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ENGLISH


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Safety Precautions

Please read these safety precautions carefully before using the product.

 **Warning** If you ignore the warning message, you may be seriously injured or there is a possibility of accident or death.

 **Caution** If you ignore the caution message, you may be slightly injured or the product may be damaged

Precautions in installing the Product

Warning

- **Keep away from heat sources like electrical heaters.**
 - Electrical shock, fire, malfunction or deformation may occur.
- **Keep the packing anti-moisture material or vinyl packing out of the reach of children.**
 - Anti-moisture material is harmful if swallowed. If swallowed by mistake, force the patient to vomit and visit the nearest hospital. Additionally, vinyl packing can cause suffocation. Keep it out of the reach of children.
- **Do not put heavy objects on the product or sit upon it.**
 - If the product collapses or is dropped, you may be injured. Children must pay particular attention.
- **Do not leave the power or signal cable unattended on the pathway.**
 - The passerby can falter, which can cause electrical shock, fire, product breakdown or injury.
- **Install the product in a neat and dry place.**
 - Dust or moisture can cause electrical shock, fire or product damage.
- **If you can smell smoke or other odors or hear a strange sound unplug the power cord and contact the service center.**
 - If you continue to use without taking proper measures, electrical shock or fire can occur.
- **If you dropped the product or the case is broken, turn off the product and unplug the power cord.**
 - If you continue to use without taking proper measures, electrical shock or fire can occur. Contact the service center.
- **Do not drop metallic objects such as coins, hair pins, chopsticks or wire into the product, or inflammable objects such as paper and matches. Children must pay particular attention.**
 - Electrical shock, fire or injury can occur. If a foreign object is dropped into the product, unplug the power cord and contact the service center.

Caution

- **Make sure the product ventilation hole is not blocked. Install the product in a suitably wide place (more than 10cm from the wall)**
 - If you install the product too close to the wall, it may be deformed or fire can break out due to internal heat.
- **Do not block the ventilation hole of the product by a tablecloth or curtain.**
 - The product can be deformed or fire can break out due to overheating inside the product.
- **Install the product on a flat and stable place that has no risk of dropping the product.**
 - If the product is dropped, you may be injured or the product may be broken.
- **Install the product where no EMI occurs.**
- **Keep the product away from direct sunlight.**
 - The product can be damaged.

Electrical Power Related Precautions

Warning

- **Make sure to connect the power cable to the grounded current.**
 - You may be electrocuted or injured.
- **Use the rated voltage only.**
 - The product can be damaged, or you may be electrocuted.
- **During a thunder or lightning storm, unplug the power cable or signal cable.**
 - You may be electrocuted or a fire can break out.
- **Do not connect several extension cords, electrical appliances or electrical heaters to a single outlet. Use a power bar with a grounding terminal designed for exclusive use with the computer.**
 - A fire can break out due to overheating.
- **Do not touch the power plug with wet hands. Additionally, if the cord pin is wet or covered with dust, dry the power plug completely or wipe dust off.**
 - You may be electrocuted due to excess moisture.
- **If you don't intend to use the product for a long time, unplug the power cable from the product.**
 - Covering dust can cause a fire, or insulation deterioration can cause electric leakage, electric shock or fire.
- **Fix the power cable completely.**
 - If the power cable is not fixed completely, a fire can break out.
- **Hold the plug when pulling out the power cable. Do not bend the power cord with excessive force or put heavy objects on the power cord.**
 - The power line can be damaged, which may cause electric shock or fire.
- **Do not insert a conductor (like a metal chopstick) into one end of the power cable while the other end is connected to the input terminal on the wall. Additionally, do not touch the power cable right after plugging into the wall input terminal.**
 - You may be electrocuted.
- **The power supply cord is used as the main disconnection device. Ensure that the socket-outlet is easily accessible after installation.**

Caution

- **Do not unplug the power cord while the product is in use.**
 - Electrical shock can damage the product.

Precautions in Moving the Product

Warning

- **Make sure to turn off the product.**
 - You may be electrocuted or the product can be damaged.
- **Make sure to remove all cables before moving the product.**
 - You may be electrocuted or the product can be damaged.

Safety Precautions

Caution

- **Do not shock the product when moving it.**
 - You may be electrocuted or the product can be damaged
- **Do not dispose the product-packing box. Use it when you move.**
- **Make the panel face forward and hold it with both hands to move.**
 - If you drop the product, the damaged product can cause electric shock or fire. Contact with the service center for repair.

Precautions in Using the Product

Warning

- **Do not disassemble, repair or modify the product at your own discretion.**
 - Fire or electric shock accident can occur.
 - Contact the service center for check, calibration or repair.
- **Do not spray water on the product or scrub with an inflammable substance (thinner or benzene). Fire or electric shock accident can occur**
- **Keep the product away from water.**
 - Fire or electric shock accident can occur.

Caution

- **Do not put or store inflammable substances near the product.**
 - There is a danger of explosion or fire due to careless handling of the inflammable substances.
- **When cleaning the brown tube surface, unplug the power cord and scrub with soft cloth to prevent scratching. Do not clean with a wet cloth.**
 - The water can sink into the product, which can cause electric shock or serious malfunction.
- **Take a rest from time to time to protect your vision.**
- **Keep the product clean at all times.**
- **Take a comfortable and natural position when working with a product to relax the muscles.**
- **Take a regular break when working with a product for a long time.**
- **Do not press strongly upon the panel with a hand or sharp object such as nail, pencil or pen, or make a scratch on it.**
- **Keep the proper distance from the product.**
 - Your vision may be impaired if you look at the product too closely.
- **Set the appropriate resolution and clock by referring to the User's guide.**
 - Your vision can be impaired.
- **Use authorized detergent only when cleaning the product. (Do not use benzene, thinner or alcohol.)**
 - Product can be deformed.

On Disposal

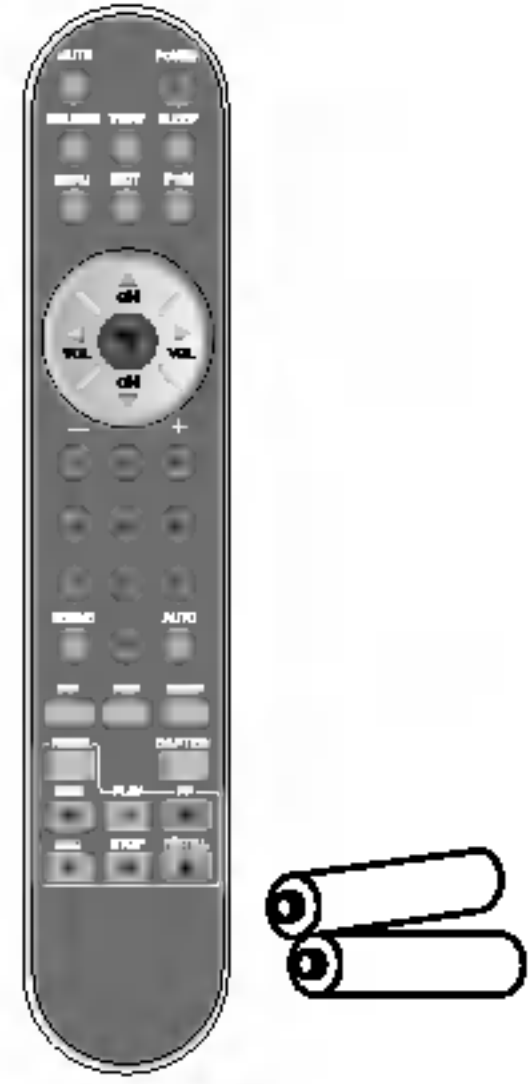
- The fluorescent lamp used in this product contains a small amount of mercury.
- Do not dispose of this product with general household waste.
 - Disposal of this product must be carried out in accordance to the regulations of your local authority.

Accessories

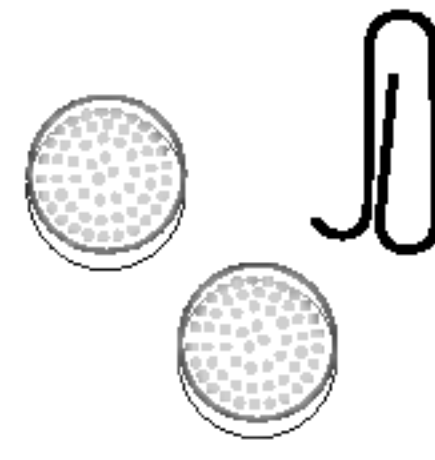
ENGLISH

Please check the accessories in the product package.

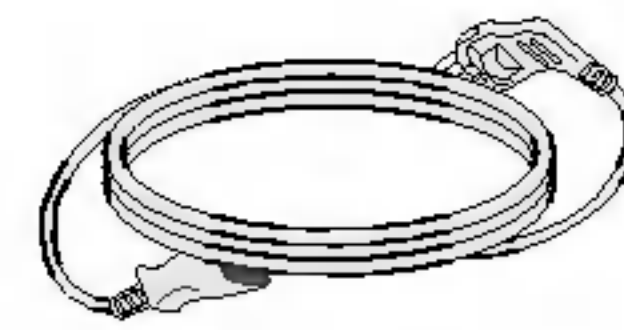
* The product and the accessories can be different from the figures shown here.



Remote Control
/Batteries



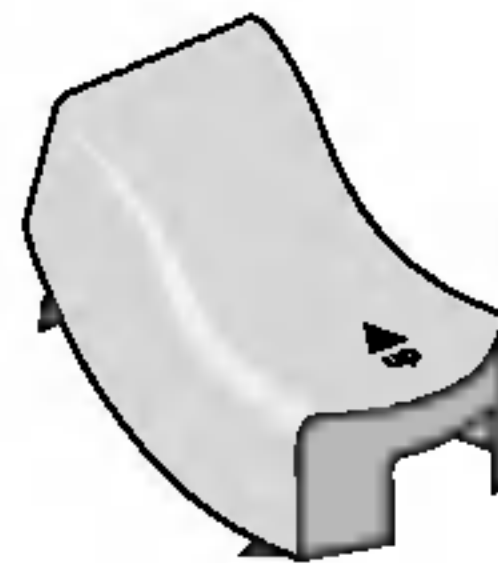
Speaker Cover (2ea)
/Cover Picker



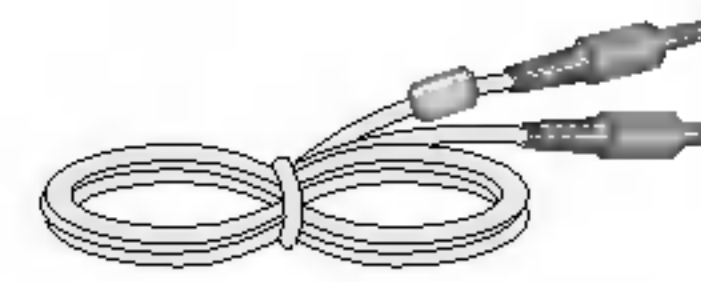
Power Cord



User's Guide / Drive CD/Cards



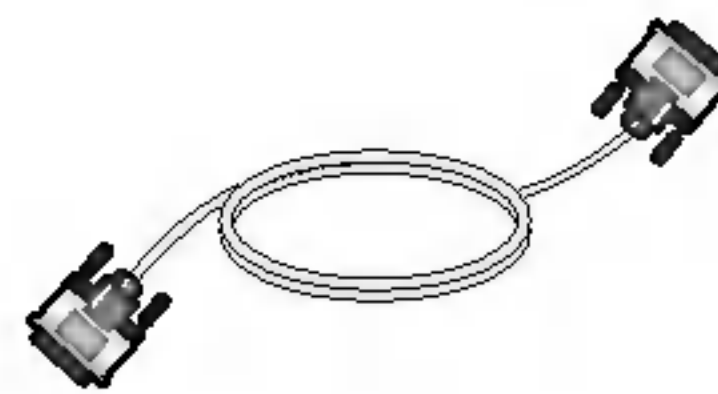
Cable Cap



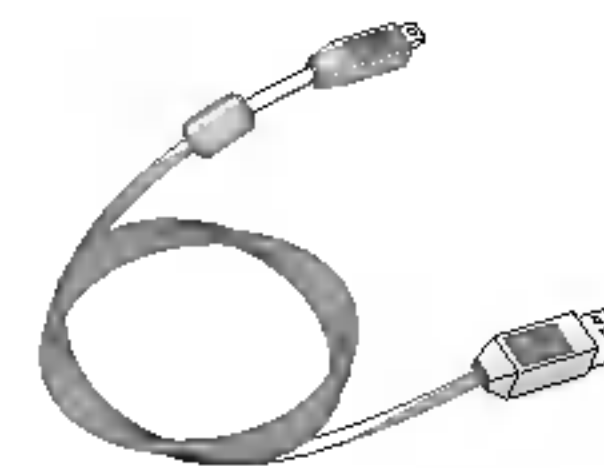
Audio Cable (PC)



D-Sub Signal Cable

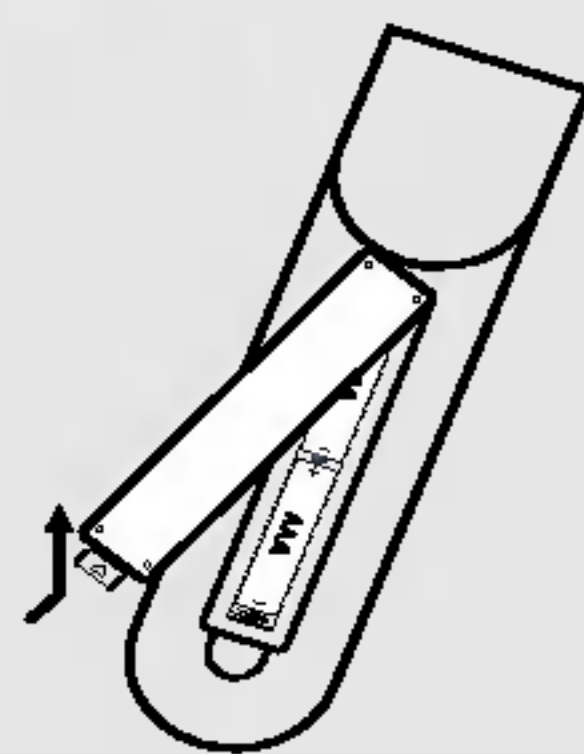


DVI-D Signal Cable



USB Cable
(only applies to the
20.1 inch product)

● Inserting batteries into remote control.



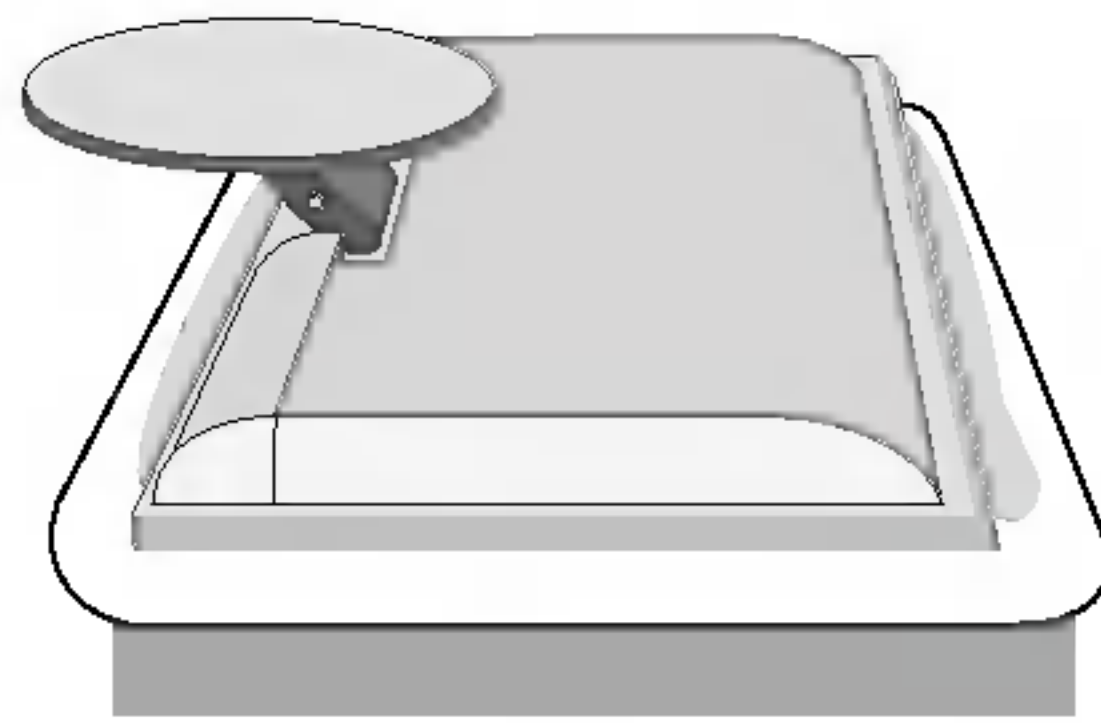
1. Take out the battery cap.
2. Insert the batteries with correct polarity (+/-).
3. Close the battery cap.
 - You can use a remote controller 7 meter distance and 30 degree (left/right) within the receiving unit scope.
 - Dispose of used batteries in the recycle bin to prevent environmental pollution.

Before Connecting to the PC

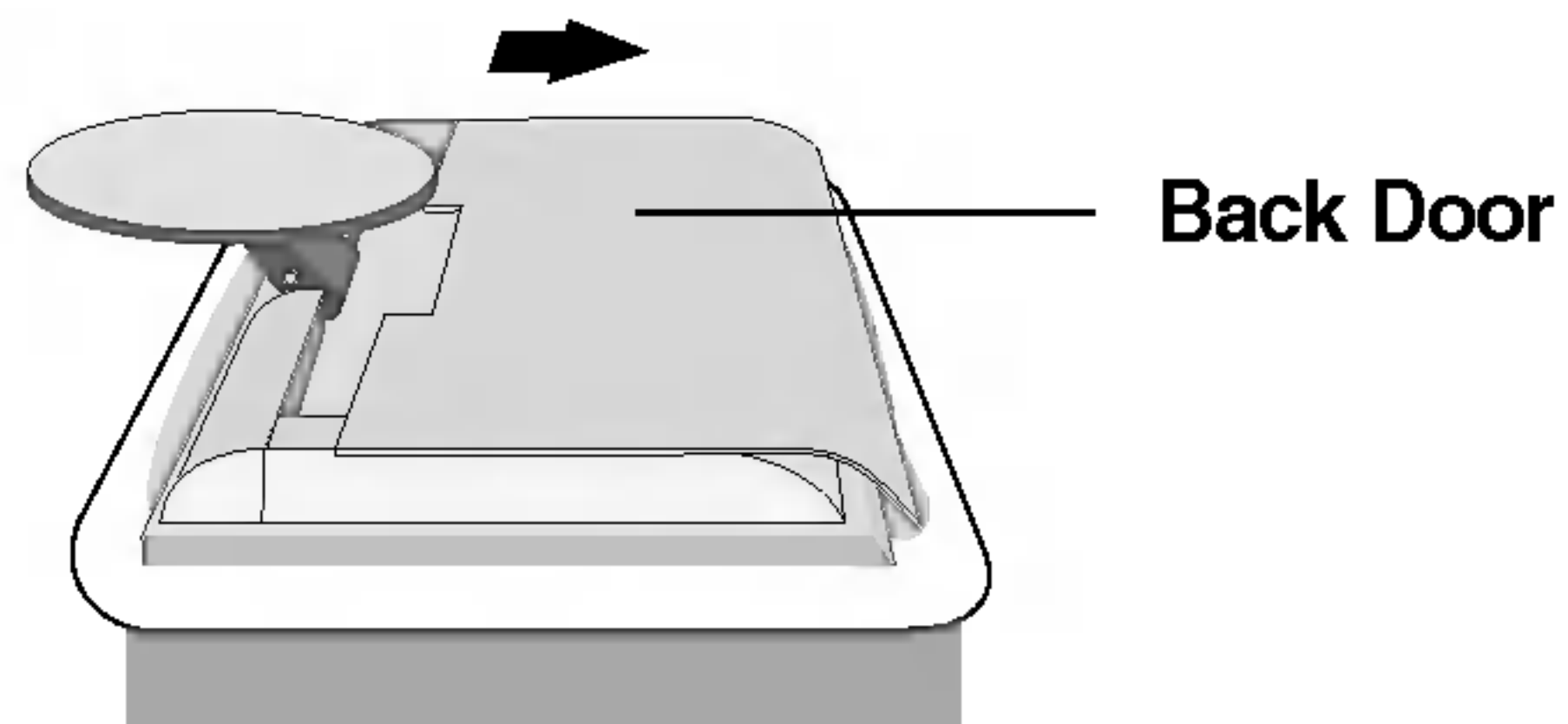
- Before setting up the product, ensure that the power to the product, the computer system, and other attached devices is turned off.

Unfolding the stand base

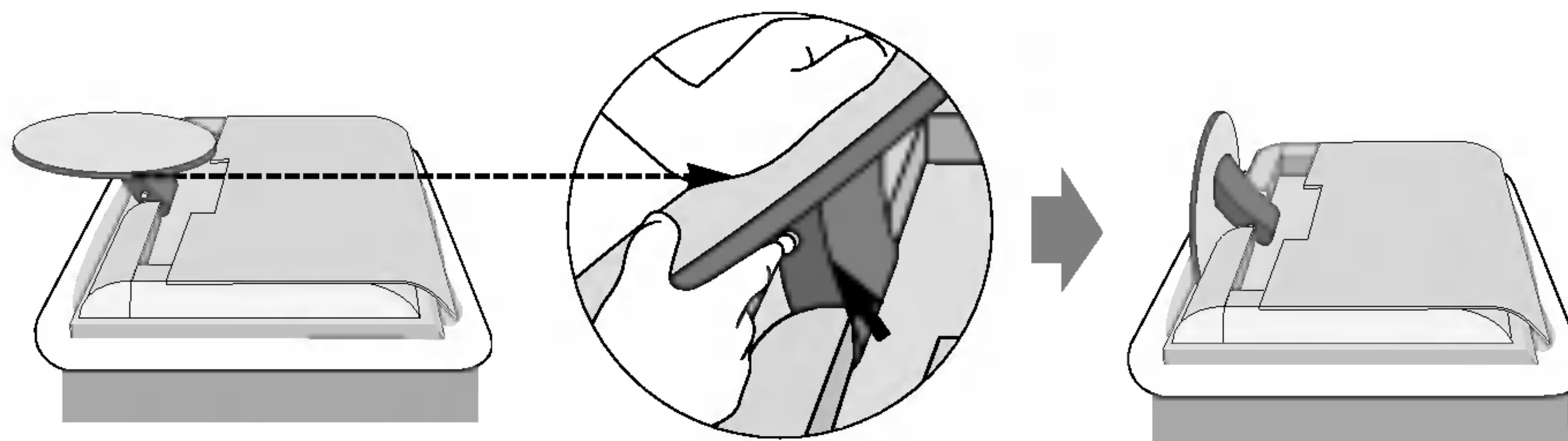
- 1 Place the product with its front facing downward on the soft cloth.



- 2 Push up the back door.



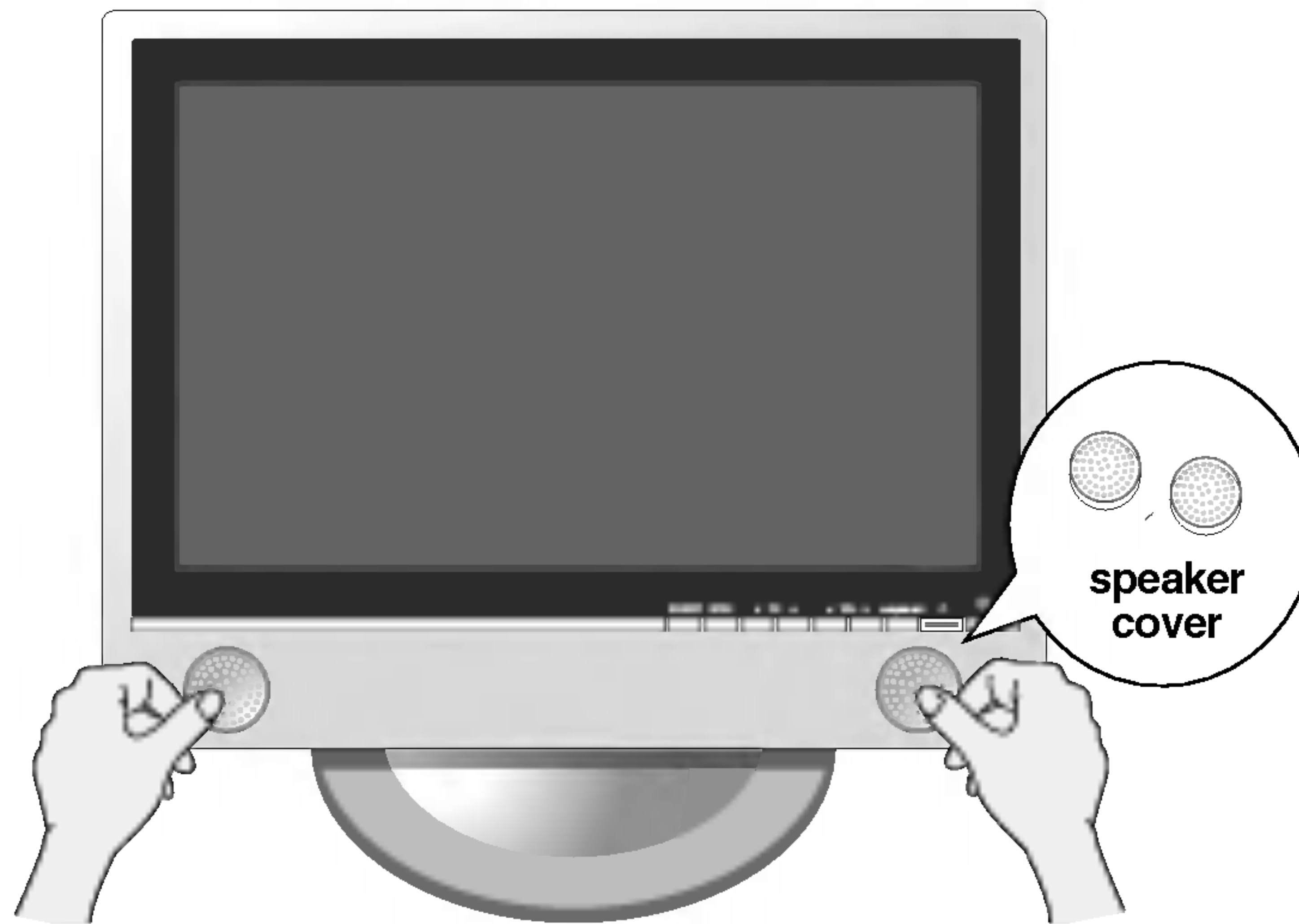
- 3 Hold down the release button inside the stand and strongly pull out the stand with your two hands.



