



# FIREBALL REMOTE CONTROL GUIDE

Programming the (silver) Escient FireBall Taurus Wireless IR  
Remote Control

## FireBall Remote Control



FireBall server products include an infrared universal remote control designed to operate the FireBall from up to 30 feet. The remote can be programmed to operate up to four different FireBall products in addition to 4 other home theater devices.

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

## **Controlling Multiple FireBalls with 1 Remote**

Every FireBall 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 the factory reset code which corresponds to the FB button being reset:

- “01370” for FB1
- “01371” for FB2
- “01372” for FB3
- “01373” 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 5 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 5 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:

## 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 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 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 Code For TVs (T) #####

888	10264
A-Mark	10003
Abex	10032
Addison	11150, 10653, 10092
Admiral	10093, 10463
Advent	10761, 10817, 10815, 11933, 10783,
10842	
Adventura	10046
Aiko	10092
Aiwa	11914, 11910
Akai	10812, 10702, 10030, 10672, 11903,
10264	
Alaron	10179
Albatron	10843, 10700
Ambassador	10177
America Action	10180
Ampro	10751
Anam	10250, 10180, 10003, 10700, 10161,
10628	
Anam National	10250, 10161, 10055, 10650
Anhua	10051
AOC	10451, 10093, 10180, 10060, 10030,
10178, 10019, 10185,	
	11150, 10018, 10052, 10474, 10003,
10092, 10179	
Aolinpike	10264
Apex Digital	10748, 10765, 10767, 11943, 10879
Archer	10003
Audiovox	10451, 10180, 10875, 11952, 10802,
11951, 10092, 10623,	
	11937, 10003
Axion	11937
Baihe	10264
Baile	10001, 10391
Baohuashi	10264
Baosheng	10817
Beijing	10812, 10391, 10264, 10817, 10001
Belcor	10019
Bell & Howell	10154, 10016
BenQ	11032
Bradford	10180
Brockwood	10019
Broksonic	10236, 10463, 11911, 11938, 10003,
11905, 11935, 11929	
Caihong	10817
Cailing	10748
Candle	10030, 10046, 10186, 10056
Carnivale	10030
Carver	10054, 10170
Celebrity	10000
Celera	10765
Changcheng	10051, 10817, 10001, 10391, 10264
Changfei	10817
Changfeng	10817, 10264

Changhai	10817
Changhong	10156, 10765, 10817, 10264, 10783,
10767, 11910	
Chengdu	10817
Ching Tai	10003, 10474, 10179, 10092
Chun Yun	10000, 10180, 10161, 10474, 11150,
10092, 10843, 10003,	
	10179, 10700
Chunfeng	10264
Chung Hsin	10180, 10053, 11150, 10036, 10474
Chunsun	10817
Cinema	10672
Citizen	10060, 10030, 10039, 10280, 10056,
10186, 10046, 10092,	
	11928
Clairtone	10185
Clarion	10180
Colt	11906
Concerto	10056
Conrowa	10156, 10145, 10264
Contec	10180, 10157, 10185
Craig	10180, 10161
Crosley	10054
Crown	10180, 10039
Curtis Mathes	10047, 10054, 10154, 10451, 10093,
10060, 10702, 10030,	
	10145, 10166, 10466, 11347, 10039,
10056, 11147, 10016,	
	11919
CXC	10180
Daewoo	10154, 10451, 10180, 10030, 10178,
11661, 10474, 10003,	
	10628, 10032, 11150, 10092, 11928,
10627, 10700, 10056,	
	11909, 10170, 10391, 10623, 10019,
10672, 10039	
Daytron	10019
Dayu	10391
Dell	11080
Denon	10145, 10511
Dumont	10017, 10019
Durabrand	10463, 10180, 10178, 10171, 11034,
10003	
Dwin	10774, 10720
ECE	10037
Electroband	10000, 10185
Electrohome	10381
Elektra	10017, 11661
Emerson	10154, 10236, 10463, 10180, 10178,
10171, 10280, 10623,	
	10038, 11911, 11944, 10179, 10019,
11909, 11929, 10185,	
	10282, 11905, 10039, 11928, 10177
Envision	10030, 10813
Epson	10833, 10840
Ether	10030, 10161, 10003
Feilu	10817
Feiyan	10264
Feiyue	10817
Firststar	10236

Fisher	10154, 10159
Fortress	10093
Fujitsu	10186, 10853, 10179, 10809, 10683
Funai	10180, 10171, 10264, 11904, 10179,
10342	
Furi	10145, 10817, 10264
Futuretech	10180
Ganxin	10817
Gateway	11756, 11755
GE	11447, 10047, 11454, 10051, 10451,
10180, 10030, 10178,	
11917, 10135, 10282,	
	11347, 10021, 11907, 11922
General	10186
Gibraltar	10017, 10030, 10019
Gintai	11150, 10474
Go Video	10886
GoldStar	10154, 10030, 10178, 11926, 10019,
10037, 11910, 10001,	
	10032, 10056, 11150, 10039
Goodmans	10360
Grunpy	10180, 10179
Haier	11034, 10768
Haiyan	10264, 10817
Hallmark	10178
Hankook	10180, 10030, 10178, 10019, 10056,
10628	
Harley Davidson	11904, 10179
Harman/Kardon	10054
Harvard	10180
Havermy	10093
Hello Kitty	10451
Himitsu	10180, 10628
Hisense	10156, 10748, 10145
Hitachi	11256, 10156, 10030, 10178, 11145,
10145, 10038, 11245,	
10056, 11904, 10151,	
10157, 10016, 10179,	
	10474
Hongmei	10093, 11910, 10817, 10264
Hongyan	10817, 10264
Hua Tun	11150
Huafa	10145
Huanghe	10817
Huangshan	10264, 10817
Huanyu	11910, 10817, 10264
Huaqiang	10264
Huari	10145, 10264
Huodateji	10051
Hyundai	10849
Imperial Crown	10001, 10391, 10264
Infinity	10054
Inteq	10017
Janeil	10046
JBL	10054
JCB	10000

