

E2/DVDM REMOTE CONTROL GUIDE

Programming the Escient FireBall E2 and DVDM Remote
Control and Wireless Keyboard

FireBall E2/DVDM IR Remote Control



The FireBall DVD-100 and FireBall E2 Music server products include a universal remote control that can be programmed to operate up to four different FireBall E2 or DVDM products in addition to 4 other home theater devices.

IMPORTANT NOTE

The E2 and DVDM products share the same remote control system and are interchangeable.

The old original FireBall IR remote control has FB, TB, PP, and RCV source buttons instead of FB1, FB2, FB3, and FB4 buttons. This remote will NOT operate a FireBall E2 or DVDM.

FireBall E-40 and E-120 Music Servers which have been updated with the E2 Software Update do not have the same IR chip and therefore **cannot** use this new remote. Continue to use the original FireBall remote (with FB, TB, PP, and RCV source buttons) for the FireBall E-40 and E-120.

The 4 source buttons on the E2/DVDM remote control labeled FB1, FB2, FB3, and FB4 can only be programmed to operate the FireBall E2 and DVDM products. The 4 source buttons on the remote labeled TV, CBL, RCV, and DVD can be programmed to operate other devices.

In addition, any of the 8 source buttons on the remote can be programmed to operate one legacy Escient FireBall product, such as a FireBall H, FireBall E-40, FireBall E-120, FireBall MP-100, or TuneBase 200.

Controlling Multiple FireBalls with 1 Remote

Every FireBall E2 and DVDM is preset from the factory to operate from the FB1 source button, however, the FireBall can be configured to use any one of the four source buttons using the on screen Setup menus. This is useful when there are multiple FireBalls installed at the same location, so all FireBalls don't respond to the same IR commands. Use the following steps to change which source button (FB1, FB2, FB3, or FB4) each FireBall will listen for commands from:

- Press the Setup key on the remote to display the FireBall setup menu.
- Highlight and Select the Utilities menu item.
- Highlight and Select the IR Remote Control menu item.
- Highlight and Select which source button to use to control this FireBall.
- Press the new source button on your remote to reconfigure the remote and confirm the change by selecting the OK button on screen.

Repeat these steps for each FireBall in your system, selecting a different FB button for each.



Resetting the FB Source Buttons

The FB1, FB2, FB3, and FB4 source buttons are preprogrammed at the factory with the correct codes to control four FireBalls. If you changed these buttons to control other devices, you will have to reset the FB Source buttons back to the original codes in order to control FireBalls again. Use the following steps to program these buttons back to their factory states:

- Press the FB1, FB2, FB3, or FB4 source button to be re-programmed.
- Press & Hold the "Code Set" button on the remote until the LED flashes twice.

- Enter “987” using the remote’s numeric keypad. The LED should again flash twice.
- Enter the factory reset code which corresponds to the FB button being reset:
 - “0082” for FB1
 - “0083” for FB2
 - “0084” for FB3
 - “0085” for FB4
- The LED will again flash twice indicating the programming was successful.

Repeat these steps for each FireBall in your system, selecting a different FB button for each.

Programming the Universal Source Buttons

Use the following steps to program the AUX, CBL, DVD, TV, and RCV source buttons to control other devices. The following table indicates which device types can be programmed on which source buttons:

Source Button	Device Assignment
TV	TV
CBL	Cable, Video Accessories, Satellite, DSS
RCV	Amplifier, Tuner, Phono, Misc. Audio, CD, Home Automation, MD
DVD	VCR, Audio Cassette, DVD, LDP, DAT, PVR

- Locate the 4 digit device code for the device you want to control in Appendix A.
- Press the source button to be programmed.
- Press & Hold the “Code Set” button on the remote until the LED flashes twice.
- Enter the 4 digit code using the remote’s numeric keypad. The LED will flash twice indicating the code was accepted.

Note: If the LED does a single long flash then the entered code was not valid for that source button.

See Appendix B for details and instructions for accessing the other various functions available on the remote control:

Programming the Source Buttons to Control a Legacy FireBall Product


The FireBall remote can also be programmed to control a single FireBall H, E-40, E-120, MP-100 or TuneBase 200. Any of the eight source buttons can be programmed to control one of these FireBall products.

- Press the source button to be programmed.
- Press & Hold the “Code Set” button on the remote until the LED flashes twice.
- Enter “987” using the remote’s numeric keypad. The LED should flash twice again.
- Enter “0086”. The LED will again flash twice indicating the programming was successful.

