



Manual for:

Force universal remote control

URC 39720 B00-05

TABLE OF CONTENTS

1.	INTRODUCTION	3
2.	Force Universal remote operation	3
2.1.	Installing the batteries	3
3.	THE KEYPAD.....	4
4.	ADDITIONAL OPERATION	6
4.1.	Setting up the Force universal remote with your television.	6
4.2.	Setting up the Force universal remote with your video recorder/laser disc/DVD.	6
4.3.	Code search.....	6
5.	ADDITIONAL FEATURES.....	7
5.1.	TV control	7
5.2.	Macros.....	8
5.3.	Learning	9
5.4.	How to delete a learned function:.....	10
5.5.	Important.....	10
6.	IN CASE THAT THERE ARE PROBLEMS	10
7.	CODE REFERENCE	10
8.	Codes for programming against TV other equipment	11
8.1.	TV codes	11
8.2.	VCR	20
8.3.	Laser disk.....	24
8.4.	DVD	24

1. INTRODUCTION

In addition to operate your Force receiver, your Force remote control can replace two standard infrared remote controls and is preprogrammed with codes to operate virtually any television and video recorder/laser disc/DVD. Also, what makes the Force universal remote even more unique is the learning feature which allows you to customize any of the keys on the Force keypad to operate special functions of your original remote or to add basic functions of some other devices. This manual will assist you in setting up your Force remote with your additional devices. Please be sure to retain this manual, as you may need it in the future.

2. Force Universal remote operation

After having inserted the batteries, your Force universal remote is ready to operate your Force receiver. For more information, please refer to the "Keypad" section.

In addition to this your Force universal remote gives you the possibility to control your television and video recorder/laser disc/DVD.

2.1. Installing the batteries

The Force remote requires 2 new AA/LR6 alkaline batteries.

- Remove the battery cover from the back of the Force remote by pressing down on the tab.
- Install two new batteries as indicated by the + and – marks inside the battery case.
- Replace the cover

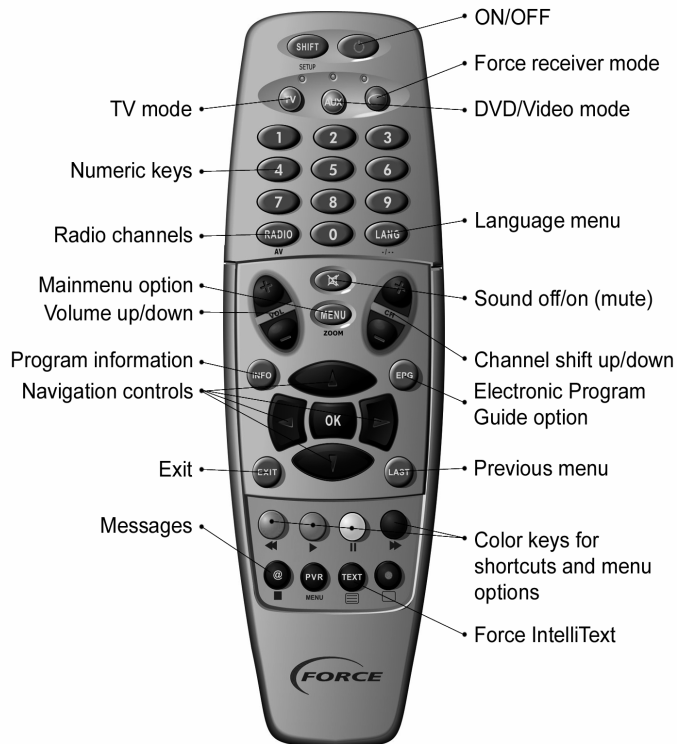
Important:

The codes of each of your devices will remain stored even after removing the batteries.

Please do not use rechargeable batteries.

Write down the code for your television and video recorder/laser disc/DVD on the inside of the battery cover and on page XX for quick easy reference.

3. THE KEYPAD



LED

The LED will blink after a key is pressed. It will also blink twice after a code is entered. A LED is placed above each device key (TV, AUX and Force). During operation of the Force remote the LED will indicate the mode that you are in.

POWER

The POWER key will set your Force receiver in standby mode. With regard to your television and video recorder the POWER key operates just as on your original remote.

Device keys

The TV, AUX and Force key selects the device to be operated. After pressing the Force key, you can control your Force device. After pressing the TV key, you can control the functions of your television. After pressing the AUX key, you can control the functions of your video recorder/laser disc/DVD.

SHIFT

The SHIFT (setup) key will function as a shift key and access additional features.

The SHIFT (set up) key is also used to set up the Force universal remote to control your Force receiver and also your television and video recorder/laser disc/DVD.

Numerical keys

The Numerical keys (0-9 and -/-) operate as they did on your original remote control.

The -/- symbol is used for one/two digit input switching.

Volume keys

The Volume will increase and/or decrease the sound level.

Mute

The Mute key will switch the sound off.

Channel keys

The Program keys allow you to go up and down the channels.

RADIO (AV)

Access to radio channels in Force mode and will access to AV function in TV mode.

MENU

Enters the general menu when in Force mode

When pressing SHIFT followed by MENU, you will enter the 16:9 mode of the Force receiver.

When in TV-mode and if applicable, allows you to enlarge (Zoom) or decrease (SHIFT followed by Zoom) the picture of your 16:9 wide screen TV.

LANG (-/--)

Changes the language of the program being broadcasted, if applicable.

Directional keys

Allows navigation (up, down, left, right) in menu in selected device mode.

OK

Confirms your choice.

INFO

Displays the program INFO bar on your Force receiver and (if the function is available on your original television or video remote) will do the same in TV or AUX mode.

EPG

Accesses the Electronic Programming Guide when in Force mode.

It will access the guide function for your television or video recorder if your original TV/VCR remote had these functions.

EXIT

Exits the guide, menu or other services and returns to last channel viewed.

If your original television- or video remote had such a function then your Force universal remote will do the same in TV or AUX mode.

LAST

Returns to the previous screen in the interactive menu.

In TV mode (if the function is available on your original remote) it will allow you to obtain the Previous Channel (P>P) function.

PVR / VCR transport keys

In PVR or VCR/laser disc/DVD mode, you will be able to control the functions of your Personal Video Recorder and Video Cassette Recorder/laser disc/DVD, depending on the mode you are in.

To prevent accidental recording, the Record key must be pressed twice to start recording.

It will access the menu function of your TV when in TV mode.

RED, GREEN, YELLOW and BLUE keys

These keys allow interactive navigation in Force mode.