Jean	10156, 10051, 10236, 10092, 10179,
10003, 10474	
Jensen	10761, 10815, 11933, 10817
Jiahua	10051
Jialicai	10264
Jinfeng	10051, 10817
Jinhai	11910
Jinque	10817, 10264
Jinta	10264, 11910
Jinxing	10054, 10156, 10145, 10264, 10037,
10817	
Juhua	10817, 10264
JVC	10053, 10160, 11923, 11253, 10036,
10653	
Kaige	10264, 10817
Kangchong	11910
Kangli	10001, 10817, 10391, 10264
Kangyi	10264
Kaypani	10052
KEC	10180
Kenwood	10030, 10019
KLH	10765, 10767
KLL	10037
Kloss	10046, 10024
Kolin	10180, 10053, 11150, 10036, 10474
Kongque	10264, 10817
Konka	10632, 10707, 11940, 10628, 10703,
11939, 10638, 10817	
KTV	10180, 10030, 10185, 10039, 10280
Kuaile	10264
Kunlun	10051, 10817, 10264
LG	10060, 10030, 10178, 10056, 10442,
10856, 10001, 10038,	
	10700, 10019, 10037, 10474, 11178,
10003, 10032, 10006	
Lihua	10817
Lloyd's	11904
Loewe	10136
Logik	10016
Longjiang	10264, 10817
Luxman	10056
LXI	10047, 10054, 10154, 10156, 10178
Magnasonic	11928, 11913
Magnavox	11454, 10054, 10030, 10706, 11904,
10020, 11944, 10036,	
	10179, 10386, 11931, 10096, 10187,
11254, 11913, 10024,	
	10186
Magnin	11907
Majestic	10016
Marantz	10054, 10030, 10854, 10704, 11154,
10855	
Maruman	10627, 10391
Matsushita	10250, 10650, 10161
Megapower	10700
Megatron	10178, 10145, 10003
MEI	10185
Meile	10264, 11910, 10817
Memorex	10154, 10463, 10150, 10178, 10179,
11920, 11927, 10016,	

Mermaid	11911, 11926, 11924
MGA	10037
Midland	10150, 10030, 10178, 11907, 10019
10032	10047, 10017, 10051, 10039, 10135,
Minutz	10021
Mitsubishi	10154, 10250, 10093, 10236, 10180,
11250, 10150, 10030,	10178, 10381, 10836, 10036, 10179,
10817, 11150, 10474,	10019, 10868, 10056, 11917
Monivision	10843, 10700
Motorola	10093, 10055
MTC	10060, 10030, 10185, 10019, 10056
Mudan	10051, 10817, 10264
Multitech	10180
NAD	10156, 10178, 10866
Nanbao	11910, 10264
Nansheng	10817, 10264
National	10051
NEC	10154, 10156, 10051, 10053, 10030,
10178, 10046, 11150,	10056, 10165, 10186, 10474, 10036,
10882, 10381, 10817,	11704, 10170, 10264, 10019, 10497
Newave	10093, 10178, 11150, 10092, 10161
Nikko	10030, 10178, 10092
Nikon	11910
Norcent	10748, 10824
Noshi	10018
NTC	10092
Onking	10280
Onwa	10180
Optimus	10154, 10250, 10166, 11924, 11913,
10650, 11927	10887
Optoma	10093, 10165
Optonica	10236, 10463, 11911, 11905, 10179,
Orion	10054, 10250, 10051, 10161, 11410,
11463, 11929	10055, 10650, 11924, 11946, 11919,
Panasonic	10051, 10706, 10817, 10264, 11910
11927, 11947, 10037,	10047, 10156, 10051, 10060, 10030,
11941	11926, 10018, 10027, 10039, 11919,
Panda	11907, 10019
Penney	10054, 10180, 10030, 10178, 10628,
10178, 10135, 11347,	10096, 10186, 10774, 10019, 10032,
10003, 10021, 10032,	11454, 10054, 10000, 10051, 10030,
Philco	11154, 10092, 10187, 10774, 10024,
10474, 10020, 10037,	10690, 10020, 10032
10056	10030, 10019, 10039
Philips	10166, 10038, 10866, 10679
10178, 10474, 10019,	
10037, 10056, 10186,	
Pilot	
Pioneer	

Portland	10092, 10039, 10019
Prima	10761, 10815, 10783, 11933, 10817
Princeton	10717, 10700
Prism	10051
Proscan	11447, 10047, 11347, 11922
Proton	10030, 10178, 10001, 10039, 10466,
10003, 10052, 10474	
Pulsar	10017, 10019
Qingdao	10051, 10817, 10264
Quasar	10250, 10051, 11924, 10165, 11919,
10055, 10650	
RadioShack	10047, 10154, 10180, 10030, 10178,
10032, 10056, 11920,	
	10165, 11904, 10019, 10039
RCA	11447, 10047, 11454, 10000, 10030,
10178, 10679, 11247,	
	11917, 10090, 11948, 11147, 10019,
11907, 11922, 10135,	
	11958, 11047, 11347, 10018, 11547,
10038, 11919, 10092,	
	11953
Realistic	10154, 10180, 10030, 10178, 10056,
10019, 10039, 10165,	
	10032
Rhapsody	10185
Rowa	10748, 10037, 10817
Runco	10017, 10030, 10603, 10497
Ruyi	10817
Saige	10817
Sampo	10154, 10093, 10030, 10178, 10171,
10032, 10052, 10474,	
	11755, 10039, 10700, 10036, 10092,
10650	
Samsung	10154, 10156, 10060, 10812, 10702,
10030, 10178, 10019,	
	10056, 11060, 10092, 10474, 10774,
10032, 10817, 10090,	
	11903, 10264, 10766, 10814, 11150,
10179	
Samsux	10039
Sanjian	10264
Sansui	10463, 11904, 11929, 11911
Sanyo	10154, 10156, 10180, 10145, 10376,
10474, 10036, 10893,	
	11907, 10159, 10280, 10424, 10799,
11154, 10157, 10264,	
	10381, 10798, 10088, 11150
Sanyuan	10093, 10817
Scimitsu	10019
Scotch	10178
Scott	10236, 10180, 10178, 10179, 10019
Sears	10047, 10054, 10154, 10156, 10178,
10171, 11926, 11904,	
	10056, 10159, 10179
Shancha	10817, 10264
Shanghai	10264, 11910, 10817
Shaofeng	10145, 10817
Sharp	10093, 10030, 10157, 10386, 10650,
10720, 10032, 10851,	