Note: This programming feature sets one of the source buttons on the FireBall remote to emulate the **FB** button on the legacy FireBall product remote, therefore, you must set the legacy FireBall device to use the “**FB**” source button within it’s Setup/Utilities/IR Remote menu.

FireBall E2/DVDM Wireless IR Keyboard

The FireBall E2 and DVDM both include a wireless IR keyboard with universal remote control capabilities. The keyboard can be programmed to operate one FireBall and three other devices.

Only the FireBall source button (the one with the swoop)  can be programmed to operate the E2 or DVDM. The three source buttons on the remote labeled TV, RCV, and DVD can be programmed to operate other devices.



Programming the Keyboard to Control FB1, FB2, FB3, or FB4 Sources



Swoop
Button

The FireBall (swoop) source button is preprogrammed at the factory to correspond to the FB1 button on the remote. The FireBall source button can be programmed to correspond to any of the FB source buttons using the following method:

- Press Swoop
- Press & Hold the “Set” button on the keyboard until the LED flashes twice.
- Slowly enter “997” using the number buttons on the keyboard. The LED will flash twice again.
- Press the “CH-” button on the left side of the keyboard. The LED will flash four times.
- Press the Fireball (swoop) source button.
- Press & Hold the “Set” button on the keyboard until the LED flashes twice.
- Slowly enter:

- 1119 for the FB1 button
- 1120 for the FB2 button
- 1121 for the FB3 button
- 1122 for the FB4 button
- The LED will again flash twice indicating the programming was successful.



The transport buttons on the top right of the keyboard are programmed to operate the FireBall, however, they are actually programmed onto the CBL source buttons.

The CBL button functions as the FB1 remote source button on the keyboard. This button “punches-thru” to the swoop key so that both are enabled when either the Swoop or the CBL button has been pressed. However, the CBL button is not available as a universal source when it has been programmed as the FireBall transport source button.

WARNING!

DO NOT program the CBL source button to control any other devices. Doing so will prohibit the use of the transport keys for controlling the FireBall.

If you accidentally reprogram the CBL source button, use the following steps to program the CBL button back to control the FireBall transports:

- Press the CBL source button.
- Press & Hold the “Code Set” button on the remote until the LED flashes twice.
- Enter the CBL reset code which corresponds to the FB source being reset:
 - “1370” for FB1
 - “1371” for FB2
 - “1372” for FB3
 - “1373” for FB4
- The LED will flash twice indicating the code was accepted.

Programming the Universal Source Buttons



Use the following steps to program the AUX, DVD, TV, and RCV source buttons to control other devices. The following table indicates which device types can be programmed on which source buttons:

Source Button	Device Assignment
TV	TV
CBL	NOT AVAILABLE

RCV	Amplifier, Tuner, Phono, Misc. Audio, CD, Home Automation, MD
DVD	VCR, Audio Cassette, DVD, LDP, DAT, PVR

- Locate the 4 digit device code for the device you want to control in Appendix A.
- Press the source button to be programmed.
- Press & Hold the “Code Set” button on the remote until the LED flashes twice.
- Enter the 4 digit code using the remote’s numeric keypad. The LED will flash twice indicating the code was accepted.

Note: If the LED does a single long flash then the entered code was not valid for that source button.

Using the Macro key

The Macro key is used to enter a command sequence of two or more IR commands. Macros are used to directly access any title, group, or station from the wireless keyboard, remote control, or an external IR control system.

Direct Media Access IR Keyboard Definitions

Function	Multi-Key Combinations
Direct Play Mode	Macro, M, [play mode number], Enter
Direct Artist-Title	Macro, A, [artist-title access number], Enter
Direct Movie Title	Macro, V, [movie title access number], Enter
Direct iRadio Station	Macro, R, [iRadio access number], Enter
Direct Disc	Macro, C, [changer number], D, [disc number], Enter
Direct Track	Macro, T, [track number], Enter
Direct Playlist	Macro, P, [playlist access number], Enter
Direct Group	Macro, G, [group access number], Enter

