

TOSHIBA

DIGITAL HIGH DEFINITION RECEIVER AND HDD RECORDER

HDD-J35

OWNER'S MANUAL

DVB

DOLBY
DIGITAL

HDMI™
HIGH-DEFINITION MULTIMEDIA INTERFACE



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PRECAUTIONS

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

TO PREVENT ELECTRIC SHOCK, DO NOT OPEN THE COVER. REFER SERVICING TO QUALIFIED PERSONNEL ONLY.

This unit is not disconnected from the AC power source as long as it is connected to the wall outlet, even if the unit itself is in standby mode.

NOTE

The rating label and the safety caution are on the rear of the unit.

Changes or modifications to this equipment not expressly authorised or approved by Toshiba could void the product warranty and/or cause damage to the product.

In order to continue to get the maximum performance from your recorder:

- Make sure that it is set up properly.
- Have it regularly inspected by qualified service personnel.
- Make sure that all family members learn to operate it properly.

In particular: To prevent electric shock, instruct children not to insert objects into the recorder's holes or slots.

POWER CORD CAUTIONS

- When plugging in or unplugging the power cord, hold it by the plug. Do not unplug it by pulling on the cord.
- Do not touch the cord with wet hands as this could cause electrical shock or short.
- Do not place furniture, etc., on top of the power cord.
- Do not tie up the power cord, or connect a different power cord.
- Route the power cord so that it is not stepped on, or tripped over.
- Using a damaged power cord could result in fire or electric shock. Inspect the power cord for damage. If damaged, consult your nearest TOSHIBA service centre.

SAFETY MEASURES ON PROPER USAGE

Pay attention to the following items when using this unit. Failure to do so may result in electric shock or damage to the unit.

1. Connect the power plug to AC 100-240V 50/60Hz.
2. Unplug the power cord from the recorder before connecting any other equipment, especially the TV antenna. Connect all equipment to the recorder before plugging any power cords to the power source.
3. Be sure your TV antenna is not located near overhead power lines, or where it might fall into any power lines. Also be careful to avoid touching any such power lines when installing the TV antenna.
4. Do not attempt to modify the unit.
5. If you hear a strange sound or notice smoke coming from the unit or feel that the unit is too hot to touch, turn the power off immediately, unplug the power cord, and consult with your local sales outlet.
6. Do not insert metal objects, paper or liquids into the unit through the ventilation openings, etc. This could result in fire or electric shock. In the event something is inserted inside, turn the power off, unplug the power cord and consult your local sales outlet.
7. Do not place objects that may block the ventilation openings of the unit such as a piece of cloth.
8. Do not place vases, bottles, containers, naked flame sources such as lighted candles etc., on top of or near this unit.
9. When transporting, do not vibrate or shake the unit. This may result in damage or faulty operation.
10. If a three-prong power plug is provided with recorder, be sure it is used with a properly grounded three-wise power socket.
11. When transporting the unit, be sure to turn off the power and disconnect all cables.
12. When not using the unit for a long period of time (when on vacation, etc.) unplug the power cord.
13. Avoid overloading electrical outlets or extension cords otherwise it could result in electric shock or fire.
14. When lightning begins, do not touch any part of the recorder including the power cord and any connected cables.

DO NOT use or place the recorder in the following environments:

1. Near heat sources
 - Places subject to direct sunlight
 - Near radiators or air ducts
 - On top of an amplifier
2. Dusty places
3. Places subject to vibration or shock
4. Near strong magnetic fields such as loudspeakers or large motors
5. Places subject to moisture such as a kitchen or bathroom
6. Places without adequate air circulation
 - On top of a carpet or sofa
 - In a bookcase
 - Near materials such as curtains, etc.
7. Extremely hot or cold places
The operating temperature range of this unit is 5°C to 40°C




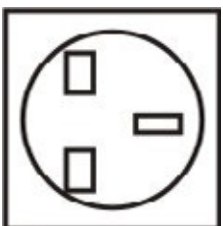
MOISTURE CONDENSATION

Never operate this recorder immediately after moving it from a cold location to a warm location. After moving, leave the recorder in the warm location for **TWO TO THREE** hours without operating it so as to dry the moisture condensation naturally.

Moisture condensation is most likely to occur in the following cases:

- When moved from a cold location to a warm location.
- In a room rapidly heated or in a place where the recorder is directly exposed to cool flow of air from an air-conditioner or other electrical appliance.
- In a room with excessive dampness or high humidity.

NOTES ON POWER PLUGS

		<p>This power plug is used in Australia only</p>
		<p>This power plug is used in some other regions</p>

- **The diagrams above are strictly for illustration purposes only.**
- Only **one** power plug is included in the recorder's accessory box (page 76).

ABOUT THE HARD DISK DRIVE (HDD)

Like any HDD, the HDD in the recorder is a fragile device that is susceptible to partial or complete failure if it is jarred or as a result of use over time. It will not last forever. Therefore, do not use the HDD for long-term storage of the programs you wish to retain. (If portions of the HDD become damaged, programs recorded on those portions may exhibit pixelisation or blocked noise when played back. Repeated playback of the program may cause the problem to get worse and, eventually the program may become unplayable. If you noticed such noise in a program that you want to save, you should archive the program using a VCR as soon as possible and delete the affected program.) A periodical cleanup of the HDD is advisable by doing a Format Hard Disk. Refer to page 36.

If it becomes necessary to service your recorder, it may be necessary to delete some or all of the programs on the HDD.

Using the recorder outside the operating temperature range (5°C ~ 40°C) may cause the HDD to be non-functional (even when the recorder is powered on) or to display with error status. Use this recorder only within the operating temperature.

The internal HDD has a limited life span that is dependent on the frequency of usage. Extremely heavy usage shortens the life span and causes the HDD to function abnormally. When all the recorded programs start to show noise in the display, it may be time to replace the HDD. Consult your local dealer for replacement of HDD.

If you see no signs of activity in the HDD during recording or playback, stop using the recorder and remove the power plug from the wall socket immediately. Consult the local dealer for service. Ignoring this condition may cause the damage of the HDD to be aggravated.

NOTES ON RECORDING

- When you record important contents, make trial operations beforehand to ensure the recorder can function properly.
Toshiba does not compensate for content that was not recorded because of some malfunction of this product during operation, and is not liable for incidental damages (such as profit loss or interruption of business, etc.) produced in such conditions.
- When the power cord is disconnected or when a power failure occurs during any operation of this product, all contents recorded in this recorder may be erased.
- If a program you have set a timer recording includes copy restriction signals, it may not be recorded. When programming a recording, confirm that the program you want to record is not copy-restricted.

NOTES ON COPYRIGHT

- It is forbidden by law to copy, broadcast, show, broadcast on cable and play in public copyrighted material without permission.
- This product incorporates copyright protection technology related to A/V media, that is designed to prevent copying and hence upon the detection of such signal, the display may be prohibited. This applies to timer recording as well.
- This product incorporates copyright protection technology that is protected by method claims of certain U.S. patents and other intellectual property rights owned by Macrovision Corporation and other rights owners. Use of this copyright protection technology must be authorized by Macrovision Corporation, and is intended for home and other limited viewing uses only unless otherwise authorized by Macrovision Corporation. Reverse engineering or disassembly is prohibited.

NOTES ON HANDLING

- This unit contains an internal HDD, which is susceptible to surrounding environmental changes such as shock, vibration and temperature. Take note of the following points to avoid loss of recorded content:
 1. Do not apply shock or vibration to the unit.
 2. Do not use the unit on a shaky or unstable place.
 3. Do not install the unit on a non-flat surface.
 4. Do not cover up the ventilation holes of the unit.
 5. Do not use the unit in a high temperature environment or environment with extreme changes in temperature.
 6. Unless in an emergency, do not remove the power plug from the wall socket while HDD access (read/write) is in progress (as indicated by the Front Panel display). This may result in loss of recorded data.
 7. Toshiba is not liable to any damage or loss of recorded data due to shock, vibration and misuse.
 8. Never remove the top cover, disassemble or modify the unit. These actions may cause the recorded data to be destroyed. Moreover, removing the top cover voids the warranty even if the product is within the warranty period.

- When the unit is in use, sounds due to the internal HDD disk movement, sometimes even during standby mode. This is not a malfunction.
- When moving the unit to a remote location, cover the unit with a piece of cloth to prevent injury. Also, take care not to shake or apply shock to the unit.
- The top cover or rear panel may become warm after operating for a long time. This is not a malfunction.
- Do not use insecticide sprays, etc., near the unit. Also, do not leave rubber or plastic objects in contact with the unit for long periods of time. This may cause discoloring of this unit's finish.
- Keep the original packing that this unit came in and use it to re-pack the unit when moving or transporting.

ABOUT CLEANING

- Do not use solvents such as benzene, alcohol or thinner to clean the unit. These solvents may distort the chassis or damage its finish. If rubber or vinyl products remain in contact with the unit for a long time, a stain may result.
- When the unit becomes dirty, clean it gently with a piece of soft, dry cloth.
- When the unit is very dirty, remove the power plug from the wall socket and use a piece of damp cloth to wipe the unit clean. Finish the cleaning with a piece of dry cloth.

DISCLAIMER

This manual has been validated and reviewed for accuracy. The instructions and descriptions it contains are accurate for the HDD-J35 recorder at the time of this manual's production. However, succeeding units and manuals are subject to change without notice. Toshiba assumes no liability for damages incurred directly or indirectly from errors, omissions or discrepancies between the recorder and the manual.

Toshiba is not liable for loss of recorded content caused by malfunction or damage of the internal HDD, and is not liable for incidental damages (such as profit loss of interruption of business, etc.) produced in such conditions.

Exemptions

- Toshiba is not liable for any damage caused by fire, natural disaster (such as thunder, earthquake, etc.) acts by third parties, accidents, misuse, or uses in other improper conditions.
- Toshiba is not liable for incidental damages (such as profit loss or interruption in business, modification or erasure of record data, etc.) caused by use or inability to use of this product.
- Toshiba is not liable for any damage caused by neglect of the instructions described in the owner's manual.
- Toshiba is not liable for any damage caused by misuse or malfunction through simultaneous use of this product and the connected equipment.

Thank you very much for purchasing this Toshiba Digital HD Receiver and HDD Recorder HDD-J35.

In order to enjoy the many features this recorder has to offer, read this owner's manual thoroughly before using.

We hope that you are completely satisfied with your Toshiba Digital HD Receiver and HDD recorder and it will give you long and enjoyable service. We look forward to providing you with additional Toshiba products to serve all of your entertainment needs in the future.

In the space provided below, record the Serial Number located on the rear panel of your recorder.

Model No. HDD-J35 Serial No. _____

Retain this information for future reference.

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Chapter One

INTRODUCTION

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Identification of Controls

1 Front Panel 11

2 Rear Panel 12

3 FP Display 14

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INTRODUCTION

TOSHIBA's HDD-J35 Digital High Definition Receiver and HDD Recorder is the first of its kind that can do recording and playback of digital high definition programs. With its twin Digital Tuners and built-in HDD, this latest Toshiba's digital video creation lets you embark on a true digital lifestyle.

FEATURES

► HD 1080i/720p/576p Capability

High Definition (HD) brings a wide-screen format to the home television as well as a sharper picture. This unit accepts all DTV formats, including 1080i, 720p and 576p.

► Large-Capacity Hard Disk Drive

With a 160GB HDD, this unit allows you to record around 18 - 22 hours^Δ of High Definition video content.

► HDMI™¹

Toshiba HDD-J35 incorporates the High-Definition Multimedia Interface (HDMI) technology to provide the best video and audio quality over a single cable.

► Video Format Auto-Switch

The HDD-J35 recorder has the capability of automatically switching the output video format to match the native video format coming from the broadcaster. This reduces possible distortion due to up/down conversions.

► Pause TV

This useful function allows you to "pause" a live program and then return to it later. When you are interrupted by other matters while watching live TV program, you can now pause the TV program by activating the time slip function. The live broadcast will be temporarily stored on the hard disk. Having finished the matters, you can continue watching from the scene paused. You can now enjoy every exciting moments of TV broadcast yet handling other matters in between.

► Chase Play

This feature gives you the convenience of starting the playback from the beginning of the program currently being recorded without disrupting the recording continuously. With this function, you enjoy better control over the playback of recorded contents, as you do not need to spend time waiting helplessly especially when recording a long program.

► Dolby® Digital²

Dolby® Digital is the surround sound technology used in theatres showing the latest movies, and is now available to reproduce this realistic effect in the home. You can enjoy motion pictures and live concert TV programs with this dynamic realistic sound by connecting HDD-J35 to a 6-channel amplifier equipped with a Dolby® Digital decoder.

► Auxiliary Input (L1/L2)

You may connect your Cable TV box and DVD player via the Composite, Component Video and Stereo Audio input connectors located at the back of the HDD-J35 recorder and display through HDMI output.

► PIP (Picture-in-Picture)

This feature gives you the ability to view 2 different live channels at the same time. Moreover, during playback of a recorded program, you can activate the sub-window to concurrently watch another live TV broadcast or the program being recorded, and even the playback of contents via the Auxiliary Input (L1/L2). The PIP window can be moved to any corner of the screen or be formed as a double window.

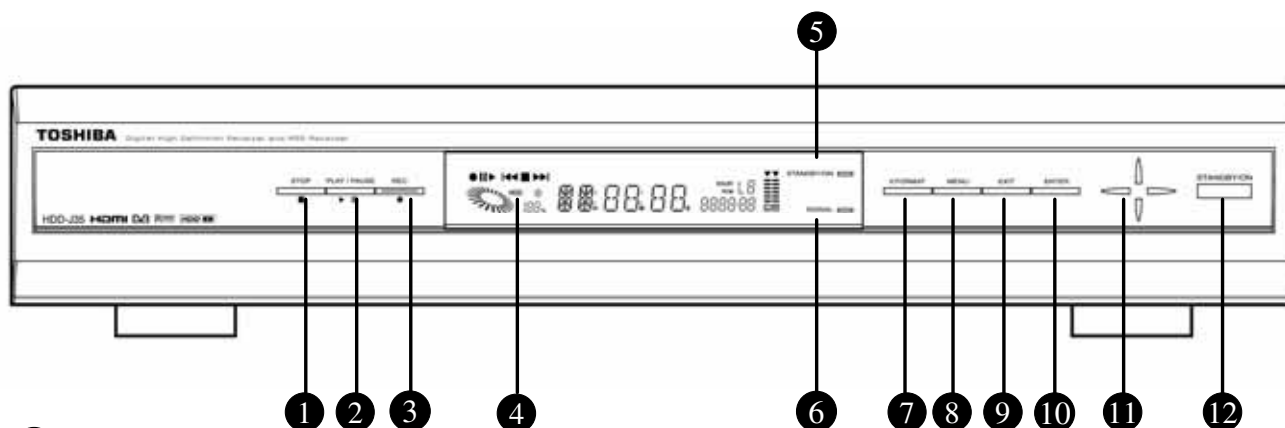
^Δ Actual number of hours varies depending on the content and quality of the program that is being broadcasted.

¹ HDMI, the HDMI logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC.

² Manufactured under licence from Dolby Laboratories. Dolby and the double-D symbol are registered trademarks of Dolby Laboratories.

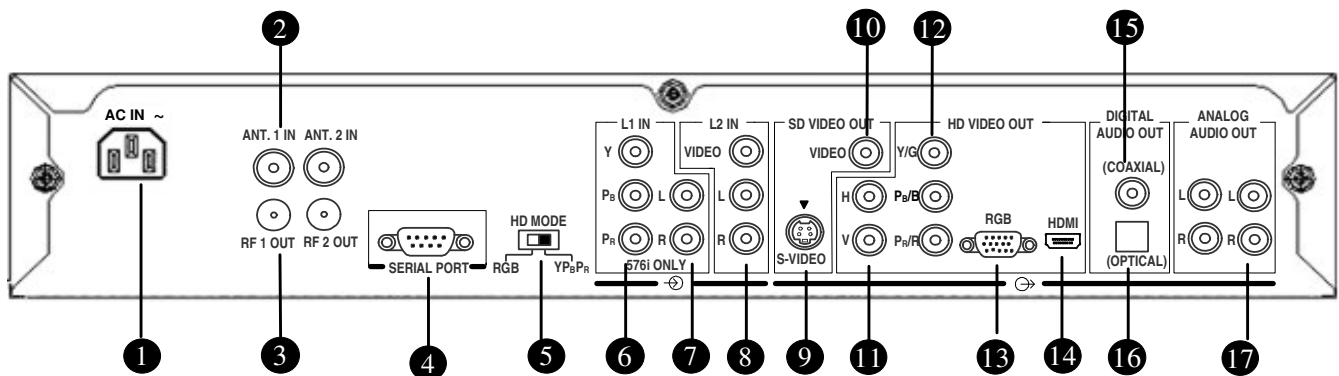
IDENTIFICATION OF CONTROLS

FRONT PANEL



- 1 STOP button**
Stops playback or recording
- 2 PLAY/PAUSE button**
Starts or pause playback
- 3 REC button**
Starts recording
- 4 Front Panel Display**
Refer to page 10
- 5 STANDBY/ON indicator**
Displays the operational state of the recorder
Green LED: Recorder in power on mode; Red LED: Recorder in standby mode
- 6 SIGNAL indicator**
ON: Signal captured; OFF: No signal
- 7 V. FORMAT button**
Toggles among AUTO, 1080i, 720p, 576p and 576i video output formats.
- 8 TOP MENU button**
Activates the On Screen Menu
- 9 EXIT button**
Exits from the main menu or returns to the Main menu from submenu
- 10 ENTER button**
Selects the highlighted menu or submenu item
- 11 Directional buttons**
 - Move the selection focus on the screen
 - Left and right buttons for increasing and decreasing audio volume
 - Up and down buttons on front panel changes main program channels
 - Up and down buttons on remote control unit changes PIP channels
- 12 STANDBY/ON button**
Toggles the recorder between power-on and standby modes

REAR PANEL

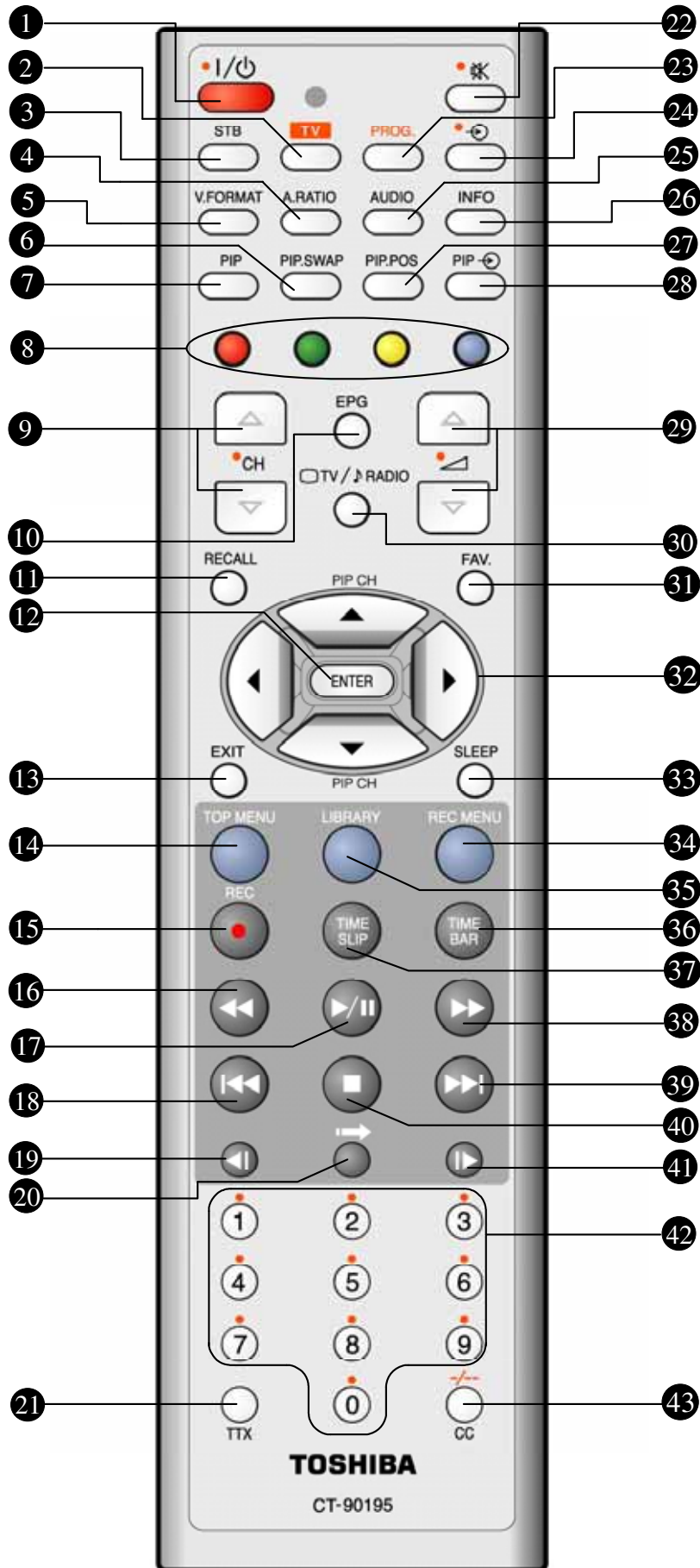


- 1 AC MAINS SUPPLY**
100~240 V_{AC}, 50/60 Hz
- 2 ANT.IN**
For connection to UHF/VHF antenna
- 3 RF OUT**
For connection to analogue TV's antenna input
- 4 SERIAL PORT**
For connection to PC for software upgrade or to other external devices for external control
- 5 HD MODE-Switch**
To switch HD output mode between RGB and YP_BP_R
- 6 YP_BP_R IN (L1)**
For connection to external A/V equipment with component video outputs (e.g. DVD player)
- 7 AUDIO L/R IN**
For connection to external A/V equipment with analogue audio outputs (e.g. DVD player), used together with YP_BP_R IN
- 8 COMPOSITE VIDEO/L/R IN (L2)**
For connection to external A/V equipment with composite video outputs (e.g. DVD player)
- 9 S-VIDEO OUT**
For connection to TV's S-Video input
- 10 COMPOSITE VIDEO OUT**
For connection to VCR or TV's Video inputs
- 11 H, V OUT**
Used together with RGB OUT (Label **12**), for connection to TV's RGBHV input
- 12 YP_BP_R /RGB OUT**
For connection to TV's YP_BP_R (component video) or RGB inputs, selectable via the MODE-Switch

