
Programming and Operation KI-1844B

MRH7700 IR Remote Control



Rauland-Borg Corporation

Issued: 06/26/98

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1

General Information

Description



The MRH7700 Remote Control is a hand-held infrared remote controller that can be used to control any Rauland DTMF media system, such as the Telecenter® IV+, Telecenter® V, Telecenter® 21, and RANGER® systems.

In Telecenter and RANGER media applications, the MRH7700 works in conjunction with the MRR7800 Remote Receiver. The MRR7800 receives infrared video command signals from the MRH7700. It then takes control of the telephone line and sends the information to either the MR100 Media Retrieval module or the RANDTMF interface module.

The MRH7700 also acts as a universal programmable television remote controller, allowing channel, volume, power, and mute control of the local TV set.

Finally, the MRH7700 serves as a universal programmable VCR remote controller for applications where a VCR is located in the room.

Battery Installation and Maintenance

The MRH7700 requires three 1.5V AAA batteries. Alkaline batteries are preferred because they last longer. Be sure to insert them in accordance with the diagram inside the battery cover.

Replace the batteries annually. After replacing the batteries, be sure to reprogram the TV, VCR, and Media codes.



Important:

If the batteries are improperly installed, acid leakage could occur, resulting in damage to the MRH7700.

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Programming

TV and Local VCR Programming

To configure the MRH7700 for a specific TV or local VCR, find the code number for your specific model in the tables at the end of this manual. Now follow the instructions below (a Zenith TV is used as an example).

1. Press *Set*. The red light will come on.
2. Press *TV*.
3. Press “0-7-2.” (This is the command code for a Zenith TV.) The red light will turn off immediately after the last digit is entered.

To test, aim the MRH7700 at the TV and press *Power*. If the TV does not turn on, repeat the steps above.

Once you are able to control your TV, write the three-digit code on the back of the MRH7700 where it says “TV Code: _ _ _.” If using a local VCR, write the VCR code on the back also.

Note: There are several possible codes listed for each device manufacturer. You may have to try several different codes before finding the one which operates your specific model. Try all of the codes listed for your brand of TV or VCR until you find one which supports all or most functions. Some devices are incapable of being controlled remotely. Also, some do not support every control function.



Important:

Should media control functions suddenly stop working, try entering the sequence “Set,” “Media,” “300.” If the unit still does not respond, replace the batteries.

Auto-Search Method

Remember to always aim the MRH7700 at the TV.

If the programming sequence described above fails to work, or your TV brand is not listed in the tables, use the Auto-Search Method. This procedure steps through all of the preprogrammed setup codes until your TV or VCR is found.

1. Turn your device (TV or VCR) off.
4. Press *Set*. The red light will come on.
5. Press the device key (TV or VCR).
6. Press and hold down the “CH ” key. The MRH7700 will sequentially send out the different power code signals at a 0.3 second interval. Keep the button pressed until your device turns on, then release the key.
7. If you go past the matching code, you can return to that code by pressing the “CH ” key one step at a time until your device turns off.
8. Confirm that you have found your matching code by pressing *Power*: the device should turn on and off.
9. Press *Mute*. This stores the code in the MRH7700. The light will blink twice to confirm storage.

Now confirm the operation of all remaining buttons. If any of the functions do not operate as they should, first identify the three-digit code number that was stored by using the method shown below. After identifying the code number refer to Table 3, which lists codes that have the same power-code signal but different function signals. Try each alternate code number until you find the correct code for your TV or VCR model.

Finding the Code Number

1. Press *Set*. The red light will come on.
10. Press the device key (either TV or VCR).
11. Press *Mute*. Count the number of times the red light flashes for each of the three digits. It will pause one second between digits. “0” is indicated by ten flashes. For example, the code 3-0-4 would be indicated by three flashes, ten flashes, then four flashes.

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Operation

TV Control

Always be sure to point the MRH7700 at the TV screen.

To control the TV, follow these steps:

Press *TV*. The MRH7700 will now perform TV control functions.

Press *Power*. The TV should turn on.

1. To control other TV functions simply press the appropriate control. For example, “VOL ” will increase the speaker volume. To change the channel, press the “CH ” or “CH ” keys, or enter the channel number on the numeric keypad.

Local VCR Control

To control a VCR that is in the same room as the television:

1. Press *VCR*. The MRH7700 will now perform VCR control functions.
2. Press *Power* to turn the VCR on or off.
3. Try the VCR functions Play (), Stop (■), Pause (||), Fast Forward (), and Rewind ().