Direct Media Access IR Remote Definitions

Function	Multi-Key Combinations
Direct Play Mode	Macro, 1, [play mode number], Enter
Direct Disc	Macro, 2, [changer number], Macro, [disc number], Enter
Direct Artist-Title	Macro, 3, [artist-title access number], Enter
Direct Group	Macro, 4, [group access number], Enter
Direct Movie Title	Macro, 6, [movie title access number], Enter
Direct Playlist	Macro, 7, [playlist access number], Enter
Direct Track	Macro, 8, [track number], Enter
Direct iRadio Station	Macro, 9, [iRadio access number], Enter

Next and Previous IR Definitions

Function	Multi-Key Combinations
Next Artist-Title	Next
Prev Artist-Title	Prev
Next Track	>>
Prev Artist-Title	<<
Next Group	CTRL + Next or Macro, Next
Previous Group	CTRL + Prev or Macro, Prev

The direct access numbers are available for all music and movie titles, playlists, groups, and radio stations. To view these numbers, press SETUP then select the UTILITIES menu and then VIEW DIRECT IR NUMBERS.

Note: If you do a lot of editing to your music and movie collection, these numbers may change. If you experience trouble with the Macro key feature, please check that the direct IR numbers are still correct under SETUP.

Example 1: Use the keyboard to play disc 14 in changer 1.

Press: MACRO, C, 1, D, 1, 4, ENTER

Example 2: Use the keyboard to play playlist number 5

Press: MACRO, P, 5, ENTER

Example 3: Use the remote to play disc 14 in changer 1.

Press: MACRO, 2, 1, MACRO, 1, 4, ENTER

Example 4: Use the remote to play playlist number 5.

Press: MACRO, 7, 5, ENTER

Example 5: Use the remote to play the movie number 123.

Press: MACRO, 6, 1, 2, 3, ENTER

Other Discrete IR Commands

Discrete IR commands are available by pressing a combination or series of keys. The following table defines which direct IR codes are available and the corresponding key combination.

Function	Single Key Combination	Multi-Key Sequence
Power On	SHIFT + Music	Macro, Music
Power Off	SHIFT + iRadio	Macro, iRadio
Play Mode: Normal	SHIFT + Movies	Macro, Movies
Play Mode: Repeat Track	SHIFT + Menu	Macro, Menu
Play Mode: Repeat Title	SHIFT + Subtitle	Macro, Subtitle
Play Mode: Repeat Group	SHIFT + Audio	Macro, Audio
Play Mode: Random Title	SHIFT + Repeat	Macro, Repeat
Play Mode: Random Group	SHIFT + Guide	Macro, Guide
Guide	SHIFT + Mode	Macro, Mode
Player	SHIFT + Info	Macro, Info
Music View: Cover	SHIFT + Option	Macro, Option
Music View: Artist	SHIFT + Next	Macro, Play Favorites
Music View: Title	SHIFT + Setup	Macro, Setup
Music View: Song	SHIFT + Random	Macro, Random
Movie View: Title	SHIFT + Setup	Macro, Setup
Movie View: Cover	SHIFT + Option	Macro, Option

Note: The SHIFT + [key] indicates that both the shift key and the other key are pressed simultaneously. The Macro, [key] means to press and release the Macro key first and then press and release the other key

See Appendix B for details and instructions for accessing the other various functions available on the remote control:

APPENDIX A – Universal Device Codes

SETUP CODES FOR AMPLIFIERS

GE	0078
Harman/Kardon	0892
JVC	0331
Marantz	0892
Optimus	0395
Philips	0892
Polk Audio	0892
Realistic	0395
Sony	0689
Soundesign	0078
Victor	0331
Wards	0078
Yamaha	0354

SETUP CODES FOR CABLE

ABC	0003, 0017
Americast	0899
Bell South	0899
General Instrument	0276, 0476, 0810
GoldStar	0144
Hamlin	0009, 0273
Jerrold	0003, 0276, 0476, 0810
Memorex	0000
Motorola	1106
Pace	0237
Panasonic	0107, 0000
Paragon	0000
Philips	0305, 0317
Pioneer	0144, 0533, 0877
Pulsar	0000
Quasar	0000
Regal	0273, 0279
Runco	0000
Samsung	0144
Scientific Atlanta	0017, 0477, 0877
Starcom	0003
Toshiba	0000
Zenith	0000, 0525, 0899

SETUP CODES FOR CD PLAYERS

Aiwa	0157
Burmester	0420
California Audio Labs	0029
Carver	0157, 0179
DKK	0000
Denon	0003, 0873
Emerson	0305
Fisher	0179
Garrard	0420
Genexxa	0032, 0305

