

# Panasonic



## **TX-32DTS3 TX-28DTS3**

Colour Television  
with



Integrated Digital Terrestrial  
Decoder

and

Integrated Digital Satellite  
Decoder



Operating Instructions  
(U.K. Standard)

**ALL MODES**

## WELCOME

Dear Panasonic Customer,

We hope that you have many years of enjoyment from your new TV. The **Quick Start Guide** section at the beginning of this instruction book will allow you to use the TV as quickly as possible. We recommend that you then read both instruction books, and keep them to refer to as you explore the range of advanced features that this TV offers. For detailed instructions on using the Digital Satellite (DSAT) mode, please refer to the operating instructions marked **DSAT MODE**.



These instruction books are produced using recycled paper.

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## WARNINGS AND PRECAUTIONS



- This TV set is designed to operate on 220–240V, 50Hz A.C.
- To prevent damage which might result in electric shock or fire, do not expose this TV set to rain or excessive moisture. This TV must not be exposed to dripping or splashing water and objects filled with liquid, such as vases, must not be placed on top of or above the TV.
- **WARNING : HIGH VOLTAGE !!!**  
Do not remove the rear cover as live parts are accessible when it is removed. There are no user serviceable parts inside.
- Avoid exposing the TV set to direct sunlight and other sources of heat. To prevent fire never place any type of candle or naked flame on top or near the TV set.
- **CABINET AND PICTURE TUBE CARE**  
Remove the mains plug from the wall socket. The cabinet and picture tube can be cleaned with a soft cloth moistened with mild detergent and water. Do not use solutions containing benzol or petroleum. TV sets can produce static electricity, care must be taken whenever touching the TV screen.
- Adequate ventilation is essential to prevent failure of electrical components, we recommend that a gap of at least 5cm is left all around this television receiver even when it is placed inside a cabinet or between shelves.

**This product TX–32DTS3 / TX–28DTS3 is intended to be connected to the UK analogue public switched Telecommunication network only.**

Matsushita Electric (UK) Ltd declare that this product is in conformity with the essential requirements of the R&TTE Directive 1999/5/EC. A copy of the manufacturers declaration of conformity to the essential requirements of the R&TTE Directive is available at the following web address: – <http://doc.panasonic-tc.de>

### FOR YOUR SAFETY PLEASE READ THE FOLLOWING TEXT CAREFULLY

This appliance is supplied with a fitted three pin mains plug for your safety and convenience. A 5 amp fuse is fitted in this plug. If the fuse is replaced then the replacement fuse must be 5 amp rated and should be approved by ASTA or BSI to BS1362. Check for the

ASTA mark  or the BSI mark  on the body of the fuse.

If the fitted plug has a removable fuse cover you must ensure that it is refitted when the fuse is replaced. If you lose the fuse cover the plug must not be used until a replacement cover is obtained. Replacement fuse covers can be purchased through your local Panasonic dealer.

**The plug fitted to this appliance incorporates a mains filter circuit. If this is removed or replaced with a non-filtered plug this television will no longer meet the European standards for Electromagnetic Compatibility (EMC). If the fitted plug is unsuitable for the socket outlet in your home an appropriate adapter should be used.**

**Nonetheless, if the fitted plug is replaced, the fuse should be taken out and the cut-off plug disposed of safely. There is danger of severe electrical shock if the cut off plug is inserted into any 13 amp. socket.**

If a new plug is to be fitted please observe the wiring code as shown below.  
If in any doubt please consult a qualified electrician.

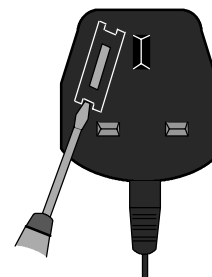
#### How to replace the fuse (for plug type shown in example 1) :

Lift out the removable fuse compartment with a screwdriver and replace the fuse, then refit securely into the mains plug (see example 1).

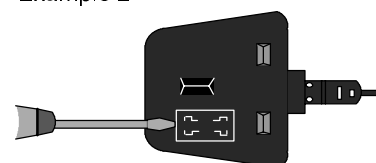
#### How to replace the fuse (for plug type shown in example 2) :

Lift open the fuse compartment, in the mains plug, with a screwdriver, and replace the fuse, then press the fuse cover down securely (see example 2).

Example 1



Example 2




**IMPORTANT :-** The wires in the mains lead of this appliance are coloured in accordance with the following code :-

BLUE : NEUTRAL

BROWN : LIVE

As the colours of the wires in the mains lead of this appliance may not correspond to the markings identifying the terminals in your plug, proceed as follows :-

1. The BLUE wire must be connected to the terminal marked 'N' or coloured black.
2. The BROWN wire must be connected to the terminal marked 'L' or coloured red.

**IMPORTANT NOTE :** Under no circumstances should either of these wires be connected to the Earth terminal of the three pin plug, marked with the letter 'E' or the earth symbol. 

## ACCESSORIES

Check that you have the accessories and items shown



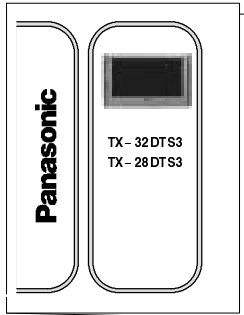
Operating Instruction book  
TQB8E3620



Remote Control Transmitter  
EUR511240



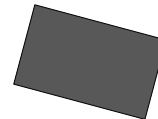
Batteries for the Remote Control  
Transmitter.  
(2 x R6 (UM3) size)



TV Guarantee



CRT Guarantee



VS-32PL / VS-28PL  
(Video cabinet)



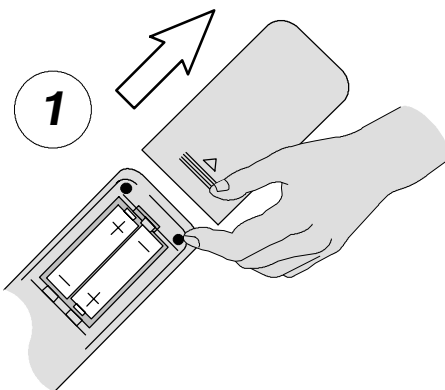
Telephone cable  
PAN-001-02  
Use only this cable



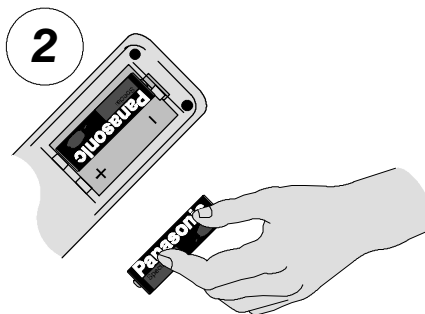
Questionnaire



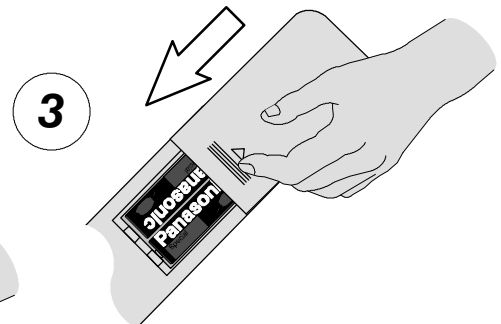
## INSERTING THE REMOTE CONTROL BATTERIES



Slide off the battery cover



Insert batteries - note correct polarity  
(+ and -)



Replace the cover

### Notes:

- Make sure that the batteries are fitted the correct way round.
- Do not mix old batteries with new batteries. Remove old, exhausted batteries immediately.
- Do not mix different battery types, i.e. Alkaline and Manganese. Do not use rechargeable (Ni-Cad) batteries.

## BASIC CONTROLS : FRONT PANEL AND REMOTE CONTROL

Press here and open flap to expose TV controls, front AV3 and headphone terminals

**MAINS Power  
On/Off switch**

**Indicator LED's:**

**Red indicates  
Standby mode; flashes red  
when receiving a command  
from the remote control**

**Green when on-line (using  
the telephone line)**

**Yellow when message is waiting (full  
operation subject to Sky services**

**STR (BACKUP) (Normalisation store)**

**Used to store tuning and other function settings.**

**Also Exits or navigates the menu system**

**F (Function select)**

**Displays the On Screen Display functions, use  
repeatedly to select from the available functions**

**– Volume, Contrast, Brightness, Colour,  
Sharpness, Tint (in NTSC mode), Bass, Treble,  
Balance, Tuning mode**

**(only when viewing analogue transmissions)  
and Geomagnetic Correction**

**RCA Audio/Video  
sockets (page 43)**

**Insert your Sky  
viewing card here**

**Insert your Interactive card here  
when using interactive services,  
and only when an instruction to  
do so appears on screen**

**S – VHS socket (see page 43)**

**Headphone socket (see page 43)**

**TV/AV switch (see page 35)**

**Increases or decreases the programme position by one. When a function is  
already displayed, press to increase or decrease the selected function**

**The SKY button provides access the  
Digital satellite system**

**When in Sky mode, press the TV button  
immediately before the text button to  
access analogue text where available.  
Can also be used to exit digital text**

**The Sky Guide buttons. When in Digital  
satellite mode, press to access the Sky  
Guide system**

**Sound mute On/Off**

**Volume increase / decrease (see page 11)**

**Teletext button (see page 40)**

**Exits or navigates the menu system**

**Switch between viewing TV or AV input,  
(see page 35), select DTT or Analogue  
television (see page 10) or access the DTT  
guide**

**Access the menu (see page 33)  
(see page 12)**

**Direct TV Record button  
(see page 37)**

**Aspect control button  
(see page 13)**

**Direct channel access  
During normal TV viewing or when in the  
Tuning menu, press and then enter  
channel number using the numeric  
buttons**

**The N button will recall settings  
stored with OK**

**Ambience on/off**

**Standby On/Off switch**

**Switches TV On or Off standby  
Switches DTT system on or off  
standby if tuner lock is not set**

**Shows status information for the current  
Programme position**

**Cursor buttons to make selections and  
adjustments. Scroll through status  
information for each available digital  
channel.**

**OK button to confirm selections and  
choices.**

**Press after selecting programme positions  
1 – 19 to avoid delay**

**Channel number up and down, Teletext  
page selection (see page 11)**

**The Help button provides advice on using  
the Sky Guide system**

**Multi function buttons used for  
Teletext functions (see page 40)  
AV selection (see page 35)**

**Programme / channel change buttons –  
press the OK button after selecting  
programme positions 1 – 19 to avoid delay;  
Teletext page buttons (see page 40); when  
in Standby mode, switches TV on**