RANGER and Telecenter Media Control

Before attempting to control a media device, the user must specify the address of the media. The simplest way to do this is to set the appropriate switches on the back of the MRR7800 (refer to the MRR7800 manual, KI-1845, for details). The other way is to program the dialing address manually using the MRH7700. This is done by pressing *Store*, followed by the media address (typically 3 or 4 digits), then *Enter*. The green light on the front of the MRR7800 will flash for each key pressed. The red light indicates errors.

Below is an example of how to control remote media devices in Telecenter and RANGER applications. For more information on media setup and control, refer to KI-1845.

1. Call the media center and ask them to assign you a media device and load a program. In RANGER applications, you may reserve material in advance via the scheduling program.
2. Set your TV to the appropriate channel. The RANGER system automatically tunes the TV to the appropriate channel.
3. Press *Media*. The MRH7700 will now perform media control functions.
4. Press *Play* to activate your media device. After you have gained access to the remote media device, you may perform other media control functions.
5. Press *Keep Ctrl* to extend the access time from 10 seconds to 15 minutes. While in the extended mode, the green light on the MRR7800 flashes every two seconds.
6. Press *Hang Up* to temporarily drop the connection, but retain control of the media device. This makes your phone available for incoming calls. To reconnect, simply press any function key.
7. Press *Quit* to permanently drop the connection. To reconnect, you must call the media center and ask them to re-assign your media device. Then, press any function key.

Table 1. TV Code Number Guide			
Brand Name	Code	Brand Name	Code
AMARK	032, 112	GOLDSTAR	032, 102, 106, 110, 112, 113, 119, 122, 127, 137
AKAI	001	HALLMARK	116
AMSTRAD	052	HITACHI	004, 010, 011, 012, 023, 032, 041, 075
ANAM	043, 054, 056, 104, 108, 112, 115, 118, 124, 131, 134	INFINITY	067
AOC	001, 112, 120	JCP	001, 009, 030
CANDLE	001, 002, 003, 004	JENSEN	013
CAPEHART	058	JVC	038, 083
CETRONIC	043	KEC	043
CITIZEN	001, 002, 003, 004, 043, 101, 103, 138	KLOSS	002, 059
CLASSIC	043	KMC	032
CONCERTO	004	KTV	001, 032, 043
CONTEC	039, 043, 050, 051	LODGENET	072
CORONADO	032	LOGIK	072
CRAIG	043, 054	LUXMAN	004
CROWN	043	LXI	007, 015, 067, 109
CURTIS-MA	001, 101, 116, 138	MAGNAVOX	001, 003, 004, 032, 033, 059, 060, 061, 063, 064, 067, 109
CXC	043	MARANTZ	001, 067, 077
DAEWOO	006, 016, 017, 026, 035, 036, 037, 044, 045, 046, 055, 066, 068, 069, 071, 076, 078, 103, 107, 111, 114, 117, 120, 123, 125, 127, 128, 136	MATSUI	067
DAYTRON	116	MGA	001, 028, 042, 049, 077, 116, 120
DYNATECH	062	MITSUBISHI	001, 024, 028, 040, 042, 116, 120
EMERSON	001, 005, 028, 032, 043, 047, 048, 050, 051, 116	MTC	001, 004, 062, 066, 101, 120, 138
FISHER	007, 057	NAD	015, 025

Table 1. TV Code Number Guide (Continued)			
Brand Name	Code	Brand Name	Code
FUNAI	028, 043	NEC	001, 004, 007, 016, 019, 040, 116, 120
GE	008, 009, 034, 056, 074, 109, 116	NIKEI	043
ONKING	043	SEARS	004, 007, 015, 028, 030, 032, 057, 082, 101, 109, 138
OPTONICA	081	SHARP	019, 022, 032, 081
PANASONIC	034, 056, 067	SIGNATURE	072
PENNEY	008, 065, 101, 109, 120, 138	SONY	041, 070
PHILCO	001, 003, 004, 032, 033, 043, 059, 060, 063, 064, 067, 109, 120	SOUNDESIG	003, 043, 116
PHILIPS	001, 003, 004, 032, 033, 059, 060, 064, 067, 109, 116	SPECTRICO	112
PIONEER	018, 025, 027	SSS	043, 120
PORTLAND	032, 120	SYLVANIA	001, 003, 004, 033, 059, 060, 063, 064, 067, 109, 116
PROTON	058, 116	TANDY	081
QUASAR	034, 056	TATUNG	056, 062
RADIO SHA	019, 029, 043, 047	TECHWOOD	004
RCA	001, 023, 065, 074, 109, 120	UNIVERSAL	008, 009
REALISTIC	007, 019, 043, 047	VIDTECH	120
SAMPO	001, 058, 116	WARDS	001, 008, 009, 019, 028, 032, 033, 060, 061, 063, 064, 067, 072, 074, 109, 116, 120
SAMSUNG	029, 032, 050, 101, 105, 109, 113, 116, 133, 137, 138	YAMAHA	120
SANYO	007, 020, 021, 039, 053, 057, 082	YORK	116
SCOTT	028, 043, 116	ZENITH	072, 073

