

External A/V Source Setup

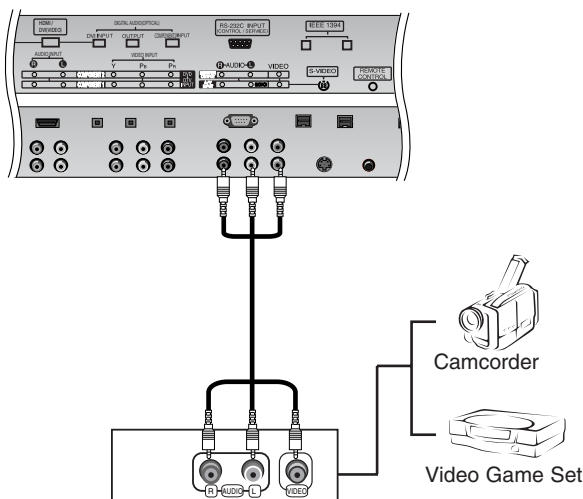
How to connect

Connect the audio and video cables from the external equipment's output jacks to the TV input jacks, as shown in the figure.

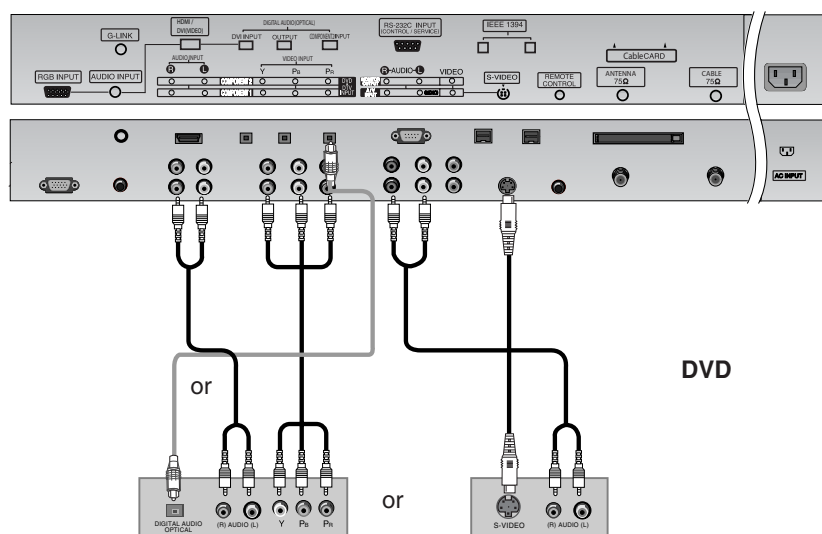
When connecting the TV to external equipment, match the jack colors (Video = yellow, Audio Left = white, and Audio Right = red).

How to use

1. Select the input source with using the **TV/VIDEO** button on the remote control. (If connected to A/V INPUT, select **Video** input source).
2. Operate the corresponding external equipment. Refer to external equipment operating the tv guide on screen system.



DVD Setup



How to connect

1. Connect the DVD video outputs (Y, P_B, P_R) to the COMPONENT (Y, P_B, P_R) INPUT jacks on the TV and connect the DVD audio outputs to the AUDIO INPUT jacks on the TV, as shown in the figure.
2. If your DVD only has an S-Video output jack, connect this to the S-VIDEO input on the TV and connect the DVD audio outputs to the AUDIO INPUT jacks on the TV, as shown in the figure.

Note: If your DVD player does not have component video output, use S-Video.

How to use

1. Turn on the DVD player, insert a DVD.
2. Use the **TV/VIDEO** or **COMP/RGB/HDMI** button on the remote control to select **Component 1** or **Component 2**. (If connected to S-VIDEO, select the **Video** or **Front Video** external input source.)
3. Refer to the DVD player's manual for operating instructions.

• Component Input ports

To get better picture quality, connect a DVD player to the component input ports as shown below.

