

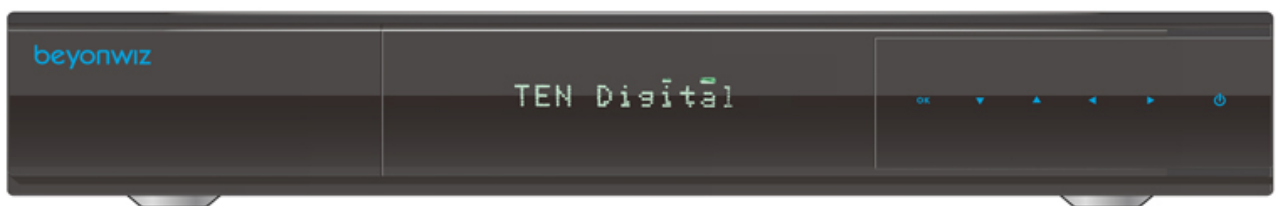


Instruction Manual

T3

High Definition Personal Video Recorder

The Beyonwiz T3 digital receiver is fully compliant with the international Digital Video Broadcasting (DVB) standard, and thus is able to receive digital broadcasts of that standard.



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. Its 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 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 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 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

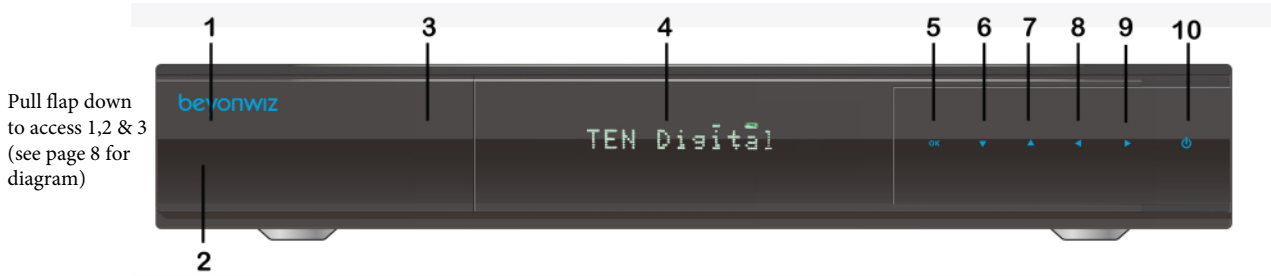
The Beyonwiz T3 digital receiver is fully compliant with the international Digital Video Broadcasting (DVB) standard, and thus is able to receive digital broadcasts of that standard. For its operation you need an antenna, which must be installed appropriately.

1.1 Main Features

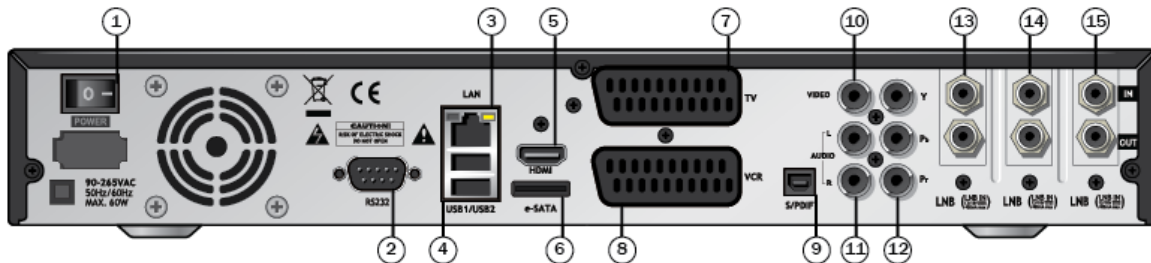
- 400 MHz dual core MIPS Processor
- Linux Operating System
- Media Player
- Downloadable Plug-ins supported
- 2 x Smartcard Readers
- 2 x Common Interface
- MPEG2 / H.264 Hardware Decoding
- 3 x DVB-T2 Tuners
- 11 character dot matrix VFD
- 512MB NAND Flash
- 512MB DDR SDRAM
- 10/100MB Ethernet Interface
- 3 x USB 2.0
- RS-232
- HDMI
- 2 x SCART
- S/PDIF for digital bit stream out (optical)
- EPG supported
- Automatic & Manual Service Scan supported
- Multiple LNB control (DiSEqC) supported (when using satellite tuners)
- Skin change supported

1.2 Product Descriptions

Front Panel



- ① **Smartcard reader slot**
- ② **CI Module slot**
- ③ **USB:** Connect a USB storage device
- ④ **Display :** Displays the current menu information.
- ⑤ **OK :** Confirms the selected menu option.
- ⑥ **CH▼ :** Switches channel
- ⑦ **CH▲ :** Switches channel
- ⑧ **VOL▼ :** Volume control
- ⑨ **VOL▲ :** Volume control
- ⑩ **Power :** Power On

Rear Panel

- ① **On/Off Switch** : Powers on/off.
- ② **RS-232** : RS-232 data port is provided.
- ③ **Ethernet** : Connect to an Ethernet router or switch for network / internet access.
- ④ **USB** : Connects the USB memory stick or external HDD.
- ⑤ **HDMI** : Connects to TV using a HDMI cable for both audio and video signals.
- ⑥ **e-SATA** : Connects the external HDD using e-SATA cable.
- ⑦ **TV SCART** : A SCART connector is provided for TV using a SCART cable.
- ⑧ **VCR SCART** : A SCART connector is provided for VCR using a SCART cable.
- ⑨ **S/PDIF** : Connects to a digital audio system using S/PDIF cable.
- ⑩ **Video output** : Connects to TV using RCA cable.
- ⑪ **Audio output** : Connects to TV using RCA cable.
- ⑫ **Component (YPbPr)** : Connects to TV using a component cable.
- ⑬ **TUNER A** : An antenna cable must be connected to receive TV signal.
- ⑭ **TUNER B** : An antenna cable must be connected to receive TV signal.
- ⑮ **TUNER C** : An antenna cable must be connected to receive TV signal.

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

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

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.

Menu
Press to access the main menu

Info
Press to access program information

Volume +/-
Press to adjust the audio volume.

MUTE
Press to mute the audio or un-mute.

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

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.

Timer
Press to view the Timer Schedule.

Web
Press to open the Web Browser Plugin

Plugin
Press to open your Plugin Browser

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

Next
Press to go to Next Page Zap History

FAV
Press to view your favorite folder & bouquets.

OK
Press to confirm the selected menu option.

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

Media
Access your recordings

Back
Press to return to previous channel or menu.

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

Audio
Press to select available audio language and Audio Type.

PIP
Press to activate Picture in Picture

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.

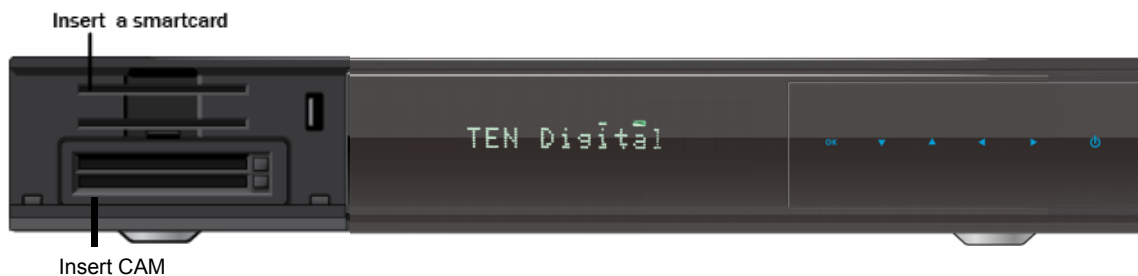
1.4 Conditional Access

Only used when Satellite Tuners installed for Satellite TV services

Amongst the channels that are scanned via Beyonwiz T3, some channels can be properly tuned in only with the corresponding Smartcard. Beyonwiz T3 provides two Smartcard Reader slots and users need to purchase those Smartcards that are required for viewing such subscription based services.

Insertion of Smartcard

- ① Open the door on the right side.
- ② Insert Smartcard as in the following instruction.
- ③ Make sure that the Smartcard remain inserted while viewing.



Insertion of CAM (Conditional Access Module)

There are several Conditional Access Systems (CAS) that Beyonwiz T3 supports. To be able to watch channels that are encrypted in such CAS as Nagravision, NDS, Irdeto, Viaccess, etc, users need to purchase a CAM that is corresponding to each CAS, as well as Smartcard to decrypt those encrypted channels.

- ① Insert a Smartcard into the CAM as in the below picture.
- ② Once the Smartcard inserted into the CAM, insert the CAM into the CI slot.
- ③ Make sure that the CAM remains inserted while viewing.

1.5 Technical Specifications

Front Panel

- Display: 11-digit Dot Matrix VFD display displaying channel names, icons and program information
- Smartcard Reader Slot: 2 ea
- Common Interface: 2 ea
- USB: 1 x USB 2.0
- Buttons: 6 (Power, OK, Volume Up/Down, Channel Up/Down)

Rear Panel

- Power Switch: 1 ea
- Terrestrial-IF input/output: 3 x DVBT-type socket
- Connection TV/VCR: 2 x Scart socket
- Video/Audio output (digital): 1 x HDMI
- Audio output (digital): Standard optical (S/PDIF)
- USB: 2 x USB2.0
- Ethernet: 1 ea
- RS-232: 1 ea
- eSata 1 ea
- Composite AV 1 ea
- Component AV 1 ea

Power

- Mains voltage: 95~250 / 50~60 V/Hz
- Power consumption: 65/35/<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

LNB * Optional (When Satellite Tuners installed)

- LNB supply (horiz/vert): 14 / 18 ; Max. 400mA
- Control signal: 22 KHz ; ToneBurst ; DiSEqC™1.0 / 1.1 / 1.2

General

- Dimensions (W x H x D): 380 x 67 x 240 mm
- Weight (without HDD): App. 4 KG

Chapter2.

Installation of Beyonwiz T3

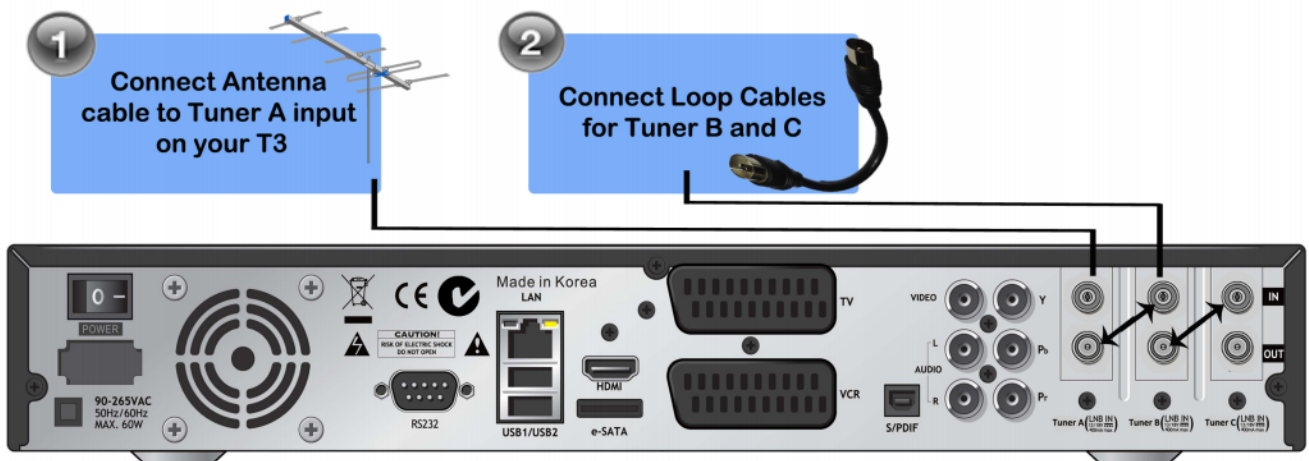
This chapter will guide you through the whole installation process of Beyonwiz T3. Please read each section carefully to make sure that the system runs properly.

2.1 Connecting Antenna Cables

Beyonwiz T3 is integrated with triple digital tuners, and one of the first steps is to connect antenna cable(s) to Beyonwiz T3 in order to gain optimal signal quality. You can either choose one of the following connection methods depending on the equipment you have.

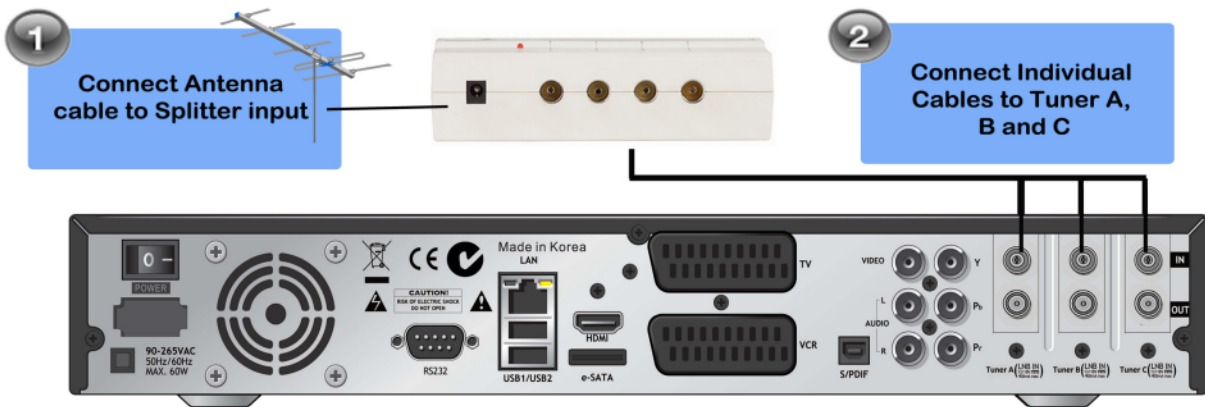
A. External Loop-through

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(sold separately) the use of an indoor Amplifier splitter is a good option, you can usually pick up a 4way splitter for \$35 - \$50.