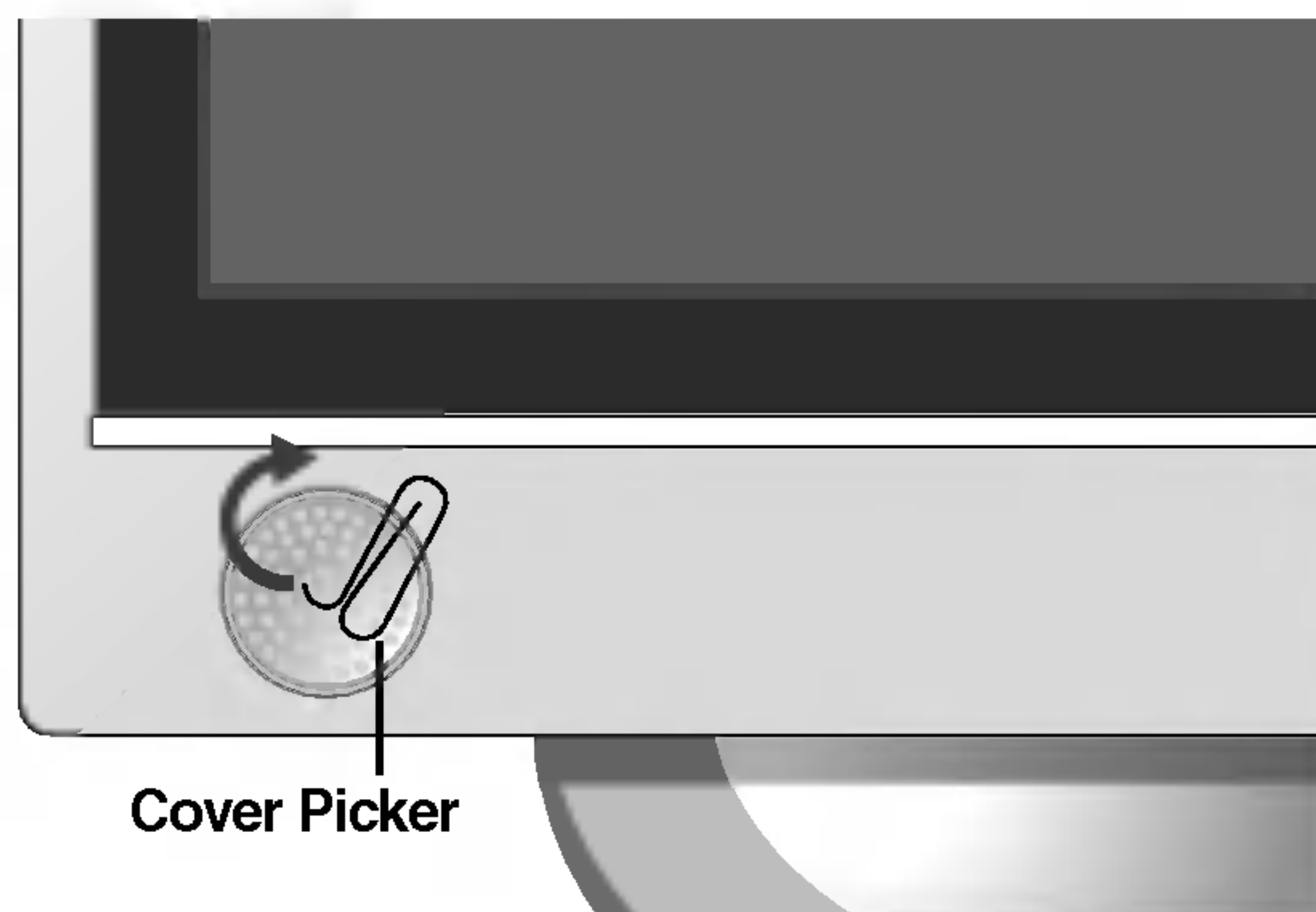
The stand won't move if you don't press release button.
If the release button does not operate easily, fold the stand
a bit more, and then press the release button button.

- Install the speaker covers on the both sides of the speaker for protection.

Installing and removing the cover on/from the speaker



Installing the speaker cover



Removing the speaker cover

Important Product Features

● **Swapping Function**

You can swap the main screen and the sub-screen when the PIP/POP/PBP function is used.

● **Spectacle Function**

The screen center area is close to a 4:3 ratio and the outskirts area is expanded by more than Spectacle. Therefore, the different screen ratio is applied for each area. Because most ordinary people concentrate their focus on the screen center, a non-linear ratio increase at the outskirts area is not recognized, which makes it possible to watch 4:3 TV screen with a wide screen.

However, the spectacle function is useful in watching TV or motion pictures but is not suitable for the PC environment in which you perform graphic or document work.

● **Sleep Function**

When watching AV/TV – The product will be automatically turned off after a certain period of time. Press this button repetitively to select an appropriate time duration.

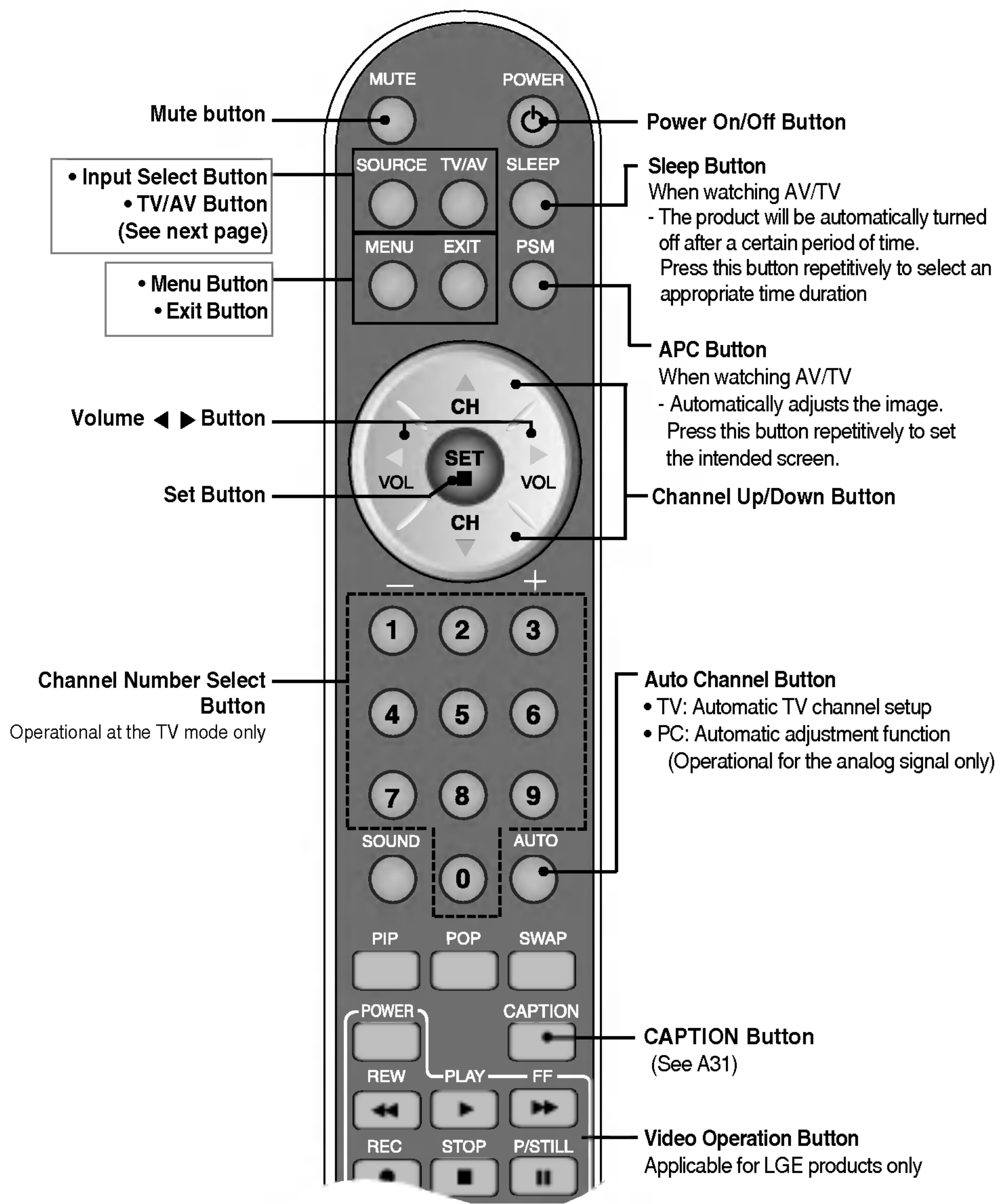
● **Media Manager (only 20.1 inch)**

With this card, you are free to watch pictures and video, and enjoy listening to music without turning on your computer.

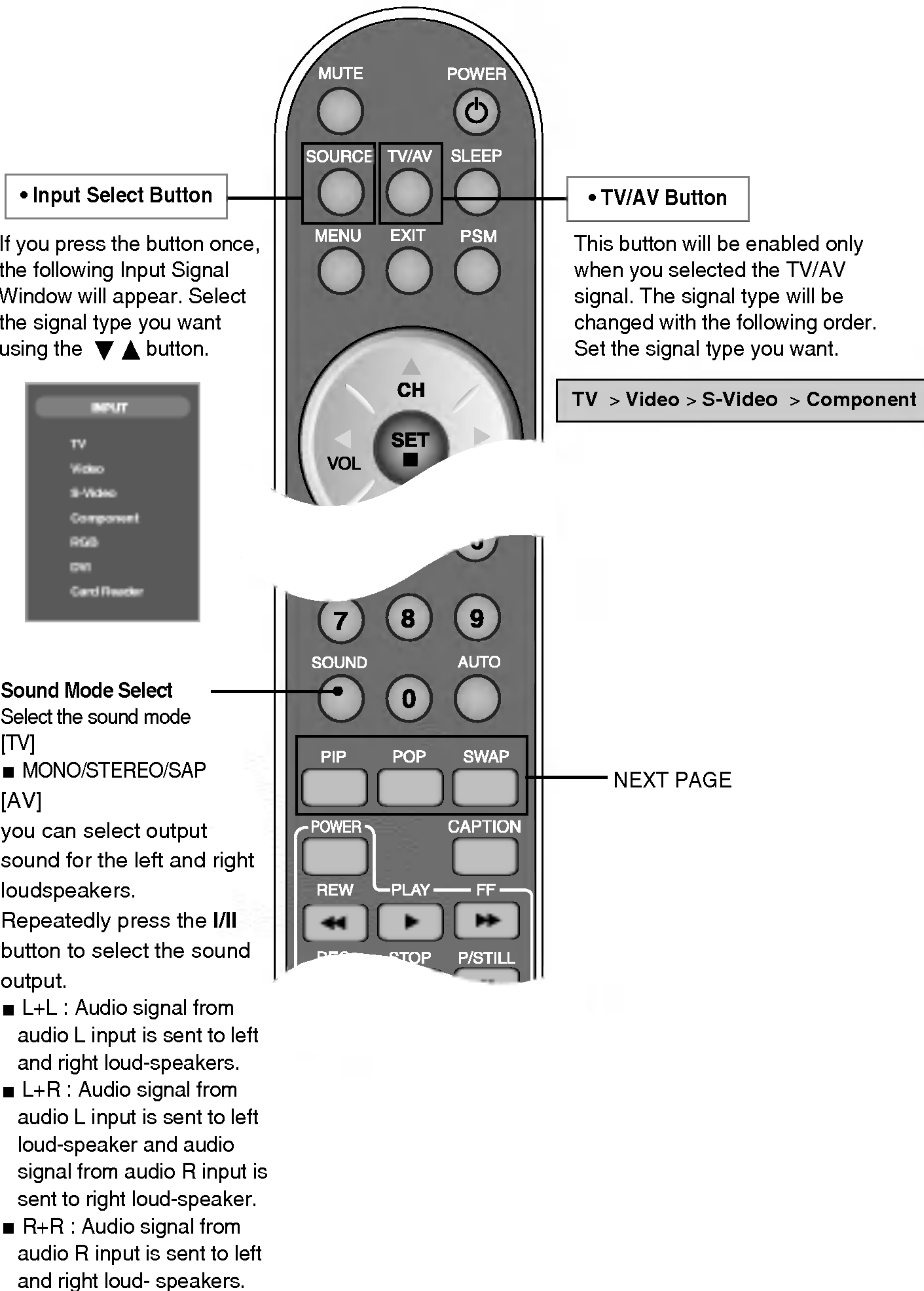
Name and Function of the Parts

● Name of the Remote Control Buttons

For detailed instructions of each button on the remote control, refer to the appropriate pages of this manual.

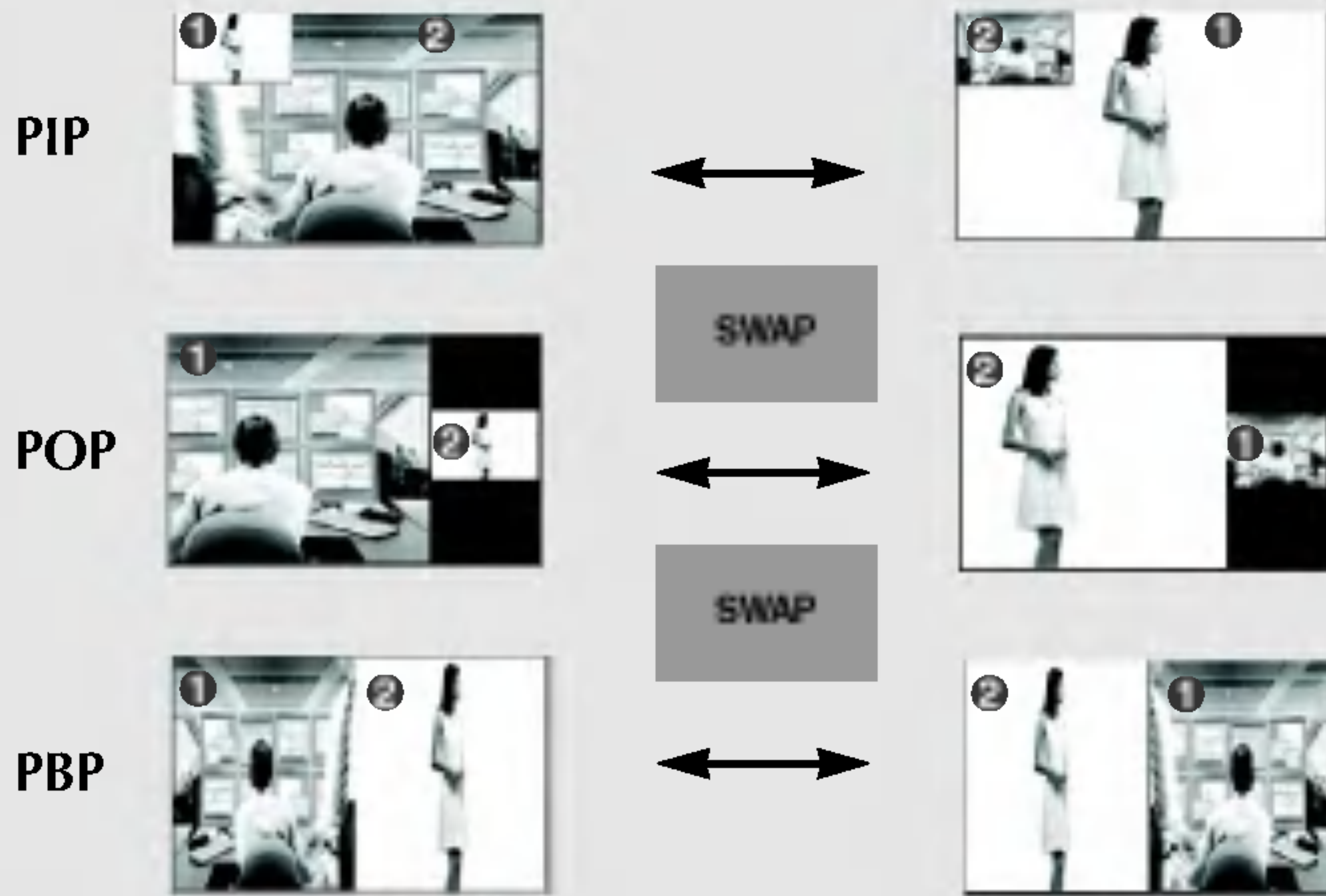


Name and Function of the Parts



1. Swap Button

You can swap the main screen and the sub-screen when the PIP/POP/PBP function is used.



2. PIP (Picture in Picture) Button

The sub-screen is changed in the order shown below.
: SMALL -> MEDIUM -> LARGE -> OFF

3. POP (Picture out Picture) Button

The sub-screen moves to the next mode whenever you press this button.
: POP ON -> PBP(FULL) -> PBP(4:3) -> OFF



<Table of PIP/POP/PBP Function Support>

Main Screen / Sub-Screen	DVI	RGB	TV	Video	Component	S-Video	CARD
DVI	X	X	●	●	●	●	X
RGB	X	X	●	●	●	●	X
TV	●	●	X	X	X	X	X
Video	●	●	X	X	X	X	X
Component	●	●	X	X	X	X	X
S-Video	●	●	X	X	X	X	X
CARD	X	X	X	X	X	X	X

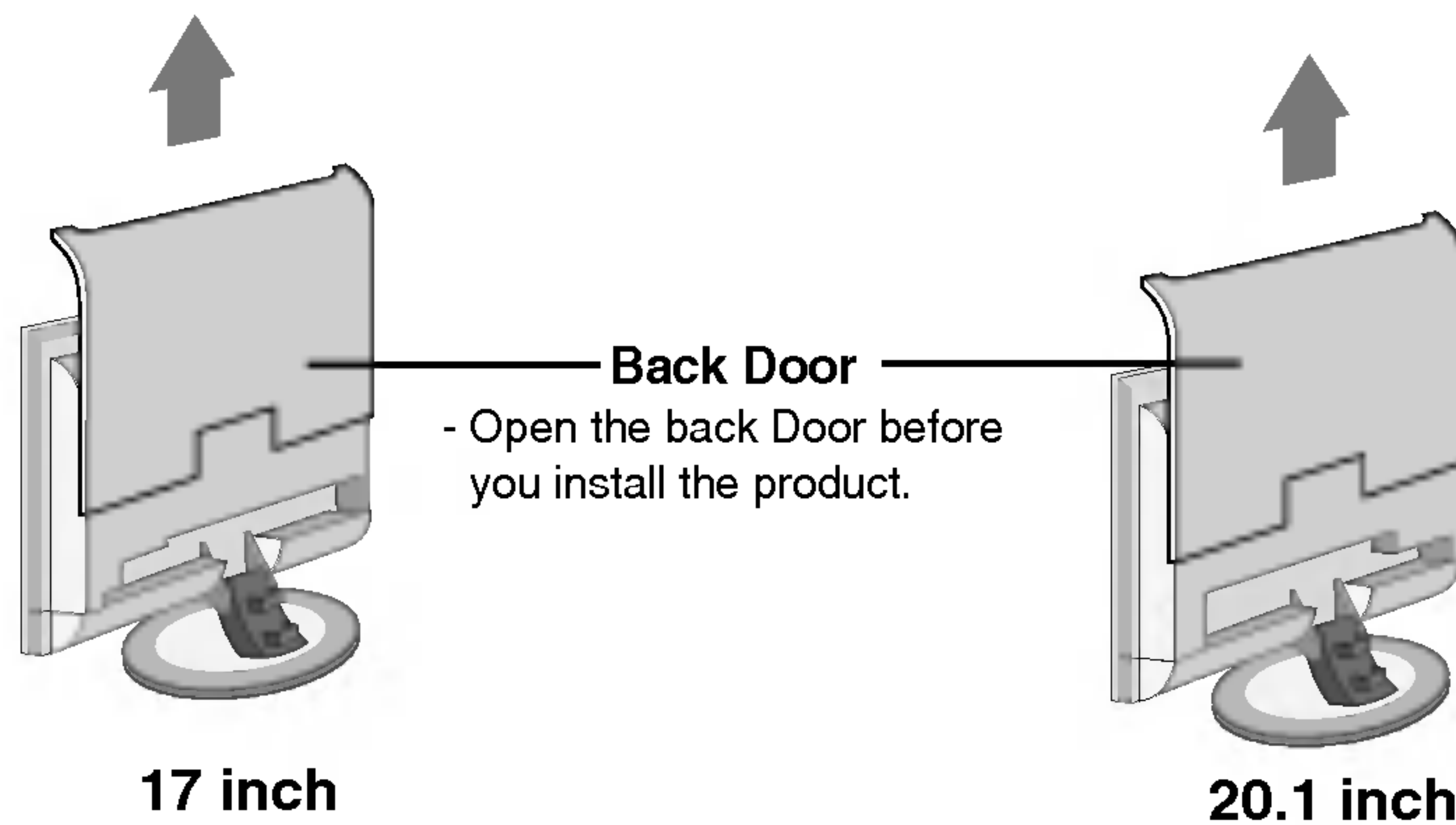
When 'Input Signal 1' comes on in the main screen, only 'Input Signal 2' can be displayed on the sub-screen. On the contrary, if the main screen displays 'Input Signal 2', the sub-screen can display 'Input Signal 1' only.

* CARD : Optional

Name and Function of the Parts

● Rear View

First, pull out the back door attached to the rear of the product to detach, as shown.



17 inch



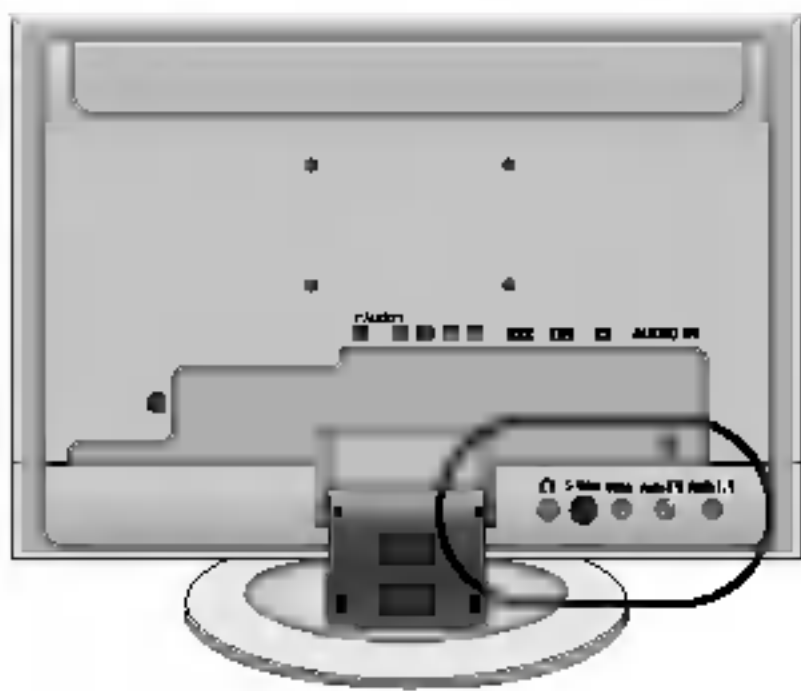
20.1 inch



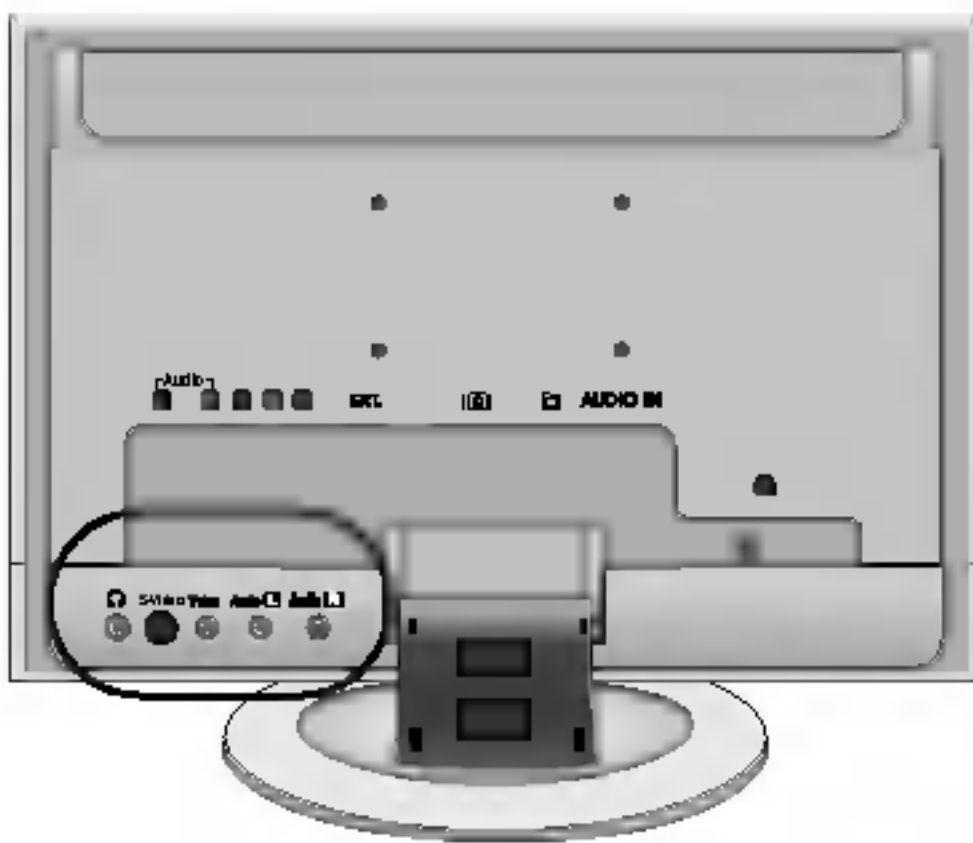
- ① DVI Signal Connector
- ② D-Sub Analog Signal Connector
- ③ Audio Jack :Connect to the jack in the PC sound card.
- ④ HDTV Input Terminal : Connect the Component.
- ⑤ TV Tuner Jack: Connect the antenna.
- ⑥ Power Cord Connector : Connect the power cord.
- ⑦ Theft prevention locking device

● Rear View

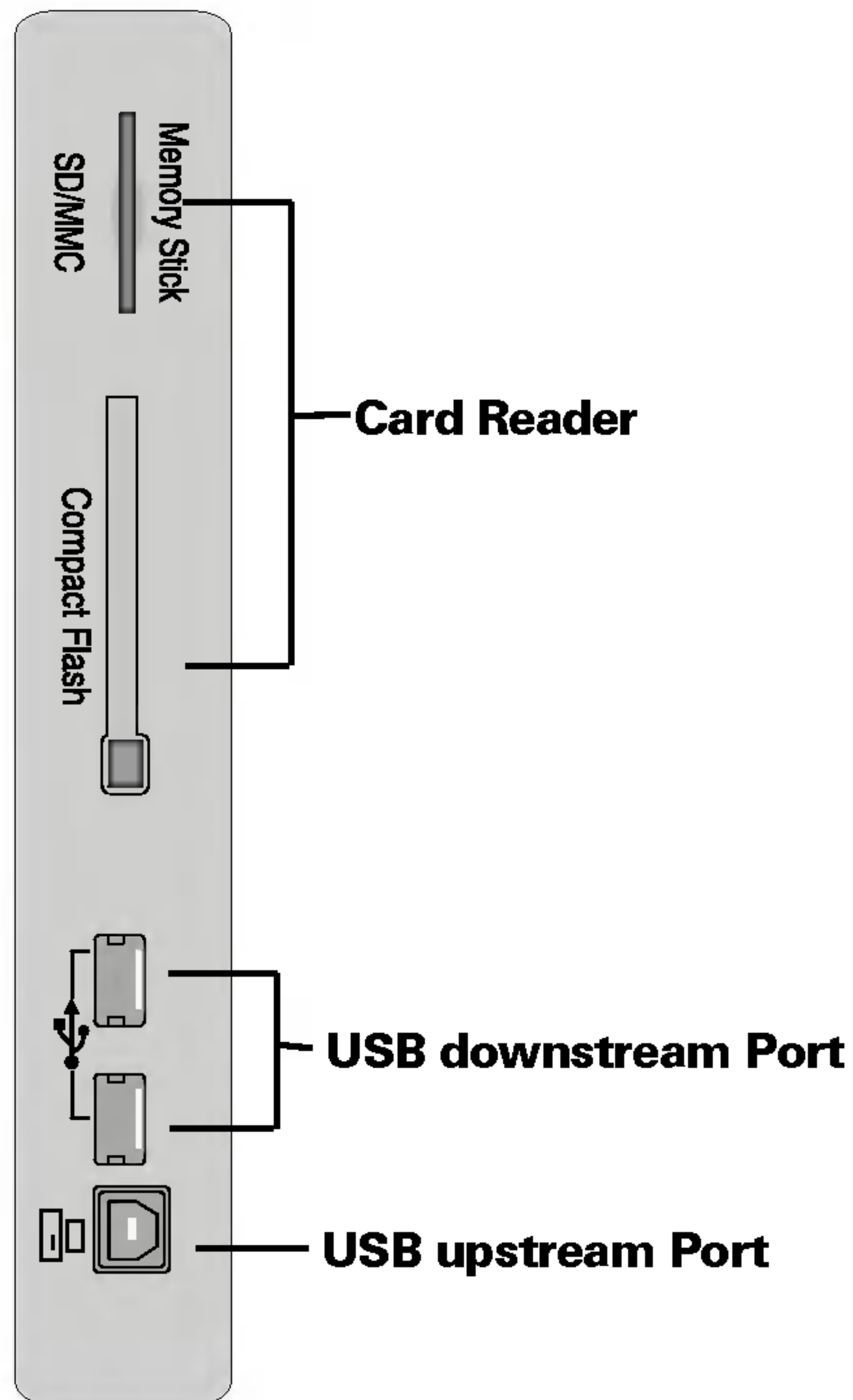
17 inch



20.1 inch

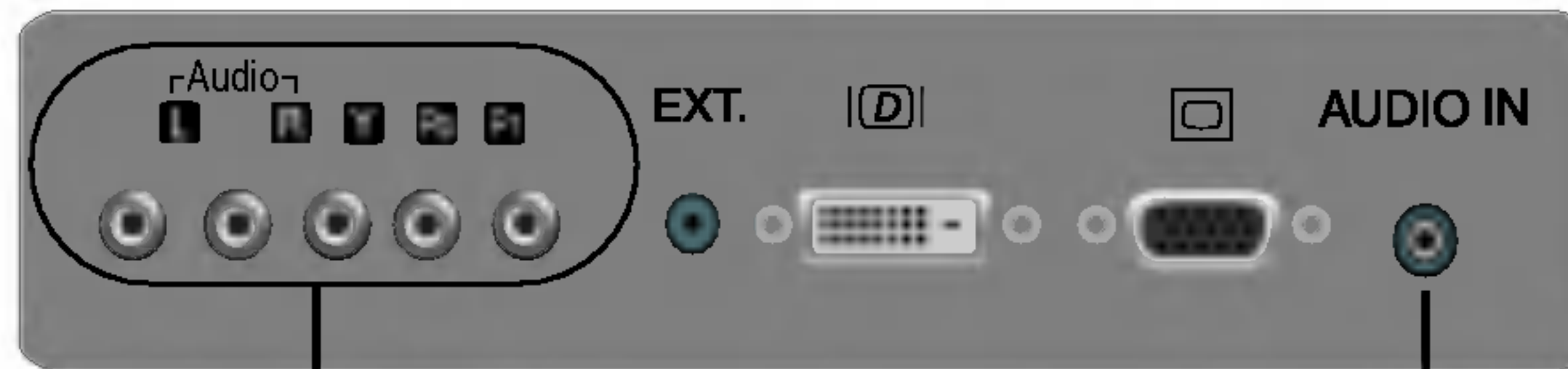


● Side View (Optional-20.1 inch)



Name and Function of the Parts

● Sound card Connection Terminal / HDTV Input Terminal



Component Input Terminal

PC Audio Input Terminal

- Connect the audio cable to the LINE OUT jack in the PC sound card.

