



# HHT650 HD Digital TV Receiver

**Operating Manual** 

# **CONTENTS**

Introduction and Features.		2
Safety Instructions		
Front Panel		
Rear Panel		
Remote Control Unit Key Layout		5
Remote Control Unit Key Functions		
Remote Control-Battery Care / Preparation / Distance / Tips		
Terminology		8
Installation-HDMI / CVBS Composite / YPbPr Component	9, 10	, 11
Installation–AC3 Dolby Digital Audio		_11
Start Up		
Time Zone	11	, 12
Manual Scan	12	, 13
Up/Down Channel Change / Numeric Input Channel Change		
Volume Adjustment / Volume Mute		13
TV or Radio Selection		13
INFO Key	13	, 14
EPG – Electronic Program Guide		14
Closed Captions		15
Installation Menu	16	, 17
My Box Menu	17	, 18
TV Set Up Menu	18, 19	, 20
Password Menu	20, 21	, 22
Navi Key Functions 22,	23, 24	, 25
Fav key		
Recording Functions – Formatting Your USB Storage Device		26
Recording Functions – Instant Record.		27
Recording Functions–Timer Record	28	, 29
Recording Functions – Playback / Fast Forward & Rewind		
Recording Functions – Manage Files / Time Shift	30	, 31
Recording Functions – USB Storage Device Capacity	31	, 32
Multimedia Functions – Photo Files / Music Files / Movie Files 32,	33, 34	, 35
Troubleshooting		_36
Specifications		_37

# INTRODUCTION

Thank you for choosing a healing HHT650 high definition digital television receiver.

This sophisticated receiver has a host of exciting features and will enable you to receive and enjoy high definition and standard definition digital terrestrial TV channels that are available in your location - including freeview channels.

The units USB recorder will enable you to record your favorite programs, Time Shift live TV and playback various media files

For a complete listing of our digital television terrestrial receivers please view our website: www.healingdigital.com

#### **HHT650 FEATURES**

- Excellent High Definition & Standard Definition 'Wide Horizon' picture quality
- Receives all 'freeview' Channels
- USB Record and TimeShift live TV
- Accepts NTFS or FAT32 formatted storage devices without fuss
- Flexible Media Player Plays a host of media files Photo, Music, Movies
- Resolutions 1080i, 720p, 520p and 576i
- HDMI, YPbPr Component, and CVBS Composite Video Outputs
- Coaxial Digital Audio output
- RCA Audio output
- Electronic Program Guide (EPG) with 8<sup>th</sup> day cross over
- Centre Cut option displays aspect of 16:9 on 4:3 screens
- Closed Captions subtitles
- Parental Lock
- Signal Strength and Quality bars colour coded
- Games, Calender, Calculator Function
- Low Energy Consumption MEPS compliant
- Saves program parameters at Power Fail
- Attractive On Screen Display structure

# **SAFETY INSTRUCTIONS**

Operating and Safety instructions should be read prior to connecting and operating the unit.

Please adhere to all Safety identification marks on the units back panel and safety instructions listed in this operating manual.

#### DO NOT INSTALL YOUR RECEIVER:-

- In a closed or poorly ventilated cabinet
- Directly on top or under any other equipment
- On an uneven surface
- On a surface that might obstruct the ventilation slots.

#### DO NOT EXPOSE THIS RECEIVER OR ITS ACCESSORIES:

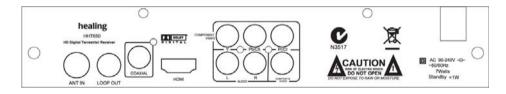
- To water or intense moisture
- To direct sunlight
- To any equipment that generates heat
- To intense vibration
- To any magnetic objects such as loudspeakers, transformers etc.
- Never open the cover: High voltage electrical hazards make it extremely dangerous to touch the inside of the receiver. Note: Your warranty will be void if the receiver panel/s has been opened.
- If the receiver is not to be used for an extended period, unplug the receiver power cord from the wall power socket.
- When installing the receiver and connecting AV cables etc, initially disconnect the unit from mains power.
- Do not operate the unit if the power lead is damaged.
- Protect the power cord from being walked on or pinched
- Clean the Front of the Receiver and its panels only with a dry cloth.
- Only use attachments/accessories specified by the manufacturer.

#### FRONT PANEL



- 1. STANDBY key Switches between Operational and Standby modes.
- LED display Shows channel selected and display status: Power LED, red - indicates power supply active. Remote Control Sensor.
- 3. USB: For connection of a USB device such as Memory sticks or Hard Disk Drives to enable recording and TimeShift function as well as Media Player playback. The USB can also be used to action firmware upgrade.
- 4. CH+. To select a higher channel number.
- 5. CH-. To select a lower channel number
- 6. OK. Operation confirmation; Channel List.

# **REAR PANEL**



- 1. ANT IN: Television antenna input.
- LOOP OUT: Loop through to pass the antenna signal to another receiver.
- 3. COAXIAL: Digital Audio for connection to your decoder amplifier for superior audio quality. Includes Dolby Digital where broadcast.
- 4. HDMI: Digital Video and Audio output, combined over a single cable
- 5. AUDIO L/R: Left and right stereo audio connectors
- 6. COMPOSITE VIDEO: Composite CVBS output
- 7. COMPONENT VIDEO: YPbPr Outputs for high picture quality
- 8. MAINS POWER

# **REMOTE CONTROL UNIT KEY LAYOUT**



#### REMOTE CONTROL UNIT KEY FUNCTIONS

STANDBY: Press to Operate your receiver or place it in Standby mode.

INFO: First press shows the Basic Information bar on screen.

Second press shows the Detail program Info panel.

Third press shows Program Info with signal Strength & Quality.

AUDIO: Press to enter Audio Setting menu.

TV/RADIO: Switches between TV and Radio channels.

MUTE: Enables or Disables sound, returning to previous level.

Mute is also disabled by pressing Pressing the <Vol+/-> keys.

PLAY: Press to Play a file from storage, or resume Play from pause.

PAUSE: Pause or resume play from a USB storage device.

REC: Records tuned program to connected USB storage device.

NAVI: Enter Navigation menu bar, a short cut to various functions.

STOP: Stops Recording or Playback of files to USB storage device.

USB: Enters Recorded file list for connected USB storage device.

MENU: Enter main Menu.

RETURN/EXIT: Leave a Menu or function.

CH+: Channel select Up.
CH-: Channel select Down.

VOL+: Sound Volume level up or increase. VOL-: Sound Volume level down or decrease.

PAGE UP: Move up page list.
PAGE DOWN: Move down page list.

0-9: Select Channel or enter number values from a menu mode.

FAV: Press to select channels from Favourites list.