**VCR / DVD buttons  
(see page 39)**

**Freezes the current teletext page  
(see page 40)**

**Selects the nearest teletext index page  
(see page 41)**

**Displays Favourite page (see page 41)  
Displays DTT subtitles (if available)**


## QUICK START GUIDE

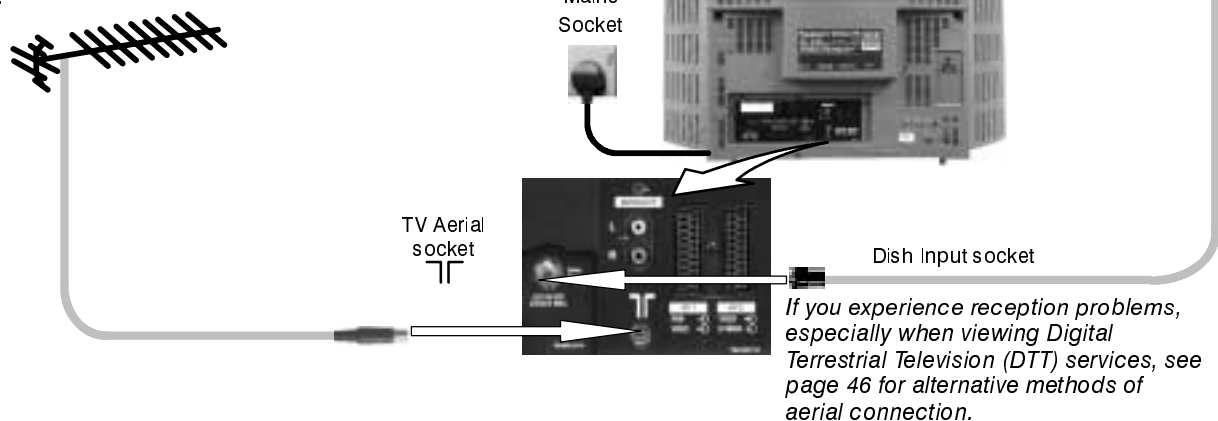
### Connection and setting up options

1. If connecting the TV using RF cables only, proceed to option 1.
2. If connecting the TV using Scart and RF cables, proceed to option 2.
3. If connecting the TV to a Q-Link (or Q-Link compatible) VCR, proceed to option 3 on page 7.

#### 1. Connection of TV using an RF cable only

##### RF Connection

- Connect the RF cable to the **TV Aerial** socket (  ).
- Connect the RF cable from your Satellite dish to the **Dish input** socket.



#### 2. Connection of TV and VCR using Scart and RF cables


##### Scart Connection

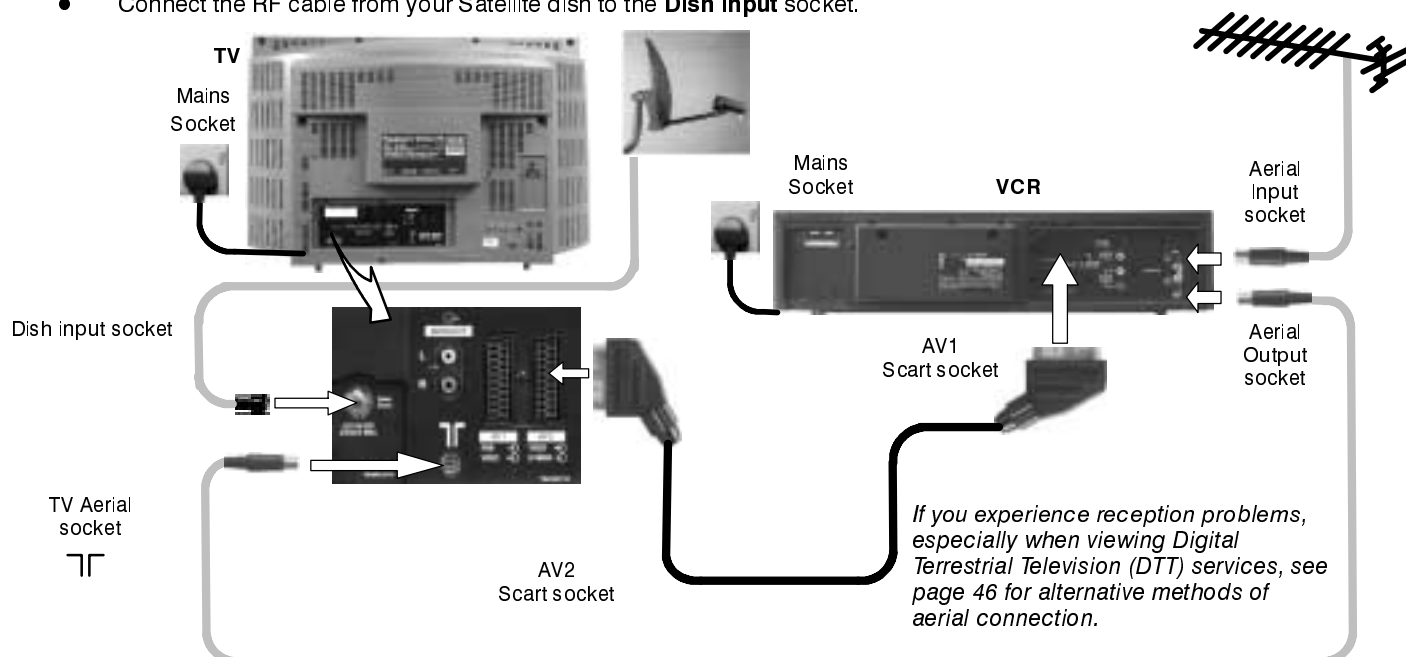
- The VCR must be connected to the AV2 Scart socket of this TV using a “fully wired” Scart cable.

##### Note :

If using a “Q-Link” VCR then the AV2 Scart of the TV must be connected to the AV1 socket of the VCR. If your VCR is not a “Q-Link” VCR, please consult your VCR operating instruction book.

##### RF Connection

- Connect the RF cable to the **Aerial Input** socket of the VCR and an RF cable from the VCR **Aerial Output** socket to the **TV Aerial** socket (  ).
- Connect the RF cable from your Satellite dish to the **Dish input** socket.



##### Notes :

Additional equipment and cables are not supplied.

Further details of Audio/ Video connections can be found on pages 43 and 44.

Further information for VCR installation with this TV can be found on page 38.

## QUICK START GUIDE

### What is Q-Link ?

Q-Link allows direct communication between the TV and a Q-Link (or Q-Link compatible) VCR, this will enable features such as downloading of tuning information from the TV to the VCR.

When using a "Q-Link" VCR the main features possible are the following :

- *Preset Download* - Downloading of tuning information from the TV to the VCR.
- *Direct TV Record* - For immediate recording of the current program (What You See Is What You Record).
- *TV/VCR Auto Power On* - When the VCR plays a tape the TV will automatically switch On and select the AV2 input.
- *VCR Auto Power Standby* - When the TV is switched into Standby, the VCR will also switch into Standby.
- *VCR Image view On* - If the TV is in Standby mode and the VCR sends a menu to be displayed on the TV screen (e.g. Main menu), the TV will automatically switch On and the menu will be displayed.

When using a "NEXTVIEWLINK" VCR the main features possible are the following :

- *Preset Download* - Downloading of tuning information from the TV to the VCR.
- *Direct TV Record* - For immediate recording of the current program (What You See Is What You Record).

This TV will also communicate with other VCR's that bear the following logos :

- "DATA LOGIC" (a trademark of Metz Corporation).
- "Easy Link" (a trademark of Philips Corporation).
- "Megalogic" (a trademark of Grundig Corporation).
- "SMARTLINK" (a trademark of Sony Corporation).

These VCR's may support some or all of the above functions. Refer to the VCR operating instruction book.

Further information on Q-Link can be found on page 36.

**In order for Q-Link to function correctly, the Scart cables must be connected correctly. Please see page 6, option 2**

### To record a programme using AV2 OUT

It is advised, that if you wish to use your VCR in a recording capacity, it must be connected to the AV2 SCART socket of your TV.

**AV2 out** offers you a choice of signals to send to the AV2 SCART socket. You can choose from the signals currently tuned on the **Analogue** or **Digital** tuners, or **Monitor** – the picture displayed on screen.

Using this recording method, you can record a DTT programme whilst watching an analogue programme or vice versa. Similarly, you can record a DSAT programme whilst watching an analogue programme or vice versa.

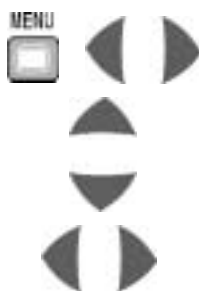
#### NOTE :

You cannot record a DSAT programme whilst watching a DTT programme, or indeed record a DTT programme whilst watching a DSAT programme.

From the Main menu,  
access the Setup menu

Move to AV2 out

Choose the signal you wish  
to send to the AV2 SCART socket



If you choose **Analogue**, the TV will send the analogue signal to the AV2 SCART socket.

If you choose **Digital**, the TV will send the active digital signal (DTT or DSAT) to the AV2 SCART socket.

If you choose **Monitor**, the TV will send whichever program you are currently viewing to the AV2 SCART socket.

#### NOTES :

If you choose **Digital**, only the active digital signal will be sent. If you switch between digital signals on your TV, the signal sent to your AV2 SCART socket will also be switched.

Remember to set your VCR to the correct programme position before you start recording. If you have followed the Scart connection guide on page 6, your programmes will appear on position AV1.

# QUICK START GUIDE

1

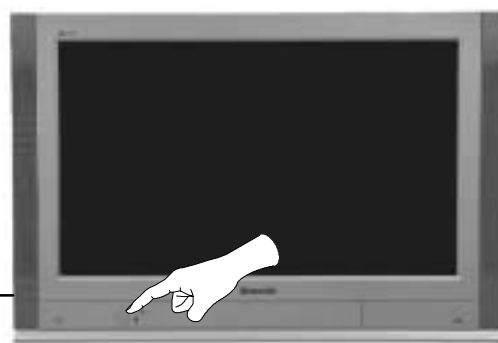
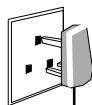
Ensure that the **VCR is in Standby mode**.

Plug the TV into mains socket and switch ON.

If both connections are available, you may select "Aerial and Dish". See ②

If you have not connected your dish, select "Aerial only". A dish may be installed at a later date. See ③

Mains  
Socket



## Aerial and Dish

2

The TV set will switch to Sky mode and automatically detect and store all available channels. The TV will then tune to the Sky welcome channel. If you have inserted your Sky viewing card you will be able to view a demonstration of how your Sky system works. Press the **TV/AV** button followed by the **Green** multi function button to switch to DTT mode.

Programmes will appear immediately if your dealer has programmed the TV for you.

First, the TV will search for analogue stations. When the search for analogue stations is complete, the TV will continue to search for DTT stations.

TV stations will be located, sorted into order and stored ready for use.



## Aerial only

3

Programmes will appear immediately if your dealer has programmed the TV for you.

First, the TV will search for analogue stations. When the search for analogue stations is complete, the TV will continue to search for DTT stations.

TV stations will be located, sorted into order and stored ready for use.



