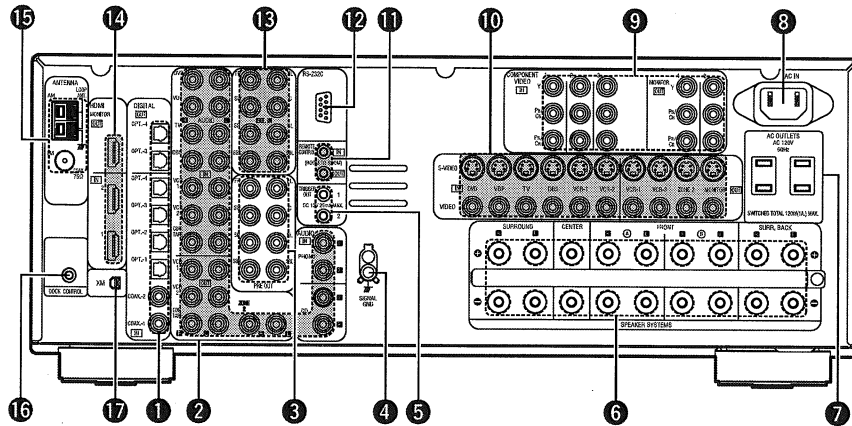


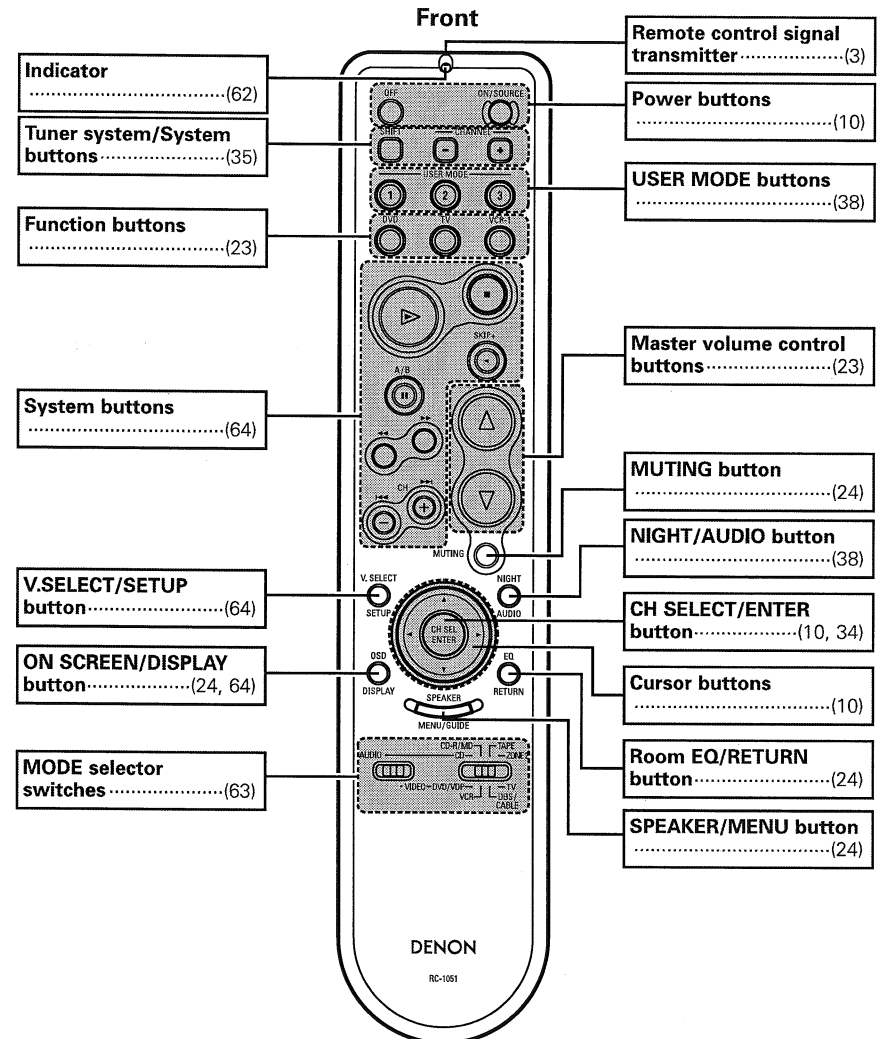
Rear panel



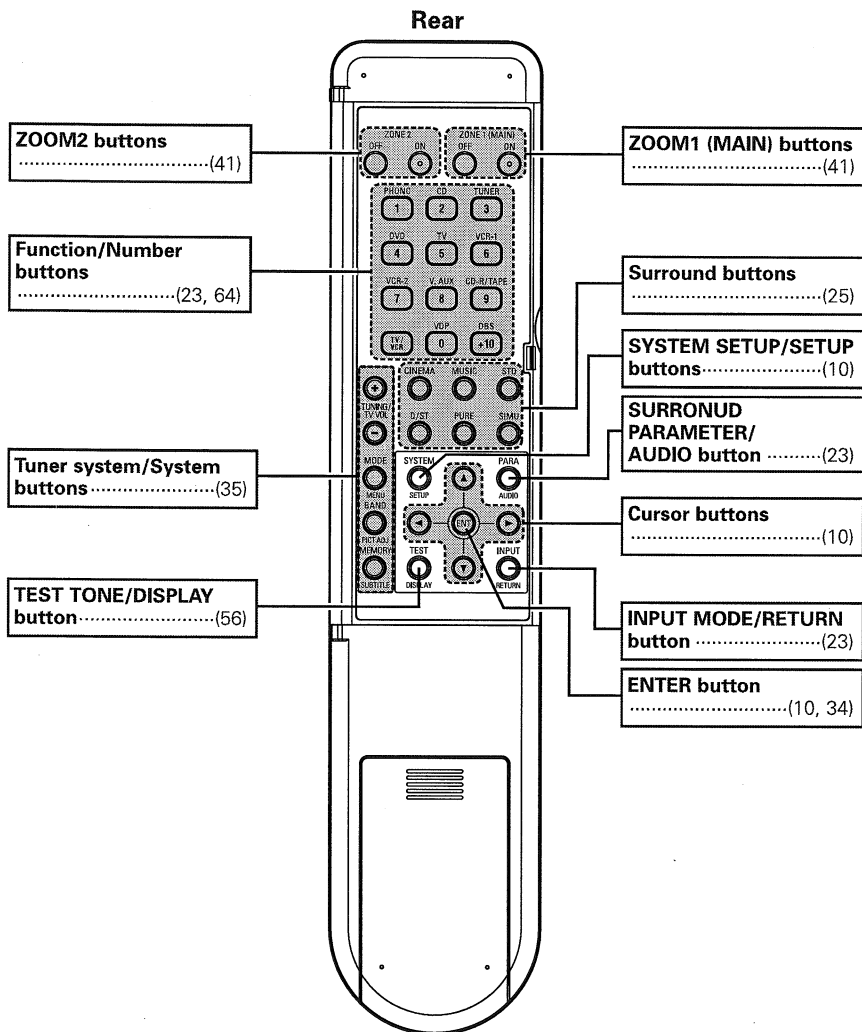
- | | |
|--|-------------------------------------|
| 1 DIGITAL terminals
(Optical/Coaxial).....(8) | 9 COMPONENT VIDEO terminals.....(8) |
| 2 AUDIO terminals.....(8) | 10 VIDEO/S-VIDEO terminals.....(8) |
| 3 PRE OUT terminals.....(22) | 11 REMOTE CONTROL jacks.....(21) |
| 4 SIGNAL GND terminal.....(17) | 12 RS-232C terminal.....(21) |
| 5 TRIGGER OUT jacks.....(21) | 13 EXT. IN terminals.....(17) |
