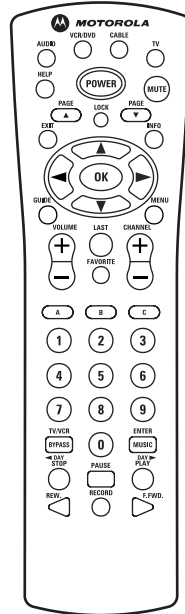


**MOTOROLA**  
**DRC450**  
**UNIVERSAL REMOTE CONTROL**



MADE IN INDONESIA

**USER GUIDE**

**OVERVIEW**

The Motorola DRC450 universal remote will control up to four devices, including Motorola's interactive digital terminals\*, most TVs, VCRs, Amplifiers, DVD players, PVRs, Tuners, and CD players.

\*NOTE: Digital models include the DCT1000, DCT1200, DCT1700, DCT2000, DCT2500, and DCT5100. The DRC450 can also control older Motorola analog models like the CT1900, CFT2100, CFT2200, and CFT3300.

The DRC450 requires two new AA alkaline batteries (included) and has easy programming to control your Motorola interactive digital terminal, as well as all of the basic functions of your other original remote controls. Moreover, the DRC450 helps eliminate the need to use multiple remote controls.

For best results, please read and perform all instructions listed herein. Also, keep these instructions for future reference.

**FEATURES AND FUNCTIONS**

Use the DRC450 mode keys (i.e., **AUDIO**, **VCR/DVD**, **CABLE**, or **TV**) to control a specific device. When pressed, the selected mode key will light, confirming your choice. Use the other keys to perform desired actions (see the following key chart).

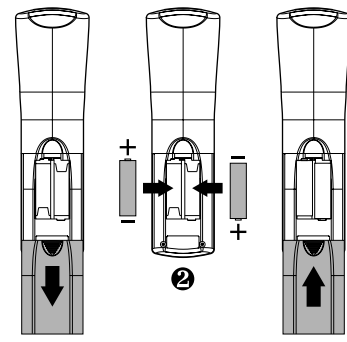
NOTE: The selected mode will remain active until you press another mode key.

	Press <b>AUDIO</b> , <b>VCR/DVD</b> , <b>CABLE</b> , or <b>TV</b> once to control a device.
	Press <b>POWER</b> once to turn on or off the selected home entertainment device.
	Press <b>HELP</b> once to display the help screen.
	Press <b>MUTE</b> once to turn sound off or on.
	Use <b>PAGE ▲</b> (or <b>PAGE ▼</b> ) to page up (or down) through menu screens and the electronic program guide.
	Use <b>LOCK**</b> to restrict viewing of selected programs (Parental Control).
	Use <b>EXIT</b> to exit menu or guide.
	Use <b>INFO</b> to display current channel and program information.
	Use these keys to move the cursor in the electronic program guide and menu screens.
	Use <b>OK**</b> to chose menu options, PPV events, and to tune programs from the electronic program guide.
	Use <b>GUIDE</b> to display the electronic program guide.
	Use <b>MENU</b> to display the main menu.
	In <b>TV</b> or <b>CABLE</b> mode, use <b>VOLUME +</b> (or <b>VOLUME -</b> ) to raise (or lower) sound volume.
	Use <b>CHANNEL +</b> (or <b>CHANNEL -</b> ) to select the next higher (or lower) channel.
	Use <b>LAST</b> to recall last channel or go back one screen in the menu.
	In the <b>CABLE</b> mode, press <b>FAVORITE</b> once to display programmed favorite cable channels.
	These functions are set by your cable system operator.
	Use the keypad ( <b>0 ~ 9</b> ) to directly select the channels (e.g., 09 or 031).

