## TX-W32/28D2F/P Operating Instruction







# **Panasonic**

## **Operating Instructions**

Colour Television

TX-W32D2F/P TX-W28D2F/P

100Hz

Quintrix



Super **3DBASS** 





Please read these instructions completely before operating this set and retain them for future reference.

#### 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 following pages to fully utilise the advanced features.

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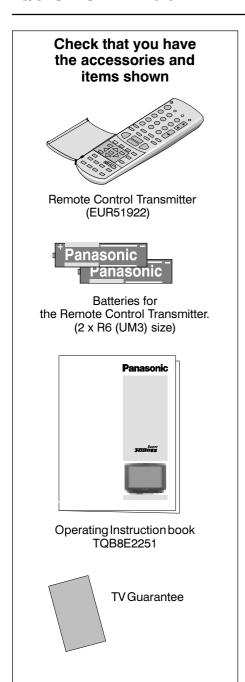
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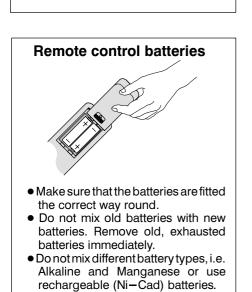
## WARNINGS and PRECAUTIONS

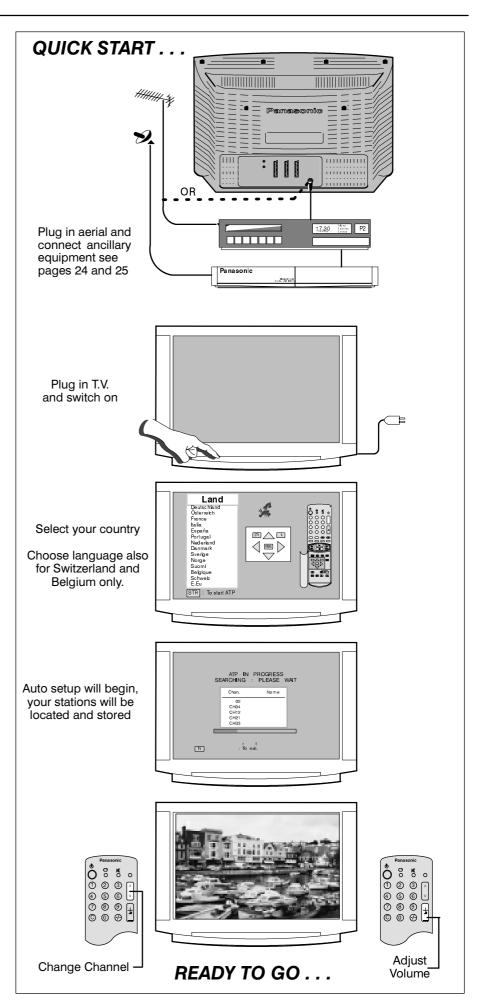
- This TV set is designed to operate on A.C. 220 240V, 50Hz.
- To prevent damage which might result in electric shock or fire, do not expose this TV set to rain or excessive moisture.
- WARNING: HIGH VOLTAGE !!!
   Do not remove the rear cover as live parts are access:
  - Do not remove the rear cover 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.
- 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

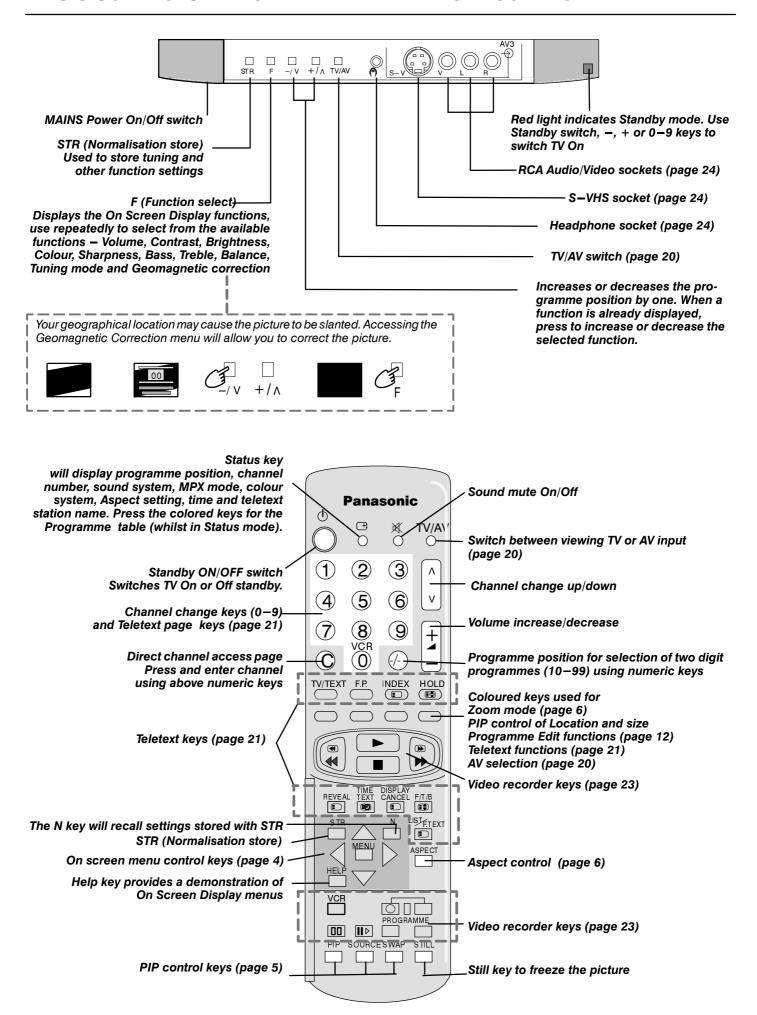
- Remove the mains plug from the wall socket. The cabinet and picture tube can be cleaned with a soft cloth moistened with mild detergent and water. Do not use solutions containing benzol or petroleum. TV sets can produce static electricity, care must be taken whenever touching the TV screen.
- Adequate 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.