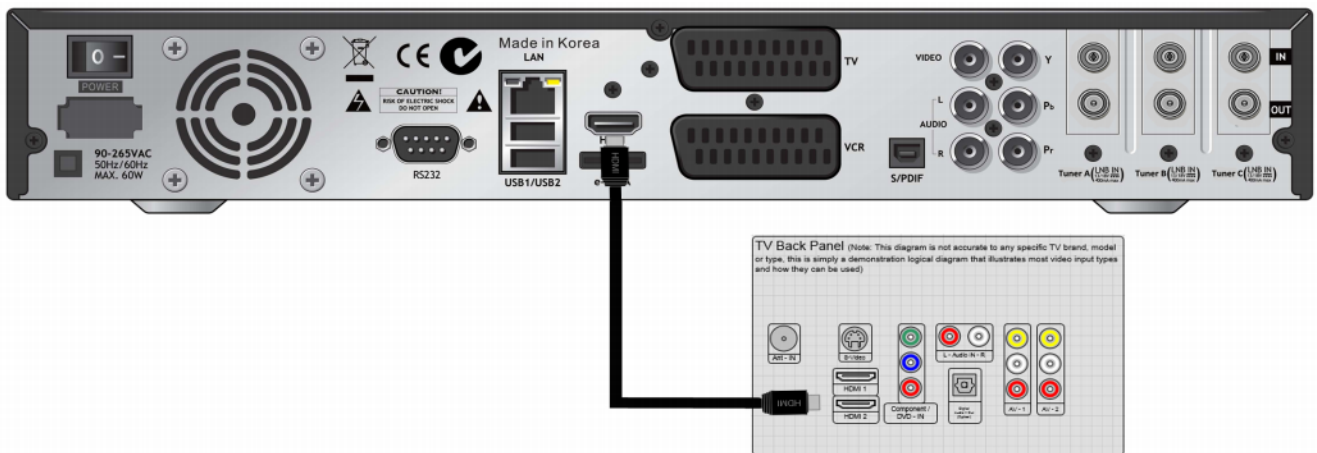


2.2 Connecting the TV (and VCR)

Beyonwiz T3 provides a variety of audio/video connection methods.

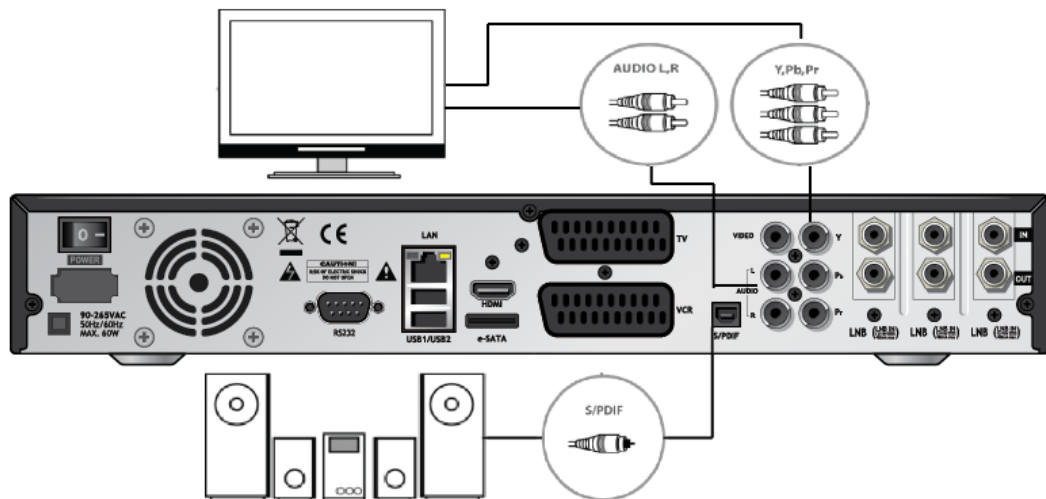
A. Connecting TV via HDMI Cable

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 T3 one HDMI connector is available for this purpose. Connect your TV to Beyonwiz T3 using a HDMI cable as follows.



B. Connecting TV via Component Cable

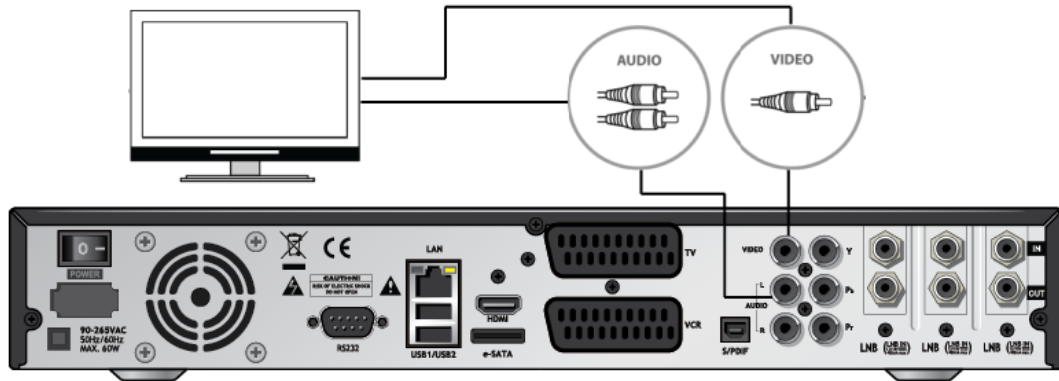
The secondly recommend TV connection for digital TV is via component cable (YPbPr). However, unlike the HDMI connection which delivers audio and video signal at the same time, YPbPr connection requires additional audio connection either via RCA cable (Stereo L/R) or S/PDIF as follows.



NOTE: 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.

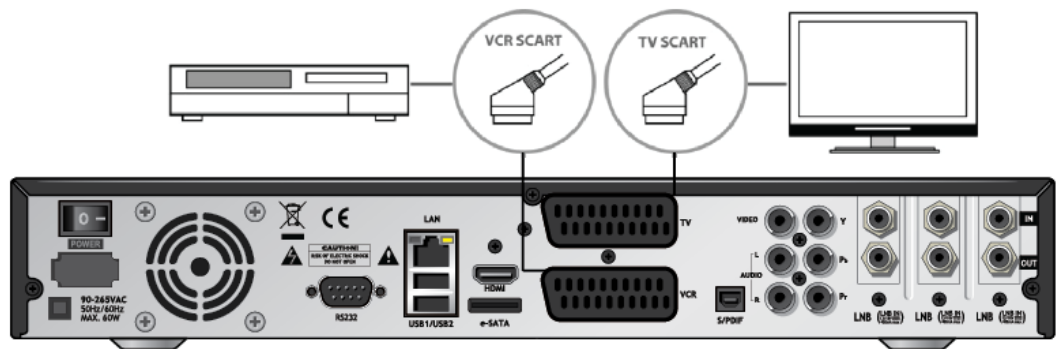
C. Connecting TV via RCA (Video) Cable

Beyonwiz T3 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 T3 as follows:



D. Connecting TV (and VCR) SCART Cable

In case your TV is analogue TV, SCART cable is the most common method. Connect your TV to Beyonwiz T3 using SCART cable as follows



2.3 Connecting Power

A power cable is provided as one of the basic accessories of the Beyonwiz T3.

- Connect the power cord to the connector at the rear panel of Beyonwiz T3.
- 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 T3 ON or OFF

Tip: A short press on the Remote Control power button will place the T3 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**

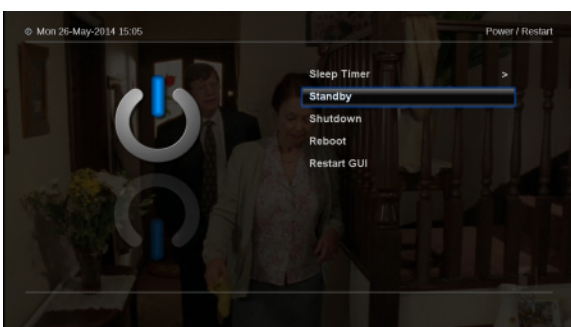
There is a Power Switch in the rear panel and once it is ON, you do not need to turn it on or off each time. It takes a longer time to boot the system if you turned it off by this switch.

- **Standby Mode**

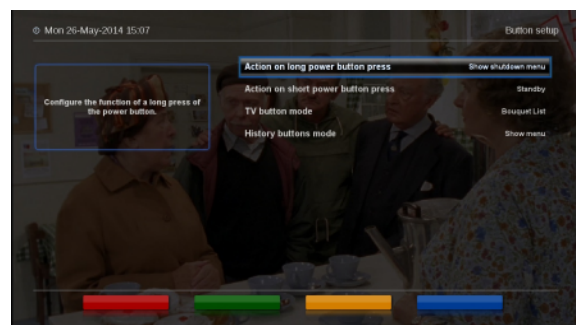
POWER key is normally used to turn the power of Beyonwiz T3 on or off. If you press POWER, it instantly switches your Beyonwiz T3 off or on. In this mode, the system is not completely shut down and thus it takes a shorter time to turn it on and off.

- **Deep Standby Mode**

Deep Standby is used to reduce the standby power consumption. Beyonwiz T3 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 T3 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

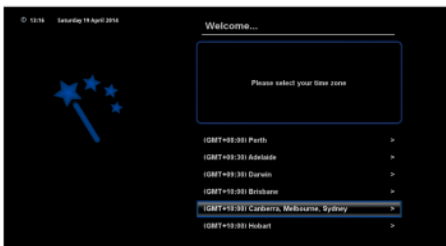
Make sure the Beyonwiz is connected to the mains and that the switch on the rear of the PVR is set to ON, now press the On button on your Remote Control or on the front touch panel.

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.

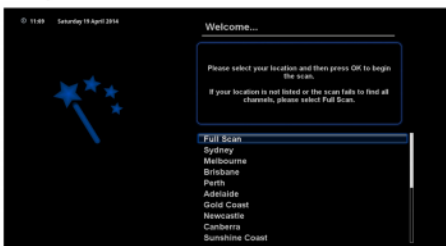
Step 1



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.

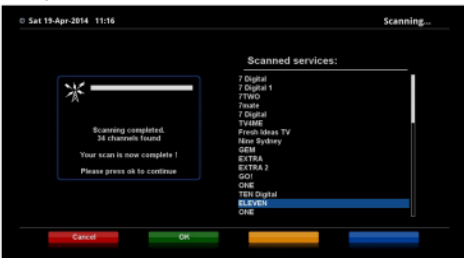
Step 2



Scanning for digital TV services

If your location is listed please scroll to it and press "OK" on your T3 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 4



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 5. Wired LAN Set up
(For Wireless LAN go to Step 6 or for no Internet conection go to Step 7)



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 T3’s IP address. Press “OK” to move to next screen. (Go to Step 8)

6. Wireless LAN Set up.



The T3 will automatically detect your Wireless Adapter if it is compatible, we recommend using the Beyonwiz WiFi USB Antenna available at shop.beyonwiz.com.au as it has been fully optimised for use with the T3. 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 succesful message and an IP Address confirmation. For troubleshooting network connections please visit our user forum and click on ‘Networking your T3’. (Go to Step 8)

7. Skipping Internet Set up





Set-up Without Internet

If you do not want to connect your T3 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'.

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 T3 offers various channel zapping methods. You can switch the current channel by pressing. Zapping is another name for changing channels.

CHANNEL +/- key

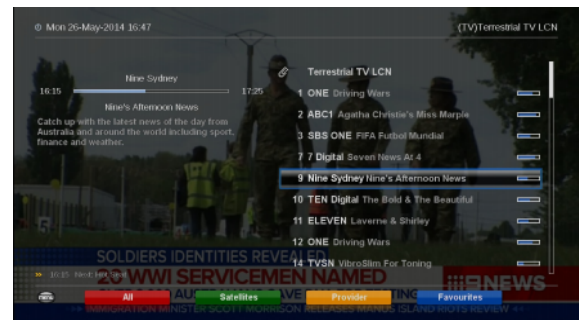
If you press **CHANNEL +/-** key, the previous or subsequent channel of the current channel is tuned in.



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.

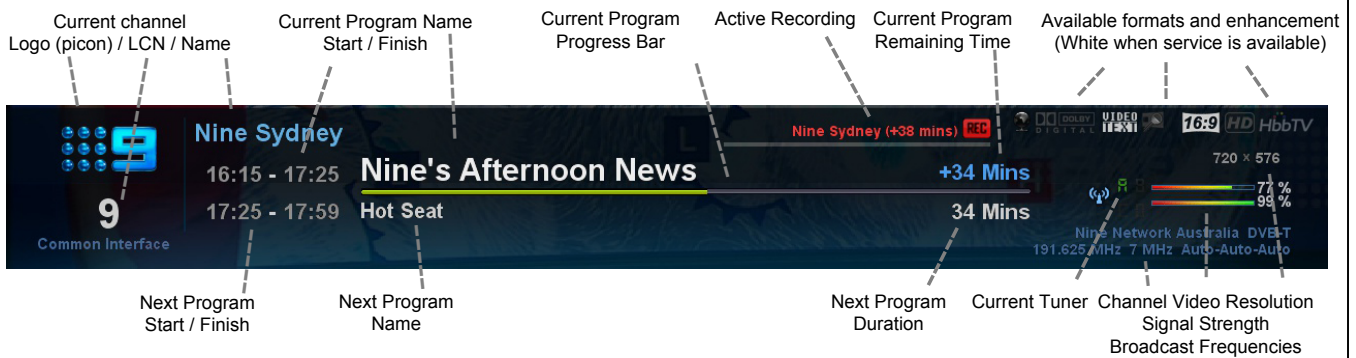


4.3 Program Information

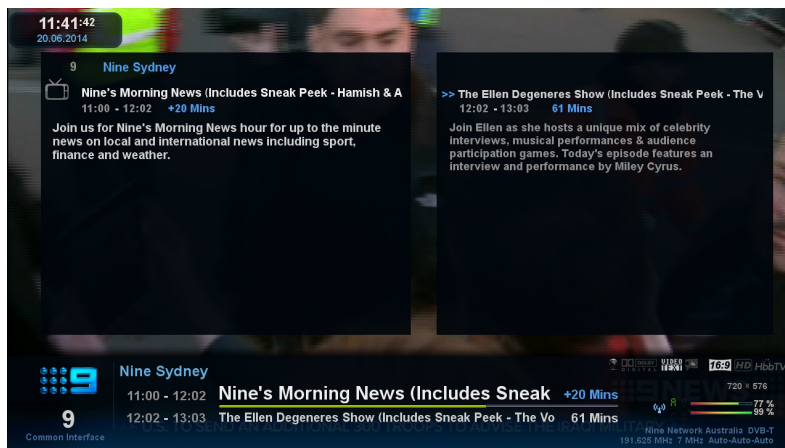
How to use > Press **OK**

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.