@ (MAIL)

Access to the Force mail service when in Force mode.

When in AUX mode it will stop the VCR/laser disc/DVD. When in TV mode with Teletext activated, it will hold the Teletext.

PVR

In Force mode, this function will enter the Personal Video Recorder Menu.

TEXT

Access to the Text function when in Force mode

In TV mode, the Force universal remote will operate the main teletext functions. The red, green, yellow and blue keys allow you to control the fasttext functions. Your television needs to teletext/fasttext capability.

Record

This function will start the recording in either Force (if supported) or AUX mode.

To prevent accidental recording, the Record key must be pressed twice to start recording.

4. ADDITIONAL OPERATION

4.1. Setting up the Force universal remote with your television.

Make sure that your television is switched on (not in standby).

- 1 Find the brand of your television in the code section and select the first 4 digit code.
- 2 Press the TV key and release it.
- 3 Press and hold down the SET UP key until the LED blinks twice.
- 4 Enter the 4-digit code for your television (the LED should blink twice after having entered the fourth digit).
- 5 Press the POWER key and see if you are able to switch off your television.
- 6 Switch your television back on and check if all the functions are working correctly.
- 7 Write down the code for your television on the inside of the battery cover and on page XX for quick easy reference.

Important:

If your television does not respond, repeat steps 1 to 5 with each code listed for your brand. If none of the codes listed for your brand operate your television, or if your brand is not listed, try the search method described on page XX.

If there are some functions that are not working, please try the search method described on page XX., as you may be using the wrong code.

It is possible that during step 6 you need to press a number key to switch on your television
If you want to control your television, press the TV key first.

4.2. Setting up the Force universal remote with your video recorder/laser disc/DVD.

Make sure that your video recorder/laser disc/DVD is switched on.

- 1 Find the brand of your video recorder/laser disc/DVD in the code section and select the first 4 digit code.
- 2 Press the AUX key and release it.
- 3 Press and hold down the SET UP key until the LED blinks twice.
- 4 Enter the 4-digit code for your video recorder/laser disc/DVD (the LED should blink twice after having entered the fourth digit).
- 5 Press the POWER key and see if you are able to switch off your video recorder/laser disc/DVD.

Write down the code for your video recorder/laser disc/DVD on the inside of the battery cover and on page XX for quick easy reference.

Important:

If your video recorder/laser disc/DVD does not respond, follow steps 1 through 5 with each code listed for your brand. If none of the codes listed for your brand operate your video recorder/laser disc/DVD, or if your brand is not listed at all, try the search method described on page XX.

If there are some functions that are not working, please refer to the learning section on page XX. Your original video remote control should be working correctly of course.

If you want to control your video recorder/laser disc/DVD, press the AUX key first. To avoid accidental recording with the Force universal remote, you need to press the record key twice to start recording.

If your video recorder/laser disc/DVD does not have a POWER key, press PLAY during step 5.

4.3. Code search

If your television or video recorder/laser disc/DVD does not respond to the Force universal remote after having tried all the codes listed for your brand, you can try the Code search. During the Code search you will run through every code inside the Force universal remote library. This method may also work if your brand is not listed at all.

For example to search for your television code:

- 1 Manually switch on your television.
- 2 Aim the Force universal remote at your television.
- 3 Press the TV key and release it.
- 4 Press and hold down the SET UP key until the LED blinks twice.
- 5 Press 9 9 1. The LED will blink twice.

6 Next, alternately press POWER and TV until the television responds.

i.e. press POWER then TV then POWER then TV etc.

Every time that you press TV, the Force universal remote will advance to the next code in the Force library. By pressing POWER you are checking if the television switches off.

As soon as the television switches off, press SET UP to store the correct code.

Important:

Press AUX instead of TV when you are doing a Code search for your video recorder/laser disc/DVD.

If your video recorder/laser disc/DVD does not have a POWER key, press PLAY during step 5.

The search method can take approximately 15 minutes.

Code Blink out

By doing a Code Blink out you can determine which code is actually working with your television and/or video recorder/laser disc/DVD.

To blink back the code for your television:

- 1** Press the TV key
- 2** Press and hold down the SET UP key until the LED blinks twice.
- 3** Press 9 9 0. The LED will blink twice.
- 4** Press 1 and count the LED blinks.
- 5** Press 2 and count the LED blinks.
- 6** Press 3 and count the LED blinks.
- 7** Press 4 and count the LED blinks. Now you have found the 4-digit code.

Important:

If during step 4, 5, 6 or 7 the LED does not blink at all, the digit is 0.

Press AUX instead of TV during step 1 if you want to blink back your video recorder/laser disc/DVD code.

Write down the code for your device on the inside of the battery cover and on page XX for quick easy reference.

5. ADDITIONAL FEATURES

5.1. TV control

Teletext

If your television has teletext, your Force universal remote will operate this function as well.

Teletext on : Puts you in teletext mode.

TV / Teletext off: Switches the television back to regular mode. On some televisions this may be done by pressing the TEXT key several times.

HOLD (hidden under the @ key): This key will hold the text page.

Important:

For a more detailed explanation of your televisions and fasttext capability, please refer to your television manual. Be aware that different televisions control teletext and fasttext features in different ways. Not all of the teletext functions may be available for your particular model.

Colour and Brightness

If your original television remote had colour/brightness control, the Force universal remote will also operate this feature.

Adjusting colour:

Colour (+):	Press SET UP followed by Volume (+)
Colour (-):	Press SET UP followed by Volume (-)

Adjusting brightness:

Brightness (+): Press SET UP followed by Channel (+)
Brightness (-): Press SET UP followed by Channel (-)

Menu

Many original remotes for televisions and video have menu control. In TV or AUX mode the Force universal remote will control this feature. After pressing the menu key you will obtain the menu function.

You can use the directional keys to navigate through the menu just like on your original remote.

Some remotes activate menu through the fastext keys. The colour keys red, green, yellow and blue on the Force universal remote will do the same.

Important:

Press menu again to exit.

If you original remote had an "ENTER" key you can use the "OK" key on the Force universal remote.

It is useful to refer to the manual of your original remote.

Volume Punch Through

You may use the volume (a TV function) being in a different mode. If you are in AUX mode you can adjust the volume without pressing the TV key first.

Last key pressed: You can control:

VCR	TV volume up and down, mute.
Force	TV volume up and down, mute.

To punch through to TV volume, being in AUX or Force mode press:

MAGIC* 9 9 3 TV

To cancel the "Volume Punch Through" press:

MAGIC* 9 9 3 Vol (+), the LED blinks 4 times.

