

# Location of Controls

## Multi Function Display

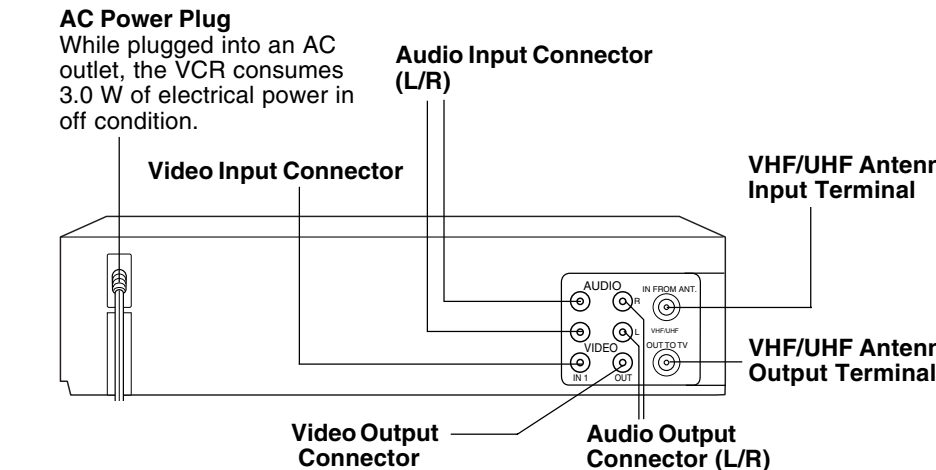
**Power Indicator**  
Lights up when power is on.

**Timer Indicator**  
Lights up when the VCR is set for a Timer Recording, or when One Touch Recording (OTR) is used.  
Flashes when a Timer Recording is set, but a tape has not been inserted into the VCR.

**VCR Indicator**  
Lights up when the VCR/TV selector is set to VCR.

**Clock/ Status/ Channel/ Speed Display**  
Displays the current time. Briefly displays VCR status when a function button is pressed.  
Briefly displays the channel number, or "L1" or "L2" when a channel or line input is selected.  
Briefly displays the recording speed when SPEED is pressed.

## Rear View of the VCR



**AC Power Plug**  
While plugged into an AC outlet, the VCR consumes 3.0 W of electrical power in off condition.

**Audio Input Connector (LR)**

**Video Input Connector**

**VHF/UHF Antenna Input Terminal**

**VHF/UHF Antenna Output Terminal**

**Video Output Connector**

**Audio Output Connector (LR)**

**Note to CABLE system installer:**  
This reminder is provided to call the CABLE system installer's attention to Article 820-40 of the NEC in USA (and to the Canadian Electrical Code in Canada) that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

**Panasonic Consumer Electronics Company,**  
Division of Matsushita Electric Corporation of America  
One Panasonic Way Secaucus, New Jersey 07094

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Carolina, Puerto Rico 00985

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# Spanish Quick Use Guide/ Guía para rápida consulta

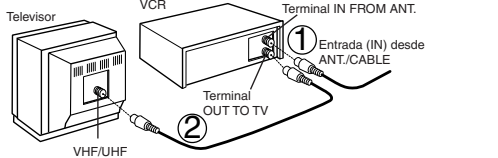
## CONEXIONES/CONFIGURACIÓN INICIAL (READY TO PLAY)

Realice la conexión de la antena o TV por cable antes de enchufar el cable de CA. La videograbadora iniciará automáticamente la fijación de los canales y del reloj al enchufar el cable de CA.

## CONEXIONES

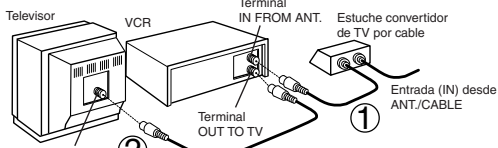
### Para Ant/Cable → VCR → TV

- 1 Conecte el cable de la antena al terminal IN FROM ANT del VCR.
- 2 Conecte el terminal OUT TO TV del VCR a la entrada de la antena VHF/UHF del TV con el cable RF incluido.



### Para Sistema Digital de Satélite (DSS) / Convertidor de cable → VCR → TV

- 1 Conecte la salida de convertidor de cable al terminal IN FROM ANT.
- 2 Conecte el terminal OUT TO TV del VCR a la entrada de la antena VHF/ UHF del TV con el cable RF incluido.

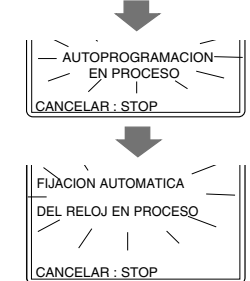


## CONFIGURACIÓN INICIAL

- 1 Encienda el TV y cambie al canal 3.
- 2 Enchufe el cable de CA. La videograbadora se encenderá e iniciará las fijaciones de los canales y del reloj.

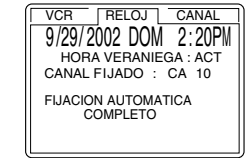
- Si no aparece la pantalla de abajo, compruebe la conexión del VCR-TV y si el canal del TV está a 3, intente cambiando al canal 4.
- Para cambiar el canal de salida del VCR, consulte las instrucciones de "Canal de salida del VCR" en la página 12 de las operaciones avanzadas.

### Enchufe el cable de CA.



Si está usando un convertidor de TV por cable y en su área hay un canal de Public Broadcast Station (PBS), ajuste su convertidor al canal PBS de su área. Si está usando un receptor DSS, este debe estar apagado.

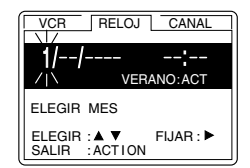
- 3 Las fijaciones se realizan automáticamente. Cuando termina las fijaciones, aparecerá la siguiente pantalla.



## AJUSTE MANUAL DEL RELOJ

Si la colocación de tiempo fue incompleta.

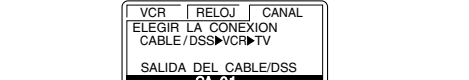
- a Presione la tecla ACTION en el control remoto para visualizar la pantalla del menú DEL RELOJ.



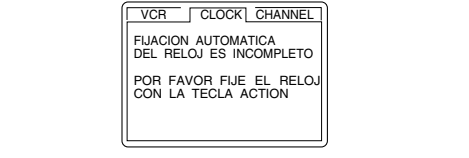
- 4 SELECCION DE CONEXION en el menú desplegado en pantalla. (Si la conexión es ANT/CABLE → VCR → TV.) Presione ▲▼ para obtener las conexiones "VCR ▶ TV", o "VCR ▶ CABLE/DSS ▶ TV", y presione ▶ seleccionar.
- (Si la conexión es DSS/Convertidor de cable → VCR → TV.) Presione ▲▼ para obtener la conexión "CABLE/DSS ▶ VCR ▶ TV" y presione ▶ para seleccionar.



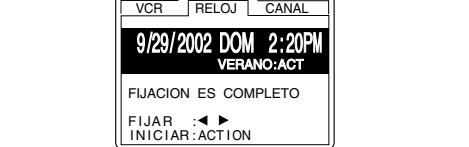
Confirme el canal de salida de su convertidor de cable o receptor de DSS presione ▲▼ que permitan seleccionar el mismo canal de salida que su convertidor o DSS. Presione ▶ para seleccion.



Si aparece en la pantalla "FIJACION AUTOMÁTICA DEL RELOJ ES INCOMPLETO", Ajuste el reloj como se describe a continuación.



- b Presione ▲ ▼ para seleccionar el mes y ▶ para ajustar. De la misma forma, seleccione y ajuste la fecha, año, hora y DST (Hora de Verano).



- c Presione dos veces la tecla ACTION para poner el RELOJ en marcha y pase al paso 4 anterior.

# Spanish Quick Use Guide/ Guía para rápida consulta

## OPERACIONES BÁSICAS PARA LA REPRODUCCIÓN

- 1 Inserte una cassette.
  - la alimentación del VCR se activa. En la Pantalla de Visualización Multi Función se ilumina "VCR".
- 2 Presione PLAY para reproducir el cassette.
  - Si el cassette no tiene lengüeta de prevención de grabación (p. 3), se inicia la reproducción automáticamente.

## Detalles especiales durante la grabación

- Presione FF o REW para búsqueda de escenas hacia delante/ hacia atrás. Presione PLAY para liberar. Luego de que la búsqueda se ha iniciado, cada vez que presione FF o REW se cambia la velocidad como sigue: [SLP] aprox. 21X ↔ aprox. 9X [LP] aprox. 9X ↔ aprox. 7X [SP] aprox. 7X ↔ aprox. 3X Si la imagen se interrumpe con la velocidad de 21x, 9x o 7x, cambie la velocidad a 9x, 7x o 3x.

- Presione PAUSE/SLOW para imagen Fija (Congelada).
- Presione PLAY para liberar.
- Presione PAUSE/SLOW en el modo de Imagen fija para imágenes cuadro a cuadro. Presione PLAY para liberar.
- Mantenga pulsado PAUSE/SLOW en el modo de imagen fija para imágenes en cámara lenta.
- Presione PLAY para liberar.

- 3 Presione STOP para detener el cassette.
- Presione REW o FF en el modo de parada para rebobinado/avance rápido del cassette.
- Presione EJECT en el control remoto, o STOP/EJECT en el VCR para expulsar el cassette.

## OPERACIONES BÁSICAS PARA LA GRABACIÓN

- 1 Inserte el cassette con lengüeta de protección de grabación (p. 3).
  - la alimentación del VCR se activa. En la pantalla Multi Función se ilumina "VCR".

- 2 Presione CH ▲▼, o las teclas de números para seleccionar el canal.

- 3 Presione SPEED para seleccionar la velocidad de grabación (p. 3)
  - SP = Reproducción estándar,
  - LP = Larga duración,
  - SLP = Superlarga duración.

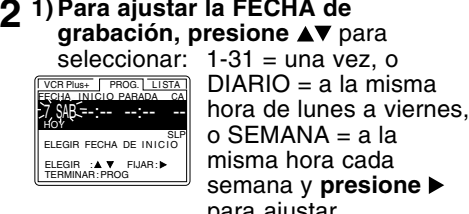
- 4 Presione REC para comenzar a grabar.
  - Para eliminar escenas no deseadas, presione PAUSE/SLOW para pausar, y al presionar nuevamente se reanuda la grabación.

