

CR100 remote control

English



ARCAM

Arcam CR100: one remote for many devices

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The CR100 complies with Part 15 of the FCC rules

This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide a reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by

turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

The CR100 is a sophisticated 'universal' remote control that can control up to eight devices.

- The CR100 is preprogrammed for use with Arcam products (Solo Movie, amplifiers, multi-channel sound processors, CD players and DVD players) within range.

SEE PAGES 8-15

- The CR100 can control your complete home entertainment system. With its extensive built-in library of codes, the CR100 can be used with thousands of third-party TVs, satellite decoders, set-top boxes, VCRs and CD players.

SEE PAGES 6, 21

- The CR100 can 'learn' almost any function from an old single-device remote.

SEE PAGE 16

- You can customise the CR100 to suit, and program it to issue a sequence of commands (a 'Macro') at a single key press.

SEE PAGES 16, 19

The CR100 is supplied with several Arcam products. For specific information on how to use the CR100 to control the product it was supplied with, please refer to that product's manual.

Device Mode keys

The Device Mode keys (shown below) select the source on your amplifier, preamplifier or receiver. These keys also change the functionality of the remote control. It's like having eight different remotes in your hand!



If you press and hold a Device Mode key, you change the Device Mode *without* changing the signal source.

Each Device Mode changes the behaviour of many of the CR100 keys to control the source appropriately (see pages 8-15). For example:

- In **CD** mode the **M** key plays the previous CD track
- In **AV** mode the **M** key issues the TV 'Channel Down' command.



Navigation keys



The Navigation keys steer the cursor in setup menus or on-screen menus. They also replicate the navigation

functions of original

remotes supplied with other home entertainment devices in your system. **OK** confirms a setting.

Getting started

Here's how to get the most out of your CR100 universal remote:

Insert the batteries

- Follow the instructions on the facing page to insert four AAA alkaline batteries.

Get to know the CR100 by using it with your Arcam equipment

- Familiarise yourself with the CR100 by using it with the Arcam components in your system. Refer to the relevant Arcam Handbook.

Set up the CR100 to control your other audio-visual components

- Use the methods described on pages 6 and 7 to use your CR100 to control the third-party devices in your home entertainment system.

Customise the CR100

- Use the methods described in 'Customising the CR100' (pages 16–19) to make the CR100 work in exactly the way you want: Control volume intelligently, switch multiple devices on and off with a single key press, and much more.

Useful information


When reading this manual keep the following information in mind, as it will help you understand the operation of the CR100.

Backlight

- A blue backlight comes on for five seconds whenever a key is pressed. This helps you use the handset in subdued lighting conditions.

Power LED 'blinks'

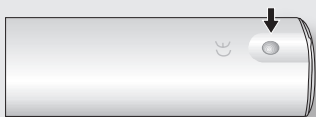


- Short blinks indicate a valid key press.
- Multiple short blinks convey information (such as a device code) or signal the beginning and successful completion of a programming sequence.
- Long blinks indicate an invalid key press or entry.
- The symbol  is used in the manual to indicate a Power LED blink.

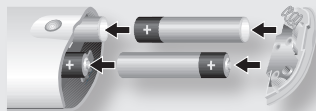
Timeouts and unassigned keys

- Time Out – After 10 seconds the CR100 exits the programming state and returns to normal operation.
- Stuck Key Timeout – After any key is pressed continuously for 30 seconds, the CR100 stops sending IR transmission to conserve battery life. The CR100 remains off until all keys are released.
- Unassigned Keys – The CR100 control ignores any unassigned key presses for a particular mode and does not transmit IR.

Inserting batteries



1. Open the battery compartment by pressing the button on the back of the handset.



2. Insert four AAA batteries into the battery compartment: two with '+' facing the top of the handset, and two with '+' facing the end cap, as in the diagram.
3. Lower the end cap onto the plastic locating plate in the handset. This acts as a hinge, and you can now push the end cap firmly into its locked position with a click.

Low voltage indicator

When the batteries are running down, the IR transmit indicator on the CR100 (the LED surrounding the Power button) flashes five times whenever you press a button.



If this happens, please fit four new AAA alkaline batteries as soon as possible.

Maintaining reliability

Please keep in mind the following when using the CR100:

- Make sure there are no obstacles between the remote control and the remote sensors on any devices you're controlling. The CR100 has a range of about seven meters. (If a unit's remote sensor is obscured, you may be able to use a remote control input jack on the rear panel – contact your dealer for further information.)
- As with any IR remote, operation may become unreliable if strong sunlight or strong fluorescent light is shining on a front panel remote sensor.

Controlling other devices: Method 1 (Direct code setup)

This section describes the simplest (preferred) way to program the CR100's Device Mode keys to control the non-Arcam devices in your system.





- Some of the modes are locked to Arcam operation but can be unlocked if required (see page 18).
- **AMP** mode **only** controls Arcam equipment.

DVD mode	Locked
SAT mode	Unlocked
AV mode	Unlocked
TUN mode	Locked
AUX mode	Locked
VCR mode	Unlocked
CD mode	Locked

Example: To set up the CR100 for an Addison TV

Here is a specific example of how to program the **AV** key to control an Addison television. The principles for controlling other devices are exactly the same.

1. Make sure your device is switched on (not just on 'stand-by').
2. Find the correct Device Code table (e.g. TV) for the type of device you want to control from the CR100.
3. Find the row containing the codes for the manufacturer of your device (e.g. Addison) (page 21). The most popular code is listed first.
4. Press the appropriate Device Mode key (e.g. **AV**) on the CR100.
5. Press and hold **SHIFT** until the red Power LED blinks twice:  (It actually blinks once when you press the key, then twice after about three seconds).

6. Enter the first four-digit device code using the number keys. The device key (e.g. **AV**) blinks twice: .
7. Aim the CR100 at the device and press **POWER**. If the device switches off, the setup is complete.
8. Turn your device back on and test all the CR100's functions to ensure they are working properly.
9. **Important!** Write your device code down on the next page so you can remember it if you ever reset the CR100.

What if I still can't control my device?

- If your device doesn't respond, repeat the above steps until one of the device codes listed for your brand works.
- If none of the codes listed for your brand operates your device, or if your brand is not listed at all, try the Library Search Method described in the next section.

Notes:

- Some codes are quite similar. If your device does not respond or is not functioning properly with one of the codes, try another code listed under your brand.
- If your device's original remote control does not have a **POWER** key, press **▶** instead of **POWER** when setting up your device.
- Remember to press the corresponding device key before operating your device.
- Many TVs do not switch on pressing **POWER**. Please try pressing a number key ('channel select') to switch your TV back on.
- To search for the code for another device follow the instructions above, but press the appropriate device key instead of **AV** during step 2.










Controlling other devices: Method 2 (Library search)



This section describes another way to program the CR100 to control third-party equipment.


Library Search allows you to scan through all the codes contained in the CR100's memory. It can take a lot longer than the previous method, so only use this method if:

- Your device does not respond to the CR100 after you have tried all the codes listed for your brand.
- Your brand is not listed at all in the Device Code tables.


Example: To search for a TV code


1. Switch your TV on (not stand-by) and aim the CR100 at it.
2. Press  on your CR100.
3. Press and hold  until the power LED blinks twice.
3. Press   . The power LED key blinks twice:  .
5. Press .
6. Aim the CR100 at your Television and press  repeatedly until your Television turns off.



Every time you press  the CR100 sends out a POWER signal from the next code contained in its memory. In the worst case, you may have to press this key up to 150 times, so patience is required! If you skip past a code, step back by pressing . Remember to keep pointing the CR100 at your Television while pressing this key.

7. As soon as your television turns off, press  to store the code.

Notes:

- Many TVs do not switch on pressing . Please try pressing a number key ('channel select') to switch your TV back on.
- If you cannot control your Television properly, please continue the Search Method, you may be using the wrong code.
- To search for the code for another device follow the instructions above, but press the appropriate













Device Mode key instead of  during step 2.

- If your device's original remote control does not have a  (POWER) key, press  instead during step 5.

Code blink-back

Once you have set up your CR100, you can blink back your device set-up codes for future reference.

Example: To blink back your Television code

1. Press the appropriate Device Mode key (e.g. ) once.
2. Press and hold  until the red Power LED blinks twice   (It actually blinks once when you press the key, then twice after about three seconds).
3. Press   . The  key blinks twice.
4. For the first digit of your four-digit code, press  and count all the red blinks. If there are no blinks, the digit is '0'.
5. For the second, third and fourth digits, repeat the previous step, pressing , , or  as appropriate.

Now you have the four-digit code.

Make a note of the codes

Write down the codes for your devices in the boxes below for future reference.

Device	Code
1	
2	
3	
4	
5	
6	
7	
8	

Device Mode key functions

DVD mode



	Toggles power between stand-by and on		Starts the playback of a DVD. SHIFT followed by cycles Angle options on Arcam DVD player
	Searches for and plays the track corresponding to the key pressed		Pauses DVD play-back. Press to restart playback
	Selects Tape input on amplifier		Fast forward SHIFT + cycles through slow forward play modes
	Toggles random ('shuffle') play on and off		Ejects disc
	Modifies many keys (see individual key descriptions, below)		Stop playback of a DVD
	Selects multichannel (MCH) input on amplifier		Start recording (on products that have this feature)
	Cycles through repeat options (track, disc, etc.) SHIFT + RPT gives RPT A-B functionality.		Displays Search menu with Title, Track and Time options. SHIFT + TRIM displays Trim menu on Arcam DVD players
	Navigate setup and DVD programme selection menus. OK confirms a selection. SHIFT to Power on SHIFT to Power off		Displays Setup menu. SHIFT + SETUP displays programming screen on Arcam DVD players
	Confirms a setting ('Enter' or 'Select' on some remotes)		Displays Title menu. SHIFT + TITLE clears bookmark, search and program display entries on Arcam DVD players
	Cycles through available surround sound modes. SHIFT + MODE changes the HDMI setting.		Changes Audio decode format (Dolby digital, DTS, etc.) SHIFT + AUDIO displays the 'Mem' function (Bookmarks).
	Activates DVD menu if available		Cycles through DVD subtitle language options, if available SHIFT + INFO displays STATUS on Arcam DVD players
	Cycles through the front panel display's brightness options (dim to bright, off)		
	Toggles the mute function, if available. By default this key always operates the AMP Mute		
	Press and release to skip back to the beginning of the current/previous track.		
	Press and release to skip forwards to the beginning of the next track.		
	Decrease (-) and increase (+) amplifier volume		
	Fast rewind SHIFT + cycles through slow playback speeds		





























SAT mode



	Toggles power between stand-by and on
0 to 9	Functions as original remote number key.
	Selects Tape input on amplifier
	Toggles between the available inputs
	Modifies many keys (see individual key descriptions, below)
	Selects multichannel (MCH) input on amplifier
	(not used)
	Navigate setup menus. OK confirms a selection
	Confirms a setting (equivalent to 'Enter' or 'Select' on some remotes)
	Controls BACKUP function, if available.
	Performs same function as on original remote, if available.
	On some Satellite and Cable set top boxes this key functions as the Guide key to open the EPG (Electronic Program Guide).
	Toggles the mute function, if available. By default this key always operates the AMP Mute
	Channel down
	Channel up.
	Decrease (-) and increase (+) amplifier volume
	Fast rewind
	Starts the playback
	Toggles pause of playback























	Fast forward
	(not used)
	Stop playback
	Start recording
	(not used)
	Duplicates function of RED key for some Satellite and Cable set-top boxes
	Duplicates function of GREEN key for some Satellite and Cable set-top boxes
	Duplicates function of YELLOW key for some Satellite and Cable set-top boxes
	Duplicates function of BLUE key for some Satellite and Cable set-top boxes









AV (i.e. TV) mode AV

	Toggles power between stand-by and on. (Some TVs require you to use a number key to turn them on.)		Activates PIP swap, if available
	Functions as original remote number key – usually for channel selection.		Activates PIP freeze, if available
	Selects Tape input on amplifier		Activates PIP channel up, if available
	Toggles between the available inputs (e.g. TV/AV)		Activates PIP channel down, if available
	Modifies many keys (see individual key descriptions, below)		Duplicates function of RED key for Text TV
	Selects multichannel (MCH) input on amplifier		Duplicates function of GREEN key for Text TV
	(not used)		Duplicates function of YELLOW key for Text TV
	Navigate setup and programme selection menus. OK confirms a selection.		Duplicates function of BLUE key for Text TV
	Confirms a setting (equivalent to 'Enter' or 'Select' on some remotes)		
	EXIT function on some models.		
	Functions as original remote key, if available.		
	INFO or OSD function, if available.		
	Toggles the mute function, if available. By default this key always operates the AMP Mute		
	Channel down		
	Channel up		
	Decrease (-) and increase (+) amplifier volume		
	Toggles TEXT page on/off		
	TEXT page off		
	Turns Programme-In-Programme (PIP) on, if available		
	Activates PIP move, if available		

TUN mode

TUN

	Toggles power between stand-by and on.
	Functions as original remote number key.
	Selects Tape input on amplifier
	Selects FM band
	Modifies many keys (see individual key descriptions, below)
	Selects multichannel (MCH) input on amplifier
	Selects AM band
	Navigate setup and programme selection menus. OK confirms a selection. SHIFT  to Power on SHIFT  to Power off
	Confirms a setting (equivalent to 'Enter' or 'Select' on some remotes)
	Cycles through different frequency bands.
	Functions as original remote key, if available
	Cycles through the front panel display's brightness options (dim to bright, off)
	Toggles the mute function, if available. By default this key always operates the AMP Mute.
	Sends Preset Down command
	Sends Preset Up command
	Decrease (-) and increase (+) amplifier volume
	Fast rewind (DAB rewind radio)
	Play (DAB rewind radio)
	Toggles pause of playback (DAB rewind radio)
	Fast forward (DAB rewind radio)

	Selects FM band on the DAB tuner
	Stops playback (DAB rewind radio)
	Start recording (DAB rewind radio)
	Selects DAB band on the DAB tuner
	Toggles FM tuner mode between FM Mute mode and Mono mode on Arcam Receivers and Tuners.
	Toggles between Preset and Tune mode on Arcam Receivers and Tuners.
	Stores tuner preset on Arcam Receivers and Tuners.
	Cycles through RDS radio display modes for Arcam Receiver and Tuners.

