

CCC090AT
CCC092AT

Color TV built-in VCR
Owner's Manual



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Return your Warranty Registration card today to ensure you receive all the benefits you're entitled to.

Once your PHILIPS purchase is registered, you're eligible to receive all the privileges of owning a PHILIPS product. So complete and return the Warranty Registration Card enclosed with your purchase at once. And take advantage of these important benefits.

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Registering your product within 10 days confirms your right to maximum protection under the terms and conditions of your PHILIPS warranty.

Owner Confirmation

Your completed Warranty Registration Card serves as verification of ownership in the event of product theft or loss.

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Thank you for your confidence in PHILIPS. You've selected one of the best-built, best-backed products available today. And we'll do everything in our power to keep you happy with your purchase for many years to come.

As a member of the PHILIPS "family," you're entitled to protection by one of the most comprehensive warranties and outstanding service networks in the industry.

What's more, your purchase guarantees you'll receive all the information and special offers for which you qualify, plus easy access to accessories from our convenient home shopping network.

And most importantly you can count on our uncompromising commitment to your total satisfaction.

All of this is our way of saying welcome-and thanks for investing in a PHILIPS product.

Sincerely,



Robert Minkhorst
President and Chief Executive Officer

P.S. Remember, to get the most from your PHILIPS product, you must return your Warranty Registration Card within 10 days. So please mail it to us right now!



Know these safety symbols



⚡ This "bolt of lightning" indicates uninsulated material within your unit may cause an electrical shock. For the safety of everyone in your household, please do not remove product covering.

⚠ The "exclamation point" calls attention to features for which you should read the enclosed literature closely to prevent operating and maintenance problems.

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE.

CAUTION: To prevent electric shock, match wide blade of plug to wide slot, fully insert.

ATTENTION: Pour éviter les choc électriques, introduire la lame la plus large de la fiche dans la borne correspondante de la prise et pousser jusqu'au fond.

For Customer Use

Enter below the Serial No. which is located on the rear of the cabinet. Retain this information for future reference.

Model No. _____
Serial No. _____

Visit our World Wide Web Site at <http://www.philips.com>

Welcome to your TV/VCR owner's manual.

This manual describes both the CCC090AT and the CCC092AT. The models look different, but they operate exactly the same. The CCC090AT is illustrated in this manual. The features described in this manual apply to both models unless otherwise specified.

Features

- A-B Repeat Play
- Automatic Channel Setup
- Automatic Head Cleaner
- Automatic Tracking Adjustment
- Blue Background
- Daylight-Savings Time
- Dew Sensor
- English or Spanish displays
- High Quality (HQ) System
- One-Touch Recording
- Real-Time Counter
- Repeat Play
- S-VHS Quasi Play Back (SQPB)
- ShowGuard™ - Indefinite Timer Recording memory
- Sleep Timer
- SmartClock™
- Special Effects: Forward and Reverse Searching, Still
- Timer Recording
- Wake Up Timer

Safety Precautions

Warning: To prevent fire or shock hazard, do not expose this equipment to rain or moisture.

Federal Communications Commission (FCC) Warning: Any unauthorized changes or modifications to this equipment void the user's authority to operate it.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

1. Reorient or relocate the receiving antenna.
2. Increase the separation between the equipment and receiver.
3. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
4. Consult the dealer or an experienced radio/TV technician for help.

Philips Consumer Electronics recommends you use only video cassette tapes that have the **VHS** mark. Other tapes may cause poor picture quality and excessive deposits on the video heads that the warranty may not cover if damage occurs.

This VCR has a High Quality (HQ) system and is compatible with existing Video Home System (VHS) equipment.

Note to the Cable TV System Installer: This reminder calls the Cable TV system installer's attention to Article 820-40 of the National Electrical Code, which provides guidelines for proper grounding – in particular, specifying that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as possible.

Declaration of Conformity

Model Numbers: CCC090AT, CCC092AT
Trade Name: Philips
Responsible Party: Philips Consumer Electronics
P.O. Box 14810
Knoxville, TN 37914
(865) 521-4316



As an ENERGY STAR® Partner, Philips Consumer Electronics has determined that this product meets the ENERGY STAR® guidelines for energy efficiency. ENERGY STAR® is a U.S. registered mark. Using products with the ENERGY STAR® label can save energy. Saving energy reduces air pollution and lowers utility bills.

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Putting Batteries in the Remote Control

1

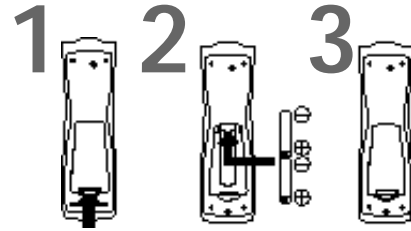
Remove the battery compartment lid on the bottom of the remote control by pressing in the tab, then lifting off the lid.

2

Place two AA batteries inside the battery compartment with their + and - ends aligned as indicated.

3

Replace the battery compartment lid.



Battery Safety

- Battery Usage CAUTION - To prevent battery leakage that may result in bodily injury or damage to the unit:
Install ALL batteries correctly, with the + and - markings on the battery aligned as indicated on the unit;
Do not mix batteries, for example, old with new or carbon with alkaline; and
Remove batteries when the unit will not be used for a long time.

Recording Prevention

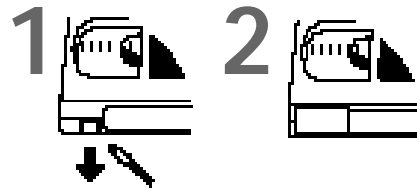
Video cassette tapes have record tabs to ensure you do not erase recordings accidentally.

1

To prevent accidental recording, break off the tab with a screwdriver.

2

To record again, cover the hole with cellophane tape.



Using the Remote Control

- Point the remote control at the TV/VCR's remote sensor.
- Do not put objects between the remote control and the TV/VCR.

TV/VCR Maintenance

- In this TV/VCR, use only tapes with the **VHS** mark.
- Remove any light adhesive stick-on notes from the video cassette tape before putting the tape in the TV/VCR. Removable labels can jam the TV/VCR.
- The TV/VCR requires periodic maintenance to maintain its excellent performance. This TV/VCR has an automatic head cleaning system. However, the video heads will eventually require cleaning or replacement. Only an authorized service center should perform this service.

Helpful Hints

- Your new product, its packaging, and this manual contain materials that can be recycled and reused. Specialized companies can recycle your product to increase the amount of reusable materials and to minimize the amount that needs to be properly disposed. Your product uses batteries that should not be thrown away when depleted but should be disposed of as small chemical waste. Please find out about the local regulations on disposal of your old product, batteries, manual, and packaging when you replace existing equipment.

6 Hooking Up the TV/VCR

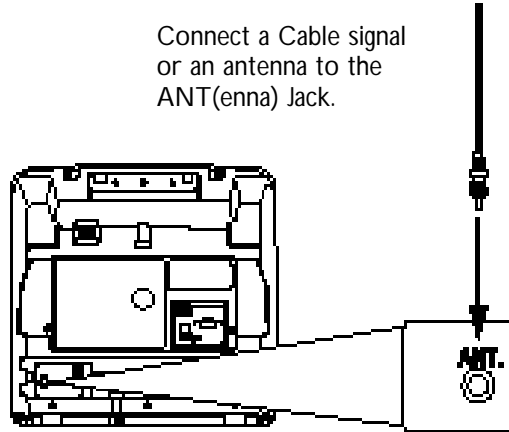
1

Connect an antenna or cable signal to your TV/VCR using one of the following connections.

A.

Hooking Up Your TV/VCR With a Cable Signal or Outdoor Antenna

Connect a Cable signal or an antenna to the ANT(enna) Jack.



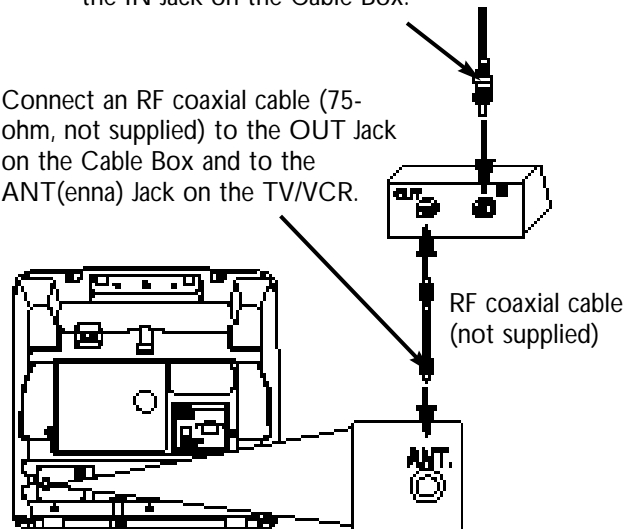
B.

Hooking Up Your TV/VCR With a Cable Box

To view any channel, set the TV/VCR to the Cable Box output channel (channel 03 or 04). Then, select channels at the Cable Box.

Connect the Cable signal to the IN Jack on the Cable Box.

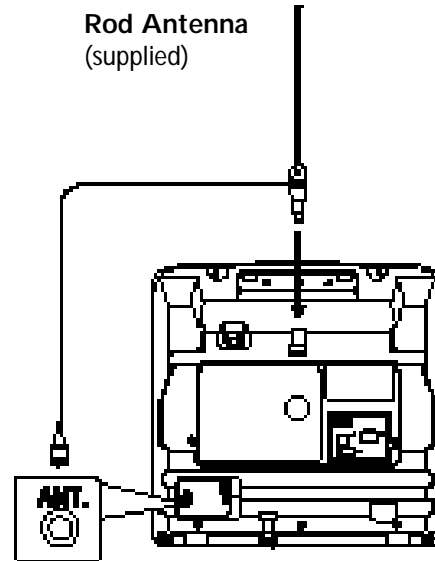
Connect an RF coaxial cable (75-ohm, not supplied) to the OUT Jack on the Cable Box and to the ANT(enna) Jack on the TV/VCR.



C.

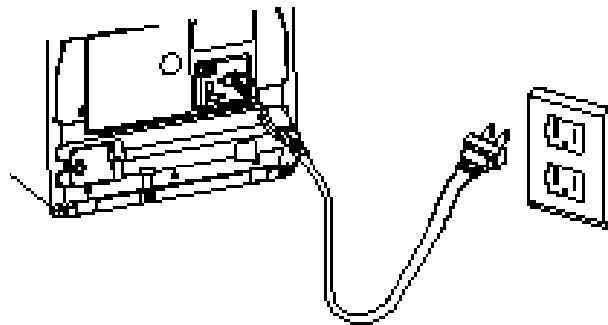
Hooking Up Your TV/VCR with the Supplied Rod Antenna

To install the supplied rod antenna, push the base stem of the antenna into the antenna hole on the back of the TV/VCR. Connect the antenna wire to the ANT(enna) Jack on the back of the TV/VCR as shown. Extend the antenna and adjust its length, direction, and angle for the clearest picture.



2

Connect the AC power cord to the AC 120V jack on the back of the TV/VCR. Plug the AC power cord into an AC power outlet. Use only the supplied AC power cord.

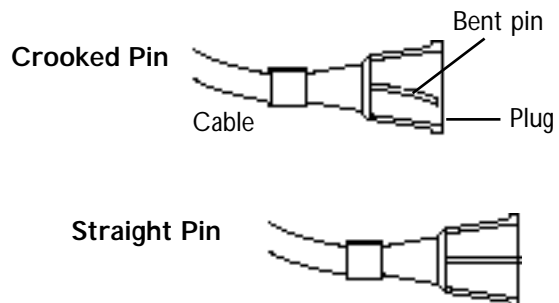


3

Before you turn on the TV/VCR, go to page nine.

Helpful Hint

- Before connecting an antenna or cable signal to the ANT(enna) Jack, make sure the pin is not bent. If the pin is bent, straighten it as illustrated, then connect the antenna or cable signal to the ANT(enna) Jack.



8 Hooking Up the TV/VCR (cont'd)

Mobile Connections

Usually, the supplied rod antenna provides adequate reception. But when you want to watch TV outdoors or in a vehicle, try a mobile antenna (not supplied) or an indoor dipole antenna (not supplied) for better reception.

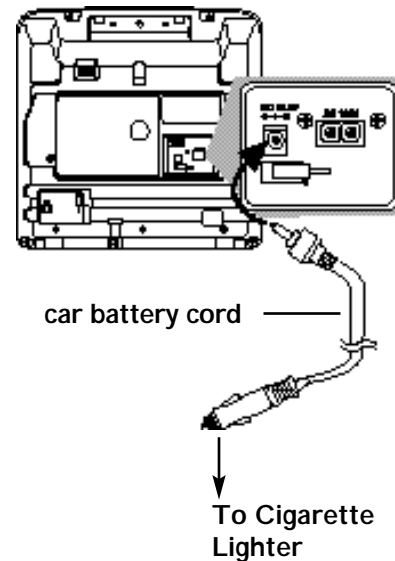
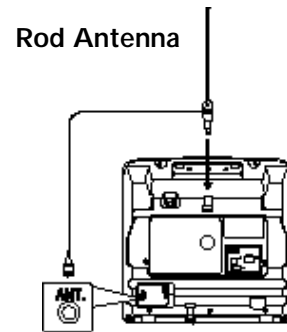
1

Connect an antenna to the ANT(enna) jack. If you do not use the supplied rod antenna, refer to the instructions with your other antenna to make a connection.

2

Make sure your vehicle has a 13.2-volt, negative ground electrical system. Connect one end of the car battery cord to the DC 13.2V jack on the back of the TV/VCR. Then connect the other end of the car battery cord to the cigarette lighter in your vehicle.

Use only the supplied car battery cord. Using another cord could damage the TV/VCR. Make sure you push the car battery cord's plug completely into the cigarette lighter.

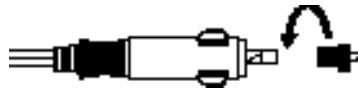


Fuse Replacement

If the TV/VCR does not have power when connected properly in your vehicle, replace the fuse in the car battery cord.

Use only a 5-amp, 250-volt, fast blow fuse, which is available at an electronics retailer.

1

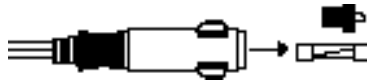


To remove the old fuse, unscrew the red cap from the end of the cord. Place your fingers on the grooved part of the cap and turn the cap counter-clockwise.

2

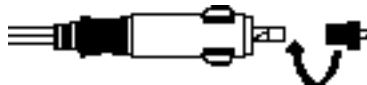
When the cap is removed, the red cap and the silver tip will be loose. The fuse will be loose inside the end of the cord.

3



Remove the old fuse and insert a new fuse.

4



Replace the red cap and the silver tip. The fuse will tighten into place as you screw on the cap, turning the cap clockwise. (The end of the fuse will fit into the silver tip, which is in the center of the red cap when tightened.)

Helpful Hints

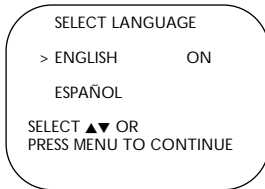
- Do not watch TV while driving.
- Make sure the cigarette lighter jack is free of ashes and other debris.
- Always unplug the car battery cord from the cigarette lighter before you unplug it from the TV/VCR.
- You must disconnect the car battery cord from the TV/VCR before you can use standard electrical (AC) power.
- If you use the TV/VCR with the vehicle's engine off, recharge the vehicle's battery often. Unplug the car battery cord from the cigarette lighter when you finish using the TV/VCR.
- When you use the TV/VCR with a car battery cord, noise may appear on the TV/VCR screen.
- Do not use this TV/VCR in high temperature conditions. Details are on page 51.

Turning On the TV/VCR 9

Before you turn on the TV/VCR, make sure batteries are in the remote control and you have connected the TV/VCR correctly. The instructions on this page work only when you turn on the TV/VCR for the first time.

1

Press the **POWER** button. The TV/VCR will come on and this screen will appear.

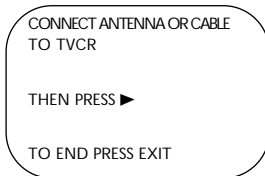


2

Press the **PLAY/▲** button or the **STOP/▼** button to select English or Spanish on-screen displays and menus.

3

Press the **MENU** button. This screen will appear.

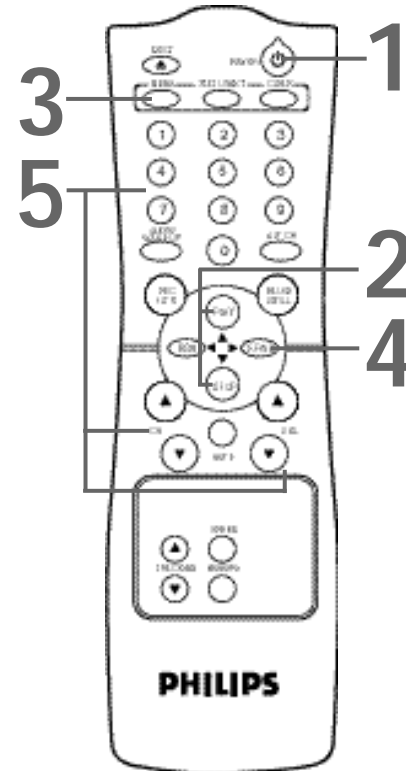


4

Press the **F.FWD/►** button to begin automatic channel setup. The TV/VCR will memorize all available channels. When channels are set, CHANNELS ARE SET will appear on the screen briefly. Then the TV/VCR will go to the lowest available channel. If you try to set up channels when there is no antenna or cable connected to the TV/VCR, programming will appear to take place, but eventually a NO TV SIGNALS ... message will appear on the screen. Connect an antenna or cable to the ANT(enna) jack on the TV/VCR, then press the F.FWD/► button again. You may need to follow the steps on page 10 instead.