	Press <b>TV/VCR BYPASS</b> once to switch VCR to view TV or tape (not supported by all applications).
	Use <b>ENTER/MUSIC</b> to display menu of digital music channels, or to enter channels on some TV models.
	In the <b>VCR/DVD</b> and <b>TV</b> modes, use the <b>STOP</b> , <b>PAUSE</b> , <b>PLAY</b> , <b>REW.</b> , and <b>F.FWD.</b> keys to control a VCR (or DVD player). To record a program on a VCR, press <b>RECORD</b> once.
	In the <b>CABLE</b> mode, press <b>DAY&gt;</b> (or <b>&lt;DAY</b> ) once to move the electronic program guide ahead (or back) 24 hours.

\*\*NOTE: Functionality of the **LOCK** and **OK** keys are dependent on the software and the model of Motorola interactive digital terminal.

**INSTALLING BATTERIES**



- On the DRC450's back, pull back the battery cover and remove it.
- Use the two (2) supplied fully-charged AA alkaline batteries. Match their + and - marks to the + and - marks in the battery case, then insert the batteries.
- Push the battery cover back into place.
- Test the unit by pressing **POWER** and any mode key (e.g., **AUDIO**, **VCR/DVD**, **CABLE**, or **TV**). If the batteries are inserted correctly, the selected mode key will be lit.

NOTE: When a selected mode key blinks two times with each key press, this indicates that the batteries are getting low. Replace them within 20 minutes; otherwise the DRC450 may lose its settings and require reprogramming.

**PROGRAMMING A SPECIFIC DEVICE CONTROL**

The DRC450 is preprogrammed at the factory to operate a RCA TV and VCR (or DVD player), a Motorola (General Instrument) interactive digital terminal, and a Pioneer audio device. To control devices other than the default brands, perform the following steps; otherwise skip this section:

NOTE: For programming TV/VCR Combo control, see the next section.

- Turn on a device (e.g., VCR) and, if applicable, insert media, (e.g., cassette or disc).

- On the DRC450, press and hold a mode key (i.e., **AUDIO**, **VCR/DVD**, **CABLE**, or **TV**) for at least 6 seconds, until you see the programming mode start. Each mode key light will turn off and on sequentially, starting with **AUDIO** on through **TV**, and the sequence will repeat twice. At this time, release the mode key and wait until it's lit continuously.

- Locate the code for your device in *Manufacturer's Codes* on the back of this user guide. Brands are listed in alphabetical order with the most popular codes listed first.
- Enter the first four-digit code for your device. If you perform this procedure correctly, the selected mode key will blink three times.

NOTE: If you enter an invalid code, the selected mode key will turn off. Repeat steps 2 through 4 with a valid code.

- Aim the DRC450 at your device and press **POWER** once. The device should turn off. If it does not respond, repeat steps 2-4, trying each code listed for your brand until you find one that works. If it still does not work, try *Searching For Your Code*.

NOTE: If the device does not have a **POWER** key, press the **▶ (Play)** key.

- For future reference, write your device code in the appropriate boxes below:

**AUDIO Code:**

Device Type: \_\_\_\_\_

**VCR/DVD Code:**

Device Type: \_\_\_\_\_

**CABLE Code:**

**TV Code:**

- Repeat steps 1 through 6 for each device you want to control.

**PROGRAMMING TV/VCR COMBO CONTROL**

- Turn on the TV/VCR Combo and insert a video cassette.

NOTE: Please read steps 2-4 completely before proceeding. Highlight or write down the codes and device you wish to program before moving on to step 2.

- On the DRC450, press and hold a mode key (i.e., **AUDIO**, **VCR/DVD**, **CABLE**, or **TV**) for at least 6 seconds, until you see the programming mode start. Each mode key light will turn off and on sequentially, starting with **AUDIO** on through **TV**, and the sequence will repeat twice. At this time, release **VCR/DVD** and wait until it's lit continuously.

- Locate the code for your device in *Setup Codes For TV/VCR Combos* on the back. Brands are listed in alphabetical order with the most popular codes listed first.
- Enter the first four-digit code for your device. If you perform this procedure correctly, **VCR/DVD** will blink three times.

NOTE: If you enter an invalid code, **VCR/DVD** will turn off. Repeat steps 2 through 4 with a valid code.

