RG/

IP Video Decoder User's Guide



IP900

Important Information

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.



This symbol indicates "dangerous voltage" inside the product that presents a risk of electric shock or personal injury.



This symbol indicates important instructions accompanying the product.

WARNING

To reduce the risk of fire or electric shock, do not expose this product to rain or moisture.

IMPORTANT SAFETY INSTRUCTIONS

When using this product, basic safety precautions should always be followed to reduce the risk of fire, electric shock, and injury to persons, including the following:

- 1. Do not use this product near water, for example, near a bathtub, wash bowl, kitchen sink or laundry tub, in a wet basement, or near a swimming pool.
- 2. Use only the power supply indicated in this manual.

SAVE THESE INSTRUCTIONS

Refer to the identification/rating label located on the back panel of your product for its proper operating voltage.

FCC Regulations state that unauthorized changes or modifications to this equipment may void the user's authority to operate it.

Caution: To reduce the risk of fire, use only No. 26 AWG or larger DSL telecommunication line cord.

The apparatus should not be exposed to dripping or splashing. Also, no objects filled with liquids, such as vases, should be placed on the apparatus.

Things to Consider Before Connecting Components	3
Cables to Connect Components to Your IP Decoder	3
Choose Your Connection	4
TV + IP Decoder + Modem	5
TV + VCR + IP Decoder + Modem	
TV + A/V Receiver + IP Decoder + Modem	
Turn on the TV and IP Decoder	
Put Batteries in the Remote Control	
Put Batteries in the Optional Wireless Keyboard	
Tut batteries in the optional vinciess Reyodalu	. 10
Chapter 2: Remote Control	
The Buttons on the Remote Control	. 11
Using the INPUT Button	13
Volume Punchthrough	. 13
Programming the Remote to Operate Other Components	. 14
Find Out If You Need to Program the Remote	14
Programming the Remote	
How to Use the Remote After You've Programmed It	. 15
Code List	. 16
Chapter 3: Decoder Features	
Using the Remote Control to Choose On-screen Menu Items	. 18
Using the On-Screen Keyboard	
Shift, Alt, Ctrl Keys	
Shortcut Keys	
Using the Web Browser	
Browser Banner	
Browser Toolbar	
Entering a Website Address	
Web Page Navigation	
More Features Viewing Your Bookmarks	
Selecting Bookmarks	
Saving Your Bookmarks	
Viewing Your History	
J 1	

Table of Contents

Chapter 4: Additional Information

Troubleshooting	22
Care and Cleaning	23
Service Information	23
FCC and Industry Canada Information	24
Front of the Decoder	25
Back of the Decoder	25
How to Find Your TV's Video Input Channel	26
Video Input Channel Variations	

Things to Consider Before Connecting Components

Protect Components From Power Surges

- Connect all components before plugging any power cords into the wall outlet.
- Always turn off the TV and other components before you connect or disconnect any cables.

Position Cables to Avoid Audio Hum or Interference

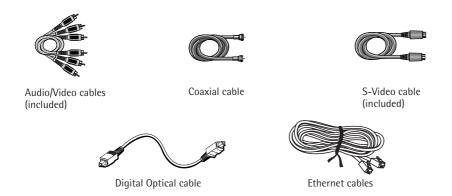
- Insert all cable plugs firmly into their jacks.
- Place any Audio/Video (A/V) cables to the side(s) of the TV's back panel instead of straight down the back after connecting components.
- Try not to coil any twin-lead antenna cables and keep them away from all A/V cables as much as possible.
- Make sure all antennas and cables are properly grounded. Refer to the Safety Tips sheet packed with your unit for detailed information.

Protect Components From Overheating

- Never block ventilation slots in any component. Arrange the components so that air can circulate
 freely.
- Do not stack components.
- Allow adequate ventilation when placing components in a stand.
- Place an amplifier or other hot component on the top shelf of a stand so heated air rising from it
 will not flow around other components.

Cables to Connect Components to Your IP Decoder

The pictures below show the cables that can be used for the connections represented in this book.



Chapter 1

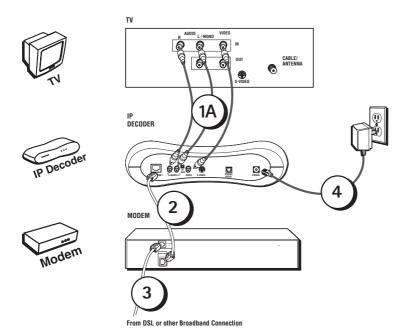
3

Choose Your Connection

There are several ways to hook up your IP decoder, depending on the components connected. Please use the following chart to determine which connection is best for you and proceed to the appropriate page.

Note: For assistance in connecting your decoder, contact your service provider.

Components	Connection Title	Go To
TV Decoder Modem	TV + IP Decoder + Modem	page 5
TV VCR IP Decoder	TV + VCR + IP Decoder + Modem	pages 6-7
Alv Receiver IP Decoder	TV +A/V Receiver + IP Decoder + Modem	pages 8-9



The back of your TV might not look exactly like the one shown here.

Caution: To reduce the risk of fire, use only No. 26 AWG or larger DSL telecommunication line cord.

TV + IP Decoder + Modem

1. Connect the Decoder to the TV

- A. Connect audio/video cables to the AUDIO OUT R and L jacks on the back of the decoder (color coded, red and white), and to the VIDEO OUT jack (yellow). Connect the other ends of the cables to the corresponding input jacks on the TV (sometimes labeled VIDEO, AUDIO L/MONO, and AUDIO R).
- B. If your TV doesn't have audio/video input jacks, you need to use an RF modulator (not included). Connect the three-pronged end of the modulator cable into the AUDIO OUT L, RF MOD, and VIDEO jacks on the back of the decoder. Then use a coaxial cable to connect the Out to TV jack on the modulator to your TV's antenna in jack (sometimes labeled CABLE/ANTENNA).

Note: If your TV has an S-Video input, we recommend you make the video connection by using this jack instead of the video jack. Remember to connect audio cables for this connection as S-Video only carries the picture signal, not the sound.

2. Connect the ethernet cable to the IP Decoder

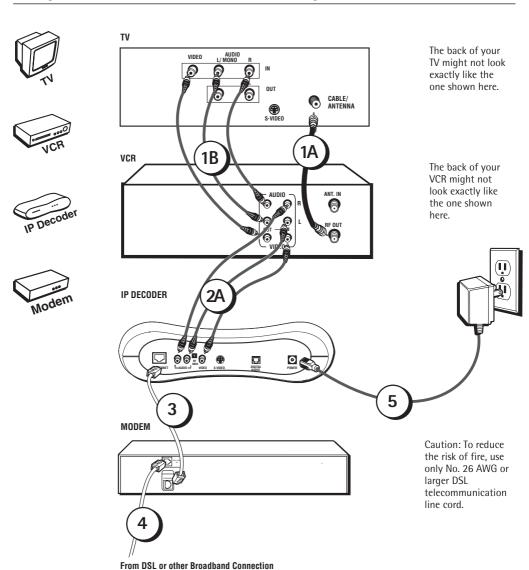
Connect one end of a standard CAT-5 ethernet cable (not included) to the ETHERNET jack on the modem and the other end to the ETHERNET jack on the decoder.

3. Connect the DSL line to the DSL Modem

Connect the DSL line from the wall jack to the DSL LINE IN jack on your modem.

4. Plug the power supply into the IP Decoder power jack and into an AC outlet.

Go To Page 10



TV + VCR + IP Decoder + Modem

1. Connect the VCR to the TV

A. Connect one end of the RF coaxial cable to the RF OUT jack on the back of the VCR and the other end to the TV's antenna in jack (sometimes labeled CABLE/ANTENNA).

_ OR _

B. Connect audio/video cables to the AUDIO OUT R and L jacks on the back of the VCR (color coded, red and white), and to the VIDEO OUT jack (yellow). Connect the other ends of the cables to the corresponding input jacks on the TV (sometimes labeled VIDEO, AUDIO L/MONO, and AUDIO R).

Connect the IP Decoder to the VCR

A. Connect audio/video cables to the AUDIO OUT R and L jacks on the back of the decoder (color coded, red and white), and to the VIDEO OUT jack (yellow). Connect the other ends of the cables to the corresponding input jacks on the VCR (sometimes labeled VIDEO, AUDIO L/MONO, and AUDIO R).

- OR -

B. If your TV doesn't have audio/video input jacks, you need to use an RF modulator (not included). Connect the three-pronged end of the modulator cable into the AUDIO OUT L, RF MOD, and VIDEO jacks on the back of the decoder. Then use a coaxial cable to connect the Out to TV jack on the modulator to your TV's antenna in jack (sometimes labeled CABLE/ANTENNA).

Notes:

If your TV has an S-Video input, we recommend you make the video connection by using this jack instead. Remember to connect audio cables for this connection as S-Video only carries the picture signal, not the sound.

If you have any problems with the picture quality, you may want to connect the decoder directly to your TV. You won't be able to record programming with this connection, however.