EPG: Selects Electronic Program Guide and EPG Record functions. TEXT: Enter or exit Teletext menu (Teletext generally not available). SUBTITLE: Acceses menu to turn Closed Captions (Subtitles) On or Off.

REV: Fast Rewind through recordings – 8 speeds up to 32x.
 ► FWD: Fast Forward through recordings – 8 speeds up to 32x.

Coloured keys: Red, Green, Yellow and Blue,

provide a variety of functional shortcuts.

#### REMOTE CONTROL BATTERY CARE

To ensure long life from your Remote Control Unit:-

- 1. Check that the polarity indicators of batteries and the remote control terminals correspond.
- 2. Do not mix new and old or different types of batteries together.
- 3. Never leave old or exhausted batteries in the remote control.
- 4. If storing your receiver for an extended period, remove the RCU batteries.
- 5. Only rechargeable cells (NiMh etc) should be recharged, and on a purpose built charger.
- 6. Do not attempt to disassemble or short circuit the batteries.
- 7. Do not expose the batteries to heat sources.
- 8. In the event of electrolyte fluid does leak from a battery inside the remote control, wipe away with a damp cloth and insert new batteries.
- 9. Damage caused by leaking batteries is not covered by warranty.

#### PREPARING THE REMOTE CONTROL FOR USE

Load fresh batteries for your remote control unit to operate reliably.

- 1. Open the battery compartment lid on the back of the RCU.
- 2. Insert the batteries, negative terminals first. Take care that the battery polarity markings correspond with those of the remote control.
- 3. Close the battery compartment lid, checking that it locks in place.
- 4. Your RCU should now be ready for use.

# REMOTE CONTROL OPERATING DISTANCE & ANGLE

With an uninterrupted view of your receivers Front panel IR window, point the RCU towards your receiver and press any key.

- 1. *Distance:* The remote control should work up to 7 meters from the front of your receiver...
- 2. Angle: and about + or 30 degrees from directly facing the receiver (see drawing).

# R receiver winder in front pursel

# **USEFUL REMOTE CONTROL TIPS**

- 1. For prolonged receiver life, intervals of continuous switching action should be kept to less than one minute.
- 2. Should receiver stop responding to RCU commands or freeze up, disconnect the batteries and or power for 10 seconds and restart.
- 3. Daylight and some electric light can compromise the distance over which an RCU is effective. You can solve this by re-adjusting receiver position and room lighting as necessary.

Your healing HHT650 High Definition Digital TV Receiver comes with a selection of Video and Audio outputs.

The outputs you use will be determined by the inputs available on your TV monitor and or audio decoding amplifier.

The following basic terminology may help your understanding.

TERMINOLOGY	QUALITY	EXPLANATION		
	GRADING			
VIDEO CONNECTIONS				
HDMI	High Definition	Video & Audio on one cable.		
(High Definition	digital video and	Highest possible picture and		
Multimedia Interface)	audio	sound quality to 1080i.		
		Separate red, green, blue over		
YPbPr	High Definition	3 RCA connectors. Excellent		
(Component Video)	analog video	picture quality.		
		You will still need to connect		
		the audio via RCA, or Coaxial.		
CVBS	Standard	Video signal on one yellow		
(Composite Video)	Definition analog	RCA connector.		
	video	You will still need to connect		
		the audio via RCA, or Coaxial.		
AUDIO CONNECTIONS				
RCA	Analog stereo	Left and Right audio channels		
	audio	via the White and Red RCA		
		connectors		
Coaxial	Digital audio bit	Carries digital audio signals in		
	stream.	electrical form to a monitor or		
		decoder amplifier.		
		CD quality.		

Now you can choose the connection method that best suits your display from one of the connection types listed on the following pages.

# **INSTALLATION**

# Connecting the HHT650 - Video and Audio

Choose one of the following 3 choices of Video Connections from the HHT650 to your television.

The Output that you choose will be determined by the Inputs available on your Television.

Set your TV to your preferred video mode via the TV Video Source: I.e. either HDMI, CVBS Composite or YPbPr Component.

#### Connector: HDMI.

Note: The HHT650 receiver will automatically detect that a HDMI lead is connected. You will require a separately purchased HDMI Lead.

The HDMI lead provides Video and Audio. For Audio you can also choose to use the Coaxial digital audio connection to your decoder amplifier.

- a. Connect the HDMI lead to the HDMI connector on the rear of the HHT650 and to the HDMI connector on your TV.
- b. Connect the antenna lead to the ANTENNA IN connector on the rear of the HHT650.
- c. Connect the HHT650 power lead to mains power.

# **Connector: Composite Video**

Note: The HHT650 will automatically detect that a CVBS Composite lead is connected.

Use the supplied Yellow / White / Red connectors RCA AV Lead. This lead provides Video and PCM Stereo Audio as follows:

- Yellow Connector = Video
- White Connector = Left Audio
- Red Connector = Right Audio
- a. Connect the Yellow, Red, White connectors to the RCA connectors of the HHT650 and connect to the corresponding connectors of your TV.
- b. Connect the antenna lead to the ANTENNA IN connector on the rear of the HHT650.
- c. Connect the HHT650 power lead to mains power.

Note: For audio you can choose to use the Coaxial digital audio connection to your decoder amplifier.

# Connector: YPbPr Component (listed as YCbCr (YUV) in the units menu)

**IMPORTANT:** To enable Component Video, you will firstly need to connect to the HHT650 CVBS Composite or HDMI video output and corresponding input connectors of your TV. This will enable the HHT650 on Screen Display Menu banners to be displayed on your TV.

Connect either HDMI lead or CVBS RCA Composite video lead (Yellow) to the HHT650 and your TV. Set the applicable TV video source on your TV.

- . Power on the HHT650 and INSTALLATION banner will be displayed.
- . Press the MENU key on the remote control and SET UP & MORE page will be displayed.
- . Press the Up/Down arrow keys on the remote control and select SET UP.
- . Press the Left/Right arrow keys on the remote control to locate SET UP in the middle of the screen.
- . Press the OK key on the remote control and SET UP page will be displayed.
- . You will note 7 menu symbols at the top of the page.
- . Use the Left/Right arrow keys on the remote control and select TV SET UP.
- . Press the Up/Down arrow keys on the remote control and select VIDEO OUTPUT.
- . Press the Left Right arrow keys and select YCbCr (YUV).
- . Press the EXIT key 3 times and Installation banner will be displayed (Auto Scan will be highlighted).
- a. Connect Component lead (Red, Green, Blue connectors) to the HHT650 YPbPr connectors on the rear of the receiver and to the corresponding YPbPr Component connectors on your TV. (you will require a separately purchased Component lead).
- b. Change the video source of your TV to Component.
- c. Connect the antenna lead to the ANTENNA IN connector on the rear of the HHT650.
- d. AUDIO: You will need to make separate connections for Audio as follows:
- d1. Using the supplied RCA AV lead; Yellow, Red, White connectors;

- connect the Red connector (Right Audio) to the Red RCA audio socket on the rear of the HT650 and the White connector (Left Audio) to the White RCA audio socket on the rear of the HHT650.
- d2. Connect both leads to the corresponding colour coded Left and Right RCA audio sockets on your TV.

