

Universal Remote Control

Changing Volume Lock

The Hard Disk Recorder remote is set to control volume through your Hard Disk Recorder while in the CABLE, SAT(ellite), DVD, TV, or VCR modes. If your TV is not remote controllable, or you want to control volume through a different component, you can change the volume lock setting to control volume through a different mode (for example through a cable box while in TV mode). You can set the volume lock to another mode.

1 Hold down **CODE SET** until the remote's red LED blinks twice, then release.

2 Press **9 - 9 - 3**, then press any mode button (except TV).

- The red LED will blink twice.

Now, whenever you press **VOLUME +/-** or **MUTE**, volume will be controlled by your mode choice.

To change the volume lock setting back to TV mode...

Repeat steps 1 and 2 and substitute the TV mode button.

Setting Up Your Components

Locate the brand name of your component in the code lists on pages 45~49. The brands are listed in alphabetical order with the most popular codes for each brand listed first. You will use one of these codes to program the Hard Disk Recorder remote to operate your components.

a Turn on your component with the Hard Disk Recorder off.

b Press **TV** or **SAT/CABLE** or **VCR/DVD*** to select your components.

*If you want to operate TV or TV/VCR Combo volume control, press **TV**. If Satellite or Cable Box, press **SAT/CABLE**. If VCR, TV/VCR Combo, or DVD, press **VCR/DVD**.

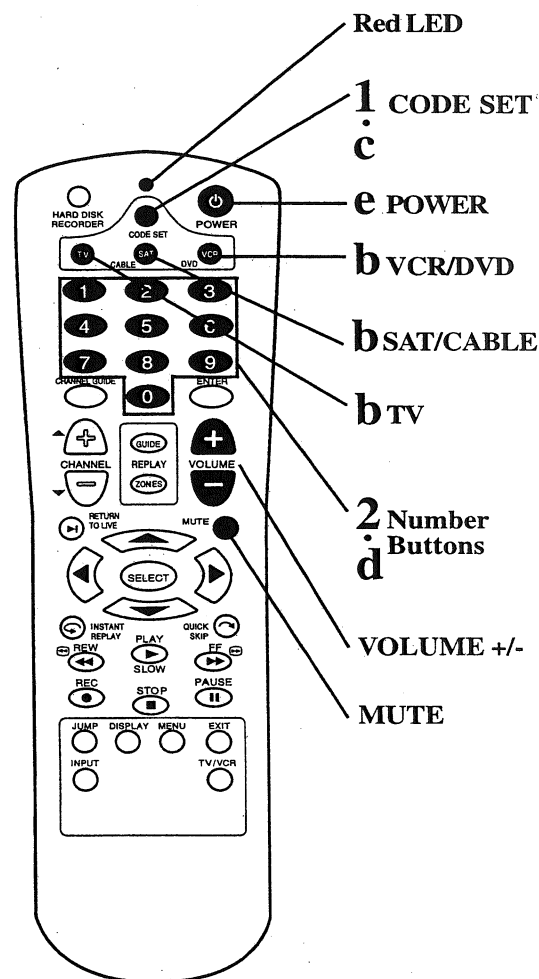
c Hold down **CODE SET** until the remote's red LED blinks twice, then release.

d Press **Number Buttons** to enter the first four digit code of your component brand on pages 45~49.

- If you perform this procedure correctly, the red LED will blink twice when you enter the final digit of your code.

e Point the Hard Disk Recorder remote at your component, then press **POWER**. Your component should turn off.

- If your component does not respond, repeat steps b-e, trying each code listed for your brand until you find the one that operates your component.



NOTES

- Remember, if you want to use your Hard Disk Recorder remote to operate your component, press the component's mode button first. For example, press **TV** first if you want to operate your TV.
- The remote control will not operate components made by manufacturers listed. If you get no response, your particular brand cannot be controlled.