* Press and hold SET UP until the LED blinks twice.

5.2. Macros

Your Force universal remote is equipped with a special feature called Macro. This feature allows you to send a sequence of several commands pressing one key. For example you can switch on your television, video recorder and your Force receiver by pressing one key. A macro is not mode specific, so you will be able to send the macro function

How to set a macro on the e.g. LANG key:

The Macro in this example will be:

Switching off your television then your video recorder then your Force receiver.

- 1** Press and hold down the SET UP key until the LED blinks twice.
- 2** Press 9 9 5. The LED blinks twice
- 3** Press the LANG key
- 4** Press **TV** then **POWER**, **AUX** then **POWER**, **Force** then **POWER**.
- 5** Press the SET UP key to store the Macro. The LED will blink twice.

When you press the LANG key, your Force universal remote will switch off your television then your video recorder then your Force receiver independent of the mode (TV, AUX, Force) that you are in.

To erase a Macro repeat step 1 to 3 then step 5. So you are skipping step 4 to erase the Macro.

Important:

- Make sure to program the Macro on a spare key that you don't use in any mode.

Each Macro can consist of a maximum of 15 key strokes.

The Force universal remote will send the commands just like you programmed them, so it will remember the time between two key strokes.

Shifted Macros

If you don't want to lose a function on your Force universal remote you can program a shifted Macro.

How to set up a shifted Macro on the e.g. LANG:

The Macro in this example will be:

Switching off your television then your video recorder/laser disc/DVD then your Force receiver.

- 1** Press and hold down the SET UP key until the LED blinks twice.
- 2** Press 9 9 5. The LED will blink twice.
- 3** Press and release the SET UP (Shift) key.
- 4** Press the LANG key.
- 5** Press TV then POWER, AUX then POWER, Force then POWER.
- 6** Press the SET UP key to store the Macro. The LED will blink twice.

When you press SET UP (Shift) once followed by the LANG key your Force universal remote will switch OFF your television then your video recorder/laser disc/DVD then your Force receiver independent of the mode (TV, AUX, Force) that you are in. The original function on the LANG key will be retained.

To erase a SHIFTED Macro repeat step 1 to 4 then step 6. So you are skipping step 5 to erase the Macro.

Important:

Be sure to program the Macro on a key that you don't use in any mode, or shifted.

A Macro or shifted Macro will work regardless of the mode (TV, AUX, Force) that you are in.

To avoid accidental recording with the Force universal remote, you need to press the record key twice to start recording. Because of this, you cannot assign a Macro or shifted Macro to the Record key.

If you had to hold down a key for a few seconds on the original remote to get a function, this may not work in Macro or shifted Macro on your Force universal remote.

If a shifted Macro is placed on the Mute, Channel and Volume keys then you will lose scan and Colour/Brightness. The Force universal remote will send IR commands while you are programming the macro, so it will remember the time between two key strokes.

5.3. Learning

After you have programmed your television and/or video recorder/laser disc/DVD you may find that some functions of your original television –or original video remote are missing. You can add those functions by using the learning feature. The original remote control of your television and/or video recorder/laser disc/DVD needs to be working correctly.

For example; to learn the following functions from your original remote on to the Force universal remote:

-VCR function "showview" on the EPG key

- 1** Take your Force remote and the original VCR remote and put them on a flat surface and point the ends which you normally point at your device towards each other. Keep a distance of 2 to 5 cm.
- 2** Press and hold down the SET UP key until the LED blinks twice.
- 3** Press 9 7 5. The LED will blink twice.
- 4** Press VCR on the Force universal remote to select the mode to which you want to copy the learned function.
- 5** Press EPG on the Force universal remote (the LED will flash constantly).
- 6** Press and hold down "showview" on the original VCR remote until the LED on the Force universal remote blinks twice.
- 7** If you want to copy other functions within the same mode, simply repeat steps 5 and 6 pressing the next key you want to copy by learning.
- 8** Press and hold down SET UP to store. The LED will blink 4 times.

In VCR mode you will obtain the "showview" function pressing the EPG key.

Learning is mode specific. To access your learned function, press the appropriate device key first.

Shifted Learning

To program a Shifted Learning function, follow the steps on page 9, only press SHIFT before starting with step 5.

5.4. How to delete a learned function:

- 1 Press and hold SET UP until the LED blinks twice.
- 2 Press 9 7 6. The LED will blink twice.
- 3 Press the corresponding device key (TV, AUX or Force) from where you want to delete the function.
- 4 Press the learned function key twice.*

* To delete a shifted learned function press the Shift key before pressing the function key two times.

Caution

Do not use the reset commands for other Universal Electronics / One For All remote controls. Resets will permanently delete Force functions from the remote, and the warranty on this remote control will be invalidated.

5.5. Important

- During the learning procedure (page 9), you have approximately 10 seconds to conduct each step. If you exceed this time period, you will have to start over at step 1
- The learning feature is mode specific. Therefore you can place one learned feature per mode on the same key.
- If you learn a function on a key which already has a function, the original function becomes shifted.
- If you learn a function on the CH+, CH-, VOL+, VOL-, MENU, Red, Green, Yellow, Blue and @ key, the shifted function (if available) on this key will be lost.
- The Force universal remote can learn approximately 20 functions.
- The learning procedure should be conducted in low levels of natural light or in fluorescent light.
- Please make sure that you are using new batteries before using the learning feature.
- Your learned functions will remain stored even after removing the batteries.

6. IN CASE THAT THERE ARE PROBLEMS

- *The code list does not include your brand?*
 - Follow the Code search instructions on page 6.
- *Teletext is not working?*
 - Use the Learning feature on page 9
- *The Force universal remote is not working correctly?*
 - Try the next code for your brand in the code list.
- *The video recorder does not start recording?*
 - Press the record key twice to start recording.
- *The LED does not light up/ the remote does not work at all?*
 - Insert 2 new AA/LR6 alkaline batteries.

7. CODE REFERENCE

Write down the code for your device on the inside of the battery cover and on this page for quick easy reference.