Note: For audio you can choose to use the Coaxial digital audio connection to your decoder amplifier.

e. Connect the HHT650 power lead to mains power.

#### AC3 Dolby Digital Audio: Connecting to a Digital Audio Amplifier

#### **Digital Coaxial Audio**

You will require a separately purchased coaxial audio lead.

Connect the coaxial audio lead to the HHT650 (orange RCA connector) and connect to the corresponding digital audio connector of you decoder amplifier.

#### START UP

Once you have connected your preferred Video and Audio Outputs of the HHT650 to the TV's Inputs and connected the antenna and power source, please action the following Start Up procedure:-

- . Power On the HHT650 and a healing banner will be displayed for a few seconds and - will appear in the units orange LED display.
- . INSTALLATION page will now display with AUTO SCAN highlighted.
- . Push the OK key on the remote control, Auto Scan will commence.
- . The receiver will scan and then save the TV & Radio channels in your location and this will take a few minutes.
- Once all channels have been scanned, the receiver will automatically revert to normal TV viewing.



# **TIME ZONE (**For your Location)

It is important to set up your STATE so that the Time signal automatically generated by the broadcaster is properly corrected for your location.

VIC is the default in the unit. To select your State, please action the following:-

- Press the Menu key on the remote control and SET UP & MORE page will display.
- . Press the Up/Down arrow keys on the remote control and select SET UP.
- Press the Left/Right arrow keys on the remote control to locate SET UP in the middle of the screen.
- . Press the OK key on the remote control and SET UP page will be displayed.
- . You will note 7 menu symbols at the top of the page.
- . Use the Left/Right arrow keys on the remote control and select MY BOX.
- . Push OK key on remote control and the seven MY BOX parameters will be listed.
- . Press the Up/Down arrow keys on the remote control and select TIME ZONE.
- . Press the Left/Right arrow keys on the remote control and set your State.
- . Press Return/Exit button on the remote control to return to normal TV viewing.





With installation completed, the unit will function normally. The following pages describe operational details and other function parameters that can also be chosen.

#### **Manual Scan**

The automatic scan that you actioned at first installation of the unit finds channels in your location.

You can also manually search individual channels from within the INSTALLATION Menu.

- . To select the INSTALLATION Menu, press the Menu key on the remote control.
- . Press the Up/Down arrow keys on the remote control and select SET UP.
- . Press the Left/Right arrow keys on the remote control to locate SET UP in the middle of the screen.
- . Press the OK key on the remote control and SET UP page will be displayed.
- . You will note 7 menu symbols at the top of the page.

- . Select INSTALLATION. Press the Down arrow key on the remote control and then the Right arrow key to select MANUAL SCAN.
- . Press OK key on the remote control and Manual Scan banner will be displayed.
- . You can choose to scan by Channel number or by centre Frequency.
- . To scan by Channel, press the Down arrow key on the remote control and select the Channel No bar.
- . Press the Left/Right arrow keys on the remote control and select a channel number.
- . To scan by Frequency, press the Down arrow key on the remote control and select the Frequency bar.
- . Input the TV channel Frequency number that you want to scan by using the number keys on the remote control.
- . Press the OK key on the remote control and the receiver will scan the Channel or Frequency you have specified.
- . Once the scan has finished, the receiver will save channels found and return to normal TV viewing.

## **Up/Down Channel Change**

Press the Up/Down arrow keys on the remote control to select a channel to view.

# **Numeric Input Channel Change**

Press the number keys on the remote control to select a channel to view.

# **Volume Adjustment**

Volume Increase: Press the Right arrow key on the remote control. Volume Decrease: Press the Left arrow key on the remote control.

#### **Volume Mute**

To suspend the audio, press the Mute key on the remote control.

#### TV or Radio Selection

Press the TV/Radio Key on the remote control to change between TV and Radio Channels.

# **INFO Key**

By pressing the INFO key on the remote control, you can access TV program information which includes channel number, program title and program duration.

- . Press Once: to see Channel number, Channel name and Program duration.
- . Press Twice: to see Program details.



. Press Three Times: to see Program Information including channel Signal Strength and Quality %.



# **EPG – Electronic Program Guide**

EPG is a chronological listing of broadcasters programming schedules over an extended period (normally 7 days plus) which includes detailed program descriptions.

- Press the EPG button on the remote control and TV Guide page will be displayed.
- . Press the UP/Down key to highlight a channel and you will note the channel program names for that day are listed on the right.
- . Press the Right arrow key to highlight program names.
- . Press the Up/Down arrow key to highlight any program.
- . With the program name highlighted, press the OK key to see program information details.
- . You will note 'Today' is highlighted. To view an upcoming day's list of programs, press the Left/Right arrow keys and day can be selected accordingly.



#### **Closed Captions**

Closed Captions is a method of displaying SubTitles on the TV screen, of particular assistance to the hearing impaired.

You can choose to set Closed Captions to be operating at all times (when broadcast) by setting up Closed Captions in the Installation Menu.

- . Press the Menu key on the remote control and SET UP & MORE page will be displayed.
- . Press the Up/Down arrow keys on the remote control and select SET UP.
- . Press the Left/Right arrow keys on the remote control to locate SET UP in the middle of the screen.
- . Press the OK key on the remote control and SET UP page will be displayed and you will note 7 menu symbols at the top of the page.
- . Press the Left/Right arrow keys on the remote control and select INSTALLATION.
- . Push OK key on remote control and seven INSTALLATION parameters will be listed.
- Press the Up/Down arrow keys on the remote control and select SUBTITLE LANGUAGE.
- Press the Return/Exit key 3 times to return to normal TV viewing. Closed Captions will now be displayed at all times when broadcast



# Closed Captions – By Subtitle Key

If you decide not to set up Closed

Captions in the Installation menu; you can choose to turn On closed captions for each particular channel by actioning the following:

- . Press the Subtitle key on the remote control and a subtitle banner will be displayed.
- . Press the Left/Right arrow key to select TTX SUBTITLE.
- . Press the Up/Down arrow key and select eng.
- . Press the OK button on the remote control.

If closed captions are being broadcast they will now be displayed.

Note: If you select Closed Captions by Subtitle Key, Cc's must be activated Channel by Channel.

Note: 'Temporary' Closed Captions can also be enabled via the NAVI key explained In NAVI KEY Functions.