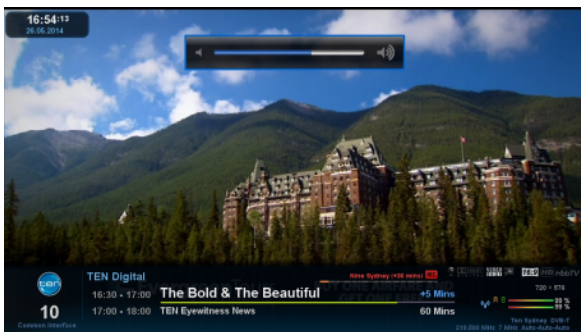


The 2nd info bar will give you further program information for the "current" and the "next" program and will timeout in 10secs by default, you can press 'OK' again to close it earlier or you can change the timeout settings for both the 1st and 2nd info bar by pressing the Menu button and browsing Setup>System>OSD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

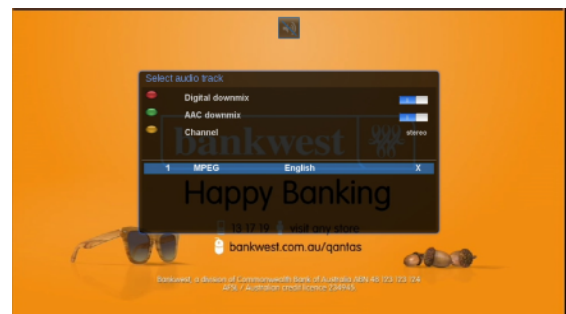


4.5 Selecting Audio Track

How to use > Press 


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.

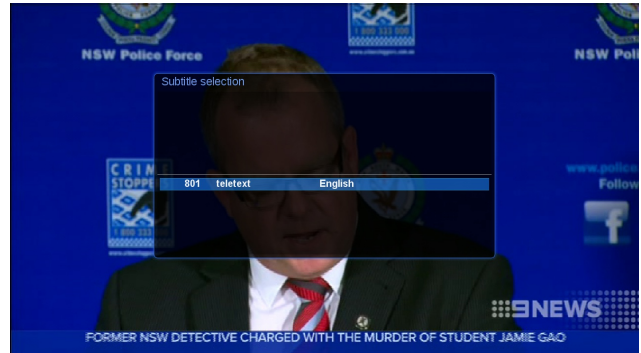


NOTE: Available options on this menu will differ depending on the service.

4.6 Subtitle

How to use > Press 

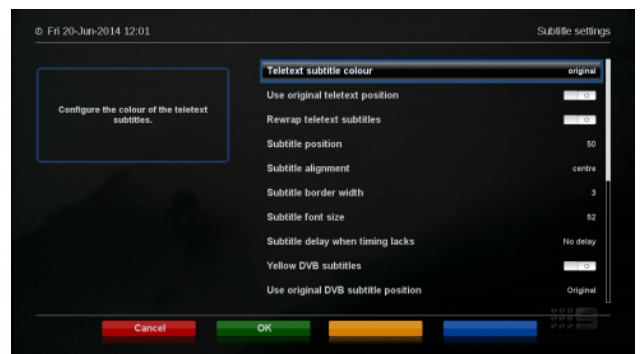
You can view the subtitle of the current program if the program provides the subtitle. Press **SUBTITLE** key and **Subtitle selection** menu appears as below.



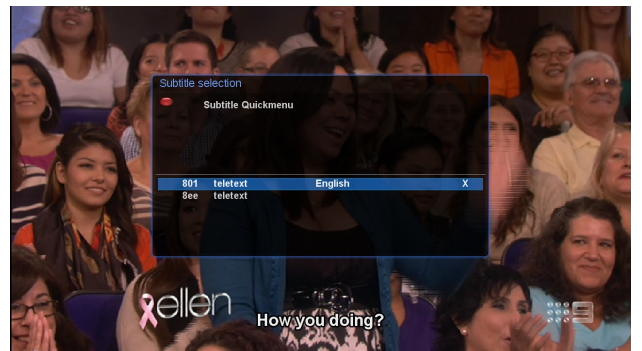
Available subtitles, if any, will display. By using **UP/DOWN** navigate the list to select a subtitle that you want to play and press **OK** to activate it.



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.

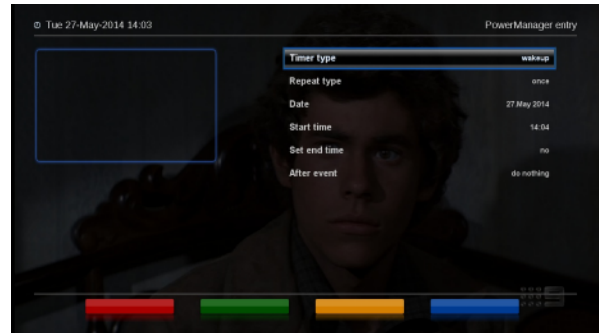
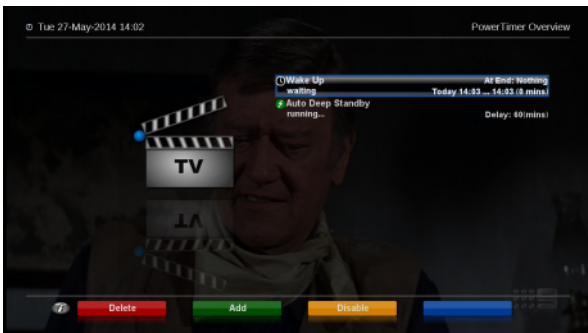


4.8 Sleep Timer

How to use > Press "SLEEP" on your T3 Remote Control

You can set a specific time when your Beyonwiz T3 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 T3 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 T3 EPG that you can access directly by clicking the links below if you are viewing the online version of the manual or by entering the web addresses into your browser on your PC if you are viewing a hard copy.

Basic Introduction: <https://www.youtube.com/watch?v=HbZ2ctsna6o>

Advanced Settings: <https://www.youtube.com/watch?v=j5Kxzw87ht8>



4.11 Timeshift

The best way to activate Timeshift mode is to Press PLAY/PAUSE ►||

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.

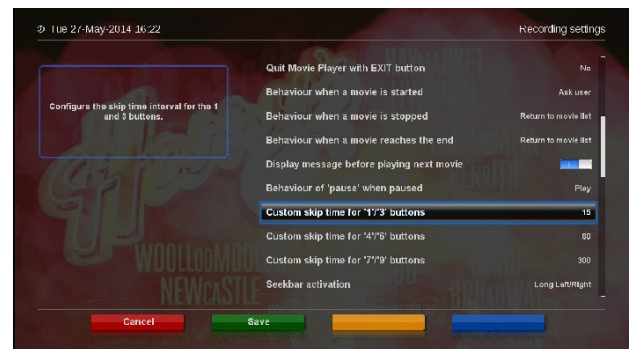


When in timeshift mode you can Pause, Rewind and Fast Forward Live TV or you can use the fully programmable Skip buttons.

Skip Buttons on your Remote

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

You can customize to your liking



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 T3 has been idle on a particular channel, so if the T3 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.

4.12 Recording

Beyonwiz T3 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

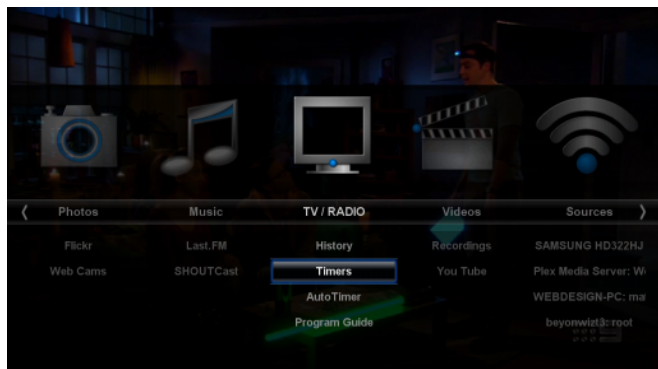
This option will only be visible when there is a timeshift buffer, see 'timeshift' in the manual for more info



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.

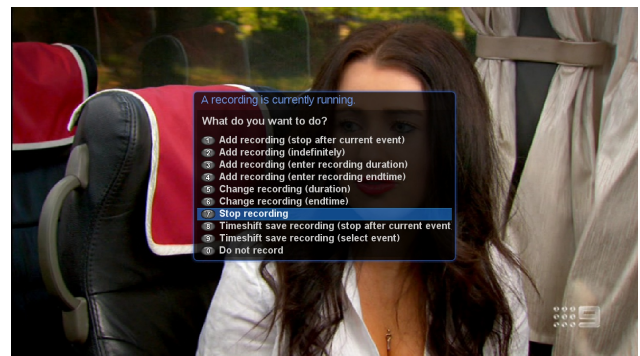
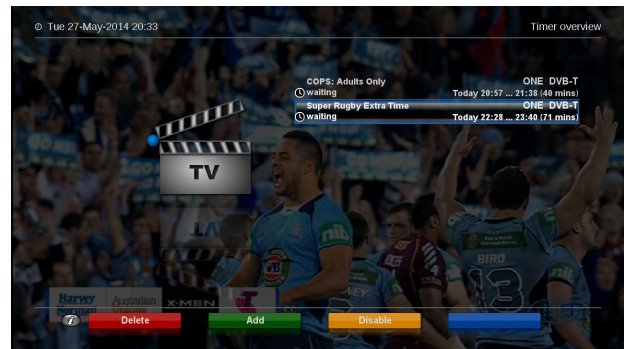
BLUE (Cleanup)

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

Stop Recording

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

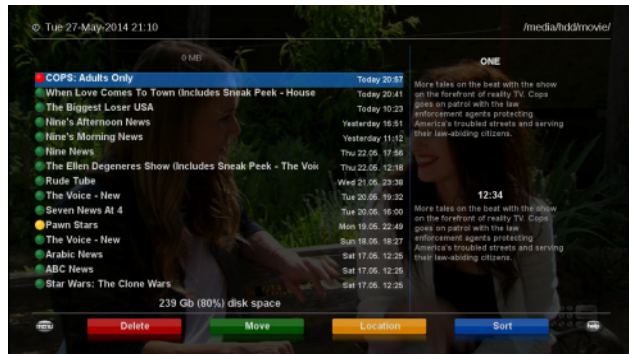
If you want to stop recording, press **RED** again while recording is running. Select Stop Recording.



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.

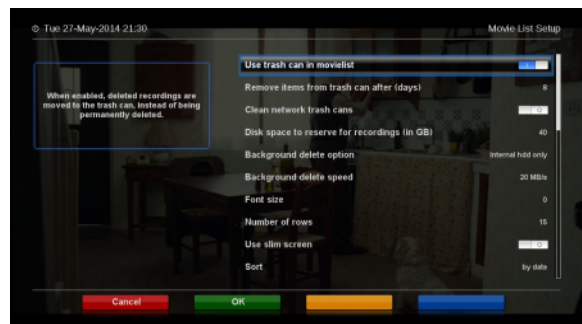
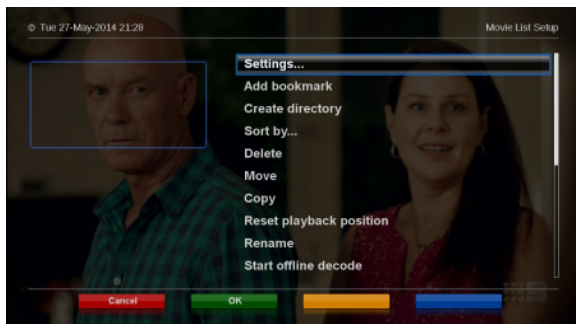
This infobar gives you the following information of the recording.

- 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 PiP & 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.



To activate Picture in Picture press the **PIP button** on the T3 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.



Chapter5. System Configuration

Beyonwiz T3 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 T3 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 T3 first.

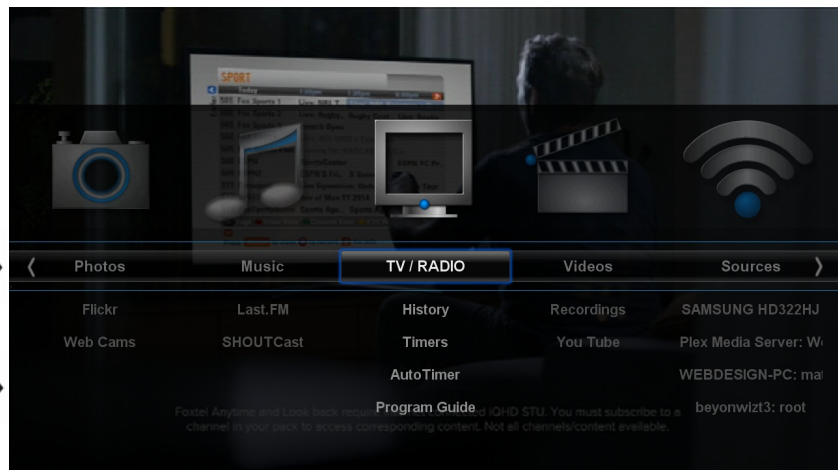
5.1 Main Menu

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 your hard drive, network shares and browse your photos on the TV.