REAR PANEL

- 13 RGB (Mini D-Sub 15-pin) OUT**
For connection to TV's Mini D-Sub 15-pin input
- 14 HDMI OUT**
For connection to TV's HDMI input
- 15 DIGITAL AUDIO (COAXIAL) OUT**
For coaxial connection to an amplifier equipped with a Dolby® Digital decoder
- 16 DIGITAL AUDIO (OPTICAL) OUT**
For optical connection to an amplifier equipped with a Dolby® Digital decoder
- 17 ANALOG AUDIO L/R OUT**
For connection to VCR or TV's Audio L/R Audio inputs

REMOTE CONTROL



REMOTE CONTROL

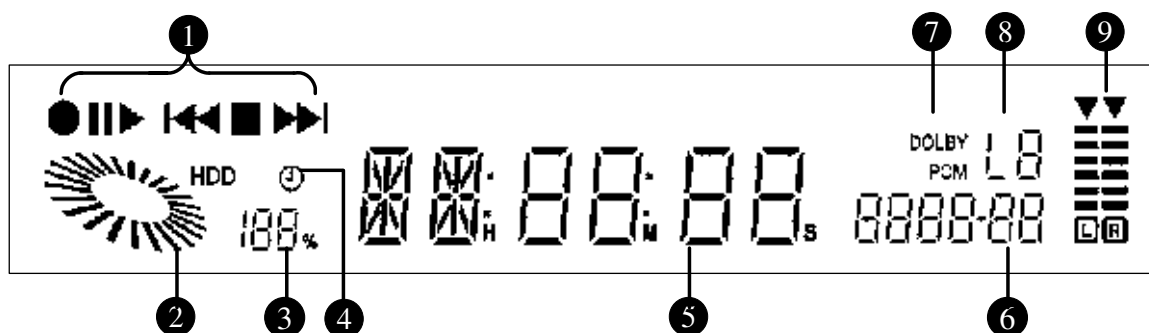
- 1 STANDBY/ON button ⇨ Page 27
- 2 TV FUNCTION button*
- 3 SET TOP BOX button**
- 4 ASPECT RATIO button ⇨ Page 39
- 5 VIDEO FORMAT button ⇨ Page 39
- 6 PIP. SWAP button ⇨ Page 49
- 7 PIP button ⇨ Page 49
- 8 COLOUR buttons*** ⇨ Page 43, 57 and 62
- 9 CHANNEL UP/DOWN buttons ⇨ Page 29
- 10 EPG button ⇨ Page 38, 48 and 58
- 11 RECALL button ⇨ Page 53
- 12 ENTER button ⇨ Page 11
- 13 EXIT button ⇨ Page 11
- 14 TOP MENU button ⇨ Page 33
- 15 RECORD button ⇨ Page 56
- 16 FAST REVERSE button ⇨ Page 65
- 17 PLAY/PAUSE button ⇨ Page 63 and 65
- 18 SKIP REVERSE button ⇨ Page 65
- 19 SLOW REVERSE button ⇨ Page 65
- 20 INSTANT SKIP button ⇨ Page 65
- 21 TTX button ⇨ Page 50
- 22 MUTE button ⇨ Page 29
- 23 PROG. button ⇨ Page 77
- 24 INPUT SELECT button ⇨ Page 52
- 25 AUDIO button ⇨ Page 53
- 26 INFO button ⇨ Page 47
- 27 PIP. POS button ⇨ Page 49
- 28 PIP. AUX button ⇨ Page 49
- 29 VOLUME UP/DOWN buttons ⇨ Page 29
- 30 TV/RADIO button ⇨ Page 48
- 31 FAV. button ⇨ Page 42
- 32 DIRECTIONAL buttons ⇨ Page 11
- 33 SLEEP button ⇨ Page 52
- 34 REC MENU button ⇨ Page 57
- 35 LIBRARY button ⇨ Page 62
- 36 TIME BAR button ⇨ Page 63
- 37 TIME SLIP button ⇨ Page 63
- 38 FAST FORWARD button ⇨ Page 65
- 39 SKIP FORWARD button ⇨ Page 65
- 40 STOP button ⇨ Page 11
- 41 SLOW FORWARD button ⇨ Page 65
- 42 CHANNEL NUMBER buttons ⇨ Page 29
- 43 CC/DIGIT SELECTION button ⇨ Page 50/77

* TV FUNCTION – Set the Remote Control Unit to function with the Television Set. See RCU programming guide on page 77.

** SET TOP BOX– Set the Remote Control Unit to function with the Set Top Box.

*** COLOUR buttons from left to right: Red, Green, Yellow, Blue

FP DISPLAY



1 Operation Indicator

- | | | | |
|--|--------------------------------|--|-------------------------|
| | Fast Reverse or Fast Forward | | Ext. Rec.
(Flashing) |
| | Skip Reverse or Skip Forward | | Recording |
| | Frame Forward or Frame Reverse | | Playback |
| | Playback PAUSE | | Stop |

2 HDD Operation Indicator

Animates when recorder is in HDD playback or recording mode else it indicates used HDD storage space

3 HDD Storage Indicator

Indicates percentage of remaining HDD storage space

4 Timer Recording Indicator

Illuminates when the recorder has scheduled program for recording

5 Time and Channel Display

- Shows time as default (HH:MM) in 12 or 24 hours
- Shows channel number for 5 seconds after every channel change
- Shows HH:MM:SS during playback and recording mode
- Shows progress of Automatic Software Upgrade

6 Video Format Indicator

Indicates current HD or SD display format including 1080i, 720p, 576p and 576i

7 Audio Format Indicator (PCM/Dolby)

Indicates current audio format

8 Auxiliary Input Indicator (L1/L2)

Indicates source of input through which external devices are connected. (e.g. DVD player)
L1 = Component Video Input, L2 = Composite Video Input

9 Volume Indicator

Displays the audio output level

Level indicator may not show exact sound level, it only shows the average level

Chapter Two

STARTUP GUIDANCE

Read this chapter first to make all necessary preparations.

1 Installing the Recorder	18
- Connections	18
- Preparing your remote control	25
- Setting up your recorder	27
2 Viewing programs	29
3 Turning off the recorder	29
4 Status display	30

INSTALLING THE RECORDER

Follow steps A to C below. Your recorder will be ready to display digital programs on your TV.

STEP A: CONNECTIONS

DO NOT PLUG THE RECORDER INTO THE MAINS YET.

Before you use this recorder, it is necessary to connect it to your TV.

1 CONNECTING TO TV

1-1. Connection to Antenna

Disconnect the antenna cable from your TV and connect it to the "ANT. 1 IN" terminal on the back of the recorder.

1-2. RF Loop-through Connection

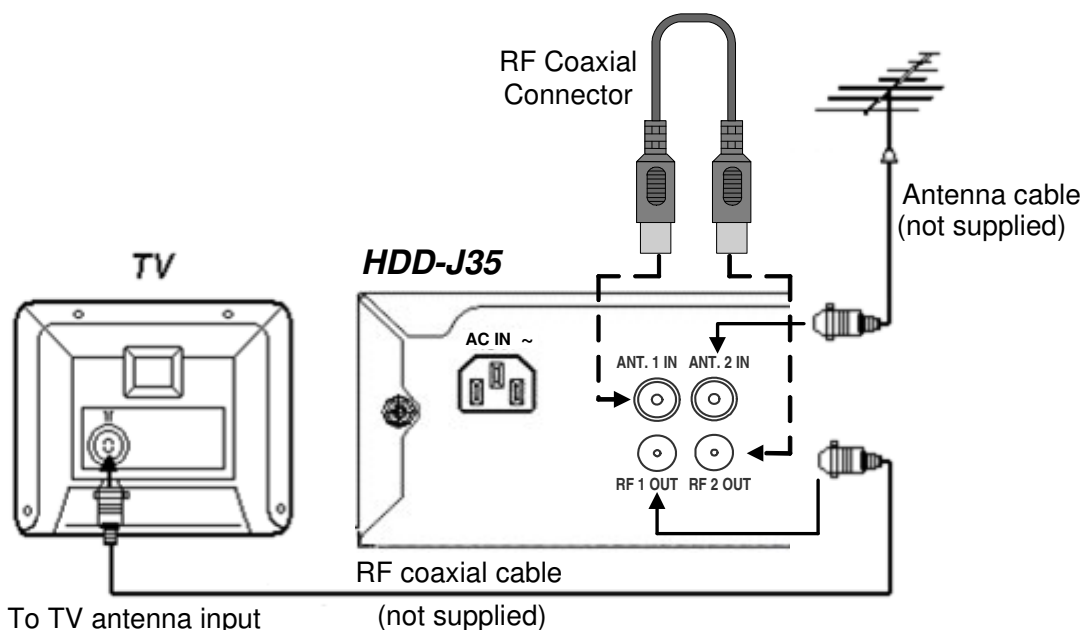
To achieve RF loop-through for the in-built twin RF tuners, connect the RF Coaxial Connectors (supplied) to the "RF 1 OUT" and "ANT. 2 IN" terminals as shown in the diagram below.

1-3. "RF OUT" Connection to TV or VCR

The "RF 2 OUT" provides you a RF loop-through function to receive analogue TV programs as well as digital programs (for Integrated Digital TVs only). Use an RF coaxial cable (not supplied) to connect the HDD-J35 "RF 2 OUT" terminal to TV's or VCR's antenna input.



Before connecting or disconnecting the antenna cable, unplug the recorder, VCR, TV and antenna booster, if any.



1-4. Connections to TV – Video Connection

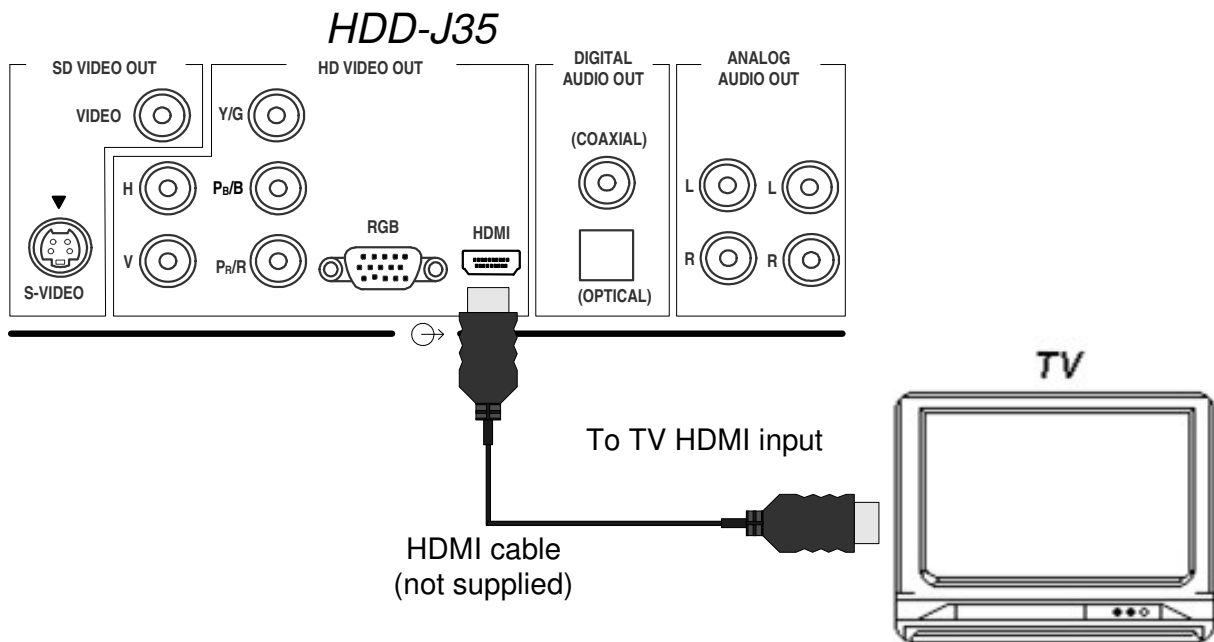
In the accessory box, you will find two sets of cables: One is the component video cable (with red, green and blue connectors) and the other is the Audio/Video cable (with yellow, white and red connectors).

For better video quality, it is recommended that you use the HDMI cable, the Mini D-Sub 15-pin cable or the RGBHV video cable (with 5 RCA connectors). These cables are not included in the HDD-J35 package.

HD MODE Switch selection is essential for several outputs. Refer to the HD MODE Switch table on page 71 for making the correct switch selection according to your output connection.

You have 6 choices for connecting the video output from the recorder to your TV. Use only **one** of the following connections (with **(a)**, **(b)** or **(c)** being the **best** choice):

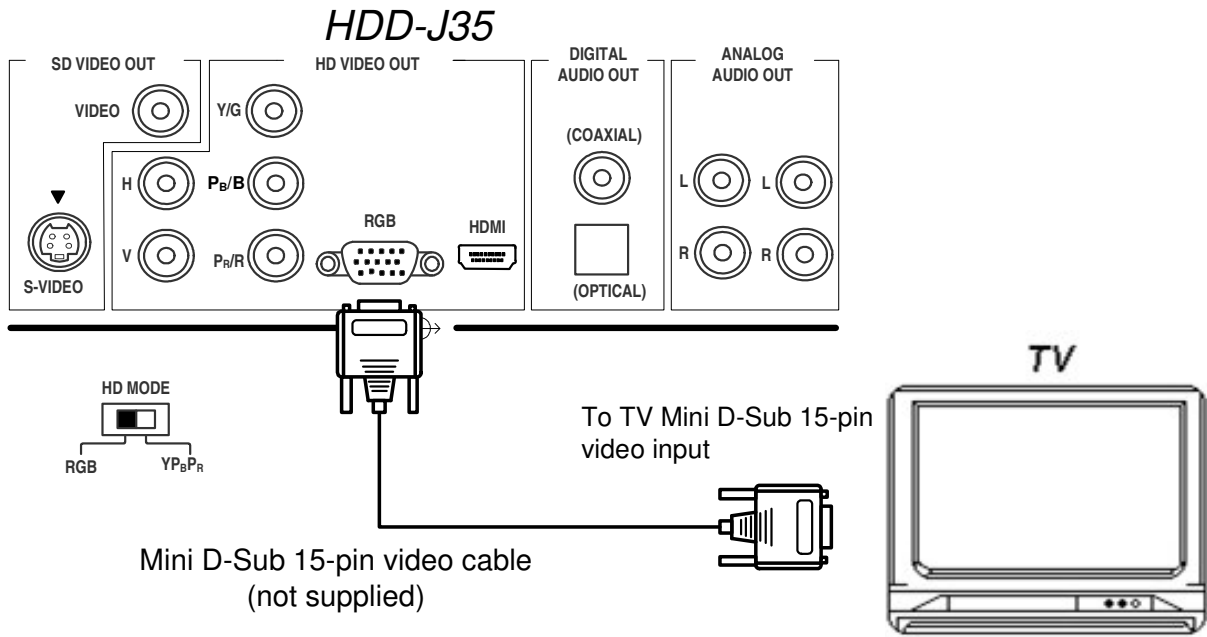
- (a) **HDMI connection:** If your TV has HDMI input, use a HDMI cable (not supplied) to connect the recorder to your TV. HDMI supports video and multi-channel audio in a single cable, therefore separate connection for audio is not necessary.



Note: Because HDMI is an evolving technology, it is possible that some TVs may not operate properly with the recorder.

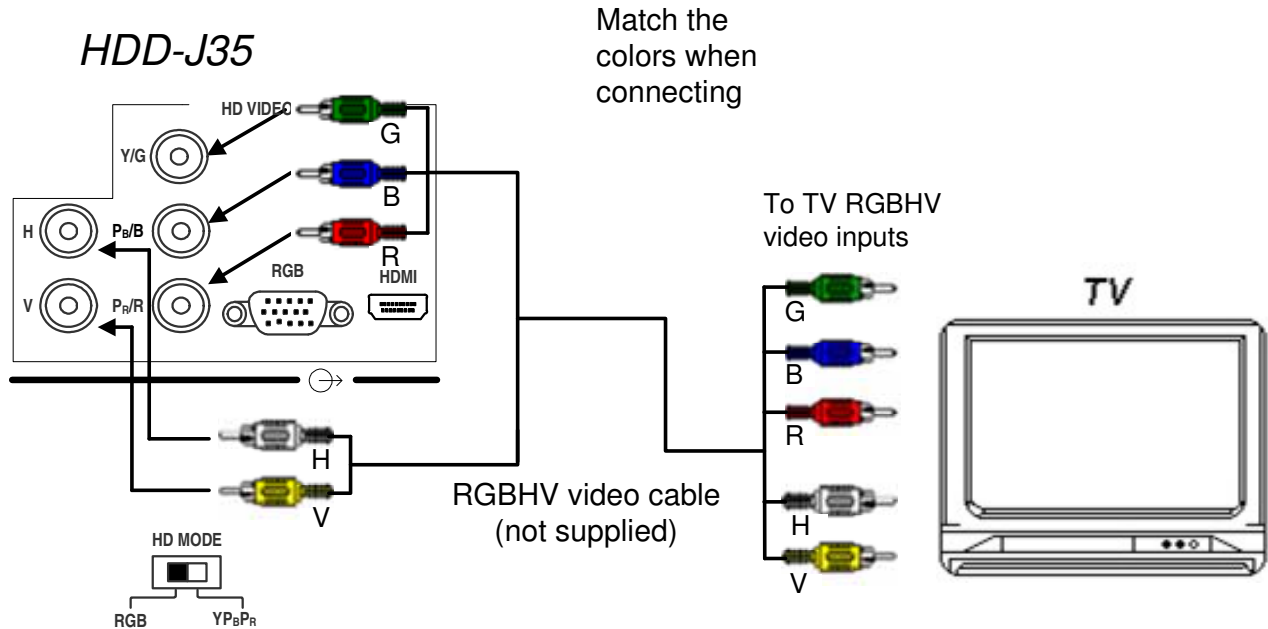
- (b) **Mini D-Sub 15-pin connection:** If your TV has a RGB Mini D-Sub 15-pin video input connector, use a Mini D-Sub 15-pin cable (not supplied) to connect the recorder to your TV. Set the HD MODE Switch (refer to page 12) to RGB, and then connect the RGB connector on the rear of the recorder to the corresponding socket on the TV.

Do not connect any PC monitor to the recorder via Mini D-Sub 15-pin cable.



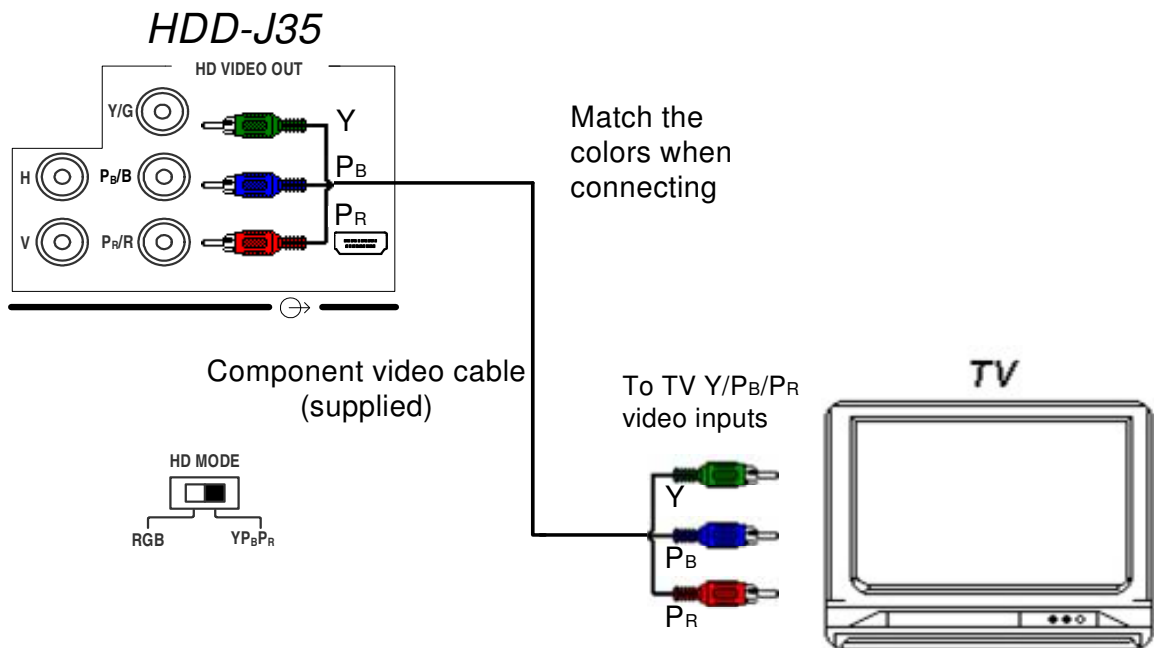
Note: This diagram illustrates video connections only. Refer to Page 22 for Audio connection.

- (c) **RGBHV (RCA) connection:** If your TV has RGBHV video inputs, use a RGBHV video cable (not supplied) to connect the recorder to your TV. Set the HD MODE Switch (refer to page 12) to RGB, and then connect the Y/G, P_B /B, P_R/R, H and V connectors from “HD VIDEO OUT” on the rear of the recorder to the corresponding jacks on the TV.