AMP mode



	Toggles power between stand-by and on.
to	<ol style="list-style-type: none"> 1 DVD input 2 CD player input 3 AV (television sound input) 4 AUX Auxiliary line input 5 VCR Video Cassette Recorder input 6 SAT Satellite decoder input 7 TUN DAB/FM/AM tuner input 8 Phono input, if available
	Selects Tape input on amplifier
	Selects FM band on Tuner
	Modifies many keys (see individual key descriptions, below)
	Selects multichannel (MCH) input on amplifier
	Selects AM band
	<p>Navigate the menus on Arcam surround amplifiers. OK confirms a selection.</p> <p>SHIFT to Power on</p> <p>SHIFT to Power off</p> <p>SHIFT to switch Zone 2 on, if available.</p> <p>SHIFT to switch Zone 2 off, if available.</p>
	Confirms a setting (equivalent to 'Enter' or 'Select' on some remotes)
	Changes Audio mode
	Activates the main menu on Arcam amplifier.
	Cycles through Display panel brightness options (dim to bright, off)
	<p>Toggles the mute function, if available.</p> <p>By default this key always operates the AMP Mute</p>

	Sends Preset Down command
	Sends Preset Up command
	Decrease (-) and increase (+) amplifier volume
	Toggles Direct mode
	Toggles EQ on/off on Arcam surround amplifiers with room EQ function
	Cycles through available THX modes on Arcam surround amplifiers with THX function
	Cycles through stereo effects on Arcam surround amplifiers
	Restores current Favourite Preset on Arcam surround amplifiers, if available
	Displays lip sync adjustment menu on Arcam surround amplifiers
	Displays subwoofer adjustment menu on Arcam surround amplifiers
	Displays trim levels menu on Arcam surround amplifiers
	Toggles between FM/Mono-Stereo/Mute on AVR
	Toggles between Tune and Preset mode on AVR
	Stores tuner preset on AVR
	Cycles through RDS Info options on AVR

AUX mode



	Toggles power between stand-by and on.
	Functions as original remote number key.
	Selects Tape input on amplifier
	(not used)
	Modifies many keys (see individual key descriptions, below)
	Selects multichannel (MCH) input on amplifier
	(not used)
	Navigate setup and programme selection menus. OK confirms a selection.
	Confirms a setting (equivalent to 'Enter' or 'Select' on some remotes)

Behaviour of all other CR100 keys in AUX mode depends on the type of auxiliary device. Refer to the appropriate table for the device.

By default, AUX mode has been set up for future ARCAM products.

The AUX control page can be assigned for use with a DVD or VCR player using the following method:

1. Unlock the code page (this is described on page 18 – 'Locking/Unlocking a specific device mode').
2. The functions of AUX mode can now be replaced by those of a DVD or VCR by changing the four-figure device code (this is also explained on page 18 – 'Mode Mover').
3. Now lock the mode so the new settings are not changed inadvertently.

VCR mode



	Toggles power between stand-by and on.		Ejects tape
	Functions as original remote number key.		Stop playback
	Selects Tape input on amplifier		Starts recording
	Toggles between available inputs (e.g. AV1, AV2)		Displays Search menu, if available
	Modifies many keys (see individual key descriptions, below)		Red selection button (if used)
	Selects multichannel (MCH) input on amplifier		Green selection button (if used)
	(not used)		Yellow selection button (if used)
	Navigate setup and programme selection menus. OK confirms a selection.		Blue selection button (if used)
	Confirms a setting (equivalent to 'Enter' or 'Select' on some remotes)		
	Operates the Exit function if the VCR uses this feature		
	Turns on the Menu function if the VCR uses this feature		
	Toggles display between TV and VCR		
	Toggles the mute function, if available. By default this key always operates the AMP Mute		
	Channel down		
	Channel up.		
	Decrease (-) and increase (+) amplifier volume		
	Fast rewind		
	Play		
	Toggles pause of playback		
	Fast forward		

CD mode



	Toggles power between stand-by and on.
	Functions as original remote number key.
	Selects Tape input on amplifier
	Toggles random ('shuffle') play on and off
	Modifies many keys (see individual key descriptions, below)
	Selects multichannel (MCH) input on amplifier
	Cycles through repeat options (track, disc, etc.)
	Navigate the menus on Arcam surround amplifiers. OK confirms a selection. SHIFT to Power on SHIFT to Power off.
	Confirms a setting (equivalent to 'Enter' or 'Select' on some remotes)
	Changes the time display modes on Arcam CD player
	(not used)
	Cycles through the front panel display's brightness options (dim to bright, off).
	Toggles the mute function, if available. By default this key always operates the AMP Mute
	Press and release to skip back to the beginning of the current/previous track.
	Press and release to skip forwards to the beginning of the next track.
	Decrease (-) and increase (+) amplifier volume
	Fast rewind
	Play
	Toggles pause of playback

	Fast forward
	Open/close disc tray
	Stop playback
	Start recording (on products that have this feature)
	Scans first 10 seconds of each track on CD (Audio search)
	Starts Program mode
	Clears programmed item
	Starts and stops A-B repeat function
	(not used)

Customising the CR100


Code Learning









The CR100 comes with a complete library of preprogrammed codes. After you have set up the CR100 for your device, you may find that there are one or more functions on your original remote which do not have a place on the CR100 keypad. For convenience, the CR100 offers a Code Learning feature that allows you to copy up to 16 functions from an original remote control onto the CR100 keypad.




Before you start, make sure that:


- The original remote control is working correctly.
- The remotes are not pointing at your device.
- The remotes have new batteries.
- The remotes are not in direct sunlight or under strong fluorescent lights.

Learned functions are mode-dependent: You could theoretically assign up to eight different functions to a single key (the CR100 can handle a total of 16 learned functions)

Example: To copy the 'text hold' function from a TV remote onto the  key of your CR100.





1. Place both remotes on a flat surface, 2 to 5cm apart, with the IR ports facing each other.
2. On the CR100, press and hold  until the power LED blinks twice: .
3. Press   . The power LED blinks twice: .
4. On the CR100, press the device key that matches the 'source' device (e.g. if you're learning a TV function, press .
5. On the CR100, press the key to which you want to assign the learned function (e.g. ). The device key blinks rapidly.



6. On the original remote, press and hold the function key that you want to learn (e.g. **TEXT HOLD**) until the CR100 device key blinks twice: .
7. If you want to learn other functions from the same source device, simply repeat steps 5 and 6 pressing the next key you want to learn.
8. To exit Code Learning mode, press and hold  until the device key blinks twice: .
9. To use the learned function on the CR100, press the Device Mode key, followed by the function key.

In this example, you'd press  followed by .

Shifted Learning

You can assign a learned function to a CR100 key without sacrificing its original function.

You can assign Shifted Learning functions to any key **except** for: Device Mode keys (e.g. , , or number keys ( to ).









1. To assign a Shifted Learning function, simply follow Code Learning steps in the previous section. During step 5, press  once before you press the key to which you want to assign the learned function.
2. To access the shifted function, press  and then the target key.

Important notes

- Once you start a Code Learning session, you have approximately 10 seconds to conduct each step. Any longer, and a timeout means that you'll have to start the process again.
- The Learning feature is mode-specific – you can copy one feature *per mode* onto a key.
- The CR100 can learn approximately 16 functions in total.


- To replace a learned function, simply assign a new one to the same key.
- Learned functions *are* retained when you change batteries.
- If Code Learning fails, try altering the distance between the two remotes; make sure that the light in the area is not too bright.

To delete a learned function:







1. Press and hold  until the power LED blinks twice: .
3. Press   . The power LED blinks twice: .
3. Press a Device Mode key once. For example, if you want to delete one of your learned TV functions, press .
4. Press twice on the key you want to deassign. The handset blinks twice:  to confirm.

The original function of the CR100 is restored.

To delete a Shifted Learned function:

To delete a Shifted Learned function, press  before you press the key to be deassigned (during step 4 above).

To delete ALL learned functions within a given Device Mode:

1. Press and hold  until the power LED blinks twice: .
2. Press    – the power LED blinks twice: .
3. Press the appropriate Device Mode key twice.















Creating Macros


You can program your CR100 to issue a sequence of commands when you press a single key. Any sequence of commands you regularly use can be reduced to a single key press for your convenience.




For example, you might want to turn off your TV, VCR and Satellite at the same time.


- A key programmed with a Macro is available in all modes; it will replace that key's different functions for all modes.
- A Macro can consist of up to eight key presses.

Example: To assign a Macro to the key

1. Press and hold  until the power LED blinks twice: .
2. Press   .
3. Press  (the Macro will be assigned to this key).
4. Press , , , , , .
5. To store the Macro, press and hold  until the power LED blinks twice: .











Now, whenever you press , the CR100 will toggle the power to your TV, VCR and Satellite.

- The important word here is 'toggle'. For example, if the TV and Satellite devices are currently on, but the VCR is off, pressing  will switch off the TV and Satellite and switch on the VCR (rather than switching all three devices on or off).
- When using Macros, remember that you may need to change mode or use , and that each key press (including changing modes and pressing ) counts as one of the Macro steps. You cannot use a Macro key within another Macro.
- If the amount of memory storage for a particular Macro is exceeded, the power LED comes

on for five seconds. You can, however, save the macro steps up to that point by pressing , or you can cancel the Macro recording by pressing any other key.

- The delay between key presses is recorded as part of the Macro. A delay of up to 30 seconds is permitted.

Example: To deassign the Macro associated with the key










1. Press and hold  until the power LED blinks twice:  .
2. Press   .
3. Press .
4. Press and hold  until the power LED blinks twice:  .

Key Mover

Sometimes you might find that a key you use a lot for your system is in the 'wrong' place on the CR100 keypad. It's quite easy to reassign a favourite function to a more accessible key.

Remember that key functions are Mode-specific.

Example: To assign the DISP function to the MENU key in SAT mode:









1. Press .
2. Press and hold  until the power LED blinks twice:  .
3. Press   .
4. Press the key you want to move (e.g. .
5. Press the key you want to move the key to (e.g. .

To restore a moved key and return it to its previous function, repeat the process above, pressing the key to be restored twice.

Mode Mover







If your home entertainment setup contains devices of the same type (e.g. two TVs, perhaps from different manufacturers) you can still control both those devices with the CR100. You simply need to reassign an *unused* Device Mode key.

Example: To use the key to control a second TV

1. Press and hold  until the power LED blinks twice:  .
3. Press   .
3. Press the Device Mode key for the type of device you want to control (e.g. for a TV, press .
4. Press the Device Mode key you want to use (e.g. .
5. Don't forget to set up the CR100 to control the second device, using one of the methods on pages 6 or 7.

Note that Volume lock features are not applied to a Device Mode that has been altered using Mode Mover.

To restore a moved Device Mode key to its original state

1. Press and hold  until the power LED blinks twice:  .
2. Press   .
3. Press the Device Mode key you want to restore *twice*.

Locking/Unlocking a specific device mode

When you first unpack your CR100 and insert the batteries, for your convenience it is able to control certain Arcam components automatically (e.g. DVD players, Amplifiers, Tuners and CD Players). We achieve this by preprogramming specific Arcam device codes onto the relevant Device Mode keys, then locking the Device Modes so you don't reprogram them inadvertently.

If you want to override these locked default settings – to control a third-party DVD player, for example – you will first need to unlock DVD Mode before setting up the CR100 using one of the methods described at the start of this guide.

Here are the factory default settings:

Mode	Default Status	Default Arcam codes
DVD mode	Locked	0762
SAT mode	Unlocked	0877
AV mode	Unlocked	0586
TUN mode	Locked	2009
AMP mode	Locked	1956
AUX mode	Locked	2004
VCR mode	Unlocked	0111
CD mode	Locked	0680

Alternative codes are available for multi-room solutions, or in the case of code clashes with other manufacturer's products.

For example:







DVD (system code 12) 1655

AMP (system code 19) 1371

You will need to change the system code on the product you wish to control, as well as the CR100.


Note: AMP mode is permanently locked; it will only control Arcam Amplifiers

To toggle a Device Mode lock setting:

1. Press the Device Mode key you want to unlock (e.g. )
 2. Press and hold  until the power LED blinks twice: .
 3. Press   .
- The power LED blinks twice when being locked, and blinks four times when being unlocked.
 - If you enter an invalid key sequence, the power LED gives one long blink and returns to normal operation.








While the Device Mode key is locked, the Direct Code Setup and Move Mode functions are not available.

Volume punch-through

Volume punch-through means that, no matter which Device Mode is selected, the CR100 controls the Amplifier volume. You don't need to press  on your CR100. This feature is switched on by default.