Music: Browse your 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 T3 consists of the following menus and sub menus.

Menu Structure

① System

- **AV Setup** - AV Settings / Auto Language / OSD Position / OSD 3D Setup / Skin Setup / HDMI-CEC
- GUI setup
- OSD Settings
- Button settings
- Time Settings
- Front panel settings
- Fan settings
- Factory reset

② Antenna

- **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 / DLNA 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

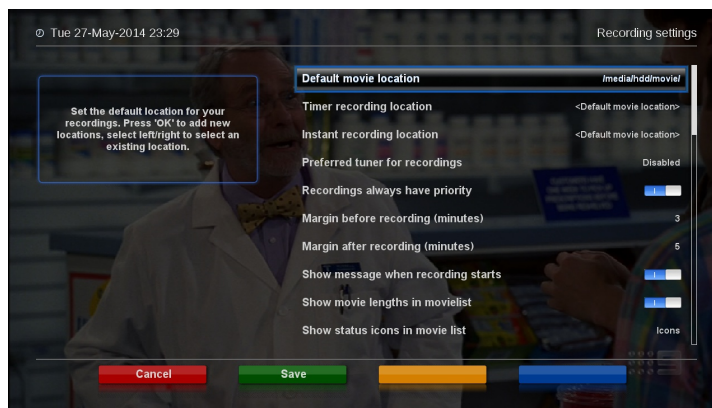
- **Software Update**
- **Backup Settings**
- **Select Backup files**
- **Restore Settings**

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



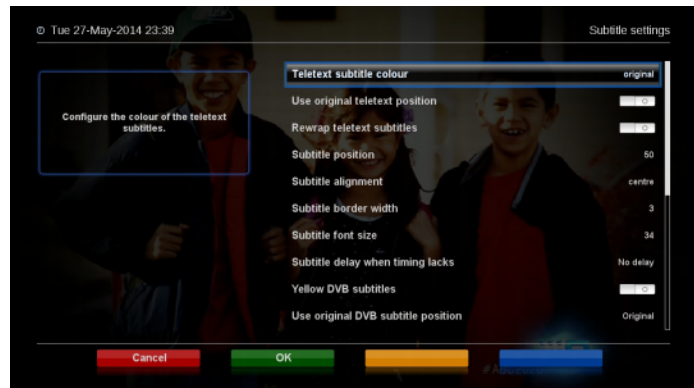
- ① **Margin before record (minutes):** If you enter a number here, for example, 5, the recording will begin 5 minutes before the defined time. If it is '0', it means that the recording starts exactly at the defined time. This option comes in handy, just in case that a program starts earlier than the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

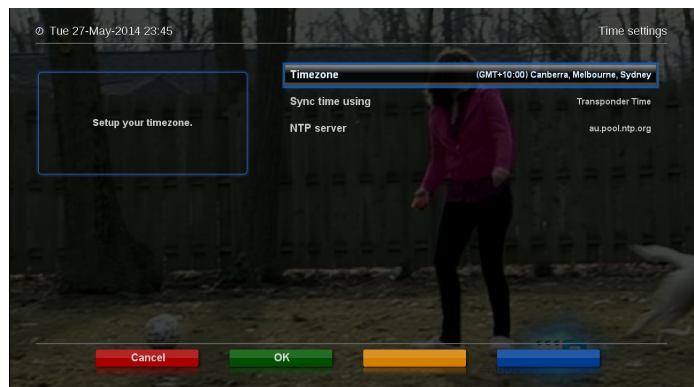


Selecting Time Zone

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

The Beyonwiz T3 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 T3. After selecting a time zone, press **GREEN** to confirm and save the changed setting.

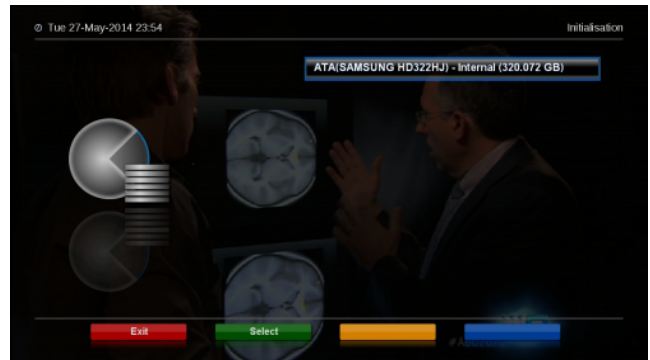


Initialize / Format Hard Disk

How to use Press **MENU** > '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

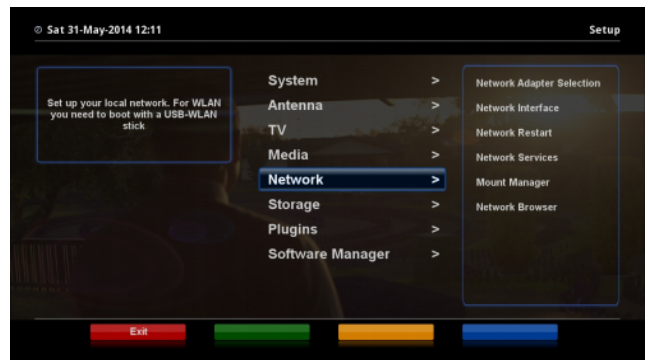
- Select the Hard drive you wish to format and press the Green button the 'select'
- Next press the 'Red' button to Initialize
- You will see a pop up asking you to confirm, select Yes to format the HDD



Network Setup

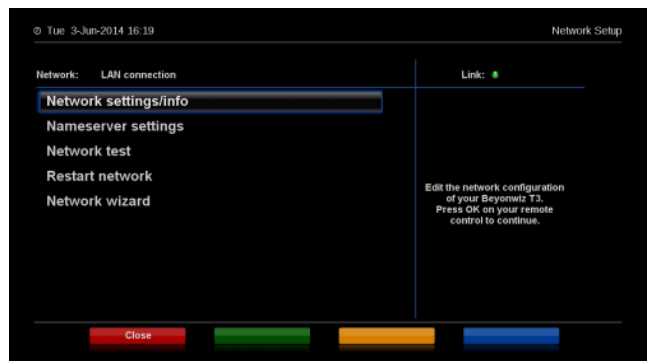
How to use > Press **MENU** → 'Setup' → 'Network'

Beyonwiz T3 is integrated with standard 10/100Mbps Ethernet with RJ 45 connector. You are recommended to use this network capability of Beyonwiz T3 to fully enjoy the system. You can setup the network settings through this **Network Configuration** menu.



LAN Connection

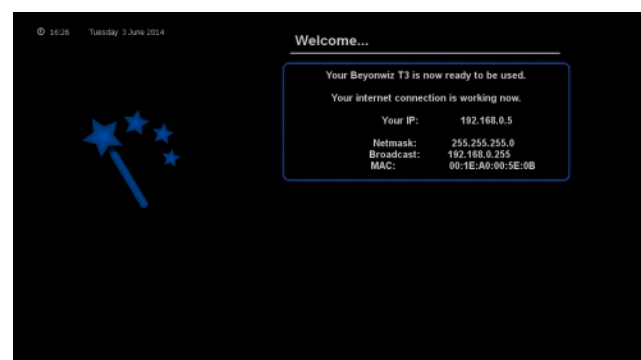
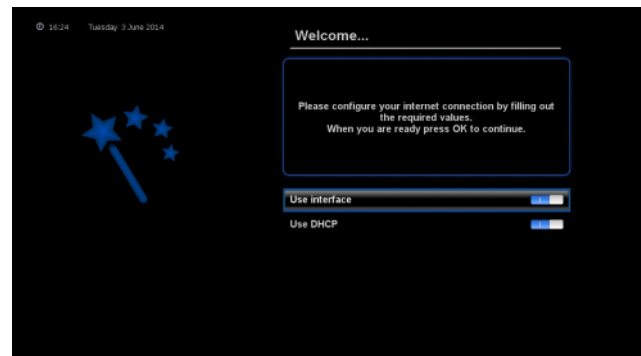
The easiest way to connect to your wired home network is via the LAN connection and using the Network Wizard either in the initial set up or by going into the Network menu as pictured above. Once in the Network menu select Network Adapter Selection and press 'OK' if you then get a choice between LAN 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 T3 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.



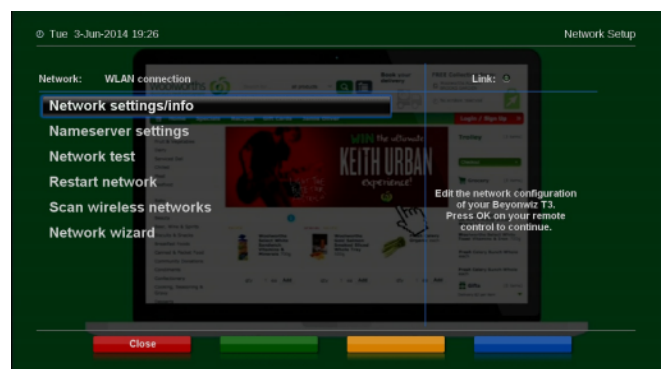
Wireless LAN Connection

The Beyonwiz T3 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.

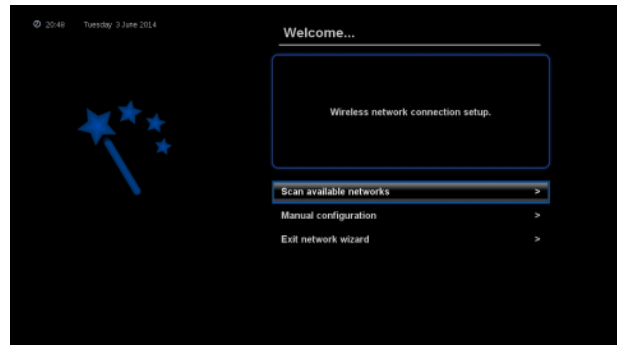
To connect your T3 to your wireless network first place the wireless USB stick into one of the ports on the T3 and then 'Reboot' (hold down the power button on your remote for 3 seconds and then select 'Reboot' from the power menu.

Once your T3 reboots press

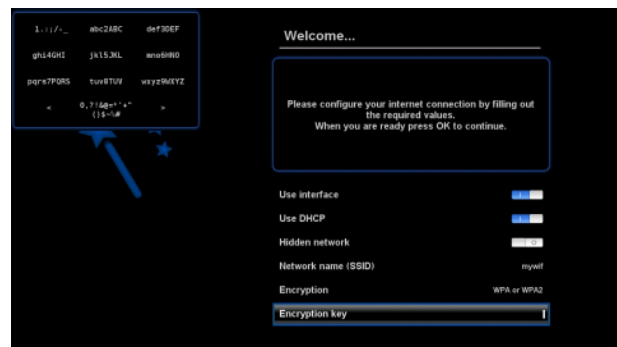
The easiest way to connect to your wireless home network is via the WLAN connection and using the Network Wizard either in the initial set up or by going into the Network menu **MENU** → 'Setup' → 'Network' Once in the Network menu select Network Adapter Selection and press 'OK' if you then get a choice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

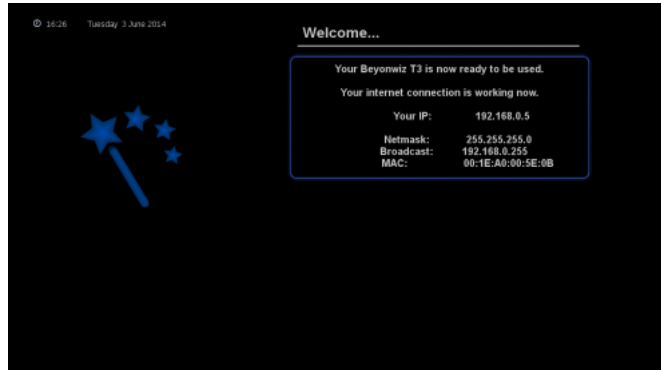
'or'

2) Press the 'TEXT' button on the bottom right corner of your T3 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 T3 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 T3 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

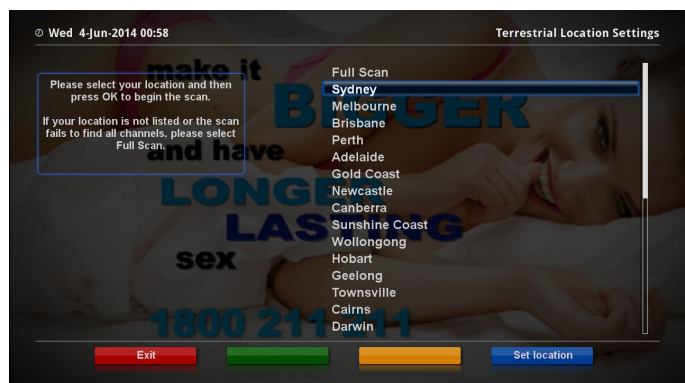
How to use > Press  → 'Setup' → 'Antenna'

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.