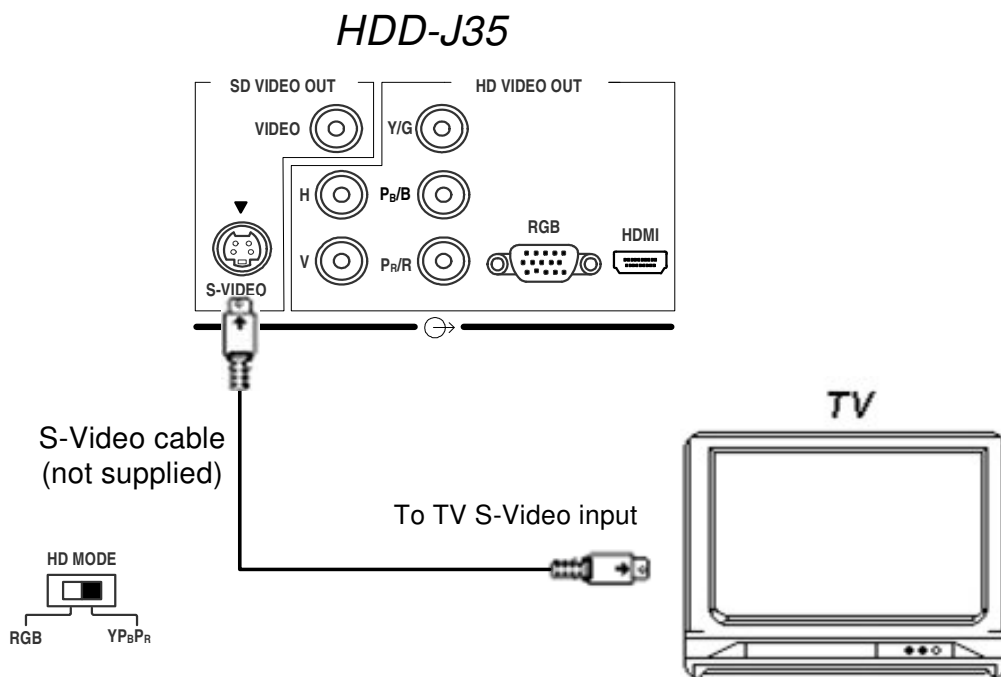
Note: This diagram illustrates video connections only. Refer to Page 22 for Audio connection.

- (d) **YP_BP_R connection:** If your TV has component video inputs, use the component video cable included in the HDD-J35 accessory box. Set the HD MODE Switch (refer to page 12) to YP_BP_R, and then connect the Y/G, P_B/B and P_R/R connectors from “HD VIDEO OUT” on the rear of the recorder to the corresponding jacks on the TV.



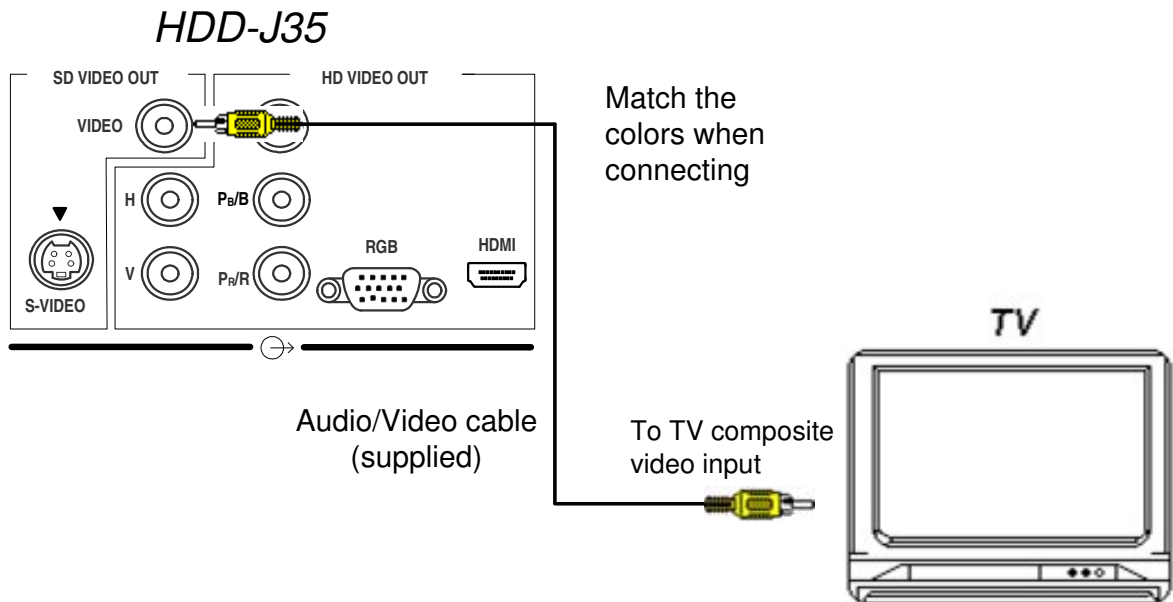
Note: This diagram illustrates video connections only. Refer to Page 22 for Audio connection.

- (e) **S-Video connection:** If your TV has an S-Video input, use an S-Video cable (not supplied) to connect the recorder to your TV. Set the HD MODE Switch (refer to page 12) to YP_BP_R, and then connect the S-Video connector from “SD VIDEO OUT” on the rear of the recorder to the corresponding jack on the TV.



Note: This diagram illustrates video connections only. Refer to Page 22 for Audio connection.

- (f) **Composite video connection:** If your TV has composite video inputs, use the yellow connector of the Audio/Video cable included in the HDD-J35 accessory box. Connect the yellow video connector from “SD VIDEO OUT” on the rear of the recorder to the corresponding jack on the TV.



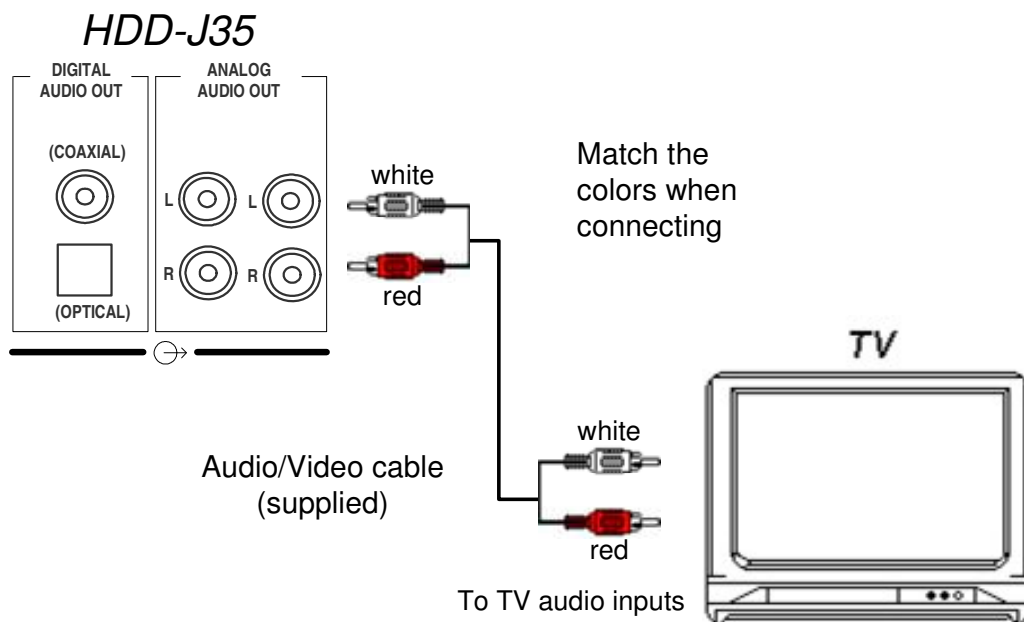
Note: This diagram illustrates video connections only. Refer to Audio connection below.

1-5. Connections to TV – Audio Connection

For audio connections, you have two choices. You can connect the recorder to your TV or to an audio amplifier equipped with a Dolby® Digital decoder. If you **do not** have an external amplifier equipped with a Dolby® Digital decoder, use the red and white connectors of the Audio/Video cable included in the package. Connect the audio connectors from “ANALOG AUDIO OUT” on the rear of the recorder to the corresponding jacks on the TV: red to red (right audio) and white to white (left audio).

Note: If your TV has only one audio input jack, connect either the right or left audio connector to the audio jack.

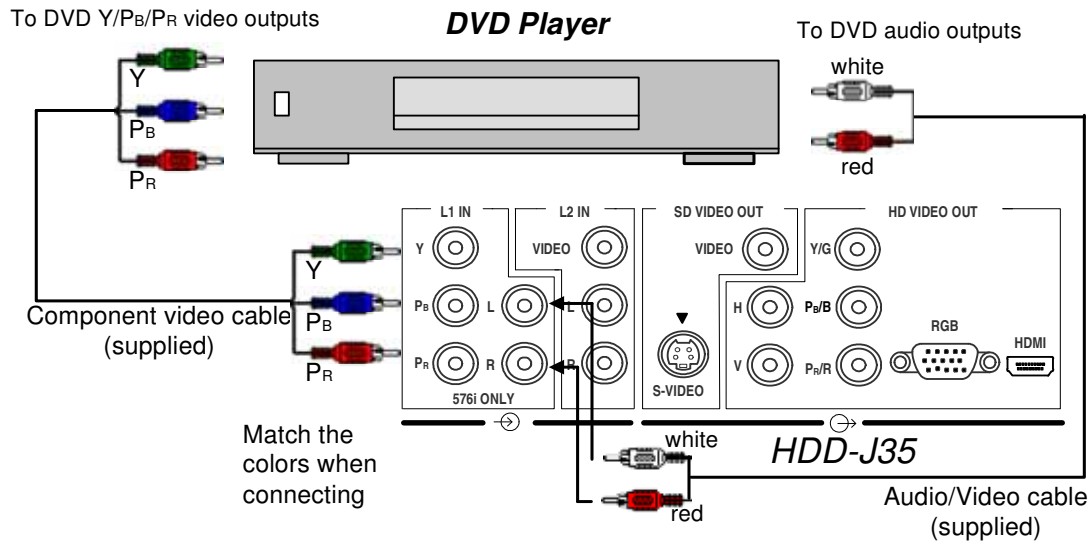
Do not connect the yellow connector to TV if using HDMI, RGB, component video or S-Video connector.



2 CONNECTING TO DVD PLAYER

For TV sets with limited component video inputs, this recorder can be used to connect a DVD player through the Component Video and Stereo Audio input connectors located at the back of the HDD-J35 recorder.

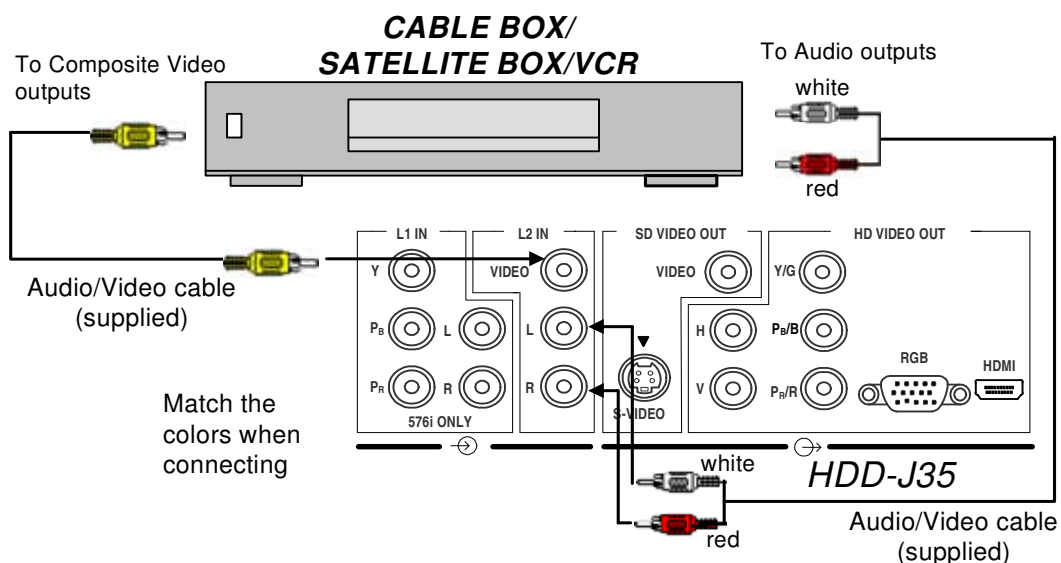
Use a component video cable to connect from the DVD player's YP_BP_R output to the HDD-J35 YP_BP_R input connectors; Use an Audio/Video cable to connect the audio connectors from DVD player's audio output to the HDD-J35 Audio L/R input connectors: red to red (right audio) and white to white (left audio).



- Important:
1. This setup is only for output connection made via HDMI.
 2. The YP_BP_R input connectors on this recorder accepts only 576i signal, therefore the DVD player connected must be set to output in interlaced format. Refer to your DVD player's manual for settings.

3 CONNECTING TO CABLE BOX/SATELLITE BOX/VCR

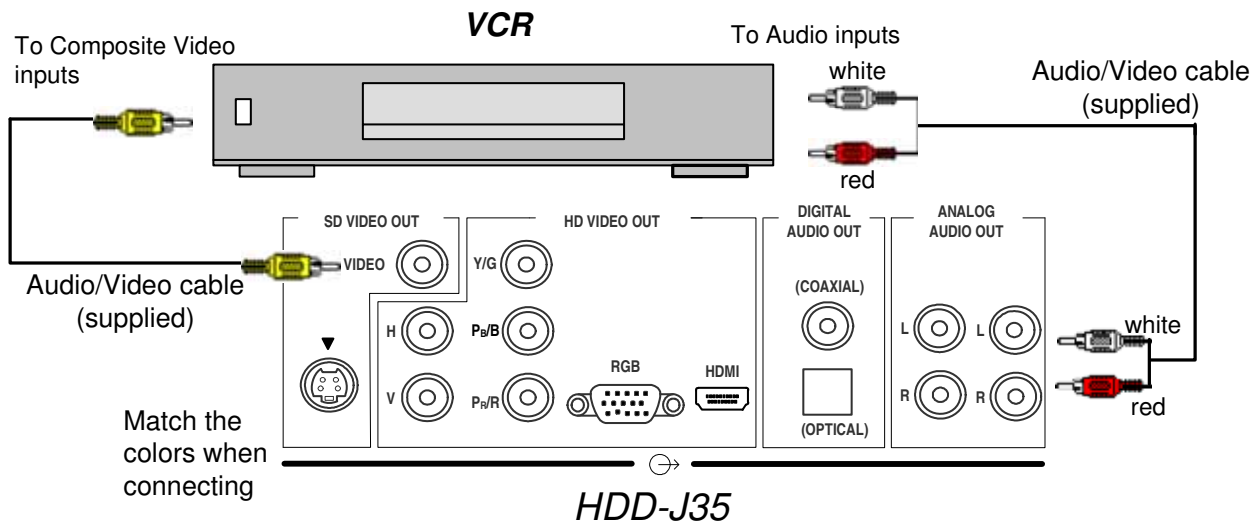
A cable box, satellite box or VCR can be connected to this recorder through the Composite Video and Stereo Audio input connectors located at the back of the HDD-J35 recorder. Use a composite Audio/Video cable to connect from the Cable Box/Satellite Box/VCR's Video/L/R output to the HDD-J35 Video/L/R input connectors.



- Important: This setup is only for output connection made via HDMI.

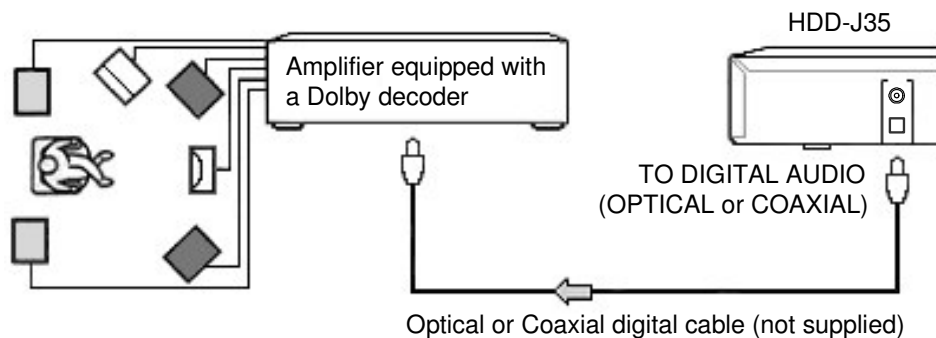
4 CONNECTING TO VCR (FOR ARCHIVING)

A VCR can also be connected to this recorder through the Composite Video and Stereo Audio output connectors located at the back of the HDD-J35 recorder for archiving programs from the HDD. Use a composite Audio/Video cable to connect from the HDD-J35 Video/L/R output connectors to the VCR's Video/L/R input.



5 CONNECTING TO AMPLIFIER

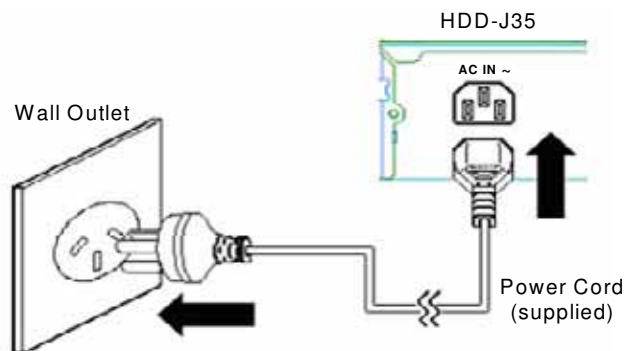
If you connect this recorder to an audio amplifier equipped with a Dolby® Digital decoder, use an optical or coaxial digital cable (not supplied) to connect from the recorder's "DIGITAL AUDIO OUT (Optical/Coaxial)" to the digital audio input of your amplifier. **In this case make sure that you do not need to connect the audio connectors (red and white) on the Audio/Video cable to your TV.**



- Front speaker
- Rear speaker
- Subwoofer
- Centre speaker
- ⇒ Signal flow

6 CONNECTING TO MAINS SUPPLY

Plug the recorder into the mains.

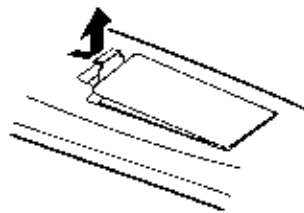


The above diagram is illustrated with an Australian power plug. In other regions, use the appropriate power plug.

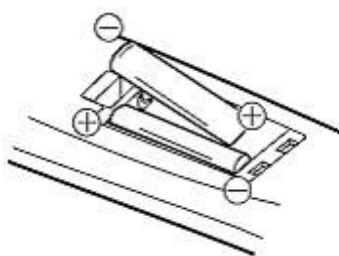
STEP B: PREPARING YOUR REMOTE CONTROL

Loading batteries

1. Open the Cover.

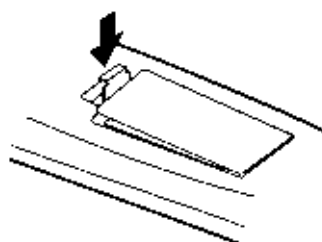


2. Insert two R6 (AA size) batteries.



- Make sure to match the + and – signs on the batteries to the marks inside the battery compartment.

3. Close the cover.

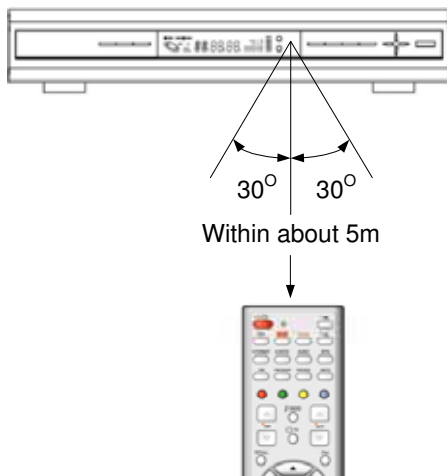


Notes on batteries

Improper use of batteries may cause battery leakage and corrosion. To operate the remote control correctly, follow the instructions below.

- Do not insert batteries into the remote control in the wrong direction.
- Do not charge, heat, open, or short-circuit the batteries. Do not throw batteries into fire.
- Batteries contain toxic substances. Do not dispose of them with ordinary trash. Dispose of batteries only in accordance with local ordinances.
- Do not leave dead or exhausted batteries in the remote control.
- Do not use different types of batteries together, or mix old and new batteries.
- If you do not use the remote control for a long period of time, remove the batteries to avoid possible damage from battery corrosion.
- If the remote control does not function correctly or if the operating range becomes reduced, replace all batteries with new ones.
- If battery leakage occurs, wipe the battery liquid from the battery compartment, then insert new batteries.

Operating with the remote control



1. Point the remote control at the remote sensor and press the buttons.
2. Distance: About 5 m from the front of the remote sensor.
3. Angle: About 30° in each direction of the front of the remote sensor.

- Do not expose the remote sensor of the recorder to a strong light source such as direct sunlight or other illumination. If you do so, you may not be able to operate the recorder via the remote control.
- Do not drop or give the remote control a shock.
- Do not leave the remote control near an extremely hot or humid place.
- Do not spill water or put anything wet on the remote control.
- Do not disassemble the remote control.

STEP C: SETTING UP YOUR RECORDER

Note: If your service provider or antenna installer has already installed your TV system to receive terrestrial TV programs, do not change any connections of those devices or installation settings unless it is absolutely necessary.

If your service provider or system installer has not configured your recorder, it will not be set up for any specific channel or frequency when powered on for the first time. In this case you should follow the steps below to set up your recorder.

- 1.** Switch on the TV.
- 2.** Using your TV's remote control, select the appropriate external Audio/Video input on your TV according to the connection you have made in Step A.
- 3.** Make sure the recorder is already in power-on mode (LED in green colour). If it is in standby mode (LED in red colour), switch on the recorder by pressing the "STANDBY/ON" button on the front panel of the recorder or on the remote control.
- 4.** A message "Database is Empty" should appear after a while. If you can see the message, go to Step 5 directly; However, if you cannot see the message on the screen even after a long time, change the video format by pressing V.FORMAT button on remote control or on the front panel. Press V.FORMAT button until you see the message "Database is Empty".