5

Use the **CH(annel) ▲/▼** buttons or the **Number** buttons on the remote control to select a TV/VCR channel. Use the **VOL(ume) ▲/▼** buttons to adjust the sound. When you scan channels with the CH(annel) ▲/▼ buttons, only the memorized channels will be available. Use the Number buttons to select non-memorized channels.



Helpful Hints

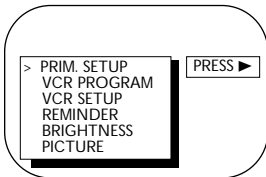
- If you do not see any on-screen displays when you turn on the TV/VCR, check your hookups, then try again. If you still do not see any on-screen displays, follow the steps on page 10 to set up channels or page 20 to select a language.
- To skip step 2, press the MENU button. All on-screen displays will be in English. To skip step 4, press the STATUS/EXIT button. Automatic Channel Setup will not occur, and CHANNELS NOT SET will appear on the screen briefly.
- You cannot set up channels if you are using a Cable Box.
- Line Input mode is channel 00. When you select channel 00, A/V IN will appear on the screen briefly. Press the CH(annel) ▲/▼ buttons or the Number buttons to select another channel.

10 Automatic Channel Setup

Although the TV/VCR may automatically memorize the channels you receive when you turn it on for the first time, you may set up channels again by following these steps.

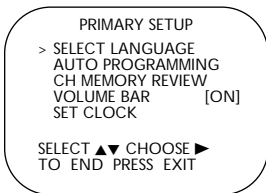
1

Press the MENU button.



2

Press the PLAY/▲ button or the STOP/▼ button to select PRIM. SETUP, then press the F.FWD/► button.



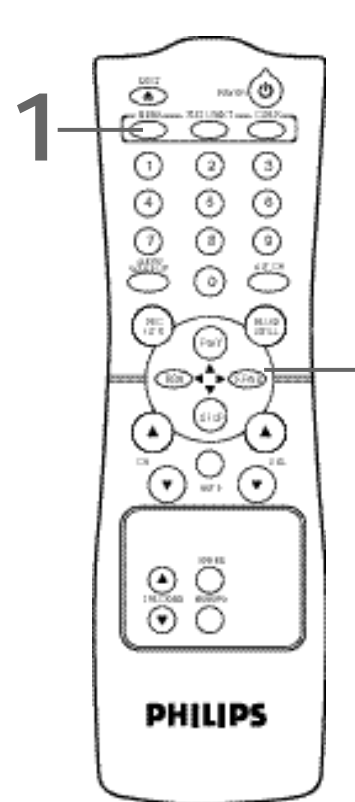
3

Press the PLAY/▲ button or the STOP/▼ button to select AUTO PROGRAMMING, then press the F.FWD/► button. AUTO CH PROGRAMMING ... will appear on the screen. The TV/VCR distinguishes between TV channels and cable channels automatically, and the TV/VCR will memorize its available channels.

4

Wait for a few minutes. When setup is complete, CHANNELS ARE SET will appear on the screen. Then the programming of the lowest memorized channel number will appear on the screen. Now, when you press the CH(annel) ▲/▼ buttons, you will scan only through channels you receive. You can still select non-memorized channels using the Number buttons.

2-3



4 Wait for the TV/VCR to set up channels.

Helpful Hints

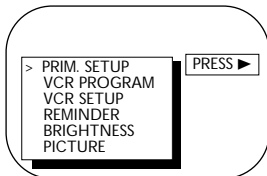
- Line Input mode will always be channel 00. You cannot delete it. Line Input Mode (A/V IN) is the channel to which you set the TV/VCR when you want to view programming from another source. For example, you could connect a VCR, camcorder, or DVD Player to the TV/VCR. Details are on page 32.
- You can not select AUTO PROGRAMMING at step 3 if you are in Line Input mode.

Adding/Deleting Channels

If your channel lineup changes, you may want to add newly available channels or remove channels that are no longer available in your area. You can use the CH(annel) ▲/▼ buttons to scroll through only the available channels. To add or delete channels from the TV/VCR's memory, follow these steps.

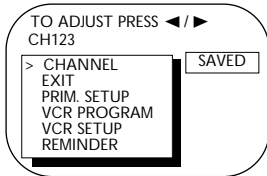
1

Press the MENU button.



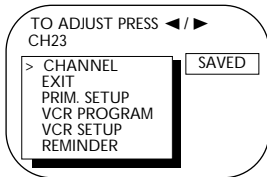
2

Press the PLAY/▲ button or the STOP/▼ button to select CHANNEL.



3

Press the CH(annel) ▲/▼ buttons or the Number buttons to select the channel you want to add or delete. The channel number will appear in the top left corner of the screen. Saved channel numbers will be yellow. Deleted channel numbers will be red.



4

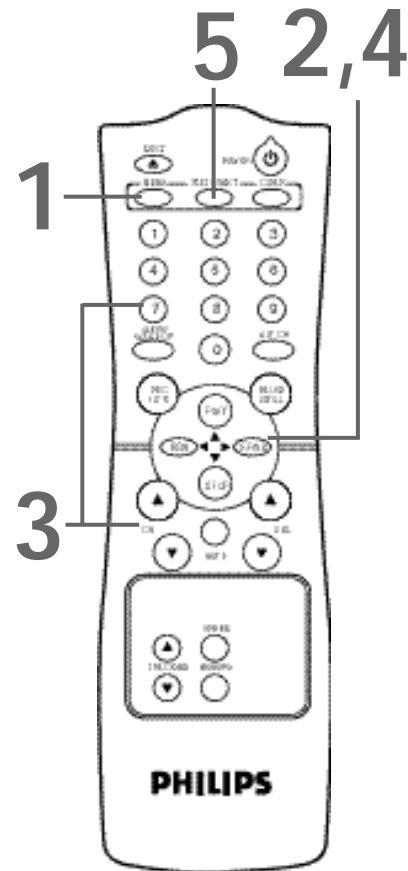
Press the F.FWD/▶ button or the REW(ind)/◀ button to select SAVED (to add that channel) or DELETED (to delete that channel).

Repeat steps 3-4 to add or delete other channels.

5

Press the STATUS/EXIT button.

Programming of the channel you added or deleted will appear.



Helpful Hint

- To review the memorized channels, follow these steps.
 - 1) Press the MENU button.
 - 2) Press the PLAY/▲ button or the STOP/▼ button to select PRIM. SETUP. Press the F.FWD/▶ button.
 - 3) Press the PLAY/▲ button or the STOP/▼ button to select CH MEMORY REVIEW. Press the F.FWD/▶ button. A list of programmed channels will appear on the screen.
 - 4) If all the programmed channels don't fit on the screen, press the F.FWD/▶ button. If you do not press the F.FWD/▶ button within 10 seconds, the remaining channels will appear on the screen. (If there are no remaining channels, the previous menu will appear.) Or press the REW(ind)/◀ button to see the previous screen of channels.
 - 5) Press the STATUS/EXIT button once or twice.

12 Setting the Clock

There are three ways to set the clock: Manually, with Automatic PBS Channel Selection, or with Manual PBS Channel Selection. With manual clock setting, you tell the TV/VCR the current time. With Automatic or Manual PBS Channel Selection, the TV/VCR gets the time from a PBS station.

If you use either Manual PBS Channel Selection or Automatic PBS Channel Selection, follow the steps on page 19 to have the TV/VCR maintain the clock according to your Time Zone. The channel that supplies the time might be broadcasting from a different time zone. So, select your Time Zone to ensure the TV/VCR clock is correct.

Set the clock manually if you are using a Cable Box or the mobile connection. Details are on pages six and eight.

To set the clock manually, follow the steps on pages 12-13. To set the clock using Automatic PBS Channel Selection, follow the steps on pages 14-15. To set the clock using Manual PBS Channel Selection, follow the steps on pages 16-17.

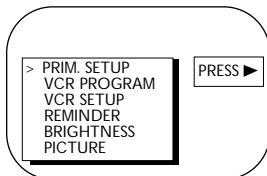
Before you begin, make sure:

- You have connected and turned on the TV/VCR. Details are on pages six-nine.
- Channels are set. Details are on pages 10-11.
- You make each entry within 60 seconds of the previous entry.

Manual Clock Setting

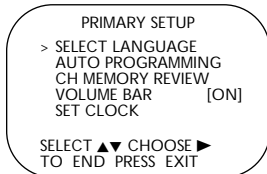
1

Press the MENU button.



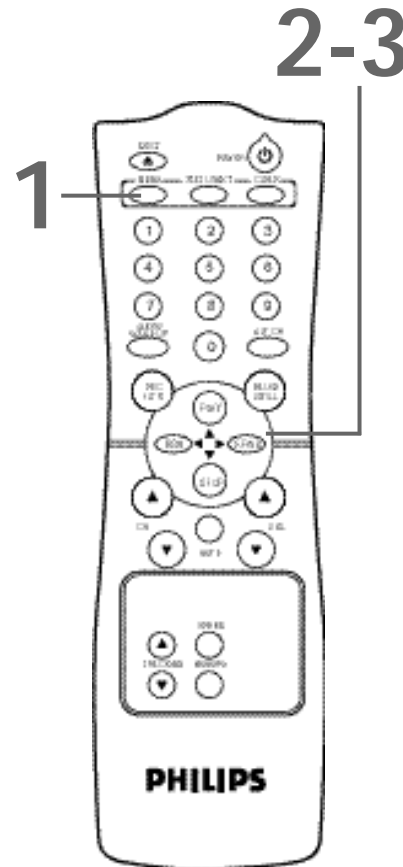
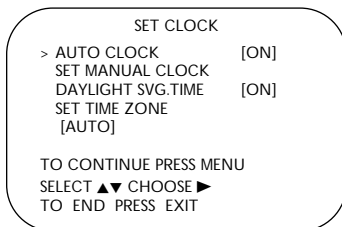
2

Press the PLAY/▲ button or the STOP/▼ button to select PRIM. SETUP. Then, press the F.FWD/▶ button.



3

Press the PLAY/▲ button or the STOP/▼ button to select SET CLOCK. Then, press the F.FWD/▶ button.

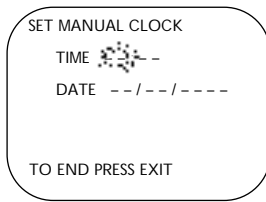


Helpful Hints

- Entries that do not match the TV/VCR's calendar will cause a question mark (?) to appear on the screen. Enter the correct number.
- To make corrections while you are setting the clock, press the CLEAR button until the space for the number you want to correct is flashing. Then enter the correct number.

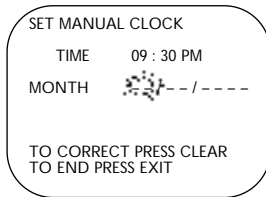
4

Press the **PLAY/▲** button or the **STOP/▼** button to select **SET MANUAL CLOCK**, then press the **F.FWD/▶** button.



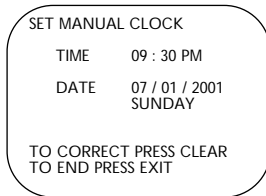
5

Press two **Number** buttons for the hour(s) and two **Number** buttons for the minute(s). Then press **1** for **AM** or **2** for **PM**. For example, for 9:30 PM, press 09, 30, 2.



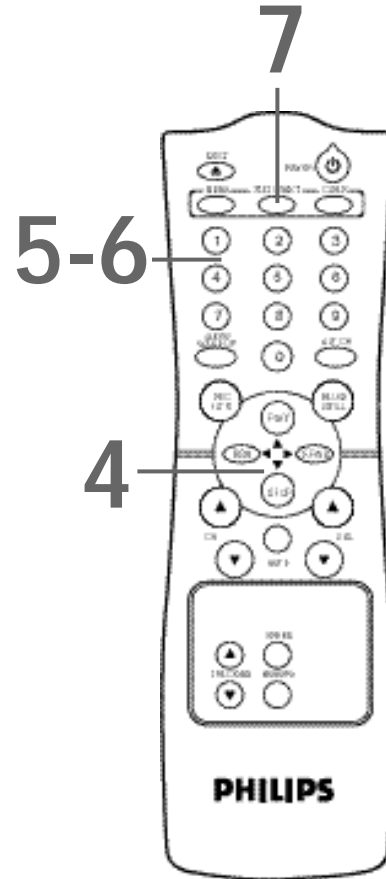
6

Press two **Number** buttons for the month, two **Number** buttons for the day, and two **Number** buttons for the year. For example, for July 1, 2001, press 07, 01, 01. The day of the week will appear automatically.



7

Press the **STATUS/EXIT** button.

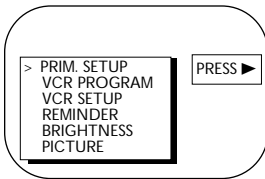


14 Setting the Clock (cont'd)

Automatic PBS Channel Selection

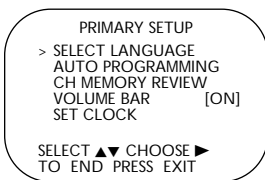
1

Press the MENU button.



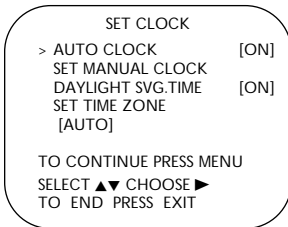
2

Press the PLAY/▲ button or the STOP/▼ button to select PRIM. SETUP. Then, press the F.FWD/► button.



3

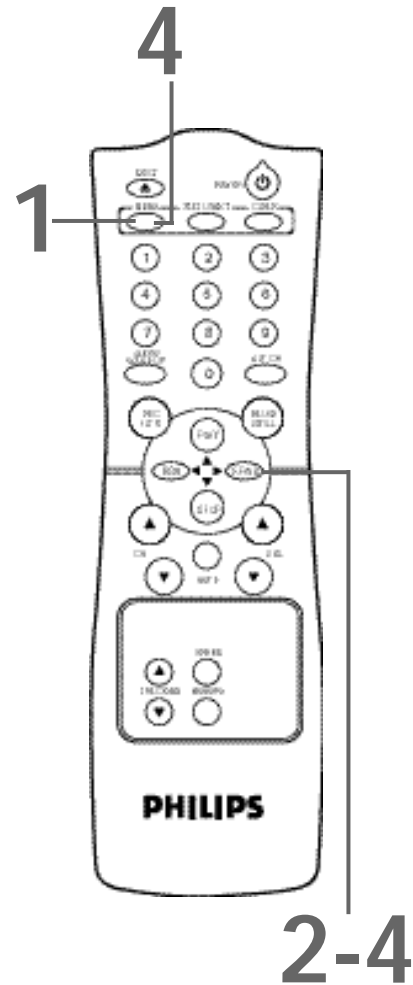
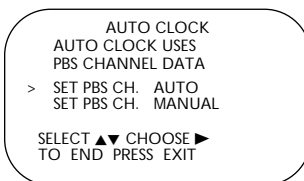
Press the PLAY/▲ button or the STOP/▼ button to select SET CLOCK. Then, press the F.FWD/► button.



4

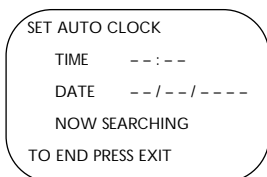
If ON appears beside AUTO CLOCK, press the MENU button.

If OFF appears beside AUTO CLOCK, press the PLAY/▲ button or the STOP/▼ button to select AUTO CLOCK, then press the F.FWD/► button so that ON appears to the right of AUTO CLOCK. Then, press the MENU button.



5

Press the **PLAY/▲** button or the **STOP/▼** button to select **SET PBS CH. AUTO**. Then, press the **F.FWD/▶** button.

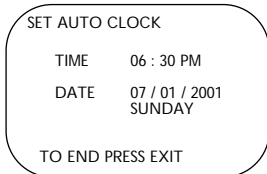


6

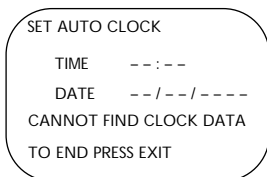
NOW SEARCHING flashes on the TV/VCR screen.

7

When the TV/VCR finds the PBS channel, the time will appear on the screen. Press the **STATUS/EXIT** button.



- If **CANNOT FIND CLOCK DATA** flashes on the TV/VCR screen, you will be prompted to turn off the TV/VCR. Turn off the TV/VCR. Leave it off for several minutes. When you turn on the TV/VCR again, the clock will be set.



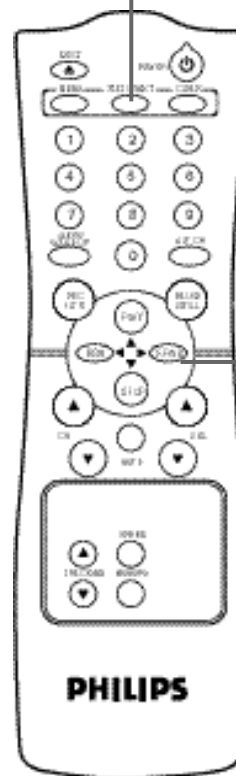
8

When the clock is set, go to page 19 and set the TV/VCR clock for your time zone. The channel that supplies the time might be broadcasting from a different time zone. So, select your Time Zone to ensure the TV/VCR clock is correct.

6

Wait for the TV/VCR to find the time.