There are times, however, when you might want to control a device's volume directly when in a specific Device Mode.

Example: To cancel volume punch-through for a TV (AV mode)

1. Press  once.
2. Press and hold  until the power LED blinks twice: .
3. Press   .
4. Press . The power LED blinks four times.








Now, while in TV (AV) mode, you will be able to control the volume or mute functions of your TV directly.

To completely cancel all volume punch-through settings

1. Press and hold  until the power LED blinks twice: .
2. Press   .
3. Press . The power LED blinks four times .

Now, whichever mode you're in, you will have direct access to that device's volume or mute functions, assuming they are available. You would need to switch to **AMP** mode to alter the Amplifier volume.








Example: To restore default volume punch-through settings in VCR, DVD, AMP and SAT mode

1. Press and hold  until the power LED blinks twice: .
2. Press   .
3. Press . The power key LED blinks twice: .

Mode key IR punch-through









The Mode key IR punch-through default is 'on'.

Example: To set the Mode key IR punch-through to AMP

1. Press and hold  until the power LED blinks twice: .
2. Press   . The power LED blinks twice: .
3. Press  to punch through IR from it.







Now, whenever you press and release a Mode key, the IR data assigned to **AMP** is transmitted, no matter what the current mode is (i.e. it 'punches through' any other device).

To cancel Mode key IR punch-through:

1. Press and hold  until the power LED blinks twice: .
2. Press   . The power LED blinks twice: .
3. Press  until the power LED blinks twice: .

Resetting the CR100

Resetting the CR100 will erase all learned functions across all modes, as well as some other programmed functions like Macros. It will not reset the Device Mode keys; these will remain programmed to your choice of component.

1. Press and hold  until the power LED blinks twice: .
2. Press   . The power LED blinks four times: .

Command summary

Direct code setup

(e.g. AV mode, *NNNN*=code number)



Library search

(e.g. AV mode)



until unit turns off

SH FT to save

Code blink back



- 1 count blinks for first *N*
- 2 count blinks for second *N*
- 3 count blinks for third *N*
- 4 count blinks for fourth *N*

Code learning

(e.g. AV mode fast forward key)



▶▶ (many rapid blinks)

(Press key on original remote that you wish to copy) SH FT

Delete a learned function

(e.g. AV mode fast forward key)



Delete all learned functions with a device

(e.g. AV mode)



Creating macros

(e.g. SRCH key)



Deassign macro



Key mover

(e.g. SAT mode, **DISP** key to **MENU** key)



Mode mover

(e.g. change SAT to TV(AV))



Restore device mode

(e.g. restore SAT)



Locking/unlocking a mode

(e.g. DVD mode)



(i.e. two blinks for lock)



(i.e. four blinks for unlock)

Cancel volume punch through



Restore volume punch through



Mode key IR punch through




Cancel mode key IR punch through



Reset the CR100



As elsewhere in this Handbook, a single 'blink' of the red LED behind the power button is indicated by the symbol 

Device code tables

The tables that begin on the opposite page list the four-figure codes for different manufacturers' devices.

Use these when setting your CR100 up to control your devices, as described in Method 1 (see page 6).

If more than one code number is listed, try the first number. If the results are unsatisfactory, continue trying the numbers for that manufacturer to get the best 'fit' with the functionality required.

If the manufacturer of your equipment is not listed, you can try Method 2, the Library Search (see page 7). This allows you to scan through every set of codes contained in the CR100's memory.

TV		
888	0294	
A.R. Systems	0067 0382	0586 0404
	0485	
Accent	0039 0067	0586
Acoust c Research	1299	
Acura	0039	
Adcom	0655	
Addison	0683 0138	
ADL	1247	
Admiral	0123 0193	0448 0294
Advent	0906	
Adyson	0247 0246	
AEA	0067 0586	
AEG	0636 1193	
Agashi	0246 0294	0247
Aiko	0039 0067	0586 0246
	0065 0463	0294 0247
Aim	0067 0586	0783 0238
	0736	
Aiwa	1535	
Akai	0039 0632	0238 0586
	0067 0463	0065 0783
	0193 0759	0744 0745
	0578 0510	0247 0661
	0246 0294	0208 0407
	0636 1067	0503 1289
	1278	
Akashi	0890 0039	
Akiba	0485 0067	0586
Akira	0448	
Akito	0067 0586	
Akura	0067 0294	0586 0698
	0039 0744	
Alaron	0246	
Alba	0039 0067	1067 0586
	0744 0448	0400 0698
	0246 0193	0517 0473
Alkos	0065	
All-Tel	0895	
Allorgan	0247	
Allstar	0067 0586	
Amplivis on	0247 0400	
Amstrad	0039 0067	0294 0463
	0586 1067	
Anam	0067 0586	0039 0680
Anam National	0067 0586	0680
Andersson	1193 1179	
Anglo	0039 0294	
Anitech	0039 0294	0067 0586
Anson c	0400 0067	0586 0039
	0698 0404	0193
AOC	0039 0090	0123 0138
	0208	
Aolingpike	0294	
Apex Digital	1247	

Apollo	0503	
Arc en Ciel	0139	
Arcam	0246 0247	
Ardem	0516 0744	0067 0663
	0586	
Aristona	0586 0067	
Arthur Martin	0193	
ASA	0135 0376	0100
Asberg	0067 0586	
Asora	0039	
Astra	0067 0586	
Asuka	0247 0246	0294
ATD	0728	
Atlantic	0067 0586	0246
Atori	0039	
Auchan	0193	
Audiosonic	0039 0067	0404 0850
	0139 0586	0744 0745
	0247 0400	0294 0516
Audioton	0247 0516	0400 0294
Audioworld	0728	
Aumark	0090	
Autovox	0247	
AWA	0039 0404	0067 0586
	0246 0636	0247 0138
	0294 1406	
Axxent	0039	
Axxon	0744	
B&D	1247	
Baier	0906	
Baihe	0039 0294	
Baile	0039 0404	0691
Baird	0139 0373	0247 0238
	1226	
Bang & Olufsen	0595	
BaoHuaShi	0294	
Baosheng	0039	
Barco	0193	
Bas c Line	0039 0404	0067 0193
	0698 0586	0247 0485
	1067	
Bast de	0247	
Bauer	0039	
Baur	0039 0067	0542 0225
	0586 1535	
Bazin	0247	
Beaumark	0208	
Beijing	0039 0238	0256 0294
	0404 0512	0691
Beko	0400 0744	0065 0516
	0745 0067	0448 1067
	0586 0636	0838
Belson	1221	
Bennett	0586 0067	
Beon	0067 0586	0448
Berthen	0698	
Best	0400	
Bestar	0067 0586	0400 0404
Bestar-Daewoo	0404	
Binatone	0247	

Black Diamond	0850 1067	0586 0783
	1193	
Black Strip	0065	
Blaupunkt	0225 0230	0357 0485
	0200	
Blue Sky	0067 0586	0698 0744
	1067 0517	0745 1939
	0485 1221	0838 1393
Boots	0247 0039	
Bosch	0357	
BPL	0067 0586	0926
Brandt	0139 0655	0365 0373
	0590	
Brandt Electronique	0365	
Brinkmann	0067 0586	0698 0448
	0516	
Br onvega	0067 0586	
Br tannia	0246 0247	
Brother	0294	
Bruns	0516	
BSR	0193	
Bush	0039 1067	0067 0744
	0698 0193	0404 0728
	0294 0517	0238 0247
	0586 0808	1289 1278
	0926 0921	
C-Tech	0039	
Caihong	0039	
Caishi	0921	
Capsonic	0294	
Carad	0640 0067	0586 0698
	1067	
Carena	0485 0067	0586
Carrefour	0100 0067	0586
Carver	0200	
Cascade	0039 0067	0586
Casio	0067 0586	0193
Cathay	0067 0586	
CCE	0067 0247	0586
Celestial	0850	
Centrex	0810 0921	
Centrum	1067	
Centurion	0067 0586	
CGE	0104 0448	0400 0193
Changcheng	0039 0294	0404 0691
Changfei	0039 0404	
Changfeng	0294 0783	
Changhai	0039	
Changhong	0850 0039	0294 0538
Chengdu	0039	
Ching Tai	0039	
Chun Yun	0039	
Chunfeng	0039 0294	
Chung Hsin	0138	
Chunson	0039	
Cimline	0039	
Citizen	0090	
City	0039	
Clarivox	0067 0448	0586 0100

TVs (continued)

Clatronic	0067 0744 0586 0039 1193	0400 0294 0247 0636	Digihome	1179	Evesham	1278 1289
Clayton	1067		Digiline	0067 0135 0698	Excel	0067 0586
CMS	0246		DigiLogic	0067 0850	Expert	0193
CMS hightec	0247		Digitex	0067 0586	Exquisit	0067 0586
Cobolt	0921		Digitor	0910	Fagor	0067 1221
Concorde	0039		DigiX	0067 0039 0586 0247	FairTec	0067 0586
Condor	0067 0586 0039 0193	0400 0246 0448 0294	DiK	0067 0039 0586 0247	Family Life	0039
Conia	0784 0838	0850	Dixi	0067 0586 0247	Feilang	0039
Conrac	0067 0039	0586	DL	0921 0810 0067 0617 0895	Feilu	0039
Conrad	0039 0728 1200	0294 0783	Domeos	0698	Feiyan	0294
Conrowa	0039 0728 1200	0294 0783	Domland	0424	Feiyue	0039
Contec	0039 0294 0586	0246 0067	Dongda	0039	Fenner	0404 0039
Continental	0139	0517	Donghai	0039	Ferguson	0067 0655 0373 0590
Edison			Donghai	0039		0586 0665
Cosmel	0039 0586	0067	Dream Vision	1734		0683 0138
Crosley	0104 0039	0193	Drean	0067		0578 0473
Crown	0067 0516 0448 0744 0745 0683	0400 0586 0517 0636 0238 1067	DSE	0850	Fidel ty	0193 0542 0586 0294
CS Electronics	0246		DTS	0039		0246 0067
Curtis Mathes	0090	0123	Dual	0247 0067 0382 0193 0661 1067	Filsai	0247
Cytronix	1328		Dual Tec	0247	Finlandia	0238 0578 0373
D-Vis on	0067	0586	Dumont	0100 0193	Finlux	0067 0100 0744 0247 0745 0522 0503 0636
Daewoo	0664 0404 0529 0586 0246 1167 0208 0200 0138 0895	0691 1939 0067 0039 0247 0208 0910 0906	Durabrand	0067 0208		0135 0586 0376 0193
Dainichi	0246		Dux	0067 0921		0636 0838
Dansai	0067 0294 0246 0247	0586 0065 0039 0238	DVX	0921	Firstar	0039
Dantax	0400 0744 0745	0516 0636	Dynatech	0247	Firstline	0039 0246 0586
Datsura	0238		Dynatron	0067 0636		0247 0404
Dawa	0039 0586	0067	e:max	0636		0698 0744
Daytek	0728 1406	0736	Easy Living	1278 0803		1939 1939
Dayton	0039		Ecco	0736		0238 1067
Daytron	0039 0067	0404 0586	ECE	0067 0586		1221 0838
Dayu	0404	0691	Edison-Minerva	0517		1393 1193
de Graaf	0238 0193	0578	Elbe	0400 0067 0640 0247		1401
DEC	0890	0921	Elc t	0193	Fisher	0247 0238
Decca	0067 0247	0586 1167	Electrograph	1785	Flint	0247 0400 0193
Deitron	0067 0404	0586	Elekta	0039 0586 0294		0067 0485 0586 0640
Denko	0294		Elfunk	1238 1067	Force	1179
Denver	0067 0636 0617	0586 1219	ELG	0067 0586	Formenti	0067 0586 0516
Desmet	0067 0039	0586	Elin	0067 0246 0578 0586 0135 0193		0246
Diamant	0067	0586	El te	0067 0586	Formenti-Phoenix	0246
Diamond	0294 0039 0246 0850	0728 0855 0890	Elta	0039 0294 0246	Fortress	0123
Digatron	0067	0586	Emerson	0208 0744 0067 0586 0100 1939 0516 0400 0193 0698	Fraba	0067 0586 0400
			Enzer	0783	Friac	0039 0067 0586 0400 0529 0640
			Erae	1401	Frontech	0193 0294 0247 0039
			Erres	0067 0586	Fujimaro	0895
			ESC	0067 0586 0247	Fujitsu	0713 0883 0247 0193
			Estèle	0193		0039 0382
			Ether	0039		0067 0586
			Etron	0039 0586 0193 0850	Fujitsu General	0039 0247 0193
			Eurofeel	0294 0247		1328 1289
			EuroLine	0067	Siemens	1278 1193
			Euroman	0246 0294 0067 0586 0247 0400	Funai	0698 0294
			Europa	0067 0586	Furi	0294
			Europhon	0067 0193 0247 0586 0246	Furichi	0890
					Futronic	0294 0890
					Future	0067 0586
					Galaxi	0067 0586 0193
					Galaxis	0400 0448
					Galeria	0039
					Gateway	1785