● Connecting the sound card output terminal

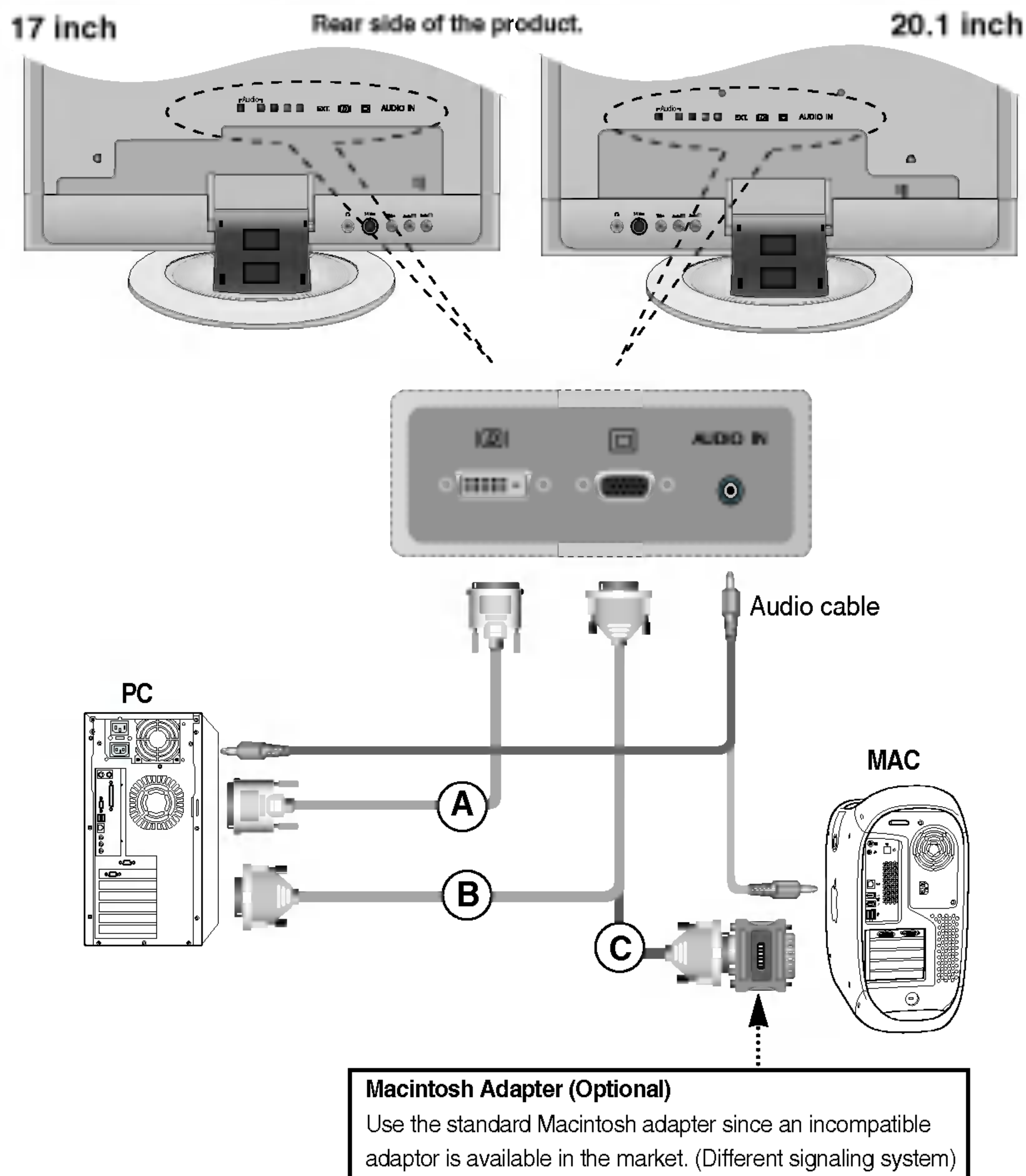
- Make sure to check the sound card connection terminal in the PC before connecting to the product.
If the PC sound card supports both Speaker Out and Line Out, change it to Line Out by setting the jumper or the PC application. (For more details, refer to the sound card user's manual.)
 - **Speaker Out** : The terminal connected to the speaker that is not equipped with an amplifier.
 - ***Line Out** : The terminal connected to the speaker equipped with an amplifier.If Audio Out in the PC sound card has only Speaker Out, reduce the PC volume. This product is integrated with an amplifier.

Connecting to External Devices

■ ■ ■ When Connecting to your PC

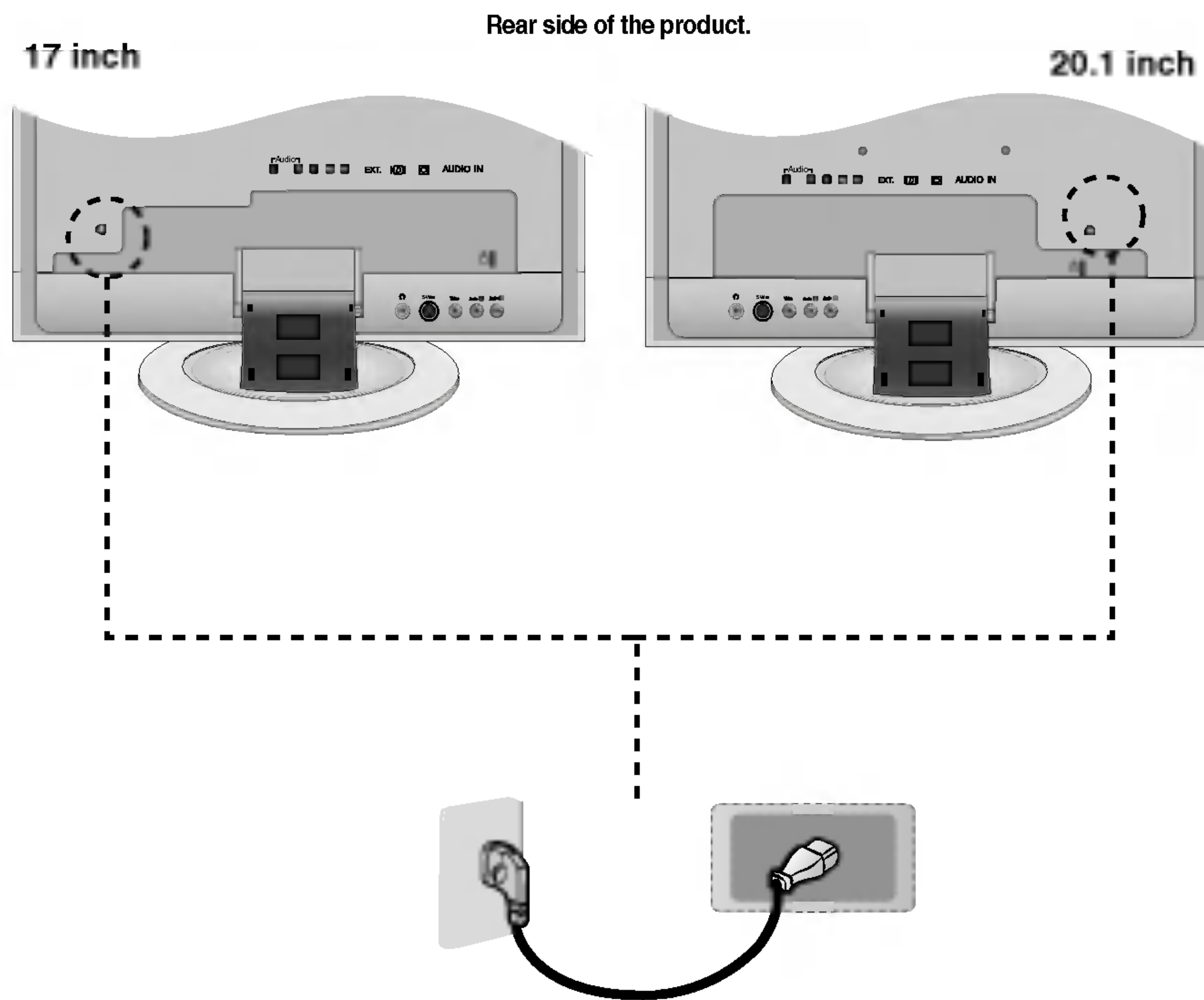
1 First of all, see if the computer, product and the peripherals are turned off. Then, connect the signal input cable and audio cable.

- (A)** When connecting with the DVI signal input cable.
- (B)** When connecting with the D-Sub signal input cable. (IBM compatible PC)
- (C)** When connecting with the D-Sub signal input cable. (Macintosh)



Connecting to External Devices

2 Connect the power cord.



* When connecting to a wall outlet.



Note

Self Image Setting Function

This function provides the user with optimal display settings. When the user connects the product for the first time, this function automatically adjusts the display to optimal settings for individual input signals.

If you want to adjust the product while in use, or wish to manually run this function once again, push the 'AUTO' button on the front panel of the product or remote control.

3 Turn on power by pressing the power button on the product.



4 Turn on the PC.

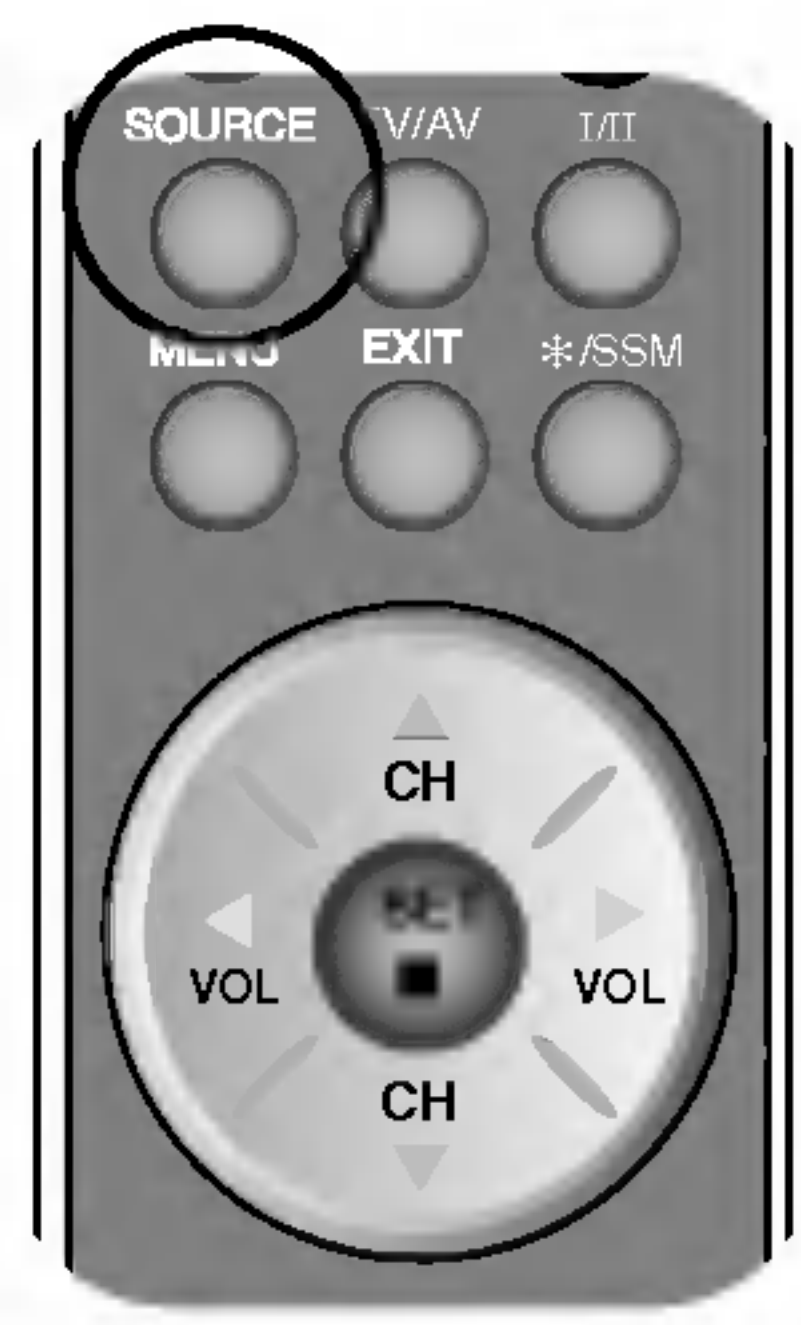
5 Select an input signal.
Press the SOURCE button on the remote control to select the input signal.

SOURCE → ▼▲ → SET

Or, press the SOURCE button at the front side of the product.

SOURCE → V A → AUTO/SELECT

- A When connecting with a DVI signal input cable.
 - Select **DVI** : DVI digital signal.
- B When connecting with a D-Sub signal input cable.
 - Select **RGB** : D-Sub analog signal.



* Card Reader : Optional



Note

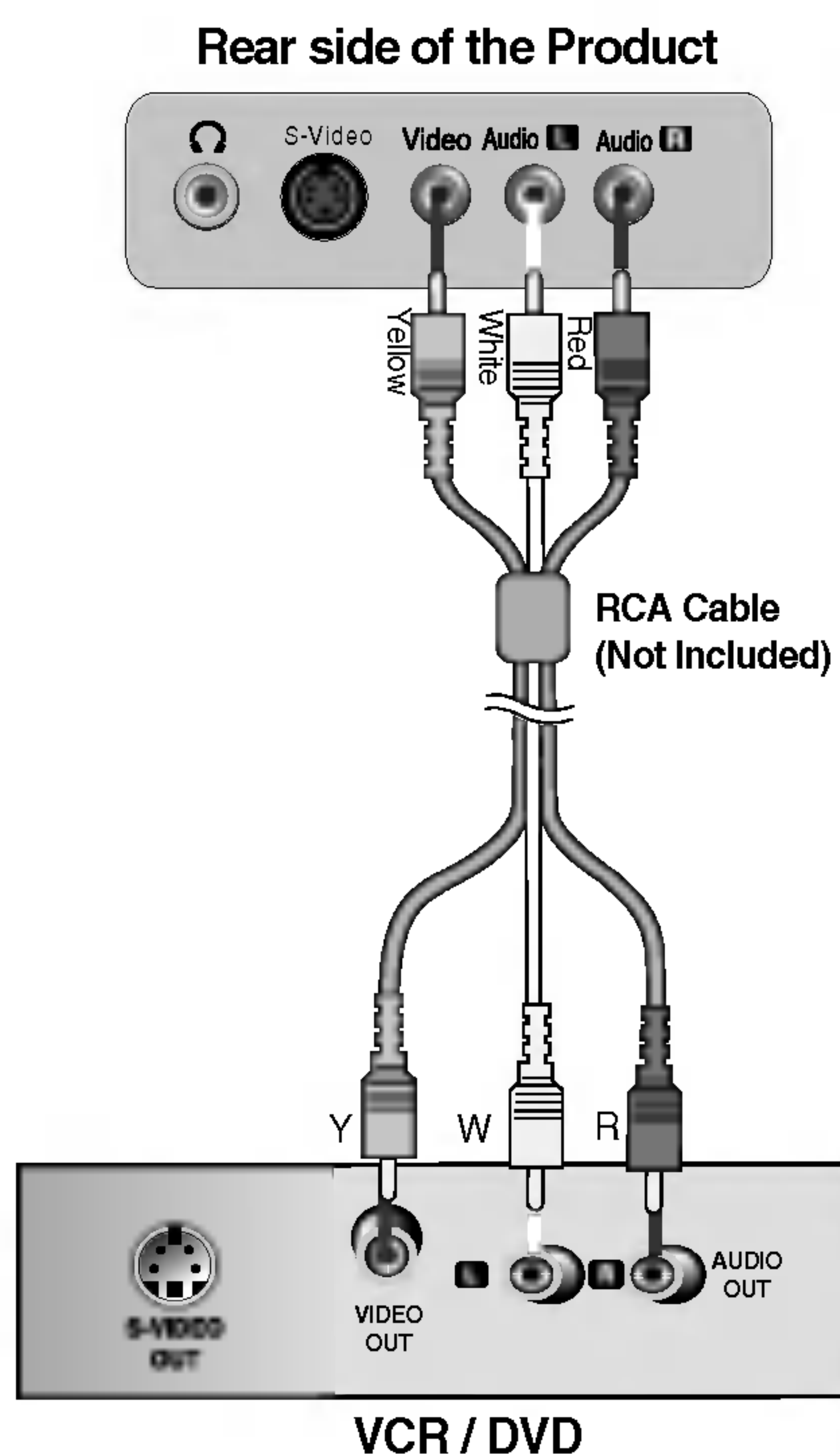
- **How to connect to two computers.**
Connect the signal cables (**DVI** and **RGB**) to each computer.
Press the **SOURCE** button in a remote controller to select the computer to use.
- **Directly connect to a grounded power outlet on the wall or a power bar with a ground wire.**

Connecting to External Devices

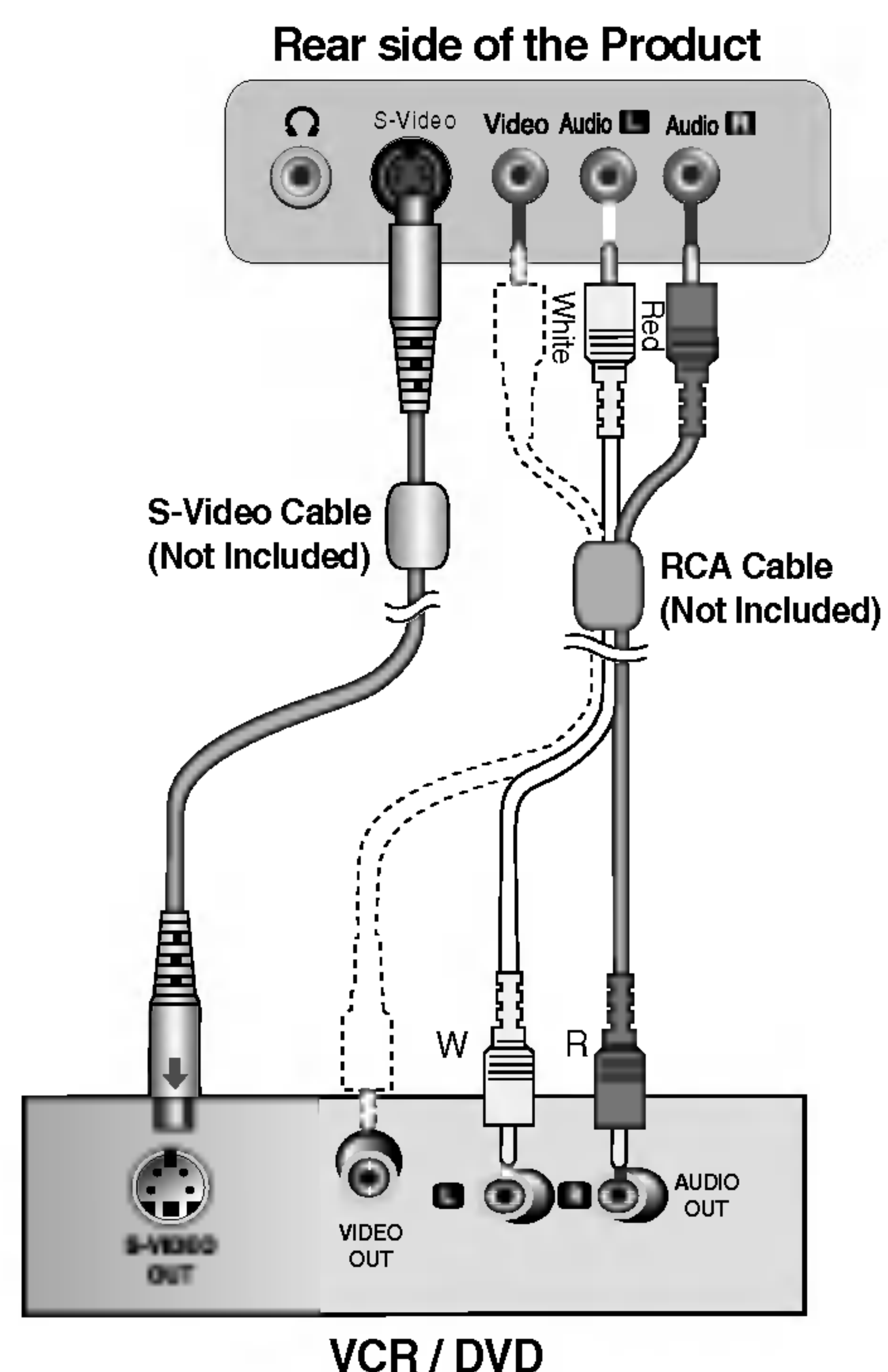
When watching VCR / DVD

- 1** Connect the video cable as shown in the below figure and then connect the power cord.
(See page A15)

- A** When connecting with an RCA cable.
- Connect the input terminal with a proper color match.
(Video – Yellow, Sound (left) – White, Sound (right) – Red)



- B** When connecting with an S-Video cable.
- Connect to the S-Video input terminal to watch high image quality movies.



- 2** Select an input signal.
Press the SOURCE button on the remote control to select the input signal.

SOURCE → ▼▲ → **SET**

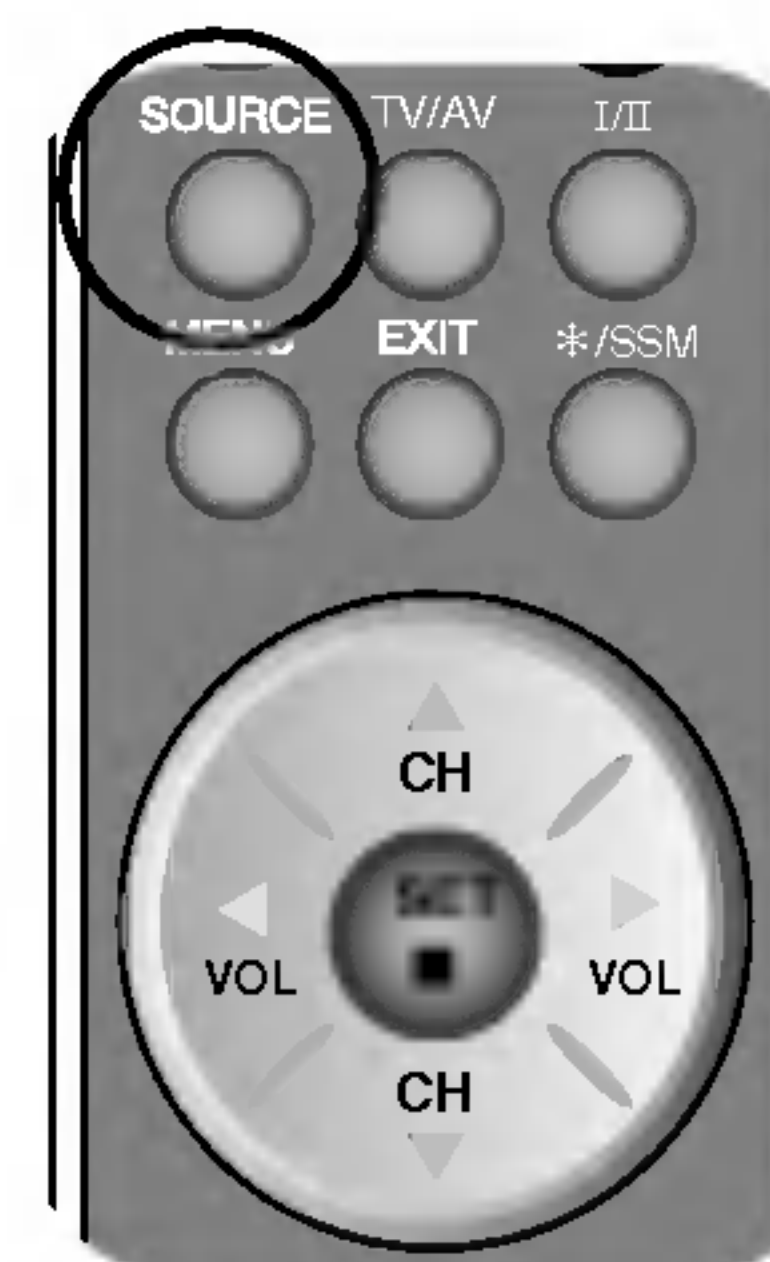
Or, press the SOURCE button at the front side of the product.