7



5

Helpful Hints

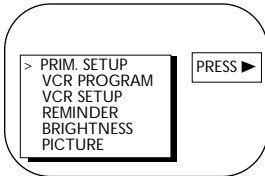
- To display the time on the TV/VCR screen, press the **STATUS/EXIT** button. Details are on page 25.
- You cannot use the **AUTO CLOCK** feature if you don't receive a PBS channel that carries a time signal in your area. Set the clock manually.
- Automatic clock setting is not possible if the car battery cord is connected to the DC 13.2V jack. **CAR USERS SET CLOCK MANUALLY** will flash on the screen briefly, then the **SET MANUAL CLOCK** screen will appear. Refer to pages 12-13 to set the clock manually.

16 Setting the Clock (cont'd)

Manual PBS Channel Selection

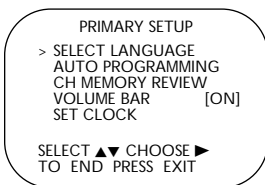
1

Press the MENU button.



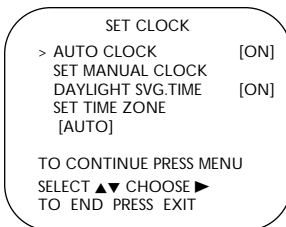
2

Press the PLAY/▲ button or the STOP/▼ button to select PRIM. SETUP. Then, press the F.FWD/► button.



3

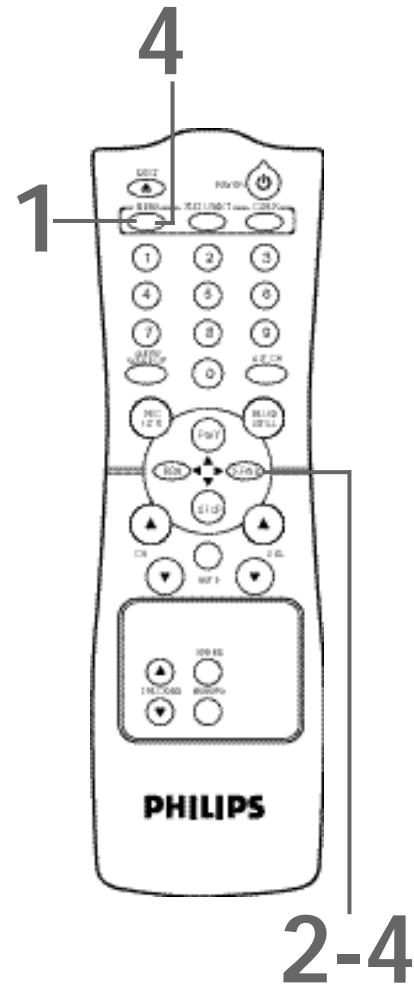
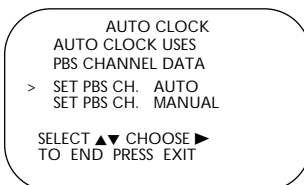
Press the PLAY/▲ button or the STOP/▼ button to select SET CLOCK. Then, press the F.FWD/► button.



4

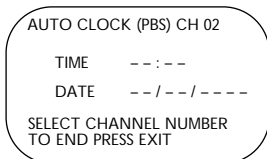
If ON appears beside AUTO CLOCK, press the MENU button.

If OFF appears beside AUTO CLOCK, press the PLAY/▲ button or the STOP/▼ button to select AUTO CLOCK, then press the F.FWD/► button so that ON appears to the right of AUTO CLOCK. Then, press the MENU button.



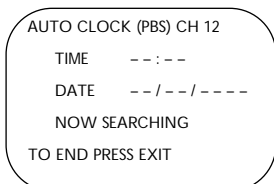
5

Press the **PLAY/▲** button or the **STOP/▼** button to select **SET PBS CH. MANUAL**. Then, press the **F.FWD/▶** button.



6

Use the **Number** buttons to select your PBS station.

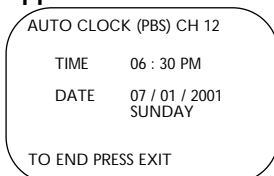


7

NOW SEARCHING flashes on the TV/VCR screen.

8

When the TV/VCR finds the clock data, the time will appear on the screen. Press the **STATUS/EXIT** button.



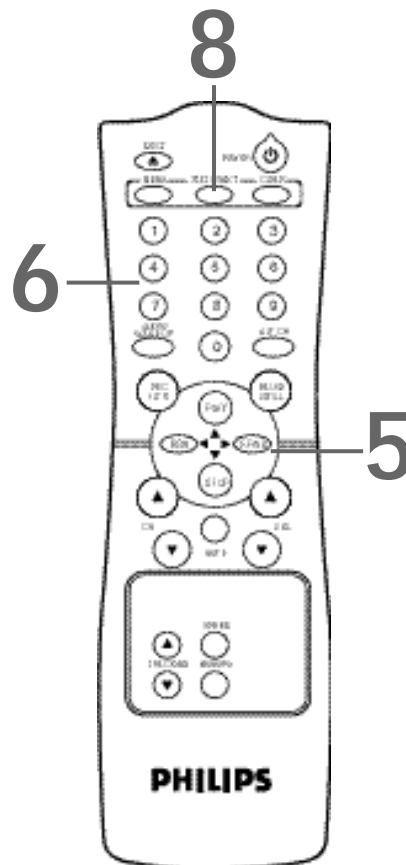
- If **CANNOT FIND CLOCK DATA** flashes on the TV/VCR screen and you know another PBS channel, press the **PLAY/▲** button or the **STOP/▼** button to choose **SELECT NEW PBS CH.** Then, press the **F.FWD/▶** button. Repeat step 6.
- If **CANNOT FIND CLOCK DATA** flashes on the TV/VCR screen and you do not know another channel, press the **PLAY/▲** button or the **STOP/▼** button to select **SET PBS CH. AUTO**. Then, press the **F.FWD/▶** button. The TV/VCR will search for the PBS channel automatically.
 - If the TV/VCR finds the PBS channel, the time will appear on the screen.
 - If the TV/VCR does not find the PBS channel, you will be prompted to turn off the TV/VCR. Leave it off for several minutes. When you turn on the TV/VCR again, the time will be set.

9

When the clock is set, go to page 19 and set the TV/VCR clock for your time zone. The channel that supplies the time might be broadcasting from a different time zone. So, select your Time Zone to ensure the TV/VCR clock is correct.

7

Wait for the TV/VCR to find the time.



Helpful Hints

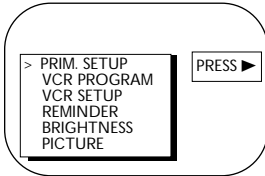
- If you have an Antenna hookup, you may select channels 2-69 at step 6. If you have a cable connection, you may select channels 1-125 at step 6. Details about available memo-rized channels are on page 11.
- To display the time on the TV/VCR screen, press the **STATUS/EXIT** button. Details are on page 25.

18 Daylight-Savings Time

When the Daylight-Savings Time feature is ON, the TV/VCR clock will automatically move forward one hour on the first Sunday in April and move back one hour on the last Sunday in October. To turn Daylight-Savings Time ON or OFF, follow the steps below.

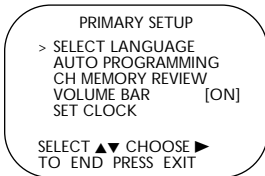
1

Press the **MENU** button.



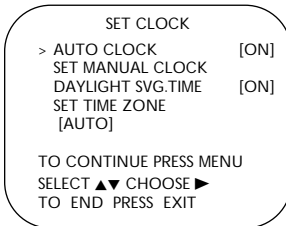
2

Press the **PLAY/▲** button or the **STOP/▼** button to select **PRIM. SETUP**. Then, press the **F.FWD/▶** button.



3

Press the **PLAY/▲** button or the **STOP/▼** button to select **SET CLOCK**. Then, press the **F.FWD/▶** button.

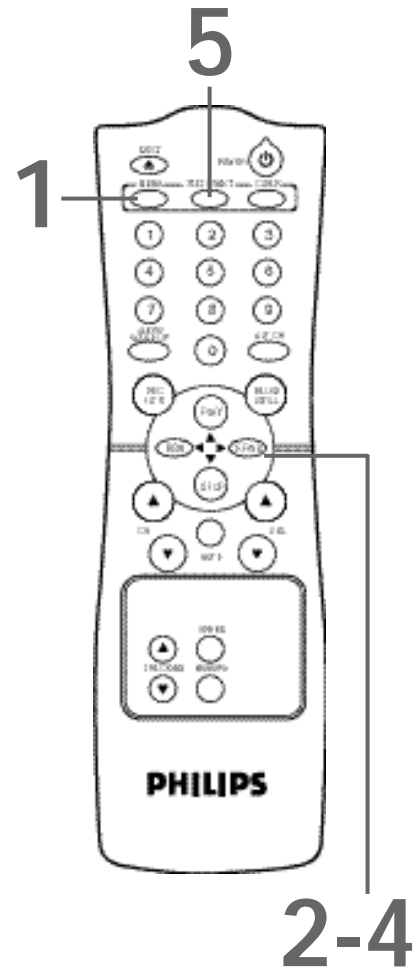


4

Press the **PLAY/▲** button or the **STOP/▼** button to select **DAYLIGHT SVG.TIME**. Then, press the **F.FWD/▶** button so that **ON** or **OFF** appears beside **DAYLIGHT SVG.TIME** (Daylight Savings Time).

5

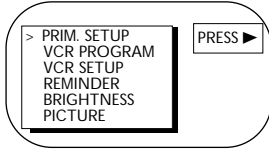
Press the **STATUS/EXIT** button.



When you set the clock using AUTO CLOCK, specify your time zone.

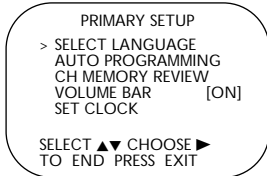
1

Press the MENU button.



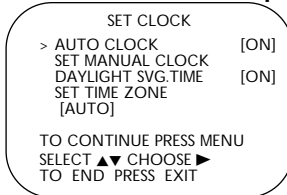
2

Press the PLAY/▲ button or the STOP/▼ button to select PRIM. SETUP. Then, press the F.FWD/► button.



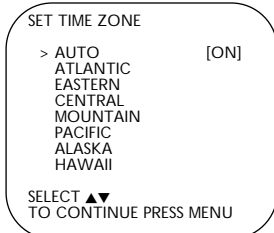
3

Press the PLAY/▲ button or the STOP/▼ button to select SET CLOCK. Then, press the F.FWD/► button.



4

Press the PLAY/▲ button or the STOP/▼ button to select SET TIME ZONE. Then, press the F.FWD/► button.



5

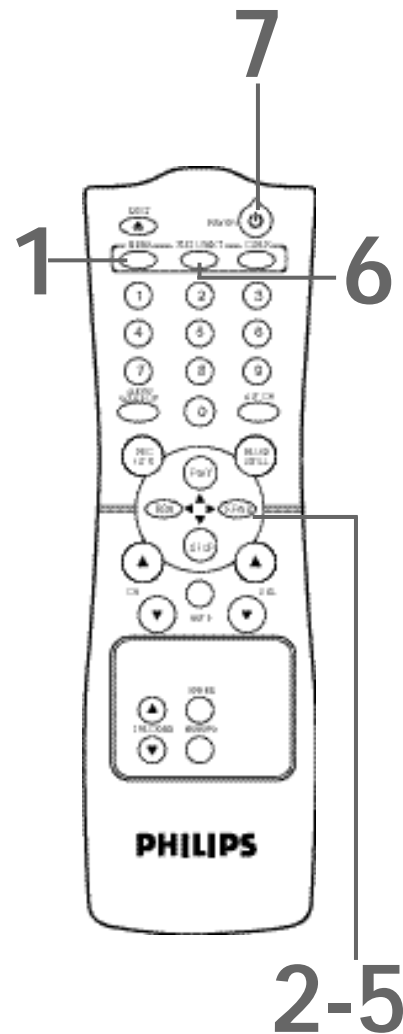
Press the PLAY/▲ button or the STOP/▼ button to select your time zone.

6

Press the STATUS/EXIT button twice.

7

Turn off the TV/VCR. Wait a few minutes for the clock to adjust to your time zone.



Helpful Hints

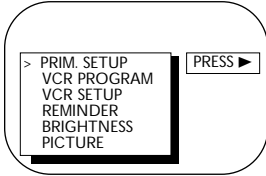
- If you select AUTO at step 5, the TV/VCR will set the clock according to the time zone data of the PBS station it finds.
- You cannot select SET TIME ZONE at step 4 if AUTO CLOCK is OFF.

20 Language Selection

Follow the steps below to change the language of the on-screen displays and menus.

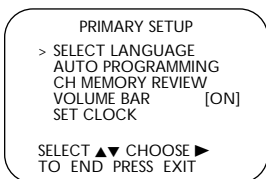
1

Press the MENU button.



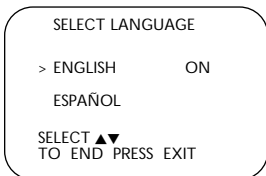
2

Press the PLAY/▲ button or the STOP/▼ button to select PRIM. SETUP. Then, press the F.FWD/► button.



3

Press the PLAY/▲ button or the STOP/▼ button to choose SELECT LANGUAGE. Then, press the F.FWD/► button.

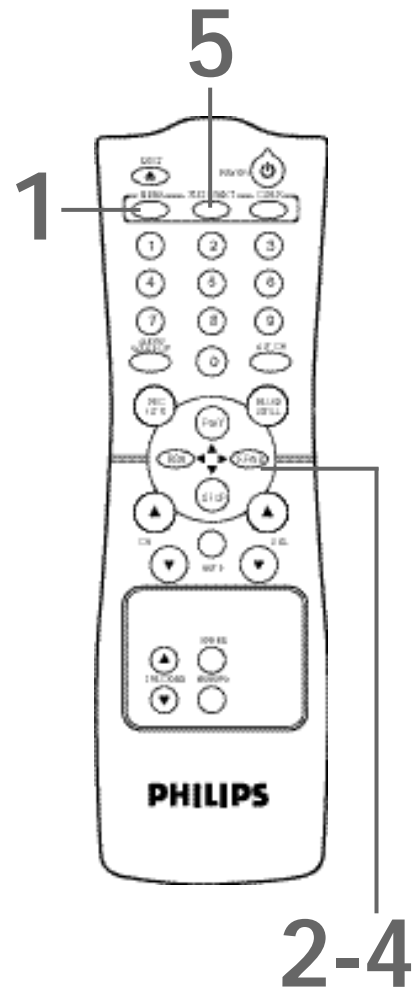


4

Press the PLAY/▲ button or the STOP/▼ button to select ENGLISH or ESPAÑOL (Spanish).

5

Press the STATUS/EXIT button.



Helpful Hint

- If you accidentally select Spanish and need English on-screen displays and menus:
 - 1) Press the MENU button.
 - 2) Press the PLAY/▲ button or the STOP/▼ button to select PREPARACION, then press the F.FWD/► button.
 - 3) Press the PLAY/▲ button or the STOP/▼ button to select SELECCION IDIOMA, then press the F.FWD/► button.
 - 4) Press the PLAY/▲ button or the STOP/▼ button to select ENGLISH.
 - 5) Press the STATUS/EXIT button.

Cassette Compartment

Insert a video cassette tape here.

Wireless Remote Sensor

Receives a signal from your remote control so you can operate the TV/VCR from a distance.

REC(ord) Light

This light appears during a recording. It flashes slowly when the TV/VCR power is off for a timer recording. It blinks rapidly when a recording is paused or when the power is off for a timer recording, but there is no tape in the TV/VCR. It will blink rapidly two minutes before a timer recording is set to begin if the TV/VCR power is on.

VIDEO In Jack

Connect this jack to the video out jack of a camcorder or a VCR. *Details are on page 32.*

AUDIO In Jack

Connect this jack to the audio out jack of a camcorder or a VCR. *Details are on page 32.*

POWER Button

Press to turn the power on or off.

STOP/EJECT Button

Press once to stop the tape. When playback is stopped, press to eject the tape. Press to select an item in the menu.

REW(ind) Button

When tape playback is stopped, press to rewind the tape at high speed. During playback, press to rewind the tape while the picture stays on the screen. Press to change a setting of a menu item (for example, to adjust the BRIGHTNESS) or to return to a previous menu.

PLAY Button

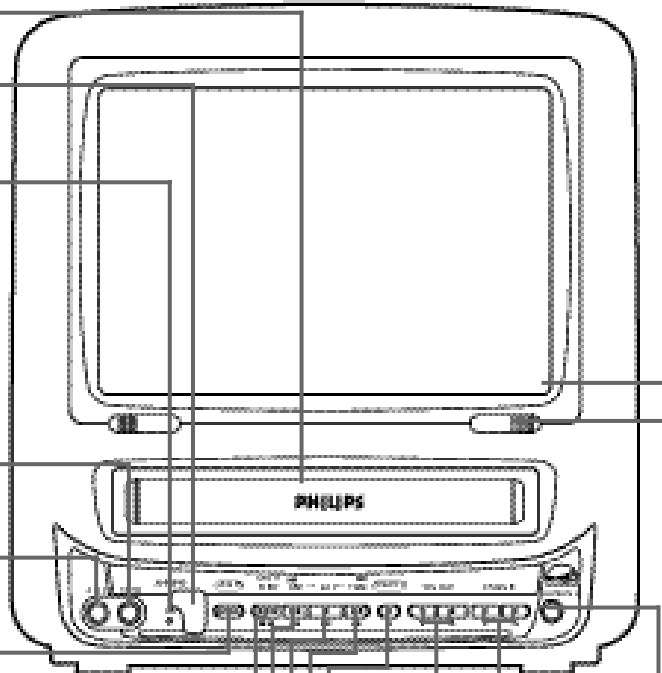
Press to play a tape. *Details are on page 29.*
Press to release Search or Still mode and return to normal playback. *Details are on page 42.* Press to select an item in the menu.