- Aim the DRC450 at the TV/VCR combo and press **POWER** once. The device should turn off. If it does not respond, repeat steps 2-4, trying each code listed for your brand until you find one that works. If it still does not work, try *Searching For Your Code*.

NOTE: If the device does not have a **POWER** key, press the **▶ (Play)** key.

NOTE: If you've located a TV/VCR code that works, but it has a separate TV code, you'll also need to program it into DRC450 to access volume control. Perform the steps in "Programming Device Control" and use **TV** for the mode key (e.g., press and hold **TV**).

- For future reference, write your device codes in the boxes below:

**TV/VCR Combo Code:**

**TV Code (if used):**

**SEARCHING FOR YOUR CODE**

If your home entertainment device does not respond to the DRC450 after trying all of the codes listed for your brand, or if your brand is not listed at all, try searching for your code.

For example, after trying all of the codes for your TV, you still cannot get the DRC450 to operate your TV, then:

- Turn on your TV.
- On the DRC450, press and hold **TV** (at least 6 seconds) until you see the programming mode start. Each of the mode key lights will turn off and on sequentially, starting with **AUDIO** on through **TV**, and the sequence will repeat twice. During this time, release **TV** and wait until it's lit continuously.
- Press the **▲ (Up)** cursor key once to start the search mode.

NOTE: In the search mode, the DRC450 will send IR codes from its library to the selected component, starting with the most popular codes first. When the device responds to a subsequent key command (e.g., **POWER**), the correct device code will be found.

- Press **POWER** once. The **TV** key will light on and off, showing that an IR code has been sent.
- If your television does not turn off, press the **▲ (Up)** cursor key once again to call up the next IR code and press **POWER** once again.

- If your television still does not turn off, repeat step 5 as many times as needed until your TV turns off.
- When your television does turn off, a working code has been found. Press **OK** once to save the code and the **TV** key will blink three times, confirming the selection.

- To search for the codes of your other devices, repeat steps 1 through 7, but substitute the appropriate mode key (i.e., **VCR/DVD**, **CABLE**, or **AUDIO**) for the device you are searching for.

**CHECKING THE CODES**

If you have set up the DRC450 using the *Searching For Your Code* procedure, you may need to find out which four-digit code is operating your equipment.

Perform the following procedure after you have set up your devices to find out which four-digit code is operating your equipment. For example, to find out which code is operating your TV:

- Turn on your TV.

- On the DRC450, press and hold **TV** (at least 6 seconds) until you see the mode light sequence start. Each of the mode key lights will turn off and on sequentially, starting with **AUDIO** on through **TV**, and will repeat twice. During the sequence, release the **TV** key and wait until it stays lit continually.

- Press **9 - 9 - 0**. The **TV** key will blink three times.
- To view the code for the first digit, press and release **1**. Count the number of **TV** key blinks (e.g., 3 blinks = 3) and write down the number in the leftmost TV code box in step 6 of *Programming Device Control*.

NOTE: The mode key will not blink if the code digit is a "0".

- Repeat step 4 three more times for each successive digit by pressing and releasing **2**, **3**, and then **4**. Finish writing down the TV code in the remaining TV code boxes.

- To check for the codes of your other devices, repeat steps 1 through 5, only substitute the appropriate mode key (i.e., **VCR/DVD**, **CABLE**, or **AUDIO**) for the device you are checking. Write down the codes in the appropriate device code boxes (see step 6 of *Programming Device Control*).

**CHANGING VOLUME LOCK**

Your new DRC450 is set to control the volume of a device through its associated mode (i.e., through the *Motorola interactive digital terminal* in the Cable mode, through the *TV* in the TV mode, through the *VCR or DVD player* in the VCR/DVD mode, and through the *audio device* in the Audio mode). If your TV is not remote controllable, or if you would like the volume to be controlled by a different device, you can change the Volume Lock setting to control a volume through a non-associated mode (e.g., through the *Motorola interactive digital terminal* in the TV mode).