SOURCE → V A → **AUTO/SELECT**

- A** When connecting with a RCA cable.
- Select Video (CVBS)
- B** When connecting with a S-Video cable.
- Select S-Video



* Card Reader : Optional



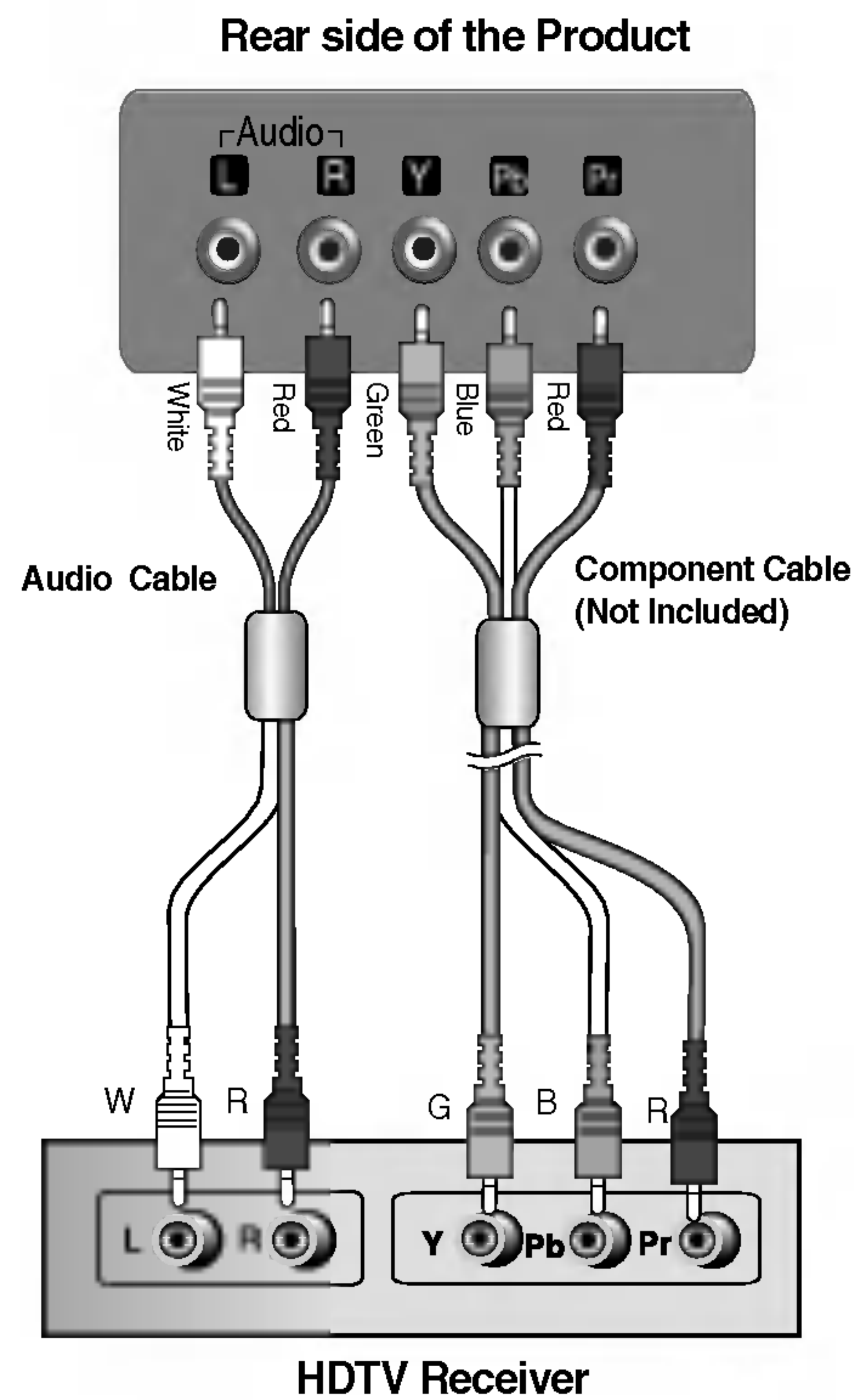
■ ■ ■ When watching HDTV

ENGLISH

- 1 Connect the video/audio cable as shown in the below figure and then connect the power cord. (See page A15)

When connecting with an RCA cable.

- Connect the input terminal with a proper color match.
(Video – Yellow, Sound (left) – White, Sound (right) – Red)



- 2 Select an input signal.
Press the SOURCE button on the remote control to select the input signal.

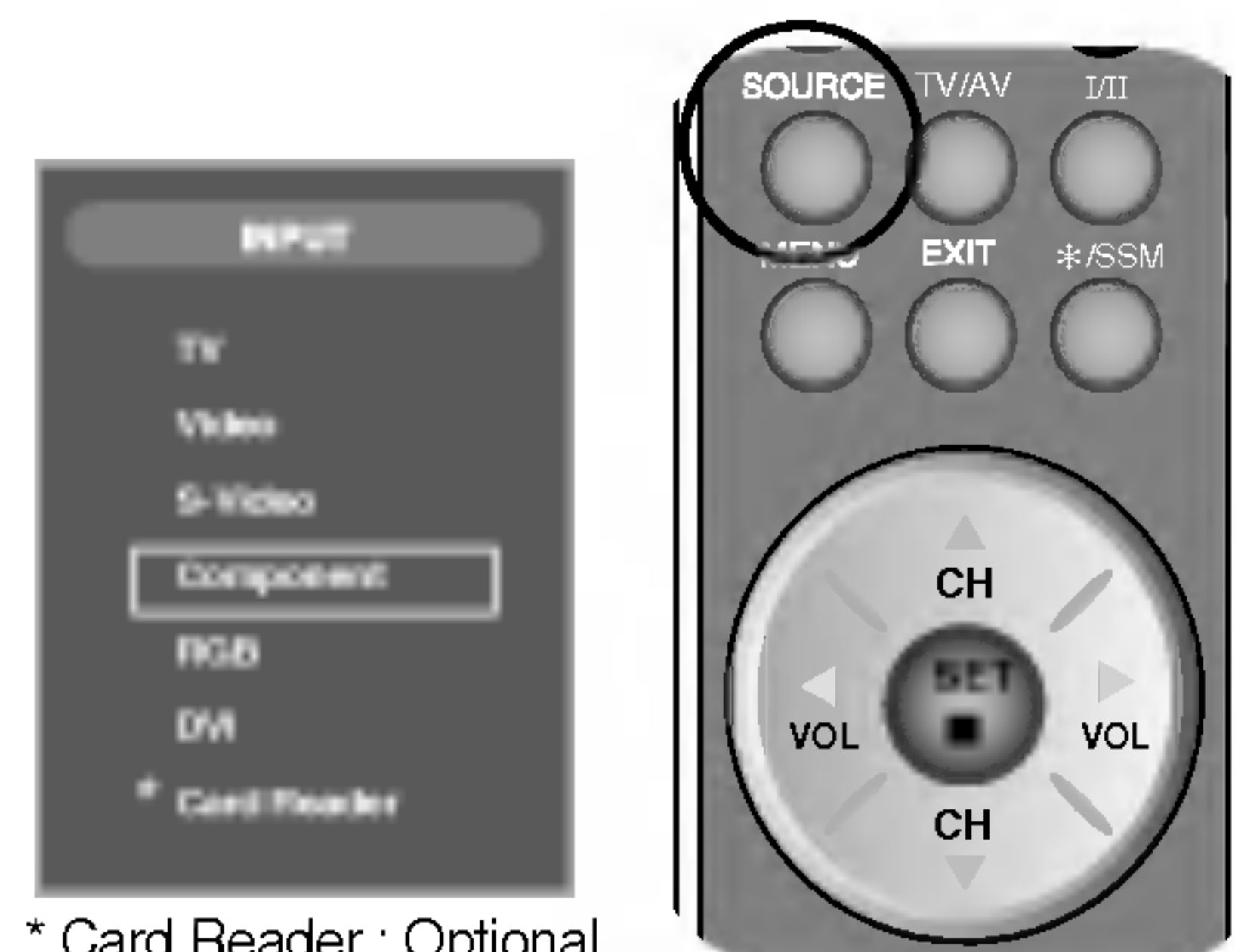
SOURCE → ▼▲ → **SET**

Or, press the SOURCE button at the front side of the product.

SOURCE → VΛ → **AUTO/SELECT**

When connecting with a Audio Cable / Component Cable.

- Select Component

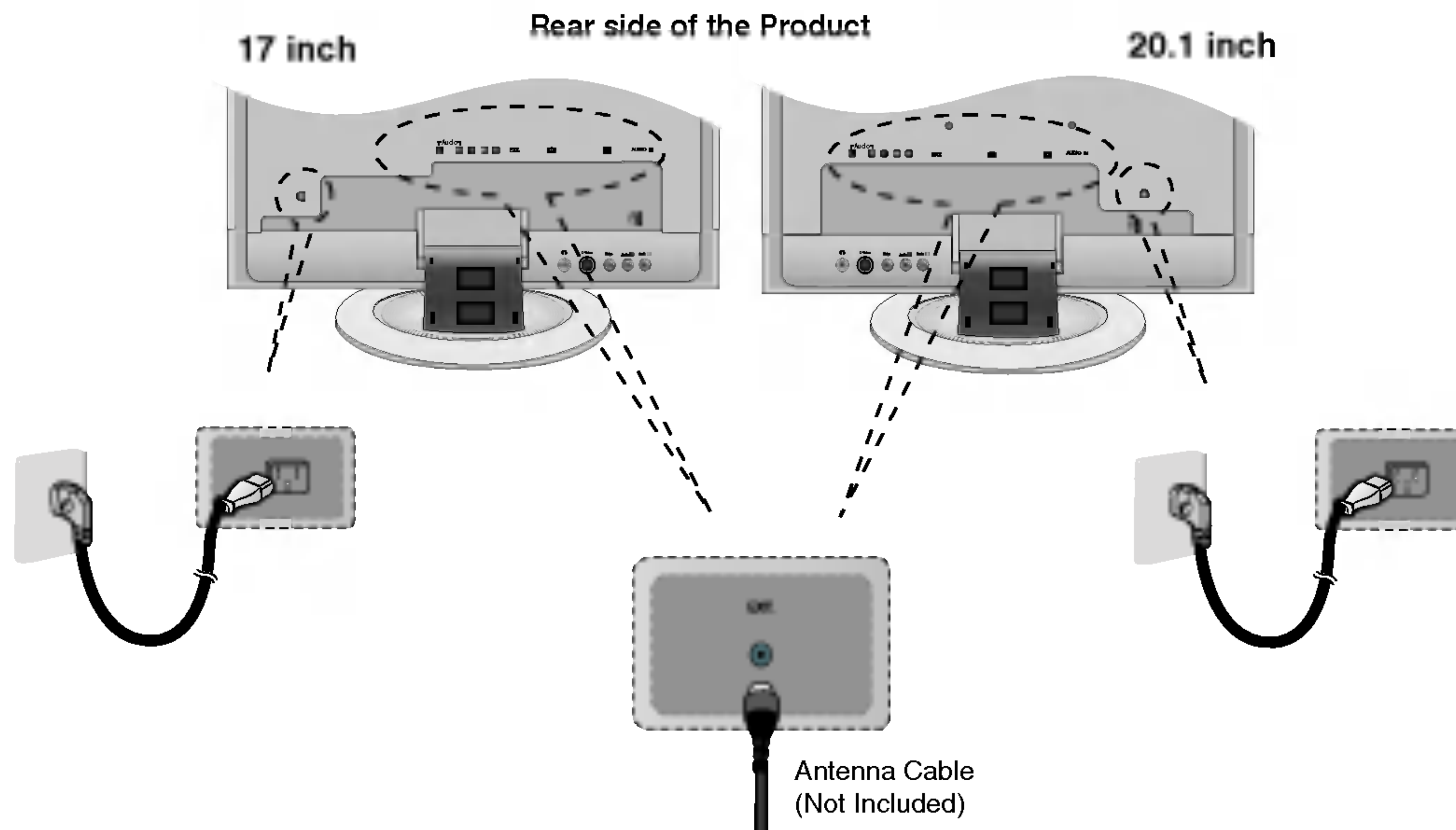


* Card Reader : Optional

Connecting to External Devices

■ ■ ■ When watching TV

- 1 See if the antenna cable is connected at the rear side of the product and then, connect the power cord.



- 2 Select an input signal.
Press the SOURCE button on the remote control to select the input signal.

SOURCE → ▼▲ → **SET**

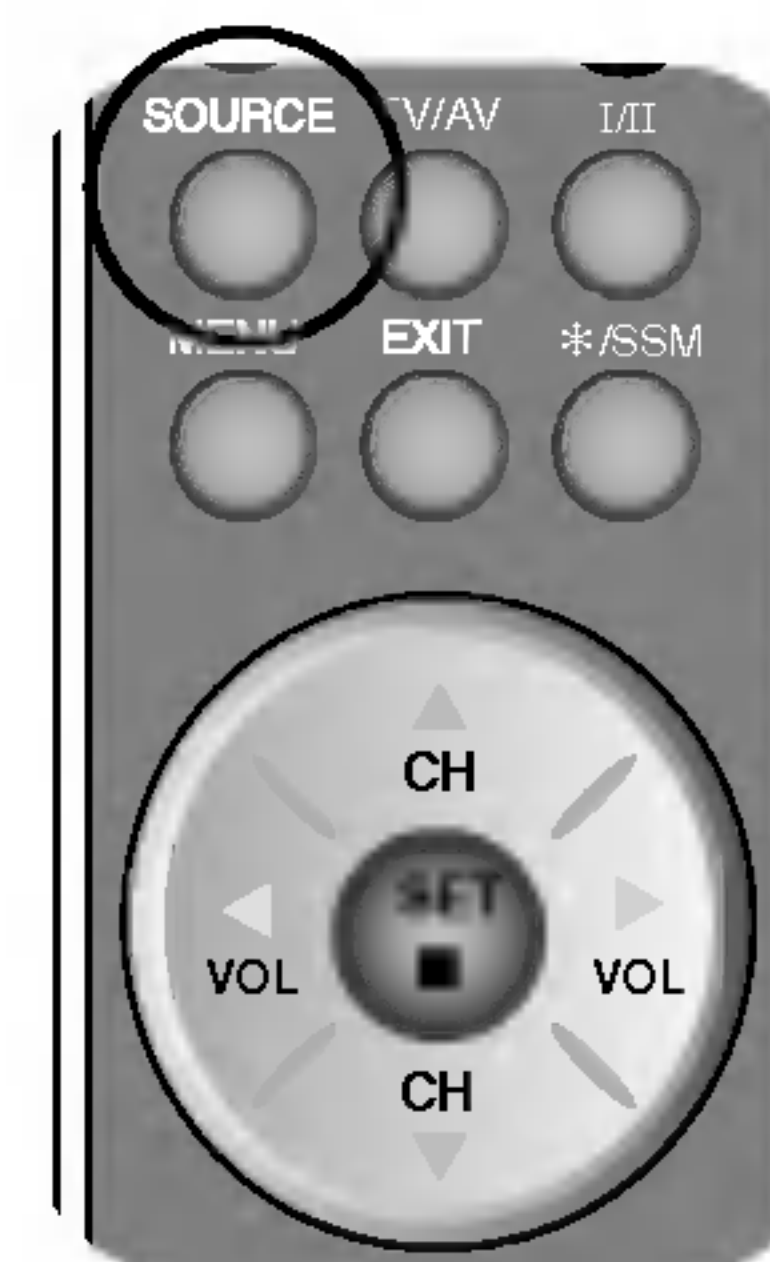
Or, press the SOURCE button at the front side of the product.

SOURCE → VΛ → **AUTO/SELECT**

- Select TV

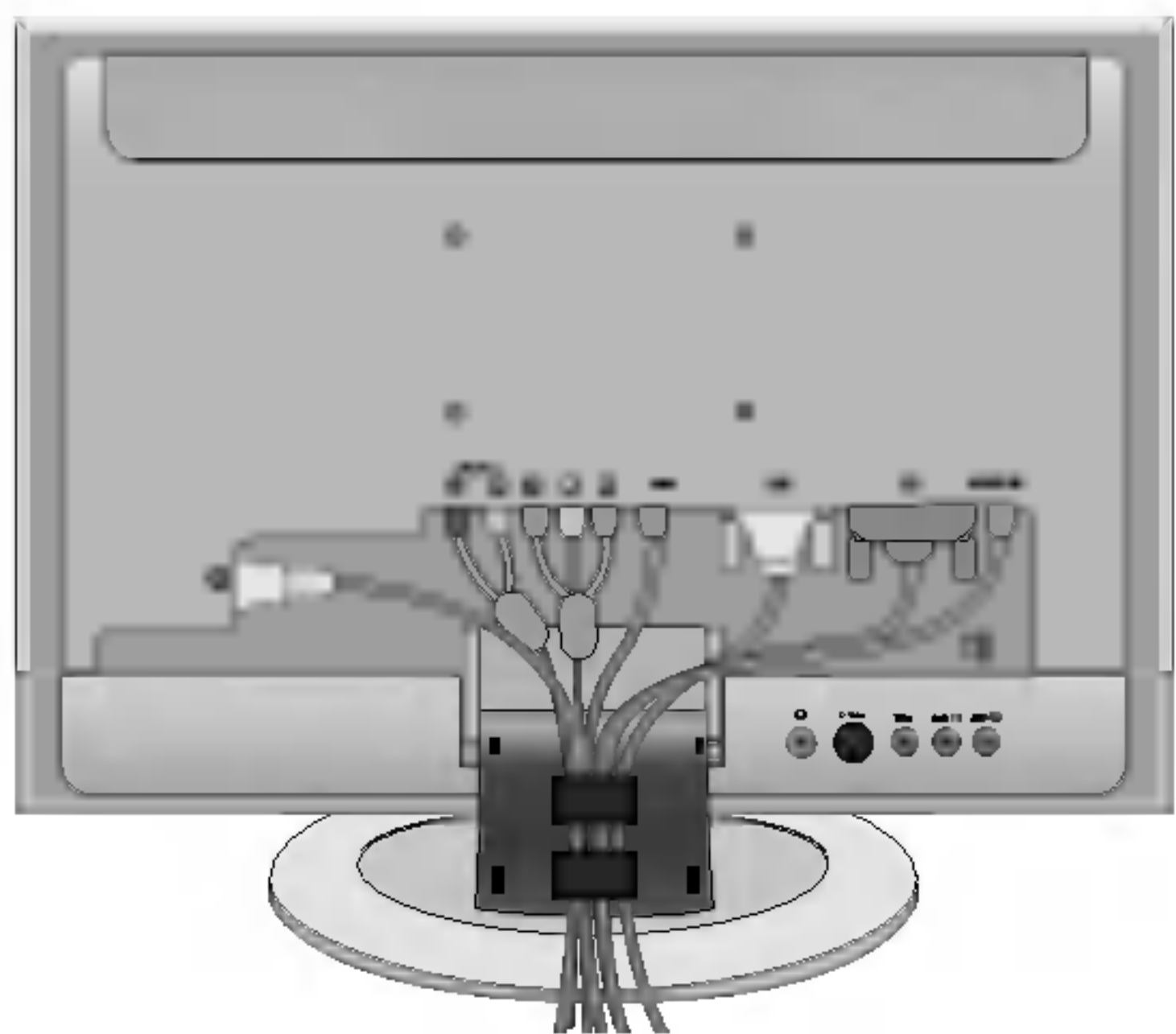


* Card Reader : Optional

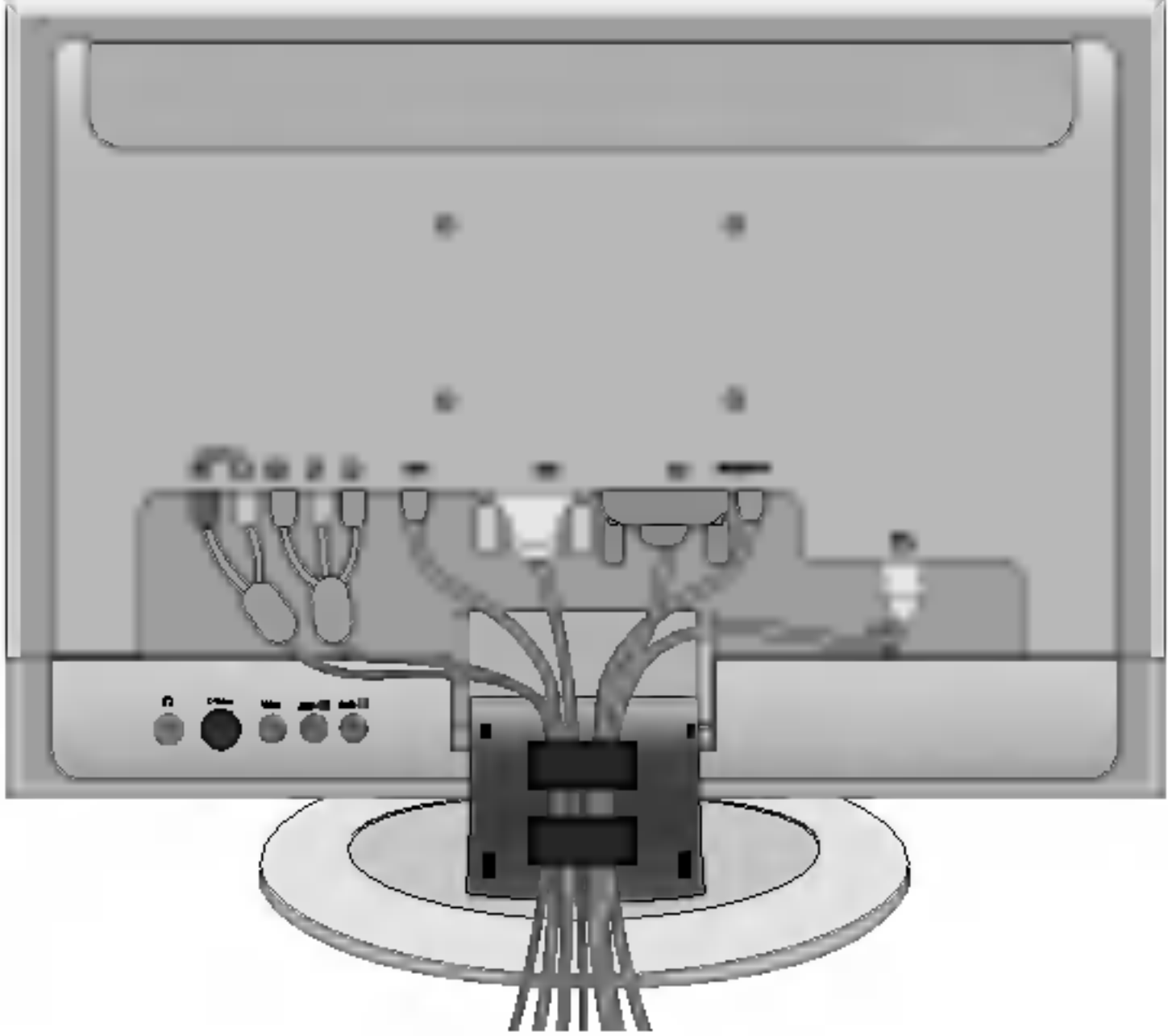


■ ■ ■ To arrange the cables

1 Connect the signal input cable and the audio cable to use in order to arrange the power cord, D-Sub cable and DVI-D cable as shown in the following figure.

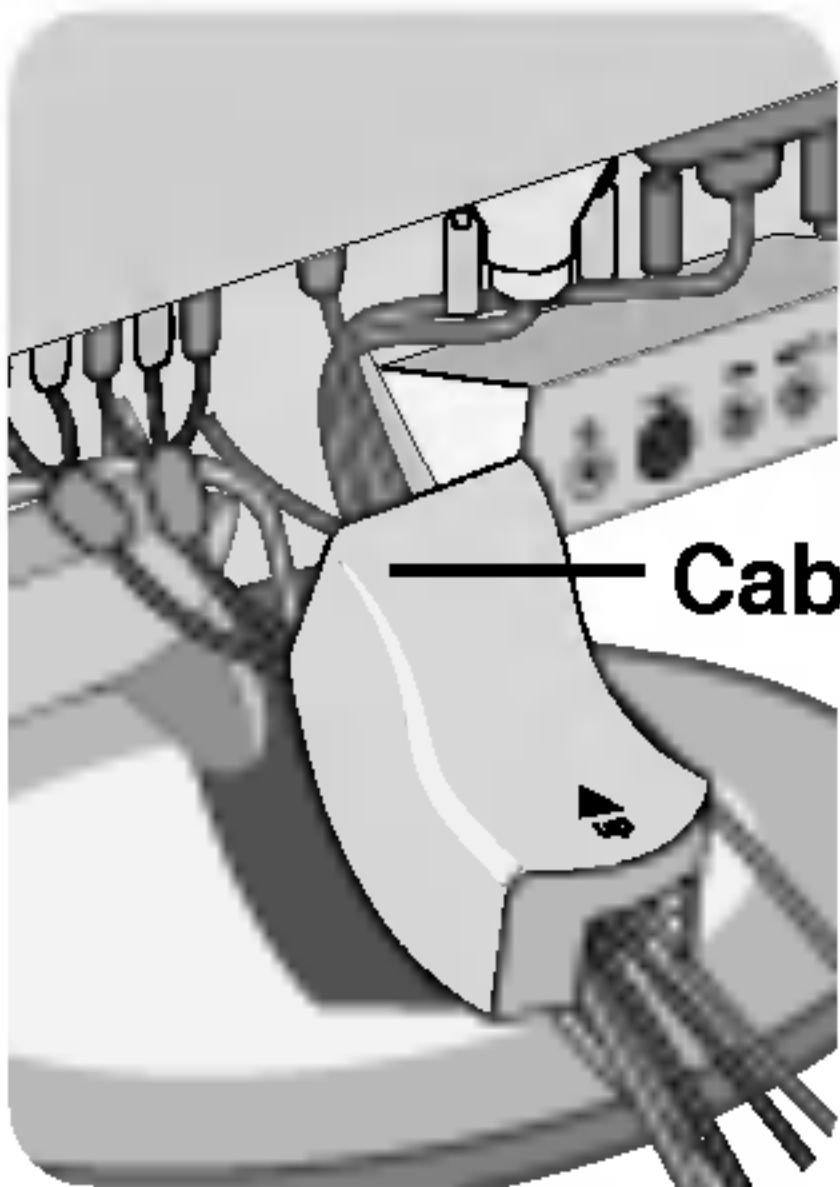
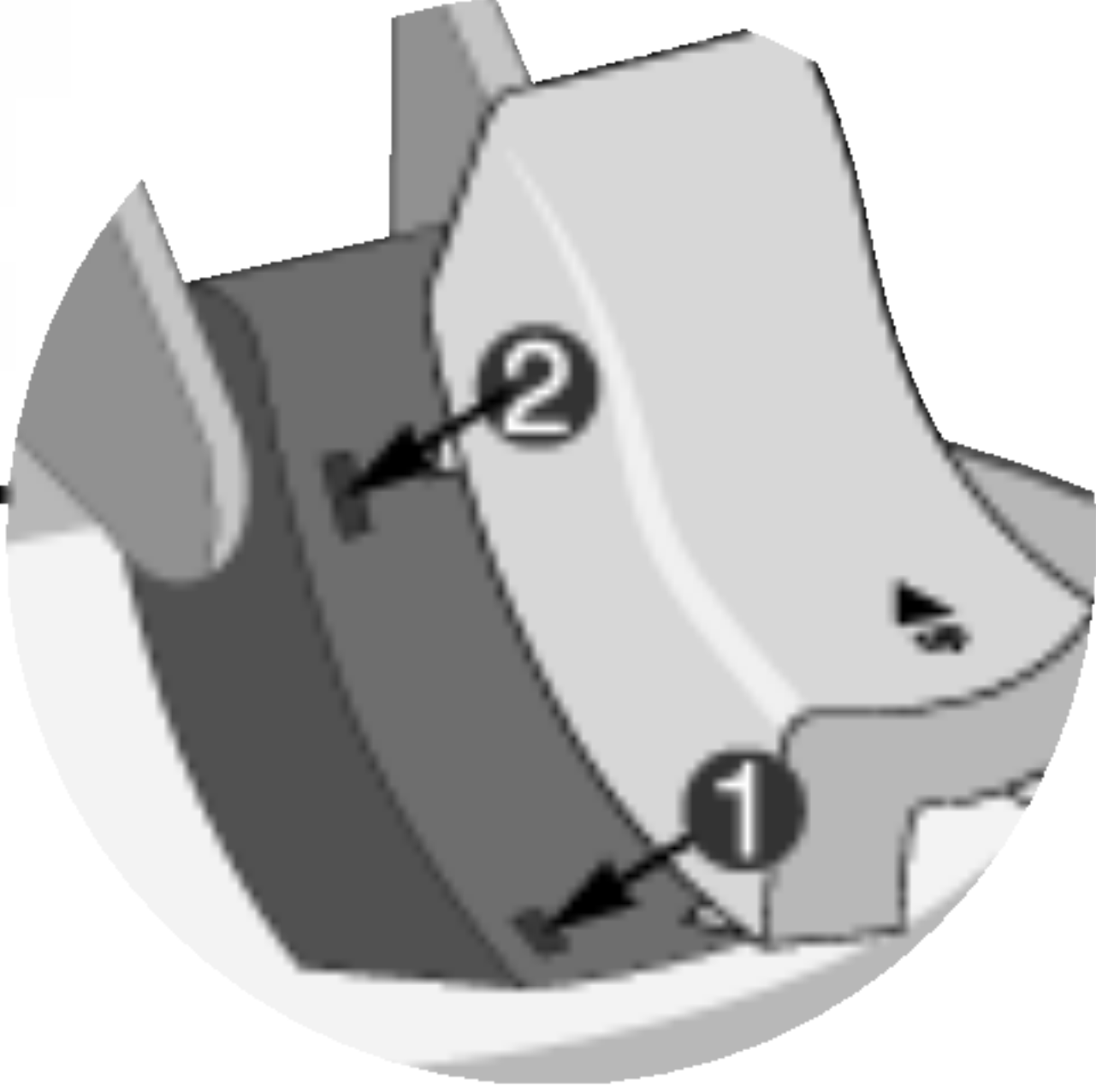
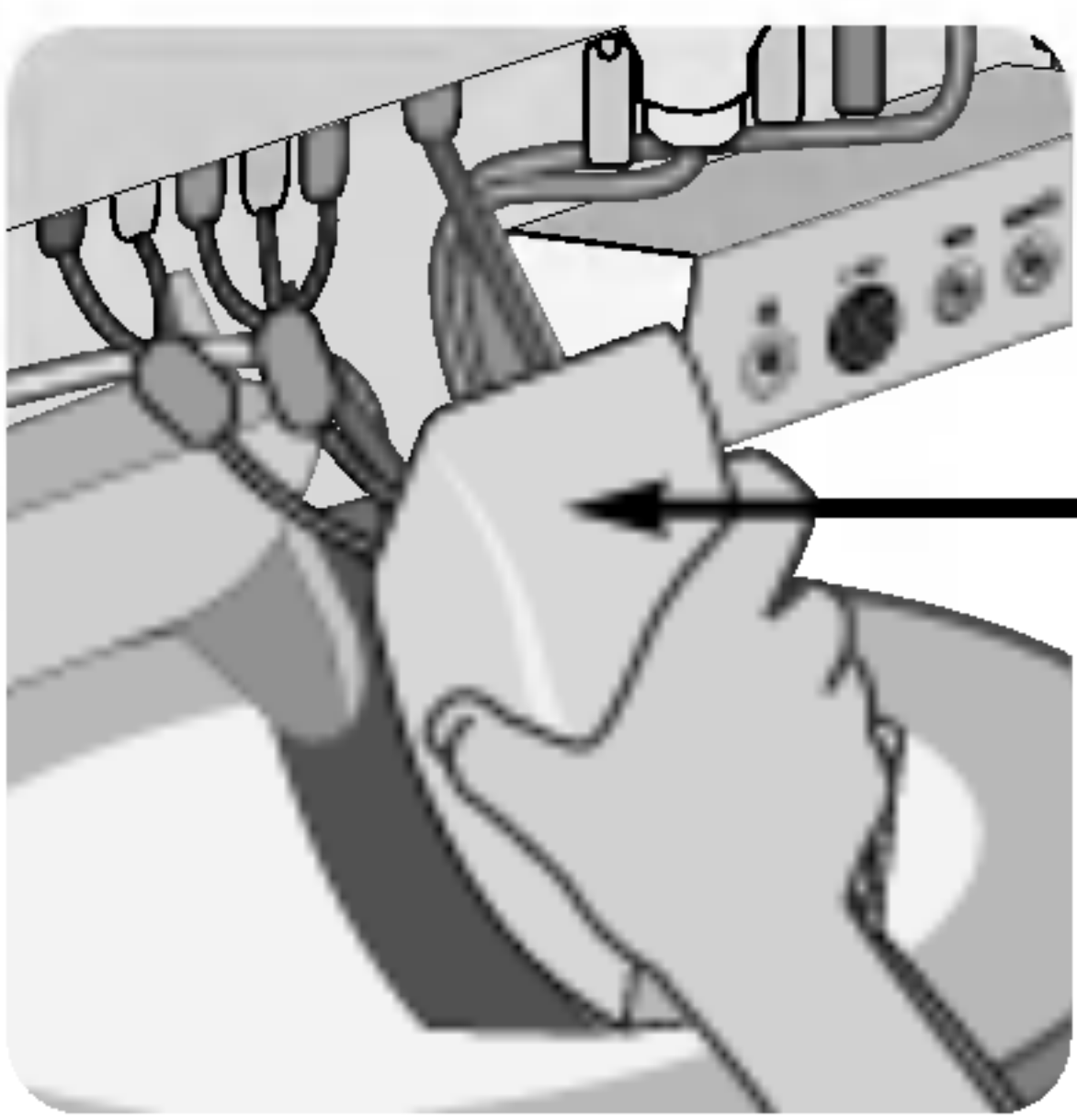


