

magician4

PRE-PROGRAMMED UNIVERSAL REMOTE CONTROL

*A single remote to operate
your television, video,
satellite receiver
& cable TV*2

MANDO A DISTANCIA UNIVERSAL PREPROGRAMADO

*Un único mando a
distancia para poner en
funcionamiento la televisión, el vídeo,
el receptor de satélite y
la TV por cable.*5

TELECOMMANDE UNIVERSELLE PREPROGRAMMEE

*Une seule télécommande pour
votre téléviseur, votre magnétoscope,
votre récepteur satellite
et votre téléviseur câblé.*9

VORPROGRAMMIERTE UNIVERSAL-FERNBEDIENUNG

*Fernbedienung für
Ihr Fernseh-, Video-, Satellitenempfangs-
& Kabelfernsehgerät in einem.*13

TELECOMANDO UNIVERSALE PREPROGRAMMATO

*Un unico telecomando
per azionare il vostro
televisore, videoregistratore,
ricevitore satellitare e TV via cavo.*17

Device Codes.21

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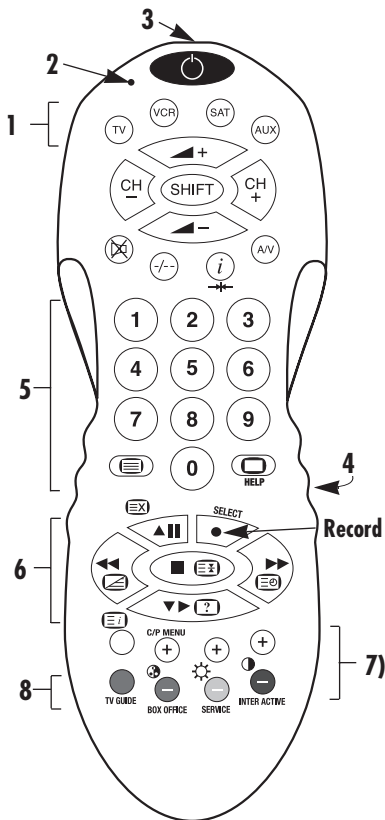
FUNCTION KEYS

| KEY SYMBOL | DESCRIPTION |
|------------|--------------------------------|
| | POWER ON/OFF |
| | MUTE |
| | VOLUME +/- |
| | CHANNEL +/-, C/P +/- |
| | CHANNEL 1/2 DIGIT MODE |
| | A/V SOURCE 1 |
| | INFORMATION/INDEX |
| | NORMAL |
| | HELP |
| | PLAY STOP |
| | PAUSE |
| | FAST FORWARD |
| | REWIND |
| | RECORD (red circle) |
| | TELETEXT ON |
| | TV ON (FROM TEXT TO TV) |
| | MIX (TV AND TELETEXT COMBINED) |
| | HOLD PAGE (TELETEXT) |
| | REVEAL (TELETEXT) |
| | UPDATE (TELETEXT) |
| | TIMER (TELETEXT) |
| | TOP OF PAGE (TELETEXT) |
| | BOTTOM OF PAGE (TELETEXT) |
| | FASTEXT RED |
| | FASTEXT GREEN |
| | FASTEXT YELLOW |
| | FASTEXT BLUE |
| | CHANNEL/PROGRAMME STORE |
| | CHANNEL/PROGRAMME STORE |
| | C/P (CHANNEL PROGRAMME) |

SHIFT KEY FUNCTIONS

| KEY STROKES | FUNCTION |
|-------------------|---|
| SHIFT | +/- (COLOUR) |
| SHIFT | +/- (BRIGHTNESS) |
| SHIFT | +/- (CONTRAST) |
| SHIFT ①..⑨ | Shift 1-9 contain the following groups of functions 10+, 20+, 30+, 40+ ... 11, 12, 13, 14, 15 ... |

PLEASE NOTE: You are advised to read the following instructions fully, before attempting to program your Universal Remote Control. The set-up procedure will cancel itself if no keys are pressed for more than 10 seconds in order to protect your code against accidental re-programming, and to conserve battery power. It would therefore be helpful to you to understand the required programming steps, before you carry out the actual set-up procedure.