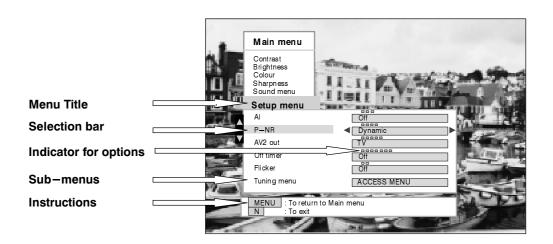




## BASIC CONTROLS - FRONT PANEL AND REMOTE CONTROL



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



The following remote control keys are used to access and adjust settings for the On Screen Display menus.

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 'MENU' key is used to open the Main menu and also to return to either the Main menu or a previous menu.

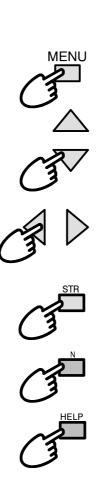
The  $\triangle$   $\blacktriangledown$  keys are used to move the selector up or down the menus.

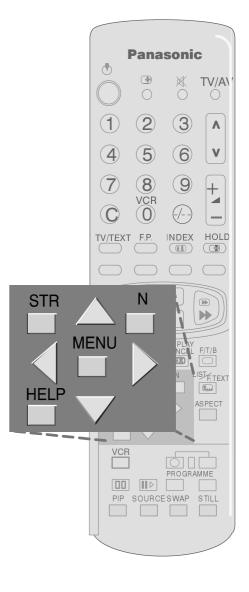
The ◀ ▶ keys are used to access menus, adjust levels or to select from a range of options.

The 'STR' key is used to store settings after your adjustment or choice has been made.

The 'N' key is used to leave the menu system and return to the normal viewing screen.

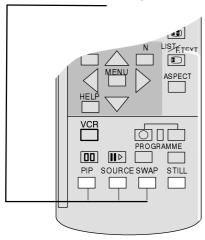
The 'HELP' key will run a demonstration of the menus available.

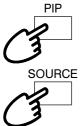




## The remote control has keys to control the PIP (picture-in-picture) feature.

## PIP keys





The PIP key will switch on the PIP function which offers two picture viewing.

The SOURCE key will allow you to choose whether you use the current TV screen or the input to AV1, AV2, AV3 or AV4 as the PIP picture.

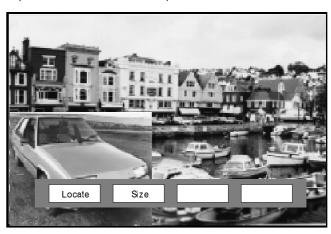
The SWAP key will allow you to swap the PIP picture with the Screen picture and vice-versa.

The STILL key allows you to freeze the picture at any time.

When using the STILL key with the PIP function press to freeze the TV picture, press again to freeze the PIP picture and press again to release both pictures.



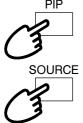
Pressing the PIP key will display the PIP picture (shown in 4:3 Normal mode)



Pressing the PIP button a second time when viewing a widescreen picture will cause the Locate and Size reminder to be displayed. Simply choose the coloured button of the remote control if you wish to move or size the picture.



The PIP picture has been moved to an alternative position and made smaller by pressing the red key followed by the green key.



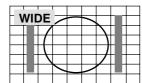




## The widescreen TV will allow you to enjoy viewing the picture at its maximum size, including widescreen 'cinema format' pictures.

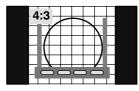




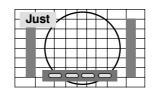


Some broadcasts are transmitted together with a wide screen identification signal (WSS). If the TV receives this signal then it will automatically switch to wide screen 16:9 mode, maximum display.

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.



A 4:3 picture set to 4:3



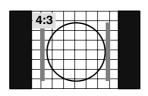
A 4:3 picture switched to Just mode





If the original source signal was a standard 4:3 aspect ratio then you might prefer to view 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.

