



HHT898 HD Digital Television Receiver

HHT898 HD Digital Television Receiver

Operating Manual

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1. General Information

1.1 Important Safety Instructions

Please read and save for future reference

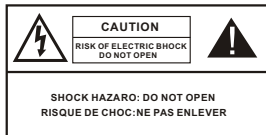
Thank you for choosing our product. Before installation, please consider the following points, important for safe operation:

- Read this user manual before installing.
- Never open the cover, it is very dangerous to touch internal parts due to the possibility of electric shock.
- If not used for months, remove the power plug out from the outlet. Do not use if power cord is damaged.
- If liquid flows into the unit, to prevent electric shock or fire - disconnect the power cord immediately.
- Place the receiver in a well ventilated location, away from sources of heat.
- A functional TV Antenna, properly aligned and connected is required. In the event of No signal you may need to obtain the services of a professional Antenna installer equipped with a BER meter.
- Install the unit on a horizontal flat even surface for reliable operation.
- Should the receiver be moved to a hot area from cold or vice versa, leave the power disconnected for say 2 hours to allow the electronics to acclimatize.
- Install the unit in place with:
 - Good Ventilation
 - Temperature around 20 degrees Celsius
 - No Direct Sunlight
 - Low Humidity
 - Low Vibration
- Do not put heavy objects on the top of your receiver.

1.2 Additional Safety Information

- Operate receiver in a clean space with sufficient ventilation.
- Do not cover the STB ventilation holes or place it on an object that emits heat.
- Clean the case with a soft cloth and a weak cleaning liquid solution.
- Do not remove the cover.
- Do not expose to extreme heat, cold or humidity.
- Liquids, paper clips, staples or any other materials allowed inside the receiver may destroy it.

1.3 Rear Panel Markings



General:

This mark appears on the rear panel of the receiver.

Part 1

This mark consists of two graphical Warning messages. The detailed specifications are as follows:

CAUTION:

To reduce the risk of electric shock, do not remove cover (or back). Equipment service and maintenance should be undertaken only by trained personal.

Part 2

The symbols mean:

The lightning flash with arrow symbol within an equilateral triangle, is to alert the user to the presence of dangerous voltage within the product that may be of sufficient magnitude to constitute a personal risk.

The exclamation point within an equilateral triangle, is intended to alert the user to the presence of important operating and maintenance and or servicing instructions in the literature accompanying the appliance.

1.4 General operation of receiver

This Manual explains the everyday functions of your receiver. Functions are accessed through on screen menus intended guide you through installation, channel organization, viewing, media playing and more.

All functions can be accessed by using the keys of the Remote Control Unit, and some can also be accessed by using the keys on the front panel. Should you encounter difficulty operating our unit, please read the Trouble Shooting section in this manual carefully before calling for help.

1.5 Unpacking

Please open the package and make sure the following items are inside:

- Remote Control Unit (RCU)
- User's Manual
- Digital Satellite Receiver
- AV hook up lead
- RCU batteries

2. Main Features

- Consumes less than 1W on Standby
- ISO/IEC 13818-2 MPEG-2 MP@ML, up to 1080p @30fps
- ISO/IEC 14496-2 MPEG-4 SP and ASP, up to 1080p @30fps
- ITU-T H.264, ISO/IEC 14496-10(MP&HP@L4.1), up to 1080p @30fps
- VC-1 MP@HL and AP@L3, up to 1080p @30fps
- Hardware JPEG integrated, scaling down ratios: 1/2, 1/4, 1/8
- Audio decoder compliant with MPEG-1, MPEG-2(Layer I/II), MP3, WMA, AAC-LC
- Stereo audio description decoding supported
- RA8-LBR decoding supported
- 1080p/1080i/720p/570p/480p/576i/480i YPbPr/RGB component output supported
- HDMI 1.3 transmitter output interface with embedded or external HDCP key
- HDCP 1.2 encryption engine built in
- IEC60958 PCM or IEC61937 compressed audio format supported
- Hardware video resolution up to 1080p @60Hz
- Electronic Program Guide (EPG) full function
- Multi-language audio and subtitle reception (where broadcast)
- Teletext and subtitle output through On Screen Display
- PVR function supported, recording TV ,advanced timeshift function and playback media files with external storage devices (USB stick / USB HDD)
- Plays JPEG, BMP, PNG picture files
- Plays WMA, MP3, AAC (.wma, .mp3, m4a) music files
- Plays MPEG1, MPEG2, MPEG4, H264, Motion JPEG, AVI, MPG, MP4, TS, TRP, TP, MOV, MKV, VOB, DAT (.mp4, .mov, .mkv, .mpg, .avi, .ts, .tp, .trp, .dat, .vob) movie files
- Software upgradeable by USB2.0 interface