#### **INSTALLATION Menu**

In the INSTALLATION sub menu, seven parameters can be set: Antenna Power / Country Setting (default Australia) / OSD Language / Audio Language / Subtitle Language / LCN / Auto Switch.

- . To select the INSTALLATION Menu, press the Menu key on the remote control
- . Press the Up/Down arrow keys on the remote control and select SET UP.
- . Press the Left/Right arrow keys on the remote control to locate SET UP in the middle of the screen
- . Press the OK key on the remote control and SET UP page will be displayed.
- . You will note 7 menu symbols at the top of the page.
- . Use the Left/Right arrow keys on the remote control and select INSTALLATION.
- . Push OK key on remote control and the seven INSTALLATION parameters will be listed.
- . To select each parameter, press the Up/Down arrow keys on the remote control.

Note: Once you have set a parameter, you can return to normal TV viewing by pressing the Return/Exit key on the remote control 3 times.

#### **Antenna Power:**

The default setting is Off. If you have a 5Volt DC 'active' antenna, press the Left/Right arrow key and select 'Yes'.

# **Country Setting:**

Australia is set as default.

# OSD Language:

The On Screen Display default is English. Handle carefully as this option presents the possibility of getting lost in an unfamiliar language!

# **Audio Language**

English is set as default and is usually the only language option broadcast in Australia.

# **Subtitle Language**

Used to display Closed Captions. Closed Captions is a method of displaying text on the TV channel to assist the hearing impaired.

- . Off is set as a default.
- . To turn On Closed Captions, press the Left/Right arrow key and select English.
- . Push the Return/Exit key 3 times to return to TV viewing.
- . Closed Captions will now be displayed on all programs that broadcast Closed Captions.

# **LCN** (Logical Channel Numbering)

On is set as a default. If you do not want channels listed in logical channel number sequence, press Left/Right arrow key and select OFF.

#### **Auto Switch OFF**

You can choose to set the unit to automatically turn Off after a designated time period:

The selections are: Off (default) / 3 hours / 4 hours / 5 hours.

#### MY BOX Menu

In the MY BOX sub menu, 7 parameters can be set:

Power On At – TV is set as default, do not alter this setting / OSD Style – Blue is set as default / GMT Usage – On is set as default / Time Zone ( VIC is set as default) / Set Date / Set Time / Summer Time.

- . To select the My Box Menu, Press the Menu key on the remote control and SET UP & MORE page will be displayed.
- . Press the Up/Down arrow keys on the remote control to select SET UP.
- . Press the Left/Right arrow keys on the remote control to locate SET UP in the middle of the screen.
- . You will note 7 menu symbols at the top of the page.
- . Use the Left/Right arrow keys on the remote control and select MY BOX.
- . Push OK button on remote control and the seven MY BOX parameters will be listed.

Note: Once you have set a parameter, you can return to normal TV viewing by pressing the Return/Exit Key on the remote control 3 times.

#### Power On

TV is set as default, do not alter this setting.

# **OSD Style**

All On Screen Displays are set as Blue default. If you wish to have OSD in Green, press Left/Right arrow keys and select Green.

# **GMT Usage**

The default setting is OFF. Time follows a GMT or UTC reference generated by the broadcaster.

#### **Time Zone**

Selects an offset from GMT or UTC by State. VIC is set as default. To change to location, press the Left/Right arrow keys.

#### **Set Date**

Detected from broadcast automatically.

#### Set Time

Detected from broadcast automatically.

#### **Summer Time**

Provides an additional offset from GMT or UTC as required in some states in the Summer months. The default setting is OFF which matches the Winter months. To account for Daylight Saving time, set Summer Time to ON by actioning the following:-

- . Press the Up/Down arrow keys and select GMT Usage.
- . Press the Left/Right arrow keys to select GMT Usage ON.
- . Press the Up/Down arrow keys and select Summer Time.
- . Press the Left/Right arrow keys and select ON.
- . Press the Up/Down arrow keys and select GMT Usage OFF.



Note: To change summer time to OFF, select GMT usage ON, then select Sumer Time OFF, then select GMT Usage Off.

#### **TV SETUP Menu**

In the TV SET Up sub menu, 8 parameters can be set:

Sleep Time Off / TV Format / TV Mode / OSD Transparency / Banner Display Time / Video Output / TV Resolution / Digital Audio Output

- . To select the TV SETUP Menu, Press the Menu key on the remote control.
- . Press the Up/Down arrow keys on the remote control to select SET UP.
- . Press the Left/Right arrow keys on the remote control to locate SET UP in the middle of the screen.
- . You will note 7 symbols at the top of the page.
- . Use the Left/Right arrow keys on the remote control and select TV SETUP.
- . Push OK button on remote control and the 8 TV SETUP parameters will be listed.

Note: Once you have set a parameter, you can return to normal TV viewing by pressing the Return/Exit Key on the remote control 3 times.

# **Sleep Time Off**

You can choose to set the unit to automatically turn Off after designated Minute selections:

The minute selections are: Off (default) / 15 / 30 / 45 / 60 / 90 /120.

Press the Left/Right arrow keys to make your selection.

#### **TV Screen Format**

You can select the screen format to best match your display screen. 16:9, 16:9 fit, 4:3 LB, 4:3 Centre Cut.

Press the Left/Right arrow keys to make your selection.

#### **TV Mode**

The TV mode default is set to PAL; do not alter this selection.

#### **ODS Transparency**

You can set the Transparency of On Screen Displays.

The options are: 1, 2, 3, 4, 5, 6 (default), 7 or 8.

Press the Left/Right arrow keys to change selection.

# **Banner Display Time**

You can set the amount of time each information page is displayed in seconds.

The seconds options are: 1, 3 (default), 5, 10, 30, always.

Press the Left/Right arrow key to make your selection.

## **Video Output**

Enables selection of 3 choices of video outputs: HDMI, RCA (CVBS) Composite and Component (listed as YCbCr (YUV) in the units Video Output menu)

#### Note:

- . If you connect the HHT650 and TV by HDMI lead, the HHT650 Video Output menu will automatically list as HDMI.
- . If you connect the HHT650 and TV by RCA CVBS Component lead, the HT650 Video Output menu will automatically list as RCA (CVBS).
- . If you are connecting the HHT650 and TV by Component lead, you will need to manually select YCbCr in the

Video menu as explained in INSTALLATION Menu details.



#### **TV Resolution**

Enables selection of Video Resolution type.

Optimal video resolution depends on which video output that you have connected from the HHT650 and the TV displays capability:

- . HDMI- You can select: 1080i, Auto, 720P
- RCA (CVBS) In this Composite output video resolution 576i is the default and cannot be altered.
- . YCbCr (YUV) In this Component output video resolutions are 1080i, 720p, 576p, 576i.

#### **Digital Audio Output**

Used to select your preferred audio output to suit your decoder amplifier (i.e. when you have connected the HHT650 audio using digital coaxial output).