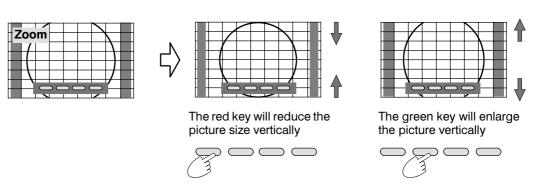
4:3



A 4:3 picture switched to its normal 4:3 viewing mode

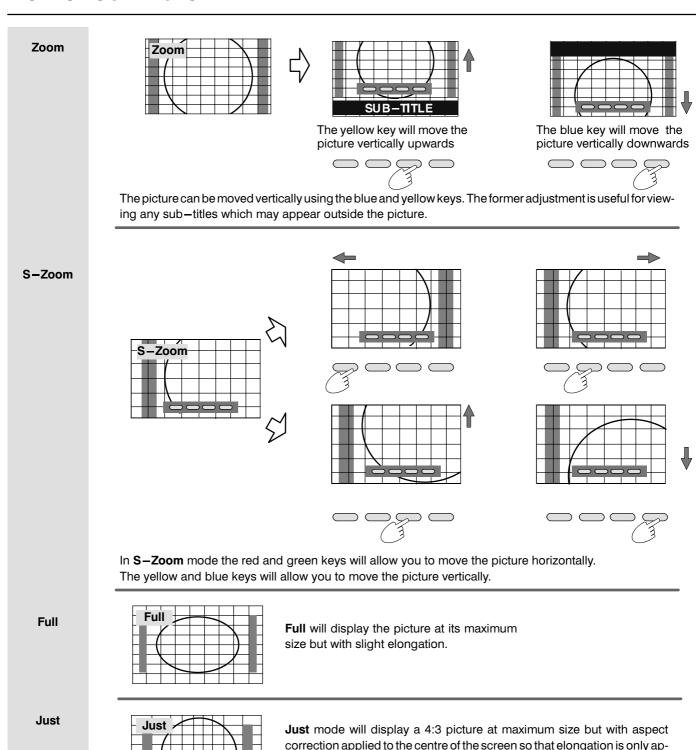
4:3 will display a 4:3 picture at its standard 4:3 size and can be selected if you wish to view in this format.

Zoom



In **Zoom** mode the size of the visible picture may vary according to the aspect ratio of the original picture. The red and green keys allow you to adjust the size.

## **ASPECT CONTROLS**



#### NOTES:

• 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.

depend upon the original signal.

parent at the left and right edges of the screen. The size of the picture will

- 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.
- If, in WIDE 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 and/or sharpness controls of your VCR require adjustment (your VCR instruction book will contain adjustment details).

All menus start from the Main menu (except AV select and Tuning procedure (Front panel)). You will also find the basic picture quality adjustments within this menu.

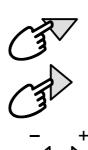
Open the Main menu

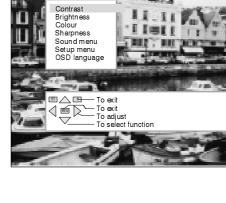
MENU

Move to your choice

Access your choice

Increase or decrease levels or move to the Sound, Setup or OSD languages menus.





Main menu

Contrast

The Contrast level of the TV can be adjusted, to suit the lighting conditions of the room, as necessary.



The Brightness level can be adjusted to suit your viewing conditions.

Colour

The Colour level can be adjusted to your own preference.



The picture can be softened or sharpened to your own preference.



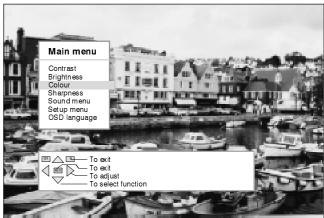
The Tint adjustment will only appear as a menu item if you have an NTSC signal source connected to the TV and will allow adjustment of the hue.

Sound Menu Choosing the Sound menu will take you to that menu and allow adjustments to the sound quality.

Setup Menu Choosing the Setup menu will lead to the Setup menu for various feature adjustments.

OSD language

The OSD language menu will allow you to change the language used for all on screen menus.







To close Main menu

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

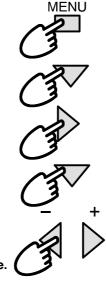
Open the Main menu

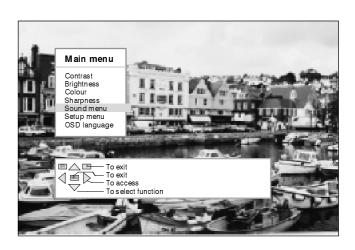
Move to Sound menu

**Access Sound menu** 

Move to your choice

Increase or decrease levels or choose from options of MPX, 3D Bass subwoofer or ambience.





Bass

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

Treble

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 between speakers will suit your listening position.



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



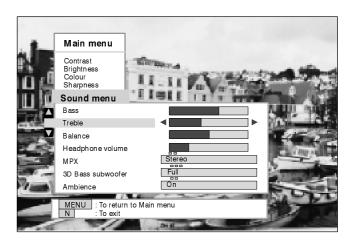
MPX will usually be set to Stereo to provide the best reproduction, however if reception deteriorates or if the service is not available then it is advisable to switch to Mono. Mono (M1) and (M2) can also be selected if signals are being transmitted.



3D Bass subwoofer can be switched to Off, Normal, or Full for super deep bass response.



Ambience provides a dynamic enhancer to give a greater depth of sound, you can choose to switch On or Off.



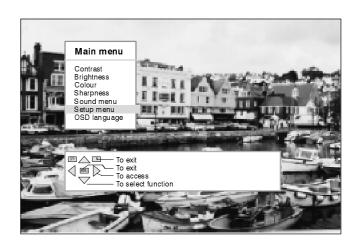


Return to Main menu



## The Setup menu provides access to various advanced features and also to the Tuning menu

Open the Main menu **MENU** Move to Setup menu Access Setup menu Move to your choice Increase or decrease levels or



ΑI

choose from options

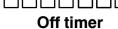
Al automatically analyses the incoming picture and processes it to give improved contrast, optimum field of depth and vivid colour tones. Choose either Off or from two levels of application.

P-NR

P-NRwillautomaticallyreduceunwanted picture interference. Choose either Off or one of 3 levels of application.

AV2 out

AV2 offers you a choice of signals to send to the AV2 SCART socket. You can choose from the current TV programme position, the signal entering AV1/AV3/AV4 or monitor - the picture displayed on screen.