Changing the Volume Lock setting to the Cable, VCR/DVD, or TV mode will change the volume control for all modes except Audio, which will continue to control its own volume. If you change the Volume Lock setting to the Audio mode, all modes (i.e., Audio, Cable, VCR/DVD, and TV) will be controlled by the Audio mode.

**To Change The Volume Lock Setting To Another Mode:**

- On the DRC450, press and hold a mode key (i.e., **AUDIO**, **VCR/DVD**, **CABLE**, or **TV**) for at least 6 seconds, until you see the programming mode start. Each mode key light will turn off and on sequentially, starting with **AUDIO** on through **TV**, and the sequence will repeat twice. At this time, release the mode key and wait until it's lit continuously.
- Press and release **VOLUME +**.
- The mode key's light will blink three times, indicating volume has been locked to the selected mode.
- Now, whenever you press **VOLUME +**, **VOLUME -**, or **MUTE** on the DRC450, volume will be controlled by selected mode, independent of the current mode.

**To Unlock Volume Lock:**

- On the DRC450, press and hold a mode key (at least 6 seconds) until you see the programming mode start. Each mode key light will turn off and on sequentially, starting with **AUDIO** on through **TV**, and the sequence will repeat twice. During this time, release the mode key and wait until it's lit continuously.
- Press and release **VOLUME -**.
- The mode key light will blink three times, indicating volume has been unlocked for the selected mode.
- Now, whenever you press **VOLUME +**, **VOLUME -**, or **MUTE** on the DRC450, the volume controls will reset to their original device.

**TROUBLESHOOTING**

<b>PROBLEM:</b>	A mode key does not blink or blinks 2 times when you press a key.
<b>SOLUTION:</b>	Replace the batteries with two (2) new AA alkaline batteries.
<b>PROBLEM:</b>	A mode key blinks when you press a key, but home entertainment component does not respond.
<b>SOLUTION:</b>	Make sure the DRC450 is aimed at your home entertainment device and is not farther than 15 feet away.

continued on back...

**TROUBLESHOOTING (continued)**

**PROBLEM:** DRC450 does not control home entertainment devices or commands are not working properly.

**SOLUTION:** Try all listed codes for the device brands being set up. Make sure they can be operated with an infrared remote control.

**PROBLEM:** TV/VCR combo does not respond properly.

**SOLUTION:** Use the VCR codes for your brand. Some combo units may require both a TV code and a VCR code for full operation.

**PROBLEM:** **CHANNEL+**, **CHANNEL-**, and **LAST** do not work for your RCA TV.

**SOLUTION:** Due to RCA design (1983-1987), only the original remote control will operate these functions.

**PROBLEM:** Changing channels does not work properly.

**SOLUTION:** If original remote control required pressing Enter to change channels, press **ENTER** on the DRC450 after entering the channel number.

**MANUFACTURER'S CODES**

**Setup Codes For Audio Amplifiers**

Aiwa	0406
Carver	0269
Curtis Mathes	0300
Denon	0160
GE	0078
Harman/Kardon	0892
JVC	0331
Left Coast	0892
Linn	0269
Magnavox	0269
Marantz	0892, 0321, 0269
Nakamichi	0321
Optimus	0395, 0300
Panasonic	0308
Philips	0892, 0269
Pioneer	0013, 0300
Polk Audio	0892, 0269
RCA	0300
Realistic	0395
Sansui	0321
Sony	0689, 0220
Soundesign	0078
Technics	0308
Victor	0331
Wards	0078, 0013
Yamaha	0354

**Setup Codes For Audio Receivers**

ADC	0531
Aiwa	1089, 1405, 0121, 0158, 0189, 0405
Audiotronic	1189
Bose	1229
Capetronic	0531

