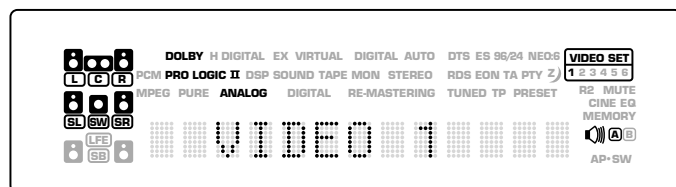
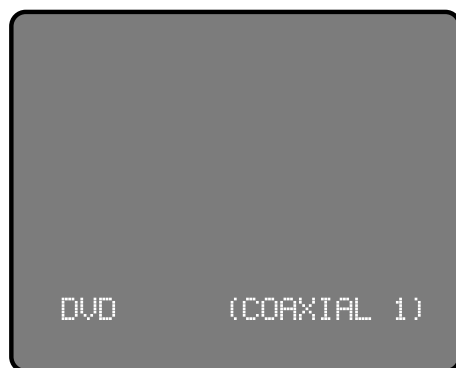


Model 990 Front Panel and On Screen Display



Example of Front Panel Display when an input source is selected.

Example of On Screen Display when an input source is selected.



Example of On Screen Display when the Main Menu is selected.



Front Panel and On-screen Display (OSD)

The front-panel display and on-screen display (OSD) provide visual feedback of the current settings, surround modes, and configuration menus of the unit. Information is constantly displayed at the front panel whenever the Model 990 is turned on.

To use the OSD, the unit must be connected to your display device using either the COMPOSITE VIDEO OUTPUT or S-VIDEO OUTPUT jacks. You may also view the OSD using the COMPONENT VIDEO OUTPUT, but the picture may blank temporarily when you activate the menu system. If both S-Video and composite video signals are input into the Model 990, the OSD can be viewed only through the S-VIDEO OUTPUT jack.

The information presented in the front-panel display will in most cases reflect what is displayed in the OSD, but certain operations require that you use one or the other.

Remote Controls

The Model 990 comes with two remote controls. One is a relatively large, full-function unit that controls all of the Model 990's functions and can also be programmed to control other devices in your audio/video system. The other is a smaller, simpler remote designed specifically for use in a second room, using the Model 990's Zone 2 multi-room audio/video output.

Main Remote

The primary remote control for the Model 990 is a preprogrammed universal remote that offers every function available from the front panel of the preamp/processor, plus many more. All of these functions are displayed on-screen, and many are also displayed on the Model 990's front panel.

This remote also controls as many as seven other devices in your system. It contains an extensive library of IR codes for other devices. Touching any button activates the remote's backlighting for five seconds.

1 SETUP button (see pages 41-42)

Holding down this button for three seconds causes the remote to enter setup mode. In this mode, you can enter an entire set of codes for another device to be controlled, or learn codes directly from another remote.

2 Device control selector buttons (see pages 41-42)

These buttons select the device that the remote will control. Push the TNR button to control the Model 990.

3 Numerical keypad buttons (see pages 37, 41-42)

Use these buttons for control functions requiring you to enter numbers.

4 MUTE button (see page 34)

This button mutes the Model 990's sound in the main room. It does not affect the second zone output. Mute status is shown on the front panel.

5 VOLUME UP and DOWN buttons (see pages 34, 42)

These buttons control the Model 990's volume in the main room. They do not affect the second zone output.

6 SLEEP button (see page 36)

Touch this button to activate the sleep timer. The first push sets the sleep timer at 90 minutes; subsequent pushes set the timer for 60, 45, 30, 20, 15 or 10 minutes. When the timer finishes counting down, it turns the Model 990 off. Once the timer is set, pushing this button displays the remaining time on both the front panel and the on-screen display.

7 TEST button (see page 35)

This button activates the test tone for calibrating the Model 990's channel levels without having to go through the on-screen menu system. It also activates the program guide on most satellite receivers and cable boxes.

8 Cursor control buttons (see page 24)

These buttons navigate the Model 990's on-screen menus, as well as the on-screen menus of DVD players and other devices, which the remote is programmed to control. The cursor up and down buttons are also used to adjust certain parameters of the Model 990.