1. DEVICE INDICATOR keys
2. STATUS INDICATOR
3. Infra red transmitter
4. Battery compartment
5. Number keypad
6. Text & VCR keypad
7. Colour, Brightness, Contrast
8. Fastext keys

MAGICIAN – UNIVERSAL REMOTE CONTROL

Congratulations! Your Universal Remote Control is a state-of-the-art device, which replaces the main functions of several separate remote controls to operate infra-red controlled televisions (TV), videos (VCR), satellite receivers (SAT) & cable boxes (CTV).

Your Universal Remote Control (URC) is pre-programmed in the factory. Simply enter the correct device codes for your equipment and your URC is ready to use. A DEVICE CODE LIST is included in the user's manual.

INSTALLING BATTERIES

Your URC requires 2 fresh AAA-size (LR03) batteries (alkaline batteries recommended) :-

1. Remove the battery cover on the back of your URC.
2. Insert the batteries ensuring that the polarity corresponds with the markings in the battery compartment.
3. Push the battery cover back in place.

HOW TO SET UP YOUR URC

The 4WAY has 4 Device Modes (TV, VCR, SAT & AUX)
Your URC can be set-up either by entering the appropriate codes from the list of codes supplied or by using the Library search facility. Instructions for the use of both methods follow.

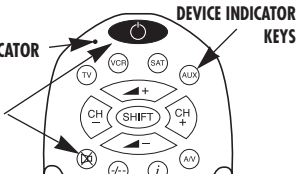
SETUP BY ENTERING DEVICE CODE

(Note: If you do not touch any keys on your URC within 10 seconds during set-up, your URC will automatically abandon the set-up process and revert to the last entered code. This feature reduces accidental erasure of your codes)

SET UP FOR TV

1. Turn on your TV
2. Look up the brand name of your TV in the DEVICE CODE LIST (See page 6-8).
3. Look up the 3-digit Device Code next to the brand name of your equipment. If there is more than one code listed for your brand, start from the first code with the following instructions:
4. Hold down both \odot POWER and \boxtimes MUTE keys on your URC simultaneously until the STATUS INDICATOR lights up and stays red (about 4 seconds).

Figure 1. STATUS INDICATOR, DEVICE INDICATOR KEYS



Steps 4. & 14.

5. Release the \odot POWER and \boxtimes MUTE keys. The STATUS indicator should still be lit. If not repeat step 4.
6. Press the TV DEVICE INDICATOR key once. The STATUS INDICATOR and the DEVICE INDICATOR should now both be RED.

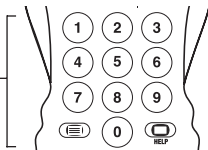
Figure 2. Step 16.



7. Use the number keys on your URC to enter the 3-digit Device Code. If you have entered a valid code, the STATUS INDICATOR will blink once. If you have entered a wrong code, the STATUS INDICATOR will blink twice.

Figure 3.

Step 7.



8. Try the keys on your URC that correspond to similar keys on your original remote control, especially those you use most. (Note that the URC will abandon the set-up procedure if you do not press any keys on the URC for more than 10 seconds). If your TV works on all or most of the keys on your URC, you have entered a suitable Device Code. Go to step 11. (Note: Your URC will only operate functions controlled by your original remote nor are the supplied codes guaranteed to operate all these functions)
9. If the Device Code does not work properly on your TV, press the TV INDICATOR KEY once. The STATUS INDICATOR will blink briefly, then turn RED. The TV INDICATOR should still be RED. (If either of the indicators switch off whilst you are still programming your URC, you should start again from step 3.)
10. Repeat steps 7-9 with the other codes listed for your brand of TV until your URC operates most or all of the functions that correspond with the keys on your original remote control.
11. Once you have found a suitable code, to store it, press the TV INDICATOR key twice. The TV INDICATOR will blink

twice and then go out as will the STATUS INDICATOR.

12. If none of the TV codes listed for your brand of TV work correctly, select the code that provides the best results. Alternatively, try the Library Search method, which is fully explained further on in these instructions.

SET UP FOR VCR AND SAT

Repeat the same set-up method for your VCR and SAT, but remember to press the VCR or SAT DEVICE INDICATOR key, and select the corresponding Device Code listing.

SET UP FOR AUX KEY

The following instructions describe how to configure the AUX key to act as a 2nd TV/VCR/SAT control.