10165, 10474, 10688,	10256, 10491, 10689, 10818, 10039,
Sharper Image	10787, 10036, 11917
Shen Ying	11950
Shencai	10092, 10003, 10474, 10179
Sheng Chia	10145, 10264
Shenyang	10093, 10236, 10179, 11150, 10474
Shogun	10817, 10264
Signature	10019
Simpson	10016
Skygiant	10187, 10186
Skyworth	10180
Sony	10748, 10264, 10037, 10817
10111, 11925, 10080,	11100, 10000, 10036, 10650, 11300,
Soundesign	10834, 11904
Sowa	10180, 10178, 10179, 10186
10092, 10474, 11150	10156, 10051, 10060, 10178, 10036,
Spectricon	10003
Squareview	10171
SSS	10180, 10019
Starlite	10180
Studio Experience	10843
Supre-Macy	10046
Supreme	10000
SVA	10748, 10587, 10865, 10872, 10768,
10871, 10870	
Sylvania	10054, 10030, 10171, 11931, 10381,
11944, 10020, 10096	
Symphonic	10180, 10171, 11913, 11904
Synco	10000, 10451, 10093, 10060, 10178,
10092, 10036, 10474	
Tacico	10178, 10179, 11150, 10092, 10474
Tai Yi	11150
Taishan	10817, 10391
Tandy	10093
Tashiko	11150, 10650, 10092
Tatung	10054, 10154, 10156, 10051, 10060,
11150, 10474, 10036,	
Technics	10055, 11756, 10003
Technol Ace	10250, 10051
Techview	10179
Techwood	10847
Teco	10051, 10003, 10056
10280, 10092, 10264,	10051, 10093, 10178, 10474, 10036,
Teknika	10653
10056, 10186, 10016,	10054, 10180, 10150, 10060, 10019,
Telefunken	10092, 10039, 10179
Tera	10702, 10056
Thomas	10030, 10466, 10474
Tiane	11904
TMK	10093, 10817
TNCi	10178, 10177, 10056
Tobo	10017
Tongguang	10748, 10264
	10264

Toshiba	10154, 11256, 10156, 10060, 10145,
11918, 11945, 10381,	10832, 10036, 11704, 11936, 10264,
10650, 11150, 11656,	11935, 10161, 10509, 10845, 11356
Tosonic	10185
Totevision	10039
Trical	10157
Tuntex	10030, 10474, 10092
TVS	10463
Ultra	10391
Universal	10027
V Inc.	11756, 10885, 10864
Vector Research	10030
Victor	10250, 10053, 10160, 10650, 10376,
10036, 10653	
Vidikron	10054
Vidtech	10178, 10019, 10036
Viewsonic	10857, 11755, 10885, 10864
Viking	10046
Wards	10054, 10030, 10178, 10020, 10080,
10165, 10866, 10019,	10027, 10056, 10111, 10179, 10016,
10021, 10096	
Warumaia	10391
Waycon	10156
Westinghouse	10889
White Westinghouse	10463, 10186, 11909, 10623
Xiahua	10817, 10264
Xiangyang	10264
Xihu	10817, 10264
Xinghai	10264
Xinrisong	11910
Xuelian	11910
Yamaha	10030, 10838, 10019, 10833, 10769,
10839	
Yapshe	10250
Yongbao	11910
Youlanasi	10817
Yousida	11910
Zenith	10017, 10463, 10178, 11911, 10016,
11909, 10092, 11904,	
	11929
Zonda	10003

**##### Setup Code For VCRs (V) #####**

ABS	21972
Admiral	20048, 20209
Adventura	20000
Aiko	20278

Aiwa	20037, 20000, 20307, 20468, 20124,
20406, 20348, 20479	
Akai	20041, 20061, 20175, 20106
Alienware	21972
America Action	20278
American High	20035
Amoisonic	20479
Anam	20162, 20037, 20240, 20278, 20226,
21037	
Anam National	20162, 20226
Asha	20240
Audiovox	20037, 20278
Beaumark	20240
Bell & Howell	20104
Blaupunkt	20226
Broksonic	20184, 20121, 20209, 20002, 20348,
20295, 21479, 20479	
Calix	20037
Canon	20035, 21174, 20167
Carver	20081
CCE	20072, 20278
Changhong	20048, 20081
Citizen	20037, 20278, 21278
Colt	20072
Craig	20037, 20047, 20240, 20072, 20271
Curtis Mathes	20060, 20035, 20162, 20041, 20760,
21035	
Cybernex	20240
CyberPower	21972
Daewoo	20045, 20104, 20278, 20210, 20368,
21278, 20637, 20046,	
	20212, 20561
Dell	21972
Denon	20042
DirectTV	20739, 21989, 21954, 21949
Dish Network System	21943, 21946, 21945, 21944
Dishpro	21944, 21943
Durabrand	20039, 20038
Dynatech	20000
Echostar	21943, 21946, 21945, 21944
Electrohome	20037
Electrophonic	20037
Emerex	20032
Emerson	20035, 20037, 20184, 20240, 20045,
20000, 20121, 20043,	
	20209, 20002, 20278, 20295, 20036,
20637, 21593, 20561,	
	21479, 20068, 20208, 20479, 21278,
20061, 20212	
Euro1	21962
Expressvu	21944
Fisher	20047, 20104, 20066, 20054
Fuji	20035, 20033
Fujitsu	20045, 20052, 20366
Funai	20000, 20593, 21593
Garrard	20000
Gateway	21972
GE	20060, 20035, 20240, 21060, 20202,
20760, 21035, 20807,	
	20226, 20761