Note: When you press V.FORMAT button, the Video Format Indicator on the recorder's front panel will display among "576i" (for HD MODE Switch being set to YP_BP_R only), "AUTO", "1080i", "720p" and "576p". After you press V.FORMAT button, make sure the front panel display has changed before you press the button again.

- 5.** After you see a message "Database is Empty" appears, press the "TOP MENU" button. A "Region Selection" menu appears.

- Use the directional buttons "◀" and "▶" to highlight your region of residence and press the "ENTER" button to make your selection. The region setup process may take a few minutes to complete.
- If the "Region Selection" menu does not appear, refer to "RESET DATA" on page 35 to reset the database.



6. You will see the Main Menu (page 33). Press the “▼” button twice to highlight “INSTALLATION” and then press “ENTER”. When prompted, enter “0000” which is the default password.

7. To tune the recorder, you have choices of MANUAL SETUP / AUTO SCAN / QUICK SCAN. We recommend that you use “QUICK SCAN” (page 34) for a faster setup. For more information on the various tuning options, refer to pages 34~35.

Note: The choices of AUTO SCAN and QUICK SCAN are for Australia only.

8. If you use “QUICK SCAN” in step 7 and when you see the message “>>> SCAN COMPLETE <<<”, press the “EXIT” button several times until the main menu disappears.

9. After you finish scanning, you can choose the suitable V.FORMAT. If you use an SDTV, use the V.FORMAT “576i”; If you use a HD-ready TV, you are recommended to change to “AUTO” by pressing V.FORMAT button; However, if your HD-ready TV cannot display some specific video format, press V.FORMAT button to change to an appropriate fixed format.

10. Congratulations! You have successfully setup your recorder.

VIEWING PROGRAMS

- 1.** After you have tuned the recorder, you have several ways to navigate through all programs:
 - Press the “CHANNEL NUMBER” or “CHANNEL UP/DOWN” buttons to select a program of your interest.
 - Press the “TV/RADIO” button to call up the “Program List” (page 48) and select a program of your interest. This will also set your viewing mode to “Normal”.
 - Press the “FAV.” button to call up the “Favorite Channel List” and select a program of your interest (page 48). Entries in this “Favorite Channel List” are those that you have added under “FAVORITE&LOCK” (page 42). This will set your viewing mode to “Favorite”.
 - Use the “CHANNEL UP/DOWN” buttons to view the previous and next program. The programs are arranged according to the “Program list” or “Favorite Channel List” (depending on your current viewing mode). See “I-PLATE (INFO)” on page 47 for more information on viewing modes.

- 2.** Press the “INFO” button to view details on a program.

- 3.** Press the “EPG” button to view the Electronic Program Guide on a weekly basis.

- 4.** Press the “VOLUME UP/DOWN” buttons to increase or decrease the audio volume, or press the “MUTE” button to turn off the audio output.

- 5.** The information contained in this chapter (“STARTUP GUIDANCE”) is only meant to be a quick installation guide. Familiarize yourself with other functions of the recorder by reading the remaining chapters in this manual.

TURNING OFF THE RECORDER

Set the recorder to standby mode by pressing the “STANDBY/ON” button.







If you would not use the recorder for a long time, unplug the power cord from the wall outlet to completely eliminate all voltages.

STATUS DISPLAY

Each time you operate the recorder, the following display appears on the TV screen to indicate the status of the recorder.



List of Status Display

	Playback
	Playback Pause
	Stop
	Fast Forward (3 speeds)
	Fast Reverse (3 speeds)
	Skip Forward
	Skip Reverse
	Slow Forward (3 speeds)
	Slow Reverse (3 speeds)
	Frame Forward
	Frame Reverse
	Record
	Ext. Rec

Chapter Three

RECEIVING

1 Top Menu

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Main Menu	33
Installation	33
– Quick Scan	34
– Auto Scan	34
– Manual Setup	35
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– Program List	38
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– Audio Setup	40
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– Time Setup	41
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– Favorite&Lock	42
– Parental Rate	43
– Virtual Keyboard	43
Profile	44
– I-Plate Setup	44
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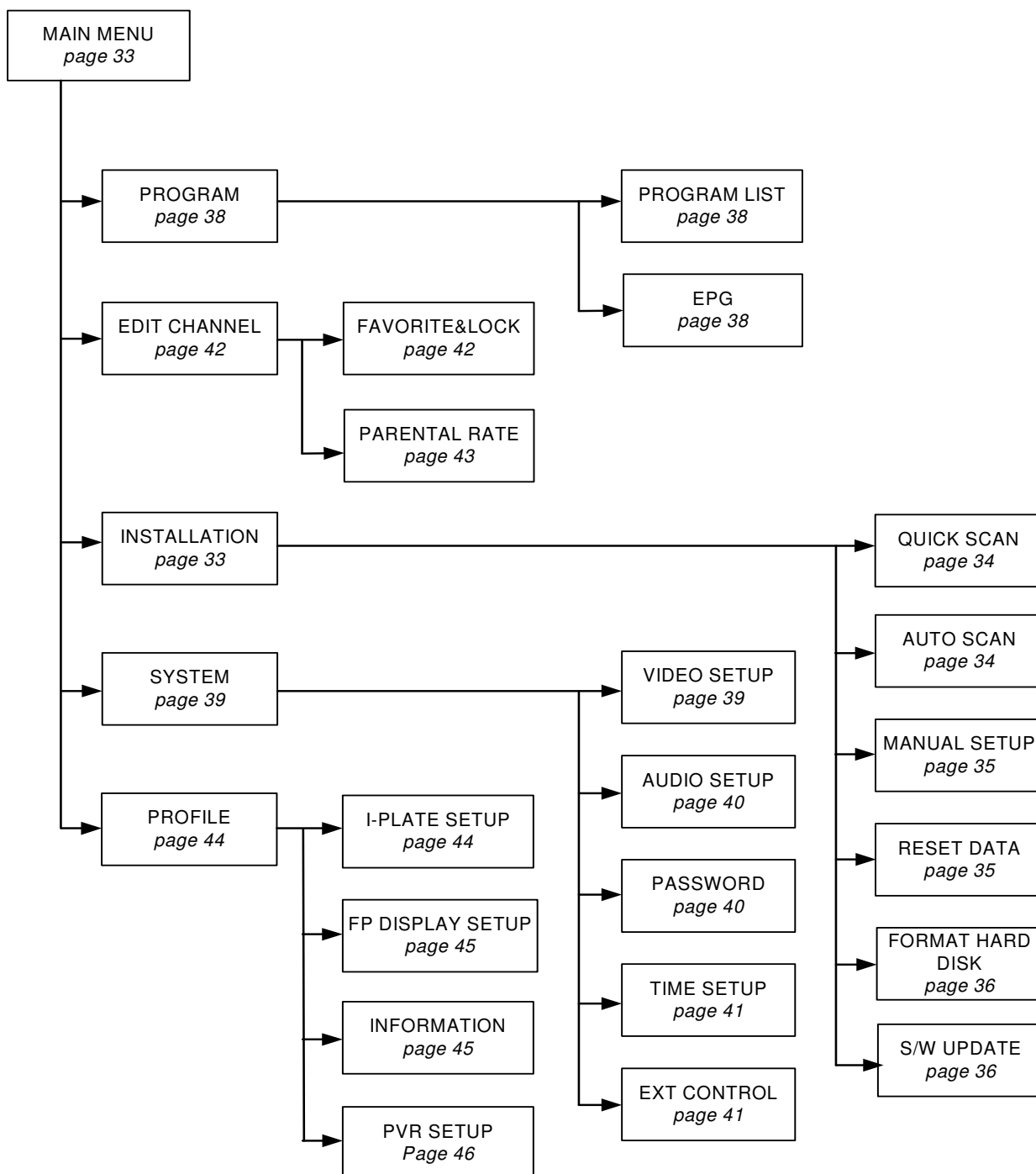
2 Quick Control

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TOP MENU

MENU MAP

Use the directional buttons to navigate through the menu, "ENTER" button to choose specific items, and "EXIT" button to return to the main menu from sub-menu or to leave the main menu.



Note: If you leave the menu screen for a long period of time, a permanent afterimage may remain on the TV screen.

MAIN MENU

There are two ways to enter the Main Menu when the recorder is powered on:

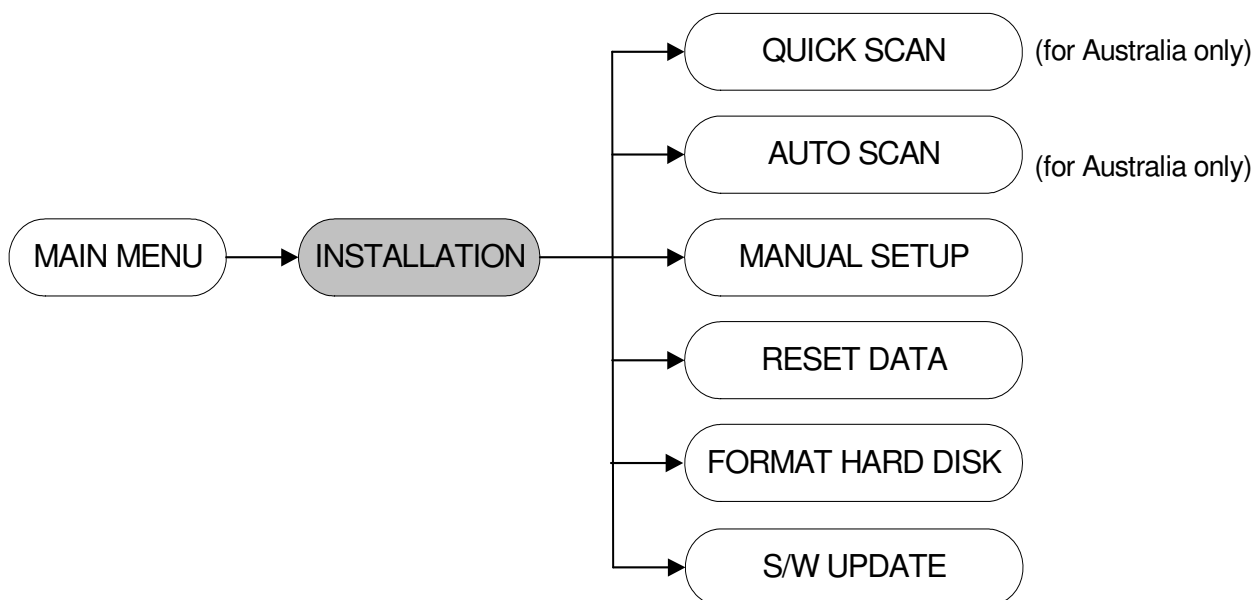
1. On the remote control, press the "TOP MENU" button.
2. Alternatively, press "MENU" button on the front panel.
3. Use the directional buttons to navigate through the menu, "ENTER" button to choose specific items, and "EXIT" button to return to the main menu from submenu or to leave the main menu.
4. Menu(s) left displayed for 15 minutes will exit automatically.



INSTALLATION

On the main menu, select "INSTALLATION" and key-in your password to enter the "INSTALLATION" page. The default password is 0000. Refer to page 40 to change the password.

If you are in Australia, you have choices of MANUAL SETUP / AUTO SCAN / QUICK SCAN to tune the recorder. If you stay in other region, use MANUAL SETUP to tune the recorder.



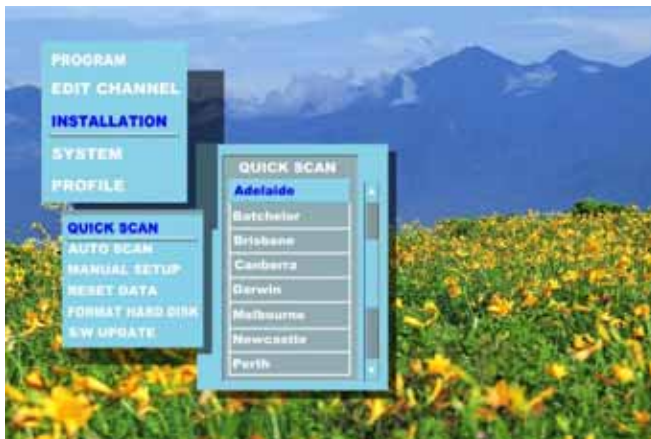
QUICK SCAN (For Australia Only)

The "QUICK SCAN" feature allows you to scan all predefined digital TV and Radio channel signals in Australia.

1. On the installation page, highlight "QUICK SCAN" and press the "ENTER" button.
2. Use the "▲" and "▼" buttons to highlight the city you live in and press the "ENTER" button to start scanning.
3. It will scan through respective RF channels available in your city.
4. Once a digital TV/Radio channel is found, the channel number and programs names in this channel will be shown.
5. When you see the message ">>> SCAN COMPLETE <<<", you have completed tuning your recorder. If no channel is found, refer to "TROUBLESHOOTING" in Appendix 2.
6. Press the "EXIT" button several times to leave the Main Menu.

Notes:

1. The frequencies of the "quick scan" channels are preset in the recorder's database. In case that the local TV/Radio station changes the channel frequency or a new channel comes up, you have to scan these channels using "MANUAL SETUP".
2. Recorder is defaulted to TV mode instead of Radio mode after QUICK SCAN.



AUTO SCAN (For Australia Only)

The "AUTO SCAN" feature allows you to scan all predefined digital TV and Radio channels in Australia. The steps required to automatically program the recorder are outlined as below:

1. Highlight "AUTO SCAN" and press the "ENTER" button to start channel search.
2. The recorder starts scanning from channel 2 to channel 69. The status bar shows the progress being made.
3. Once a digital TV/Radio channel is found, the channel number and program name will be shown.
4. When you see the message ">>> SCAN COMPLETE <<<", you have completed tuning your recorder. If no channel is found, refer to "TROUBLESHOOTING" in Appendix 2.
5. Press the "EXIT" button to leave Main Menu.



Notes:

1. Auto scan process may take about 18 minutes to complete.
2. Recorder is defaulted to TV mode instead of Radio mode after AUTO SCAN.

MANUAL SETUP

1. On the “INSTALLATION” page, highlight “MANUAL SETUP” and press the “ENTER” button.
2. Select channel number. Be sure you know the channel number and its RF frequency. You may refer to Digital TV and Radio channel table in Appendix 1.
3. Press “▼” button to highlight “Frequency”, “Bandwidth” and “Priority” to make sure the parameters are correct, then press “▼” button to highlight “Start Scan” and press the “ENTER” button to start scanning.



- If scanning is successful, “Start Scan” will change to “Get Channel Success” and signal quality will be shown. At this point you can press “EXIT” to leave “MANUAL SETUP” or continue scanning other channels.
- If scanning is unsuccessful, “Start Scan” will change to “Timeout Error”. At this point you can rescan the signal or refer to the SIGNAL LEVEL bar and signal QUALITY for aligning the direction of the antenna to get the signal. Refer to your antenna installer if problem persists.

Notes:

1. For Australia, the BANDWIDTH should be 7MHz.
2. The PRIORITY should be set to “HIGH” for Australia.
3. **SIGNAL LEVEL** refers to the input RF signal strength as perceived by the recorder. Note that too strong a signal may cause erroneous readings. If you use an antenna booster and find that you still get a low signal level, your booster gain may be set too high. In this case, adjust the gain accordingly. You may also see the OSD “Bad or No Signal” or “Weak Signal” when the signal level is low.
QUALITY refers to the quality of the received digital signal. A high value of quality means that there are few errors in the signal. In the same way, a low value of quality implies that there are a large number of errors in the signal, which may cause distortions in video and audio.
SNR is the signal-to-noise ratio. A high SNR value means that you have a reasonably good reception (good signal level and good quality).

RESET DATA

Use this function when you want to clear channel data and reset the password to default (“0000”).

This function is to be used under any one of the following circumstances:

- When the “Region Selection” menu does not appear on step 6 of page 27;
- When moving to another city.

1. On the “INSTALLATION” page, highlight “RESET DATA” and press the “ENTER” button.
2. Select “YES” to restore to default data.
3. The recorder will reboot automatically. You will see a message “Database Empty” after the boot up process. You can then proceed to set up your recorder by following the instructions on page 27.



FORMAT HARD DISK

The hard disk can be formatted to erase the entire content of the hard disk.

1. On the “INSTALLATION” page, highlight “FORMAT HARD DISK” and press the “ENTER” button.
2. Use the “◀” and “▶” buttons to highlight between “YES” and “NO”.
3. Press the “ENTER” button to start formatting or exit. Formatting the entire hard disk takes only about 5 seconds.

Note: This action is destructive and all files on the hard disk will be deleted.



S/W UPDATE

This option in the “INSTALLATION” page updates the software in the recorder. By keeping the system software up-to-date, you enjoy the latest features and bug fixes. However, before you proceed to update the software, consult your local dealer to obtain the latest software and make sure you know how to operate HyperTerminal³ for the Windows⁴ operating system on your computer.

1. Highlight “S/W UPDATE” and press the “ENTER” button.
2. Use the “◀” and “▶” buttons to highlight between “YES” and “NO”.
3. **Before you select “YES”,** follow the steps outlined below to configure your PC first:
 - (a) Connect PC to your HDD-J35 recorder with a crossed-over RS232 cable (cable for null modem).
 - (b) On the PC side:
 - Launch the HyperTerminal³ application.
 - Name the connection.
 - Select the correct COM port – usually COM1.
 - Use the following COM port settings:
 - baud rate: 115200
 - data: 8
 - parity: none
 - stop bit: 1
 - flow control: none
 - After you click the “OK” button, you may see many messages appearing in the HyperTerminal screen. Ignore them and proceed to the next step.
 - Select HyperTerminal's basic function “Transfer”.
 - Select “Send File”.
 - Browse to select the updated software file.
 - Transfer protocol: “1K Xmodem”

DO NOT click on the “Send” button at this

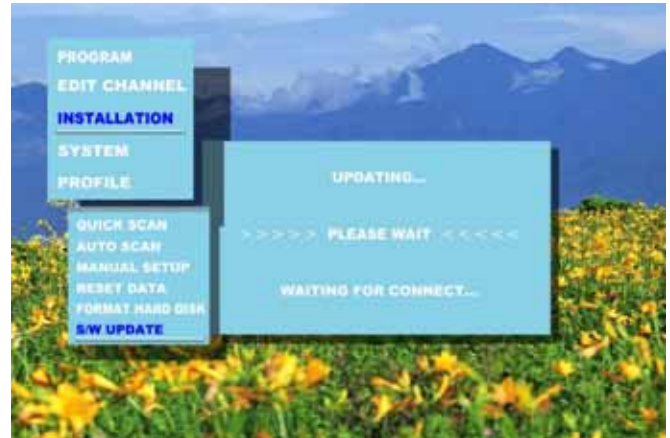


³ HyperTerminal[®] is a registered trademark of Hilgraeve Inc.

⁴ Microsoft[®] and Windows[®] are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.

time yet.

4. Now that your PC has been properly configured, you can highlight "YES" on the TV screen and press the "ENTER" button on the remote control.
5. After selecting "YES", you will see the current software version on the TV screen. Make sure this software version is different from the version of the new software file stored on your PC. Select "YES" again to proceed with the download.
6. Now click on the "Send" button on your PC HyperTerminal to start uploading the new software.
7. On the TV screen, you will see the window with a status bar indicating the download progress.
8. When download is completed, the recorder will reboot automatically. You can now exit HyperTerminal.
9. After the recorder is booted up, you will see a message window informing you that the recorder's database is empty. Note that the password will also be reset to the default "0000". Now press the "TOP MENU" button and select your region of residence.
10. On the Main Menu, select "PROFILE" and then "INFORMATION" to confirm the current software is indeed changed to the new one. You can then proceed to tune your recorder by following "INSTALLATION" instructions on page 33.



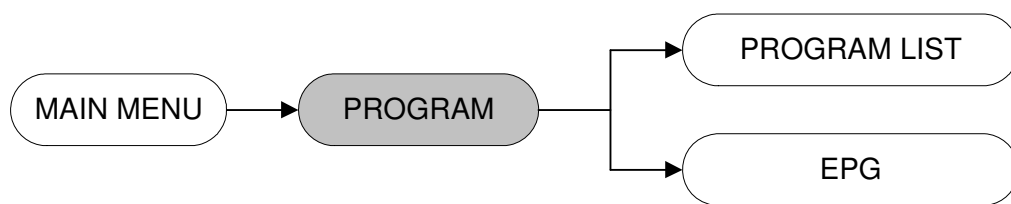
Note: It is safe to turn off the recorder only **after** the recorder has booted up automatically. **Do not** disconnect the recorder from the power source during the software update process. If there is a power failure during this time, the recorder may become unusable. In this case, contact your local dealer.

Over time, Automatic Software Upgrade service will be available as broadcasters transmit new software of your recorder. It is recommended to carry out the software upgrade so that the recorder is equipped to perform better.

1. When a new version of software for Toshiba HDD-J35 is found, an OSD appears prompting for a software upgrade.
2. Press the "ENTER" button to accept the software upgrade or the "EXIT" button to cancel.
3. If the software upgrade has been accepted, all ongoing recording(s) **will be stopped** and the system will be rebooted. Upon startup, downloading of the new software will take place. Progress is shown on the front panel display with an "OTA" and a running line.
4. The downloading process usually takes a short while and when it has completed, the system will reboot again. Upon the second startup, the system has completed the upgrading process and the database will be empty as default. Then proceed with the Installation process. (Refer to page 33)



PROGRAM



1. On the Main Menu, select “PROGRAM”
2. Use “▲” and “▼” buttons to highlight the options
 - PROGRAM LIST
 - EPG



PROGRAM LIST

1. Highlight “PROGRAM LIST” and press the “ENTER” button. This sets your current viewing mode to “Normal”. See “I-PLATE (INFO)” on page 47 for more information.
2. Use the directional buttons to highlight a channel.
3. Press the “ENTER” button to preview a channel and show “Now & Next info”. Refer to page 47 “I-PLATE (INFO)” for details.
4. To exit from the “PROGRAM LIST”, press the “EXIT” button.