TV

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
----------------------	----------------------	----------------------	----------------------

AUX

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
----------------------	----------------------	----------------------	----------------------

8. Codes for programming against TV other equipment

8.1. TV codes

A.R. Systems	0067	0382				
Accent	0067					
Admiral	0117	0123	0448	0243	0294	
Adyson	0247	0246				
Agashi	0246					
Agazi	0294					
AGB	0546					
Agef	0117					
Aiko	0246	0039	0067	0401	0065	0463
	0102	0391	0221	0294	0247	
Aim	0067					
Akai	0391	0238	0401	0067	0463	0221
	0065	0039	0102	0248	0193	
	0546	0586	0578	0510	0247	
	0661	0246	0294			
Akiba	0248	0312	0485	0067		
Akura	0248	0389	0312	0039	0442	0294
	0067					
Alba	0248	0265	0039	0448	0400	0385
	0401	0067	0246	0277	0193	
	0517	0066	0698	0609		
Alcyon	0106					
Allorgan	0236	0324	0247			
Allstar	0067					
Amplivision	0247	0430	0350	0400		
Amstrad	0039	0546	0294	0248	0401	0463
	0442	0067				
Anglo	0039	0294				
Anitech	0039	0106	0294	0067		
Ansonic	0400	0132	0039	0067	0404	0193
	0353	0441	0289	0277	0042	
	0458					
Apollo	0503					
Arc en Ciel	0429	0531	0139	0226	0363	0228
Arcam	0246	0429	0247			
Aristona	0067	0586	0042			
Arthur Martin	0193	0430				
ASA	0135	0376	0100	0134	0117	
Asberg	0067	0106				
Asora	0039					
Asuka	0248	0294	0246	0312	0247	
Atlantic	0067	0246	0236	0289	0350	
Atori	0039					
Auchan	0193	0430				
Audiosonic	0067	0139	0247	0400	0367	0294
	0248	0458				
Audioton	0247	0400	0294			
Ausind	0106					
Autovox	0117	0236	0267	0106	0379	0247
	0277	0366				
Awa	0041	0066	0039	0187	0404	0442
	0067					
Ayomi	0268					
Baird	0139	0373	0102	0247	0238	
Barco	0410	0193				
Basic Line	0248	0039	0404	0067	0597	0193
	0312					
Bastide	0247					
Baur	0333	0225	0542	0067	0221	0391
	0379	0535	0040			
Bazin	0247					
Beko	0400	0067				
Beon	0067	0448				
Best	0367	0400				
Bestar	0067	0400	0404			
Binatone	0247					

Black Star	0277
Blacktron	0312
Blackway	0312
Blaupunkt	0221 0225 0230 0243 0357 0358 0348
Blue Sky	0248 0312 0485 0067 0517 0698
Blue Star	0312
Bondstec	0277
Boots	0247
BPL	0312 0067
Brandt	0531 0139 0429 0235 0267 0363 0226 0228 0317 0365
Brinkmann	0448 0067 0549
Brionvega	0067 0117
Britannia	0246 0247
Brother	0294
Bruns	0117
BSR	0193 0324
BTC	0248
Bush	0248 0265 0193 0379 0039 0066 0312 0067 0385 0401 0404 0549 0294 0391 0517 0238 0324 0247 0698
Capsonic	0294
Carad	0640 0067
Carena	0485 0067
Carrefour	0066 0100
Cascade	0039 0067
Cathay	0067
CCE	0067
Centurion	0067
Century	0117 0243 0277 0268
CGE	0104 0114 0336 0106 0277 0193 0448 0400
Cimline	0039 0265 0248
City	0039
Clarivox	0448 0100
Clatronic	0248 0294 0400 0401 0247 0106 0277 0067 0039 0132 0350 0609
Clayton	0415
CMS Hightec	0247
Concorde	0039
Condor	0246 0277 0312 0350 0067 0400 0039 0132 0441 0448
Contec	0246 0039 0187 0041 0066
Continental Edison	0531 0139 0267 0226 0228 0429 0363 0235 0317 0517
Cosmel	0039 0367
Crezar	0243
Crosley	0117 0277 0104 0114 0106 0193 0243
Crown	0039 0400 0106 0067 0389 0609 0448 0238 0517
CS Electronics	0277 0246 0248
CTC	0277
Cybertron	0248
Daewoo	0039 0067 0246 0404 0248 0247
Dainichi	0248 0246
Dansai	0067 0294 0065 0246
Dansette	0442
Dantax	0400
Datsura	0238
Dawa	0067
Daytron	0039 0404 0067
Decca	0102 0546 0067 0247
Deitron	0067
Denko	0294
Desmet	0350 0067
Diamant	0067
Digiline	0067
Dixi	0039 0067 0277 0247
Domland	0424

Drean	0067
DTS	0039
Dual	0379 0247 0373 0289 0366 0549
	0067 0382 0424 0429 0333
Dumont	0117 0134 0132 0243 0247 0100
	0102
Dux	0067 0042
Dynatron	0067
Elbe	0465 0268 0289 0400 0193 0067
	0248 0221 0441 0640
Elcit	0117 0277 0546 0132 0193
Elekta	0294 0312
Elin	0246 0067 0135 0134 0578 0391
	0379 0193 0039
Elite	0248 0067
Elman	0132
Elta	0039 0294
Emerson	0243 0117 0277 0067 0401 0100
	0312 0350
Emperor	0312
Erres	0067 0042
Etron	0067 0039 0193
Euro-Feel	0294
Europa	0067
Europhon	0067 0546 0132 0243 0247 0277
	0193
Expert	0236 0430 0289 0193
Exquisit	0067 0277
Fenner	0404 0039
Ferguson	0317 0365 0268 0139 0590 0655
Fidelity	0246 0401 0193 0294 0067
Filsai	0247
Finlandia	0238 0376 0389 0578 0391
Finlux	0135 0134 0067 0376 0247 0102
	0193 0106 0546 0100 0117
	0132 0441 0661 0522
Firstline	0324 0351 0246 0067 0404 0415
	0277 0039 0193 0132 0247
	0441 0379 0561 0268 0102
	0265 0698 0238
Fisher	0134 0247 0066 0238 0400 0585
	0117 0187 0391 0193 0333
	0379 0102
Flint	0067 0485 0102 0248
FNR	0132
Formenti	0117 0243 0246 0350 0193 0106
Fortress	0123 0117
Fraba	0400 0067
Friac	0039 0067 0132
Frontech	0277 0294 0379 0247 0039
Fujitsu	0236 0102 0132 0247 0193
Fujitsu General	0039
Funai	0294 0324
Galaxi	0132 0067
Galaxis	0400 0448 0067 0132
GBC	0243 0193 0039 0404 0248
GE	0590 0139 0317 0365 0373
Geant Casino	0193 0430
GEC	0102 0193 0391 0235 0546 0067
	0247 0379
Geloso	0243 0277 0039 0193 0404
General	0139 0317 0501
General Technic	0039
Genexxa	0248 0067 0442
Germanvox	0243
Goldhand	0246
Goldline	0367
GoldStar	0067 0400 0039 0247 0277 0246
	0193 0391
Goodmans	0066 0102 0067 0039 0294 0546
	0404 0517 0401 0586 0373 0265
	0065 0510 0590 0247 0365