General	20045, 20366, 20052
Go Video	20643, 20526, 20432
GOI	21944
GoldStar	20037, 20209, 20038, 20226, 20225,
21237	
Gradiente	20000
Haojie	20240
Harley Davidson	20000
Harman/Kardon	20081, 20038
Harwood	20072, 20068
Hauppauge	21992
Headquarter	20046
Hewlett Packard	21972
HI-Q	20047
Hitachi	20037, 20000, 20042, 20041, 20166,
20105, 20089	
Howard Computers	21972
HP	21972
HTS	21944
Hughes Network Systems	20042, 21949, 20739
Hyundai	21951
iBUYPOWER	21972
Jensen	20041
JVC	20045, 20067, 20041, 21945, 20008,
21944, 20384, 20366	
KEC	20037, 20278
Kenwood	20067, 20041, 20038, 20384
KLH	20072
Kodak	20035, 20037
Kolin	20043, 20041
LG	20037, 20045, 20042, 20209, 20038,
22010, 21037, 20040	
Lloyd's	20000, 20208
Logik	20072
LXI	20037
Magnasonic	21278, 20593
Magnavox	20035, 20039, 20081, 20000, 20593,
20563, 20110, 21781	
Magnin	20240
Marantz	20035, 20081, 21381
Marta	20037
Matsushita	20035, 20162, 20226, 21162, 20367,
20227	
Media Center PC	21972
MEI	20035
Memorex	20035, 20162, 20037, 20048, 20039,
20047, 20240, 20000,	
	20104, 20209, 21237, 20046, 20479,
	21262, 20307, 21037
MGA	20240, 20043, 20061
MGN Technology	20240
Microsoft	21972
Mind	21972
Minolta	20042, 20105
Mitsubishi	20067, 20043, 20041, 20061, 20807,
20173	
Motorola	20035, 20048
MTC	20240, 20000
Multitech	20000, 20072

NAD	20058
National	20226
NEC	20035, 20037, 20048, 20104, 20067,
20041, 20038, 20040,	
	20008, 20370
Newave	20037
Nikko	20037
Nikon	20253, 20034
Noblex	20240
Northgate	21972
Olympus	20035, 20226, 21046
Onkyo	20222
Optimus	21062, 20162, 20037, 20048, 20104,
21048, 21262, 20593,	
	21162, 20058, 20432
Optonica	20062
Orion	20184, 20209, 20002, 20479, 20295,
21479	
Panarex	21950
Panasonic	21062, 20035, 20162, 20077, 20226,
20616, 21162, 20225,	
	20367, 20227, 21035, 21262
Pansat	21950
Penney	20035, 20037, 20240, 20042, 20038,
21035, 20040, 20054,	
	21237
Pentax	20042, 20105
Philco	20035, 20000, 20226, 20479
Philips	20035, 20081, 20000, 20226, 20739,
21381, 20110, 20618,	
	21181, 20563, 21081, 21949, 20062
Pilot	20037
Pioneer	20042, 20067, 20058
Polk Audio	20081
Profitronic	20240
Proscan	20060, 20760, 21954, 20202, 21060,
20761	
Protec	20072
Pulsar	20039
Qisheng	20060
Quarter	20046
Quartz	20046
Quasar	20035, 20162, 21035, 20077, 21162
RadioShack	20000, 21037
Radix	20037
Randex	20037
RCA	20060, 20035, 20240, 20000, 20042,
20807, 21060, 21989,	
	20106, 20761, 21035, 20058, 21964,
20105, 20226, 20760,	
	20880, 21954, 20077, 20202, 20453
Realistic	20035, 20037, 20048, 20047, 20000,
20104, 20066, 20046,	
	20062
ReplayTV	20614, 20616
Ricoh	20253, 20034
Runco	20039
Sampo	20037, 20048
Samsung	20240, 20045, 20212, 20760, 20210,
20432, 21014	

Samtron	20643
Sanky	20048, 20039
Sansui	20000, 20067, 20209, 20041, 20479,
20271, 21479	
Sanyo	20047, 20240, 20104, 20046, 20159,
20369, 20368	
Scott	20184, 20045, 20121, 20043, 20210,
20212	
Sears	20035, 20037, 20047, 20000, 20042,
20104, 20046, 20066,	
	21237, 20054, 20105
Sharp	20048, 20209, 20363, 20848, 20807,
20062, 20738, 21048	
Shinco	20000
Shintom	20072
Shogun	20240
Singer	20072
Sonic Blue	20614, 20616
Sony	20035, 20032, 20033, 20000, 20253,
20639, 21232, 21972,	
	20636, 21032, 21957, 20034, 20586,
20640, 21956	
STS	20042
Sunpak	20253
Sylvania	20035, 20081, 20000, 20043, 20110,
21781, 21593, 20593	
Symphonic	20000, 21593, 20593
Systemax	21972
Tagar Systems	21972
Tashiko	20037
Tatung	20045, 20067, 20041, 20366, 20008
Teac	20000, 20041
Technics	20035, 20162
Teco	20035, 20037, 20048, 20041, 20038,
20040	
Teknika	20035, 20037, 20000, 20052
Thomas	20000
Tivo	20739, 21957, 20636, 21956, 20618,
21503	
TMK	20240, 20208, 20036
Toshiba	20045, 20067, 20043, 20041, 20210,
20384, 21008, 21972,	
	20366, 20845, 21503, 20066, 20212,
20828, 21145, 20008	
Totevision	20037, 20240
Touch	21972
UltimateTV	21989
Unitech	20240
Vector	20045
Vector Research	20038, 20040
Victor	20067, 20041, 20008, 20384
Video Concepts	20045, 20040, 20061
Videomagic	20037
Videosonic	20240
Viewsonic	21972
Villain	20000
Wards	20060, 20035, 20048, 20047, 20081,
20240, 20000, 20042,	
	20072, 20062, 20212, 20760
White Westinghouse	20209, 20072, 20637