Stations are sorted into the following order:

- **DTT Stations:** Are sorted by their logical channel number.
- **Analogue Stations:** All analogue stations, sorted into channel order.

The sorted programme order depends upon the TV signal, the broadcasting system, and reception conditions.



## QUICK START GUIDE

4

### TV to VCR Download

If a "Q-Link", "NEXTVIEWLINK" or compatible VCR has been connected to the AV2 socket before starting Step 1, programme information will be downloaded to the VCR.

Only the analogue programme positions will be downloaded to the VCR, in the correct order. See page 36.

Not all VCRs support this download of programme information, some may require to be started manually. Refer to the VCR operating instruction book.

If a VCR other than those described above has been connected, then there will be no download operation. The TV is now ready for use:



### Notes :

If the VCR has not accepted download data from the TV, you may need to select the Download option from the VCR's menu system.

Refer to the VCR operating instruction book.

If Q-Link is not operating correctly, check the following :

- The Scart cable is connected to the TV's AV2 Scart socket.
- The Scart cable is connected to the VCR's compatible (Q-Link, NEXTVIEWLINK or similar technology) Scart socket.
- The Scart cable is a "fully wired" type.

For further information on Q-Link and connecting equipment, see pages 36, 43 and 44.

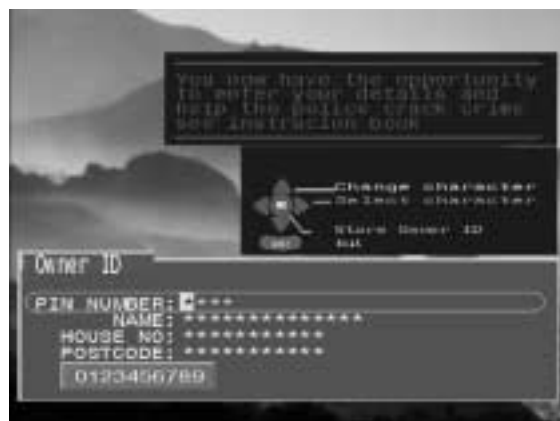


5

### Owner ID

As an added feature, this TV has the option of adding a security code (Owner ID) and personal details into its memory, so that in the unfortunate event of theft it will help the Police to trace the owner.

Enter required 4 digit Owner ID  
**PIN NUMBER.**  
(using 0 to 9 on the remote control).



## QUICK START GUIDE

6

Enter **NAME**, **HOUSE NUMBER** and **POSTCODE**.

If a 4 digit **PIN NUMBER** was entered above, you will be taken automatically to the **NAME** line.

If not, move to the **NAME** line.

Change character.

Select character position.

Repeat above until **NAME**, **HOUSE NUMBER** and **POSTCODE** are entered.

Press **OK** to store the details.

Press **OK** again, when you are asked "Are you sure?"



For further information on Owner I.D., see page 23.

A space is provided on page 23 to write down the **PIN NUMBER** for future reference.

7

To select the DTT mode, press the **TV/AV** button followed by the **Green** multi function button.

To select the Analogue mode, press the **TV/AV** button followed by the **Blue** multi function button.

To view a list of the DTT stations that have been found, press the **TV/AV** button followed by the **Yellow** multi function button on the remote control (see page 33).

DTT stations are shown with a ✓ in the DTT column.

Use the cursor buttons to move the cursor bar up and down the list.

To view the selected programme press the **OK** button.

The **TV/AV** button on the front panel can also be used for source selection.

### Categories

To make stations easier to find, specific stations can be listed by category; press the left or right cursor button to choose a category. The chosen category name is shown on screen.

For example, if you select '**Free TV**', only 'free-to-air' stations will be listed – you can view any of these now.

If you select '**Pay TV**', only subscription stations will be listed – you will need to contact the service provider to find out how to subscribe to these stations.



## QUICK START GUIDE

8

Slight tilting of the picture may be noticeable or coloured patches may sometimes appear at the corners of the screen (colour purity). The Geomagnetic Correction feature can be used to eliminate them, if necessary:

First, ensure the Auto setup and Q-Link download procedures are complete. The screen should not be showing any On-Screen Display menus.

Open the flap on the television's front panel



Press and release here to open flap



Press the **F** button repeatedly until the Geomagnetic Correction feature is displayed



Press the **+** or **-** buttons repeatedly until the picture appears to be level



Press the **F** button again to return to normal viewing.  
Close the flap to prevent damage



9

We recommend that as soon as the Auto setup feature is completed, the picture controls are reset to normal viewing levels. To do this, press the "N" button on the remote control.



10

You are now ready to begin viewing programmes

The side controls provide the two basic functions:



Adjust Volume



Change Programme

## USING THE ON SCREEN DISPLAYS

This TV has a comprehensive system of On Screen Display (OSD) menus to access adjustments and options. The options available may change depending upon which mode you are viewing.



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

Some selections, for example, **Off timer**, allow a change of setting to be made.

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

The **MENU** button is used to open the main menu and also to return to the previous menu.

The up and down cursor buttons are used to move the cursor up and down the menus.

The left and right cursor buttons are used to access menus, adjust levels or to select from a range of options.

The **OK** button is used to store settings after adjustments have been made or options have been set, for example Picture and Sound settings.

The **back up** button is used to exit the menu system and return to the normal viewing screen.



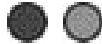
## ASPECT CONTROLS

The widescreen TV will allow you to enjoy viewing the picture at its optimum size and aspect, including widescreen 'cinema format' pictures.

Press the **ASPECT** button repeatedly to move through the six aspect options: **Panasonic Auto**, 16:9, 14:9, 4:3, Zoom1 and Zoom2.

OR

Press the **ASPECT** button then use the **RED** or **GREEN** buttons to move in either direction through the six aspect options.



### Panasonic Auto

**Panasonic Auto** determines the best aspect ratio to use to fill your screen. It does this using a four step process to determine if the picture being viewed is a widescreen picture.

If **Panasonic Auto** detects a widescreen signal it switches into the appropriate **16:9** or **14:9** widescreen mode. If **Panasonic Auto** does not detect a widescreen signal then this advanced TV set enhances the picture for optimum viewing pleasure.

The text shown on the screen indicates how **Panasonic Auto** determined which ratio to use:

'WIDE' appears in the top left of the screen if a widescreen identification signal (WSS) is found or a signal found through a Scart socket. **Panasonic Auto** switches to the appropriate **16:9** or **14:9** widescreen ratio.

'Panasonic Auto' appears in the top left of the screen if black stripes above and below the picture are detected. **Panasonic Auto** chooses the best ratio and expands the picture to fill the screen. This process can take several minutes, depending on the darkness of the picture.

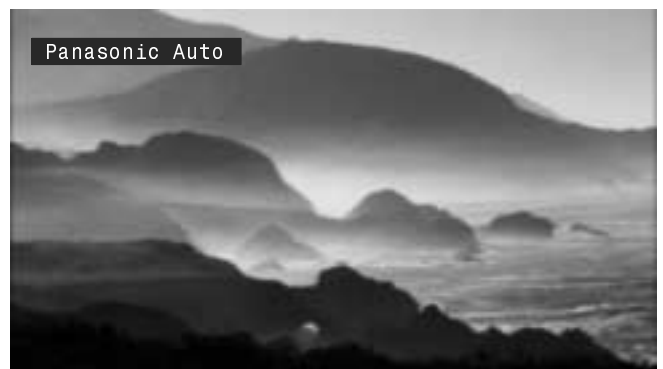
You may prefer to manually select one of the other aspect options available to view the picture. However, if a WSS is detected, this may override your settings. Certain operations may cause the TV to disregard the WSS. This can easily be rectified using the aspect key.

#### Notes:

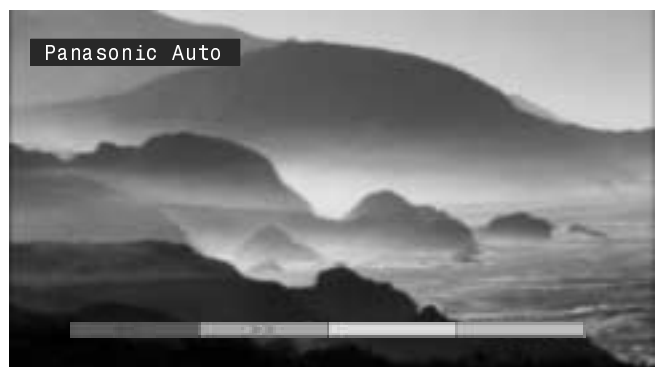
- If, in **Panasonic Auto** mode, you experience problems with the screen display size when playing back widescreen format recordings from your VCR then it is possible that the tracking control of your VCR requires adjustment (your VCR instruction book will contain adjustment details).
- The widescreen 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.



'WIDE' appears in the top left of the screen, **Panasonic Auto** switches to the appropriate 16:9 or 14:9 widescreen ratio.



'Panasonic Auto' appears in the top left of the screen, The best ratio is chosen and the picture expanded to fill the screen.



Press the **ASPECT** button, then use the **RED** or **GREEN** buttons to move in either direction through the seven aspect options.

## ASPECT CONTROLS

### 16:9

**16:9** will display a true 16:9 (anamorphic) picture with no aspect distortions.



16:9

### 14:9

**14:9** will display a 14:9 letterbox or 4:3 picture with no aspect distortions.



14:9

### 4:3

**4:3** will display a 4:3 picture at its standard 4:3 size with no aspect distortions.



4:3

### Zoom1

**Zoom1** will display 16:9 letterbox or 4:3 pictures with no aspect distortions.



Zoom1

### Zoom2

**Zoom2** will display 16:9 anamorphic letterbox pictures as a full screen display with no aspect distortions.



Zoom2

# MAIN MENU

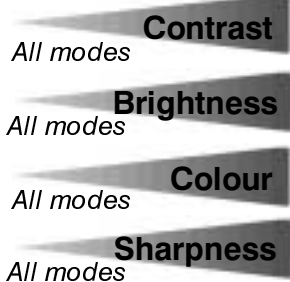
Open the Main menu

Move to your choice

Increase or decrease levels, set options or access further menus

Press the back up button to exit the Main menu

Press the OK button to store new settings



The Contrast, Brightness, Colour and Sharpness levels can be adjusted to suit your own preferences.



The Tint adjustment will only appear as a menu item if you have an NTSC signal source connected to the TV and will allow adjustment of the hue.

**Colour balance**  
All modes

The Colour balance setting allows you to set the overall colour tone of the picture.



**P-NR**  
All modes

P-NR will automatically reduce unwanted picture noise.



**AI**  
All modes

AI automatically analyses the incoming picture and processes it to give improved contrast and optimum depth of field.



**Sound Menu**  
All modes

Used to access the Sound menu. See page 16

**Setup Menu**  
All modes

Used to access the Setup menu. See page 17



## SOUND MENU

From the Main menu, access the Sound menu



Move to your choice



Increase or decrease levels or set options



Press the OK button to store new settings

Press the back up button to exit the Sound menu



**Bass**  
All modes

Bass adjustment will emphasise the lower, deeper frequencies and can be increased or decreased.