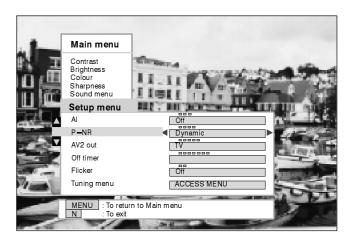
Off timer will switch the TV off within a preset time which you can choose from between 0 to 90 minutes in 15 minute intervals.



You will normally find that Flicker is best set to ON to reduce any slight picture movement. However, it is possible that some occasional broadcasts may benefit by selecting the OFF position.

Tuning menu

The Tuning menu provides an entry to features many other including Programme edit, ATP, Fine tuning, Colour system, and Text language.





Return to Main menu



## The Tuning menu provides access to both manual and automatic tuning menus

Open the Main menu

**MENU** 

Move to Setup menu

**Access Setup menu** 

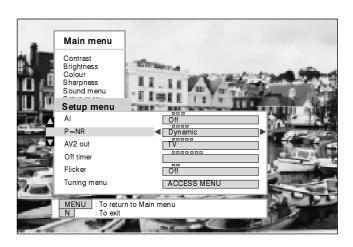
Move to Tuning menu

**Access Tuning menu** 

Move to your choice

Increase or decrease levels or choose from options





## **Programme** edit

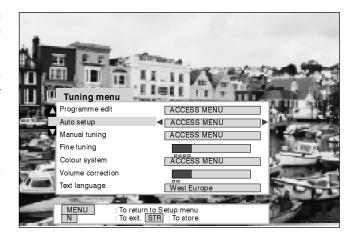
Accessing Programme edit menu will allow stations to be moved, added, deleted, named, locked and provides access to the TV -system. Further details on page 12.

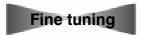
## **Auto** setup

The Auto setup menu allows you to automatically retune the TV. Further details on page 17.

## Manual tuning

The Manual tuning menu allows individual programme positions to be tuned manually. Further details on page 18.





Stations can be tuned finely 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.



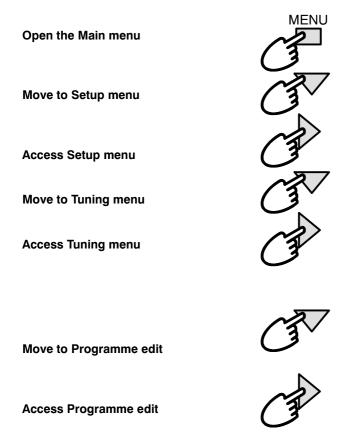
You can choose either West Europe or East Europe to provide the most suitable characters to be used for your Teletext viewing.

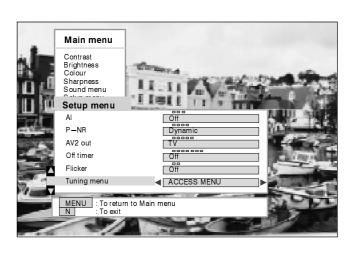


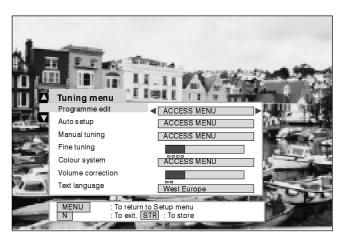
Return to Setup menu

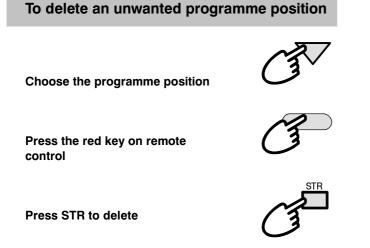


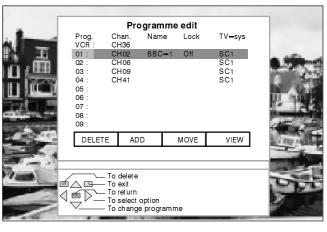
The Programme edit menu allows you to delete, add, move, retune, name and lock channels and to change the TV-system

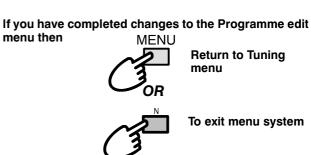












## To add a programme position

Choose the programme position



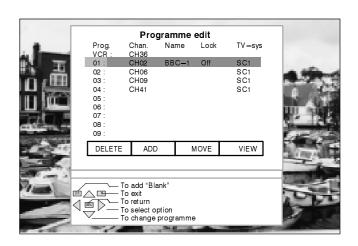
Press the green key



Press STR to add



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



If you have completed changes to the Programme edit menu then



**Return to Tuning** menu



To exit menu system

## To move a programme to another position

Choose the programme position

Press the yellow key on remote



control



Choose new position

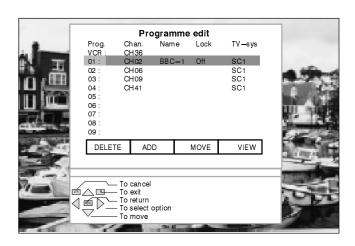


To action new position



**Press STR to store** 





If you have completed changes to the Programme edit menu then



**Return to Tuning** menu



## **TUNING MENU – Programme edit**

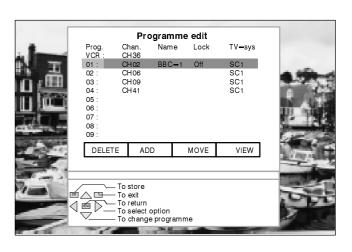
## To view a programme position

Choose the programme position

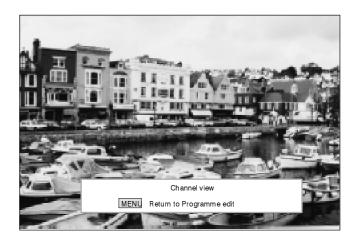
(3V

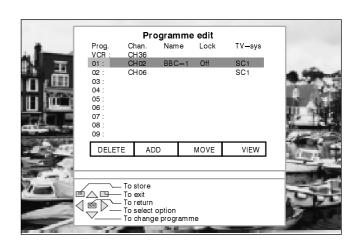
Press the blue key on remote control





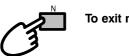
The screen will return to Programme edit after a few seconds