| 6 Speaker terminals.....(7) | 14 HDMI MONITOR terminals.....(19) |
| 7 AC outlets.....(22) | 15 ANTENNA terminals.....(20) |
| 8 AC inlet.....(22) | 16 DOCK CONTROL jack.....(21) |
| | 17 XM terminal.....(20) |

Remote control unit

To operate the AVR-987, use the mode selector switches to select "TAPE" "CD-R/MD" or "CD", mode.



Getting Started

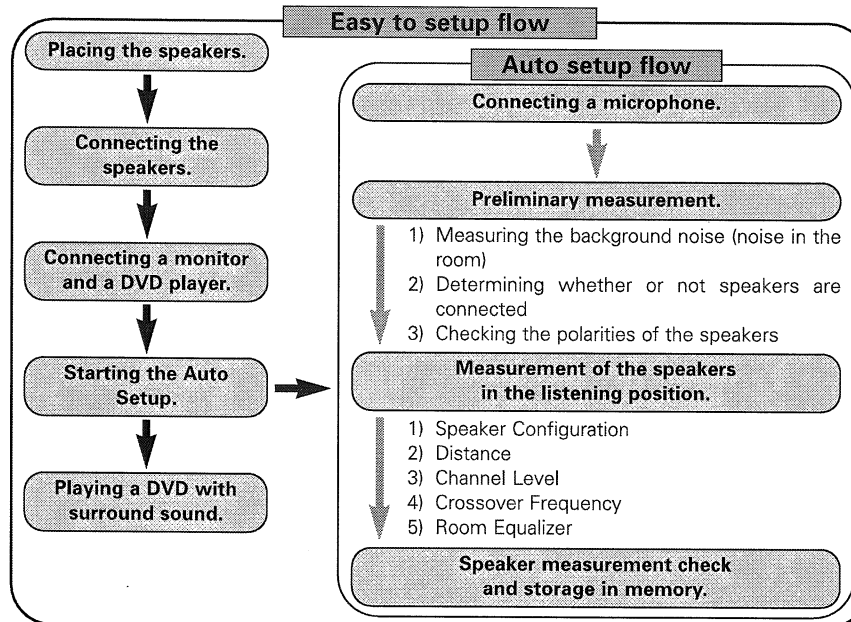


NOTE:

- If buttons on the front or rear are pressed strongly, the button on the opposite side will be activated too.