Harman/Kardon	0157, 0173
Hitachi	0032
JVC	0072
Kenwood	0028, 0190, 0826, 0037, 0626, 0681
Krell	0157
LXI	0305
Linn	0157
MCS	0029
MTC	0420
Magnavox	0157, 0305
Marantz	0157, 0626, 0029
Mission	0157
NSM	0157
Onkyo	0101, 0868
Optimus	0032, 0468, 0420, 0179, 0305, 1063, 0000, 0037, 0145
Panasonic	0029
Parasound	0420
Philips	0157, 0626
Pioneer	0032, 0468, 0305, 1062, 1063
Polk Audio	0157
Proton	0157
QED	0157
Quasar	0029
RCA	0053, 0032, 1062, 0468, 0305, 0179
Realistic	0179, 0420
Rotel	0157, 0420
SAE	0157
Sansui	0157, 0305
Sanyo	0179
Scott	0305
Sears	0305
Sharp	0037, 0861
Sherwood	1067
Sonic Frontiers	0157
Sony	0000, 0490
Soundesign	0145
Tascam	0420
Teac	0420
Technics	0029
Victor	0072
Wards	0053, 0157
Yamaha	0036, 0888

SETUP CODES FOR HOME AUTOMATION

GE	0240
One For All	0167
Radio Shack	0240
Security System	0167
Universal X10	0167
X10	0167

SETUP CODES FOR VIDEO

Panasonic	1120
Pioneer	1010
Sensory Science	1126

Sharp 1010

SETUP CODES FOR RECEIVERS

ADC	0531
Aiwa	0121, 1405, 1089
Capetronic	0531
Carver	1089, 1189
Denon	1160, 1104
Harman/Kardon	0110
JBL	0110
JVC	0074
Kenwood	1027, 0186, 1313, 1569, 1570
MCS	0039
Magnavox	1089, 0531, 1189
Marantz	1189, 1089, 0039
Onkyo	0135
Optimus	1023, 0186, 0531, 0670
Panasonic	0039, 1518
Philips	1089, 1189, 1269
Pioneer	0150, 0531, 0630, 1023
Proscan	1254
Quasar	0039
RCA	1254, 0531, 1023
Sansui	1089
Sharp	0186
Sony	1158, 1058, 1258
Soundesign	0670
Sunfire	1313
Technics	0039, 1308, 1518, 1309
Thorens	1189
Victor	0074
Yamaha	0176, 0186, 1176

SETUP CODES FOR SATELLITE

AlphaStar	0772
Chaparral	0216
Echostar	0775, 1005
Expressvu	0775
GE	0566
General Instrument	0869
HTS	0775
Hitachi	0819
Hughes Network Systems	0749, 1142, 1749
JVC	0775
Magnavox	0722, 0724
Memorex	0724
Mitsubishi	0749
Next Level	0869
Panasonic	0247, 0701
Philips	1076, 1142, 0722, 0724, 0749
Proscan	0392
RCA	0566, 0392, 0143, 0855
Radio Shack	0869
Samsung	1109
Sony	0639
Star Choice	0869

Toshiba	0749, 0790
Uniden	0724, 0722
Zenith	0856

SETUP CODES FOR TELEVISION

AOC	0019, 0030
Admiral	0093, 0463
Aiko	0092
Aiwa	0701
Akai	0030
Alaron	0179
America Action	0180
Anam	0180
Audiovox	0092, 0180, 0451, 0623
Baysonic	0180
Belcor	0019
Bell & Howell	0016, 0154
Bradford	0180
Brockwood	0019
Broksonic	0236, 0463
CXC	0180
Candle	0030, 0056
Carnivale	0030
Carver	0054
Celebrity	0000
Cineral	0451, 0092
Citizen	0056, 0030, 0060, 0092
Concerto	0056
Contec	0180
Craig	0180
Crosley	0054
Crown	0180
Curtis Mathes	0060, 0030, 0016, 0047, 0051, 0054, 0056, 0093, 0145, 0154, 0166, 0451, 1147, 1347
Daewoo	0092, 0623, 0019, 0624, 0451
Daytron	0019
Denon	0145
Dumont	0017, 0019
Electroband	0000
Emerson	0236, 0180, 0178, 0179, 0463, 0624, 0623, 0019, 0154
Envision	0030
Fisher	0154
Fujitsu	0179, 0683
Funai	0180, 0171, 0179
Futuretech	0180
GE	0047, 1347, 0051, 0178, 0451, 1147, 0093
Gibralter	0017, 0019, 0030
GoldStar	0178, 0019, 0030, 0056
Gradiente	0056, 0053
Grunpy	0179, 0180
Hallmark	0178
Harley Davidson	0179
Harman/Kardon	0054
Harvard	0180
Hitachi	0145, 0056, 0016
Infinity	0054
Inteq	0017

