# NEC **Owner's Manual** ---Model · NLT-20

# **Warnings**







#### **WARNING:**

To reduce the risk of electric shock do not remove cover (or back). No user serviceable parts inside. Refer servicing to qualified service personnel.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

## **WARNING:**

To prevent fire or shock hazard, do not expose the set to rain or moisture. Do not rub or strike the Active Matrix LCD with anything hard as this may scratch, marked, or damage the Active Matrix LCD permanently.

- The appliance is not intended for use by young children or infirm persons without supervision.
- Young children should be supervised to ensure that they do not play with the appliance.

## **CAUTION:**

Do not attempt to modify this product in any way without written authorization. Unauthorized modification could void the user's authority to operate this product.

#### Power

This set operates on a DC supply provided by the AC-DC adaptor, the voltage is as indicated on the label on the back cover. Use only the AC-DC adaptor supplied with the set and never apply an AC mains to the set directly. The AC-DC adaptor operates on an AC mains supply, the voltage is as indicated on the label of the AC-DC adaptor.

- a. Connect the DC plug of the AC-DC adaptor to the 15V socket of the set.
- b. Connect the AC-DC adaptor and it's power cord.
- c. Connect the power cord to an AC mains.

In the event of thunderstorms or power cuts, please pull out the mains plug of the AC-DC adaptor and the aerial plug. Do not allow anything to rest upon or roll over the power cord, and do not place the set where the power cord is subject to damage.

# **Warnings**

## Service

Never remove the back cover of the set as this can expose you to high voltage and other hazards. If the set does not operate properly, unplug it and call NEC service centre.

## **Aerial**

Connect the aerial cable to the socket marked Ant. on the back. For the best reception an outdoor aerial should be used.

## Location

Position your set so that no bright light or sunlight falls directly onto the screen. Care should be taken not to expose the set to any unnecessary vibration, moisture, dust or heat. Also ensure that the set is placed in a position to allow a free flow of air. Do not cover the ventilation openings on the back cover.

# Cleaning

Unplug the set before cleaning the face of the LCD Screen. Dust the set by wiping the screen and the cabinet with a soft, clean cloth.

If the screen requires additional cleaning, use a clean, damp cloth. Do not use liquid cleaners or aerosol cleaners.

# **Image Persistence**

Avoid displaying fixed pattern on the monitor for long periods of time to avoid image persistence.

# **Contents**

Before operating the set, please read this manual carefully. Contents 5 Supplied Accessories 7~9 Controls Remote controller 8~9 Basic Operation 10 Turning ths TV On and off Volume adjustment 10 Sound Mute function 10 On screen Language selection 10 On Screen Menus and Displays Setting up TV Programme 12~14 Auto Programme 12 Manual Programme Programme edit 14 Picture Control Manual picture control Auto picture control Sound Control 16 Other functions 17~18 TV, COMPONENT, VIDEO and S-VIDEO modes Auto sleep 17 Blue back Programme list 18 Sound output selection 18 Text On/Off 19 TOP text 19 Special Teletext function 20 External Equipment Connection Antenna connection 21 COMPONENT Inputs AV Inputs 21 AV Outputs 22 S-VIDEO Input 22 Headphone jack 22 Connecting PC as monitor Product specifications 25 Troubleshooting

# **Supplied Accessories**

■ Make Sure the following accessories are provided with Product.

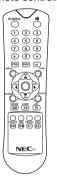
1. AC/DC adaptor



2. AC Cord



3. Remote controller



4. Batteries (type AAA)



5. Owner's manual



6. PC IN cable



# **Controls**

# <<CONTROLLER OF PANEL>>

1. ON/OFF Switches TV set on or off.

#### 2. MENU

Displays a menu.

3. + PR - (Programme Up/Down)

Selects a programme or a menu item.

4. +VOL- (Volume Up/Down)

Adjusts the volume./ Adjusts menu settings.

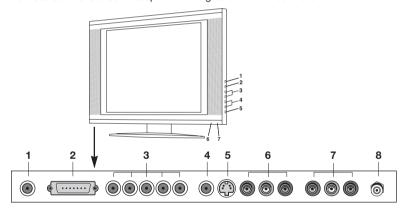
#### 5. TV/AV

Selects TV, COMPONENT, VIDEO, S-VIDEO or PC mode / Clears the menu from the screen.

#### 6. POWER STANDBY INDICATOR

Illuminates in red when the TV is in standby mode. / Illuminates in green when the TV is switched on.