Carver	1089, 1189, 0042, 0189, 0360
Casio	0195
Clarinette	0195
Curtis Mathes	0080
Denon	1104, 1160, 0004
Emerson	0424
Fisher	0042, 0360
Garrard	0424, 0463
Harman/Kardon	0110, 0189, 0891
Hewlett Packard	1181
JBL	0110
JVC	0074
Kenwood	1313, 1027, 1570, 1569, 0027, 0042, 0186
Koss	0424
LXI	0181
Linn	0189
Lloyd's	0195
MCS	0039
Magnavox	1089, 1189, 0189, 0195, 0391, 0531
Marantz	1089, 1189, 0039, 0189
Modulaire	0195
Motorola	1191
Musicmagic	1089
Nakamichi	0097
Onkyo	0135
Optimus	1023, 0042, 0080, 0181, 0186, 0531, 0670, 0738, 0801
Panasonic	1518, 0039, 0309, 0367
Penney	0195
Philips	1089, 1189, 1269, 0189, 0391, 1120
Pioneer	1023, 0014, 0080, 0150, 0244, 0531, 0630
Polk Audio	0189
Proscan	1254
Quasar	0039
RCA	1023, 1254, 0080, 0360, 0531
Realistic	0181, 0195
Sansui	1089, 0189
Samyo	0801
Sharp	0186
Sherwood	0491, 0502
Sony	1058, 1258, 1158, 0158, 0474
Soundesign	0670
Stereophonics	1023
Sunfire	1313
Teac	0463
Technics	1308, 1309, 1518, 0039, 0309
Thorens	1189
Victor	0074
Wards	0014, 0080, 0158, 0189
Yamaha	0176, 0186, 1176
Yorx	0195
Zenith	0857

**Setup Codes For Cable Converters (Interactive Digital Terminals)**

Director	0476
General Instrument	0476
Jerrold	0476, 0276
Motorola	0476, 0276
Supercable	0276

**Setup Codes For CD Players**

Aiwa	0157, 0124
Burmester	0420
California Audio Labs	0029, 0303
Carver	0157, 0179, 0437
DKK	0000
DMX Electronics	0157
Denon	0873, 0003
Emerson	0305
Fisher	0174, 0179
Garrard	0393, 0420
Genexxa	0032, 0305
Harman/Kardon	0157, 0173
Hitachi	0032
JVC	0072
Kenwood	0681, 0826, 0626, 0028, 0037, 0190
Krell	0157
LXI	0305
Linn	0157

MCS	0029
MTC	0420
Magnavox	0157, 0305
Marantz	0626, 0029, 0157, 0180
Miro	0000
Mission	0157
NSM	0157
Nikko	0174
Onkyo	0868, 0101
Optimus	1063, 0000, 0032, 0037, 0145, 0179, 0305, 0420, 0437, 0468
Panasonic	0029, 0303
Parasound	0420
Philips	0626, 0157
Pioneer	1063, 1062, 0032, 0305, 0468
Polk Audio	0157
Proton	0157
QED	0157
Quasar	0029
RCA	1062, 0032, 0053, 0179, 0305, 0468, 0764
Realistic	0179, 0180, 0420
Rotel	0157, 0420
SAE	0157
Sansui	0157, 0305
Samyo	0179
Scott	0305
Sears	0305
Sharp	0861, 0037, 0180
Sherwood	1067, 0180
Sonic Frontiers	0157
Sony	0490, 0000, 0185
Soundesign	0145
Tascam	0420
Teac	0174, 0180, 0393, 0420
Technics	0029, 0303
Victor	0072
Wards	0157, 0053
Yamaha	0888, 0036, 0187
Yorx	0461

**Setup Codes For DVD Players**

Aiwa	0641
Apex	0672, 0755
Blue Parade	0571
Denon	0490, 0634
Emerson	0591
Enterprise	0591
Fisher	0670
GE	0522, 0717
Go Video	0715
Gradiente	0651
Greenhill	0717
Harman/Kardon	0582
Hitachi	0573, 0664
Hiteker	0672
JVC	0558, 0623
Kenwood	0534, 0682
Konka	0711, 0719, 0720, 0721
Magnavox	0503, 0675
Marantz	0539
Microsoft	0522
Mitsubishi	0521
NAD	0704
Onkyo	0503, 0627
Oritron	0651
Panasonic	0490, 0632, 0677
Philips	0503, 0539
Pioneer	0525, 0571, 0632
Princeton	0674
Proscan	0522
RCA	0522, 0571, 0717
Samsung	0573
Samyo	0670
Sharp	0630
Sherwood	0633
Sony	0533
Technics	0490
Techwood	0692
Theta Digital	0571
Toshiba	0503
Urban Concepts	0503
Yamaha	0490, 0545
Linn	0157

