Panasonic

TX-32LWD500A
TX-27LWD500A

High Definition Digital Wide Screen LCD Television

DVB ®
SD ™

HDMI ™
HIGH-DEFINITION MULTIMEDIA INTERFACE

DOLBY ®
DIGITAL
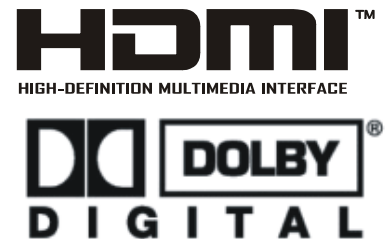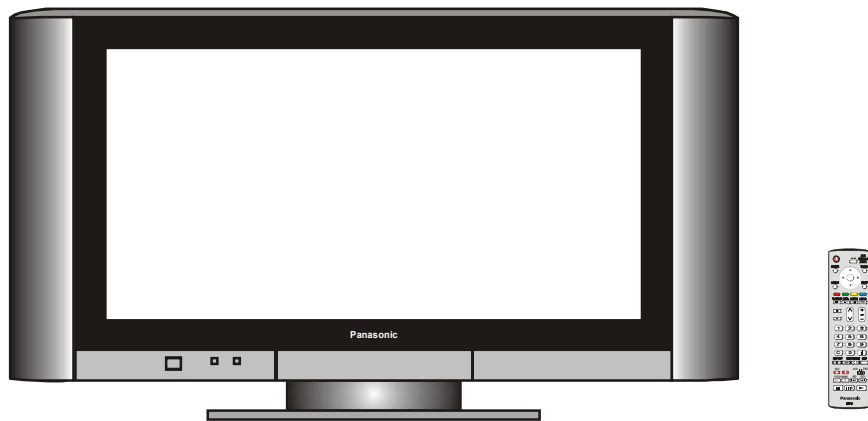
Operating Instructions

Please read these operating instructions completely before operating this set. Retain the booklet for future reference.

TQB4CM039-1

Panasonic and the Environment

REDUCE ~ REUSE ~ RECYCLE

Dear Panasonic Customer

Thank you for choosing to buy a Panasonic colour television. This product was assembled at our Panasonic Television Factory in Penrith, New South Wales, Australia under our Quality and Environmental Management System. You can therefore be assured that you have purchased a quality product incorporating environmentally friendly features including low standby power usage and lead free soldering. Our company is also continuously improving the environmental performance of our product through the elimination of hazardous chemicals including brominated flame retardants and Chromium 6.

As part of our commitment to conserving natural resources, we recognize that product packaging can be a valuable resource and if not disposed of properly, contributes the waste stream and or end up in landfill. As part of our commitment to conserving natural resources we provide the following information about the reuse, recycling and disposal of your packaging.

CARDBOARD

Cardboard comprises the majority of the packaging in your Panasonic TV and all of our cartons are manufactured with optimum levels of recycled fibre.

1.   Reuse
       Cartons can be readily folded and packed flat for storage and made up when required for later use.

2.   Recycling
       If you, or someone else has no further use for the carton, it can be flattened or cut up and placed into the recycle bin or service provided by your local council (applicable for most parts of Australia). By recycling the cardboard you are benefiting the environment by reducing waste to landfill and reducing the dependence on virgin forest timbers for paper fibre.

PLASTICS

Panasonic is reducing the number of different plastics used in both the television and its packaging.

Unfortunately you are unable to include the type of plastic used in television packaging in the curbside-recycling program. Polystyrene foam and other plastic will need to be placed in your general waste bin.

ABOUT PANASONIC

Panasonic companies world wide are committed to an environmental Policy that envisions a world where humanity co-exists with the global environment where each company strives to realize this vision by continuing to minimise the environmental impacts of all business operations and offering products and services that further improve the quality of life. Please visit the Panasonic group website on http://panasonic.co.jp/global/

Panasonic Australia Pty Limited and Panasonic AVC Networks Australia Pty Ltd are signatories to the 'National Packaging Covenant'. The covenant is an agreement between governments and member companies aimed at reducing the amount of waste going to landfill through REDUCING, REUSING and RECYCLING.

Panasonic Australia Pty Limited and Panasonic AVC Networks Australia Pty Ltd have Environmental Management Systems in place. Both companies are committed to reducing, reusing and recycling and contribute funding to support the curbside recycling of packaging and the recycling of colour television receivers.

Panasonic Australia Pty Limited and Panasonic AVC Networks Australia Pty Ltd are active participants in CESA (Consumer Electronics Supplier Association). This group is currently working on how to manage end-of-life disposal of manufactured products in an environmentally responsible manner and are collaborating with government, industry and other stakeholders in striving for best practice in Product Stewardship.

Important Information
Warning

CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN

WARNING: To reduce the risk of electric shock, Do not remove cover or back.
No user-serviceable parts inside. Refer servicing to qualified service personnel.

The lightning flash with arrow-head within a triangle is intended to tell the user that parts inside the product are a risk of electric shock to persons.

The exclamation point within a triangle is intended to tell the user that important operating and servicing instructions are in the papers with the appliance.

WARNING: To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture. Do not place liquid containers (flower vase, cups, cosmetics, etc.) above the set (including on shelves above, etc.).

WARNING: 1) To prevent electric shock, do not remove cover. No user serviceable parts inside. Refer servicing to qualified service personnel.
2) Do not remove the grounding pin on the power plug. This apparatus is equipped with a three pin grounding-type power plug. This plug will only fit a grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact an electrician.
Do not defeat the purpose of the grounding plug.

This television is heavy (please see page 31). Although the television has been tilt tested and meets current Australian and International Standards, we recommend that great care be taken when positioning the television.

*   Do not allow the front of the set to overhang the stand or cabinet.
*   Do not allow anyone to climb or sit on the television.
*   Do not place any heavy weights on the television.
*   Do not block any ventilation openings. Install in accordance with this instruction manual.
*   Apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus.
*   To reduce the risk of electric shock, do not remove cover (or back). No user-serviceable parts inside. Refer servicing to qualified service personal.
*   The apparatus must be connected to a mains socket outlet with a protected earthing connection.
*   Keep 10cm minimum distance around the apparatus for sufficient ventilation.

Analogue and Digital television - what are they?

Analogue transmission is the system that has been used for many years for broadcasting television programmes. With continuous improvements in technology it is now possible to transmit programmes in a digital format, allowing clearer pictures, more stations and other services to be displayed on screen. Digital television is provided in three different ways; it can be sent along a cable connection direct to your house, broadcast from a satellite, or broadcast using traditional land based (terrestrial) transmitters. The first two options require you to have an extra 'set top box' decoder and in the case of satellite, a receiving dish mounted outdoors.

While allowing you to receive traditional analogue transmissions in the usual way, this television can also receive terrestrial digital services using an integrated (Digital Video Broadcasting) decoder. This allows you to enjoy the new era of digital terrestrial television without the need for a 'set top box' or satellite dish - a good quality roof mounted antenna should be all you need.

Customer's Record

The serial number of this product can be found on its rear cover and on the carton. It is recommended that you note the serial number and other details in the space provided and retain this booklet in a safe place as a permanent record of your purchase to aid in identification in the event of theft or loss.

Model No.   _____

Serial No.   _____

Purchase Date   _____

Purchased From   _____

Pixel Statement (LCD)

An image on an LCD panel is created by many dots known as pixels. The more pixels on the panel, the more detailed image can be displayed. To create a colour image each pixel is made up of three tiny coloured dots (1 each of red, green and blue). This gives a total far in excess of one million individual dots manufactured into the panel. Each one of these dots is precisely controlled by the electronics of the TV to produce the picture.

Whilst Panasonic maintains the highest standards in manufacturing technology and processes in the construction of these panels, there are a number of allowable Pixel/Dot failures that would still allow the panel to be defined as a good panel. It is not possible to guarantee absolutely no pixel loss.

Contents

Getting Started
Battery Installation and Replacement
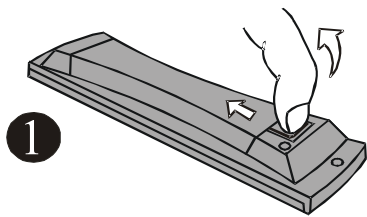
2 x "AA" Batteries

❶ Place your fingernail under the battery cover hook. Apply a slight downward and backward pressure and lift the cover off.
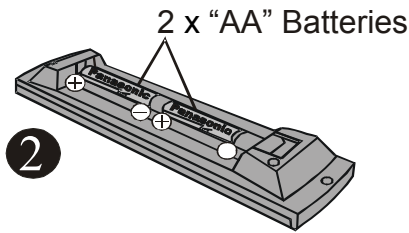
❷ Insert the batteries ensuring the correct polarity.
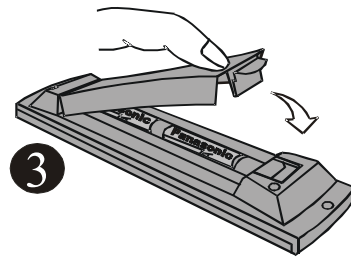
❸ Fit the battery cover and click it into place.

- **Do Not** use rechargeable batteries.
- **Do Not** mix battery types
- **Do Not** mix old and new batteries. Replace both batteries at the same time.
- **Do Not** attempt to recharge batteries.

- **Do Not** short circuit batteries.
- **Do Not** disassemble batteries.
- **Do Not** heat or burn batteries.

Using the LCD Stand

You can adjust the angle of the LCD panel to suit. The panel can swivel 15° left or right.

15°   15°

Connectors

F   RF   S-VIDEO   RCA
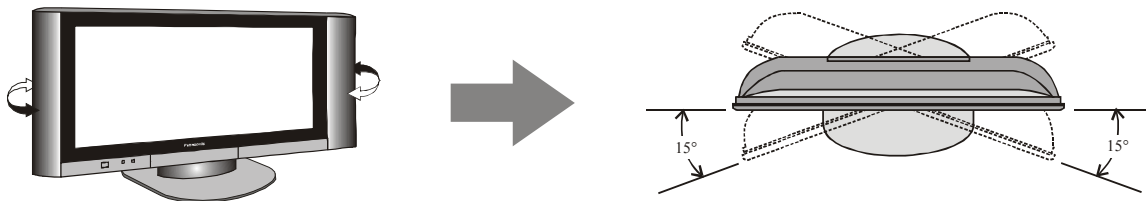
F and **RF** connectors are used for connecting antenna leads.

The **S-VIDEO** connector is used for Video only.

RCA connectors are used for video and audio connections.

Audio			Video	
Red	Right		Yellow	Composite video
White	Left		Green	Component Video (Y)
			Red	Component Video (Pr)
			Blue	Component Video (Pb)

NOTE: take care not to mix the two red RCA connectors.