13. First use the TV/VCR/SAT set-up method to find the best code for the device you wish to program into the AUX key following steps 1-11.
14. Wait until all indicator lights have gone out then hold down the \odot POWER and \boxtimes MUTE keys together on your URC, until the STATUS INDICATOR lights up and stays red. [About 4 seconds]
15. Release the \odot POWER and \boxtimes MUTE keys. The STATUS indicator should still be lit. If not repeat step 14.
16. Press the AUX DEVICE INDICATOR key once. (AUX INDICATOR should turn RED)
17. Press briefly the TV or VCR or SAT DEVICE INDICATOR corresponding to the type of device you are programming into the AUX key.
18. Type in the 3 digit code that you found in step 13.
19. Press the AUX key twice to store your code. If you have followed the set-up instructions correctly, the STATUS INDICATOR and DEVICE INDICATOR will turn off. Set up is now complete.

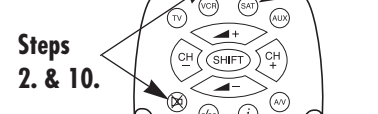
SET-UP BY LIBRARY SEARCH

If you cannot identify a suitable Device Code for your equipment from the Device Code List, you may try our library search method. (For many lesser known brands codes may be present but not listed under that brand.) During the search the selected DEVICE INDICATOR will flash at various speeds. The entire search procedure may take several minutes to complete. The following instructions uses your television as an example for set-up using the Library Search method.

TV SETUP BY LIBRARY SEARCH

1. Turn on your TV
2. Hold down both \odot POWER and \boxtimes MUTE keys on your URC simultaneously until the STATUS INDICATOR lights up and stays red (about 4 seconds).
3. Release the \odot POWER and \boxtimes MUTE keys The STATUS INDICATOR should still be lit. If not repeat step 2.

Figure 4. STATUS INDICATOR, DEVICE INDICATOR KEYS



4. Press the TV DEVICE INDICATOR key once. The STATUS INDICATOR and the DEVICE INDICATOR should now both be RED.

Figure 2. Step 11.



5. To search, aim your URC at your TV.

6. Press the POWER key repeatedly for 2 seconds ON and two seconds OFF, until your TV goes into standby mode (i.e. the TV switches OFF). Then continue with step 7. If the TV INDICATOR key flashes twice and then goes out before your TV goes into standby mode you have reached the end of the library. Return to step 2 and repeat library search one more time.
7. Try the number keypad to see if your device switches ON again and the keys work correctly. If your device does not switch ON, press the \times Mute key and then the \odot Power key to repeat the code so that the Device comes ON. Now try the number keypad. (NOTE: If you accidentally skipped a code that turned your TV ON or OFF, you can return to the skipped code by pressing the \times Mute key.)
8. If the code you have found does not work correctly, make sure that the TV INDICATOR and STATUS INDICATOR are still red, before you repeat steps 6 and 7 until you find a better code. If the indicator lights have gone out, repeat the set-up procedure from step 2.
9. Once you are happy with the code found, press the TV INDICATOR key once to store the code. The STATUS INDICATOR and DEVICE INDICATOR will turn off and set-up is complete.

VCR & SAT SETUP BY LIBRARY SEARCH

Simply repeat the above procedure to search for the Device Codes for your VCR and SAT but instead of the TV DEVICE INDICATOR key press either the VCR or SAT DEVICE INDICATOR key in step 4

AUX SETUP BY LIBRARY SEARCH

10. Follow steps 2 and 3 in TV SETUP BY LIBRARY SEARCH.

11. Press the AUX DEVICE INDICATOR key once. (AUX INDICATOR should turn RED)
12. To set up a TV on the AUX DEVICE KEY follow steps 4 to 8.
13. Once you are happy with the code found, press the AUX INDICATOR key once to store the code. The STATUS INDICATOR and DEVICE INDICATOR will turn off and set-up is complete. Your TV will now work when the AUX key is selected.

To operate a VCR or SAT using the AUX key, follow steps 10 to 13 as for TV but instead of the TV DEVICE INDICATOR key press either the VCR or SAT DEVICE INDICATOR key in step 10

OPERATING YOUR URC

Once you have set up your URC, it should operate similarly to your original remote control and perform most or all of the main functions. To operate, just aim it at your equipment, press the appropriate DEVICE INDICATOR key and press the required function key. The DEVICE INDICATOR flashes during signal transmission to confirm that a function key is in operation.

Please Note: The URC can only duplicate functions that are on your original remote control. Any extra keys on the URC which are not on the original will not function.