- 5 Presione STOP para detener la grabación.
  - Grabación de un toque. Presione REC repetidamente para ajustar la duración de la grabación como sigue: como sigue: 30 min. → 1 hr → 1:30hr → 2:00 → 3:00 → 4:00 → Salida.

- Ver un canal y grabar otro. Presione VCRTV. (La indicación VCR se apagará en la "visualización de Multi-Función") → Selección canales de TV (Mientras permanece grabando)
- Selección canales con VCR. Presione VCR/TV (la indicación "VCR" se encenderá en la visualización multi-función) → Selección canales en su VCR.

## PROGRAMACIÓN FÁCIL PARA LA GRABACIÓN CON TEMPORIZADOR

- 1) Presione PROG/VCR+.
- 2) Presione ▼ para visualizar la pantalla de Programación.

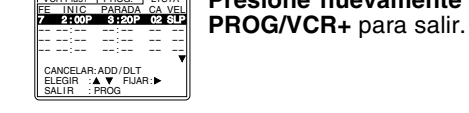


### Orden para elegir

Ejemplo: Fecha de hoy — 7 — DIARIO

- 2) Para los ajustar siguientes, presione ▲▼ para seleccionar y presione ▶ para ajustar los tiempos de INICIO/PARADA, CANAL, o entrada de LINEA, y velocidad del cassette (SP, LP, SLP). Presione PROG/VCR+ para finalizar el programa.

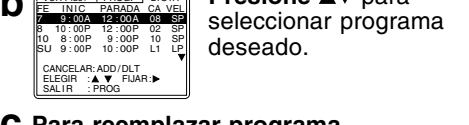
- 3 Presione ▲▼ para seleccionar un número que no está usando para ingresar mas programas y presione ▶ para ajustar. Luego repita el paso 2.



- 4 Presione POWER off para ajustar el temporizador. (Se ilumina "TIMER" en el panel delantero)

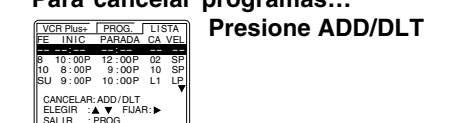
## REVISIÓN, REEMPLAZO O BORRADO DE PROGRAMACIONES (no se puede efectuar durante la grabación)

- a Presione PROG/VCR+.
- 2) Presione ◀▶ para seleccionar la línea.



### Para reemplazar programa...

- 1) Presione ▶ para desplegar menú.
- 2) Repita paso 2 para (ver arriba) introducir el nuevo programa.



### Para cancelar programas...

## PARA CANCELAR LA GRABACIÓN CON TEMPORIZADOR (la grabación está teniendo lugar)

Presione POWER y luego STOP dentro de los 10 segundos para cancelar la grabación con temporizador (el indicador TIMER se apagará en la Pantalla de Multi-Función)

# Spanish Quick Use Guide/ Guía para rápida consulta

## ANTES DE AL SERVICIO SOPORTE TÉCNICO

Verifique los siguientes puntos una y otra vez si esta teniendo problemas con su VCR. (BO : Haga referencia en la instrucciones de funcionamiento [Operaciones Básicas]) (AO : Haga referencia el la instrucciones de funcionamiento [Operaciones Avanzadas])

| ALIMENTACIÓN DE AC   | CORRECCIÓN  |
|--|---|
| La unidad no enciende....  | <ul style="list-style-type: none"> <li>Revise que el cordón de alimentación de AC este correctamente conectado a la toma de pared.</li> <li>Presione el botón "POWER" para el encendido de la unidad.</li> <li>Verifique que la fuente de alimentación está activada.</li> </ul>  |
| GRABACIÓN Y REPRODUCCIÓN (REC / PLAY)  | CORRECCIÓN  |
| No se pueden grabar programas de TV  | <ul style="list-style-type: none"> <li>Revise las conexiones entre VCR, antena externa o cable y TV.</li> <li>Verifique la selección de conexiones (BO p. 4, AO p. 3)</li> <li>Verifique que su sistema de antena (Cable o TV) estén correctamente seleccionados. Vea "Channels" (AO p. 12).</li> <li>Asegúrese que la pestaña en el cassette de grabación esté intacta (BO p.3).</li> <li>Compruebe que el reloj ha sido ajustado a la hora y fecha actual.</li> <li>Asegúrese de que la caja de Cable/DSS (si se utiliza) se deja encendido y está sincronizado al canal a grabar.</li> <li>Ajuste las horas de comienzo y detección de grabación correctamente. (BO p. 6)</li> <li>Asegúrese de que ha apagado el VCR antes de la grabación. (BO p. 6)</li> <li>La grabación con temporizador quizás no pueda realizarse o continuarse si se produjera una interrupción de corriente antes o durante una grabación con temporizador, incluso después de restablecido el fluido eléctrico.</li> <li>Selección el canal 3 o 4 en el televisor, de modo que corresponda con el canal de salida del videograbador (3 o 4) (BO p. 4), o seleccione LINE.</li> <li>Ajuste el selector VCR/TV a "VCR".</li> <li>Ajuste el control TRACKING en una de las dos direcciones. (BO p. 3)</li> <li>Pruebe a realizar la limpieza de cabezales. (BO p. 3)</li> </ul> |
| No se puede efectuar grabación con temporizador...   | <ul style="list-style-type: none"> <li>Ponga el Control de Bloqueo Vertical del televisor en "MANUAL" y luego realice el ajuste.</li> </ul>   |
| No hay imagen de reproducción, o la imagen de reproducción tiene ruidos o contiene rayas...  | <ul style="list-style-type: none"> <li>Asegúrese de que el aparato está encendido.</li> <li>Revise las pilas del control remoto.</li> <li>Asegúrese de que el BLOQUEO DEL VCR esté ajustado a INACTIVO (AO pag.10)</li> <li>Asegúrese de que no está funcionando una grabación con temporizador.</li> </ul>   |
| En la reproducción de efectos especiales, la imagen puede contener algunos saltos verticales cuando se utiliza un selector con Control de Bloqueo Vertical Automático... | <ul style="list-style-type: none"> <li>Asegúrese de que el aparato está encendido.</li> <li>Asegúrese de que el control remoto está en el modo de VCR.</li> <li>Ajuste el control remoto directamente al sensor remoto del VCR. (BO p. 7)</li> <li>Evite que ningún objeto interrumpa la señal del control remoto.</li> <li>Revise las pilas del control remoto (BO p.3)</li> <li>Asegúrese de que el BLOQUEO DEL VCR esté ajustado a INACTIVO (AO pag.10)</li> <li>Si el sensor remoto recibe directamente la luz del fluorescente o luz solar puede causar interferencia con la señal del control remoto.</li> <li>Verifique las conexiones entre VCR, cable o antena y TV.</li> <li>Presione el botón VCR para el modo de "VCR". (AO p. 2)</li> <li>Revise las baterías del control remoto. (BO p. 3)</li> </ul>   |
| No se puede controlar el VCR...  | <ul style="list-style-type: none"> <li>Asegúrese de que el aparato está encendido.</li> <li>Asegúrese de que el BLOQUEO DEL VCR esté ajustado a INACTIVO (AO pag.10)</li> <li>Asegúrese de que no está funcionando una grabación con temporizador.</li> </ul>   |
| CONTROL REMOTO   | CORRECCIÓN  |
| NO funciona el control remoto...   | <ul style="list-style-type: none"> <li>Asegúrese de que el aparato está encendido.</li> <li>Asegúrese de que el control remoto está en el modo de VCR.</li> <li>Ajuste el control remoto directamente al sensor remoto del VCR. (BO p. 7)</li> <li>Evite que ningún objeto interrumpa la señal del control remoto.</li> <li>Revise las pilas del control remoto (BO p.3)</li> <li>Asegúrese de que el BLOQUEO DEL VCR esté ajustado a INACTIVO (AO pag.10)</li> <li>Si el sensor remoto recibe directamente la luz del fluorescente o luz solar puede causar interferencia con la señal del control remoto.</li> </ul>  |
| Los botones "ACTION" y/o "PROG/VCR+" no responden...   | <ul style="list-style-type: none"> <li>Verifique las conexiones entre VCR, cable o antena y TV.</li> <li>Presione el botón VCR para el modo de "VCR". (AO p. 2)</li> <li>Revise las baterías del control remoto. (BO p. 3)</li> </ul>   |
| Varios   | CORRECCIÓN  |
| No se pueden ver los programas en el televisor...  | <ul style="list-style-type: none"> <li>Asegúrese que la TV este encendida.</li> <li>Asegúrese que la TV esté conectado a la salida de la VCR (VCR Out).</li> <li>Verifique conexiones entre VCR, cable o antena y TV.</li> <li>Ajuste el selector VCR/TV a "TV". (BO p. 5)</li> <li>Asegúrese que la apropiada señal fue seleccionada.</li> </ul>   |
| No se puede introducir la cassette de video...   | <ul style="list-style-type: none"> <li>Inserte el cassette con el lado de la ventana hacia arriba y la pestaña de grabación frente a usted.</li> <li>Verifique que no tenga ningún cassette dentro del aparato.</li> </ul>  |
| No se puede extraer la cassette de video...  | <ul style="list-style-type: none"> <li>Asegúrese de que la pestaña de grabación del cassette este intacta. (BO p. 3)</li> </ul>   |
| La cassette de video es expulsada al dar comienzo a una grabación o al desactivar la alimentación para la grabación con temporizador...                                  | <ul style="list-style-type: none"> <li>Asegúrese que la alimentación de AC a la toma de pared.</li> </ul>   |
| En el modo de Detención, el motor (CILINDRO) sigue girando...  | <ul style="list-style-type: none"> <li>Para activar rápidamente el mecanismo de reproducción, el cilindro sigue rotando durante 3 minutos. Esto disminuye el tiempo de respuesta desde la parada hasta la reproducción o hasta el la modo de búsqueda en rebobinado.</li> </ul>   |

Si no puede resolver su problema, por favor comunicarse al Centro de llamadas del Cliente para asistencia del producto al 1-800-211-PANA(7262). Para localizar un centro de servicios autorizado, llame sin costo al 1-800-211-PANA(7262) o envíe un correo a : [consumerproducts@panasonic.com](mailto:consumerproducts@panasonic.com)

# Limited Warranty

Panasonic Consumer Electronics Company, Division of Matsushita Electric Corporation of America, One Panasonic Way Secaucus, New Jersey 07094

Panasonic Sales Company, Division of Matsushita Electric of Puerto Rico, Inc. AVE. 65 de Infantería, Km. 9.5 San Gabriel Industrial Park, Carolina, Puerto Rico 00985

## PANASONIC VHS VCR Limited Warranty

Panasonic Consumer Electronics Company or Panasonic Sales Company (collectively referred to as "the Warrantor") will repair or replace this product with new or refurbished parts or equivalent product, free of charge in the USA or Puerto Rico, in the event of a defect in materials or workmanship as follows (all time periods commence from the date of the original purchase):  
PARTS – ONE (1) YEAR  
LABOR – NINETY (90) DAYS

Batteries – Non-rechargeable batteries are not warranted.  
Tape (if included) – New video tape in exchange for defective video tape for five (5) days.