Component ports on the TV	Y	P _B	P _R
Video output ports on DVD player	Y	P _b	P _r
	Y	B-Y	R-Y
	Y	Cb	Cr
	Y	P _B	P _R

Notes:

- Digital Audio will not work for Component 1 input source.
- Digital Audio operation has priority if Digital Audio and AUDIO L/R are connected at the same time.

CableCARD™ Setup

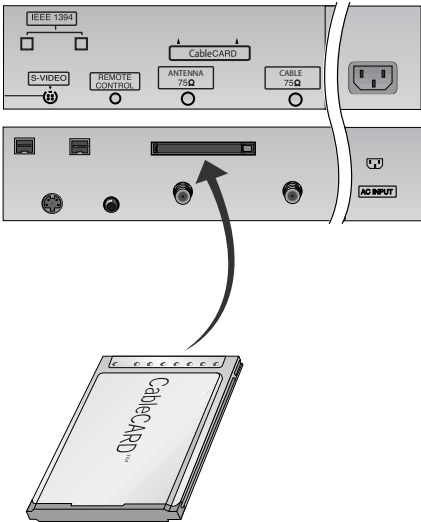
How to use

Insert the CableCARD™ received from Cable Service provider to CableCARD™ slot of TV back panel.
If Host or CableCARD™ does not display on the screen, contact with Cable service provider by phone.

- Note :**
- CableCARD™ has the types of Motorola, Scientific Atlanta, SCM etc..
These 3 types of CableCARD™ can be used for this PLASMA TV.

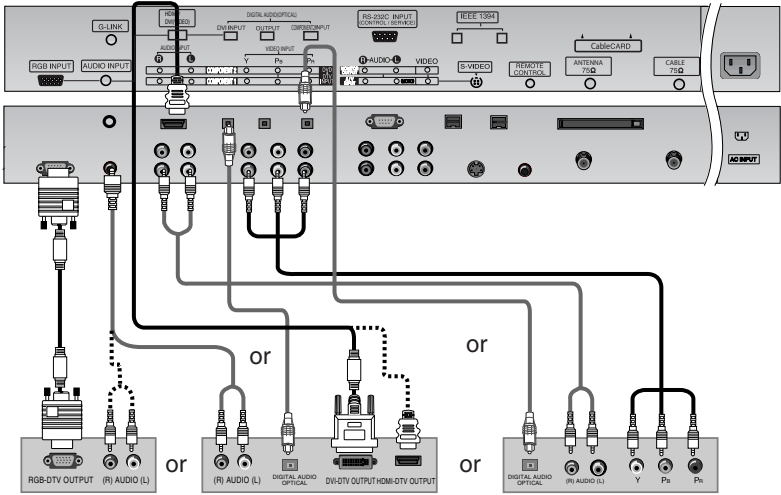


Caution: When removing the CableCARD™, do not fall it as this may cause impact to the CableCARD™.



HDSTB Setup

- This TV can receive Digital Over-the-air/Cable signals without an external digital set-top box. However, if you do receive Digital signals from a digital set-top box or other digital external device, refer to the figure as shown below.
- This TV supports HDCP (High-bandwidth Digital Contents Protection) protocol for Digital Contents (480p,720p,1080i).



Digital Set-top Box

How to connect

Use the TV's COMPONENT (Y, Pb, Pr) INPUT, RGB or HDMI/DVI jack for video connections, depending on your set-top box connector. Then, make the corresponding audio connections.