9 SYNC (see page 36)

Delays audio to maintain proper synchronization of picture and sound. Useful especially with video displays and processors that have a high degree of latency (processing delay), and also with digital TV broadcasts, which

are often out of sync. Each push of the button increases delay by 1 millisecond. The on-screen display indicates the amount of delay. After delay is set, pushing the button again resets delay to 0.

10 DOLBY MODES (see page 34)

Selects desired Dolby Digital mode, such as Dolby Digital 5.1, Dolby Digital EX, or Dolby Virtual Surround. The mode selections appear on the front panel and the on-screen display. Also functions as rewind button for other devices controlled by the remote.

11 TUNE MODE (see page 37)

Selects between FM and FM stereo in both main room and Zone 2. The selected mode appears on-screen.

12 Source selector buttons (see pages 34, 42)

These buttons select which input is active in the main room. The selected source appears on the front panel and the on-screen display.

13 NIGHT button (see page 36)

Activates dynamic range compression to limit peaks for late-night viewing. Repeated presses select minimum, medium and maximum compression levels. The compression level is shown on the on-screen display.

14 Status LED Indicator (see page 41)

Indicates when the remote control is in Programming or Learning mode and flashes to indicate success or failure of these functions.

15 POWER button (see pages 34, 42)

Turns off the Model 990. Also turns other components controlled by the remote on and off.

16 MENU button (see pages 23-33)

Activates the Model 990's on-screen menu. Also serves as enter button for numeric keypad when controlling other devices.

17 STEREO button (see page 35)

Deactivates surround sound and switches to conventional stereo. Stereo status is indicated on the front panel and the on-screen display.

18 CHANNEL UP and DOWN buttons (see page 37)

Adjusts AM/FM radio tuning frequency. Frequency appears on both the front panel and on-screen. Also serves as channel selector when controlling other devices.

19 DIRECT button (see page 37)

This button allows you to directly access a radio station when the tuner is active. Press it once, then enter the station's frequency using the numeric keys.

20 MR button (see page 40)

This button turns the sound and picture on and off in Zone 2 when the Model 990 is turned off.

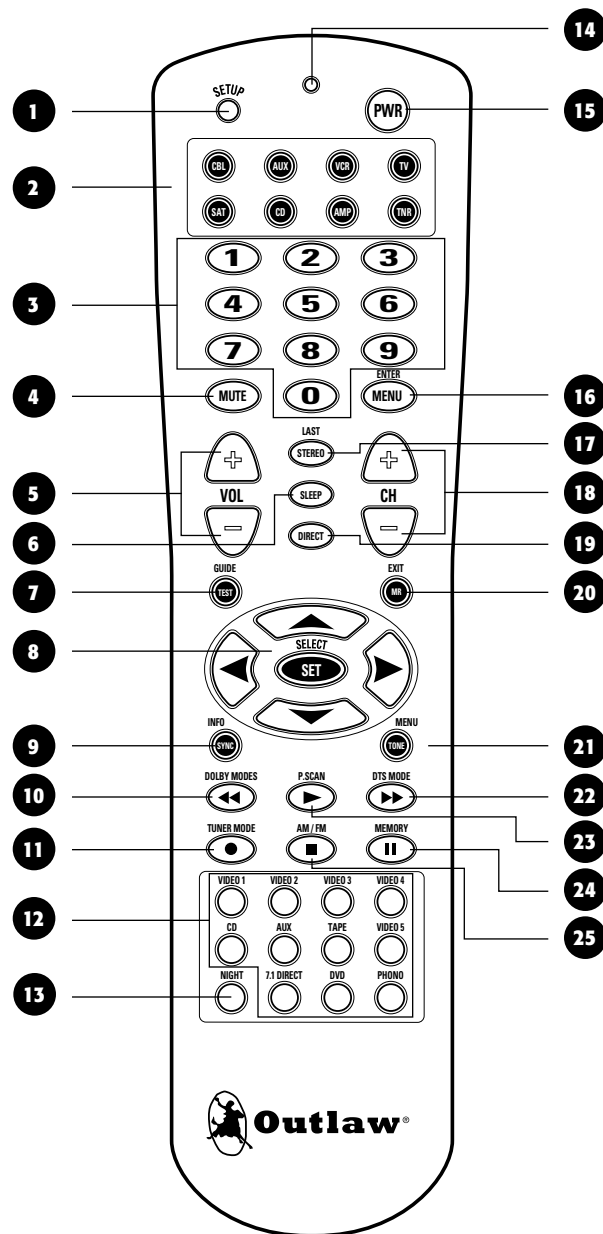
21 TONE button (see page 37)

Activates tone control defeat mode. Press this button once, then toggle tone control defeat on and off with the cursor up and down buttons. Tone control status appears on the front panel and on-screen.