For assistance in the continental U.S.A. in obtaining repairs please ship the product to:  
**Panasonic Services Company**  
Customer Servicenter Suite B  
4900 George McVay Drive  
McAllen, TX 78503

In Puerto Rico contact the Panasonic Sales Company.  
Tel. (787)750-4300  
Fax. (787)768-2910

When shipping the unit carefully pack and send it prepaid, adequately insured and preferably in the original carton. Include a letter detailing the complaint and provide a day time phone number where you can be reached.

**IF REPAIR IS NEEDED DURING THE WARRANTY PERIOD THE PURCHASER WILL BE REQUIRED TO FURNISH A SALES RECEIPT/PROOF OF PURCHASE INDICATING DATE OF PURCHASE, AMOUNT PAID AND PLACE OF PURCHASE. CUSTOMER WILL BE CHARGED FOR THE REPAIR OF ANY UNIT RECEIVED WITHOUT SUCH PROOF OF PURCHASE.**

Also, the purchaser will be responsible for shipping the unit to the above address. This warranty is extended only to the original purchaser.

This warranty only covers failures due to defects in materials and workmanship which occur during normal use. The warrantor does not cover damage which occurs in shipment, or failures which are caused by products not supplied by the warrantor, or failures which result from accident, misuse, abuse, neglect, mishandling, misapplication, alteration, modification, faulty installation, set-up adjustments, improper antenna, inadequate signal pickup, improper insertion of consumables, maladjustment of consumer controls, improper operation, power line surge, improper voltage supply, lightning damage, commercial use such as hotel, office, restaurant, or other business or rental use of the product or service by anyone other than a PANASONIC VHS VCR authorized repair facility, or damage that is attributable to acts of God.

LIMITS AND EXCLUSIONS  
There are no express warranties except as listed above.

THE WARRANTOR SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES (INCLUDING, WITHOUT LIMITATION, DAMAGE TO TAPES) RESULTING FROM THE USE OF THIS PRODUCTS, OR ARISING OUT OF ANY BREACH OF THE WARRANTY. ALL EXPRESS AND IMPLIED WARRANTIES, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE, ARE LIMITED TO THE APPLICABLE WARRANTY PERIOD SET FORTH ABOVE

Some states do not allow the exclusion or limitation of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the above exclusions or limitations may not apply to you.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

If you have a problem with this product that is not handled to your satisfaction, then write to the Consumer Affairs Department at the Company address indicated on this page.

**For Product Information, Operating Assistance, Literature Request, Dealer Locations, and all Customer Service inquiries please contact:**  
1-800-211-PANA (7262), Monday-Friday 9 am-9 pm Saturday-Sunday 9 am-7 pm, EST.

Web Site: <http://www.panasonic.com>  
You can purchase parts, accessories or locate your nearest servicenter by visiting our Web Site.

## Accessory Purchases:

1-800-332-5368 (Customer Orders Only)  
Panasonic Services Company 20421 84th Avenue South, Kent, WA 98032 (6 am to 5 pm Monday - Friday; 6 am to 10:30 am Saturday; PST)  
(Visa, MasterCard, Discover Card, American Express, Check)

# Panasonic®



## Video Cassette Recorder Operating Instructions (Basic Operations)

For advanced operations, see the separate "Advanced Operations" instruction book.

## Model No. PV-V4602



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**VCR Plus+ SILVER**  
VCR Plus+, ALLSET and PlusCode are trademarks of Gemstar Development Corporation. The VCR Plus+ system is manufactured under license from Gemstar Development Corporation.

As an ENERGY STAR® Partner, Matsushita Electric Corporation of America has determined that this product or product model meets the ENERGY STAR® guidelines for energy efficiency.

Please read these instructions carefully before attempting to connect, operate or adjust this product. Please save this manual. Spanish Quick Use Guide is included. (Guía para rápida consulta en español está incluida.)

## Important Safeguards and Precautions

FOR YOUR SAFETY, READ AND RETAIN ALL SAFETY AND OPERATING INSTRUCTIONS. HEED ALL WARNINGS IN THE MANUAL AND ON THE UNIT

**1 POWER SOURCE CAUTION**  
Operate only from a power source indicated on the unit or in this manual. If necessary, have your Electric Utility Service Company or Video Products Dealer verify the power source in your home.

**2 POLARIZED OR GROUNDING PLUG**  
As a safety feature, this Video product comes with either a polarized power cord plug (one blade is wider than the other), or a three-wire grounding type plug.

**POLARIZED PLUG CAUTION:**  
This plug will only fit into an outlet one way. If you cannot fully insert the plug, try reversing it. If it still will not fit, have an electrician install the proper wall outlet. Do not defeat the safety feature by tampering with the plug.

**GROUNDING PLUG CAUTION:**  
This plug will only fit into a three-hole grounding outlet. If necessary, have an electrician install the proper outlet. Do not defeat the safety feature by tampering with the plug.

**3 POWER CORD**  
Make sure power cords are routed so that they are not likely to have anything rest on them, roll over them, or be in the way of walking traffic.

If an extension cord is used, make sure it also has either a polarized or grounded plug and that the cords can be securely connected. Frayed cords, damaged plugs, and damaged or cracked wire insulation are hazardous and should be replaced by a qualified service technician. Overloaded outlets and extension cords are fire hazards and should be avoided.

**4 DO NOT BLOCK VENTILATION HOLES**  
Ventilation openings in the cabinet release heat generated during operation. If they are blocked, heat build-up inside the unit can cause failures that may result in a fire hazard or heat damage to cassettes. For protection, follow these rules:

a. Never cover ventilation slots or the unit while in use, or operate the unit when placed on a bed, sofa, rug, or other soft surface.

b. Avoid built-in installation, such as a book case or rack, unless proper ventilation is provided.

**5 AVOID EXTREMELY HOT LOCATIONS OR SUDDEN TEMPERATURE CHANGES**  
Do not place the unit over or near any kind of heater or radiator, in direct sunlight, inside a closed vehicle, etc. Do not move the unit suddenly between areas of extreme temperature variation. If the unit is suddenly moved from a cold place to a warm place, moisture may be present in the unit and on the tape.

**6 TO AVOID PERSONAL INJURY**

• Do not place unsecured equipment on a sloping surface.

• Do not place this unit on any support that is not firm, level, and adequately strong. The unit could fall causing serious injury to a child or adult and damage to the unit.

• An appliance and cart combination should be moved with care. Quick stops, jerks, and uneven surfaces may cause the appliance and cart combination to overturn.

• Carefully follow all operating instructions and use the manufacturer's recommended accessories when operating this unit or connecting it to any other equipment.

**8**

**DO NOT SERVICE THIS PRODUCT YOURSELF**

1, after carefully following the detailed operating instructions, this Video product does not operate properly, do not attempt to open or remove covers, or make any adjustments not described in the manual. Unplug the unit and contact a qualified service technician.

**2 IF REPLACEMENT PARTS ARE REQUIRED**

Make sure the service technician uses only parts specified by the manufacturer, or those having the same safety characteristics as the original parts. The use of unauthorized substitutes may result in fire, electric shock, or other hazards.

**3 HAVE THE SERVICE TECHNICIAN PERFORM A SAFETY CHECK**

After any service or repairs to the unit, request the service technician to conduct a thorough safety check as described in the manufacturer's service literature to ensure that the video unit is in safe operating condition.

**CAUTION**  
RISK OF ELECTRIC SHOCK  
DO NOT OPEN

CAUTION TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK)  
NO USER-SERVICEABLE PARTS INSIDE  
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL

FCC Warning: Any unauthorized changes or modifications to this equipment would void the user's authority to operate.

## Before Using

**OUTDOOR ANTENNA INSTALLATION**  
**SAFE ANTENNA AND CABLE CONNECTION**

If an outside antenna or cable system is connected to the equipment, be sure the antenna or cable system is grounded so as to provide some protection against built up static charges and voltage surges.

Section 810 of the National Electrical Code, ANSI/NFPA 70 (in Canada, part 1 of the Canadian Electrical Code) provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna discharge unit, clearance to grounding electrodes and requirements for the grounding electrode.

**2 KEEP ANTENNA CLEAR OF HIGH VOLTAGE POWER LINES OR CIRCUITS**  
An outside antenna system should be located well away from power lines, electric light or power circuits and where it will never come into contact with these power sources if it should happen to fall. When installing an outside antenna, extreme care should be taken to avoid touching power lines, circuits or other power sources as this could be fatal. Because of the hazards involved, antenna installation should be left to a professional.

**USING THE VIDEO UNIT**

If the unit has been in storage or moved to a new location, refer first to the INSTALLATION section of these safeguards.

**1 KEEP THIS VIDEO UNIT AWAY FROM WATER OR MOISTURE OF ANY KIND.**

**2 IF EQUIPMENT IS EXPOSED TO RAIN, MOISTURE, OR SEA WATER**  
Immediately unplug the unit and have it inspected by a qualified service technician before use.

**3 DURING AN ELECTRICAL STORM**  
During a lightning storm, whether indoors or outdoors, or before leaving the unit unused for extended periods of time, disconnect all equipment from the power source as well as the antenna and cable system.

**4 WHEN THE UNIT IS PLUGGED IN**

• Never expose the unit to rain or water. DO NOT OPERATE if liquid has been spilled into the unit.

• Immediately unplug the unit, and have it inspected by a service technician. Fire and shock hazards can result from electrical shorts caused by liquid contact inside.

• Never drop or push any object through openings in the unit. Some internal parts carry hazardous voltages and contact can cause electric shock or fire hazard.