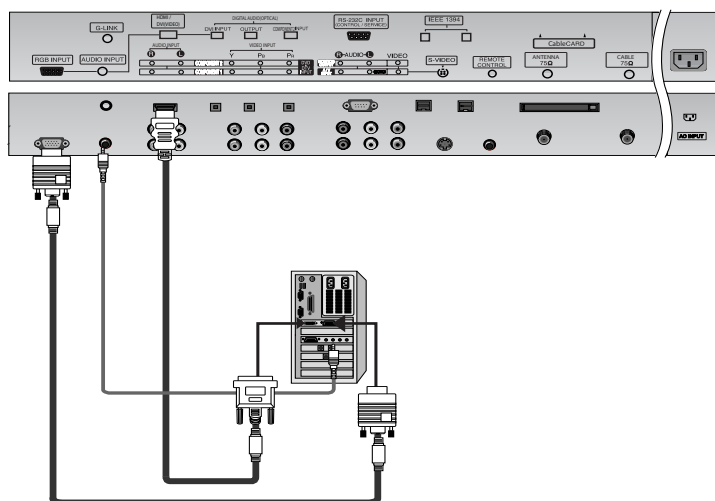
How to use

1. Turn on the digital set-top box. (Refer to the owner's manual for the digital set-top box.)
2. Use **TV/VIDEO** or **COMP/RGB/HDMI** on the remote control to select **Component 1, Component 2, RGB-DTV, or HDMI/DVI** source.

Signal	Component 1/2	RGB-DTV,HDMI/DVI
480i	Yes	No
480p	Yes	Yes
720p	Yes	Yes
1080i	Yes	Yes

PC Setup

- This TV provides Plug and Play capability, meaning that the PC adjusts automatically to the TV's settings.
- The TV perceives 640x480, 60Hz as DTV 480p based on the PC graphic card, change the screen scanning rate for the graphic card accordingly.



How to connect

1. To get the best picture quality, adjust the PC graphics card to 1024x768, 60Hz.
2. Use the TV's RGB INPUT or HDMI/DVI (Digital Visual Interface) INPUT port for video connections, depending on your PC connector.
 - If the graphic card on the PC does not output analog and digital RGB simultaneously, connect only one of either RGB INPUT or DVI INPUT to display the PC on the TV.
 - If the graphic card on the PC does output analog and digital RGB simultaneously, set the TV to either RGB or HDMI/DVI; (the other mode is set to Plug and Play automatically by the TV.)
3. Then, make the corresponding audio connections. If using a sound card, adjust the PC sound as required.

How to use

1. Turn on the PC and the TV.
2. Turn on the display by pressing the POWER button on the TV's remote control.
3. Select **RGB-PC** or **HDMI/DVI** input source in main input option of SETUP menu. (Refer to P.59)
4. Check the image on your TV. There may be noise associated with the resolution, vertical pattern, contrast or brightness in PC mode. If noise is present, change the PC mode to another resolution, change the refresh rate to another rate or adjust the brightness and contrast on the menu until the picture is clear. If the refresh rate of the PC graphic card can not be changed, change the PC graphic card or consult the manufacturer of the PC graphic card.

- Notes:**
- Depending on the graphics card, DOS mode may not work if you use a HDMI to DVI cable.
 - Avoid keeping a fixed image on the TV's screen for a long period of time. The fixed image may become permanently imprinted on the screen. Use the Orbiter screen saver when possible.
 - The synchronization input form for Horizontal and Vertical frequencies is separate.

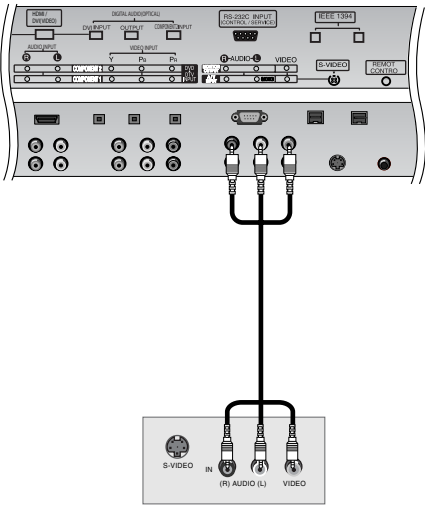
Monitor Display Specifications (RGB-PC)

