## Programming the Remote Control

## Introduction

In addition to operating your digital home communications terminal (DHCT), you can program the E2050 (ER1) Remote Control (remote) to operate your TV and VCR. To program the remote, use the following procedures.

## Using Mode Keys

Press the appropriate mode key to switch the remote control operation to the configured device


Programming for TV Operation
The remote for the DHCT can control the power, volume up and down, and mute functions on your TV. Use the following steps to program the remote for your TV

1. If your TV is plugged into your DHCT, then turn on the power to your DHCT.
2. Turn on the power to your TV
3. Locate your TV brand and setup code in the TV Setup Codes list in this guide. If your TV brand is not listed, see Searching the Code Library.
4. Point the remote away from your DHCT, TV, and VCR
5. On your remote, press and hold TV and SELECT at the same time until the light on the remote blinks twice.
6. Using the keypad on your remote, enter the 3-digit setup code for your TV brand. The light on the remote blinks twice.
7. Confirm the setup code works by pointing the remote toward your TV and test the POWER, VOLUME, and MUTE functions.
8. Did the TV operate correctly?

- If yes, write down the TV code that worked in the Record of Codes section in this guide. You may need it again if the device code is accidently erased.
- If no, repeat this procedure from step 2 using a different setup code.
Note: If you programmed the remote to adjust the volume on your DHCT rather than the volume on the TV, test only the POWER function.


## Programming for VCR Operation

Your remote can control the VCR power, tape play, record, fast forward, rewind, stop, and TV/VCR functions for many VCR models. Use the following steps to manually set up your VCR to record programs.

1. Turn on the power to your VCR and insert a videotape.
2. Move the VCR/VOD slide switch on the remote to the VCR position.
3. Locate your VCR brand and setup code in the VCR Setup Codes list in this guide. If your VCR brand is not listed, see Searching the Code Library.
4. Point the remote away from your DHCT, TV, and VCR.
5. On your remote, press and hold VCR and SELECT at the same time, until the light on the remote blinks twice.
6. Using the keypad on the remote, enter the 3-digit setup code for your VCR brand. The light on the remote blinks twice.
7. Confirm the setup code works by pointing the remote toward your VCR and test the POWER, PLAY, and STOP functions.

## Controlling Volume

Programming for Volume Control
You can program the remote to control the volume and mute functions through the DHCT, or through your TV. The default is through your TV.

1. Point the remote azvay from your DHCT, TV, and VCR.
2. Press and hold CBL and SELECT at the same time, until the light on the remote blinks twice.
3. Press 99 3. The light on the remote blinks twice.
4. Press the TV key or the CBL key, depending on which device you want to control the volume. The light on the remote blinks twice to confirm a valid selection.
5. Point the remote toward the device on which you chose to control the volume, and adjust the volume to confirm operation.
6. Did the VCR operate correctly?

If yes, write down the VCR code that worked in the Record of Codes section in this guide. You may need it again if the device code is accidently erased.
If no, repeat this procedure from step 2 using a different setup code.

## Searching the Code Library

If none of the codes listed for your device work, you can search the code library for a valid code. The remote automatically selects the proper code for your TV or VCR.

1. Turn on the device in question before you search for a code.
2. Point the remote away from the device you are programming.
3. To search for the code, press and hold SELECT and the appropriate mode key (CBL, TV, VCR) until the light on the remote blinks twice. For example, to search for a TV code, hold down SELECT and TV until the light blinks twice.
4. Press 99 1. The light blinks twice.
5. Point the remote toward the device, and press the appropriate mode key.
6. Did the device turn off?

- If yes, go step 7 .
- If no, repeat step 5 .

Note: The light on the remote blinks twice when you reach the end of the code library. This procedure searches the following number of codes in each library:

- VCR: 32 codes
- TV: 32 codes
- CBL: 20 codes

7. Press SELECT to confirm a valid code. The light on the remote blinks twice.
8. Point the remote toward the device you programmed and press POWER to confirm that the device powers on.

## FCC Compliance

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Note: 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 communication. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna. - Increase the separation between the - Increase the separation betw
- Connect the equipment into an outlet on a Connect the equipment into an outlet circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/ TV technician for help.
Any changes or modifications not expressly approved by Scientific-Atlanta could void the user's authority to operate this equipment.


## Record of Codes

Record your setup codes in the following table.


Important: If you are searching for a CBL code, and the remote does not find a suitable CBL code, go to the Programming for Cable Operation procedure and use code 260.