3. Connect the ethernet cable to the IP Decoder

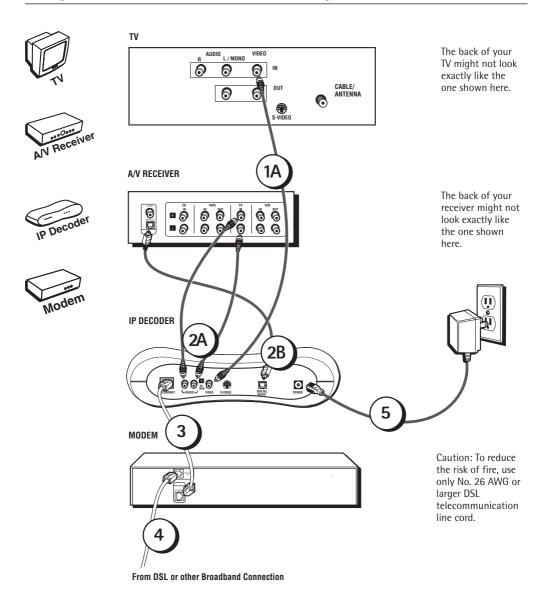
Connect one end of the ethernet cable to the ETHERNET jack on the modem and the other end to the ETHERNET jack on the decoder.

4. Connect the DSL line to the DSL Modem

Connect the DSL line from the wall jack to the DSL LINE IN jack on your modem.

5. Plug the power supply into the IP Decoder power jack and into an AC outlet.

Go To Page 10



Please Read This Before Using the DIGITAL AUDIO OUT Jack!

This unit's digital output jack is designed for a connection to a Dolby Digital receiver or decoder. Older digital equipment may not be compatible with the Dolby Digital bitstream. Such a connection can create a high level of noise that may be harmful to your ears, and could damage headphones or speakers.

TV + A/V Receiver + IP Decoder + Modem

1. Connect the Decoder to the TV

- A. Connect the video cable to the VIDEO OUT jack (yellow) on the back of the decoder and the other end of the cable to the corresponding input jack on the TV (sometimes labeled VIDEO).
- B. If your TV doesn't have a video input jack, you need to use an RF modulator (not included). Connect the three-pronged end of the modulator cable into the AUDIO OUT L, RF MOD, and VIDEO jacks on the back of the decoder. Then use a coaxial cable to connect the Out to TV jack on the modulator to your TV's antenna in jack (sometimes labeled CABLE/ANTENNA).

Note: If your TV has an S-Video input, we recommend you make the video connection by using this jack instead. Remember to connect audio cables for this connection as S-Video only carries the picture signal, not the sound.

2. Connect the A/V Receiver to your Decoder

A. Connect audio/video cables to the AUDIO OUT R and L jacks on the back of the decoder (color coded, red and white). Connect the other ends of the cables to the corresponding input jacks on your A/V receiver (sometimes labeled VIDEO, AUDIO L/MONO, and AUDIO R). You may also want to connect video to your receiver (or TV using instructions on the previous pages).

- OR -

B. If you have an audio/video receiver with Dolby* Digital or a digital optical jack, remove the protective cap from the OPTICAL DIGITAL AUDIO OUT jack on the back of the decoder (if necessary) and also remove the protective caps from your digital optical cable.

Connect one end of the digital optical cable to the OPTICAL AUDIO OUT jack on the back of the decoder and the other end to the corresponding input jack on your A/V receiver (sometimes labeled OPTICAL IN). You may also want to connect video to your receiver (or TV using instructions on the previous pages).

3. Connect the ethernet cable to the IP Decoder

Connect one end of a standard CAT-5 ethernet cable (not included) to the ETHERNET jack on the modem and the other end to the ETHERNET jack on the decoder.

4. Connect the DSL line to the DSL Modem

Connect the DSL line from the wall jack to the DSL LINE IN jack on your modem.

5. Plug the power supply into the IP Decoder power jack and into an AC outlet.

Go To Page 10

^{*}Manufactured under license from Dolby Laboratories. "Dolby" and the double-D symbol are trademarks of Dolby Laboratories.

Turn on the TV and IP Decoder

- 1. Turn on the TV (if the TV you've connected to the decoder is a compatible RCA, GE, or Proscan TV, press the TV button on the remote packed with your decoder).
- 2. Tune the TV to the correct Video Input Channel.
 - If you used a coaxial cable (with optional RF modulator) to connect your decoder to your TV, tune the TV to channel 3 or 4.
 - If you used audio/video or S-video cables to connect your decoder, tune the TV to its Video Input Channel (see page 26).

Put Batteries in the Remote Control

Insert the batteries matching the polarities (+ and –) on the batteries with the diagram in the battery compartment.

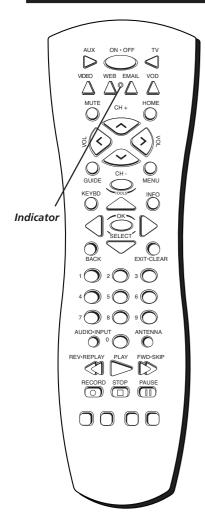


Put Batteries in the Optional Wireless Keyboard

Insert the batteries matching the polarities (+ and –) on the batteries with the diagram in the battery compartment.

Check with your service provider about purchasing the optional wireless keyboard to make email and web surfing easier.

Chapter 2: The Remote Control



Note: The TV and AUX buttons also turn on most RCA, GE, and Proscan, products.

Tip

To turn off most RCA, GE, and Proscan components that are connected to the decoder, press ON•OFF twice within two seconds.

This feature only works with some RCA, GE, and Proscan products.

The Buttons on the Remote Control

(0–9) Number buttons Select channels by pressing the number buttons.

Red, green, yellow, and blue buttons (at the bottom of the remote) Specific functions defined by your service provider.

ANTENNA In decoder mode, turns off the decoder signal to allow other signals to pass through. In VCR mode, functions as the TV/VCR button.

Arrows Move the on-screen highlight, and enter data such as letters or numbers in certain menus.

AUDIO•INPUT In decoder mode, changes the program's audio language, if available. In VCR or TV mode, selects between the Video Input Channel and the tuner for compatible components. Video Input Channel refers to the signal coming from the component connected to the audio/video input jacks on the VCR or TV.

AUX Puts the remote in AUX mode. Can also be programmed to operate some compatible products (A/V receiver, DVD, VCR, etc).

BACK In Web mode, goes to the previous web page. In menus, goes back to the previous screen or menu. In TV mode, may return to the previously viewed channel.

CH + and CH - Selects next higher or lower channel in the channel list.

EMAIL Turns on the decoder and goes to your email account, if your service provider offers one.

EXIT • CLEAR Exits or clears menus.

FWD•SKIP Fast forwards video in stop mode. This button also searches forward if pressed during playback.

GUIDE Displays the decoder program guide, if your service provider offers one.

HOME In Web mode, takes you to your home page.

Indicator Indicates the programming mode when programming the remote to control components.

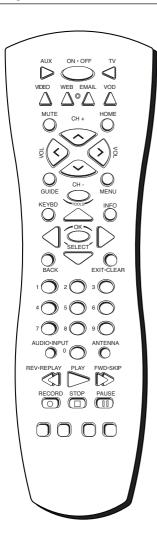
INFO Shows on-screen information of the decoder, VCR, TV, DVD player, etc. (whichever component is set as the remote control's active device).

KEYBD Brings up the on-screen keyboard or removes it. Also acts as an enter button when using the on-screen keyboard.

MENU Displays the on-screen menu system.

MUTE Reduces the TV's volume to a minimum level on compatible TVs or A/V receivers.

Chapter 2: Remote Control



OK•SELECT In on-screen menus, this button acts as an *Enter* button (used in conjunction with the remote control's arrow buttons). This button selects the highlighted on-screen menu item.

ON•OFF Turns the component on or off when the remote control is set to operate that component.

PAUSE Pauses playback or recording.

PLAY Plays video.

VOD Turns on the decoder and starts the Video-on-Demand service, if available from your service provider.

RECORD Starts record mode for a compatible VCR.

REV•REPLAY Rewinds video or tape when in stop mode. Searches backward during playback mode.

STOP Stops the current function (record, playback, rewind, etc).

TOOLS Brings up the browser toolbar or removes it.

VIDEO Turns on the decoder in TV mode and shows TV programming.

TV Turns on a compatible RCA, GE, or Proscan TV and puts the remote control in TV-operating mode. Also used with the ON•OFF button to turn on/off a different brand of TV (if programmed).

VOL < and > Raises and lowers the volume of some compatible TVs or A/V receivers (if programmed).

WFB Turns on the decoder in Web mode.

Note: If you press a button when the batteries are low, the indicator flashes.

Using the INPUT Button

Use the INPUT button to scroll through the available Video Input Channel sources for a TV or VCR and regular broadcast signals. The Video Input Channels allow you to view images from a component connected to the TV or VCR (such as a camcorder or DVD player).

- 1. Press the remote control's TV or AUX button (if programmed) to enter the corresponding mode. Make sure the component is turned ON.
- 2. Press the remote control's INPUT button to tune to the Video Input Channel.
- 3. To tune back to the broadcast signal you were previously watching through the TV or VCR, press the INPUT button again.

Volume Punchthrough

You may find this feature helpful if you've connected your components to an audio/video receiver (A/V receiver) or amplifier, but you want to use the decoder's remote control to operate the volume.