Resolution	Horizontal Frequency(KHz)	Vertical Frequency(Hz)	Resolution	Horizontal Frequency(KHz)	Vertical Frequency(Hz)
640x350	31.468	70.09	800x600	35.156	56.25
	37.861	85.08		37.879	60.31
720x400	31.469	70.08		48.077	72.18
	37.927	85.03		46.875	75.00
640x480	31.469	59.94	1024x768	53.674	85.06
	37.861	72.80		48.363	60.00
	37.500	75.00		56.476	70.06
	43.269	85.00		60.023	75.02

Monitor Display Specifications (HDMI/DVI Mode)

Resolution	Horizontal Frequency(KHz)	Vertical Frequency(Hz)	Resolution	Horizontal Frequency(KHz)	Vertical Frequency(Hz)
640x480	31.469	59.94	1024x768	48.363	60.00
	37.861	72.80		56.476	70.06
	37.500	75.00		60.023	75.02
800x600	35.156	56.25			
	37.879	60.31			
	48.077	72.18			
	46.875	75.00			

Monitor Out Setup



The TV has a special signal output capability which allows you to hook up a second TV or monitor.

Connect the second TV or monitor to the TV's MONITOR OUTPUT. See the Operating Manual of the second TV or monitor for further details regarding that device's input settings.

Note
• Component, RGB-PC/RGB-DTV, HDMI/DVI, DTV input sources cannot be used for Monitor out.

Digital Audio Output

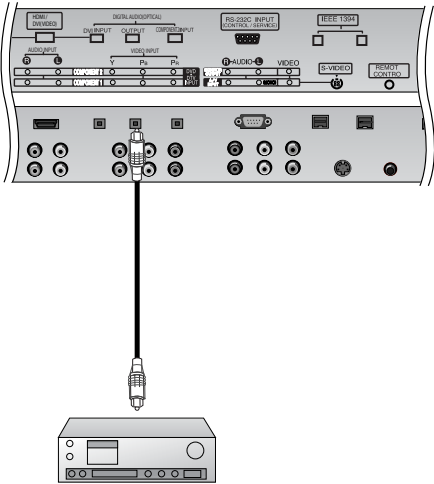
Send the TV's audio to external audio equipment (stereo system) via the Digital Audio Output (Optical) port.

How to connect

1. Connect one end of an optical cable to the TV Digital Audio (Optical) Output port.
2. Connect the other end of the optical cable to the digital audio (optical) input on the audio equipment.
3. Set the “**TV Speaker**” option - **Off**” in the AUDIO menu. Refer to page 64.
See the external audio equipment instruction manual for operation.



Caution: Do not look into the optical output port. Looking at the laser beam may damage your vision.



HDMI/DVI (VIDEO)



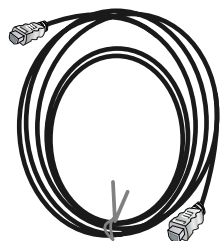
- HDMI™, the HDMI logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC."
- This TV SET can receive the High-Definition Multimedia Interface(HDMI) or Input of Digital Visual Interface(DVI).
- This TV SET supports HDCP(High-bandwidth Digital Contents Protection) Protocol for TV SET(480p, 720p, 1080i) modes.
- When you Connect with HDMI/DVI Source Devices (DVD Player or Set Top Box or PC) supporting Auto HDMI/DVI function, automatically, support Plug & Play and then set the HDMI/DVI Source Devices(1280 x 720p). After reading in HDMI/DVI Source Devices using Display Data Channel(DDC) Protocol, EDID stored in TV SET is used . If HDMI/DVI Source Devices not supported Auto HDMI/DVI is been, the Resolution is setted, manually.
- To get the best picture quality, adjust the DVD Player or Set Top Box output resolution to 1280 x 720p.
- To get the best picture quality, adjust the PC graphics card to 1024 x 768, 60Hz.
- When Source Devices have DVI Output Connector, you must connect audio with separated cable.(Refer to **<How to connect>**)