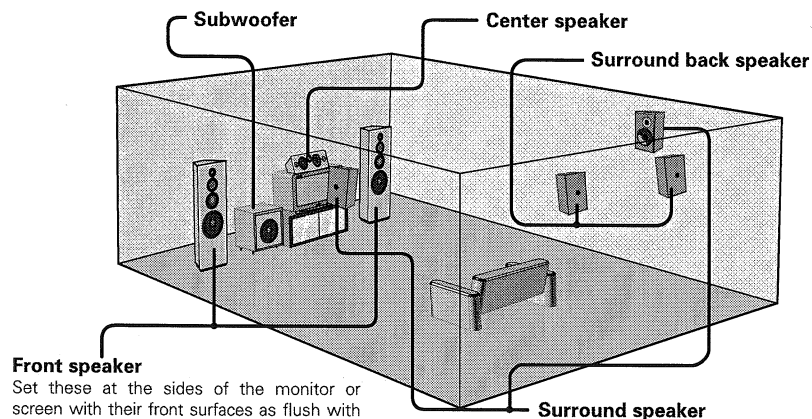
Easy Setup Procedure

- This section contains the basic steps necessary to configure the AVR-987 according to your listening room environment and the source equipment and loudspeakers you are using.
- To set the sound field manually, see pages 56 ~59.

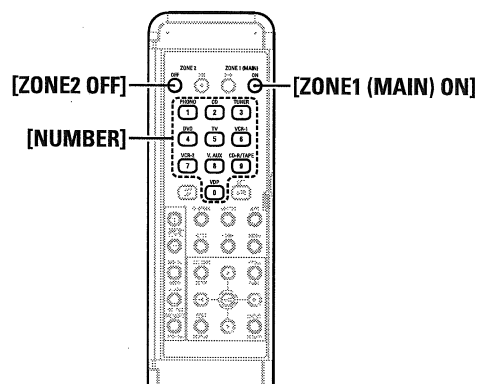
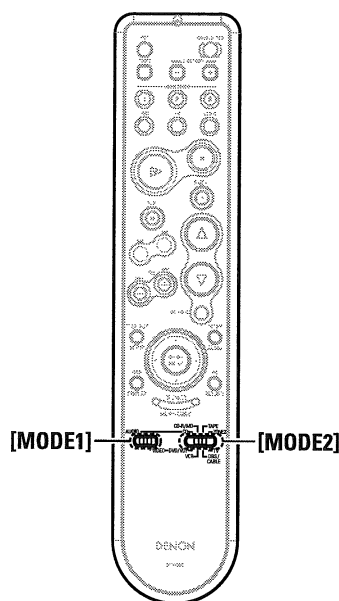


Speaker layout [Basic layout]

Example of basic layout with 8 speakers and a monitor.



Operating the remote control unit



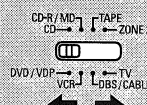
- It may not be possible to use some of the buttons, depending on the model and age of your equipment.

Operating DENON audio components

- 1 Set [MODE1] to "AUDIO".



- 2 Set [MODE2] to the position for the component to be operated (CD, CD-R/MD or TAPE).



- 3 Operate the audio component.

- ※ For details, refer to the component's operating instructions.
- ※ While this remote control is compatible with a wide range of infrared controlled components, it may be the case that some component models cannot be operated with this remote control.

Setting the preset memory function

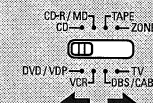
- DENON and other makes of components can be operated by setting the preset memory.
- This remote control unit can be used to operate components of other manufacturers without using the learning function by registering the manufacturer of the component as shown in the list of preset codes (End of this manual).
- Operation is not possible for some models.

- 1 Set [MODE1] to "AUDIO" or "VIDEO".



- ※ Set to the AUDIO side for the CD, TAPE or CD-R/MD position, and to the VIDEO side for the DVD/VDP, DBS/CABLE, VCR or TV position.

- 2 Set [MODE2] to the component to be registered.



- 3 Press [ZONE2 OFF] and [ZONE1 (MAIN) ON] at the same time.

- The indicator starts flashing.