Let's say you've connected your IP video decoder to your audio/video receiver. You've also programmed your decoder remote control to operate your receiver. Since the decoder gets its volume through the receiver, you would have to tell the remote you wanted to change the volume on the receiver each time by pressing the AUX button first. With Volume Punchthrough, you can control the receiver's volume, even when the remote is in decoder mode. Just use the volume buttons as normal, and you'll change the receiver's volume automatically (or whatever volume component you used last).

IMPORTANT: You must first program the AUX button on the decoder's remote control to operate your audio receiver or amplifier. Go to page 14 for instructions. If you can't program this remote to operate your audio receiver, Volume Punchthrough won't work.

Chapter 2: Remote Control

Programming the Remote to Operate Other Components

The universal remote can be programmed to operate most brands of remote controllable components. The remote is already programmed to operate most RCA, GE, and Proscan components.

Find Out If You Need to Program the Remote

To determine whether the universal remote needs to be programmed for your component, turn the component ON. For example, to program the remote for a TV, turn on the TV. Point the remote at the TV, and press the TV button. Then press ON•OFF or CH + (channel up) or CH – (channel down) to see if the TV responds to the remote commands. If the component does not respond, the remote needs to be programmed.

Programming the Remote

There are two ways to program the remote control: direct entry and automatic code search.

Important

You must continue pressing the component button while you enter the code.

Let's say you have a Zenith TV. To program the universal remote to operate the TV, you would:

Press and hold the TV button while you enter the first code listed for Zenith in the TV Codes column.

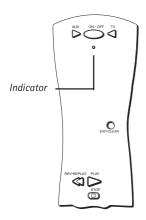
Release the TV button. Press ON•OFF to see if the TV responds. If it doesn't, follow the same steps, but enter the second code for Zenith TVs instead of the first.

Note

Some of the remote's buttons might operate differently for other components, especially when you're using another component's menu system.

Using Direct Entry

- 1. Turn on the component to be programmed.
- 2. Look up the brand and code number(s) for the component on the code list in this section.
- 3. Press and hold the component button you want to program on the remote (TV or AUX).
- 4. Enter the 4-digit code from the remote control code list on the following pages. If the indicator flashes, you have either entered an invalid code or the button isn't programmable.
- 5. Release the component button, point the remote at the component, then press ON•OFF to see if the component responds to the command. If it doesn't, try pressing the component button and then ON•OFF again.
- If you get no response, repeat these steps using the next code listed for your brand, until the component responds to the remote commands.
- If you try all the codes for your component brand and none work, try the automatic code search method. If automatic code search doesn't work, the remote is not compatible with your component.



Use these buttons when you program the remote.

Important: The remote may not be compatible with all models of all brands of components. It may not operate all functions of the remote that came with your component.

Note: If you need to replace the batteries in the remote, don't press any buttons. If you do, you'll have to reprogram the remote.

Using Automatic Code Search to Program Your TV

You can program the remote to operate your TV. To stop the automatic code search without programming your TV, press EXIT•CLEAR until the indicator on the remote turns off.

Note: AUX can't be programmed using the automatic code search method.

- 1. Turn on your TV.
- Press and hold the TV button. While holding TV, press and hold ONOOFF until the indicator on the remote turns on, then release both buttons.
- 3. Point the remote at the TV. Press and release PLAY, then wait 5 seconds or until the indicator on the remote stops flashing.

At this point the remote is searching for the correct code to program. If, after 5 seconds, the TV does not turn off, press PLAY again to search the next set of codes.

Continue pressing PLAY until the TV turns off or you have searched through all of the codes. There are 20 total sets of codes. If the TV does not turn off after pressing PLAY 20 times, then the remote can't be programmed to operate it.

If the TV does turn off:

- 1. Press and release REVERSE, then wait 2 seconds. Repeat this step until it turns back ON.
- 2. Press and hold STOP until the indicator on the remote turns off.

How to Use the Remote After You've Programmed It

Because this universal remote can control several different components (TV, DVD, VCR, A/V receiver) it uses operational modes triggered by the component buttons. For example, if you want the remote to control the TV, press the TV button to put the remote into TV mode.

- Press the appropriate component button (TV, AUX, VIDEO, Web, etc.) to set the remote to control the component.
- 2. Press ON•OFF to turn the component ON or OFF.
- 3. Use the remote buttons that apply to that component.

Notes:

- The remote may not be compatible with all brands and models of components. It also may not operate all functions of the remote that came with your component.
- If you keep pressing buttons and nothing happens, the remote is probably in the wrong mode. You must press the component button that matches the component you want to operate (i.e., if you want to operate the TV, press TV on the remote control to put the remote in TV mode.)

Chapter 2: Remote Control

Code List

	TV Codes
\bex	
\dmiral	1001, 1173,
Adventura	
iko	
kai	
lleron	
mtron	
nam National	
OC 1004 1	005 1006 1007 1175 1176
udiovox	000, 1000, 1007, 1170, 1170,
elcor	
ell & Howell	1001 1083
radford	
rokwood	
andle	1004 1006 1008
elehrity	1004, 1000, 1000,
enturion	
itizen	1004 1006 1008
	1038 1105 1171 1174
olortyme	1004, 1103, 1171, 1174,
oncerto	,1000, 100 <i>4</i> , 1001
ontec/Conv	1038, 1105, 1171, 1174, 1006, 1006, 1006, 1004, 1006, 1004, 1014, 1013, 1014,
rain	1012, 1013, 1014, 1018, 1014, 1018, 1019, 1101,
rown	1020
urtic Mathec	1000 1004
urtis-iviatifes	1015 1105 1162 1171
VC.	1015, 1105, 1102, 1171,
201400	1004 1005
acvv00	016 1017 1010 1127 1171
outron I	016, 1017, 1018, 1127, 1171, 1004, 1006
dytrori	1004, 1006
IIIICIISId	1004
umont	1004,
Augrecu	
lectronoand	1004, 1006, 1019, 1020, 103, 1004, 1006, 1019, 1020,
10	04 1006 1013 1023 1024
1020 1027 10	04, 1006, 1012, 1023, 1024,
1020, 1027, 10	26, 1023,1030, 1031, 1032,
1034, 1035, 10	103, 1004, 1006, 1019, 1020, 004, 1006, 1012, 1023, 1024, 1028, 1029, 1030, 1031, 1032, 36, 1037, 1038, 1039, 1041, 1046, 1047, 1123, 1124, 1162, 1177, 1179, 1191, 1004, 1001
1043, 1044, 10	1177 1170 1101 1177 1170 1101
nvicion	1177, 1179, 1191,
ichor	1048, 1049, 1051, 1162,
iitee	1046, 1049, 1051, 1162,
ujits0	1048, 1049, 1051, 1102, 1038, 1038, 1004, 1006, 1003, 1004, 1006, 1065, 1067, 1164, 1165, 1166
uturataa	1038,
utuletee E	1000 1002 1004 1000
1052 1054 10	1000, 1003, 1004, 1006,
1052, 1054,10	, 1007, 1104, 1105, 1166,
:hualtau)55, 1087, 1164, 1165, 1166, 1168, 1181,
ioraiter	1004,
olastar	
10	119, 1056, 1057, 1058, 1155,
	1171,
runav	1038. 1046
alimark	1004,
arvard	
itachi 1004, 10	006, 1012, 1013, 1014, 1059,
	1061, 1135, 1136, 1137,
1139, 1140, 1	141, 1142, 1143, 1144, 1145
	1148, 1150, 1179, 1198,
MA	006, 1012, 1013, 1014, 1059, 1061, 1135, 1136, 1137, 1141, 1142, 1143, 1144, 1145, 1148, 1150, 1179, 1198,
IIIIIILY	
aneil	
BL	00, 1004, 1005, 1006, 1008, 158, 1063, 1064, 1072, 1087,
CB	
2 Penney 10	00, 1004, 1005, 1006, 1008,
1052, 1054, 10	58, 1063, 1064, 1072, 1087,
	1128 1171 1172 1181