Searching for Your Component's Code

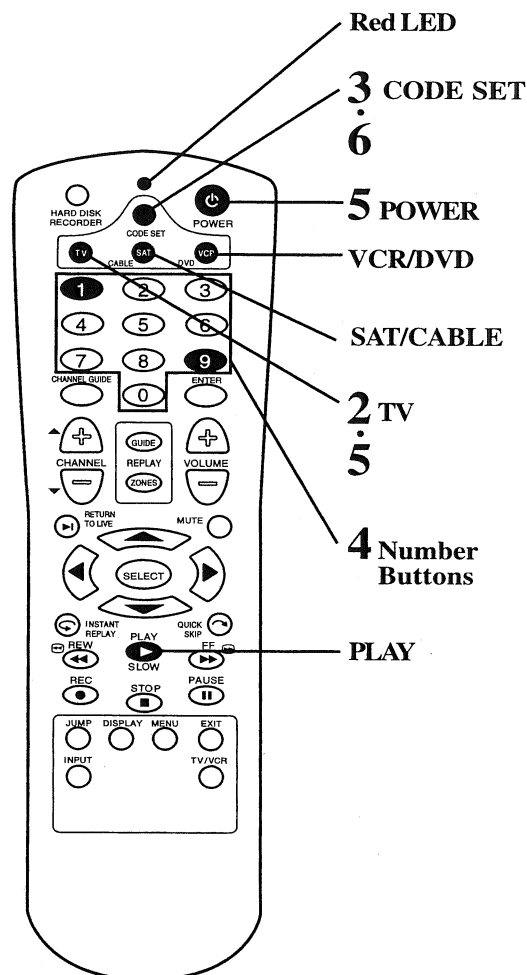
If your component does not respond to the Hard Disk Recorder remote after trying all of the codes listed for your brand, or if your brand is not listed, try searching for your code.

For example, if you try all of the codes for your TV and cannot get the Hard Disk Recorder remote to operate your TV, follow steps below.

- 1 **Turn on your TV** with the Hard Disk Recorder off.
- 2 Press **TV**.
- 3 Hold down **CODE SET** until the remote's red LED blinks twice, then release.
- 4 Press **9 - 9 - 1**.
- 5 Slowly alternate between pressing **POWER*** and **TV** until your TV turns OFF.
 - Make sure that the Hard Disk Recorder remote is aimed at your TV during the search.
 - You may have to press this sequence of buttons (**POWER*** then **TV**) up to 100 times to search the entire library of codes.
- 6 When your TV turns OFF, press **CODE SET** to lock in the code for your TV.
 - Your Hard Disk Recorder remote is now programmed to operate your TV.

NOTE

To search for the codes of your other components, repeat steps 1~6, and substitute the appropriate device button (**TV**, **SAT/CABLE**, or **VCR/DVD**) for the component.



Universal Remote Control (continued)

Learning the Codes Programmed Into the Remote

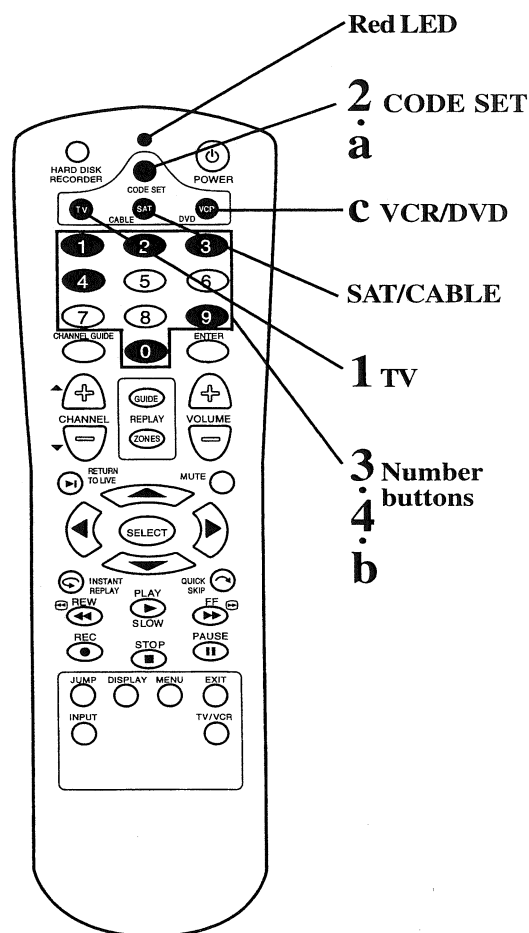
If you set up the Hard Disk Recorder remote by following "Searching for Your Component's Code" on page 43, you may want to figure out which four-digit code is operating your equipment. Use this procedure after you set up your components to find out which four-digit code is operating your equipment.