JBL	0054
JCB	0000
JVC	0053
KEC	0180
KTV	0180, 0030
Kenwood	0030, 0019
Konka	0707, 0632, 0628, 0638, 0703
LG	0056
LXI	0154, 0047, 0054, 0156, 0178
Logik	0016
Luxman	0056
MGA	0150, 0019, 0030, 0178
MTC	0060, 0030, 0019, 0056
Magnavox	0054, 0030, 0179, 1254
Majestic	0016
Marantz	0054, 0030
Matsushita	0250
Megatron	0145, 0178
Memorex	0179, 0463, 0178, 0016, 0056, 0150, 0154, 0250
Midland	0017, 0047, 0051
Mitsubishi	0150, 0178, 0019, 0093
Motorola	0093
Multitech	0180
NAD	0156, 0166, 0178
NEC	0030, 0019, 0056
NTC	0092
Nikko	0178, 0030, 0092
Onwa	0180
Optimus	0250, 0166, 0154
Optonica	0093
Orion	0463, 0179, 0236
Panasonic	0051, 0250
Penney	0047, 1347, 0060, 0030, 0178, 0051, 0019, 0056, 0156
Philco	0145, 0019, 0030, 0054, 0463
Philips	0054
Pilot	0019, 0030
Pioneer	0166, 0679
Portland	0019, 0092
Princeton	0717
Prism	0051
Proscan	0047
Proton	0178
Pulsar	0017, 0019
Quasar	0051, 0250
RCA	0047, 1347, 1147, 0679, 1247, 0019, 0051, 0090, 0093, 1047, 1447
Radio Shack	0180, 0030, 0178, 0154, 0019, 0047, 0056
Realistic	0180, 0154, 0030, 0178, 0019, 0056
Runco	0017, 0030
SSS	0019, 0180
Sampo	0030
Samsung	0060, 0019, 0178, 0030, 0056
Sansei	0451
Sansui	0463
Sanyo	0154
Scimitsu	0019
Scotch	0178
Scott	0236, 0019, 0178, 0179, 0180
Sears	0154, 0056, 0156, 0047, 0054, 0171, 0178, 0179

Semivox	0180
Semp	0156
Sharp	0093, 0688
Shogun	0019
Signature	0016
Sony	0000
Soundesign	0178, 0179, 0180
Squareview	0171
Starlite	0180
Supreme	0000
Sylvania	0054, 0030
Symphonic	0171, 0180
TMK	0056, 0178
TNCi	0017
Tandy	0093
Technics	0051, 0250
Technol Ace	0179
Techwood	0051, 0056
Teknika	0016, 0054, 0179, 0180, 0019, 0092, 0056, 0060, 0150
Telefunken	0056
Toshiba	0156, 0060, 0154, 1256
Vector Research	0030
Victor	0053
Vidikron	0054
Vidtech	0019, 0178
Wards	0054, 0178, 0016, 0019, 0030, 0056, 0179
White Westinghouse	0624, 0623, 0463
Yamaha	0019, 0030
Zenith	0017, 0624, 0016, 0092, 0463

SETUP CODES FOR VCR

Admiral	0048, 0209
Adventura	0000
Aiko	0278
Aiwa	0000, 0037
America Action	0278
American High	0035
Asha	0240
Audiovox	0037
Beaumark	0240
Bell & Howell	0104
Broksonic	0121, 0184, 0002, 0209, 0479
CCE	0072, 0278
Calix	0037
Canon	0035
Carver	0081
Cineral	0278
Citizen	0278, 0037
Colt	0072
Craig	0037, 0072, 0047, 0240
Curtis Mathes	0035, 0060, 0162
Cybernex	0240
Daewoo	0278, 0045
Denon	0042
Dynatech	0000
Electrohome	0037
Electroponic	0037

