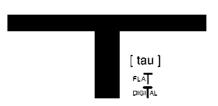
Panasonic



TX-32PK1F TX-28PK1F

Colour Television



Quintrix F





Operating Instructions

WELCOME

Dear Panasonic Customer,

Welcome to the Panasonic family of customers. We hope that you have many years of enjoyment from your new colour television. This is a very advanced television; however, the Quick Start Guide will tell you how to have the TV operating quickly. You can then read the instructions completely and retain them for future reference.

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Via the rear AV1 / AV2 21 Pin (SCART) and RCA Audio Out terminals
and RCA Audio Out terminals

WARNINGS AND PRECAUTIONS

- This TV set is designed to operate on A.C. 220 240V, 50Hz.
- To prevent damage which might result in electric shock or fire, do not expose this TV set to rain or excessive moisture.
- 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.
- The On/Off switch on this model does not fully disconnect the TV from the mains supply. Remove the mains plug from the wall socket when the TV set is not used for a prolonged period of time.

• 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.

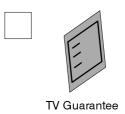
ACCESSORIES

Check that you have the accessories and items shown



Operating Instruction book TQB8E2783



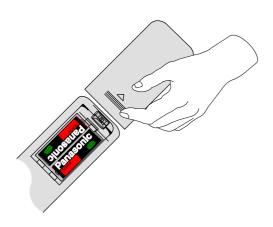


Batteries for the Remote Control Transmitter (2 x R6 (UM3) size)



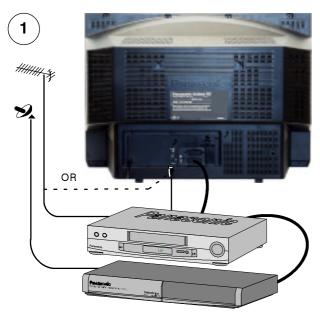


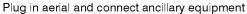
Remote control batteries

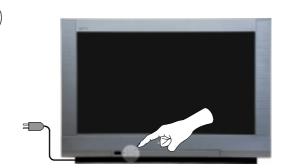


- Make sure that the batteries are fitted the correct way round.
- Do not mix old batteries with new batteries. Remove old, exhausted batteries immediately.
- Do not mix different battery types, i.e.
 Alkaline and Manganese or use rechargeable (Ni-Cad) batteries.

QUICK START GUIDE







First, ensure that the VCR is in Standby mode

Plug in TV and switch on



Select your country

For Switzerland and Belgium, select the desired language



(4)



Auto setup will begin, your stations will be located and stored.

If a compatible VCR is connected to the AV2 socket, programme data will be downloaded to the VCR via Q-Link. See page 21.





If you are installing a new Q-Link compatible VCR, you can now switch it ON. Downloaded tuning data will match the television's.

If you are installing a new NEXTVIEWLINK compatible VCR, you will need to initiate download manually.

See the VCR handbook for details.

- If the VCR has not accepted download data from the TV, you may need to select the Download option from the VCR's menu.
- If Q-Link is not operating correctly, check it is connected to the television's AV2 socket, the SCART lead is a "full function" type, and the VCR is compatible with Q-Link, NEXTVIEWLINK or similar technologies. Ask your dealer for further details.
- For further information on Q-Link and connecting equipment, see pages 21, 26 and 27.

QUICK START GUIDE

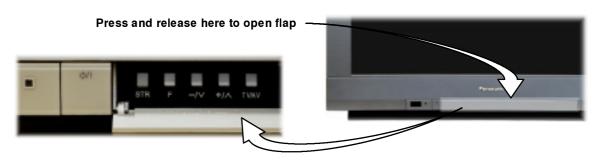


Slight tilting of the picture may be noticeable or coloured patches may sometimes appear at the corners of the screen (colour purity). The Geomagnetic Correction feature can be used to eliminate them, if necessary:

First, ensure the ATP 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 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







You are now ready to begin viewing programmes

The cursor controls provide the two basic functions:

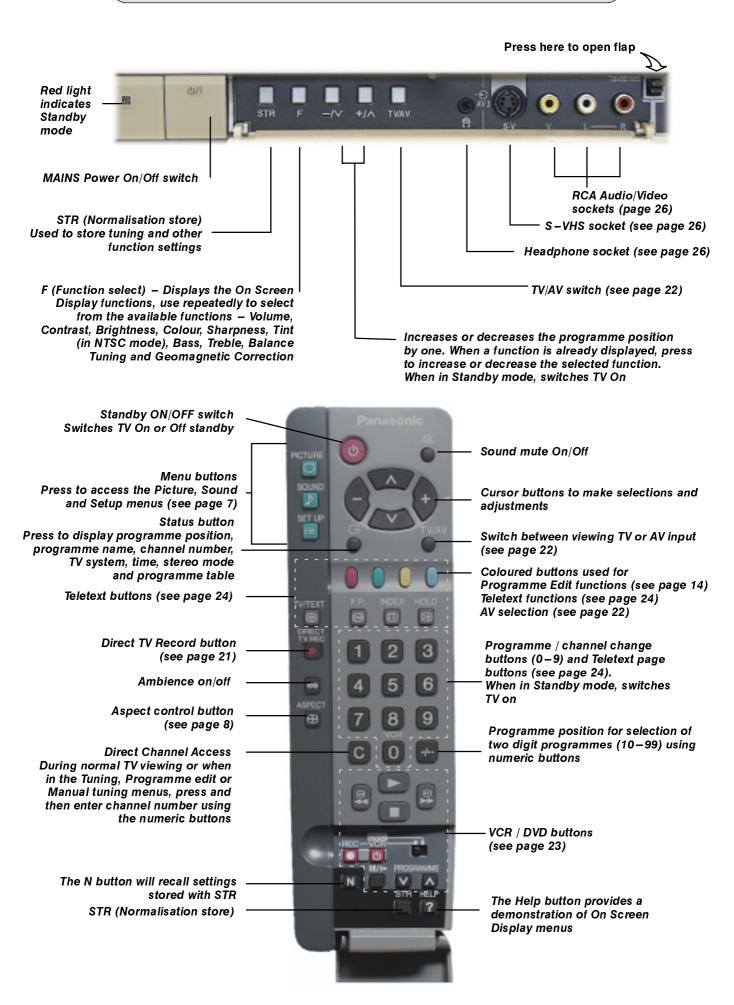


Adjust Volume



Change Programme

BASIC CONTROLS: FRONT PANEL AND REMOTE CONTROL



USING THE ON SCREEN DISPLAYS

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



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 choice to be made.

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

The **PICTURE**, **SOUND** and **SET UP** buttons are used to open the main menus and also to return to the previous menu.

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

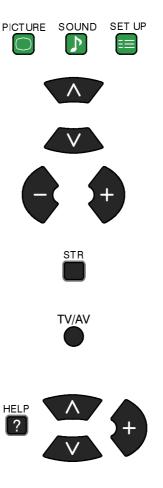
The left and right cursor buttons are used to access menus, adjust levels or to select from a range of options.

The **STR** button is used to store settings after adjustments have been made or options have been set.

The **TV/AV** button is used to exit the menu system and return to the normal viewing screen.

The **HELP** button will run a demonstration of the menus available. Press the **HELP** button and select one of the options.

If the **HELP** button is pressed whilst a menu is displayed, the 'Instructions' box will be hidden from view. Press the **HELP** button again to show the 'Instructions' box.





ASPECT CONTROLS

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

Note: Just mode is not available when viewing an RGB source.

Press the ASPECT button to move through the five aspect options: Panasonic Auto, 4:3, Zoom, 16:9 (Full) and Just

ASPECT

Panasonic Auto

Some broadcasts are transmitted together with a wide screen identification signal (WSS). If the TV receives this signal then it will automatically switch to wide screen 16:9 mode, maximum display.

The automatic widescreen switching depends upon reception conditions and the strength of the signal. If the signal is poor and therefore the WSS is weak then it is possible that the picture may not expand to full size and that the TV will display black areas around the edges.

If the original source signal was a standard 4:3 aspect ratio then you might prefer to view it in its original size; the red and green keys that appear will allow you to choose between viewing at standard 4:3 size or expanded in **Just** mode.

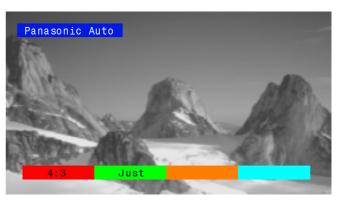
4:3

4:3 will display a 4:3 picture at its standard 4:3 size and can be selected if you wish to view in this format.

Zoom

Zoom mode magnifies the central section of the picture.

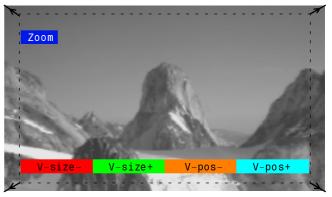
The picture can be moved and enlarged vertically using the coloured keys. The former adjustment is useful for viewing any sub-titles which may appear outside the picture.



Panasonic Auto



4:3



Zoom

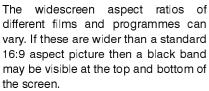
ASPECT CONTROLS

The on screen selector keys that appear for some aspect functions will clear after a few seconds. If you subsequently wish to select an operation then press the Aspect key once more for the keys to reappear.

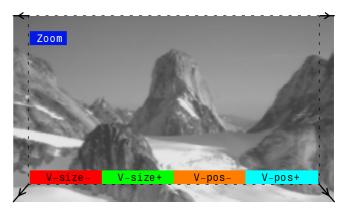








If, in Panasonic Auto mode, you experience problems with the screen display size when playing back widescreen format recordings from your VCR then it is possible that the tracking control of your VCR requires adjustment (your VCR instruction book will contain adjustment details).