**Treble**  
All modes

Treble adjustment will emphasise the sharper, higher frequencies and can be increased or decreased.

**Balance**  
All modes

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.



All modes

The headphone volume can be adjusted independently of the TV speakers so that everyone can enjoy listening at their own comfort level.

**NICAM**  
Analogue only



(Not available with DTT programmes). Select On to provide stereo sound reproduction. Select Off for FM Mono sound output.

If Nicam Mono is being transmitted select either FM Mono (Off), Nicam Mono I (M1) or Nicam Mono II (M2). The options depend upon the signal being transmitted.

If reception deteriorates it is advisable to switch to FM Mono (Off).

**Multi audio**  
DTT only



Multi audio, which will only appear when a DTT programme is selected, allows you to select an alternative sound track. The number of options available depends on each broadcast.

**Mode**  
All modes



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

**Ambience**  
All modes



Ambience provides a dynamic enhancer to simulate improved spatial effects.





## SETUP MENU

The Setup menu provides access to various advanced features and also to the Tuning menu (in DTT and Analogue modes).

From the Main menu, access the Setup menu



Move to your choice



Increase or decrease levels, set options or access further menus



Press the back up button to exit the Setup menu



### Off timer All modes



Off timer will switch the TV off within a preset time which you can choose from between 0 to 90 minutes in 15 minute intervals.

### DTT tuner lock DTT only



DTT tuner lock prevents you from accidentally changing programme position while recording a DTT broadcast. If the TV is switched into standby mode while DTT tuner lock is on, the DTT tuner will remain active to ensure recording can still take place.

### DTT Setup DTT only

The DTT setup menu provides access to various specialised DTT options. See page 25.

### Teletext Not in DTT mode



The Teletext option allows you to choose between FASTEXT or LIST mode. See page 40.

### Geomagnetic All modes

If you notice a slight tilt to the picture or if there are coloured patches at the corners of the screen, use this feature to eliminate them. See Step 8, page 11 (Quick Start Guide).

### AV2 out All modes



AV2 offers you a choice of signals to send to the AV2 SCART socket. You can choose from the signals currently tuned on the **Analogue** or **Digital** tuners, or **Monitor** – the picture displayed on screen. See page 7.

### Tuning Menu DTT & Analogue

The Tuning menu provides an entry to many other features including Auto setup and Child lock. See page 18.

### Volume correc. AV only

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.



## TUNING MENU - overview

In DTT or Analogue mode, from the Main menu, access the Setup menu

Move to Tuning menu

Access Tuning menu

Move to your choice

Increase or decrease levels, set options or access further menus

Press the back up button to exit



### Auto Setup

*DTT & Analogue*

The Auto setup menu allows you to automatically retune the TV. See page 19.

### Analogue manual tuning

*Analogue only*

Allows individual programme positions to be tuned manually. See page 20.

### New services message

*DTT only*

This TV continually scans for updated services and notifies you of any changes. Set to **ON** to receive notification. Set to **OFF** if you do not wish to be informed of any updates.

### Q-Link Download

*Analogue only*

Manually sends tuning information from your TV to a Q-Link compatible VCR. See page 36.

### Install Satellite

*DTT & Analogue*

Allows the setup of the satellite system if you have not already done so. See page 21

### Shipping Condition

*DTT & Analogue  
From Setup menu in  
DSAT*

Allows you to clear all tuning information and reset all control levels back to factory settings. See page 22.

### Child lock

*DTT & Analogue*



You may wish to lock a programme channel to prevent access to it. Set to **ON** to lock the current programme position. Set to **OFF** to unlock.

#### Note:

When a programme position is locked, Direct Channel Access using the 'C' and numeric keys on the remote control is not available.

### Owner ID

*DTT & Analogue  
From Setup menu in  
DSAT*

Allows you to enter a security code and address information. See page 23.



## TUNING MENU - AUTO SETUP

The Auto setup menu will allow you to automatically retune the TV to your local stations.  
It is useful if you move to a different region

In DTT or Analogue mode, from the Main menu, access the Setup menu



Move to Tuning menu



Access Tuning menu



Move to Auto setup



Access Auto setup



Press OK to start Auto setup



The TV will search for, locate and sort into order your local stations.  
If a compatible VCR is connected via the AV2 socket, programme data will be sent to the VCR via Q-Link (see page 36)

Once this operation is completed the TV will display programme position 1



## TUNING MENU - ANALOGUE MANUAL TUNING

### To add a programme position

#### To add an analogue station:

In analogue mode, from the Main menu, access the Setup menu



Move to Tuning menu



Access Tuning menu



Move to Analogue manual tuning



Access Analogue manual tuning



Press repeatedly until the required station is found



Press OK to store the programme position



Press MENU to return to the Tuning menu



If you have finished in the Tuning menu, press the back up button to exit



## TUNING MENU - INSTALL SATELLITE

**Note:** This should only be accessed by a qualified installer

### To install the satellite system

In DTT or Analogue mode, from the Main menu, access the Setup menu



Move to Tuning menu



Access Tuning menu



Move to Install satellite



Access Install satellite



Press OK to Install the satellite system



Press MENU to return to the Tuning menu



If you have finished in the Tuning menu, press the back up button to exit



## TUNING MENU - SHIPPING CONDITION

**Shipping condition 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 the TV to tune itself to your new local stations.

This can be done either through the **Shipping condition** menu or through the **Auto setup** menu.

The **Shipping condition** menu will reset all data, clearing all tuning information and resetting all control levels back to factory settings. Owner ID will not be reset. As the **Tuning** menu is not available in Digital satellite (DSAT) mode, Shipping condition can be found in the **Setup** menu.

You may need to adjust your VCR or programme position '0' VCR after operating the **Shipping condition** menu - refer to page 38.

From the Main menu, access the Setup menu (Digital satellite, DTT and Analogue modes)



In Digital satellite mode, move to Shipping condition



OR

OR

In DTT or Analogue mode, move to Tuning menu



Access Tuning menu



Move to Shipping condition



Access Shipping condition



THEN

THEN

Press OK to start



Press again, to confirm, each time that you are asked, "Are you sure?"



Your TV has now been reset to shipping condition. Please refer to the quick start guide, (page 8) for installation instructions.

## TUNING MENU - OWNER I.D.

**Owner I.D. allows you to enter a security code and address information so that in the unfortunate event of theft it will help the Police to determine the owner.**

If the Owner I.D. information was not entered after Auto setup or it is necessary to alter some of the I.D. information it can be re-accessed via the **Tuning** menu. As the **Tuning** menu is not available in Digital satellite (DSAT) mode, **Owner ID** can be found in the **Setup** menu.

From the Main menu, access the Setup menu (Digital satellite, DTT and Analogue modes)  
In Digital satellite mode, move to Owner ID

OR

In DTT or Analogue mode, move to Tuning menu

Access Tuning menu

Move to Owner I.D.

THEN

Access Owner I.D.

If the Owner I.D. has previously been set, enter the **PIN NUMBER** (using 0 to 9 on the remote control) followed by **OK** to proceed, this will take you to the **NAME** option

If no Owner I.D. has previously been set, enter the required 4 digit Owner I.D. **PIN NUMBER** (using 0 to 9 on the remote control)

If a 4 digit **PIN NUMBER** was entered above, you will be taken automatically to the **NAME** line

If not, move to the **NAME** line

Change character

Select character position

Repeat above until **NAME**, **HOUSE NUMBER** and **POSTCODE** are entered

Press **OK** to store the details.  
Press again, to confirm, when asked, "Are you sure ?"



OR

THEN



For future reference,  
write your PIN Number here :

\_\_\_\_\_

# ANALOGUE MANUAL TUNING – FRONT PANEL CONTROLS

Manual tuning of the analogue programme positions is available from the front panel controls

The Front panel controls are located under the flap on the front of the TV.

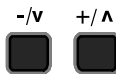
Select an existing analogue programme position



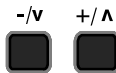
Press the F button repeatedly until “Tuning mode” is reached



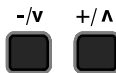
Press the - or + button to access Tuning mode. The next available programme position at the end of the current list will be selected.



Press - or + to begin searching for stations



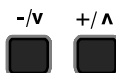
The television will begin to search for stations. When a station is found the search will pause; if it is **not** the correct station, you can press the - or + buttons to continue searching.



When the desired station is found, press the TV/AV button to move to the programme position indicator



Press - or + to select the programme position in which the station is to be stored



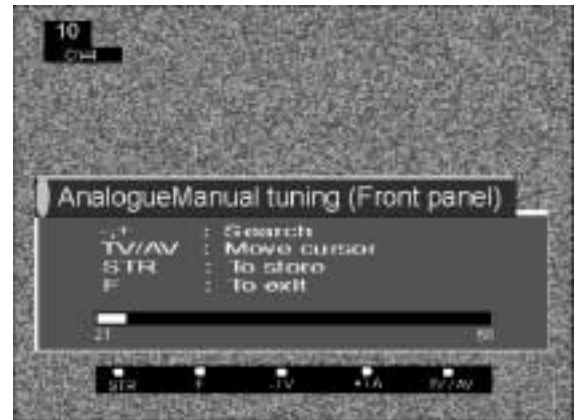
Press STR to store the programme position



The programme position and channel number indicators will flash to indicate the station is being stored

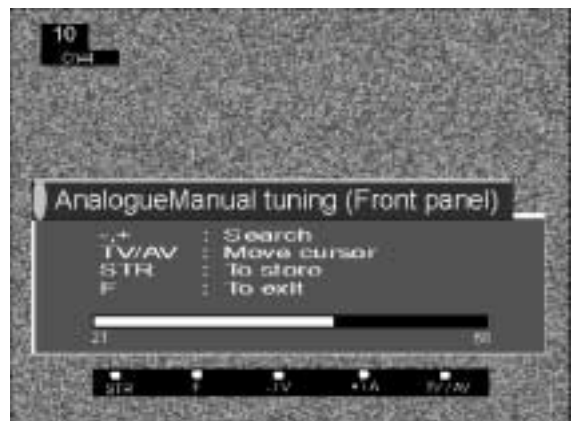
To tune further stations press the TV/AV button and repeat the tuning process

To exit Manual Tuning, press the F button



## Important note :

On passing channel 68, tuning will restart at channel 21.





## DTT SETUP MENU

The DTT setup menu provides access to DTT specific options.

Note: If DTT transmissions cannot be received clearly, the DTT setup menu may not be available.