Emerex	0032
Emerson	0184, 0002, 0209, 0278, 0121, 0479, 0000, 0037, 0043
Fisher	0047, 0104
Fuji	0033, 0035
Funai	0000
GE	0035, 0060, 0048, 0240
Garrard	0000
Go Video	0432
GoldStar	0037, 0038
Gradiente	0000
HI-Q	0047
Harley Davidson	0000
Harman/Kardon	0038, 0081
Harwood	0072
Hitachi	0042, 0000
Hughes Network Systems	0042
JVC	0067
KEC	0037, 0278
KLH	0072
Kenwood	0067, 0038
Kodak	0035, 0037
LXI	0037
Lloyd's	0000
Logik	0072
MEI	0035
MGA	0043, 0240
MGN Technology	0240
MTC	0000, 0240
Magnasonic	0278
Magnavox	0035, 0081, 0563, 0000, 0039, 0149
Magnin	0240
Marantz	0081, 0035
Marta	0037
Matsushita	0035, 0162
Memorex	0104, 0047, 0479, 0000, 0037, 0048, 0035, 0240, 1037, 0039, 0162, 0209, 1162, 1262
Minolta	0042
Mitsubishi	0043, 0048, 0067
Motorola	0035, 0048
Multitech	0000, 0072
NEC	0038, 0067, 0104
Nikko	0037
Noblex	0240
Olympus	0035
Optimus	0162, 1062, 1162, 0048, 1262, 0037, 1048, 0104, 0432
Orion	0479, 0002, 0184, 0209
Panasonic	0035, 0162, 1162, 1262, 1362, 0616, 1062
Penney	0035, 0240, 0037, 0042, 0038
Pentax	0042
Philco	0035, 0209, 0479
Philips	0081, 0035, 0618, 1081, 1181
Pilot	0037
Pioneer	0067
Polk Audio	0081
Profitronic	0240
Proscan	0060
Protec	0072
Pulsar	0039

Quasar	0035, 0162, 1162
RCA	0060, 0149, 0042, 0035, 0048, 0240
Radio Shack	0000, 1037
Radix	0037
Randex	0037
Realistic	0000, 0104, 0047, 0048, 0037, 0035
ReplayTV	0614, 0616
Runco	0039
STS	0042
Samsung	0045, 0240
Sanky	0039, 0048
Sansui	0479, 0000, 0067, 0209
Sanyo	0047, 0104, 0240
Scott	0184, 0121, 0043, 0045
Sears	0037, 0042, 0000, 0035, 0047, 0104
Semp	0045
Sharp	0048
Shintom	0072
Shogun	0240
Singer	0072
Sony	0033, 0032, 0000, 0035, 0636, 1032
Sylvania	0035, 0081, 0000, 0043
Symphonic	0000
TMK	0240
Teac	0000
Technics	0035, 0162
Teknika	0000, 0035, 0037
Thomas	0000
Tivo	0618, 0636
Toshiba	0045, 0043
Totevision	0037, 0240
Unitech	0240
Vector	0045
Vector Research	0038
Video Concepts	0045
Videosonic	0240
Wards	0035, 0060, 0000, 0047, 0240, 0042, 0048, 0072, 0081, 0149
White Westinghouse	0072, 0278, 0209
XR-1000	0072, 0000, 0035
Yamaha	0038
Zenith	0039, 0000, 0033, 0209, 0479

SETUP CODES FOR DIGITAL VIDEO DISC

Apex	0672
Denon	0490
Fisher	0670
GE	0522
Gradiente	0651
Hitachi	0573, 0664
Hiteker	0672
JVC	0623, 0558
Kenwood	0682, 0534
Konka	0719, 0711, 0720, 0721
Magnavox	0503, 0675
Marantz	0539
Mitsubishi	0521
Onkyo	0503

Optimus	0571
Oritron	0651
Panasonic	0490, 0677, 0632
Philips	0539, 0503
Pioneer	0571, 0525, 0632
Proscan	0522
RCA	0522, 0571
Samsung	0573
Sharp	0630
Sony	0533
Technics	0490
Theta Digital	0571
Toshiba	0503
Yamaha	0490, 0545
Zenith	0591, 0503

APPENDIX B – Detailed Remote Instructions

Nomenclature:

<<Code Set>> means to press and hold the Code Set button on the remote until the LED flashes twice.

Mode is any of the eight source buttons on the remote.