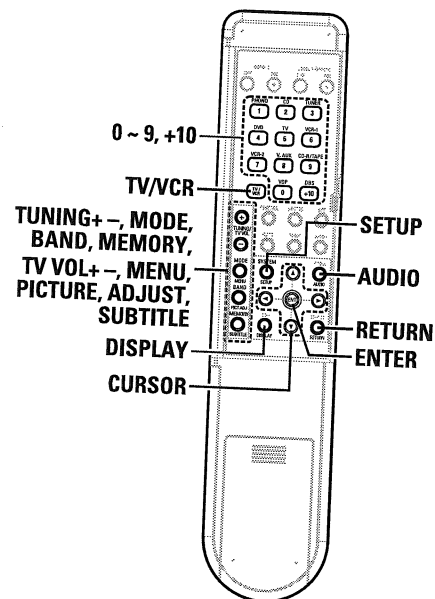
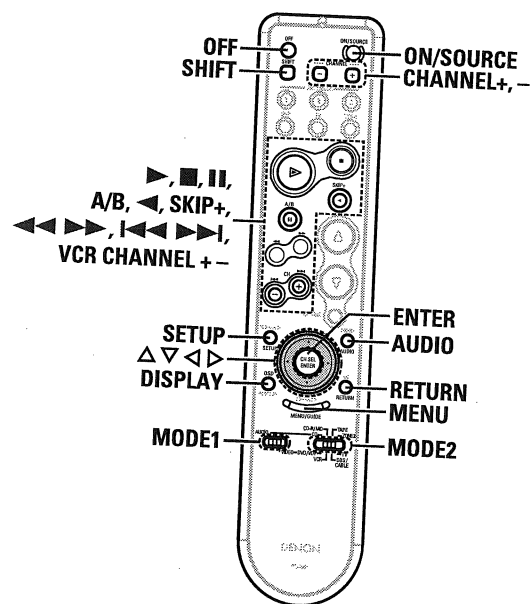
- 4 Referring to the included list of preset codes, press [NUMBER] to input the preset code (a 3-digit number) for the manufacturer of the component whose signals you want to store in the memory.

- 5 To store the codes of another component in the memory, repeat steps 1 to 4.



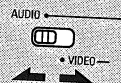
- The signals for the pressed buttons are emitted while setting the preset memory. To avoid accidental operation, cover the remote control unit's transmitting window while setting the preset memory.
- Depending on the model and year of manufacture, this function cannot be used for some models, even if they are of makes listed in the list of preset codes.
- Some manufacturers use more than one type of remote control code. Refer to the included list of preset codes to change the number and verify correct operation.
- The preset memory can be set for one component only among the following: CD-R/MD, DVD/VDP and DBS/CABLE.

Operating the remote control unit



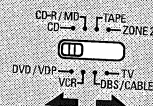
Operating a component stored in the preset memory

1 Set [MODE1] to "AUDIO" or "VIDEO".



※ Set to the AUDIO side for the CD, TAPE or CD-R/MD position, and to the VIDEO side for the DVD/VDP, DBS/CABLE, VCR or TV position.

2 Set [MODE2] to the component you want to operate.



3 Operate the component.

※ For details, refer to the component's operating instructions.
 ※ Some models cannot be operated with this remote control unit.

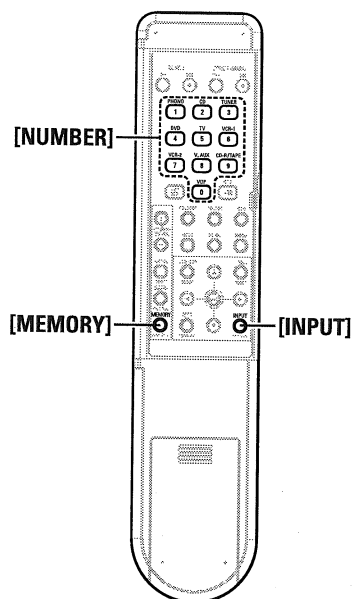
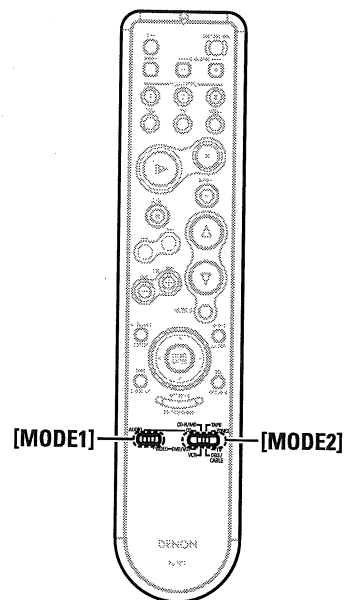
Operating the remote control unit

Functions of buttons for the different devices

Special remarks:

- ① It is only possible to set the preset memory for one device per mode. When a new code is preset, the previous code is automatically deleted.
- ② Note that the function names of the DVD buttons on the remote control unit may differ for some brands. Check beforehand.
- ③ The CD, VCR or DVD buttons can be assigned to a TV or satellite tuner (or cable TV) (see page 65).