XR-1000	20035, 20000, 20072
Yamaha	20041, 20038
Zenith	20039, 20033, 20000, 20209, 20034,
20479, 21479, 21139,	
	20637
ZT Group	21972

**##### Setup Code For Digital Video Disks (Y) #####**

Adcom	21094
Advent	21016
Aiwa	20641, 21912
Akai	20899, 20770, 21975, 21089
Allegro	20869
Amphion Media Works	22016, 22001
AMW	20872, 22016, 22001, 21176
Anam	21913
Apex Digital	20672, 20717, 20797, 21020, 21100,
20796, 21004, 21061,	
	21937, 20794, 20830, 21056, 21915,
20755	
Aspire Digital	21168
Audiologic	20736
Audiovox	21071, 21122, 21041, 21121, 21072
Axion	21071, 21072
B & K	20662, 20655
Bel Canto Design	21571
Blaupunkt	20717
Blue Parade	20571
Broksonic	20868, 20695
Cambridge Soundworks	21916
CAVS	21057
Changhong	20627, 21061
CineVision	20876, 20869
Classic	21917
Coby	20778, 21107, 21086, 21923, 20852,
21165	
Criterion	22007
Curtis Mathes	21087
CyberHome	21023, 21129, 20816, 21117, 21024
Daewoo	20784, 20869, 20833, 21918, 21172,
20705	
Denon	20490, 20634
Dual	21085, 21068
DVD2000	20521
Emerson	20591, 20675, 20821
Enterprise	20591
Fisher	20670, 21919
Funai	20675
Gateway	21077, 21073, 21158
GE	20522, 20815, 20717
Go Video	20744, 20869, 21099, 21970, 20715,
20833, 21075, 21730,	
	20783, 21044, 21144
GPX	20699, 20769
Greenhill	20717
Harman/Kardon	20582, 20702

Hitachi	20573, 20664, 21919
Hiteker	20672
Initial	20717, 21931
Integra	20627, 21924
Jamo	22003
Jaton	21078
JBL	21926, 20702
Jensen	21016
JVC	20558, 20623, 21940, 21901, 20867
jWin	21051, 21049
Kenwood	20490, 20534, 21063, 20682
KLH	20717, 21939, 21149, 21020
Konka	20720, 20719, 20711, 20721
Koss	20651
Landel	20826
Lasonic	20798, 21173
Lenoxx	21938
LG	20801, 20101
Liquid Video	21980
Lite-On	21158, 21058
Loewe	20511
Magnavox	20503, 20675, 21976, 21914, 20821
Malata	21159, 20782
Marantz	20539
Memorex	20695
Microsoft	20522
Mintek	20839, 20717
Mitsubishi	21521, 20521
Momitsu	21082
NEC	20785
Nesa	20717
Next Base	20826
Niro	22024
Norcent	21003, 20872, 21923, 21107
Onkyo	20503, 20627, 21924, 20792, 21985
Oritron	20651, 21980
Panasonic	20490, 21462, 21907, 21910, 21990,
21362, 21762, 21909,	21986, 20632, 21490, 21908, 21925,
22017	
Philco	22000
Philips	20503, 20539, 20646, 20885, 20854,
21914	
Pioneer	20525, 20571, 20638, 20632, 20631,
21902	
Polaroid	21086, 21061, 21998, 21200
Polk Audio	20539
Portland	20770
Prima	21016
Princeton	20674
Proscan	20522
ProVision	20778
Qwestar	20651
RCA	20522, 20571, 20717, 20822, 21193,
21974, 21132, 21965,	21022, 21913
Regent	21938
Rio	20869
Rotel	20623
Rowa	20823

Saba	21977
Sampo	20752, 20698
Samsung	20490, 20573, 20820, 21932, 21075,
20899, 21979	
Sansui	20695
Sanyo	20695, 20670, 21967, 20873
Sharp	20630, 20752
Sharper Image	21995, 21117
Sherwood	21043, 20770, 20633, 21077
Shinco	20717
Shinsonic	20533, 20839, 21931
Sigma Designs	20674
Sonic Blue	20869, 21970, 21099
Sony	20533, 21533, 20864, 21033, 21904,
22020, 21903, 21981,	
	20772, 21934
Sungale	21074
Superscan	20821
SVA	20717, 20860, 21105
Sylvania	20821, 20675
Symphonic	20675
Teac	21984, 20809
Technics	20490
Technosonic	20730
Techwood	20692
Terapin	21031
Theta Digital	20571
Tivo	21996
Toshiba	20503, 21154, 22006, 21045, 21996,
20695, 21988	
Tredex	20803, 20800, 20799, 20804
TYT	20705
Urban Concepts	20503
US Logic	20839
V Inc.	21226, 21064
Vocopro	21027
Xbox	20522
Xwave	21001
Yamaha	20490, 20539, 20545
Zenith	20503, 20591, 21906, 20869, 22002