Table 2. VCR Code Number Guide			
Brand Name	Code	Brand Name	Code
AIWA	431	LXI	301, 411, 412
AKAI	401, 414, 437	MAGIN	435
ANAM	303, 429, 430	MAGNAVOX	307, 309, 429, 430, 431, 456, 457
AUDIO DYN	410, 421, 437	MARANTZ	410, 429, 430, 456, 458
BROKSONIC	432, 434	MARTA	301
CANON	426, 429, 430	MATSUI	425, 428
CAPEHART	308	MEI	429, 430
CRAIG	403, 435	MEMOREX	301, 403, 429, 430, 431, 445, 460
CURTIS MAT	307, 309, 429, 430	MGA	438, 439, 450
DAEWOO	308, 310, 311, 312, 316, 317, 319, 405, 445, 454	MINOLTA	411, 418
DAYTRON	308	MITSUBISHI	438, 439, 443, 450, 451
DBX	410, 421, 437	MTC	431, 435
DYNATECH	431, 445	MULTITECH	422, 431
EMERSON	301, 307, 309, 406, 415, 416, 423, 425, 427, 431, 432, 433, 434, 439	NEC	410, 413, 421, 437, 441
FISHER	403, 407, 408, 409	NORMENDE	437
FUNAI	431	OPTONICA	445, 446
GE	307, 309, 429, 430, 453	PANASONIC	429, 430, 462
GOLDSTAR	301, 306, 314, 410	PENTAX	411, 418, 429, 430, 453
HARMAN KAR	410, 438	PHILCO	429, 430, 431
HITACHI	411, 418, 424, 431, 437, 440	PHILIPS	429, 430, 431, 446, 456, 459
INSTANT RE	429, 430	PILOT	301
JCL	429, 430	PIONEER	419, 441
JCP	301	PORTLAND	308
J.C. PENNEY	410, 411, 413, 429, 430, 435	PULSAR	460
JENSEN	437	QUARTZ	402, 412
JVC	429, 430, 437, 441, 442	QUASAR	429, 430, 463
KENWOOD	412, 437, 441	RCA	307, 309, 411, 418, 429, 430, 452, 453
LLOYD	431	REALISTIC	301, 403, 407, 409, 412, 429, 430, 431, 435, 445, 446
RICO	449	TEAC	431, 437
SAMSUNG	302, 304, 307, 309, 313, 315, 404, 435	TECHNICS	429, 430
SANSUI	420, 437, 441	TEKNIKA	301, 417, 429, 430, 431
SANYO	403, 412	THOMAS	431
SCOTT	404, 415, 434	TMK	406, 416

Table 2. VCR Code Number Guide (Continued)			
Brand Name	Code	Brand Name	Code
SEARS	301, 403, 407, 408, 411, 412, 418, 436, 461	TOSHIBA	404, 407, 415, 436, 450
SHARP	305, 445, 446	TOTEVISION	301, 435
SHINTOM	422	UNITECH	435
SONY	444, 447, 448, 449, 464, 465, 466	VECTOR RE	410, 413
SONDESIGN	431	VICTOR	441
STS	411	VIDEO CON	410, 413, 431, 439
SYLVANIA	429, 430, 431, 450, 456	VIDEOSONI	435
SYMPHONIC	431	WARDS	307, 309, 403, 411, 415, 422, 429, 430, 431, 435, 445, 446
TANDY	409, 431	YAMAHA	410, 431, 437
TATUNG	437	ZENITH	447, 449, 460

Table 3. Codes with Same Power Signal but Different Function Signals		
Index	TV Codes	VCR Codes
1	001, 004, 113, 116, 120	301, 306
2	023, 075	302, 304, 435
3	024, 077	305, 445
4	029, 032, 033, 127	311, 316, 317, 319
5	037, 043, 118	312, 404, 415
6	039, 040	406, 416
7	046, 136	447, 464
8	055, 112	448, 465
9	056, 124	449, 466
10	101, 138	
11	102, 106, 110, 119	
12	104, 108	
13	115, 134	