Return to Tuning menu



## To tune a programme position

Choose the programme position



Move to the channel setting

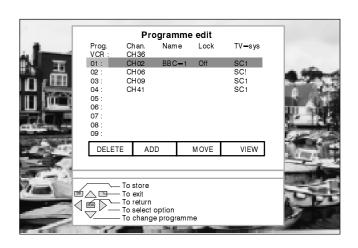


Increase or decrease channel number



Press STR to store





If you have completed changes to the Programme edit menu then



Return to Tuning menu



To exit menu system

## To rename a programme position

Choose the programme position



Move to the Name position



Choose the new character



Move to the next character position

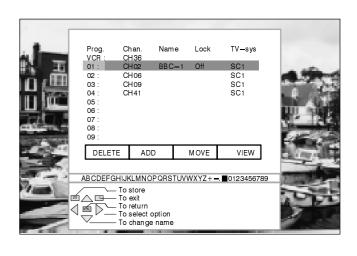


Continue until renaming is completed



**Press STR to store** 





If you have completed changes to the Programme edit menu then



Return to Tuning menu



## To lock a programme position to prevent access

Choose the programme position



Move to the lock key

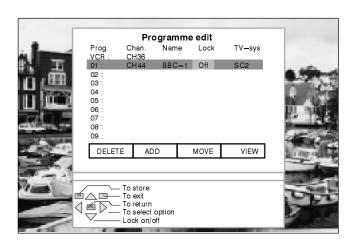


Choose between lock on or lock off



Press STR to store





If you have completed changes to the Programme edit menu then



**Return to Tuning** menu

TV -sys

VIEW

BBC=1 Off SC2

MOVE



Programme edit

DELETE

ADD

To exit
To return
To select option
To change TV—system

To exit menu system

## To change the TV-system for a programme position

Choose the programme position



Move to the TV-sys position



Choose the required sound system



**Press STR to store** 



If you have completed changes to the Programme edit menu then



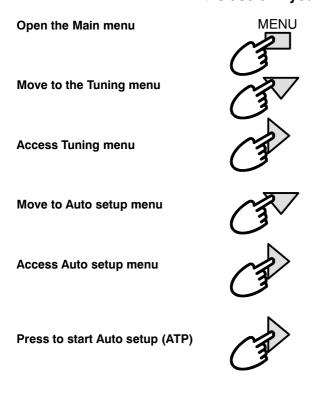
**Return to Tuning** menu

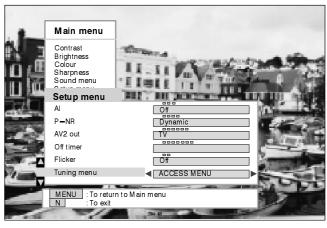


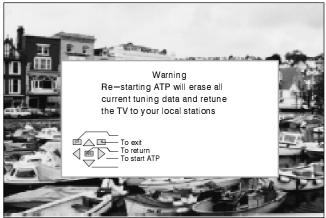
To exit menu system

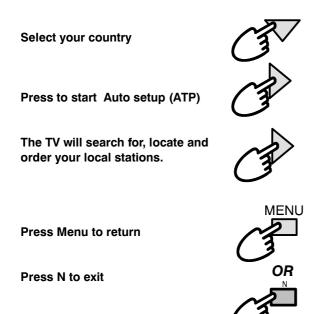
\*SC1=PAL B,G / SECAM B,G SC2=PAL H, I SC3=PAL D,K / SECAM D,K F=SECAM L/L'

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.





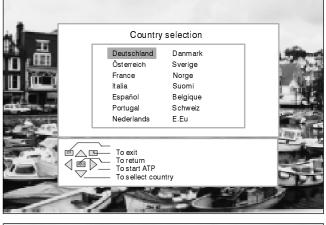


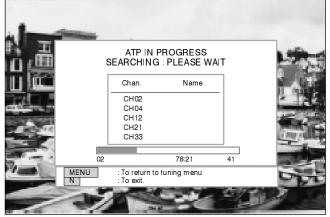


Once this operation is completed

the TV will display programme

position 1.





Manual tuning of the Programme positions is available either from the on screen display menu or from the front panel controls