Getting Started
Connecting the Antenna

Connect the television to the antenna wall plate and a good quality outside / roof antenna. This television uses an "F" connector for the RF input. If your wall plate or antenna lead is the standard "Belling Lee" connector, use the supplied "F" to "Belling Lee" adaptor.
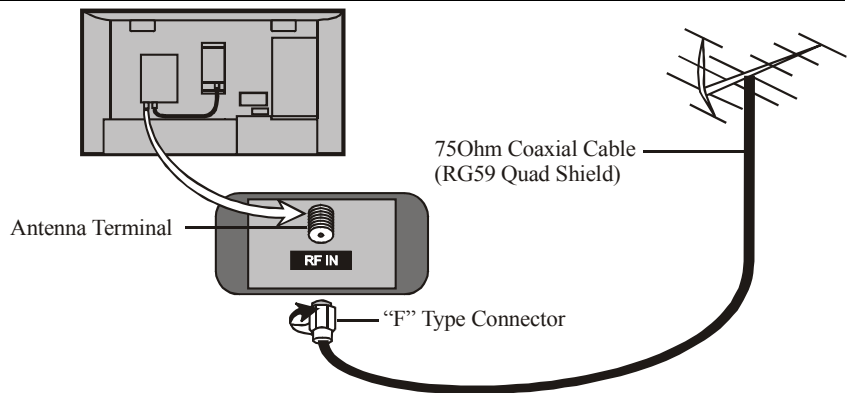
Plug the "F" connector firmly into the TV antenna input and then lock it in place with the locking nut.

NOTE: Turn the nut only, do not turn the cable.

For your safety any external antenna should be installed by a reputable qualified installer and should comply with Australian Standard AS1417.1. The RF (Antenna) Input impedance of this television is 75Ω.

75Ohm Coaxial Cable (RG59 Quad Shield)

Antenna Terminal

"F" Type Connector

Connecting DVD players and VCRs etc

For optimal Digital TV reception, use an antenna splitter (bottom page illustration) when also connecting a VCR / DVD Recorder to the digital TV.

Traditionally, with analogue TV, you will have connected the antenna to the VCR and then connected the VCR to the TV. If your signal strength is sufficient, this method can be used.

Note: It might require that the VCR or DVD recorder has to be turned on to ensure that the signal passes through to the television.

Antenna Terminal

"F" Type Connector

75Ohm Coaxial Cable (RG59 Quad Shield)

VCR / DVD Recorder etc.

Antenna Terminal

"F" Type Connector

75Ohm Coaxial Cable (RG59 Quad Shield)

Splitter

VCR / DVD Recorder etc.
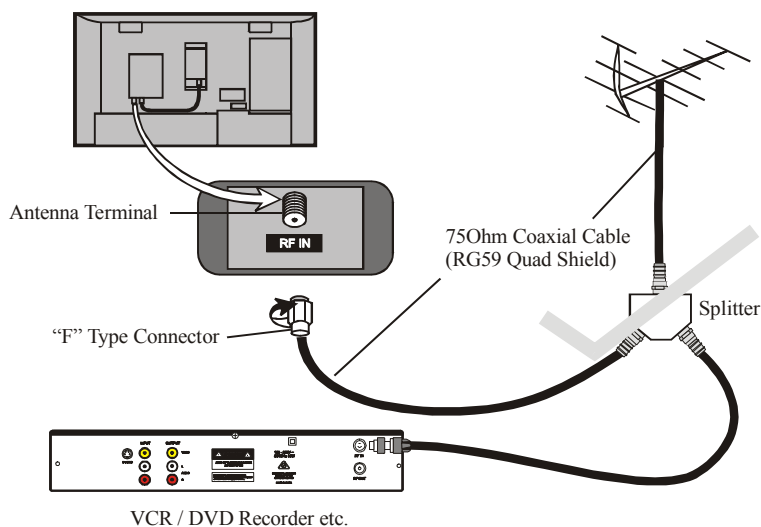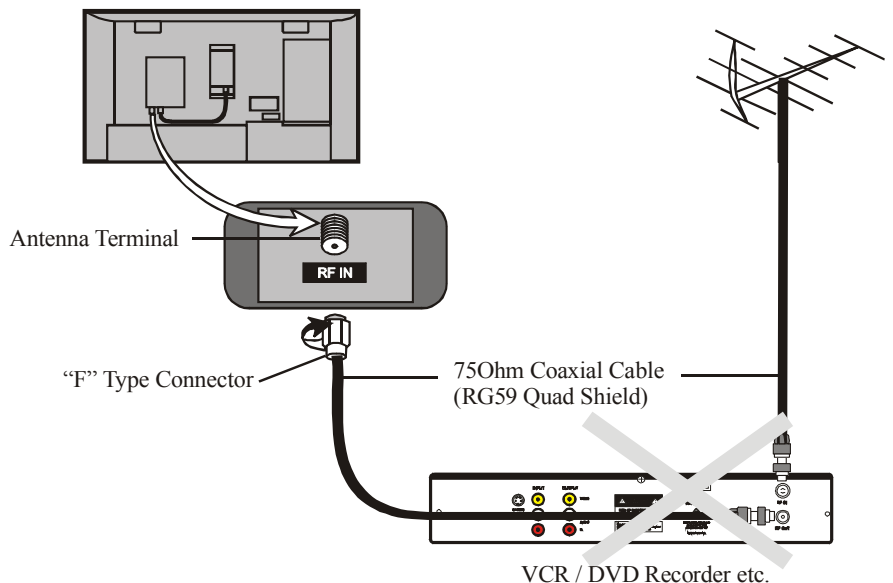
We recommend that you use a splitter to connect the antenna to the TV and to the VCR etc. This should ensure that signal loss is reduced as much as possible.

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Getting Started

Which connectors to use

First you must determine what video input connectors you have on your television. You might have:

1. Component Video (YPbPr) - represented by Red, Green and Blue RCA connectors. This connection will produce the best picture.
2. S-Video - represented by the S-Video connector. This produces the next best picture.
3. Composite Video (CVBS) - represented by a single Yellow RCA connector.

Connecting Component Video Equipment

Component Video (also called YPbPr, DVD, YUV or YCbCr) will give the best picture.
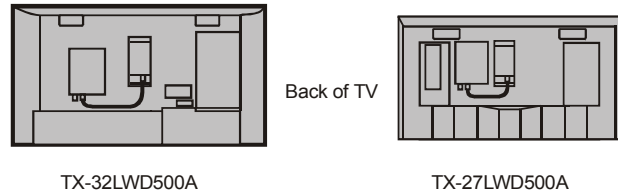
These connectors are coloured Green (Y), Blue (Pb) and Red (Pr). Make sure that you match the colours when you make your connections.

Back of TV

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OUTPUT

L (White)
R (Red)
Y (Green)
Pb (Blue)
Pr (Red)

Note: Take care not to swap the two red leads.

TX-32LWD500A   TX-27LWD500A
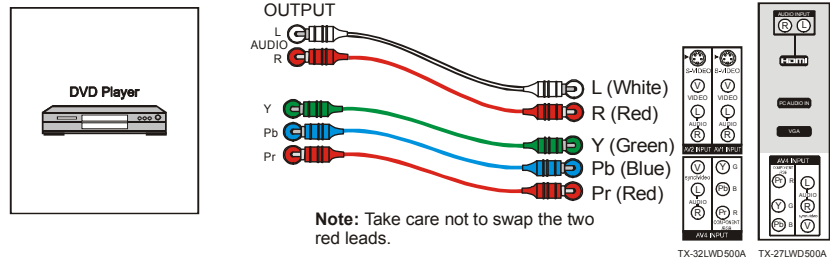
Connecting Video Equipment

Connect the antenna to the TV and the VCR as shown on page 7.

Connect the equipment using either the S-Video connector (preferred) or the Composite video (Yellow) cable.
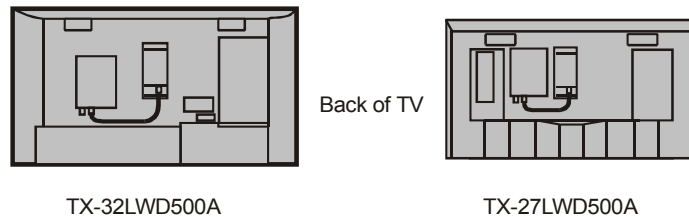
S-Video equipment uses a 4Pin Mini Din (Male) plug for the video and RCA plugs for the audio.
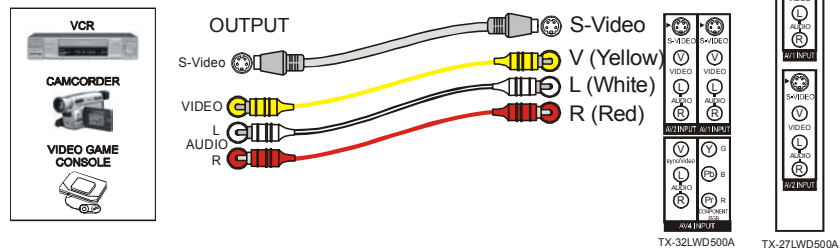
Most standard Videocassette Recorders use RCA type video and audio connectors. The connectors are:
Yellow: Video
Red   Right Audio
White   Left Audio

Back of TV

TX-32LWD500A   TX-27LWD500A

OUTPUT

S-Video
V (Yellow)
L (White)
R (Red)

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Notes:
1. If you cannot use Component video connections then S-Video is the next best choice.
2. When an S-Video cable is connected to an S-Video input terminal, the RCA video terminal for that AV position will be disconnected.
3. The Audio and Video cables are not supplied with this television.
4. If your equipment has different type connectors please refer to the manufacturer's instruction book for details.

Turn on the television

Push the Power Switch to turn the
television ON.

Notes:
1.   The TV takes approximately 10 seconds to turn ON. Like your computer, it has to run a number of diagnostic
        and software checks before it can display any broadcast channels.
2.   The indicator will be red when the television is in Standby, green when the TV is operating and off when the
        TV is unplugged.
3.   The indicator will flash when a valid code is received from the remote control when a button is pressed.
4.   If the television is not going to be used for an extended period, remove the power plug from the wall outlet.

Front Panel Controls

Push the Power Switch to turn the
television ON. Unless your dealer has
already programmed your television then
Auto Setup will begin Please refer to
page 11.

Open the front panel door to gain access
to the Television Controls.
Lift the door at the symbol on
the bottom right hand corner.
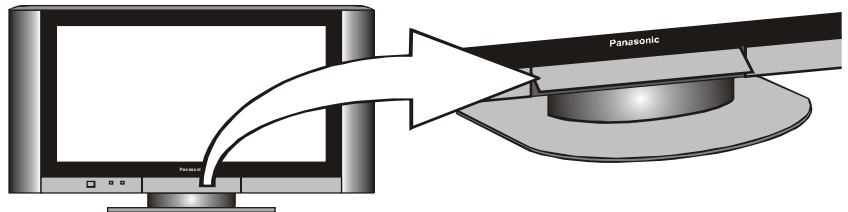
TV / AV   This button is used to select the input to be displayed on the screen. Pressing the button shows
                in turn: DVB, Analogue, AV1, AV2, AV3, AV4, HDMI, PC and back to DVB.

MENU   This button displays the main menu. From this menu you can select the Picture, Sound and
                Setup menus. See pages12, 13 and 14.