SHIFT Functions

To operate a secondary function, press SHIFT followed by the corresponding function key. The SHIFT key remains functional for as long as any other key is operated, or until 5 seconds have elapsed after the last key pressed. When the SHIFT key is operated, the STATUS INDICATOR lights up green and the DEVICE INDICATOR red while the SHIFT key is pressed down. The STATUS INDICATOR then stays ON for another 5 seconds. The SHIFT key can be cancelled before

the 5 seconds time-out period by pressing the SHIFT key again.

MAINTENANCE

1. Do not expose your URC to dust, strong sunlight, humidity, high temperature or mechanical shock.
2. Do not use old and new batteries together as old batteries tend to leak.
3. Do not use corrosive or abrasive cleansers on your URC.
4. Keep the unit dust free by wiping it with a soft, dry cloth.
5. Do not disassemble your URC, it contains no user serviceable parts.

FREQUENTLY ASKED QUESTIONS

- Q. I am unable to program or operate my URC, but the indicator lights on my URC operate correctly.
 - A. Check your A/V device. If the device's mains switch is turned off, your URC can not operate your device.
 - A. Check if the batteries are low and replace the batteries.
 - A. If several Device Codes are listed under the brand name of your A/V device, try each code one by one until most or all of the keys work correctly.
- Q. The STATUS INDICATOR light does not stay ON when entering set up mode.
 - A. Make sure both the POWER and MUTE buttons are pressed simultaneously
 - Q. My A/V equipment responds only to some commands.
 - A. You may have selected a code for which only some commands work correctly. Try the other codes listed for your brand.
 - A. Try the Library Search if you are still unsuccessful.
- Q. Some of my equipment will not work with any of the codes listed.
 - A. Make sure that you have selected the correct device listing
 - A. Try the Library Search function as some more recent

Disclaimer: Whilst we have tried to supply a comprehensive library of codes we cannot guarantee that your URC will be fully compatible with all equipment. Some brands, models or functions may not be available in the code library due to differences in operation to your original remote or where the code has not yet been added to the library.

The manufacturer cannot accept any liabilities resulting from incorrect use of this product.

SPECIFICATIONS

Operating system:- Pre-programmed infra-red remote control system.

Compatibility:- Operates most brands of infra-red remote controlled TV's, VCR's, Sat.'s, CTV's.

Power requirement:- 2 x AAA-size alkaline batteries.

Effective range:- 7.65M (25 feet), +/- 25 degrees.

Alkaline battery life:- Normal operation 6 months.

Dimensions:- 199 (L) x 56 (W) x 24 (H) mm.

Weight without batteries:- 105g

LOW BATTERY LEVEL

If the indicator flashes twice slowly after pressing a key function, the battery level is low & you must fit new batteries. If the batteries are removed, your URC will retain its memory for approximately 10 minutes only.

Customer Care Line—Tel: 0345 573 479 (UK only)