17 inch

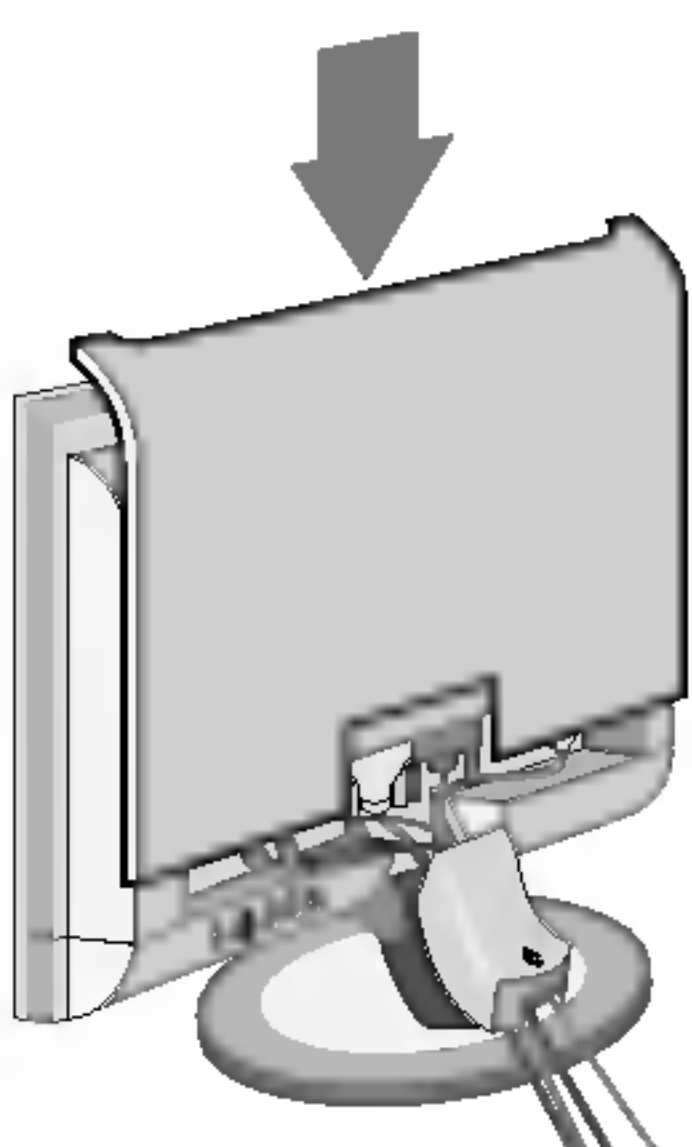


20.1 inch

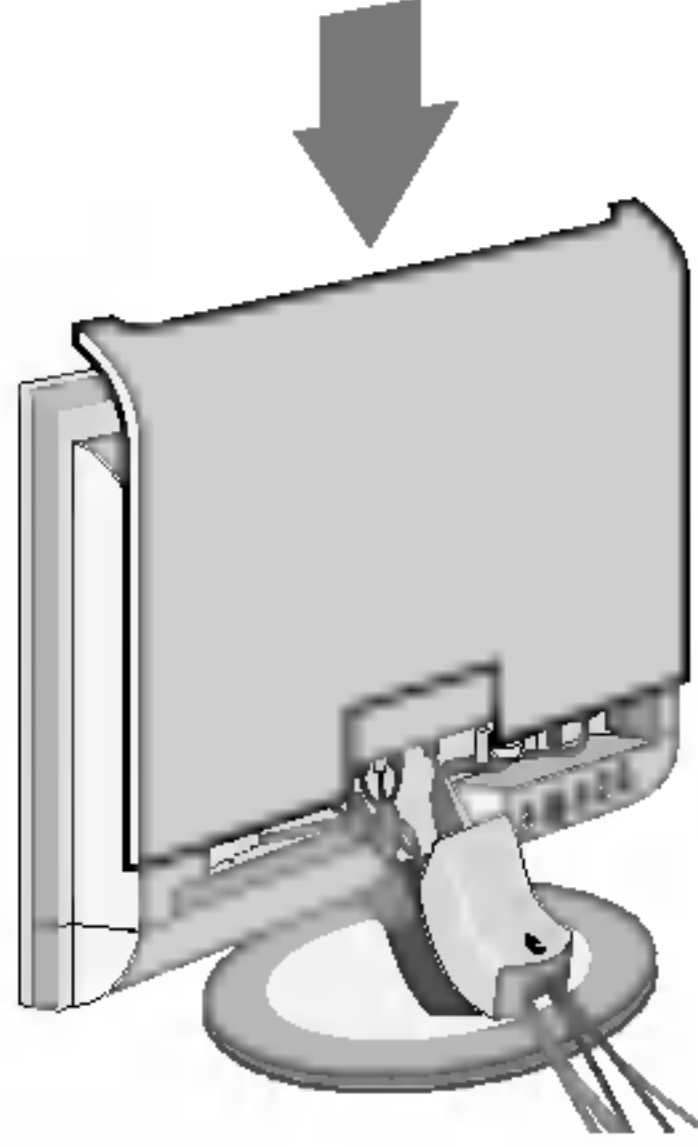
2 Connect the cable cap according to the steps shown in the following figure.



Cable Cap



17 inch



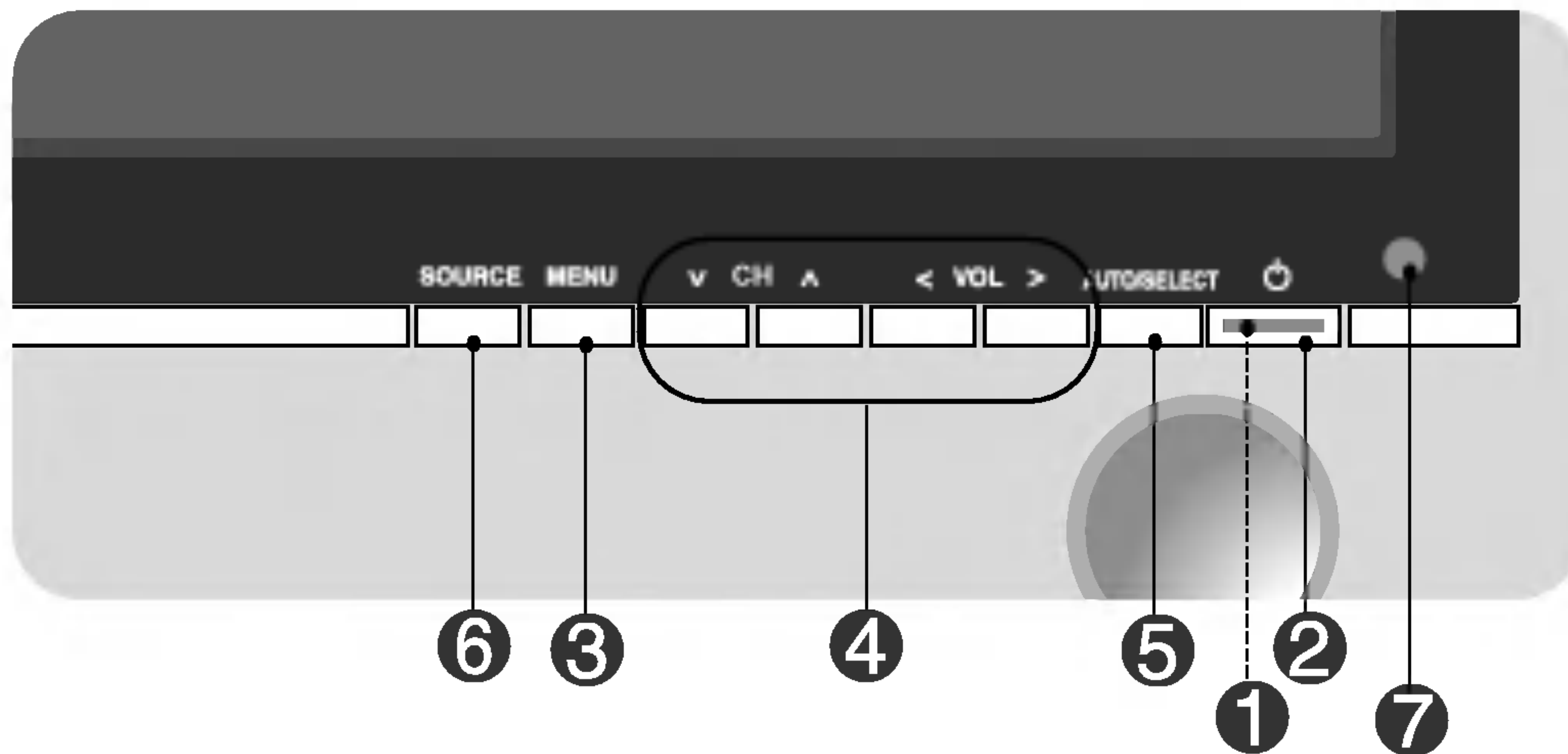
20.1 inch



To remove the cable cap, hold and pull forward its bottom.

Selecting and Adjusting the Screen

● Name of the Buttons in the Screen Adjustment Unit



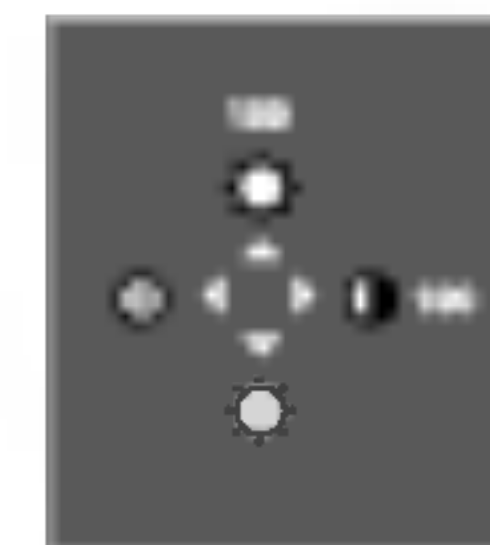
1 **Power Indicator** • This indicator lights up blue when the display operates normally(On Mode). If the display is in sleep (Energy Saving) mode, this indicator color changes to amber.

2 **Power Button** • Press the button to turn on the power. Press the button again to turn it off.

3 **MENU Button** • Use this button to show/hide the OSD (On Screen Display) menu screen.

4 **OSD Select / Adjust Button** • Use the button to select an icon or adjust the setting in the OSD screen.

- ▼▲ • Use this button to directly control brightness and contrast of the PC signal (RGB, DVI)
- Use this button to control the channel for the TV signal.



◀▶ • Adjust the volume.



● Name of the Buttons in the Screen Adjustment Unit

5

AUTO/SELECT Button

[For PC Analog signal]

Auto in progress
For optimal display
change resolution to 1280X768

[17 inch]

Auto in progress
For optimal display
change resolution to 1680X1050

[20.1 inch]

[For Video, Component, S-Video]

- The current signal and mode information will be displayed.

[When inputting DVD/Set-top box RGB and DVI]

- OK button and Auto button(AUTO/SELECT button) can be activated only 480p mode.

* for other resolutions

DVD/Set-top box input
No access

6

SOURCE Button

SOURCE → V A → AUTO/SELECT

- Select the input signal

TV	Television
Video	Composite video
S-Video	Separate Video
Component	Component signal
RGB	D-Sub analog signal
DVI	DVI digital signal
Card Reader	Media Manager



* Card Reader : Optional








7

IR Receiver

- The unit that receives the signal from the remote control.

Selecting and Adjusting the Screen

● OSD (On Screen Display) menu

Icon	Function Description
 STATION	Set/Selects the channel when using the TV.
 PICTURE	Adjusting the picture function.
 SOUND	Adjusting the sound function.
 TIMER	Adjusting the timer function.
 SPECIAL	Adjusts the screen status according to the circumstances.
 SCREEN	Adjusting the Screen Function.
 PIP/POP/PBP	PIP/POP/PBP Mode (Multiple Screen) Functions.

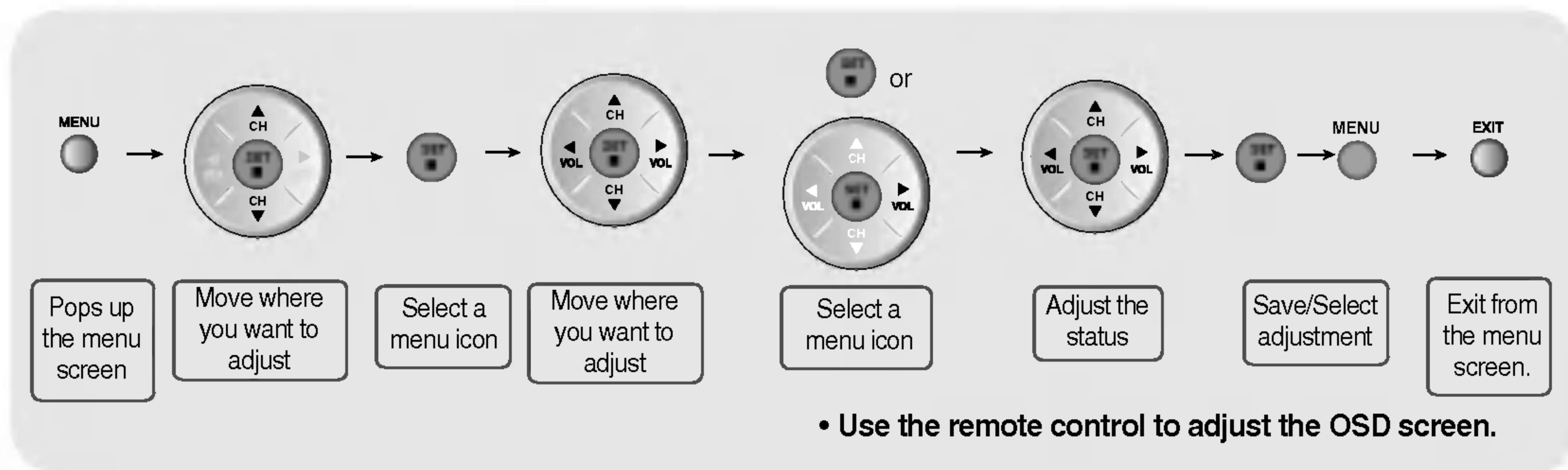


Note

OSD(On Screen Display)

The OSD function enables you to adjust the screen status conveniently since it provides graphical presentation.

● How to adjust the OSD (On Screen Display) screen.



- 1 Press the **MENU** Button, then the main menu of the OSD appears.
- 2 To access a control, use the ▼▲ Buttons.
- 3 When the icon you want becomes highlighted, press the **SET** Button.
- 4 Use the ▼▲◀▶ Buttons to adjust the item to the desired level.
- 5 Accept the changes by pressing the **SET** Button and **MENU** Button.
- 6 Exit the OSD by pressing the **EXIT** Button.

● How to adjust the screen automatically.

You need to adjust the screen display when connecting the product to a new computer or changing the mode. Refer to the following section to set an optimal product screen.

Press the **AUTO/SELECT** button (**AUTO** button in a remote control) in the PC analog signal. Then, an optimal screen status will be selected that fits into the current mode.

If adjustment is not satisfactory, you need to adjust screen position, clock and phase in the OSD menu.

Auto in progress
For optimal display
change resolution to 1280X768

[17 inch]

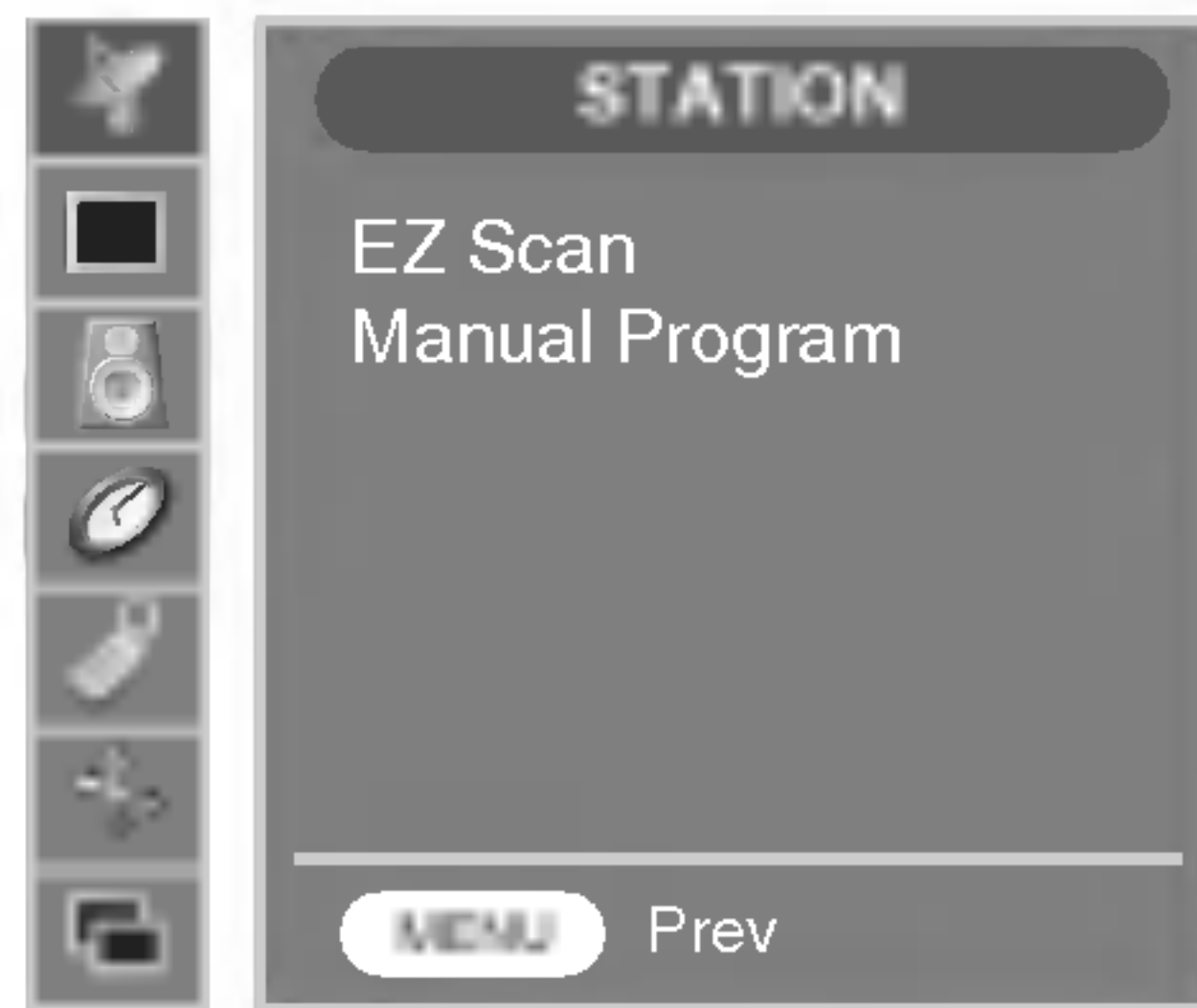
Auto in progress
For optimal display
change resolution to 1680X1050

[20.1 inch]

Selecting and Adjusting the Screen



Set/Selects the channel when using the TV



EZ Scan

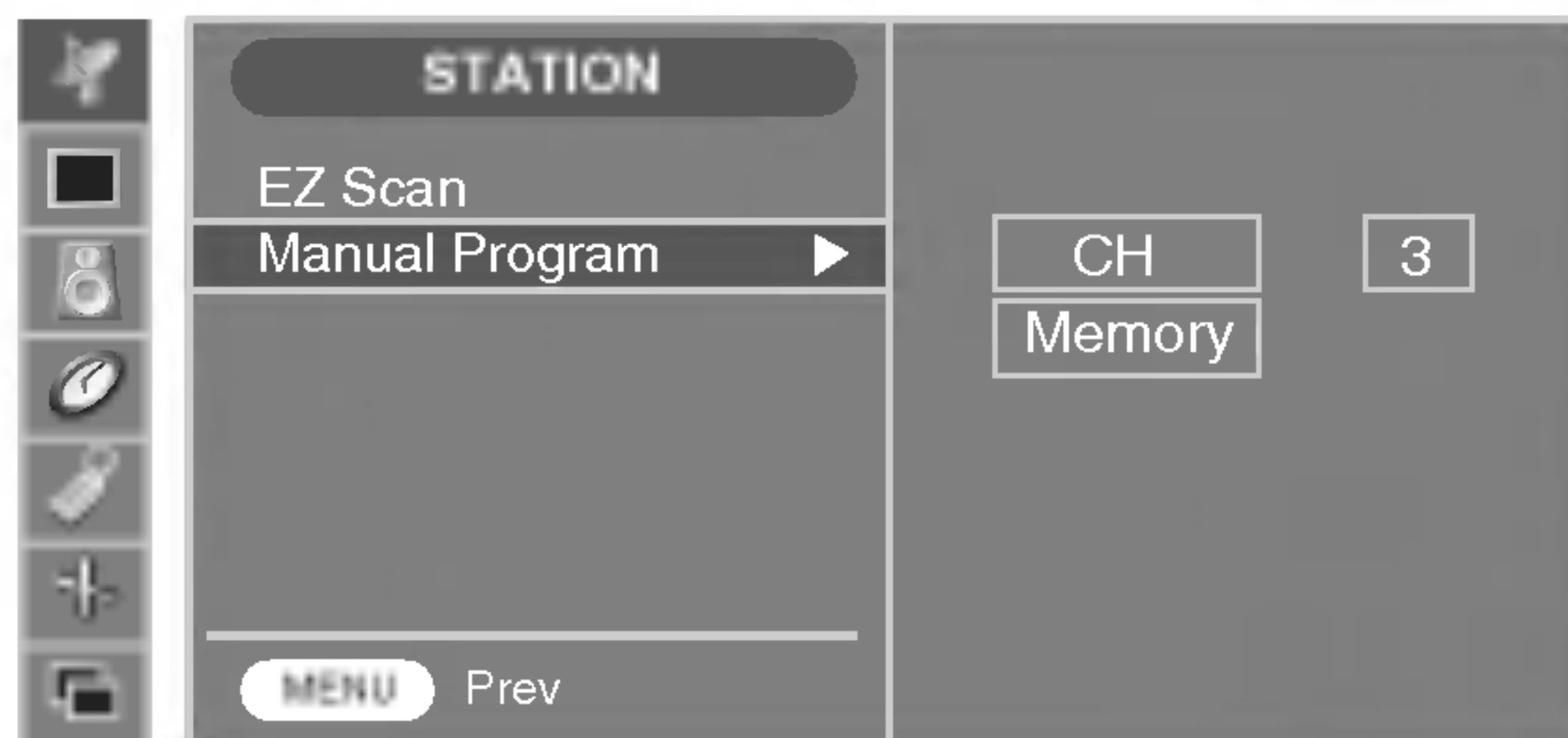


To automatically search the available TV channels.

To Start Press ►/SET button to start automatic programming. all available TV channels are searched and stored automatically.
To stop auto CH progress, press the **MENU** button.

- Wait for auto CH progress to complete the channel search cycle before choosing a channel. The TV scans for over-the-air channels and then channels provided by a cable service.

Manual Program



Channel Press ► button and then use ◀ ► button to select the channel.

Memory / Erase User can do manual channel selection and store or erase individual channels. Press ► button and then use ◀ ► button to select a channel you want to add to memory or erase. Press the ▼ button and then use ◀ ► button to select **Memory**(add) or **Erase**(delete).

Adjusting the picture function

EZ Video



TV/Video/S-Video/Component input only

The **EZ Video** function automatically adjusts the screen image quality depending on the AV/TV usage environment.

- **Dynamic** : Select this option to display with a sharp image.
- **Standard** : The most general and natural screen display status.
- **Mild** : Select this option to display with a mild image.
- **Game** : Select this option to enjoy dynamic image when playing a game.
- **User** : Select this option to use the user-defined settings.



Contrast

To adjust the contrast of the screen.

Brightness

To adjust the brightness of the screen.

Color

To adjust the color to desired level.