< VOLUME >   These buttons are used to turn audio volume lower or higher.
                If user menu is displayed these buttons are used to access or adjust user menu options.

\/ CHANNEL /   These buttons are used to select the next lower / higher programme number.
                If user menu is displayed these buttons are used to move up or down to select user menu
                options.

Notes:
1.   When the television is in Stand-By it is possible to turn it back on by pressing the **POWER** Button on the front
        panel.
2.   This television is designed for the Australian Standard Mains Voltage of 240V 50Hz.

Getting Started
Remote Control Buttons
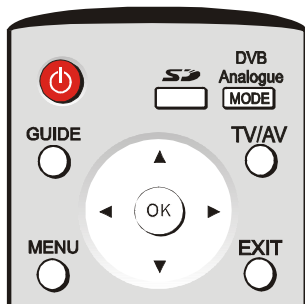
Standby	Switches TV on or off (standby).
SD	Switches the SD Card reader on or off.
Mode	Switches between viewing DVB and Analogue modes.
Guide	Displays the DVB Guide (see page 21).
TV/AV	Switches between viewing TV or AV input.
Cursor	Used to make selections and adjustments.
OK	Used to confirm selections and choices.
Menu	Press to access the Picture, Sound and Setup menus
Exit	Used to exit the menu system.

Coloured buttons	Used for the selection, navigation and operation of various functions. (See page 20 for AV selection)
TV/ Text	Switches between TV and Teletext modes
STTL	Displays subtitles if available (see page 23).
Index	Selects the teletext index page.
Hold	Freezes the Teletext page. Press again to return to normal.
N	(Normalise). Will recall stored settings.
Mute	Switches the sound mute on or off.
Channel up/down	(∧ ∨) Selects the next higher or lower channel.
Volume up/down	(+ -) Increases or decreases the volume.
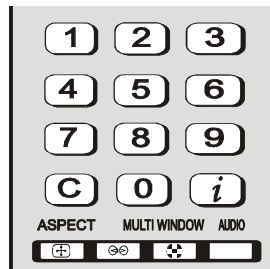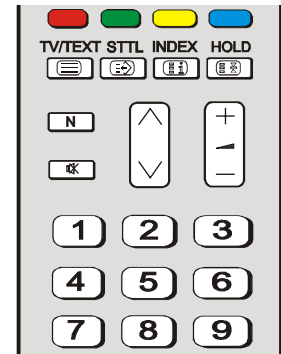
Numeric buttons	Used for: - Programme / channel change.
C	(Direct channel access) - During analogue TV viewing or when in the Tuning menu, press and then enter channel number using the numeric buttons. (Press again for special channels).
i	(Information) - Shows status information for the current Programme position.
Aspect	Changes the aspect ratio of the TV (see page 22).
Ambience	Turns the "Surround Sound" on or off.
MULTI WINDOW	(see page 22)
AUDIO	(see page 22).

The Remote Control is capable of operating some functions of selected Panasonic VCRs and DVD (Digital Versatile Disc) equipment. Some VCR and DVD equipment have different functions, so to ensure compatibility please refer to the equipment's instruction book or consult your dealer for details.

Record	Press this button to start recording
Standby	Switches the VCR or DVD player on or off (standby).
VCR/DVD Switch	The position of this switch selects whether the remote control operates a VCR or DVD player.
Programme up/down	Selects the next higher or lower channel on the VCR.
Skip / Fast Forward / Cue	VCR: Press to fast forward the tape. In Play mode, press to view the picture rapidly forward.
	DVD: Press once to skip to next track. Press and hold to view the picture rapidly forward.
Skip / Rewind / Review	VCR: Press to rewind the tape. In Play mode, press to view the picture rapidly backwards.
	DVD: Press once to skip to next track. Press and hold to view the picture rapidly forward.
Stop	Press to stop the tape or DVD.
Pause/Still	Press in Play mode, the picture will pause. Press again to restart.
Play	Press to start the VCR or DVD playing.

Plug the television into the mains and switch it on.

Unless your dealer has already programmed the television for your state or territory, you will have to perform an Auto Setup.

Use the **UP** or **DOWN** buttons to select the state or territory in which you live.

Press the **OK** button to start the Auto Setup.

State/Territory Selection

| New South Wales / Australian Capital Territory |
| Victoria |
| South Australia |
| Queensland |
| Western Australia |
| Tasmania |
| Northern Territory |

Change — Start / Auto Setup — Exit

AUTO SETUP IN PROGRESS
SEARCHING

05

PLEASE WAIT
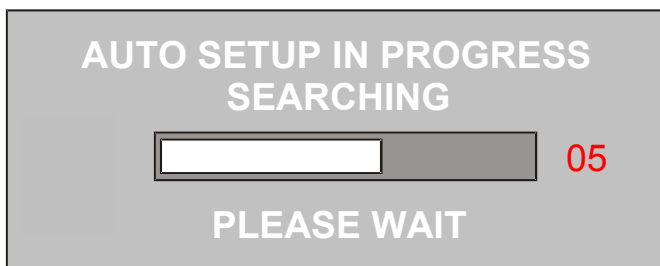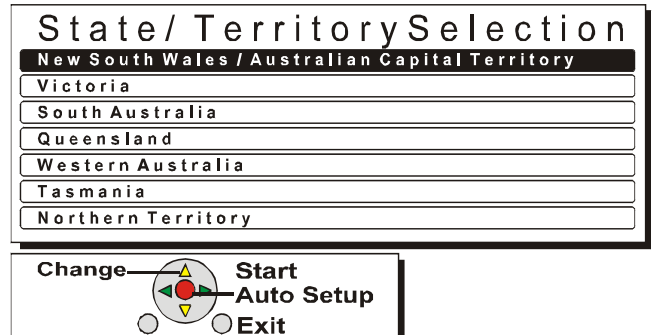
The television will search for the digital and analogue stations simultaneously. TV stations will be located and stored ready for use.

DVB channels are stored into logical channel numbers.

Analogue stations are stored in the order in which they are found. The programme order depends on the TV signal, the broadcasting system and reception conditions.

Using the On-Screen Displays

This TV has a comprehensive system of On-Screen Display (OSD) menus to access adjustments and options

Main Menu
| Picture Menu |
| Sound Menu |
| Setup Menu |

Select — Access — Exit
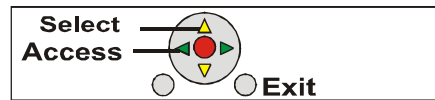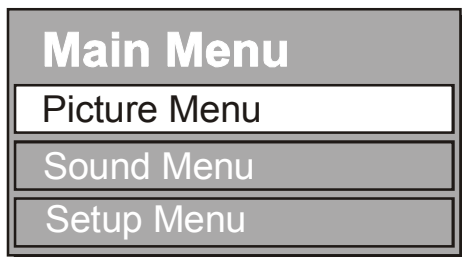
Some selections, for example, Contrast, Brightness, Colour and Sharpness will allow you to increase or decrease their level.

Some selections, for example, Power On Preference, allow a change of setting to be made.

Some selections, for example, Tuning Menu, will lead to a further menu.

The **OK** button is used in some menus to store settings after adjustments have been made or options have been set: for example DVB System Setup.

The **MENU** button will take you back to the previous menu. The **EXIT** button is used to exit the menu system and return to the normal viewing screen.

Picture menu operation

Press the **MENU** Button.

Main Menu

Picture Menu

Sound Menu

Setup Menu
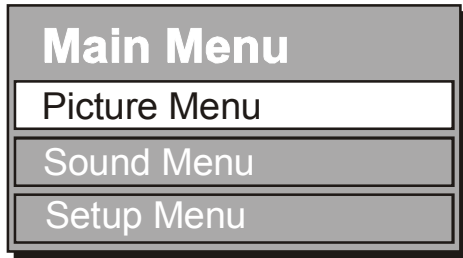
Use the **UP** and **DOWN** buttons to move to the **Picture Menu**.

Press the **LEFT, RIGHT** or **OK** button to access the **Picture Menu** settings.

Picture Menu

Viewing Mode	Custom
Contrast	32
Brightness	32
Colour	25
Sharpness	03
Tint	28
Backlight	Auto
Colour Balance	Normal
P-NR	Medium

Use the **LEFT** and **RIGHT** buttons to adjust the level or change the option.

Viewing mode	The Viewing mode menu allows you to change the picture setting between Standard, Dynamic, Game and Custom.

	Standard	For viewing in normal (evening lighting) environments. This menu selects the normal levels of Brightness and Contrast.
	Dynamic	For viewing in brightly lit rooms. This menu selects higher than normal levels of Brightness and Contrast.
	Game	Used for playing video games or viewing a PC. Provides sharper picture and brighter colours
	Custom	This mode allows you to set your own personal preferences for Contrast, Brightness, Colour, Sharpness and Tint (NTSC only).

Contrast **Brightness** **Colour** **Sharpness**	The Contrast, Brightness, Colour and Sharpness levels can be adjusted to suit your own preferences. These adjustments are only available in the Custom mode.
Tint	The Tint adjustment will only appear as a menu item if you have an NTSC signal source connected to the TV. You will be able to adjust the picture hue.
Backlight	The television has a built in backlight to provide the brightness levels needed to display the picture. You can set the backlight level to Auto, Low, Medium or High. In Auto mode the TV will sense the ambient brightness and adjust the backlight automatically.
Colour balance	The Colour balance setting allows you to set the overall colour tone of the picture. You can switch between Cool, Normal and Warm.
P-NR	P-NR will automatically reduce unwanted picture noise.

Press the **MENU** Button.

Main Menu

Picture Menu
Sound Menu
Setup Menu
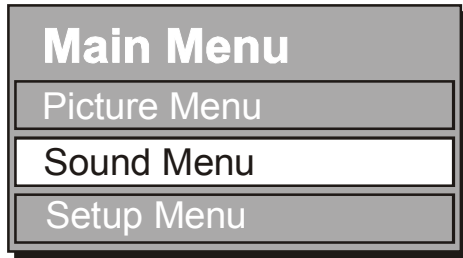
Use the **UP** and **DOWN** buttons to move to the **Sound Menu**.

Press the **LEFT, RIGHT** or **OK** button to access the **Sound Menu** settings.

Sound Menu

Mode	Custom
Bass	18
Treble	18
Balance	32
Headphone Volume	23
Analogue MPX	Stereo
Ambience	On
Audio Delay	Off

Use the **LEFT** and **RIGHT** buttons to adjust the level or change the option.

Mode	The sound can be improved during Music, Cinema, Speech or Custom mode by selecting the appropriate function.

Music	For shows which have a mainly musical content – video clips, music shows etc.
Cinema	Use to recreate the ambience of a cinema. Used mainly for movies.
Speech	For shows where speech is the main audio content – news, chat shows etc
Custom	This mode allows you to set your own personal preferences for Bass and Treble.