GBC	0193	0039
	0404	
GE	0373	0208
	0123	0590
	0139	0365
	0655	
Geant Casino	0193	
GEC	0067	0193
	0247	0586
Geloso	0039	0193
	0404	
General	0139	
General Electric	0373	
General Techn c	0039	
Genesis	0039	0067
	0586	
Genexxa	0193	0067
	0586	0039
Gericom	0895	1328
	1247	0910
Gevalt	1401	
Giant	0247	
Go V deo	0090	
Goldfunk	0698	
Goldhand	0246	
GoldStar	0039	0067
	0208	0400
	0407	0247
	0586	0246
	0193	0139
	0636	0744
	0745	0485
Gooding	0517	
Goodmans	0664	1289
	1278	0067
	1067	0529
	0247	0586
	0744	0373
	0698	1939
	0404	0294
	0039	0517
	0065	0510
	0590	0365
	0691	0910
	0617	1406
Gorenje	0400	
Gradiente	0067	0683
	0200	0586
Graetz	0193	0744
	0067	0586
	1193	
Granada	0067	0586
	0238	0256
	0247	0138
	0503	0365
	0590	0193
	0373	0578
Grandin	0067	0586
	0039	0193
	0640	0744
	0745	0698
	0404	0485
	1067	0895
	1221	0910
Gron c	0247	0193
Grundig	0225	0538
	1401	0067
	0100	0517
	0586	0617
	0473	0736
	0039	0400
	0208	1406
	0373	
Grunkel	1193	
H&B	0838	
Haaz	0736	
Haier	0728	0921
	0294	
Haihong	0039	
Haiyan	0294	
Halifax	0294	0246
	0247	
Hallmark	0208	

Hammerstein	0294	0090
Hampton	0246	0247
Hankook	0208	
Hanseatic	0067	0586
	0529	0193
	0691	0424
	0664	0400
	0039	0247
	0407	0744
	0838	0516
Hantarex	0039	0067
	0586	
Hantor	0067	0586
Harsper	0895	
Harwa	0803	1226
	1299	
Harwood	0039	0067
	0586	0517
Hauppauge	0067	0586
Havermy	0123	
HCM	0039	0067
	0586	0247
	0448	0294
Hedzon	0586	0067
hel os	0895	
Hema	0247	0039
Hifivox	0139	
Higashi	0246	
Highline	0294	0067
	0586	
Hinari	0039	0238
	0067	0586
	0193	0473
	0517	0294
Hisawa	0485	0640
	0744	
HISense	1393	0238
	0039	0538
	0783	1200
	1238	0810
	0586	
Hitachi	0193	0208
	1255	0039
	0608	0135
	0138	0503
	0373	0247
	0139	0511
	0529	0067
	0538	0586
	0578	0664
	0774	1067
	1167	1200
	0522	1511
	0542	0510
	1606	1179
Hitachi Fujian	0138	
Hitsu	0039	0640
	0485	
Höher	0744	0895
Home Electronics	0636	
Hongmei	0039	0123
	0294	
Hongyan	0294	
Hornlyphon	0067	0586
Hoshai	0485	
Hua Tun	0039	
Huafa	0039	
Huanghaimei	0039	
Huanghe	0039	
Huanglong	0039	
Huangshan	0039	0294
Huanyu	0246	0404
	0294	
Huaqiang	0294	
Huari	0294	
Hugoson	0920	1247
Hygashi	0247	0246
Hyper	0039	0246
	0247	

Hypson	0067	0294
	0586	0744
	0745	0247
	0485	1067
	0698	0516
Hyundai	0067	0895
	0586	0736
	0890	0783
	0906	
Iberia	0067	0586
ICE	0247	0294
	0067	0039
	0586	0246
Ices	0246	
Ict	0067	1167
	0586	
IISon c	1406	
Iiyama	1247	0920
Imperial	0067	0104
	0193	0400
	0448	0586
Imperial Crown	0039	0294
	0404	0691
Indiana	0067	0586
InFocus	0782	1194
Ingelen	0193	0517
	0640	0744
Ingersoll	0039	
Inno Hit	0039	0067
	0586	0247
	1193	
Innova	0067	
Innovation	0067	0586
Innowert	0895	1328
inotech	0803	0850
Interactive	0067	0586
	0542	0357
	0193	0400
	0139	
Interbuy	0039	0067
	0294	0542
	0586	
Interfunk	0067	0193
	0586	0542
	0357	0400
	0139	0230
Internal	0067	0586
	0529	0404
	1939	
Internat onal	0246	
Intervision	0067	0247
	0485	0294
	0407	0516
	0400	0424
	0517	0193
	0039	0586
Irradio	0039	0067
	0586	
IRT	0728	
Isukai	0067	0586
	0485	
ITC	0247	
ITS	0067	0294
	0246	0039
	0586	
ITT	0193	0510
	0578	0503
	0376	0238
	0640	
ITT Nokia	0578	0193
	0503	0510
	0376	0238
	0636	0640
	0661	
ITV	0294	0067
	0586	0404
IX	0907	
Jean	0039	
JEC	0065	
Jial cai	0039	0294
Jinfeng	0238	0256
Jinque	0039	0294
Jinta	0039	0294

TVs (continued)

Jinxing	0039 0067 0728	0586 0294	Lecson	0067	0586	Masuda	0039 0067 0586	0294 0247
JMB	0067 0664 0586	0529 0404 0473	Legend	0039		Matsui	0039 0586 0517 0247 0463 0193 0365 1067	0067 0065 0238 0473 0485 0225 0744
Jocel	0742		Lenco	0067 0193 0586 1067	0039 0404 0617			
Jubilee	0586		Lenoir	0039				
Juhua	0294		Levis Austria	0067	0586			
JVC	0683 0538 0713 0123	0761 0636 0448 0680	Lexsor	1226				
Kaige	0039	0294	Leyco	0067 0586	0294			
Kaisui	0039 0067 0586	0246 0247 0485	LG	0067 0400 0407 0586 0744 0674 0090 0636 0728 1667	0208 0039 1295 0247 0246 0193 0138 0139 0745 1221			
Kambrook	0407		Liesenk & Tter	0067 0586	0357			
Kamp	0246		Liesenkotter	0067 0586	0357			
Kanghua	0926		Lifetec	0067 0404 0542 1167 0294 1278 0744	0039 0698 1067 0586 0713 1289			
Kangli	0039 0404	0294 0691	Lloyd's	0039				
Kangyi	0039	0294	Local Malaysia TV	0728				
Kapsch	0193		Lodos	1067	1179			
Karcher	0067 0400 0193 0808 0636	0586 0640 0294 0744	Loewe	0542 0820 0586	0663 0067 0400			
Kathrein	0586	0067	Logik	0090 0803 0294 1247	0728 0039 0910 1067			
Kawasho	0246		Logix	0698				
KB Aristocrat	0193		Longjiang	0294				
Kendo	0067 0586 0542 0407 0516	0640 0193 0400 1067	Luma	0067 0586 0039	0193 0404			
Kennedy	0193		Lumatron	0067 0193 0294	0586 0247			
Kennex	1067		Lux May	0067 0586	0039			
Kenwood	0135		Luxor	1193 0522 0578 0376 1067 0661	0510 0238 0193 0503 0247			
Khind	0926	0736	LXI	0208				
KIC	0247		Madison	0067	0586			
Kingsley	0246		Magnadyne	0193				
Kioto	0736	0586	Magnafon	0246				
Kiton	0586 0698	0067	Magnavox	0067 0736	0586 0810			
KLL	0067		Magnum	0744 0586 1319	0067 0745			
Kneissel	0067 0640 0529	0400 0404 0586	Mandor	0294				
Kolin	0138		Manesth	0067 0586 0065	0247 0294 0193			
Kolster	0067	0586	Manhattan	0067 0586 1067 0808	0906 0698 0193			
Kongque	0039	0294	Marantz	0067	0586			
Konichi	0039		Mark	0067 0247 0404 0744	0586 0246 0039 0745			
Konka	0067 0744 0617	0586 0448 0784	Master's	0529	0067			
Kontakt	0517		Mastro	0810	0728			
Korpel	0067	0586						
Korting	0400							
Kosmos	0067	0586						
Kotron	0294							
Koyoda	0039							
Kreisen	0906							
KTV	0247							
Kuaile	0039	0294						
Kuba	0193							
Kuba Electronic	0193							
Kulun	0039							
Kunlun	0238 0294 0691	0256 0404						
Kyoshu	0448	0294						
Kyoto	0193 0247	0246						
L&S Electronic	0895	0744						
LaSAT	0516	0400						
Lavis	1067 0193	0067						
Leader	0039							

Multitec	0067 0516 1067	0586 0698	Odeon	0294		Phoenix	0067 0400 0193	0586 0516 0246
Multitech	0039 0516 0247 0586	0246 0067 0400 0294	Okano	0400 0586 0039	0067 0294	Phonola	0067 0246	0586
Murphy	0246	0193	Olidata	1406		Pilot	0586 0742	0067 0736
Musikland	0067	0586	Omega	0294		Pioneer	0790 0139 0193 1290 0373 0542	0067 0200 0586 0400 0516
MyCom	1406	0208	Omni	0810 0728	0921	Ponier	0400	0516
Myryad	0586	0067	Onwa	0632	0463	Plantron	0067 0294	0586 0039
NAD	0208	0193	Opera	0067	0586	Playsonic	0744 0247	0067 0745
Naiko	0067 0586	0636	Optimus	0680		Polaro d	0895	
Nakimura	0404 0586	0067	Optonica	0123		Pol com	0139 0100	0193 0104
Nanbao	0039	0294	Orb t	0067	0586	Poppy	0039	
Nansheng	0294		Orion	0067 0586 0039 0910	0473 0744 0294 1226	Portland	0404	1939
Naonis	0193		Orline	0067	0586	Powerpoint	0517 0586	0067 0728
NAT	0256		Ormond	0698 0067	1067 0586	Precis on	0247	
Nat onal	0256 0538	0238	Osaki	0247 0067 0586	0294 0404	Premier	0039	0294
NEC	0200 1200 0039 0404 0067 0294 1734 0683	0617 0208 0485 0247 0586 0538 0529 0691	Os o	0067	0586	President	0890	
Neckermann	0067 0586 0230 0357 0247	0400 1535 0193 0448 0542	Osume	0067	0586	Prima	0039 1299	0294
NEI	0067 0193	0586	Otto Versand	1535 0247 0123 0586 0139 0039	0067 0373 0542 0225 0256	Princess	0728	
Neovia	0895 0906	1401 1406	Pacif c	0067 1167 1067	0586 0744 0473	Prinston	1067	
Netsat	0067	0586	Pael	0246		Profex	0039	0193
Neufunk	0067 0586 0744	0039 0640	Palladium	0400 0448 1167 0230 0357 0247	0067 0744 1535 0586 0193	Profi	0039	
New Tech	0067 0586 0247	0039 0373	Palson c	0294 0067 0407 0586 0808	0803 0247 0728 0448 1226	Profitron c	0067	0586
Newave	0039 0123	0208	Panama	0039 0294 0067	0247 0246 0586	Proline	0067 0655 1406	0586 0664
N camagic	0246		Panason c	0680 0138 0067 0193 0538 0578 0208	0256 1340 0586 0238 0926 0883 0090	Prosonic	0067 0400 0698 0246	0586 0404 0744 0247
Nikkai	0065 0586 0247 0039	0067 0246 0294	Panavision	0067	0586	Protech	0039 0586 0294 0698 0516	0067 0247 0448 0193 1067
Nikkei	0744		Panda	0039 0238 0294 0921 0728	0810 0256 0736 0538	Proton	0208 0674	0039
Nikko	0208		Papouw	0067	0586	Provision	0529 0586 0744	0067 1067
Nishi	0512		Pathe Cinema	0193 0400	0246	PV is on	1221	0906
Noblex	0067 0512	0294	Pathe Marconi	0139		Pye	0067 0404	0586
Noblisko	0100	0246	Pausa	0039		Pymi	0039	
Nogamatic	0139		Peng Sheng	0921		Qingdao	0238 0294	0256
Nokia	0193 0510 0636 0661 0404 0640	0503 0578 0522 0238 0376 0139	Perdio	0193 0246	0090 0586	Quasar	0680 0039	0895
Nord c	0247		Perfekt	0067	0586	Quelle	0067 0100 0139 0247 0135 0586 0230 1067 0039	1535 0104 0542 0357 0698 0225 0294 0376
Nordmende	0139 0921 0590 0067 0365 1289	0744 0373 0225 0586 0193 1278	Philco	0067 0067 0448 0193 0511	0104 0586 0586 0400 0208	R-Line	0067 0193	0586
Norfolk	0193		Philhex	0193		Radialva	0139 0067	0193 0586
Normerel	0067	0586	Philharmonic	0247		Rad ola	0067 0247	0586
Novak	0067	0586	Philips	0067 0373 0138 0802 0230	0586 0208 0404 0039	Rad omarelli	0067	0586
Novatron c	0067 0404	0135 0586	Phocus	1319	0744	Rad oShack	0067 0208	0586
NU-TEC	0485	0728				Rad otone	0039 0586 0448 0294	0067 0400 0698 1067
Nurnberg	0193					Rank	0100	
Oceanic	0193 0503 0510	0238 0578						

TVs (continued)