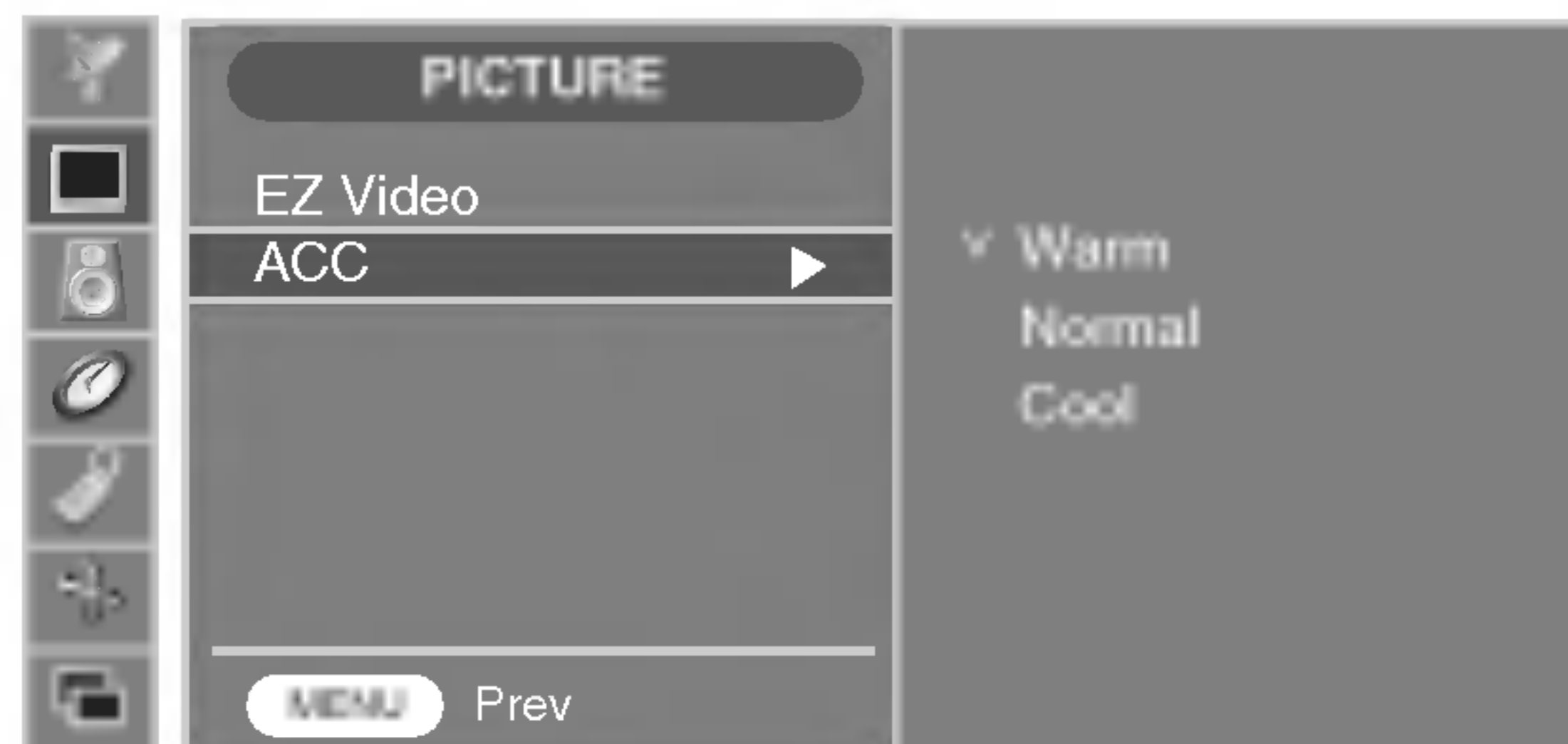
Sharpness

To adjust the clearness of the screen.

Tint

To adjust the tint to desired level.
(only 60Hz signal)

ACC



TV/Video/S-Video/Component input only

Selecting a factory setting color set.

- **Warm** : Slightly reddish white.
- **Normal** : Slightly bluish white.
- **Cool** : Slightly purplish white.



Note

If the input is **RGB**(D-Sub analog)/**DVI**(DVI Digital), the adjustable items in the ACC function are color temp (**Warm/Normal/Cool**).

If the **EZ Video** setting in the Picture menu is set to **Dynamic**, **Standard**, **Mild** or **Game** the subsequent menus will be automatically set.

Selecting and Adjusting the Screen

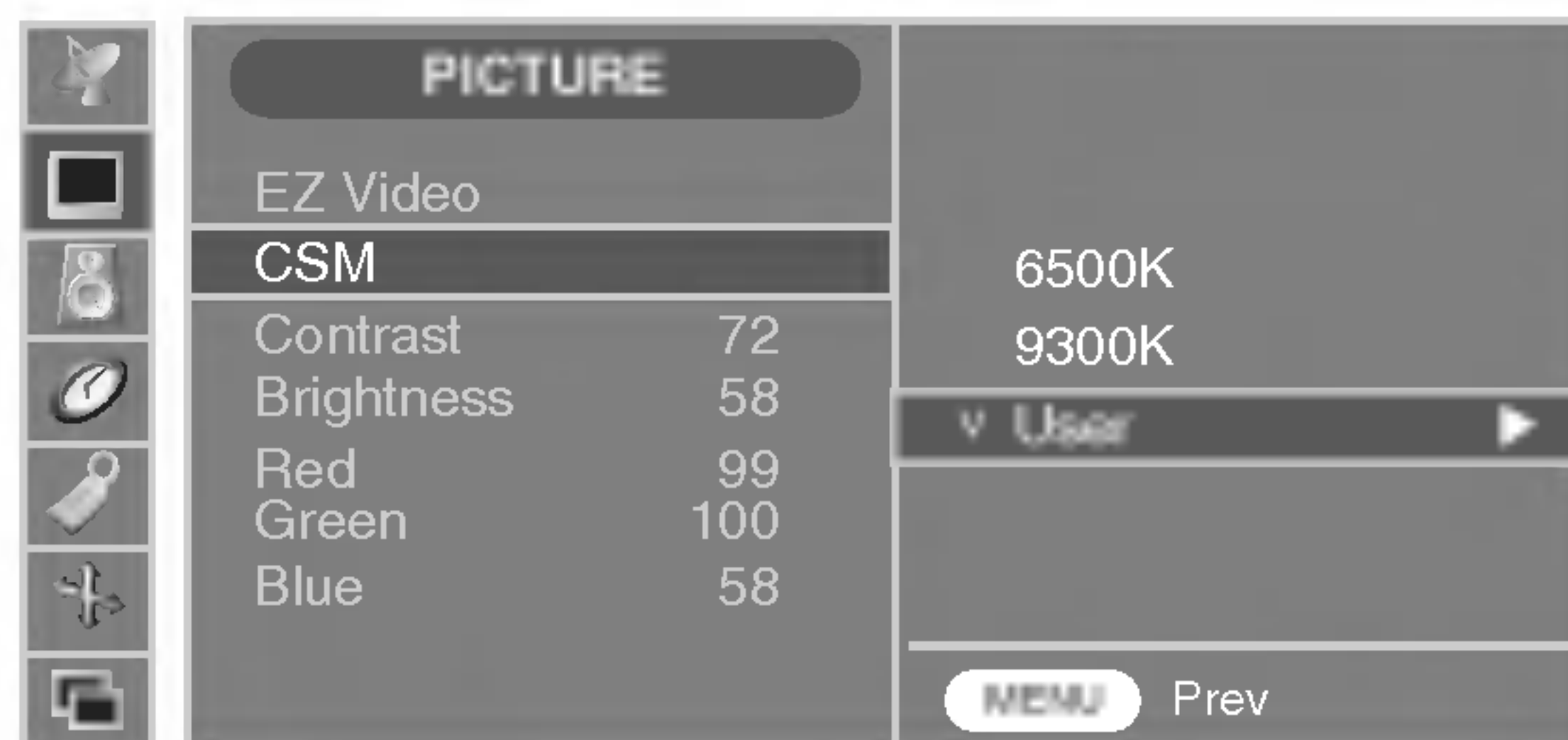
Adjusting the picture function

CSM

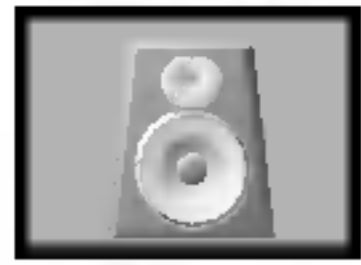


RGB/ DVI input only

- **6500K/9300K**
Selecting a factory setting color set.
6500K: Slightly reddish white.
9300K: Slightly bluish white.
- **User** : Select this option to use the user-defined settings.



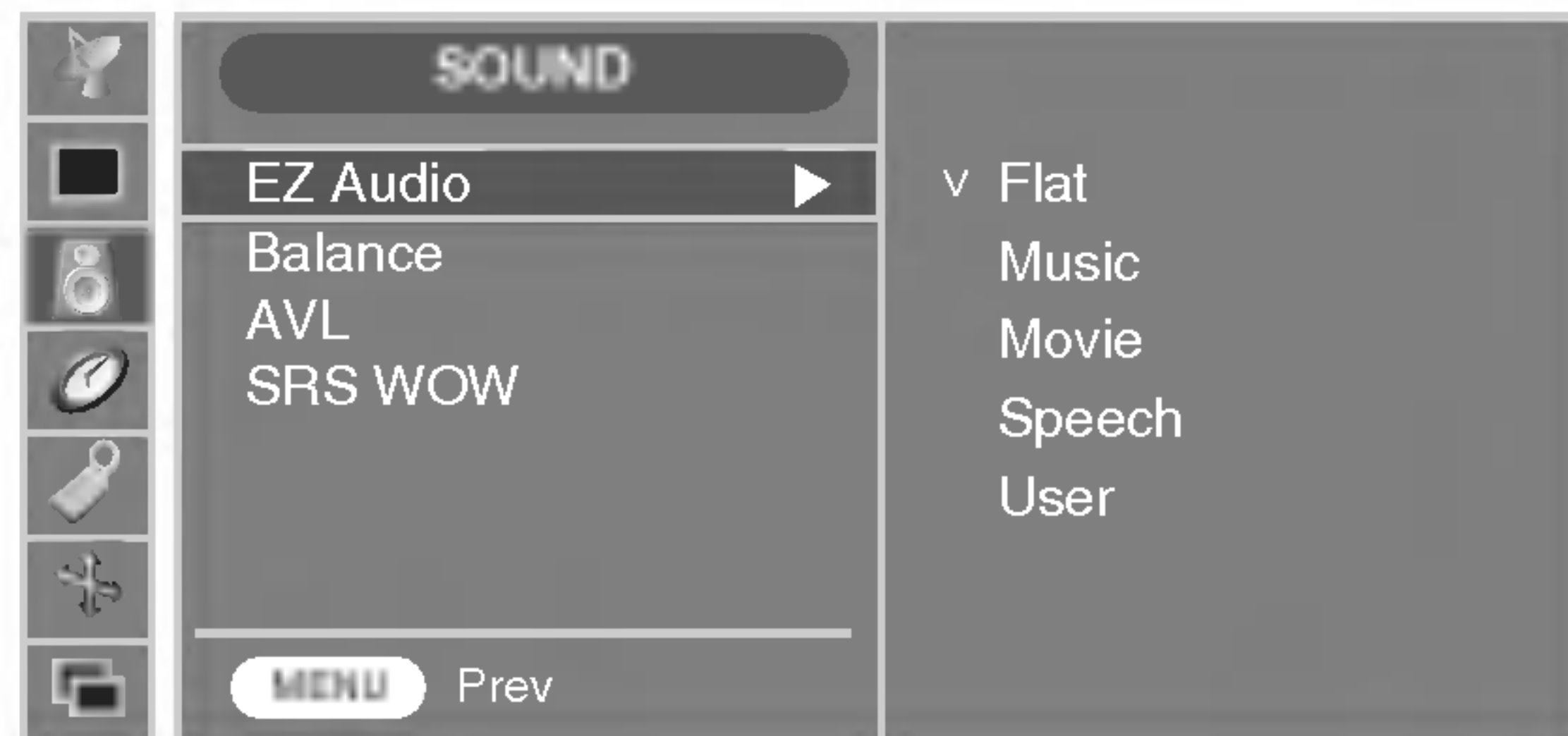
- **Contrast**
To adjust the contrast of the screen.
- **Brightness**
To adjust the brightness of the screen.
- **Red / Green / Blue**
Set your own color levels.



Adjusting the sound function

ENGLISH

EZ Audio



The best sound tone quality will be selected automatically depending on the video type that you're currently watching.

- **Flat**
The most commanding and natural audio.
- **Music**
Select this option to enjoy the original sound when listening to the music.
- **Movie**
Select this option to enjoy sublime sound.
- **Speech**
Select this option to watch sports broadcasting.
- **User**
Select this option to use the user-defined audio settings.



Equalizer

- 1) Press the **MENU** button and then use **▲▼** button to select the **SOUND** menu.
- 2) Press the **▶** button and then use **▲▼** button to select the **EZ Audio** menu.
- 3) Press **▶** button and then use **▲▼** button to select **User**.
- 4) Press **▶** button and then use **◀▶** button to select the band. Then press the **▲▼** button to adjust the band level.

- Balance** Use this function to balance sound from the left and right speakers.
- AVL** To adjust uneven sound volumes across all channels or signals automatically to the most appropriate level. To use this feature, select On.
- SRS WOW** Set the SRS WOW menu on.
The SRS WOW function plays back the mono or stereo sound input with the dynamic surround effects. It will provide rich and profound sound tone. If you set the SRS WOW on, user audio setting can not be adjusted.



Note

When connected to your computer and the 'EZ Audio' setting in the audio menu is one of Flat, Movie, Music or Speech, the available menus are Balance, SRS WOW.

Selecting and Adjusting the Screen



Adjusting the timer function

Clock



Auto Clock Setup

This function is used to set up of current time.

You must set the time correctly before using on/off timer function.

- 1) Press the **MENU** button and then use **▲▼** button to select the **TIMER** menu.
- 2) Press the **▶** button and then use **▲▼** button to select the **Clock** menu.
- 3) Press **▶** button and then use **▲▼** button to select **Auto**.
- 4) Press **▶** button and then use **◀▶** button to select the time zone for your viewing area. Your choices are : **AUTO**, **E.S.T**(Eastern Standard Time), **C.S.T**(Central Standard Time), **M.S.T**(Mountain Standard Time), **P.S.T**(Pacific Standard Time), **Alaska and Hawaii**.
- 5) Press **▼** button and then use **◀▶** button to set PBS channel.
- 6) Press **▼** button and then use **◀▶** button to set **D.S.T** (Daylight Savings Time) **Auto**, **Off** or **On**, depending in whether or not your viewing area observes Daylight Savings Time.
- 7) Press **SET** button to save.

Manual Clock Setup

You must set the time correctly before using on/off timer function.

- 1) Press the **MENU** button and then use **▲▼** button to select the **TIMER** menu.
- 2) Press the **▶** button and then use **▲▼** button to select the **Clock** menu.
- 3) Press **▶** button and then use **▲▼** button to select **Manual**.
- 4) Press **▶** button and then use **▲▼** button to set the hour(01~12).
- 5) Press **▶** button and then use **▲▼** button to set the minutes(00~59).
- 6) Press **▶** button and then use **▲▼** button to set the morning(AM) or afternoon(PM).
- 7) The default value is __:__.

Off / On Timer

(TV/Video/S-Video/Component input only)

The **Off timer** automatically switches the set to off mode at the pre-set time.

- 1) Press the **MENU** button and then use **▲▼** button to select the **TIMER** menu.
- 2) Press the **▶** button and then use **▲▼** button to select **Off timer** or **On timer**.
- 3) Press the **▶** button and then use **▲▼** button to set the hour(01~12).
- 4) Press the **▶** button and then use **▲▼** button to set the minutes(00~59).
- 5) Press **▶** button and then use **▲▼** button to set the morning(AM) or afternoon(PM).
- 6) Press the **▶** button and then use **▲▼** button to select **On** or **Off**.
- 7) Only **On timer** function; Press the **▶** button and then **▲▼** button to adjust volume level and channel number.
- 8) Press the **SET/MENU** button to save.

Auto Off

(TV/Video/S-Video/Component input only)

If **Auto Off** is active and there is no input signal, the TV switches to off mode automatically after 10 minutes.

- 1) Press the **MENU** button and then use **▲▼** button to select the **Auto Off** menu.
- 2) Press the **▶** button and then use **▲▼** button to select **On** or **Off**.
- 3) Press the **SET/MENU** button to save .



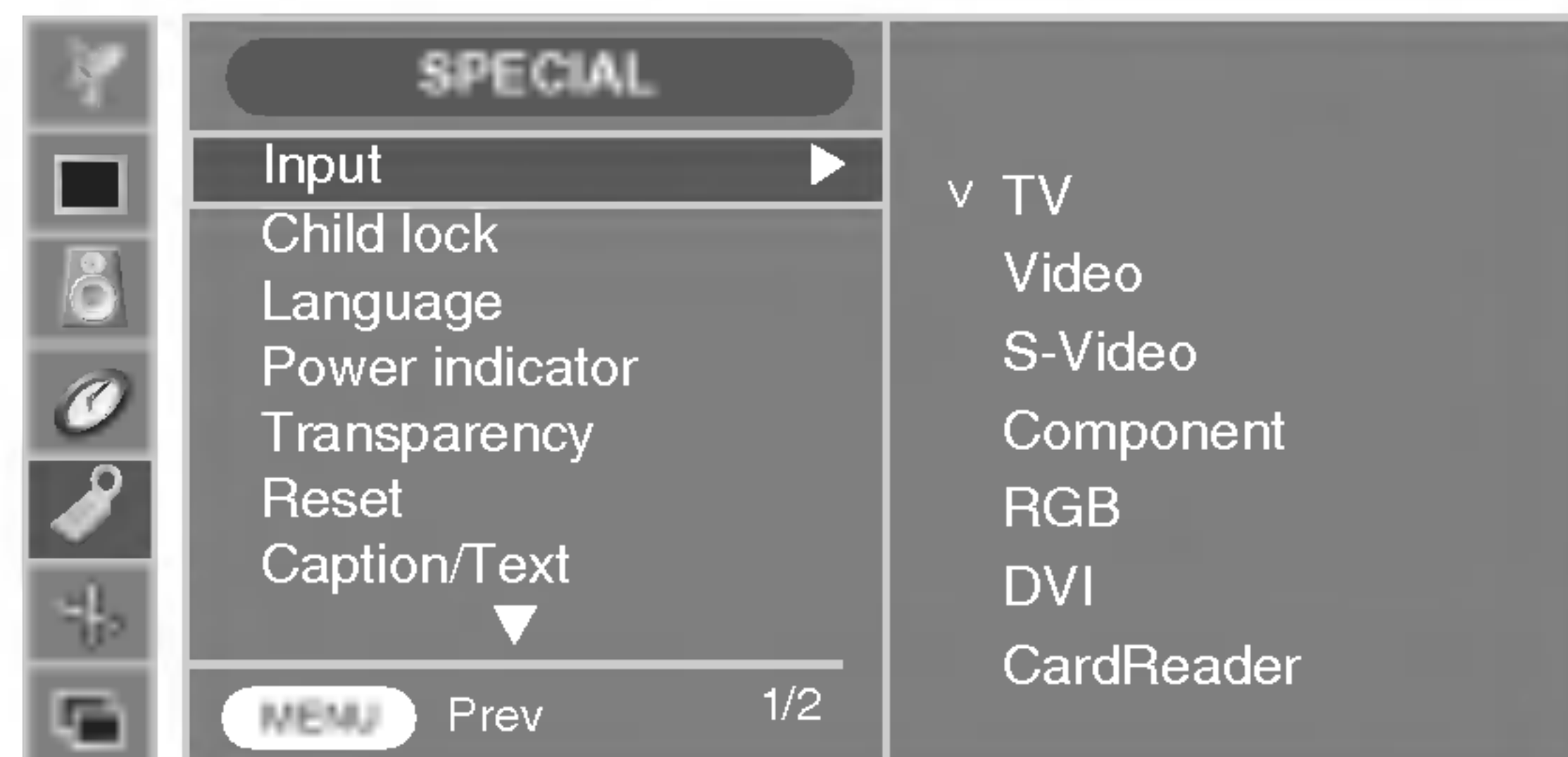
Note

- In the event of power interruption (disconnection or power failure), the **Clock** must be reset.
- Two hours after the set is switched on by the on time function it will automatically switch back to off mode unless a button has been pressed.
- Once the **On** or **Off time** is set, these functions operate daily at the preset time.
- The set must be in off mode for the **On timer** to work.



Adjusts the screen status according to the circumstances

ENGLISH



* Card Reader : Optional

- Input** If you press the ► button once, the following Input Signal Window will appear. Select the signal type you want using the ▲▼ button.
- Child lock** Use the ▲▼ buttons to select **On** or **Off**. It can be set up so that it can only be used with the remote control. This feature can prevent unauthorized viewing. In order to lock the OSD screen adjustment, set the Child lock tab to the 'On' position. In order to unlock it, do the following
* Push the **MENU** button on the remote control and set Child lock to the 'Off' position.
- Language** To choose the language in which the control names are displayed.
- Power Indicator** Use this function to set the power indicator on the front side of the product to **On** or **Off**. If you set **Off**, it will go off after 15 seconds when the power is turned on. If you set **On** at any time, the power indicator will automatically be turned on and the source is changed.
- Transparency** Use this function to adjust the transparency of the OSD menu screen.
- Reset** Use this function to reset the product to the factory default. However, language selection and parental (vchip) will not be initialized.
- Caption / Text** Use the ▼▲ buttons to select caption mode. Text services give a wide variety of information on all kind of subjects(ex. captioned program lists, weather forecasts, stock exchange topics, news for hearing-impaired....) on up to half of the TV screen. But not all stations offer text services, even though they might offer captioning. In the event you are receiving a poor signal, an empty black box may appear and disappear, even when the text mode is selected. This is a normal when receiving a poor signal. This TV is programmed to remember the **Caption/Text** mode it was last set to, when you turn the power off.

Selecting and Adjusting the Screen



Adjusts the screen status according to the circumstances

Caption



Use the ▲▼ buttons to select captions.

[Remote Control]

■ Press the **Caption** button repeatedly to display the caption option as shown below. Press the **SET** button to select the caption option.

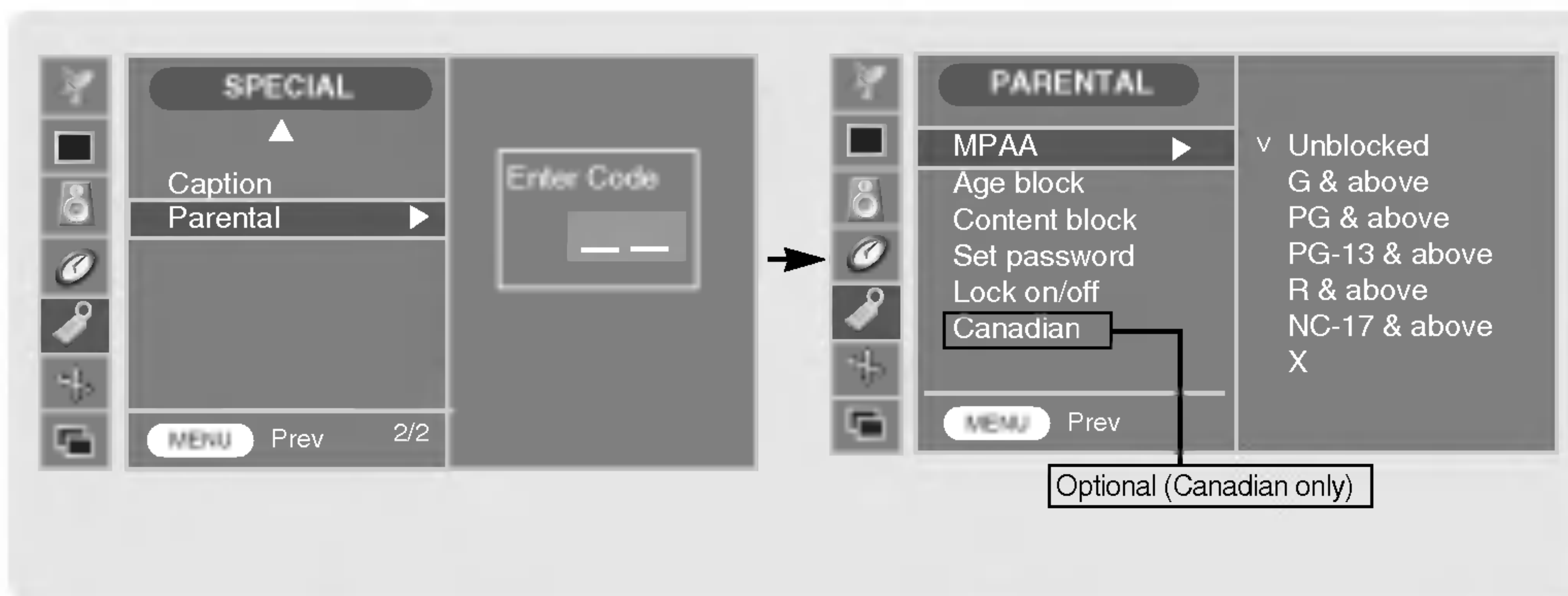


* EZ Mute

: If sound is on, the caption will be off. On the contrary, if sound is off, the caption will be on.

Parental

This function is used to block program viewing based on the ratings sent by the broadcast station. The default setting is to allow all programs to be viewed. Viewing can be blocked by the type of program and by the categories chosen to be blocked. It is also possible to block all program viewing for a time period.



Select the **PARENTAL** menu and click ► button. The **'Enter Code'** window will appear. Once the correct four-digit password is entered, sub-menu that allows a user to control various blocks will be enabled. The initial password is set for '0000' and it can be changed through **'Set Password'** menu.

PAGE A33



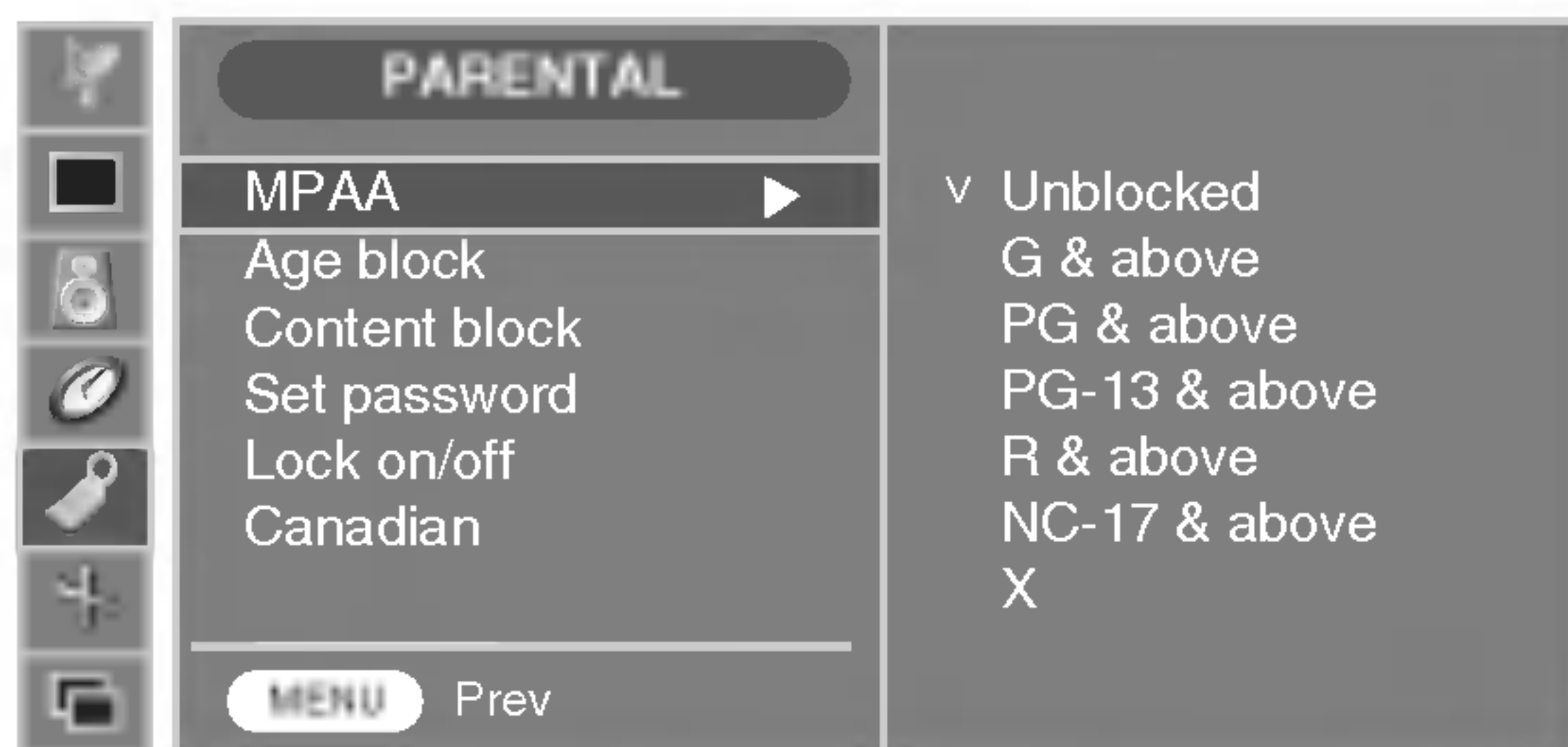
Adjusts the screen status according to the circumstances (To adjust the CAPTION & VCHIP function)

■ V-CHIP rating and categories

- Rating guidelines are provided by broadcast station. Most television programs and television movies can be blocked by TV rating and/or individual categories. Movies that have been shown at the theaters or direct-to-video movies use the Movies Rating System(MPAA) only.