**##### Setup Code For Audio Amplifiers (A) #####**

Accuphase	30382
Acurus	30765
Adcom	31100, 30577
Aiwa	30406
AudioSource	30011
Bel Canto Design	31583
Bose	30674
Carver	30269
Classe	31461, 31462
Curtis Mathes	30300
Denon	30160
Durabrand	31561
GE	30078
Harman/Kardon	30892
JVC	30331
Kenwood	30356

Korsun	31483
Left Coast	30892
Lenoxx	31561
Linn	30269
Logitech	31408
Luxman	30165
Magnavox	30269
Marantz	30892, 30321, 30269
Mark Levinson	31483
Nakamichi	30321
NEC	30264
Optimus	30395, 30300
Panasonic	30521, 30308
Parasound	30246
Philips	30892, 30269
Pioneer	30013, 30300
Polk Audio	30892, 30269
PS Audio	31523
RCA	30300
Realistic	30395
Sansui	30321
Shure	30264
Sony	30689, 30220, 30815
Soundesign	30078, 30211
Technics	30521, 30308
Victor	30331
Wards	30078, 30211, 30013
Yamaha	30354, 30143, 30133, 30504
YBA	31502

**##### Setup Code For CD Players (D) #####**

ADC	30018
Adcom	30155, 30234
Aiwa	30157, 30124, 30012
Akai	30156
Audio Alchemy	30194
Audio-Technica	30170
BSR	30245, 30194
Burmester	30420
California Audio Labs	30029, 30303
Carrera	30194
Carver	30157, 30437, 30179
Classic	31297
Crown	30122
DAK	30245
DBX	30254
Denon	30873, 30003
DKK	30000
DMX Electronics	30157
Dynamic Bass	30179
Emerson	30305, 30164, 30155, 30469
Fisher	30179, 30174, 31325, 30088, 30342
Garrard	30245, 30420, 30393, 30280, 30425
GE	30009
Gemini	30625
Genexxa	30032, 30305, 30164
GoldStar	30417
GPX	31296

Harman/Kardon	30157, 30173, 31202, 30426
Hitachi	30032, 30155
Inkel	30196, 30180, 30437
Integra	30101
JVC	30072, 31294, 30655
Kenwood	30681, 30826, 30626, 30028, 30037,
30036, 30190	
KLH	31318
Kodak	30287
Korsun	31484
Koss	31317
Krell	30157
Kyocera	30018
LG	31208
Linn	30157
Luxman	30093
LXI	30305
Magnavox	30157, 30305
Marantz	30626, 30029, 30157, 30180
Mark Levinson	31484
McIntosh	30287
MCS	30029, 30043
Miro	30000
Mission	30157
MTC	30420, 30625
Nakamichi	30147
NEC	30043, 30234
Nikko	30174, 30170, 30164, 30625
NSM	30157
Onkyo	30868, 30101
Optimus	31063, 30000, 30032, 30037, 30342,
30437, 31075, 30145,	
30280, 30420, 30468,	
	30194, 30305, 30426, 30087, 30179,
	30175, 30196
Panasonic	30029, 30752, 30303
Parasound	30420, 30194
Philips	30626, 30157, 30287
Pioneer	31063, 31062, 30032, 30305, 30468,
31087	
Polk Audio	30157
Proton	30157
QED	30157
Quad	30157
Quasar	30029
RadioShack	31075
RCA	31062, 30032, 30305, 30764, 30179,
30468, 30009, 30155,	
	30420, 30053
Realistic	30164, 30180, 30155, 30179, 30175,
30420	
Rotel	30157, 30420
SAE	30157
Sansui	30157, 30305, 30202
Sanyo	30179, 30087
SAST	30157
Scott	30305, 30164, 30155
Sears	30305
Sharp	30861, 30037, 30180
Sherwood	31067, 30196, 30180, 30426

Shure	30043
Silsonic	30888, 30036
Sonic Frontiers	30157
Sony	30490, 30000, 31364, 30185, 30605,
30100, 30604	
Soundesign	30425, 30145
STS	30018
Symphonic	30305
TAG McLaren	30157
Tascam	30420
TDK	31208
Teac	30393, 30180, 30174, 30420
Technics	30029, 30207, 30303
Tivoli Audio	31553
Vector Research	30194, 30417
Victor	30072
Wards	30157, 30053
Yamaha	30888, 30036, 30187, 30170, 31292
YBA	30625
Yorx	30461
Zonda	30157

**##### Setup Code For Audio Amp/Tuners (R) #####**

ADC	30531
Adcom	31616, 30616, 31617
Aiwa	31405, 30158, 30189, 31243, 31089,
31388, 30121, 30405,	
	31321, 31641, 31347
Akai	30224, 30076, 31512, 31255
Alco	31390
Amphion Media Works	31615, 31563
AMW	31563, 31615
Anam	31609, 31074, 30281
Apex Digital	31430, 31257
Arcam	31120
Audiophase	31387
Audiotronic	31189
Audiovox	31390, 31627
AVLight	30158
Bel Canto Design	31584
Bose	31229, 31253, 30639
Brix	31602
Cambridge Soundworks	31477, 31370
Capetronic	30531
Carver	31189, 30189, 30042, 31089, 30008,
30360	
Casio	30195
Clarinette	30195
Classic	31352
Coby	31513, 31389, 31263
Compaq	31136
Criterion	31420
Curtis	31596
Curtis Mathes	30080
Daewoo	31250
Dell	31383
Denon	31360, 30004, 31104, 30771, 31311,
30273, 31142, 30301	