Jensen 1004,	100
JVC 1012, 1013, 1014, 1054,	1060
Junesen 1004, 1012, 1013, 1014, 1054, 1054, 1055, 1065, 1066, 1067, 1157, 1158, 1159, 1002, 1004, 1006, 1004, 1006, 1004, 1006, 1005, 1004, 1006, 1068, 1069, 1174, 1074, 1075, 1076, 1171, 1075, 1076, 1171, 1075	118
Kawasho 1002, 1004,	100
Kenwood 1004, 1006,	101
Kloss Novabeam 1068, 1069, 1174,	118
KTV 1038, 1070, 1171,	117
Luxman	108
Luxman 1004,	100
LXI 1000, 1006,	1049
1062, 1071, 1072, 1073, 1162, 1181,	120
Magnavox 1004, 1006, 1008,	1019
1062, 1068,1069,1075, 1076, 1077, 1088,	1130
1131, 1132, 1133, 1134, 1183, 1219,	123
Majestic Marants	108
Marants	106
Marantz 1004 1006 1062	107
Megatron 1006, 1082, 1083, MGA 1004, 1005, 1006, 1019, 1022, 1051, 1080, Midland 1064, 1151, 1171, 1172	105
Memorex 1001, 1006, 1082, 1083,	116
MGA 1004, 1005, 1006, 1019, 1022, 1051,	1079
1080,	108
Midland 1054, 1151, 1171, 1172,	118
Minutz	105
Midland	1019
1022, 1051, 1079, 1080, 1081, 1082, Montgomery Ward	112
Montgomery Ward	108
Motorola 1003,	117
MTC 1004, 1005, 1006,	110
Multitech	103
Multivision	108
NAD 1006, 1071, 1072,	118
NEC 1003, 1004, 1005, 1006,	120
NIKKO 1006,	101
NTC	101
Onwa	103
Optimus	118
Optonica 1095,	
Orion 1035,	119
Orion 1035, Panasonic 1003, 1054, 1062, 1170, Philco 1003, 1004, 1005, 1006, 1008, 1012, 1062, 1068, 1069, 1075, 1077, Philips 1003, 1004, 1008, 1012, 1019, 1062, 1069, 1075, 1076, 1086, 1087, 1088, Pilot 1004, 1006, 1090, 1091, 1092, 1179, Portland 1004, 1006, 1090, 1091, 1092, 1179, Prism 1004, 1006, 1016, 1016, 1016, Prism 1004, 1006, 1016, 1016, 1016, Prism 1004, 1006, 1016, 1016, Prism 1003, 1004, 1006, 1006, 1016, Prism 1003, 1004, 1006, 1006, 1016, Prism 1003, 1004, 1006, 1006, 1006, 1016, Prism 1004, 1006, 1006, 1006, 1006, 1016, Prism 1004, 1006, 1006, 1006, 1006, 1016, Prism 1004, 1006, 1006, 1006, 1006, 1006, 1016, Prism 1004, 1006, 1006, 1006, 1006, 1006, 1016, Prism 1004, 1006, 10	121
Philco 1003, 1004, 1005, 1006, 1008, 1012,	1015
1062, 1068, 1069, 1075, 1077,	١١١
Philips 1003, 1004, 1008, 1012, 1019, 1062,	106
1069, 1075, 1076, 1086, 1087, 1088,	108
Pilot 1004, 1006, 1000, 1001, 1000, 1170	117
Pioneer 1004, 1006, 1090, 1091, 1092, 1179,	118
Portiand 1004, 1005, 1006, 1016,	11/
Price Club	100
DC 1000	110
ProScan 1000,	100
Proton 1004, 1006, 1012, Pulsar 1004, 1006, 1012, Pulsar 1004, 1070, Radio Shack/Realistic 1003, 1054, 1070, 1005, 1005, 1006,	109
ruisar 1004,	115
uuasar 1003, 1054, 1070,	109
100C 1012 1020 1040 100F 11C2 1171	117
1006, 1012, 1038, 1049, 1095, 1162, 1171,	100
NCA 1000, 1003, 1004, 1005, 1006,	1100
1006, 1012, 1038, 1049, 1095, 1162, 1171, RCA	110
1102, 1103, 1129, 1179, 1181,	110
1188,1190, 1202, 1203, 1215,	115
Sampo	110
Jamsung 1004, 1005, 1006, 1012, 1015, 1019,	1104
1105, 1106, 11/1, 11/2,	117
Sansui	110
Sanyo 1004 1049	113 1041
Sanyo 1004, 1048, 1080, 1107, 1108, 1162, 1169,	112
Scotch	100
JCU (C11	.00

Scott 1004, 1006, 1012, 1024, 1035, 1038, 104	16
Sears 1000, 1004, 1006, 1013, 1014, 1019, 104	
1048, 1049, 1051, 1066, 1071, 1072, 1109, 111	0
1162, 1180, 1181, 118	35
Sharp 1004, 1006, 1012, 1029, 1095, 1111, 111	
1113, 1122, 1171, 117	
Shogun 100	
Signature 1001, 1083, 11	15
Simpson 100	
Sony 1002, 1205, 1216, 121	
Soundesign 1004, 1006, 1008, 1038, 104	
Squareview 118	
SSS 1004, 103	
Starlite	
Supre-Macy117	
Sylvania 1004, 1006, 1008, 1019, 1062, 1068, 106	
1075, 1076, 1077, 1088, 1116, 1161, 118	
Symphonic	
Tandy 117	
Tatung	
Technics	
Techwood	
Teknika . 1004, 1005, 1006, 1008, 1012, 1013, 101	
1016, 1038, 1046, 1076, 1082, 1083, 1105,117	
117	
Telecaption 111	
TMK 1004, 100	
Toshiba 1049, 1071, 1072, 1105, 1109, 1117, 111	8
1160, 116	32
Totevision 11	
Universal 1052, 108	
Victor	
Vidtech 1004, 1005, 100	
Viking	14
Wards 1000, 1001, 1004, 1005, 1006, 1019, 102 1033, 1046, 1052, 1062, 1068, 1069, 1075, 107	4
1083, 1087, 1088, 1095, 1119, 112	יט
Yamaha	
Zenith 1004, 1083, 1151, 1152, 1153, 1154,121	'n
121	
.=-	
VCR Codes	
	-

Admiral	2132
Adventura	2026
Aiko	2027
Aiwa	
Akai 2003, 2004, 2005, 2007,	2008.
American High	
Asha	
Audio Dynamics 2009,	
Audiovox	
Bell & Howell	
Beaumark	
Broksonic	
Calix	2014
Candle 2013, 2014, 2015,	2016,
2017, 2018,	
Canon	
Capehart 2020	2110
Carver	
CCE 2027,	2061
Citizen 2013,	2014,
2015, 2016, 2017, 2018, 2019,	2027
Colortyme	2009
•	