Rank Arena	0632	0783	Sanyo	0238	1238	Singer	0039	0067
RBM	0100			0400	0246		0586	0365
RCA	0090	0648		0247	0039		0193	
	0123	0655		0538	0193	Sinotec	0803	
	0208	0590		0067	0138	Sinudyne	0193	1535
	0365	0373		0586	0516		0067	0586
	0783			0200		Sky	0067	0910
Realist c	0208		Sanyuan	0039	0123		0208	0586
Recor	0067	0448	Save	0067	0586	SKY Brasil	0910	
	0586		SBR	0067	0586	Skymaster	0135	
Rectiligne	0067	0586	Schaub Lorenz	0578	0744	Skysonic	0783	
Rediffus on	0578	0376		0636	0516	Skyworth	0067	0586
Redstar	0067	0586		0404	1221		0039	0294
Reflex	0067	0586	Schne der	0067	1167		0728	0783
	1067	0698		0586	0698	Sliding	0895	0910
Relisys	0895	0906		0424	0382	SLX	0698	
	0907	1328		0373	0247	Smaragd	0517	
Reoc	0744	0664		1067	0193	Soemtron	0895	1328
	1939			0744	1939	Solavox	0193	0578
Revox	0067	0586	Scotch	0208			0067	0586
	0400		Scotland	0193		Songba	0039	
Rex	0193	0294	Scott	1219	0208	Soniko	0067	0586
RFT	0400	0294	Sears	0208		Sonitron	0238	0400
	0067	0586	Seaway	0664			0247	
	0516		Seelver	0586	1067	Sonneclair	0067	0586
Rhapsody	0246			0067		Sonoko	0039	0067
Ricoh	0067	0586	SEG	0067	0247		0586	0294
Rinex	0803	0448		0586	0294		0247	
Roadstar	0039	1067		1067	0698	Sonolor	0193	0238
	0294	0448		0517	0039		1535	0578
	0067	0586		0193	0664	Sontec	0067	0586
	0744	0698		0246	1193		0400	0039
	1219			1939	0744	Sony	1535	0104
Rodex	0067	0586	SEI	1535	0193		1681	0680
Rover	0907			0067	0586		0683	1781
Rowa	0067	0294	Sei-Sinudyne	1535	0067		0383	0067
	0728	0039		0586			0586	0123
	0247	0742	Seitech	1247			0200	
	0246	0617	Seleco	0193	0294	Sound & Vision	0404	0067
	0586			0376			0586	
Royal Lux	0400	0365	Sencora	0039		Soundesign	0208	
Rukopir	0586	0067	Sentra	0065	0039	Soundwave	0067	0448
Saba	0139	0655	Serie Dorada	0208			0586	0745
	0193	0590	Serino	0640	0485	Sowa	0090	0256
	0365	0373		0246	0123		0208	
	0578	0680	Shancha	0294		Soyea	0803	
	0744		Shanghai	0039	0238	Spectra	0039	
Sagem	0640	0485		0256	0294	Ssangyong	0039	
	0860	1343	Sharp	0123	0039	Stakson c	0039	
	0648			1223	1423	Standard	0039	0067
Saige	0039			0683	0680		0247	0586
Saisho	0039	0294		0230	0790		1067	0404
	0247	0193		1193		Starl te	0039	0193
Saivod	0067	0586	Shen Ying	0039			0067	0586
	1193	0698	Shencai	0039	0294		0294	
	0742	1067	Sheng Chai	0039		Stern	0193	0294
Sakaï	0193		Sheng Chia	0039	0123	Strato	0067	0586
Sakyno	0485		Shenyang	0039	0294		0294	0039
Salora	0193	0578		0783		Strong	1193	1179
	0238	0510	Sherwood	0039			1067	0067
Salsa	0365		Shintoshi	0067	0586		0586	
Sampo	1785	0039	Shivaki	0067	0586	Stylandia	0247	
	0123	0208		0473	0404	Sunic Line	0067	0586
	0680			0208		Sunkai	0485	0640
Samsung	0090	0648	Show	0448	0039		0067	0586
	0674	0512	Siam	0067	0586		0517	0895
	0617	0796	Siarem	0067	0586	Sunstar	0067	0586
	0067	0208		0193			0039	0294
	0586	1279	Siemens	0067	0225	Sunwatt	0485	
	0039	0123		0230	0357	Sunwood	0067	0586
	1265	0247		0586			0039	
	0400	0294	Siera	0067	0586	Superla	0246	0247
	0246	0238		0617		SuperScan	0123	
	0193	0256	Siesta	0400		Superson c	0238	0586
	0655		Silva	0067	0586		0728	0294
Sandra	0246	0247		0246			0485	
Sanjian	0294		Silver	0067	0485	SuperTech	0039	0246
	0067	0759		0586	0745		0067	0586
Sansui	0586	0736		0193		Supra	0208	0404
	0632	0485	SilverCrest	1067	0067		0039	
	0783	1401		0586		Susumu	0365	
Santon	0039					Sutron	0039	

SVA	0617	0895
Swisstec	0910	
Sydney	0246	0247
Synco	0090	0123
	0208	
Sysline	0067	0586
Sytong	0246	
T+A	0477	
Tacico	0208	0039
Tai Yi	0039	
Taishan	0039	0404
Tandberg	0139	0193
Tandy	0123	0247
	0193	
Targa	1401	
Tashiko	0247	0680
	0200	0246
	0193	
Tatung	0039	0067
	0586	0090
	0247	1401
	1289	1278
	1221	
TCL	0736	0728
TCM	0744	1319
	0838	
Teac	0039	0728
	0067	0542
	0294	1067
	0448	0586
	0485	0742
	0698	0247
	0736	1939
	0208	0200
	0744	1179
	1785	
TEC	0247	0039
	0365	0067
	0586	0193
Tech Line	0067	0586
	0698	1193
Tech Lux	1219	
Techn cs	0680	
TechniSat	0067	0586
	0193	
Technisson	0744	1319
Technoson c	0067	0586
Techwood	1193	
Tecnimagen	0586	
Teco	0039	0123
	0208	0294
	0683	
Tedalex	0247	0448
	0636	0039
	0736	0238
	0728	0617
	0921	0067
	0586	
Teiron	0039	
Teknika	0090	
Tele System	0906	
Teleavia	0139	0373
Telecor	0067	0586
	0193	0247
	0424	
Telefunken	0655	0104
	0590	0139
	0617	0365
	0728	0373
	0742	0850
	0926	0784
	0067	0586
	0516	0744
	0376	
Telefusion	0067	0586
Telegazi	0067	0193
	0294	0586
Telemeister	0067	0586
Teleson c	0067	0586
Telestar	0039	0067
	0586	

Teletech	0039	0067
	0586	0698
	1067	
Teleton	0247	0193
Televideon	0193	0246
Televiuew	0067	0586
Tempest	0039	0067
	0586	0294
Tennessee	0067	0586
Tensai	0067	0586
	0247	0039
	0135	0404
	0407	0745
	0193	1067
Tenson	0039	
Tesla	0067	
Tev on	1278	1328
	0067	1289
	0586	0838
	0698	1167
	0744	1067
	1319	
Texet	0246	0247
	0404	0039
Thomson	0139	0655
	0590	0373
	0365	0067
	0586	0246
Thorn	0065	0138
	0067	0139
	0104	0373
	1535	0529
	0542	0586
	0365	0404
	0100	
Thorn-Ferguson	0138	0373
	0139	0365
	0529	0065
Tiane	0123	
Tiny	1226	1299
TMK	0208	
Tobo	0039	0294
Tokai	0067	0586
	0698	0193
	0247	0404
	0039	1067
Toka do	1067	
Tokyo	0246	0065
Tongguang	0294	
Tongtel	0810	0617
Topline	1067	0698
Toshiba	0538	0090
	0680	1538
	0039	0065
	0123	1734
	1194	1319
	0100	1295
	0744	0294
	0247	0139
	0225	0648
	0674	0728
	0067	1193
Towada	0247	
Toyoda	0039	0294
Trakton	0039	0294
	0247	
Trans	0698	0247
Continens	1067	0067
	0586	0516
TRANS-	0895	
continents		
Transonic	0067	0728
	0586	0742
	0485	0617
	0542	0294
	0448	0039
Transtec	0246	
Triad	0067	0586
Trident	0247	
Tristar	0294	
Triumph	0376	0586
	0067	
Tuntex	0039	
TVTEXT 95	0586	

Uher	0067	0586
	0404	0448
	0516	0400
	0510	
Ultravox	0404	0246
	0193	0067
	0586	
Unic Line	0067	0586
	0503	0485
United	0744	0067
	0745	0586
	1067	0617
Universal	0744	0067
	0586	
Universum	0067	0376
	0104	0135
	0225	0294
	0503	0400
	0522	0510
	0230	0448
	0542	0100
	0193	0586
	0357	1535
	0698	0247
	0139	0661
	0039	1067
	0200	1193
	1179	0648
Univox	0067	0586
	0193	
Utax	0193	
V7 Videoseven	1785	0208
	0910	1406
	1247	
Vestel	0067	0193
	0247	0586
	0698	1067
	1193	
Vexa	0039	0067
	0586	
Victor	0683	0680
Videocon	0538	
Videolog c	0246	
Videolog que	0246	0247
VideoSystem	0067	0586
Videotechnic	0246	0247
	0404	
Videoton	0193	
Vidtech	0208	
Viewpia	0906	
ViewSon c	1785	
Visiola	0246	
Vision	0067	0294
	0586	0247
Vortec	0067	0586
Voxson	0193	0208
	0067	0586
	0448	
Waltham	0247	0448
	0067	0586
	0698	0139
	1067	0193
	0473	
Wards	0208	
Warumaia	0404	0691
Watson	0067	1067
	1278	1289
	0586	0193
	0039	0698
	0424	1406
	0357	
Watt Radio	0193	0246
Wega	0067	0586
Wegavox	0039	0067
	0586	
Weipai	0039	
Welltech	0744	
Weltbl ck	0067	0586
	0247	
Westinghouse	0920	
Weston	0067	0586
Wharfedale	0067	0926
	0586	

TVs (continued)

Wh te	0067	0246
Westinghouse	0586	1939
Windsor	0698	1067
Windy Sam	0586	
Wintel	0744	
World-of-Vision	0910	0920
	0895	1319
	1328	0907
	1247	
Worldview	0485	
X-View	1221	
Xenius	0664	0691
Xiahua	0039	0294
	0728	0803
Xianghai	0039	
Xiangyang	0294	
Xihu	0294	
Xingfu	0039	
Xinghai	0294	
Xingyu	0039	
XLog c	0728	0890
Xoro	1226	1247
Xrypton	0067	0586
Yamaha	0680	1606
Yamishi	0485	0067
	0586	0247
Yingge	0039	
Yokan	0067	0586
Yoko	0067	0247
	0294	0586
	0039	0400
	0246	
Yonggu	0039	
Yous da	0039	
Yuhang	0039	
Zanussi	0247	
Zenith	1939	0208
	1295	
Zhuhai	0039	0404
Zonda	0728	

VCR

Accent	0102	
Admiral	0078	
Adventura	0030	
Adyson	0102	
Aiko	0308	
Aim	0308	0672
	0378	
Aiwa	0030	0378
	0382	0067
	0772	1167
	0062	
Akai	0067	0136
	0345	0672
	0382	0270
	0378	
Akashi	0102	
Akiba	0102	
Akura	0102	
Alba	0308	0102
	0382	0030
	0345	0378
	0111	
Allorgan	0270	
Allstar	0111	
America	0308	
Act on		
Amstrad	0030	0308
	0102	
Anam	0067	0256
	0270	0308
Anitech	0102	
Anson c	0030	
Aristona	0111	
ASA	0067	0111
Asha	0270	
Asuka	0102	0067
	0111	0030
Aud oson c	0308	
Aud ovox	0067	0308
AVP	0382	0030
AWA	0067	0308
	0672	0073
Baird	0136	0308
	0134	0030
Basic Line	0308	0102
	0134	
Beaumarck	0270	
Beko	0134	
Bell & Howell	0134	
Bestar	0308	
Black	0672	0308
Diamond		
Black Panther	0308	
Blaupunkt	0256	1592
	0111	
Blue Sky	0067	0378
	0102	0382
	0308	0030
	0510	0672
	1167	
Bondstec	0102	
Brandt	0350	
Brinkmann	0378	
Brokson c	0378	
Bush	0102	0308
	0345	0382
	0030	0378
	0111	0672
	0772	
Calix	0067	
Carena	0111	
Carrefour	0075	
Carver	0111	
Casio	0030	
Cathay	0308	
CCE	0102	0308
CGE	0030	
Cimline	0102	

Cineral	0308	
CineVis on	1167	
C tizen	0067	0308
Clatronic	0102	0030
Colt	0102	
Combitech	0382	
Condor	0308	
Craig	0067	0102
	0270	
Crown	0067	0308
	0102	0510
Cybernex	0270	
Cyrus	0111	
Daewoo	0308	0672
	0667	1167
	0075	0378
	0382	
Dansai	0102	0308
Dantax	0382	
Daytron	0308	
de Graaf	0072	0196
	0111	0134
	0078	
Decca	0030	0111
	0097	0378
	0382	
De tron	0308	
Denko	0102	
Denon	0072	
Diamant	0067	
Diamond	0308	
Dig tor	0672	
DSE	0672	
Dual	0111	0308
	0030	0378
Dumont	0030	0111
	0134	
Durabrand	0672	
Dynatech	0030	
Elbe	0308	
Elcatech	0102	
Electrohome	0067	
Electroponic	0067	
Elin	0270	
Elsay	0102	
Elta	0102	0308
Emerex	0062	
Emerson	0030	0102
	0067	0075
	0073	1167
	0308	
ESC	0308	0270
EuroLine	0378	
Ferguson	0350	0030
	0308	
Fidel ty	0030	0102
	0270	0462
	0382	
Finlandia	0134	0111
	0072	0196
	0030	0078
	0067	0073
	0136	0256
Finlux	0030	0111
	0134	0072
Firstline	0102	0378
	0073	0067
	0075	0072
	0308	1167
Fisher	0134	
Flint	0378	
Frontech	0102	
Fujitsu	0030	
Fujitsu	0067	
General		
Funai	0030	
Galaxi	0030	
Galaxis	0308	
Garrard	0030	