ID Code Setup

The four digit code obtained from the Appendix A can be programmed as follows:

Mode → <<Code Set>> → Digit → Digit → Digit → Digit

When successful, the LED will blink two times after <<Code Set>>. The LED will blink once after each digit entry except for the last digit and will blink two times to confirm that a valid code has been programmed. The remote will turn off the LED, automatically exit the programming mode, return to the idle mode and restore the last preprogrammed codes under two conditions:

1. When 10 seconds has elapsed after the last key press.
2. When an invalid code is entered upon which the LED will display one long blink.

The programming mode will be exited at any time by pressing any key other than the digit key.

ID Code Verification (990)

The device code for a mode will be verified as follows:

Mode → <<Code Set>> → 9 → 9 → 0 → 1 (count blinks) → 2 (count blinks) → 3 (count blinks) → 4 (count blinks).

The number of blinks counted after pressing each digit 1, 2, 3 and 4 key represents the 4 digit device code for the selected mode beginning with the left most digit. The remote will exit the Code Verification state when, after performing the sequence <9> → <9> → <0>, the user presses any key other than digit 1. If the sequence of pressing digits 1, 2, 3 and 4 for counting blinks is not maintained, the remote will exit Code Verification state. Operation error and state exit will be marked by the LED emitting a long blink. The remote will time out after 10 seconds during programming if no keys are pressed.

Example:

To verify the TV code is 0047:

<TV> → <<Code Set>> → 9 → 9 → 0 →

<1> → 0 blinks

<2> → 0 blinks

<3> → 4 blinks

<4> → 7 blinks

Step and Set (991)

In the event that the device code for a component is unknown, the user can cycle the remote through the available codes for that device mode and sample functions from each code in order to find the code that properly operates the component. The keys available to be sampled, provided they are applicable to that mode are: 0, 1, 2, 3, Power, Channel Up, Volume Up, Play and Stop. Invalid key presses will be ignored while in Step and Set programming state.

To cycle through each available device code and sample its functions:

Mode → <<Code Set>> → 9 → 9 → 1 → Function 1 [Function 2 → ... Function N] → Mode → Code Set

The available functions within a code may be sampled as many times as desired until advancing to the next code by pressing the Mode key. Pressing Code Set listed at the end of the sequence will then program the remote with the device code that was last sampled.

The search function will indicate it has cycled through all of the available codes by blinking the LED three times. The remote will begin to cycle through the available codes again. The LED will light each time a function is sent. If no key is pressed within 10 seconds, the remote will exit the set up mode and return to the code previously set up before "Step and Set" was initiated. The remote will blink two times after successful completion of the programming sequence. The remote will time out after 10 seconds during programming if no keys are pressed.

Volume Lock (993)

The user will lock volume to one mode as follows (a.k.a. Global Volume Lock):

<<Code Set>> → <9> → <9> → <3> → <Desired Mode>

The user will reset the volume controls to be that of the original device code as follows (a.k.a. Global Volume Unlock):

<<Code Set>> → <9> → <9> → <3> → <Volume Up>

The remote will blink two times upon being locked and blink 4 times when unlocked.

If user wants to unlock volume for a specific mode (a.k.a. Individual Volume Unlock):

Mode → <<Code Set>> → <9> → <9> → <3> → <Volume Down>

The remote will blink 4 times upon being unlocked.

The remote will time out after 10 seconds during programming mode if no keys are pressed.

Example:

[TV] → <<Code Set>> → <9> → <9> → <3> → <Volume Down>

Upon entry of an invalid key sequence, the remote control will display one long blink and return to normal operation.

The remote will exit programming state and return to normal operation if 10 seconds has elapsed between key presses.

Mode Reassignment (992)

This feature will change a selected device Mode Key to the desired device Mode Key. For example, an AUX device mode key (destination mode) could be changed to an additional VCR device mode key (source mode) to facilitate the operation of two different VCR devices.

<< Code Set >> → 9 → 9 → 2 → Source Mode → Destination Mode

The ID in the destination mode now is the default ID of the source mode. The remote will blink two times after successful completion of the programming sequence. The remote will time out after 10 seconds during programming.

Example: To designate the AUX key to become a second DVD key

<< Code Set >> → <9> → <9> → <2> → <DVD> → <AUX>

Reset to Defaults

Operational Features Reset (980)

Clear all setup features not related to ID code setup. Namely, Key Movers, Volume lock, ID lock, and any EEPROM information related to these features.

<< Code Set >> → 9 → 8 → 0

The remote will blink two times, pause, then blink two more times after successful completion of the programming sequence. There will be 2 blinks if no EEPROM or EEPROM is bad. The remote will time out after 10 seconds during programming.