22 DTS MODE button (see page 34)

Selects desired DTS mode, such as DTS 5.1, ES, or Neo:6. The mode selections appear on the front panel and the on-screen display. Also functions as rewind button for many other devices controlled by the remote.

Model 990 Remote Control



23 PRESET SCAN button

Advances AM/FM tuner to next preset in both main room and Zone 2. Frequency and band appear on front panel and on-screen.

24 MEMORY button (see page 37)

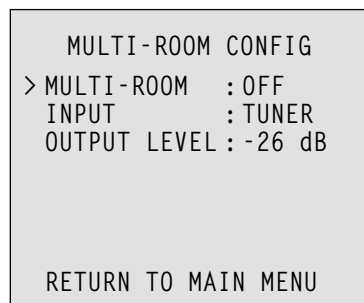
Use this button to select a station memory with the internal AM/FM tuner; press the button then enter the number of the desired memory. Holding this button down for three seconds activates automatic channel scan, which scans the band you are on for the next highest active frequency/station.

25 AM/FM button (see page 37)

Switches to AM/FM tuner. Repeated button pushes switch between AM and FM bands in main room and second zone.

2. Press **▲** once on the front panel or the main remote to select Multi-Room Configuration.
3. Press **SET** on the front panel or the remote.

The Multi-Room Configuration screen appears:



4. To turn the sound on and off in the second zone, press **►** on the front panel or the main remote.

A tiny red “R2” indicator will appear on the front-panel display when the second zone is activated.

5. To change the source being used in the second zone, press **▼** on the front panel or the main remote to select the Input function on the on-screen display, then press **►** until the source you want appears.
6. To raise or lower the volume in the second zone, press **▼** to select the Output Level function in the on-screen display, then press **►** to raise the volume or **◀** to lower the volume.

You can also use the main remote to turn the second zone on and off even if the Model 990 is turned off.

To operate the second zone when the Model 990 is off:

1. Press the MR button on the main remote.

The front-panel display will read either “Room: Off” or “Room: On.”

2. Press **◀** or **►** on the main remote to turn the sound in the second zone on and off.
3. Press the PWR button on the main remote to deactivate this feature.

Using Multi-Zone Capability from the Second Zone

The Zone 2 remote can also be used in the main zone if you do not want to turn on your TV to use the on-screen display. Its operation is described below.

To use the Zone 2 remote in the main zone:

1. To turn the sound and video on or off, point the Zone 2 remote at the infrared sensor and press the ROOM 2 button.

The front-panel display and the on-screen display in the main zone will briefly read “[R2]” plus the source selected in the second zone, i.e., “[R2]DVD.” Of course, you may not be able to see this in the second zone.

2. To select a source, press the appropriate button, such as DVD or TUNER, on the Zone 2 remote.
3. To control the volume, press the VOLUME UP or VOLUME DOWN button on the Zone 2 remote.
4. To mute the sound in the second zone, press the MUTE button on the Zone 2 remote. Press MUTE again to restore the sound.

Remote Control Setup and Operation

The Model 990 remote control is preprogrammed with remote codes for 1,000 audio and video components. Programming is accomplished by simply punching in a four-digit code number that matches your equipment.

In addition to the Model 990 itself, the remote control can operate up to seven other audio and video devices in your home entertainment system. They are listed below:

- TVs, Monitors, Video Projectors
- VCRs, TV/VCR combination units
- Cable boxes, Internet set-top boxes
- Satellite receivers—DirecTV, Dish Network, Primestar, DBS, C-band
- Audio receivers, preamplifiers, surround processors
- Compact disc players, multi-disc changers
- DVD, laserdisc players
- Cassette tape players, DAT, MiniDisc, switchers, lighting, home control devices, and video scalars

For the best performance when operating your remote control, please follow the guidelines below:

- Remember to point the remote control toward the remote control sensor on the Model 990, not toward the TV screen. Place the 990 away from strong light such as direct sunlight or fluorescent light, which can prevent proper operation of the remote control.
- Using another remote control of a similar type or placing the Model 990 near equipment which also uses infrared control may cause operational interference.
- Do not put objects on the remote control. The buttons of the remote control may be pressed by mistake and drain the batteries.
- Make sure any doors covering the front of the 990 do not have colored or smoked glass. Placing the unit behind such doors may prevent proper remote control operation.
- If there is any obstacle between the remote control and the remote control sensor, the remote control will not operate.