In DTT mode, from the Main menu, access the Setup menu



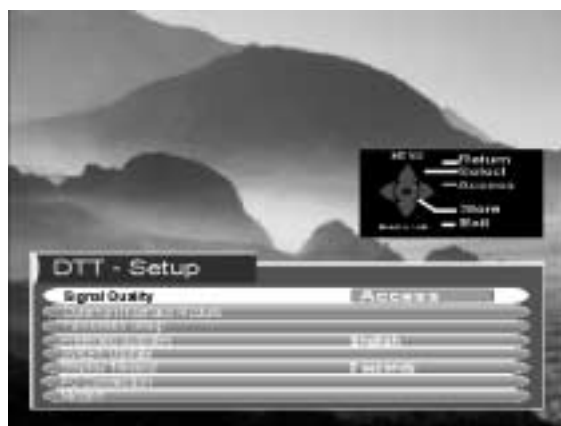
Move to DTT setup

Access DTT Setup menu

Move to your choice

Set options or access further menus

Press the back up button to exit



### Signal Quality

The signal quality function displays an indication of signal quality for each DTT programme position.

The DTT 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 DTT 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 aerial system to provide a better signal.

### Common Interface Module

The Common Interface Module menu provides access to functions contained on a Common Interface Module inserted into one of the CI slots. These are located at the rear of the TV. See page 28.

### Favourites Setup

Allows you to select your favourite programme positions and display them as a list in the TV Guide. See page 29

### Preferred Subtitles

This option allows you to select the language in which subtitles should appear (if available) when the SUBTITLES button is pressed.

### System Update

This menu allows you to download new software to the television. See page 31.

## DTT SETUP MENU

The DTT setup menu provides access to DTT specific options.

Note: If DTT transmissions cannot be received clearly, the DTT setup menu may not be available.

In DTT mode, from the Main menu, Access the Setup menu



Move to DTT setup

Access DTT Setup menu

Move to your choice

Increase or decrease levels, set options or access further menus

Press the back up button to exit



### Display Timeout

0 (no display) ~ 10

This option allows you to set how long the information banner stays on screen. Select from 0 (no display) to 10 seconds in 1 second increments.

### PC Connection

The PC Connection menu allows you to adjust communications settings for the SERIAL port on the rear of the TV. See page 32.

### Modem

The Modem menu allows you to adjust communications settings for the MODEM. See page 32.

## COMMON INTERFACE MODULE MENU

The Common Interface Module menu provides access to software contained on Common Interface Modules. These can be inserted in the CI slot located at the rear of the TV.

### IMPORTANT NOTES:

Switch off the TV using the front panel switch before inserting or removing a module.

If you are installing a TV software update, please follow the dedicated instructions supplied with the module.

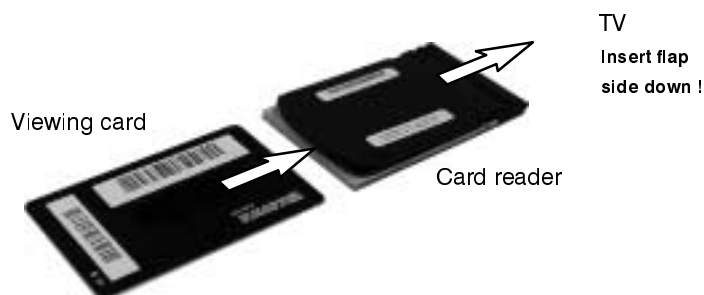
Insert the CI module as described below:

Inserting a conventional Common Interface Module.



Some Common Interface Modules may be a two piece design consisting of a card reader together with the viewing card. When using this design of card, first unclip the protective cover, insert the card reader firmly into the CI slot on the TV (flap side down) until the eject button moves fully outwards.

Insert the viewing card into the reader.



Switch on the TV

Switch to DTT mode

From the Main menu, access the Setup menu



Move to DTT setup



Access DTT setup menu



Move to Common Interface Module



Access Common Interface Module



## Access the module



If no module is inserted the message “No Module Inserted!” will be displayed. (If you have inserted a module, check that it is fully inserted.)

The features that now appear on screen are dependent on the contents of the selected Common Interface Module.

Refer to the instructions supplied with the card or contact the vendor.

In all cases, it is possible to navigate the pages using buttons on the remote control, but because the commands available must apply to all manufacturers of DTT equipment, some on–screen commands may not correspond exactly to the remote control buttons. For example:

For the on–screen command ‘select’ or ‘go’, use the **OK** button.

If you see the ◀ ▶ ▼ ▲ symbols, use the cursor keys.

If you see a line of key words displayed in red, green, yellow and blue, use the coloured multifunction buttons to operate the functions.

The **back up** button should always allow you to exit the CI software.



## FAVOURITES SETUP MENU

The Favourites setup menu allows you to select your favourite programme positions and display them as a list in the TV Guide, to allow easy access to the programs you watch most often.

In DTT mode, from the Main menu, access the Setup menu.



Move to DTT setup.

Access DTT Setup.

Move to Favourites Setup.

Access Favourites Setup.

Move to the programme position which you wish to set as a favourite.

Press the OK button to set your favourite.

A tick appears next to the selected program position.



You may move to and select as many programme positions as you wish.

To clear a previously selected favourite, select it with the cursor bar and press the OK button.



Press the MENU button to return to the DTT –Setup menu



Press the back up button to exit



A list of favourites can be accessed by pressing the TV/AV button, followed by the yellow button



Press the Red button to access the Favourite list See page 33.



## INFORMATION BANNER

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. These details may include the channel number and programme position, the title and duration of the current or next programme, details of transmitted support services (for example text, multi audio, subtitles) and the current time.

You can set how long the information banner stays on screen. See page 26.



### Use the cursor up and down buttons to scroll through the programme list.



If you have set favourite channels and want to scroll through only those channels, press the Blue button.



To step through your favourite channels press the Blue button repeatedly.



Further information on the individual programmes shown can be displayed by pressing the Information button



To return to the normal Information banner view press the information button once more, alternatively, press the back up button to return to normal viewing mode.



For information on the upcoming (next) programme on any individual channel, press the Left or Right cursor button.



To select any programme listed in the Information banner press the OK button.



## SYSTEM UPDATE MENU

The System Update menu allows the DTT system to check that it has the latest software.  
If newer software is available, it can be downloaded.

In DTT mode, from the Main menu, access the Setup menu



Move to DTT setup



Access DTT setup



Move to System Update



Access System Update



The System Update Menu will appear

The DTT system will now begin to search for new software – this will take a few seconds.



If a newer version is available:

### Important Note!

You must **not** switch off the TV while downloading is in progress, as errors could occur. Downloading will take a few minutes to complete, so check first that there are no imminent programmes that you wish to watch.

Press the OK button to initiate download



If a newer version is not available:

A message will appear telling you that the current software is up-to-date.

Press the back up button to exit.



## PC CONNECTION AND MODEM MENUS

**The PC Connection and Modem menus allow you to make adjustments to the communication settings for the SERIAL and MODEM ports. You may wish to refer to the operating instruction books for any external equipment before changing these settings.**



**In DTT mode, from the Main menu, access the Setup menu**

## Move to DTT setup

## Access DTT setup

## Move to PC Connection or Modem

### Access the chosen menu

**Make the required adjustments.**  
(‘OK’ – Store will be flashing)

**Press the OK button to store the settings**

**Press the EXIT button to exit**




<b>Baud Rate (bit/sec)</b>	Sets the speed of transmission. Use the highest speed allowed by the external equipment.
----------------------------	--

<b>Number of Data Bits</b>	Determines the number of consecutive data bits to be sent. Select from either 7 or 8.
----------------------------	---



<b>Stop Bits</b>	Determines the number of stop bits to be used. Select from 1 or 2.
------------------	--

**Protocol** Determines whether a protocol should be used. Select from None, Hardware or Software.

<b>Parity</b>	Determines whether parity checking should be used. Select from None, Odd or Even
	Modem only:


**Dialling** Select either DTMF (Tone) dialling or Pulse dialling.

## Prefix

 None ~  9

Many internal telephone networks require you to dial a single digit before dialing an “outside line”. If the Modem is connected to such a system, use the Prefix function to enter the initial digit, for example 9.

## Redial attempts

 None ~ 9

The Redial attempts function allows the TV to automatically redial a number if a connection cannot be made.



The TV Guide displays the current programmes being transmitted – and what the next programme will be on each DTT station

In DTT mode, press the TV/AV button followed by the Yellow multi function button. Three separate guides can be accessed by pressing the Red multi function button repeatedly. Choose from 'Category', 'Favourite' and 'Type'. The Favourites list can be customised using the DTT setup menu (see page 30).

After a few moments the TV Guide will be displayed. If you wish to view one of the listed programmes, select it with the up/down cursor keys and press the OK button.

From the 'Category' and 'Type' guides, you can also view a list of programmes by category, for example 'Free TV' or 'Pay TV' services, 'News' or 'entertainment' by pressing the left/right cursor buttons. The category's displayed will change, depending on which of the guides you have selected.

## Info

You can view further information about the selected programme:

### Select a programme position

Press the Yellow multi function button to display the information.

Press the Yellow button again to return to the list.

TV/AV



The TV Guide displays the current programmes being transmitted – and what the next programme will be on each DTT station

## Next

You can view the list of programmes that will be transmitted next:

Press the Green multi function button to display the information.

Press the Green button again to return to the list of current programmes.



## Next – Set Reminder

When you are viewing the list of next programmes, you have the option to set a reminder.

**Set Reminder** allows you to mark a programme that you do not want to miss. When the programme is about to start, a reminder will appear on screen, even if you are currently watching an analogue broadcast.

### Select a programme position

Press the Blue multi function button to set a reminder. A symbol will appear in the reminder column of the guide, to show that a reminder has been set.



## AV SELECT AND SETUP

The AV Select menu will allow you to choose which AV source to view

Press the TV/AV button followed by the Red multi function button



Press the appropriate coloured remote control button (whilst the options remain on screen)



The options will disappear

You may wish to make adjustments in the Sound or Setup menus



### Sound menu

From the Main menu, access the Sound menu



Move to your choice



Access adjustments or options



Press the back up button to exit



### Setup menu

From the Main menu, access the Setup menu



Move to your choice



Access adjustments or options



Press the back up button to exit



### Q-Link allows the television to communicate with a compatible VCR

For Q-Link communication to work, the TV must be connected to a VCR with the "Q-Link", "NEXTVIEWLINK", "DATA LOGIC", "Easy Link", "Megalogic" or "SMARTLINK" logo using a "fully wired" Scart cable between the AV2 socket of the television and the appropriate socket on your VCR.

For connection to the appropriate Scart socket on the VCR, refer to the VCR operating instruction book.

#### When using a "Q-Link" VCR the main features possible are the following :

- *Preset Download* - Downloading of tuning information from the TV to the VCR .
- *Direct TV Record* - For immediate recording of the current program (What You See Is What You Record).
- *TV/VCR Auto Power On* - When the VCR plays a tape the TV will automatically switch On from Standby and select the AV2 input.
- *VCR Auto Power Standby* - When the TV is switched into Standby, the VCR will also switch into Standby.
- *VCR Image view* - When the VCR displays an OSD menu, the TV will automatically switch On from Standby and select the AV2 input.