For example, to find out which code is operating your TV after setting up your TV, follow steps below.

- 1** Press **TV**.
- 2** Hold down **CODE SET** until the remote's red LED blinks twice, then release.
- 3** Press **9 - 9 - 0**.
- 4** **Learn your code.**
 - 1) For the first digit of your four-digit code, press **1** and count the number of times the red LED blinks on the remote.
 - 2) For the second digit, press **2** and count the number of times the red LED blinks on the remote.
 - 3) For the third digit, press **3** and count the number of times the red LED blinks on the remote.
 - 4) For the fourth and final digit, press **4** and count the number of times the red LED blinks on the remote.
 - If the LED does not blink, the digit is zero.

NOTE

- To find out the code for your other components, repeat steps 1~4, and substitute the appropriate device button (**TV**, **SAT/CABLE**, or **VCR/DVD**) for the component code you wish to learn.



Re-assigning Component Mode Buttons

You can program the Hard Disk Recorder remote component mode buttons (**TV**, **SAT/CABLE**, or **VCR/DVD**) to control other home entertainment components.

For example, to control a TV, a cable box, and a DVD player, you will need to re-assign the VCR button to operate the DVD player, follow the steps below.

- a** Hold down **CODE SET** until the remote's red LED blinks twice, then release.
 - b** Press **9 - 9 - 2**. The red LED will blink twice.
 - c** Press **VCR/DVD** twice. The red LED will blink twice.
- You can now program the **VCR/DVD** button for your DVD player.
- d** See "Setting Up Your Components" on page 42.

To reassign other component mode buttons...

Repeat steps a~d by substituting the button sequence from the list of popular components at right.

Reassigning device keys

TV as 2nd VCR button	Press: CODE SET 9-9-2-VCR-TV
TV as 2nd CABLE button	Press: CODE SET 9-9-2-CABLE-TV
TV back to TV	Press: CODE SET 9-9-2-TV-TV
VCR as 2nd TV button	Press: CODE SET 9-9-2-TV-VCR
VCR as 2nd CABLE button	Press: CODE SET 9-9-2-CABLE-VCR
VCR back to VCR	Press: CODE SET 9-9-2-VCR-VCR