The remote control also has many advanced features that can add ease and enjoyment to the operation of your home entertainment system. After becoming familiar with the layout of the buttons on the remote (see pages 10-11), follow the steps below to customize the remote for your particular setup.

Battery Installation

The remote control uses two AA 1.5-volt alkaline batteries (supplied). Please be sure to match the batteries with the + and - markings inside the battery compartment during installation.

NOTE: Do not mix new and old batteries or different kinds of batteries. To avoid corrosion, remove the batteries if the remote control will not be used for one month or more. Remove dead batteries immediately to avoid damage from corrosion.

To install batteries in the remote control:

1. On the back of the remote, push the tab and lift off the battery cover.
2. Insert two new AA alkaline batteries. Match the + and - marks on the batteries to the + and - marks in the battery case.
3. Press the battery cover back into place. The tab should click when the cover is locked.
4. Test the unit by pressing PWR and any mode key (i.e., AUX, CBL, VCR, etc.). If the batteries are inserted correctly, the LED will blink once.

NOTE: The batteries will usually last about six months under normal use. When batteries need replacement, the remote will blink twice with every key press. Simply replace them and the remote control will be restored to its full functionality, including favorite settings.

Setup Using Preprogrammed Codes

The Model 990 remote can be programmed to operate other audio or video components in your system. The TNR button is used exclusively for control of the Model 990. To program the remote to control another device, you must enter a four-digit code. Codes for a wide variety of devices and brands are provided in the following pages. More than one setup code number may work with your device. You should test the functions for each of the code numbers that work with your device to determine the best one for your particular unit.

The procedure for setting up the Model 990 remote to control a TV/VCR is different—see Programming TV/VCR Control below.

NOTE: Some devices, such as CD players and DVD players that do not have power buttons on their original remote controls, may not shut off during programming. For these devices, it may be necessary to first store the setup code number and then test functions like PLAY, STOP, etc. to determine if the correct number has been selected.

To program using four-digit codes:

1. Turn on the device you would like the remote control to operate, either manually or with its original remote control.
2. Find the four-digit setup code number for your device from the tables on pages 43 to 47.
3. On the Model 990 remote, press the component key (near the top of the remote) that corresponds to the device you want to control.

You can choose from CBL, AUX, VCR, TV, SAT, CD, or AMP.

NOTE: The codes for controlling DVD players are programmed into the AUX button.

4. Press and hold SETUP on the remote until the red LED at the top of the remote blinks twice, then release SETUP.
5. Enter the first four-digit code for your component.
The LED should blink twice. If it does not, then repeat steps 3, 4, and 5 above, using the same code.
6. Aim the remote at the component and press PWR once.
The component should turn off. If it does not respond, repeat steps 3, 4, and 5, trying each code for your brand until you find one that works. If it still does not work, try searching for the code (see Searching For Your Code, below).
7. Repeat the process for other components you wish to control with the Model 990 remote.

Programming TV/VCR Control

The Model 990 can control TV/VCR combo units, but the procedure is somewhat different than entering codes to control other components. As with other components, you must enter a four-digit code. Codes for many TV/VCR brands are provided in the following pages. More than one setup code number may work with your device. You should test the functions for each of the code numbers that work with your device to determine the best one for your particular unit.

If you want to control TV functions besides power on/off, you may need to enter a separate TV code, as described below.

To program TV/VCR control:

1. Turn on the TV/VCR, either manually or with its original remote control, and insert a video cassette.
2. Find the four-digit code for your TV/VCR from the tables on pages TK to TK. Your TV/VCR may have a separate TV code listed. If so, be sure to note both codes.
3. On the Model 990 remote, press VCR.
4. Press and hold SETUP until the red LED blinks twice, then release SETUP.
5. Enter the first four-digit code for your component.

If the code entry is performed correctly, the LED will blink twice. If it does not, then repeat steps 3, 4, and 5, using the same four-digit code.