#### **PASSWORD MENU**

In the PASSWORD menu, 4 parameters can be set:

Menu Lock / Channel Lock / Censorship Lock / Password Lock

- . To select the PASSWORD Menu, Press the Menu key on the remote control.
- . Press the Up/Down arrow keys on the remote control to select SET UP.
- . Press the Left/Right arrow keys on the remote control to locate SET UP in the middle of the screen.
- . You will note 7 symbols at the top of the page.
- . Use the Left/Right arrow keys on the remote control and select PASSWORD.
- . Push OK button on remote control and the 4 PASSWORD parameters will be listed: Menu Lock / Channel Lock Off / Censorship Lock / Change Password.

Note: Once you have set a parameter, you can return to normal TV viewing by pressing the Return/Exit Key on the remote control 3 times.

#### Menu Lock

The default setting is Off, however to avoid inadvertent changes to the main menu function parameters that you have set up, you can choose to lock the main menu items: The Menus that will be locked are: Installation / My Box / Password / Set Default / Device Remove.

- . To set Menu Lock ON, in the PASSWORD menu page press the Up/Down arrow keys on the remote control and select Menu Lock.
- . Press the Left/Right arrow key on the remote control and select ON.
- . Press the Return/Exit key on the remote control 3 times to return to normal TV viewing.
- . With the Menu Lock ON, if any of the above listed menus are accessed, a banner will display 'The Menu Is Locked. Please Enter Password'.
- . To temporarily unlock, enter password (the default password is o, o, o, o,).
- . The Menu parameters can now be altered.
- . Once you EXIT and return to normal TV viewing, Menu Lock will be on.

#### **Channel Lock**

If Channel Lock is set to ON, the Password must be entered to access TV LIST and RADIO LIST Menus.

The default setting is Channel Lock OFF. To select Channel Lock ON, action the following:-

- . In the PASSWORD menu page, press the Up/Down arrow keys on the remote control and select channel lock.
- . Press the Left/Right on the remote control and select ON.
- Press the Return/Exit key on the remote control to return to normal TV viewing.

#### **Censorship Lock**

You can choose to block selected programs based on rating classifications: No Block / Total Block / Block G / Block PG / Block M / Block MA / Block AV / Block R.

Note: No Block is the default setting.

- . In the PASSWORD Menu press the Up/Down key and select Censorship Block.
- . Press the Left Right Key and make a selection.
- . Press the Return/Exit key 3 times to return to normal TV viewing.



# **Change Password**

#### WARNING - RECORD YOUR NEW PASSWORD

You can choose to change the Password to any four numbers The units default password is 0, 0, 0, 0.

- . In the PASSWORD Menu, press the Up/Down key and select Change Password.
- . Press either the Left or Right arrow key and banner will display 'Enter Old Password'.
- . Enter the old password (units factory default password is 0,0,0,0.) and banner will display 'Enter New Password'.
- . Enter your selected new 4 digit password and banner will display 'Confirm New Password'.
- . Enter again your new password and banner will display 'Pin Code Changed'.

- . Press the OK key on the remote control.
- . Press the Return/Exit key 3 times to return to normal TV viewing.

**SW Update:** To enable firmware updates that may occur in the future.

**Set Default:** Returns the receiver to its factory default settings

- . In the SET DEFAULT page, press the Down arrow key to select Set Default.
- . Press the OK key on the remote control and banner will display 'Set Default'.
- . Press the Left arrow key to select 'O' and press the OK key; unit will now revert back to factory default settings and Installation banner will be displayed prompting Auto Scan.

#### **NAVIKEY FUNCTIONS**

Press the NAVI key on the remote control and 8 menu symbols will be listed at the bottom of the screen.

# Navi Key – TV Guide

- . Press the Left/Right arrow key on the remote control and select TV Guide.
- . Press OK Key on the remote control and TV Channel list and channel program names will be displayed.
- . Press the RED key on the remote control to select Page Up list of channels.
- . Press the BLUE key on the remote control to select Page Down list of channels.

# Navi Key - TV List

- . Press the Left/Right arrow key on the remote control and select TV List.
- . Press Ok key on the remote control and beneath the group heading 'Visible', all TV channels will be listed as well as program viewing of the selected channel.
- . Press the Up/Down arrow key on the remote control to change channels.
- . Press the RED key on the remote control to select Page Up list of channels.



. Press the BLUE key on the remote control to select Page Down list of channels

Note: Within the TV List you can select other channel Groups that you have set up (such as Favorites list)

- . To change to other Group Lists, press the GREEN key on the remote control and the group heading (Visible) will be highlighted.
- . Press the Left/Right arrow key to change to other List groups.
- . To access the list names, press the GREEN key again.

#### Navi Key - Subtitle

Press the Left/Right arrow key on the remote control and select Subtitle.

Press the OK key on the remote control and a subtitle banner will be viewed.

- . Press the Left/Right arrow key to select TTX SUBTITLE.
- . Press the Up/Down arrow key and select 'eng'.
- . Press the OK button on the remote control.

If closed captions are being broadcast they will now be displayed.

Note: Once you change channels, Closed Captions will stop being displayed. If you want to have Closed Captions operating at all times, set up Closed Captions via the INSTALLATION Menu.

# Navi Key - Teletext

The HHT650 includes the facility to receive Teletext when broadcast.

Note: Currently broadcasters are not transmitting Teletext but use page 801 to send Closed Caption Subtitles.

Note: Teletext can also be actioned via the Teletext key on the remote control.

# Navi Key – Audio Language

The audio default is set for Left and Right Channels; do not adjust.

# Navi Key - Zoom

You can choose to Zoom out the picture 125%, 150%, 200%.

- . Press the Left/Right arrow key on the remote control and select Zoom.
- . Press the OK key in turn to select Zoom %.
- . Press the Up/Down and Left/Right arrow keys on the remote control to adjust the picture view position.

#### Navi Key - Adv Timer

The Adv Timer menu is used to set up your timer recordings: For explanation please refer to Timer Recording - Program and TV Channel Specific.

#### Navi Key – Option

- . Press the Left/Right arrow key on the remote control and select Option
- . 3 Banner headings will be viewed: press the Left/Right arrows key to select TV Set Up / Password / PVR

#### a. TV Set Up:

. Press the Up/Down arrow keys to highlight each set up mode and the left/Right arrow keys to select your preferred set up.

#### b. Password

Refer PASSWORD MENU.

#### c. PVR

Refer to RECORDING FUNCTIONS – Instant Record and Time Shift.

## Navi Key - Favorite Channels

You can set up channels into a Favorites List with a choice of 8 favorites symbols; however we recommend identifying Favorite channels with favorites symbol 1 and symbol 2.