Code Numbers For Your Components

TVs

AOC	0030, 0019	Harvard	0180
Admiral	0093	Hitachi	0145, 0056, 0151
Aiko	0092	Infinity	0054
Akai	0030	Inteq	0017
Alaron	0179	JBL	0054
Allegro	0720, 0774	JCB	0000
Ambassador	0177	JVC	0053
Ampro	0751	KEC	0180
Anam	0180	KTV	0180, 0030, 0039
Audiovox	0451, 0180, 0092, 0623	Kenwood	0030, 0019
Aumark	0060	LG	0056
Baysonic	0180	LXI	0047, 0054, 0017, 0154, 0156, 0178, 1347
Belcor	0019	Logik	0016
Bell & Howell	0154, 0016	Luxman	0056
Bradford	0180	MGA	0150, 0030, 0178, 0019
Brockwood	0019	MTC	0060, 0030, 0019, 0056
Broksonic	0236, 0463	Magnavox	0054, 0030, 0179
CXC	0180	Majestic	0016
Candle	0030, 0056	Marantz	0054, 0030
Carnivale	0030	Matsushita	0051, 0250
Carver	0054	Megatron	0178, 0145
Celebrity	0000	Memorex ...	0154, 0250, 0150, 0060, 0178, 0056, 0016
Cineral	0451, 0092	Midland	0047, 0017, 0051, 0039, 0135
Citizen	0060, 0030, 0056, 0039, 0092	Minutz	0021
Concerto	0056	Mitsubishi	0093, 0150, 0178, 0019
Contec	0180	Motorola	0093
Craig	0180	Multitech	0180
Crosley	0054	NAD	0156, 0178, 0166
Crown	0180, 0039	NEC	0030, 0019, 0056
Curtis Mathes	0047, 0054, 0154, 0051	NTC	0092
.....	0451, 0093, 0060, 0030, 0145	Nikko	0047, 0017, 0154, 0156, 0030, 0178, 0092, 1347
.....	0056, 0016, 0039, 0166, 0466, 1147, 1347	Onwa	0180
Daewoo	0451, 0019, 0039, 0092, 0623, 0624	Optimus	0154, 0250, 0166
Daytron	0019, 0039	Optonica	0093, 0165
Denon	0145	Orion	0236, 0463, 0179
Dumont	0017, 0019	Panasonic	0250, 0051
Dwin	0720, 0774	Penney	0047, 0156, 0051, 0060, 0030
Electroband	0000		0178, 0021, 0019, 0056, 0039, 0135, 1347
Emerson	0154, 0236, 0463, 0180, 0282	Philco	0054, 0463, 0030, 0145, 0019
.....	0178, 0019, 0179, 0039, 0177, 0623, 0624	Philips	0054, 0017, 0000, 0021, 0019, 0039
Envision	0030	Pilot	0030, 0019, 0039
Fisher	0154	Pioneer	0166
Fujitsu	0179	Portland	0019, 0039, 0092
Funai	0180, 0179, 0171	Prism	0051
Futuretech	0180	Proscan	0047, 0030, 1347
GE	0047, 0051, 0451, 0093	Proton	0178, 0466
.....	0282, 0178, 0021, 0135, 1147, 1347	Pulsar	0017, 0019
Gibralter	0017, 0030, 0019	Quasar	0051, 0250, 0165
Go Video	0060	RCA	0047, 0051, 0093, 0019
GoldStar	0030, 0178, 0019, 0056, 0039		0090, 0135, 1047, 1147, 1247, 1347
Gradiente	0053, 0056	Radio Shack	0047, 0154, 0165, 0180
Grundpy	0180, 0179		0030, 0178, 0019, 0056, 0039
Hallmark	0178	Realistic	0154, 0165, 0180
Harley Davidson	0179		0030, 0178, 0019, 0056, 0039
Harman/Kardon	0054		

Code Numbers For Your Components (continued)

TVs (continued)

Runco	0017, 0030, 0603
SSS	0180, 0019
Sampo	0030, 0039
Samsung	0060, 0030, 0178, 0019, 0056, 0039
Samsux	0039
Sansei	0451
Sansui	0463
Sanyo	0154
Scimitsu	0019
Scotch	0178
Scott	0236, 0180, 0178, 0019, 0179
Sears	0047, 0054, 0154, 0156, 0178, 0179, 0056, 0171
Semivox	0180
Semp	0156
Sharp	0093, 0165, 0039
Shogun	0019
Signature	0016
Sony	0000
Soundesign	0180, 0178, 0179
Squareview	0171
Starlite	0180
Supreme	0000
Sylvania	0054, 0030
Symphonic	0171
TMK	0178, 0056, 0177
Tandy	0093
Technics	0047, 0017, 0051, 0250, 1347
Technol Ace	0179
Techwood	0051, 0056
Teknika	0054, 0180, 0150, 0060
.....	0019, 0179, 0056, 0016, 0039, 0092
Telefunken	0056
Toshiba	0154, 0156, 0060
Totevision	0039
Universal	0021
Vector Research	0030
Victor	0053
Vidikron	0054
Vidtech	0178, 0019
Wards	0054, 0156, 0165, 0030, 0178
.....	0021, 0019, 0179, 0056, 0016, 0135
White Westinghouse	0623, 0624
Yamaha	0030, 0019
Zenith	0017, 0016, 0092