## Unlocking the CBL Mode Key

Your cable set-top device code is "locked" to keep you from changing the cable code unintentionally. If you need to program the remote to operate a different cable set-top device, use the following steps to unlock the CBL key

1. Press and hold SELECT and CBL until the light blinks twice.
2. Press $\mathbf{9} 96$.
3. Press CH- (channel down key) to unlock the set-top device code.
Result: You can now assign your CBL key to a different cable device; see the Programming for Cable Operation procedure.

## Programming for Cable Operation

Use the following steps if you need to program the remote to operate a different cable device.

1. Locate your cable brand in the Cable Setup Codes section in this guide.
2. Turn on your cable device.
3. Point the remote away from your DHCT, TV, and VCR.
4. Press and hold SELECT and CBL until the light blinks twice.
5. Enter the setup code for your cable device. The light on the remote should blink twice. If not, repeat this procedure using a different setup code; or go to Searching the Code Library.
6. Point the remote toward the cable device and test the code by pressing CBL.


Scientific
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## Model ER1 <br> Remote Control

User's Guide


## TVcientific h). Atlanta

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Notes:

- Program the remote control before you use your DHCT. See Programming the Remote Control for programming procedures.
- The remote requires two AA batteries (alkaline recommended). A diagram in the battery compartment of the remote indicates proper placement of the batteries. When batteries are properly installed, the light on the remote blinks each time a key is pressed.
- The ER1 Remote Control is not a toy. It should be kept out of the reach of children under the age of 6 years.


## Device Control

Viewing and Browsing Control

| 1 |  | DHCT on or off |
| :---: | :---: | :---: |
| 25 | $v$ 0 $b$ $i$ | VCR on or off |
| 26 | TV | TV on or off |
| 27 | (0) | Light |
| 13 |  | Switches control of fast forward and rewind function keys between your VCR and video-ondemand (VOD) program |

14 <V/VCs $\begin{aligned} & \text { Controls your TV/VCR } \\ & \text { function on your VCR }\end{aligned}$
15 Controls the optional BYPASS feature. (You can purchase an optional Bypass module. Refer to the RF Bypass Modul User's Guide.)

Sound Control

| 20 | Adjusts volume |
| :--- | :--- | :--- |
| 22 | Mutes sound |

VCRNOD Control
$10 \Leftrightarrow \quad$ Fast forwards VCR/VOD


18 Rewinds VCR/VOD

Plays VCR/VOD
17 II Pauses VCR/VOD


17 Pauses VCR/VOD
$3 \overbrace{\text { en }}^{\text {en }}$ Pages Up/Pages Down
Exits settings, menus, and guides

Selects options in menus and program guides

Displays program guide
Navigates through program guide or settings

Moves through menus or program guides

Selects and deselects screen item

Displays channel and program information

Selects channels, up or down

Enters channel numbers or personal identification number (PIN) for parental control