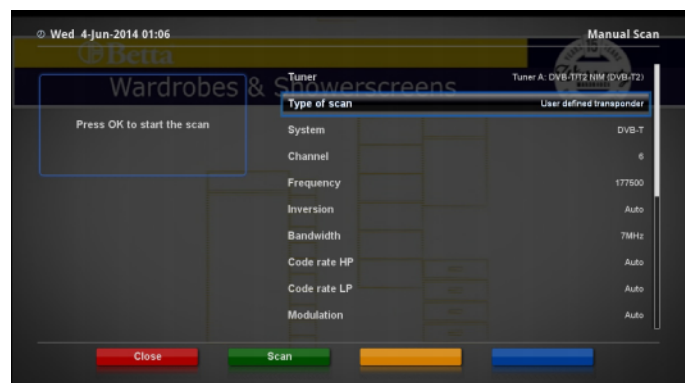
Once in the Antenna menu you will have 2 options **Location Scan** & **Manual Scan**




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.

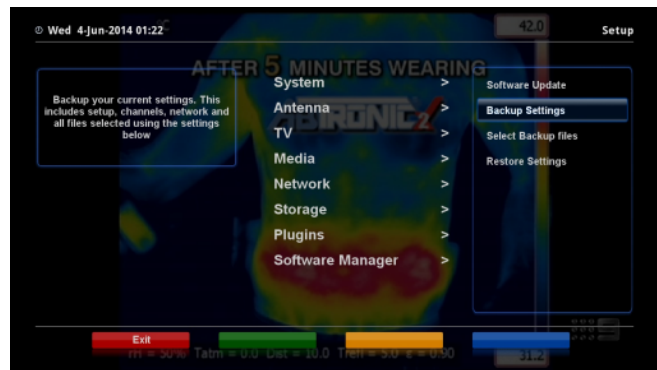
Backing up & Restoring your Settings

The T3 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 T3 will automatically restore your settings from your Backup file and reboot.

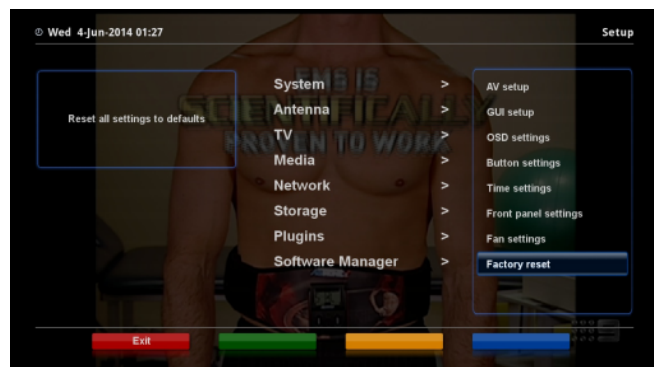


Factory Reset

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

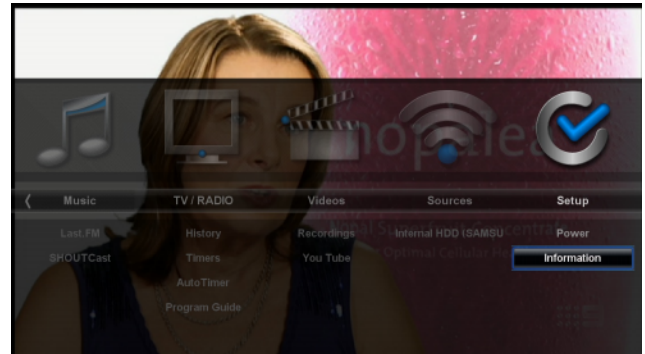
Press 'OK' on Factory reset and you will a popup message to confirm, read the caption and then select 'YES' to continue. Your T3 will then reboot, once it has rebooted it will give you the option to **Restore Settings** from the back up you made.



Checking Software Version and other information

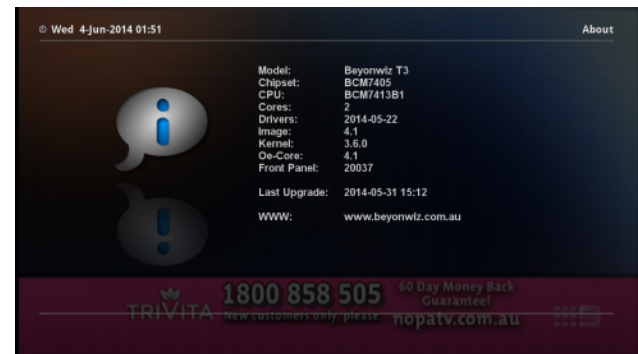
How to use > Press  → 'Information'

If you want to check the H/W or S/W system of your Beyonwiz T3, this is the menu that you need to use. Also, here you can check very detailed information of a specific service.



The Beyonwiz T3 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**:



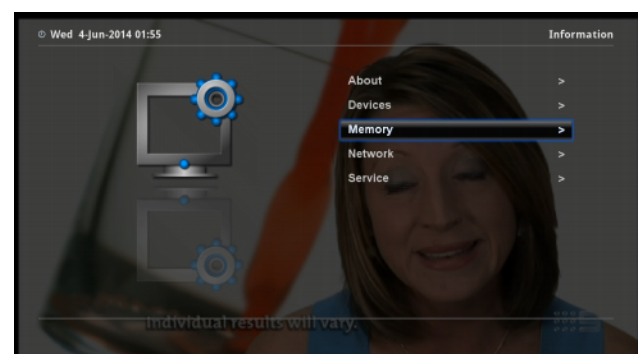
You can find other useful information in the sub-menu

About: Software info as above **Devices:** Lists devices connected to the T3 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 T3 Software

There are currently 2 methods for upgrading your T3 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 T3 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.

Chapter7. 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 T3.
- Check if the antenna cable is properly connected to Beyonwiz T3.
- 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.

Chapter8.

TV Remote Codes

Your T3 remote control can be used to control some basic functions on your TV such as Power on/off and volume control. Please note that not all TV brands and models are supported or any warranty given to what features may or may not work with your TV.

REMOTE CONTROL UNIT (RCU) SETUP


In order to use the universal remote control feature, you must correctly setup for TV control. This section explains how to setup the universal remote control. For the setting up, we have presented the list of supported TV codes.

Setting up as a TV Remote Control



When you press TV button, supplied remote control unit is working as TV remote controller. To do this, you have to setup with corresponding TV codes. Valid buttons at TV mode are Power, Volume +/-, Mute, TV (for switching sources), Menu, numeric keys (0~9), directional buttons (up/down/left/right) and colour buttons (Red/Green/Yellow/Blue).


4-digit Setting Method

1. Power on TV using TV power button or TV remote control.
From this step all further remote controls should be done using the universal remote control and the remote control should be directed towards the TV.
2. Press and hold the TV button more than 3 seconds. Then, two LED lamps from TV and STB buttons are flickering. Release the TV button. Then, LED lamp from the TV button is flickering.
3. Enter 4 digits with reference to the "TV Brand List" section. If 4-digit code is in the list, LED lamp from the TV button will flicker 3 times and corresponding 4- digit code is stored. Otherwise, TV LED lamp will turn off and 4-digit code is not stored.

NOTE: In the case that the POWER () button for TV is working but other important keys are not working, then repeat the above procedure or follow "Smart Scan Method".

Smart Scan Method

1. Power on TV using TV power button or TV remote control.
From this step all further remote controls should be done using the universal remote control and the remote control should be directed towards the TV.
2. Press and hold the TV button more than 3 seconds. Then, two LED lamps from TV and STB buttons are flickering. Release the TV button. Then, LED lamp from the TV button is flickering.
3. Press  (up) or  (down) button until TV turns off.
4. Once TV turns off, press OK button to store current setting. Then TV LED lamp will flicker 3 times and corresponding 4-digit code is stored.

In case that the POWER () button for TV is working but other important keys are not working, then follow the above procedure again to set different code.

Volume Key

Volume-unlocked status:

- In TV mode, volume related buttons (Volume +/-, Mute) are only working for TV. - In STB mode, they are only working for STB.

Volume-locked status:

- Regardless of modes (TV or STB mode), volume related buttons (Volume +/-, Mute) are only working for TV.

How to set Volume-Locked status:

1. Press and hold the STB button more than 3 seconds.
2. If Vol+ button is pressed and then released, STB LED will be turned off and on.
3. Then, press Vol- button and release.
4. Press and release TV button to change the status. Then STB LED lamp will flicker 3 times.

How to set Volume-Unlocked status:

1. Press and hold the STB button more than 3 seconds to enter STB setting mode.
2. If Vol+ button is pressed and then released, STB LED will be turned off and on.
3. Then, press Vol- button and release.
4. Press and release STB button to change the status. Then STB LED lamp will flicker 3 times.

Channel Key

Channel-unlocked status:

- In TV mode, channel related buttons (CH+/-) are only working for TV. - In STB mode, they are only working for STB.

Channel-locked status:

- Regardless of modes (TV or STB mode), channel related buttons (CH+/-) are only working for STB. How to set Channel-Locked/Unlocked status (Locked/Unlocked status is toggled each other):

1. Press and hold the STB button more than 3 seconds to enter STB setting mode.
2. If CH+ button is pressed and then released, STB LED will be turned off and on.
3. Then, press CH- button and release.
4. Press and release OK button to change the status. Then STB LED lamp will flicker 3 times.

Master Power



Master Power Reset:

- In TV mode, power button is only working for TV power. - In STB mode, they are only working for STB power.



Master Power Set:

- Power button is working both for TV and STB power.

How to reset Master Power

1. Press and hold the STB button more than 3 seconds to enter STB setting mode.
2. Press and release POWER () button. STB LED lamp will be turned off.
3. Press and release STB button.
4. Press and release POWER () button. Then STB LED lamp will flicker 3 times.

How to set Master Power

1. Press and hold the STB button more than 3 seconds to enter STB setting mode.
2. Press and release POWER () button. STB LED lamp will be turned off.
3. Press and release STB button.
4. Press and release TV button.
5. Press and release POWER () button. Then STB LED lamp will flicker 3 times.

6.2 Supported TV Brand List

Brand	Codes		
A.R. Systems	8644 7213 6896 5090 7014	AOC	4523 4648
Accent	7647 8644 6896 3637	Apollo	4659
Acer	3857	Arcam	4469
Action	4523 5510 3637 4648	Arc en Ciel	7430
Adcom	4884	Ardem	2590 8060 8644 5613 6896
ADL	7855	Aristona	6896 8644 4648
Admiral	3193 2438 5553 5605 3488 3637 4648	ART Tech	4648
Adventura	5874	Arthur Martin	5605
Adventuri	5874	ASA	4819 6092 4265
Adyson	4469 4523 4648	Asberg	8644 6896 4648
AEA	8644 6896	Asora	7647 3637
AEG	5952 6305 5319	Astra	8644 6896 3637
Agashi	4469 3488	Asuka	4016 4469 3488 5896
AGB	8568	ATD	2924
Aiko	7647 8644 6896 4469 4530 6482 5739 3350 3518 3488 3637	Atlantic	8644 6896 4469 4648
Aim	8644 6764 6896 3036 7910 8435 8484	Atori	7647 3637
Aiwa	5448 7733 6736	Atoro	3637
Aikai	3350 7910 4530 3011 8644 5739 6669 3518 6482 7647 3036 4016 2429 8060 5605 8568 6381 2810 6896 4783 8020 8394 4469 3488 5393 2796 6305 3840 7733 4659 3451 5905 4925 4523 3802 3637 5874 4648	Auchan	5605
Akashi	7314 7647	Audiosonic	7647 8644 5090 8033 6896 7430 8060 6381 7287 3488 4016 2590 3637 4648
Akiba	4016 5896 7014 8644 6896	Audioton	2590 7287 3488 3637
Akira	5553	Audiovox	4648
Akito	8644 6896	Audioworld	2924
Akura	8644 6896 5355 6764 7647 4016 5896 3488 8060 7066 3637 4648	Autovox	5531
Alaron	4469	AVP	7733
Alba	8644 3840 6896 8060 7647 5553 7287 4530 5355 7384 4016 4469 5531 5605 6230 6812 7733 5119 4925 3637 4648	AWA	7507 6812 7647 5090 6764 8644 6896 4469 6305 5620 3488 4698 3637
Alfa	4648	Axxent	7647
Alkos	6482	Axxon	8060
Allstar	8644 6896 4648	B&D	7855
All-Tel	4677	Baird	7430 6127 6982 5301 7910 3453
American High	5510	Barco	5605
Americana	5510	Basic Line	3637 4648 5090 8644 5605 5355 6896 7647 4016 5896 7014 6559 3840
Amplivision	7287	Bauer	8484 7647
Amstrad	7647 8568 3488 4530 4016 8644 6896 5739 6764 8377 3840 3451 7066 3637	Baur	7647 6640 5265 3835 8644 6896 3518 3350 6736 3637 5874 4648
Anam	8644 6896 7647 4526	Beaumarck	5393
Anam National	8644 6896 4526	BEC	4648
Andersson	5319 7660	Becrese	4523 3802 5874 4648
Anglo	7647 3488 3637	Beko	8060 6482 2590 7287 8644 5553 3840 6896 6305 6381 7361 4648
Anitech	7647 3488 8644 6896 5896 4523 3637 4648	Bell & Howell	4648
Ansonic	7287 8644 6896 7647 5355 5090 5605 2620 5531 4917 3637	Belson	4156 4706
		Benchmark-Beaumarck	4523 5510 3637 4648
		Bennett	6896 8644
		BenQ	8016
		Beon	8644 6896 5553 4648
		Berthen	5355
		Best	7287
		Bestar	8644 6896 7287 5090 4648
		Bestar-Daewoo	5090