Note: Another way to call up the “PROGRAM LIST” is via the “TV/Radio” button on the remote control. Refer to “TV/Radio” on page 48 for details.

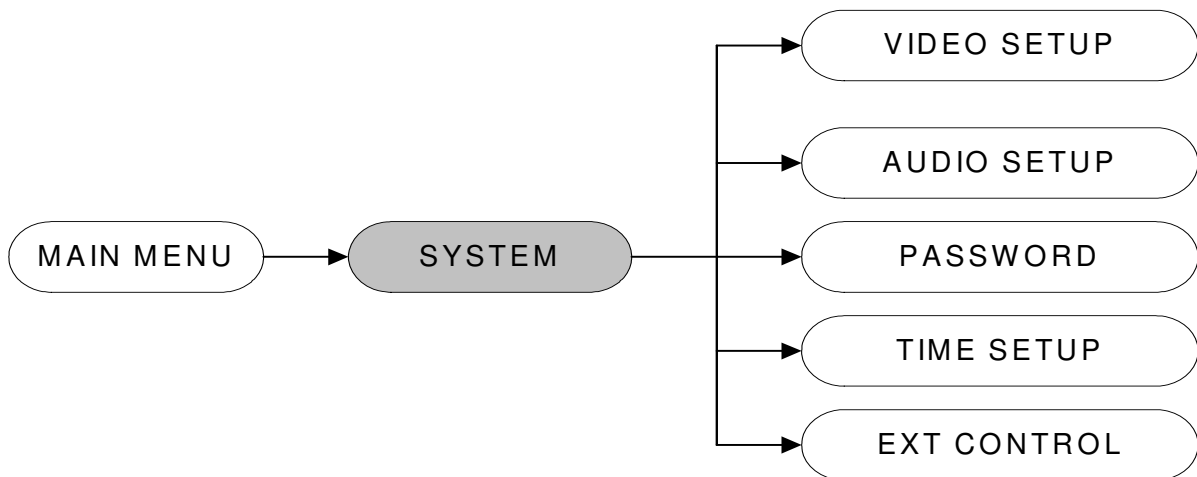
EPG (Electronic Program Guide)

1. Highlight the “EPG” and press the “ENTER” button.

Note: Another way to call up the “EPG” is via the “EPG” button on the remote control. Refer to “EPG” on page 48 for details.



SYSTEM



1. On the main menu, select "SYSTEM".
2. Use the "▲" and "▼" buttons to highlight the options
 - VIDEO SETUP
 - AUDIO SETUP
 - PASSWORD
 - TIME ZONE
 - EXT CONTROL



VIDEO SETUP

1. Highlight "VIDEO SETUP" and press the "ENTER" button.
2. Use the "▲" and "▼" buttons to highlight the options
 - HD OUTPUT FORMAT
 - ASPECT RATIO

HD OUTPUT FORMAT

Use the "◀" and "▶" buttons to switch among video formats "576i" (for HD MODE Switch being set to YP_BP_R only), "AUTO", "1080i", "720p" and "576p". In "AUTO" mode, the recorder switches the video output format to the same as sent by the broadcaster automatically. Otherwise, the recorder will fix its video output at the format you have selected.

SD OUTPUT FORMAT

This setting cannot be changed.

ASPECT RATIO

Use the "◀" and "▶" buttons to switch among the three different aspect ratios "4:3 NORMAL", "16:9 WIDESCREEN" and "4:3 LETTERBOX". Refer to the table on page 51 for more information.



Notes:

1. Alternatively, you can press the “V.FORMAT” button on the remote control to change the output format as described on page 51.
2. You can also press “A.RATIO” button on the remote control to change the aspect ratio as described on page 51
3. “AUTO - 1080i” means that the recorder is in auto-switching mode and the current video format as sent by the broadcaster is 1080i. Likewise for “AUTO - 720p”, “AUTO - 576p” and “AUTO – 576i”
4. If, for purposes other than personal viewing, you display a program in a different aspect ratio from its original setting, you may infringe on the copyrights that the program may be under.

AUDIO SETUP

1. Highlight “AUDIO SETUP” and press the “ENTER” button.
2. Use the “▲” and “▼” buttons to select between “AUDIO FORMAT” and “DIGITAL OUTPUT”.
3. Press the “ENTER” button to confirm your choice.

DIGITAL OUTPUT

If the broadcasted program contains more than one type of digital audio output, use the “◀” and “▶” buttons to switch between the available options “PCM” and “Dolby Digital”.

Note: You need to connect the recorder to an amplifier with Dolby® Digital decoding capability via “DIGITAL AUDIO” optical port or coaxial port when “Dolby Digital” option is selected (Refer to page 22 for the connection details). Otherwise, you may encounter softer audio from TV.

AUDIO FORMAT

Use the “▲” and “▼” buttons to select the preferred audio format present in the program you are watching.

Note: Alternately, you can pop up the AUDIO SELECTION window by pressing the AUDIO button on the remote control. Refer to AUDIO on page 53.

PASSWORD

1. Highlight “PASSWORD” and press the “ENTER” button. When prompted, enter your current password by pressing the numeric buttons on the remote control.
2. You will then be prompted to enter the New Password.
3. Enter the new password again to reconfirm.

Notes:

1. The default password is 0000.
2. If you forget your password, consult your local dealer to perform a manual reset of your recorder.



TIME SETUP

1. Highlight "TIME SETUP" and press the "ENTER" button.
2. Select your time zone according to the region you are residing in.

For Australia:

Use the "◀" and "▶" buttons to select the local time zone you are located in.



For other region:

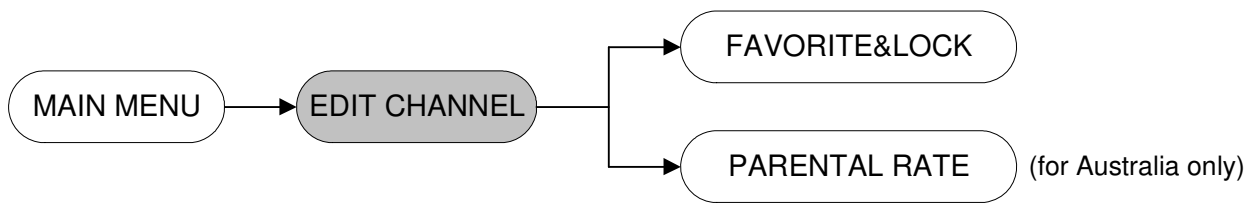
Use the "◀" and "▶" buttons to set your local time.



EXT CONTROL

For details of controlling the HDD-J35 recorder by an external device connected via the RS-232 serial port, consult your local dealer.

EDIT CHANNEL



1. On the main menu, select “EDIT CHANNEL”.

2. Enter your password when prompted.

For Australia:

– Use the “▲” and “▼” buttons to highlight the options

- FAVORITE&LOCK
- PARENTAL RATE

For other regions:

– Only “FAVORITE&LOCK” table will appear. Refer to “FAVORITE&LOCK” description below.



FAVORITE&LOCK

1. Use the “▲” and “▼” buttons to select a channel and the “◀” and “▶” buttons to highlight a “🔒”, “❤️” or “✖️” cell.

2. When a cell is highlighted, press the “ENTER” button to perform the following:

- 🔒: Toggles locking and unlocking a channel.
- ❤️: Toggles adding and removing from Fav. channel list.
- ✖️: Deletes the highlighted channel.

3. Channel names can be edited by using the virtual keyboard.

4. To activate the virtual keyboard, shift cursor over channel name and press the “Enter” button. Refer to the usage of virtual keyboard on the following page.

Note: To add back the deleted channel, you need to do Installation again (refer to page 33).



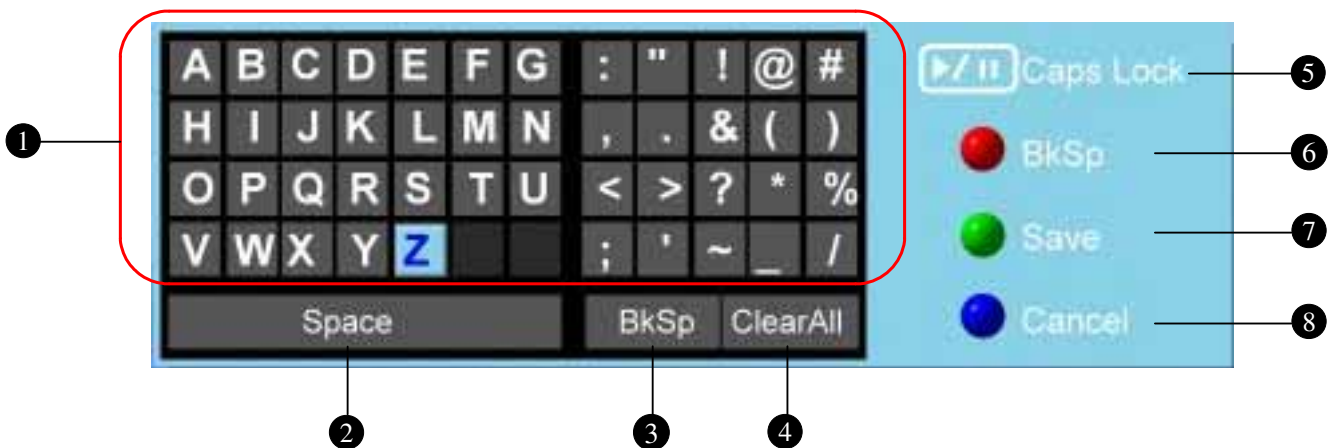
PARENTAL RATE (For Australia Only)

You can limit the type of programs displayed on the TV based on the parental guidance codes listed in Appendix 3. By default, the "PARENTAL RATE" level is set to "No Block", i.e. you can view all types of programs.

1. On the "EDIT CHANNEL" page, highlight "PARENTAL RATE" and press the "ENTER" button to block programs.
2. Use the "▲" and "▼" buttons to select the Rating and press the "EXIT" button to confirm the setting.
3. When DTV programs broadcasted are accompanied by the ratings, the programs will be blocked based on your setting. You have to enter PASSWORD to resume watching the program.



VIRTUAL KEYBOARD

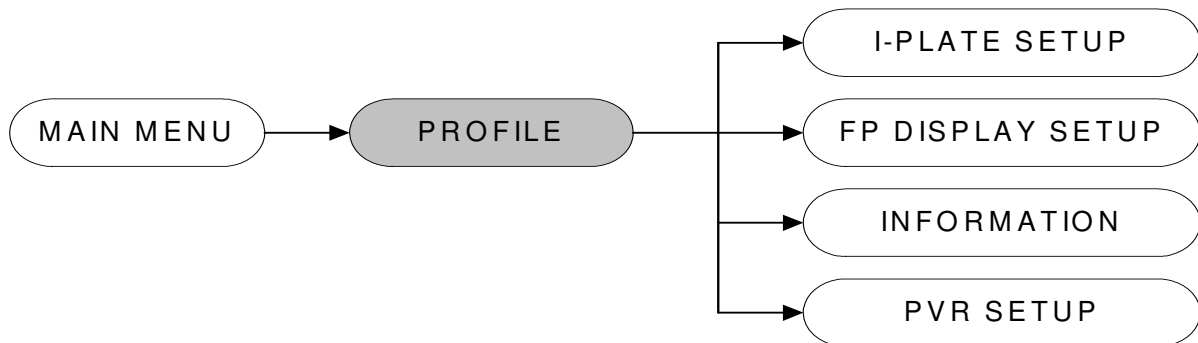


KEYPAD

- 1 Keying of alphabet characters and symbols
- SPACEBAR**
- 2 Keying of a single space between characters
- BACKSPACE**
- 3 Erases one character immediately to the left side of the cursor
- CLEAR ALL**
- 4 Erases all the characters on the input column
- CAPS LOCK**
- 5 Caps lock
- BACKSPACE** (Red colour button)
- 6 Erases one character immediately to the left side of the cursor
- SAVE** (Green colour button)
- 7 Saves the changes on the input column and returns to the previous screen
- CANCEL** (Blue colour button)
- 8 Cancels the changes on the input column and returns to the previous screen

Note: 1) Use the directional buttons to select a key, then press the "ENTER" button or "COLOUR" buttons to confirm selection.
 2) Use the Recall and Fav button to move the cursor in the edit field
 3) Yellow colour button can be used to clear all text.

PROFILE



1. On the main menu, select "PROFILE".
2. Use the "▲" and "▼" buttons to highlight the options
 - I-PLATE SETUP
 - FP DISPLAY SETUP
 - INFORMATION
 - PVR SETUP



I-PLATE SETUP

1. Highlight "I-PLATE SETUP" and press the "ENTER" button.
2. Use the "▲" and "▼" buttons to highlight "Display Time" or "Time Format".
3. Use the "◀" and "▶" buttons to change the values of the highlighted options.
4. For more information on I-PLATE, refer to page 47.



FP DISPLAY SETUP

1. Highlight "FP DISPLAY SETUP" and press the "ENTER" button.
2. Use the "▲" and "▼" buttons to choose between "MODE" and "DISP BRIGHTNESS".
3. Under "MODE", use the "◀" and "▶" buttons to choose between "TIME" and "CHANNEL NUMBER". This will change the Front Panel display information.
4. Under "DISP BRIGHTNESS", use the "◀" and "▶" buttons to choose between "OFF", "DIMMED" or "FULL". This will change the Front Panel display brightness. In "OFF" state, the "ON/STANDBY" LED indicator will light up in red colour.

Notes:

1. TIME mode sets the recorder's front panel Time and Channel Display to show current time. The displayed current time is purely based on the time sent by the broadcaster of the channel you are currently viewing, which may not be accurate.
2. When the recorder is in off-air mode, CHANNEL NUMBER sets the recorder's front panel Time and Channel Display to show the channel number sent by the broadcaster.

INFORMATION

1. Highlight "INFORMATION" and press the "ENTER" button to check hardware and software versions.



PVR SETUP

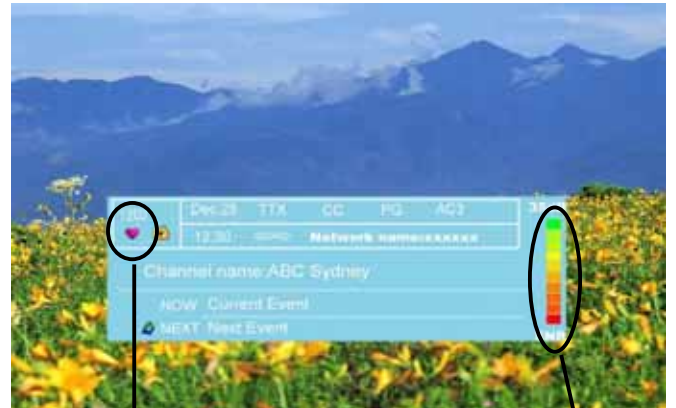
1. Highlight “PVR SETUP” and press the “ENTER” button.
2. Under “INSTANT SKIP INTERVAL”, use the “◀” and “▶” buttons to choose between “30 sec”, “1 min”, “3 min” or “5 min”. This will change the instant skip interval.
3. For more information on “INSTANT SKIP INTERVAL”, refer to page 65.



QUICK CONTROL

INFO (I-Plate)

1. When watching a DTV program (without any menu on the screen), press the "INFO" button.
2. I-PLATE will pop up with the following information:
 - Current Channel Number
 - Locking status (indicated by a padlock icon)
 - Network Name
 - Program Name
 - Audio System (Dolby® Digital or MPEG)
 - Teletext
 - Closed-Caption
 - Current Local Time (as received from the broadcaster)
 - Date and Month
 - Parental Guidance Code
 - Received program video format
 - SNR value



Indicates "Favorite" viewing mode

SNR value

If you do not press any button within a time-out period (configured in "I-PLATE SETUP" on page 44), the I-PLATE display will disappear. Alternatively, you can press the "EXIT" button to quit I-PLATE earlier.

In "Favorite" viewing mode, "▲", "▼", "CH▲" and "CH▼" buttons allow you to navigate programs in the "Favorite Channel List".

3. When I-PLATE is still on the TV screen, you can press the green button to set/unset a reminder on the next program. If the reminder will start at the same time with a reminder you have set previously, you can choose to press "ENTER to replace" or "EXIT to cancel".

4. When I-PLATE is still on the TV screen, you can press the "INFO" button again to call up the extended program information (Now & Next) of the current TV channel. **Note that the Now & Next info may not be present for some channels.**

5. Use "◀" and "▶" buttons for details on NOW and NEXT event, and "▲" and "▼" buttons for scrolling an event table that consists of more than 1 page.

6. The first row shows channel name, showing time and parental rating. The second row shows program name. The third row shows program genre or empty when data is not broadcasted.

7. Press the "EXIT" button to cancel the Now & Next info display.



TV/RADIO (PROGRAM LIST)

1. When watching a DTV program (with no menu on screen), press the “TV/Radio” button. This sets your current viewing mode to “Normal”. See “I-PLATE (INFO)” on page 47 for more information.
2. The TV “Program List” will pop up. Scroll list using the directional buttons: “▲”, “▼”, “◀” and “▶”. Press the “TV/Radio” button again to switch to Radio “Program List”.
3. Press the “ENTER” button to preview a channel. The “Program List” will stay on the screen. You can continue to preview other channels by scrolling the “Program List” and selecting a channel.
4. Press the “EXIT” button to cancel the “Program List”. You will see the “I-PLATE” which is described on page 47.



Note: Recorder remembers and displays the previous TV or Radio setting.

EPG (Electronic Program Guide)

1. Press the “EPG” button on the remote control to call up the electronic program guide. **Note there is neither video nor sound when you open the EPG window. If you are recording through Video Output, do not use the EPG function.**
2. A weekly calendar is presented. Use the “YELLOW” and “BLUE” buttons to select a day.
3. Use the directional buttons “▲”, “▼”, “◀” and “▶” to select a program.
4. Press the ENTER button to show the program details in a new popup window. Press the ENTER button again (for Current Program only) to exit EPG and watch that program immediately.
5. Press the green button to set/unset a reminder on an impending program.
6. If you set a reminder starting at the same time with a reminder you have set previously, you can choose to press “ENTER to replace” or “EXIT” to cancel”.
7. When watching a program and the time left is only 15 seconds for a booked program to start, a reminder window will pop up. Press ENTER to switch to that channel or EXIT to cancel this reminder. Reminder won't take effect when a menu page is on the screen. For information on recording using EPG, refer to next chapter.



Green button



Note: Toshiba does not provide EPG data; therefore, Toshiba is not liable for the content of such data. The data

provider may elect to discontinue the service or it may cease to be (or never be) available in your area. In any of these circumstances, the EPG feature will not function. Toshiba is not liable in the event this service is unavailable or for any consequences arising from customers having used or not being able to use this service.

FAV. (Favorite Channel List)

1. Press the “FAV.” button on the remote control to call up the “Favorite Channel List”. This sets your current viewing mode to “Favorite”. See “I-PLATE (INFO)” on page 47 for more information on viewing mode.
2. Use the “▲” and “▼” buttons to browse through the favorite list and highlight the program you want to watch.
3. Press the “ENTER” button to confirm your choice.
4. Press the “EXIT” button to cancel the list.
5. To exit “Favorite” viewing mode, press the “TV/RADIO” button or any “CHANNEL NUMBER” buttons of a non-favorite program.



PIP (Picture-in-Picture)

1. PIP feature is applicable for High Definition and Standard Definition format programs. PIP also displays sources from Auxiliary Input (L1/L2)
2. When watching a TV program (not in the main menu), press the “PIP” button on the remote control to bring up the PIP window.
3. The last seen off-air program using PIP will be shown on the PIP window. Use the “▲” and “▼” buttons to browse through different programs in the PIP window just like the way browsing is done in the main window.
4. Press the “PIP.POS” button to toggle among the different modes of the PIP window. For double window mode as shown on the right, the left window is the main window.
5. Press the “PIP.SWAP” button to swap programs between the main window and PIP window.
6. Press the “PIP.AUX” button to display and toggle among inputs connected through Auxiliary (L1/L2).
7. To close the PIP window, simply press the “PIP” button.



Notes:

1. If you use the PIP function to view programs for purposes other than personal viewing, you may infringe on the copyrights that the programs may be under.
2. PIP is only capable of viewing off-air programs and sources from Auxiliary Input (L1/L2). Attempts to perform playback in PIP will not be permitted.
3. When PIP is on and a recording is also in progress, certain restrictions will be imposed on the channels available for display.

TTX (Teletext)

1. When I-PLATE indicates the presence of Teletext, you can press the "TTX" button on the remote control to view Teletext on the TV screen. If you are in those regions that support Fastext, you may also use the 4 colored buttons for Fastext.
2. Use the "▲" or "▼" button to view the next or previous TTX page. Use the numeric buttons to input a TTX page number to view the page directly.
3. To exit from Teletext display, you have 3 choices: press the (1) "TTX" button, or (2) "EXIT" button, or (3) "CH▲" or "CH▼" button. A message "Teletext/Closed Caption OFF" appears for 5 seconds.

Notes:



1. If "TTX / CC ON" appears on the TV screen when you press a button to activate a function, this means the function is not permitted in TTX mode.
2. To speed up Teletext browsing, pages you have visited previously will be stored internally in the recorder. If you re-visit a page, you may see old contents being displayed initially but the page will be updated as soon as new information is received from the broadcaster.
3. If you leave a fixed text for a long period of time, a permanent afterimage may remain on your screen.
4. Play, Stop and Record buttons are operable when TTX is shown.

CC (Closed Caption) (For Australia Only)

1. Press the "CC" button on the remote control to call up the subtitle.
2. If the current program you preview supports the Closed Caption, a message "CC ON" appears on the TV screen for 5 seconds, and you will see the subtitle appears on the TV.
3. Otherwise if the current program you preview doesn't supports the Closed Caption, a message "CC is not available" appears on the TV screen for 5 seconds.
4. To exit from Closed Caption display, you have 4 choices: press the (1) "CC" button, or (2) "TTX" button, or (3) "EXIT" button, or (4) "CH▲" or "CH▼" button. A message "Teletext/Closed Caption OFF" appears for 5 seconds.

