECHNEMA	113
TECHNICS	099
TECHNOL ACE	042
TEDELEX	379
TEIRON	195
TEKNIKA	042
TELEAVIA	008 074 182 186 218 424 453 462 463
TELECOR	049 107 123 152 379
TELEFUNKEN	049 064 074 082 152 182 186 187 218 230 424 436 452 453 463 489
TELEFUSION	049 152
TELEGAZI	049 076 107 123 152
TELEMEISTER	049 113 152
TELESONIC	049 152
TELESTAR	049 152
TELETECH	049 152 195 213
TELETON	018 067 071 107 236 379
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