3. Control and Functions

3.1 Remote Control Unit



POWER	Turn on/off the STB
TV/USB	Hot key for USB function
MENU	Show the main menu on the screen or jump back to previous menu from sub-menu
MUTE	Enable or disable the audio output
0-9	Select channels or enter programming
EXIT	Exit from the current menu and stop adjusting settings
OK	Confirm the selected item in the menu screen or show the channel list
CH+/CH- () ()	Channel change or move cursor up or down
VOL+/VOL- () ()	Volume Control or move cursor left or right
EPG	Display the TV/Radio programme Guide
CH.FAV	Display the favourite list
AUDIO	To set the R/L speaker output and change the Audio Language (if available)
INFO	To display channel status or various program information of current channel
RECALL	Switch to the last viewed channel
ZOOM	Zoom in the selected picture
SUBTITLE	Switch to subtitle mode
●	Record current channel
⏸	Pause or resume play
■	Stop playback or recording
⏩	Fast forward
⏪	Fast backward
⏭	Switch to next Item
⏮	Switch to previous Item
REC LIST	Hot key for PVR list
GOTO	To locate a position to play in multimedia playback
SCH.LIST	To display the schedule plan
ASPECT	Switch between different screen aspects(4:3 and 16:9)
A-B	To Active A-B function when timeshift
FORMAT	Switch between the different resolutions
TTX	Switch to teletext mode
TV/RADIO	Switch between TV and Radio mode
HDMI	Switch the resolution

3.2 Front Panel



KEY	FUNCTION
POWER	Turn on/off receiver
CH+ / CH-	Channel change(Up/Down)

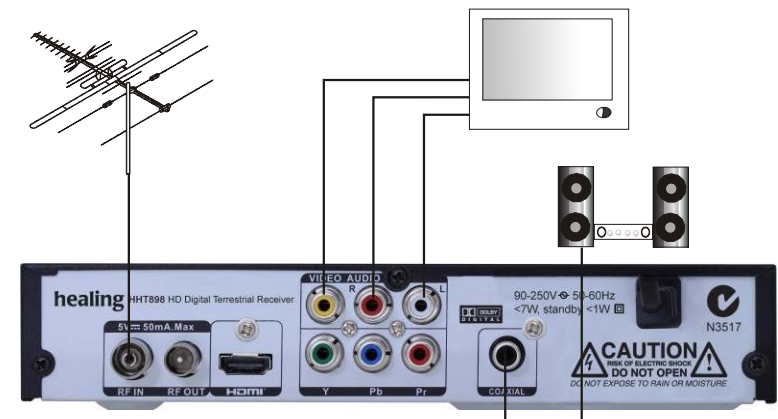
3.3 Rear Panel



CONNECTOR	FUNCTION
RF IN	Connect to terrestrial antenna
RF OUT	RF signal loop out
VIDEO	Connect to the TV's CVBS port
AUDIO R/L	Connect to the TV's audio port
Y/Pb/Pr	Connect to TV's Y/Pr/Pb ports
HDMI	Connect to TV's HDMI port
COAXIAL	Connect to the TV for digital audio output

3.4 Installation of receiver

Please find relevant reference of installation described as below: When connecting external equipment to the receiver, be sure to check for related instructions on proper installation.



4. Installation Guide

First time installed, the Installation Guide menu is preset for English language and Australia. Press **OK** to search. After Auto Search you can skip directly to using your receiver.

- Press **Up** or **Down** key to select OSD Language or Country;
- Press **Left** or **Right** keys to select options;
- Press **OK** to Auto search channels or Press Menu key to enter Main Menu.



5. Channel Search

- From Main Menu press **Left** or **Right** key until Channel Search is highlighted, and press the **OK** key.
- This menu provides Auto Search to scan the whole TV band or Manual Search to scan one channel.



5.1 Country

- Press **Up** or **Down** key to chose Country, then **Left** or **Right** to change country option.

5.2 Antenna Power

Use Antenna Power ONLY when a 5V amplifier is connected!

Press **Up** or **Down** key to highlight Antenna Power.
Press **Left** or **Right** to turn On or Off. Default is Off!