Bigston	3637
Black Diamond	5319 8033 3840 6896 7837 3036
Black Star	5531
Black Strip	6482 3802 5510
Black Way	5896 4016
Blaupunkt	3518 6640 5265 6538 7839 5186 7014 4849 6812
Blue Sky	8644 8060 3840 6230 5355 6381 2499 6896 4016 5896 7014 7733 4156 7361 6685 4648
Blue Star	5896
Bondstec	5531
Boots	7647
Bosch	7839
BPL	8644 6896 5896
Brandt	4884 7430 4422 3270 6982 3847
Brandt Electronique	4422 3270
Brend Star	3637
Brinkmann	8644 6896 5355 7350 5553 2590
Briovvega	8644 6896 8377 4648
Brioryvega	4648
Britannia	4469
Brockwood	4523 3802 5874
Broksonic	4523 3802 5874
Brother	3488
Bruns	2590
BSR	5605 3350
BTC	4016
Bush	5355 4016 5605 7647 6812 8644 4530 5896 7384 2438 5090 7350 3488 3350 3840 6230 7910 5952 5905 2924 6896 8060 5832 7733 5453 3802 4648
Cample	4523 3802 5874
Candle	4523
Canton	4016
Capehart	4523 3802 4648
Capsonic	3488
Carad	2696 8644 6896 5355 3840
Carena	7014 8644 6896
Carrefour	6812 4265 8644 6896 4648
Carver	4849 4648
Cascade	7647 8644 6896
Casio	8644 6896 5605 4648
Cathay	8644 6896
CCE	8644 6896
Celestial	6498 8033 7837
Centrex	7046 5397
Centrum	3840
Centurion	8644 6896 4648
Century	5531
CGE	4752 6634 5553 5531 7287 5605 3637
CGM	3637
CIE	3637

Cihan	4648
Cimline	7647 4016 3637
Cinex	3451 5952
Circuit City	4523 3802 5874
Citizen	4523 5510 4648
City	7647 3637
Clarivox	5553 8644 6896 4265
Clatronic	8644 7287 4530 8060 4016 3488 6896 5531 7647 3451 6305 5319 3637
Clayton	3840
CMS	4469
Cobolt	5397
Colortyme	5510 4648
Combitech	7733
Computron	3637
Concorde	7647 3637
Condor	8644 6896 7287 4469 7647 5896 5531 5553 2620 5605 3488 3637 4648
Conia	3491 7837 4706 8033
Conic	4523 3802 4648
Conrac	7361
Conrad	8644 6896
Contec	4469 7647 7507 6812 3488 8644 6896 3802 3637
Continental Edison	7430 4422 6230
Coronado	4523
Cosmel	7647 8644 6896 3637
Craig	4648
Crosley	5531 4752 6634 5605 3802 5874 4648
Crown	7647 5716 7287 2590 8644 6896 6230 8060 6305 6381 5553 7910 4638 6559 3840 4523 3637 4648
Crystal	4648
CS Electronics	4469 4016 5531
CTC	5531
CTX	8016
Curtis Mathes	4523 3802 5510 4648 3193
Cybertron	4016 3802
Cytronix	3191
Daewoo	5295 5090 2499 4874 3876 8644 6896 7647 4469 4016 6286 7733 3118 2016 3620 4677 4523 3637 4648
Daichi	3637
Dainichi	4016 4469
Daitsu	4201
Dansai	8644 6896 3488 6482 4469 7647 6812 7910 4523
Dansette	6764
Dantax	7287 2590 8060 6305 6381 7733
Datsura	7910
Dawa	7647 8644 6896 4648

Daytek	2924 4979 8435 4698
Dayton	4979
Daytron	7647 5090 8644 6896 4523 3637
DEC	4167 7314 5397
Decca	8568 8644 6896 6286 7733 4648
de Graaf	7910 5605 4783 2438
Deitron	8644 6896 5090 4016
Denko	3488
Denver	8644 6896 6305 4485 8299 3637
DER	6127
Desmet	8644 6896 7647 3637 4648
Diamant	8644 6896
Diamond	3488 2924 7647 4777 4469 4530 7314 8033 3637
Digatron	8644 6896
Digihome	7660
Digiline	8644 6896 4819 5355
DigiLogic	8644 6896
Digitek	8033
Digitor	8644 6896 6641
Digivision	3350
DigiX	3118
DIK	8644 6896
Dixi	7647 8644 6896 5531 3637 4648
DL	5397 7046 8644 8299 4677
Domeos	5355
Domland	3158
Dream Vision	8561
DSE	6641 5952 8033
DTS	7647 3637
Dual	6982 7350 8644 6896 7213 3158 5605 6286 8394 7660 3840 4648 3637
Dumont	4265 4523 3802 5874
Dunai	5605
Durabrand	8644 4917 6896
Dux	8644 6896
D-Vision	8644 7066 6896
DVX	5397
Dynamic	3637
Dynatech	4523 3802 5874
Dynatron	8644 6896
Easy Living	4596 5905
Eaton	5510
Ecco	2335 8435
ECR	3802
Edison- Minerva	6230
Elbe	3444 8377 7287 5605 8644 6896 4016 3518 2620 2696 8568 3350
Elbe-Sharp	8568
Elbit	4648
Elcit	5531 8568 5605
Elecs	4648
Electratune	4523

Electro Tech	3637
Electrobrand	5874
Electrohome	4523 3802 5874
Elektronika	4648
Elekta	7647 8644 6896 3488 5896 3637
Elfunk	3573 3840
ELG	8644 6896
Elin	4469 8644 6896 4819 4783 3350 5605 7647 3637 4648
Elite	4016 8644 6896 4523 3802 5510 4648
Elta	7647 3488 4469 3637
Emco	5531
Emerson	8060 5393 5531 8644 6896 4530 4265 5896 3350 2499 2590 7287 5605 5355 4523 3802 5874
Emperor	5896
Enzer	3036
EON	3802 5510
Erres	8644 6896 4648
ESC	8644 6896
Estèle	5605
Etron	4709 8644 6896 7647 5605 8033 3637
Eurofeel	3488
EuroLine	8644
Euroman	4469 3488 8644 6896 7287
Euromann	4648
Europa	8644 6896
Europhon	8644 8568 5605 6896 5531 4469 4648
Evesham	4596
Excel	8644 6896
Expert	5605
Exquisit	8644 6896 5531
Fagor	8644 6896
Fairtec	4156
Family Life	8644 6896
Fast	3634
Fenner	5090 7647 3637
Ferguson	5301 4884 4422 3270 6127 7430 3847 8644 6896 6482 6982 4638 5620 3350 4783 5119 3840 4648
Fidelis	3637
Fidelity	5605 3835 2438 8644 6896 4530 6764 6127 4469 3488 7733 3350
Filsai	3637
Finlandia	7910 6092 4783 3350 5605 2438 4422 6982
Finlux	4819 8644 6896 8060 6092 5605 8568 6381 4265 2620 8394 6753 8020 5952 4659 5553 6305 7361 3637 4648
Firstline	8644 6896 5090 5355 8060 5605 7647 4469 5531 2499 2620 7910 3350 3840 4156 7361 6685 5319 3637 4648

Fisher	6812 7910 7287 3350 5605 3802
Flint	8644 6896 2696 4016 7014 3488 4648
Force	7660
Forgestone	6127
Formenti	5605 8644 6896 2590 4469 4648
Formenti-Phoenix	4469
Fortress	3193 4523 3802
Fraba	8644 6896 7287
Friac	7647 8644 6896 7287 4874 2696
Frontech	5531 3488 2438 7647 5605 3637
Fujimaro	4677
Fujitsu	5605 7647 7213 8644 6896 3350 8360 4523 3802 5874
Fujitsu General	7647 5605
Fujitsu Siemens	3191 5905 5319
Funai	5355 3488 6764 4523 3802 5874
Furichi	7314
Futronic	3488 4167 7314
Future	8644 6896
Galaxi	8644 6896 3350 5605
Galaxis	7287 5553 8644 6896
Galeria	7647 3637
GBC	5605 7647 5090 4016 2438 3637
GE	6982 5393 5896 3847 4422 7430 3270 4884
Geant Casino	5605
GEC	5605 3350 8644 8568 6896
Geloso	5531 7647 2438 5605 5090 3637
Gemsound	3637
General	7430 4422 3637
General Electric	3637 7647
General Technic	6982 4422
Genesis	7647 8644 6896
Genexxa	4016 8644 6896 6764 5605 7647 4648
Gericom	4677 3191 7855 3118
Gitem	4648
GM	3637
GMG	3637
Goldfunk	5355
Goldhand	4469 3637
GoldStar	8644 7647 7287 4709 2796 5393 5531 4469 6896 5605 3350 7430 2438 6305 8060 6381 7014 4523 5510 4648
Gooding	6230
Goodmans	5295 5905 3840 8644 4874 6896 8060 5355 2499 5090 6812 3488 8568 7647 6230 4530 6982 6482 8020 3847 3270 4016 7733 3876 5832 3118 6948 8299 4698 3637 4648
Gorenje	7287
GPM	4016 3637

Gradiente	4638 4849 8644 6896
Gradin	3637 4648
Graetz	8060 3350 4530 5605 8644 6559 6896 5319
Granada	8644 6896 3001 5620 4659 3270 3847 5605 7910 6812 6559 8568 2438 3952 6982 4783 4648
Grandin	8644 6896 7647 5605 5090 5896 4016 7014 2696 8060 6381 5355 3840 4677 4156 3118
Granprix	3451
Grenadier	3637
Gronic	5605
Grundig	5265 4679 6640 3518 8435 6896 8299 7647 4265 6230 8644 5119 6812 7287 4925 7733 6948 5393 4698 6982
Grunkel	5319
GTT	3637
H&B	7361
Haaz	8435
Haier	2924 3488
Halifax	3488 4469
Hallmark	4523 3802 5874
Hammerstein	3488
Hampton	4469
Hanimex	4016 7733
Hanseatic	8644 6896 4874 7350 5605 3350 5896 3158 5295 7287 3876 7647 7361 2590 3637 4648 2796 8060
Hantarex	7647 8644 6896 8568 3637 4648
Hantor	8644 6896
Harley Davidson	4523 3802 5510 5874
Harrad	4523 3802 5874
Harsper	4677
Harvard	4523 3802 5874
Harwa	2335 3453 7789
Harwood	7647 6764 8644 6896 6230
Hauppauge	8644 6896
HCM	7647 6764 8644 6896 4016 5553 5896 3488 3637
Heathkit	5874 4648
Hedzon	6896 8644
Hema	7647
Hicon	2519
Hifivox	7430
Higashi	4469
Highline	3488 8644 6896
Hikona	4016
Hiline	3637
Hinari	7910 8644 6896 7647 4016 6812 5605 7384 5119 6230 3488 7733 3802 3637 4648

Hisawa	5896 4016 7014 2696 7733 8060
Hisense	6685 7910
Hitachi	3952 6069 4889 6812 6896 7430 2438 4783 5620 4659 5605 6982 6619 5295 7040 5393 8568 6972 4874 8644 6286 4819 6753 4737 3350 3835 8020 3840 8374 7660 3802 5874 4648
Hitachi Fujian	5620 3952
Hitsu	7647 2696 7014 4016
HMV	6127
Höher	8060 5952 4677
Home Electronics	6305
Horizont	4648
Hornophon	8644 6896 4648
Hoshai	4016 7014 5896
Huanyu	5090 4469
Hugoson	3094 7855
Hygashi	4469
Hyper	7647 4469 5531 3637 4648
Hypersonic	3350
Hypson	8644 6896 8060 6381 3488 5896 7014 7733 3840 5355 2590 3637 4648
Hyundai	8644 4677 6896 8435 7314 3036 3620 5952
Iberia	8644 6896
ICE	3488 8644 4530 7647 6896 4016 4469 3637 4648
Ices	4016 4469
Ict	8644 6286 6896
IISonic	4698
Iiyama	7855 3094
IMA	4523 3802 5874
Imperial	8644 5605 7287 4752 6634 6896 2620 3350 5553 5531 4648
Indiana	8644 6896 4648
Infinity	4648
InFocus	3251
Ingelen	6230 2696 8060 5605 3350
Ingersoll	7647 3637
Inno Hit	7647 8644 6896 4016 3637 4648 5896 5319 8568 5531
Innovation	7350 8644 6896
Innowert	4677 3191
Inotech	2335 8033
Interactive	8644 6896 3835 7839 5605 3350 7287 7430 2620
Interbuy	7647 8644 3488 5531 3835 6896 3637
Interdiscount	4648
Interfunk	8644 6896 3835 7839 5605 3350 7287 7430 5531 6538 4648
Internal	8644 6896 4874 5090 2499

International	4469
Intervision	5896 7014 8644 4530 2796 7350 2590 7287 3488 5531 7647 6896 3158 6230 4016 5605
Irradio	7647 8644 6896 4016 5531 4530 3637 4648
IST	4648
Isukai	4016 8644 6896 5896 7014 4648
ITL	3637
ITS	8644 4530 4016 5896 3488 4469 7647 6896 3637
ITT	5605 8020 3350 4659 4783 6127 6092 6559 7910 2696
ITT Nokia	3350 4783 5605 4659 6305 2696 8394 2438 8020 6092 7910 6559
ITV	3488 8644 6896 5531 5090
JBL	4648
JCB	5874
JDV	7066
Jean	6812
JEC	6482
Jetpoint	5510 4648
JMB	8644 4874 5295 5090 6896 5119 7733
Jocel	5716
Jubilee	6896
Jumbotronic	4648
JVC	4638 6812 6127 4530 4016 6305 5553 3193 4526 3802 4648
Kaiser	4648
Kaisui	4016 5896 8644 6896 4469 7014 7647 3637 4648
Kambrook	2796
Kamp	4469
Kapsch	5605 3350
Karcher	8644 6896 7287 2696 5605 5896 3488 5453 8060 5952 6305 3637 4648
Kathrein	6896 8644
Kawa	4530
Kawasho	4469
KB Aristocrat	5605
Kendo	2696 8644 6896 5605 7350 3835 7287 2796 2438 2620 5531 8377 3451 3840 4917 2590 3637 4648
Kendwood	4523
Kennedy	5605 3444
Kennex	
Kenwood	4819
Kingsley	4469
Kiota	4709 3637
Kiton	6896 8644 5355
KLH	4523 3802 5874
Kloss	5510
Kneissel	8644 7287 2696 2620 5090 4874 6896 3444 8377 7733