. Press the NAVI key on the remote control and press the Left/Right arrow keys to select TV List at bottom of the page.

- Press the OK key and TV list will be displayed. ('Visible' group is all channels).
- . With the Visible TV list displayed, press the NAVI key again and menu symbols will appear at the bottom of the page.



. Press the Left/Right arrow key to select Favorites.

- . With a channel selected, press the OK key on the remote control and 8 Favorites Symbols will display.
- . With a channel selected, press the right arrow key and select symbol 1.
- . Press the OK key to highlight symbol 1.
- Press the Yellow key on the remote control and banner will display 'Save Changes?.
- . Select 'O' and press OK key on the remote control.
- . Press the Up/Down key to select other channels and repeat the process above to add other channels to your Favorites List.

# Fav Key

- . To access your Favorites List, press the FAV key on the remote control.
- . On the channel you are currently viewing, a Favorites symbol will be displayed at the right of the screen.
- . Whilst the symbol is displayed, press the OK key on the remote control and your Favorites List will be displayed.
- . Press the Up/Down arrow keys to select each channel and push the OK key to view the selected channel.

In the TV List page, when you press the NAVI button again, as well as the Favorite menu symbols you will note other menu symbols as follows:

Lock: Refer Channel Lock details in the PASSWORD Menu details.

**Edit:** You can rename channels: Rename the channel in the key board page then select the floppy disk symbol on the keyboard page and press the OK key on the remote control to save the changes.

**Move:** You can move channels to different position in your TV Channel List.

**Sort:** You can sort channels in order; example A to Z.

**Skip:** You can identify channels that you want to skip when switching channels.

**Del:** You can select channels that you want to delete.

**Search:** 'Search' is based on the current channel list. With the Search menu, you can identify channels you want to search for within the channel list



#### RECORDING FUNCTIONS

Connect a USB memory stick or hard disk drive storage device to the host USB-2 connector on the receiver's front panel.

Your receiver has been tested with a wide range of USB Storage Devices of sizes of up to 2TB <u>including</u> those USB powered, however it may not be compatible with every USB storage device available. Your receiver is special in that it reads / writes in either FAT32 or NTFS format, resulting in broader compatibility with existing files and drive formats.

Note: **N**ew **T**echnology **F**ile **S**ystem volumes use advanced data structures that improve disk performance, reliability, space utilization and manage disk errors more readily.

# Formatting your USB Storage Device



Formatting a storage device configures it with a file system that enables your receiver to store information on it, clearing all available space for reliable record and replay. This receiver even formats storage devices to their FAT32 or NTFS default, resulting in better device compatibility.

Formatting a storage device with recordings or files on it deletes existing files and recordings, permanently!

To format a storage device, action the following:-

- . Press the USB key on the remote control and MY RECORDER page will be displayed.
- . Press the NAVI key and the 7 Navi menu symbols will display at bottom left of screen.
- . Press the right arrow key on the remote control until Device is selected.
- . Press the OK key and the Format menu displays showing storage device, Free Used and Total capacity.
- . Press the down arrow key on the remote control until Format is selected.
- . Press the OK key to start. Display asks: Formatting this partition? Press the OK key to start Formatting.
- . The larger the drive, the more seconds will be required. Success will flash on screen momentarily. Confirmation display shows disk Free, Used and Total space. Successful Formatting renders the Used space as 0MB.

#### Instant Record

Please note the following prior to actioning an Instant Recording:

In the PVR page within the OPTION menu, you can choose to have One Button Timer Recording ON or OFF.

The Units default is OFF; and in this mode a Recording Interval Banner will display when you press the REC key on the Remote control allowing you to set a recording finish time.

In the ON mode, Recording Interval Time Banner does not appear and the recording will continue until you manually stop the recording by pressing the STOP key on the remote control. If you want to change the setting to ON, please action the following:

- . Press the NAVI key on the remote control.
- . Press the Left arrow key on the remote control and select the OPTION menu symbol at the bottom of the page.
- . Press OK and you will note 3 banner headings: TV Set Up / Password / PVR.
- . Press the right arrow key and select PVR.
- . Press the Down arrow key and select One Button Timer Recording and select ON.

# Instant Recordings can now be actioned as follows:

. With your selected TV program, press the REC key on the remote control

and a Recording Interval Time Banner will be displayed. (i.e. when One Button Timer Recording mode is 'OFF').

- Press the Left/Right arrow keys on the remote control and select a recording duration (you will note increments of 15 minute selections).
- Once you have selected recording duration, press the OK key on the remote control.
- . Recording will commence and a time elapsed box will be displayed.
- . You can choose to Stop the recording prior to the completion of the recording duration that you originally set by pressing the STOP key on the remote control and a banner will display 'Stop Recording?'. Press the OK key on the remote control and recording will stop.



#### Timer Recording – Program Specific

- . Press the EPG key on the remote control and TV Guide page will be displayed.
- Press the Up/Down arrow key on the remote control to select a TV Channel.
- . Press the Right arrow key on the remote control to move to the Channels
  - programs on the right side of the page.
- . Press the Up/Down arrow key on the remote control to select a program.
- . Press the YELLOW key on the remote control and ADV TIMER page will be displayed overlaid by an EVENT EDIT TIMER page.
- On the Event Timer page, Start and End time of the selected program will be listed.



- . Mode will list ONCE: Press the right arrow key on the remote control to change to other modes: Weekly / Weekenday / Week Day / Daily.
- . IMPORTANT: Make certain the Timer Mode is listed as RECORDER.
- . Push the OK key on the remote control and the complete ADV TIMER page will be viewed listing your timer recording as confirmation.
- . Press EXIT key on the remote control to return to normal TV viewing.

# Timer Recording – TV Channel Specific

- . Press the EPG key on the remote control and TV Guide page will be displayed.
- . Press the Up/Down arrow key on the remote control to select a TV Channel.
- Press the YELLOW key on the remote control and ADV TIMER page will be displayed.
- . Press the Down arrow key on the remote control to select an Event line.
- . Press the OK key on the remote control and EVENT EDIT TIMER page will be displayed.
- . Press the Down arrow key on the remote control to select each of the following:-
- **Start Date:** input your required Date using the remote control number keys.





- **Start Time:** Input recording commencement time using the number keys on the remote control.
- End Time: Input recording finishing time using the number keys on the remote control.
- Mode: Press the right arrow key on the remote control to select recording frequency.
- Timer Mode: Make certain RECORDER is selected.
- . Press the OK key on the remote control and the ADV TIMER will be displayed listing your timer recording as confirmation.
- . Press the Return/Exit key on the remote control 3 times to return to normal TV viewing.

# You can view the ADV TIMER page at any time to view your list of upcoming Timer Recordings

- . Press the Navi key on the remote control.
- . Press the right arrow key on the remote control and select ADV TIMER listed in the symbols at the bottom of the page.
- . Push Ok key on the remote control and ADV Timer list will be displayed.