Web site: <http://www.philex.com/docs/support/index.htm>

| DEVICE CODES | | | | | |
|-----------------|-----------------|------------------|-----------------|--------------|-----------------|
| BRAND | CODE | BRAND | CODE | BRAND | CODE |
| TV | | CROSLEY | 022 042 052 063 | GRUNDIG | 002 017 051 078 |
| ACURA | 194 | | 091 102 | | 088 099 113 116 |
| ADMIRAL | 063 170 | CROWN | 153 | | 165 243 244 245 |
| AKAI | 017 047 048 061 | CTC CLATRONIC | 043 | HANSEATIC | 246 248 249 |
| | 100 121 132 138 | DAEWOO | 139 144 160 192 | | 016 048 061 102 |
| | 140 194 208 244 | DAYTRON | 194 225 | | 105 111 |
| AKURA | 004 047 074 094 | DECCA | 048 100 104 109 | HANTAREX | 044 |
| | 121 194 | | 118 130 199 | HEMMER MANN | 149 |
| ALBA | 042 047 048 121 | DEGRAAF | 021 120 | HIFIVOX | 027 032 072 181 |
| | 133 162 178 183 | DIXI | 061 194 | | 185 |
| | 194 224 227 238 | DORIC | 102 103 | HIGASHI | 048 |
| ALBIRAL | 119 | DUAL | 048 093 242 | HINARI | 001 016 018 021 |
| ALLORGAN | 048 | DUAL-TEC | 038 048 167 | | 031 048 072 084 |
| AMSTRAD | 001 009 | DUMONT | 043 063 078 145 | | 102 208 |
| ARC EN CIEL | 027 032 072 181 | DUMONT-FINLUX | 018 043 059 073 | HITACHI | 005 007 016 018 |
| | 185 | | 076 089 102 115 | | 021 031 048 072 |
| ARISTONA | 048 061 063 077 | | 146 | | 084 102 105 108 |
| | 110 157 159 187 | DYNATRON | 047 061 | | 125 126 142 167 |
| ARTHUR MARTIN | 073 105 126 132 | ELBE | 119 193 | | 170 175 181 185 |
| | 135 138 147 152 | ELBIT | 109 | | 191 211 217 230 |
| ASA | 063 076 078 089 | ELCIT | 043 044 045 060 | HYPER | 003 048 |
| | 115 170 196 234 | | 063 102 149 167 | IMPERIAL | 022 042 052 091 |
| | 247 | ELMAN | 043 167 | | 123 141 162 167 |
| ASUKA | 004 048 074 121 | ELTA | 194 | | 188 |
| ATLANTIC | 048 111 235 241 | EMERSON | 001 042 063 | INGELEN | 088 102 135 138 |
| AUDIOSONIC | 074 | ERRES | 061 110 | | 152 158 161 170 |
| AUDIOTON | 048 | EUROPHON | 042 043 044 048 | | 197 |
| AUSIND | 073 | | 066 118 167 | INNO HIT | 042 044 048 064 |
| AUTOVOX | 003 048 069 076 | EXPERT | 241 | | 154 194 216 |
| | 077 078 081 137 | FERGUSON | 030 048 071 072 | INTERFUNK | 047 061 063 072 |