■ For movies previously shown in theaters.

MPAA

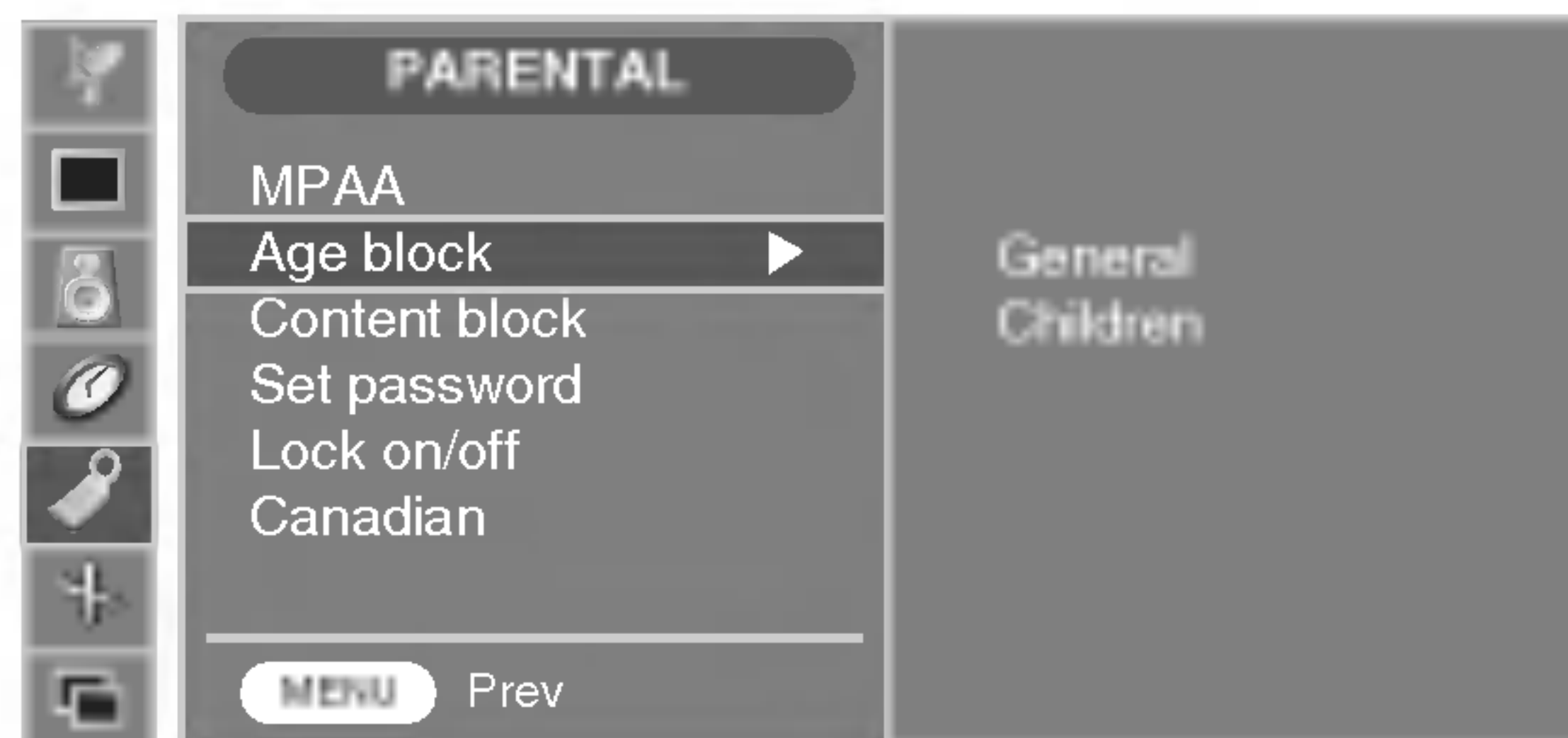


■ MOVIE Ratings :

- Unblocked
- G&above : General audience
- PG&above : Parental guidance suggested
- PG-13&above : 13 years and up
- R&above : Restricted
- NC-17&above : 17 years and up
- X : Adult

If you set PG-13&above, G and PG movies will be available : PG-13, R, NC-17, and X will be blocked.

Age Block



■ GENERAL TV Rating :

- Unblocked
- TV-G&above : General audience / Individual categories do not apply.
- TV-PG&above : Parental guidance suggested
- TV-14&above : 14 years and up
- TV-MA : Mature audience

■ CHILDREN TV Rating :

- Unblocked
- TV-Y&above : Youth/Individual content categories do not apply.
- TV-Y7 : Youth, 7 years and up.

Selecting and Adjusting the Screen

 Adjusts the screen status according to the circumstances
(To adjust the CAPTION & VCHIP function)



■ CONTENT Categories :

- | | |
|---------------------------------|---|
| - Dialogue(sexual dialogue) | : Applies to TV-PG&above, TV-14&above. |
| - Language(adult language) | : Applies to TV-PG&above, TV-14&above, TV-MA. |
| - Sex scene (sexual situations) | : Applies to TV-PG&above, TV-14&above, TV-MA. |
| - Violence | : Applies to TV-PG&above, TV-14&above, TV-MA. |
| - F Violence(fantasy violence) | : Applies only to TV-Y7. |

Set Password This menu is to be used to change password. Once the correct current password is entered using the number panel in a remote control, the window for new password will appear. Enter your choice of new four-digit password.

Lock On/Off To select the VCHIP function ON/OFF.

Setting a password

You control access to the parental controls with a password. The default password is '0000'. You can change the password to any four-digit number.

1. Open the OSD. -> Press the ▲▼ buttons to select the **SPECIAL** menu, then press the ► button to open the menu. -> Press the ▲▼ buttons to select the **PARENTAL** sub-menu, then press the ► button to open the sub-menu.
2. Use the number pad to enter your password when prompted.
If you have not set a password, enter **0000**.
If you are unable to correct the problem yourself, contact the service center.
3. Press the ▲▼ buttons to select the **Set Password** sub-menu,
then press the ► button to change the setting. Use the number button pad to enter a new four-digit password when prompted.
4. Re-enter the new four-digit password when prompted.

Set Password

— — — —

Enter New Code

— — — —

Re-enter Code

— — — —



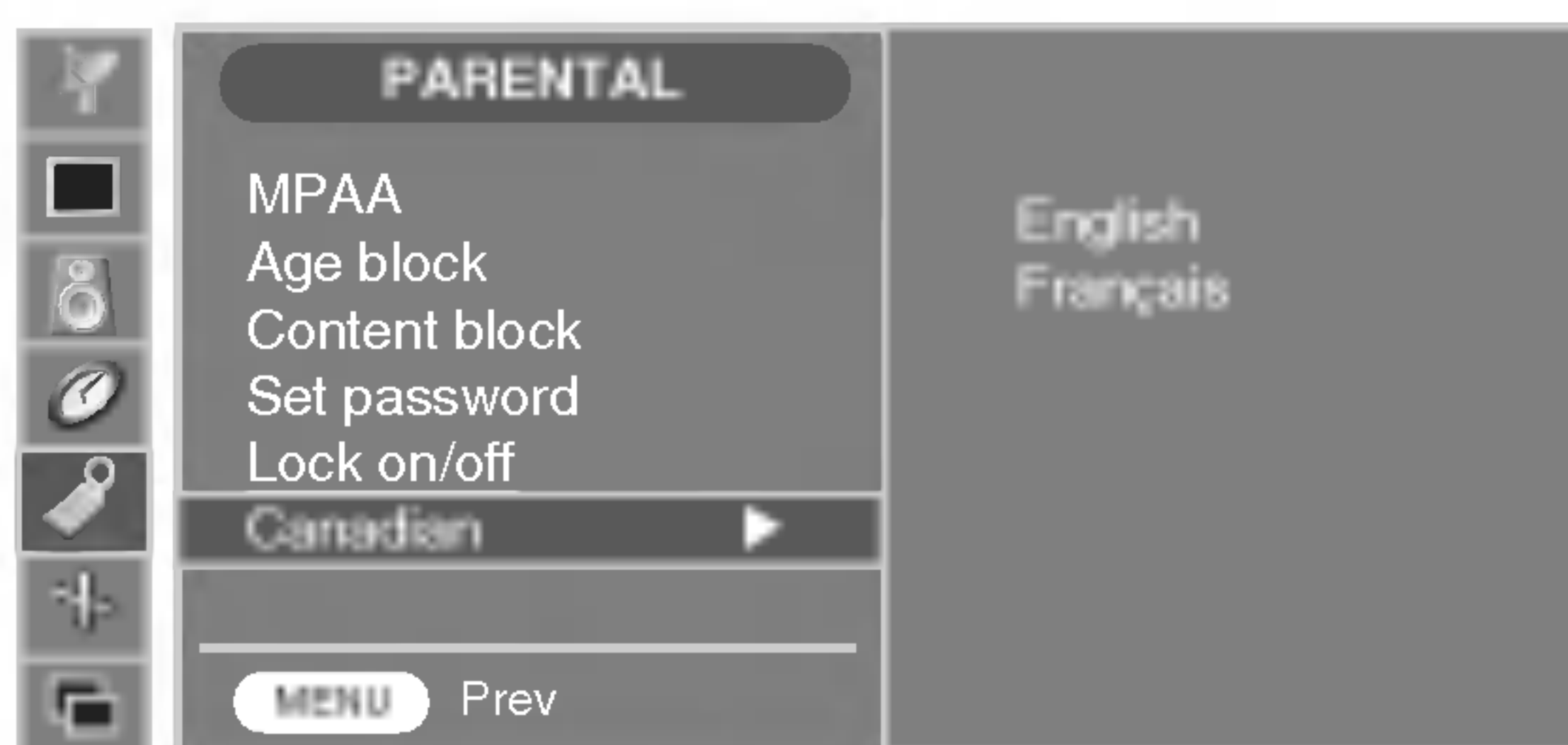
Adjusts the screen status according to the circumstances (To adjust the CAPTION & VCHIP function - Canadian Only)

ENGLISH

■ V-CHIP rating and categories (Optional) - Canadian Rating System

- Rating guidelines are provided by broadcast station. Most television programs and television movies can be blocked by TV rating and/or individual categories.

Canadian



English

■ MOVIE Ratings :

- Unblocked
- C&Above : Under 8 years
- C8&Above : 8 years and up
- G&Above : General audience
- PG&Above : Parental guidance suggested
- 14+ : 14 years and up
- 18+ : Adult

Français

■ MOVIE Ratings :

- Unblocked
- G&Above : General audience
- 8 ans + : 8 years and up
- 13 ans + : 13 years and up
- 16 ans + : 16 years and up
- 18 ans + : 18 years and up

Selecting and Adjusting the Screen

Closed Captions

Closed captioning is a process which converts the audio portion of a television program into written words which then appear as subtitles on the television screen. Closed captions allow viewers to read the dialogue and narration of television programs.

Using Closed Captions

Captions are the subtitles of the dialogue and narration of television programs. For prerecorded programs, program dialogue can be arranged into captions in advance. It is possible to caption a live program by using a process called real-time captioning, which creates captions instantly. Real-time captioning is normally done by professional reporters using a machine shorthand system and computer for translation into English.

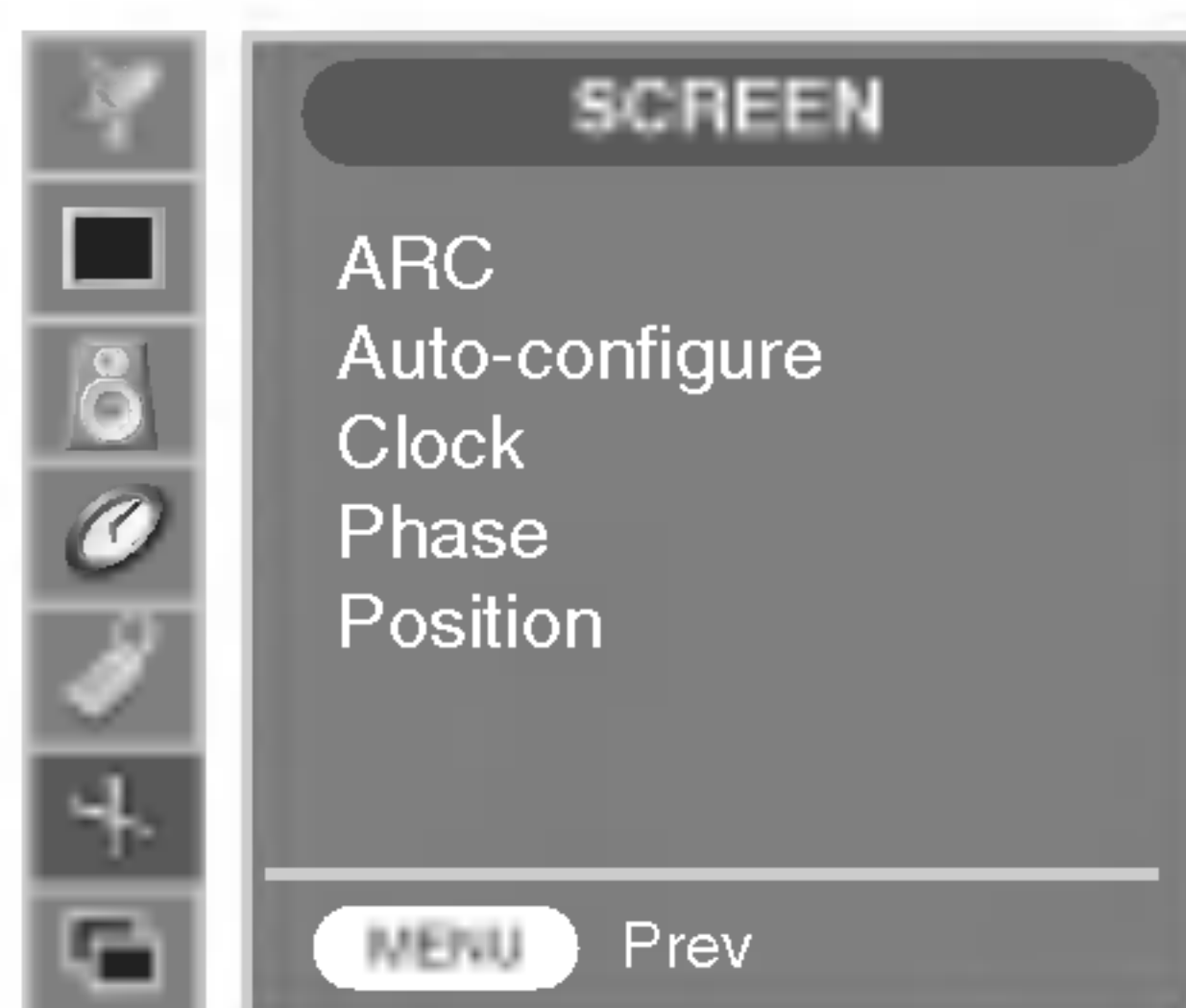
Captioning is an effective system for the hearing-impaired, and it can also aid in teaching language skills.

Caption Tips

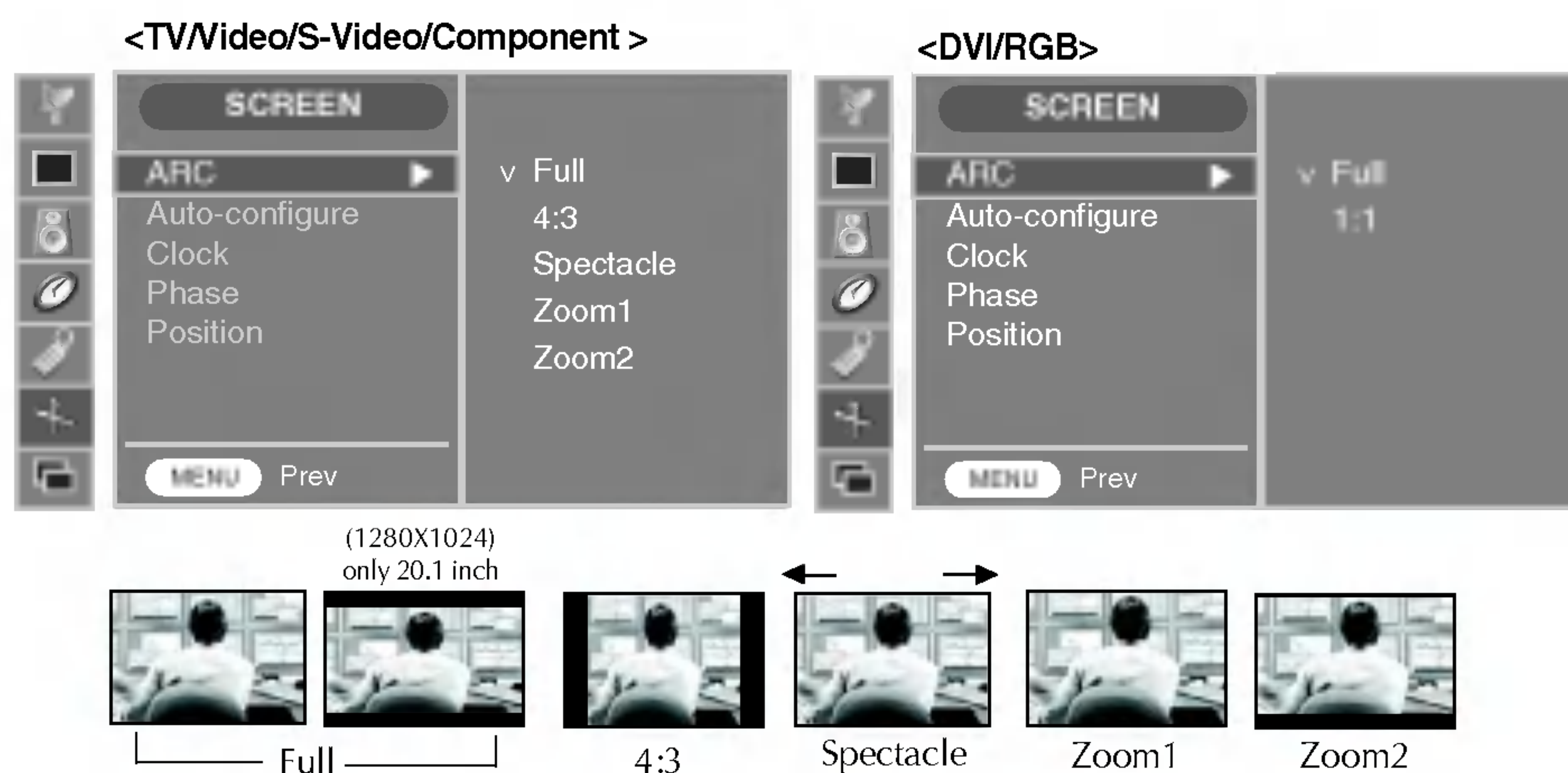
1. Not all TV broadcasts include closed caption signals.
 2. Sometimes TV stations broadcasts four different caption signals on the same channel. By selecting **From CC1 ~ CC4, TEXT1 ~ TEXT4** you can choose which signal you view **CC1** is usually the signal with the captions, while **Another mode** might show demonstration or programming information.
 3. Your TV might not receive caption signals normally in the following situations.
 - Poor reception conditions are encountered :
 - **IGNITION** :
Picture may flutter, drift, suffer from black spots, or horizontal streaking. Usually caused by interference from automobile ignition systems, neon lamps, electrical drills, and other electrical appliances.
 - **GHOSTS** :
Ghosts are caused when the TV signal splits and follows two paths. One is the direct path and the other is reflected off tall buildings, hills or other objects. Changing the direction or position of the antenna may improve reception.
 - **SNOW** :
If your receiver is located at the weak, fringe area of a TV signal, your picture may be marred by small dots. It may be necessary to install a special antenna to improve the picture.
 - An old, bad or illegally recorded tape is playing.
 - Strong, random signals from a car or airplane interfere with the TV signal.
 - The signal from the antenna is weak.
 - The program wasn't captioned when it was produced, transmitted, or taped.
-



Adjusting the Screen Function



ARC To select the image size of the screen.



Auto-Configure This function is suitable for analog signal input only. This button is for the automatic adjustment of the screen **Position**, **Clock** and **Phase**.

Clock To minimize any vertical bars or stripes visible on the screen background. The horizontal screen size will also change.

Phase To minimize any vertical bars or stripes visible on the screen background. The horizontal screen size will also change.

Position



To adjust position of the screen. Press the **▶** button to display the submenu for position.

- ◀ Left Moving the screen position horizontally.
- ▶ Right Moving the screen position horizontally.
- ▲ Up Moving the screen position vertically.
- ▼ Down Moving the screen position vertically.



Note When the Interlace Signal is inputted at the RGB source input level, the Auto-Configure, Clock, Phase and Position menu can't be used.

Selecting and Adjusting the Screen

PIP/POP/PBP Mode (Multiple Screen) Functions



On/Off



PIP

After selecting **PIP/POP/PBP** in the **PIP On/Off** menu, the following menu items can be adjusted.



POP

After selecting **PIP/POP/PBP** in the **POP On/Off** menu, the following menu items can be adjusted.



PBP

After selecting **PIP/POP/PBP** in the **PBP On/Off** menu, the following menu items can be adjusted.

PIP Input

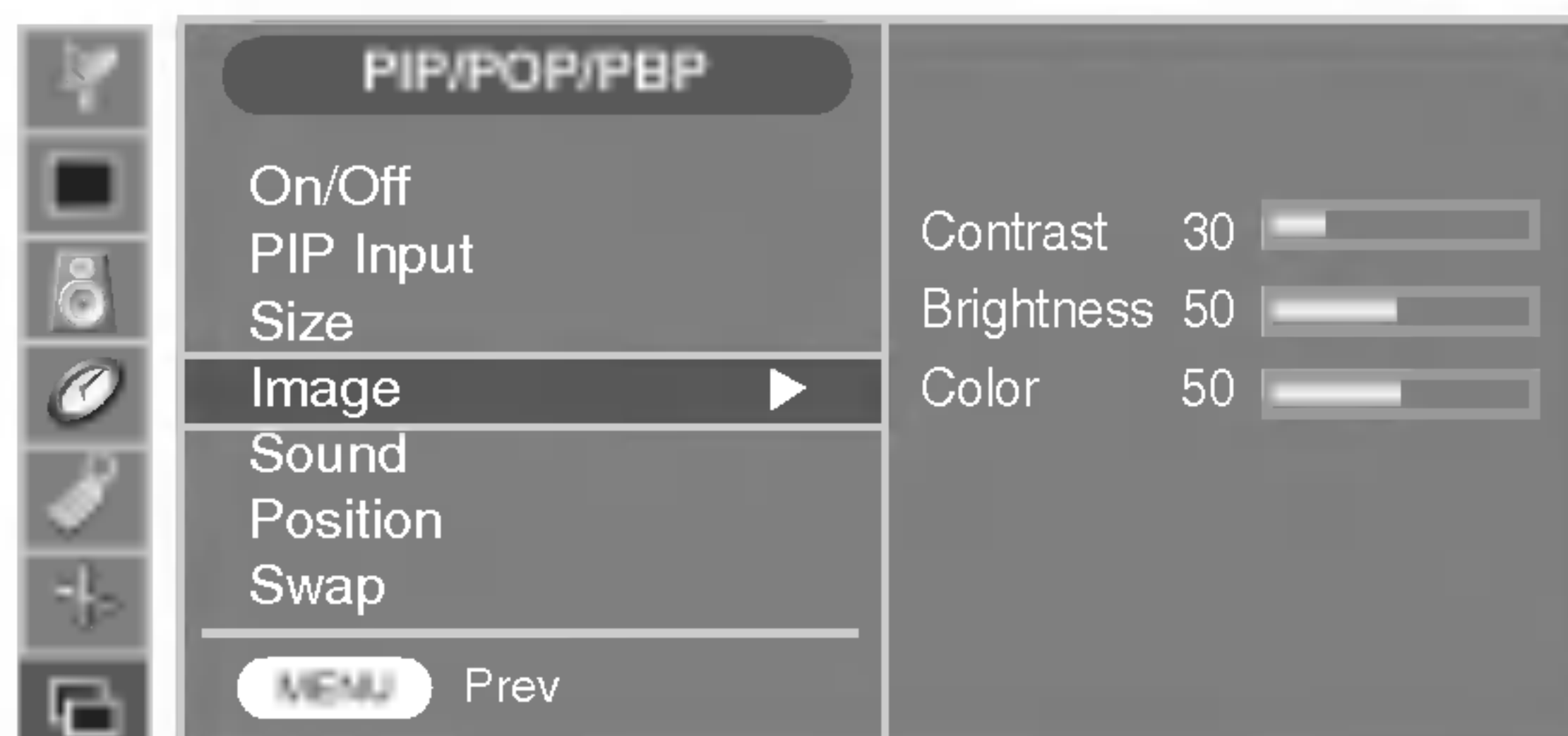
To select an input signal for PIP/POP/PBP.

Size

To adjust the size of the PIP/POP/PBP screen. (PIP : Small, Medium, Large / PBP : Full, 4:3)

Image

To adjust the image of the PIP/POP/PBP screen; Press the ► button to display the submenu for PIP/POP/PBP image. Use the ◀ ▶ buttons to adjust the item to the desired level. The items of the sub-menu may vary depending on the type of the source.



■ Contrast

Adjust PIP/POP/PBP screen contrast.

■ Brightness

Adjust PIP/POP/PBP screen brightness.

■ Color

Adjust the PIP/POP/PBP screen color.

* The sub-menu can differ according to the type of the input signal.

Sound

To turn the PIP/POP/PBP sound on/off.