VCRs

Admiral	0048
Adventura	0000
Aiko	0278
Aiwa	0037, 0000
Akai	0047
American High	0039
Asha	0240
Audiovox	0037
Beaumark	0240
Bell & Howell	0104
Broksonic	0184, 0121, 0209, 0000
CCE	0072, 0278
Calix	0037
Canon	0039
Carver	0087
Cineral	0278
Citizen	0037, 0278
Colt	0078
Craig	0037, 0047, 0240, 0072, 0278
Curtis Mathes	0060, 0035, 0041, 0165
Cybernex	0240
Daewoo	0045, 0278
Denon	0047
Dynatech	0000
Electrohome	0037
Electroponic	0037
Emerex	0037
Emerson	0037, 0184, 0000
.....	0121, 0043, 0209, 0002, 0278
Fisher	0047, 0104
Fuji	0035, 0037
Funai	0000
GE	0060, 0035, 0048, 0240
Garrard	0000
Go Video	0052
GoldStar	0037, 0037
Gradiente	0000
HI-Q	0047
Harley Davidson	0000
Harman/Kardon	0081, 0037
Harwood	0007
Headquarter	0047
Hitachi	0000, 0042, 0047
JVC	0067, 0047
Jensen	0047
KEC	0037, 0278
KLH	0007
Kenwood	0067, 0041, 0038, 0047
Kodak	0035, 0037
LXI	0037
Lloyd's	0000
Logik	0007
MEI	0037
MGA	0240, 0047

VCRs (continued)

MGN Technology	0240
MTC	0240, 0000
Magnasonic	0278
Magnavox	0035, 0039, 0081, 0000, 0149
Magnin	0240
Marantz	0035, 0081, 0038
Marta	0037
Matsushita	0035, 0162, 0454
Memorex	0035, 0037, 0048, 0039, 0047
.....	0240, 0000, 0104, 0046, 1162, 1262
Minolta	0042
Mitsubishi	0048, 0067, 0043
Motorola	0035, 0048
Multitech	0000, 0072
NAP	0035, 0037, 0039, 0042, 0033
NEC	0104, 0067, 0041, 0038
Nikko	0037
Noblex	0240
Olympus	0035
Optimus	0037, 0048, 0104
.....	0162, 0454, 1062, 1162, 1262
Orion	0184, 0002
Panasonic	1162, 0035, 0162, 0454
Penney	0035, 0037, 0240, 0042, 0038
Pentax	0042
Philco	0035, 0209
Philips	0035, 0081
Pilot	0037
Pioneer	0067
Profitronic	0240
Proscan	0060
Protec	0072
Pulsar	0039
Quarter	0046
Quartz	0046
Quasar	0035, 0162, 0454, 1162
RCA	0060, 0035, 0048, 0240, 0042, 0149
Radio Shack	0000
Radix	0037
Randex	0037
Realistic	0035, 0037, 0048, 0047, 0000, 0104, 0046
Runco	0039
STS	0042
Samsung	0240, 0045
Sanky	0048, 0039
Sansui	0000, 0067, 0041, 0271
Sanyo	0047, 0240, 0104, 0046
Scott	0184, 0045, 0121, 0043
Sears	0035, 0037, 0047, 0000, 0042, 0104, 0046
Semp	0045
Sharp	0048
Shintom	0072
Shogun	0240
Signature	0035

Singer	0072
Sony	0035, 0032, 0000, 0033
Sylvania	0035, 0081, 0000, 0043
Symphonic	0000
TMK	0240
Tatung	0041
Teac	0000, 0041
Technics	0060, 0035, 0039, 0162
Teknika	0035, 0037, 0000
Thomas	0000
Toshiba	0045, 0043
Totevision	0037, 0240
Unitech	0240
Vector	0045
Vector Research	0038
Video Concepts	0045
Videosonic	0240
Wards	0060, 0035, 0048, 0047, 0081
.....	0240, 0045, 0000, 0042, 0072, 0149
White Westinghouse	0278
XR-1000	0035, 0000, 0072
Yamaha	0041, 0038
Zenith	0039, 0000, 0033