Gorenje	0400
GPM	0248
Gradiente	0067 0083
Graetz	0391
Granada	0067 0430 0256 0389 0042 0102
	0138 0238 0247 0106 0066
	0546 0503 0365 0590
Grandin	0312 0248 0430 0067 0039 0350
	0193 0485 0609 0640
Gronic	0247 0132
Grundig	0225 0221 0517 0100 0106 0235
	0267 0067 0586
Halifax	0294 0246 0247
Hampton	0246 0247
Hanimex	0324
Hanseatic	0067 0312 0379 0193 0391 0424
	0243 0350 0458 0400 0039
	0324 0247 0549
Hantarex	0039 0243 0067 0132
Hantor	0067
Harwood	0039 0442 0067
HCM	0294 0039 0312 0442 0247 0248
	0448 0067
Hema	0247 0039
Hemmermann	0379
Hifivox	0531 0139 0226 0429
Hikona	0248
HiLine	0294 0067
Hinari	0238 0066 0067 0248 0039 0193
	0385 0473 0517 0265 0324
Hisawa	0312 0248 0430 0485
Hit	0117
Hitachi	0255 0066 0379 0503 0193 0373
	0226 0228 0247 0336 0224
	0546 0102 0067 0135 0586
	0180 0578
Hitsu	0039 0485 0248
Hornyphone	0067 0042
Hoshai	0248 0485
Huanyu	0404 0246
Hygashi	0247 0246
Hyper	0039 0246 0247 0277
Hypersonic	0391
Hypson	0067 0294 0247 0312 0485 0430
	0268
Iberia	0067
ICE	0294 0247 0067 0401 0248 0246
	0039
Ices	0248 0246
Imperial	0067 0277 0400 0448 0193 0561
	0104 0114 0106 0379 0226
Indesit	0267 0243
Indiana	0067
Ingelen	0517 0640
Inno Hit	0039 0102 0067 0248 0247 0106
	0546 0277
Innovation	0549
Interactive	0441
Interbuy	0039 0294 0277
Interfunk	0067 0042 0117 0542 0357 0193
	0391 0400 0531 0139
Internal	0067
Intervision	0312 0247 0485 0067 0401 0549
	0400 0424 0517 0248 0132
	0193 0294 0277
Irradio	0039 0067 0248 0277 0106
Isukai	0248 0067 0312
ITC	0247
ITS	0067 0401 0248 0312 0294 0246
ITT	0193 0510 0379 0391 0503 0578
	0597 0376 0238
ITV	0294 0067 0277

Jean	0066
JEC	0065
JVC	0683 0083 0066 0401 0248
Kaisui	0248 0312 0067 0246 0485 0247 0039
Kamp	0246
Kapsch	0236 0193 0391 0289 0134
Karcher	0067 0400 0312 0132 0640 0294
KB Aristocrat	0193
Kendo	0265 0277 0132 0067 0458 0400 0441 0640
Kennedy	0236 0243 0193 0465
Kingsley	0246
Kneissel	0465 0289 0400 0268 0067 0441 0640
Kolster	0067
Konka	0248 0401 0067
Kontakt	0517
Korpel	0067
Korting	0117 0400 0350
Kosmos	0067
Kotron	0442 0294
Kraking	0268
Kyoshu	0294 0442
Kyoto	0415 0193
Lemair	0441
Lenco	0039 0134 0193 0067
Lenoir	0039
Lesa	0277
Leyco	0294 0102 0067 0324 0609
LG	0067 0400 0039 0247 0277 0246 0193 0391
Liesenkotter	0067 0357 0358
Lifetec	0039 0294 0549 0067 0404 0248 0698
Lloyd's	0039
Loewe	0542 0067 0117 0400
Logik	0041 0401
Logix	0698
Luma	0236 0067 0193 0289 0441 0404 0039
Lumatron	0236 0067 0193 0289 0391 0247 0294
Lux May	0067 0039
Luxor	0224 0267 0510 0522 0379 0391 0238 0578 0193 0376
Madison	0067
Magnadyne	0117 0277 0546 0132 0193
Magnafon	0546 0243 0106 0132 0246
Mandor	0294
Manesth	0067 0265 0247 0294 0350 0065 0324
Manhattan	0067
Marantz	0067
Marelli	0117
Mark	0067 0247 0246 0404 0039
Masuda	0248
Matsui	0265 0039 0385 0041 0102 0066 0067 0586 0517 0247 0324 0401 0463 0473 0609 0485 0379 0546 0065 0193 0238 0225 0221 0365
Mediator	0067 0586 0042
Medion	0067 0698 0549
Megas	0640
Melvox	0430
Memorex	0039
Memphis	0367 0102 0039 0415
Mercury	0067 0039
Metz	0117 0225 0243 0221 0397
Micromaxx	0067 0698
Minerva	0517 0225 0100 0106 0221 0267