PIP/POP/PBP Mode (Multiple Screen) Functions

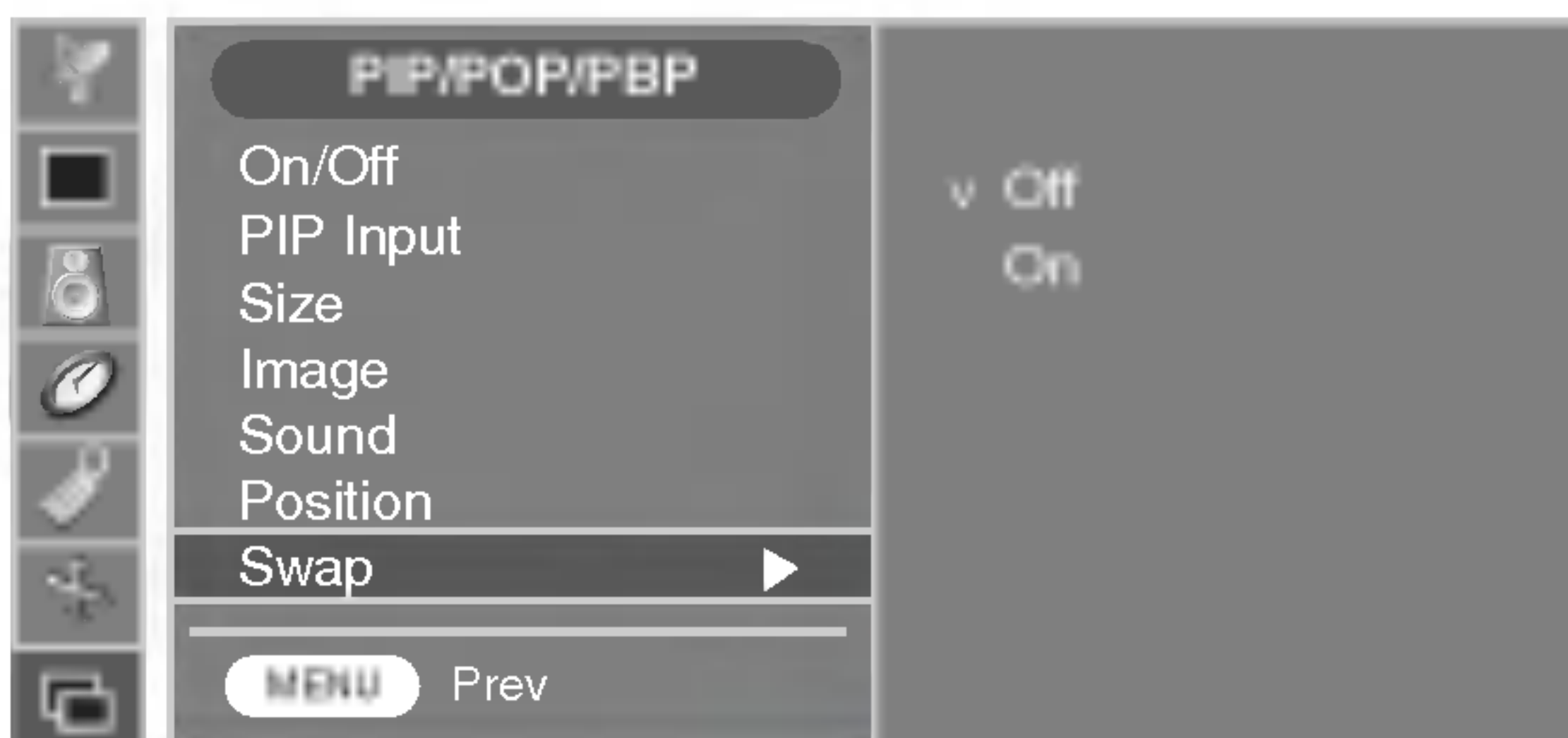
ENGLISH

Position

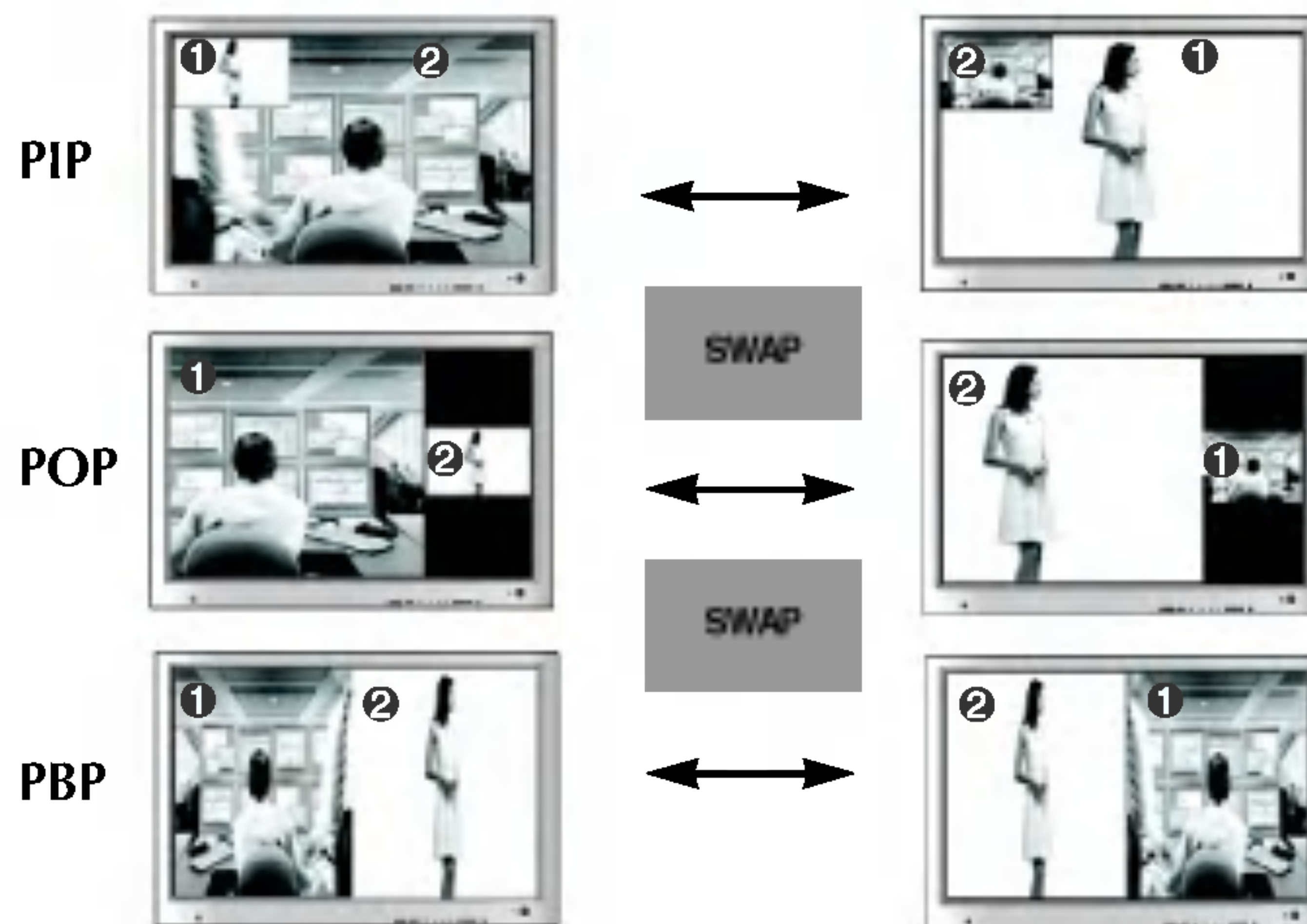


To adjust the position to PIP screen.

Swap



To switch the main-screen and sub-screen in PIP/POP/PBP mode.



Note

When the Interlace Signal, such as the Settop Box, is inputted at the RGB and DVI source input level, the following will be shown.

- (1) If Interlace Signal is inputted in RGB, PIP/POP/PBP cannot be used.
- (2) If Interlace Signal is inputted in DVI, PIP/POP/PBP cannot be used.
- (3) When TV, Video, Component and S-Video is selected as the main screen for PIP/POP/PBP If the sub-screen is an Interlace Signal inputted RGB or DVI, the screen will be displayed but the contents will not be displayed.

Troubleshooting

No image is displayed

- | | |
|---|---|
| <input type="checkbox"/> Is the product power cord connected? | <ul style="list-style-type: none">• See if the power cord is properly connected to the outlet. |
| <input type="checkbox"/> Does the power Indicator is turned on? | <ul style="list-style-type: none">• See if the power switch is turned on. |
| <input type="checkbox"/> Power is on, power Indicator is green but the screen appears extremely dark. | <ul style="list-style-type: none">• Adjust brightness (☉) and contrast (●) again. |
| <input type="checkbox"/> Does the power Indicator look amber? | <ul style="list-style-type: none">• If the product is in power saving mode, move the mouse or press any key. |
| <input type="checkbox"/> Does the 'Out of Range' message appear? | <ul style="list-style-type: none">• The signal from the PC (video card) is out of the vertical or horizontal frequency range of the product. Adjust the frequency range by referring to the Specifications in this user's guide.<ul style="list-style-type: none">* Maximum resolution17 inch : 1280 x 1024 @60Hz20.1 inch : 1680 x 1050 @60Hz |
| <input type="checkbox"/> Does the 'Check Signal Cable' message appear? | <ul style="list-style-type: none">• The signal cable between PC and product is not connected. Check the signal cable.• Press the 'SOURCE' button in the remote control to check the input signal. |

'Unknown Product' message appears when the product is connected.

- | | |
|--|---|
| <input type="checkbox"/> Did you install the driver? | <ul style="list-style-type: none">• Install the product driver, which is provided with the product, or download it from the web site. (http://www.lge.com)• See if the plug&play function is supported by referring to the video card user's guide. |
|--|---|

'Controls Locked' message appears.

- | | |
|---|--|
| <input type="checkbox"/> The "Controls locked" message appears when pressing local key. | <ul style="list-style-type: none">• The control locking function prevents unintentional OSD setting change due to careless usage. To unlock the controls. You can only set this function using the remote control. |
|---|--|



Note

- * **Vertical frequency:** To enable the user to watch the product display, screen image should be changed tens of times every second like a fluorescent lamp. The vertical frequency or refresh rate is the times of image display per second. The unit is Hz.
- * **Horizontal frequency:** The horizontal interval is the time to display one vertical line. When the 1 is divided by horizontal interval, the number of horizontal lines displayed every second can be tabulated as the horizontal frequency. The unit is kHz.

The screen image looks abnormal.

- | | |
|---|--|
| <p><input type="checkbox"/> Is the screen position wrong?</p> | <ul style="list-style-type: none">• D-Sub analog signal – Press the “AUTO” button in the remote control to automatically select the optimal screen status that fits into the current mode. If adjustment is not satisfactory, use the Position menu in OSD .• See if the video card resolution and frequency are supported by the product. If the frequency is out of range, set to the recommended resolution in the Control Panel – Display – Setting menu. |
| <p><input type="checkbox"/> Do thin lines appear on the background screen?</p> | <ul style="list-style-type: none">• D-Sub analog signal – Press the “AUTO” button in the remote control to automatically select an optimal screen status that fits into the current mode. If adjustment is not satisfactory, use the Clock menu in OSD. |
| <p><input type="checkbox"/> Horizontal noise appears or the characters look blurred.</p> | <ul style="list-style-type: none">• D-Sub analog signal – Press the “AUTO” button in the remote control to automatically select an optimal screen status that fits into the current mode. If adjustment is not satisfactory, use the Phase menu in OSD. |
| <p><input type="checkbox"/> Screen size is automatically adjusted when connected to the PC.</p> | <ul style="list-style-type: none">• If the screen size is not full when connected to the PC, execute the PIP/POP/PBP to change to full screen mode. |
| <p><input type="checkbox"/> No sound appears in the TV channel display window.</p> | <ul style="list-style-type: none">• See if the TV sound is set to mono. If it is, the sound will not be displayed. |
| <p><input type="checkbox"/> Brightness differs in the main and sub screen when connected to the PC.</p> | <ul style="list-style-type: none">• You cannot adjust brightness in the PIP/POP/PBP Screen menu for the sub-screen among PIP/POP/PBP menus. Therefore, brightness can be different for the sub-screen. |
| <p><input type="checkbox"/> The screen is displayed abnormally.</p> | <ul style="list-style-type: none">• The proper input signal is not connected to the signal port. Connect the signal cable that matches with the source input signal. |

Troubleshooting

The audio function does not work.

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| <input type="checkbox"/> No sound? | <ul style="list-style-type: none">• See if the audio cable is connected properly.• Adjust the volume.• See if the sound is set properly. |
| <input type="checkbox"/> No sound is available when the PIP/POP/PBP mode is engaged. | <ul style="list-style-type: none">• See if the sound is set to On in the PIP/POP/PBP menu. |
| <input type="checkbox"/> Sound is too dull. | <ul style="list-style-type: none">• Select the appropriate equalize sound. |
| <input type="checkbox"/> Sound is too low. | <ul style="list-style-type: none">• Adjust the volume. |

The TV function does not work.

- | | |
|---|--|
| <input type="checkbox"/> The TV signal is not being received. | <ul style="list-style-type: none">• See if you have selected the proper channel mode.• Use the automatic channel setup function.• See if the TV antenna is properly connected. |
|---|--|

Screen color is abnormal.

- | | |
|--|---|
| <input type="checkbox"/> Screen has poor color resolution (16 colors). | <ul style="list-style-type: none">• Set the number of colors to more than 24 bits (true color)
Select Control Panel – Display – Settings – Color Table menu in Windows. |
| <input type="checkbox"/> Screen color is unstable or mono-colored. | <ul style="list-style-type: none">• Check the connection status of the signal cable.
Or, re-insert the PC video card. |
| <input type="checkbox"/> Do black spots appear on the screen? | <ul style="list-style-type: none">• Several pixels (red, green, white or black color) may appear on the screen, which can be attributable to the unique characteristics of the LCD panel. It is not a malfunction of the LCD. |


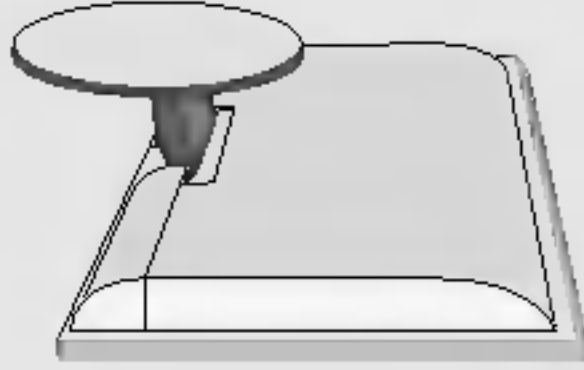
After-image appears on the product.

- | | |
|--|--|
| <input type="checkbox"/> After-image appears when the product is turned off. | <ul style="list-style-type: none">• If you use a fixed image for a long time, the pixels may be damaged quickly. Use the screensaver function. |
|--|--|

Specifications


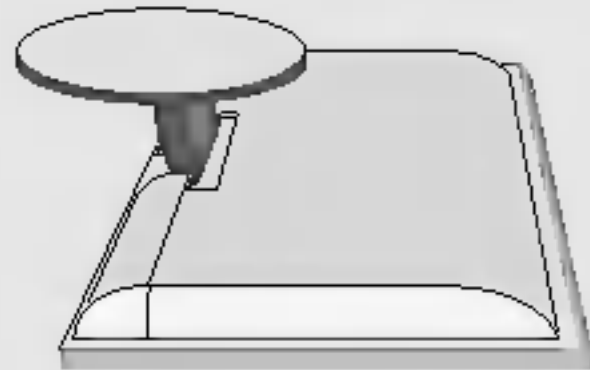
[17inch]

ENGLISH

LCD Panel	Screen Type	17 inch (434.38 mm) TFT (Thin Film Transistor) LCD (Liquid Crystal Display) Panel Visible diagonal size: 434.38 mm
	Pixel Pitch	0.291 mm
Video Signal	Max. Resolution	D-Sub :1280 X 1024 @60Hz DVI-D : 1280 X 1024 @60Hz
	Recommended Resolution	D-Sub : WXGA 1280 X 768 @60Hz DVI-D : WXGA 1280 X 768 @60Hz
	Horizontal Frequency	D-Sub : 30 - 66 kHz DVI-D : 30 - 66 kHz
	Vertical Frequency	56 - 75 Hz
	Synchronization Type	Separate/Composite/SOG (Sync On Green)/Digital
Input Connector		15-pin D-Sub type, DVI-D (digital), S-Video, composite video, Component, TV
Power	Rated Voltage Power Consumption	AC 100-240V~ 50/60Hz 1.0A On Mode : 70W Sleep Mode : ≤ 4W Off Mode : ≤ 2W
Tilt	Tilt Range	-5° ~20°
	Tilt Stand	Attached
Dimension/Weight	Size (WxLxH)	 438.2 mm x 241.4 mm x 378.9 mm
		 438.2 mm x 139.2 mm x 403.5 mm
	Weight (excl. package)	7.1 kg (15.6 lbs)
Environmental Conditions	Operational Condition	Temperature: 10°C ~ 35°C , Humidity: 10% ~ 80%
	Storage Condition	Temperature: -20°C ~ 60°C , Humidity: 5% ~ 95%

Specifications

[20.1inch]

LCD Panel	Screen Type	20.1inch (481.84 mm) TFT (Thin Film Transistor) LCD (Liquid Crystal Display) Panel Visible diagonal size: 481.84 mm
	Pixel Pitch	0.294 mm
Video Signal	Max. Resolution	D-Sub : 1680 X 1050 @60Hz DVI-D : 1680 X 1050 @60Hz
	Recommended Resolution	D-Sub : WXGA+ 1680 X 1050 @60Hz DVI-D : WXGA+ 1680 X 1050 @60Hz
	Horizontal Frequency	D-Sub : 30 - 83 kHz DVI-D : 30 - 83 kHz
	Vertical Frequency	55 - 75 Hz
	Synchronization Type	Separate/Composite/SOG (Sync On Green)/Digital
Input Connector		15-pin D-Sub type, DVI-D (digital), S-Video, composite video, Component, TV
Power	Rated Voltage Power Consumption	AC 100-240V~ 50/60Hz 1.2A On Mode :74W Sleep Mode : ≤ 4W Off Mode : ≤ 2W
Tilt	Tilt Range Tilt Stand	-5° ~ 20° Attached
Dimension/Weight	Size (WxLxH)	 496.4 mm x 241.4 mm x 424.1 mm
	Weight (excl. package)	 496.4 mm x 135.2 mm x 448.7 mm 8.2 kg (18.0 lbs)
Environmental Conditions	Operational Condition	Temperature: 10°C ~ 35°C , Humidity: 10% ~ 80%
	Storage Condition	Temperature: -20°C ~ 60°C , Humidity: 5% ~ 95%

● PC Mode – Preset Mode

[17 inch]

Preset mode		Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Preset mode		Horizontal Frequency (kHz)	Vertical Frequency (Hz)
1	VGA 640 x 350	31.468	70	8	VESA 1024 x 768	48.363	60
2	VGA 720 x 400	31.469	70	9	VESA 1280 x 1024	63.981	60
3	VGA 640 x 480	31.469	60	10	VESA 1280 x 768	47.776	60
4	VESA 640 x 480	37.500	75				
5	VESA 800 x 600	37.879	60				
6	VESA 800 x 600	46.875	75				
7	MAC 832 x 624	49.725	74				

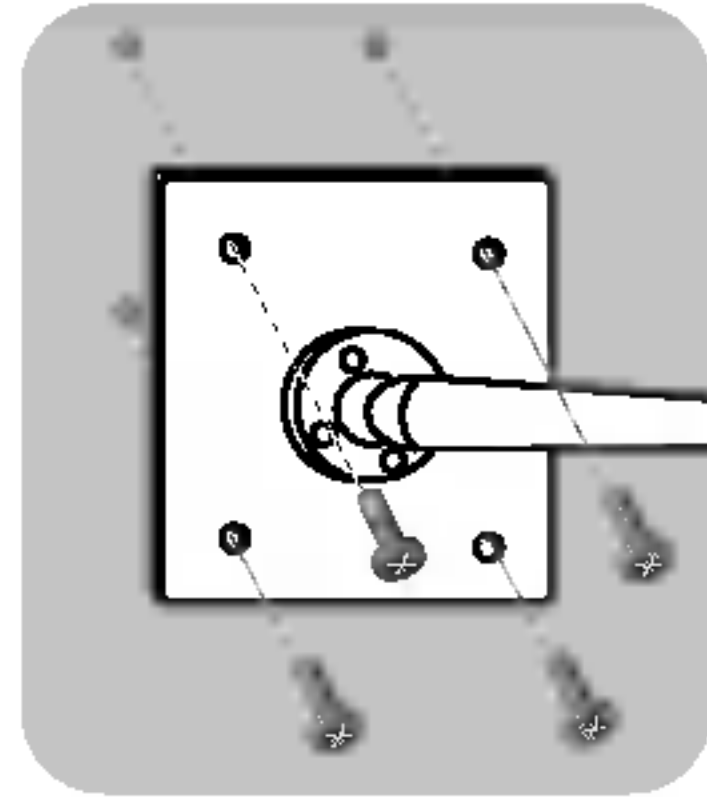
[20.1 inch]

Preset mode		Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Preset mode		Horizontal Frequency (kHz)	Vertical Frequency (Hz)
1	VGA 720 x 400	31.468	70	8	VESA 1152 x 864	67.500	75
2	VGA 640 x 480	31.469	60	9	VESA 1280 x 1024	63.981	60
3	VGA 640 x 480	37.500	75	10	VESA 1280 x 1024	79.976	75
4	VESA 800 x 600	37.897	60	11	VESA 1680 x 1050	65.290	60
5	VESA 800 x 600	46.875	75				
6	VESA 1024 x 768	48.363	60				
7	VESA 1024 x 768	60.123	75				

● Power Indicator

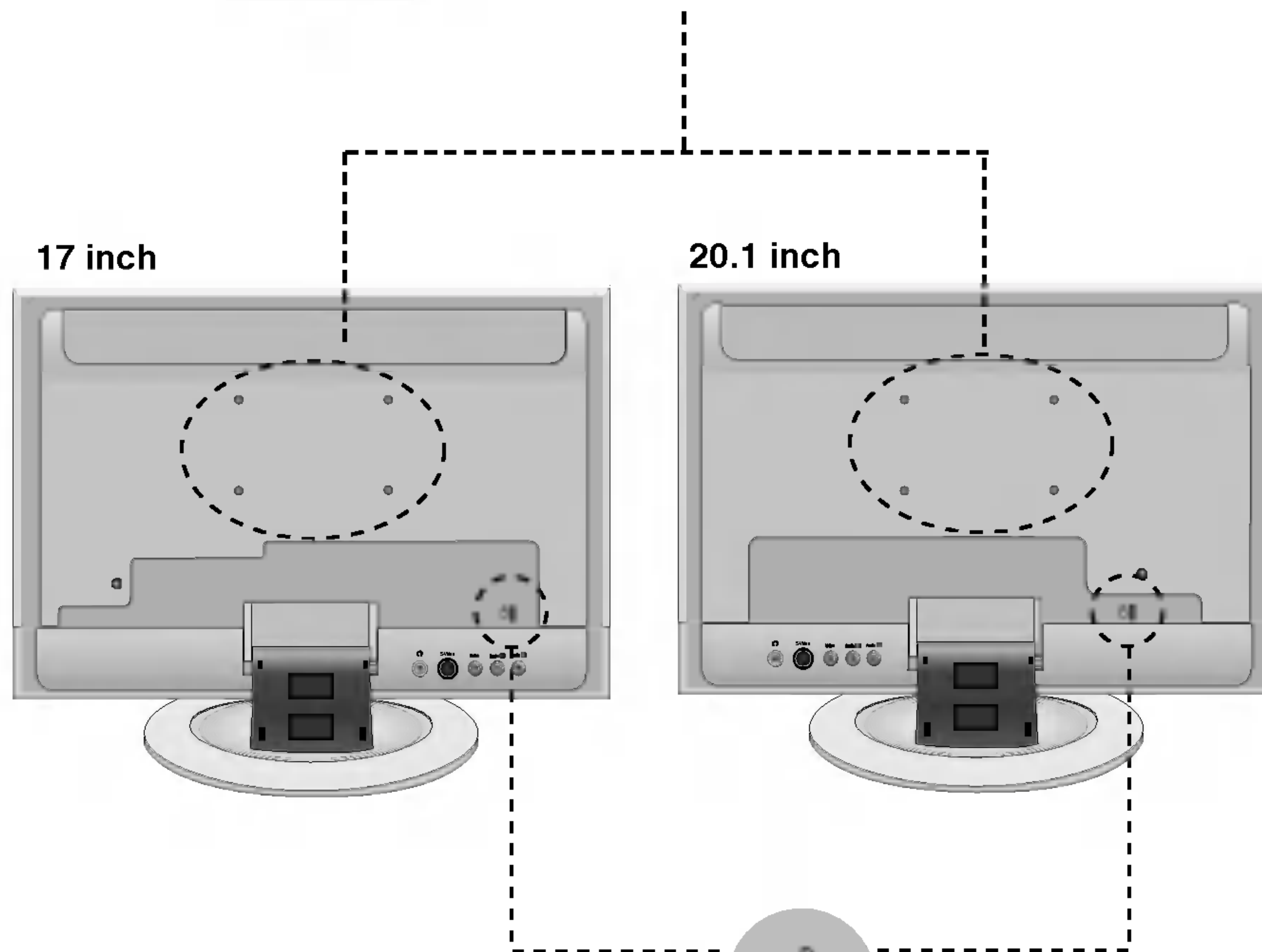
Mode	Product
On Mode	Blue
Sleep Mode	Amber
Off Mode	-

Specifications



VESA wall mounting

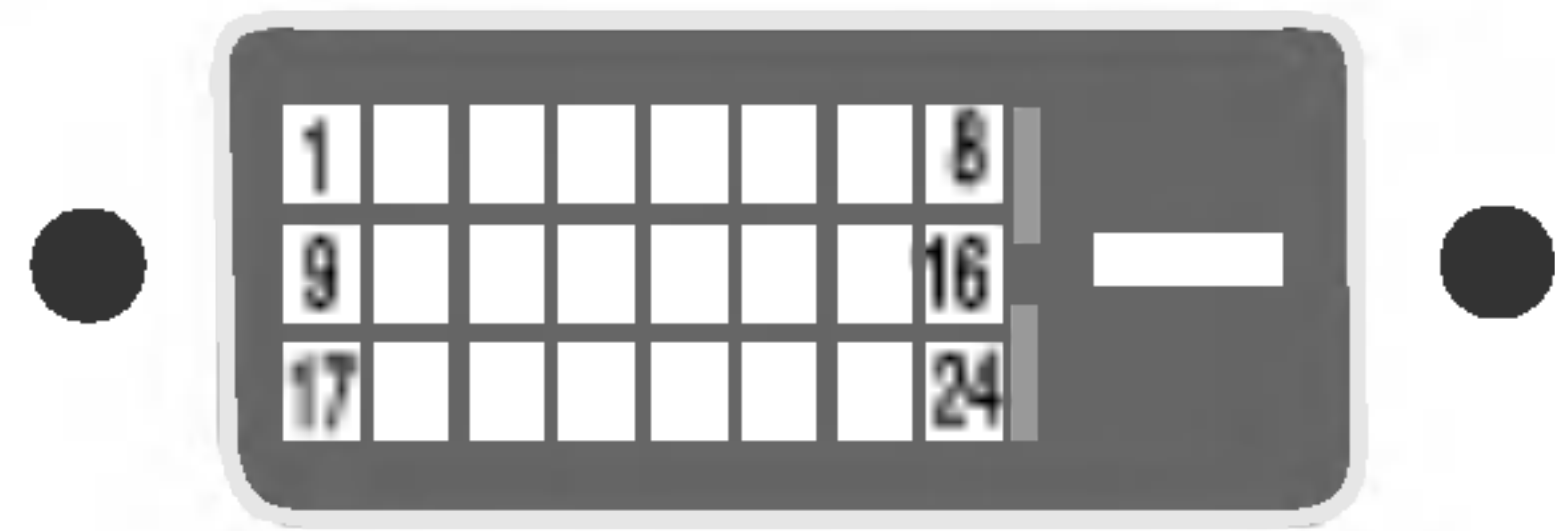
Connected to another object (stand type and wall-mounted type). This product accepts a VESA-compliant mounting interface pad. optional) For further information, refer to the VESA Wall Mounting Instruction Guide.



Locking Device

Use this locking cable (optional) to prevent theft.

DVI-D



No.	Signal
1	T. M. D. S. Data 2-
2	T. M. D. S. Data 2+
3	T. M. D. S. Data 2/4 Shield
4	T. M. D. S. Data 4-
5	T. M. D. S. Data 4+
6	DDC Clock
7	DDC Data
8	Analog Vertical Synchronization
9	T. M. D. S. Data 1-
10	T. M. D. S. Data 1+
11	T. M. D. S. Data 1/3 Shield
12	T. M. D. S. Data 3-
13	T. M. D. S. Data 3+
14	+5V Power
15	Grounding (return for +5V, horizontal sync and vertical sync)
16	Hot Plug Detect
17	T. M. D. S. Data 0-
18	T. M. D. S. Data 0+
19	T. M. D. S. Data 0/5 Shield
20	T. M. D. S. Data 5-
21	T. M. D. S. Data 5+
22	T. M. D. S. Clock Shield
23	T. M. D. S. Clock+
24	T. M. D. S. Clock

T.M.D.S. (Transition Minimized Differential Signaling)