Blue key has been pressed to move picture upwards

16:9 (Full)

16:9 (Full) will display the picture at its maximum size but with slight elongation.



16:9 (Full)

Just

Just mode will display a 4:3 picture at maximum size but with aspect correction applied to the centre of the screen so that elongation is only apparent at the left and right edges of the screen. The size of the picture will depend on the original signal.



Just

PICTURE MENU

This menu allows you to make adjustments to the picture quality

Open the Picture menu

PICTURE

Move to your choice

Increase or decrease levels or set options



Press the TV/AV button to exit the Picture menu







Brightness

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



Colour

Tint

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



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



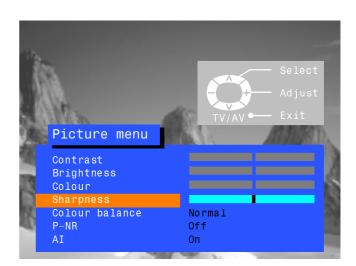


P-NR will automatically reduce unwanted picture interference.





The AI setting automatically analyses the incoming picture and processes it to give improved contrast, optimum depth of field and vivid colour tones.





SOUND MENU

The Sound menu will allow you to set your personal preferences for all aspects of sound quality

Open the Sound menu

Move to your choice

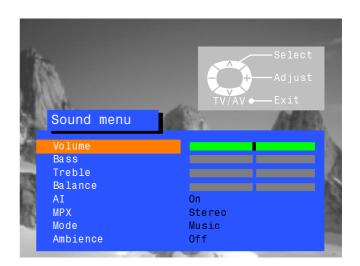
Increase or decrease levels or set options

Press the TV/AV button to exit the Sound menu



SOUND







The Volume adjustment sets the overall output volume.

Bass

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



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



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.



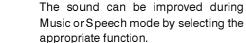
The AI setting automatically analyses the incoming sound signal and processes it to give lower noise and optimum tone for the programme material.





MPX will usually be set to Stereo to provide the best reproduction, however if reception deteriorates or if the service is not available then it is advisable to switch to Mono. Mono (M1) and (M2) can also be selected if signals are being transmitted.





Ambience

 \bullet

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

Open the Setup menu

SET UP

Move to your choice

Increase or decrease levels, set options or access further menus



Press the TV/AV button to exit the Setup menu





Teletext



The Teletext option allows you to choose between TOP/FLOF or LIST mode.
See page 24.

Off timer

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.



Q – Link allows you to enable or disable data communication with a compatible VCR. See page 21.

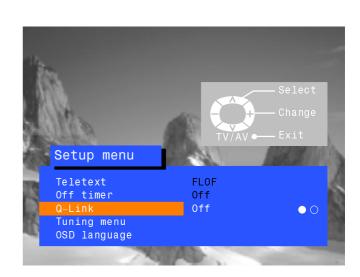


The Tuning menu provides an entry to many other features including Programme edit, ATP, Fine tuning, Manual tuning, Colour system and Volume correction. See page 13.

OSD language

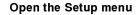
OSD Language allows you to select the language used for On Screen Displays. See page 20.





TUNING MENU

The Tuning menu provides access to manual, automatic and fine tuning menus





Move to Tuning menu



Access Tuning menu



Move to your choice



Increase or decrease levels, set options or access further menus



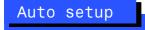
Press the TV/AV button to exit



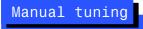
Programme edit

Accessing the Programme edit menu will allow stations to be moved, added, deleted, named or locked and provides access to the TV – system.

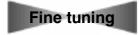
See page 14.



The Auto setup menu allows you to automatically retune the TV. See page 18.



The Manual tuning menu allows individual programme positions to be tuned manually. See page 19.



Stations can be finely tuned using the Fine tuning adjustment.



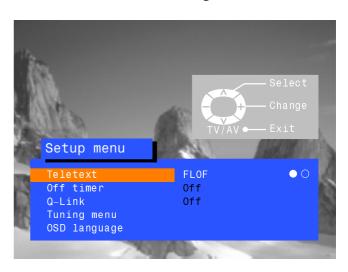
The Colour system menu allows you to decide the correct choice of transmission standard.

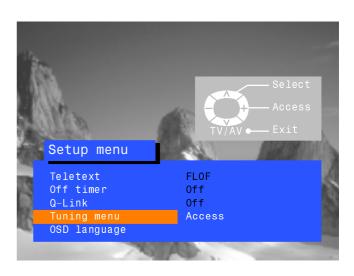


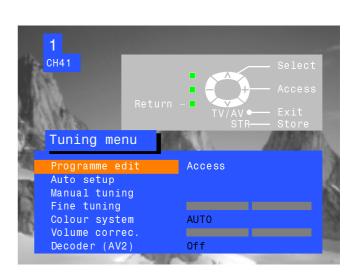
Volume correction allows you to adjust the volume level of individual stations.