GE	0350	0078	Kendo	0136	0345	Neckermann	0111
	0270			0378	0102	Nesco	0102 0030
GEC	0111			0067	0308		0382
General Electric	0067		Kenwood	0097		Neufunk	0067
General Techn c	0378		KIC	0030		Nikkai	0102 0308
Genexxa	0134		Kioto	0378		Nikko	0067
Go V deo	0462	1167	KLH	0102		Noblex	0270
Goldhand	0102		Kneissel	0382	0378	Nokia	0134 0136
GoldStar	0067	0510		0067	0308		0345 0308
	0030	1167	Kodak	0067			0270 0078
Goodmans	0030	0102	Kolster	0378			0072 0111
	0270	0308	Korpel	0102		Nordmende	0350 0097
	0067	0111	Kyoto	0102		NU-TEC	0378
	0378	0667	Lenco	0308		Oceanic	0030 0078
	0382	0672	Leyco	0102			0136 0111
GPX	0067		LG	0067	0510		0134
Gradiente	0030			0030	0308	Okano	0345 0378
Graetz	0134	0270		1167			0102 0308
Granada	0134	0078	Lifetec	0378		Olympus	0256
	0111	0270	Lloyd's	0030		Onimax	0672
	0067	0256	Loewe	0111	1592	Optimus	0067 0078
	0072	0030		0256	0067		0134 0462
Grandin	0102	0067	Logik	0270	0102	Orbit	0102
	0030	0308		0136		Orion	0382 0378
Grundig	0270	0377	Lumatron	0308			0772
	0111	0256	Lux May	0102		Orson	0030
	0350	0378	Luxor	0136	0073	Osaki	0030 0067
	0102	0382		0102	0134		0102
	0772			0078	0345	Osume	0102
Haaz	0378		LXI	0067		Otto Versand	0111
Hanimex	0382		Magnasonic	0308		Pace	0382
Hanseat c	0067	0308	Magnavox	0111	0030	Pacific	0030
	0111			0672		Palladium	0102 0345
Harley Davidson	0030		Magnin	0270			0067 0270
Harman/ Kardon	0111		Magnum	0672			0378 0462
Harwood	0102		Manesth	0102	0075	Palsonic	0102 0030
HCM	0102			0111			0672
Hinari	0102	0382	Marantz	0111		Panasonic	0256 1592
	0308	0270	Mark	0308	0030		0866
Hisawa	0382		Marta	0067		Pathe Cinema	0073
Hischito	0075		Mastec	0672		Penney	0067 0070
H tachi	0072	0196	Master's	0308			0072 0270
	0030	0270	Matsui	0378	0067	Pentax	0072
	0111	0134		0270	0382	Perdio	0030
Höher	0308	0672		0030	0772	Philco	0102
Hornophon	0111		Mediator	0111		Philips	0111
Hughes Network Systems	0072		Medion	0378	0382	Phoenix	0308
			Melectron c	0030	0067	Phonola	0111
Hypson	0102	0308	Memorex	0134	0030	Pilot	0067
	0382	0030		0067	0078	Pioneer	0097 0111
	0067	0510		0378	0270		0072
Imperial	0030	0270	Memphis	0102		Portland	0308 0667
Ingersoll	0270		Metron c	0111		Prinz	0030
Inno H t	0270	0308	Metz	1592	0377	Profitron c	0111 0270
	0102			0866	0111	Proline	0030 0308
Interbuy	0067	0102	MGA	0073	0270		0350 0672
Interfunk	0111	0134	MGN	0270		Prosco	0308
Internal	0308	0667	Technology			Prosonic	0308 0030
Internat onal	0308	0067	M cormay	0378		Protech	0102 0111
Intervision	0030	0308	M cromaxx	0378			0308
	0067	0378	Migros	0030		Provision	0308
Irradio	0102	0067	Minolta	0072		Pye	0111 0030
	0111	1167	M tsubishi	0073	0097	Quasar	0308
ITT	0136	0134		0078	0111	Quelle	0111
	0270			0510	0030	Radialva	0067 0102
ITT Nokia	0078		Motorola	0672			0111 0078
ITV	0308	0067		0078		Rad ola	0111
JMB	0382	0378	MTC	0270	0030	Rad onette	1167 0067
Joyce	0030		Mult tec	0067		Rad oShack	0030
JVC	0097		Mult tech	0030	0102	Radix	0067
Kaisui	0102			0134		Randex	0067
Kambrook	0067		Murphy	0030		RCA	0136 0072
Karcher	0308		Myryad	0111			0078 0350
KEC	0067	0308	NAD	0134			0270
			Naiko	0672	0378	Realistic	0030 0067
			National	0256	1592		0078 0134
			NEC	0097	0070	Reoc	0378 0667
				0134	0067		0308
				0308	1167	RFT	0102

VCRs (continued)

Roadstar	0270	0102	Symphonic	0030	0102	XR-1000	0030	0102
	0067	0308	T+A	0256		Yamishi	0102	0308
	0772	0111	Tandberg	0308		Yokan	0102	
Royal	0102		Tandy	0030	0134	Yoko	0067	0102
Saba	0350	0308	Tashiko	0030	0078		0270	
Saisho	0378			0270	0111	Yoshita	0102	
Salora	0073	0136		0067		Zenith	0030	0667
	0134		Tatung	0030	0111		1167	
Samsung	0270	0462		0078	0073	ZX	0378	0382
	0075			0378	0382			
Sanky	0078		Tchibo	0378				
Sansei	0078		TCM	0378				
Sansui	0097	0030	Teac	0102	0030			
	0136	0102		0308	0672			
	0378			0067	0111			
Sanyo	0134	0270		0667				
	0078	0097	TEC	0308	0102			
	0378		Tech Line	0102				
Saville	0382	0308	Technics	0256				
	0270		TechniSat	0378				
SBR	0111		Tedelex	0067	0378			
ScanSon c	0270			0672				
Schaub	0134	0030	Teknika	0030	0067			
Lorenz	0136	0345	Telefunken	0672	0350			
Schneider	0102	0030		0308				
	0067	0111	Telestar	0067				
	0308	0270	Teletech	0102	0308			
	1167	0072		0030				
	0382	0672	Tenosal	0102				
Scott	0073	0075	Tensai	0030	0067			
Sears	0030	0067		0102	0308			
	0072	0134	Tevion	0378	0672			
Seaway	0308		Textet	0308				
SEG	0102	0270	Thomas	0030				
	0308	0672	Thomson	0350	0097			
	0111	0667		0308				
SEI	0111		Thorn	0134	0067			
Sei-Sinudyne	0111		Thorn-Ferguson	0350				
Seleco	0067		TMK	0270				
Semivox	0075		Tokai	0102	0067			
Semp	0075			0134				
Sentra	0102		Tokiwa	0102				
Setron	0102		Topline	0378				
Sharp	0078	0067	Toshiba	0073	0075			
	0599			0111	0772			
Shintom	0102	0134		0382				
Shivaki	0067		Totevision	0067	0270			
Shogun	0270		Towada	0102				
Siemens	0067	0134	Tradex	0111				
	0111	0350	Tredex	0308				
	0377		Triad	0308				
Siera	0111		Uher	0067	0270			
Silva	0067		Ultravox	0308				
Silver	0308		Unitech	0270				
SilverCrest	0672		United	0378	0772			
Singer	0378	0075	United Quick Star	0308				
	0102		Universum	0030	0111			
Sinudyne	0111	0382		0270	0067			
Smaragd	0378			0136	0378			
Sonneclair	0102			0134				
Sonoko	0308		Vector	0075				
Sonolor	0078		Vector Research	0070				
Sontec	0067	0308	Victor	0097				
Sonwa	0672		Video	0070	0075			
Sony	0062	0030	Concepts					
	0136		Video Technic	0030				
Soundwave	0067	0378	Videosonic	0270				
Ssangyong	0102		Wards	0030	0072			
Standard	0308			0078	0102			
Starlite	0067	0134		0111	0270			
Stern	0308		Watson	0111	0382			
STS	0072			0308	0672			
Sunkai	0378	0308	Weltbl ck	0067				
Sunstar	0030		Wharfedale	0672				
Suntron c	0030		White	0102	0308			
Sunwood	0102		Westinghouse					
Supra	0067	0270	World	0378				
	0378	0308						
Sylvania	0030	0073						
	0111							

SAT

@sat	1330
@Sky	1364
ABSat	1353 0743
ADB	0672 0917 1289 1397 1503 1521
Adcom	0230
Akai	0230
Alba	0743 1314
Allsat	0230 1047
Allsonic	0399
Alltech	0743
Allvis on	1262
Alpha	0230
Amitronica	0743
Ampere	0162
Amstrad	0877 1205 0743 0162 1143
Anglo	0743
Ankaro	0399 0743 1309
AntSat	1047
Arcon	1309 0162 1105
Armstrong	0230
Arn on	1330
ASA	0329
Asat	0230
ASCII	1364
ASLF	0743
AssCom	0883
Aston	1159 1291
Astra	0743
Astratec	1773
Astro	0163 0203 0399 0688 1143 1129 1130 0230
Aud oline	1459
Aurora	0909 0672 1463
Austar	1289 0672 0909 1206
Axil	1487
Axis	1141 0399
B@ytronic	1442
Bentley Walker	1047
Best	0399
Big Sat	1487
Black Diamond	1314
Blaupunkt	0203
Blue Sky	0743
Blue Star	1309
Boca	0162 1396 0743 1262
Boston	0162
Brainwave	1244 0688 1702
British Sky Broadcasting	0877 1205
Broco	0743
BSkyB	0877 1205
BT	1326
Bubu Sat	0743
Bush	1501 1702 1675 1773
Canal Digital	1883 0883 0197 1076
Canal+	0883 1883
CanalSatell te	0883 1369 1883
Centrex	1577
CGV	1443
Cherokee	1353

Chesley	1577
Chess	1364 0743 1656
CityCom	1206 1262 0329 0848 0534 1105
Clatronic	1443
CNS	1397
Colombia	0162
Columbia	0162
Comag	0162 1396 1443 1262 1442
Condor	0399
Connexions	0399
Conrad	0399 0162
Coship	1487
Crown	1314
Cyrus	0230
D-box	1144 0753
Daewoo	1326 0743 1773 1141
Deltasat	1105
DGTEC	1272 1572
Digatron	1324
Digenius	0329 1191
DigiFus on	1675 1773
Diginet	1577
DigiQuest	1487 1330
DigiSat	1262
Digisky	1487
Dig tal+	1883
Dig tAll World	1257
DiPro	1577 1503 1397
DirectTV	0129 0886
Distratel	1313
Distrisat	0230
DMT	1105
DNT	0230
Dream Multimedia	1267
DSTv	0672 0909
Dune	0399
Durabrand	1314
Echostar	1230 0640 0197 0883 0743 1353 1503 1439 1797
Einhell	0162 0743
Elap	0743 1159 1597
Elsat	0743
Elta	0230 0399
Emme Esse	0399
eMTech	1244
Engel	1047 0743 1281
EuroLine	1281
Europa	0230
Europhon	0329 0162
Eurosat	1597
Eurosky	0162 0329 0399
Eurostar	0848
Eutelsat	0743
Eycos	1309
Fenner	0743 0399
Ferguson	1321 0741 1773
Flair Mate	0743
FMD	1281 1487 1443
Force	1224
Fortec Star	1047
Foxtel	1386 0909 0750 1206 1192

Fracarro	0155
Freecom	0203
FTEmaximal	0399 0743
Fuba	1831 0399 0203 1191 0329 1281
Fugionkyo	0155
Galaxis	1141 1206 0883 0399 0909
Gardiner	0848
Garnet	1105
GbSAT	1244
Gecco	1442 1303
General Satellite	1206
Globo	1281 1656 1442 1459 1364
GOD Digital	0230
Gold Box	0883
Gold Vis on	1047
Golden Interstar	1313
Goodmans	1314
Gradiente	0917
Grundig	0203 0877 1321 0909 0883
H&B	1577
Hanseat c	1129 1130
Hänsel & Gretel	0162
Hauppauge	1324 1702
HB	1244
HDT	1189
HE@D	1309
Hills	1262
Hirschmann	1141 1143 0203 0329 1262 0399 0155 1442
H tachi	1314
HNE	1262 0162
Homecast	1244
Humax	1206 1457 1705 1255 1773
Huth	0162 1047 1105
Hyundai	1189 1105
iCan	1397
ID Digital	1206
Imperial	1459 1364 1129 1130 1225 1227 0230 1702
Internat onal	0162
Interstar	1047 1244
iotron c	0162
ITT Nokia	0753
Jadeworld	0672
Jaeger	1364
Jepssen	1244
K-SAT	0743
Kamm	0743
Kaon	1330
KaTelco	1141
Kathrein	0534 1597 0510 1591 0688 0203 0230 0743 0848 1353 1446
Kennex	0155
Kenwood	0883
Key West	0162
Kongque	1330
Kreiling	0688
Kreiselmeyer	0203

Satellite decoders (continued)