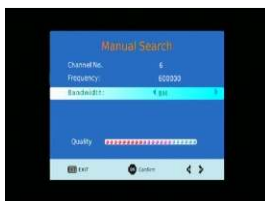


5.3 Auto Search

- Press **Up** or **Down** key to chose Auto Search, then press the **OK** key to begin Auto search of all TV channels.

5.4 Manual Search

- Press **Up** or **Down** key to chose Manual Search, then press **OK** to scan a 1 single TV channel.
 - a) by Channel No., press **Left** or **Right** to chose,
 - b) by Frequency, directly enter centre Frequency number and Bandwidth with **Left** or **Right** keys.
- When a channel is selected, signal Strength and Quality bars indicate the presence of signal. Press **OK** to begin.



6. Channel Manager

This menu allows you Delete, Lock, Move, Rename Skip or Sort programs and select Favorite programs, etc.

6.1 Program Edit

In this menu, programs can be edited as follows:

- **Move(Red key)**: change programs' position;
- **Skip(Green key)**: skip one or more programs;
- **Lock(Yellow key)**: lock one or more programs to block;
- **Delete(Blue key)**: Delete one or more programs;
- **Fav(Fav key)**: classify one or more programs to related class;
- **Rename(Recall key)**: rename a programs name;



6.2 Sort

This item can set up the index of sorting channels.

- Press **Left** or **Right** key to choose indexing order between Service ID, Service Name, ONID, LCN;

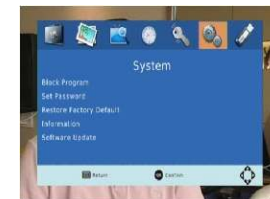


6.3 LCN (Logical Channel Number)

To sort channels by their LCN Press the **Left** or **Right** key to switch On or Off. When LCN is on, programs will list according to their LCN when scanned.

7. System

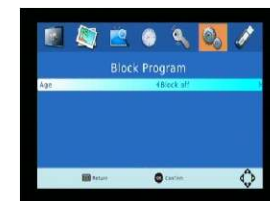
- System settings menu provides the following sub-menus:
 - Parental Guidance**
 - Set Password**
 - Restore Factory Default**
 - Information**
 - AV Setting**
 - System Option**
 - Time Setting**



7.1 Parental Guidance

Block Program limits program access the by the program rating classification. System password must be correctly entered first. Default password is 000000.

Press **Left** or **Right** key to chose and **OK** to confirm Program parental control level.



7.2 Set Password

Your receiver provides an active system lock which allows you to limit menu and settings access by means of a six-digit security code. Default password is "000000". To change:

Enter Old Password

Enter New Password

Confirm New Password

Note: record a new password so you won't lose it!



7.3 Restore Factory Default

- Allows user to restore the factory default values.
- When you press the **OK** key, the Password box appears. Enter the password. The Warning window will appear. If you select Yes, the system will be reset to factory default values, and channels found will be lost.

Warning: Factory defaults loses all set up data and information. USB program recordings are not effected.



7.4 Information

- Displays model name, Software and Hardware Versions.



7.5 AV Setting

Alters parameters of Video and Audio output as required.

- **Aspect Ratio:** Select the TV Screen format from: 4:3 or 16:9 and letter box or panscan.
- **Resolution:** Select the HD picture resolution from: 1080i, 720p, 576p or 576i.
- **TV Format:** Select the TV output format from AUTO, PAL and NTSC.
- **Video Output:** Select the Analog video output format: RGB component, CVBS composite etc.
- **Brightness:** adjust from default settings to taste.
- **Saturation:** adjust from default settings to taste.
- **Contrast:** adjust from default settings to taste.



7.6 System Option

Here you can select On Screen Display (OSD) Language, Subtitle Language, Audio Language, Digital Audio and Audio Description modes, where broadcast.

- **OSD Language:** Press **Left** or **Right** keys to select your desired language.
- **Subtitle Language:** Select the first language to play if this language is supported by current subtitle data. This depends on the TV broadcaster providing this option.
- **Audio Language:** Select the first language to play if this language is supported by current subtitle data. This depends on the TV broadcaster providing this option.
- **Digital Audio:** Press **Left** or **Right** keys to select digital audio output mode from PCM, RAW or Off.
- **Audio Description:** Press **Left** or **Right** keys to adjust the level.

Note: **Audio Description** refers to an additional narration track for the visually impaired. It consists of a narrator describing what is happening on screen during the natural pauses in the audio. This function can be activated when a programme containing an additional AD narration track is broadcast.



7.7 Time Setting

Set local time according your location and sleep timer.