continued on next page

Chapter 2: Remote Control

Colt
Craig 2013, 2014, 2023, 2061
Curtis-Mathes 2000 2009 2013
2016 2018 2021 2022 2024 2115 2131
Cubarnay 2010, 2011, 2021, 2021, 2110, 2101
Cybernex
Daewoo 2015, 2017, 2019, 2025, 2026,
2027, 2028, 2110
2027, 2028, 2110 Daytron2110
DBX 2009, 2010
Dimensia 2000, 2131
Dynatech
Electronionic
Electropriorite
Emerson 2012, 2014, 2015, 2021, 2024, 2025, 2026,
2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036,
2037, 2038, 2039, 2040, 2041, 2042, 2044, 2045,
2046, 2047, 2065, 2113, 2116, 2117, 2130
Fisher
2049, 2050, 2051, 2052, 2118
Fuii 2021 2119
Funai 2026
Garrard 2020
Electrophome 2014, 2029 Electrophonic 2014 Emerson 2012, 2014, 2015, 2021, 2024, 2025, 2026, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2044, 2045, 2046, 2047, 2065, 2113, 2116, 2117, 2130 Fisher 2011, 2023, 2048, 2049, 2050, 2051, 2052, 2118 Fuji 2026 Garrard 2026 Garrard 2026 GF 2000, 2001, 2013
2021, 2022, 2053, 2115, 2120, 2131
Goldstar 2009, 2014, 2018, 2054, 2131
2021, 2022, 2053, 2115, 2120, 2131 Goldstar
Harley Davidson 2026
Harman Kardon 2009
Harwood
Headquarter 2011
Hitachi 2055 2056
2057, 2107, 2111, 2120, 2122
Hi-Q
Hi-U
Instant Replay 2021
JCL
JC Penney 2009, 2010, 2011, 2013,
2014, 2021, 2022, 2055, 2056,
2050 2050 2050 2107 2110
2030, 2033, 2000, 2107, 2110
2056, 2059, 2060, 2107, 2116 lensen 2055, 2056, 2111
Jensen
Jensen
Jensen 2055, 2056, 2111 JVC 2009, 2010, 2011, 2018, 2111, 2123 Kenwood 2009, 2010, 2011, 2018, 2111, 2123 Kenwood 2009, 2010, 2011, 2018, 201
Jensen
Jensen 2005, 2009, 2009, 2009, 2009, 2009, 2009, 2009, 2019, 2011, 2018, 2111, 2123 Kenwood 2009, 2010, 2011, 2018, 2111, 2123 KLH 2018, 2011, 2023 KLH 2018, 2011, 2023
Jensen 2055, 2056, 2111 JVC 2009, 2010, 2011, 2018, 2111, 2123 Kenwood 2009, 2010, 2011, 2018, 2111, 2123 KLH 2001 KLH 2001 KLH 2001 KOdak 2014, 2021
JCL 2021 JC Penney 2009, 2010, 2011, 2013, 2014, 2021, 2025, 2056, 2056, 2058, 2059, 2060, 2107, 2118 Jensen 2052, 2059, 2010, 2011, 2018, 2111, 2123 JVC 2009, 2010, 2011, 2018, 2111, 2123 Kenwood 2009, 2010, 2011, 2018, 2111, 2123 KLH 2061 Kodak 2014, 2021 Lloyd 2026
Jensen 2055, 2059, 2009, 2006, 2011 JVC 2009, 2010, 2011, 2018, 2111, 2123 Kenwood 2009, 2010, 2011, 2018, 2111, 2123 KLH 2061 Kodak 2014, 2021 Lloyd 2026 Logik 2061
Jensen 2055, 2058, 2011, 2018 Jensen 2055, 2056, 2111 JVC 2009, 2010, 2011, 2018, 2111, 2123 Kenwood 2009, 2010, 2011, 2018, 2111, 2123 KLH 2061 KUH 2014, 2021 Lloyd 2026 Logik 2081 LVI 2014
Jensen 2005, 2009, 2000, 2011, 2018 Jensen 20055, 2056, 2011 JVC 2009, 2010, 2011, 2018, 2111, 2123 Kenwood 2009, 2010, 2011, 2018, 2111, 2123 KLH 2016, 2018, 2111, 2123 KLH 2014, 2021 Lloyd 2026 Logik 2061 LVI 2014 Magnavox 2021, 2022, 2062,
Jensen 2055, 2059, 2009, 2010, 2011 JVC 2009, 2010, 2011, 2018, 2111, 2123 Kenwood 2009, 2010, 2011, 2018, 2111, 2123 KLH 2061 Kodak 2014, 2021 Lloyd 2026 Logik 2061 LXI 2014 Magnavox 2021, 2022, 2062, 2063, 2104, 2105, 2108, 2124
Jensen 2055, 2054, 2054, 2055, 2056, 2111 JVC 2009, 2010, 2011, 2018, 2111, 2123 Kenwood 2016, 2018, 2111, 2123 KLH 2061 Kodak 2014, 2021 Lloyd 2026 Logik 2018 LXI 2014 Magnavox 2021, 2022, 2062, 2062, 2063, 2104, 2105, 2108, 2124 Magnin 2014 Magnin 2015, 2008, 2008
Jensen 2055, 2059, 2009, 2010, 2011 JVC 2009, 2010, 2011, 2018, 2111, 2123 Kenwood 2009, 2010, 2011, 2018, 2111, 2123 KLH 2016, 2018, 2111, 2123 KLH 2016 Logid 2014, 2021 Lloyd 2026 Logik 2061 LVI 2014 Magnavox 2021, 2022, 2062, 2063, 2104, 2105, 2108, 2124 Magnin 2009, 2010, 2011
Jensen 2055, 2059, 2009, 2010, 2111 JVC 2009, 2010, 2011, 2018, 2111, 2123 Kenwood 2009, 2010, 2011, 2018, 2111, 2123 KLH 2061 Kodak 2014, 2021 Lloyd 2026 Logik 2018 LVI 2014 Magnavox 2026, 2027, 2022, 2062, 2064 Magnin 2019, 2019, 2019, 2019 Marantz 2009, 2010, 2011, 2016, 2018, 2021
Logik 2061 LXI 2014 Magnavox 2021, 2022, 2062, 2063, 2104, 2105, 2108, 2124 Magnin 2013 Marantz 2009, 2010, 2011, 2016, 2018, 2021, 2062, 2064
Logik 2061 LXI 2014 Magnavox 2021, 2022, 2062, 2062, 2063, 2104, 2105, 2108, 2124 Magnin 2013 Marantz 2009, 2010, 2011, 2012, 2062, 2064 Marta 2014
Logik 2061 LXI 2014 Magnavox 2021, 2022, 2062, 2063, 2104, 2105, 2108, 2124 Magnin 2013 Marantz 2009, 2010, 2011, 2016, 2018, 2021, 2062, 2064 Marta 2014 Masushita 2021
Logik 2061 LXI 2014 Magnavox 2021, 2022, 2062, 2063, 2104, 2105, 2108, 2124 20gnin Marantz 2009, 2010, 2011, 2016, 2018, 2021, 2062, 2064 2014 Marta 2014 Masushita 2021 Mei 2021
Logik 2061 LXI 2014 Magnavox 2021, 2022, 2062, 2063, 2104, 2105, 2108, 2124 2013 Marantz 2009, 2010, 2011, 2016, 2018, 2024, 2062, 2064 2064 Marta 2014 Masushita 2021 Mei 2021 Memorex 2011, 2013
Logik 2061 LXI 2014 Magnavox 2021, 2022, 2062, 2063, 2104, 2105, 2108, 2124 2013 Marantz 2009, 2010, 2011, 2016, 2018, 2024, 2062, 2064 2064 Marta 2014 Masushita 2021 Mei 2021 Memorex 2011, 2013
Logik 2061 LXI 2014 Magnavox 2021, 2022, 2062, 2063, 2104, 2105, 2108, 2124 Magnin 2018, 2021, 2002, 2010, 2011, 2013, 2021, 2062, 2064 Marta 2014 Masushita 2021 Mei 2021 Memorex 2011, 2013, 2026, 2104, 2132 MGA 2029, 2065, 2113
Logik 2061 LXI 2014 Magnavox 2021, 2022, 2062, 2062, 2063, 2104, 2105, 2108, 2124 Magnin 2013, 2010, 2010, 2011, 2013, 2021, 2062, 2064 Marantz 2016, 2018, 2021, 2062, 2064, 2014 Masushita 2021 Mei 2021 Memorex 2011, 2013, 2026, 2104, 2132 MGA 2029, 2065, 2113 MGN Technology 2013
Logik 2061 IXI 2014 Magnavox 2021, 2022, 2062, 2063, 2104, 2105, 2108, 2124 Magnin 2013 Marantz 2009, 2010, 2011, Marta 2014 Masushita 2021 Mei 2021 Memorex 2011, 2013, 2014, 2021, 2023, 2026, 2104, 2132 MGA 2029, 2065, 2113 MGN Technology 2013 Midland 2053
Logik 2061 IXI 2014 Magnavox 2021, 2022, 2062, 2063, 2104, 2105, 2108, 2124 Magnin 2013 Marantz 2009, 2010, 2011, Marta 2014 Masushita 2021 Mei 2021 Memorex 2011, 2013, 2014, 2021, 2023, 2026, 2104, 2132 MGA 2029, 2065, 2113 MGN Technology 2013 Midland 2053
Logik 2061 LXI 2014 Magnavox 2021, 2022, 2062, 2062, 2063, 2104, 2105, 2108, 2124 Magnin 2013, 2010, 2010, 2011, 2013, 2024, 2062, 2064 Marta 2016, 2018, 2021, 2062, 2064 Marta 2021 Mei 2021 Mei 2021 Memorex 2011, 2013, 2026, 2104, 2132 MGA 2029, 2065, 2113 MGN Technology 2013 Midland 2053, 2056, 2107 Mitsubishi 2029, 2055, 2056, 2065, 2066, 2066, 2066, 2065, 2066, 2066, 2066, 2066, 2066, 2066, 2066, 2066,
Logik 2061 LXI 2014 Magnavox 2021, 2022, 2062, 2062, 2063, 2104, 2105, 2108, 2124 Magnin 2013, 2010, 2010, 2011, 2013, 2024, 2062, 2064 Marta 2016, 2018, 2021, 2062, 2064 Marta 2021 Mei 2021 Mei 2021 Memorex 2011, 2013, 2026, 2104, 2132 MGA 2029, 2065, 2113 MGN Technology 2013 Midland 2053, 2056, 2107 Mitsubishi 2029, 2055, 2056, 2065, 2066, 2066, 2066, 2065, 2066, 2066, 2066, 2066, 2066, 2066, 2066, 2066,
Logik 2061 IXI 2014 Magnavox 2021, 2022, 2062, 2063, 2104, 2105, 2108, 2124 Magnin 2013 Marantz 2009, 2010, 2011, Marta 2014 Masushita 2021 Mei 2021 Memorex 2011, 2013, 2064 2029, 2065, 2104, 2132 MGA 2029, 2065, 2113 MGN Technology 2013 Midland 2053 2014 2029, 2055, 2056, 2107 Mitsubishi 2029, 2055, 2056, 2066, 2067, 2074, 2104, 2124
Logik 2061 LXI 2014 Magnavox 2021, 2022, 2062, 2063, 2104, 2105, 2108, 2124 Magnin 2013 Marantz 2009, 2010, 2021, 2062, 2064 Marta 2021 Masushita 2021 Mei 2021 Memorex 2011, 2013, 2026, 2104, 2132 MGA 2029, 2055, 2113 MGN 2029, 2055, 2013 Midland 2053 Minolta 2055, 2066, 2066, 2067, 2066, 2067, 2068, 2067, 2071, 2072, 2073, 2074, 2106, 2113, 2123
Logik 2001 LXI 2014 Magnavox 2021, 2022, 2062, 2062, 2063, 2104, 2105, 2108, 2124 Magnin 2013, 2014, 2015, 2108, 2124 Marantz 2009, 2010, 2011, 2062, 2064 Marta 2014, 2021, 2021, 2062, 2064, 2014 Masushita 2021 Mei 2021 Memorex 2011, 2013, 2026, 2104, 2132 MGA 2029, 2065, 2113 MGN Technology 2013 Milaland 2053 Minolta 2055, 2066, 2067, 2074 Misubishi 2029, 2055, 2056, 2065, 2065, 2066, 2065, 2068, 2067, 2074, 2068, 2070, 2071, 2072, 2073, 2074, 2106, 2113, 2123 Montoomery Ward 2075, 2132
Logik 2061 IXI 2014 Magnavox 2021, 2022, 2062, 2063, 2104, 2105, 2108, 2124 Magnin 2013 Marantz 2009, 2010, 2011, 2016, 2018, 2021, 2062, 2064 Marta 2014 Masushita 2021 Memorex 2011, 2013, 2014, 2021, 2023, 2026, 2104, 2132 MGA 2029, 2065, 2113 MGN Technology 2013 Midland 2053 Minolta 2053, 2056, 2056, 2066, 2067, 2068, 2070, 2071, 2072, 2073, 2074, 2106, 2113, Montgomery Ward 2075, 2132 Motorola 2021, 2132
Logik 2061 IXI 2014 Magnavox 2021, 2022, 2062, 2063, 2104, 2105, 2108, 2124 Magnin 2013 Marantz 2009, 2010, 2011, 2016, 2018, 2021, 2062, 2064 Marta 2014 Masushita 2021 Memorex 2011, 2013, 2014, 2021, 2023, 2026, 2104, 2132 MGA 2029, 2065, 2113 MGN Technology 2013 Midland 2053 Minolta 2053, 2056, 2056, 2066, 2067, 2068, 2070, 2071, 2072, 2073, 2074, 2106, 2113, Montgomery Ward 2075, 2132 Motorola 2021, 2132
Logik 2061 IXI 2014 Magnavox 2021, 2022, 2062, 2063, 2104, 2105, 2108, 2124 Magnin 2013 Marantz 2009, 2010, 2011, 2016, 2018, 2021, 2062, 2064 Marta 2014 Masushita 2021 Memorex 2011, 2013, 2014, 2021, 2023, 2026, 2104, 2132 MGA 2029, 2065, 2113 MGN Technology 2013 Midland 2053 Minolta 2053, 2056, 2056, 2066, 2067, 2068, 2070, 2071, 2072, 2073, 2074, 2106, 2113, Montgomery Ward 2075, 2132 Motorola 2021, 2132
Logik 2061 IXI 2014 Magnavox 2021, 2022, 2062, 2063, 2104, 2105, 2108, 2124 Magnin 2013 Marantz 2009, 2010, 2011, 2016, 2018, 2021, 2062, 2064 Marta 2014 Masushita 2021 Memorex 2011, 2013, 2014, 2021, 2023, 2026, 2104, 2132 MGA 2029, 2065, 2113 MGN Technology 2013 Midland 2053 Minolta 2053, 2056, 2056, 2066, 2067, 2068, 2070, 2071, 2072, 2073, 2074, 2106, 2113, Montgomery Ward 2075, 2132 Motorola 2021, 2132
Logik 2061 IXI 2014 Magnavox 2021, 2022, 2062, 2063, 2104, 2105, 2108, 2124 Magnin 2013 Marantz 2009, 2010, 2021, 2062, 2064 Marta 2014 Masushita 2021 Mei 2021 Memorex 2011, 2013, 2026, 2104, 2132 MGA 2029, 2055, 2113 MGP Technology 2013 Midland 2053 Minolta 2055, 2066, 2066, 2067, 2066, 2067, 2068, 2067, 2071, 2072, 2073, 2074, 2106, 2113, 2123 Montgomery Ward 2075, 2132 Motorola 2021, 2132 MIC 2013, 2166, 2026, 2053, 2061 MIC 2013, 2166, 2026, 2053, 2061 2004, 2076, 2078, 2079, 2111, 2123 NEC 2009, 2010, 2011, 2016, 2078, 2079, 2111, 2123
Logik 2061 IXI 2014 Magnavox 2021, 2022, 2062, 2063, 2104, 2105, 2108, 2124 Magnin 2013 Marantz 2009, 2010, 2021, 2062, 2064 Marta 2014 Masushita 2021 Mei 2021 Memorex 2011, 2013, 2026, 2104, 2132 MGA 2029, 2055, 2113 MGP Technology 2013 Midland 2053 Minolta 2055, 2066, 2066, 2067, 2066, 2067, 2068, 2067, 2071, 2072, 2073, 2074, 2106, 2113, 2123 Montgomery Ward 2075, 2132 Motorola 2021, 2132 MIC 2013, 2166, 2026, 2053, 2061 MIC 2013, 2166, 2026, 2053, 2061 2004, 2076, 2078, 2079, 2111, 2123 NEC 2009, 2010, 2011, 2016, 2078, 2079, 2111, 2123
Logik 2061 IXI 2014 Magnavox 2021, 2022, 2062, 2063, 2104, 2105, 2108, 2124 Magnin 2013 Marantz 2009, 2010, 2011, 2016, 2018, 2021, 2062, 2064 Marta 2014 Masushita 2021 Mei 2021 Memorex 2011, 2013, 2026, 2104, 2132 MGA 2029, 2065, 2113 MGN Technology 2013 Midland 2053 Minolta 2053, 2056, 2066, 2067, 2071 Mitsubishi 2029, 2055, 2056, 2065, 2066, 2067, 2071 2068, 2070, 2071, 2072, 2073, 2074, 2106, 2113, 2123 Montgomery Ward 2075, 2132 Motorola 2021, 2132 MIC 2013, 2016, 2026, 2053, 2061 NEC 2009, 2010, 2011, 2011, 2016, 2018, 2018 Nikko 2014 Noblex 2013
Logik 2061 IXI 2014 Magnavox 2021, 2022, 2062, 2063, 2104, 2105, 2108, 2124 Magnin 2013 Marantz 2009, 2010, 2011, 2016, 2018, 2021, 2062, 2064 Marta 2014 Masushita 2021 Mei 2021 Memorex 2011, 2013, 2026, 2104, 2132 MGA 2029, 2065, 2113 MGN Technology 2013 Midland 2053 Minolta 2053, 2056, 2066, 2067, 2071 Mitsubishi 2029, 2055, 2056, 2065, 2066, 2067, 2071 2068, 2070, 2071, 2072, 2073, 2074, 2106, 2113, 2123 Montgomery Ward 2075, 2132 Motorola 2021, 2132 MIC 2013, 2016, 2026, 2053, 2061 NEC 2009, 2010, 2011, 2011, 2016, 2018, 2018 Nikko 2014 Noblex 2013
Logik 2061 IXI 2014 Magnavox 2021, 2022, 2062, 2063, 2104, 2105, 2108, 2124 Magnin 2013 Marantz 2009, 2010, 2011, 2016, 2018, 2021, 2062, 2064 Marta 2014 Masushita 2021 Mei 2021 Memorex 2011, 2013, 2026, 2104, 2132 MGA 2029, 2065, 2113 MGN Technology 2013 Midland 2053 Minolta 2053, 2056, 2066, 2067, 2071 Mitsubishi 2029, 2055, 2056, 2065, 2066, 2067, 2071 2068, 2070, 2071, 2072, 2073, 2074, 2106, 2113, 2123 Montgomery Ward 2075, 2132 Motorola 2021, 2132 MIC 2013, 2016, 2026, 2053, 2061 NEC 2009, 2010, 2011, 2011, 2016, 2018, 2018 Nikko 2014 Noblex 2013
Logik 2061 IXI 2014 Magnavox 2021, 2022, 2062, 2063, 2104, 2105, 2108, 2124 Magnin 2013 Marantz 2009, 2010, 2021, 2062, 2064 Marta 2014 Masushita 2021 Mei 2021 Memorex 2011, 2013, 2026, 2104, 2132 MGA 2029, 2055, 2113 MGP Technology 2013 Midland 2053 Minolta 2055, 2066, 2066, 2067, 2066, 2067, 2068, 2067, 2071, 2072, 2073, 2074, 2106, 2113, 2123 Montgomery Ward 2075, 2132 Motorola 2021, 2132 MIC 2013, 2166, 2026, 2053, 2061 MIC 2013, 2166, 2026, 2053, 2061 2004, 2076, 2078, 2079, 2111, 2123 NEC 2009, 2010, 2011, 2016, 2078, 2079, 2111, 2123