#### Playing Back Your Recorded Files

- . To play back you recorded files, press the USB key on the remote control and a MY RECORDER page will be displayed with a list of your recorded files.
- . Press the Up/Down key on the remote control and as you select each program the first frame of the recording will be viewed in the video window on the right of the screen.



- . Press the YELLOW key on the remote control and a 'Playback Last' box will be displayed.
- . To play back the recording from the beginning of the recording select,  ${\bf X}$  and press OK button on the remote control
- To play back the recording from your previous last viewing position, Select
   O and press OK button on the remote Control and recording will commence play.

Note: As the recording plays, by pressing the INFO key on the remote control a banner will be displayed with various file information: File Name / File Number / File Length / File Size (capacity).

# Fast Forward through a recording

There are 8 Forward speeds that you can select by pressing the ►►FWD key on the remote control in turn.

Press Play key on remote control at any time to revert to normal play.

#### Fast Rewind through a recording

There are 8 Rewind speeds that you can select by pressing the ◀◀ REV key on the remote control in turn.

Press Play on remote control at any time to revert to normal play.

#### MANAGE YOUR RECORDED FILES

Press the USB key on the remote control and MY RECORDER page will be displayed.

Press the NAVI key on the remote control and you will note the following symbols at the bottom of the page:-

**Enable Arrow Key:** Marks selected files that you want to delete. (See Del below)



**Edit:** You can rename your recorded files: Rename the file in the key board page then select the floppy disk symbol on the key board page (Yellow when highlighted) and press the OK key on the remote control to save the changes.

**Vol:** Enables Volume up and down.

**Del:** You can delete a recorded file: You must have previously marked the file; refer Enable Arrow key above.

**Device:** Refers to the attached USB device and enables formatting of your USB storage device.

Option: Refers to PVR Time Shift as explained in Time Shift below.

#### TIME SHIFT

Connect a compatible USB storage device. A proportion of the available storage space is allocated automatically for TimeShift.

Time shifted live TV gives the flexibility of pausing and rewinding live TV programs at any time.

Time Shift can be set as: Off / Pause / Auto

- . In PAUSE mode, time shift is operated by pressing the PAUSE key.
- . In AUTO mode, time shift is always operating.

- . Press the NAVI key on the remote control and 8 menu symbols will be listed at the bottom of the screen.
- . Press the Right arrow key on the remote control and select OPTION.
- . Press the OK key on the remote control and 3 Banner headings will be viewed.
- . Press the Right arrow key on the remote control to select PVR.
- . Press the Down arrow key on the remote control and select Time shift.
- . Select either Pause or Auto.
- . When viewing TV programs, press the ◀REV key on the remote control to go back to any position in the time shift program.
- When viewing TV programs, press the ► FWD key on the remote control to move forward within the time shift program.





The time shift data is held within the buffer of your attached USB device and when the data buffer is full, the oldest time shift recorded data is deleted to enable space for new time shift recorded data. However, if you want to keep the time shift program content; it can be recorded to hold in your recorded files within the MY RECORDER page.

- . To record time shift content, press REC button on the remote control and a Recording Interval Time Banner will be displayed. Press the Left/Right arrow keys on the remote control and select a recording duration (you will note increments of 15 minute selections).
- . Once you have selected recording duration, press the OK key on the remote control. Recording will commence and a time elapsed box will be viewed.

# **USB Storage Device Capacity**

As the size of and space available on your USB storage device impacts the amount of recorded content that can be stored, following is an overview of what you can expect.

The receiver captures the broadcaster's stream, which they vary in bit rate balancing program quality and available bandwidth. Therefore, exact figures are complicated to calculate but the following can be considered a guide:-

- An average of 3GB per recorded hour is need for Standard Definition content in MEPG2.
- · An average of 9GB per recorded hour is needed for High Definition content in MPEG2
- Based on this, a 1TB Storage Device can hold an average of 110 hours of HD and 330 hours of SD program content in MPEG2. MPEG2 is the default encoding broadcast in Australia, although your receiver is equipped to decode H.264 or MPEG4 which approximately doubles the amount of recorded content per gigabyte.

#### **MULTIMEDIA**

Attach a USB storage device with the files you wish to play saved on it.

# **Play PHOTO Files**

- . Press the Menu key on the remote control and SET UP & MORE page will display.
- Press the Up/Down arrow keys on the remote control and select MULTIMEDIA.
- Press the Left/Right arrow keys on the remote control to locate PHOTO in the middle of the screen.
- . Press the OK key on the remote control and Photo Thumbnail page will display.
- . On the left of the page your files will be listed.
- . Press the Up/Down arrow key on the remote control to select a Photo file.
- . With a Photo file selected, press OK key on the remote control and all photos in the file will be listed on the right of the screen.





- . Press the Right arrow key on the remote control to move to the list on the right and press the Up/Down arrow keys to select a photo.
- . Press OK key on remote control (or Yellow key) and Photo will display.

With a photo displayed, there are other functions that can be actioned as follows:

Press the NAVI key on the remote control and 8 menu symbols will be listed at the bottom of the page as follows:

**Turn Left:** Orientate photo to the left. **Turn Right:** Orientate photo to the right.

**Zoom+:** Zoom out. **Zoom-:** Zoom In.

Music:

If you also have music files, you can play music while photos are in view. With the Music menu symbol selected, press OK key on remote control and press OK. Files will be listed. Select a music file and push OK.

**Vol:** To increase or decrease volume. **Info:** details the photo file information.

Option:

With Option logo selected, press OK key on remote control and a banner will display the following:

- Random: To run the photos in random order, select ON.
- Repeat: To enable all photos (multiple) in the file to run automatically, select ALL.
- Interval Time: When running multiple photo files, you can set the interval between Medium / Fast / Slow.
- **Effect:** A visual graphic 'effect' for each photo file. Select On or OFF.

# **Play MUSIC Files**

- . Press the Menu key on the remote control and SET UP & MORE page will display.
- . Press the Up/Down arrow keys on the remote control and select MULTIMEDIA.
- . Press the Left/Right arrow keys on the remote control to locate MUSIC in the middle of the screen.
- . Press the OK key on the remote control and MUSIC THUMBNAIL page will be displayed.
- . On the left of the page your files will be listed.
- . Press the Up/Down arrow key on the remote control to select a music file.
- . With a music file selected, press OK key on the remote control and all music files will be listed on the right of the screen.
- . Press the Right arrow key on the remote control to move to the list on the right and press the Up/Down arrow keys to select a music file.

. Press OK key on remote control (or Yellow key) and music will play.

On the left of screen you can choose to have either Lyrics or Information. For the right of screen, you can choose to have Equalization displayed or music Cover displayed.