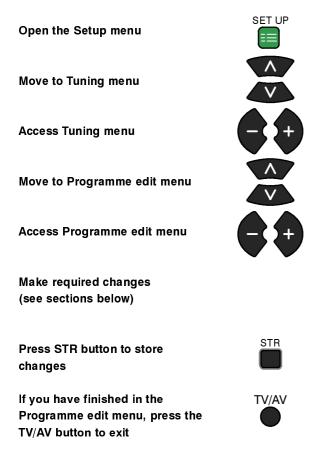
This option is used when a decoder is connected via AV2. Set to On if a scrambled signal is to be processed by the decoder. Set to Off after use.



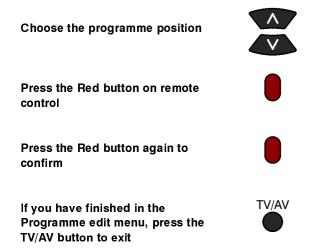


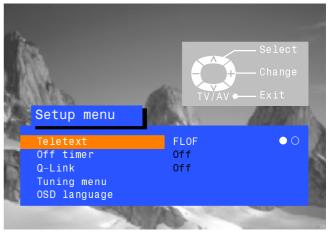


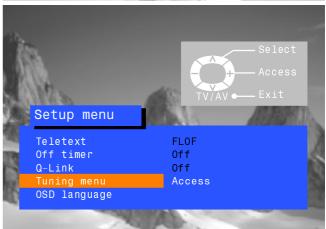
The Programme edit menu allows you to edit the programme position settings

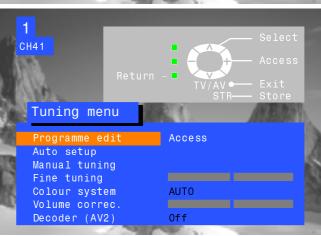


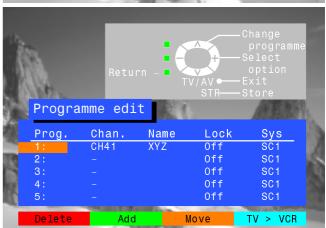
To delete an unwanted programme position











To add a programme position

Choose the programme position where the new programme is to be inserted



Press the Green button



Press the Green button again to confirm



This blank programme can then be tuned, named, locked and be allocated your choice of TV-system



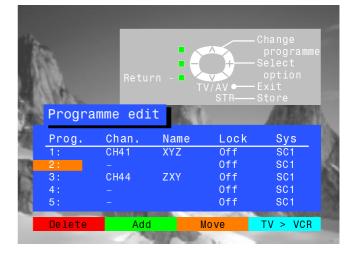
Press STR to store



If you have finished in the Programme edit menu, press the TV/AV button to exit







To move a programme to another position

Choose the programme position to be moved



Press the Yellow button on remote control



Choose new position

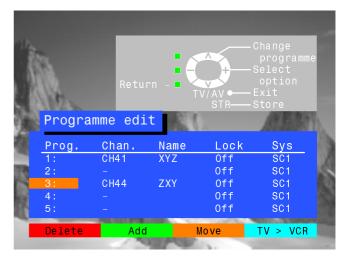


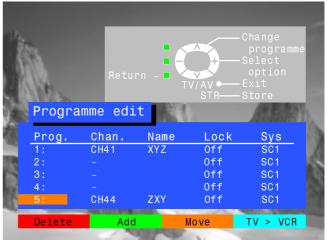
Press the Yellow button again to confirm



If you have finished in the Programme edit menu, press the TV/AV button to exit







To tune a programme position

Choose the programme position



Move to the channel column



Increase or decrease channel number or use the 'C' key for Direct Channel Access (see page 6)

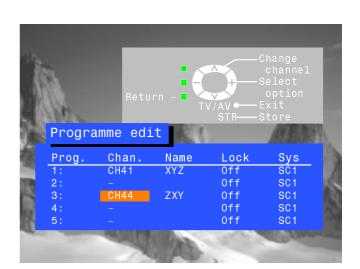


Press STR to store



If you have finished in the Programme edit menu, press the TV/AV button to exit





To rename a programme position

Choose the programme position



Move to the Name column



Choose the new character



Move to the next character position



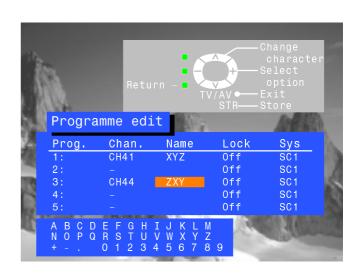
Continue until renaming is done



Press STR to store

If you have finished in the Programme edit menu, press the TV/AV button to exit





To lock a programme position to prevent access

Choose the programme position



Move to the lock column



Choose between lock on or lock off



Press STR to store If you have finished in the Programme edit menu, press the TV/AV button to exit



Note:

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

To change the TV-system for a programme position

Choose the programme position



Move to the Sys column

Choose the required sound system:

 $\mathbf{SC1} \; : \; \mathbf{PAL} \; \mathbf{B}, \, \mathbf{G}, \, \mathbf{H} \, / \, \mathbf{SECAM} \; \mathbf{B}, \, \mathbf{G}$

SC2 : PALI

SC3: PAL D, K / SECAM D, K

F : SECAM L/L'



Press STR to store

If you have finished in the Programme edit menu, press the



TV/AV

TV/AV button to exit To copy programme information to a

compatible VCR connected to AV2

Move to the Prog. column Press the Blue button on the remote control.