6. Aim the remote at the TV/VCR and press PWR once. The TV/VCR should turn off. If it does not respond, repeat steps 3, 4, and 5, trying each code for your brand until you find one that works. If it still does not work, try searching for the code (see Searching For Your Code).
7. If your component has a separate TV code listed, press TV on the Model 990 remote control.

The LED will blink twice.

8. Enter the four-digit TV code for your TV/VCR combo.

If the code is entered correctly, the LED will blink twice. If it does not, then repeat steps 7 and 8 using the same four-digit code.

Searching for Your Code

If your device does not respond to the remote after you have tried all codes listed for your brand, or if your brand is not listed at all, try searching for your code.

To search for a code for your component:

1. On the Model 990 remote, press the button near the top of the remote for the type of device you want to control.
You can choose CBL, AUX, VCR, TV, SAT, CD, or AMP.
2. Press and hold SETUP until the red LED on the remote blinks twice, then release SETUP.
3. Enter 991.
The LED will blink twice.
4. Aim the remote control at the component and slowly alternate between pressing PWR and the button for the device you pushed in step 1.
5. Stop when the TV turns off.
6. Press SETUP once.
7. To search for the codes of your other components, repeat the process, using the appropriate button for the new device in steps 1 and 4.

Checking the Codes

If you have set up the Model 990 remote by searching for the codes, for future reference, you may wish to find out which four-digit code is operating your equipment.

To find the four-digit code for a device:

1. On the Model 990 remote, press the button near the top of the remote for the type of device you want to control.
2. Press and hold SETUP until the red LED on the remote blinks twice, then release SETUP.
3. Enter 990.

The LED will blink twice.

4. To view the code for the first digit, press 1.

After three seconds, the LED will blink to indicate the first code number (i.e., 3 blinks = 3). Count the blinks and write down the number.

5. Repeat step for each of the other three digits. Press 2 for the second digit, 3 for the third, and 4 for the fourth. Count the blinks and write down the numbers.
6. To check for the codes of your other components, repeat steps 1 through 5, but substitute the appropriate key in step 1 for the new component you are checking.

Re-Assigning Device Buttons

If you wish to control a second device of a type already programmed into the Model 990 remote (i.e., if you want to use two DVD players), you will need to re-assign an unused device button (CBL, AUX, VCR, TV, SAT, CD, or AMP) to operate the second device.

To reassign an unused device button:

1. On the Model 990 remote, press and hold SETUP until the LED blinks twice, then release SETUP.
2. Enter 992.

The LED will blink twice.

3. Press the button for the device already programmed (i.e., CBL), then press the button for the unused device (i.e., TV).

The LED will blink twice.

4. The button for the unused device is now ready to be programmed for the second component. See Setup Using Preprogrammed Codes.

Volume Control Punch-Through

You can program the Model 990 remote so that the VOLUME UP, VOLUME DOWN, and MUTE buttons on the remote will control those functions on the Model 990 even when the remote is set to control another device.

To set volume control punch-through:

1. On the Model 990 remote, press and hold SETUP until the LED blinks twice, then release SETUP.
2. Enter 993.
3. Press the TNR key on the Model 990 remote.

The LED will blink twice.

Operation

After you have programmed the remote control for your equipment, use the following procedures to operate the components of your home entertainment system:

To operate a system component that you have programmed:

1. On the Model 990 remote, press the button near the top of the remote for the device you want to control (CBL, AUX, VCR, TV, SAT, CD, or AMP)
2. Aim the remote control at the device and press the POWER button to turn on the device.
3. Press the buttons that send out the commands you desire.

NOTE: Some audio/video devices have separate buttons for POWER ON and POWER OFF. To operate these devices on the remote, press the corresponding device button to turn the equipment ON and press the POWER button to turn the equipment OFF.

Please try all the functions of this remote control with your equipment. The most common functions are labeled on the remote. However, some of the secondary functions might be stored under a button that has a different name from the one on your original remote control.

Source Selection Buttons

Pressing a source button (VIDEO 1, DVD, etc.) at the bottom of the remote control performs the following functions:

- If the Model 990 is in Standby mode, powers up the unit.
- Selects that source on the Model 990.

Backlighting

Pressing any button on the Model 990 remote illuminates all the buttons on the remote control for about 5 seconds. The backlight is extended an additional 5 seconds with any button press while the backlight is on.