Minoka	0442	0067	0389			
Mitsubishi	0138	0180	0542	0067	0117	0066
	0267					
Mivar	0400	0106	0246			
Monaco	0039					
Motion	0106					
MTC	0400	0379	0542			
Multistandard	0132					
Multitec	0067	0698				
Multitech	0247	0379	0039	0246	0277	0132
	0400	0067				
Murphy	0134	0246	0102	0193		
NAD	0391					
Naiko	0067					
Nakimura	0404	0067				
National	0267	0244	0256			
NEC	0066	0350	0485	0039	0404	0247
	0067					
Neckermann	0067	0221	0400	0535	0040	0230
	0586	0193	0357	0448	0379	
	0117	0243	0277	0247	0441	
NEI	0067	0367	0401			
Nesco	0277					
Network	0367					
Neufunk	0067	0039	0586	0640		
New Tech	0067	0039	0586	0373	0247	
New World	0248					
Nicamagic	0246					
Nikkai	0102	0248	0067	0247	0294	0065
	0367	0246	0039	0066		
	0067	0294				
Noblex	0132	0106	0100	0246		
Nobliko	0429	0531	0139	0226		
Nogamatic	0391	0193	0510	0379	0578	0522
Nokia	0389	0503	0238	0404	0661	0376
	0139	0531	0317	0429	0226	0373
Nordmende	0228	0243	0605	0590	0225	
	0067	0365				
Novatronic	0067	0135				
Oceanic	0597	0193	0430	0391	0324	0238
Okano	0400	0067	0294	0102		
Omega	0294					
Onwa	0401	0248	0463			
Opera	0067					
Orbit	0067					
Orion	0265	0324	0350	0385	0041	0067
	0039	0351	0132	0473	0586	
	0685	0294	0442			
Orline	0067	0248				
Ormond	0415	0698				
Osaki	0102	0248	0247	0294	0067	0442
	0404					
Osio	0067					
Oso	0248					
Osume	0187	0102	0066	0248		
Otto Versand	0040	0535	0066	0123	0542	0067
	0586	0225	0379	0221	0391	
	0265	0139	0243	0324	0256	
	0277	0333	0350	0247		
Pael	0246					
Palladium	0400	0067	0221	0535	0040	0230
	0448	0586	0277	0357	0379	
	0117	0193	0243	0247	0441	
	0685					
Palsonic	0294	0442	0067			
Panama	0039	0247	0294	0246	0067	0277
Panasonic	0256	0680	0280	0244	0243	0391
	0267	0397	0546	0067	0193	0578
Panavision	0067	0441				
Pathe Cinema	0193	0268	0246	0430	0350	0379
Pathe Marconi	0235	0243	0531	0139	0226	0228
	0363	0429	0267			

Pausa	0039
Perdio	0102 0350 0193 0067
Perfekt	0067
Pershin	0430
Philco	0117 0114 0104 0448 0106 0243 0277 0193 0400 0067
Philharmonic	0247
Philips	0586 0067 0042 0353 0221 0117 0373
Phoenix	0067 0117 0350 0400 0415 0246 0193 0102
Phonola	0067 0586 0042 0117 0246
Pioneer	0067 0458 0400 0373 0391 0139
Pionier	0400
Plantron	0067 0294 0039
Playsonic	0247
Poppy	0039
Portland	0404
Prandoni-Prince	0277 0546 0391 0243 0106
Precision	0247
Prima	0039 0294
Prinz	0102 0379 0224
Profex	0039 0193
Proline	0351 0102 0067 0042 0655
Prosonic	0067 0244 0246 0400 0404 0609 0401
Protech	0067 0247 0039 0277 0379 0132 0294 0448 0367 0698
Provision	0067
Pye	0067 0586 0042 0117
Pymi	0039
Quadra Vision	0430
Quasar	0277
Quelle	0067 0040 0041 0531 0139 0542 0379 0221 0391 0066 0247 0277 0104 0114 0357 0336 0100 0134 0135 0187 0225 0230 0243 0294 0698
Questa	0066
R-Line	0067
Radialva	0139 0248 0193 0067
Radiola	0067 0586 0042 0353
Radiomarelli	0117 0546 0277 0067
RadioShack	0067
Radiotone	0039 0067 0458 0400 0609 0448 0294 0442
Rank	0100
RCA	0590 0655 0365
Recor	0067
Rediffusion	0391 0578 0066
Redstar	0067
Reflex	0067
Revox	0067 0400
Rex	0236 0441 0277 0193 0289
RFT	0117 0400 0458 0102 0294
Roadstar	0039 0294 0248 0448
Robotron	0117
Royal Lux	0400 0442
Saba	0317 0243 0117 0429 0193 0139 0531 0546 0373 0391 0528 0226 0228 0365 0235 0655 0578
Sagem	0485 0640 0312
Saisho	0265 0546 0039 0041 0247 0193 0294
Salora	0224 0379 0193 0389 0391 0546 0578
Sambers	0243 0546 0106 0132
Samsung	0067 0586 0617 0039 0247 0400 0294 0246 0102 0238
Sandra	0246 0247
Sanela	0268

Sansui	0067	0401				
Sanyo	0238	0187	0066	0041	0400	0102
	0246	0247	0134	0243	0039	
	0193	0067	0585			
Save	0067					
SBR	0067	0586	0042			
Schaub Lorenz	0379	0578				
Schneider	0067	0586	0042	0333	0379	0549
	0424	0382	0366	0289	0353	
	0373	0247	0277	0401	0248	
	0391	0193	0698			
SEG	0247	0294	0039	0277	0066	0132
	0193	0067	0246	0698	0517	
SEI	0117	0132	0040	0193	0546	0379
	0243	0324	0236	0067		
Seleco	0236	0289	0193	0441		
Sencora	0039					
Sentra	0065	0248	0039			
Serino	0485	0640				
Sharp	1223	0123	0187	0066	0324	0683
	0083					
Shorai	0324					
Siam	0067					
Siarem	0193	0117	0132	0243		
Siemens	0221	0230	0225	0243	0357	0358
	0187	0067				
Sierra	0067	0586	0042			
Siesta	0400					
Silva	0246	0067				
Silver	0066	0391				
Singer	0117	0132	0277	0430	0465	0039
Sinudyne	0117	0265	0132	0243	0324	0193
	0391	0546	0379	0040	0236	0067
Sogera	0350					
Solavox	0391	0102	0193	0578		
Sonitron	0238	0400	0247			
Sonneclair	0067					
Sonoko	0067	0039	0294	0312	0247	
Sonolor	0238	0597	0193	0430	0535	0040
	0578					
Sontec	0067	0400	0324			
Sony	1535	1040	1681	0535	0040	0041
	0030	0066	0132	0681	0104	
Sound & Vision	0132	0248	0404			
Soundwave	0067	0350	0448			
Ssangyong	0039					
Standard	0248	0039	0247	0350	0067	0404
Starlite	0039	0193	0067	0294		
Stenway	0312	0248				
Stern	0236	0289	0193			
Strato	0067	0294	0039			
Sunkai	0324	0385	0351	0485	0248	0265
	0067	0517				
Sunstar	0401	0067	0039			
Sunwood	0067	0039				
Superla	0546	0246				
Supertech	0039	0067	0246	0586		
Supra	0404	0039				
Susumu	0365					
Sutron	0039					
Swissline	0277					
Sydney	0246	0247				
Sytong	0246					
Tandberg	0397	0441	0139	0367	0226	0391
Tandy	0248	0102	0247	0277	0123	
Tashiko	0066	0247	0246	0389	0193	
Tatung	0102	0546	0247	0067	0041	
Teac	0067	0542	0485	0294	0039	0442
	0379					
TEC	0247	0039	0277	0501	0365	0367