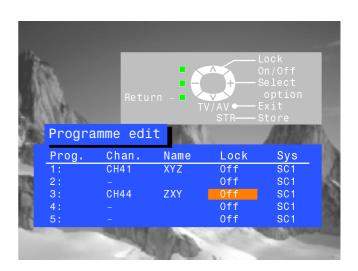
remote control.

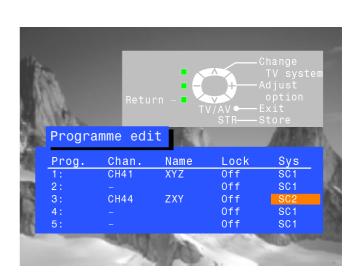
Programme data will now be sent to the VCR. This might take a few seconds, depending on the number of stations stored. If the message "Unable to download, check your VCR" appears on the screen, the television is unable to send programme information to the VCR. See the VCR handbook for further information If you have finished in the Programme edit menu, press the TV/AV button to exit







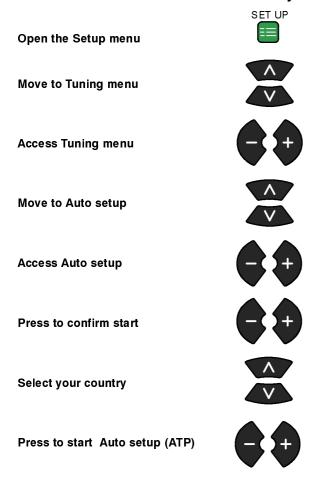






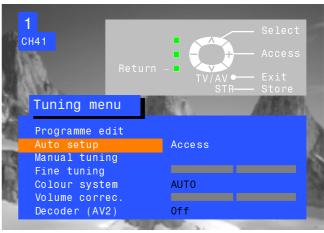
TUNING MENU - AUTO SETUP (ATP)

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



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 21)

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



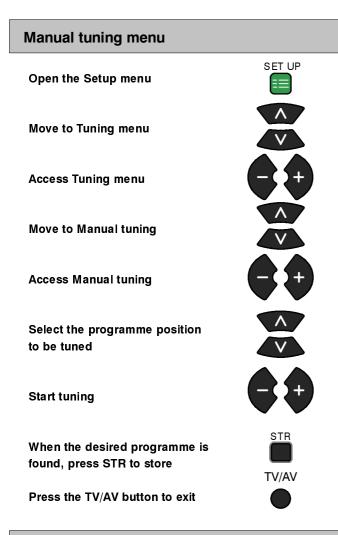


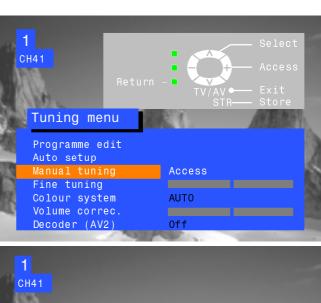


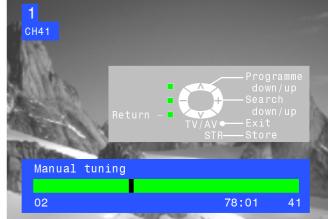


TUNING MENU - MANUAL TUNING

Manual tuning of the Programme positions is available either from the On Screen Display menu or from the front panel controls







Manual tuning (Front panel)

Press the F button (Front panel) until "Tuning mode" is reached



Press the - or + button to access Tuning mode



Press the TV/AV button to move between "Change programme", "Search" or "Change TV system"



Press the — or + button to change programme position, start search, or alter TV system

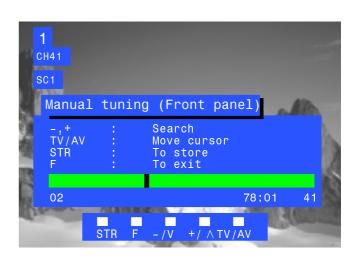


When the desired station is found, press STR to store the changes



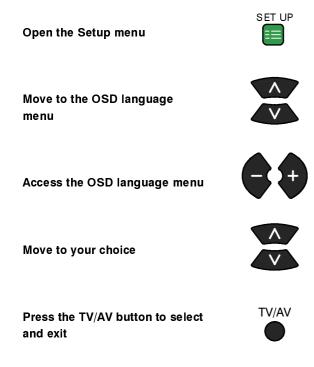
Repeat above procedure to tune additional programmes or press the F button to exit