F.FWD (Fast Forward) Button

When tape playback is stopped, press to fast forward the tape at high speed. During playback, press to fast forward the tape while the picture stays on the screen. Press to change a setting of a menu item (for example, to adjust the BRIGHTNESS) or to advance to the next menu.

REC(ord)/OTR Button

Press once to start a recording. *Details are on page 30.* Press repeatedly to start a One-Touch Recording (an immediate timed recording, 30 minutes to eight hours long) of the channel you are watching. *Details are on page 31.*



CHANNEL ▲/▼ Buttons

Press to scan through the TV/VCR's memorized channels. During tape playback, press to adjust the tracking. *Details are on page 47.*

Press the CHANNEL ▲ button and the VOLUME ▼ button on the TV/VCR **at the same time** to display the main menu. Press again to remove the main menu.

VOLUME ▲/▼ Buttons

Press to adjust the sound level.
Press the CHANNEL ▲ button and the VOLUME ▼ button on the TV/VCR **at the same time** to display the main menu. Press again to remove the main menu.

EARPHONE Jack

Connect earphones (not supplied) here for personal listening.

Screen Cover

The TV/VCR screen is protected by a removable screen cover. If you want to remove the screen cover, slide in the two tabs that hold the cover in place, then pull off the cover.

22 Remote Control Buttons

CLEAR Button

Press to erase incorrect data when programming TV/VCR functions. Also, press to reset the real-time counter to 0:00:00.

Details are on page 41.

POWER Button

Press to turn on or off the TV/VCR.

Number Buttons

Use to select channels and to program TV/VCR functions (such as setting the clock).

● **Cable Users**

Enter channel numbers as a two-digit number for the quickest results. For example, to select channel 6, press 0,6. If you only press the Number 6 button, channel 6 will be selected after a brief delay. (There also may be a brief delay when you select channels 10, 11, and 12.) If you want to select channels 100 and above, enter channel numbers as a three-digit number. For example, to select channel 117, press 1, 1, 7.

● **Antenna Users**

Enter channel numbers as a two-digit number for the quickest results. For example, to select channel 5, press 0,5. If you only press the Number 5 button, channel 5 will be selected after a brief delay. You may only select channels 2-69.

SLEEP/WAKE UP Button

Press to set the Sleep Timer. *Details are on page 44.* Press to set the Wake Up Timer. *Details are on page 45.*

PLAY/▲ Button

Press to play a tape. *Details are on page 29.* Press to release Search or Still mode and return to normal playback. *Details are on page 42.* Press to select an item in the menu.

ALT. CH (Alternate Channel) Button

Press to return to the TV channel you were viewing immediately before switching to your current channel.

F.FWD/▶ Button

When tape playback is stopped, press to fast forward the tape at high speed. During tape playback, press to fast forward the tape while the picture stays on the screen. *Details are on page 42.*

Press to change the setting of a menu item or to go to the next menu.

SPEED Button

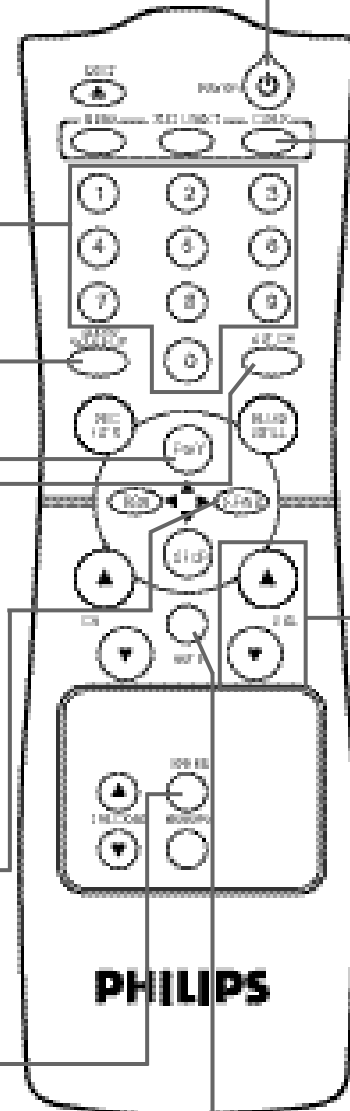
Press to select the recording speed (SP or SLP). *Details are on page 30.*

MUTE Button

Press to eliminate the TV/VCR's sound. Press again to return to the previous volume level.

VOL(ume) ▲/▼ Buttons

Press to adjust the sound level. If you press the VOL(ume) ▲/▼ buttons when the sound is muted, the sound will be restored.



STATUS/EXIT Button

Press to access or remove the status display. *Details are on page 25.* Press to remove the menu.

EJECT Button

Press to eject the tape.

MENU Button

Press to display the main menu. You also may use the buttons on the front panel of the TV/VCR to access the menu. *Details are on page 21.*

PAUSE/STILL Button

During recording, press to temporarily stop the recording. Press again to resume recording. *Details are on page 30.* You cannot pause a One-Touch Recording.

During tape playback, press to freeze the picture (still). Each time you press the PAUSE/STILL button, the noise lines will change position on the screen and the tape will advance slightly. *Details are on page 42.*

REC(ord)/OTR Button

Press once to start a recording. *Details are on page 30.* Or, press repeatedly to start a One-Touch Recording (an immediate timed recording, 30 minutes to eight hours long) of the channel you are watching. *Details are on page 31.*

REW(ind)/◀ Button

When tape playback is stopped, press to rewind the tape at high speed. During tape playback, press to rewind the tape while the picture stays on the screen. *Details are on page 42.*

Press to change a setting of a menu item or to return to a previous menu.

CH(annel) ▲/▼ Buttons

Press to scan through the TV/VCR's available channels.

TRACKING ▲/▼ Buttons

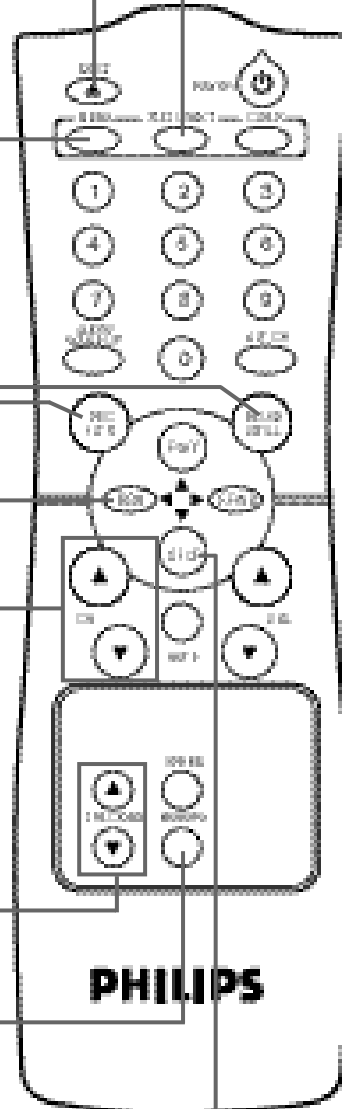
Press during tape playback to adjust the tracking. *Details are on page 47.*

MEMORY Button

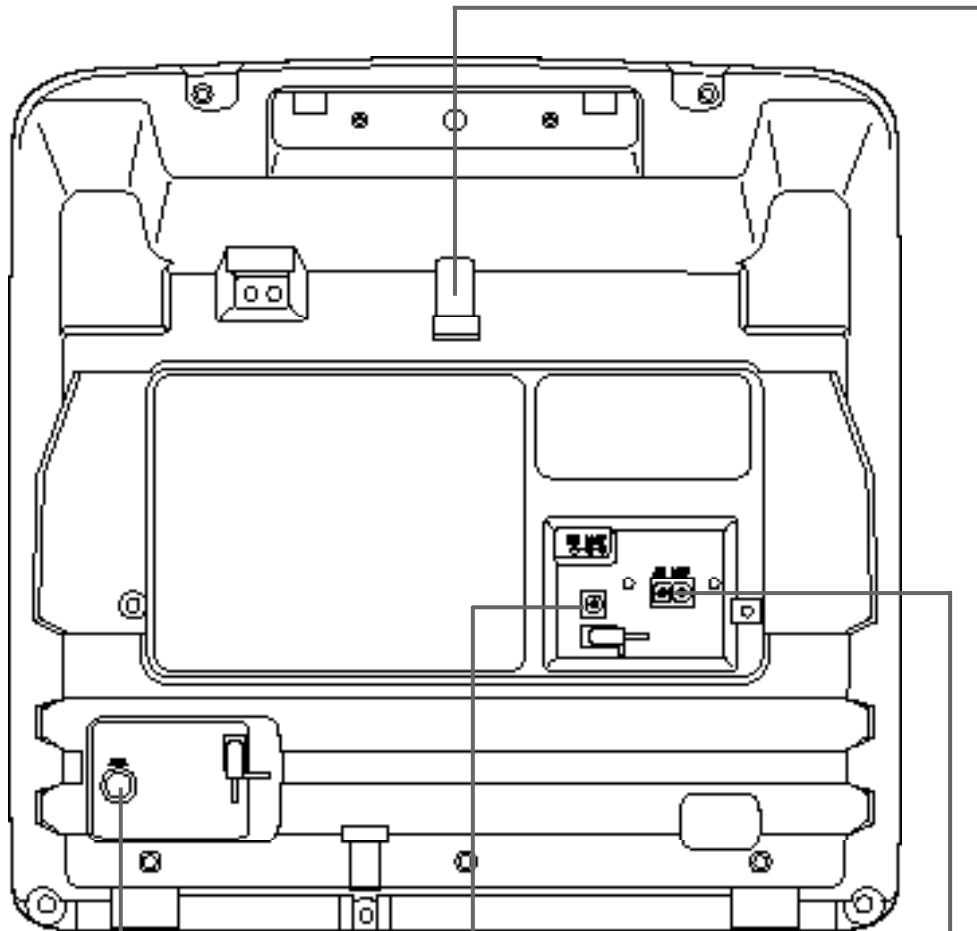
Press to memorize a tape position at which you set the real-time counter to 0:00:00. *Details are on page 41.* Or, press to memorize the start and end positions on a tape when setting up A-B Repeat Play. *Details are on pages 38-39.*

STOP/▼ Button

Press to stop the tape. Press to select an item in the menu.



24 Rear Panel



ANT(enna) Jack

Connect your antenna or cable here.
Details are on pages six-eight.

DC 13.2V Jack

Connect the car battery cord here.
Details are on page eight.

AC 120V Jack

Connect the AC power cord here.
Details are on page seven.

Antenna Hole

Connect the base stem of the supplied rod antenna here. *Details are on pages seven-eight.*

On-Screen Status Displays 25

A status display will appear when you press the STATUS/EXIT button or certain function buttons. The contents of the status display will vary. To choose the status display mode, follow the steps below.

If you select STATUS ON, then select COUNTER ONLY OFF:

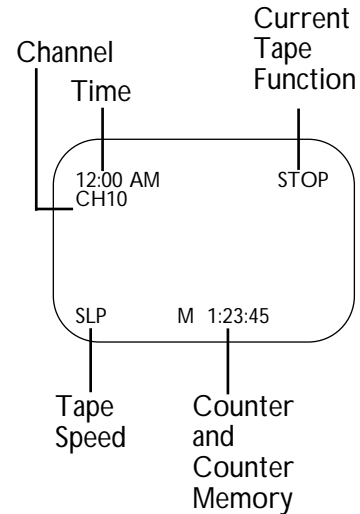
- Whenever you press the STOP/▼ button or the PLAY/▲ button, the status display will appear for five seconds. Portions of the status display also may appear when you press other function buttons.

If you select STATUS ON, then select COUNTER ONLY ON:

- Whenever you press the PLAY/▲ button, the status display will appear for five seconds. After five seconds, only the counter will remain on the screen. Portions of the status display also may appear when you press other function buttons.

If you select STATUS OFF:

- The status display will not appear when you press function buttons. You must press the STATUS/EXIT button to see the status display.



1

Press the MENU button.

2

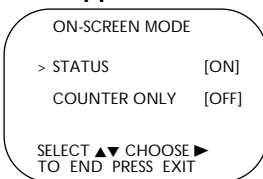
Press the PLAY/▲ button or the STOP/▼ button to select VCR SETUP, then press the F.FWD/▶ button.

3

Press the PLAY/▲ button or the STOP/▼ button to select ON-SCREEN MODE, then press the F.FWD/▶ button.

4

Press the PLAY/▲ button or the STOP/▼ button to select STATUS, then press the F.FWD/▶ button so that ON or OFF appears beside STATUS.



5

If you set STATUS to OFF, go to step 6. If you set STATUS to ON, press the PLAY/▲ button or the STOP/▼ button to select COUNTER ONLY, then press the F.FWD/▶ button so that ON or OFF appears beside it.

6

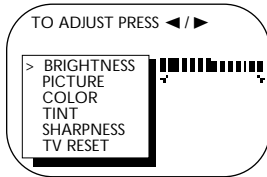
Press the STATUS/EXIT button.

26 Adjusting the Picture Controls

Follow these steps to adjust the TV/VCR's brightness, picture, color, tint, and sharpness.

1

Press the MENU button.



2

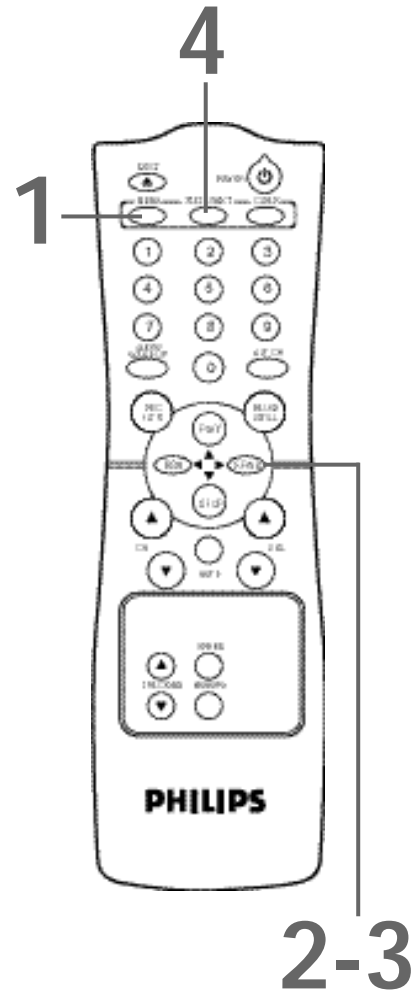
Press the PLAY/▲ button or the STOP/▼ button to select the desired control (BRIGHTNESS, for example).

3

Press the REW(ind)/◀ button or the F.FWD/▶ button to adjust the picture control. (Refer to the chart on page 27.)

4

When you finish, press the STATUS/EXIT button.



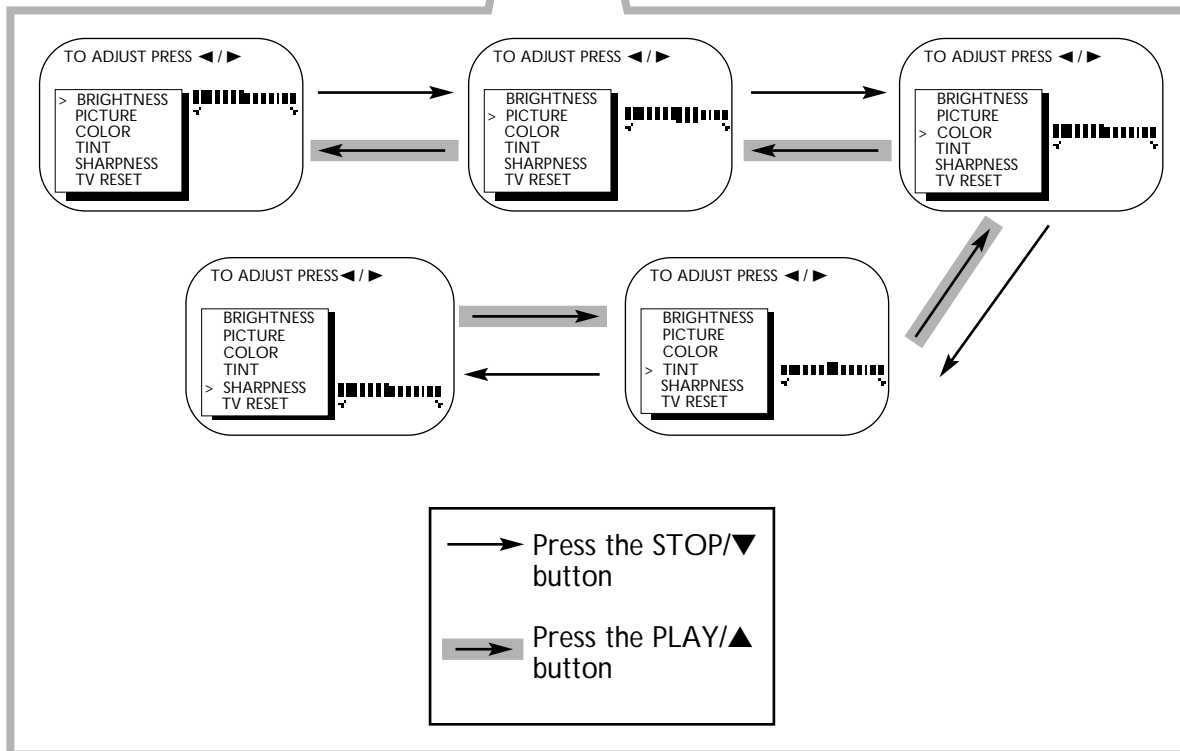
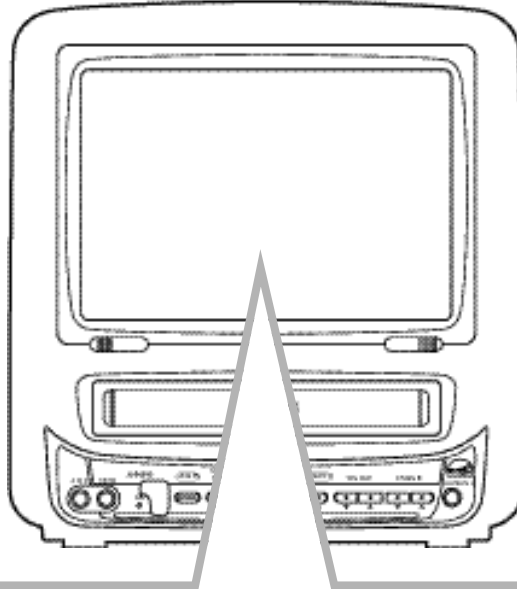
Helpful Hints

- The menus on page 27 will disappear if you do not make adjustments within 60 seconds.
- The original settings will probably give you the best picture quality.
- To reset the picture controls to the original settings, press the MENU button, then press the PLAY/▲ button or the STOP/▼ button to select TV RESET, then press the F.FWD/▶ button. TV RESET COMPLETED will appear on the screen briefly.