How to connect

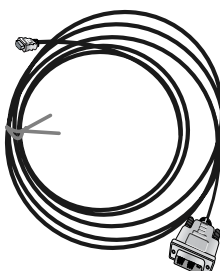
1. When Source Devices(DVD Player or Set Top Box) support HDMI.
 - If Source Devices have HDMI Output Connector, Source Devices connect to DTV with HDMI Cable .(not supplied with the product).
 - If Source Devices support Auto HDMI, automatically, Source Devices divert output resolution in 1280x720p. But if not, resolution divert Manually Setting for reference Manual of Source Devices.
 - To get the best picture quality, adjust the DVD Player or Set Top Box output resolution to 1280 x 720p.
 - Because HDMI sends Digital Video and Audio with one cable, need not especial Audio Cable for using HDMI Cable.
2. When Source Devices(DVD Player or Set Top Box) supports DVI.
 - If Source Devices have DVI Output Connector, Source Devices connect to DTV with HDMI to DVI Cable (not supplied with the product).
 - If Source Devices support Auto DVI, automatically, Source Devices divert output resolution in 1280x720p. But if not, resolution divert Manually Setting for reference Manual of Source Devices.
 - To get the best picture quality, adjust the DVD Player or Set Top Box output resolution to 1280 x 720p.
 - In this case, Audio use other cable. When Source Devices have Fiber Optic Digital Audio Output Connector, Digital Audio DVI Input(DVI) of DTV connect to Fiber Optic Digital Audio Cable (not supplied with the product) or when Source Devices have Analog Audio Output Connector, RGB/DVI Audio Input of DTV connect to Audio Cable (not supplied with the product). And then you can listen to normal Audio.
3. When PC supports DVI.
 - If PC have DVI Output Connector, Source Devices connect to DTV with HDMI to DVI Cable (not supplied with the product).
 - To get the best picture quality, adjust the PC graphics card to 1024 x 768, 60Hz.
 - Use the DTV's HDMI/DVI(VIDEO) for video connections, depending on your PC connector.
 - If the graphics card on the PC does not output analog RGB and DVI simultaneously, connect only one of either RGB Input or HDMI/DVI Input to display the PC on the DTV.
 - If he graphics card on the PC does output analog RGB and DVI simultaneously, set the DTV to either RGB Input or HDMI/DVI Input;(the other mode is set to Plug and Play automatically by the DTV.)
 - Then, make the corresponding audio connections. If using a sound card, adjust the PC sound as required.
 - In this case, Audio use other cable. When PC (or sound card of PC) have Fiber Optic Digital Audio Output Connector, Digital Audio DVI Input(DVI) of DTV connect to Fiber Optic Digital Audio Cable (not supplied with the product) or when PC (or sound card of PC) have Analog Audio Output Connector, RGB/DVI Audio Input of DTV connect to Analog Audio Cable (not supplied with the product). And then you can listen to normal Audio.

Reference

Cable sample



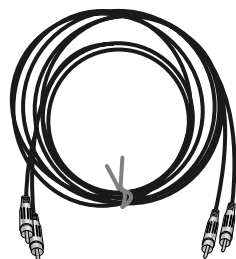
HDMI Cable
(not supplied with the product)



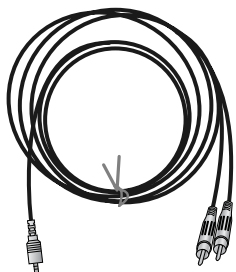
HDMI to DVI Cable
(not supplied with the product)



Fiber Optic Digital Audio Cable
(not supplied with the product)



Analog Audio Cable(RCA type)
(not supplied with the product)



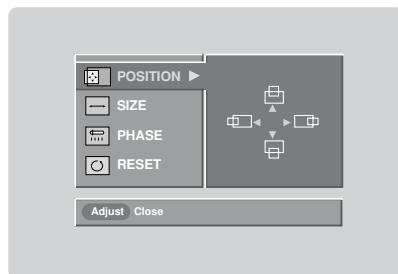
Analog Audio Cable(Stereo to RCA type)
(not supplied with the product)