Manufacturing Reset (981)

Functions the same as the Operational Reset (980) with the exception that the remote resets to the default ID and additionally clears all EEPROM data including all upgraded codes:

<< Code Set >> → 9 → 8 → 1

The remote will blink two times, pause then blink two more times after successful completion of the programming sequence. There will be 2 blinks and one long blink if EEPROM is bad. The remote will time out after 10 seconds during programming.

Basic User Reset (977)

Similar to the Operational Features Reset (980) with the exception that the remote will reset codes to the default settings:

<< Code Set >> → 9 → 7 → 7

The remote will blink two times, pause, then blink two more times after successful completion of the programming sequence. There will be 2 blinks if no EEPROM or EEPROM is bad. The remote will time out after 10 seconds during programming.

Code Lock/Unlock for Specific Mode (982)

After a valid code has been set, the code for a specific mode will be locked and unlocked as follows:

Mode → << Code Set >> → 9 → 8 → 2

The remote will blink two times upon being locked and blink 4 times when unlocked. The remote will time out after 10 seconds during programming. Step and Set and Mode Reassignment will not be allowed when the code has been locked.

APPENDIX C – FIREBALL RC6 Mode 6A Code Table

The FireBall E2 and DVDM IR remote uses the Philips RC6 Mode 6A IR protocol. The following table lists the RC6 Mode 6A key codes used by the FireBall that can be used in the ProntoEdit PC application to generate the IR codes for the Philips Pronto remote products and can also be used to generate the CCF files that can be imported into other 3rd party applications and control systems.

Note: There are also discrete IR codes listed in the table that are not available on the IR remote but can be used by control systems for functions such as discrete Power On and Off.

Escient Company Code: 32790

FB1: Address = 1

FB2: Address = 2

FB3: Address = 3

FB4: Address = 4

IR Remote RC6 Mode 6A Key Codes:

<i>Remote Key Label</i>	Key Type	RC6 Key Code
TV	Mode	----
VCR	Mode	
CABLE	Mode	----
AUX	Mode	----
AMP	Mode	----
TNR	Mode	----
CD	Mode	----
SAT	Mode	----
POWER	Primary	0Fh
1 (./?)	Primary	01h
2 (ABC)	Primary	02h
3 (DEF)	Primary	03h
4 (GHI)	Primary	04h
5 (JKL)	Primary	05h
6 (MNO)	Primary	06h
7 (PQRS)	Primary	07h
8 (TUV)	Primary	08h
9 (WXYZ)	Primary	09h
0 (@-*)	Primary	00h
MUTE	Primary	0Ch
ENTER	Primary	10h
+ (VOLUME)	Primary	0Ah
- (VOLUME)	Primary	0Bh
MODE (LAST)	Primary	11h
SETUP (SLEEP)	Primary	12h
OPTION (INPUT)	Primary	13h
+ (CH/PAGE)	Primary	0Dh
- (CH/PAGE)	Primary	0Eh
GUIDE	Primary	14h
OPENGLOBE	Primary	15h
UP	Primary	16h

DOWN	Primary	17h
LEFT	Primary	18h
RIGHT	Primary	19h
SELECT	Primary	1Ah
INFO (ALL)	Primary	1Bh
VIEW (MENU)	Primary	1Ch
REW (BACKSPACE)	Primary	20h
PLAY	Primary	21h
FF (SPACE)	Primary	22h
PAUSE	Primary	25h
STOP	Primary	24h
RECORD	Primary	23h
MOVIES	Primary	26h
SUBTITLE	Primary	27h
AUDIO	Primary	30h
MACRO	Primary	31h
IRADIO	Primary	2Ah
NEXT	Primary	2Bh
PREV	Primary	32h
REPEAT	Primary	33h
MUSIC	Primary	2Ch
ADD	Primary	2Dh
PLAY	Primary	2Eh
RANDOM	Primary	2Fh

Discrete RC6 Mode 6A Key Codes:

<i>Discrete Function</i>	RC6 Key Code
Power On	41h
Power Off	42h
Normal Play Mode	43h
Repeat Track Play Mode	44h
Repeat Title Play Mode	45h
Repeat Group Play Mode	46h
Random Title Play Mode	47h
Random Group Mode	48h
View Artist	49h
View Title	4Ah
View Song	4Bh
View Cover	4Ch
Player	4Dh
Guide	4Eh