Dynamic Bass	30360
Emerson	30424, 30255
Fisher	31409, 30360, 30219, 31801, 30042
Fonmix	31360
Fosgate	31487
Garrard	30424, 30281, 30463, 30146, 30440
Gateway	31517, 31567
GE	31379
Glory Horse	31263
Go Video	31532
GoldStar	30281
GPX	31299
Hafler	30146
Harman/Kardon	30110, 30189, 30891
Hewlett Packard	31181
Hitachi	31801, 31273
Initial	31426
Inkel	30027, 30062, 30502, 30491
Integra	30135, 31298
JBL	30110, 31306, 30281
JVC	30074, 31282, 31263, 31495, 31374
Kansai	30440
Kenwood	31313, 31570, 31569, 30027, 31051,
30077, 30313, 31027,	
	30042, 30239, 30569, 31052, 30186,
30314	
KLH	31412, 31390, 31428
Koss	30424, 30255, 31366
Lasonic	31798, 31510
Lenoxx	31437
Lexicon	31076
Linn	30189
Liquid Video	31497
Lloyd's	30195
LXI	30181
Magnavox	31189, 31269, 30189, 30128, 30391,
30195, 31089, 31514,	
	30531
Marantz	31189, 31269, 30039, 30189, 31089,
31289, 30200, 30128	
MCS	30039, 30346
Memorex	31596
Mitsubishi	31393
Modulaire	30195
Musicmagic	31089
NAD	30320
Nakamichi	30347, 30097, 31555
NEC	30235
Norcent	31389
Onkyo	30135, 31298, 30842, 30380, 31531
Optimus	31023, 30801, 31074, 30080, 30186,
30531, 30797, 30042,	
	30181, 30440, 30738, 30849, 30177,
30219, 30670	
Oritron	31497, 31366
Panasonic	31518, 30039, 31548, 31764, 30518,
31350, 31763, 30367,	
	31316, 31509, 31633, 30309, 31288,
31363	
Penney	30195

Philco	31390
Philips	31189, 31269, 30189, 31365, 31089,
31266, 31283, 30891,	
Pioneer	31368, 30391, 31120, 31268
30531, 31084, 31384,	31023, 30150, 30630, 31184, 30080,
Polaroid	30244, 31343
Polk Audio	31508
Proscan	30189, 31289
Qisheng	31254
Quasar	31609, 31390
RadioShack	30039
RCA	31263
31154, 31511, 30080,	31023, 31609, 31254, 30346, 30531,
Realistic	30530, 31074, 31390, 30054, 30360
Regent	30195, 30181, 30163
Rio	31437
Saba	31869, 31383
Samsung	31519
Sansui	31500, 31295
Sanyo	30189, 30346, 30193, 31089
Scott	30801, 30360, 31469, 30219, 31251
Sharp	30163, 30322
Sharper Image	31286, 30186, 31386, 31361
31549, 31385, 31411,	31545, 31556, 30797, 31409, 31416,
Sherwood	31546, 31723, 31263, 31410
31653	30491, 31423, 30062, 31077, 30502,
Shinco	31390
Shinsonic	31426
Silsonic	30176, 31426
Sonic	30281
Sonic Blue	31383, 31869, 31532
Sony	31058, 31441, 31258, 31759, 30158,
31442, 31529, 31758,	
31858, 31367, 31406,	31371, 31503, 31042, 31658, 31158,
31382	31458, 30168, 31558, 31131, 31349,
Soundesign	30670
Stereophonics	31023
Sunfire	31313, 30314, 30313, 31052
Tae Kwang	30440
Teac	30163, 31267, 31074, 31528, 30463,
31390	
Technics	31308, 31518, 30039, 30518, 30309,
31309, 30208	
Techwood	30281
Thorens	31189
Venturer	31390, 30849
Victor	30074
Wards	30158, 30189, 30080, 30054
Yamaha	30176, 30081, 31176, 31375, 30186,
31331, 31276	
Yorx	30195
Zenith	31293, 30857, 30281, 31869

**##### Setup Code For Cable Converters (C) #####**

ABC	00003, 00008, 00014, 00001, 00007,
00013, 00011, 00017	
Allegro	00315, 00153
Americast	00899
Antronix	00207, 00022
Archer	00797, 00207, 00153, 00022
Belcor	00056
Bell & Howell	00014
Bell South	00899
Cable Star	00056
Cabletenna	00022
Cableview	00022
Century	00153
Citizen	00315, 00153
Clearmaster	00883
ClearMax	00883
Colour Voice	00025, 00031
Comtronics	00040
Contec	00019
Coolmax	00883
Daeryung	01877, 00877, 00477, 00008
Digi	00637
Director	00476
Dumont	00637
Eastern	00002
Emerson	00797
Everquest	00040, 00015
Focus	00400
Funai	00019
Garrard	00153
GC Electronics	00207, 00056
Gehua	00476
Gemini	00797, 00015
General Instrument	00476, 00810, 00276, 00003, 00014,
00011, 00015	
Global	01327
GMI	00015, 00797
GoldStar	00144, 00040
Goodmind	00797
Hamlin	00009, 00273, 00034, 00020, 00259
Hitachi	00014, 00011
Hytex	00007
Jasco	00015, 00315, 00153
Jebsee	00400
Jerrold	00476, 00810, 00276, 00003, 00012,
00014, 00011, 00015	
Leon	00015
LG	00144, 00040
Linsay	00440
Magnavox	00027
Memorex	00000
Motorola	00476, 00810, 00276, 01254, 01106,
01376	
Movie Time	00156, 00063
MS	00015
MultiVision	00012
Novaplex	00618
NSC	00063, 00156