How to use

1. Connect the HDMI/DVI Source Devices(DVD Player or Set Top Box or PC) and the TV SET.
2. Turn on the display by pressing the POWER button on the TV SET and HDMI/DVI Source Devices remote control.
3. Select HDMI/DVI Input source in Main Input option of SETUP menu.(Refer to P.60)
4. Check the image on your TV SET. There may be noise associated with the resolution, vertical pattern, contrast or brightness in HDMI/DVI Source Devices. If noise is present, change the HDMI/DVI Source Devices to another resolution, change the refresh rate or adjust the brightness and contrast on the menu until the picture is clear. If the refresh rate of the PC graphics card can not be changed, change the PC graphics card or consult the manufacturer of the PC graphics card.

Notes:

- Depending on the graphics card, DOS mode may not work if you use a HDMI to DVI Cable.
- Avoid keeping a fixed image on the TV SET screen for a long period of time. The fixed image may become permanently imprinted on the screen. Use the Orbiter screen saver when possible.
- When Source Devices connected HDMI/DVI Input, output PC Resolution(VGA, SVGA, XGA), Position, Size may not fit to Screen. As shown the lower picture, press the **Adjust** button to adjust the screen Position of TV SET and contact an PC graphics card service center.
- When Source Devices connected HDMI/DVI Input output TV SET Resolution(480p, 720p, 1080i), TV SET Display fit EIA/CEA-861-B Specification to Screen. If not, refer to the Manual of HDMI/DVI Source Devices or contact your service center.
- In case HDMI/DVI Source Devices is not connected Cable or poor cable connection, "NO SIGNAL" OSD display in HDMI/DVI Input. And In case of, Video Resolution not supported TV SET output in HDMI/DVI Source Devices, "INVALID FORMAT" OSD display. Refer to the Manual of HDMI/DVI Source Devices or contact your service center.



In This Mode, the Supported TV SET Resolution Specification

- 1920 x 1080 I @ 59.94Hz / 60Hz, 16:9
- 1280 x 720 P @ 59.94Hz / 60Hz, 16:9(preferred format)
- 704 x 480 P @ 59.94Hz / 60Hz, 16:9
- 704 x 480 P @ 59.94Hz / 60Hz, 4:3

In This Mode, the Supported PC Resolution Specification

- 640 x 480 @ 60Hz
- 640 x 480 @ 72Hz
- 640 x 480 @ 75Hz
- 800 x 600 @ 56Hz
- 800 x 600 @ 60Hz
- 800 x 600 @ 72Hz
- 800 x 600 @ 75Hz
- 1024 x 768 @ 60Hz(preferred format)
- 1024 x 768 @ 70Hz
- 1024 x 768 @ 75Hz

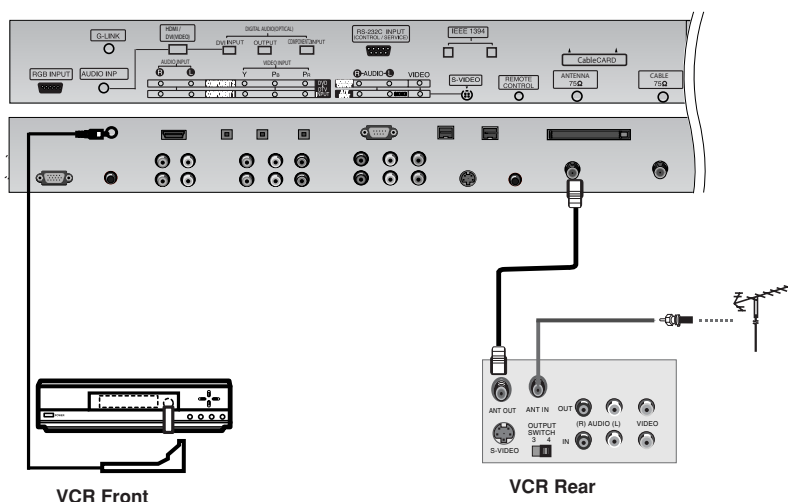
TV Guide On Screen Setup

- The TV Guide On Screen system uses Setup information to provide you with show listings and lineups in your area—which are updated several times a day.
- Once you set up the TV according to manufacturer's instructions, you are ready to set up the TV Guide On Screen system.