• Avoid placing the unit directly above or below your TV set as this may cause electrical interference. Keep all magnets away from electronic equipment.

**5 USING ACCESSORIES**  
Use only accessories recommended by the manufacturer to do not place the unit over, or near any kind of heater or radiator, in direct sunlight, inside a closed vehicle, etc. Do not move the unit suddenly between areas of extreme temperature variation.

**6 CLEANING THE UNIT**  
Unplug the unit. Then, use a clean, dry, chemically untreated cloth to gently remove dust or debris. DO NOT USE cleaning fluids, aerosols, or forced air that could overspray, or seep into the unit and cause electrical shock. Any substance such as wax, adhesive tape, etc. may mar the cabinet surface. Exposure to greasy, humid, or dusty areas may adversely affect internal parts.

**7 SERVICE**

1, after carefully following the detailed operating instructions, this Video product does not operate properly, do not attempt to open or remove covers, or make any adjustments not described in the manual. Unplug the unit and contact a qualified service technician.

**2 IF REPLACEMENT PARTS ARE REQUIRED**

Make sure the service technician uses only parts specified by the manufacturer, or those having the same safety characteristics as the original parts. The use of unauthorized substitutes may result in fire, electric shock, or other hazards.

**3 HAVE THE SERVICE TECHNICIAN PERFORM A SAFETY CHECK**

After any service or repairs to the unit, request the service technician to conduct a thorough safety check as described in the manufacturer's service literature to ensure that the video unit is in safe operating condition.

## Congratulations

on your new purchase! With proper use, this dependable product will provide years of enjoyment. Please fill in the information below. (Serial number is on tag on back of VCR.)

• Date of Purchase \_\_\_\_\_

• Dealer Purchased From \_\_\_\_\_

• Dealer Address \_\_\_\_\_

• Dealer Phone No. \_\_\_\_\_

• Model No. **PV-V4602**

• Serial No. \_\_\_\_\_

**Accessories**

Remote Control LSSQ0300

Batteries 2 "AA"

RF Coaxial Cable VJAS0196

To order accessories, call toll free 1-800-332-5368.

## Loading the Batteries

Break off the tab to prevent recording.

To record again

Record Tab

Cover the hole with cellophane tape.

Screw driver

Screw driver

Screw driver

Screw driver

Screw driver

Screw driver

Screw driver

Screw driver

Screw driver

Screw driver

Screw driver

Screw driver

Screw driver

Screw driver

Screw driver

## Head Cleaning

Old or damaged tapes may clog heads. Video Head Clog Sensor Screen-right appears during play if clogging is detected.

To remove screen, press PLAY.

• Use "dry" type head cleaning cassette only. (Part No. NV-TCL3OPT is recommended.)

• Following clean tape instructions carefully. Excessive use of tape can shorten head life.

**Built-in Head Cleaner**

A clean video head helps produce a clear picture. So, we have equipped your VCR with a built-in, non-chemical head cleaning system that helps prevent clogging of the video heads.

Cleaning is performed each time you load or unload a video cassette.

• This feature is preventative only. If your video heads are seriously clogged, consider the use of a chemical non-abrasive head cleaning kit or take your VCR to a Service Center.

## Cleaning the VCR

Use soft, dry cloth or dusting attachment of a vacuum to remove dust from all cabinet vent holes. You may moisten cloth with nonabrasive, antistatic cleaner/ polisher.

**Caution:**  
Alcohol and various solvents could damage finish.

## Specifications

**Power Source:** 120 V AC, 60 Hz

**Power Consumption:** Power On Approx. 23 W

Power Off Approx. 3.0 W

Video Signal: EIA Standard NTSC color

Video Recording System: 4 rotary heads helical scanning system

Audio Track: 1 track (Normal) 2 channel Hi-Fi Audio Sound

**Tuner:**

**Broadcast Channels:** VHF 2 ~ 13, UHF 14 ~ 69

**CABLE Channels:** Midband A-1 (14 ~ 22) Superband J ~ W (23 ~ 36) Hyperband AA - EEE (37 ~ 64) Lowband A-5 ~ A-1 (95 ~ 99) Special CABLE channel 5A (01) Ultraband 65 ~ 94, 100 ~ 125

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

**Operating Humidity:** 10% ~ 75%

**Weight:** 2.7 kg (6.0 lbs).

**Dimensions:** 430 (W) x 98 (H) x 242 (D) mm 16-15/16" (W) x 3-7/8" (H) x 9-9/16" (D) inch

Note: Designs and specifications are subject to change without notice.

**Features for a Quality Picture**

**Digital Auto Picture**

## Connections / Initial Setup (Ready to Play)

Please make all cable or antenna connections before plugging into the AC outlet. Plugging the VCR Power Cord into an AC wall outlet starts auto channel and clock set.

**Connecting**

**For ANT./Cable → VCR → TV**

**1 Connect cable from Antenna/Cable to VCR's IN FROM ANT. jack.**

**2 Connect VCR's OUT TO TV jack to TV's ANT. IN jack with included RF Cable accessory.**

**For DSS/Cable Box → VCR → TV**

**1 Connect your cable box's OUT jack to the VCR's IN FROM ANT. jack with an RF cable.**

**2 Connect VCR's OUT TO TV jack to TV's ANT. IN jack with included RF Cable accessory.**

## Doing Initial Setup (Ready to Play)

**1 Turn TV on and tune to channel 3.**

**2 Plug VCR Power Cord into AC wall outlet.** VCR comes on and auto channel and clock set starts.

• If screen below does not appear, check VCR - TV connection and, if TV is tuned to channel 3, try switching it to channel 4.

• To change VCR's output channel, please refer to "VCR's Output Channel" in Advanced Operations book (p. 12).

**3 Settings are made automatically.** When setup is done, this screen appears.

**4 SELECT CONNECTION screen is displayed.** (If ANT./Cable → VCR → TV connection,) press ▲▼ to select "VCR → TV", or "VCR → CABLE/DSS BOX → TV", and press ► to set.

**5 (If DSS/Cable Box → VCR → TV connection,) press ▲▼ to select "CABLE/DSS BOX → VCR → TV" and press ► to set.**

**Verify the output channel of your cable box or DSS receiver and press ▲▼ to select and ► to enter that channel number.**

**3 Press STOP to stop tape.**

**4 Press REW or FF in Stop mode to Rewind or Fast Forward tape.**

**5 Press EJECT on remote, or STOP/EJECT on VCR to eject tape.**

**6 Press ▲▼ to select the month and ► to set. In the same manner, select and set the date, year, time, and DST (daylight saving time).**

**7 Press ACTION to start clock, and go to step 4 above.**

**8 Press ▲▼ to select the month and ► to set. In the same manner, select and set the date, year, time, and DST (daylight saving time).**

**9 Press ACTION to start clock, and go to step 4 above.**

**10 Press ▲▼ to select the month and ► to set. In the same manner, select and set the date, year, time, and DST (daylight saving time).**

**11 Press ACTION to start clock, and go to step 4 above.**

**12 Press ▲▼ to select the month and ► to set. In the same manner, select and set the date, year, time, and DST (daylight saving time).**

**13 Press ACTION to start clock, and go to step 4 above.**

## Playback / Record on a Tape

**Playback a Tape**

**1 Insert a tape.**  
• Loose or peeling labels may cause tape jam.

**2 Press PLAY to play tape.**  
• If tape has no rec. tab (p. 3), auto play begins.

**Record on a Tape**

**1 Insert a tape with a record tab (p. 3).**

**2 Press CH ▲▼ or NUMBER keys to select the channel.**  
• For "LINE" input, see p. 9 of "Advanced Operations" book.  
• If channel over 100, first press 100 key then the other 2 digits.

**3 Press SPEED**  
to select record speed (p. 3).

**4 Press REC**  
to start recording.  
• To edit, press PAUSE/SLOW to pause, and again to resume recording.

**5 Press STOP**  
to stop recording.

**6 Press PAUSE/SLOW**  
to pause recording.

**7 Press REW or FF**  
to rewind or fast forward tape.

**8 Press EJECT**  
to eject tape.

**9 Press ACTION**  
to start clock, and go to step 4 above.

**10 Press ▲▼ to select the month and ► to set. In the same manner, select and set the date, year, time, and DST (daylight saving time).**

**11 Press ACTION**  
to start clock, and go to step 4 above.

**12 Press ▲▼ to select the month and ► to set. In the same manner, select and set the date, year, time, and DST (daylight saving time).**

**13 Press ACTION**  
to start clock, and go to step 4 above.

**14 Press ▲▼ to select the month and ► to set. In the same manner, select and set the date, year, time, and DST (daylight saving time).**

**15 Press ACTION**  
to start clock, and go to step 4 above.

**16 Press ▲▼ to select the month and ► to set. In the same manner, select and set the date, year, time, and DST (daylight saving time).**

**17 Press ACTION**  
to start clock, and go to step 4 above.

**18 Press ▲▼ to select the month and ► to set. In the same manner, select and set the date, year, time, and DST (daylight saving time).**

**19 Press ACTION**  
to start clock, and go to step 4 above.

**20 Press ▲▼ to select the month and ► to set. In the same manner, select and set the date, year, time, and DST (daylight saving time).**

**21 Press ACTION**  
to start clock, and go to step 4 above.

**22 Press ▲▼ to select the month and ► to set. In the same manner, select and set the date, year, time, and DST (daylight saving time).**

**23 Press ACTION**  
to start clock, and go to step 4 above.

**24 Press ▲▼ to select the month and ► to set. In the same manner, select and set the date, year, time, and DST (daylight saving time).**

## Timer Recording

**Timer Recording**

**1 Press PROG/VCR+\* button.**

**2 Press ▼ to display program screen.**

**3 Press ▲▼ to select a program.**

**4 Press POWER off**  
to set the timer recording. ("TIMER" lights on Multi Function Display.)

**5 Press PROG/VCR+ button**  
to end programming.

**6 Press PAUSE/SLOW**  
to pause recording.

**7 Press REW or FF**  
to rewind or fast forward tape.

**8 Press EJECT**  
to eject tape.

**9 Press ACTION**  
to start clock, and go to step 4 above.

**10 Press ▲▼ to select the month and ► to set. In the same manner, select and set the date, year, time, and DST (daylight saving time).**