7. Remote control sensor Accepts the IR signal of remote controller.



- 1. DC 15V IN
- 2. PC/DTV INPUT
- 3. COMPONENT IN
- 4. H/P(Headphone out)

Connect a headphone to this socket.

#### 5. S-VIDEO IN

Connect the output of an S-VIDEO VCR to the S-VIDEO input.

Connect the audio outputs of an S-VIDEO VCR to the AV-IN audio inputs.

#### 6. AV-IN

Connect the Audio/Video outputs of external equipment to these inputs.

#### 7. AV-OUT

Connect the Audio outputs(L, R) of the set to Audio-IN(L, R) of another displayer or the amplifier and the Video output of the set to Video IN of another displayer.

8. Ant. (Antenna input)

# **Controls**

All the functions can be controlled with the remote controller. Some functions can also be adjusted with the buttons on the front panel of the set.

## Remote controller

Before you use the remote controller, please install the batteries.

## 1. POWER

Turns the TV on from standby or off to standby mode.

## 2. MUTE

Turns the sound on and off.

#### 3. NUMBER buttons

Select programme numbers.

# 4. PSM (Picture Status Memory)

Recalls your preferred picture setting

## 5. SSM (Sound Status Memory)

Recalls your preferred sound setting

#### 6. I/II

Selects the language during dual language broadcast. Selects the sound output.

#### 7. MENU

Displays a main menu.

#### 8. TV/AV

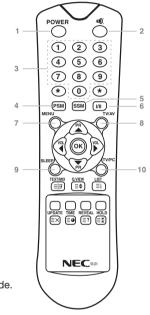
Selects TV, COMPONENT, VIDEO, S-VIDEO or PC mode. Clears the menu from the screen.

#### 9. SLEEP

Sets the sleep timer.

#### 10. TV/PC

Selects TV or PC mode.



# **Controls**

# 11. PR ▲ ▼ (Programme Up/Down)

Selects next programme or a menu item.

# 12. VOL∢▶ (Volume Up/Down)

Adjusts the sound level. Adjusts menu settings.

#### 13. OK

Accepts your selection or displays the current mode.

## **14. Q.VIEW**

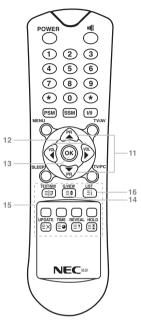
Returns to the previously viewed programme. **Note**: In Teletext mode, The **Q.VIEW** button is used.

#### 15. TELETEXT buttons

These buttons are used for Teletext. For further details, see the 'Teletext' section.

#### 16. LIST

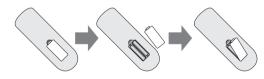
Displays the programme list menu.



# **Battery installation**

#### ■Inserting batteries

- 1. Remove the battery cover by pulling it upward in the direction shown by the arrow.
- 2. Insert the batteries with correct polarity ("+" to "+", and "-" to "-").
- 3. Replace the battery compartment cover.



- \* Install two high-quality 1.5V "AAA" alkaline batteries. Don't mix old batteries with new batteries.
- \*Remove batteries when you won't use the remote controller for long time. Liquid leakage from old batteries may cause operation failure.

## ■Notes for using remote controller

- Make sure there are no objects between the remote controller and its sensor.
- Don't place the remote control near a heater or in damp place. Strong impact to the remote control may cause operation failure.
- Signal from the remote control may be disturbed by sun light or other bright light. In this case, darken the room or move the TV.

# **Basic Operation**

# Turning the TV On and Off

Standby Setup: The AC-DC converter and the AC power cord must be set up and connected to have the TV in standby mode ready to be turned on. Press the power button on the front panel of the TV to go into standby mode.

- 1. If the TV is in standby mode, press the Power button on the remote controller or the TV itself to turn the TV on.
- 2. Press the Power button again on the remote controller or the TV itself to turn the TV off.

Note: If the TV is on and the power button is pressed to turn the TV off, the TV goes into standby mode.

# Programme selection

You can select a Programme number with the PR ▲ ▼ button or NUMBER buttons.

# Volume adjustment

Press the **VOL** button to adjust the sound level.

## **Quick view**

Press the Q.VIEW button to view the last channel you were watching.

# Sound mute function

Press the MUTE button. The sound is switched off and the mute display (1) appears.