Setup Codes

CABLE CONVERTERS

<i>Manufacturer/Brand</i>	<i>Setup Code Number</i>
ABC	0003, 0017
Americast	0899
Bell South	0899
General Instrument	0276, 0476, 0810
GoldStar	0144
Hamlin	0009, 0273
Jerrold	0003, 0276, 0476, 0810
Memorex	0000
Motorola	1106
Pace	0237
Panasonic	0107, 0000
Paragon	0000
Philips	0305, 0317
Pioneer	0144, 0533, 0877
Pulsar	0000
Quasar	0000
Regal	0273, 0279
Bunco	0000
Samsung	0144
Scientific Atlanta	0017, 0477, 0877
Starcom	0003
Toshiba	0000
Zenith	0000, 0525, 0899

CD PLAYERS

<i>Manufacturer/Brand</i>	<i>Setup Code Number</i>
Aiwa	0157
Burmester	0420
Cal. Audio Labs	0029
Carver	0157, 0179
DKK	0000
Demon	0003, 0873
Emerson	0305
Fisher	0179
Garrard	0420
Genexxa	0032, 0305
Harman/Kardon	0157, 0173
Hitachi	0032
JVC	0072
Kenwood	0028, 0190, 0826, 0037, 0626, 0681
Krell	0157
LX.	0305
Linn	0157

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

DVD PLAYERS

<i>Manufacturer/Brand</i>	<i>Setup Code Number</i>
Apex	0672
Denon	0490
Fisher	0670
GE	0522
Gradiente	0651
Hitachi	0573, 0664
Hiteker	0672
JVC	0623, 0558
Kenwood	0682, 0534

Konka	0719, 0711, 0720, 0721
Magnavox	0503, 0675
Marantz	0539
Mitsubishi	0521
Onkyo	0503
Optimus	0571
Oritron	0651
Panasonic	0490, 0677, 0632
Philips	0539, 0503
Pioneer	0571, 0525, 0632
Proscan	0522
RCA	0522, 0571
Samsung	0573
Sharp	0630
Sony	0533
Toshiba	0503
Yamaha	0490, 0545
Zenith	0591, 0503

HOME AUTOMATION

<i>Manufacturer/Brand</i>	<i>Setup Code Number</i>
GE	0240
One For All	0167
Radio Shack	0240
Security System	0167
Universal X10	0167
X10	0167

SATELLITE RECEIVERS

<i>Manufacturer/Brand</i>	<i>Setup Code Number</i>
AlphaStar	0772
Chaparral	0216
EchoStar	0775, 1005
GE	0566
General Instrument	0869
HTS	0775
Hughes Net. Sys.	0749, 1142, 1749
Philips	1076, 1142, 0722, 0724, 0749
Proscan	0392
RCA	0506, 0392, 0143, 0855
Radio Shack	0869
Samsung	1109
Star Choice	0869
Zenith	0856

TELEVISIONS

<i>Manufacturer/Brand</i>	<i>Setup Code Number</i>
AOC	0019, 0030
Admiral	0093, 0463
Aiko	0092
Aiwa	0701
Akai	0030
Aaron	0179
America Action	0180
Anam	0180
Audiovox	0092, 0180, 0451, 0623
Baysonic	0180
Bclmr	0019
Bell & Howell	0016, 0154
Bradford	0180
Brockwood	0019
Broksonic	0236, 0463
CXC	0180
Candle	0030, 0056
Carnivale	0030
Carver	0054
Celebrity	0000
Cineral	0451, 0092
Citizen	0056, 0030, 0060, 0092
Concerto	0056
Contec	0180
Craig	0180
Crosley	0054
Crown	0180
Curtis Mathes	0060, 0030, 0016, 0047, 0051, 0054, 0056, 0093, 0145, 0154, 0166, 0451, 1147, 1347
Daewoo	0092, 0623, 0019, 0624, 0451
Daytron	0019
Denon	0145
Dumont	0017, 0019
Electroband	0000
Emerson	0236, 0180, 0178, 0179, 0463, 0624, 0623, 0019, 0154
Envision	0030
Fisher	0154
Fujitsu	0179, 0683
Funai	0180, 0171, 0179
Futuretech	0180
GE	0047, 1347, 0051, 0178, 0451, 1147, 0093
Gibraltar	0017, 0019, 0030
GoldStar	0178, 0019, 0030, 0056
Gradiente	0056, 0053
Grunpy	0179, 0180