Note:

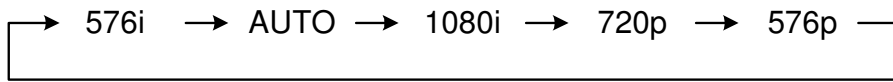


1. If "TTX / CC ON" appears on the TV screen when you press a button to activate a function, this means the function is not permitted in CC mode.
2. Play, Stop and Record buttons are operable when CC is shown.

V.FORMAT (Video Format)


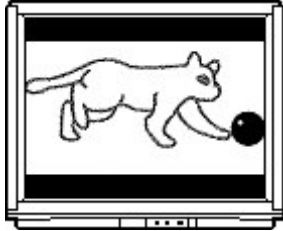

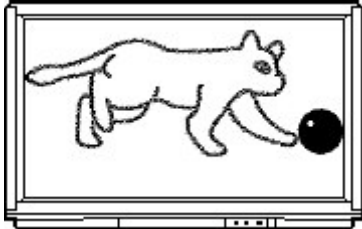
The "V.FORMAT" button on the remote control is used to change the video format setting among "576i", "AUTO", "1080i", "720p", and "576p".

1. 1st button press displays the current video format
2. Next press (within 5 seconds) sets the video format to the next format.




A.RATIO (ASPECT RATIO)

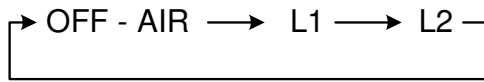
1. Press the "A.RATIO" button on the remote control to show current aspect ratio.
2. Within 5 seconds, pressing the "A.RATIO" button again will change the aspect ratio. Keep pressing this button will adjust the aspect ratio among "Normal", "Letterbox" and "Widescreen".
3. The recommended settings are shown in the table below:

	If you are watching a 4:3 program	If you are watching a 16:9 program
If you are using a 4:3 TV	 <p>Use "4:3 NORMAL". If this setting is selected and your program is in 16:9, both sides of the picture will be cut off to fill your 4:3 TV.</p>	 <p>Use "4:3 LETTERBOX". This setting allows you to display a 16:9 program on a 4:3 TV screen in letterbox (with masking bars above and below the picture). If this viewing is continued for a long period of time, it may cause a permanent image burn to the TV screen.</p>
If you are using a 16:9 TV	 <p>Use "16:9 WIDESCREEN". This setting allows you to display a 4:3 program on a 16:9 TV screen in widescreen (with masking bars on both sides of the picture). If this viewing is continued for a long period of time, it may cause a permanent image burn to the TV screen.</p>	 <p>Use "16:9 WIDESCREEN". This is the default aspect ratio setting for Australia.</p>

Note: If, for purposes other than personal viewing, you display a program in an aspect ratio different from its original setting, you may infringe on the copyrights that the program may be under.

INPUT SELECT

1. The recorder has a set of Component and Composite Video input which allows connection to external sources like the DVD player, cable box, satellite box or VCR. (For connections, refer to CONNECTING TO DVD PLAYER and CONNECTING TO CABLE BOX/SATELLITE BOX/VCR on page 23)
2. Press the INPUT SELECT button  to select between the various input sources including off-air programs.



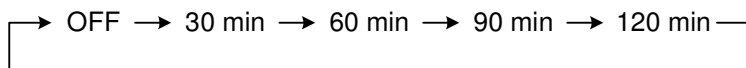
Important: Display is only available for output connection made via HDMI.

SLEEP

The "SLEEP" button on the remote control is used to set the off-timer value.

To set the off-timer:

1. Press "SLEEP" button to start the timer at "OFF".
2. Next press of the "SLEEP" button (within 5 seconds) will set the recorder to the next off-timer value. Use the "SLEEP" button to set the desired off-timer value.
3. The menu turns off after 5 seconds, and the timer starts.



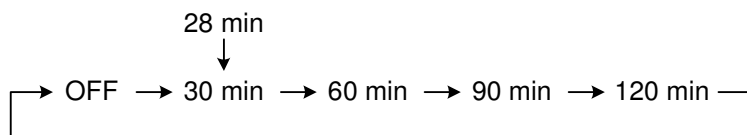
To check the remaining time:

1. Once the off-timer has been set, press "SLEEP" button once.
2. Current remaining time is displayed on the screen, and then turns off after 5 seconds.

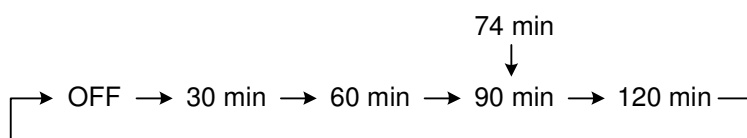
To change the off-timer:

1. Once the off-timer has been set, press "SLEEP" button once.
2. Current remaining time is displayed on the screen. Before the OSD turns off, press "SLEEP" button again within 5 seconds, and the off-timer will be changed to the next bigger off-timer value.

For example, if current remaining time is "28 min", press "SLEEP" button again, and off-timer will be changed to "30 min".



If current remaining time is "74 min", press "SLEEP" button again and off-timer will change to "90 min".



Note: When the sleep timer has only 1 minute left, an OSD "SLEEP 1 min." will automatically appear and stay on the screen. When the sleep timer counts down to 0, the recorder automatically shuts down by itself to standby mode.

AUDIO

- 1.** Press the AUDIO button on the remote control.
- 2.** Use the “▲” and “▼” buttons to select the preferred audio format present in the program you are watching.
- 3.** Press the “EXIT” button to cancel the list.



RECALL

The “RECALL” button is used to toggle between present and previous programs

- 1.** In the case you are viewing Program A, and then you change to Program B. You can press the “RECALL” button on the remote control to return to previous program A.
- 2.** Press the “RECALL” button again, and the recorder will show Program B.
- 3.** This function also toggles between TV and Radio programs.



Chapter Four

RECORDING

Recording Methods

1 OTR (One Time Recording)	56
2 Time Based Recording	57
3 EPG Recording	58

RECORDING METHODS

With dual built in tuners, this recorder allows up to two recordings to take place at the same time. However, it is to be reminded that schedules of recordings have to be carefully planned so as to avoid any conflicts between different entries. Also take note that recording of external sources connected through Auxiliary (L1/L2) is not permitted.

OTR (ONE TIME RECORDING)

To record a TV program currently being broadcasted, follow the procedures below.

1. Before recording, ensure that there is sufficient space remaining in the HDD (Refer to page 14). Delete unwanted files or archive some files using VCR to create space for recording. Refer to Library Menu and External Recording in the next chapter for instructions on deleting and archiving files.
2. Select the channel that is to be recorded.
3. Start recording by pressing the "REC" button.
4. Press "STOP" button to end recording.
5. Viewing another channel during a recording process can be achieved by just selecting another channel.
6. If two OTR recordings are taking place at the same time, select the desired channel to display on the main window and press "STOP" button to stop the recording.
7. If viewing auxiliary input (L1/L2) while recording is going on, "STOP" and "PLAY/PAUSE" button will not have effect on the recording channel. Press "INPUT SELECT" to switch to the recording channel to execute STOP or PAUSE.
8. Refer to next section on Playback to view recorded programs.
9. During recording, press the "REC" button to set a timer for stopping the recording. The timer can be set at intervals of 30 minutes and up to a maximum of 4 hours by pressing the "REC" button repeatedly. The timer can be switched off by selecting "--:--" when pressing the "REC" button.
10. OTR will create an entry in the REC MENU list and is indicated by a hand symbol beside the entry.
11. The end time of an OTR can also be edited in the REC MENU. Refer to page 57 for more information on Time-based recording.



The screenshot shows the 'REC MENU' interface with a table of recording entries. The table has columns for Channel Name, Program Name, Mode, Date, Day, Start, and End. The entries are as follows:

Channel Name	Program Name	Mode	Date	Day	Start	End
New Digital	News@9PM	Once	26 Feb	Thu	21:00	21:30
Ten Digital	News@7PM	Daily	--	--	21:15	22:00
Ten Digital	Holland Village	Weekly	--	Fri	13:00	14:00
SBC Digital	--	Once	28 Nov	Sat	13:00	14:00
--	--	--	--	--	--	--
--	--	--	--	--	--	--

At the bottom of the screen, there are four buttons: Select (with up/down arrows), Delete (red circle), Edit (blue circle), and Stop (stop icon).

TIME-BASED RECORDING

Use the REC MENU to program a recording. It will take less time to prepare, as it provides all necessary information for recording.

1. Before recording, ensure that there is sufficient space remaining in the HDD. Delete unwanted files or archive some files using VCR to create space for recording. Refer to Library Menu and External Recording in the next chapter for instructions on deleting and archiving files.

2. Press the “REC MENU” button on the remote control to call up the Record Menu. A pop-up menu will appear displaying the various inputs required to schedule a recording.

3. Press the “BLUE” button to enter a new entry or to edit an existing entry. Use the “◀” and “▶” buttons to select an input for editing, e.g. Channel Name, Mode, Date, Day, Start Time and End Time. (A smaller menu appears showing the various values under Channel Name and Mode. Use “ENTER” and “EXIT” buttons to go in and out of these smaller menus.) Take note that the menu legend changes after the “BLUE” button is pressed.

4. Under the respective subjects, use the “▲” and “▼” buttons to select between different values.

- Channel Name: Select desired channel to record. (Press enter to select)
- Mode: Select between “Once”, “Daily” or “Weekly” (Press enter to select)
- Date: Select date of recording (Editable only for “Once” mode)
- Day: Select day of recording (Editable only for “weekly” mode)
- Start: Select time to begin recording
- End: Select time to end recording

5. After all the values are set, press the “GREEN” button to save the settings.

6. Press the “BLUE” button to cancel any settings made.

7. If the new entry causes a conflict with the existing entries (i.e. overlapping recording time), the new entry cannot be saved. To overcome the conflict:

- Amend new entry by selecting other recording day or time values OR
- Press “BLUE” colour button to exit edit mode and amend existing entries (Scroll list for highlighted entries) that is in conflict with the new entry, after which the new entry is to be made again.



Note:

A conflict occurs when the start time of a new entry clashes into the duration of two existing entries occupying the same time slot or when there is an attempt to duplicate an existing entry.

8. To stop any recording in progress:
 - 1) Press the "REC MENU" button to bring up the Record Menu.
 - 2) Select the recording in progress entry in the record menu and press the "STOP" button
9. Refer to next section on Playback to view recorded programs.
10. To delete an existing entry, use the "▲" and "▼" buttons to select the entry and press the "RED" colour button.

Note: ● - Recording in progress

EPG RECORDING

Use the EPG (Electronic Program Guide) to program a recording. It will take less time to prepare, as it provides all necessary information for recording.

1. Before recording, ensure that there is sufficient space remaining in the HDD. Delete unwanted files or archive some files using VCR to create space for recording. Refer to Library Menu and External Recording in the next chapter for instructions on deleting and archiving files.
2. Press the "EPG" button on the remote control to call up the electronic program guide. **Note there is neither video nor sound when you open the EPG window. If you are recording through Video Output, do not use the EPG function.**
3. Use the "YELLOW" and "BLUE" buttons to select a recording date.
4. Use the "▲", "▼", "◀" and "▶" buttons to select a program.
5. Press the "RED" button to select the highlighted program for scheduled recording. To unselect, press the "RED" button again.



6. A pop-up menu appears prompting for recording frequency. Use the “▲” and “▼” buttons to select either “Once”, “Daily” or “Weekly” and press the “ENTER” button to confirm selection. (Program selected for recording will create an entry in the REC MENU list as well)



7. If the program selected for recording results in conflict with other recording schedules or recordings in progress, an OSD appears prompting for solution of conflict using the Record Menu. Refer to previous section on Time-Based Recording for more information on conflict solution.
8. To stop any recording in progress:
- Press the “REC MENU” button to bring up the Record Menu.
 - Select the recording in progress entry in the record menu and press the “STOP” button
9. Refer to next section on Playback to view recorded programs.

Notes:

1. When there's a power failure or accidental removal of the power plug during recording, all recordings will resume automatically when the set top box is powered up again. However, previously on-going recordings will be lost.
2. When one or two recording is going on and PIP is switched on, there are certain limitations to the available channels that can be displayed.
 - For one ongoing recording, video stream change can only be done on the main window. PIP sub-window will be locked to the recording channel's stream. (Note: A video stream contains multiple video channels, e.g. Digital 9 contains Digital 9, Digital 9 HD and 9 guide)
 - For two ongoing recordings, video stream cannot be changed on either windows. However, auxiliary input (L1/L2) can still be displayed on either window.

Chapter Five

PLAYBACK

Playback Controls

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PLAYBACK CONTROLS

LIBRARY

The Library Menu is an interface for managing all files stored inside the HDD. Operations like Playback, Delete, External Recording, Renaming and Marking are done through this menu.

1. Press "LIBRARY" button to bring up the Library Menu.
2. Choose between TV program tab and Radio program tab by pressing the "TV/Radio" button.
3. Use the "▲" and "▼" buttons to select a file.
4. Press the "ENTER" button to start playback in preview window. Press "PLAY" button to view in full screen.
5. To delete a file, highlight the file and press the "RED" button.
6. To delete multiple files, mark all the files to be deleted and press the "RED" button.
7. To rename a file, select the file and press the "GREEN" button. A virtual keyboard will appear to facilitate renaming. Refer to page 43 on the usage of the virtual keyboard.
8. To mark a file, select the file and press the "BLUE" button. Press the "BLUE" button again to unmark.
9. To do External Recording:
 - Mark files to record to external recorders in numbering order. (First marked file – No. 1, Second marked file – No. 2)
 - Check total marked file duration is correct
 - Press "YELLOW" button to playback on screen and start recording to the external recorder.
 - Press "STOP" button to end external recording and reset all "Marked" status.

Notes:

1. During external recording, no OSDs, eg. Top Menu, Info Plate, etc can be activated.
2. PIP operation is not allowed during external recording.



QUICK CONTROL

TIME LINE BAR

- For most playback operations, a time line bar appears at the bottom of the screen to indicate the progress. The following sections elaborate on the various playback operations showing their corresponding time line bars.

PLAYBACK

Normal Playback

1. After selecting a file in the Library Menu, press the “PLAY” button to view the recorded program in full screen.
2. Pressing the Play button while watching off-air programs will also trigger playback of the latest recorded program.
3. During playback, press the “TIME BAR” button to display the Time Line Bar. The light blue coloured strip indicates the entire duration of the program while the dark blue circle indicates the location of the program that is showing.
4. Press any of the numeric buttons to skip forward a certain percentage of the program according to the number pressed. (i.e. ‘1’ – 10%, ‘9’ – 90%)
5. Press the “TIME BAR” or “EXIT” button to switch off the Time Line Bar display.



Pause TV Playback

1. This function allows you to pause a TV broadcast and resume viewing at a later, more convenient time, by storing the TV broadcast temporarily on the HDD.
2. While viewing a TV broadcast via this recorder or immediately before it starts, press “TIMESLIP” button. The recorder begins to store the broadcast on the HDD.
3. Press “PLAY/PAUSE” button to resume playback. Press “TIME BAR” button to determine location from current broadcast. Stored broadcast in the HDD is indicated on the Time Line Bar and delimited on the right by a blue line marker
4. During playback, operations like Fast Forward/Reverse, Slow Forward/Reverse and Frame Forward/Reverse can be carried out to locate a particular scene. Refer to page 65 for more information on those operations.



5. Press any of the numeric buttons to skip forward a certain percentage of the program according to the number pressed. (i.e. '1' – 10%, '9' – 90%)
6. Press "TIMESLIP" button again to exit this mode. The recorder stops storing the broadcast on the HDD. A message appears and asks whether you will save the stored data or erase it. Press the "◀" and "▶" buttons to select, then press the "ENTER" button.

Notes:

1. Pause TV recording stops when the HDD is filled up. It will not begin if the HDD is full.
2. Fast forwarding can be done up to 10 seconds prior to the current broadcast.

Chase Play

1. This function allows you to begin playback from the beginning of a program currently being recorded without having to wait for the end of the recording. Playback can also proceed at a faster rate to catch up with the actual program in progress.
2. While recording a TV program on the HDD, press "TIMESLIP". The recorder displays a TV program as it is being recorded.
3. Press the "REVERSE SKIP" button to go to the beginning of the recorded program and playback starts automatically.
4. Press "TIME BAR" to determine location from current broadcast.
5. During playback, operations like Fast Forward/Reverse, Slow Forward/Reverse and Frame Forward/Reverse can be performed to locate a specific scene. In particular, Fast Forward can be used to catch up with the actual program in progress. Refer to page 65 for more information on those operations.
6. Press "TIMESLIP" again to exit this mode and the current broadcast returns.



Notes:

1. Chase Play/Recording stops when the HDD is filled up. Playback can be up to the location where the recorder stopped the recording. The Chase Play/Recording cannot begin if the HDD is full.
2. The playback picture may appear after a delay of several seconds. The playback location will never be identical to the record location in the program. It will always trail the record location by a few seconds.
3. Fast forwarding can be done up to 10 seconds prior to the current broadcast.

PLAYBACK PAUSE

- To pause playback, press the “PLAY/PAUSE” button.
- To resume normal playback, press the “PLAY/PAUSE” button.

Note: Sound is muted during playback pause mode.

STOP

- To stop playback, press the “STOP” button.

FAST FORWARD/FAST REVERSE (3 SPEEDS)

- To search for a particular scene during playback, press the “FAST FORWARD” or “FAST REVERSE” button.
- Each time a button is pressed, the playback speed changes and the Time Line Bar is displayed automatically.
- To resume normal playback, press the “PLAY/PAUSE” button.

SKIP FORWARD/REVERSE

- During playback, press the “SKIP FORWARD/REVERSE” button to skip to the next/previous recorded program in the library menu.
- Skip reverse to previous file requires 2 consecutive presses. First press goes to beginning of file and second press skips to previous file.

SLOW FORWARD/SLOW REVERSE (3 SPEEDS)

- To play in slow motion, press the “SLOW FORWARD” or “SLOW REVERSE” button.
- Each time a button is pressed, the playback speed changes
- To resume normal playback, press the “PLAY/PAUSE” button.

Note: Slow motion does not provide smooth playback.

FRAME FORWARD/FRAME REVERSE

- To play frame-by-frame, press the “PAUSE” button followed by “FAST FORWARD” or “FAST REVERSE” button.
- Each time the button is pressed, the displayed screen moves forward/reverse by a frame.
- To resume normal playback, press the “PLAY/PAUSE” button.

INSTANT SKIP

- To advance the displayed screen by a pre-determined time interval, press the “INSTANT SKIP” button.
- Each time the button is pressed, the displayed screen skips to a later time. This operation is useful for skipping commercials in between TV programs.
- The available intervals are 30 sec, 1 min, 3 min and 5 min. Choose a desirable interval under PVR setup located in Top Menu’s Profile settings. Refer to page 46 for more information on setting the “INSTANT SKIP INTERVAL”.



Chapter Six

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APPENDIX 1 AUSTRALIAN DTV CHANNEL TABLE

The following is a list of DTV channels available in Australia. You can use it for "MANUAL SETUP": On the "MANUAL SETUP" page, select the VHF or UHF channel number and input the Middle Frequency based on "kHz". For instance, if you are in Sydney and want to manually scan "Digital 7", enter "MANUAL SETUP" page, select "Channel 6" and make sure the Frequency is "177500" kHz, then start scanning. Refer to "MANUAL SETUP" for details.