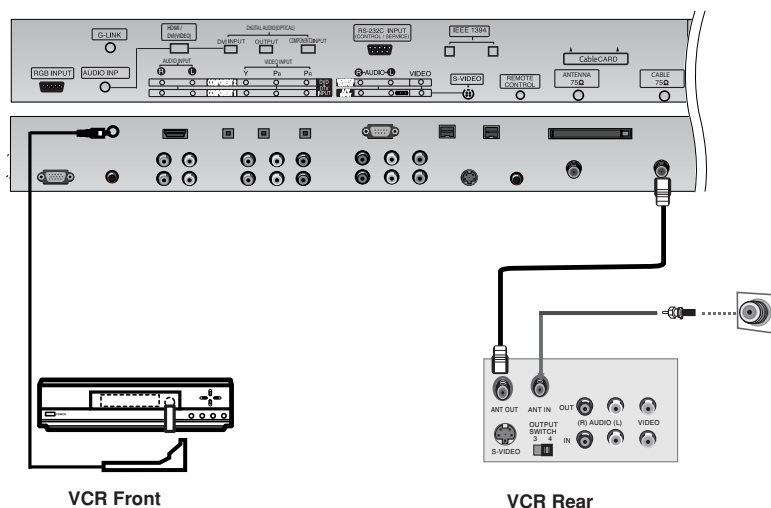
Note: The TV Guide On Screen System interactive program guide provides listings for cable-ready, cable box, and digital cable services as well as over-the-air broadcast. It does not provide listings for satellite services.