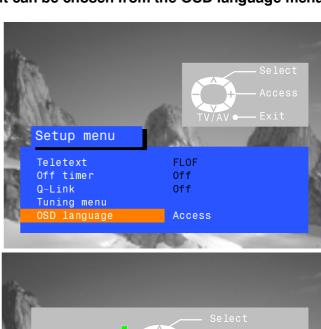




OSD LANGUAGE

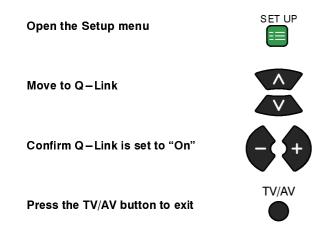
When you first installed the TV the On Screen Display language was set according to your choice of country. If you wish to use a different language then it can be chosen from the OSD language menu

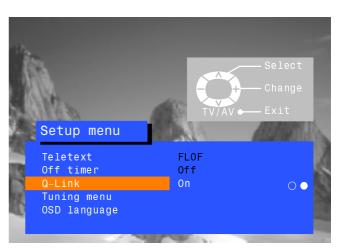






Q-Link allows the television to communicate with your VCR





The VCR must be connected with a SCART lead (full function type) attached between the AV2 socket of the television and the appropriate socket on your VCR. See the VCR handbook for further information. Q—Link, NEXTVIEWLINK Or similar technology allows the television to instruct a **compatible VCR** to record the programme that is currently being displayed on screen, regardless of the programme position set on the VCR, thus simplifying the process of recording programmes.

To record the programme you are currently watching

DIRECT TV REC

Press the DIRECT TV REC button on the remote control

If the VCR is off, it will automatically switch on when you press the DIRECT TV REC button.

A message, sent from the VCR, will appear on screen showing what is being recorded, or if it is not possible to record:

VCR recording preset prog

VCR recording own tuner

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 VCR ALREADY RECORDING

No recording TAPE MAY BE DAMAGED

No recording NO SOURCE AVAILABLE

To share tuning information

To ensure correct recordings are made, the television and VCR should share tuning information – see page 17.

Whenever the Auto setup (ATP) function is used, tuning data will be downloaded to the VCR.

Auto Power functions

With Panasonic Q - Link VCRs these additional features are available:

- If you insert a tape in your VCR and press the Play button, the television will automatically switch on and select the AV2 input so you can view the tape.
- If you switch off the television whilst the VCR is in Stop, Fast Forward or Rewind modes, the VCR will switch off automatically.

To turn off Q-Link communication

If you do not wish to use the Q-Link feature, go to the Setup menu and set the Q-Link option to "Off". See page 12.

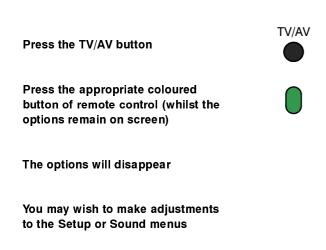
Important Note:

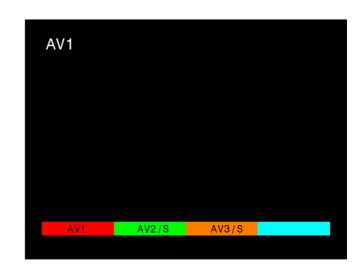
Not all VCRs support this type of data communication system. Some may support certain features, but not others. See the VCR handbook for further information.

If Q-Link is inoperative, first confirm that your SCART lead is a full function type. Ask your dealer for further details.

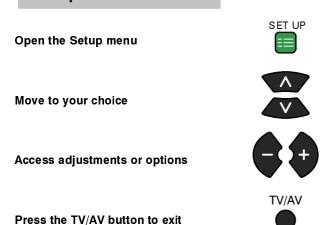
AV SELECT AND SETUP

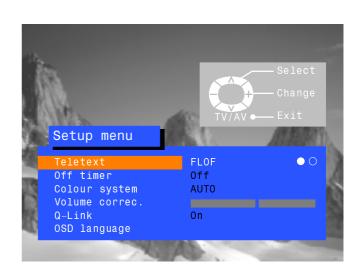
The AV Select menu will allow you to choose which AV source to view



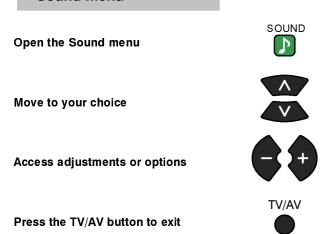


Setup menu





Sound menu





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.



	1
DVD VCR	Standby Press to switch the VCR or DVD to standby mode. Press again to switch back on.
	VCR / DVD switch Use this switch to select whether controls operate DVD equipment or your VCR.
	Play Press to playback the tape or DVD.
	Stop Press to stop the tape or DVD.
⊕	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 the next track. In play mode 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 in reverse. DVD: Press once to skip to the previous track. In play mode press and hold to view the picture rapidly in reverse.
11/1	Pause / Still Press in playback mode, the picture will pause. Press again to restart play.
	Programme Up / Down Press to increase or decrease the VCR programme position by one.
REC	Record Press this button to start recording.