	Device operated	CD player	CD recorder or MD recorder	Tape deck	DVD player	Video disc player	Video deck	Satellite tuner or Cable TV	TV (Monitor)
		AUDIO			VIDEO				
Front	MODE1								
	MODE2	CD	CD-R / MD	TAPE	DVD / VDP		VCR	DBS / CABLE	TV
	OFF	—	—	—	Power OFF	—	—	—	—
	ON / SOURCE	—	—	—	Power on/Standby	Power on/Standby	Power on/Standby	Power on/Standby	Power on/Standby
	SHIFT	—	—	—	—	—	—	—	—
	CHANNEL + -	—	—	—	—	—	Station selection	Channel selection	Channel selection
	▶	Play	Play	Play	Play	Play	Play	—	—
	■	Stop	Stop	Stop	Stop	Stop	Stop	—	—
	⏸	Pause	Pause	—	Pause	Pause	Pause	—	—
	◀	—	—	Reverse play	—	—	—	—	—
	A / B	—	—	A/B switching	—	—	—	—	—
	DISC SKIP +	Disc skip (for CD changer only)	—	—	Disc skip (for DVD changer only)	—	—	—	—
	◀▶	Manual search (forward/reverse)	Manual search (forward/reverse)	Fast forward/Reverse	Manual search (forward/reverse)	Manual search (forward/reverse)	Manual search (forward/reverse)	—	—
	VCR CHANNEL + - / ◀▶	Auto search (to beginning of track)	Auto search (to beginning of track)	—	Auto search (to beginning of track)	Auto search (to beginning of track)	Channel selection	—	—
	SETUP	—	—	—	Setup	—	—	—	—
	AUDIO	—	—	—	Audio function	—	—	—	—
	DISPLAY	—	—	—	Display selection	—	—	Display selection	Display selection
	RETURN	—	—	—	Return	—	—	Return	Return
	MENU	—	—	—	Menu	—	—	Menu	Menu
	△ ▽ ◀ ▶	—	—	—	Cursor operation	—	—	Cursor operation	Cursor operation
	ENTER	—	—	—	Enter	—	—	Enter	Enter
Rear	0 ~ 9, +10	—	—	—	Number input/ Track selection	Number input/ Track selection	—	Channels	Channels
	TV / VCR	—	—	—	Input mode selection	Input mode selection	Input mode selection	Input mode selection	Input mode selection
	TUNING / TV VOL + -	—	—	—	TV Volume control	TV Volume control	TV Volume control	DBS/CABLE Volume control	TV Volume control
	MODE/MENU	—	—	—	Menu	—	—	Menu	Menu
	BAND/PICTURE ADJUST	—	—	—	Picture ADJUST	—	—	—	—
	MEMORY/ SUBTITLE	—	—	—	Subtitle	—	—	—	—
	SETUP	—	—	—	Setup	—	—	—	—
	AUDIO	—	—	—	Audio function	—	—	—	—
	DISPLAY	—	—	—	Display selection	—	—	Display selection	Display selection
	RETURN	—	—	—	Return	—	—	Return	Return
	△ ▽ ◀ ▶	—	—	—	Cursor operation	—	—	Cursor operation	Cursor operation
	ENTER	—	—	—	Enter	—	—	Enter	Enter
	Default setting (preset code)	DENON (111)	DENON CD-R (111)	DENON (111)	DENON (111)	—	HITACHI (108)	—	HITACHI (134)
	Special remarks	①	①	①	①, ②	①	①	①, ③	①, ③



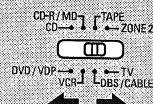
Setting the punch through function

"Punch Through" is a function allowing you to operate the **PLAY**, **STOP**, **MANUAL SEARCH** and **AUTO SEARCH** on CD, TAPE, CD-R/MD, DVD/VDP or VCR components when in the DBS/CABLE or TV mode. By default, nothing is set.