Adjusting the Picture Controls (cont'd) 27

	Decrease	Increase
BRIGHTNESS	decreased brightness	increased brightness
PICTURE	decreased contrast	increased contrast
COLOR	paler	more brilliant
TINT	more purple	more green
SHARPNESS	softer	clearer

Press the REW(ind)/◀ button to decrease a picture control. Press the F.FWD/▶ button to increase a picture control.

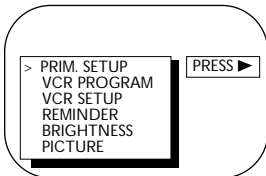


28 Reminder

The channel number will remain on the screen during TV viewing when you set REMINDER to ON.
Set REMINDER to ON or OFF by following these steps.

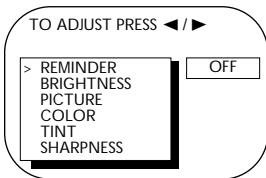
1

Press the MENU button.



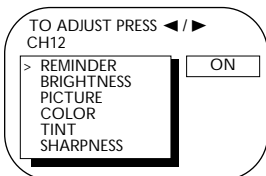
2

Press the PLAY/▲ button or the STOP/▼ button to select REMINDER.



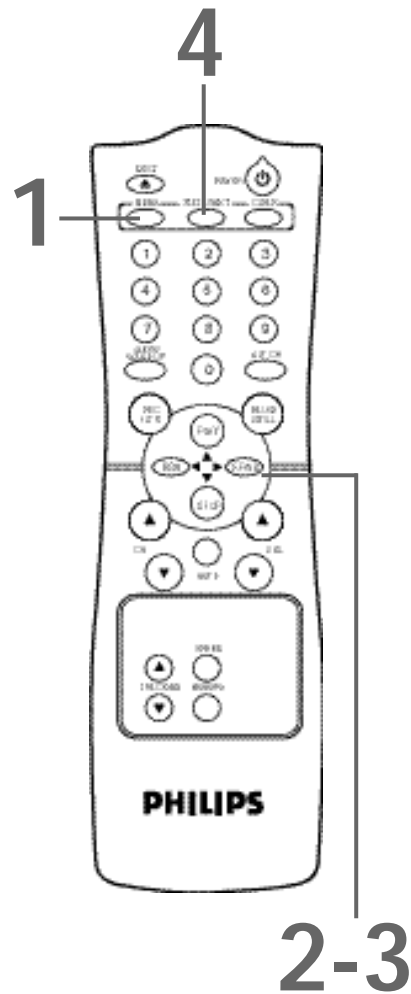
3

Press the REW(ind)/◀ button or the F.FWD/▶ button to select ON or OFF. Each press of the REW(ind)/◀ button or the F.FWD/▶ button turns REMINDER ON or OFF.



4

Press the STATUS/EXIT button.



Follow the steps below to play a tape.

1

Insert a tape in the TV/VCR. The power will come on. If the tape's record tab is missing, playback should start automatically.

2

If playback does not start automatically, press the PLAY/▲ button to start playback.

3

Press the STOP/▼ button to stop playback.

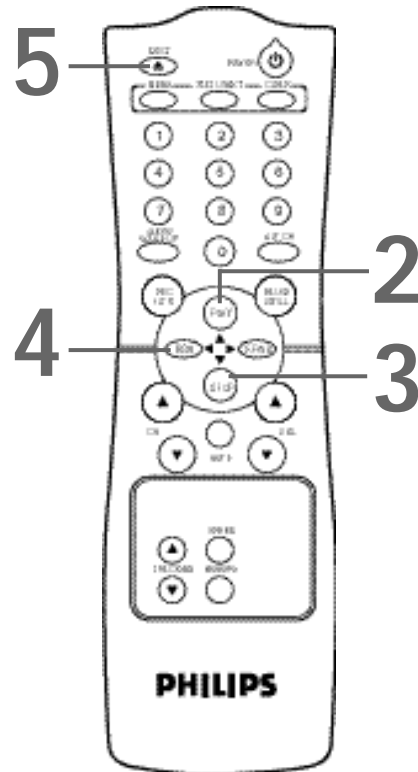
4

Press the REW(ind)/◀ button to rewind the tape.

5

When the tape finishes rewinding, press the EJECT button to remove the tape.

1 Insert a tape in the TV/VCR.



S-VHS Quasi Play Back (SQPB)

SQPB allows you to view a tape recorded in S-VHS format. An S-VHS format tape will play the same as a normal format tape. This unit detects whether the tape is in S-VHS format or normal format.

Helpful Hints

- If the tape you want to play is already in the TV/VCR, turn on the TV/VCR power, then press the PLAY/▲ button.
- Playback features and options are on pages 38-42.
- When you play an S-VHS format tape, you can not get the high resolution that would be available on an S-VHS VCR. Noise lines (black and white streaks) may appear in the picture.
- Playback is not possible if moisture has condensed in the TV/VCR. Details are on page 48.

30 Recording

Read and follow the steps below to record a TV program.

1

Place a tape with its record tab intact (see page five) in the TV/VCR. The power will come on. Or, if the tape is already in the TV/VCR, press the **POWER** button to turn on the TV/VCR, if necessary.

2

Press the **SPEED** button until the desired tape speed appears on the TV/VCR screen. See *tape speed details below*.

3

Use the **CH(annel) ▲/▼** buttons or the **Number** buttons to select the channel you want to record. You can not change channels during recording.

4

Press the **REC(ord)/OTR** button once to start recording. The REC(ord) light will glow.

- If there is not a tape in the TV/VCR, NO CASSETTE flashes on the screen briefly.
- If the tape does not have a record tab, PROTECTED CASSETTE CANNOT RECORD flashes on the screen briefly. The TV/VCR will eject the tape. Insert another tape.

5

To pause the recording (for example, during commercials), press the **PAUSE/STILL** button. The REC(ord) light will flash. To resume recording, press the **PAUSE/STILL** button again or the **REC(ord)/OTR** button. The REC(ord) light will glow.

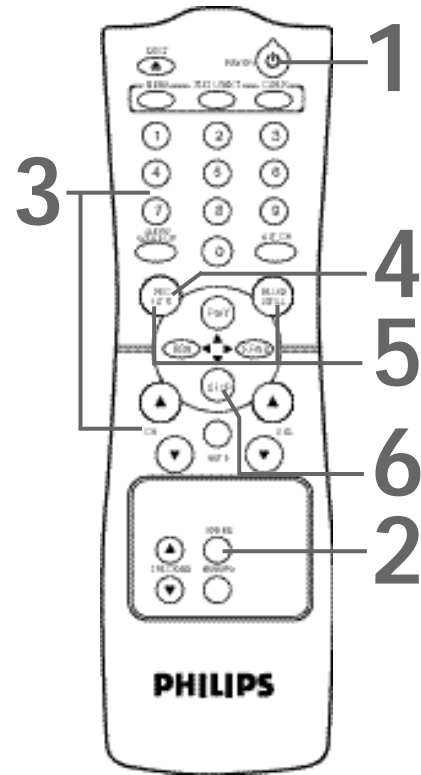
6

To stop recording, press the **STOP/▼** button.

Tape Speeds

This chart shows the recording/playback time for three types of video cassettes (T160, T120, and T60). There are three playback speeds: SP, LP, and SLP. A tape will play only in the speed in which it was recorded. When recording, you can change the tape speed using the **SPEED** button. You cannot record in LP speed. The slower the speed, the more programming you can fit on the tape. SLP is the slowest speed.

Tape Speed	Cassette type / Playback Time		
	T160	T120	T60
SP(Standard Play)	2 hrs. 40 mins.	2 hrs.	1 hr.
LP(Long Play) (playback only)	5 hrs. 20 mins.	4 hrs.	2 hrs.
SLP(Super Long Play)	8 hrs.	6 hrs.	3 hrs.



Helpful Hints

- You cannot record one channel while watching another.
- Recording options are on pages 31-37.
- You cannot record if **DEFEAT RECORDING** is ON. (REC DEFEATED will flash on the screen.) Details are on page 37.
- If you pause a recording for more than five minutes, the TV/VCR will switch to Stop mode automatically to protect the video cassette tape from damage.
- You can change the tape speed with the **SPEED** button while a recording is in progress, but some distortion may appear on the tape.
- If you press the **REC(ord)/OTR** button during tape playback, recording of the current TV channel will begin immediately.

One-Touch Recording 31

A One-Touch Recording (OTR) is an immediate timed recording from 30 minutes to eight hours long.

Before you begin, make sure:

- Channels are set. *Details are on page 10.*
- A tape is in the TV/VCR. The record tab must be intact.

1

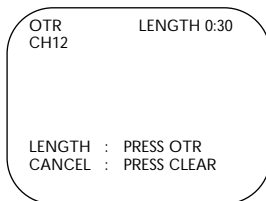
Use the CH(annel) ▲/▼ buttons or the Number buttons to select the channel you want to record.

2

Press the SPEED button until the desired recording speed (SP or SLP) appears on the screen. *Details are on page 30.*

3

Press the REC(ord)/OTR button repeatedly until the desired recording length appears in the upper right corner of the screen. Recording will begin immediately. The REC(ord) light will appear.



4

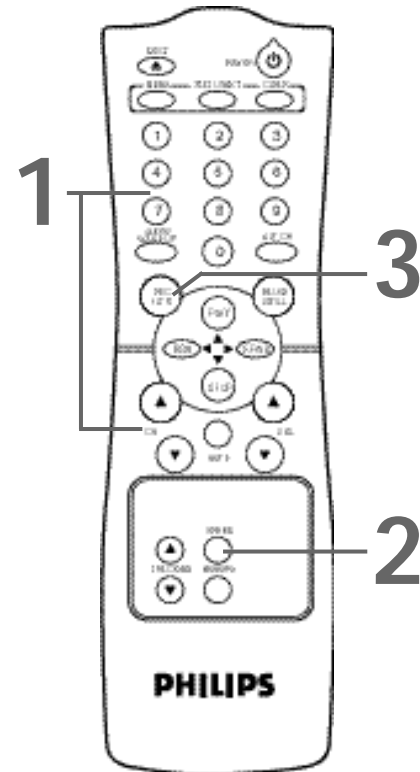
To stop an OTR before recording is finished, press the STOP/EJECT button on the TV/VCR.

Or, press the REC(ord)/OTR button, then press the CLEAR button, then press the STOP/▼ button on the remote control.

If the end of a tape is reached during an OTR, recording will stop. The TV/VCR will turn itself off and eject the tape. The REC(ord) light will flash rapidly.

The TV/VCR will turn off at the end of the OTR.

- # 4
- Press the STOP/EJECT button on the TV/VCR to stop the OTR.

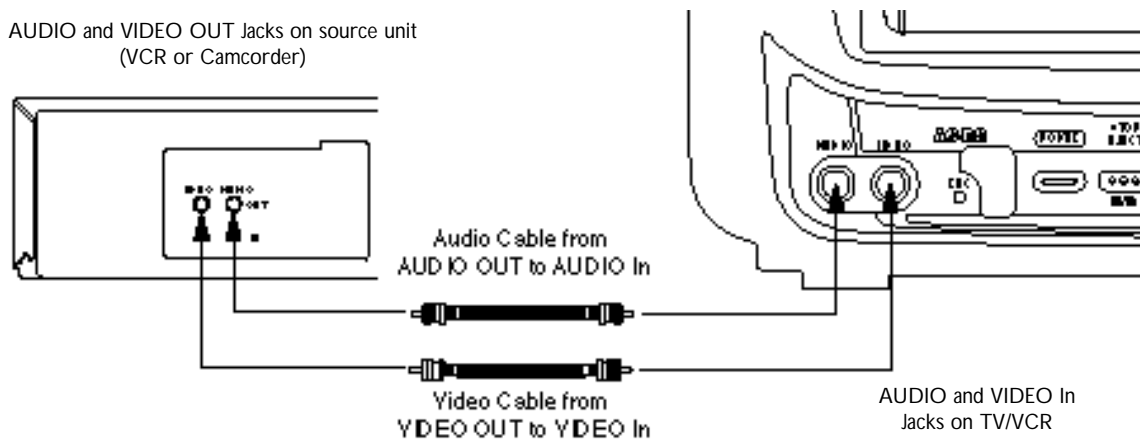


Helpful Hints

- To check the time remaining for an OTR, press the STATUS/EXIT button.
- To change the recording length while an OTR is in progress, press the REC(ord)/OTR button until the desired recording length appears on the screen.
- You can not pause an OTR.
- To cancel an OTR but continue recording, press the REC(ord)/OTR button, then press the CLEAR button.
- You cannot record if DEFEAT RECORDING is ON. *Details are on page 37.*
- You can change the tape speed with the SPEED button while a recording is in progress, but some distortion may appear on the tape.

32 Rerecording (Tape Duplication)

AUDIO and VIDEO OUT Jacks on source unit
(VCR or Camcorder)



1

Make the connections shown above, using audio and video cables (not supplied). Connect the source unit (VCR or camcorder) to a power source after connections are made.

2

The source unit will play your tape. **Insert a prerecorded tape in the source unit.** If playback begins, press the STOP button on the unit.

3

The TV/VCR will record your tape. **Insert a blank tape in the TV/VCR.** Make sure the tape's record tab is intact. The TV/VCR power will turn on automatically.

4

Point the TV/VCR remote control at the TV/VCR. Press **Number buttons 0, 0** so that **A/V IN** appears on the screen. The TV/VCR is now in Line Input mode.

5

Point the TV/VCR remote control at the TV/VCR. Press the **SPEED** button until the desired tape speed (**SP** or **SLP**) appears on the screen.

6

Press the **PLAY** button on the source unit and the **REC(ord)/OTR** button on your TV/VCR at the same time. Copying will begin.

7

To stop copying, press the **STOP/EJECT** button on the TV/VCR, then stop the tape on the source unit (VCR or camcorder).

Helpful Hints

- *Unauthorized recording of copyrighted television programs, video tapes, or other materials may infringe on the rights of copyright owners and violate copyright laws.*
- *Different brands of equipment might operate differently.*
- *Make sure all connections are secure. Otherwise, you might not record both picture and sound.*
- *Programs that are copyright protected might not record clearly.*
- *You can use this connection, too, if you want to watch programming from another piece of video equipment. For example, connect a VCR, DVD player, or camcorder to the TV/VCR as shown above. Select channel 00 (A/V IN) at the TV/VCR, then press PLAY on the other equipment.*

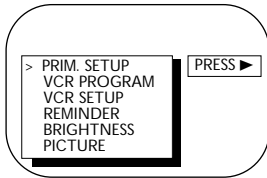
Follow the steps below to program the TV/VCR to record TV programs while you're away from home. The TV/VCR will turn itself on, record, and turn itself off automatically. Before you begin, make sure:

- The clock is set. If not, CLOCK MUST BE SET appears, followed by the SET CLOCK menu. *Details are on page 12-19.*
- Channels are set. *Details are on page 10.*
- A tape is in the TV/VCR. Make sure the tape's record tab is intact and the tape is long enough to record the program.

Complete each step within 60 seconds of completing the previous step. If you don't, you may start again at step 1.

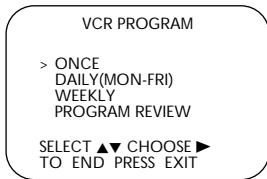
1

Press the MENU button.



2

Press the PLAY/▲ button or the STOP/▼ button to select VCR PROGRAM, then press the F.FWD/▶ button.