Bass	Bass adjustment will emphasise the lower, deeper frequencies and can be increased or decreased. This is only adjustable in Custom mode.
Treble	Treble adjustment will emphasise the sharper, higher frequencies and can be increased or decreased. This is only adjustable in Custom mode.
Balance	Balance affects the levels of sound between the left and right speakers. Adjustment can be made so that the level from the speakers will suit your listening position.
Headphone volume	The headphone volume can be adjusted independently of the TV speakers so that everyone can enjoy listening at their own comfort level.
Analogue MPX	Switch between Stereo and Mono. If analogue reception deteriorates it is advisable to switch to Mono.
Ambience	Used to turn the Surround sound On or Off.
Audio Delay	This feature can be used to correct minor audio synchronisation problems. The range of adjustment is 10ms ~ 25ms. The feature is usually turned Off.

Setup menu operation

Press the **MENU** Button.
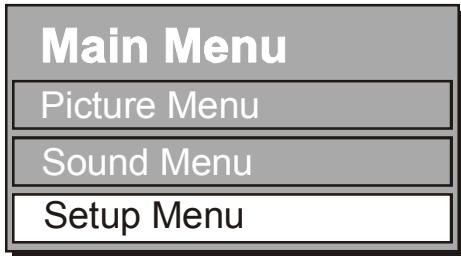
Main Menu

Picture Menu

Sound Menu

Setup Menu

Use the **UP** and **DOWN** buttons to move to the **Setup Menu**.

Press the **LEFT, RIGHT** or **OK** button to access the **Setup Menu** settings.

Setup Menu

AV4 In Select	**Component**
Power On Preference	**Last Memory**
Volume Correction	**0**
Analogue Tuning Menu	
DVB System Setup	
DVB Tuning Menu	
HDMI Audio	**HDMI**
PC Input Setup	

Use the **LEFT** and **RIGHT** buttons to adjust the level or change the option.

AV4 In Select

Allows you to select which video source to apply to the AV4 input. You can switch between Component (YPbPr), RGB and CVBS (Standard video).

Power On Preference

This feature allows you to decide what mode the TV will be in when you turn it on. You can choose between DVB (Digital), TV (Analogue) and Last Memory (whatever mode the TV is in when you turn it off).

Volume correction

Volume correction (in AV mode only) allows you to adjust the volume level of each AV input to compensate for any differences in audio levels from external equipment.

Analogue Tuning Menu

Allows access to the Analogue Tuning Menu (Please refer to page 19)

DVB System setup

The DVB System setup provides access to various specialised DVB options. See page 15.

DVB Tuning Menu

DVB Auto setup allows you to clear all current digital tuning data and scan for new services. Please refer to page 17.

HDMI Audio

This lets you select which audio input connectors to use. If you are using a HDMI source, set this option to HDMI. If you are using a DVI source, set the input to RCA.

PC Input Settings

This allows the TV to act as a PC monitor. You can adjust the horizontal size, horizontal position, vertical position and clock phase to suit your computer.

PC Input Setup

H Size		12
H Position		25
V Position		25
Clock Phase		16

Main Menu

Picture Menu

Sound Menu

Setup Menu

Press the **MENU** Button.

Use the **UP** and **DOWN** buttons to move to the **Setup Menu**.

Press the **LEFT, RIGHT** or **OK** button to access the **Setup Menu** settings.

DVB System Setup

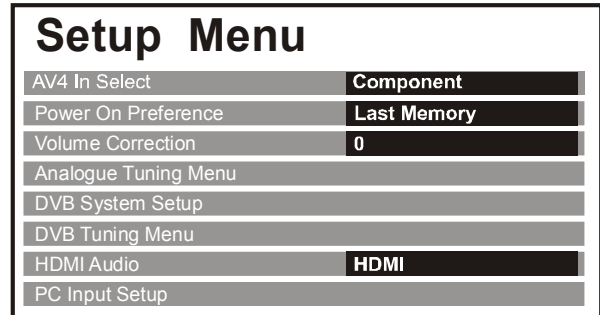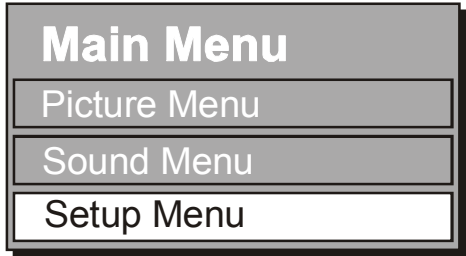| Signal Quality	Access
MPEG Audio level	0dB
Audio preference	Dolby Digital
Display timeout	4 Seconds
VCR Output Aspect	Wide
Digital Audio Select	Bitstream
Favourites Setup	
DVB Information	

Use the **UP** and **DOWN** buttons to move to the **DVB System Setup** menu.

Press the **LEFT** or **RIGHT** button to access the **DVB System Setup** menu settings

Signal Quality	This function displays an indication of signal quality for each DVB programme position. The DVB system requires a good quality signal to provide the best picture. When viewing analogue pictures, interference such as signal reflection from nearby buildings or mountains causes 'ghosting', but still provides a viewable picture. For the DVB system, interference such as this can disrupt the flow of data causing the picture to appear to be made up of large blocks, or to freeze intermittently. If the picture disappears completely, this could mean that signal quality is very poor. If this happens often, you may need to improve your antenna system to provide a better signal.
MPEG Audio Level	This allows you to change the level of the MPEG audio between 0dB and -12dB.
Audio preference	Choose between Dolby Digital and MPEG for the best sound.
Display timeout	Allows you to set how long the information banner stays on the screen. Select from 2, 4, 8 or 16 second timeouts.
VCR Output Aspect	Sets the aspect ratio for the picture provided to the VCR output. You can select Wide, Normal / Centre Cut or Normal / Letterbox. This only applies to the digital output on the IRD block. See page 26
Digital Audio Select	This lets you select the type of digital audio stream. You can choose between Bitstream PCM (Stereo) and Off.
Favourites Setup	Allows you to set up a list of favourite channels allowing you to channel surf through your personal favourites instead of through the entire range of channels, many of which are duplicates set up by the broadcasters for future use. See page 16.
DVB Information	This feature gives you technical information about the television which might be required in the event of problems or software upgrades.

DVB Information

SW Version	TM230.AI-00.17
Loader Version	0001.0001
Serial ID	FFFFFFFF
Model Name	QTM230
Model Version	00088C 11.AI
HW Description	MTM0230.AI

Favourites Setup

Allows you to set up a list of favourite channels allowing you to 'channel surf' through your personal favourites instead of through the entire range of channels. Many channels are duplicated. They have been set up by the broadcasters for future use.

Access the **DVB System Setup** (see page 15) and select **Favourites Setup**.

You can use the **Favourite Setup** to change channel.
Use the **Up** and **Down** buttons to select the channel you want.
Press the **OK** button to watch the selected channel.
The **Channel Up** (∧) button to display the next eight channels in the list.
The **Channel Down** (∨) button to display the previous eight channels in the list.

favourites
The **RED** button allows you to turn the tick mark On and Off. When a channel is ticked, it is in your list of favourites.

lock / unlock
The **GREEN** button lets you lock a channel to prevent anyone watching a particular broadcast or station.

Locking a channel

Press the **GREEN** button. You will be asked for your password.
When your password has been entered, a lock symbol will appear alongside the selected channel. Pressing the **GREEN** button again will unlock the channel.

Enter password: _ _ _ _

Note: The default password is 0000.
If you cannot remember your password, please refer to page 17 "**Change Password**" for instructions on how to reset the password

Whenever anyone wants to watch the locked channel they will be asked to enter the password.

Unlocking a channel

Press the **GREEN** button. You will be asked for your password.
When your password has been entered, the lock symbol will disappear from the selected channel.

select all
Pressing the **YELLOW** button will toggle between selecting and de-selecting all the channels. After selecting all channels, individual channels can be added using the **RED** button.
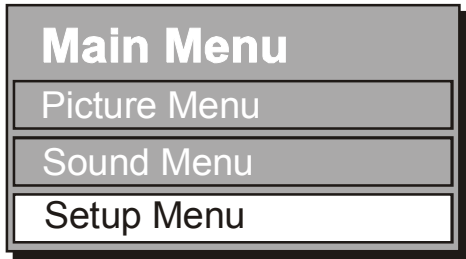
Main Menu
Picture Menu
Sound Menu
Setup Menu

Press the **MENU** Button.
Use the **UP** and **DOWN** buttons to move to the **Setup menu**.
Press the **LEFT** or **RIGHT** button to access the Setup menu settings.

DVB Tuning Menu

Channel Installation	Access
Region Select	NSW / ACT
Parental Guidance	None
Change Password	
Shipping Condition	
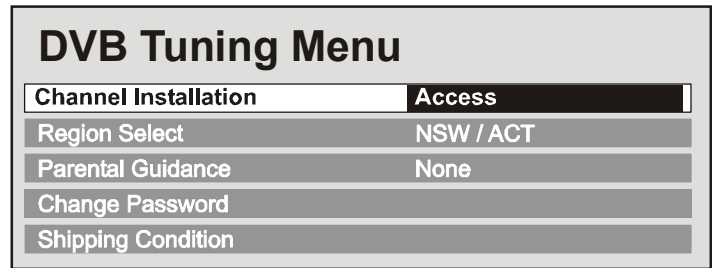
Use the **UP** and **DOWN** buttons to move to the **DVB Tuning Menu**.

Press the **LEFT**, **RIGHT** or **OK** button to access the **DVB Tuning Menu** settings

Channel Installation

Auto Scan Channels will perform an automatic tuning of all digital channels. Manual Channel Search will tune selected channels only.

Channel Installation

Auto Scan Cahnnels	Access
Manual Channel Search	6
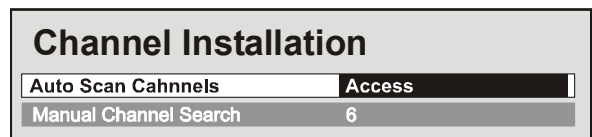
Region Select

Even though you have tuned the television to the channels in your region, you still have to make sure that the time is set correctly. The time contained in the broadcast stream is UTC (Universal time, coordinated). This function allows you to offset UTC to your local time. Use the Left and Right buttons to select your region.

Parental Guidance

You can stop people watching certain programmes by choosing which programme classifications can be shown. The level can be set to None, All, G, PG, M, MA15+, AV15+ or R. This feature only works if the broadcaster is transmitting programme classification information.

Change Password

You can change your password at any time. You will need to enter your old password first before any change can be made. Do not forget, or lose, your new password. **Note**: The default password is 0000.

Enter old password
Password: _ _ _ _

Password Changed
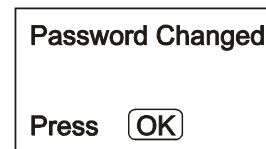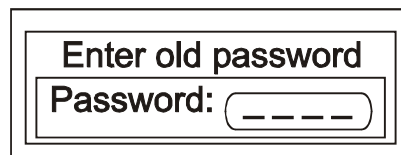
Press OK

(0)——(9) Direct Entry

To reset the password to "0000" (in case of forgotten password) use the remote control and:
Press **MENU** and Select **Setup Menu**. Press **OK**
Select **DVB System Setup** and Press **OK**

Press i, then **RED**, **GREEN**, **YELLOW** and **BLUE** buttons sequentially.
The on screen message appears: Password reset to default 0000
Press **OK**

Shipping Condition

Shipping condition allows you to reset the TV to its original condition, i.e. no channels tuned in and all settings reset to the factory default values.
This is useful; for example, if you move to a different area when you will probably want to tune the TV to your new local stations.