Hallmark	0178
Harley Davidson	0179
Harman/Kardon	0054
Harvard	0180
Hitachi	0145, 0056, 0016
Infinity	0054
Inteq	0017
JBL	0054
JCB	0000
KEC	0180
KTV	0180, 0030
Kenwood	0030, 0019
Konka	0707, 0632, 0628, 0638, 0703
LG	0056
LXI	0154, 0047, 0054, 0156, 0178
Logik	0016
Luxman	0056
MGA	0150, 0019, 0030, 0178
MTC	0060, 0030, 0019, 0056
Magnavox	0054, 0030, 0179, 1254
Marantz	0054, 0030
Matsushita	0250
Megatron	0145, 0178
Memorex	0179, 0463, 0178, 0016, 0056, 0150, 0154, 0250
Midland	0017, 0047, 0051
Motorola	0093
Multitech	0180
NAD	0156, 0166, 0178
NEC	0030, 0019, 0056
NTC	0092
Nikko	0178, 0030, 0092
Onwa	0180
Optimus	0250, 0166, 0154
Optonica	0093
Orion	0463, 0179, 0236
Panasonic	0051, 0250
Penney	0047, 1347, 0060, 0030, 0178, 0051, 0019, 0056, 0156
Philco	0145, 0019, 0030, 0054, 0463
Philips	0054
Pilot	0019, 0030
Pioneer	0166, 0679
Portland	0019, 0092
Princeton	0717
Prism	0051
Proscan	0047
Proton	0178

Pulsar	0017, 0019
Quasar	0051, 0250
RCA	0047, 1347, 1147, 0679, 1247, 0019, 0051, 0090, 0093, 1047, 1447
RadioShack	0180, 0030, 0178, 0154, 0019, 0047, 0056
Realistic	0180, 0154, 0030, 0178, 0019, 0056
Runco	0017, 0030
SSS	0019, 0180
Sampo	0030
Samsung	0060, 0019, 0178, 0030, 0056
Sansei	0451
Sansui	0463
Sanyo	0154
Scimitsu	0019
Scotch	0178
Scott	0236, 0019, 0178, 0179, 0180
Sears	0154, 0056, 0156, 0047, 0054, 0171, 0178, 0179
Semivox	0180
Setup	0156
Sharp	0093, 0688
Shogun	0019
Signature	0016
Sony	0000
Soundesign	0178, 0179, 0180
Squareview	0171
Starlite	0180
Supreme	0000
Sylvania	0054, 0030
Symphonic	0171, 0180
TMK	0056, 0178
TNC	0017
Tandy	0093
Technics	0051, 0250
TechnoAce	0179
Techwood	0051, 0056
Teknika	0016, 0054, 0179, 0180, 0 019, 0092, 0056, 0060, 0150
Telefunken	0056
Toshiba	0156, 0060, 0154, 1256
Vector Research	0030
Victor	0053
Vidikron	0054
Vidtech	0019, 0178
Wards	0054, 0178, 0016, 0019, 0030, 0056, 0179
White Westinghouse	0624, 0623, 0463
Yamaha	0019, 0030
Zenith	0017, 0624, 0016, 0092, 0463

TV/VCR COMBOS	
<i>Manufacturer/Brand</i>	<i>Setup Code Number</i>
American High	0035 (for TV use 0051)
Brocksonic	0002, 0294,
Colt	0072
Curtis Mathis	0035 (for TV use 0051)
Daewoo	0278
Emerson	0002, 0294, 0479
Funai	0000
GE	0035 (for TV use 0051), 0060 (for TV use 0047), 0048 (for TV use 0093), 0240
Hitachi	0035 (for TV use 0051), 0000
HQ	0000
Lloyds	0000
MGA	0240
Magnavox	0081 (for TV use 0054), 0035 (for TV use 0051), 0000
Magnin	0240
Memorex	0037, 0162 (for TV use 0250)
Mitsubishi	0048 (for TV use 0093)
Orion	0002, 0294, 0479
Panasonic	0035 (for TV use 0051), 0162 (for TV use 0250)
Penney	0035 (for TV use 0051), 0240, 0162 (for TV use 0250)
Quasar	0035 (for TV use 0051), 0162 (for TV use 0250)
RCA	0060 (for TV use 0047), 0035 (for TV use 0051), 0048 (for TV use 0093)
Sansui	0000, 0479
Sanyo	0240
Sharp	0048 (for TV use 0093)
Sony	0032 (for TV use 0000)
Symphonic	0000
Zenith	0000
VCRs	
<i>Manufacturer/Brand</i>	<i>Setup Code Number</i>
Admiral	0048, 0209
Adventure	0000
Aiko	0278
Aiwa	0000, 0037
Asha	0240
Audiovox	0037
Beaumark	0240
Bell & Howell	0104
Broksonic	0121, 0184, 0002, 0209, 0479
CCE	0072, 0278
Calix	0037
Canon	0035
Carver	0081