Optonica		6
Panasonic	2021, 2022, 2109, 2125, 2126, 212	7
Pantay	2016, 2055, 2056, 2107, 212	'n
Dontov Do	search	0
DETLEX NO	SCALCII 201	0
Philco		3
Philips	2021, 2062, 2096, 212	4
Pioneer	2010, 2055, 2080, 2081, 212	3
Portland	2016, 2017, 2019, 211	0
PROSCAN	2000, 2001, 213	1
Protec		1
Quartz	201 2022 212	_
Quasar		5
KCA 2	2000, 2001, 2003, 2013, 2021, 2055, 2056	٥,
2082, 2	. 1083, 2084, 2085, 2086, 2087, 2088, 2089	Э,
2090,	, 2091, 2107, 2115, 2120, 2125, 2131, 213	3
Radioshad	ck/Realistic . 2011, 2013, 2014, 2021, 2022 2023, 2026, 2029, 2049, 2050, 2096, 213	2,
	2023, 2026, 2029, 2049, 2050, 2096, 213	2
Radix		4
Camerina	2005 2012 2015 2022 2052 211	4
Samsung	2005, 2013, 2015, 2033, 2053, 211	2
Sanky		2
Sansui	2010, 2092, 2111, 212	3
Sanyo	2011, 2013, 202	3
Scott	2012, 2015, 2025, 203	2
	2038, 2065, 2093, 211	6
Sears	2011 2014 2021 2023 2048	3
	2049, 2050, 2051, 2055, 2056, 2107, 211 2017, 2029, 2094, 2095, 2096, 2097, 213 2004, 2056, 2061, 209	8
Sharn	2017 2029 2094 2095 2096 2097 213	1
Shintom	2017, 2023, 2031, 2033, 2030, 2037, 213	Ω
Chagun		2
Signature		1
Singer		8
STS	2021, 210	7
Sylvania	2021, 2022	2,
	2026, 2062, 2063, 2065, 212 c 202	4
Symphoni	c 202	6
Tándy	201	1
Tashiko	201	4
	2026, 2085, 211	
Taabaiaa		١
Technics		9
ieknika		9
IIVIK	2014, 2021, 2026, 2100, 212 	/
Toshiba	2015, 2049, 2051	1,
	2055, 2065, 2093, 211	6
Totevsion	2013, 201	4
Unitech	201	3
Vector Re	search 2009, 2010, 2015, 201	6
Victor	201	Λ
Video Con	ncepts 2009, 2010, 2015, 2016, 211	3
Videoconi	c 2003, 2010, 2013, 2010, 211	2
vva1U5		١,
	2023, 2026, 2029, 2055, 2056, 206	١,
	2096, 2101, 2102, 2103, 2107, 2116, 213	2
XK-1000.		1
Yamaha	2009, 2010, 2011, 2018, 211	1
Zenith		8
	DVD codes	_
Λ:	222	0
Aiwa		y