Shipping Condition

The **Shipping Condition** menu will reset all data; clearing all tuning information and resetting all control levels back to factory settings.

DVB Mode

Press the **MENU** Button.
Use the **UP** and **DOWN** buttons to move to the **Setup Menu**.
Press the **LEFT** or **RIGHT** button to access the **Setup Menu**.
Use the **UP** and **DOWN** buttons to move to the **Shipping Condition** feature.
Use the **LEFT** and **RIGHT** buttons to access the **Shipping Condition** feature
Press **EXIT** to exit or press **OK** to start

You will be given a warning message followed by two chances to change your mind.

Press **OK** again to confirm.

Shipping Condition

All tuning data will be erased

Each time that you are asked, "Are you sure?" press **OK** to confirm, (or **EXIT** to exit the **Shipping Condition**)

There is a short delay before the operation starts.
You will be taken to the Auto setup option.
You can either start the Auto setup or change the State / Territory code.

Auto setup will begin, stations will be located, sorted and stored ready for use.

Analogue Mode

Press the **MENU** Button.
Use the **UP** and **DOWN** buttons to move to the **Setup Menu**.
Press the **LEFT** or **RIGHT** button to access the **Setup Menu**.
Use the **UP** and **DOWN** buttons to move to the **Shipping Condition** feature.
Use the **LEFT** and **RIGHT** buttons to access the **Shipping Condition** feature
Press **EXIT** to exit or press **OK** to start

You will be given a warning message followed by two chances to change your mind.

Press **OK** again to confirm.

Shipping Condition

All tuning data will be erased

When you are asked, "Are you sure?" press **OK** to confirm, (or **EXIT** to exit the **Shipping Condition**).

There is a short delay before the operation starts.

Auto setup will begin, analogue stations will be located and stored ready for use.

Analogue tuning menu

Press the **MENU** Button.

Main Menu

Picture Menu

Sound Menu

Setup Menu

Select the **Setup** Menu.

Analogue Tuning Menu

Analogue Auto Setup	Access
Channel Edit	
Shipping Condition	
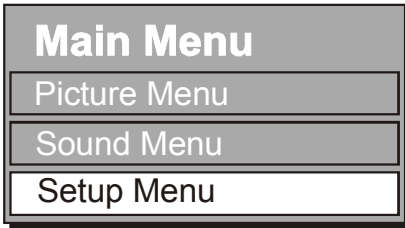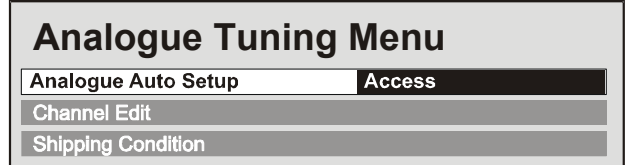
Use the **UP** or **DOWN** buttons to move to the **Analogue tuning menu**.
Use the **LEFT** or **RIGHT** buttons to access the **Analogue tuning menu**.

Analogue Auto Setup
Use the automatic tuning procedure only if you wish to reset ALL Programme Location Numbers.
Press **OK** to access the **Analogue Auto Setup.** You will be given a warning that all analogue data will be erased.
You can press **OK** to confirm, or **EXIT** to cancel.

Channel Edit
This option allows you to add, name, tune, skip and
delete programmes. To make a change permanent
you must store it. See **Store Programme** below.

Channel Edit

Programme No	002
Edit Name	
Manual Tune	N/A
Skip Programme	No
Delete Programme	
Store Programme	
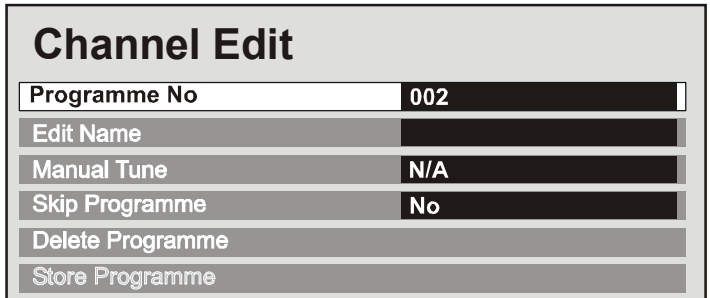
Programme No
Use the **LEFT** and **RIGHT** buttons to select the
Programme No to edit. Press **OK.**

Edit Name
Use the **LEFT** and **RIGHT** buttons to select the Edit Name option.
Use the **UP** and **DOWN** buttons to select the character you want.
Use the **LEFT** and **RIGHT** buttons to move to the next character position.
Press **OK** when you are finished editing.

Manual Tune
Use the **LEFT** and **RIGHT** buttons to access the **Manual Tune** option.
Use the **LEFT** and **RIGHT** buttons to select the channel you want.
Press **OK** when you have found the channel you want.

Skip Programme
This is used to skip over, or bypass, unwanted channels. This function only works when using the channel **UP** and
DOWN buttons – you can still select a "Skipped" channel using the **0 ~ 9** buttons.
Use the **LEFT** and **RIGHT** buttons to select the **Skip Programme** option.
Use the **LEFT** and **RIGHT** buttons to select the channel you want.
Press **OK** when you have found the channel you want.

Delete Programme
This is used to completely remove unwanted channels.
Use the **LEFT** and **RIGHT** buttons to select the Programme No to Delete.
Press **OK**
Use the **UP** and **DOWN** buttons to move to the **Delete Programme** option.
Use the **LEFT** and **RIGHT** buttons to select the **Delete Programme** option.
Press **OK** to delete the programme, or **EXIT** to cancel.

Store Programme
This is used to complete all Channel editing.
Press **OK** to confirm, or **EXIT** to cancel.

Shipping Condition

This allows you to reset the TV to its original condition, i.e. no channels tuned in. This is useful; for example, if you
move to a different area when you will probably want to tune the TV to tune to your new local stations. See page 18.

Special Buttons

i Information

The Information banner provides access to information on current and upcoming programmes and easy switching between all channels or just those in your Favourites list.

Press the Information button. An information banner will appear with details of the current programme being broadcast. You can set how long the information banner stays on screen. See page

```
┌──────────────────────────────────────────────────────┐
│ 3. SBS DIGITAL 1                          9:29AM       │
│ ┌──────────────────────────────────────────────────┐  │
│ │ Le Journal                     Rating: -         │  │
│ │ 9:22AM - 9:57AM                Minutes left: 28   │  │
│ └──────────────────────────────────────────────────┘  │
│ News                   SD    CC    I-II   ⌐⌐┐  90%     │
└──────────────────────────────────────────────────────┘
```

15. You can press the **EXIT** button at any time to return to normal viewing mode.
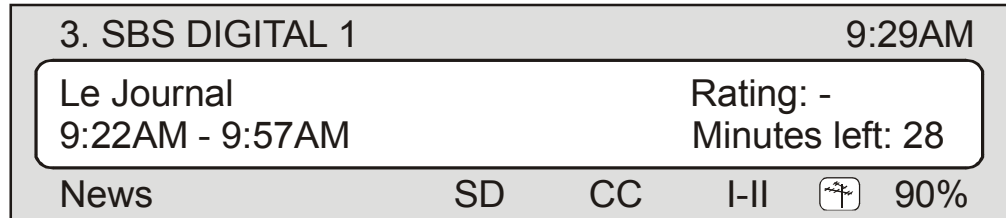
i Button operation

1st Press: Display "Now" i-plate
2nd Press: Display "Now" i-plate with program synopsis
3rd Press: Display "Next" i-plate with program synopsis
4th Press: Exit

```
┌──────────────────────────────────────────────────────┐
│ 3. SBS DIGITAL 1                          9:29AM       │
│ ┌──────────────────────────────────────────────────┐  │
│ │ Le Journal                     Rating: -         │  │
│ │ 9:22AM - 9:57AM                Minutes left: 28   │  │
│ │                                                   │  │
│ │ News  via satellite from FRS, in French, no subtitles │
│ │                                                   │  │
│ │                                                   │  │
│ └──────────────────────────────────────────────────┘  │
│ News                   SD    CC    I-II   ⌐⌐┐  90%     │
└──────────────────────────────────────────────────────┘
```
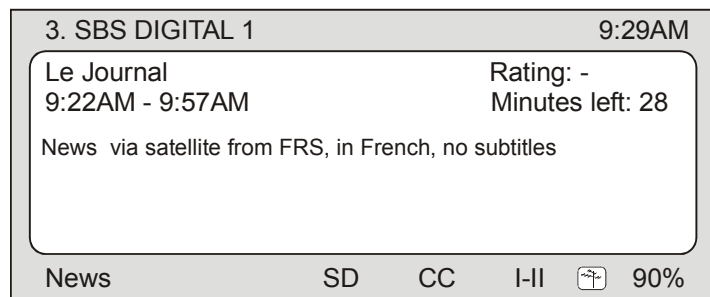
i - plate symbol descriptions

SD   Standard Definition broadcast
HD   High Definition broadcast
Radio   Digital Radio broadcast
CC   Programme contains Closed Captions
TXT   This channel carries a Teletext service
I-II   This programme contains MPEG and Dolby Digital audio

Notes:

1.   All i-plate information is broadcaster dependent.
2.   Antenna signal strength is an indicative signal strength only.
3.   Pressing the *i* button in analogue mode will display channel information such as Channel / AV number, Stereo / Mono and Aspect ratio.

Coloured Buttons (for AV Selection)

The coloured buttons can be used to switch between the different AV inputs.
Press the TV/AV button and the four coloured blocks will appear.

AV1/HDMI	AV2/PC	AV3	AV4

Press the **RED** button to select AV1. Press it again to select HDMI.
Press the **GREEN** button to select AV2. Press it again to select PC.
Press the **YELLOW** button to select AV3.
Press the **BLUE** button to select AV4.
Press the **TV/AV** button at any time to return to normal viewing.

The **GUIDE** button will display information about the current and following programmes. It can be used to set reminders for upcoming programmes, list programmes by category and change channels. The **GUIDE** button only operates in digital mode.

NOTE: Not all broadcasters transmit this information and not all information transmitted is complete.

Press the **GUIDE** button.