How to connect VCR and Cable Box

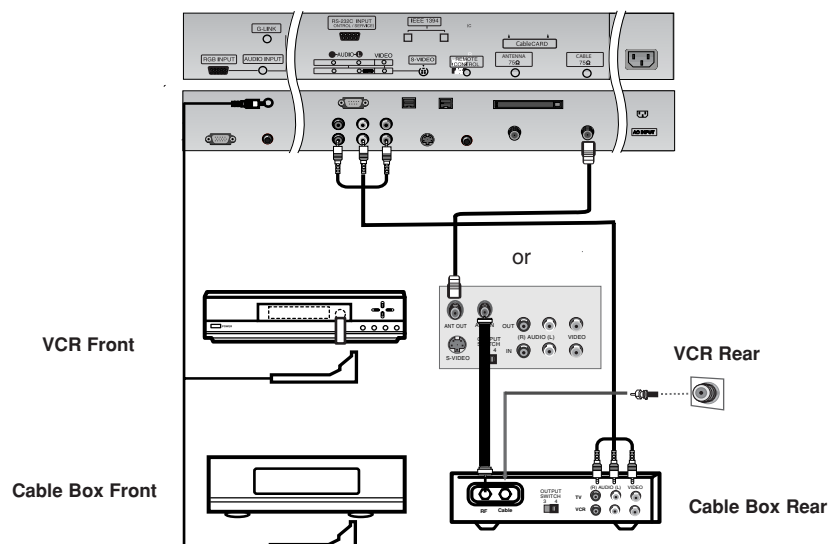
1. Antenna Service



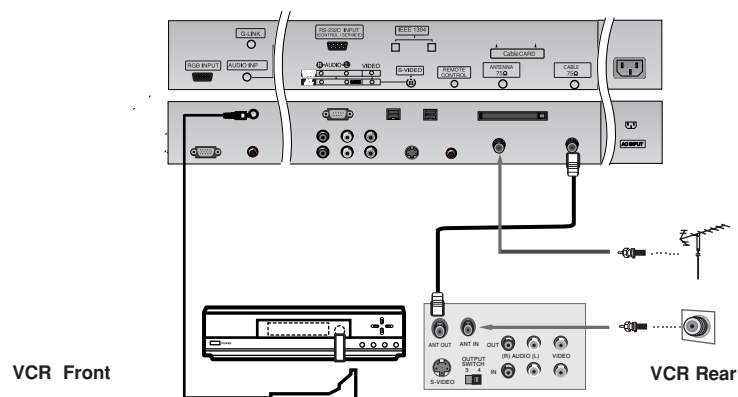
2. Cable Service without a Cable Box



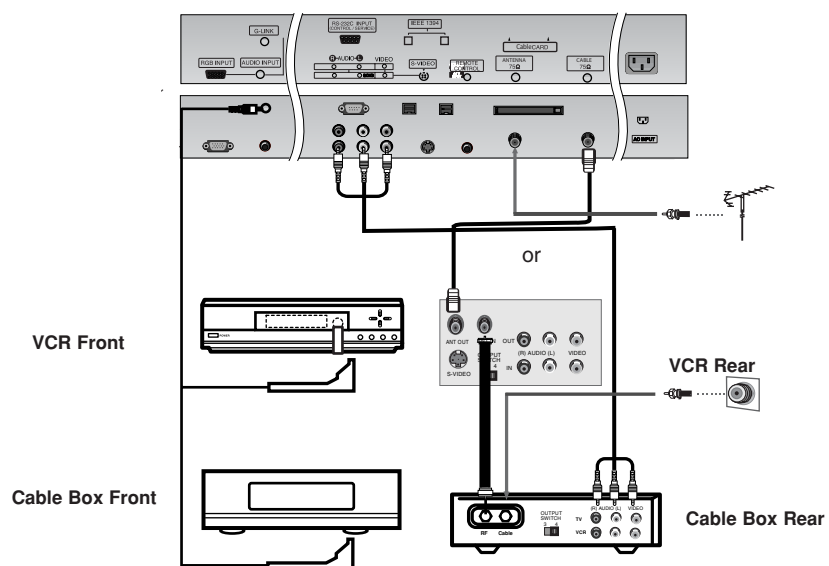
3. Cable Service with a Cable Box



4. Antenna and Cable Service without a Cable Box



5. Antenna and Cable Service with a Cable Box



Note:

- The G-LINK cable is necessary for the TV Guide On Screen system to work with your Cable Box and VCR. See Page 22~23 for G-LINK connection instructions.

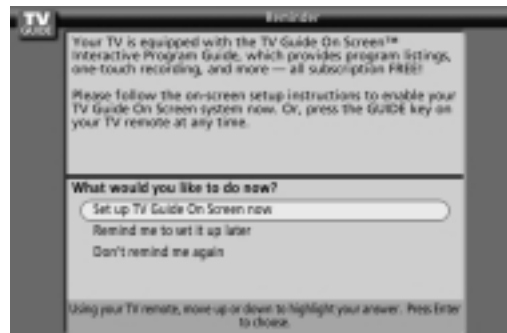
1. Reminder Screen

The TV Guide On Screen system's Reminder Screen appears:

- after initial TV set up
- if you power Off the TV and then power it back On

To make a selection, use the ▲ / ▼ button to highlight to an option, and press **ENTER**.

- "Set up TV Guide On Screen now," displays the Welcome Screen. Press **ENTER** to begin Setup.
- "Remind me to set up later" returns you to watching TV.
- "Don't remind me again" returns you to watching TV and stops the reminder screen from appearing upon power On.



2. Welcome Screen

The TV Guide On Screen system's Welcome Screen appears:

- by pressing the TV Guide key
- when you power On your TV if you previously skipped "Set up TV Guide On Screen now" on the Reminder Screen.

The Welcome Screen highlights features of the TV Guide On Screen system.

Press **ENTER** to begin Setup.



How to use

1. Screen 1: Country

- This screen asks you the location of your TV.
- Use the ▲ / ▼ button to highlight a country.
- Press **ENTER** to display Screen 2.