Satellite Receivers

AlphaStar	0772
Echostar	0775
Expressvu	0775
General Instrument	0627, 0361, 0869
HTS	0775
Hitachi	0819
Hughes Network Systems	0749
JVC	0775
Jerrold	0627, 0361
Magnavox	0724, 0722
Memorex	0724
Next Level	0869
Panasonic	0701
Philips	0724, 0722
Primestar	0627, 0361
Proscan	0566
RCA	0566, 0143, 0855
Radio Shack	0566, 0869
Sony	0639
Star Choice	0869
Toshiba	0790
Uniden	0724, 0722
Zenith	0856

Code Numbers For Your Components (continued)

Cable Boxes

ABC	0003, 0008, 0014, 0017, 0007, 0011, 0013
Allegro	0153, 0315
Archer	0153, 0797
Bell & Howell	0014
Century	0153
Citizen	0153, 0315
Comtronics	0040
Contec	0019
Eastern	0002
Emerson	0797
Everquest	0015, 0040
Focus	0400
Garrard	0153
Gemini	0015
General Instrument	0476, 0276, 0011, 0810
GoldStar	0144, 0040
Goodmind	0797
Hamlin	0020, 0259, 0009, 0034
Hitachi	0011
Hytex	0007
Jasco	0015, 0153, 0315
Jerrold	0003, 0012, 0476
.....	0276, 0014, 0015, 0011, 0810
Magnavox	0014
Memorex	0000
Movie Time	0063
NAP	0007
NSC	0063
Oak	0019, 0007
Optimus	0021
Panasonic	0107, 0021
Paragon	0000
Philips	0153
Pioneer	0144, 0533
Popular Mechanics	0400
Proscan	0021
Pulsar	0000
Quasar	0000
RCA	0021
Radio Shack	0015, 0315, 0797, 0883
Recoton	0400
Regal	0020, 0259
Regency	0002
Rembrandt	0011
Runco	0000
SL Marx	0040
Samsung	0144, 0040
Scientific Atlanta	0008, 0477, 0017, 0877
Signal	0015, 0040
Signature	0011
Sprucer	0021
Starcom	0003, 0015
Stargate	0015, 0040, 0797
Starquest	0015

TV86	0063
Teleview	0040
Tocom	0012, 0013
Toshiba	0000
Tusa	0015
Unika	0153
United Artists	0007
Universal	0153, 0191
Viewstar	0063
Zenith	0008, 0000, 0015, 0525
Zentek	0400

DVD Players

Harman/Kardon	0582
JVC	0558
Kenwood	0534
Magnavox	0503
Mitsubishi	0521
Onkyo	0503
Optimus	0521
Panasonic	0490
Philips	0503, 0533
Pioneer	0525, 0571
Proscan	0521
RCA	0521
Samsung	0571
Sony	0533
Technics	0490
Theta Digital	0571
Toshiba	0503
Yamaha	0490, 0541
Zenith	0503, 0591

Laser Disks

Denon	0059
Mitsubishi	0059
NAD	0059
Pioneer	0059
Sony	0193, 0201

TV/VCR Combos

American High	0035*
Brocksonic	0002, 0294
Colt	0072
Curtis Mathes	0035*
Daewoo	0278*
Emerson	0002, 0294, 0479
Funai	0000
GE	0035*, 0060*, 0048*, 0240
Hitachi	0035*, 0000
HQ	0000
Lloyds	0000
Magnavox	0000, 0035*, 0081*
Magnin	0240
Memorex	0037, 0162*
MGA	0240
Mitsubishi	0048*
Orion	0002, 0294, 0479
Panasonic	1162*, 0035*, 0162*
Penney's	0035*, 0240, 0162*
Quasar	0035*, 0162*
RCA	0035*, 0060*, 0048*, 0240
Sansui	0000, 0479
Sanyo	0240
Sears	0000, 0037
Sony	0032*
Symphonic	0000
Zenith	0000

Important Note

If your TV/VCR Combo is working on one of the above codes highlighted with an asterisk (*), you may need to program a separate TV code in order to control the volume. Check the list of codes below and follow the instructions detailed in the "Setting Up Your Components" section to program the supplied TV code.