## Manual tuning menu

Open the Main menu

Move to Setup menu

Access Setup menu

Move to Tuning menu

**Access Tuning menu** 

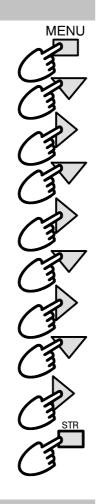
Move to Manual tuning

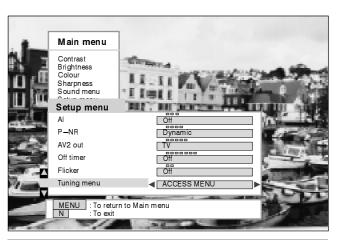
**Access Manual tuning** 

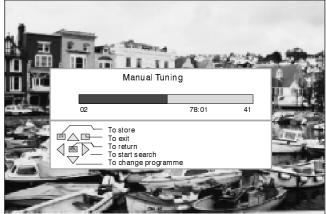
Select the programme position

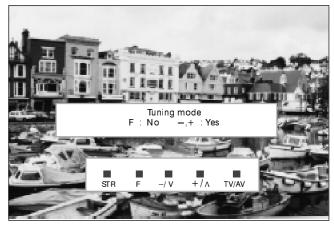
Start tuning

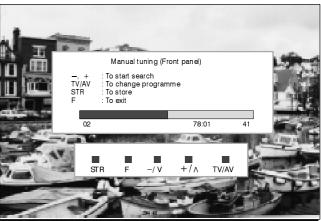
**Press STR to store** 











## Manual tuning (Front panel)

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

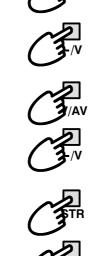
Press the — or + button to access Tuning menu

Press the TV/AV button to change to the required programme position

Press the — or + button to start the tuning search

Press STR to store changes

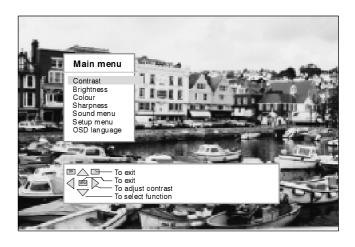
Press the F button to exit



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.

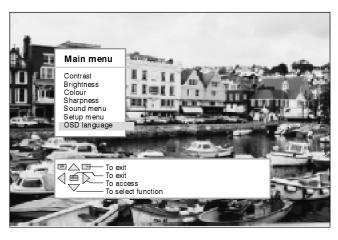
Open the Main menu





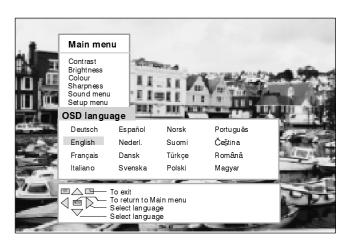
Move to the OSD language menu





Access your choice



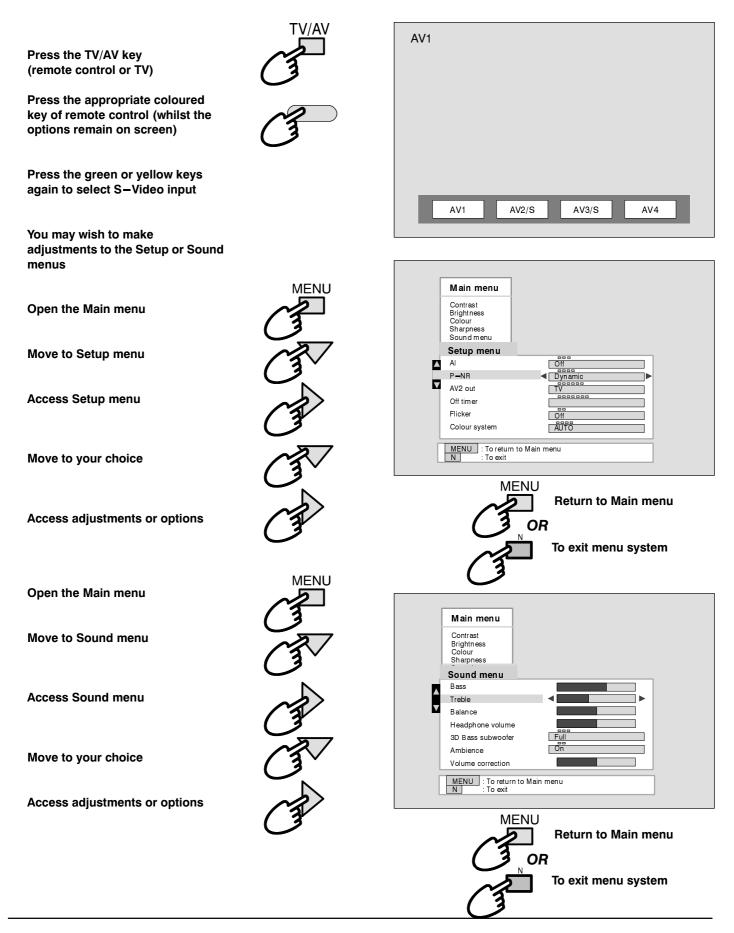




Return to Main menu



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



#### **TELETEXT OPERATION**

- Teletext features may vary depending on the Broadcasting Companies and is only available if the channel selected is transmitting.
- This TV set is capable of receiving German TOP Teletext transmissions, it will automatically switch to them if they are being
  received. This will be indicated in the display area at the bottom of the screen.
- Pressing the MENU key whilst in Teletext operation will display the contrast function with a cyan bar, press ◀ ▶to alter the setting as required.
- 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 of the subjects shown.

## What is TOP Teletext?

TOP stands for TABLE OF PAGES or 'Teletext without problems'

TOP Teletext is a new development to make the task of selecting the desired Teletext pages easier and shorter. In fact page access time is instantaneous, just press the button and the page appears.

#### How does it work?

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

- The Red key will select the next available page DOWN.
- The Green key will select the next available page UP.
- The Yellow key selects pages within a group, each time the Yellow key is pressed the topic within the group will change, for
  example you could change from an Economic topic to a CULTURAL topic by using this key. With the Red and Green keys selection
  of the next available pages DOWN and UP is possible within the CULTURAL topic.
- A larger jump from group to block is possible by use of the Blue key, this could be a SPORT topic for example. Within this SPORT topic it is possible to select different groups such as Tennis, Football, Baseball etc, using the Red and Green keys the next available pages DOWN and UP can be selected.