**11 Press ACTION**  
to start clock, and go to step 4 above.

**12 Press ▲▼ to select the month and ► to set. In the same manner, select and set the date, year, time, and DST (daylight saving time).**

**13 Press ACTION**  
to start clock, and go to step 4 above.

**14 Press ▲▼ to select the month and ► to set. In the same manner, select and set the date, year, time, and DST (daylight saving time).**

**15 Press ACTION**  
to start clock, and go to step 4 above.

**16 Press ▲▼ to select the month and ► to set. In the same manner, select and set the date, year, time, and DST (daylight saving time).**

**17 Press ACTION**  
to start clock, and go to step 4 above.

**18 Press ▲▼ to select the month and ► to set. In the same manner, select and set the date, year, time, and DST (daylight saving time).**

**19 Press ACTION**  
to start clock, and go to step 4 above.

**20 Press ▲▼ to select the month and ► to set. In the same manner, select and set the date, year, time, and DST (daylight saving time).**

**21 Press ACTION**  
to start clock, and go to step 4 above.

**22 Press ▲▼ to select the month and ► to set. In the same manner, select and set the date, year, time, and DST (daylight saving time).**

**23 Press ACTION**  
to start clock, and go to step 4 above.

**24 Press ▲▼ to select the month and ► to set. In the same manner, select and set the date, year, time, and DST (daylight saving time).**

**25 Press ACTION**  
to start clock, and go to step 4 above.

**26 Press ▲▼ to select the month and ► to set. In the same manner, select and set the date, year, time, and DST (daylight saving time).**

## Location of Controls

**Remote Control Buttons**

**EJECT** (Ejects tape)

**POWER** (Turns VCR off/on)

**VCR (mode)** (Enables VCR functions)

**VCR/TV** (For TV or VCR mode)

**PLAY** (Plays a tape/FAST FORWARD/SEARCH) (Fast forwards tape/forward visual search)

**REWIND/SEARCH** (Rewinds tape/ reverse visual search)

**STOP** (Stops tape)

**▲▼▶▶ Remote keys** (PLAY, STOP, REW, and FF function as ▲▼▶▶ operation keys when menus are displayed.)

**ACTION** (Displays menu)

**COUNTER RESET** (Resets counter to zero)

**PAUSE/SLOW** (Displays still, frame by frame, or slow motion picture)

**SAP/Hi-Fi** (Selects audio mode for play or record)

**VOLUME UP/DOWN** (Adjusts TV volume)

**Light Tower Universal Remote Control**

**LIGHT button:** When pressed, available buttons light and selected mode button (TV, VCR, or DSS CABLE) flashes 5 seconds. If no button is pressed, light goes out in 5 seconds. Also, hold down a button to confirm the selected mode (mode button flashes) in the dark.

**EJECT button:** Press to eject tape. EJECT is not available during record.

**Front View of the VCR**

**Cassette**

## Before Requesting Service

Check the following points once again if you are having trouble with your VCR.  
(BO : refers to "Basic Operations" Instruction book.)  
(AO : refers to "Advanced Operations" Instruction book.)

| Power   | Correction  |
|---|---|
| No power...   | <ul style="list-style-type: none"><li>Completely insert Power Plug into an AC outlet.</li><li>Set POWER button to on.</li><li>Make sure power source is active.</li></ul>   |
| Recording & Playback  | Correction  |
| TV program cannot be recorded...  | <ul style="list-style-type: none"><li>Check connections between VCR, external antenna, and TV.</li><li>Check connections selection. (BO p. 4, AO p. 3)</li><li>Make sure your antenna system (CABLE or TV) is correctly set. (Channels [AO p. 12])</li><li>Make sure cassette record tab is intact. (BO p. 3)</li></ul>   |
| Timer recording cannot be performed...  | <ul style="list-style-type: none"><li>Confirm that clock is set to current time and date.</li><li>Make sure Cable/DSS box (if used) is left on and tuned to channel to be recorded.</li><li>Set recording start/stop times correctly. (BO p. 6)</li><li>Make sure VCR POWER button is pressed off. (BO p. 6)</li><li>Timer recording may not be performed or continued if a power interruption occurs before or during a Timer Recording, even after power is restored.</li></ul> |
| There is no playback picture, or the playback picture is noisy or contains streaks...   | <ul style="list-style-type: none"><li>Select channel 3 or 4 on TV to match VCR output channel (3 or 4) (BO p. 4) or select LINE.</li><li>Set VCR/TV selector to "VCR."</li><li>Adjust TRACKING control in either direction. (BO p. 3)</li><li>Try Head Cleaning. (BO p. 3)</li></ul>  |
| Special effects playback, picture may contain some vertical jitter when using a TV with an Automatic Vertical Hold Control... | <ul style="list-style-type: none"><li>Set TV's Vertical Hold Control to MANUAL, then adjust.</li></ul>  |
| VCR cannot be controlled...   | <ul style="list-style-type: none"><li>Make sure VCR power is on.</li><li>Check Remote batteries.</li><li>Make sure VCR LOCK is set to off. (AO p. 10)</li><li>Make sure Remote is in proper mode. (AO p. 2)</li><li>Make sure Timer Record is not in progress.</li></ul>  |
| Remote Control  | Correction  |
| VCR cannot be remote controlled...  | <ul style="list-style-type: none"><li>Make sure VCR power is on.</li><li>Make sure Remote is in VCR mode.</li><li>Aim Remote Control directly at remote sensor on VCR. (BO p. 7)</li><li>Avoid any object blocking signal path.</li><li>Check Remote batteries. (BO p. 3)</li><li>Make sure VCR LOCK is set to off. (AO p. 10)</li><li>Exposing VCR remote sensor to direct fluorescent or outdoor light may cause signal interference.</li></ul>                                 |
| ACTION and PROG/VCR+ buttons do not respond...  | <ul style="list-style-type: none"><li>Check connections between VCR, external antenna, and TV.</li><li>Press VCR button for VCR mode. (AO p. 2)</li><li>Check Remote batteries. (BO p. 3)</li></ul>   |
| Miscellaneous   | Correction  |
| Programs cannot be viewed on TV...  | <ul style="list-style-type: none"><li>Make sure TV power is on.</li><li>Make sure TV is set to output of VCR.</li><li>Check connections between VCR, external antenna, and TV.</li><li>Set VCR/TV selector to "TV." (BO p. 5)</li><li>Make sure proper signal source is selected.</li></ul>   |
| Video cassette cannot be inserted...  | <ul style="list-style-type: none"><li>Insert the cassette with window side up; record tab facing you.</li><li>Check if a tape is already in the unit.</li></ul>   |
| Video cassette cannot be removed...   | <ul style="list-style-type: none"><li>Completely insert Power Plug into an AC outlet.</li></ul>   |
| Video cassette ejects when a recording is started or the power is turned off for timer recording...                           | <ul style="list-style-type: none"><li>Make sure cassette record tab is intact. (BO p. 3)</li></ul>  |
| In Stop mode, the motor (CYLINDER) continues to rotate...   | <ul style="list-style-type: none"><li>To enable Quick play mechanism, the cylinder will rotate for about 3 minutes. This reduces response time from Stop to Play mode and from Play to Rewind Search mode.</li></ul>  |

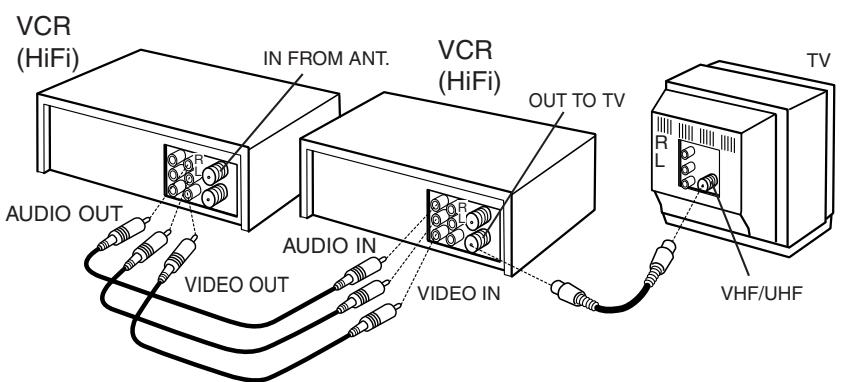
If you cannot resolve the problem, please call the Customer Call Center for product assistance at 1-800-211-PANA (7262). To locate an authorized servicer, please call toll free 1-800-211-PANA (7262), or send e-mail to : consumerproducts@panasonic.com

Panasonic Consumer Electronics Company, Division of Matsushita Electric Corporation of America  
One Panasonic Way Secaucus, New Jersey 07094  
Panasonic Sales Company ("PSC"), Division of Matsushita Electric of Puerto Rico, Inc.  
Ave. 65 de Infantería. Km. 9.5 San Gabriel Industrial Park, Carolina, Puerto Rico 00985  
Printed in Indonesia LSQT0535A S1201-0

## Copying Your Tapes (Dubbing)

### Connection

(Rear connection shown.)



Front of VCR VIDEO IN 2 L-AUDIO IN 2-R (Front Audio L/R Video IN jacks are also provided)

- Connect VIDEO OUT jack on Playing VCR to VIDEO IN jack on Recording VCR. To monitor the dubbing, also connect a TV as shown.
- Connect AUDIO L/R OUT jacks on Playing VCR to AUDIO L/R IN jacks on Recording VCR.

In place of a Playing VCR, you can use other equipment, such as a Camcorder. Simply connect the unit's Audio/Video outputs to the Recording VCR.

| Playing (Source) VCR   | Recording (Editing) VCR   |
|--|---|
| 1 Insert pre-recorded tape.  | Insert blank tape with record tab.  |
| 2  | Press INPUT* to set VCR Input mode to LINE1 for Video Input (Rear) or to LINE2 for Video Input (Front). (See "Selecting the Input Mode" below.) |
| 3 Press PLAY, then PAUSE/SLOW immediately to enter PLAY/PAUSE mode.                              | Press REC, then PAUSE/SLOW immediately to enter REC/PAUSE mode.   |
| The operation of steps 4 and 5 must be done on both playing and recording VCRs at the same time. |   |
| 4 Press PLAY to start dubbing. Playing VCR starts playback.                                      | Press PAUSE/SLOW to start dubbing. Recording VCR starts recording.  |
| 5 Press STOP to stop dubbing.  | Press STOP to stop dubbing.   |

- To Monitor Dubbing on Your TV**
  - Turn your TV on and tune to the Recording VCR channel (CH3 or CH4).
  - Set the VCR/TV Selector on the Recording VCR to "VCR."
- Selecting the Input Mode**

Method 1:  
Press INPUT repeatedly. Channel Number ↔ LINE1 ↔ LINE2

Method 2:  
Press CH ▲ / ▼.  
Display will change as below.