#### When using a "NEXTVIEWLINK" VCR the main features possible are the following :

- *Preset Download* - Downloading of tuning information from the TV to the VCR .
- *Direct TV Record* - For immediate recording of the current program (What You See Is What You Record).

#### This TV will also communicate with other VCR's that bear the following logos :

- "DATA LOGIC" (a trademark of Metz Corporation).
- "Easy Link" (a trademark of Philips Corporation).
- "Megalogic" (a trademark of Grundig Corporation).
- "SMARTLINK" (a trademark of Sony Corporation).

These VCR's may support some or all of the above functions.  
Refer to the VCR operating instruction book.

### Preset Download

This allows the programme order from the TV to be downloaded to the VCR, helping to ensure that correct recordings are made; there are several ways to perform this operation :

1. During installation as explained in the 'Quick Start Guide' beginning on page 6.
2. When Auto setup is started from within the Tuning menu, see page 19.
3. Preset download started from the VCR, refer to the VCR operating instruction book.

Because a VCR cannot tune to digital stations, only the analogue programme positions are downloaded to the VCR.

#### Important Note:

Not all VCRs support this type of data communication system. Some may support certain features, but not others. Refer to the VCR operating instruction book.

## What You See Is What You Record (DIRECT TV RECORDING)

This will allow the immediate recording of the program currently shown on the Television.

Press the **DIRECT TV REC** button on the remote control



If the VCR is in Standby mode with a usable tape inserted, it will automatically switch on when you press the **DIRECT TV REC** button.

If a "Q-Link" VCR is connected a message will appear on the TV screen showing what is being recorded, or if it is not possible to record. Some "Q-Link" compatible VCR's will only display the message when on the VCR programme position(0) or in AV mode. Refer to the VCR operating instruction book.

### VCR recording preset prog

#### Recording this programme now

VCR is recording the programme signal from its own tuner. If you wish you can switch off the TV and leave the VCR recording in the normal way.

### VCR recording TV source

VCR is recording the programme signal from the television. You must not change programme position or switch off the TV: if you do, the VCR will automatically stop recording and switch off.

### No recording - TAPE IS PROTECTED

The write protection tab on the back of the cassette has been removed.

Examples of other messages that might be displayed are:

No recording - NO TAPE

No recording - VCR IS PLAYING

VCR Recording VCR external

No recording - ALREADY RECORDING!

No recording - TAPE MAY BE DAMAGED

No recording - NO SOURCE AVAILABLE

## Recording DTT programmes

If you press the **DIRECT TV REC** button whilst watching a DTT programme, the VCR will automatically switch to its AV input to record the DTT signal from the TV (via the SCART cable), and the DTT programme position will be locked. If you attempt to select another DTT programme position whilst recording, you will see the message "This programme is locked". Press the **OK** button to clear the message, or the **back up** button to unlock the programme. Beware that if you press **back up** the DTT programme will be unlocked – switching to another DTT programme will spoil your intended recording.

## TV / VCR Auto Power On

(With a Panasonic Q-Link VCR connected, this additional feature is available).

- If you insert a tape in the VCR and press the Play button whilst the TV is in 'Standby' mode, the TV will automatically switch On and select the AV2 input so that you can view the tape.

Some other VCR's may support this feature. Refer to the VCR operating instruction book.

## VCR Auto Power Standby

(With a Panasonic Q-Link VCR connected, this additional feature is available).

When the TV is switched into 'Standby' mode, the VCR will also switch into 'Standby' mode if there is no tape in the VCR, or if there is a tape in and the VCR is in 'Rewind' or 'Stop' mode (if the VCR is rewinding a tape, it will not switch into 'Standby' mode until rewinding has finished).

Some other VCR's may support this feature. Refer to the VCR operating instruction book.

## VCR Image View On

(With a Panasonic Q-Link VCR connected, this additional feature is available).

If the TV is in Standby mode and the VCR sends a menu to be displayed on the TV screen (e.g. Main menu), the TV will automatically switch On and the menu will be displayed.

Some other VCR's may support this feature. Refer to the VCR operating instruction book.

## VCR INSTALLATION

Your new TV is supplied with programme position '0' set to receive an RF signal from your VCR, although a Scart connection is preferable if the VCR is so equipped.

However, if for some reason your VCR is tuned to a different RF channel then you will not receive any picture or sound from your VCR on programme position '0' of the TV. It will be necessary to either adjust the RF channel of your VCR (some VCR's allow adjustment of their RF channel via their remote control unit) or to adjust the tuning of the TV's programme position '0' or both until it receives the RF output channel of your VCR.

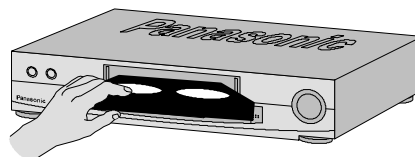
It is intended that this advice is used in conjunction with the instruction books for your additional equipment.

Use the AV2 Scart terminal for any VCR.

### To tune your TV to the VCR

**Switch on the VCR, insert and play a pre-recorded tape with known content**

**On the TV, select analogue programme position '0'**



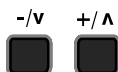
**Open the Front panel flap**



**Press the F button repeatedly until "Tuning mode" is reached**



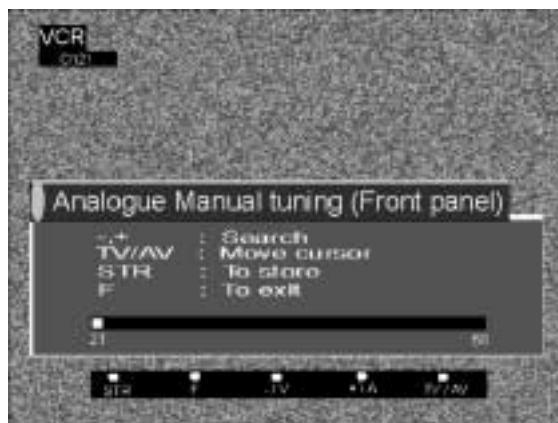
**Press the - or + button to access Tuning mode**



**Press - or + to begin searching for the VCR playback**



**When the VCR playback is found, press the STR button to store the programme position**



The programme position and channel number indicators will flash to indicate the station is being stored

**To exit Manual Tuning, press the F button**












#### Notes :

- If picture patterning occurs on programme position '0' it may be necessary to adjust the RF output channel of the VCR, refer to the VCR instruction book.

## VCR / DVD OPERATION

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.



	<p><b>Standby</b></p> <p>Press to switch the VCR or DVD to standby mode. Press again to switch back on.</p>
	<p><b>VCR / DVD switch</b></p> <p>Use this switch to select whether controls operate DVD equipment or your VCR.</p>
	<p><b>Play</b></p> <p>Press to playback the tape or DVD.</p>
	<p><b>Stop</b></p> <p>Press to stop the tape or DVD.</p>
	<p><b>Skip / Fast Forward / Cue</b></p> <p>VCR: Press to fast forward the tape. In Play mode, press to view the picture rapidly forward (Cue). DVD: Press once to skip to the next track. In play mode press and hold to view the picture rapidly forward.</p>
	<p><b>Skip / Rewind / Review</b></p> <p>VCR: Press to rewind the tape. In Play mode, press to view the picture rapidly in reverse (Review). DVD: Press once to skip to the previous track. In play mode press and hold to view the picture rapidly in reverse.</p>
	<p><b>Pause / Still</b></p> <p>Press in playback mode, the picture will pause. Press again to restart play.</p>
	<p><b>Programme Up / Down</b></p> <p>Press to increase or decrease the VCR programme position by one.</p>
	<p><b>Record</b></p> <p>Press this button to start recording.</p>

## TELETEXT OPERATION

- Teletext features may vary depending on the Broadcasting Companies and is only available if the channel selected is transmitting Teletext. If a DTT station is not transmitting teletext, but you press the **text** button, press the **back up** or **text** button to clear.
- Pressing the **MENU** button whilst in Teletext operation will display special function options at the bottom of the screen.
- When in Teletext mode, the volume may still be altered to the desired listening level.

### What is LIST mode ?

In LIST mode, four differently coloured page numbers are situated at the bottom of the screen. Each of these numbers can be altered and stored in the TV's memory.

### What is FASTEXT?

In FASTEXT mode, four differently coloured subjects are situated at the bottom of the display. To access more information about one of these subjects, press the appropriately coloured button. This facility enables fast access to information on the subjects shown.



### TV / Teletext mode

Press the **text** button.  
The screen will display the Teletext page.  
Press again when you wish to return to TV mode.

**Note:** If you press the **text** button while viewing a DTT station that is not transmitting teletext, press the **back up** button to return to normal viewing.



### Page Selection

Pages can be selected in two ways :  
a. Press the Up / Down buttons to increase or decrease the page number by one.  
b. By entering the page number, using 0 - 9 on the remote control.



### Full / Top / Bottom

Press the **MENU** button to display special functions, followed by the **Green** button.  
Press the **Green** button again to expand the BOTTOM half.  
Press again to return to normal (FULL) size.



### Reveal

Press the **MENU** button to display special functions, followed by the **Red** button to reveal hidden words e.g. quiz page answers. Press again to hide.



### Red / Green / Yellow / Blue buttons

In FASTEXT mode these correspond to the differently coloured subjects.  
In LIST mode they correspond to the differently coloured page numbers.



### List Store

In LIST mode the four page numbers can be altered (only for analogue stations stored on programme positions 1 - 25).  
To do this, press one of the four coloured buttons and enter the new page number.  
Press and hold **OK**, the page numbers will change to white indicating that the page is stored.



### Hold

To hold the Teletext page when viewing multi-page information.  
Press again to return to automatic page update.



## TELETEXT OPERATION

It is not possible to change the programme position when in News flash, Update or Sub Coded Page Access operation.



### Favourite Page (F.P.)

Stores a favourite page in memory for instant recall. To store such a page, the TV must be in LIST mode, and the programme position must be from 1 - 25.

Press the **Blue** button, select the page number, then press and hold the **OK** button. The page number is now stored.

Press **F.P.** to recall this page.

**In DTT mode, press F.P. to turn on or switch off Digital subtitles.**



### Update Display (Display Cancel)

Press the **MENU** button to display special functions, followed by the **Yellow** button to view the TV picture whilst searching for a Teletext page.

When found, the screen will display the page number at the top left.

Press the **Yellow** button to view the page.

Press **text** again to return to normal TV operation.



### News Flash

When a news flash page has been selected, press **MENU**, **Yellow**, to view the TV picture. When an update is received, the page number will be displayed on screen.

Press the **Yellow** button to display the News Flash

Press **text** to return to normal TV operation.

### Update

Press **MENU**, **Yellow** to see the update of information on certain pages.

When an update is received, the page number will be displayed at the top left of the screen.

Press the **Yellow** button to view the page.

Press **text** to return to normal TV operation.