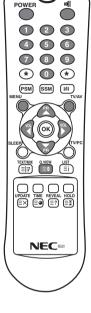
To cancel mute mode, press the MUTE button again, VOL◀▶ or SSM button.

# On screen menu language selection

The menu can be displayed on the screen in desired language.

First select your language.

- 1. Press the **MENU** button.
- 2. Select the **Setup** menu. Then press the **VOL**∢▶ button.
- 3. Select the Language menu.
- 4. Press the PR ▲ ▼ button to select your desired language.
- 5. Press the TV/AV button. All the on screen displays will appear in the selected language.

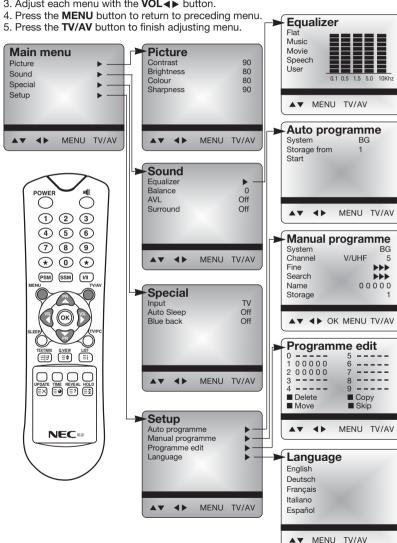


# Language English Deutsch Français Italiano Español

▲▼ MENU TV/AV

# On Screen Menus and Displays

- 1. Press the **MENU** button to display main menu.
- 2. Press the PR ▲ ▼ button to select menus-Picture, Sound, Special, Setup.
- 3. Adjust each menu with the **VOL** ◆ ▶ button.



# **Setting up TV Programme**

Once you have preset the programmes, you will be able to use the  $PR \blacktriangle \blacktriangledown$  or NUMBER buttons to scan the programmes you programmed.

Programmes can be tuned using automatic or manual modes

## Auto programme

All programmes that can be received are stored by this method. It is recommended that you use Auto programme during installation of this set.

- 1. Press the **MENU** button.
- Select the Setup menu.
   Then press the VOL ◀▶ button.
- 3. Select the **Auto programme** menu. Then press the **VOL**◀▶ button.
- 4. Press the PR ▲ ▼ button to select System menu.
- 5. Select a TV system with the **VOL**◀▶ button;

BG: (Germany/Asia/M.East/Africa/Australia)

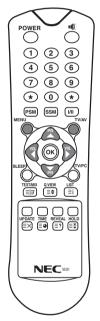
I : (UK/Hong Kong/South Africa)

DK: (CIS/China/East Europe)

M : (KOREA, USA, PHILIPPINES)

- 6. Press the PR ▲ ▼ button to select Storage from.
- 7. Select the beginning programme number with the **VOL** ◀► button or **NUMBER** buttons.
- Select START, then press the VOL ← button. Press Menu button to finish Auto programme.
- 9. Press the **MENU** button to finish Auto programme.
- Press the TV/AV button to return to normal TV viewing.





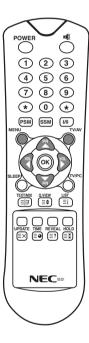
# **Setting up TV Programme**

# Manual programme

Manual Programme lets you manually tune and arrange the programmes in whatever order you desire. Also you can assign a programme name with 5 characters to each programme number.

- 1. Press the **MENU** button.
- 2. Select the **Setup** menu.
  - Then press the **VOL**∢▶ button.
- 4. Press the PR ▲ ▼ button to select System.
- 5. Select a TV system with the **VOL**◀▶ button.
  - BG: (Germany/Asia/M.East/Africa/Australia)
  - I : (UK/Hong Kong/South Africa)
  - **DK**: (CIS/China/East Europe)
  - M : (KOREA, USA, PHILIPPINES)
- 6. Press the PR▲▼ button to select Channel. Press the VOL◀► button to select V/UHF or Cable as required. If possible, select the programme number directly with the NUMBER buttons.
- Press the PR ▲ ▼ button to select Search. Press the VOL ◄ ▶ button to commence searching. If a channel is found the search will stop.
- Press the PR ▼ button to select NAME, press the VOL ◀► button to allocate the location and use PR ▼ button to select the character(blank, +, -, Alphabet A to Z, Numeric 0 to 9).
- If this Programme is the one required, press the PR ▼ button to select Storage. Select the desired programme number with the VOL ▼ button or NUMBER buttons.
- Press the **OK** button to store it. The display **Stored** will appear.
   To store another Programme, repeat steps 5 to 10.
- 11. If the TV picture reception is not good, then do the
- 11. If the TV picture reception is not good, then do the fine tuning. Select FINE, then adjust the received signal with the VOL > button.