City	Stations	Channel Number	Middle Frequency	Transmitter Location	Start Date
Adelaide	Digital 7	VHF 6	177.5MHz	Mt Lofty	1/1/2001
	Digital 9	VHF 8	191.625MHz	Mt Lofty	1/1/2001
	Digital 10	VHF 11	219.5MHz	Mt Lofty	1/1/2001
	Digital ABC	VHF 12	226.5MHz	Mt Lofty	1/1/2001
	Digital SBS	UHF 33	564.5MHz	Mt Lofty	1/1/2001
Brisbane	Digital 7	VHF 6	177.5MHz	Mt Coot-tha	1/1/2001
	Digital 9	VHF 8	191.625MHz	Mt Coot-tha	1/1/2001
	Digital 10	VHF 11	219.5MHz	Mt Coot-tha	1/1/2001
	Digital ABC	VHF 12	226.5MHz	Mt Coot-tha	1/1/2001
	Digital SBS	UHF 36	585.5MHz	Mt Coot-tha	1/1/2001
Melbourne	Digital 7	VHF 6	177.5MHz	Mt Dandenong	1/1/2001
	Digital 9	VHF 8	191.625MHz	Mt Dandenong	1/1/2001
	Digital 10	VHF 11	219.5MHz	Mt Dandenong	1/1/2001
	Digital ABC	VHF 12	226.5MHz	Mt Dandenong	1/1/2001
	Digital SBS	UHF 29	536.5MHz	Mt Dandenong	1/1/2001
Perth	Digital 7	VHF 6	177.5MHz	Carmel	1/1/2001
	Digital 9	VHF 8	191.625MHz	Carmel	1/1/2001
	Digital 10	VHF 11	219.5MHz	Carmel	1/1/2001
	Digital ABC	VHF 12	226.5MHz	Carmel	1/1/2001
	Digital SBS	UHF 29	536.5MHz	Bickley	1/1/2001
Sydney	Digital 7	VHF 6	177.5MHz	Artarmon	1/1/2001
	Digital 9	VHF 8	191.625MHz	Artarmon	1/1/2001
	Digital 10	VHF 11	219.5MHz	Artarmon	1/1/2001
	Digital ABC	VHF 12	226.5MHz	Artarmon	1/1/2001
	Digital SBS	UHF 34	571.5MHz	Gore Hill	1/1/2001
Gold Coast	Digital 7	UHF 53	704.5 MHz	Mt Tamborine	13/9/2004
	Digital 9	UHF 59	746.5 MHz	Mt Tamborine	13/9/2004
	Southern Cross 10	UHF 43	634.5 MHz	Mt Tamborine	13/9/2004
	Digital 10	UHF 56	725.5MHz	Mt Tamborine	13/9/2004
	Digital SBS	UHF 36	585.5MHz	Mt Tamborine	13/9/2004
	Digital ABC	UHF 62	767.5MHz	Mt Tamborine	13/9/2004
	Digital NBN	UHF 68	809.5MHz	Mt Tamborine	13/9/2004
	Digital PRIME	UHF 65	788.5MHz	Mt Tamborine	13/9/2004
Batchelor	QQQ	UHF 50	683.5MHz		
	Digital SBS	UHF 53	704.5MHz	Mardango Cres	2005

City	Stations	Channel Number	Middle Frequency	Transmitter Location	Start Date
Batchelor (Continued)	Digital ABC	UHF 56	725.5MHz	Mardango Cres	
	Digital 9	UHF 59	746.5MHz	Mardango Cres	
	Digital 7	UHF 62	767.5MHz	Mardango Cres	2005
	Digital IMPARJA	UHF 65	788.5MHz		
Canberra	Digital 10	VHF 6	177.5MHz	Black Mountain	30/6/2002
	Digital ABC	VHF 9A	205.5MHz	Black Mountain	30/6/2002
	Digital WIN	VHF 11	219.5MHz	Black Mountain	30/6/2002
	Digital PRIME	VHF 12	226.5MHz	Black Mountain	30/6/2002
	Digital SBS	UHF 30	543.5MHz	Black Mountain	30/6/2002
Darwin	Digital SBS	UHF 29	536.5MHz	Deloraine Rd	30/6/2002
	Digital ABC	UHF 30	543.5MHz	Deloraine Rd	30/6/2002
	Digital 9	UHF 31	550.5MHz	Deloraine Rd	30/6/2002
	Digital 7	UHF 32	557.5MHz	Deloraine Rd	30/6/2002
Newcastle	Digital NBN	UHF 36	585.5MHz	Mt Sugarloaf	30/6/2001
	Digital PRIME	UHF 53	704.5MHz	Mt Sugarloaf	30/6/2001
	Digital 10	UHF 51	690.5MHz	Mt Sugarloaf	30/6/2001
	Digital ABC	UHF 37	592.5MHz	Mt Sugarloaf	30/6/2001
	Digital SBS	UHF 38	599.5MHz	Mt Sugarloaf	30/6/2001
Wollongong⁵	Digital WIN	UHF 36	585.5MHz	Knights Hill	
	Digital 10	UHF 37	592.5MHz	Knights Hill	
	Digital PRIME	UHF 38	599.5MHz	Knights Hill	30/6/2002
	Digital ABC	UHF 51	690.5MHz	Knights Hill	30/6/2002
	Digital SBS	UHF 54	711.625MHz	Knights Hill	30/6/2002
Hobart	SthCrossTas	VHF 10	212.5MHz	Mt Wellington	
	Digital Win	VHF 7	184.5MHz	Mt Wellington	
	Digital ABC	VHF 8	191.625MHz	Mt Wellington	
	Digital SBS	VHF 9A	205.5MHz	Mt Wellington	
	Digital 10	VHF 11	219.5MHz	Mt Wellington	
Hobart NE	Digital ABC	UHF 56	725.5MHz	Government Hills	
	SthCrossTas	UHF 62	767.5MHz	Government Hills	
	Digital WIN	UHF 65	788.5MHz	Government Hills	
	Digital 10	UHF 66	795.5MHz	Government Hills	
	Digital SBS	UHF 64	781.5MHz	Government Hills	

Notes:

- The front panel "Time and Channel Display" shows you the logical channel number, which is different from the VHF/UHF channel number shown in the column "Channel Number" of this table.
- If you have trouble getting the signal of a DTV channel, contact your local antenna installer for help.
- The channel table in this manual may not be up-to-date. To get the latest channel table, contact your local dealer.

⁵ The local digital television services in Wollongong can be transmitted from Knights Hill, Brokers Nose or Stanwell Park. This table only lists the services from Knights Hill.

APPENDIX 2 TROUBLESHOOTING

Phenomenon	Solution
(1) The recorder front panel power indicator doesn't light up, and no message on the front panel	(a) Check the AC mains supply and make sure the power plug is well plugged into a stable power outlet.
(2) Poor picture quality	(a) Check the antenna and make sure it is aligned to the correct direction. Use the recorder's "MANUAL SETUP" page to check the signal's level and quality when aligning the antenna. (b) If you use any kind of amplifier to boost the signal level, check whether it works well, and ask help from the antenna installer.
(3) No sound	(a) Check the recorder and your TV's volume are properly set and not in "Mute" mode. (b) Check the audio connectors are correctly and firmly connected. (c) Make sure the recorder is switched to the correct audio mode: Dolby® Digital or PCM. (d) Rescan this channel by using "MANUAL SETUP". (e) Switch to other channels for confirmation on audio.
(4) No picture	(a) Check whether the HD MODE Switch is set to the correct mode. (b) Check whether your TV supports the recorder's current video format. Use the "V.FORMAT" button to switch the video format to the one supported by your TV. (c) Check the video cable(s) are correctly and firmly connected. (d) Rescan this channel by using "MANUAL SETUP". (e) Switch to other channels for confirmation on video. (f) Reduce RF amplifier gain if connected to RF booster.
(5) Wrong color on screen	(a) Check which connection you are using, RGB or YP _B Pr. Then check whether the HD MODE Switch is set to the correct mode. (b) Check the video cable(s) are correctly and firmly connected.
(6) Not all channels are available after using "AUTO SCAN" when installing the recorder for the first time	Try "MANUAL SETUP" to scan these missing channels. This phenomenon is caused by unexpected frequency offset, for instance, in Sunshine Coast Australia, channels 47 and 65 are transmitted on 662.625 and 788.625MHz by 125kHz offset to the legitimate frequencies 662.5 and 788.5MHz. HDD-J35 can receive these channels by "AUTO SCAN" most of the time, but we suggest that you use "MANUAL SETUP" when installing the recorder for the first time. Once the recorder picks up the signal, all the transmission parameters will be stored in the recorder's memory.
(7) Not all channels are available after using "QUICK SCAN"	(a) Try "AUTO SCAN" to scan all the channels. (b) If you still cannot get some channels, use "MANUAL SETUP" to scan them one by one.
(8) Cannot lock signal by using "MANUAL SETUP"	(a) Check the frequency that you entered is exactly the center frequency of the wanted channel. (b) Refer to solutions in Phenomenon (2) above.
(9) No Teletext / Closed Caption	Make sure the channel that you are watching carries Teletext / Closed Caption information from I-PLATE.
(10) No picture when the recorder is set to auxiliary mode (L1/L2)	(a) Make sure HDMI output connection is used for the display of auxiliary inputs. (b) Check the recorder's connection to external devices (page 23). (c) Check the video cable(s) are correctly and firmly connected.
(11) Cannot receive channels after moving the recorder between cities (e.g. from Melbourne to Sydney)	Refer to page 35 to reset data.
(12) The remote control does not work properly	(a) Point the remote control at the remote sensor of the recorder. (b) Operate the remote control within about 5m. (c) Replace the batteries with new ones. (d) Ensure the remote control is in STB mode by pressing the STB button.

On Screen Message

Message	Solution
(1) Bad Signal	(a) Check the antenna is connected correctly and firmly to the tuner input (ANT.IN) of the recorder. (b) Refer to solutions for Phenomenon (2) on page 70.
(2) Database is Empty	No channel data available in the box. Refer to page 33 for reinstallation.
(3) Incorrect Password	Input the correct password.
(4) Program under Parental Control	Input the correct password or change parental-rate (see page 43) to view the program.
(5) Program Locked	Input the correct password or change lock setting in menu (see page 42) to view the program.
(6) Weak Signal	Make sure antenna or signal input cable is connected correctly.

HD MODE Switch Selection

Output \ HD MODE	RGB	Y _P B _P R _R
HDMI	➔➔	➔➔
RGB Mini D-Sub	➔➔	
RGBHV	➔➔	
Y _P B _P R _R		➔➔
S-Video		➔➔
Composite	➔➔	➔➔

APPENDIX 3 PARENTAL GUIDANCE CODES

AUSTRALIAN PARENTAL GUIDANCE CODES (Normative)

Recommended on-screen-display for parental guidance codes transmitted within DVB-SI EIT information using the DVB parental_rating_descriptor.

			Receiver Menu Set-up and Suggested OSD Wording for Setting Blocking (Restriction of access)							
			Block All	Block G and above (optional)	Block PG and above	Block M and above	Block MA and above	Block AV and above	Block R and above	No Block
Transmitted rating hex code	Australian parental guide code	On-screen display	Resultant receiver action to received hex code ✓ is show program — X is block until PIN entered							
0x00	Not Classified	-	X	✓	✓	✓	✓	✓	✓	✓
0x01		-	X	✓	✓	✓	✓	✓	✓	✓
0x02	P Pre school	P	X	✓	✓	✓	✓	✓	✓	✓
0x03		P	X	✓	✓	✓	✓	✓	✓	✓
0x04	C Children's	C	X	✓	✓	✓	✓	✓	✓	✓
0x05		C	X	✓	✓	✓	✓	✓	✓	✓
0x06	G General	G	X	X	✓	✓	✓	✓	✓	✓
0x07		G	X	X	✓	✓	✓	✓	✓	✓
0x08	PG Parental Guidance Recommended	PG	X	X	X	✓	✓	✓	✓	✓
0x09		PG	X	X	X	✓	✓	✓	✓	✓
0x0A	M Mature Audience 15+	M	X	X	X	X	✓	✓	✓	✓
0x0B		M	X	X	X	X	✓	✓	✓	✓
0x0C	MA Mature Adult Audience 15+	MA	X	X	X	X	X	✓	✓	✓
0x0D		MA	X	X	X	X	X	✓	✓	✓
0x0E	AV Adult Audience, Strong violence 15+	AV	X	X	X	X	X	X	✓	✓
0x0F	R Restricted 18+	R	X	X	X	X	X	X	X	✓

APPENDIX 4 GLOSSARY

- * **Aspect Ratio:** It is the ratio of the width of the screen to the height. The two relevant digital TV formats are 16:9 (wide-screen) or 4:3 (the traditional screen ratio). 16:9 is more ergonomically suitable for the human eye.
- * **Bandwidth:** It is the frequency range that allows for carrying a certain radio signal.
- * **Coaxial Cable:** A type of cable used to transmit high frequency signals e.g. from the VHF/UHF antenna to the terrestrial Digital TV recorder.
- * **Composite Video:** There are three elements of the video system: First - the "active video" which means the picture to be displayed on the screen and its associated colors; second - the "sync" decides where to place each pixel on the screen; third - the "blanking" tells the display when to turn off the electron beam so no retrace across the screen. These three elements combined together is called "composite video" when connecting to a display through connectors.
- * **Dolby® Digital:** Dolby® Digital is a method of transmitting and storing multi-channel soundtracks via newer digital media such as DVD, digital cable, digital TV (DTV), and satellite transmissions.
- * **DVB:** Abbreviation for "Digital Video Broadcasting". An international organization created in October 1993, whose primary objective is to achieve a common framework for all technical platforms of digital broadcasting systems including DVB-C (cable), DVB-S (satellite) and DVB-T (terrestrial), etc.
- * **EPG:** Stands for "Electronic Program Guide". It is an application that allows viewers to navigate through the large number of channels offered by digital TV broadcasters.
- * **Frequency:** The property of a signal measured in cycles per second (=Hertz).
- * **HDCP:** HDCP is a specification developed by Intel Corporation to protect digital entertainment content across the HDMI interface.
- * **HDMI:** Abbreviation for High-Definition Multimedia Interface. HDMI combines high-definition video and multi-channel audio in a single digital interface to provide crystal-clear digital quality over a single cable.
- * **Letterbox:** The picture with aspect ratio 16:9 in a 4:3 TV screen with blank lines on top and bottom. It is the means to watch a wide screen TV program on a 4:3 TV screen.
- * **Megahertz (MHz):** Millions of cycles per second, which describes frequencies of radio wave or electric current.
- * **Mini D-Sub 15-pin Cable:** A type of video cable used to carry analogue RGB video signals.
- * **OSD:** Stands for "On Screen Display". It provides clearer menu functions by using the TV or monitor to display the menu while the controls are on the remote control.
- * **PVR:** Abbreviation for Personal Video Recorder. Provides settings for recording purposes.
- * **RF Channel:** Radio Frequency Channel, for instance channel 28 for SBS Network in analogue TV transmission. However, in digital TV, one RF channel may carry 4 to 6 sub-channels like SBS HD and SBS Digital.
- * **RGB:** Stands for Red, Green and Blue. RGB video is the highest quality video currently used in the AV industry.
- * **S-Video (also called Y/C):** The standard for the way a video signal is carried on the cable. Y represents brightness and C represents color. S-Video cables have separate wires for the color and brightness so it offers a better picture quality than the composite video.
- * **VHF:** Stands for "Very High Frequency", starts from 30 to 300MHz corresponding to channels 2-12, including Bands I, II and III.
- * **Video format:** It is the picture resolution of the video defined as number of pixels per line x number of horizontal lines, interlaced/progressive.
For Standard Definition (SD), the picture resolution is 720 pixels × 576 lines, interlaced (576i).

For High Definition (HD), the minimum picture resolution is 720×576 , progressive (576p)⁶. Other HD formats are $1920 \times 1080i$ and $1280 \times 720p$.

- * **UHF:** Stands for "Ultra High Frequency", starts from 300 to 3000MHz corresponding to channels 13-69, including Bands IV and V.
- * **Y/P_B/P_R:** Color difference signal, which is better than S-Video and Composite Video in terms of picture quality. Y, P_B and P_R are the standard video connectors found in HDTVs.

⁶ 576p is classified as HD format in Australia. However, it may be classified as SD format in some other regions.

APPENDIX 5 TECHNICAL SPECIFICATIONS

System

Compliant Standard	DVB-T
Video Decoding	MP @ ML & MP @ HL
Audio Decoding	Dolby® Digital, MPEG (I & II)
Audio Sampling Rate	32, 44.1, 48 kHz

Terrestrial Tuner / Demodulator

Frequency	51~858 MHz
Loop Through	51~858 MHz
Bandwidth	6, 7, 8 MHz
Demodulator	COFDM
FFT Mode	2K, 8K
Constellation	QPSK, 16QAM, 64 QAM
Guard Interval	1/4, 1/8, 1/16, 1/32
Inner Coding Rate	1/2, 2/3, 3/4, 5/6, 7/8

HDD

Capacity	160GB
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Video Output

Format	1920 × 1080i, 1280 × 720p, 720 × 576p, PAL (720 × 576i)
Vertical Scan Rate	50 Hz
Aspect Ratio	4:3, 16:9
Digital Audio Output Mode	Decompressed PCM, Compressed Dolby Digital

Front Panel

IR Receiver	Yes
Function Control	12 Keys
Channel/Clock Display	4/6 Digits

Rear Panel

Tuner Input	2 × RF PAL Female
Tuner Output	2 × RF PAL Male
Serial Port	1 × RS-232 (for external control and software upgrading)
Video Output Mode Switch	1
HDMI Output Port	1
RGBHV Output Port	5 × RCA, 1 × Mini D-Sub 15-pin
Y/P _B /P _R Video Output Port	3 × RCA (Shared with RGB in RGBHV Output Port)
Digital Audio Output Port	1 × S/PDIF Optical, 1 × S/PDIF Coaxial
S-Video Output Port	1 × Mini Din 4-pin
Video Output Port	1 × RCA
Stereo Audio Output Port	4 × RCA
Y/P _B /P _R Video Input Port	3 × RCA
Video Input Port	1 × RCA
Stereo Audio Input Port	4 × RCA

Power Supply

Input Voltage	100~240 V _{AC} , 50/60 Hz
Consumption (max.)	~35 W

Dimension

Size (W × D × H)	430 × 302 × 82 mm
Weight	4.3 kg (Unpacked)

Environmental Data

Operating Temperature	5°~ 40°C
Storage Temperature	-40°~ 65°C

Note: Specifications are subject to change without notice.

Accessories


- Remote Control (CT-90195)..... × 1
- Audio/Video cable..... × 1
- Component Video cable (Y/P_B/P_R)..... × 1
- Power cord..... × 1
- RF Loop-through cable..... × 1
- R6 (AA size) battery..... × 2
- Owner's Manual..... × 1

APPENDIX 6 INSTRUCTION GUIDE FOR PROGRAMMING REMOTE CONTROL

The remote control can be compatible with various brands of TV by setting their control codes. The TOSHIBA code has initially been set to control TOSHIBA TVs. Refer to the four methods below for programming your remote control and use the one that best suits your setup. (Note: Every change of batteries in the remote control unit will result in a reset to the default Toshiba code of 138)

Due to the great variety of TV systems, some makes and models are not compatible with your recorder's remote control. If you reach the end of the available codes without finding a code that works with your device, you will need to use your TV system's remote control to turn it on and off, and control the volume. Even if the code is found, there is a possibility that not all the buttons on your recorder's remote control will work with your TV. Control codes for regions Europe, USA and China are available on pages 79 to 86.

1. Programming

- (a) Refer to the code list for the 3-digit code of the TV brand.
- (b) Press the "TV FUNCTION" button  to set the remote control operating your TV.
- (c) Press and hold the "PROG." button, then enter the three digits of your TV brand code using the "CHANNEL NUMBER" buttons.
- (d) Check response on LED with every digit pressed;
 - 1) LED lights up after the first digit press
 - 2) LED blinks once after the second digit press
 - 3) If the code is available, LED goes off after the third digit press or else the LED will blink twice and goes off, indicating unavailable code. Go back to step (c) if an unavailable code was entered.
- (e) Release "PROG." button to leave the programming mode.
- (f) Point the remote control at your TV and use each button listed below to make sure your TV is operated correctly. (Refer to page 14 and 15 for location of buttons on remote control unit)
 - STANDBY/ON , INPUT SELECT, MUTE, CHANNEL UP/DOWN, VOLUME UP/DOWN, CHANNEL NUMBER and DIGIT SELECTION buttons.

2. Auto code search (Region)

If none of the codes listed allows you to control your TV, a code search may detect the correct code. This function performs a forward search in the code list by region.

- (a) Turn on your TV. Press and hold the "PROG." button, then press the "TV FUNCTION" button.
- (b) LED lights up, indicating that the remote control is now in programming mode. (LED will go off and remote control exits programming mode if the "TV" button is pressed or no further activity is sensed after ten seconds)
- (c) Release the "PROG." and "TV FUNCTION" buttons.
- (d) Input the code "994" (for Europe models) or "995" (for US models) or "996" (for China models).
- (e) The remote control is now in "Auto code search" mode.

- (f) Point the remote control at the TV. Every 1.5 seconds, the LED blinks once and the remote control automatically sends out "POWER" button signal 5 times from the next code in the list. The test is successful if the TV responds by powering off.
- (g) Press the "POWER" button on the remote control immediately after the TV powers off. This exits "Auto search mode" and turns the LED off.
- (h) Test other buttons to make sure your TV is operated correctly (Refer to step (f) of Programming method on previous page). If unsuccessful, repeat from step (a).
- (i) To quit "Auto code search" at any point, press any button on the remote control. Next search performed will start at the code left off the previous time.

Note: The remote control will leave "Auto code search" automatically if all codes in the list for the chosen region have been searched and is indicated by the LED turning off.

3. Brand code display

This function shows the current programmed code in the remote control. There are 3 digits in the control code and any digit can be displayed.

- (a) Press and hold the "TV FUNCTION" and "PROG." button, LED lights up.
- (b) Release the "PROG." and "TV FUNCTION" button. The remote control is now in "Brand code display" mode.
- (c) Press either "1" or "2" or "3", depending on which digit of the code you wish to know. The number of blinks in the LED represents the code (if there is no blink, the code is 0).
- (d) LED goes off and remote control exits "Brand code display" mode if the "TV" button is pressed or no further activity is sensed after ten seconds

4. Auto code search

This function is similar to "Auto code search (Region)" except that a forward search in the code list is performed for all regions.

- (a) Turn on your TV. Press and hold the "PROG." button, then press and hold the "POWER" button for 3 seconds.
- (b) LED lights up. Release the "PROG." and "POWER" buttons. The remote control is now in "Auto code search" mode indicated by a blinking LED.
- (c) Point the remote control at the TV. Every 1.5 seconds, the remote control automatically sends out "POWER" button signal 5 times from the next code in the list. The test is successful if the TV responds by powering off.
- (d) Press the "POWER" button on the remote control immediately after the TV powers off. This exits "Auto search mode" and turns the LED off.
- (e) Test other buttons to make sure your TV is operated correctly (Refer to step (e) of Programming method on previous page). If unsuccessful, repeat from step (a).
- (f) To quit "Auto code search" at any point, press any button on the remote control. Next search performed will start at the code left off the previous time.

Note: The remote control will leave "Auto code search" automatically if all codes in the list have been searched and is indicated by the LED turning off.