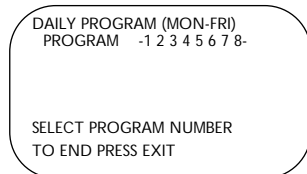


3

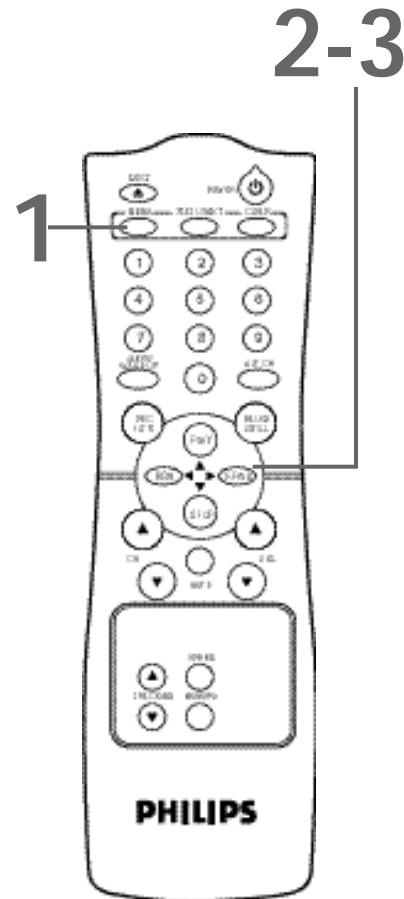
Press the PLAY/▲ button or the STOP/▼ button to select a ONCE, DAILY, or WEEKLY recording. Then, press the F.FWD/▶ button.

- **ONCE:** The TV/VCR will record a TV program on any day you choose, up to 12 months away.
- **DAILY:** The TV/VCR will record every day from Monday to Friday – starting at the same time and recording the same channel for the same length of time.
- **WEEKLY:** The TV/VCR will record the same channel on the same day, at the same time, and for the same length of time every week.

Daily Recording (example)



Instructions continue on page 34.



Helpful Hints

- With ShowGuard, you don't have to worry about losing your timer recordings. If the power fails, timer recordings will be restored when the clock is reset. (The clock will reset itself automatically if you are using AUTO CLOCK. *Details are on pages 14-17.* If you are not using AUTO CLOCK, reset the clock manually. *Details are on pages 12-13.*) The timer recording will not occur only if it was scheduled to take place during the power failure.
- You cannot set a timer recording if DEFEAT RECORDING is ON. *Details are on page 37.*

34 Timer Recording (cont'd)

4

Use the **Number buttons (1-8)** to select a position in which to store the timer recording. Flashing numbers indicate an open position (one in which a timer recording has not been stored yet).

NOTE: If you select a number that already has been used to store a timer recording, PREVIOUSLY SET PROGRAM will appear on the screen for a few seconds. Then information about the program in that position will appear on the screen. If this happens, press the STATUS/EXIT button. Then use the Number buttons to select another position.

5

Use the **Number buttons** to enter the channel of the TV program you want to record.

- If you are recording from line input, press 0, 0. A/V IN will appear on the screen.
- If you are recording using a Cable Box, enter the Cable Box output channel (03 or 04). Be sure to select the channel of the TV program at the Cable Box and leave the Cable Box on for the timer recording.

ONE TIME PROGRAM
PROGRAM 1
CHANNEL ---
TO CORRECT PRESS CLEAR
TO END PRESS EXIT

6

Press two **Number buttons** for the hour(s) you want the recording to begin. Press two **Number buttons** for the minute(s) you want the recording to begin. Press 1 for **AM** or 2 for **PM**. For example, for 9:30 PM, press 09, 30, 2.

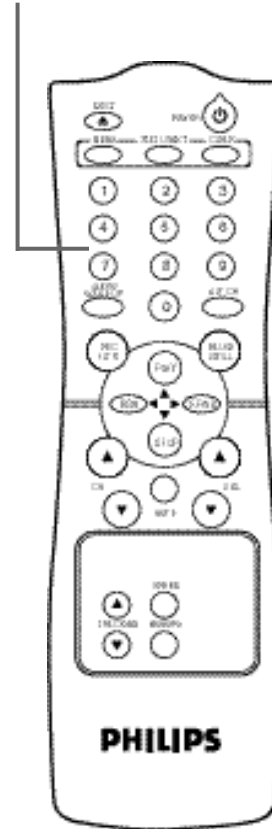
ONE TIME PROGRAM
PROGRAM 1
CHANNEL 10
TIME ON ---:--
TO CORRECT PRESS CLEAR
TO END PRESS EXIT

7

Follow the instructions in step 6 to set the recording's stop time. (AM or PM will be set automatically.)

ONE TIME PROGRAM
PROGRAM 1
CHANNEL 10
TIME ON 09:30 PM
TIME OFF ---:--
TO CORRECT PRESS CLEAR
TO END PRESS EXIT

4-7



Helpful Hints

- If you enter numbers that do not match the TV/VCR's clock or calendar, the entry will be rejected and a question mark will appear on the screen.
- To make corrections while you are programming a timer recording, press the CLEAR button until the item you want to change flashes. Then enter the correct information.

8

Press the **Number 1** button to record in SP speed or press the **Number 2** button to record in SLP speed. Details about tape speed are on page 30. You cannot use the SPEED button at this time.

```

ONE TIME PROGRAM
PROGRAM 1
CHANNEL 10
TIME ON 09:30 PM
TIME OFF 11:00 PM
REC SPEED SLP
SP=1 SLP=2
TO CORRECT PRESS CLEAR
TO END PRESS EXIT
    
```

9

Press two **Number** buttons for the month and two **Number** buttons for the day you want the program to record. For example, for July 10, 2001, press 07, 10. The day of the week and the year will appear automatically. (You cannot program the TV/VCR to record more than one year in advance.)

```

ONE TIME PROGRAM
PROGRAM 1
CHANNEL 10
TIME ON 09:30 PM
TIME OFF 11:00 PM
REC SPEED SLP
START DATE 07/10/2001
TUESDAY
TO CORRECT PRESS CLEAR
TO END PRESS EXIT
    
```

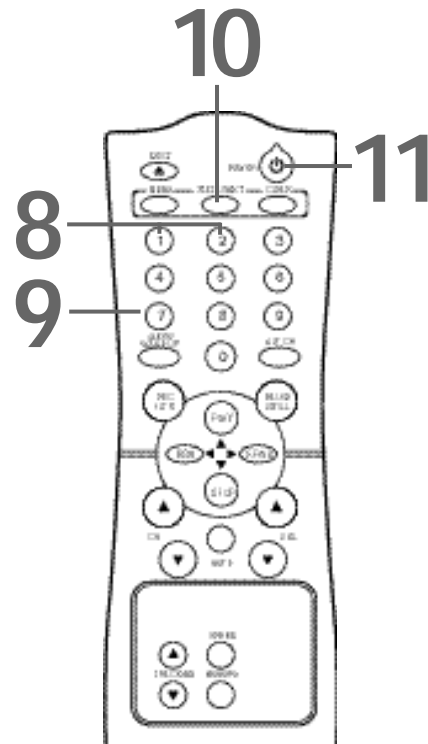
10

Press the **STATUS/EXIT** button. PROGRAM WAS COMPLETED PLEASE TURN OFF FOR TIMER RECORDING will appear on the screen.

- If a tape is not in the TV/VCR, PLEASE INSERT CASSETTE also appears on the screen.
- If there is a tape without a record tab in the TV/VCR, PLEASE REMOVE CASSETTE also appears on the screen. If this happens, insert a different tape.
- If PROGRAM NOT COMPLETED appears, start again at step 1.

11

Press the **POWER** button to turn off the TV/VCR power. The REC(ord) light will flash slowly. (If no tape is in the TV/VCR, the REC(ord) light will blink rapidly.) If you forget to turn off the TV/VCR, PLEASE TURN OFF FOR TIMER RECORDING appears on the TV/VCR screen two minutes before a timer recording should begin.



Turn off the TV/VCR for the recording. Insert a tape in the TV/VCR. Leave the Cable Box/DBS on (if applicable).

Helpful Hints

- PROGRAM NOT COMPLETED / CLASH may appear on the screen when you finish setting a timer recording. This means the timer recording you just tried to program overlaps with another timer recording. The latest timer recording will not occur.
- To stop a timer recording that is in progress, press the STOP/EJECT button on the TV/VCR once. Please see page 48 for more Helpful Hints.

36 Timer Recording (cont'd)

Checking or Clearing Timer Recordings

1

With the TV/VCR on, press the MENU button.

2

Press the PLAY/▲ button or the STOP/▼ button to select VCR PROGRAM, then press the F.FWD/▶ button.

3

Press the PLAY/▲ button or the STOP/▼ button to select PROGRAM REVIEW, then press the F.FWD/▶ button.

The timer recording information for the program in the lowest numbered position will appear on the screen. If no timer recordings are programmed, nothing will happen when you select PROGRAM REVIEW and press the F.FWD/▶ button.

4

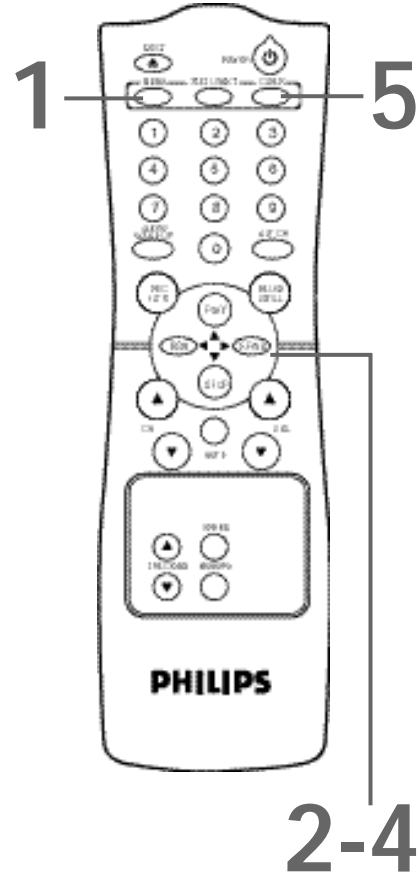
Press the F.FWD/▶ button to display information about the next timer recording. (If you do not press a button within 10 seconds, information about the next timer recording will appear automatically.) This will continue until all positions have been displayed. Then, the menu will disappear. You can exit the Program Review at any time by pressing the STATUS/EXIT button.

5

To cancel the timer recording displayed, press the CLEAR button. Either the display will disappear or information about other timer recordings will appear. If you do not press any other buttons, the display will disappear after all timer recordings have been displayed.

6

Repeat steps 1-4 to make sure you cleared the correct recording.



Helpful Hint

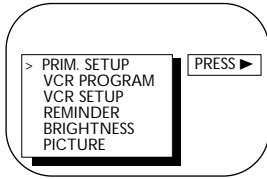
- With ShowGuard, you don't have to worry about losing your timer recordings. If the power fails, timer recordings will be restored when the clock is reset. (The clock will reset itself automatically if you are using AUTO CLOCK. Details are on pages 14-17. If you are not using AUTO CLOCK, reset the clock manually. Details are on pages 12-13.) The timer recording will not occur only if it was scheduled to take place during the power failure.

Defeat Recording 37

Follow these steps to prevent accidental recording.

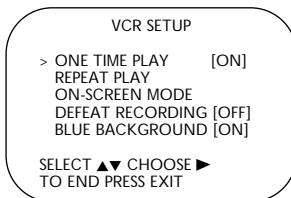
1

Press the **MENU** button.



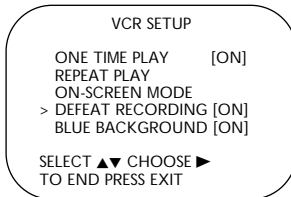
2

Press the **PLAY/▲** button or the **STOP/▼** button to select **VCR SETUP**, then press the **F.FWD/▶** button.



3

Press the **PLAY/▲** button or the **STOP/▼** button to select **DEFEAT RECORDING**, then press the **F.FWD/▶** button so that **ON** appears beside **DEFEAT RECORDING**.

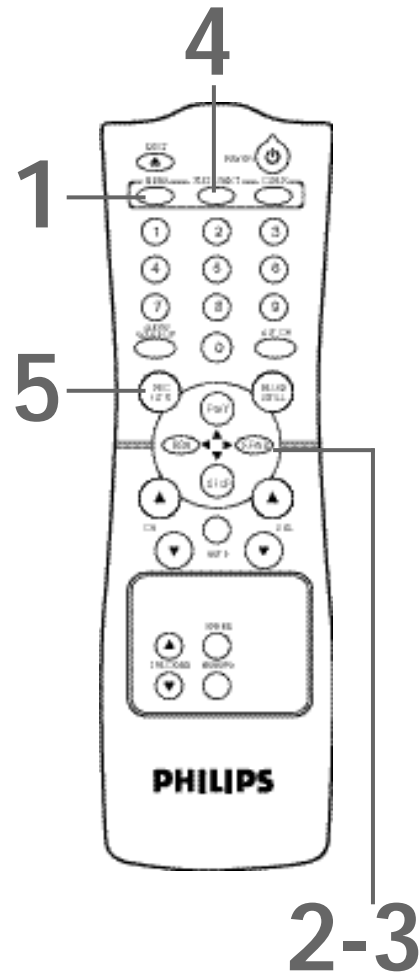
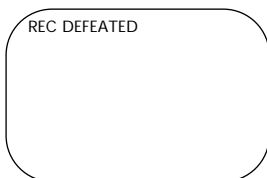


4

Press the **STATUS/EXIT** button.

5

Now, **REC DEFEATED** will flash on the screen when you press the **REC(ord)/OTR** button.



Helpful Hints

- If you set **DEFEAT RECORDING** to **ON** after you program a timer recording, the timer recording will not occur.
- You can not program a timer recording if **DEFEAT RECORDING** is **ON**.
- To set **DEFEAT RECORDING** to **OFF**, repeat steps 1-2 above. At step 3, press the **PLAY/▲** button or the **STOP/▼** button to select **DEFEAT RECORDING**, then press the **F.FWD/▶** button so that **OFF** appears beside **DEFEAT RECORDING**. Press the **STATUS/EXIT** button.
- You can not change the **DEFEAT RECORDING** setting during a recording.

38 A-B Repeat Play

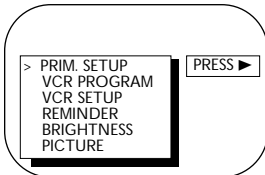
Follow these steps to program the TV/VCR to play the material between two specified points (A and B) on a tape over and over again.

1

Insert a tape in the TV/VCR.

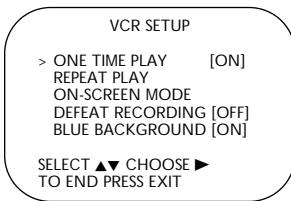
2

Press the MENU button.



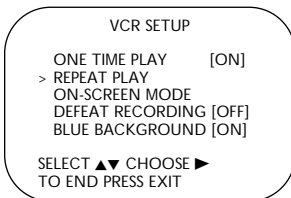
3

Press the PLAY/▲ button or the STOP/▼ button to select VCR SETUP, then press the F.FWD/▶ button.



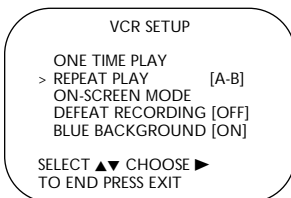
4

Press the PLAY/▲ button or the STOP/▼ button to select REPEAT PLAY.



5

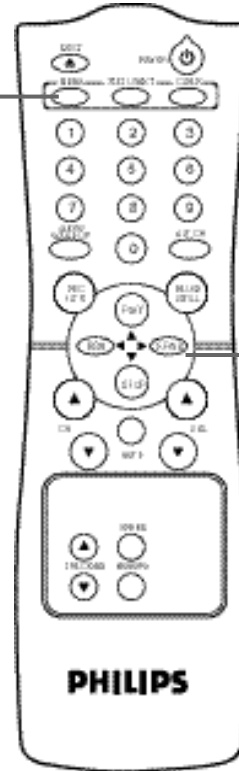
Press the F.FWD/▶ button repeatedly so that A-B appears beside REPEAT PLAY.



1

Insert a tape in the TV/VCR.

2



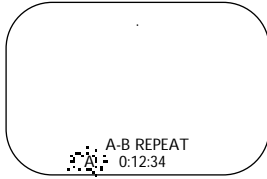
3-5

Helpful Hints

- To cancel A-B Repeat Play, set ONE TIME PLAY to ON. To set ONE TIME PLAY to ON, follow steps 2-3 above. Then, press the PLAY/▲ button or the STOP/▼ button to select ONE TIME PLAY. Press the F.FWD/▶ button so that ON appears beside ONE TIME PLAY. Then, press the STATUS/EXIT button.
- The end position (B) must be later on the tape than the start position (A).

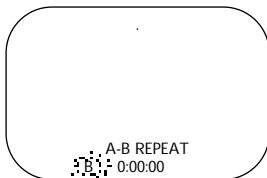
6

Press the **STATUS/EXIT** button to remove the menu. A-B REPEAT will appear on the screen. Beneath it, the letter A will flash beside the real-time counter.



7

Play, fast forward, or rewind the tape to the position at which you want to begin playback. Stop the tape, then press the **MEMORY** button to set the start position (A). The flashing A will become a flashing B.