1 Set [MODE1] to "VIDEO".



2 Set [MODE2] to the component to be registered (DBS/CABLE or TV).



3 Press [MEMORY] and [INPUT] at the same time.
•The indicator starts flashing.

4 Input the number of the component you want to set.

	No.
CD	1
TAPE	2
CD-R/MD	3
DVD/VDP	4
VCR	5
No setting	0

■ List of preset codes

DVD

Denon	014, *[111]
Aiwa	009
Hitachi	010
JVC	006, 011
Konka	012, 013
Magnavox	005
Mitsubishi	004
Panasonic	014
Philips	005, 015, 016, 017
Pioneer	003, 008
Sanyo	018
Sony	002, 019, 020
Toshiba	001, 021, 022
Zenith	023

VDP

Denon	028, 029, 112
Magnavox	026
Mitsubishi	028
Panasonic	029, 030
Philips	026
Pioneer	028, 031
RCA	032
Sony	033, 034, 035, 036

VCR

Admiral	081
Aiko	095
Aiwa	009
Akai	026, 027, 070, 072, 082, 083, 084
Alba	055
Amstrad	009
ASA	042
Asha	087

Audio Dynamic	005, 085
Audiovox	088
Beaumarck	087
Broksonic	086, 093
Calix	088
Candle	006, 087, 088, 089, 090
Canon	049, 057
Capehart	025, 055, 056, 071
Carver	015
CCE	095
Citizen	006, 007, 087, 088, 089, 090, 095
Craig	007, 087, 088, 091, 115
Curtis Mathes	006, 049, 073, 080, 087, 090, 092
Cybernex	087
Daewoo	025, 055, 059, 074, 089, 093, 095, 096
Daytron	025, 055
DBX	005, 085
Dumont	053
Dynatech	009
Electrohome	001, 088, 097
Electroponic	088
Emerson	001, 009, 017, 027, 086, 088, 089, 092, 093, 097, 100, 101, 102, 103, 104, 117
Fisher	009, 028, 031, 053, 054, 091, 099, 115
GE	007, 011, 049, 050, 051, 052, 073, 080, 087
Go Video	047, 048
Goldstar	000, 006, 012, 062, 088
Gradiente	094
Grundig	042
Harley Davidson	094
Harman Kardon	040, 062
Hi-Q	091
Hitachi	009, 013, 023, 026, 058, *[108], 109, 110, 111

JC Penny	004, 005, 007, 023, 028, 049, 062, 085, 087, 088
Jensen	013, 026
JVC	004, 005, 006, 026, 029, 043, 044, 045, 046, 085
Kenwood	004, 005, 006, 026, 029, 033, 045, 085, 090
Kodak	088
Lloyd	009, 094
LXI	088
Magnavox	015, 016, 042, 049, 063, 106
Magnin	087
Marantz	004, 005, 006, 015, 042, 049, 085, 090
Marta	088
MEI	049
Memorex	009, 033, 049, 053, 060, 081, 087, 088, 091, 094, 115
Metz	123, 124, 125, 126, 127, 128
MGA	001, 017, 027, 041, 097
MGN Technology	087
Midland	011
Minolta	013, 023
Mitsubishi	001, 003, 008, 013, 014, 017, 027, 029, 039, 040, 041, 045, 097
Motorola	081
Montgomery Ward	001, 002, 007, 009, 049, 063, 081, 115, 117
MTC	009, 087, 094
Multitech	007, 009, 011, 087, 090, 094
NAD	038
NEC	004, 005, 006, 018, 026, 029, 045, 061, 062, 085
Nikko	088
Noblex	087
Optimus	081, 088

Optonica	021
Panasonic	024, 049, 064, 066, 067, 068, 069, 107
Perdio	009
Pentax	009, 013, 023, 058, 090
Philco	015, 016, 049
Philips	015, 021, 042, 049, 105
Pilot	088
Pioneer	005, 013, 029, 036, 037, 038, 045, 085
Portland	025, 055, 090
Proscan	063, 080
Pulsar	060
Quartz	033
Quasar	034, 035, 049
Radio Shack	001, 002, 021, 081, 087, 088, 091, 094, 097, 098, 115
Radix	088
Randex	088
RCA	007, 013, 019, 023, 058, 063, 064, 065, 073, 080, 082, 087
Realistic	009, 021, 031, 033, 049, 053, 081, 087, 088, 091, 094, 097, 098
Ricoh	055
Salora	033, 041
Samsung	007, 011, 051, 059, 070, 083, 087, 089, 113
Sanky	081
Sansui	005, 026, 029, 045, 061, 085, 114
Sanyo	032, 033, 053, 087, 091, 115, 116
SBR	042
Scott	017, 020, 086, 089, 093, 117
Sears	013, 023, 028, 031, 033, 053, 054, 088, 091, 098, 099, 115
Sentra	055
Sharp	001, 002, 021, 097
Shogun	087
Sony	075, 076, 077, 078, 079, 121, 122
STS	023