# **Setting up TV Programme**

# Programme edit

This function enables you to delete or skip the stored programmes.

Also you can move some programmes to other programme numbers or insert a blank programme data into the selected programme number.

- 1. Press the **MENU** button.
- 2. Select the **Setup** menu. Then press the **VOL**◀▶ button.
- Press the PR ▲ ▼ button select Programme edit menu.
   Then press the VOL ◀ ▶ button.
- Select the programme name to edit with the PR ▲ ▼ and VOL ◀ ► button.

#### Deleting a programme

- Select a programme to be deleted with the PR ▲ ▼ or VOL ◀ ▶ button.
- Press the **RED** button twice.
   The selected programme is deleted, all the following programmes are shifted up one position.

#### Copying a programme

- Select a programme to be copied with the PR ▲ ▼ or VOL ◀ ▶ button.
- Press the **GREEN** button.
   All the following programmes are shifted down one position.

#### Moving a programme

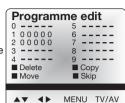
- Select a programme to be moved with the PR ▲ ▼ or VOL ◀ ► button.
- 2. Press the YELLOW button.
- 3. Move the prgramme to desired programme number with the PR ▲ ▼ or VOL ◀ ▶ button.
- 4. Press the **YELLOW** button again to release this function.

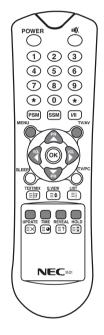
#### Skipping a programme number

- Select a programme number to be skipped with the PR▲▼ or VOL◀► button.
- 2. Press the **CYAN** button. The skipped programme turns to blue.
- 3. Press the **CYAN** button again to release the skipped programme.

Note: When a programme number is skipped it means that you will be unable to select it using the PR ▲ ▼ button during normal TV viewing. If you want to select the skipped programme. directly enter the programme number with the NUMBER buttons or select it in the programme edit or table menu.

5. Press the TV/AV button to return to normal TV viewing.





# **Picture Control**

You can adjust picture Contrast, Brightness, Colour and Sharpness to the levels you prefer.

## **Manual Picture Control**

- 1. Press the **MENU** button.
- 2. Select the **Picture** menu.
  Then press the **VOL**◀▶ button.
- 3. Press the PR ▲ ▼ button select a picture item.
- 5. Press the TV/AV button to store for the picture User.

| Selected Item | Setting Change   |
|---------------|--|
| Contrast      | More darkness VOL◀ 0~100 ▶VOL More light                       |
| Brightness    | Less bright VOL◀ 0~100 ▶VOL More bright                        |
| Colour        | Lower color intensity VOL ◀ 0~100 ▶ VOL Higher color intensity |
| Sharpness     | Soft picture VOL◀ 0~100 ▶VOL Sharp picture                     |

<sup>\*</sup> Tint menu only appears at NTSC signal.

# **Auto Picture Control**

\*The Picture options - Dynamic, Standard, Mild, Game, and User are programmed for optimum reproduction at the factory and cannot be changed.

# **PSM (Picture Status Memory)**

- 1. Press the **PSM** button.
- 2. Press the **PSM** button repeatedly to select [PSM]. Each press of the button changes the screen display as

 $\textbf{Dynamic} \rightarrow \textbf{Standard} \rightarrow \textbf{Mild} \rightarrow \textbf{Game} \rightarrow \textbf{User}$ 



- Dynamic : Vivid Picture Appearance
   Standard : Standard Picture Appearance
- Mild : Softer Picture Appearance
- Game: External Video Game Picture Setup
- User: Manual Picture Setup





# **Sound Control**

You can select your preferred sound setting; Flat, Music, Movie or Speech and you can also adjust the sound frequency of equalizer, balance. If you switch AVL to on, the set automatically keeps on an equal volume level even if you change programmes.

- 1. Press the **MENU** button.
- 2. Select the **Sound** menu.
  Then press the **VOL**◀▶ button.
- 3. Press the PR▲▼ button to select the desired sound item; Equalizer, Balance, AVL or Surround.
- 4. Press the **VOL** ◆ ▶ button to make desired adjustment.



 At Equalizer selection, press the PR ▲ ▼ button to select your preferred setting; Flat, Music, Movie, Speech or User.