Citizen	0278, 0037
Colt	0072
Craig	0037, 0072, 0047, 0240
Curtis Mathes	0035, 0060, 0162
Cybernex	0240
Daewoo	0278, 0045
Denon	0042
Dynatech	0000
Electrohome	0037
Electrophonic	0037
Emerex	0032
Emerson	0184, 0002, 0209, 0278, 0121, 0479, 0000, 0037, 0043
Fisher	0047, 0104
Fuji	0033, 0035
Funai	0000
GE	0035, 0060, 0048, 0240
Garrard	0000
Go Video	0432
GoldStar	0037, 0038
Gradiente	0000
HI-Q	0047
Harley Davidson	0000
Harman/Kardon	0038, 0081
Harwood	0072
Hitachi	0042, 0000
Hughes Net. Sys.	0042
JVC	0067
KEC	0037, 0278
KLH	0072
Kenwood	0067, 0038
Kodak	0035, 0037
LXI	0037
Lloyd's	0000
Logik	0072
MEI	0035
MGA	0043, 0240
MGN Technology	0240
MTC	0000, 0240
Magnasonic	0278
Magnavox	0035, 0081, 0563, 0000, 0039, 0149
Marantz	0081, 0035
Marta	0037
Matsushita	0035, 0162
Memorex	0104, 0047, 0479, 0000, 0037, 0048, 0035, 0240, 1037, 0039, 0162, 0209, 1162, 1262
Minolta	0042

Mitsubishi	0043, 0048, 0067
Motorola	0035, 0048
Multitech	0000, 0072
NEC	0038, 0067, 0104
Nikko	0037
Noblex	0240
Olympus	0035
Optimus	0162, 1062, 1162, 0048, 1262, 0037, 1048, 0104, 0432
Orion	0479, 0002, 0184, 0209
Panasonic	0035, 0162, 1162, 1262, 1362, 0616, 1062
Penney	0035, 0240, 0037, 0042, 0038
Pentax	0042
Philco	0035, 0209, 0479
Philips	0081, 0035, 0618, 1081, 1181
Pilot	0037
Pioneer	0067
Polk Audio	0081
Profitronic	0240
Proscan	0060
Protec	0072
Pulsar	0039
Quasar	0035, 0162, 1162
RCA	0060
RadioShack	0000, 1037
Radix	0037
Randex	0037
Realistic	0000, 0104, 0047, 0048, 0037, 0035
ReplayTV	0614, 0616
Runco	0039
STS	0042
Samsung	0045, 0240
Sansui	0479, 0000, 0067, 0209
Sanyo	0047, 0104, 0240
Scott	0184, 0121, 0043, 0045
Sears	0037, 0042, 0000, 0035, 0047, 0104
Semp	0045
Sharp	0048
Shintom	0072
Shogun	0240
Singer	0072
Sony	0033, 0032, 0000, 0035, 0636, 1032
Sylvania	0035, 0081, 0000, 0043
Symphonic	0000
TMK	0240
Teac	0000

Technics	0035, 0162
Teknika	0000, 0035, 0037
Thomas	0000
Tivo	0618, 0636
Toshiba	0045, 0043
Totevision	0037, 0240
Unitech	0240
Vector	0045
Vector Research	0038
Video Concepts	0045
Videosonic	0240
Wards	0035, 0060, 0000, 0047, 0240, 0042, 0048, 0072, 0081, 0149
White Westinghouse	0072, 0278, 0209
XR-1000	0072, 0000, 0035
Yamaha	0038
Zenith	0039, 0000, 0033, 0209, 0479

VIDEO ACCESSORIES

Manufacturer/Brand	Setup Code Number
Panasonic	1120
Pioneer	1010
Sensory Science	1126
Sharp	1010