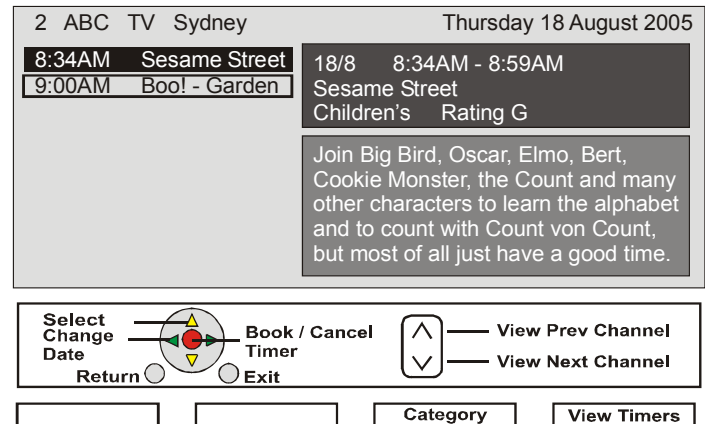Information about the current show will be displayed. If you press Cursor DOWN the information screen will change to give details of the next programme. The right panel displays the synopsis of the selected event. If the synopsis exceeds one page, you can press **RED** or **GREEN** button to view previous or next page of synopsis.

You can use the Channel **UP (/\)** and **DOWN (\/)** buttons to view programme information for other channels. Whenever information for another channel is displayed you can press the **OK** button and change to that channel.

Press **EXIT** to return to normal viewing.

2 ABC TV Sydney	Thursday 18 August 2005
8:34AM Sesame Street	18/8 8:34AM - 8:59AM
9:00AM Boo! - Garden	Sesame Street
	Children's Rating G

Join Big Bird, Oscar, Elmo, Bert, Cookie Monster, the Count and many other characters to learn the alphabet and to count with Count von Count, but most of all just have a good time.

Select / Change Date
Book / Cancel Timer
Return   Exit
/\ — View Prev Channel
\/ — View Next Channel
Category   View Timers

Category

Broadcasters have the opportunity to specify which categories their programme will fall into. You can select one or more categories and just display those particular programmes. Broadcasters do not always transmit category information in their programmes.

Press the **YELLOW (Category)** button to show the **Category Selection** menu. Use the **UP**, **DOWN**, **LEFT** and **RIGHT** buttons to select a category. Press **OK** to select/deselect the programme display for that category.

Press **MENU** to return to the **GUIDE** or **EXIT** to go to normal viewing.

Category Selection

⊙ All categories

⊙ Undefined	⊙ Movie
⊙ News	⊙ Entertainment
⊙ Sports	⊙ Children's
⊙ Music / Dance	⊙ Arts / Culture
⊙ Current affairs	⊙ Education / Science
⊙ Infotainment	⊙ Special
⊙ Comedy	⊙ Drama
⊙ Documentary	
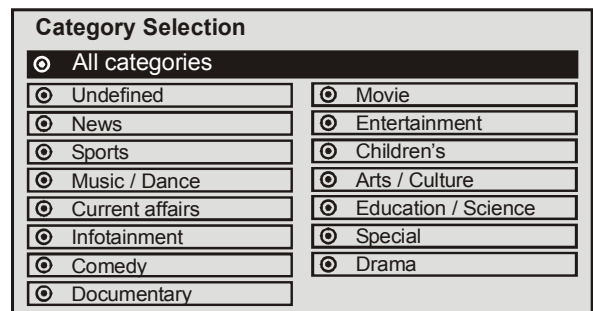
View Timers

This TV allows you to set reminders to alert you when a particular programme is about to commence.

Press the **BLUE (View Timer s)** button to show the Booking screen.

Use the Channel **UP (/\)** and **DOWN (\/)** buttons to find the channel you want to watch. Use the **UP** and **DOWN** buttons to select a programme. Press **OK** to confirm the booking. (Three minutes before the programme is scheduled to begin the TV will display the reminder screen. You can press **OK** to change the channel or **EXIT** to clear the reminder.)

Press **MENU** to return to the **GUIDE** or **EXIT** to go to normal viewing.

Booking   8:39AM Thursday 18 August 2005

[TV] 2 ABC TV Sydney
18/8 9:02AM - 9:12AM
Boo! - Garden
Children's   Rating: G

Would you like to arm a timer for this program?

21

Special Functions
ASPECT ⊕

This button is used to move through the different aspect ratios.
The aspect options are: 16:9, 4:3, Just, Zoom1 and Zoom2.

In Digital mode the TV automatically selects the 16:9 mode for best picture. In Analogue and AV Modes all aspect options are available for use.

The widescreen aspect ratios of different films and programmes can vary. If these are wider than a standard 16:9 aspect picture then a black band may be visible at the top and bottom of the screen.

16:9   This option will display a true 16:9 picture with no aspect distortion. Use with normal DVB transmission and DVDs labeled 1.78:1 or 2.35:1.

4.3   This option will display a standard 4:3 picture with no aspect distortion.

Just   This gives you a "best fit" option when showing 4:3 on wide screen. The centre of the picture is not affected but there is some stretching at the edges. Use with 4:3 pictures to fill the screen

Zoom 1   This option will display a 16:9 letterbox or 4:3 picture with no aspect distortion. Use with 4:3 pictures. Black sidebars will be seen on both sides of the picture.

Zoom 2   This option will display a 16:9 letterbox picture as a full screen display with no aspect distortion. Use with 2.35:1 aspect pictures to remove top and bottom black bars.

MULTI WINDOW ✦

Pressing **MULTIWINDOW** will access the Picture in Picture option. The **GREEN** button allows you to change the sub picture source. The **YELLOW** button allows you to change the position of the sub-picture on the screen. The **BLUE** button lets you swap between the two pictures.

The Multi Window function is limited to:
- When you are using a High Definition signal in AV4 / HDMI / PC as main picture source the **BLUE** button will disable from swapping between pictures.

- Since the sub picture source is limited to Standard Definition signal; HDMI, PC and AV4 (component or RGB) can not be shown in sub picture.

- In Teletext Mode, and Card Reader Mode, this function is disabled and vice versa.

Changing channels in MULTI WINDOW mode
When there both Analogue and DVB sources are use in multi window, ONLY the main picture can change channels use the normal programme. However, if one of the two sources in multi window is Analogue or DVB, and the other source is AV, then, regardless where the Analogue or DVB source is in main or sub picture, channels can be change use the normal programme on displayed Analogue or DVB source.

AUDIO (DVB only)

Pressing the **AUDIO** button shows which audio type you have selected. If there is more than one audio type, you can change to other types by pressing the **AUDIO** or Cursor **UP** / **DOWN** button.
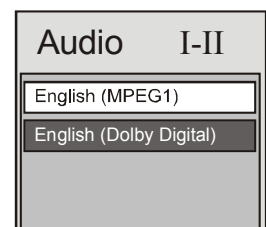
Teletext operation

Teletext is only available on certain broadcast channels. The time taken to display the teletext is determined by the broadcaster and not by the television.

Teletext is also used for Closed Captioning of television programmes for the hearing impaired. Closed captions can be found on Teletext Page 801.
Not all broadcast stations transmit closed captions in the same way. Some, but not all, of the methods are listed below:
1. A teletext screen appears and the closed captions are accessed like any other teletext page.
2. The picture remains on the screen while you type in 801.
3. The picture disappears while you type in 801. The picture stays black until the page is reached.
4. The picture disappears while you type in 801. The picture stays black until a programme containing closed captions is broadcast.

Some broadcast stations will have a message on the screen to tell you that closed captions are not available for this programme. Some broadcast stations give you no indication at all.

The current preferred method of operation of Teletext in Australia is TOP (Table Of Pages). TEXT In this mode the red button moves to the previous page number and the green button moves to the next page number. The yellow and blue buttons correspond to different subjects. Pushing the coloured button can access these subjects.

|	
TV/TEXT	Press the TEXT button. The screen will display the Teletext page. Press TEXT again when you wish to return to TV mode.
	If you press the TEXT button while viewing a station that is not transmitting text, the TV will briefly display a message advising you that teletext is not available.
STTL	Displays subtitles (if available). This is the same as turning the teletext ON and selecting page 801. Press the **STTL** button to turn subtitles off.
HOLD	Used to hold the Teletext page when viewing multi-page information.
	Press again to return to automatic page update.
INDEX	Press **INDEX** to return to the main index page.
	Depending on the way information is transmitted, this may have to be pressed more than once to return to the main index page.
Page Selection	In **DVB** mode, pages can be selected in three ways:
	a. Press the Cursor **UP** / **DOWN** or Channel **UP** / **DOWN** buttons to increase or decrease the page number by one.
	b. Press the **Red** or **Green** buttons to increase or decrease the page number by one
	c. By entering the page number, using 0 - 9 on the remote control.
	Sub-pages can be selected using the Cursor **LEFT** and **RIGHT** buttons.
	In **Analogue** mode, pages can be selected in three ways:
	a. Press the Cursor **UP** / **DOWN** or Channel **UP (/\)** / **DOWN (\/)** buttons to increase or decrease the page number by one.
	b. Press the **Red** or **Green** buttons to increase or decrease the page number by one
	c. By entering the page number, using 0 - 9 on the remote control.

Card Reader

This television has a built in Card Reader. You can insert six different types of card: - CF I, CF II, SD, SMC, MMC and MS. One or two cards can be inserted into the front panel card reader at any time.

Photo Viewer
Music Player
Movie Viewer
File Explorer
Music Album
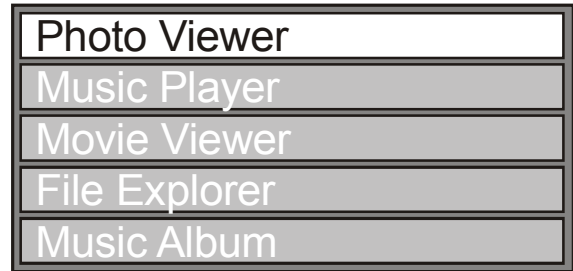
Photo Viewer   This feature will show thumbnail views of all picture files on the card. Use the **Up, Down, Left** and **Righ**t buttons to highlight the picture you want and press **OK**. The picture will fill the screen. Press **EXIT** to return to the menu.

Music Player   Provides a list of all music files on the card. Use the **Up** and **Down** buttons to highlight the file you want and press **OK**. The music file will play. Press **EXIT** to return to the menu.

Movie Viewer   Show a list of all movie files on the card. Use the **Up, Down, Left** and **Right** buttons to highlight the file you want and press **OK**. The movie will play. Press **EXIT** to return to the menu.

File Explorer   Show a list of all folders and files on the card, similar to a computer menu. Use the **Up** and **Down** buttons to highlight the folder press **OK**. The contents of the folder will be displayed. Press **EXIT** to return to the menu.

Music Album   Displays all pictures on the card as a slideshow. If there are music files on the card they will be played in the background while you view the pictures. Press **EXIT** to return to the menu.

Setup

Press the **MENU** button.
Use the **UP** or **DOWN** buttons to move to the **Setup Menu**.
Use the **OK** button to access the **Setup Menu**.

Setup Menu
Music Setup
Slideshow Setup
Preferences Setup
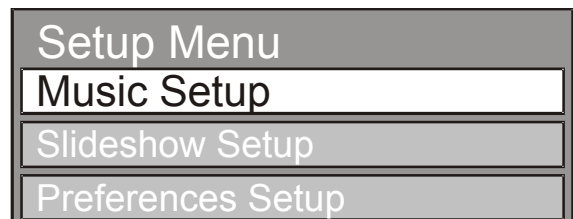
Music Setup   This allows you to set whether a music track, or tracks, will be repeated, The settings are One (single track repeat), >All (all tracks repeated) and Off (no repeats).