Views favorite channels
viewed

## TV Setup Codes

| You must enter all three digits to program the TV setup code. |  | Hallmark | 192 | Proscan | 061 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Harley Davidson |  | Proton | 192 |
|  |  |  | 193 | Pulsar | 031 |
|  |  | Harvard | 194 | Quasar | 065, 179, 264 |
| Admiral | 107 | Hitachi | 070, 159 | Radio Shack | 044, 061, 070, 168, |
| Adventura | 060 | Infinity | 068 |  | $\text { 179, 192, } 194$ |
| Aiko | 106 | Inteq | 031 | RCA | 061, 065, 104, 107, |
| Akai | 044 | Janeil | 060 |  |  |
| Alaron | 193 | JBL | 068 | Realistic | 044, 070, 168, 179, |
| Ambassador | 191 | JCB | 014 |  | 192, 194 |
| Anam | 194 | JVC | 067 | Runco | 031, 044, 053 |
| Anam National | 069, 194 | KEC | 194 | Sampo | 044 |
| AOC | 033, 044, 199 | Kenwood | 044 | Samsung | 044, 070, 074, 192 |
| Audiovox | 106, 194, 465 | Kloss | 060 | Sansei | 465 |
| Baysonic | 194 | KTV | 044, 194 | Sansui | 477 |
| Belcor | 033 | LG | 070 | Sanyo | 168 |
| Bell \& Howell | 030, 168 | Logik | 030 | Scotch | 192 |
| Bradford | 194 | Luxman | 070 | Scott | 192, 193, 194, 250 |
| Brocksonic | 250, 477 | LXI | 061, 068, 168, 170, | Sears | 061, 068, 070, 168, |
| Candle | 044, 060, 066, 070 |  | $192$ |  | 170, 185, 192, 193 |
| Carnivale | 044 | Magnavox | 044, 068, 193 | Semivox | 194 |
| Carver | 068 | Majestic | 030 | Semp | 170 |
| Celebrity | 014 | Marantz | 044, 068 | Sharp | 107, 179 |
| Cineral | 106, 465 | Matsushita | 264 | Signature | 030 |
| Citizen | 044, 060, 070, 074, | Megatron | 159, 192 | Sony | 014 |
|  | 106 | Memorex | 030, 070, 164, 168, | Soundesign | 192, 193, 194 |
| Concerto | 070 |  | 192, 264 | Squareview | 185 |
| Contec | 194 | MGA | 044, 164, 192 | SSS | 194 |
| Craig | 194 | Midand | 031, 061, 065, 149 | Starlite | 194 |
| Crosley | 068 | Minutz | 035 | Supre-Macy | 060 |
| Crown | 194 | Mitsubishi | 107, 164, 192 | Supreme | 014 |
| Curtis Mathes | $\begin{aligned} & \text { 030, 044, 061, 065, } \\ & 068,070,074,107, \\ & 159,168,180,465 \\ & \hline \end{aligned}$ | Motorola | 107 | Sylvania | 044, 068 |
|  |  | MTC | 044, 070, 074 | Symphonic | 185 |
|  |  | Multitech | 194 | Tandy | 107 |
| CXC | 194 | NAD | 170, 180, 192 | Tatung | 069 |
| Daewoo | 106, 465 | NEC | 044, 070 | Technics | 065, 264 |
| Denon | 159 | Nikko | 044, 106, 192 | Technol Ace | 193 |
| Dumont | 031 | NTC | 106 | Techwood | 065, 070 |
| Electroband | 014 | Onwa | 194 | Teknika | 030, 068, 070, 074, |
| Emerson | $\begin{aligned} & 168,191,192,193, \\ & 194,250,296,477 \end{aligned}$ | Optimus | 168, 180, 264 |  | 106, 164, 193, 194 |
|  |  | Optonica | 107, 179 | Telefunken | 070 |
| Envision | 044 | Orion | 193, 250, 477 | TMK | 070, 191, 192 |
| Fisher | 168 | Panasonic | 065, 264 | Toshiba | 074, 168, 170 |
| Fujitsu | 193 | Penney | $035,044,061,065,$ | Vector Resea |  |
| Funai | 185, 193, 194 | Penm | 070, 074, 149, 170, |  | 044 |
| Futuretech | 194 |  |  | Victor | 067 |
| GE | $\begin{aligned} & 035,061,065,107, \\ & 149,192,296,465 \\ & \hline \end{aligned}$ | Philco | 044, 068, 159, 477 | Vidikron | 068 |
|  |  | Philips | 068 | Vidtech | 192 |
| Gilbralter | 031, 044 | Pilot | 044 | Viking | 060 |
| GoldStar | 044, 070, 192 | Pioneer | 180 | Wards | 030, 035, 044, 068, |
| Gradiente | 067, 070 | Portland | 106 |  | $070,179,192,193$ |
| Grunpy | 193, 194 | Prism | 065 | Yamaha | 044 |
|  |  |  |  | Zenith | 030, 031, 106 |