**Note** • Dubbing tapes protected with Copy Guard will have poor quality results.

- "L1" or "L2" lights on Multi-Function Display (about 4 sec.) when LINE1 or LINE2 is selected.
- LINE1: For rear audio/video connection. LINE2: For front audio/video connection.

**Caution:** Unauthorized exchanging and/or copying of copyrighted recordings may be copyright infringement.

## Special VCR Features

### Tape Position Display Feature

To find out the present tape position. Tape position is displayed for VHS-C Cassettes type, tapes under 30 minutes, and some other tapes, but the position is not correct.

- Press TAPE POSITION to detect tape position.

DETECTING TAPE POSITION

REC STN END

"DETECTING TAPE POSITION" only appears the first time a cassette is inserted and it takes several seconds for correct indication to appear.

- The present tape position indication is displayed.

- Press TAPE POSITION to return to normal screen.

### Remote Warning ON/OFF Feature

If Multi-brand feature is used (page 2), and this feature is set to on, a warning appears whenever an invalid key is pressed in TV, DSS or Cable mode.

- Press ACTION to display menu.

Press ▲▼ to select REMOTE WARNING and press ► to set ON or OFF.

If "OFF" remote warning will not appear if invalid key is pressed.

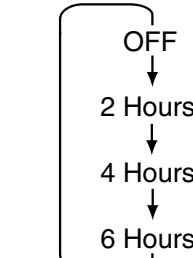
- Press ACTION to return to normal screen.

### Auto Shut-Off Feature

The power shuts off at a preset time.

- Press ACTION to display menu.

Press ▲▼ to select AUTO SHUT-OFF. Press ► repeatedly to change shutoff time as shown below.



- Press ACTION to return to normal screen.

**Note** • The shut-off countdown will not function during Play or Record.

**\*Important:** If a remote control button does not work when pressed, press the VCR button on the remote and try the button again.

### Weak Signal Display ON/OFF Feature

When set to "ON," picture is displayed regardless of signal strength.

- Press ACTION to display menu.

Press ◀▶ to select and display CHANNEL. Press ▲▼ to select WEAK SIGNAL DISPLAY, and press ► to set ON or OFF.

- ON: Picture is displayed despite signal condition an may have poor quality.
- OFF: Screen turns solid blue when signal is weak or non-existent.
- Selecting ON has no effect on connected equipment with blue back feature.

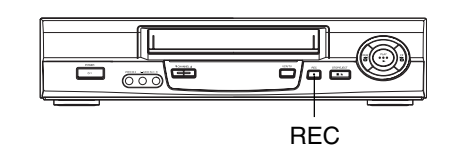
### VCR Lock Feature

When set to ON, all operations except for timer record and tape eject are prohibited. Useful for households with small children.

To turn on, hold down REC on the VCR in Stop mode with no tape inserted for 7 sec. (Please ignore the NO CASSETTE warning.)

To turn off, repeat above.

- VCR Lock cancels in 24 hours if clock is set.



REC

- Press ACTION to return to normal screen.

**Note** • The shut-off countdown will not function during Play or Record.

## On-Screen Displays (OSD)

### On-Screen Displays (OSD)

#### Function & Channel Displays

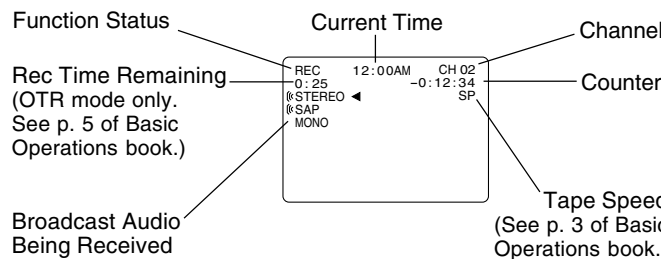
When a function button is pressed, e.g. PLAY, or you change channels, a 5 second display appears.

#### Blank Tape/No Video Signal Indications

When blank tape is detected during play, or the current channel has no signal (with Weak Signal Display feature (p. 10) set to OFF), the TV screen will turn solid blue.

#### VCR Status & Clock Displays

To display or remove overlay at right, press DISPLAY\*.



### Warning and Instruction Displays

These displays will alert you to a missed operation or provide further instructions.

| OSD   | Caution  | Page                                |
|---|--|-------------------------------------|
| PLEASE SET CLOCK BY PRESSING ACTION KEY   | If you attempt to set or review a Timer Recording and the Clock is not set...                      | See page 6 of Basic Operations book |
| TURN VCR OFF FOR TIMER RECORDING  | After a Timer Program has been set...  | See page 6 of Basic Operations book |
| CHECK CASSETTE RECORD TAB   | If you press REC on the remote control or VCR, and a cassette is inserted with no record tab...    | See page 3 of Basic Operations book |
| NO CASSETTE   | If you press PLAY, FF, REW, or REC on the remote control or VCR without a cassette inserted...     | See page 5 of Basic Operations book |
| TO CANCEL TIMER REC PRESS POWER THEN STOP KEY   | If you press POWER or STOP during a Timer Recording... (visible in VCR mode only)                  | See page 6 of Basic Operations book |
| VIDEO HEADS MAY NEED CLEANING PLEASE INSERT HEAD CLEANING CASSETTE OR REFER TO MANUAL | If head cleaning becomes necessary while playing back a tape...                                    | See page 3 of Basic Operations book |
| END :PLAY   |  |                                     |
| VCR LOCK ACTIVATED  | If you press a function button other than STOP/EJECT or POWER while the VCR is in VCR Lock mode... | See page 10                         |
| REMOTE CONTROL IS SET TO TV MODE  | If you press an invalid key on the remote while in TV mode...                                      | See pages 2, 10                     |
| USE VCR : VCR KEY   |  |                                     |

**\*Important:** If a remote control button does not work when pressed, press the VCR button on the remote and try the button again.

## Reset Language, Channels, Clock, VCR's Output Channel

### Language

1) Press ▲▼ to select language item.

2) Press ► repeatedly.

For English

Press ACTION to display MENU.

### Channels

1) Press ◀▶ to select CHANNEL.

2) Press ▲▼ to select "ANTENNA," then press ► to set your antenna system ("TV" or "CABLE.")

### Clock

1) Press ◀▶ to select CLOCK.

2) Press ▲▼ to select "MANUAL," and press ► (For Auto Clock Set, select "AUTO CLOCK SET.")

### Time Zone Adjust

(Only when Auto Clock is set.)

- Press ◀▶ to select CLOCK.

2) Press ▲▼ to select "TIME ZONE ADJUST"

### Add or Delete a Channel

To add channel: Select channel with NUMBER keys and press ADD/DLT.

To delete channel: Select channel with CH ▲▼ or NUMBER keys and press ADD/DLT.

### DST (Daylight Saving Time)

VCR auto adjusts clock for DST. Spring (First Sunday in April) DST:ON → Sets clock ahead one hour.

Autumn (Last Sunday in October) DST:ON → Turns clock back one hour.

- If your area does not observe Daylight Saving Time, select DST:OFF.
- Keep these time changes in mind when programming VCR for timer recordings.

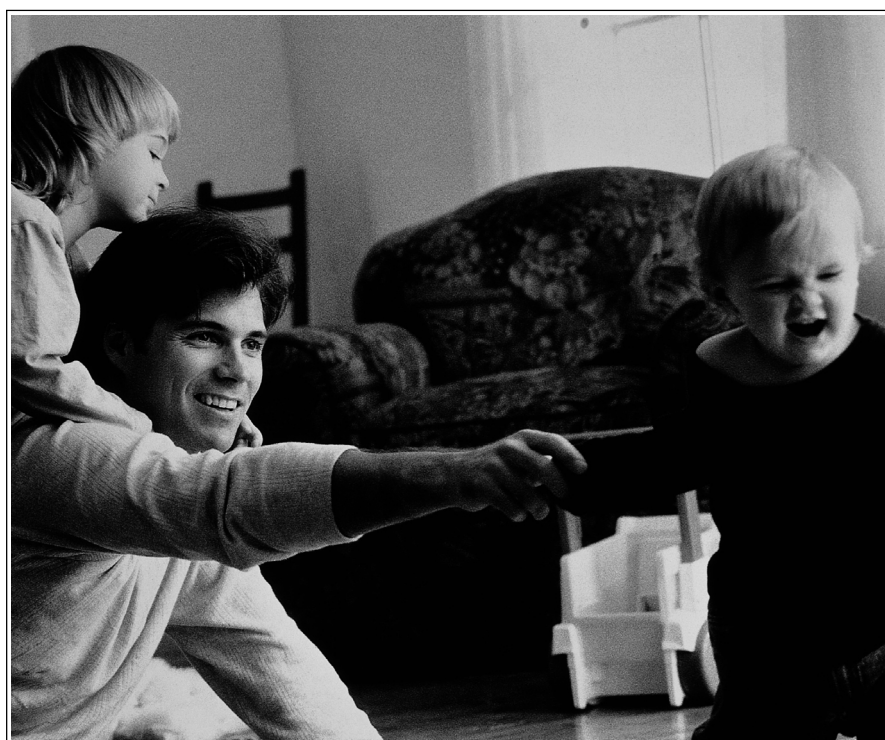
# Panasonic



## Video Cassette Recorder Operating Instructions (Advanced Operations)

For Basic operations, see the separate "Basic Operations" instruction book.

## Model No. PV-V4602



## Table of Contents

|   |      |
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VCR Plus+ ALLSET and PlusCode are trademarks of Gemstar Development Corporation. The VCR Plus+ system is manufactured under license from Gemstar Development Corporation.

As an ENERGY STAR® Partner, Matsushita Electric Corporation of America has determined that this product or product model meets the ENERGY STAR® guidelines for energy efficiency.

Please read these instructions carefully before attempting to connect, operate or adjust this product. Please save this manual.

# Multi-Brand Control Feature

### Multi-Brand Control Setup

The Remote Control can be set to control some TV and Cable box/DSS functions.