Kobic	3637
Kobra	2519
Kolster	8644 6896 5531 4016 4648
Konichi	7647 3637
Konka	8644 6896 4530 8060 5553 4016 8485 8299 3491 4706
Kontakt	6230
Korpel	8644 6896 4648
Korting	7287
Kosmos	8644 6896
Kotron	6764 3488
Koyoda	7647
KTV	4523 3802 5874
Kuasho	4523 4648
Kuba	5605
Kuba Electronic	5605
Kyoshu	6764 5553 3488
Kyoto	5605 4469
L & S Electronic	4677 8060
LaSAT	2590 7287
Lavis	3840 8644 5605
Leader	7647 3637
Lecson	8644 6896
Legend	7647 3637
Lemair	2620
Lenco	8644 7647 5605 5090 6896 8299 3840 3637 4648
Lenoir	3637 7647
Lesa	5531
Levis Austria	8644 6896
Lexsor	3453
Leyco	3488 8644 6896 4648
LG	8644 5393 7287 7647 7430 2924 6381 8265 2796 5447 4709 6896 4156 6944 4312 5531 8060 4469 5605 6305 3350
Liesenkötter	7839 8644 6896 4648 8644 7839 5186 6896
Life	3637
Lifetec	8644 7647 7350 5090 5355 3835 3840 6286 6896 4016 3488 4596 8060 3637 4648
Linitron	4523 3802
Lloyd	4523 3802 3637 5874
Lloyd's	4709 7647
Lodos	3840 7660
Loewe	3835 5613 7337 8644 6896 7287 8377 8568 4648
Logik	7507 2924 2335 7647 6127 3488 4530 4709 3118 7855 3840
Logix	5355 7350
Luker	7066

Luma	8644 2438 5605 2620 6896 5090 7647 8377 3637 4648
Lumatron	2438 8644 6896 8377 5605 3350 3488 5301
Lux May	4648 8644 7647 6896
Luxor	5319 2438 8020 6753 6092 4659 3840 8394 3350 7910 4783 5605
LXI	5393 4648
M Electronics	3637 4648
Macys	4523 3802
Madison	8644 6896
Magnadyne	5531 8568 5605 3637 4648
Magnafon	4648 8568 4469 5301
Magnasonic	4523 3637 4648
Magnavox	8644 6896 6812 7046 3802 4648
Magnum	3451 8060 8644 6896 6381 3730
Mandor	3488
Manesth	8644 6896 3488 6482 5605 2438 4648
Manhattan	8644 6896 5355 3840 4201 5605 5453
Marantz	8644 6896 6764 4648
Marcys	3802
Mark	8644 6896 4469 5090 7647 8060 6381 4648
Master's	4874 8644
Masuda	4016 4530 7647 3488 8644 6896
Matsui	8644 6896 6230 7647 5605 8568 6482 7910 7507 7384 6812 4530 5265 3518 3270 8060 5739 5119 2438 7014 7733 3840 3637 4648
Matsushita	4526
Matsuyama	8299
Mava	4523
Max-Multi	4648
Max-Tip1	3637
Max-Tip4	4648
Maxam	3488 3637
Maxdorf	2335
Maxell	3637
Maxim	7066 5952
MCE	7647 3637
Mediator	8644 6896 4648
Medion	8644 8060 7361 7350 2924 7733 3840 4917 5355 6896 3835 6286 5832 4596 3118 3730
Megas	2696
Megatron	5393
MEI	3840 8644 6896
Melectronic	6092 8644 3835 7430 2620 5605 4422 6896 6982 5531 4819 5090 5295 3350 3518 5265 7647 8020 6753 4469 3876 8060
Memorex	7647 5393 4526 3637
Memphis	3637 7647
Mercury	4709 8644 7647 6896 3637

Merritt	4783 3350 5605
Metz	2769 6975 5313 2410 8644 6896 8299 5355 5319 5265 6640 3518 3840 7324
MGA	5393 8644 6896 4016
Micromaxx	8644 6896 5355 3840 7361
Microstar	7361
MicroTEK	8033
Midland	4523
Mikomi	7660
Minato	8644 6896
Minerva	6230 6640 5265 4265 3518 8568 5620
Minoka	6764 8644 6896 4648
Mirror	5832
Mistral Electronics	6127
Mitsubishi	5620 3193 3835 8644 5393 6812 6127 6640 6896 7910 3840 3802 3637 4648
Mitsuri General	5605
Mivar	7287 4469 4318 8568
Monaco	7647
Monitor	5510
Morgan's	8644 6896
Motorola	3193 4648
MTC	3835 5605 4469 3350 4523 5510
MTlogic	8060 6948
Multibroadcast	6127
Multitec	8644 6896 2590 5355 3840 5952
Multitech	7647 2438 2590 8644 7287 6896 4469 5531 3488 4523 3802 3637 5874 4648
Murphy	4469 5605
Musikland	8644 4016 5531 6896
MyCom	4698 5393
Myryad	6896 8644
NAD	5393 3350 5605 3802
Naiko	8644 7066 6305 6896
Nakimura	5090 8644 6896
Namsunc	3637
Naonis	2438 5605
NAP	4648
Narita	7066
NAT	3001
National	3001 4648
NEC	4849 8299 7976 3726 8644 6896 7507 8561 6812 7014 7647 5090 4874 4638 3876 3637 3802 5510
Neckermann	8644 3518 7287 6736 5553 5531 2620 2438 6538 6896 5605 7839 3835 3637 5874 4648
NEI	8644 6896 4530 5605 4648
Neovia	4677 4698
Nesco	5531 7733

Netsat	8644 6896
Neufunk	8644 7647 6896 2696 4016 5896 8060 8644 7647 6896 6982 3637 4648
New World	4016
Nicamagic	4469
Nikkai	4016 8644 6896 3488 6482 4469 7647 6812 4523 4648
Nikkei	8060
Nikko	5393
Nissan	5510
Noblex	3637
Noblisko	4265 4469
Nogamatic	7430
Nokia	3350 5605 8020 4783 5090 8394 6305 6092 6753 4659 6559 7910 2696 7430 5510 3637 4648
Noname	4648
Nordmende	7430 8060 5397 4422 6896 3270 5605 5905 3847 6982 5265 8644 4648
Norfolk	5605
Normerel	8644 6896
Novabeam	4648
Novak	8644 6896
Novatronic	8644 4819 5090 6896 3637 4648
Nurnberg	5605 3350
NU-TEC	7014 2924
O General	3637
Oceanic	5605 3350 7910 4659 4783 8020
Odeon	3488
Okano	7287 8644 6896 3488 7647 3637
Olidata	4698
Olympic	3637
Omega	3488
Omni	7046 5397 2924
Onceas	3637
Onwa	4530 2810 4016 5739
Opera	8644 6896 4648
Optimus	4526
Optonica	3193
Orava	4648
Orbit	8644 6896 4648
Orcom	4262
Orient	3637
Orion	8644 5119 7384 6896 6764 8568 7733 3118 8060 7507 7647 3488 3453 3637 5874 4648 4523 3802
Orline	8644 4016 6896
Ormond	5355 3840 8644 6896
Orsowe	8568
Osaki	4016 3488 8644 6764 5090 7384 6896
Osio	8644 6896
Oso	4016
Osume	6812 4016 8644 6896

Merritt	4783 3350 5605
Metz	2769 6975 5313 2410 8644 6896 8299 5355 5319 5265 6640 3518 3840 7324
MGA	5393 8644 6896 4016
Micromaxx	8644 6896 5355 3840 7361
Microstar	7361
MicroTEK	8033
Midland	4523
Mikomi	7660
Minato	8644 6896
Minerva	6230 6640 5265 4265 3518 8568 5620
Minoka	6764 8644 6896 4648
Mirror	5832
Mistral Electronics	6127
Mitsubishi	5620 3193 3835 8644 5393 6812 6127 6640 6896 7910 3840 3802 3637 4648
Mitsuri General	5605
Mivar	7287 4469 4318 8568
Monaco	7647
Monitor	5510
Morgan's	8644 6896
Motorola	3193 4648
MTC	3835 5605 4469 3350 4523 5510
MTLogic	8060 6948
Multibroadcast	6127
Multitec	8644 6896 2590 5355 3840 5952
Multitech	7647 2438 2590 8644 7287 6896 4469 5531 3488 4523 3802 3637 5874 4648
Murphy	4469 5605
Musikland	8644 4016 5531 6896
MyCom	4698 5393
Myryad	6896 8644
NAD	5393 3350 5605 3802
Naiko	8644 7066 6305 6896
Nakimura	5090 8644 6896
Namsunc	3637
Naonis	2438 5605
NAP	4648
Narita	7066
NAT	3001
National	3001 4648
NEC	4849 8299 7976 3726 8644 6896 7507 8561 6812 7014 7647 5090 4874 4638 3876 3637 3802 5510
Neckermann	8644 3518 7287 6736 5553 5531 2620 2438 6538 6896 5605 7839 3835 3637 5874 4648
NEI	8644 6896 4530 5605 4648
Neovia	4677 4698
Nesco	5531 7733

Netsat	8644 6896
Neufunk	8644 7647 6896 2696 4016 5896 8060 8644 7647 6896 6982 3637 4648
New World	4016
Nicamagic	4469
Nikkai	4016 8644 6896 3488 6482 4469 7647 6812 4523 4648
Nikkei	8060
Nikko	5393
Nissan	5510
Noblex	3637
Nobliko	4265 4469
Nogamatic	7430
Nokia	3350 5605 8020 4783 5090 8394 6305 6092 6753 4659 6559 7910 2696 7430 5510 3637 4648
Noname	4648
Nordmende	7430 8060 5397 4422 6896 3270 5605 5905 3847 6982 5265 8644 4648
Norfolk	5605
Normerel	8644 6896
Novabeam	4648
Novak	8644 6896
Novatronic	8644 4819 5090 6896 3637 4648
Nurnberg	5605 3350
NU-TEC	7014 2924
O General	3637
Oceanic	5605 3350 7910 4659 4783 8020
Odeon	3488
Okano	7287 8644 6896 3488 7647 3637
Olidata	4698
Olympic	3637
Omega	3488
Omni	7046 5397 2924
Onceas	3637
Onwa	4530 2810 4016 5739
Opera	8644 6896 4648
Optimus	4526
Optonica	3193
Orava	4648
Orbit	8644 6896 4648
Orcom	4262
Orient	3637
Orion	8644 5119 7384 6896 6764 8568 7733 3118 8060 7507 7647 3488 3453 3637 5874 4648 4523 3802
Orline	8644 4016 6896
Ormond	5355 3840 8644 6896
Orsowe	8568
Osaki	4016 3488 8644 6764 5090 7384 6896
Osio	8644 6896
Oso	4016
Osume	6812 4016 8644 6896

OTF	3637
Otto Versand	3802 3637 5874 7350 3518 3350 7430 3001 6736 6812 3193 3835 5531 7647 5896 6982 8644 6896 6640 5265 8568
OVP	4648
Pace	7733
Pacific	8644 6896 6286 8060 3840 5119
Pael	4469
Palladium	7287 8644 2620 8060 5553 6896 5531 7839 6286 3518 6736 6538 5605 7350 2438 4648
Palsonic	3488 6764 8644 2796 4709 5553 5453 3453 4016 2924 6896 2335
Panama	7647 3488 4469 8644 6896 5531 3637
Panashiba	4709 3637
Panasonic	4526 5620 3001 3350 5605 4783 7605 4709 2410 8568 8644 6896 8360 5393 4648
Panavision	8644 2620 6896
Panavox	3637
Panorma	3637
Papouw	8644 6896
Pathe Cinema	5605 4469 7287
Pathe	7430
Pausa	7647 3637
PCE/PEC	4523 3802 5510
Penney	4523 5510
Perdio	5605 8644 4469 5896 6896
Perfekt	8644 6896 4648
Performance	3802 5874
Philco	6634 4752 5553 5531 5605 7287 8644 6896 3802 3637 4648 7350
Philex	6127 5605
Philips	6896 8644 3518 6127 6538 8016 3802 5874 6982 5090 3350 7647 4648
Phocus	3730 6948 8060
Phoenix	8644 6896 7287 2590 5605 4469 4648
Phonola	8644 6896 6127 4469 4648
Pilot	6896 8644 5716 8435 5510
Pioneer	4174 7507 8644 4849 3350 7430 5605 4422 6896 8209 7287 6982 2590 3835 4648 7287 2590
Plantron	8644 6896 3488 7647 3637 4648
Playsonic	8060 8644 6559 6381
Policom	7430 3350 5605 4265 4752 6634 6640
Polytron	5896
Poppy	7647 3637
Portland	5090 2499 4523 5874 4648
Powerpoint	6230 8644 6896 2924
Prandoni-Prince	5531 8568 3350 2438
Premier	7647 3488

President	7314
Prima	7647 3488 6764 7789 4523 3802 5510 3637 4648
Princess	2924 3637
Prinston	3840
Prinz	3350
Proelco	4648
Profex	7647 5605 3350 2438 3637
Profi	7647
Profitronic	8644 6896 4648
Proline	8644 6896 4884 5295 2620 4698
Proscan	5510
Prosonic	8644 6896 7287 5090 4530 5355 8060 4469
Protec	3637 4648
Protech	8644 6896 7647 5531 3488 5553 5355 5896 5605 2590 3840
Proton	5393 4523 3637
Provision	4874 8644 6896 3840 8060
Pulser	4523 5510 3637 4648 4156
Pye	8644 6896 5090 6764 4648
Pymi	7647 3637
Qty1	4648
Quadral	4016
Quasar	5531 4526 4677 7647 6634 5186 4265 4819
Quelle	8644 6736 7507 7430 5355 6896 5265 6538 3835 6640 3518 3350 3488 3840 6092 7647 6812 5531 4752 7839 4523 3802 3637 5874 4648
Questa	6812 3802
R Line	4648
Radialva	7430 4016 5605 8644 6896 4422
Radio Shock	4523
Radiola	8644 6896 4648
Radiomarelli	8568 5531 8644 6896
RadioShack	8644 6896 5393
Radiotone	7647 8644 6896 7287 3488 3840 3637 4648 5553 6764 3451 5355
Rank	4265
Rank Arena	6812 2810 3036
RBM	4265
RCA	4884 3193 3847 3270 6982 3036 5510
Realistic	5393
Recor	8644 5553 6896 4648
Record	4648
Rectiligne	8644 6896
Rediffusion	3350 4783 6812 6092
Redstar	8644 6896
Reflex	8644 6896 3840 5355
Regente	3637
Relisys	4677 2108 4979 3191
Reoc	8060 5295 2499
Revox	8644 6896 7287 4648