To set the **Equalizer User**.

- a. Select **User** by pressing the **PR** ★ button.
- b. Select a sound band by pressing the **VOL** ◆ button.
- c. Make appropriate sound level with the PR▲▼ button.
- d. Press the **MENU** button to return to preceding menu and the **TV/AV** button to return to normal TV viewing.
- Select the Balance menu and adjust the balance of speakers.
- 7. Select the AVL(Automatic Volume Leveler) menu On or Off.
- 8. Select the Surround menu On or Off.

# **Auto Sound Control**

\* The sound **Flat, Music, Movie** and **Speech** are programmed for optimum reproduction at the factory and cannot be changed.

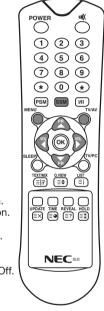
# SSM (Sound Status Memory)

- 1. Press the SSM button.
- 2. Press the **SSM** button repeatedly to select.

Each press of the button changes the screen display as below.







# Other functions

# TV, COMPONENT, VIDEO and S-VIDEO modes

(You can't set PC mode in this menu. Use the **TV/AV** or **TV/PC** mode.)

External equipment inputs: VIDEO or S-VIDEO mode are used for video devices like VCRs, DVDs, etc.), COMPONENT, is used for component type devices.

**Note**: If a VCR is connected to the antenna jack, use TV mode. See External Equipment Connection section.

- 1. Press the **MENU** button.
- 2. Select the **Special** menu.
- 3. Press the PR ▲ ▼ button to select Input.

**COMPONENT**: Device connected to the COMPONENT INPUT.

VIDEO: VIDEO device connected to the TV's VIDEO Input. S-VIDEO: S-VIDEO device connected to the TV's S-VIDEO Input.

To return to TV mode, press the TV/AV buttons repeatedly.

Alternatively you can select the TV, COMPONENT, VIDEO, S-VIDEO or PC mode by pressing the **TV/AV** button.

# Auto sleep

If you select **Auto sleep On** the set will automatically switch itself to standby mode approximately ten minutes after a TV Channel stops broadcasting.

- Repeatedly press the **MENU** button to select the Special menu.
- 3. Press the **VOL**◀▶ button to select **On**.
- Press the TV/AV button to return to normal TV viewing.

# Blue back

Programme without a program signal appear in blue.





# Other functions

# Calling the programme list

You can check the programmes stored in the memory by displaying the programme list.

## Displaying programme list

 Press the LIST button to display the Programme list menu. The programme list appears on the screen. One programme list contains ten programmes as right.

# Programme list 0----- 5----1 00000 6----2 00000 7----3----- 8----4----- 0-----

#### Note:

- a. You may find some blue programmes. They have been set up to be skipped by auto programming or in the programme edit mode.
- b. Some programmes with the channel number shown in the programme list indicate there is no station name assigned.

#### Selecting a programme in the programme list

Select a progranne with the PR▲▼ or VOL◀▶ button.

Then press the **OK** button.

The set switches to the chosen programme number.

#### Paging through a programme list

There are 10 programme table pages in which contain 100 programmes.

Pressing the PR▲▼ or VOL◀▶ button repeatedly turns the pages.

# Sleep timer

You don't have to remember to switch the set off before you go to sleep. The sleep timer automatically switches the set to standby after the preset time elapses. Press the SLEEP button to select the number of minutes. The display will appear on the screen, followed by 0, 10, 20, 30, 60, 90, 120, 180 and 240. The timer begins to count down from the number of minutes selected. Note: a. To view the remaining sleep time, press the SLEEP button once.

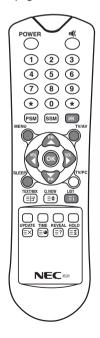
b. To cancel the sleep time, repeatedly press the **SLEEP** button until it displays "0".

# Sound output selection

In VIDEO mode, you can select output sound for the left and right loud-speakers.

Repeatedly press the **I/II** button to select the sound output.

- L+R: Audio signal from audio L input is sent to left loudspeaker and audio signal from audio R input is sent to right loud-speaker.
- **L+L**: Audio signal from audio L input is sent to left and right loud-speakers.
- **R+R**: Audio signal from audio R input is sent to left and right loud-speakers.



# **Teletext**

## **TEXT On/Off**

- 1. Press **TEXT/MIX** button once, displays the Teletext pages.
- 2. Press **TEXT/MIX** button once more, displays the Teletext pages superimposed on the TV picture.
- 3. Press the **TEXT/MIX** button to switch off Teletext. Text mode is off, and TV mode appears.