Sylvania	009, 015, 016, 017, 041, 049, 094
Symphonic	009, 094
Tandy	009
Tashiko	009, 088
Tatung	004, 026, 030
Teac	004, 009, 026, 094
Technics	024, 049
Teknika	009, 010, 022, 049, 088, 094
TMK	087, 092
Toshiba	013, 017, 020, 041, 059, 089, 098, 099, 117
Totevision	007, 087, 088
Unirech	087
Vectror Research	005, 062, 085, 089, 090
Victor	005, 045, 046, 085
Video Concepts	005, 027, 085, 089, 090
Videosonic	007, 087
Wards	013, 021, 023, 087, 088, 089, 091, 094, 097, 118, 119, 120
XR-1000	094
Yamaha	004, 005, 006, 026, 062, 085
Zenith	060, 078, 079

TV

Admiral	045, 121
Adventura	122
Aiko	054
Akai	016, 027, 046
Alleron	062
A-Mark	007
Amtron	061
Anam	006, 007, 036
Anam National	061, 147
AOC	003, 007, 033, 038, 039, 047, 048, 049, 133
Archer	007
Audiovox	007, 061

Bauer	155
Belcor	047
Bell & Howell	045, 118
Bradford	061
Brockwood	003, 047
Candle	003, 030, 031, 032, 038, 047, 049, 050, 122
Capehart	003
Celebrity	046
Circuit City	003
Citizen	029, 030, 031, 032, 034, 038, 047, 049, 050, 054, 061, 095, 122, 123
Concerto	031, 047, 049
Colortyme	003, 047, 049, 135
Contec	013, 051, 052, 061
Cony	051, 052, 061
Craig	004, 061
Crown	029
Curtis Mathes	029, 034, 038, 044, 047, 049, 053, 095, 118
Daewoo	027, 029, 039, 048, 049, 054, 055, 106, 107, 137
Daytron	003, 049
Dimensia	044
Dixi	007, 015, 027
Electroband	046
Electrohome	029, 056, 057, 058, 147
Elta	027
Emerson	029, 051, 059, 060, 061, 062, 118, 123, 124, 139, 148
Envision	038
Etron	027
Fisher	014, 021, 063, 064, 065, 118
Formenti	155
Fortress	012
Fujitsu	004, 062
Funai	004, 062

Futuretech	004
GE	020, 036, 037, 040, 044, 058, 066, 088, 119, 120, 125, 147
Goldstar	000, 015, 029, 031, 039, 048, 051, 056, 057, 067, 068, 069, 116
Grundy	062
Hitachi	029, 031, 051, 052, 070, 111, 112, 113, 124, *[134]
Hitachi Pay TV	151
Infinity	017, 071
Janeil	122
JBL	017, 071
JC Penny	020, 034, 039, 040, 041, 044, 048, 050, 058, 066, 069, 076, 088, 090, 095, 125, 136, 159
JCB	046
JVC	019, 051, 052, 072, 073, 091, 117, 126
Kawasho	018, 046
Kenwood	038, 056, 057
Kloss	010, 032
Kloss Novabeam	005, 122, 127, 131
KTV	074, 123
Loewe	071
Logik	144
Luxman	031
LXI	008, 014, 017, 024, 040, 044, 063, 071, 075, 076, 077, 118, 125
Magnavox	005, 010, 017, 030, 033, 038, 050, 056, 071, 078, 079, 085, 089, 108, 109, 110, 127, 131, 132, 145
Marantz	015, 017, 071, 080
Matsui	027
Memorex	014, 027, 045, 083, 118, 144
Metz	160, 161, 162, 163
MGA	001, 039, 048, 056, 057, 058, 065, 081, 083
Midland	125

Minutiz	066
Mitsubishi	001, 016, 039, 048, 056, 057, 058, 065, 081, 082, 083, 105
Montgomery Ward	011, 020, 144, 145, 146
Motorola	121, 147
MTC	031, 034, 039, 048, 095
NAD	008, 075, 076, 128
National	002, 036, 061, 147
National Quenties	002
NEC	031, 038, 039, 048, 057, 084, 086, 135, 147
Nikko	054
NTC	054
Optimus	128
Optonica	011, 012, 093, 121
Orion	004, 139
Panasonic	002, 009, 017, 036, 037, 071, 141, 143, 147
Philco	005, 010, 030, 050, 051, 056, 079, 085, 127, 131, 132, 145, 147
Philips	005, 015, 017, 050, 051, 056, 078, 087, 088, 089, 131, 132, 147
Pioneer	124, 128, 142
Portland	054
Price Club	095
Proscan	040, 044, 125
Proton	035, 051, 092, 129
Pulsar	042
Quasar	036, 037, 074, 141
Radio Shack	011, 044, 063, 093, 118
RCA	040, 044, 125, 130, 137, 151, 152
Realistic	014, 063, 093, 118
Saisho	027
Samsung	003, 015, 034, 053, 055, 057, 094, 095, 136, 153
Sansui	139
Sanyo	013, 014, 021, 022, 063, 064, 081, 096