Revox/Studer	4648
Rex	2438 2620 5531 5605 3488
RFT	7287 3488 8644 6896 2590
Rhapsody	4469
Rice Club	5510
Ricoh	8644 6896
Rinex	2335 5553
R-Line	8644 6896 5605
RMB	4523
Roadstar	3840 7647 5553 8644 3488 5896 4485 5832 6896 8060 5355 4016 3637
Rodex	8644 6896
Rosita	3637
Rover	6812 2108
Rowa	3488 2924 5716 7647 4469 8299 8644 6896 3637
Royal	3637
Royal Lux	7287 6764 3270
Rukopir	6896 8644
Runco	5510
Saba	4884 7430 3847 6982 2104 3270 4783 4526 4422 5605 8568 3350 8060
Sagem	2696 7014 5896 2820 2517
Saisho	8568 7647 7507 5605 3488 4648
Saivod	8644 7066 6896 5319 5355 5716 3840
Sakai	5605
Sakio	3637
Sakura	3637
Sakyno	7014
Salora	5605 3350 8568 2438 4783 6559 7910 8020
Salsa	3270
Sambers	8568
Sampo	4523
Samsung	2517 8299 8644 5393 7910 7350 5605 4884 6896 7736 3193 4495 4523 5510 3637 4648 7647 7287 3488 4469
Samsux	4523
Sandra	4469
Sanky	4523
Sansui	8644 2429 6896 8435 4530 2810 7014 6641 3036 4523 5510 3637 4648
Santon	7647
Sanyo	7910 3573 6812 7507 5605 8644 5620 6896 7287 6559 4469 7647 2590 4849 3802 3637
Save	8644 6896
Saville	7733
SBR	8644 6896 6127 4648
Schaub Lorenz	4783 8060 3350 6305 2590 5090 4156
Schneider	6286 8644 6896 7350 3840 5605 3451 8060 3158 7213 6982 5531 2499 7733 7066 4265 4530 3350 4016 5355 3637 4648

Scotland	5605
Scott	4485 5393 4523 3802 5874
Sears	5393
Seaway	5295
Seelver	6896 3840 8644
SEG	8644 6896 3840 4917 8377 4469 5319 4016 5355 6230 7647 5605 2499 3634 8060 3637 3488 5295 6812 5531 4523 3802
SEI	6736 5605 8568 8644 6896
Sei-Sinudyne	8568 6736 8644 6896 5874 4648
Seitech	7855
Seleco	2438 8377 5605 2620 3444 3488 6092 6812 4530
Semua	4523
Sencora	7647 3637
Sentra	6482 4016 7647
Serino	2696 7014 4469 3193
Sharp	3193 7138 6812 4638 6127 8568 6538 4174 7409 5319 4523 3802
Shintom	5874
Shintoshii	8644 6896
Shivaki	8644 6896 5119 5090 5393
Show	5553 7647 3637
Siarem	5605 8568
Siemens	3518 6640 6538 5265 7839 5186 8644 6896 3350
Siemes	4523 4648
Siera	8644 6896 8299
Sierra	4648
Siesta	7287
Sigmax	5510
Signature	5874
Silma	4648
Silva	8644 6896 4469 3350 3451 3637
Silva Schneider	5952
Silver	6812 8644 7014 3350 6896 6381 5605 3802
SilverCrest	3840 8644 6896
Singer	7647 3011 8644 6896 5531 3444 3270 5605 3637 4648
Sinotec	2335
Sinudyne	5605 3350 8568 6736 8644 6896 7733
Sky	8644 5896 3118 5393 6896 4262
Skymaster	4819
Skysonic	3036
Sliding	4677 3118
SLX	5355
Smaragd	6230
Snyder	4648
Soemtron	4677 3191
Solavox	3350 5605 4783 8644 6896

Sonawa	4016
Soniko	8644 6896
Soniq	2519
Sonitron	7910 7287 6559
Sonneclair	8644 6896
Sonoko	8644 6896 7647 3488 3637 5896 4648
Sonolor	7910 5605 6736 4783 3350 5896
Sontec	8644 6896 7287 7647 4648
Sony	6736 2762 7507 6219 3193 4849 4752 5874 3078 6812 8644 6896 3802
Sound & Vision	4016 5090 8644 6896
Soundesign	4523 3802 5510 5874 5393
Soundmaster	3637
Soundwave	8644 6896 5553 6381
Soyea	2335
Specrician	4523 4648
Spectra	7647
Ssangyong	7647
Staksonic	7647
Standard	8644 6896 3840 4016 7647 5090 3637
Starlite	7647 5605 8644 6896 3488 6764 3637
Starlux	3637
Stenway	5896 4016
Stern	5605 2438 3488 2620 3444
Stevision	7066 5952
Strato	8644 6896 3488 7647
Strong	5319 7660 3840 8644 6896
Sunic Line	8644 6896
Sunkai	7384 7014 4016 2696 8644 6896 6230 4677
Sunstar	4530 8644 6896 7647 3488 3637
Sunwatt	7014
Sunwood	8644 6896 7647 3637 4648
Superla	8568 4469
Supersonic	7910 6896 2924 3488 8484 7014
Supertec	3637 4648
Supertech	7647 8644 6896 4469 4016 3637
Supra	5393 5090 7647 3637
Supremacy	4523 3802
Supreme	5874
Susumu	3270 4016 4422
Sutron	7647 3637
Svasa	8484
Swissline	5531
Swisstec	4262 3118
SYC Line	3637
Sydney	4469
Sylvania	4648
Symphonic	4523 3802 5874
Sysline	8644 6896
Sytong	4469
T+A	6975
Tandberg	2410 2620 7430 8377 3350 5605
Tandy	4016 5531 3193 5605

Tashiko	6812 4849 4469 5605 2438 3802
Tatung	5952 8644 6896 8568 7507 7733 8016 5905 4156 4648
TCM	8060 3730 7361
Teac	2924 3835 8644 4917 5393 7647 6764 5896 3840 6896 5716 5355 5553 4849 8060 7660 7014 8435 3488 2499 5991
Teak	3637
TEC	7647 5531 3270 8644 6896 3350 5605 3637 3637
Techica	4016
Tech Line	8644 6896 5355 4917 5319
Techlux	4485
Technica	7066
Technics	4526 4648
Techniland	4648
TechniSat	8644 6896 5605 4201
Technisson	8060 3730
Technosonic	8644 6896
Techwood	5319 5510 5874
Tecnimagen	6896
Tecnison	3637
Tedelex	5553 6305 3011 7647 8435 7910 2924 8299 5397 8644 6896 3637
Tehmol	3637
Teiron	7647
Teknant	3637 4648
Teknika	4523 5510
Tekon	5510 3637
Teleavia	7430 4422 6982
Telecor	8644 6896 5605 4016 3158
Telefac	3637
Telefunken	4884 3847 4752 8299 4262 4422 6634 3270 7430 2924 6982 5716 5301 8644 6896 2590 2104 8033 2707 3491 8060 5952 6092 7837
Telefusion	8644 6896
Telegazi	8644 5605 4016 3488 6896
Telemeister	8644 6896
Teleopta	3637
Telesonic	8644 6896
Telestar	7647 8644 6896 6764 3637
Teletech	8644 6896 5355 7647 5531 3840 3637
Teleton	5605 6812 2438
Televideon	5605 4469
Television	8644 6896
Tempest	7647 8644 6896 3488 3637
Tennessee	8644 6896
Tensai	4016 8644 6896 7647 4819 5090 4530 2796 5531 6381 5605 3840 3637 4648
Tenson	3637 7647
Tesla	8644 4648

Tesla Orava	4648
Tevion	7350 4706 5905 3191 3451 5355 6286 8060 8644 5952 6896 7361 3840 4596 3730
Texet	5090 7647 4469 4016
Thomas	4523 5510 3637 5874 4648
Thomson	4884 3847 6982 4422 7430 3270 8644 6896 4469
Thorn	5620 6127 7430 5301 8644 6896 7507 3270 3952 6982 3350 6736 3835 6812 5090 6482 4752 6634 4874 6640 4265 3802
Thom-Ferguson	5620 7430 6127 3350 3270 4874 5301 6482
Tiny	3453 7789 5393 5510
Tobishi	4016
Tobo	3637
Tokai	8644 6896 5355 5605 5090 7647 3840 4648
Tokaido	3840
Tokyo	4469 6482 5510
Tomashi	5896 4016
Tongtel	7046 8299
Topline	3840 5355
Toshiba	4679 4081 6482 3730 7733 7647 2924 8644 6812 4265 8060 7430 3251 5319 4925 5952 4940 5265 3518 2517 5447 4526 8561 3802 5510
Tosonic	4523 5510
Totevision	4523
Toyoda	7647 4530 3488
Trakton	7647 3488
TRANS-continents	5355 3840 8644 6896 2590 4677
Transonic	8644 6896 7014 8299 3835 3488 2924 5716 5553 7647
Transtec	4469
TRC	3637
Trevi	3637
Triad	8644 6896 4016 4648
Trident	8568
Trilux	4648
Tristar	3488 4016 6127
Triumph	8568 6092 6896 8644
Trivision	3637
Tsoschi	5896
TVTEXT95	6896
Uher	8644 6896 5090 5553 2590 7287 8020 4648
Ultravox	5090 5531 4469 5605 8644 6896
UMA	4648
Unic Line	8644 6896 4659 7014
Unimor	4648

United	8060 8644 6381 6896 7733 3840 8299 7066
Universal	8644 6896
Universum	6092 4819 5265 4659 2620 4752 7839 5186 6640 3350 5531 6753 6736 5355 7430 8377 8020 7287 6538 5553 8394 7647 6634 3634 7507 8644 3835 6812 3840 4917 4849 5319 4265 5605 3488 6896 7660 2517 3637 4648
Univox	8644 6896 5605
Uranya	3637
Utax	5605
V7	
Videoseven	5991 5393 3118 4698 7855
Vanguard	3637
Veco	3637
Vestel	8644 5605 6896 5355 3840 5319 4648
Vexa	7647 8644 6896 3637 4648
Victor	4638
Video System	4648
Videologic	4016 4469
Videologique	4469 4016
Videosat	5531
VideoSystem	8644 6896
Videotechnic	4469 5090
Videoton	5605
Vidion	3637
Vidtech	6812 5393
ViewSonic	5991
Visiola	4469
Vision	8644 3488 6896 3637 4648
Vistar	3350
Vocson	4648
Vortec	8644 6896 4648
Voxson	8644 6896 2438 5553 5605 5393
Waltham	5553 4422 8644 6896 5355 7430 3840 5605 5119
Wards	4648
Watson	3840 4596 8644 6896 5605 7647 5355 4016 4698 7839 3637 4648 7350 3158 7733 4917
Watt Radio	5605 4469
Wega	8644 6896 6812 3802
Wegavox	7647 8644 6896 3637 4648
Welltech	8060
Weltblick	8644 6896 4648
Weston	8644 6896
Wharfedale	8644 6641 7350 2707 6896 5952
White Westinghouse	4648 4469 8644 6896 2499
Windsor	5355 3840
Sindstar	5896
Windy Sam	6896
Winston	3637 4648
Wintel	8060

United	8060 8644 6381 6896 7733 3840 8299 7066
Universal	8644 6896
Universum	6092 4819 5265 4659 2620 4752 7839 5186 6640 3350 5531 6753 6736 5355 7430 8377 8020 7287 6538 5553 8394 7647 6634 3634 7507 8644 3835 6812 3840 4917 4849 5319 4265 5605 3488 6896 7660 2517 3637 4648
Univox	8644 6896 5605
Uranya	3637
Utax	5605
V7	
Videoseven	5991 5393 3118 4698 7855
Vanguard	3637
Veco	3637
Vestel	8644 5605 6896 5355 3840 5319 4648
Vexa	7647 8644 6896 3637 4648
Victor	4638
Video System	4648
Videologic	4016 4469
Videologique	4469 4016
Videosat	5531
VideoSystem	8644 6896
Videotechnic	4469 5090
Videoton	5605
Vidion	3637
Vidtech	6812 5393
ViewSonic	5991
Visiola	4469
Vision	8644 3488 6896 3637 4648
Vistar	3350
Vocson	4648
Vortec	8644 6896 4648
Voxson	8644 6896 2438 5553 5605 5393
Waltham	5553 4422 8644 6896 5355 7430 3840 5605 5119
Wards	4648
Watson	3840 4596 8644 6896 5605 7647 5355 4016 4698 7839 3637 4648 7350 3158 7733 4917
Watt Radio	5605 4469
Wega	8644 6896 6812 3802
Wegavox	7647 8644 6896 3637 4648
Welltech	8060
Weltblick	8644 6896 4648
Weston	8644 6896
Wharfedale	8644 6641 7350 2707 6896 5952
White Westinghouse	4648 4469 8644 6896 2499
Windsor	5355 3840
Sindstar	5896
Windy Sam	6896
Winston	3637 4648
Wintel	8060

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