If you press **TEXT/MIX** button repeatedly, displays are changed as below.



## TOP text

The user guide displays four fields-red, green, yellow and blue at the bottom of the screen. The yellow field denotes the next group and the blue field indicates the next block.

#### Group/block/page selection

- 1. With the **BLUE** button you can progress from block to block.
- Use the YELLOW button to proceed to the next group with automatic overflow to the next block.
- With the GREEN button you can proceed to the next existing page with automatic overflow to the next group. Alternatively the ▲ button can be used.
- The RED button permits to return to previous selection.
   Alternatively the ▼ button can be used

## **FLOF** text

The Teletext pages are colour coded along the bottom of the screen and are selected by pressing the corresponding coloured button.

#### Page selection

- 1. Press the **INDEX** button to select the index page.
- 2. You can select the pages, which are colour coded along the bottom line with the same coloured buttons.
- 3. The **VOL∢▶** button can be used to select the preceding or following page.



(1) (2) (3)

**4 5 6** 

(7) (8) (9)

\* 0 \*

PSM SSM (/II

UPDATE TIME REVEAL HOLD

NECISZI

# **Teletext**

# **Special Teletext functions**

| MENU |          | Functions   |  |
|------|----------|---|--|
| ≡ ฮ  | TEXT/MIX | Changes Teletext mode<br>; Only Teletext mode, text mode superimposed on the<br>TV picture, TV mode   |  |
| ≡奪   | SIZE     | Selects double height text.  Press this button to enlarge the top half of the page.  Press this button again to enlarge the bottom half of the page.  Press this button again to return to the normal display.  |  |
| ≡¥   | HOLD     | Stops the automatic page change, which will occur if a Teletext page consists of 2 or more sub pages. The number of sub pages and the sub page displayed is, usually, shown on the screen below the time. When this button is pressed the stop symbol is displayed at the top left-hand corner of the screen and the automatic page change is inhibited. To continue press this button again. |  |
| ≣i   | INDEX    | Return to index page  |  |
| ≡×   | UPDATE   | Displays the TV picture on the screen while waiting the new Teletext page. The display will appear at top left hand corner of the screen. When the update page is available then display will change to the punumber.  Press this button to view the updated Teletext page.   |  |
| ΞΦ   | TIME     | When viewing a TV programme, press this button display the time at the top right hand corner of the screen. Press this button again to remove the displar In Teletext mode press this button to select and how or change a four-digit sub page number. This displayed along the bottom of the screen. Press the button again to exit this function.   |  |
| ≣?   | REVEAL   | Press this button to display the concealed information, such as solutions of riddles or puzzles.  Press this button again to remove the information from the display.   |  |

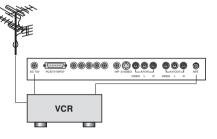
# **External Equipment Connection**

When connecting to external equipment, please ensure you turn the main switch OFF to prevent any damage to the equipment.

You can connect additional equipment, such as VCRs, camcorders etc. to your set. Examples are shown below.

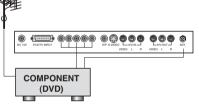
# **Antenna connection**

- 1. Connect RF out on the VCR to the Antenna input on the rear of the TV.
- 2. Connect the antenna cable to the antenna in jack on the VCR.
- 3. Press the **TV/AV** button to select Antenna input source.
- 4. Press the PLAY button on the VCR.



# **COMPONENT INPUT**

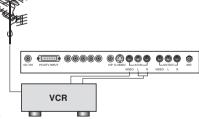
- 1. Connect the Video outputs (Y Cb Cr) on a DVD to the COMPONENT on the TV.
- Press the TV/AV button to select COMPONENT mode.
- 3. Press the PLAY button on the DVD.



# A/V INPUT

- 1. Connect the A/V out jacks on a VCR to A/V-IN jacks on the TV.
- 2. Press the **TV/AV** button to select **VIDEO** mode.
- 3. Press the **PLAY** button on the VCR. The VCR playback picture appears on the TV screen.

Note: If you have a mono VCR, connect the audio cable from the VCR to the A/V-IN socket of the set.