- **Time Offset:** your receiver sees GMT or UT time information automatically in each broadcast. An offset of 10 hours for Eastern Australia is set Automatically but can be set manually if necessary.
- **Country Region:** Select a reference region or country
- **Time Zone:** Select GMT offset for your region, with current date and time.
- **Sleep:** Select put your receiver to sleep at a specific time.



8. Game

Six games are included in your receiver: Tetris, BoxMan, Snakes, Gobang, Jigsaw and Reversi.

- Press the **OK** key to enter Game list menu.
- Press **Up** or **Down** key to choose a Game, and press the **OK** key to begin.

9. General Viewing Function

The following describes the basic function of your STB while watching TV or listening to Radio.

9.1 Program Information

This section explains the general program Information sent by the broadcaster.

- First press of the **Info** key reveals a basic Information banner at the bottom of the screen.
- Second press of the **Info** key shows a more detailed description of the current program.
- When the information banner is being displayed, pressing **Left** or **Right** keys shows Current and Next Programme Information. Press **Up** or **Down** keys to view to previous or next Programme Information.
- Press **Info** key again to remove the Information banner.

Note: Sending Program Information is a Broadcaster option.



9.2 Channel List

- In full screen play mode, press the **OK** key to display the Channel List.
- Press **Up** or **Down** and **OK** keys to select another channel.
- Press the **Exit** key to quit.



9.3 EPG (Electronic Program Guide)

Electronic Program Guides (EPG) are broadcast to simplify navigating the possible viewing options. This receiver is equipped with a unique dual EPG system, an easier way to view Program Guide information. The Guide supplies information such as program title, starting and ending times and description for all available programs.

- Press the **EPG** key to show the Program Guide menu.
- Press **Up** or **Down** to view the information in 7 days.
- **Yellow** and **Blue** keys change detailed information page.
- Press the **OK** key to book selection to a timer event.
- Press the **Info** key to edit timer events.
- Press **Left** or **Right** key to change current channel.



9.4 Favourite List

- Press **FAV** key to enter Favourite channel list. In Favourite list screen, press **FAV** key again to choose favourite type.



9.5 Audio

Volume

- Press **Left** or **Right** keys to adjust the sound volume.
- **Mute** key stops sound, press **Mute** again to restore.
- **Left** or **Right** keys also can restore sound.

Audio Control

- Broadcasters can transmit multiple audio languages, simulatously, at their option.
- Press the Audio key then **Left** or **Right** key to select one of three possible audio settings Left, Right or Stereo.
- Press the Audio key then **Up** or **Down** key to select Audio Language. This option will only be seen when broadcast.

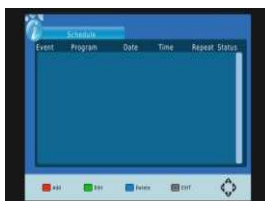


9.6 TV/Radio

Some broadcasters provide extra sound only services simply called Radio. While watching a TV channel, press the **TV/Radio** key to switch between TV and Radio mode. Press again to escape Radio mode.

9.7 Recall

Press **Recall** key to switch to the last channel selected.



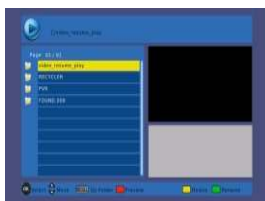
9.8 Record Timer

Press the **REC TIMER** key for fast access the timer Schedule, to schedule a Recording or Replay. This function also can be accessed by EPG menu.

Note: To set up Switch Off timer, please refer to menu System Setting: Time Setting Sleep item.

9.9 Record List

Press **REC LIST** key for fast access PVR recording files.



10. USB Function

Your receiver intergrates USB2 port, which supports the following devices:

- USB portable hard disc drives
- USB memory sticks

Note: computer devices such as keyboard and mouse are not supported.

A USB device is inserted flag indicates a USB device has been connected, is recognized and will shortly be available for use.

USB functions include:

- PVR (Personal Video Recorder) records programs with perfect picture quality.
- TimeShift records a program so you can Pause and Rewind live TV.
- Multi-Media file play replays recordings of many different file formats.
- Photo Display can make a show of the pictures you want.
- Software Upgrade in the event that it is necessary.

Extended USB function:

- NTFS and FAT32 Multi file formats supported.
- Multiple disk partition support.
- Multi USB device support by USB hub.
- Multiple file extension names supported:
BIN----Update file JPG----Picture
MP3----Audio file and TS----PVR Record
Multimedia video file extension also supported.
- Most Hard Disk Drive types are supported.
- Unlimited HDD capacity: Supports all current drive sizes.