Daewoo	0451, 0019, 0039, 0092, 0623, 0624
Daytron	0019
Denon	0145
Dumont	0017, 0019
Dwin	0720, 0774
Electroband	0000, 0185
Electrohome	0381
Emerson	0154, 0236, 0463, 0180, 0282, 0178, 0019, 0179, 0039, 0038, 0177, 0185, 0280, 0623, 0624
Envision	0030
Fisher	0154, 0159
Fujitsu	0179, 0683
Funai	0180, 0179, 0171
Futuretech	0180
GE	0047, 0051, 0451, 0093, 0282, 0178, 0021, 0055, 0027, 0135, 0747, 1147, 1347
Gibraltar	0017, 0030, 0019
GoldStar	0030, 0178, 0019, 0056, 0001, 0032
Gradiente	0053, 0056
Grumpy	0180, 0179
Hallmark	0178
Harley Davidson	0179
Harman/Kardon	0054
Harvard	0180
Havermy	0093
Hitachi	0145, 0056, 0016, 0032, 0038, 0151
Infinity	0054
Inteq	0017
JBL	0054
JCB	0000
JVC	0053
Jancel	0046
KEC	0180
KTV	0180, 0030, 0039, 0185, 0217, 0280
Kaypani	0052
Kenwood	0030, 0019
Kloss	0024, 0046
Konka	0628, 0632, 0638, 0703, 0707
LG	0056
LXI	0047, 0054, 0154, 0156, 0178, 0747
Logik	0016
Luxman	0056
MEI	0185

**Setup Codes For TVs**

A-Mark	0003
AOC	0030, 0019, 0003, 0052, 0185
Abex	0032
Admiral	0093, 0463
Adventura	0046
Aiko	0092
Aiwa	0701
Akai	0030
Alaron	0179
Ambassador	0177
America Action	0180
Ampro	0751
Anam	0180
Anam National	0055
Archer	0003
Audiovox	0451, 0180, 0003, 0092, 0623
Baysonic	0180
Belcor	0019
Bell & Howell	0154, 0016
Bradford	0180
Brookwood	0019
Broksonic	0236, 0463, 0003
CCE	0217
CXC	0180
Candle	0030, 0056, 0046, 0186
Carnivale	0030
Carver	0054
Celebrity	0000
Cineral	0451, 0092
Citizen	0060, 0030, 0056, 0039, 0046, 0092, 0186, 0280
Clairtone	0185
Concerto	0056
Contec	0180, 0157, 0185
Craig	0180
Crosley	0054
Crown	0180, 0039
Curtis Mathes	0047, 0054, 0154, 0051, 0451, 0093, 0060, 0030, 0145, 0056, 0016, 0039, 0166, 0466, 0747, 1147, 1347
Daewoo	0451, 0019, 0039, 0092, 0623, 0624
Daytron	0019
Denon	0145
Dumont	0017, 0019
Dwin	0720, 0774
Electroband	0000, 0185
Electrohome	0381
Emerson	0154, 0236, 0463, 0180, 0282, 0178, 0019, 0179, 0039, 0038, 0177, 0185, 0280, 0623, 0624
Envision	0030
Fisher	0154, 0159
Fujitsu	0179, 0683
Funai	0180, 0179, 0171
Futuretech	0180
GE	0047, 0051, 0451, 0093, 0282, 0178, 0021, 0055, 0027, 0135, 0747, 1147, 1347
Gibraltar	0017, 0030, 0019
GoldStar	0030, 0178, 0019, 0056, 0001, 0032
Gradiente	0053, 0056
Grumpy	0180, 0179
Hallmark	0178
Harley Davidson	0179
Harman/Kardon	0054
Harvard	0180
Havermy	0093
Hitachi	0145, 0056, 0016, 0032, 0038, 0151
Infinity	0054
Inteq	0017
JBL	0054
JCB	0000
JVC	0053
Jancel	0046
KEC	0180
KTV	0180, 0030, 0039, 0185, 0217, 0280
Kaypani	0052
Kenwood	0030, 0019
Kloss	0024, 0046
Konka	0628, 0632, 0638, 0703, 0707
LG	0056
LXI	0047, 0054, 0154, 0156, 0178, 0747
Logik	0016
Luxman	0056
MEI	0185