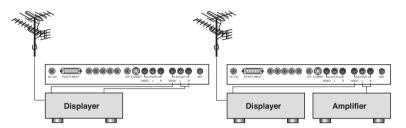


# **External Equipment Connection**

## A/V OUT

- Connect the Audio outputs(L, R) of the TV to Audio-IN(L, R) of another displayer or the amplifier system
  - If you connect the amplifier system, you can also play the TV sound through the stereo amplifier system.
- 2. Connect the Video output of the TV to Video IN of another displlayer.

Note: If you press the mute button, only the sound of the TV's speaker's are switched off.



S-VIDEO VCR

## S-VIDEO INPUT

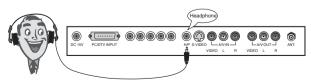
If using an **S-VIDEO** source, the picture quality will be improved over a video source.

- 1. Connect the S-VIDEO output of a VCR to the **S-VIDEO** input on the TV.
- Connect the audio cables from the S-VIDEO VCR to the L (MONO) R inputs on the TV.
- Select S-VIDEO mode by pressing the TV/AV button repeatedly.
- 4. Press the PLAY button on the VCR.

The VCR playback picture appears on the screen.

# Headphone jack

Insert the headphone plug to the headphone jack on the TV. You can listen to the sound through the headphone; no sound form the speaker on the TV. To adjust the headphone volume, press the VOL◀▶ button. If you press the MUTE button, the sound from the headphone is turned off.



# **Connecting PC as monitor**

## **VGA/DTV INPUT**

- Connect the VGA IN cable
   (D sub jack) from the monitor
   output socket of the PC to the
   PC/DTV input socket of the set.
- Connect the Audio cable from the PC to the A/V IN(L(MONO), R) of the set.



4. Switch on the PC, and the PC screen appears on the set.

The set can be operated as the PC monitor.

#### Resolution

| Mode | Resolution | Horizontal frequency (KHz) | Vertical<br>frequency (Hz) |
|------|------------|----------------------------|----------------------------|
| VGA  | 640X480    | 31.5 KHz                   | 60 Hz                      |
|      | 640X480    | 35 KHz                     | 67 Hz                      |
|      | 640X480    | 37.9 KHz                   | 72 Hz                      |
|      | 640X480    | 37.5 KHz                   | 75 Hz                      |
|      | 640X480    | 43.5 KHz                   | 85 Hz                      |
|      | 720X400    | 31.5 KHz                   | 70 Hz                      |
| SVGA | 800X600    | 35.2 KHz                   | 56 Hz                      |
|      | 800X600    | 37.9 KHz                   | 60 Hz                      |
|      | 800X600    | 48.1 KHz                   | 72 Hz                      |
|      | 800X600    | 46.9 KHz                   | 75 Hz                      |
|      | 800X600    | 53.7 KHz                   | 85 Hz                      |
|      | 576p       | 50Hz                       |                            |

| HDTV | 576p  | 50Hz |
|------|-------|------|
|      | 1080i | 50Hz |

#### Note

- a. If the set is cold, there may be a small "flicker" when the set is switched on. This is normal, there is nothing wrong with the set.
- b. Some dot defects may appear on the screen, like Red, Green or Blue spots. However, this will have no impact or effect on the monitor performance.
- c. When resolutions are displayed that are not native to the panel resolution, text may appear choppy or lines may appear to be bold or thicker than others.
   To minimize, choose a resolution similar to the panel.

# **Connecting PC as monitor**

# Picture adjustment

You can adjust picture Contrast, Brightness, Temperature, Horizontal/Vertical position, Clock, Phase, Auto and Reset as you prefer.

- 1. Press the TV/PC button to select the PC mode.
- 2. Press the **MENU** button.
- 3. Press the PR ▲ ▼ button to select the desired picture item.
- Press the VOL◀► button to make appropriate adjustments.

|              | Contrast    | $\longleftrightarrow$ | Clock |
|--------------|-------------|-----------------------|-------|
| <del>*</del> | Brightness  |                       | Phase |
| <u>.</u>     | Temperature | AUTO                  | Auto  |
|              | H-position  | <b>H</b>              | Reset |
| رص           | V-position  |                       |       |

#### Contrast

This function is to adjust picture to light/dark.

#### **Brightness**

This function is to adjust brightness of picture.

#### **Temperature**

Temperature is a measure of the warmth of the image color. **Horizontal Position/Vertical Position** 

This function is to adjust picture to left/right and up/down as you prefer.

#### Clock

This function is to minimize any vertical bars or stripes visible on the screen background. And the horizontal screen size will also change.