Pioneer	
PROSCAN	3000
RCA	3000. 3001
Sanyo	
Shinco	
SIIIICO	3001
Sony Toshiba	3006, 3015, 3016
Ioshiba	3007, 3017, 3020
Zenith	3018
A 11 O	1
Audio Co	des
RCA and Dimensia	
AM/FM	4002 4270
AUX	4004
Phono	
Tape	
CD	4007, 4190, 4211
Receivers	
Aiwa 426	61, 4262, 4263, 4264,
42	
Denon	
Harman Kardon	
JVC	
JVL	
Kenwood	
Onkyo	
Optimus	
Panasonic	
Pioneer	
RCA	
Sherwood	4282
Sony	
Technics	
Wards	
Yamaha	4274, 4275
	•
CD Players	
ADC	4200. 4201. 4220
Aiwa	
Akai	
Denon	
Dynatech	A177
Emerson	
Fisher	
GE	
Hitachi	
JVC	
Kenwood	
Luxman	1225
Marantz	4185, 4226
Mitsubishi	4185, 4226 4229, 4230
Mitsubishi	4185, 4226 4229, 4230
	4185, 4226 4229, 4230 4228
Mitsubishi MCS Nakamichi	
Mitsubishi	
Mitsubishi	4185, 4226 4229, 4230 4228 4232, 4233 4184 4186, 4234, 4235
Mitsubishi	
Mitsubishi MCS Nakamichi NEC Onkyo Optimus Panasonic	
Mitsubishi	4185, 4226 4229, 4230 4228 4232, 4233 4184 4186, 4234, 4235 4237, 4238, 4239 4189, 4240
Mitsubishi MCS MCS Nakamichi NEC Onkyo Optimus Panasonic Pioneer RCA	4185, 4226 4229, 4230 4228 4232, 4233 4184 4186, 4234, 4235 4237, 4238, 4239 4188 4189, 4240 4190, 4211
Mitsubishi MCS MCS Nakamichi NEC Onkyo Optimus Panasonic Pioneer RCA Sanyo	4185, 4226 4229, 4230 4228, 4233 4184 4186, 4234, 4235 4237, 4238, 4239 4188 4189, 4240 4190, 4211 4250
Mitsubishi MCS MARAMICHI MICS MARAMICHI MICS MARAMICHI MICS MOTION MARAMICHI MICS MAR	4185, 4226 4229, 4230 4228, 4230 4232, 4233 4184 4186, 4234, 4235 4237, 4238, 4239 4189, 4240 4190, 4211 4250 4207
Mitsubishi MCS MCS Nakamichi NEC Onkyo Optimus Panasonic Pioneer RCA Sanyo Sears Sherwood	4185, 4226 4229, 4230 4228 4232, 4233 4184 4186, 4234, 4235 4237, 4238, 4239 4188 4189, 4240 4190, 4211 4250 427 427 423
Mitsubishi MCS MCS Nakamichi NEC Onkyo Optimus Panasonic Pioneer RCA Sanyo Sears Sherwood Sony	4185, 4226 4229, 4230 4228 4232, 4233 4184 4186, 4234, 4235 4237, 4238, 4239 4189, 4240 4190, 4211 4250 4207 4243 4195, 4209, 4244
Mitsubishi MCS Nakamichi NEC Onkyo Optimus Panasonic Pioneer RCA Sanyo Sears Sherwood Sony Teac	4185, 4226 4229, 4230 4228, 4233 4232, 4233 4184 4186, 4234, 4235 4237, 4238, 4239 4189, 4240 4190, 4211 4250 4207 4243 4195, 4209, 4244 4245, 4246, 4247
Mitsubishi MCS MCS Nakamichi NEC Onkyo Optimus Panasonic Pioneer RCA Sanyo Sears Sherwood Sony Teac Teac Technics	4185, 4226 4229, 4230 4228, 4233 4184, 4235 4237, 4238, 4239 4188, 4240 4190, 4211 4250 4207 4207 4207 4243 4195, 4209, 4244 4245, 4246, 4247
Mitsubishi MCS Nakamichi NEC Onkyo Optimus Panasonic Pioneer RCA Sanyo Sears Sherwood Sony Teac	4185, 4226 4229, 4230 4229, 4233 4184 4186, 4234, 4235 4237, 4238, 4239 4189, 4240 4190, 4211 4250 4207 4207 4243 4195, 4209, 4244 4245, 4246, 4247 4197 4231

JVC ...

Magnavox Mitsubishi3008

..... 3002, 3010

Chapter 3: Decoder Features

Using the Remote Control to Choose On-screen Menu Items

The technical term is "Navigation" – how you move through the on-screen menus. The theory is the same throughout the menu screens: highlight your choice and select it.

To highlight a menu item, press the arrow buttons on the remote or the keyboard. Use the up or down arrow button to move up or down. Use the right or left arrow button to move left or right.

To select the item that you've highlighted, press OK•SELECT.

For easier menu and web navigation, check with your service provider about purchasing the optional wireless keyboard.

Note: Highlighted means that the menu item stands out from the other menu items on the list (appears darker, brighter, or a different color).

Using the On-Screen Keyboard

The on-screen keyboard is a keyboard that appears on the screen to help you enter text on web pages or menus. The navigation of the keyboard is very similar to remote control navigation in the menus: you highlight the key you want to enter with the arrow buttons and press OK to select it.

- To bring up the on-screen keyboard to enter text, press the KEYBD button when a text box is selected. When you're finished typing the text, press KEYBD to enter it (it works the same as the Enter button on the virtual keyboard).
- To exit the on-screen keyboard, highlight the EXIT button on the keyboard using the arrow buttons, and press OK to select it.

If you have an optional wireless keyboard, using it to enter text will also make the on-screen keyboard disappear.



The on-screen keyboard.

Shift, Alt, Ctrl Keys

These keys can be used in combination with other keys, just like on a standard keyboard. These keys are only applied to the next character you type. A light on the key indicates when it's active.

Shortcut Keys

The .gov, .org, .com, and www. keys are shortcuts for commonly used characters used in web addresses and are added to the text box when selected.



The web browser showing the browser banner and toolbar.

Using the Web Browser

The web browser is where you do all your internet browsing. Not only can you surf all your favorite websites, but you can also view and save your bookmarks, view your browsing history, and search for new websites.

Browser Banner

The browser banner gives you information, such as how to bring up the browser tool bar or take it away, and also the loading status of the current page.

Browser Toolbar

The browser toolbar is where you enter website addresses and find the tools to navigate the websites.

Address - Where you enter your website address.

Back - Goes back to the previous page.

Refresh/Stop – Refreshes the current page if it stopped loading too soon and also stops the page from loading if in progress.

Home - Takes you to the home web page.

Close icon – Closes the current window (if other windows are open).

Shuffle icon - Swaps open windows.

Resize text icon – Resizes the text of the page (up to 3 sizes).

Magnify icon - Magnifies the page (up to 3 levels).

More – Takes you to the *More Features* menu, where you can view and save bookmarks and view your website history.

To TV - Exits the browser and takes you back to TV viewing.

Entering a Website Address

You can enter a website directly using the browser toolbar.

- 1. Press the WEB button to put the decoder in web mode.
- 2. Press the TOOLS button (the browser toolbar appears).
- 3. Press KEYBD while the website address box is highlighted (the on-screen keyboard appears).
- 4. Use the arrow buttons on the remote control to highlight the first letter you want to enter. Keep in mind there are shortcut keys on the bottom of the keyboard (.gov, .org, .com. www). When the key is highlighted, press OK●SELECT on the remote to select it.
- 5. Continue entering all the letters until the website address is complete. Then press KEYBD (the website loads).

Note: If you make a mistake while entering the address, use DELETE and the arrow buttons on the keyboard to correct it.

Chapter 3 19

Chapter 3: Decoder Features

Web Page Navigation

You can use the arrow buttons on the remote or the optional wireless keyboard to move around web pages.

To hide the browser toolbar so that you can browse the page, press the TOOLS button or use the up arrow button to move from the toolbar to the website.

Notes:

- While the toolbar is on the screen, you can't browse the web page or access links.
- While navigating a web page, you can only bring up the toolbar using the TOOLS button.



More Features

Viewing Your Bookmarks

View your bookmarks from the More Features menu.