Kyostar	0162		Optus	0909	0883	Servimat	1641
L&S Electronic	0399	0162	Orbis	1364	1442	ServiSat	1281 0743
	1364		Orbitech	1129	1130	Sherwood	1641
Labgear	1326			0230		Siemens	0203 1459
LaSAT	0399	0162	P/Sat	1262			1364
	0329		Pace	0877	0917	Silva	0329
Lenco	0743	0399		1205	1386	Skantin	0743
Lennox	0399			1880	0271	SKR	0743
Lennox	1641			1353	0821	Sky	0129 0877
Lexus	0230			0750	0230		0886 0917
LG	1444	1105	Pacific	0883	1453		1205 0741
Lifesat	0162	0399		1314		SKY Brasil	0672 0917
	0329	0743	Packard Bell	1141		SKY Italia	1878 1880
Lodos	1314		Palcom	0329	1191	Sky XL	1442 1281
Logik	1314			1439		SKY+	1205
Logix	1047	1105	Panasat	0909		Skymaster	0743 1439
Lorenzen	0329	1324	Panasonic	0877	1334		1230 1105
	1191	0162		1434			1641 1364
Lupus	0399		Panda	0203		Skymax	0230
Macab	0883		Patriot	0162		skyplus	1262 1364
Madr tel	0672		peeKTON	1487			1442
Manata	0743	0162	Philips	0230	1144	SkySat	0743
Manhattan	1047			0883	0129	SL	0162 1702
Marantz	0230			0163	0848	SM Electronic	0743 1230
Maspro	0743	0203		1702	0203		1105
Matsui	0203	1773		1459		Smart	1303 0162
Maximum	1105	1364	Phoenix	1303			0329 1143
MDS	1255		Phonotrend	1047	1230		1262 0743
Mediabox	0883		Pilotime	1369			1443
Mediacom	1236		Pino	1364		Soniq	1597
MediaSat	0883		P oneer	0883	1338	Sony	0877 1588
Medion	1262	0329		0382			0312 0883
	0743	0162	Portland	1326		SR	0162
	1105	1442	Power Sky	1309		Star Sat	0162
	1656	1364	Preisner	0162	1143	Starland	0743
	0399			1396		Stream	1878
Medison	0743		Premiere	0883	1144	Strong	0155 1397
Mega	0230			1206	1225		1439 1656
Melelectronic	0848			1130	0688		0399 0909
Metron c	0743	1309	Primacom	1141			0883 1189
	1313	0848	QNS	1397	1434		1330 1503
	0162		Quadrall	0399	1353		1314
Metz	0203		Quelle	0329		Sunny	1330
M cro	0743	1324	Rad ola	0230		Sunny Sound	0399
M cro	0743		Radix	1143		Sunsat	0743
electronic			RCA	1321		Sunstar	0399 0162
M cro	0743		Rebox	1244			0672
Technology			Red Star	0399		Supermax	1313
M cromaxx	0329	0399	Regal	1281		Systec	0162 1364
M crostar	1105		RFT	0230		Tarbs	1255
M crotec	0743		Roadstar	0743	0883	TBoston	1487
Morgan's	0230	0743	Rover	0743	0399	Teac	1257 1255
	0162	1439	Rownsonic	1597			1352
Motorola	0886		S-ZWO	1237		Tecatel	1230
Mult cho ce	0672	0909	SAB	1281		TechniSat	1129 1130
	1463		Sagem	1144	1283		1225 1227
Myryad	0230			1720			0230 1352
Mysat	0743		Samsung	1273	1600	Technomate	1313
Neot on	1364			1488	1047	Technosat	1236
Netgem	1352			1236	0883	Technosonic	1702
Netsat	0917	0129	Sat Control	1330		Technotrend	1459
Neuf TV	1352		Sat Team	0743		Technowelt	0162
Neuhaus	0743		SAT+	1439		Techsan	1047
Neuling	1262		Satec	0743		Techwood	1314 1656
Neusat	0743	1309	Satelco	0399		tekComm	1047
Neveling	1191		Satplus	1130		Tele System	1281 1439
NextWave	1047		Schaub Lorenz	1244			1641 1831
Nikko	0743	0753	Schne der	1281	1236	Tele System	1641
	0230		Schwaiger	0534	1364	Electronic	
Nokia	1144	1253		1487	1442	TeleClub	1397
	1053	0753		1141	0162	Telecom	0743
	0883	1753		1105		Telestar	1129 1130
Nordmende	1641		SCS	0329			0230 1281
Nova	0909		Sedea	0155	0162		1364 1656
OctaTV	1324		Electron que	1313	1656	Televés	0162 1244
Opentel	1262	1442		1309			1330 1364
Optex	1313	0743	SEG	1281	0399		1439
	1641			1656	1105	Televisa	0917
			Serino	0640		Telewire	1262

Tevion	1364	1702
	0743	1439
	1597	
Thomson	0741	0877
	1321	1930
	0743	1205
	0883	1076
Tiny	1702	
Tioko	0162	
Tokai	0230	
Tonna	1641	0743
Topfield	1236	1237
	1575	1813
TPS	1283	
Triax	0230	0743
	0883	1281
	1326	1321
	0162	1129
	1143	1257
	1656	
Trio	1105	
TT-m cro	1459	
Turnsat	0743	
Twinner	0162	0743
UEC	0909	1192
	1386	
Unimax	1577	
Unisat	0230	0162
United	1281	
Universum	0203	0329
	1129	
Van Hunen	1191	0329
Variosat	0203	
Vega	0399	
Ventana	0230	
Vestel	1281	
VH-Sat	1191	0329
Viasat	1353	1053
Viasonic	0155	1309
Visiosat	0743	1159
	1487	
Viv d	1192	
VTech	0848	
Wavelength	1262	1443
Wharfedale	1314	
Winbox	1831	
Wisi	0203	0329
	0162	
Worldsat	1503	1244
	1281	
XMS	1105	
Xrypton	0399	
XSat	0743	1244
	0877	1353
Xtreme	1330	
YES	0917	
Yess	1577	
Zehnder	1281	1262
	1364	1442
	1105	1443
	0534	0848
	0399	
Zen th	0886	
Zeta	0230	
Technology		
Zinwell	1206	
Zodiac	1831	

CBL		
ADB	1260	1299
Amstrad	1252	
Auna	1299	1260
Austar	0306	
Canal Plus	0473	
Comcrypt	0473	
Comtec	0049	
Contec	0049	
Daeryung	0507	
Fastweb	1660	
Filmnet	0473	
Foxtel	1252	
France Telecom	0847	1764
freebox	1512	
Funai	0049	
General Instrument	0306	
Jerrold	0306	0049
Macab	0847	
Madr tel	1260	
MNet	0473	0049
Motorola	0306	1136
	1513	
Mult cho ce	0049	0473
Nokia	1599	
Noos	0847	1654
NTL	1090	1098
Oak	0049	
Ono	1098	
Optus	0306	1090
Pace	1098	1607
	1090	
Philips	0847	
Sagem	0847	1654
Samsung	1696	
Scientific Atlanta	0507	
Tele+1	0473	
Telepiu	0473	
Telewest	1098	1090
Telsey	1660	
Thomson	1764	1612
Trans PX	0306	
UPC	1612	
US Electronics	0306	
Vis opass	0847	

VIDAC	
Gateway	1302
Hewlett Packard	1302
Microsoft	1302
Pinnacle Systems	1477
Sony	1302

CD		
Advantage	0062	
Aiwa	0187	
Arcam	0187	
Audio Research	0187	
Audiolab	0187	
Audiomeca	0187	
Audioton	0187	
Balanced Audio Technology	0187	
Cairn	0187	
California Audio Labs	0059	0333
Cambridge Audio	0187	
Carver	0187	
CCE	0187	
Copland	0423	
Cyrus	0187	
Denon	0033	0796
	0656	
DKK	0030	
Dual	0033	
Dynaco	0187	
Elektra	0423	
Garrard	0423	
Genexxa	0030	0062
Goldmund	0187	
Grundig	0187	
Harman/Kardon	0187	
Hitachi	0062	
JVC	0102	
Kenwood	0220	0656
	0066	
Krell	0187	
Linn	0187	
Loewe	0187	
Magnavox	0187	
Marantz	0187	0656
	0059	
Matsui	0187	
MCS	0059	
Memorex	0062	
Meridian	0187	
Mormega	0187	
Mission	0187	
Musical Fidelity	0423	
Myrad	0187	
NAD	0751	0030
Naim	0187	
NSM	0187	
Onkyo	0131	
Optimus	0030	0062
Orion	0423	
Panasonic	0333	0059
Philips	0187	0656
Pioneer	0062	
Primare	0187	
Proton	0187	
QED	0187	
Quad	0187	
Quasar	0059	
Radiola	0187	
Restek	0187	
Revox	0187	
Rotel	0187	
SAE	0187	
Sansui	0187	
Siemens	0187	
Simaudio	0187	
Sony	0030	0520
	0187	

Tag McLaren	0187	
Tandy	0062	
Teac	0423	
Technics	0333	0059
Thorens	0187	
Thule Audio	0187	
Traxdata	0656	
Universum	0187	
Victor	0102	
Wards	0187	
Yamaha	0066	0520
	0062	
Zonda	0187	

TUNER		
AEG	1420	
AFK	1419	
Aiwa	0151	0219
	1088	1188
	1288	1652
Akai	0639	1250
	1420	
All-Tel	1420	
Anam	0639	
Arcam	0219	1119
	1219	1299
	1319	
ASCOMTEC	1419	
Audiolab	1119	1219
	1299	1319
	0219	
Audiosonic	1419	
Audiovox	1420	
Audioworld	1420	
Balanced Audio Technology	1119	1219
	1299	1319
	0219	
Bang & Olufsen	0829	
Basic Line	1584	
Belson	1419	
Blue Sky	1420	
Bose	1259	1385
Bush	1119	1219
	1299	1319
Cairn	0219	
Cambridge Audio	0219	1219
Carver	0219	1119
	1219	
CCE	1382	
Centrum	1250	1584
	1419	
Classic	1382	
Clatronic	1250	
Copland	1119	1219
	1299	1319
Denon	1390	1134
Denver	1419	
Diamond	1420	
DK digital	1450	
DMTECH	1420	
Dual	1250	1420
	1450	
Electrocompaniet	1219	
Elta	1420	
Fisher	1831	
Genexxa	0216	
Goldmund	0219	1119
	1219	1299
	1319	
Goodmans	0639	1229
	1450	1641
	1419	
Grundig	1119	1219
	1299	1319
	0219	
Hanseatic	1420	
Harman/Kardon	1334	1119
	1219	1299
	1319	0219
HCM	1420	
HE	1419	
Hitachi	1831	1250
	1584	
Hiteker	1419	
Integra	0165	1350
JVC	0104	1404
	1229	1525
Kenwood	1057	1343
	1599	0216
KLH	1420	
KXD	1419	

Lenoxx	1641	
Lenoxx Sound	1641	
LG	1323	
Linn	0219	1119
	1219	1299
	1319	
Loewe	1119	1219
	1299	1319
	0219	
Magnavox	0219	1119
	1219	1299
Magnum	1641	
Marantz	0219	1119
	1219	1299
	1319	
Mark	1119	1219
	1299	1319
MBO	1382	
Med on	1450	
MEI	1420	
Melectronic	0639	
Meridian	1119	1219
	1299	1319
Metz	1584	
Micromaxx	1450	
Micromega	1119	1219
	1299	1319
	0219	
Mitsubishi	0206	
Mustek	1382	
Myryad	1219	1119
	1299	1319
	0219	
NAD	0350	0639
Naim	1119	1219
	1299	1319
Nikkai	1419	
Nikko	0639	
Norcent	1419	
Okano	0639	
Onkyo	0165	1350
Optimus	0216	1053
Palladium	1250	
Panasonic	1548	1338
	1339	1793
	1809	1795
Philco	1420	
Philips	0219	1219
	1299	1119
	1319	
Pioneer	1053	0216
	1119	1219
	1299	1319
	1489	
Polk Audio	1319	
Proline	1420	
Proson	0639	
Provision	1419	
QONIX	1450	
Quad	1119	1219
	1299	1319
Rad ola	1119	1219
	1299	1319
	0219	
Rad onette	1664	1323
RCA	1184	1420
	1489	
Red Star	1419	
Restek	0219	
Revox	1119	1219
	1299	1319
	0219	0216
Revoy	1119	1219
	1299	1319
Roadstar	1641	
Rotel	0823	
Saba	1184	
Samsung	1325	1229
Sansui	0219	1119
	0639	
Sanyo	1831	

Schneider	1420	1229
	1250	
SEG	1584	
Sharp	0216	1664
	1644	
Sherwood	0683	
Siemens	0639	
Silva Schneider	1323	
Sony	1188	1288
	1888	1789
	1088	1688
	1752	1652
	1142	
Soundwave	0639	
Sunfire	1343	
Sunstech	1450	
Tag McLaren	1219	
Teac	1229	0639
	1420	
Technics	1338	1339
	1793	1548
	1795	
Techwood	0639	1584
Telefunken	1419	
Tev on	1641	
Thomson	1184	1384
Thorens	1219	1119
	1299	1319
	0219	
Toshiba	1602	
United	1420	
Universum	1250	0639
	1420	1119
	1219	1299
	1319	0219
Venturer	1420	
V ctor	0104	
Voxson	1450	
Waitec	1382	
Wards	0219	
Wharfedale	0639	1420
Yamaha	0206	1361
	1306	0216
	0742	
Yukai	1382	