	0289
Tech Line	0067 0698
Technema	0350
Technisat	0685
Tedelex	0247
Teleavia	0139 0531 0317 0226 0429 0235 0363 0520
Telecor	0067 0193 0248 0247 0289 0424
Telefunken	0139 0531 0528 0501 0429 0317 0104 0114 0131 0365 0292 0336 0373 0226 0067 0655
Telefusion	0067
Telegazi	0067 0193 0289 0248 0294
Telemeister	0350 0067
Telesonic	0067
Telestar	0067
Teletech	0039 0277 0367 0067 0698
Teleton	0247 0236 0193 0379 0289 0066
Televideon	0350 0193 0246
Televiso	0430
Temco	0324
Tempest	0039
Tensai	0134 0248 0067 0247 0324 0350 0039 0135 0404 0401 0277
Tenson	0350 0039
Tevion	0549 0067
Texet	0247 0404 0039
Thomson	0317 0429 0139 0531 0363 0501 0365 0226 0228 0235 0267 0373 0067 0520 0590 0655
Thorn	0268 0104 0114 0067 0134 0365 0542 0389 0404 0065
Tokai	0102 0067 0367 0193 0247 0404 0039
Tokyo	0246 0065
Tomashi	0312 0248
Toshiba	0065 0538 0273 0066 0100 0132 0247
Towada	0379 0132 0247
Trans Continens	0247 0067
Trident	0546 0247
Tristar	0248
Triumph	0546 0376 0586 0067 0273
Uher	0106 0067 0236 0350 0333 0404 0448 0400 0289
Ultravox	0117 0132 0404 0277 0246 0193 0243 0067
Unic Line	0067 0503
United	0067
Universum	0376 0135 0225 0503 0391 0277 0522 0510 0400 0230 0448 0041 0542 0324 0066 0187 0100 0193 0294 0134 0067 0441 0104 0336 0243 0357 0358 0040 0535 0106 0379 0247 0531 0139 0367 0661 0698
Univox	0367 0117 0067 0193 0268
Vestel	0067 0193 0247
Vexa	0039 0067
Videologique	0246 0248 0247
VideoSystem	0067
Videotechnic	0246 0350 0247
Videoton	0193
Vidikron	0132
Viper	0367
Visiola	0246
Vision	0067 0350
Vistar	0236 0391
Vortec	0067
Voxson	0117 0106 0067 0448
Waltham	0247 0448 0317 0415 0067
Watson	0067 0350 0193 0248 0243 0609

	0549 0424 0039 0698
Watt Radio	0243 0132 0379 0193 0246
Wega	0243 0066 0117 0067
Wegavox	0039
Weltblick	0067 0350
White Westinghouse	0350 0246 0067 0367
Winco	0442
Windstar	0312
Xrypton	0067
Yamishi	0312 0485 0248 0067 0247
Yokan	0067
Yoko	0247 0067 0248 0294 0039 0400
	0246
Yorx	0248
Zanussi	0236 0247

8.2. VCR

Adelsound	0034
Adyson	0102
Aiwa	0337 0030 0071 0239 0378 0382
	0067
Akai	0136 0345 0083 0071 0050 0382
Akiba	0102
Akura	0102 0071
Alba	0308 0102 0239 0382 0050 0030
	0345 0378
Allorgan	0270
Allstar	0352 0111
Ambassador	0050
Amstrad	0030 0355 0362 0308 0102
Anitech	0102 0352
Ansonic	0034
Aristona	0111
ASA	0067 0111
Asuka	0102 0067 0111 0030 0068
Audiosonic	0308
Audioton	0050
Awa	0067
Baird	0136 0308 0134 0137 0071 0030
Basic Line	0308 0239 0050 0102
Bestar	0308 0050
Blaupunkt	0256 0111 0184 0257 0192 0036
	0225 0433 0064
Blue Sky	0067 0239 0378 0102
Bondstec	0050 0102
Bosch	0184
Brandt	0071 0217 0327 0236 0350 0351
	0523
Brinkmann	0239 0378
Bush	0102 0308 0345 0239 0382 0030
	0378
Carena	0239 0111
Carrefour	0075
Casio	0030
Cathay	0308
Catron	0050
CGE	0071 0030
Cimline	0102 0239
Clatronic	0050 0102
Combitech	0382
Condor	0050 0308
Crown	0308 0102 0050 0352
Daewoo	0308 0050 0075 0239 0382
Dansai	0102 0308
Daytron	0308
Decca	0030 0071 0111 0038 0097
Deitron	0308
Denko	0102
Diamant	0067
Domland	0239

Dual	0071	0111	0308	0030			
Dumont	0030	0111	0134				
Elbe	0308	0068					
Elcatech	0102						
Elin	0270						
Elsay	0102						
Elta	0102	0308					
Emerson	0102	0075					
ESC	0308	0270	0050				
Etzuko	0102						
Europhon	0050						
Fenner	0050						
Ferguson	0137	0071	0350	0351	0083	0523	
	0030						
Fidelity	0030	0102	0355	0270			
Finlandia	0134	0111	0072	0196	0030	0078	
Finlux	0030	0111	0134	0072			
Firstline	0102	0239	0378	0073	0067	0075	
	0072	0118					
Fisher	0077	0134	0076	0068	0050		
Flint	0239						
Frontech	0050	0352					
Fujitsu	0030						
Funai	0030						
Galaxy	0030						
GBC	0050						
GEC	0111						
General	0050						
General Technic	0378						
Genexxa	0134						
Goldhand	0102						
GoldStar	0067	0030					
Goodmans	0030	0102	0270	0308	0067	0050	
	0111	0378	0239	0433			
	0038						
Gradiente							
Graetz	0071	0134	0270				
Granada	0134	0076	0078	0111	0036	0270	
	0067	0256	0072	0030			
Grandin	0102	0067	0050	0030	0308	0239	
Grundig	0037	0225	0111	0377	0379	0256	
	0036	0433	0350				
	0382						
Hanimex							
Hanseatic	0067	0239	0308				
Hantor	0050						
Harwood	0102						
HCM	0102	0352					
Hinari	0034	0102	0239	0382	0071	0352	
	0118	0308					
Hisawa	0239	0382					
Hitachi	0072	0196	0071	0030	0270	0111	
	0034	0134	0433				
Hornophone	0111						
Hypson	0102	0239	0308				
Impego	0050						
Imperial	0030	0270					
Inno Hit	0050	0270	0308	0352	0102		
Interbuy	0067	0102					
Interfunk	0111	0134					
Internal	0308						
Intervision	0030	0308	0067	0239	0378		
Irradio	0102	0067	0111				
ITT	0136	0071	0076	0414	0134	0270	
ITV	0308	0067	0050				
JVC	0071	0097	0038	0236	0237	0414	
	0516						
Kaisui	0102						
Karcher	0308						
Kendo	0136	0239	0345	0083	0378	0102	
	0067						
Kenwood	0071						
Kimari	0077						
Kneissel	0382	0239	0378				