SBR	015
Schneider	015
Scott	062
Sears	008, 014, 021, 022, 023, 024, 025, 040, 052, 057, 062, 063, 064, 065, 073, 075, 076, 097, 098, 125, 159
Sharp	011, 012, 013, 026, 093, 099, 100, 104, 121
Siemens	013
Signature	045, 144
Simpson	050
Sony	043, 046, 138, 146, 150
Soundesign	030, 050, 062
Spectricon	007, 033
Squareview	004
Supre-Macy	032, 122
Supreme	046
Sylvania	005, 010, 017, 030, 078, 079, 085, 089, 101, 127, 131, 132, 145, 155
Symphonic	004, 148
Tandy	012, 121
Tatung	036, 124
Technics	037
Teknika	001, 030, 032, 034, 052, 054, 078, 083, 095, 144, 156, 157
Tera	035, 129
Thomson	165, 166
Toshiba	008, 014, 034, 063, 075, 076, 095, 097, 136, 158, 159
Universal	020, 066, 088
Victor	019, 073, 126
Video Concepts	016
Viking	032, 122
Wards	005, 045, 066, 078, 085, 088, 089, 093, 102, 103, 131, 132, 148
Zenith	042, 114, 115, 140, 144, 149
Zonda	007

CABLE

ABC	006, *[007], 008, 009
Archer	010, 011
Century	011
Citizen	011
Colour Voice	012, 013
Comtronic	014
Eastern	015
Garrard	011
Gemini	030, 033, 034
General Instrument	030, 031, 032
Hytex	006
Jasco	011
Jerrold	009, 016, 017, 026, 032
Magnavox	018
Movie Time	019
NSC	019
Oak	000, 006, 020
Panasonic	001, 005
Philips	011, 012, 013, 018, 021
Pioneer	002, 003, 022
RCA	029
Regency	015
Samsung	014, 023
Scientific Atlanta	004, 024, 025
Signal	014
SL Marx	014
Starcom	009
Stargate	014
Televue	014
Tocom	007, 016
TV86	019
Unika	011
United Artists	006
Universal	010, 011
Viewstar	018, 019
Zenith	027, 028

DBS (SATELLITE)

Alphastar	054
Chaparral	035, 036
Dishnet	053
Drake	037, 038
Echostar Dish	062, 066
GE	048, 055, 056
General Instruments	039, 040, 041
Grundig	070, 071, 072, 073
Hitachi	058, 059
Hughes Network	063, 064, 065, 069
JVC	057
Kathrein	074, 075, 076, 083
Magnavox	060
Nokia	070, 080, 084, 085, 086
Philips	060
Primestar	051
Proscan	048, 055, 056
RCA	048, 055, 056, 068
Realistic	042
Sierra I	036
Sierra II	036
Sierra III	036
Sony	049, 067
STS1	043
STS2	044
STS3	045
SRS4	046
Technisat	077, 078, 079, 081, 082
Toshiba	047, 050
Uniden	061

CD

Denon	*[111]
Aiwa	001, 035, 043
Burmester	002
Carver	003, 035

Emerson	004, 005, 006, 007
Fisher	003, 008, 009, 010
JVC	018, 019
Kenwood	011, 012, 013, 014, 017
Magnavox	006, 015, 035
Marantz	016, 028, 035
MCS	016, 024
Onkyo	025, 027
Optimus	017, 020, 021, 022, 023
Philips	014, 032, 033, 035
Pioneer	006, 022, 030
Sears	006
Sony	023, 031
Teac	002, 009, 028
Technics	016, 029, 036
Wards	035, 037
Yamaha	038, 039, 040, 041
Zenith	042

CD-R

Denon	*[111], 112
Philips	112

MD

Denon	113
Kenwood	003, 004
Onkyo	007
Sharp	005
Sony	006

TAPE

Denon	*[111]
Aiwa	001, 002
Carver	002
Harman/Kardon	002, 003
JVC	004, 005
Kenwood	006

Magnavox	002
Marantz	002
Onkyo	016, 018
Optimus	007, 008
Panasonic	012
Philips	002
Pioneer	007, 008, 009
Sony	013, 014, 015
Technics	012
Victor	004
Wards	007
Yamaha	010, 011

*[] : Preset codes set upon shipment from the factory.

DVD preset codes	111	014
DENON Model No.	DVD-555 DVD-755 DVD-900 DVD-910 DVD-955 DVD-1000 DVD-1200 DVD-1500 DVD-1710 DVD-1910 DVD-2200 DVD-2800 DVD-2800II DVD-2900 DVD-2910 DVD-3800 DVD-3910 DVD-5900 DVD-5910 DVD-9000 DVM-715 DVM-1800 DVM-1805 DVM-1815 DVM-2815 DVM-4800	DVD-800 DVD-1600 DVD-2000 DVD-2500 DVD-3000 DVD-3300