DVD	
3D LAB	0569
4Kus	1188
A-Trend	0744
Acoustic Solut ons	0760 0743
	1258
AEG	0818 0800
	0820
AFK	1258 1182
Aim	0808 0702
Airis	1254 1351
	0702 1035
	1375
Aiwa	0725 0899
	0563
Akai	0820 0809
	0800 0818
	0725 1145
	0928 0746
	0743 0882
	0735 1725
	1263
Akashi	0868
AKI	1035
Akira	0808 1351
Akura	1201 0928
	1081 1170
Alba	0747 0743
	0753 0725
	0760 0569
	0702 1170
	1081 1560
	1725
Alize	1181
All-Tel	0820 1481
	0865
Amitech	0800 0880
Amoi	0882
Amoison c	0865
Amstrad	0743 1145
	1181 1601
AMW	0902
Anson c	0789 0861
Apex Digital	0702 0747
	1034
Arena	0882
Asono	1254
ATACOM	1254
Aud ovox	0820 0747
Aud oworld	0820
Audix	1134 1182
Autovox	0743
Auv o	0873
Av ous	1195
AWA	0760 0902
Ax on	0760
Base	1481
Basic Line	0743
Baze	1195 0928
	0702
BBK	0892 1254
Bel Canto Design	1601
Bellagio	0902
Best Buy	0887
Black Diamond	0743 0863
Blaupunkt	0747
Blu:sens	1263
Blue Parade	0601
Blue Sky	0743 0725
	0702 0873
	0808 0681
	0820
BNI	1351
Boghe	1034
Boman	0818 0928
	1035
Brainwave	0800 1145

DVD players (continued)

Brandt	0681	0581	DiK	0861	H&B	0848	0743	
	0533		Dinam c	0818		0871	0880	
Broksonic	0725	1449	DiViDo	0735		1263	1451	
Bush	0743	0725	DK digital	0861	Haaz	0798	0781	
	0863	1725	DMTECH	0820	1301	Haier	0873	
	0760	0861	Dragon	0861		Hanseatic	0771	0820
	0747	0808	DSE	1760	0863	Harman/ Kardon	0732	
	0546	0848		1182		HCM	0818	
	0753	1195	Dual	0861	0743	HDT	0735	
	1466	1449		0695	0681	HE	0760	
	1513	1170		0760	0809	Henß	0743	
C-Tech	0798	1182	Durabrand	0861	0743	HiMAX	0887	0873
Cambr dge	1139	0781	DVX	0798		Hitachi	0694	0725
Audio			E-Boda	0753			0809	0695
Campomatic	1081		E-Dem	1254			0603	0887
Dig tal			e:max	1263	1351		0743	
CAT	0819		EagleTec	0744		Hiteker	0702	
Celestial	0702		eBench	1182		Höher	0861	1034
cello	1760		Eclipse	0753	0781		1254	
Centrex	0702	1034	Electrohome	0800		Home	0760	0800
Centrum	0743	0819	Elfunk	0880	0743	Electronics		
	0809	1035	Elin	0800		Home Tech	1254	
CGV	0800	0781	Ellion	0880	1451	Industries		
Cinea	0871		Elta	0800	0818	Hyundai	0880	1258
Cineral	0760			0820	1145	Iekei	1137	
Cinetec	0743	0902		1181	1263	Ingelen	0818	
CineVis on	0899	0863		1081		Inno Hit	0743	
Classic	0760	1760	Eltax	1351		Integra	0657	
Clatronic	0818	0809	Emerson	0621	0705	Irradio	0771	1145
	0848	0702		0735	0899		1254	1263
	1195	0705	ENG	1601			0899	0800
Clayton	0743		Enterprise	0621		ISP	0725	
Coby	0808	1137	Enzer	0695		Jaton	0695	
	0760	1195	EuroLine	0818	1145	JBL	0732	
	0882			1263	0705	JDB	0760	
Codex	1263		Ferguson	0681	1760	JDV	1258	
Conia	0702	0882		0928	0743	Jeken	0808	
	0546	0865	Finlux	0771	0800	Jepssen	1213	
	1351			0621	0702	JMB	0725	
Contel	0818			0781	1195	JNC	0702	1301
Continental	0902	0861	Fintec	0743		JVC	0653	0588
Edison			Firstline	0899	0681		1194	0569
Craig	0861			1560			0533	0897
Crown	0800	0681	Fisher	0700		jWIN	1081	
Crypto	1258		Funai	0725	0705	Kansai	1137	
Cybercom	0861		Gateway	1188		Kansas	1263	1560
CyberHome	0744	0846	GE	0747		Technologies		
Cytron	0746	0681	General	0747		Kendo	0743	0861
	0735	0861	Electric				0702	1377
	1377		Germat c	1081		Kennex	0800	0743
D-Vis on	1145		Global Link	1254			0928	
Daenyx	0902		Global	0798		Kenwood	0564	0520
Daewoo	0800	0863	Solut ons			KeyPlug	0800	
	0899	1513	Global Sphère	0798		Kiirro	0800	
	0735	0744	Go V deo	0774	1188	Kingavon	0848	
	1466	0902		0899	0863	Kiss	0871	0695
	0808		GoldStar	0621	0771	KLH	0820	
Dalton	1066		Goodmans	0743	1034	KLH Dig tal	0747	
Dansai	0800	1145		0753	0781	Kodak	0848	
	1725			0760	0681	Koss	0681	
Dantax	0753	0725		0820	0848	Kreisen	1451	
Daytek	0902	1035		0863	1170	KXD	0887	1137
Dayton	0902		GP Audio	1760			1351	
DCE	0861		GPX	0681	0771	Lawson	0735	0746
DEC	0808	0848	Gradiente	0681			0798	
Decca	0800		Graetz	0695		Leiker	0902	
Denon	0520	0664	Gran Prix	0861		Lenco	0681	0800
	1664		Grandin	0746	0702		0808	0848
Denver	0808	0818	Greenhill	0747			0743	0861
	0928	0848	Grundig	0725	0735	Lenoir	1195	
	1137	1351		0805	0569	Lenoxx	1258	
	0702			0681	0820	LG	0868	
Denzel	0695			0743	0700		0771	0601
Diamond	0681	0798		0753	1725	Lifetec	0621	1936
	0781	0808		1034	1760		0899	
	0753	0820	Grunkel	1466	1513	Limit	0681	0861
Dighome	0743			0800	0861		1377	
DigiLogic	0743					LiteOn	0746	0798
digiRED	0747						1188	
Dig tor	1035							
Dig trex	0702	1034						

Lodos	0743		Omni	0808	0863	Roadstar	0743	0848
Loewe	0569	0771		1134	1258		0760	1081
LogicLab	0798		Onix	0868			0928	0863
Logik	0743		Onkyo	0657	0533		1257	
Logix	0735		Oopla	1188		Rocksonic	0819	
Lumatron	0735	1145	Oppo	1254		Ronin	0902	
	0771	0863	Optim	0873		Rotel	0653	0588
	1351	0743	Optimus	0601	0555	Rowa	0789	1034
	0760	0928	Orava	0848			0546	0555
Luxman	0603		Orb t	0902			0747	
Luxor	1034	0743	Orion	0725	1725	Rownsonic	0819	0753
	1760	0760		1036	1263	Saba	0681	0581
				1449	0928	Sabaki	0798	
Magnasonic	0681		Oritron	0681		Saivod	0789	0861
Magnavox	0533	0705	P&B	0848	1481		0800	
	0848	1170	Pacif c	0798	0820	Salora	0771	
	0569	0743		0789	0743	Sampo	1377	
Magnex	0753	1195		0861		Samsung	0603	0774
Magnum	1466		Packard Bell	0861			1962	0520
Majestic	1137	1375	Palladium	0725	0809	Sansui	0725	0746
Manhattan	0735	0743	Palson c	0865	0702		0798	0753
Marantz	0569			0882			0800	0781
Mark	0743	0725	Panason c	0520	1864		1258	1725
	1725			1938		Sanyo	0700	0903
Marquant	0800	1481	Panda	0747	1137		0725	0820
Mastec	1036		Papouw	0563			0743	
Matsui	0681	0743	peeKTON	1254	0928	Scan	0735	0865
	0702	0725	Philco	0753	0892		0880	
	1760			0818	0820	ScanMagic	0760	1760
Maxdorf	0818		Philips	0569	0676	ScanSonic	0887	
Maxent	1377			1370	0705	SCE	0819	
Maxim	0743			0533	1188	Schaub Lorenz	0818	1195
Maya	1375		Philo	1375			0800	
MBO	0760		Phonotrend	1195		Schneider	0861	0809
MDS	0808		Pioneer	0601	0661		0569	0735
Mecotek	0800			1995	0555		0818	0743
Med on	0861	1377	Plu2	1601			0681	0899
	0681	0746	Pointer	0880		Scientific Labs	0820	0676
	1375	0660	Polk Aud o	0800			0798	1182
	1195	1036	Portland	0569		Scott	0681	0702
MEI	0820		Powerpoint	0902	1035		1066	1263
Memorex	0861		Pres dian	0705		Seeltech	1254	1481
Memory	0760	1081	Prima	1258		SEG	0743	0695
Metz	0601	0555	Prinz	0861			0798	0902
	0743		Prism	1036	0861		0793	1560
MiCO	0753	0781	Pro2	1375		Semp	0533	
	1253		ProCaster	1034		Shanghai	0702	
Micromaxx	1725	0725	Proline	0681	0702	Sharp	0660	1286
	1377			0820	1034		0743	0725
Micromedia	0533	0569		1513	0863		1449	
Micromega	0569		Proscan	0552		Sherwood	0747	0771
Microsoft	0552		Proson	0743		Shinco	0747	
Microstar	0861		Prosonic	1137		Siemssen	1412	
Minax	0743		Provis on	0848	1351	Sigmatek	0887	1254
Minerva	0735			1137	0760	Silva	0818	0928
Minoka	0800	1145	Pye	0676	0569		0861	
Minowa	1195		QONIX	0808	1081	Silva	0861	1936
Mintek	0747		Qwestar	0681		Schneider		
Mitsubishi	0743		Radionette	0771	0899	SilverCrest	1182	
Mizuda	0848	0887		1936		Singer	0746	0753
	1481		Raite	0695			0781	0798
Monyka	0695		RCA	0552	0681	Sinudyne	1170	
MPX	0873			0820	1995	Sistemas	0702	
Mustek	0760	1760	REC	0520		Skymaster	0760	0798
Mx Onda	0681	0781	Red Star	0789	0793	Skyworth	0928	
	0753	1253		0800	0818	Sliding	1145	
				0928	1137	Slim Art	0800	
Mystral	0861		Relisys	1375		Slim Devices	0563	
NAD	0771			1377		SM Electron c	0760	0798
Naiko	0800	1034	Reoc	0798		Smart	0735	0743
NEC	0899	0621	Reovoy	0871		Sonashi	0746	0861
	0771		Rex	0868		Son c Blue	0899	
Neovia	1301		Richmond	1263		Soniko	0818	
Nesa	0747		Rimax	1181		Sony	0563	0894
Neufunk	0695		Rio Aud o	0899			1663	0802
Nevir	0861	0800					1100	2011
Nintaus	1081						1463	0603
Nordmende	0861					Sound Color	1263	
Nowa	0873					Soundmaster	0798	
NU-TEC	0546	1258				Soundmax	0798	
						Spectra	0902	

DVD players (continued)

Standard	0681 0818 0928	0798 0861	upXus	1375
Star Clusters	0798 1182	1257	Urban Concepts	0533
StarLogic	1035		Venturer	0820
Starmedia	0848 1035	1254	Vestel	0743 1560
Strong	0743		Vieta	0735
Sunfly	0887		Viewmaster	0892 1254
Sunkai	0800	0880	Voxson	0760 0861
Sunstech	0861		VTrek	1258
Sunwood	0818		Waitec	1254
SuperDigital	1217		Walkvis on	0747
Supervis on	0760	0798	Waltham	1560
SVA	0702	0747	Welkin	0861
Sylvania	0705	0660	Wellington	0743
Symphonic	0705		Weltstar	0743
Synn	0798		Wharfedale	0798 0753 0781
Tandberg	0743	1725	Wilson	0861 1263
Tangent	1351		Windy Sam	0603
Targa	0771 1257	1188	Wintech	1217
Tatung	0800		Woxter	1181 1254
Tchibo	0771		XBox	0552
TCM	0771		XLogic	0800 0798 1258
Teac	0747 0546 0798 0789 0820 0863 1195	0771 0601 0621 1036 1227 1257 0705	XMS	0818 0800
TEC	0928		Xoro	1213
Technics	0520	1938	Yakumo	1034
Technika	0800 0861	1145 1195	Yamada	1034 0902 1181 1188
Technosonic	1081	1145	Yamaha	0569 0520 0676
Techwood	0743 0569	1560	Yamakawa	0695 0902 1134
Tedelex	1258		Yukai	0760
Telefunken	0820 0818	0819 1258	Zenith	0533 0899 0621 0771
Teletech	0743			
Tensai	0681	0800		
Tevion	0681 1412 1257 1377	1066 0798 0863 1760		
Theta Dig tal	0601			
Thomson	0581	0552		
Tokai	0695 0818	0928		
Tokiwa	0735	0746		
Tom-Tec	0819			
Top Suxess	1254			
Toshiba	0533 1075	0725 1540		
TRANS-continents	0902	0861		
Transonic	0702	1195		
Tredex	0873			
Trio	0800			
TruVision	0887	1481		
TSM	1254			
TYT	0735			
Umax	1181			
United	0818 0820 0702 0725 0798 0743 0705	0760 1258 1195 1145 1263 1182 0705		
Universal Multimedia	0798			
Universum	0771 0621 1257 1560	0743 0809 0820		
Uptek	0793			

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