#### Phase

This function allows you to remove any horizontal noise and clear or sharpen the image of characters.

#### Auto

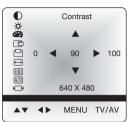
This function is for the automatic adjustment of the screen position, clock and clock phase. The displayed image will disappear for a few seconds while the Auto-configuration is in process.

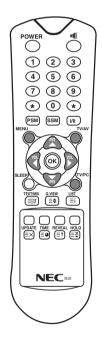
**Note**: Some signal from some graphics boards may not function properly. If the results are unsatisfactory, adjust your monitor's position, clock and clock phase manually.

#### Reset

This function allows you to return to the good picture reproduction programmed at the factory and cannot be changed.

5. Press the **TV/AV** button to store the adjustment.





# **Product Spec.**

| Model                       | NLT-20                                      |             |          |  |  |
|-----------------------------|---|-------------|----------|--|--|
| Main body(with stand)       | Horizontal size                             | 575(575) mm | Thicknes | s 60(160)mm  |  |
| iviairi body(witiri starid) | Height                                      | 395(450) mm | Weight   | 7.85(9.11) kg  |  |
| Power requirements          | DC 15V/4.5A                                 |             |          |  |  |
| Television system           | PAL-BG, I, DK/ SECAM-BG, DK/ NTSC-M         |             |          |  |  |
| Television programme        | VHF: 2~12 UHF :21~69 Cable : S1~S41         |             |          |  |  |
| LCD Panel                   | 20.1" TFT LCD panel                         |             |          |  |  |
| Power consumption           | 70W   |             |          |  |  |
| External antenna impedance  | 75Ω   |             |          |  |  |
| Audio output                | 3W +3W                                      |             |          |  |  |
| External input ports        | • PC IN • CO • HEADPHONE JACK • S           |             | • COMPO  | DC 15V IN     COMPONENT IN     S-VIDEO IN     AV OUT |  |
| AC Power Adaptor            | AC 100-240, 50/60Hz<br>Output : 15Vdc, 4.5A |             |          |  |  |

- Although the LCD panel uses highly precise technology, it may display blank pixels, dark spots or lighting pixels on the screen. This is normal and not an indication of a defect.
- Technical specifications are subject to change without notice.

# **Troubleshooting**

| Problem   | Check item  |  |  |
|---|---|--|--|
| No picture on screen and no sound from speakers.      | Insert the AC power cord plug securely in AC power outlet.     Make sure the LCD TV is not in the standby mode (The POWER/Standby indicator is red.)  |  |  |
| No picture/No picture from AV terminal.               | Check the brightness setting of the display.     Lamp may have malfunction.   |  |  |
| Picture is displayed, but no sound from the speakers. | Check the sound setting.  Make sure the sound is not muted.  Make sure the connectors of the optional speaker system are securely inserted.   |  |  |
| Picture is too light.                                 | Make sure COLOR and CONTRAST settings.  |  |  |
| Picture is too dark.                                  | Make sure BRIGHTNESS setting is not set too low.     Check to see if BRIGHTNESS setting.     Lamp may have malfunction.   |  |  |
| Remote control does not work.                         | Change the batteries.     Make sure the infrared transmitter window is not receiving strong light such as light from fluorescent lamps.   |  |  |
| The TV picture is not sharp.<br>The TV picture moves. | The reception may be weak. The state of the broadcast may also be bad. Make sure the antenna is facing the right direction. Make sure the outside antenna is not disconnected.  |  |  |
| The TV picture is doubled/tripled (Ghosting)          | Make sure the antenna is facing the right direction.     There may be reflected electric waves from mountains or buildings.   |  |  |
| The TV picture is spotted.                            | There may be interference from automobiles, trains, high voltage lines, neon lights, etc. There may be interference between the antenna cable and power cable. Try positioning them further apart.  |  |  |
| There are stripes on the screen or colors fade.       | Is the unit receiving interference from other devices?     Transmission antennas of radio broadcasting stations and transmission antennas of amateur radios and cellular phones may also cause interference.     Use the unit as far apart as possible from devices that may cause possible interference. |  |  |
| Power button does not respond.                        | Unplug the power cord of the adaptor from the AC outlet to turn off and reset the unit.   |  |  |
| PC image not centered.                                | Check the horizontal/vertical position setting.   |  |  |
| PC image not clear or has stripes.                    | Check Clock and phase settings.  Try using 'Auto' function setting.   |  |  |



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