TELETEXT OPERATION

- Teletext features may vary depending on the Broadcasting Companies and is only available if the channel selected is transmitting
 Teletext
- Pressing the Picture button whilst in Teletext operation will display the contrast function with a cyan bar, press ◀ ▶to alter the setting as required.
 - Pressing the Setup 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 FLOF (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 of the subjects shown.

What is TOP Teletext?

TOP Teletext makes the task of selecting the desired Teletext pages easier and shorter. In fact page access time is almost instantaneous, just press the button and the page appears.

How does it work?

TOP uses the four coloured buttons, Red, Green, Yellow and Blue to select the following information.

- To move between subject blocks (SPORT for example) use the Blue button. Within this SPORT topic it is possible to select different groups such as Tennis, Football, Baseball etc, by using the Yellow button. When the last group within the block is reached, the yellow button moves to the next block.
- The Green button will select the next available page UP.
- The Red button will select the next available page DOWN.

What are the advantages?

- Page selection at the touch of a single button.
- Easy to use step by step selection of the topical subject.
- Reduction of waiting time.
- If non existent page number is entered, a question mark will appear at the bottom of the screen.
- Page status line at bottom of screen so you always know which button will take you to the desired information.

TV/TEXT

TV / Teletext mode

Press the TV/TEXT button.

The screen will display the Teletext page.

Press again when you wish to return to TV. mode.





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 **SET UP** 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 **SET UP** 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 TOP or 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 for channel positions 1-25 only. To do this, press one of the coloured buttons and enter the new page number. Press and hold **STR**, the page numbers will change colour.

TELETEXT OPERATION

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

HOLD



Hold

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



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 STR button. The page number is now stored.

Press F.P. to recall this page.

Update Display

Press the SET UP 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 TV / TEXT again to return to normal TV operation.

News Flash



When a news flash page has been selected, press SET UP, 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 TV / TEXT to return to normal TV. operation.

Update

Press SET UP 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

Press the Yellow button to view the page.

Press TV / TEXT to return to normal TV. operation.

SET UP

SET UP









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.

It is possible to enter your required sub page and continue watching the normal programme until the correct sub page is found.

Select the required page number using buttons 0 - 9.

Press the **SET UP** button followed by the **Blue** button; T**** will be displayed at the top right of the screen.

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

To select page 6 enter 0, 0, 0 and 6.

(If in LIST mode, a 'T' will appear in the current box at the bottom).

Press the Yellow button to view a normal TV programme. (Press SET UP, Yellow in LIST mode).

When the page is available, press the **Yellow** button to view the page.

To clear the page perform one of the following:

- Press SET UP
- Select a new page number.
- Press TV/TEXT to return to normal TV operation.

INDEX



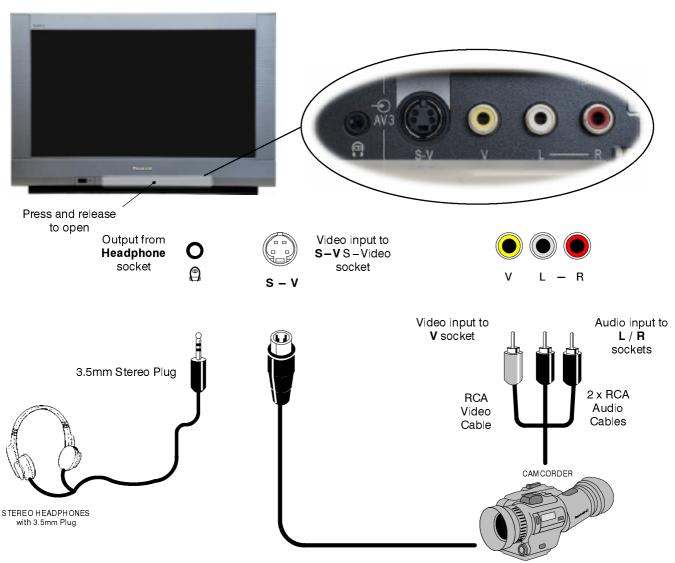
Index

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.

AUDIO / VIDEO CONNECTIONS

Front AV3 4 pin S-Video, RCA Audio / Video and Headphone Sockets

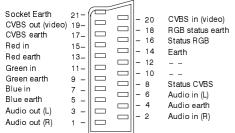


Note

Ancillary equipment and cables shown are not supplied with this TV set.

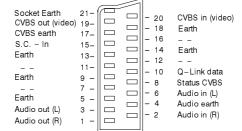
■ SCART Terminal Information





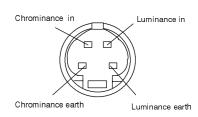
Suitable inputs for **AV1** include RGB (Red/Green/Blue).