TV/VCRs working on VCR code 0032 may require TV code 0000 for volume control.

TV/VCRs working on VCR code 0035 may require TV code 0051 for volume control.

TV/VCRs working on VCR code 0048 may require TV code 0093 for volume control.

TV/VCRs working on VCR code 0060 may require TV code 0047 for volume control.

TV/VCRs working on VCR code 0081 may require TV code 0054 for volume control.

TV/VCRs working on VCR code 0162 may require TV code 0250 for volume control.

TV/VCRs working on VCR code 1162 may require TV code 0250 for volume control.

TV/VCRs working on VCR code 0278 may require TV code 0451 for volume control.

Troubleshooting

Please note that the Panasonic Web site at www.panasonic.com is also a great place to ask operational and troubleshooting questions. If, after reading the troubleshooting information on our Web site and in this manual, you find you still have unanswered questions, please contact Technical Support by phone at 1-888-843-9788.

PROBLEM	SOLUTION
When attempting to connect to the ReplayTV Service in Setup, I get one of the following error messages: "no dial tone," "modem timed out," "no response from modem," or "network connection error."	• Confirm that there is no dial tone on the line by hooking up a phone to it and listening for the dial tone. • If you have call waiting, confirm that it has been disabled by entering the correct telephone prefix number in Setup. Contact your phone company to obtain the correct dialing prefix information. • The Hard Disk Recorder cannot connect to the ReplayTV Service if your phone line has a stutter dial tone. If you have a message service that enables a stutter dial tone when you have messages, you will need to delete/save all of your messages in order to disable the stutter dial tone. • Confirm that the line that you are dialing out on is an analog line. • Remove the AC (power) cable from the rear of the Hard Disk Recorder. Wait 15 seconds, then re-attach the AC cable (the Hard Disk Recorder will reboot itself). Once the Hard Disk Recorder has rebooted, press the POWER button on the Hard Disk Recorder remote control to exit standby mode. Proceed as instructed by the on-screen instructions.
The Hard Disk Recorder is connected to my TV, but I don't see the Hard Disk Recorder introduction screen.	• Confirm that the correct line input is selected on your TV. • Confirm that the Hard Disk Recorder is not in "standby mode" by pressing the POWER button on the remote control. Verify that the green POWER light on the unit is illuminated. • If you are using an A/V receiver in your setup, verify that the input source is the same as the output source going to your television. For example, if you are using an S-Video output on the Hard Disk Recorder going to an A/V receiver, you will need to output an S-Video signal from your A/V receiver to your TV. This is a limitation of most A/V receivers.
When setting up my Hard Disk Recorder, the correct cable company does not appear as a menu item in Setup.	• Contact the Panasonic Technical Support department by phone at 1-888-843-9788. Please provide the following information: 1) Complex name (if applicable), 2) Community, 3) State, 4) Cable Provider Name, 5) Cable Provider contact information, and 6) Problem description. In most cases, the correct information can be added to the ReplayTV Service database within 48 hours.
When entering my phone number in Setup, I am only able to enter the first 6 digits.	• This is correct! The Hard Disk Recorder only needs the first 6 digits of your phone number. The last four (4) numbers will appear as follows: XXXX
The red light on the Hard Disk Recorder remote does not blink when I press a button on the remote control.	• Replace the batteries in the remote control with 2 new AA alkaline batteries.
The Hard Disk Recorder remote control does not operate my home entertainment components, or is not performing commands properly.	• Make sure you're pointing the Hard Disk Recorder remote control directly at the component, and that there is nothing blocking the path of the infrared signal between the remote control and the unit. If that doesn't work, try all of the codes listed for your brand of home entertainment component in the "Code Numbers For Your Components" section of this guide. Many setup codes may allow for partial functionality, however, only one code will operate your home entertainment component correctly. Make sure that all of the components you are setting up can be operated with an infrared remote control.