#### 1 Find your TV and Cable Box/DSS Receiver Brand Code Number from those shown below.

- Setup for TV control,**
  - hold down **TV** button,
  - enter code with **NUMBER** keys.
- Setup for Cable or DSS control,**
  - hold down **DSS/CABLE** button,
  - enter code with **number** keys.
- If code number is 100 or greater, press 100 key, then other digits. E.g., press 100 - 0 - 2 for 102.

- Confirm code entry,**
  - press **POWER** to turn your TV on or off.
  - See table below for controllable functions in each mode.

**Notes**

- Repeat setup after remote battery replacement.
- Remote will not control every TV, cable box, or DSS made by the manufacturer listed. If you get no response, your particular unit cannot be controlled. There are NO additional codes for the products listed. If your product is not listed, then the remote is not compatible with that product.

### Using Multi-Brand Control

After remote is set up, you can select VCR, TV, or DSS/CABLE for the desired function.

Press **VCR**, or **TV**, or **DSS/CABLE** on the remote.

(Table below shows available unit buttons for each mode.)

| Unit       | VCR  | TV  | CABLE/ DSS   |
|------------|--|---|--|
| VCR        | All  | VOL UP/DOWN   | _____  |
| TV         | VCR/TV, PLAY, STOP, EJECT, SAP/ Hi-Fi, DISPLAY, FF, REW, PAUSE/SLOW, REC, SPEED, CM/ZERO, COUNTER RESET, TAPE POSITION | POWER, INPUT, number keys, ENTER, CH UP/DOWN, VOL UP/DOWN | _____  |
| CABLE/ DSS | _____  | VOL UP/DOWN POSITION                                      | POWER, ENTER, NUMBER keys (except 100key), CH UP/ DOWN |

**Notes**

- Not all functions listed may be controllable.
- In TV or DSS/CABLE mode, it may be necessary to press ENTER after pressing NUMBER keys for channel selection.

|           |        |          |        |            |            |
|-----------|--------|----------|--------|------------|------------|
| Panasonic | 01, 02 | Sylvania | 05     | JVC        | 11         |
| Quasar    | 01, 02 | Sharp    | 06, 07 | Hitachi    | 12         |
| RCA       | 03     | Sony     | 08     | Mitsubishi | 07, 13     |
| GE        | 03     | Toshiba  | 09     | Samsung    | 14         |
| Zenith    | 04     | Sanyo    | 10     | Gold Star  | 15, 16, 17 |
| Magnavox  | 05     | Fisher   | 10     |            |            |

|                     |   |                     |   |
|---------------------|---|---------------------|---|
| Archer              | 05, 06, 01, 44, 63, 91, 126   | Quest               | 05, 06  |
| Cabletenna          | 01, 44, 63, 91, 126   | Radio Shack         | 51, 44, 59, 75, 126   |
| Cableview           | 63, 44, 42, 30, 52, 04, 124, 126                                    | RCA                 | 16, 17, 97, 109   |
| Century             | 51, 44, 59, 75, 126   | Realistic           | 51, 44, 59, 75, 126   |
| Citizen             | 63, 44, 42, 30, 52, 04, 124, 126                                    | Recoton             | 51, 44, 59, 75, 126   |
| Curtis              | 08, 09, 61, 53, 87  | Regal               | 14, 15, 28, 41, 102, 103, 104, 108, 130                             |
| Diamond             | 01, 44, 63, 91, 126   | Regency             | 28, 130   |
| Drake               | 67  | Rembrandt           | 01, 32, 39, 42, 44, 63, 126   |
| Eagle               | 13, 22, 58, 62, 20, 40, 26, 107                                     | Radora              | 05, 32, 40, 42, 06  |
| Eastern             | 04, 124   | Scientific Atlanta  | 08, 09, 61, 53, 87  |
| GC Brand            | 63, 44, 42, 30, 52, 04, 124, 126                                    | Sheritech           | 27  |
| Gemini              | 04, 124   | Signal              | 26, 112   |
| General Electric    | 57, 01  | SL Marx             | 01, 02, 03, 04, 34, 55, 83, 106, 65, 67, 68, 115, 117, 118, 124, 91 |
| General Instruments | 01, 02, 03, 04, 34, 55, 83, 106, 65, 67, 68, 115, 117, 118, 124, 91 | Sprucer             | 16, 17, 97, 109   |
| Hamiln              | 14, 15, 28, 41, 102, 103, 104, 108, 130                             | Standard Components | 32, 39, 42, 44, 126   |
| Hilachi             | 04, 124   | Stargate            | 32, 40, 63, 44, 42, 30, 52, 04, 06, 124, 126                        |
| Jasco               | 04, 124   | Sylvania            | 05, 32, 40, 42, 06  |
| Jerrold             | 01, 02, 03, 04, 34, 55, 83, 106, 65, 67, 68, 115, 117, 118, 124, 91 | Teknika             | 74  |
| Macom               | 31  | Telecaption         | 77, 127   |
| Magnavox            | 26, 112   | Television          | 32, 40, 42, 06  |
| Matsushita          | 16, 17, 97, 109   | Texascan            | 18, 19  |
| Movietime           | 32, 39, 42, 44, 126, 38, 40   | TOCOM               | 33, 34, 01, 42, 66, 91  |
| NEC                 | 38, 40, 32  | Uniden Satellite    | 51, 44, 63, 91, 126   |
| NOVA/VISION         | 08, 09, 61, 53, 87  | Universal           | 42, 43, 44, 52, 63, 126   |
| NSC                 | 38, 40, 32  | Viewway             | 07, 23, 50, 129   |
| Oak                 | 46, 11, 129   | Vid Tech            | 64  |
| Oak Sigma           | 46, 11, 129   | Videk               | 64  |
| Panasonic           | 16, 17, 97, 109   | Viewerstar          | 13, 22, 58, 62, 20, 40, 26, 107                                     |
| Philips             | 07, 13, 20, 23, 24, 50, 128, 129                                    | Zenith              | 07, 23, 50, 129   |
| Pioneer             | 05, 06  |                     |   |
| Pulsar              | 63, 44, 42, 30, 52, 04, 124, 126                                    |                     |   |

|                    |    |           |         |
|--------------------|----|-----------|---------|
| Toshiba            | 92 | Panasonic | 96      |
| Hitachi/ Hughes    | 93 | RCA       | 97      |
| Magnavox/ Uniden 1 | 94 | Sony      | 98, 105 |
| Magnavox/ Uniden 2 | 95 |           |         |

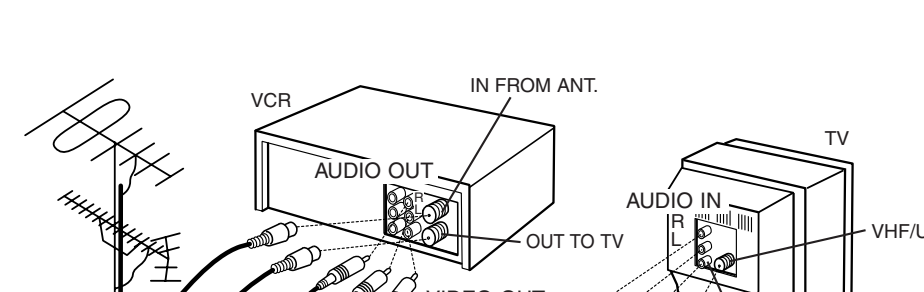
**Important Notes**

- Due to changes in infra-red commands used by manufacturers, some brands have several codes. If your unit does not respond to the first code, please try the next one.
- Some TV, Cable Box and DSS Box brands require you to turn on the power manually.

# Advanced Connections

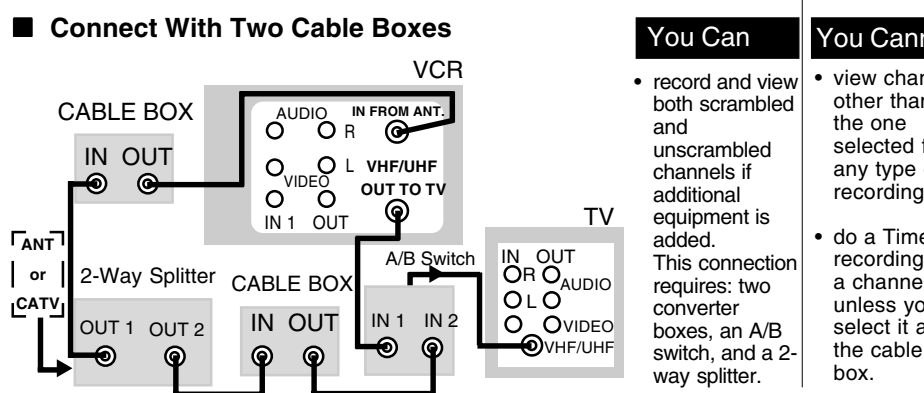
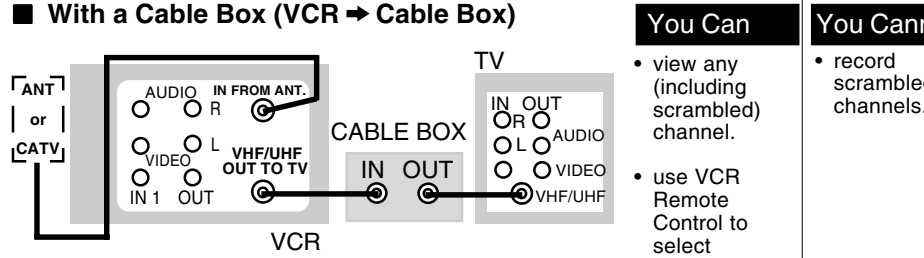
### Audio/Video connection

If your TV has AUDIO IN and VIDEO IN terminals, you can connect your VCR to them to receive higher quality picture and sound.



- Connect the VCR's VIDEO OUT jack to the TV's VIDEO IN jack.
- Connect VCR's L/R AUDIO OUT jacks to the TV's L/R AUDIO IN jacks.
- Set the VIDEO/TV selector of your TV (Monitor/Receiver) to "VIDEO."

- With a Cable Box (VCR → Cable Box)**
- Connect With Two Cable Boxes**



**You Can**

- view any (including scrambled) channel.
- use VCR Remote Control to select channels without using Multi-brand control feature.
- record and view both scrambled and unscrambled channels if additional equipment is added.
- This connection requires: two converter boxes, an A/B switch, and a 2-way splitter.