AV2 21 pin SCART terminal



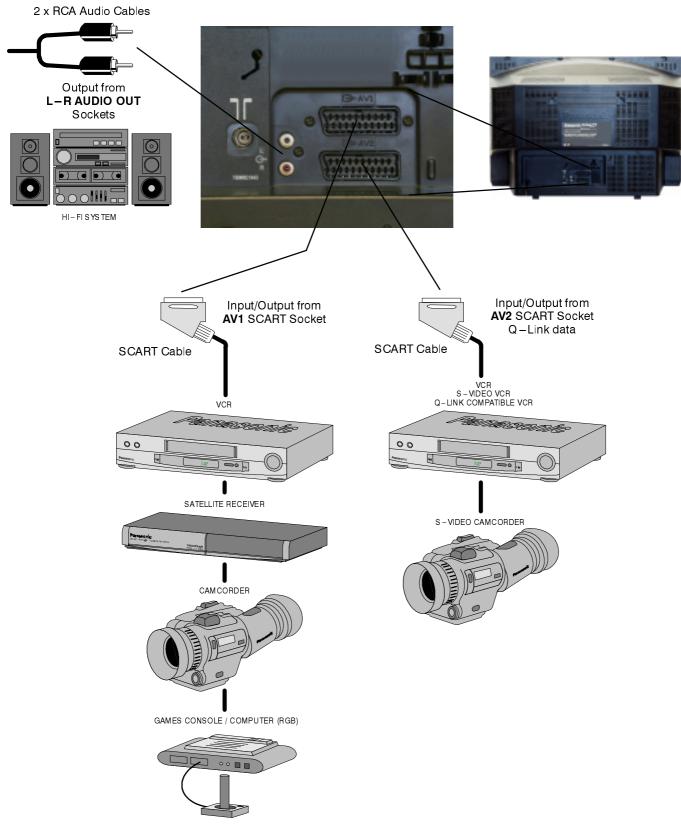
AV2 – Pins 15 and 20 are dependent on AV2 S – VHS / VIDEO switching.

S-Video 4 pin socket



AUDIO / VIDEO CONNECTIONS

Rear AV1/AV2(S) 21 Pin Scart and RCA Audio Out Terminals



Notes:

Ancillary equipment and cables shown are not supplied with this TV set. Do not connect a computer with TTL output (5V) to this set.

TROUBLESHOOTING

Symp	toms	Chaaka
Picture	Sound	_ Checks
Snowy Picture	Noisy Sound	Aerial location, direction or connection
Multiple Images	Normal Sound	Aerial location, direction or connection
Interference	Noisy Sound	Electrical appliances Cars / Motorcycles Fluorescent lights Switch on P-NR in Picture menu to reduce picture noise
Normal Picture	No Sound	Volume level Sound mute switched on
No Picture	No Sound	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
No Colour	Normal Sound	Colour controls set at minimum levels
Poor or Distorted Picture	Weak or No Sound	Retune Channel(s)
Coloured Patches	Normal Sound	Magnetic Interference from unshielded equipment Receiver moved while switched ON, switch TV off for 30 minutes. If picture is also tilted, use Geomagnetic Correction feature (see Quick Start Guide, page 5).
Normal Picture	Weak or distorted sound	Sound reception may have deteriorated. Switch MPX setting (Sound menu) to Mono until reception improves.

FOR YOUR GUIDANCE

■ Service

Before requesting service, please refer to the troubleshooting 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).

■ 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:—

Programme Tint

OSD language (M.NTSC / NTSC only)

AV Position Contrast
Volume Sharpness
MPX Aspect
Bass Standby

Treble Artificial Intelligence (AI) (Picture & Sound)

Balance Colour
Colour Balance Brightness
Status Ambience
P-NR Teletext mode
Mode Q-Link

Decoder (AV2)

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.

SPECIFICATIONS

		TX-32PK1F	TX-28PK1F	
Power Source		220 – 240V 50Hz A.C.		
Power Consumption		110W	96W	
Standby Consumption		1,4W		
Picture Tube Visible Diagonal		76 cm	66 cm	
Audio Output Music Power		2 x 20W, 8Ω impedance		
Dimensions	H W D	558 mm 812 mm 572 mm	503 mm 720 mm 527 mm	
Weight (Kg)		58	41,5	
Receiving Systems/ Band name		VHF A - H (ITALY) U CATV (S01 - S05) C CATV S11 - S20 (U1 - U10) C PAL D,K, SECAM D,K VHF R1 - R2 V	recorders (VCR)	
Aerial – Rear		UHF / VHF		
Headphones – Front		3,5mm, 8Ω impedance		
AV – Rear		AV1 - 21 pin terminal - Audio / Video in / out, RGB in. AV2 - 21 pin terminal - Audio / Video in/out, S - Video in, Q - Link 2 x RCA Audio Monitor Out.		
AV – Front		AV3 - S-Video in, 2 x RCA Audio in, 1 x RCA Video in.		

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