| | 155 235 | | 078 080 085 100 | | 088 102 110 138 |
| BAIRD | 208 | | 101 119 157 203 | | 152 158 181 |
| BASICLINE | 004 047 121 194 | FIDELITY | 243 244 245 | IRRADIO | 033 029 064 073 |
| | 206 225 | | 048 157 | | 154 194 |
| BAUR | 243 244 245 | FILSAI | 048 | ITT | 156 |
| BEKO | 061 183 239 240 | FINLANDIA | 031 120 222 | ITT-NOKIA | 088 095 102 135 |
| BLAUPUNKT | 017 022 024 046 | FINLUX | 018 043 059 073 | | 138 152 158 161 |
| | 051 055 058 096 | | 076 078 089 102 | | 170 171 184 192 |
| | 111 116 243 244 | | 115 145 146 162 | | 197 208 |
| | 245 248 249 | FISHER | 196 234 247 | JVC | 016 101 121 128 |
| BOOTS | 048 | | 054 063 067 102 | | 142 157 169 173 |
| BPL | 004 | | 188 205 | | 224 |
| BRANDT ELECRON. | 027 032 072 181 | FORGESTONE | 157 | KAISUI | 048 121 206 |
| | 185 | FORMENTI-PHOENIX | 048 073 102 111 | KAPSCH | 235 241 |
| BRION VEGA | 063 081 166 172 | | 147 | KARCHER | 206 216 247 |
| | 180 195 | FORTRESS | 089 | KATHREIN | 122 |
| BRUNS | 054 063 | FRONTECH | 074 | KENDO | 042 |
| BSR | 092 108 167 | FUNAI | 074 092 | KENNEDY | 069 077 102 235 |
| BUSH | 004 016 047 121 | GBC | 029 102 167 | KORTING | 025 063 092 111 |
| | 133 141 142 146 | GEC | 048 100 102 118 | KRIESLER | 048 061 063 077 |
| | 167 178 194 222 | | 170 191 | | 110 157 159 187 |
| | 224 225 238 | GELOSO | 029 045 060 102 | KTV | 048 |
| CENTURY | 042 052 063 162 | | 167 170 194 | LENOIR | 048 |
| | 188 | GENEXXA | 121 | LOEWE | 087 |
| CGE | 022 042 052 091 | GOLDSTAR | 003 048 053 061 | LOEWE OPTA | 033 044 047 050 |
| | 094 123 141 162 | | 151 154 194 201 | | 061 063 118 143 |
| | 167 188 | | 202 218 | | 212 |
| CIHAN | 109 | GOODMANS | 016 061 100 154 | LOGIK | 130 157 |
| CLARIVOX | 054 119 124 | GORENJE | 122 188 | LUMA | 061 132 170 235 |
| COMTEL | 109 124 | GRAETZ | 088 102 135 138 | LUXOR | 088 105 120 126 |
| CONDOR | 048 111 | | 152 158 161 170 | | 132 138 158 171 |
| CONTEC | 016 | | 197 | | 184 208 |
| CONTINENTAL ED. | 027 032 072 181 | GRANADA | 016 031 048 061 | M ELECTRONTC | 234 247 |
| | 185 | | 088 100 102 103 | MAGNADYNE | 043 044 045 060 |
| CROSELY | 042 | | 110 118 147 170 | | 063 102 118 149 |
| | | | 236 237 239 240 | | 167 |