**You Cannot**

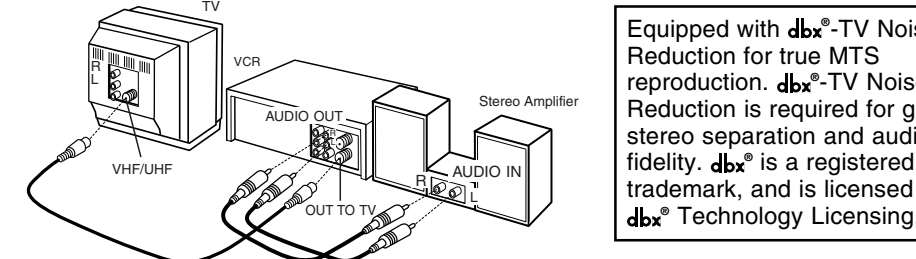
- record scrambled channels.
- view channel other than the one selected for any type of recording.
- do a Timer recording of a channel unless you select it at the cable box.

# MTS Broadcast/VHS Hi-Fi Stereo System

### Connection

Make the Audio/Video Connection as shown on page 3.

- You can use a TV connected to Stereo amp and speakers instead of a Stereo TV.



Equipped with **dbx<sup>®</sup>**-TV Noise Reduction for true MTS reproduction. **dbx<sup>®</sup>**-TV Noise Reduction is required for good stereo separation and audio fidelity. **dbx<sup>®</sup>** is a registered trademark, and is licensed by **dbx<sup>®</sup>** Technology Licensing.

**Receivable Broadcast Types**

The following are possible audio broadcast types and on-screen displays. The signal being received is indicated with an "L" mark while the selected audio mode is indicated with an arrow.

To display the broadcast signal being received, press **DISPLAY<sup>®</sup>**.

**MTS Stereo and SAP broadcast**

Multi-channel Television Sound Stereo (main language) and Secondary Audio Program (sub language) broadcasts are being received simultaneously. Select STEREO or SAP audio mode.

**MTS Stereo broadcast**

Multi-channel Television Sound Stereo broadcast. Select STEREO audio mode.

- If stereo broadcast is weak and display flickers, select MONO audio mode for possibly better results.

**SAP broadcast**

Secondary Audio Program (sub language) broadcast. Select SAP audio mode for the sub language.

**MONO broadcast**

Normal monaural sound broadcast.

**Audio Mode for Recording**

- Press **SAP/ Hi-Fi** to display audio mode. (Display disappears after 5 seconds.)
- Press **SAP/ Hi-Fi** repeatedly to select desired mode.
  - Refer to "Receivable Broadcast Types" above.
- Arrow indicates selection.

**Audio Mode for Playback**

- Start playback. See p. 5 of "Basic Operations" instruction book.
- Press **SAP/ Hi-Fi** to display audio mode. (Display disappears after 5 seconds.)
- Press **SAP/ Hi-Fi** repeatedly to select desired mode.
  - Select "HIFI(L/R)" or "HIFI(L)" or "HIFI(R)" to listen to stereo recordings in stereo sound.
  - Select "NORMAL" for monaural sound.
- Arrow indicates selection.

**Important:** If a remote control button does not work when pressed, press the VCR button on the remote and try the button again.

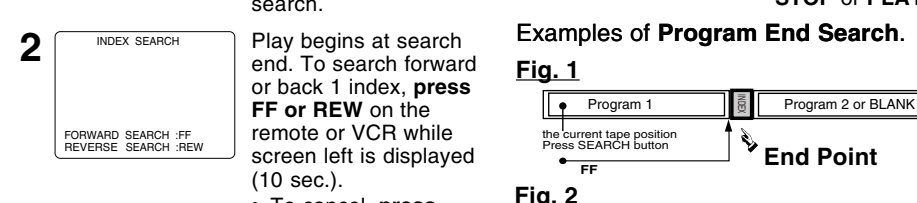
# Tape Operation

### Search System

For each recording, an invisible index mark is placed on the tape. A program index and information are also included for timer recordings. These marks are used to access or scan recordings.

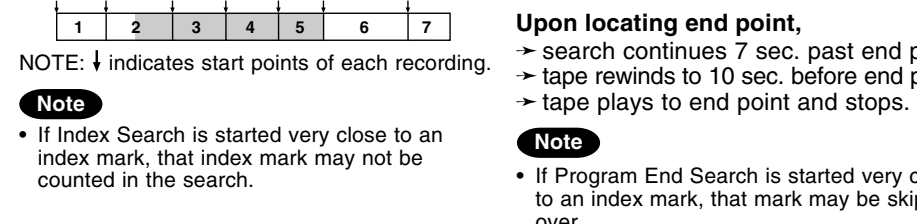
**Index Search**

- Press **SEARCH** to display SEARCH in Stop or Play mode, and then press **NUMBER** keys to select recording number.
  - To calculate number, see below.
- Press **FF** or **REW** on the remote to start search.
- Play begins at search end. To search forward or back 1 index, press **FF** or **REW** on the remote or VCR while screen left is displayed (10 sec.).
  - To cancel, press **STOP** or **PLAY**.



**Program End Search**

- Press **SEARCH** twice to display SEARCH in Stop or Play mode.
- Press **FF** on the remote to start PROGRAM END SEARCH.
  - To cancel, press **STOP** or **PLAY**.



**To Calculate Index Number**

**Example 1:** To go to rec. 2 from rec. 4, enter 3 and press REW.

**Example 2:** To go to rec. 6 from rec. 2, enter 4 and press FF.

**Note:** ↓ indicates start points of each recording.

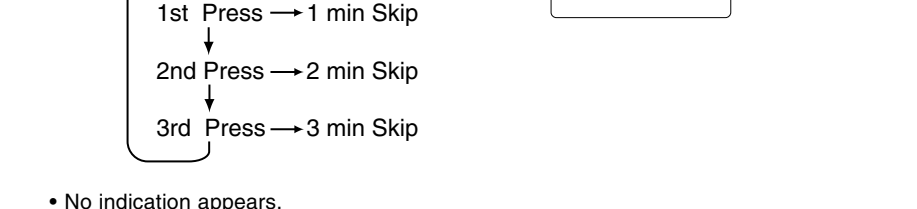
**Repeat Play**

- Press **ACTION** to display menu.
- Press **REPEAT PLAY** during play to display Counter.
- Press **RESET COUNTER** at desired position to reset to "0:00:00".
- Continue to record, playback, etc.
- Press **Stop**.

**Commercial Skip**

VCR fast forwards (skips) over 1-3 minutes of recorded tape.

- Press **CM/ZERO** in Play mode.
  - Press **CM/ZERO** repeatedly to change skip time as shown below.



No indication appears.

# Timer Recording Using VCR Plus+ System

**VCR Plus+ System is ...**

This feature sets most items of a Timer Recording when you enter a PlusCode programming number found in TV GUIDE and selected newspaper TV listings.

**Important Note**

"Connections/Initial Setup (Ready to Play)" on page 4 of "Basic Operations" book must be completed before "Auto VCR Plus+ System Channel Setup" can be done. If any part of setup is incomplete, a warning screen appears.

**Auto VCR Plus+ System Channel Setup (Part 1)**

For [VCR → TV] or [VCR → cable box → TV] connection only.

In order for VCR to read PlusCode numbers, some set up is required. Guide channel numbers are assigned to each local broadcast and cable station. Because this number sometimes differs from channel TV receives station on, it is necessary to program the VCR with local channel information. To receive VCR Plus+ channels automatically, perform the steps below. Or, see "Manual VCR Plus+ System Channel Setup" section on page 7.

**Press ACTION\* to display menu, and Press ← to select CHANNEL.**

**Press ACTION\* to display menu, and Press ← to select CHANNEL.**

**Press ACTION\* to display menu, and Press ← to select CHANNEL.**

**Press ACTION\* to display menu, and Press ← to select CHANNEL.**

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**Press ACTION\* to display menu, and Press ← to select CHANNEL.**

**Notes**

- When Auto Set is performed, channels set in initial setup (page 4 of "Basic Operations" book) will be replaced by automatically downloaded data.
- Make each entry within 1 minute or VCR will leave this mode.
- Once local channels have been programmed, they will stay in memory, even in the case of a power failure.
- If the start time for a timer recording comes up during Auto VCR Plus+ System Setup, the timer recording will have priority.

# Timer Recording Using VCR Plus+ System

**Initial Setup.....**

To use VCR Plus+ system, clock and channels must be set (p. 4 of "Basic Operations" book).

**Channel Setup.....**

Broadcast/cable stations are assigned a VCR Plus+ (GUIDE CH) number. See the Channel Listing (directory) page of TV GUIDE, etc. In the Channel Setup below, you will be entering your local channel number (RECEIVE CH) for each GUIDE CH number.

**Example :** If NBC's assigned GUIDE CH were 05, and your TV received NBC on channel 04, you would enter 04 across from GUIDE CH 05 in step 4 of "Manual VCR Plus+ System Channel Setup".

**Manual VCR Plus+ System Channel Setup**

For [VCR → TV] or [VCR → cable box → TV] connection only.

You'll need a local TV channel listing (e.g. TV GUIDE) which includes the assigned VCR Plus+ numbers.

**Press ACTION\* to display menu, and Press ← to select CHANNEL.**

**Press ACTION\* to display menu, and Press ← to select CHANNEL.**

**Press ACTION\* to display menu, and Press ← to select CHANNEL.**

**Press ACTION\* to display menu, and Press ← to select CHANNEL.**

**Press ACTION\* to display menu, and Press ← to select CHANNEL.**

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**Press ACTION\* to display menu, and Press ← to select CHANNEL.**

**Press ACTION\* to display menu, and Press ← to select CHANNEL.**

**Notes**

- Do not overlap program times.
- See "Important for DSS/Cable Box Users" above.
- Make each entry within 1 minute or VCR exits setup.
- Once VCR Plus+ channel setup is done, channels stay in memory. If there's a power outage, channel setup may be lost. Please do channel setup again.
- Obtain unlisted PlusCode numbers by calling 1 - 900 - 454 - 7587. Call costs about \$.95 per minute.

**Important:** If a remote control button does not work when pressed, press the VCR button on the remote and try the button again.