8

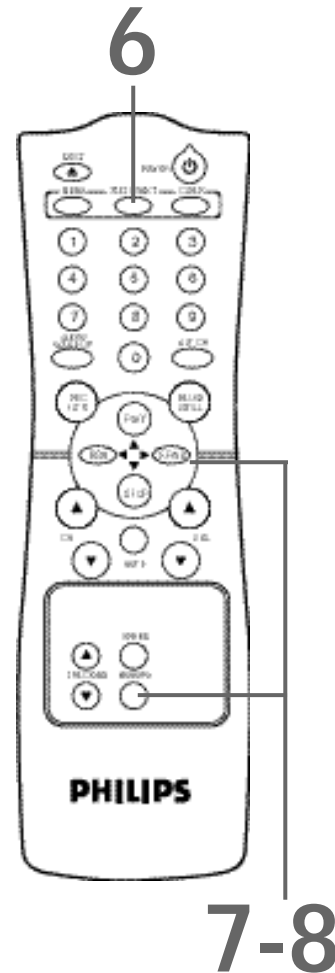
Play or fast forward the tape to the position at which you want playback to end. Stop the tape, then press the **MEMORY** button to set the end position (B).

- The length of time between the start position (A) and the end position (B) must be at least three minutes.

9

The TV/VCR will immediately rewind the tape to the start position (A) and repeat playback to the end position (B) over and over.

(TV programming will appear while the tape is rewinding.)



Helpful Hints

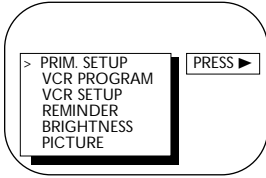
- You can not reset or memorize the counter when you are using this feature.
- Ejecting the tape or pressing the REC(ord)/OTR button will cancel A-B Repeat Play.
- A-B REPEAT will not appear on the screen at step 6 if a tape is not in the TV/VCR. NO CASSETTE will flash on the screen briefly.
- You cannot rewind or fast forward beyond points A or B when you are using this feature.
- A-B Repeat Play will be retained if you turn off the TV/VCR power.

40 Repeat Play

Follow these steps to program the TV/VCR to play a tape over and over.

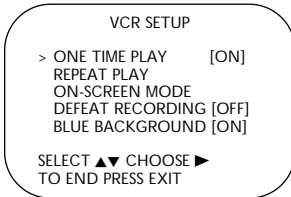
1

Press the **MENU** button.



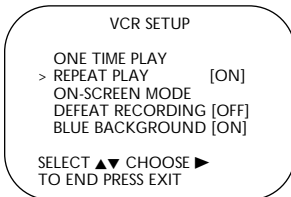
2

Press the **PLAY/▲** button or the **STOP/▼** button to select **VCR SETUP**, then press the **F.FWD/▶** button.



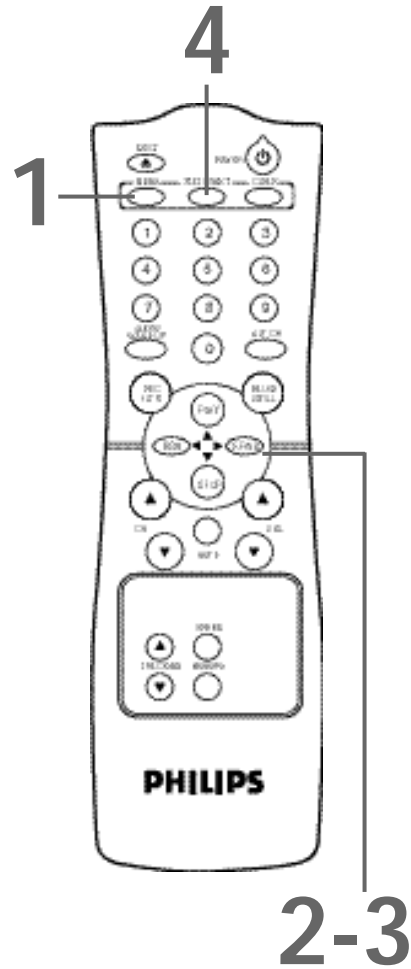
3

Press the **PLAY/▲** button or the **STOP/▼** button to select **REPEAT PLAY**, then press the **F.FWD/▶** button so that **ON** appears beside **REPEAT PLAY**.



4

Press the **STATUS/EXIT** button. Now, when a tape finishes playing, the TV/VCR will rewind it and start playback again. (TV programming will appear while the tape is rewinding.)



Helpful Hints

- The TV/VCR will stay in Repeat Play mode until you set **ONE TIME PLAY** to **ON**, even if you turn off the TV/VCR. To set **ONE TIME PLAY** to **ON**, follow steps 1-2 above. Then, press the **PLAY/▲** button or the **STOP/▼** button to select **ONE TIME PLAY**. Press the **F.FWD/▶** button so that **ON** appears beside **ONE TIME PLAY**. Then, press the **STATUS/EXIT** button.
- The real-time counter memory will not function during Repeat Play mode.

Real-Time Counter Memory 41

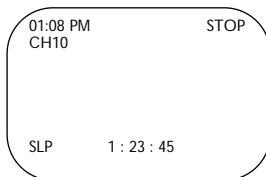
Follow the steps below to reset the real-time counter to zero at a tape location you want to refer to later.

1

Play, fast forward, or rewind a tape to the location that you would like to refer to later. Stop the tape.

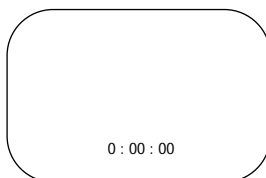
2

Press the **STATUS/EXIT** button. The real-time counter will appear on the screen.



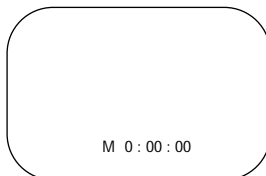
3

While the counter remains on the screen, press the **CLEAR** button to reset the real-time counter to zero.



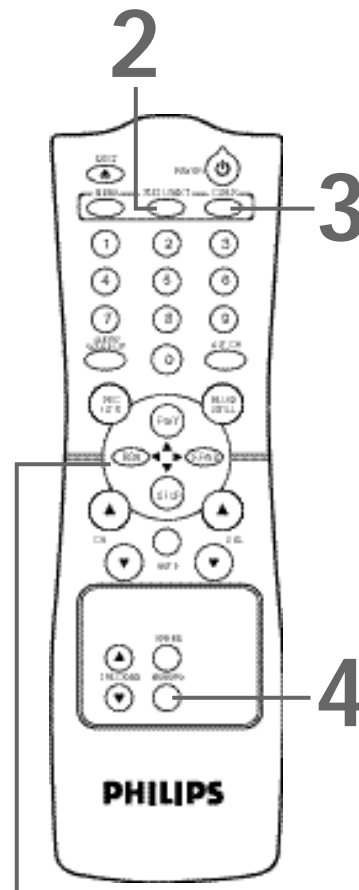
4

While the counter remains on the screen, press the **MEMORY** button so that **M** appears on the screen. To erase a real-time counter memory, press the **MEMORY** button so that the **M** disappears from the screen.



5

To go to the tape location where you set the real-time counter to zero, press the **REW(ind)/◀** button or the **F.FWD/▶** button when playback is stopped. When the tape reaches the point at which you set the counter to zero, the tape will stop. Press the **PLAY/▶** button to watch the tape.



1,5

Helpful Hints

- The real-time counter memory will not function during Repeat Play mode. Details are on page 40.
- You may only set one real-time counter memory at a time. If you set the real-time counter to zero at a second location, the previous real-time counter to zero setting will be lost.
- The counter automatically resets to zero when you insert a tape.

42 Playback Options

Forward and Reverse Searching (SP/LP/SLP)

1

During tape playback, press and release the F.FWD/▶ button or the REW(ind)/◀ button. A fast forward or reverse picture search will begin.

2

To return to normal playback, press the PLAY/▲ button.

Super High Speed Searching (LP/SLP)

1

During tape playback, press the F.FWD/▶ button or the REW(ind)/◀ button, then press again. The TV/VCR will now search in super high speed.

Press the F.FWD/▶ button or the REW(ind)/◀ button repeatedly to switch between regular and super high speed searching.

2

To return to normal playback, press the PLAY/▲ button.

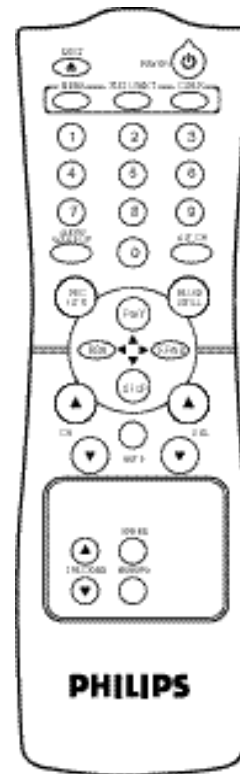
Viewing a Still Picture

1

During tape playback, press the PAUSE/STILL button. A still picture will appear on the screen. The noise lines will move each time you press the PAUSE/STILL button, and the tape will advance slightly.

2

To release the still picture and return to normal playback, press the PLAY/▲ button.



Helpful Hints

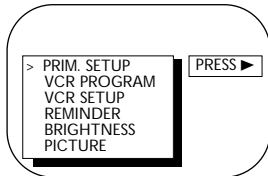
- Still mode will automatically switch to Stop mode after five minutes to protect the TV/VCR and the tape from damage.
- SP/LP/SLP means this feature will work with tapes recorded in Standard Play, Long Play, or Super Long Play. For details about tape speed, see page 30.
- LP/SLP means this feature will work with tapes recorded in Long Play and Super Long Play. For details on tape speed, see page 30.
- During forward and reverse searching, horizontal noise bars will appear on the TV/VCR screen.
- Tapes recorded in SLP speed will have the clearest picture during forward and reverse searching and Still mode.
- After a search or a still picture, there may be a brief blue screen before playback resumes.

If you want the TV screen to be solid blue when a weak signal is received, set BLUE BACKGROUND to ON. The screen will be blue and the sound will be muted. Or, if you want to receive the weak signal, set BLUE BACKGROUND to OFF. When you select a channel that is receiving a weak signal, you will see and hear the static in the TV programming.

To set BLUE BACKGROUND to ON or OFF, follow these steps.

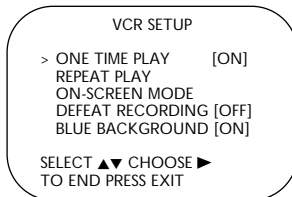
1

Press the **MENU** button.



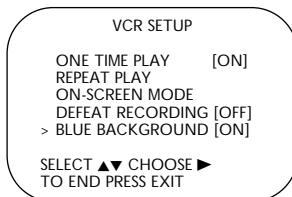
2

Press the **PLAY/▲** button or the **STOP/▼** button to select **VCR SETUP**, then press the **F.FWD/►** button.



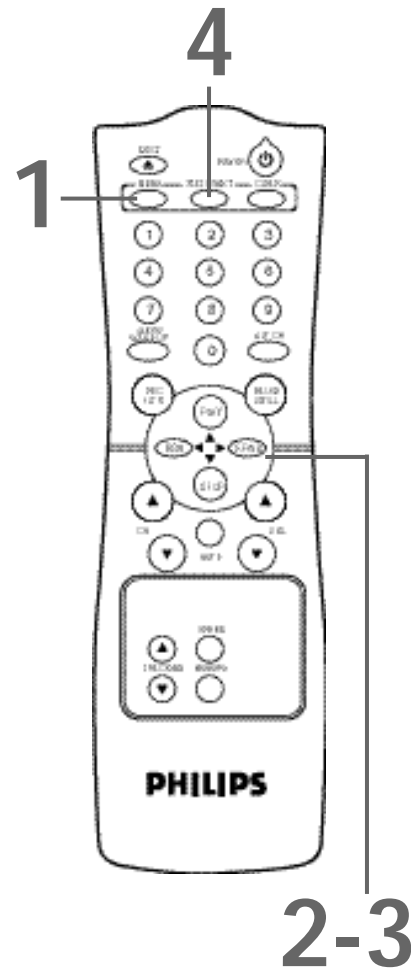
3

Press the **PLAY/▲** button or the **STOP/▼** button to select **BLUE BACKGROUND**. Then, press the **F.FWD/►** button repeatedly so that **OFF** (or **ON**) appears beside **BLUE BACKGROUND**.



4

Press the **STATUS/EXIT** button.



Helpful Hint

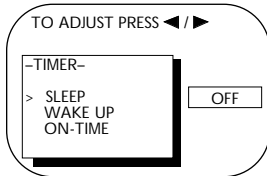
- A blue screen may appear briefly between channel changes if **BLUE BACKGROUND** is ON. To avoid having the brief blue screen, set **BLUE BACKGROUND** to OFF.

44 Sleep Timer

Use the sleep timer to program the TV/VCR to shut off in a certain amount of time.

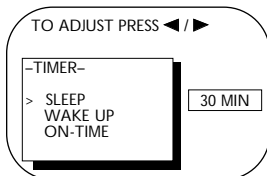
1

Press the **SLEEP/WAKE UP** button.



2

Press the **PLAY/▲** button or the **STOP/▼** button to select **SLEEP**. Then press the **REW(ind)/◀** button or the **F.FWD/▶** button to select **30 MIN(utes)**, **60 MIN(utes)**, **90 MIN(utes)**, or **120 MIN(utes)**. (You can not set the sleep timer during a recording.)

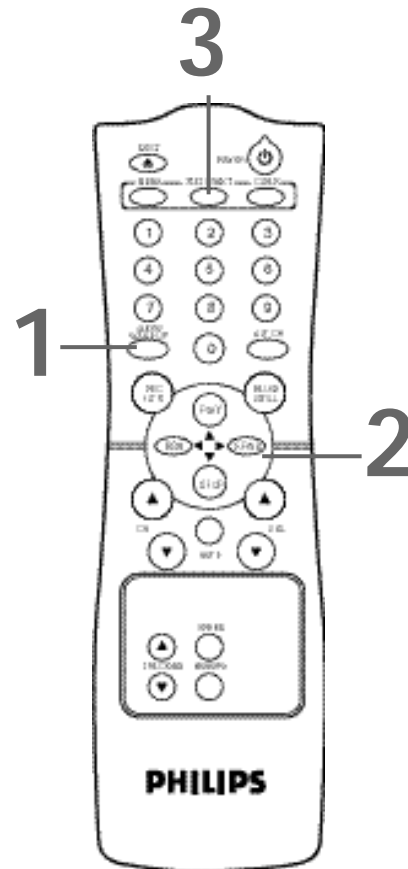


3

Press the **STATUS/EXIT** button. The TV/VCR will shut itself off after the specified amount of time.

One minute before the TV/VCR shuts itself off, the seconds will count down on the screen.

GOOD NIGHT appears on the TV/VCR screen 10 seconds before the TV/VCR shuts itself off.



Helpful Hints

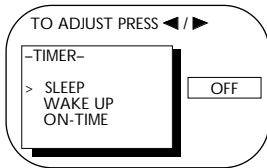
- To cancel the sleep timer, press the **SLEEP/WAKE UP** button. Press the **PLAY/▲** button or the **STOP/▼** button to select **SLEEP**, then press the **REW(ind)/◀** button or the **F.FWD/▶** button to select **OFF**. Press the **STATUS/EXIT** button.
- To see how much time remains before the TV/VCR shuts itself off, press the **SLEEP/WAKE UP** button once. The remaining time will appear beside **SLEEP**. To remove the display, press the **STATUS/EXIT** button.
- Starting a recording after you set the Sleep Timer will cancel the Sleep Timer.

The Wake Up Timer turns on the TV/VCR automatically at a specified time within the next 24 hours. You may set the TV/VCR to turn on at a TV channel (the channel at which the TV/VCR was set last) or with VCR playback. To set the Wake Up Timer, follow the steps below. Before you begin:

- Set the clock. If the clock is not set, CLOCK MUST BE SET will appear on the screen after you select WAKE UP at step 2. Then the SET CLOCK menu will appear. *Details are on pages 12-17.*
- Put a tape in the TV/VCR if you want the TV/VCR to start tape playback at the specified time.
- Make sure no timer recordings are set for the time at which you want the TV/VCR power to come on.

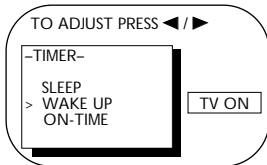
1

Press the **SLEEP/WAKE UP** button.



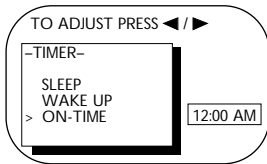
2

Press the **PLAY/▲** button or the **STOP/▼** button to select **WAKE UP**. Then, press the **REW(ind)/◀** button or the **F.FWD/▶** button to select **TV ON** or **VCR ON**.



3

Press the **PLAY/▲** button or the **STOP/▼** button to select **ON-TIME**. Then, press the **REW(ind)/◀** button or the **F.FWD/▶** button to select your desired wake up time. Each press of the **F.FWD/▶** button or the **REW(ind)/◀** button will increase (or decrease) the time by 10 minutes.

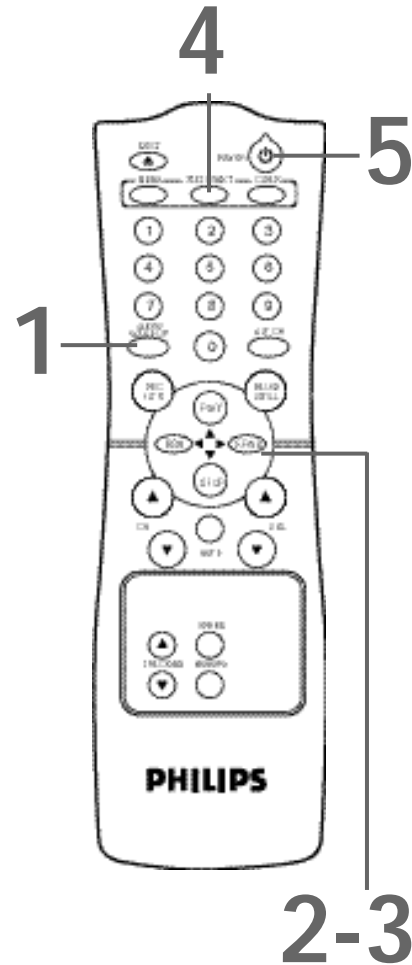


4

Press the **STATUS/EXIT** button.