Oak	00019, 00007
Optimus	00021
Pace	01877, 00237
Panasonic	00000, 00008, 00107, 00040, 00021
Panther	00637
Paragon	00000
Philips	00317, 00027, 00025, 00153, 00013,
00031, 01305	
Pioneer	01877, 00877, 00144, 00533, 01021
Popular Mechanics	00400
Pulsar	00000
Quasar	00000
RadioShack	00015, 00883, 00797, 00315
RCA	00021
Realistic	00207
Recoton	00400
Regal	00279, 00273, 00259, 00020
Regency	00002
Rembrandt	00011
Runco	00000
Samsung	00000, 00144, 00040
Scientific Atlanta	01877, 00877, 00477, 00008, 00017
Seam	00510
Signal	00040, 00015
Signature	00011
SL Marx	00040
Sony	01006
Sprucer	00021
Starcom	00003, 00014, 00015
Stargate	00015, 00797, 00040
Starquest	00015
Supercable	00276
Supermax	00883
Sylvania	00001
Tandy	00258
Televue	00040
Texscan	00001
TFC	00310
Timeless	00040
Tocom	00012, 00013
Torx	00003
Toshiba	00000
Trans PX	00276, 00153, 00315
Tristar	00883
TS	00003
Tusa	00015
TV86	00063
Unika	00207, 00153, 00022
United Artists	00007
Universal	00153, 00056, 00207, 00022, 00191
V2	00883
Viewmaster	00883
Viewstar	00063, 00027, 00258
Vision	00883
Vortex View	00883
Zenith	00000, 00525, 00899
Zentek	00400

**##### Setup Code For Video Accessories (N) #####**

ABS	01272
Alienware	01272
CyberPower	01272
Gateway	01272
Hewlett Packard	01272, 01267
Howard Computers	01272
HP	01272
iBUYPOWER	01272
InterVideo	01393
Jensen	01165
JVC	01384
Keyspan	01344
KWorld	01403
LG	01415
Linksys	01365
Macro Image Technology	01383
Media Center PC	01272
Microsoft	01272
Mind	01272
Motorola	01363
MyHD	01383
Northgate	01272
Panasonic	01120
Pinnacle Systems	01268
Pioneer	01010
Princeton	00113, 00295
Rabbit	00081
Roku	01486
Samsung	01190, 01490
Sensory Science	01126
Sharp	01010
SMC	01456
Sony	01272, 01324, 01364
Streamzap	01309
Systemax	01272
Tagar Systems	01272
TeleCaption	00171
Toshiba	01272
Touch	01272
Viewsonic	01272, 01329
ZT Group	01272

**##### Setup Code For Satellite Receivers (S) #####**

AlphaStar	00772
Chaparral	00216
Crossdigital	01109
DirectTV	00392, 00566, 00639, 01639, 01142,
00247, 00749, 01749,	
	00724, 00819, 01856, 01076, 01109,
00099, 01444, 01108,	
	01392, 01443, 01640, 01442, 01414
Dish Network System	01005, 00775, 01775, 01505, 01170
Dishpro	01005, 00775, 01505, 01775
Echostar	01005, 00775, 01170, 01775, 01505

Expressvu	00775, 01775
Funai	00338
GE	00566
General Instrument	00869
GOI	00775, 01775
Goodmans	01246
Hisense	01535
Hitachi	00819, 01250, 00214, 00491, 00489,
00201	
HTS	00775, 01775
Hughes Network Systems	01142, 00749, 01749, 01443, 01442,
01444	
I-Lo	01535
JVC	00775, 01170, 00492, 01775
LG	01414, 01226
Magnavox	00724, 00722
Matsushita	00340, 00214, 00500
Memorex	00724
Mitsubishi	00749, 00491
Motorola	00869
NEC	00496, 01270
Next Level	00869
Panasonic	00247, 00701, 00214, 00500, 00340
Paysat	00724
Philips	01142, 00749, 01749, 00724, 01076,
00722, 00099, 01442	
Proscan	00392, 00566
Proton	01535
RadioShack	00869
RCA	00392, 00566, 00855, 00143, 01392
Samsung	01276, 01109, 01108
Sanyo	00493, 01219
Sharp	00494
SKY	00856
Sony	00639, 01639, 00294, 01640, 00163
Star Choice	00869
Tivo	01142, 01444, 01443, 01442
Toshiba	00749, 01749, 00790, 00486, 01285
UltimateTV	01392, 01640
Uniden	00724, 00722
US Digital	01535
USDTV	01535
Victor	00492
Voom	00869
Zenith	00856, 01856

## 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.

#### **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 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>	<b>RC6 Key Code</b>
Power	0Fh
DVD	----
RCV	----
FB3	----
TV	----
FB1	----
FB2	----
CBL	----
FB4	----
Music	2Ch
Radio	2Ah
Movies	26h
Home	34h
Rewind/ Backspace	20h
Play	21h
Fast Forward/ Space	22h
Skip Reverse	29h
Pause	25h
Skip Forward	28h
Record	23h
Stop	24h
Guide	14h
Exit/Toggle	15h
Up	16h
Down	17h
Left	18h
Right	19h
OK	1Ah
Info	1Bh
Menu/ View	1Ch
Volume Up	0Ah

Volume Down	0Bh
Last/ Options	13h
Mute	0Ch
Channel Up	0Dh
Channel Down	0Eh
Digit 1/ (./?)	01h
Digit 2/ (ABC)	02h
Digit 3/ (DEF)	03h
Digit 4/ (GHI)	04h
Digit 5/ (JKL)	05h
Digit 6/ (MNO)	06h
Digit 7/ (PQRS)	07h
Digit 8/ (TUV)	08h
Digit 9/ (WXYZ)	09h
Digit 0/ (@-*#)	00h
Input/Setup	12h
Enter	10h
Mode	11h
Prev	32h
Next	2Bh
Macro	31h
RPT	33h
Add	2Dh
Play	2Eh
Rand	2Fh

**Discrete RC6 Mode 6A Key Codes:**

<i>Discrete Function</i>	<b>RC6 Key Code</b>
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
Jukebox Mode On	4Fh
Jukebox Mode Off	50h
Jukebox Play Once	51h
Jukebox Play Repeat	52h
Jukebox Randomize	53h
Jukebox Clear	54h
View Hierarchy	55h