- . As the music is playing, press the NAVI key on the remote control and 2 menu symbols will be listed at the bottom of the page.
- . Press the Right arrow key on the remote control and select the menu symbol Option.
- . Press the OK key on the remote control and a banner will display enabling you to make display selections.

#### **Play MOVIE Files**

- . Press the Menu key on the remote control and SET UP & MORE page will display.
- . Press the Up/Down arrow keys on the remote control and select MULTIMEDIA.
- . Press the Left/Right arrow keys on the remote control to locate MOVIE in the middle of the screen.
- Press the OK key on the remote control and MOVIE THUMBNAIL page will be displayed.
- . On the left of the page your files will be listed.
- . Press the Up/Down arrow key on the remote control to select a MOVIE file.
- . With a Movie file selected, press OK key on the remote control and all movies in the file will be listed on the right of the screen.



- . Press the Right arrow key on the remote control to move to the list on the right and press the Up/Down arrow keys on the remote control to select a movie file.
- . Press OK key on remote control (or Yellow key) and movie will play.

With a movie playing, there are other functions that can be actioned as follows:

Press the NAVI key on the remote control and 8 menu symbols will be listed at the bottom of the page as follows:-

**Go To:** To move to any section of the movie.

- Select **Go To** and press the OK key on the remote control. A counter time banner will be displayed.
- Using the remote control number keys, input the time section of the movie you wish to move to.
- Press OK and the movie will move to that point.

**Step:** You can forward the movie in steps of one video frame.

- Select **Step** and press the OK key on the remote control to forward a step at each press.
- At each press, the frame will be 'Paused'.
- Press the Yellow key on the remote control to return to normal speed.

Vol: To increase or decrease volume.

**Zoom +:** Zoom out. **Zoom-:** Zoom in.

**Info:** Details the movie information.

**Option:** There is no need to change the setting.

Audio Language: Parameters have been set as a default. (there is a

banner that appears, but the settings cannot be changed).

**Subtitle:** If Closed Captions have been embedded in the movie, select **Subtitle** and press the OK key on the remote control. In the Subtitle banner displayed, select YES.

Note: This receiver stores Secondary transmitter or Translator channels by assigning a 35# prefix to each channel number. This point is helpful to understand as this receiver can receive channels not intended for your area. Secondary transmitters serve difficult reception areas and are usually less powerful, so a Primary transmitter can be a more reliable source of your TV signal.

**TROUBLESHOOTING:** Check your receiver with the suggestions below.

PROBLEM	SUGGESTION
No Power	Check the power cord is plugged in – at both ends
No Reception	Check operational antenna: is cable properly
	connected?
Receiver not responding	Check Remote Control batteries are fresh and
to the Remote Control	battery contacts are free from corrosion.
Unit	
The receiver is not	Disconnect the receivers' mains power. Wait about
responding to the remote	1 minute and power the unit up again. You may
control or front panel	need to reset to Factory Default and rescan
I can see the menu but	First check a functional antenna is properly
cannot view any	connected.
channels	Then scan for Digital channels available in your
	area by selecting Main Menu, Set Up, and
	Installation sub menu.
Receiver On but I cannot	Check the required AV or HDMI cables are
see Video or Audio	properly connected – at both ends.
After scanning I cannot	Your antenna system may need to be updated for
see all of the channels	Digital reception by an experienced specialist.
available in my area	
One or more of my	This also indicates that your antenna may need
channels 'breakup' while	professional attention.
viewing	
	Check the Red and White audio leads from the
No Audio	receiver are properly connected.
	2. Check the Mute is not activated on the receiver.
	3. Check the receivers' volume level is high
	enough.
Receiver does not	Make sure you have turned Closed Captions on in
display 'Closed Captions'	the menu or by the subtitle key. Allow 30 seconds
or Teletext	for it to commence. Not all programs include Cc's.
	SBS seldom sends Cc's opting for on screen
	subtitling instead.

#### **SPECIFICATIONS**

- . Decodes High Definition and Standard Definition Digital Terrestrial TV & Radio.
- . Video Outputs: HDMI, Component YPbPr, and Composite CVBS.
- . Video Resolutions: 1920 x 1080i, 1280 x 720p, 720 x 576p or 720 x 576i.
- . Aspect Ratios: Widescreen 16:9, Centre Cut 4:3 or Letterbox 4:3.
- Audio Outputs: CD quality Analogue via Red/White RCA's or Digital Coaxial for AC3 5.1 where broadcast.
- . Audio Modes: Stereo, Dual Channel or Mono.
- . Teletext via integrated software decoder where broadcast.
- . Closed Captions via Teletext decoder (page 801).
- . EPG Information: 7 day SI EIT p/f tables (including crossover).
- . Tuner Sensitivity: Typical -79dB.
- . Frequency Range: VHF & UHF 175 860MHz.
- . Channel Bandwidth: 7 MHz.
- . Modulation Mode: COFDM 8K or 2K, automatic detection.
- . Constellation: QPSK, 16QAM or 64QAM.
- . Guard Interval: 1/4, 1/8, 1/16 or 1/32.
- . IR Receiver 38KHz.
- . USB-2: Host connection for NTFS or FAT32 formatted storage devices.
- . Media Player plays .dat, .mpg, .mpeg, .ts, .mp4, divx, .avi, .mjpg, .mp3, .aac, .wma, .ac3 files and more.
- . Mains Power AC90-260 Volts @ 50/60Hz.
- . Power Consumption rated at 7W, < 1W standby
- . Energy Safe MEPS compliant.
- . Operating Temperature 0-40°.
- . Case Dimension 220mm Wide x 42mm High x 155mm Deep
- . Weight: 0.6Kg.
- . Accessories Included:
  - 1 x Remote Control Unit,
  - 2 x AAA Batteries,
  - 1 x 3RCA-3 RCA AV lead,
  - 1 x Operating Manual.

# WARRANTY

Subject to the conditions stated below, healing digital warrants your new receiver to be free of defects in workmanship and materials for 12 months from the date of purchase. For the period of warranty healing digital's obligation includes labour and materials, but excludes neglect, accident, abuse and transportation to and from healing digital's service station. Healing digital will not be liable for consequential loss or damage arising from any function of the receiver. healing digital reserves the right to determine at is sole discretion fault cause. In the event of a claim, proof of purchase in the form of your Tax invoice and this warranty slip may be required. This warranty applies to the original purchaser only and is not transferable. The benefits conferred by this warranty are in addition to rights provided under relevant State or Federal legislation, but excludes any other expressed or implied warranty.

www.healingdigital.com

42 Brunel Road, Seaford VIC 3198, Australia





# HHT650 HD Digital TV Receiver

Copyright © 2011 www.healingdigital.com

Designed and produced in Australia