Sideshow Settings   Allows you to customise the slideshow settings. Items such as repeat , interval auto / manual start and fade control can be adjusted. Please refer to page 25.

Preferences Setup   This option allows you to change preferences such as, default reset. Please refer to page 25.

Note: Do not remove the memory card(s) when the LED is blinking. It might damage the card reader and the memory card. (The blinking LED means that data is being transferred)
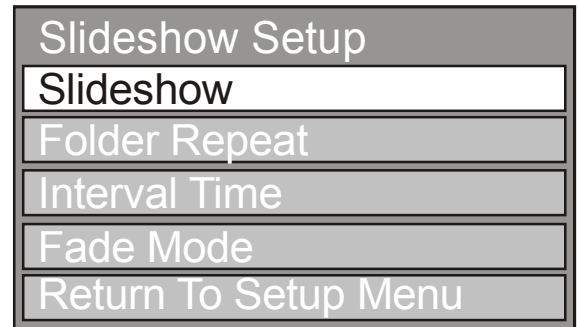

Slideshow Setup

Press the **MENU** button.
Use the **UP** or **DOWN** buttons to move to the **Slideshow Menu**.
Use the **OK** button to access the **Slideshow Menu**.
Use the **UP** or **DOWN** buttons to move to the option you want to change.
Use the **OK** button to access the option you want to change.

Slideshow Setup
Slideshow
Folder Repeat
Interval Time
Fade Mode
Return To Setup Menu

Slideshow   You can choose between automatic and manual slideshow operation.

Repeat Mode   This turns the repeat function ON or OFF.

Interval Time   Sets the time that a picture is displayed before the next one appears.
You can choose between 1, 3, 5, 10, 15, 30, 60 and 90 seconds.

Fade Mode   Selects the method by which one picture is replaced by another. You have a number of options to choose from.

Return To Setup Menu   Returns you to the **Setup Menu**.

Preferences Setup

Press the **MENU** button.
Use the **UP** or **DOWN** buttons to move to the **Preferences Menu**.
Use the **OK** button to access the **Preferences Menu**.
Use the **UP** or **DOWN** buttons to move to the option you want to change.
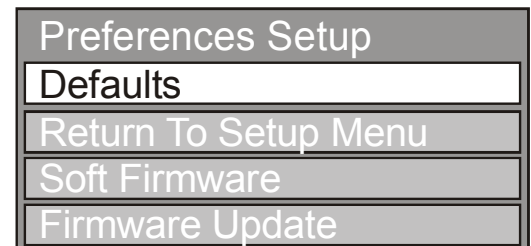Use the **OK** button to access the option you want to change.

Preferences Setup
Defaults
Return To Setup Menu
Soft Firmware
Firmware Update

Defaults   This returns all settings to the factory presets.

Return To Setup Menu   Returns you to the **Setup Menu**.

Soft Firmware   Tells you the latest version of the card reader software.

Firmware Update   From time to time, new software may become available for this TV. This feature allows the new software to be updated using an SD card.
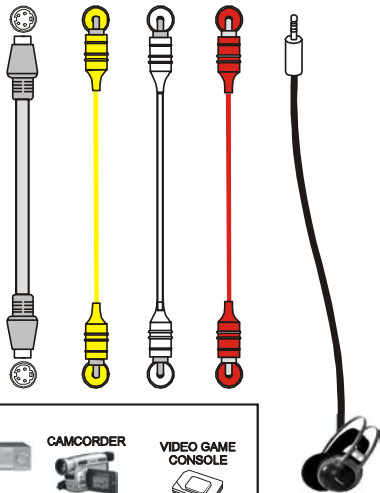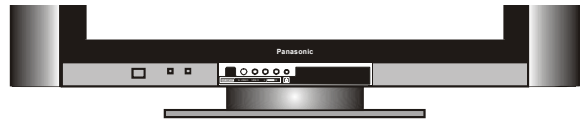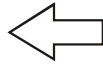
Other Connections
Headphones & Front AV inputs

Headphones can be used to listen in private and not disturb other people in the house. Use stereo headphones (Not included) with 3.5mm Plug.

When a headphone plug is inserted into the headphone socket the internal speakers will not operate.

Please refer to page 13 for headphone volume adjustment. The normal television sound controls (volume, bass, treble, balance, sound mode and ambience) have no effect on the headphone sound.

VCRs, cameras, games and other video sources can be connected to the television through the front AV input terminals.

The front panels are particularly useful for temporary connections. For permanent connections we recommend that you use the rear inputs.

HDMI input

This television is able to be connected to HDMI equipment. Connect using the special HDMI cable (not supplied) and set the AV audio to HDMI. Please refer to page 14.

VCR Out*

The VCR output is a set of RCA connectors on the IRD block (where the antenna is plugged in). The aspect ratio on this video output (yellow connector) is adjustable. You can also get digital audio from the IRD block. There is an optical cable connector on the side of the block. You can decide what form the digital audio will take. Please refer to page14.

Amplifier Connect*

For a full Home Theatre sound experience, an external Dolby Digital decoder and a multi-channel amplifier must be connected to the DIGITAL AUDIO OUT terminal on the TV.

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* WARNING
Unauthorised recording of material from Television Broadcasts or from other video
and/or audio sources may contravene copyright laws.

Warnings and cautions

To keep your Panasonic Television in good working order please observe the following warnings and cautions.
Please be careful with this television. Like all electrical equipment it can cause serious injury or damage if it is mistreated.

Safety First
In the advent of unusual operation (e.g. odd sounds, smoke or aromas), turn the television Off and remove the power cord from the wall socket. Then call the Television Service Centre: this may reduce the possibility of expensive repair costs. Turn the power OFF before connecting other electrical equipment.

Danger

Do not insert foreign objects. (Keep metal or easily flammable objects out of this television).

Do not remove the rear cover.

Always pull the plug out of the wall outlet by holding the plug itself. Do not pull the plug by the power cord.

Do not touch the antenna cable and metal parts of the television when there is lightning around. During storms switch the television off.

Do not place any containers of water or other liquids on or near this television.

Adequate ventilation is essential. Allow a gap of at least 10cm around the TV, even in a cabinet or between shelves.

Remove the Power Plug from the wall socket when the Television is not going to be used for an extended period of time.

Cabinet Care

The cabinet can be kept in good condition by wiping with a clean, lint free cloth moistened with mild detergent and water. For safety, remove the plug from the power outlet when cleaning.
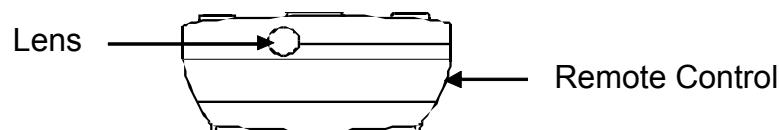
Do not use solutions containing petroleum or other chemicals. For safety, remove the plug from the power outlet when cleaning.

Caring for the remote control

The lens of the Remote Control should be kept clean and free of dirt and grease. Use a soft cloth moistened with water and a mild detergent to keep the lens clean.

Lens   Remote Control

Customer information
Frequently asked questions

Some minor problems can be corrected very quickly and easily without the cost of a service call. Panasonic has a Customer Care Centre that can answer most questions over the phone. Before you contact the Customer Care Centre with your question we have included the most commonly asked questions.

If the answer to your problem is not in this list, determine the symptoms and make a few simple checks as shown on the next page. The location of the nearest service centre can be obtained from the Panasonic Customer Care Centre on 132600.

Question: **Why does the TV take so long to turn on?**
Answer: Like your computer, the TV has to run a number of diagnostic and software checks before it can display any broadcast channels.

Question: **The channel number is still on the screen. How do I turn it off?**
Answer: The channel number is being broadcast by the television station. There is no way to turn this off.

Question: **How do I tune my stations?**
Answer: The instructions for tuning the stations are on page 17 for DVB channels and on page 19 for analogue channels.

Question: **Why doesn't the channel change when I press the channel button?**
Answer: The television might be switched to Teletext mode. If it has been switched to text mode for closed captions and they are not being transmitted there may not be any indication on the screen to let you know that you are in Text mode. See page 23.

DVB Questions

Question: **Why are there no DVB channels listed in the "Guide" after Auto Setup?**
Answer: Not all areas are covered by DVB transmissions. You may need to point your antenna to another transmitter.

It could also be caused by poor signal quality. Check analogue channels. If the picture quality is poor you may need to change or improve your antenna system. Consult a reputable installer.

Question: **I get "blocky" interference and sometimes the picture freezes?**
Answer: This could be caused by poor signal quality. To check the quality of your signal use the Signal Quality feature described on page 14. It is also possible that the interference is coming from the broadcaster.

Question: **I have a good antenna system but still cannot receive DVB stations?**
Answer: Not all areas are covered by DVB transmissions. You may need to point your antenna to another transmitter. See "DTV Reception Trouble Shooting Guide on page 29.

Question: **Why does the television not have all the channels?**
Answer: It is possible that the signal level for a channel might have been low for some reason during the tuning procedure. Repeat the DVB Setup procedure on page 17.

Problem	Possible causes	What to do
The display on the panel does not light up.	Power Mains cable is not connected.	Check that the mains cable is plugged in to the power socket.
No sound or picture.	The A/V cord is not properly connected. Wrong selection of input mode.	Check the cable connections and other equipment connected to your TV.
The remote control is not working.	Battery exhausted.	Change the batteries.
	Fluorescent light interfering with the remote control.	Switch off the light.
	Remote control is incorrectly aimed	Aim the remote control at the TV.
Unable to tune channels.	TV antenna is not plugged in or digital TV is not available in this area. See "DTV Reception Trouble Shooting Guide" below.	Check the antenna cable connections or if an upgrade to your antenna is required to receive digital TV signals in this area.
Small "block type squares" sometimes appear on the picture, or the picture freezes.	See "DTV Reception Trouble Shooting Guide" below.	If 'signal quality' or 'signal strength' bar is not green, it indicates that the digital receiver is not receiving an adequate signal. The antenna and/or cable system needs to be checked (maybe replaced) by an antenna installer.
The digital receiver does not receive all the local TV channels.	The signal strength of some of the RF channels may be too low. See "DTV Reception Trouble Shooting Guide" below.	Check that the antenna is suitable to receive all RF channels. Try doing channel tuning installation again.

DTV Reception Trouble Shooting Guide

After a channel scan, some channels or no channels are found

1. **Did you connect your antenna as illustrated pages 6 and 7?**
   If you have a pay TV box, VCR or other device connected then the TV must be connected to the antenna using a splitter.

2. **Is the antenna wall socket in good condition?**
   For optimum and reliable contact performance, the antenna wall connector should be an 'F' (screw) type connector.

3. **Are you using a quality antenna fly lead between antenna wall socket and HD-STB?**
   The use of RG6 or RG59 Quad Shield 75 ohm coaxial cable fly leads with metal 'F' connectors provides a secure, reliable connection that also greatly reduces impulse noise pickup. Low cost antenna fly leads with right-angled plastic moulded connectors are a common cause of poor reception and impulse noise pickup.