## What are the advantages?

- Page selection at the touch of a single key.
- 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 key will take you to the desired information.



#### TV / Teletext mode

Press the **TV/TEXT** key.

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 keys 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 to expand the TOP half of the page. Press again to expand the BOTTOM half.

Press again to return to normal (FULL) size.



#### Reveal

Press to reveal hidden words e.g. quiz page answers. Press again to hide.



#### Red / Green / Yellow / Blue keys

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 keys and enter the new page number. Press and hold  $\bf STR$ , 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.

## List / F.text (List / Top)



When in List / Top operation

Press to change from TOP mode to LIST operation and vice versa.

When in List / Fastext operation

Press to change from FASTEXT mode to LIST mode and vice versa.

In FASTEXT mode four differently coloured subjects are displayed at the bottom of the page. Press the appropriate coloured key to access more information about one of these subjects.



## **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** key, select the page number, then press **STR**. The page number is now stored. Press **F.P.** to recall this page.

## **Display Cancel**

Press **DISPLAY CANCEL** 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 DISPLAY CANCEL to view the page.

Press TV / TEXT to return to normal TV operation.



#### News Flash

When a news flash page has been selected, press **DISPLAY CANCEL** to view the TV picture, when an update is received, it will be displayed on screen.

Press DISPLAY CANCEL to remove updated news.

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

#### Update

Press **DISPLAY CANCEL** 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 **DISPLAY CANCEL** to view the page.

Press  $\mbox{TV}$  /  $\mbox{TEXT}$  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. 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 keys 0 - 9.



Press TIME TEXT, \*\*\*\* will be displayed (top right of the screen).

Enter desired sub page number before the \*\*\*\* 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 **DISPLAY CANCEL** to view a normal TV programme.



When the page is available, press **DISPLAY CANCEL** to view the page.

To clear the page perform one of the following:

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

#### Index



When in TOP operation

Press INDEX to display the PANASONIC INDEX Directory

Press RED / GREEN to move the cursor UP / DOWN.

Press YELLOW to move to next directory page.

Press **BLUE** to view the selected subject.

Press INDEX key to return to main index.

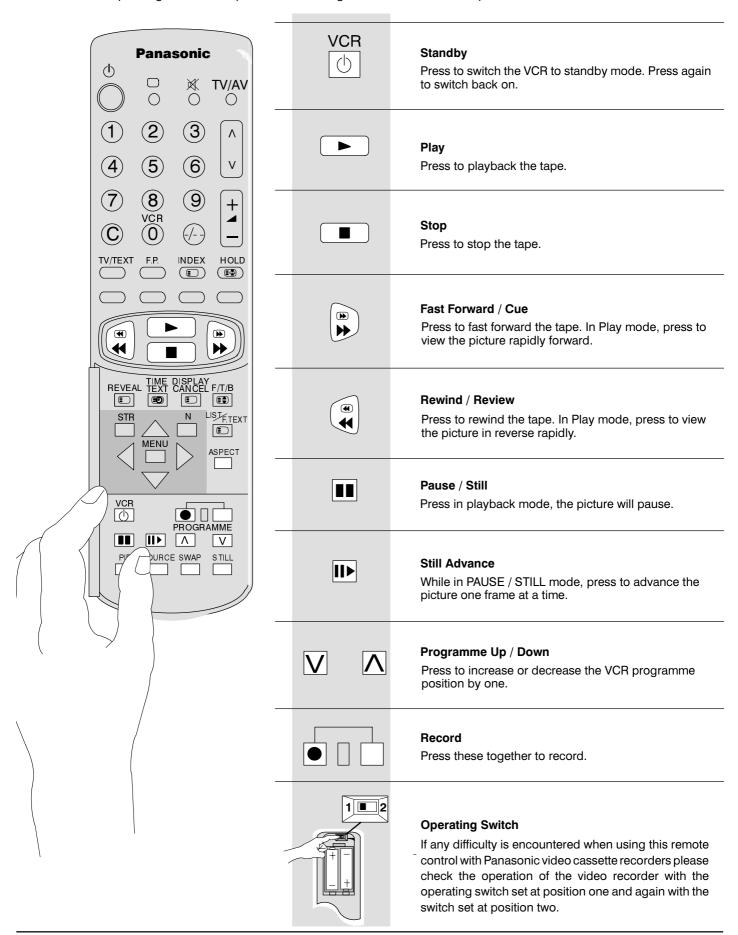
When in FASTEXT operation

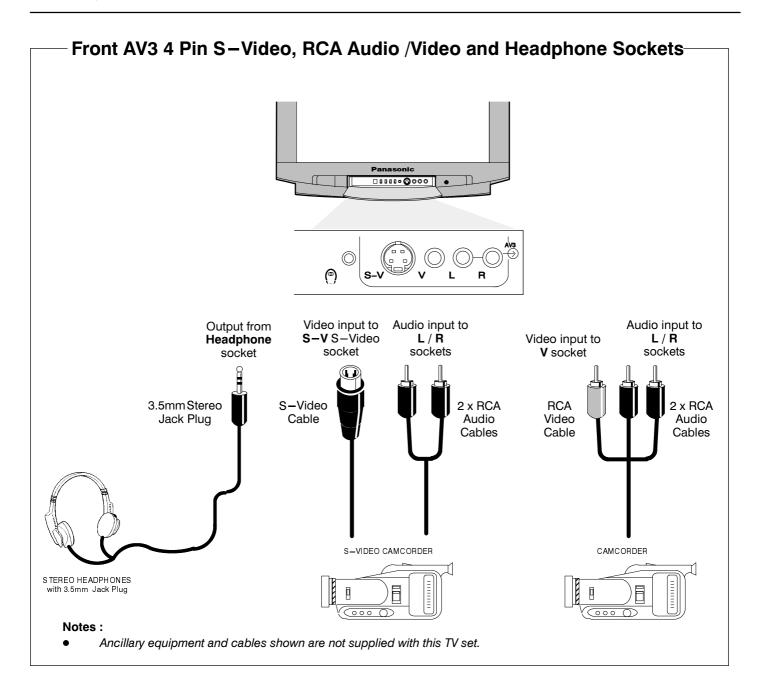
Press **INDEX** to return to the main index page.