### Sub Coded Page Access

When Teletext information exceeds more than one page, it may take some time for the automatic changing of the sub pages to reach the sub page you require. As each sub page is found its number is displayed at the top of the page so that you may select it; as more sub pages are picked up, the display at the top of the page changes, offering the most recently transmitted selection of sub pages.

In Teletext operation, use the following procedure to access sub pages:

If the sub page you want to look at is not yet available, press the **MENU** button (to display special functions) followed by the **Yellow** button to view the TV picture whilst waiting for more sub pages to be found. The sub pages found will be displayed across the top of the screen.



When the sub page you are waiting for is available press the **Yellow** button to return to viewing the Teletext pages, then use the **left and right cursor** buttons to select the sub page of your choice.

#### Note:

- If you have used the **left and right cursor** buttons to select a sub page whilst still viewing the TV picture, you must press the **MENU** button then the **Yellow** button to display the Teletext page again.



Alternatively, if you know which sub page you require, press the **MENU** button (to display special functions) followed by the **Blue** button; T\*\*\*\* will be displayed where the page number is normally found.

Enter desired sub page number before the T\*\*\*\* disappears.

For example, to select page 6 enter 0, 0, 0 and 6.

Press the **Yellow** button to view the TV picture whilst waiting for more sub pages to be found. The sub pages found will be displayed across the top of the screen.

When the page is available, press the **Yellow** button to view the page. Regardless of how many pages are found, pressing the Yellow button will take you to the sub page which you requested.



Press **text** to return to normal TV operation.



## Index

### When in FASTEXT operation

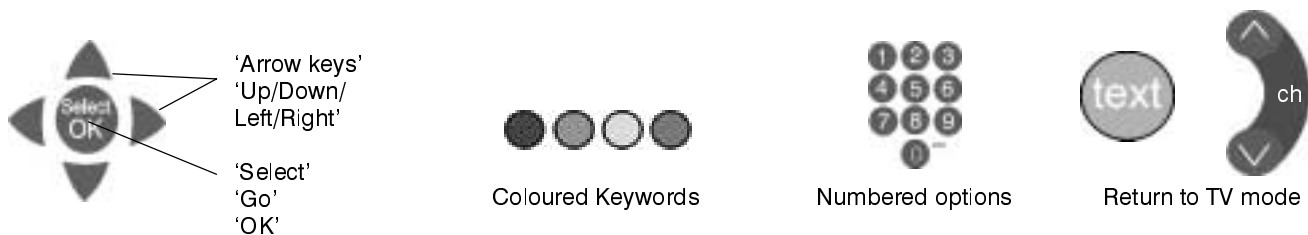
Press **INDEX** to return to the main index page.

Depending on the way information is transmitted, this may have to be pressed more than once to return to the main index page.

## DTT Teletext services

DTT Teletext services differ greatly from analogue teletext. When you switch to a DTT teletext service, the images you see can contain graphics and text, laid out and controlled in a manner decided by the broadcaster. In all cases, it is possible to navigate the pages using buttons on the remote control, but because the commands available must apply to all manufacturers of DTT equipment, some on–screen commands may not correspond exactly to the remote control buttons. For example:

- For the on–screen command '**select**' or '**go**', use the **OK** button.
- If you see the ◀ ▶ ▼ ▲ symbols, use the appropriate cursor keys.
- If you see a line of key words displayed in red, green, yellow and blue, use the coloured multifunction buttons to operate the functions.
- The **TEXT** button should allow you to exit the teletext system. Alternatively, press the **CHANNEL UP / DOWN** buttons to select another channel.



As soon as you switch to a DTT channel with links to a Teletext service, software is downloaded in the background to enable the teletext function. This means that when switching to a DTT channel, you should wait for approximately 5 seconds before pressing the **text** button – this will allow the software to download. If you press the **text** button before download is complete, there will be a short delay before the text screen is displayed.



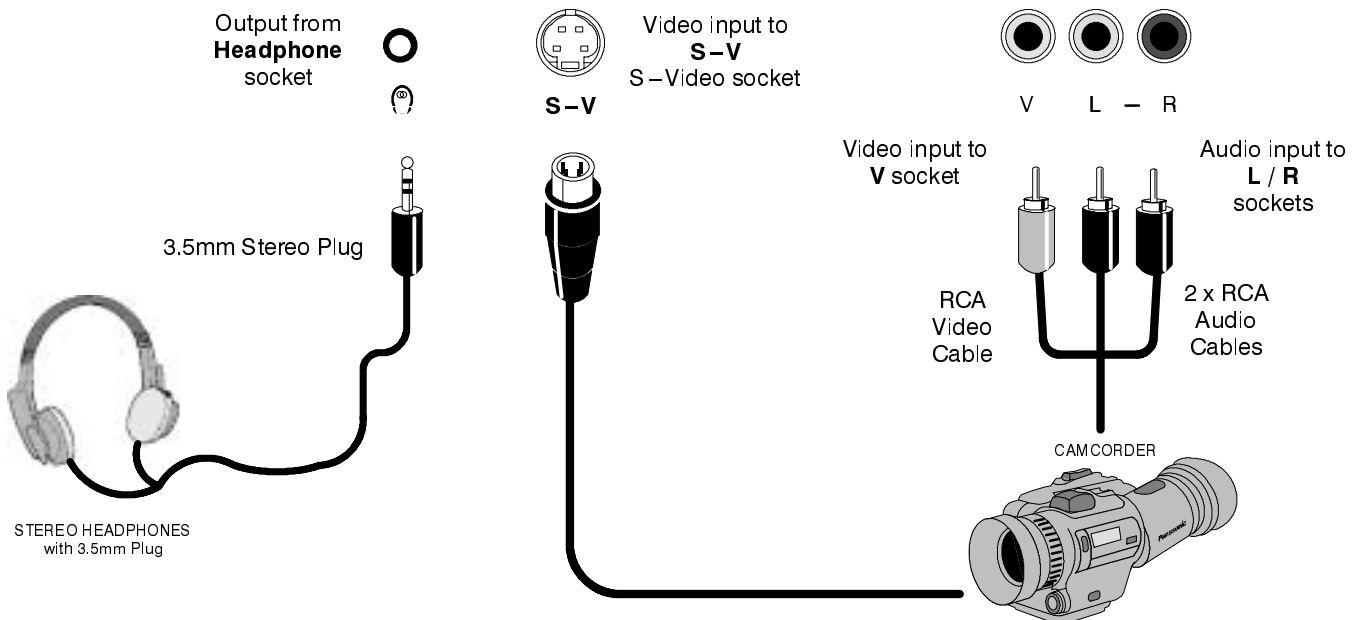
While navigating DTT teletext, you will find there is a short delay when moving between pages while the page downloads. There is often a prompt shown somewhere on the page (for example "Loading") to let you know that this is happening.

## AUDIO / VIDEO CONNECTIONS

### Front AV3 4 Pin S-Video, RCA Audio / Video and Headphones Sockets



Press and release  
to open



#### Note :

Additional equipment and cables shown are not supplied with this TV set

#### ■ Socket information

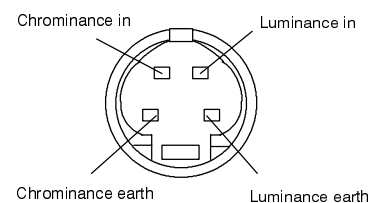
##### AV1 Scart socket

Socket Earth	21			20	CVBS in (video)
CVBS out (video)	19			18	RGB status earth
CVBS earth	17			16	Status RGB
Red in	15			14	Earth
Red earth	13			12	--
Green in	11			10	--
Green earth	9			8	Status CVBS
Blue in	7			6	Audio in (L)
Blue earth	5			4	Audio earth
Audio out (L)	3			2	Audio in (R)
Audio out (R)	1				

##### AV2 Scart socket (S-Video, Q-Link)

Socket Earth	21			20	CVBS in (video)
CVBS out (video)	19			18	Earth
CVBS earth	17			16	--
S.C. - In	15			14	Earth
Earth	13			12	--
--	11			10	Q-Link data
Earth	9			8	Status CVBS
--	7			6	Audio in (L)
Earth	5			4	Audio earth
Audio out (L)	3			2	Audio in (R)
Audio out (R)	1				

##### S-Video 4 pin socket



Suitable inputs for **AV1** include RGB (Red/Green/Blue).

**AV2** - Pins 15 and 20 are dependent on AV2 S-VHS / VIDEO switching

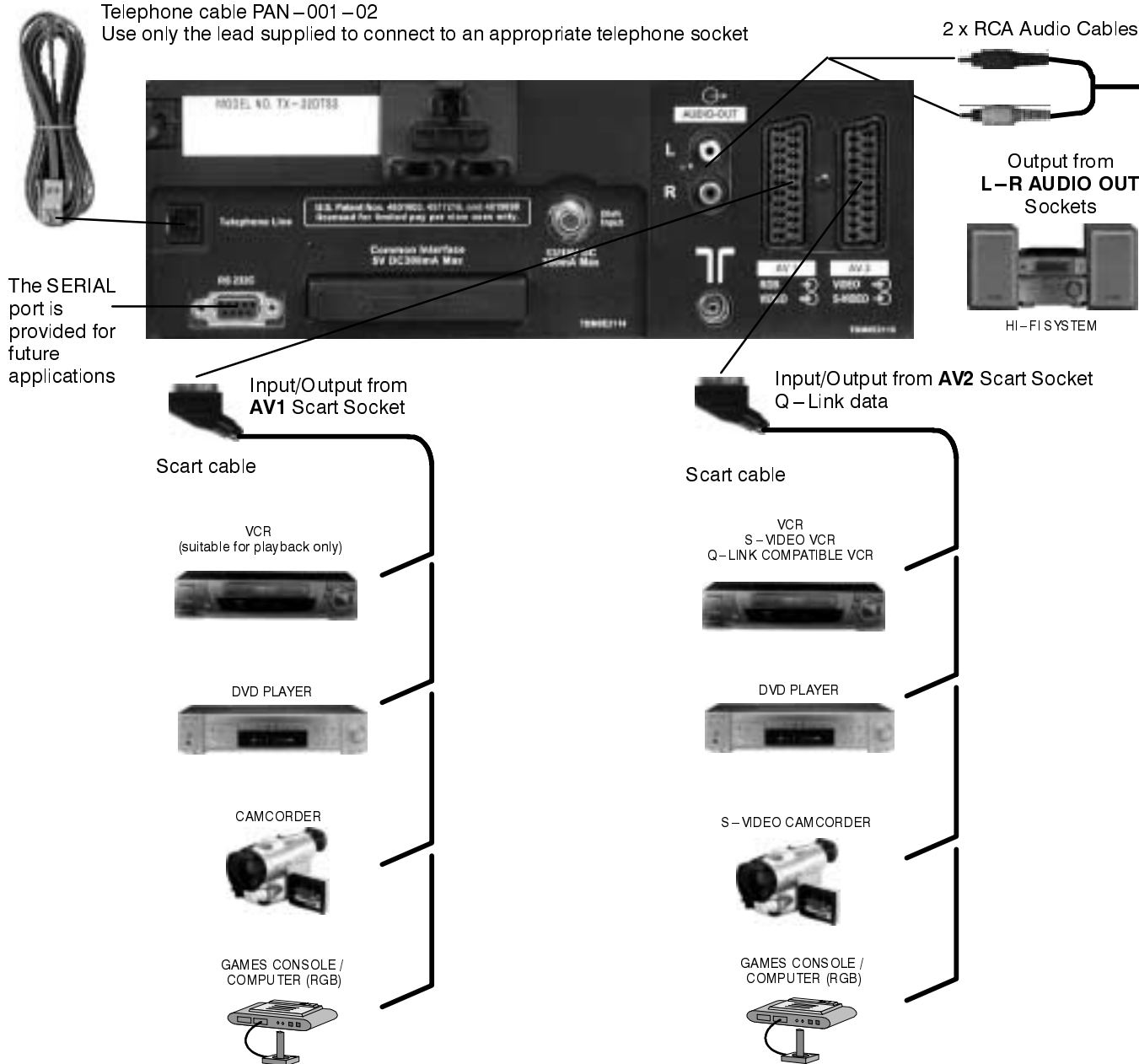
## Rear AV1/AV2 21 Pin Scart and RCA Audio Out Terminals

### Rear sockets

Additional equipment can be connected at the rear of the TV via two 21 pin Scart sockets, AV1 / AV2.