DEVICE CODES

| BRAND | CODE | BRAND | CODE | BRAND | CODE |
|---------------------|-----------------|-----------------|-----------------|---------------|-----------------|
| TV continued | | PATHE'MARCONI | 027 032 072 181 | SAMSUNG | 048 074 100 154 |
| MAGNIFON | 043 044 048 066 | PERDIO | 185 | | 188 194 216 |
| | 073 118 234 | PHILCO | 100 | SANYO | 016 039 054 100 |
| MARANTZ | 061 | | 014 022 042 052 | | 115 130 142 188 |
| MATSUI | 001 047 048 085 | | 063 091 102 123 | | 197 200 205 208 |
| | 092 098 100 130 | PHILIPS | 141 162 167 188 | | 247 |
| | 133 142 149 170 | | 013 020 047 048 | SBR | 061 110 156 157 |
| | 178 179 194 224 | | 063 077 087 109 | | 191 |
| | 228 231 | | 110 156 157 159 | SCHAUB LORENZ | 088 102 135 138 |
| MAXIMAL | 117 | | 174 187 191 214 | | 152 158 161 170 |
| McMICHAEL | 191 | PHOENIX | 216 219 220 | | 197 |
| MEMOREX | 194 | | 048 073 102 111 | SCHNEIDER | 038 048 061 063 |
| METZ | 017 049 063 065 | | 147 | | 067 077 093 102 |
| | 068 090 116 168 | PHONOLA | 020 048 061 077 | | 110 112 124 147 |
| | 243 244 245 | | 110 157 159 187 | | 155 157 159 167 |
| MINERVA | 017 051 078 088 | PIONEER | 047 061 072 181 | | 187 242 |
| | 116 243 244 245 | | 217 226 | SEG | 043 048 |
| | 248 249 | PRANDONI-PRINCE | 042 044 073 118 | SEI | 001 049 092 |
| MISTRAL | 157 | | 170 | SELECO | 034 038 069 077 |
| MITSUBISHI | 011 016 019 047 | PREMIER | 141 | | 093 108 137 170 |
| | 061 063 103 122 | PRINCE | 042 044 073 170 | | 235 241 242 |
| | 130 131 142 156 | PROLINE | 028 047 100 190 | SHARP | 016 092 142 205 |
| | 163 182 243 244 | PROTECH | 061 074 | | 213 |
| | 245 | PYE | 048 061 063 077 | SIAREM | 043 044 063 102 |
| MIVAR | 041 044 048 056 | | 110 156 157 159 | | 118 |
| | 070 079 118 154 | QUASAR | 187 | SICATEL | 119 |
| MULTITECH | 043 048 118 188 | | 043 044 066 073 | SIEMENS | 016 017 021 022 |
| MURPHY | 003 102 103 170 | | 154 | | 024 046 051 096 |
| NAONIS | 034 038 069 077 | QUELLE | 003 022 024 035 | | 111 116 205 243 |
| | 108 170 | | 046 047 048 051 | | 244 245 246 247 |
| NATIONAL | 031 083 102 | | 061 073 076 078 | | 248 249 |
| NEC | 016 176 | | 088 089 111 113 | SIERA | 048 061 063 077 |
| NECKERMANN | 048 063 105 123 | | 115 116 130 138 | | 110 157 159 187 |
| | 132 179 188 | | 145 146 152 234 | SILVER | 074 |
| NEI | 061 124 | | 243 244 245 247 | SINGER | 043 045 063 102 |
| NEWTECH | 048 | RADIOLA | 048 061 063 077 | SINUDYNE | 001 043 049 063 |
| NIKKAI | 100 121 | | 110 157 159 187 | | 092 102 149 209 |
| NOBLIKO | 042 043 048 073 | RADIOMARELLI | 043 044 045 060 | | 215 |
| | 078 234 | | 063 102 103 149 | SONOKO | 048 061 194 |
| NOGAMATIC | 027 032 072 181 | | 167 | SONY | 010 016 026 130 |
| | 185 | RADINETTE | 247 | | 203 207 210 |
| NOKIA | 088 102 135 138 | RANK | 146 | SOUND WAVE | 047 111 162 |
| | 152 156 158 161 | RBM | 146 | STANDARD | 048 |
| | 170 197 | REDIFFUSION | 057 103 138 170 | STERN | 034 038 069 077 |
| NORDMENDE | 015 027 032 036 | REDIFUSION | 102 103 | | 108 137 170 235 |
| | 072 081 129 164 | REX | 034 038 069 077 | | 241 242 |
| | 181 185 217 | | 093 108 137 170 | TANDBERG | 168 |
| OCEANIC | 102 106 107 114 | | 235 241 242 | TANDY | 048 094 100 121 |
| | 138 | ROADSTAR | 029 | | 189 |
| ONCEAS | 048 | ROBOTRON | 054 063 | TASHIKO | 016 048 142 191 |
| OPTONICA | 189 | ROWSONIC | 048 | | 200 |
| ORION | 001 049 092 130 | RTF | 054 063 | TATUNG | 048 100 104 109 |
| | 133 149 178 190 | SABA | 012 015 023 027 | | 118 130 199 |
| | 194 198 215 | | 036 044 063 072 | TEC | 038 048 167 242 |
| OSAKI | 100 | | 075 118 132 177 | TELEAVIA | 027 032 072 181 |
| OSJO | 154 | | 181 185 217 | | 185 |
| OSUME | 016 | SAISHO | 001 048 074 082 | TELEFUNKEN | 022 030 035 062 |
| OTTO VERSAND | 016 047 061 102 | | 130 131 133 178 | | 072 080 177 181 |
| | 105 243 244 245 | | 094 232 | | 186 217 223 |
| PT ACTRON | 109 | SALORA | 031 073 105 126 | TELETECH | 194 |
| PAEL | 048 073 | | 132 135 138 147 | TELETON | 235 |
| PANASONIC | 014 031 037 083 | | 152 171 184 208 | TELEVIDEON | 048 073 102 111 |
| | 097 102 134 136 | SAMBERS | 043 044 066 073 | | 147 |
| | 148 150 | | 118 154 | TENSAI | 048 061 |
| PATHE'CINEMA | 048 111 119 167 | SAMPO | 134 | | |