## VCR Setup Codes

| You must enter all three digits to program the VCR setup code. |  | Jensen | 055 | Realistic | $\begin{aligned} & \text { 014, 049, 051, 060, } \\ & 061,062,118 \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | JVC | 055, 081 |  |  |
|  |  | KEC | 051, 292 | Runco | 053 |
|  |  | Kenwood | 052, 055, 081 | Samsung | 059, 254 |
| Admiral | 062 | KLH | 086 | Sanky | 053, 062 |
| Adventura | 014 | Kodak | 049, 051 | Sansui | 014, 055, 081 |
| Aiko | 292 | LXI | 051 | Sanyo | 060, 061, 118, 254 |
| Aiwa | 014, 051 | Lloyd's | 014, 222 | Scott | 057, 059, 135, 198, |
| Akai | 055, 075, 120 | Logik | 086 |  | 225, 226, 255 |
| American High | 049 | Magnasonic | 292 | Sears | 014, 049, 051, 056, |
| Asha | 254 | Magnavox | 014, 049, 053, 095 |  | 060, 061, 068, 118, |
| Audiovox | 051 | Magnin | 254 |  | 119 |
| Beaumark | 254 | Marantz | 049, 095 | Semp | 059 |
| Bell \& Howell | 118 | Marta | 051 | Sharp | 062 |
| Brocksonic | 016, 135, 198, 225 | Matsushita | 049, 176 | Shintom | 086 |
| CCE | 086, 292 | $\overline{\mathrm{MEI}}$ | 049 | Shogun | 254 |
| Calix | 051 | Memorex | 014, 049, 051, 053, | Singer | 086 |
| Canon | 049 |  | 060, 061, 062, 118, | Sony | 014, 046, 047,048, |
| Carver | 095 |  | 176, 254 |  |  |
| Cineral | 292 | MGA | 057, 075, 254 | STS | 056 |
| Citizen | 051, 292 | MGN Technology |  | Sylvania | 014, 049, 057, 095 |
| Colt | 086 |  | 254 | Symphonic | 014 |
| Craig | 051, 061, 086, 254 | Minotla | 056, 119 | TMK | 222, 254 |
| Curtis Mathes | 049, 055, 074, 176 | Mitsubishi | 057, 062, 075, 081 | Tatung | 055 |
| Cybernex | 254 | Motorola | 049, 062 | Teac | 014, 055 |
| Daewoo | 059, 292 | MTC | 014, 254 | Technics | 049, 176 |
| Denon | 056 | Multitech | 014, 086 | Teknika | 014, 049, 051 |
| Dynatech | 014 | NEC | 052, 055, 081, 118 | Thomas | 014 |
| Electrohome | 051 | Nikko | 051 | Toshiba | 057, 059, 226 |
| Electrophonic | 051 | Noblex | 254 | Totevision | 051, 254 |
| Emerex | 046 | Olympus | 049 | Unitech | 254 |
| Emerson | 014, 016, 051, 057, | Optimus | 051, 062, 118, 176 | Vector | 059 |
|  | 075, 135, 198, 222, | Orion | 016, 198 | Vector Research |  |
|  | 225, 226, 292 | Panasonic | 049, 176 | 052 |  |
| Fisher | 061, 068, 118 | Pentax | 056, 119 | Video Conc | 059, 075 |
| Fuji | 047, 049 | Philco | 049 | Videosonic | 254 |
| Funai | 014 | Philips | 049, 095 | Wards | 014, 049, 056, 061, |
| GE | 049, 062, 074, 254 | Pilot | 051 |  | 062, 074, 086, 095, |
| Garrard | 014 | Pioneer | 081, 176 |  | 226, 254 |
| GoldStar | 051, 052 | Profitronic | 254 | White Westin |  |
| Gradiente | 014 | Proscan | 074, 086 | XR-1000 | 292040 |
| HI-Q | 061 | Protec | 086 | XR-1000 | 052 |
| Harley Davidson |  | Pulsar | 053 |  | 052 |
|  | 014 | Quarter | 060 | Zenith | 014, 047, 053 |
| Harman/Kardon |  | Quartz | 060 |  |  |
|  | 052 | Quasar | 049, 176 |  |  |
| Harwood | 086 | RCA | 049, 056, 062, 074, |  |  |
| Headquarter | 060 |  | 119, 120, 254 |  |  |
| Hitachi | 014, 055, 056, 119 | Radio Shack | 014, 051 |  |  |
| JC Penney | 049, 051, 052, 056, | Radix | 051 |  |  |
|  | 068, 254 | Randex | 051 |  |  |

You must enter all three digits to program the cable setup code.

| Brand | Codes |
| :--- | :--- |
| ABC | $017,025,028,061$ |
| Everquest | 029 |
| Gemini | 029 |
| General Instruments | $025,290,490$ |
| Goldstar | 158 |
| Hitachi | 025 |
| Jerrold | $017,025,026,028,029$, |
|  | $038,061,112,290,490$ |
| Magnavox | 046 |
| Memorex | 014 |
| Motorola | $025,290,490$ |
| Panasonic | 014 |
| Paragon | 014 |
| Pioneer | $037,158,274,547$ |
| Pulsar | 014 |
| Radio Shack | 029 |
| Rembrandt | 025 |
| Runco | 014 |
| Samsung | 158 |
| Scientific-Atlanta | 491 |
| Signal | 029 |
| Signature | 025 |
| Starcom | $017,029,061,112$ |
| Stargate | 029 |
| Starquest | 029 |
| Tocom | 026 |
| Toshiba | 014 |
| Tusa | 029 |
| United Cable | 017 |
| Zenith | $014,068,539$ |