- 1. Press the TOOLS button (the browser toolbar appears).
- 2. Use the arrow buttons to highlight the *More* button.
- 3. Press OK to select it (the *More Features* menu appears).
- 4. Highlight View Bookmarks, and press OK (the Bookmarks list appears).



Selecting Bookmarks

- Follow steps 1-4 in Viewing Your Bookmarks to bring up the bookmarks list.
- 2. Use the arrow buttons to highlight the bookmark you want.
- To go to a bookmark, highlight it, and use the left and right arrow buttons to highlight Go to Page, then press OK.
- To return to the browser without going to a page, highlight the *Back* button, then press OK.

Chapter 3: Decoder Features



Saving Your Bookmarks

- 1. Go to the webpage you want to save.
- 2. Press the TOOLS button (the browser toolbar appears).
- 3. Use the arrow buttons to highlight the *More* button.
- 4. Press OK to select it (the *More Features* menu appears).
- 5. Highlight *Save Bookmarks*. Press OK (your bookmark saves).



Viewing Your History

- 1. Press the TOOLS button (the browser toolbar appears).
- 2. Use the arrow buttons to highlight the *More* button.
- 3. Press OK to select it (the *More Features* menu appears).
- 4. Highlight *History*, and press OK (the *History* list appears).
- To go to a page in your history, highlight the page, and use the left and right arrow buttons to highlight Go to Page, then press OK.
- To return to the browser without going to a page, highlight the Back button, then press OK.

Troubleshooting

You can correct most problems you have with your product by consulting the troubleshooting list that follows. If you need service, please contact your service provider.

Decoder Problems

Decoder won't turn on

- Press the VIDEO button.
- Make sure the decoder is plugged in.
- Check the wall receptacle (or extension cord) to make sure it is "live" by plugging in something else.
- Something might be wrong with your remote control or keyboard. Check the remote control solutions
 on the next page.

Decoder appears to be locked up

- Hold the ON•OFF button on the remote until the indicator on the front of the unit blinks 5 times. The
 unit reboots.
- Verify the Power indicator is not flashing (slowly first, then blinks fast). If it is, there may be a broken
 connection to the service provider or service may be momentarily unavailable. Contact your service
 provider.
- Unplug the unit for a few seconds, then plug it back in and try again.

No sound, picture okay

- Maybe the sound is muted. Try pressing the volume up button to restore sound on the TV or audio receiver.
- If using a standard video or S-video, video connection, remember to also connect the decoder's L and R AUDIO OUT jacks to the component's L and R AUDIO IN jacks.
- Try changing channels.
- Check the digital audio settings if you're using the decoder's digital optical jack.

No picture, no sound but decoder is on

- If your decoder is connected to the CABLE/ANTENNA jack on your TV with a coaxial cable, tune the TV to channel 3 or 4.
- If your decoder is connected to your TV with audio/video cables, tune your TV to the appropriate Video Input Channel (see page 26).

Sound okay, picture poor

- Check connections. Make sure all of the cables are firmly connected to the jacks.
- Change the channel.

No connection after more than 5 minutes

Make sure all connections are secure and try connecting to your service provider again. If you still
have problems connecting to the network, contact your service provider.

"Signal is Temporarily Unavailable" appears

• Change channels to see if it is a station problem. If it appears on more than one channel, there may be a problem with the signal. Reboot the decoder by holding the ON•OFF button on the remote until the indicator on the front of the unit blinks 5 times. The unit reboots. You may also want to unplug the unit.

While connecting, the decoder seems to be stuck on one step for a long time

 Check the status of the indicator on the front of the decoder. If it is flashing, there is no connection between the decoder and the modem. Make sure the modem is on and the modem and decoder are connected properly. There may be a broken connection to the service provider or service may be momentarily unavailable. Contact your service provider.

Remote Control or Wireless Keyboard Problems

- Something might be between the remote or keyboard and the remote sensor on the component. Make sure there is a clear path.
- Maybe the remote isn't aimed directly at the component (TV or decoder) that you're trying to operate.
- Maybe remote or keyboard is not in a decoder mode. Press the VIDEO button to operate the decoder.
- Maybe batteries in remote are weak, dead, or installed incorrectly. Put new batteries in the remote. (Note, if you remove the batteries, you may have to reprogram the remote to operate other components.) Don't press any buttons when removing the batteries.
- Operate the remote control or wireless keyboard at a distance of no more than 20 feet.
- You might need to drain the remote's microprocessor: remove batteries and press the number 1 button for at least 60 seconds. Release the 1 button, replace the batteries, and (if necessary) program the remote again.

Care and Cleaning

CAUTION: Unplug your decoder before cleaning.

You can clean the unit as required, using a soft lint-free cloth. Be sure to occasionally dust the ventilation slots in the cabinet to help assure adequate ventilation.

Never use strong cleaning agents, such as ammonia-based cleaners, or abrasive powder. These types of cleaners will damage the unit.

Never place drinks or vases with water on top of the unit. This could increase the risk of fire or shock hazard or damage to the decoder.

Service Information

If you purchased or leased your IP video decoder directly from your service provider, then warranty service for the decoder may be provided through your service provider or its authorized representative. For information on Ordering Service, Obtaining Customer Support, or Additional Service Information, please contact your service provider.

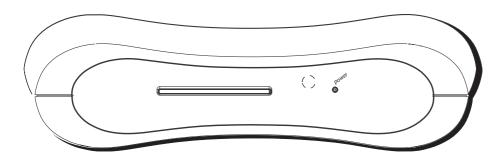
FCC and Industry Canada Information

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try and correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect this equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult your service provider or an experienced radio/TV technician for help.

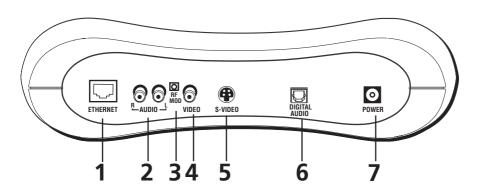
FCC regulations state that unauthorized changes or modifications to this equipment may void the user's authority to operate it.

This Class B digital apparatus complies with Canadian ICES-003.



Front of the Decoder

Power indicator – Indicates whether the unit is on or in standby mode. Flashes when there is a broken connection to the service provider or service is momentarily unavailable.



Back of the Decoder

When connecting, make sure you connect Output jacks to Input jacks, Video to Video, Right Audio to Right Audio, etc. A description of each jack follows.

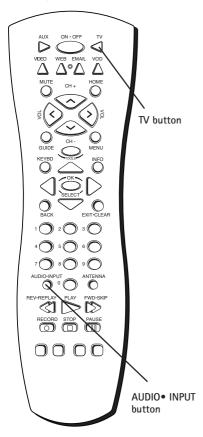
Description of Jacks (from left to right)

- 1. ETHERNET Connects to your Ethernet cable from your home network or modem.
- 2. AUDIO OUT (R and L) Connects your decoder to a TV or A/V receiver for improved sound.
- RF MOD Connects to the RF modulator (not included) to power the modulator. This connection is only necessary if your TV or VCR doesn't have audio / video input jacks.
- 4. VIDEO OUT Connects to the Video Input jack on your TV.
- 5. **S-VIDEO OUT –** If your TV has an S-VIDEO jack, connects your TV for better picture quality than using the VIDEO jack.
- 6. **DIGITAL AUDIO OUT OPTICAL** Connects your decoder to a Dolby Digital receiver or decoder using a digital optical connection.
- 7. POWER Connects to the power supply.

How to Find Your TV's Video Input Channel

You must tune your TV to the video input channel if you are using the IP video decoder's Audio/Video (A/V) OUT jacks to connect to the TV's A/V input jacks. You must select the TV's video input channel before you can see the decoder's menus or programming.

The video input channel for TVs varies by brand and model. Below are some steps to try to find your TV's video input channel:



If you programmed your remote control to operate your TV (instructions on page 14), and you are using audio/video jacks, press the AUDIO•INPUT button to find the Video Input Channel.

- If your TV brand is RCA, GE, or Proscan, press the TV button on the decoder's remote control, then press the AUDIO INPUT button.
- If you have another brand of TV, see page 14 to see if the decoder's remote can be programmed to control your TV.
 If so, once completed, follow the step above.

If those options do not work, try the following ideas. You might access the video input channel by:

- Pressing a button on the TV's remote control (see the table below).
- Selecting a specific channel from the TV's on-screen menu system (see the table below).
- Tuning directly to the video input channel by selecting a specific channel number (see the table below)
- Going through all available channels by pressing the channel up or down buttons on the TV or its remote control.

Video Input	Channel Variation	S
Button/Switch on the TV	Button on the TV Remote	Channel Number
VIDEO SIGNAL VID 1 VID 2 S-VID S-VIDEO	VID 1 LINE VID VIDEO S-VID INPUT S-VIDEO SOURCE AUX	00 90 91 92 93 VID 1 VID 2





Visit the RCA website at www.rca.com

Please do not send any products to the Indianapolis address listed in this manual or on the carton. This will only add delays in service for your product.

Thomson Inc. 10330 North Meridian Street Indianapolis, IN 46290

©2003 Thomson Inc. Trademark(s)® Registered Marca(s) Registrada(s) Printed in Taiwan TOCOM 16195310