DEVICE CODES

| BRAND | CODE | BRAND | CODE | BRAND | CODE |
|---------------------|---|--------------|---|-----------------|--|
| TV continued | | DEGRAAF | 017 020 041 052 057 | MITSUBISHI | 050 056 080 127 041 045 |
| THOMSON | 006 008 015 027 032 072 181 185 217 229 233 | DUAL | 047 094 | MULTITECH | 023 031 041 |
| THORN | 101 157 221 | DUMONT | 017 041 057 | MURPHY | 041 |
| THORN-FERGUSON | 030 071 072 074 078 080 101 119 157 177 | DYNATECH | 041 | NAONIS | 047 048 094 |
| TOSHIBA | 016 085 127 140 146 204 | ELBE | 038 | NATIONAL | 111 |
| TRANS CONTINENS | 042 044 073 170 | EMERSON | 013 034 041 064 066 077 | NEC | 038 047 050 094 |
| TRIUMPH | 001 234 | FERGUSON | 005 047 087 089 094 098 104 108 112 126 132 | NECKERMANN | 013 047 094 113 |
| UHER | 067 078 111 147 235 241 | FIDELITY | 041 | NOBLIKO | 113 |
| ULTRAVOX | 042 043 045 048 063 102 132 | FINLANDIA | 017 057 | NOGAMATIC | 047 048 094 |
| UNIVERSUM | 018 074 154 201 234 244 245 247 | FINLUX | 017 020 041 057 | NOKIA | 017 021 047 048 088 094 107 110 |
| UNIVOX | 119 | FISHER | 010 017 021 036 | NORDMENDE | 001 009 012 016 018 022 024 025 039 047 048 094 099 101 105 106 |
| UTAX | 048 | FUNAI | 041 | OPTONICA | 052 053 |
| VEGAVOX | 162 | GBC | 097 | ORION | 013 033 034 035 063 077 082 |
| VESTEL | 124 | GE | 064 066 | OSAKI | 041 058 |
| VICTOR | 173 | GELOSO | 097 | PANASONIC | 019 075 092 093 111 |
| VOXSON | 063 170 | GOLDSTAR | 058 | PATHE'MARCONI | 047 048 094 |
| WATSON | 111 243 244 245 | GOODMANS | 031 041 045 053 057 058 065 077 | PENTAX | 020 027 |
| WATT RADIO | 043 048 066 102 119 149 | GRAETZ | 047 048 088 094 110 | PERDIO | 041 |
| WEGA | 016 | GRANADA | 017 021 057 113 129 | PHILIPS | 006 044 046 049 052 053 057 069 083 086 |
| WEGA COLOR | 086 | GRUNDIG | 057 090 095 101 102 103 113 | PHONOLA | 052 057 086 095 113 |
| WHITE WESTINGSE. | 048 111 | HIFIVOX | 047 048 094 | PIONEER | 050 057 117 |
| YOKO | 048 | HINARI | 013 031 076 077 082 097 116 121 125 | PRANDONI-PRINCE | 065 |
| ZANUSSI | 034 038 069 077 108 137 170 235 | HITACHI | 020 027 041 047 078 091 | PROLINE | 041 |
| ZOPPAS | 034 038 069 077 108 170 | IMPERIAL | 041 100 | PYE | 052 057 086 095 113 |
| VCR | | INGELEN | 047 048 094 110 | QUARTZ | 021 |
| AKAI | 030 037 047 074 094 096 107 128 | INGERSOL | 082 | QUELLE | 013 051 102 113 |
| AKURA | 031 116 | INNO HIT | 097 | RADIOLA | 052 095 113 |
| ALBA | 031 065 077 118 123 124 125 | ITT | 021 047 088 107 | RCA | 064 066 |
| AMSTRAD | 041 | ITT-NOKIA | 047 048 094 110 | REALISTIC | 010 017 021 041 045 052 053 |
| ANITSCH | 032 | JENSEN | 047 | REX | 001 047 048 094 |
| ARC EN CIEL | 047 048 094 | JVC | 001 009 012 047 048 050 089 094 116 119 | ROADSTAR | 031 045 058 |
| ARISTONA | 052 095 113 | KENWOOD | 021 047 050 116 | SABA | 001 009 014 015 016 018 024 025 047 048 |
| ASA | 057 058 | KRIESLER | 052 095 113 | SAISHO | 013 034 077 082 091 118 |
| AIWA | 041 047 058 077 116 120 125 | LLOYD | 041 | SALORA | 021 056 129 |
| BAIRD | 047 107 | LOEWE | 069 | SAMSUNG | 045 059 061 064 066 070 071 096 100 |
| BASICLINE | 031 065 077 | LOEWE OPTA | 057 086 095 113 | SANSUI | 047 050 |
| BLAUPUNKT | 029 090 095 102 111 113 | LOGIK | 031 045 077 082 107 | SANYO | 010 017 021 042 077 110 131 |
| BRANDT ELECTRON. | 047 048 094 | LUXOR | 107 110 | SBR | 057 083 086 |
| BUSH | 030 031 065 077 123 124 125 | LXI | 058 | SCHAUB LORENZ | 047 048 088 094 110 |
| CAPEHART | 065 | MAGNASONIC | 110 | SCHNEIDER | 031 041 052 095 100 113 |
| CGE | 041 047 094 | MAGNAVOX | 064 066 | SEG | 100 |
| CONTINENTAL ED. | 047 048 094 | MARANTZ | 053 057 077 095 113 115 | SEI-SINUDYNE | 082 |
| CRAIG | 010 045 | MATSUI | 013 034 045 058 077 082 118 112 125 | SELECO | 047 048 094 |
| CURTISMATHES | 064 066 | MEMOREX | 010 017 021 041 052 058 | SENTRA | 065 |
| DAEWOO | 011 065 067 068 072 073 | METZ | 095 102 109 113 | SHARP | 052 053 062 079 |
| DAYTRON | 065 | MGA | 056 | SHINTOM | 031 |
| DECCA | 041 047 | MINERVA | 090 102 113 | | |
| | | MINOLTA | 020 027 | | |