MGA	0150, 0030, 0178, 0019
MTC	0060, 0030, 0019, 0056, 0185
Magnavox	0054, 0030, 0179, 0020, 0024, 0096, 0186, 0187, 0386, 1254
Majestic	0016
Marantz	0054, 0030
Matsushita	0250
Megatron	0178, 0145, 0003
Memorex	0154, 0250, 0463, 0150, 0178, 0179, 0056, 0016
Midland	0047, 0017, 0051, 0039, 0032, 0135, 0747
Minutz	0021
Mitsubishi	0093, 0150, 0178, 0019
Motorola	0093, 0055
Multitech	0180, 0217
NAD	0156, 0178, 0166
NEC	0030, 0019, 0056, 0497
NTC	0092
Nikko	0030, 0178, 0092
Noshi	0018
Onwa	0180
Optimus	0154, 0250, 0166
Optonica	0093, 0165
Orion	0236, 0463, 0179
Panasonic	0250, 0051, 0055
Penney	0047, 0156, 0051, 0060, 0030, 0178, 0021, 0019, 0018, 0056, 0039, 0003, 0027, 0032, 0135, 0747, 1347
Philco	0054, 0463, 0030, 0145, 0019, 0020, 0096
Philips	0054
Pilot	0030, 0019, 0039
Pioneer	0038, 0166, 0679
Portland	0019, 0039, 0092
Princeton	0717
Prism	0051
Proscan	0047, 0747
Proton	0178, 0003, 0052, 0466
Pulsar	0017, 0019
Quasar	0250, 0051, 0165, 0055
RCA	0047, 0051, 0093, 0019, 0018, 0038, 0090, 0135, 0679, 0747, 1047, 1147, 1247, 1347, 1447
RadioShack	0047, 0154, 0165, 0180, 0030, 0178, 0019, 0056, 0039, 0032, 0747
Realistic	0154, 0165, 0180, 0030, 0178, 0019, 0056, 0039, 0032
Rhapsody	0185
Runco	0017, 0030, 0497, 0603
SSS	0180, 0019
Sampo	0030, 0039, 0032, 0052
Samsung	0060, 0030, 0178, 0019, 0056, 0032
Samsux	0039
Sansai	0451
Sansui	0463
Sanyo	0154, 0146, 0159
Scimitsu	0019
Scotch	0178
Scott	0236, 0180, 0178, 0019, 0179
Sears	0047, 0054, 0154, 0156, 0178, 0179, 0056, 0146, 0159, 0171, 0747
Semivox	0180
Semp	0156
Sharp	0093, 0165, 0039, 0157, 0386, 0688
Shogun	0019
Signature	0016
Simpson	0186, 0187
Sony	0000, 0080, 0111
Soundesign	0180, 0178, 0179, 0186
Spectricon	0003
Squareview	0171
Starlite	0180
Supre-Macy	0046
Supreme	0000
Sylvania	0054, 0030, 0020, 0096, 0381
Symphonic	0180, 0171
TMK	0178, 0056, 0177
TNCi	0017
Tandy	0093
Tatung	0055, 0003
Technics	0250, 0051
Technol Ace	0179
Techwood	0051, 0056, 0003
Teknika	0054, 0180, 0150, 0060, 0019, 0179, 0056, 0016, 0039, 0092, 0186
Telefunken	0056
Toshiba	01