5

Press the **POWER** button to turn off the TV/VCR. The TV/VCR will turn itself on at the specified time.



Helpful Hint

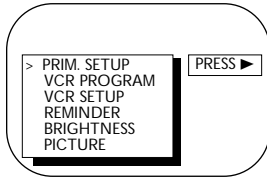
- To cancel the Wake Up Timer, press the **SLEEP/WAKE UP** button. Press the **PLAY/▲** button or the **STOP/▼** button to select **WAKE UP**. Then, press the **REW(ind)/◀** button or the **F.FWD/▶** button to select **OFF**. Press the **STATUS/EXIT** button.

46 Volume Bar

Usually, the volume bar appears when you press the VOL(ume) ▲/▼ buttons. If you do not need it, set the VOLUME BAR to OFF.

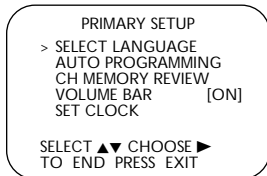
1

Press the MENU button.



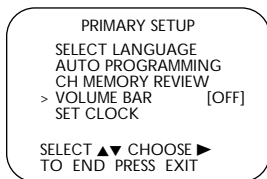
2

Press the PLAY/▲ button or the STOP/▼ button to select PRIM. SETUP. Then, press the F.FWD/► button.



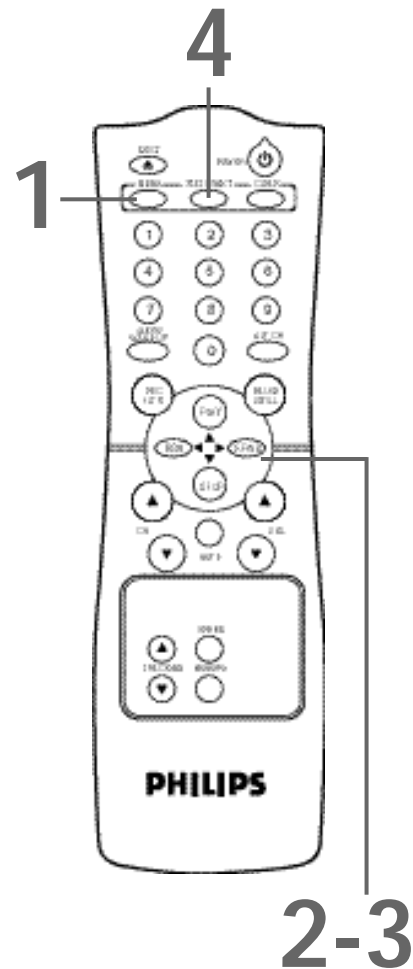
3

Press the PLAY/▲ button or the STOP/▼ button to select VOLUME BAR, then press the F.FWD/► button. Each press of the F.FWD/► button will turn the VOLUME BAR ON or OFF.



4

Press the STATUS/EXIT button.



The following playback features will always operate.

Automatic Playback

When you put a tape in the TV/VCR, the power will come on automatically. If the tape's record tab is missing, playback will begin. If a timer recording is set, the power will not come on automatically when you insert a tape with the record tab intact. If a timer recording is set and the TV/VCR power is off, the TV/VCR will eject the tape if the record tab is missing.

Automatic Rewind, Eject, Off

When you play, fast forward, or record a tape to its end, the TV/VCR will rewind the tape, stop, turn itself off, and eject the tape. If a real-time counter memory is set, the TV/VCR may only rewind the tape to the point at which the real-time counter is set to zero. The TV/VCR will not turn itself off or eject the tape.

Memory Rewind, Power Off

When you press the POWER button while the TV/VCR is rewinding a tape, REW → POWER OFF will appear on the screen. The TV/VCR will turn itself off when the tape has finished rewinding. If a real-time counter memory is set, the TV/VCR may only rewind the tape to the point at which you set the counter to zero, then turn itself off.

Tape Eject

You can eject a tape with the TV/VCR power on or off (but the power cord must be plugged in). If a timer recording is programmed, you can not eject a tape when the power is off. Turn on the TV/VCR power, then eject the tape. Be sure to insert a tape and turn off the TV/VCR power for the timer recording.

Automatic Tracking Adjustment

The TV/VCR automatically adjusts the tracking to give you the best possible picture quality. With some recordings, however, you may get a better picture using the manual tracking controls (see below).

Manual Tracking

To adjust the tracking manually, press the CHANNEL ▲/▼ buttons on the TV/VCR or the TRACKING ▲/▼ buttons on the remote control during playback.

Tracking returns to Automatic Tracking Adjustment when you insert a tape or when you press the STOP/▼ button.



48 Helpful Hints

If you are having problems with your product, check this list of problems and possible solutions before requesting service. You may be able to solve the problem yourself.

If you need to call a customer service representative, please know the model number and serial number of your product before you call. This information is on the back of the product. Also, please take a moment to identify the problem you are having, and be prepared to explain this to the representative. If the representative will need to help you with operations, please stay near the product. Our representatives will be happy to assist you.

Location

For safe operation and satisfactory performance of your TV/VCR, remember the following:

- Shield it from direct sunlight and keep it away from sources of intense heat.
- Avoid dusty or humid places.
- Avoid places with insufficient ventilation. Do not block the ventilation openings at the top and bottom of the TV/VCR. Do not place the TV/VCR on a carpet, as this will block the ventilation openings.
- Avoid locations subject to strong vibrations.
- Do not place the TV/VCR near strong magnetic fields.
- Do not move the TV/VCR from a cold place to a hot place, or vice versa.
- Do not use this TV/VCR under high temperature conditions.

Electrical Shock and Fire Hazards

- Do not handle the power cord with wet hands.
- Do not pull the power cord when disconnecting it from the TV/VCR or the AC (alternating current) wall outlet. Grasp it by the plug.
- If you spill water on the TV/VCR, unplug the power cord immediately and take the TV/VCR to an authorized service center.
- Do not put your fingers or objects into the TV/VCR cassette compartment.
- Do not place anything on top of the TV/VCR.

Dew Warning (Moisture Condensation)

- The TV/VCR has a sensor that detects moisture condensation. Moisture may condense inside the TV/VCR when you move it from a cold place to a warm place, after heating a cold room, or under conditions of high humidity.

If excessive moisture is present inside the TV/VCR, "DEW PROTECTION PLEASE WAIT" appears on the screen; a safety device prevents the VCR from operating until moisture is gone. When "DEW PROTECTION PLEASE WAIT" appears on the screen, keep the TV/VCR power on, but do not try to play a tape. Allow at least two hours for the TV/VCR to dry. "DEW PROTECTION PLEASE WAIT" may appear for up to one hour after moisture is gone. During this time, you can not insert a cassette.

TV/VCR will not perform a timer recording.

- Set the recording start and stop times correctly. *Details are on pages 33-36.* Midnight is 12 a.m. Noon is 12 p.m.
- Make sure the TV/VCR power is off.
- Set the clock. *Details are on pages 12-19.*
- Put a tape in the TV/VCR. The tape must have a record tab.
- With ShowGuard, you don't have to worry about losing your timer recordings. If the power fails, timer recordings will be restored when the clock is reset. (The clock will reset itself automatically if you are using AUTO CLOCK. *Details are on pages 14-17.* If you are not using AUTO CLOCK, reset the clock manually. *Details are on pages 12-13.*) The timer recording will not occur only if it was scheduled to take place during the power failure.
- Make sure DEFEAT RECORDING is OFF. *Details are on page 37.*

TV/VCR will not record.

- Make sure the tape has a record tab. *Details are on page five.*
- Make sure DEFEAT RECORDING is OFF. *Details are on page 37.*
- Connect the AC power cord securely to the AC 120V jack on the back of the TV/VCR. Plug the power cord into an active AC outlet. *Details are on page seven.*
- Check your hookups. *Details are on pages six-eight.*
- Set up the channels. *Details are on pages 10-11.*

Channel reception is poor.

- Check connections, then set up the channels again. *Details are on pages 10-11.*

TV/VCR ejects the tape when you try to start a recording.

- Make sure the tape has a record tab. *Details are on page five.*

The remote control is not available, or the remote control will not access the menu.

- Use the buttons on the front of the TV/VCR to access the menu. You can not enter numbers (for example, to program a timer recording) using the front panel buttons. *Details are on page 21.*

TV/VCR has no power.

- Connect the AC power cord securely to the AC 120V jack on the back of the TV/VCR and to an AC (alternating current) outlet. *Details are on page seven.*

TV/VCR power shuts off after approximately 15 minutes.

- To save energy, the TV/VCR will shut itself off after 15 minutes when it is on a channel that is not receiving a broadcast signal (for example, a station that has gone off the air for the night). This is normal.

TV/VCR does not have a picture.

- Connect or adjust the antenna. *Details are on pages six-eight.*
- Adjust the TV/VCR picture controls. *Details are on pages 26-27.*
- Select an active channel. *Details are on pages 10-11.*

TV/VCR has poor sound or no sound.

- Adjust the volume.
- Press the MUTE button to restore the volume.

Tape playback is poor or tape is destroyed.

- Adjust the tracking. *Details are on page 47.*
- If moisture has accumulated in your TV/VCR, keep the power on for at least two hours, but do not try to play a tape. *Details are on page 48.*

Remote control does not operate the TV/VCR.

- Aim the remote control directly at the TV/VCR's remote sensor. *Details are on pages five and 21.*
- Remove all obstacles between the remote control and the TV/VCR.
- Inspect and replace the batteries in the remote control. *Details are on page five.*

Number buttons will not select channels above 69.

- Enter channel numbers as a two-digit number. If you want to select channels 100 and above, enter channel numbers as a three-digit number. *Details are on page 22.*
- If you are using an antenna, only channels 2-69 will be available. *Details are on pages 10-11.*

You can not insert a tape into the TV/VCR.

- Insert the tape with the window side up, with the record tab facing you.
- Make sure a tape isn't already in the TV/VCR by pressing the STOP/EJECT button on the TV/VCR.
- Gently push on the center of the tape. Never force a tape into the TV/VCR.
- If you have set a timer recording and the TV/VCR power is off, the TV/VCR will eject the tape if the record tab is missing.
- Moisture may be present in the TV/VCR. If "DEW PROTECTION PLEASE WAIT" appears on the screen, you may not be able to insert a tape for several hours. *Details are on page 48.*

You can not remove the tape from the TV/VCR.

- Make sure the power cord is connected completely to a power outlet.
- If a timer recording is programmed, turn on the TV/VCR power, then eject the tape. Be sure to insert a tape and turn off the TV/VCR power for the timer recording.
- Unplug the power cord for five minutes. Then, plug in the power cord again, then press the POWER button on the TV/VCR. If the tape does not eject, press the STOP/EJECT button on the TV/VCR three to five times. If the tape still does not eject, you may need to have an authorized servicer remove the tape.

The cylinder rotates when tape playback is stopped.

- To enable the quick play mechanism, the cylinder will rotate for about five minutes. This is normal. The quick play mechanism switches the tape mechanism from Stop to Play in just one second.

Automatic clock setting won't work.

- Disconnect the car battery cord from the DC 13.2V jack. Instead, connect the AC power cord to the AC 120V jack on the TV/VCR and to an AC power outlet to supply standard electrical power. *Details are on pages six-seven.*

50 Glossary

AUDIO In Jack: jack on the front of the TV/VCR which is used to record or receive audio from another source.

Automatic Channel Setup: process in which the TV/VCR memorizes all available channels. Then, when you push the CH(annel) ▲/▼ buttons, you only scan through channels you receive.

Bands: settings that allow you to tune channels.

- **Antenna** – VHF (very high frequency; channels 2-13) and UHF (ultra high frequency; channels 14-69).
- **Cable** – all standard channels can be received without a Cable Box.

Brightness: adjusting increases or decreases the brightness of the color on the screen.

Color: adjusting pales or brightens the TV/VCR color.

Dubbing: copying a tape using a VCR.

HQ: high quality; a feature in the TV/VCR circuitry which provides enhanced picture detail.

Line Input: The channel to which you set your TV/VCR during dubbing. The line input channel is always channel 00 (A/V IN).

Mode: a TV/VCR operation.

OTR: One-Touch Recording; a timed recording that starts immediately and records for 30 minutes to eight hours, whichever you specify.

Picture: adjusting increases or decreases the contrast of the picture on the screen.

Sharpness: adjusting softens or clarifies the picture on the screen.

Tape Speeds: how fast the tape travels during playback or recording.

- **SP** (standard play) – fastest tape speed (recording time for a T120 tape is approximately two hours); best picture quality.
- **LP** (long play) – average tape speed; playback only.
- **SLP** (super long play) – slowest tape speed (recording time for a T120 tape is approximately six hours).

Tint: adjusting changes the tints of the picture on the TV/VCR from purple to green.

VIDEO In Jack: jack on the front of the TV/VCR which is used to record or receive video from another source.

General

CRT: 9-inch in line gun

Television system: NTSC-M

Video Heads: Two heads

Tape width: 1/2 inch (12.65 mm)

Tape speed

SP: 33.35 mm/sec.

LP: 16.67 mm/sec.

SLP: 11.12 mm/sec.

Operating Temperature: 41°F (5°C) to 104°F (40°C)


Relative Humidity: 10% to 75%


Power requirement: AC 120V/DC 13.2V, 60Hz

Power consumption: 55W (AC), 60W (DC)

Sound output: 0.8W

Dimensions:

13" (H) x 12-1/8" (W) x 12-15/16" (D)  (CCC090)
330mm x 308mm x 329mm

12-7/8" (H) x 12-1/6" (W) x 12-7/8" (D)  (CCC092)
326mm x 306mm x 326mm

Weight: 18.8 lbs (8.5 kg)

Tuner Broadcast Channels

VHF 2-13, UHF 14-69

Cable TV Channels

1-125

Terminals

Antenna In: VHF/UHF 75 ohms unbalanced

Video In: RCA connector

Audio In: RCA connector

Earphone: 3.5 mm CES

Electrical Specifications

Video input level: 0.5~2.0Vp-p

Audio input level: -10dBv

Video S/N ratio

SP: More than 42dB μ

Audio S/N ratio

SP: More than 38dB

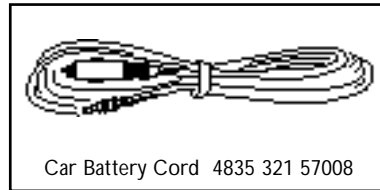
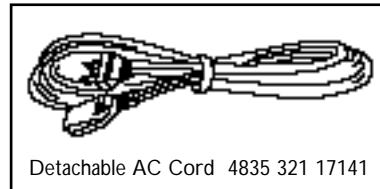
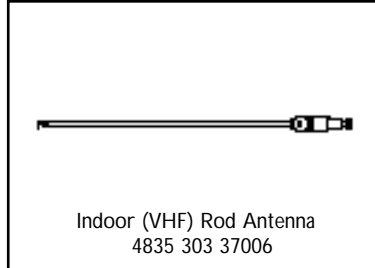
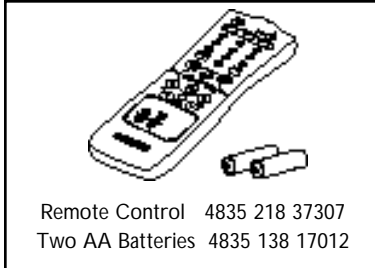
Designs and specifications are subject to change without notice and without our legal obligation.

**RENEWED
90 DAY
LIMITED WARRANTY**

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SUPPLIED ACCESSORIES

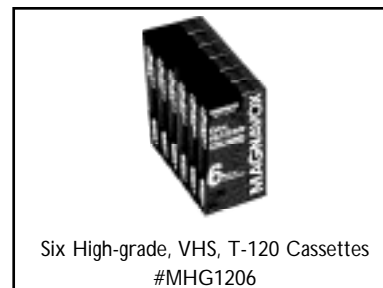
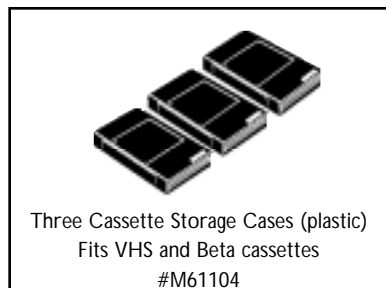
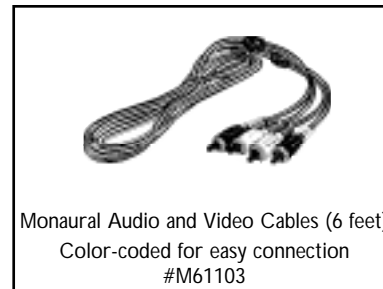
The following items are supplied with your TV/VCR; they are provided to help you use or set up your TV/VCR.



OPTIONAL ACCESSORIES

The following additional items are not provided with your TV/VCR, but they are designed for use with your new TV/VCR. To order these optional accessories, contact us at:

Philips Parts & Accessories Marketing Department
401 East Old Andrew Johnson Highway
P.O. Box 555
Jefferson City, TN 37760
1-800-851-8885.



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