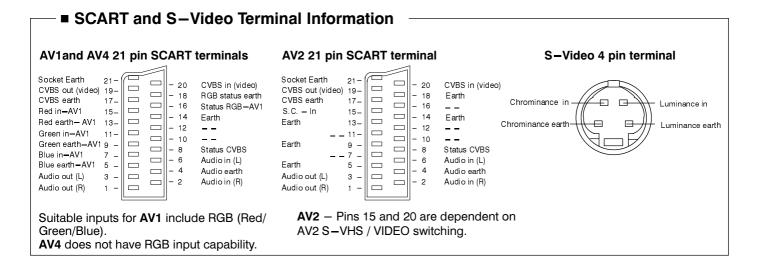
#### VCR CONTROL

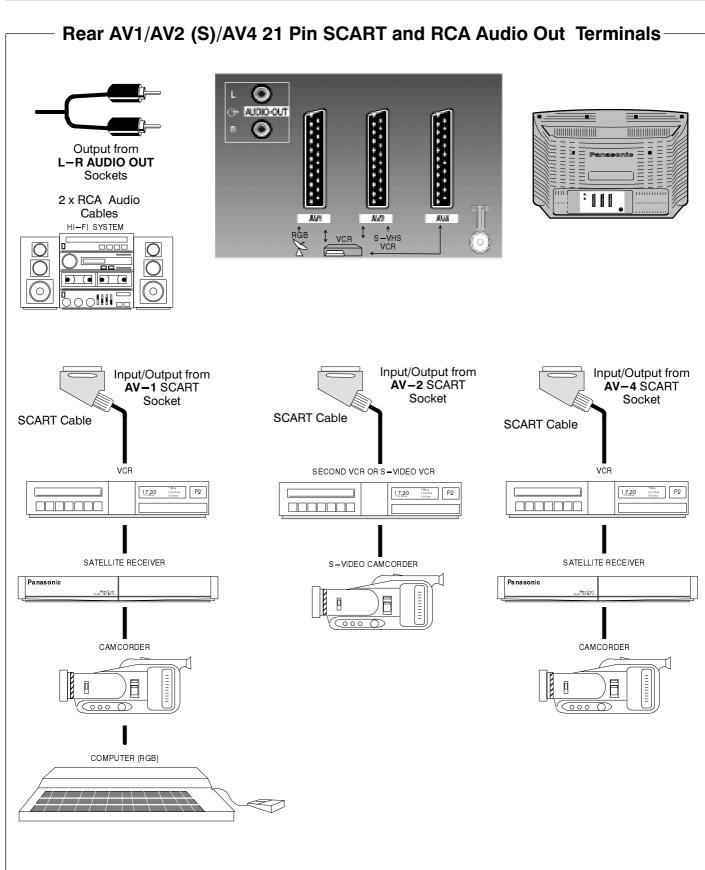
The Remote Control is capable of operating some functions of selected Panasonic VCRs, please consult your dealer for details. Some VCR have different functions, so to ensure compatibility, please refer to the VCR's instruction book.

If any difficulty is encountered when using this remote control with Panasonic videorecorders please check the operation of the video recorder with the operating switch set at position one and again with the switch set at position two.









#### **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.

The AV2 21 pin terminal can also be used as an Output to Audio / Video Equipment (refer to page 10 for details).

## **TROUBLESHOOTING**

Symp	otoms	Checks
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 Setup 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.
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 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).

## ■ 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.

## ■ 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.

## **■ 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)

Balance Colour AV2 OUT selection Brightness

Status Headphone volume

Ambience P-NR Flicker PIP

3D Bass Colour system

## **SPECIFICATIONS**

	TX-W32D2F/P	TX-W28D2F/P	
Power Source	220 – 240V 50Hz C.A.		
Power consumption	173W	157W	
Standby consumption	1W		
Picture Tube	Diagonal 82cm, 76cm visible diagonal	Diagonal 70cm, 66cm visible diagonal	
Audio Output (Music)	2 x 20W, 3D Super Bass 26W		
Dimensions W D	555 mm 862 mm 553 mm	497 mm 760 mm 503 mm	
Weight (Kg)	52	39	
Receiving Systems/ Band name	VHF A — H (ITALY)	H1 - H2 (ITALY)  V S1 - S10 (M1 - M10) V S21 - S41 (Hyperband)  R3 - R5 E21 - E69 corders (VCR)	
Aerial – Rear	UHF / VHF		
Headphones – Front	3,5mm		
AV – Rear	AV1 — 21 pin terminal — Audio / Video in / out, RGB in.  AV2 — 21 pin terminal — Audio / Video in / out, S—Video in, Selectable output.  AV4 — 21 pin terminal — Audio / Video in /out  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.