Korpel	0102
Kuba	0077
Kyoto	0102
Leyco	0102 0118
LG	0067 0030 0308
Lifetec	0239 0378
Loewe Opta	0111 0036 0067 0034 0192 0192
Logik	0034 0270 0102 0136 0239
Lumatron	0308
Luxor	0136 0076 0073 0102 0134 0077 0078
Magnavox	0111 0433
Manesth	0102 0075 0111 0239
Marantz	0111 0068 0036 0239
Mark	0308 0050
Marquant	0352
Matsui	0239 0034 0378 0066 0067 0118 0270 0382 0362 0030
Mediator	0111
Medion	0239 0378 0382
Memorex	0134 0030 0076 0067 0078 0077
Memphis	0102
Metz	0225 0377 0111 0192 0192 0256 0257 0036
Micormay	0378
Micromaxx	0239
Migros	0030
Minerva	0225
Mitsubishi	0073 0097 0111
Multitech	0030 0102 0050 0134 0352
Murphy	0030
NAD	0134
National	0256 0192
NEC	0071 0068 0097 0134 0067
Neckermann	0071 0036 0111
Nesco	0102 0030 0382
Neufunk	0239
Nikkai	0050 0102 0308
Nokia	0134 0136 0345 0071 0308 0076 0270 0078 0072 0111
Nordmende	0071 0327 0414 0350 0351 0217 0237 0524 0558
Oceanic	0030 0078 0136 0111 0134 0071 0076
Okano	0345 0239 0378 0102 0352 0308
Orion	0239 0034 0066 0118 0382 0378
Orson	0030
Osaki	0030 0067 0102
Otto Versand	0111
Palladium	0102 0345 0067 0071 0036 0239 0034 0270
Palsonic	0102
Panasonic	0192 0192 0256 0257
Pathe Cinema	0066 0034 0073
Pathe Marconi	0071
Perdio	0030 0239
Philco	0068 0102
Philips	0111 0036 0433
Phonola	0111
Pioneer	0097 0111 0072
Portland	0050 0308
Prinz	0030 0118
Profex	0352
Proline	0030 0350 0351
Prosco	0308
Prosonic	0239 0308 0030
Protech	0111
Provision	0308
Pye	0111
Quelle	0036 0111
Radialva	0067 0102 0111 0078

Radiola	0111
Rex	0071 0414
RFT	0050 0433 0102
Roadstar	0270 0102 0067 0308
Royal	0352 0102
Saba	0071 0217 0327 0236 0237 0350 0351 0414 0524 0610
Saisho	0034 0239 0066 0118 0378
Salora	0076 0073 0136 0134
Samsung	0270 0462
Samurai	0050
Sansui	0071 0097 0136 0102 0352
Sanwa	0034
Sanyo	0134 0076 0077 0078
Saville	0382 0308 0270
SBR	0111
Scan Sonic	0270
Schaub Lorenz	0071 0134 0030 0136 0345
Schneider	0102 0030 0067 0111 0308 0270
SEG	0102 0270 0352 0308
SEI-Sinudyne	0034 0111
Seleco	0071 0038 0414 0050 0067
Semivox	0075 0239
Sentra	0102 0050
Sentron	0102
Sharp	0078
Shintom	0102 0134
Shivaki	0067
Shorai	0118 0034
Siemens	0225 0036 0067 0134 0037 0111
Sierra	0111
Silva	0067
Silver	0308
Sinudyne	0034 0111
Sonitron	0077
Sonneclair	0102
Sonoko	0308
Sonolor	0078
Sontec	0067
Sony	0063 0064 0062 0041 0136 0062
Soundwave	0067 0239
Ssangyong	0102
Standard	0308
Starlite	0067 0134
Stern	0308
Sunkai	0239 0378 0308
Sunstar	0030
Suntronic	0030
Sunwood	0102
Supra	0067 0270
Symphonic	0030 0102
Taisho	0034 0239 0118
Tandberg	0308
Tashiko	0030 0078 0270 0111 0067
Tatung	0030 0071 0111 0083 0078 0073 0239
Teac	0071 0030 0308 0067 0111 0337
TEC	0050 0308 0102
Technisat	0378 0239
Teleavia	0071 0217
Telefunken	0217 0071 0327 0350 0351 0414 0523 0524 0559 0560 0352 0102 0308 0030
Teletch	0102
Tenosal	0030 0352 0067 0102 0034
Tensai	0378 0239
Tevion	0071 0414 0350 0236 0351 0523 0524 0558
Thomson	0071 0134 0067 0066
Thorn	0102 0067 0071 0134
Tokai	0378
TopLine	0075 0071 0414 0073 0111 0433
Toshiba	

Towada	0352	0102					
Towika	0102						
TVA	0050						
Uher	0067	0270					
Ultravox	0308						
Unitech	0270						
United Quick Star	0308						
Universum	0030	0355	0111	0270	0067	0136	
	0378	0225	0036	0239	0352	0433	
Victor	0038	0097					
Watson	0111	0382					
Weltblick	0067						
Yamishi	0102	0308					
Yokan	0102						
Yoko	0067	0102	0050	0270			

8.3. Laser disk

Carver	0224	0094					
Cyrus	0418						
Denon	0089						
Grundig	0089						
Harman/Kardon	0224						
Magnavox	0094	0224					
Marantz	0094	0224					
Mitsubishi	0089						
NAD	0089						
Philips	0094	0418	0224				
Pioneer	0089						
Radiola	0418						
Salora	0094						
Sony	0223	0231					
Telefunken	0089						

8.4. DVD

Theta Digital	0224						
Akai	0641						
Denon	0520	0664					
Grundig	0569						
JVC	0588						
Kenwood	0564						
Magnavox	0533						
Marantz	0569						
Micromega	0569						
Onkyo	0642	0533					
Optimus	0555						
Panasonic	0520						
Philips	0569	0533	0662				
Pioneer	0555	0601	0662				
Samsung	0603						
Sony	0563						
Technics	0520						
Thomson	0581						
Toshiba	0533						
Yamaha	0520	0575					