Telephone cable PAN-001-02


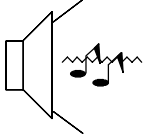

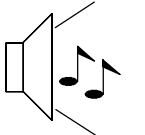
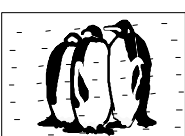
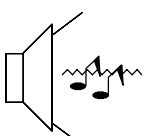
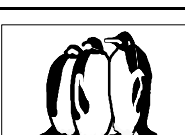
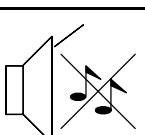

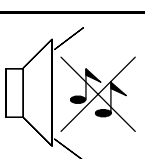
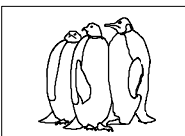
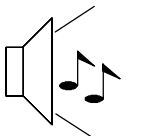

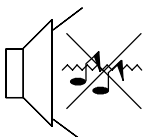

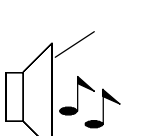
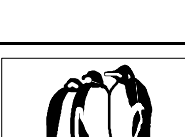
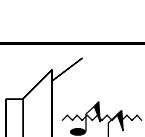
Use only the lead supplied to connect to an appropriate telephone socket



### Notes:

- Additional equipment and cables shown are not supplied with this TV set.
- Do not connect a computer with TTL output (5V) to this set.
- The AV2 21 pin socket can also be used as an output to Audio/Video equipment; see page 7 for details.
- For Scart socket wiring information see page 43.
- It is advised, that if you wish to use your VCR in a recording capacity, it must be connected to the AV2 SCART socket of your TV. see page 7.




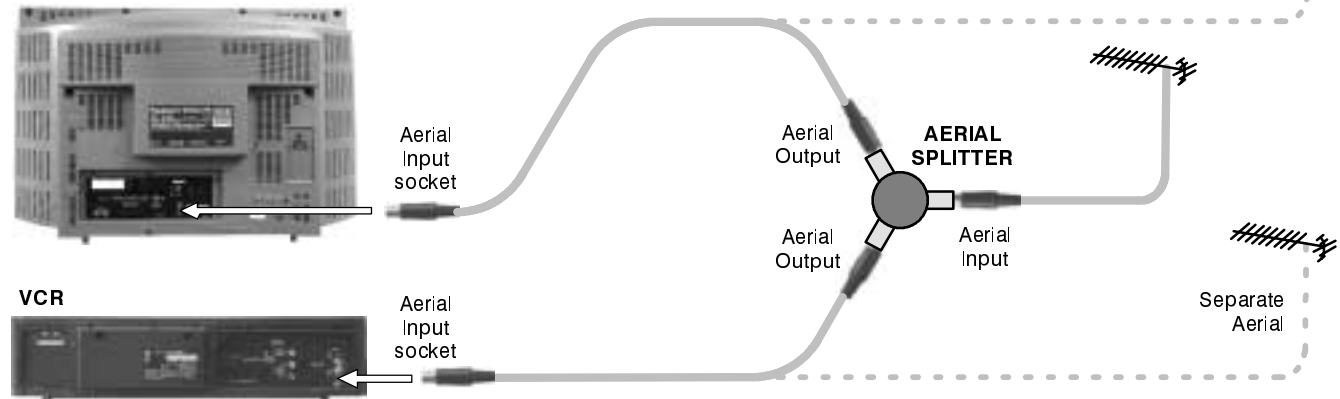
## TROUBLESHOOTING

Symptoms		Checks
Picture	Sound	
 <p>Snowy Picture</p>	 <p>Noisy Sound</p>	Aerial location, direction or connection.
 <p>Multiple Images</p>	 <p>Normal Sound</p>	Aerial location, direction or connection
 <p>Interference</p>	 <p>Noisy Sound</p>	<p>Electrical appliances Cars / Motorcycles Fluorescent lights</p> <p>Switch on P–NR in Picture menu to reduce picture noise</p>
 <p>Normal Picture</p>	 <p>No Sound</p>	<p>Volume level</p> <p>Sound mute switched on</p>
 <p>No Picture</p>	 <p>No Sound</p>	<p>TV set to AV mode Not plugged into A.C. outlet Not switched on Picture / Sound controls set at minimum levels Check if in standby mode</p>
 <p>No Colour</p>	 <p>Normal Sound</p>	Colour controls set at minimum levels
 <p>Poor or Distorted Picture</p>	 <p>Weak or No Sound</p>	Retune Channel(s)
 <p>Coloured Patches</p>	 <p>Normal Sound</p>	<p>Magnetic Interference from unshielded equipment</p> <p>Receiver moved while switched ON, switch TV off for 30 minutes.</p> <p>If picture is also tilted, use Geomagnetic Correction feature (see Quick Start Guide, page 11)</p>
 <p>Normal Picture</p>	 <p>Weak or distorted sound</p>	<p>Sound reception may have deteriorated.</p> <p>Switch NICAM setting (Sound menu) to Off until reception improves.</p>

## DTT TROUBLESHOOTING

Some problems will only occur when viewing DTT channels. Due to the different techniques involved in digital reception, DTT *signal quality* can be poor even if you appear to have a *strong signal* when viewing analogue programmes.

The DTT 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 DTT 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 aerial system to provide a better signal.

Symptom	Checks
<p>No DTT channels listed in the TV Guide after Auto Setup.</p> 	<p>Check that DTT transmissions are available from the transmitter you are currently using. If not, try directing the aerial at another local transmitter.</p> <p>Check analogue transmissions. If picture quality is poor, you will need to improve or change your aerial system to receive DTT channels. Consult a local installer.</p>
<p>Blocky interference. Picture freezes intermittently.</p> 	<p>Blocky interference indicates that the signal quality is poor. You should consider improving your aerial system. To check the quality of your signal use the Signal Quality feature (see page 25).</p> <p>Good quality signal – indication is green. Poor quality signal – indication is red.</p> 
<p>I have a good aerial system, but still cannot receive DTT stations.</p> <p>TV</p>  <p>VCR</p>	<p>If you have tried the previous solutions and are still unable to receive DTT channels, you may need to provide dedicated aerial feeds to the TV and other equipment. This can be implemented using an aerial splitter or separate aerials.</p>

## FOR YOUR GUIDANCE

### ■ TV Games / Home Computers

Extended use of TV games or home computers with any television set can cause a permanent 'shadow' on the screen. This type of irreversible picture tube damage, can be limited by observing the following points:

- Reduce the brightness and contrast levels to a minimum viewing level.
- Do not operate the television set for a continuous period of time while using TV games or home computers.
- This type of picture tube damage, is not an operating defect, and as such is not covered by the Panasonic warranty.

### ■ Last Position Memory

Certain functions have a last position memory, i.e. the setting at the time of switch-off will be the setting used when the receiver is switched on again.

### ■ Sleep Feature

If the set is not switched off when the TV station stops transmitting, it will automatically go to standby mode after 30 minutes. This function will not operate when the TV is in AV mode.

### ■ Service

Before requesting service, please refer to the trouble-shooting guide on previous page to determine the symptoms. To obtain service please contact your local Panasonic dealer quoting the model number and serial number (both are located at the rear of the TV).

## SPECIFICATIONS

		TX-32DTS3	TX-28DTS3
<b>Power Source</b>		220 - 240V 50Hz A.C.	
<b>Power Consumption</b>		121W	108W
<b>Active Standby Consumption</b>		27W	27W
<b>Picture Tube</b> Visible Diagonal		76cm	68cm
<b>Audio Output</b> Music Power		Front Left / Right 10W x 2 (RMS), 8Ω impedance	
<b>Dimensions</b>	H	551mm	508mm
	W	849mm	764mm
	D	558mm	509mm
<b>Weight (kg)</b>		58	45
<b>Receiving Systems/ Band name</b>	<b>PAL I</b>	UHF E21 - 68	
	<b>PAL 525/60</b>	Playback of NTSC tape from some PAL Video recorders (VCR)	
	<b>DTT</b>	Digital terrestrial services via UHF aerial input	
	<b>M.NTSC</b>	Playback from M.NTSC Videorecorders (VCR)	
		NTSC (AV input only)	
		Playback from NTSC Videorecorders (VCR)	
<b>Aerial - Rear</b>		UHF	
<b>Headphones - Front</b>		3.5mm, 8Ω impedance	
<b>AV - Rear</b>		<b>AV1</b> - 21 pin socket - Audio / Video in / out, RGB in <b>AV2</b> - 21 pin socket - Audio / Video in/out, S-Video in, Q-Link 2 x RCA Audio Monitor Out	
<b>Data connection</b>		<b>SERIAL</b> - 9 pin female D-type connector - max. 38.4kbps	
<b>AV - Front</b>		<b>AV3</b> - S-Video in, RCA Audio / Video in	

Specifications are subject to change without notice. Weight and dimensions shown are approximate.

In the unlikely event that service is required, Sky digital subscribers and those installed by Sky services should contact the Sky Premium Product Helpline on **08705 741 147**, and Free to Air customers (ie those who do not subscribe to any Sky channels) and were installed by either the local retailer or installer should call the Panasonic Helpline on **0800 1693012**.



Trade Mark of the DVB Digital Video Broadcasting Project (1991 to 1996)  
TX-28DTS3 Declaration of Conformity No 2622, 3rd October 2002  
TX-32DTS3 Declaration of Conformity No 2623, 3rd October 2002

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