USB Menu

Accessed from the Main Menu, in the USB menu there are 4 sub menus:

- Multimedia**
- Photo Configure**
- Movie Configure**
- PVR Configure**

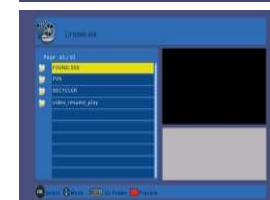
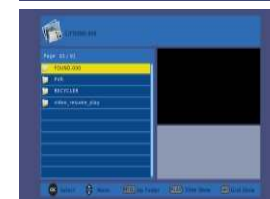
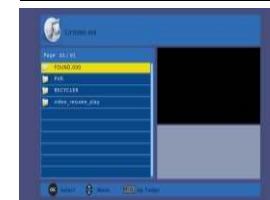
Multimedia sub menu includes another four sub sub menus:

Music, Photo, Movie and PVR.

These sub menus each have screens divided into four areas that show: folder name, file list, video window and file information. Press the **Up** or **Down** key to select a file and **OK** key to start to play. Press **EXIT** or **RECALL** keys to go back to parent folder.

Photo Player

There are three parts in this Sub Menu: folder and file list, video window and file information.



Press the **OK** key to enter directory or start to show current photo file. Press the **Recall** key to go back to parent folder. The keys at the bottom of each screen show options that differ slightly with each function.

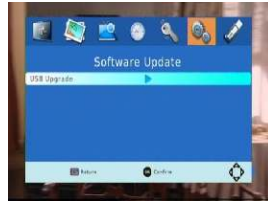
USB Upgrade

This item allows user to install new firmware from a USB HDD or Key using the following steps.

1. Copy new firmware file to a USB storage device. It should be named 'usb_upgrade_all_flash.bin'
2. Insert USB storage device into receivers USB port.
3. Go to USB menu, and select "Software Update".
4. From popup menu, select YES key. The receiver will auto reboot and start update process.

Warning: while updating the receiver must not be disconnected from power, but must wait for the update to finish.

Firmware update must only be done with files built to address the heating HHT898 receiver or you may risk permanent receiver damage.



PVR (Personal Video Recorder) Operation

You can record pictures and sound to your USB2 storage device to play later. Any program can be recorded while you watch it, by pressing the **REC** key. Enter Record, waiting banner pops up followed by a progress flag in the top left of the screen. Press the **INFO** key once to monitor progress, twice to see Recording and HDD details. Press the **Stop** key to stop recording.

PVR also includes a useful TimeShift feature.

Time Shift

TimeShift effectively pauses live TV to watch later:

- Whilst watching TV, press Pause key to start TimeShift. This freezes the picture and sound and begins saving the program to USB storage.

Resume watching a time-shifted program:

- Press key to play video content. Program will play from the point you paused. Status bar indicates how long the program has been paused. Press **Pause** key to pause video playback again.
- Fast Forward through time-shifted TV at speeds of X1, X2, X4, X8, X16 and X32, or Fast Rewind.

How to start a A-B function

- Press **Fast forward** or **Fast Rewind** or **Goto** key to set a start time point, then press **A-B** key to confirm the A point.
- Using the same method set an end time point, press the **A-B** key to confirm the B point. Now you are playing in the A-B function.
- Press **A-B** key again to quit the A-B function.

11. Trouble Shooting

Problem	Possible Causes	What To Do
No display lights up on front panel.	Power Cord is not connected.	Check to make sure power cord is plugged properly into power socket.
No sound or picture, but the front panel Led display is Off.	The unit is in standby mode	Press the standby key.
No sound or picture.	The antenna isn't installed properly.	Adjust antenna Check the Signal Quality in the Channel search or Info functions.
Bad or blocky picture.	No signal or weak signal.	Check the Antenna cable connections and equipment connected between the antenna and the receiver. Add an antenna amplifier if necessary.
	Signal is too strong.	Connect a signal attenuator to the RF input.
No picture (Video).	The Video is not connected to your display or the leads are damaged.	Replace leads, check and test until function returns.
There is interference on your digital satellite channel.	The system is connected using RF cable and the output channel of the receiver interferes with an existing terrestrial channel or Video Signal.	Change the receiver output channel to a more suitable channel or connect the system using AV cable.
The RCU is not working.	Flat batteries.	Replace the batteries.
	RCU is aimed at wrong direction.	Aim the RCU at the unit, make sure no obstacle between the front panel and RCU.

Note: If you still cannot resolve the problem. Please contact your supplier or a professional installer.