Digital TV or some channels (services) may not have yet commenced in your area.

There are some towns and regions in Australia that cannot yet receive digital television. In some towns and regions not all broadcasters have commenced their digital services. You can check the digital coverage for your area at the Reception Locator on the DBA website (www.dba.org.au/reception).

Customer Information
DTV Reception Trouble Shooting Guide

Signal Strength

The signal received may be too poor to allow the digital receiver to find some or all available channels.

Your old antenna may not be designed to receive all DTV channels.

Antenna reception performance has deteriorated due to weathering, corrosion of antenna connections / cabling and broken elements.

If you live within 5-10Km of DTV transmission towers, a combined VHF/UHF antenna should be adequate. Outside this area, separate VHF and UHF antennas provide superior reception performance.

Depending on DTV signal conditions, some installations may instead require a VHF/UHF masthead amplifier.

In a shared antenna system the existing Master Antenna TV (MATV) system may have been originally designed for analogue PAL TV only, and may require a substantial upgrade or replacement to also carry DTV signals. Please consult your Body Corporate.

For your safety any external antenna should be installed by a reputable qualified installer and should comply with Australian Standard AS1417.1.

Some channels display 'No Signal' or 'Loss of Signal'

Received signal is "too weak" (i.e.; poor quality) to generate a stable picture. Please check antenna & cabling or contact your local TV antenna installer.

There are some towns and regions in Australia that cannot yet receive digital television. In some towns and regions not all broadcasters have commenced their digital services.

Picture regularly breaks up on some channels

The received signal may be too weak to allow the digital TV receiver to reliably "lock" to the desired signal and generate a stable picture. Please check antenna & cabling or contact your local TV antenna installer.

Impulse Noise

Interference from household appliances such as fluorescent lights, refrigerators, washing machines, electric stoves etc may cause pictures to break up and audio to mute or distort momentarily

In the first instance, replace antenna fly-lead with a quality RG6 or RG59 Quad Shield 75 ohm coaxial cable fly lead. If problem persists, check / improve antenna & cabling or contact your local TV antenna installer. The possible cause could be poor quality coaxial cable installed in the walls or ceiling picking up impulse noise. This coaxial cable will need to be replaced with quad shield.

A masthead amplifier may be "over-boosting" the antenna signal, which is overloading the DTV tuner, resulting in poor reception on some or all channels.

Picture very infrequently breaks up on some or all channels

Electrical atmospheric interference caused by local or distant lighting storms or heavy rain with wind in "leafy" locations may cause pictures to break up and audio to mute or distort momentarily.

Impulse noise interference from an infrequently used electrical appliance, or a passing vehicle or lawn mower with a "noisy" ignition system.

Receiving Systems	PAL 576i, NTSC (AV Input only)			DVB-T MP@HL and MP@HL			
Antenna Impedance	75Ω Unbalanced coaxial						
Tuning System	Frequency synthesized.						

	TX-32LWD500A				**TX-27LWD500A**		
Power Requirements	220-240V ~ 50/60Hz				220-240V ~ 50/60Hz		
Power Consumption	175W Max				145W		
LCD Panel	LCD 32" 16:9				LCD 27" 16:9		
Screen size (mm):	708.95 x 398.58				597.12 x 335.88		
Pixel pitch (mm):	0.173 (H) x 0.519 (V)				0.1555 (H) x 0.4665 (V)		
Luminance (nits):	550				550		
Contrast ratio:	1000:1				600:1		
Display colours:	16.7M 8 bit				16.7M 8 bit		
Response time:	8ms Grey to Grey				16ms Grey to Grey		
Viewing angle:	176° V & H				170° V & H		
Audio Output	4 Speakers 10W + 10W				2 Speakers 10W + 10W		
Dimensions	w(cm)	d(cm)	h(cm)	Wt(kg Net)	w(cm)	d(cm)	h(cm)	Wt(kg Net)
	96.4	13.0	57.5	24.0	81.6	12.6	50.7	17.5

Teletext	TOP 250 Pages Level 1.5

Terminals

AV1 (Rear):	CVBS Video In RCA (Yellow) / S-Video In 4-pin Mini DIN / Audio In L-R 2 RCA (White, Red)
AV2 (Rear):	CVBS Video In RCA (Yellow) / S-Video In 4-pin Mini DIN / Audio In L-R 2 RCA (White, Red)
AV3 (Front):	CVBS Video In RCA (Yellow) / S-Video In 4-pin Mini DIN / Audio In L-R 2 RCA (White, Red)
AV4 (Rear):	Component Video In 3 RCA (Green (Y), Red (Pr), Blue (Pb))
	CVBS Video Sync RCA (Yellow) Audio In L-R 2 RCA (White, Red)
PC (Rear)	15 Pin DIN for VGA, SVGA and XGA Display and 3.5m Stereo Socket
HDMI (Rear)	Type A HDMI Video and Audio In.
Card (Front):	SD, CF I/II, MMC, MS, SM
Headphone (Front)	3.5m Stereo Socket

Signal levels:	Video:	CVBS Video In RCA (Yellow) 1.0Vp-p, 75Ω
		Y: 1.0Vp-p 75Ω C: 0.3Vp-p 75Ω
	Audio:	Approx. 400mV 47kΩ
		HDMI Audio L.PCM (IEC60958) 32kHz, 44.1kHz & 48kHz

Supported HDMI and Component Video:	720x576i at 50Hz	720x480i at 60Hz
	720x576p at 50Hz	640x480p at 60Hz
		720x480p at 60Hz
	1280x720p at 50Hz	1280x720p at 60Hz
	1920x1080i at 50Hz	1920x1080i at 60Hz

Supported Screen Resolutions on PC input	VGA: 640x480 at 60, 72, 75 and 85Hz refresh rates.
	SVGA: 800x600 at 56, 60, 72, 75 and 85Hz refresh rates.
	XGA: 1024x768 at 60, 70, 75 and 85Hz refresh rates
	VGA and XVGA are trademarks of International Business Machines.
	SVGA is a trademark of the Video Electronics Standard Association

Supported Card File Formats	Photo: JPEG, Audio: MP3
	Video: MPEG1, MPEG 2, MPEG 4 SP, DIVX 3.11/4.x/5.x, M-JPEG
	Video file format: AVI, ASF, MP4, DAT, VOB, MPG.

Monitor Out	Video Out: 1.0Vp-p, 75Ω	Audio Out: Approx. 400mV

Accessories Supplied	Remote Control EUR7636010R	2 Batteries Type 'AA'
	"F" – "F" Cable	"F" – "Belling Lee" Adaptor
	Instruction Manual TQB4CM039-1	

Note:	Design and Specifications are subject to change without notice.
	Weight and Dimensions shown are approximate.

Panasonic Warranty

1. The product is warranted for 12 months from the date of purchase. Subject to the conditions of this warranty Panasonic or it's Authorised Service Centre will perform necessary service on the product without charge for parts or labour if, in the opinion of Panasonic, the product is found to be faulty within the warranty period.

2. This warranty only applies to Panasonic products purchased in Australia and sold by Panasonic Australia or its Authorised Distributors or Dealers and only where the products are used and serviced within Australia or it's territories. Warranty cover only applies to service carried out by a Panasonic Authorised Service Centre and only if valid proof of purchase is presented when warranty service is requested.

3. This warranty only applies if the product has been installed and used in accordance with the manufacturer's recommendations (as noted in the operating instructions) under normal use and reasonable care (in the opinion of Panasonic). The warranty covers normal domestic use only and does not cover damage, malfunction or failure resulting from use of incorrect voltages, incorrect installation, accident, misuse, neglect, build-up of dirt or dust, abuse, maladjustment of customer controls, mains supply problems, thunderstorm activity, infestation by insects or vermin, tampering or repair by unauthorised persons (including unauthorised alterations), exposure to abnormally corrosive conditions or any foreign object or matter having entered the product.

4. This warranty does not cover the following items unless the fault or defect being complained of existed at the time of purchase.

   (a) Video or Audio Tapes
   (b) Video or Audio Heads and Stylii resulting from wear and tear in normal use
   (c) Shaver Heads or Cutters
   (d) Cabinet Parts
   (e) User replaceable Batteries
   (f) Thermal Paper, Toner/Ink Cartridges, Drums, Developer, Film (Ink/Ribbon), Film Cartridge, Printer Heads
   (g) Microwave Oven cook plates.
   (h) Kneader mounting shaft unit (bread bakery)

5. If warranty service is required you should:

   - Telephone Panasonic's Customer Care Centre on 132600 or visit our website and use the Service Centre Locator for the name/address of the nearest Authorised Service Centre.
   - Send or bring the product to a Panasonic Authorised Service Centre together with your proof of purchase receipt as a proof of purchase date. Please note that freight and insurance to and / or from your nearest Authorised Service Centre must be arranged by you.
   - Note that home or pick-up/delivery service is available for the following products in the major metropolitan areas of Australia or the normal operating areas of the nearest Authorised Service Centres:

     (a) Picture tube (CRT) based Television Receivers (screen sizes greater than 66cm); Rear Projection TV's; Plasma/LCD televisions / displays (screen size greater than 103 cm)
     (b) Convection/Combination Microwave Ovens
     (c) Whiteboard (except portable type)

6. The warranties hereby conferred do not extend to, and exclude, any costs associated with the installation, de-installation or re-installation of a product, including costs related to the mounting, de-mounting or remounting of any screen, (and any other ancillary activities), delivery, handling, freighting, transportation or insurance of the product or any part thereof or replacement of and do not extend to, and exclude, any damage or loss occurring by reason of, during, associated with, or related to such installation, de-installation, re-installation or transit.

Panasonic Authorised Service Centres are located in major metropolitan areas and most regional centres of Australia, however, coverage will vary dependant on product. For advice on exact Authorised Service Centre locations for your product, please telephone our Customer Care Centre on 132600 or visit our website and use the Service Centre Locator.

Unless otherwise specified to the consumer the benefits conferred by this express warranty are additional to all other conditions, warranties, guarantees, rights and remedies expressed or implied by the *Trade Practices Act 1974* and similar consumer protection provisions contained in legislation of the States and Territories and all other obligations and liabilities on the part of the manufacturer or supplier and nothing contained herein shall restrict or modify such rights, remedies, obligations or liabilities.
October 2005

THIS WARRANTY CARD AND THE PURCHASE DOCKET (OR SIMILAR PROOF OF PURCHASE) SHOULD BE RETAINED BY THE CUSTOMER AT ALL TIMES

If you require assistance regarding warranty conditions or any other enquiries, please contact the Panasonic Customer Care Centre via the website www.panasonic.com.au or by phone on 132 600
If phoning in, please ensure you have your operating instructions available.

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PRO-031-F01 Issue: 2.0   01-10-2005

Panasonic AVC Networks Australia Pty. Ltd.
P.O. Box 326 Penrith NSW 2751
ABN: 25 000 611 389

Printed in Taiwan   TQB4CM039-1