Code list for European Market

BRAND	CODE	BRAND	CODE	BRAND	CODE
ACE	283	Admiral	032,155	Aiwa	261
Akai	005,159,169	Albiral	001	Amstrad	006
ASA	007,009,013,032,094,155,161	Audiosonic	160	Ausind	008
Autovox	004,007,012,014,015,078,079,104,153	AWA	033,159,160,189,220	Baird	162
Basic Line	163	BEKO	170,226	Blaupunkt	010,017,018,020,054,231,232,233,234,236,241
BPL	026,160,162,163	Brionvega	104,155,164,165,200,201,257	Bruns	158
BSR	016,019,021,253	Bush(UK)	022	Cabletime	246,247,251
Century	145,146,155	CGE	019,023,024,145,151,169,170,231	CGM	093
Chaparral	216	Clarivox	001,166,167	Contec	033,253
Crosley	024,025,145,155,231	CTC Clatronic	096	Daewoo	168,209
Decca(UK)	002,004,026,028,031,258	Dual	255,258	Dual-Tec	004,011,019,029
Dumont	155	Elbe	001,171	Elite	108
Elman	019,029	Emerson	146,155	Europhon	004,019,029,030,146,269
Fenner	033,193,240	Fidelity(UK)	003,034,229	Filmnet	202,248
Finlux	007,008,009,013,025,026,029,035,094,161,169,221	Fisher	025,036,155,167,170,255	Formenti-Phoenix	003,008,025,037,038,159
France Telecom	266	Funai	016,160,253	GBC	002,004,019,025,026,031,033,039,040,041,042
Geloso	004,019,025,032,033,039,149,150	Goldstar	003,004,043,080,153,172,252,270,271	Goodmans	119
Gorenje	170,173	Granada(UK)	002,004,027,041,044,045,046,047,048,049	Grundig	003,010,018,020,045,050,051,053,054,056,094
Hanseatic	025,027,037,044,052,055,258	Hantarex	269	Hauppauigel	026
Hemmermann	057	Hinari	033,044,058,059,060	Hitachi	004,040,041,042,044,047,055,061,062,063,064,065,066,067,068,174,221,222,280
Hotel TV	274	Hyper	003,004,033,153,193	Imperial	019,023,024,145,151,169,170,231
Inno Hit	004,031,043,060,146,175,269	INTER (265)	295	Interfunk	005,027,040,045,046,052,069,070,071,073,075,155
Irradio	008,039,043,060,153,262	IT	293	ITT-Nokia	005,032,033,040,041,045,049,069,070,071,072,074,076,162,168,176,177
Janco	249,250	JVC	077,119,178,179	Kaisui	163
Karcher	159,163,175	Kendo	146	Kennedy	025,078,079
KONIG	027	Korting	037,155,157	Lenco	033,039,183,238,239,240
Lenoir	004	Loewe Opta	052,081,155,156,189,213,242	Logik	028
Luma	032,082	Luxor	005,045,047,055,068,083,084,085,086,087,162,177	Magnadyne	019,025,029,057,147,149,150,155,269
Magnafon	003,008,029,030,269	Marantz	026,027	Matsui	004,006,028,041,088,182
Maximal	058	Meletronic	255	Metz	018,053,089,090,091,155,180,183
Minerva	010,018,045,051,053	Mitsubishi	044,052,092,119,154,155,181,182,277	Mivar	003,093,094,095,245,259,269
Multisystem	159	Multitech	096,170,172	Murphy(UK)	041
NEC	184	Neckermann	004,026,044,055,082,097,170	N.E.I.	166
Noblisko	003,008,029,051,146	NOKIA	290	Nordmende	065,067,075,098,099,100,101,102,103,104,134,185,186,222

BRAND	CODE	BRAND	CODE	BRAND	CODE
Oceanic(F)	005,040,105,106,107	Onceas	004	Orion	006,016,028,057,088,108,109,187,188,189,253
Otto Versand	025,027,044,052,055	Pael	003,008	Palladium	197
RCA	204,210,211	Rediffusion(UK)	005,041,116	REX	011,021,032,078,079,118
Roadstar	039	SABA	065,067,075,085,098,099,100,103,117,155,185,186,222,224,269	Saisho	004,006,028,088,182,244
Salora	005,047,048,055,066,068,069,076,082,086,097,162,177,195,249,250,267,268	Sambers	004,008,029,030,043,269	Samsung	026,033,043,159,160,170,175,212,215,272,273,286
Sanyo	013,031,044,074,119,120,121,122,123,162,167,170,182,195,205	Schneider	004,011,015,019,025,036,038,255,258,262	SEG	096
Seleco	011,058,078	Sharp	044,054,119,124,196,198,225,227	SHOV	033
Siarem	025,029,155,269	Sicatel	001	Siemens	010,231,232,233,234,236
Siesta	254	Silver	160	Singer	025,029,147,149,155
Sinudyne	006,016,025,026,029,057,109,125,155,192,197,253	Sony	028,119,126,127,128,129,130,182,199,228,260,275	Stern	078
Panasonic/National	001,003,019,037,040,106,110,111,112,114,190,212,241	Philco	019,023,024,025,151,155,169,170,231	Philex	229
Philips	003,026,027,046,073,113,115,155,191,192,193,194,223,230,242,266	Phonola	175	Pilot (1624Y)	299 (PIP)
Pilot (P1277Y)	291	Pilot (P3033)	297	Pilot (P4005)	296
Pilot (P567)	298	Pilot (P286)	294	Pioneer	027,067,243,269
Polestar	214	Prandoni-Prince	008,032,146	Praxis	217
Prosat	001	Quelle	004,005,007,008,009,010,013,026,027,028,045,050,051,052,069,094,153,221,231,232,234,235,236,253	Radiola	242
Rank(UK)	022	RBM(UK)	022,094	Tai Wah.	218,219
Tandberg	180,253,266	Tatung	002,004,026,028,031,131	Technovision	263
Tele +1	248	Teleavia	186	Telefunken	067,075,098,132,133,134,135,140,185,186,231,235
Teleservice	203,246	Tensai	013,016,033,037,039,178	Thomson	065,067,075,078,098,100,103,185,186,222,292
Thorn-Ferguson	001,135,136,137,140,144,148,152,160,186,229,256	Toshiba	022,044,094,119,138 ⁷ ,139,141,142,190	Uher	011,012,036,037,038,078,255
Ultravox	003,025,082,096,146,155	Universum	094,160,221	Univox	001
Vegavox	169	Videocon	033,138,141,285	Voxson	032,155
Watson	037	Watt Radio	001,003,025,029,030,057	Wega Color	119,143
White Westinghouse	003,037,159	Yoko	004,159	Zanussi	078
Zenith	203,237	Others	206,207,208,264,265	北京(BEIJING)	276,281
牡丹	160	長虹(Chang Hong)	141,175,281,287,288,289	長城 / 松日 / 東大	281
東寶 / 東華	281	佳麗彩	279,281	美視	278
海信	033	海虹 / 神彩 / 康力	281	康佳(KONKA)	276,282,284
康藝 / 摩登	278	熊貓(PANDA) / 樂華	276	環宇	175,276
鶯歌	281				

⁷ Code 138 is the default code pre-programmed into the remote control unit.

Code list for USA Market

BRAND	CODE	BRAND	CODE	BRAND	CODE
A-mark	402	Abex	412	Admiral	424
Adventura	414	Aiko	423	Akai	411
Alaron	439	Allegro	457,458	Ambassador	437
Anam	419,440	AOC	402,406,411,441	Archer	402
Audiovox	402,423,440,450,455	Aumark	421	Baysonic	440
Belcor	406	Beuamark	404,411,439	Bradford	440
Broksonic	402,444,451	Brokwood	406	Candle	411,414,420,442
Carnivale	411	Carver	418	Celebrity	461
Cineral	423,450	Citizen	411,413,414,420,421,423,442,446	Clairtone	441
Concerto	420	Contec	432,440,441,467	Contec/cony	472
Craig	440	Crosley	418	Crown	413,440
CXC	440	Curtis Mathes	411,413,418,420,421,424,427,435,450,452,459,460,467	Daewoo	406,413,423,450,455,456
Daytron	406,413	Denon	427	Dumont	404,406
Dwin	457,458	Electroband	441,461	Electrohome	448,467
Emerson	406,413,437,438,439,440,441,444,446,447,451,455,456,462,467,475,476	Envision	411	Fisher	430,433,470
Fujitsu	439	Funai	436,439,440	Futuretech	440
GE	408,410,424,447,450,459,460,466	Gibraltar	404,406	Goldstar	401,406,411,413,420,464,467
Go Video	421	Gradiente	417,420	Grunpy	439,440
Harman	418	Harman/Kardon	418	Harley Davidson	439
Harvard	440	Hitachi	412,420,427,462,463,467,472,477	Infinity	418
Inteq	404	Janeil	414	JBL	418
JCB	461	JVC	417,467,472	KEC	440
Kenwood	406	Kloss	409,414	KTV	413,440,441,446,467
LG	420	Luxman	420	LXI	404,418,430,431,460,470,471
Magnavox	407,409,411,418,425,436,439,442,443,449,465,467	Marantz	411,418	MEI	441
Majustic	403	Matsushita	445	Megatron	402,427
Memorex	403,420,421,428,430,445	MGA	406,411,429	MGA/Mitsubishi	473
Midland	404,412,413	Minutz	408	Mitsubishi	406,424,428,438
Motorola	419,424	MTC	406,411,420,421,441	Multitech	440
NAD	431,435,438,471	National	419	NEC	406,411,420,453
Nikko	404,411,415,423,430,431,438,460	Noshi	405	NTC	423
Onwa	440	Optimus	430,435,445	Optonica	424,434
Orion	439,444,451	Panasonic	401,415,416,417,418,419,421,424,427,428,430,431,434,438,445,460,474	Philco	406,407,409,411,418,094,427,442,443,451,465,467
Philips	400,404,405,406,407,408,409,413,418,436,461,465,467	Pilot	406,411,413	Pioneer	435,462
Portland	406,413,423,467	Prism	416	Proscan	411,415
Proton	402,438,452,467	Pulsar	404,406	Quasar	416,419,434,445
Radio Shack	406,412,413,415,420,430,434,438,440,467,470	RCA	405,406,415,416,422,424,459,460,462,478	Realistic	411,412,413,420,430,434,438,440,470,475
Rhapsody	441	Runco	404,411,453,454,480	Sampo	411,412,413
Samsung	411,412,413,420,421,438,467,479	Samsux	413	Sansei	450
Sansui	451	Sanyo	428,430,433,470	Scotch	438
Scott	406,438,439,440,444,467	Sears	415,418,420,428,430,431,433,436,438,439,470,471,472	Semivox	440

BRAND	CODE	BRAND	CODE	BRAND	CODE
Semp	431	Sharp	413,424,432,434, 449,481,467	Shogun	406
Signature	403	Sylvania	407,409,411,425, 442	Simpson	442,443
Sony	426,461	Soundesign	438,439,440,442	Spectricon	402
Squareview	436	Starlite	440	Supre-Macy	414
Supreme	461	Sylvania	418,443,448,465, 469	Symphonic	436
Tandy	424	Tatung	402,419,471	Technics	404,415,416,445, 460
Technika	403,406,413,418, 420,421,423,428, 439,440,442,472	Technol Ace	439	Techwood	402,420
Telefunken	420	Teknika	467	TMK	420,437,438
Toshiba	421,430,431,470, 471,472	Tosonic	441	Totevision	413,467
Trical	432	Universal	408,410	Vector research	411
Victor	417	Vidikron	418	Vidtech	406,438
Viking	414	Wards	407,408,410,411, 418,420,425,426, 431,434,438,439, 443,465,466	Westinghouse	455,456
Words	403,406	Yamaha	406,411	Zenith	403,404,423,428
Zonda	402	Some models	468		

Code list for China Market

BRAND	CODE	BRAND	CODE	BRAND	CODE
Aiwa (愛華)	606,816,819	Akai (赤井/雅佳)	628,644,648,715, 716,738,765,770, 771,845	Anam	623,642,746,759
AOC (愛德蒙)	700,776	Candle/Citizen(星辰)	714,732,776	Centurion	651
Changhong(長虹)	603,606,618,621, 633,636,648,649, 657,659,676,677, 681,682,684,685, 686,718,724,742, 744,745,765,769, 770,771,773,774, 775,788,791,798, 801,803,805,808, 816,819,825,826, 827,836,838,840, 841,843,844,846, 848,849,850,854, 900,901,908,915, 916,917	Concerto	714	Conrowa(高路華)	632,637,641,648, 674,681,683,754, 755,757,758,763, 765,768,770,771, 906,907,908
Contec/Cony	623,727	Craig	623,746,759	Curtis Mathes	651,776
CXC	623	Daewoo (大宇)	607,700,782,794 817, 835	Daytron	651
Eastern (泰山)	607,649,664,676, 762,773,775,777, 781,782	Electrohome	644	Emerson (愛默生)	623,713,737
Envision	776	Etron(佳麗彩)	614,648,702,765, 770,771,773,775	Fisher(燕聲)	717, 768
Funai/Fullness (船井/富井)	623,630,737	G.E. (奇異)	642,746,759,780	General (Fujitsu) 將軍 (富士通)	655,763
Goldstar (高士達)	606,626,678,682, 684,685,686,691, 697,700,709,714, 715,716,718,721, 800,801,803,805, 808,823,908	Haier(海爾)	701,740	Hisense(海信)	632,637,638,641, 677,681,683,723, 724,754,755,757, 758,760,768,775, 829,840
Hitachi (日立)	628,634,637,638, 669,679,690,692, 695,699,714,716, 727,738,754,755, 757,758,760,763, 764,777	Imperialcrown (皇冠)	607,648,649,664, 762,765,770,771, 774,775,777,782, 823,835	Infinity	682,908
JBL	682,908	JC. Penney	655	Jinxing(金星)	602,626,632,635, 657,659,660,663, 671,677,682,700, 714,723,724,730, 736,742,744,745, 767,768,792,798, 840,908
JVC(勝利)	667,698,725,729 766,799	Kenwood(建伍)	626,715	Kloss Novabeam	645
KONKA(康佳)	601,602,604,605, 609,685,686,703, 704,718,726,728, 736,733,742,744, 745,751,752,769, 770,771,773,774, 775,783,784,785, 786,787,788,789, 790,791,792,793, 801,802,803,805, 808,821,822,828, 830,858,859,860, 861,862,863,864, 865,866,899,904, 906,908,909,912, 913	KTV	623	L/G	686,718,808
Luxman	714	LXI	798	Magnavox (美格福 斯)	619,622,643,645, 647,651,655,682, 700,722,732,776, 908
Marantz(馬蘭士)	651,776	MGA/ Mitsubishi (三 菱)	620,626,644,651, 673,676,700,705, 713,721,736,753, 776,795,842	Montgomery Ward	619,622,643,651, 682,700,713,737, 776,807,908

BRAND	CODE	BRAND	CODE	BRAND	CODE
MTC	700,776,714	NEC (恩益喜/日電)	626,648,651,652,676,680,700,714,715,716,749,755,765,770,771,773,775,776,799,803	Olympic(奧林匹亞)	648,765,770,771
Optonica	807	Panasonic National (國際/松下) (樂聲/東聲)	602,606,607,615,616,617,630,638,642,649,650,653,658,664,675,681,682,688,731,742,746,747,756,759,760,762,774,775,777,791,809,810,811,812,813,814,818,823,831,832,833,834,835,839,842,847,851,854,908	Panda(熊貓)	602,605,606,611,648,649,676,677,678,681,684,685,686,704,718,724,735,736,746,759,765,770,771,773,774,775,798,801,803,805,808,812,813,814,816,819,832,840,852,853,854,855,856,857
Penney	700,776,780	Philco	908	Peony(牡丹)	648,659,675,676,682,685,686,718,765,770,771,773,775,801,805,808,809,810,811,812,813,814,908
Philips (飛利浦)	619,622,626,643,645,647,651,655,682,684,685,686,700,715,718,722,732,741,742,753,756,776,801,803,805,808,908	Pilco	619,622,643,645,647,651,655,682,700,722,732,776	Pioneer (先鋒 / 百音)	750
Proton (普騰)	713	Quasar	642,746,759	Radio Shack	623,807
RCA	700,780	Rowa	681,758,816,874	Sampo (聲寶)	651,676,773,775,776
Samsung (三星)	626,640,651,686,700,714,715,716,718,721,773,775,776,781,800,805,808,837	Sanyo (三洋)	627,637,638,648,663,678,681,694,696,710,717,734,754,757,760,765,768,770,771,818	Scott	651,737
Sears	717,737,768,798	Sharp (夏普/聲寶)	687,689,706,712,720,743,748,773,775,806,807,815	Sherwood(獅龍)	773,775
Sky-Worth(創維)	636,641,681,683,684,685,686,718,742,744,745,773,793,801,803,805,808,868,869,870,871,872,873,874,875,876,897,898,899,902,903,904,905,906,914	Sony (新力/索尼)	600,602,612,613,625,646,656,662,681,682,684,685,686,718,739,777,796,797,801,803,805,808,818,832,842,845,874,910,911	Soundesign	713,732
SSS	623,700	Sylvania (喜萬年)	619,622,643,645,651,655,682,732,776,805,908	Tatung (大同)	802
TCL(王牌)	636,648,666,681,682,684,685,686,718,742,744,745,767,770,771,789,801,803,805,808,820,834,870,874,875,877,878,879,880,881,882,883,884,885,886,894,895,898,908	Technics	731,747,839	Techwood	714
Teknika	623,644,700,714,732,737	Tempest	659,767	Thakral(德加拉)	761
TMK	713	Toshiba (東芝)	603,608,618,637,638,648,649,657,677,681,693,754,757,760,762,765,768,770,771,772,773,777,798,800,824	Ustar(優士達)	606,773,775,816,819
Vidtech	700	Wards	619,622,643,651,682,700,713,737,776,807,908	Warumaia	607,782, 835

BRAND	CODE	BRAND	CODE	BRAND	CODE
Xoceco /Xogego (廈華)	602,647,648,659, 662,662,668,672, 678,681,765,770, 771,773,775,802, 832,842,867,887, 888,889,890,891, 892,893	Yamaha (三葉)	700	Yorx	651
摩登	708	福日	637,648,649,676, 678,684,685,686, 718,760,765,770, 771,793,801,803, 805,808,821,822	松日	614,621
松柏	773,775	永固	684,685,686,718, 773,775,801,803, 805,808	康力(Conic)	607,614,621,635, 636,649,681,730, 762,765,773,774, 775,777,823,835
康立	613,649,664,676, 684,685,686,718, 774,775,777,782, 801,803,805,808	康藝	648,708,765,770, 771,773,775	東華	621
東大	614,621,773,775	東海	773,775	東寶(TOBO)	614,621,648,678, 765,770,771,775, 860,874
南寶	606,648,765,770, 771,773,775,816, 819	南聲	648,676,765,770, 771	西湖	648,676,684,685, 686,718,765,770, 771,801,803,805, 808
北京 (Beijing)	607,621,648,649, 657,664,676,682, 684,685,686,704, 718,762,765,770, 771,773,774,775, 777,781,782,801, 803,805,808,823, 835,908	環宇(HUANYU)	606,648,676,684, 685,686,704,718, 719,760,765,771, 770,801,803,805, 808,816,819	翔宇	675,773,775
宇航	773,775	神彩	614,621,637,648, 765,770,771,773, 775	彩星	684,685,686,718, 801,803,805,808
彩虹	676,773,775	康虹	606,816,819	虹美	678
紅岩	648,676,765,770, 771	長城	607,621,648,649, 664,676,684,685, 686,718,762,765, 770,771,773,774, 775,777,781,782, 791,801,803,805, 808,814,823,835	長風	641,648,676,678, 683,765,770,771, 803
長飛	676,773,775,782	長海	676,773,775	飛躍	676,684,685,686, 718,773,775,801, 803,805,808
飛鹿	676,773,775	飛浪	773,775	飛燕	648,765,770,771
海燕	648,676,684,685, 686,718,765,770, 771,801,803,805, 808	海樂	630,675	海虹	621,649,664,762, 773,774,775,777
黃山	648,675,676,684, 685,686,718,765, 770,771,773,775, 801,803,805,808	黃河	676,684,685,686, 718,773,775,801, 803,805,808	黃龍	773,775
黃海美	773,775	山茶	648,676,765,770, 771	菊花	648,676,684,685, 686,718,765,770, 771,801,803,805, 808
百樂	607,649,664,762, 773,775,777,781, 782,803,823,835	百花	648,765,770,771, 773,775	百合花	636,684,685,686, 718,801,803,805, 808
孔雀	676,684,685,686, 718,765,773,775, 796,801,803,805, 808	天鵝	676,806,815	金鳳	676,812,813,814
金雀	648,675,765,770, 771,773,775	金鵲	676	金星	637,648,649,675, 676,684,685,686, 718,760,765,770, 771,774,801,803, 805,808

BRAND	CODE	BRAND	CODE	BRAND	CODE
金塔	606,648,684,685, 686,718,770,771, 773,775,801,803, 805,808,816,819	金海	606,816,819	上海(Shanghai)	606,635,648,661, 676,682,684,685, 686,718,730,733, 765,770,771,773, 775,791,801,803, 805,808,816,819, 908
珠海	773,775,781,782	星海	648,678,765,770, 771,773,775	利華	676
安華	630,675,791,814	嘉華	630,675,791,814	樂華	614,636,676,684, 685,686,704,718, 773,775,801,803, 805,808
華日	637,648,765,770, 771	華發	637,773,775	華強	648,765,770,771
美視	708	美樂	606,648,676,684, 685,686,718,765, 770,771,801,803, 805,808,816,819	快樂	648,678,765,770, 771,773,775
夢寐	684,685,686,718, 801,803,805,808	如意	676,684,685,686, 718,760,801,803, 805,808	幸福	773,775
雪蓮	606,684,685,686, 718,801,803,805, 808,816,819	春風	648,765,770,771, 773,775	春筍	676,773,775
鶯歌	621,684,685,686, 718,773,775,801, 803,805,808	凱歌	648,676,684,685, 686,718,765,770, 771,773,775,801, 803,805,808	威牌	773,775
韶峰	637,676,684,754, 755,760	贛新	676,684,685,686, 718,791,796,801, 803,805,808	昆崙	676,686,765,775, 782,805,812,813, 814,835
龍江	648,676,765,770, 771	青島	648,676,765,770, 771,812,813,814	瀋陽	641,676,683,765, 773,775
通廣	648,765,770,771	襄陽	648,765,770,771	塞格	676,773,775
成都	676,775	尼康	606,816	三元	676,684,685,686, 718,773,775,801, 803,805,808,815, 806
三健	648,765,770,771	888	648,765,770,771	寶花石	648,765,770,771
新日松	606,816,819	光明電子	610	韶達特技	630,675,791,814
優拉納斯	676,684,685,686, 718,801,803,805, 808				

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