

RSX 1058

1 Byte waveform format

Baud Rate	Parity	Valid data bits	Stop bit value	Handshaking	Data type
38400	n	8	1	none	string

1. RSX1058 -> PC

Display data

Start	Count	ID	Type	Data						Chk
0xfe	0x17	0xc8	0x20	char1	...	char13	flag1	...	flag8	xx

char1~13
ASCII Characters

flag1:

bit7	zone 2
bit6	char7_dot
bit5	char6_dot
bit4	char5_dot
bit3	char4_dot
bit2	char3_dot
bit1	char2_dot
bit0	char1_dot

flag2:

bit7	zone 3
bit6	char8_colon
bit5	char13_dot
bit4	char12_dot
bit3	char11_dot
bit2	char10_dot
bit1	char9_dot
bit0	char8_dot

flag3:

bit7	Optical
bit6	Coaxial
bit5	1
bit4	2
bit3	3
bit2	4
bit1	Multi
bit0	Tapem

flag4:

bit7	RBDS
bit6	RDS
bit5	RT
bit4	TP
bit3	TA
bit2	PTY
bit1	Stereo (Tuner)
bit0	Tuned

flag5:

bit7	Dolby Digital
bit6	Dolby Pro Logic
bit5	Dolby Pro Logic II
bit4	Dolby 3 Stereo
bit3	HDCD
bit2	DSP
bit1	Dynamic Range
bit0	Zone

flag6:

bit7	Preset
bit6	Memory
bit5	Auto
bit4	OSD
bit3	Stby_LED
bit2	zone 4
bit1	Disp Mode0
bit0	Disp Mode1

flag7:

bit7	MPEG
bit6	dts
bit5	dts ES
bit4	THX
bit3	Sur
bit2	EX
bit1	SBL
bit0	SBR

flag8:

bit7	FL
bit6	C
bit5	FR
bit4	SL
bit3	SR
bit2	LFE
bit1	S
bit0	CB

	Normal	FL off
display mode1	0	1
display mode0	0	0

*** New feedback data added with Main Software V1.2.0

2. PC -> RSX1058

Start	Count	ID	Type	Key	Chk
0xfe	0x03	0xc8	0x10	xx	xx

key:		key:		key:		key:		key:	
0x00	RMC Vol+	0x10	Contour LF-	0x20	Tune / Preset	0x30	7	0x40	
0x01	RMC Vol-	0x11	Stereo	0x21	Preset Scan	0x31	8	0x41	
0x02	CD	0x12	3 Stereo	0x22	Surround+	0x32	9	0x42	
0x03	Tuner	0x13	Pro Logic	0x23	Zone	0x33	0	0x43	
0x04	Tape	0x14	DSP	0x24	Band	0x34		0x44	RDS Display
0x05	Video1	0x15	5.1CH[Multi Input]	0x25	Freq. Direct	0x35		0x45	PTY
0x06	Video2	0x16	Dynamic	0x26	Mono	0x36		0x46	TP
0x07	Video3	0x17	Rec	0x27	Memory / Enter	0x37		0x47	TA
0x08	Video4	0x18	OSD Menu	0x28	Tuning+	0x38		0x48	
0x09	Video5	0x19	OSD Enter	0x29	Tuning-	0x39		0x49	
0x0a	Power	0x1a	OSD Right(+)	0x2a	1	0x3a		0x4a	Power Off
0x0b	Vol+	0x1b	OSD Left(-)	0x2b	2	0x3b		0x4b	Power On
0x0c	Vol-	0x1c	OSD Up/Trim Sel	0x2c	3	0x3c		0x4c	C
0x0d	Contour HF+	0x1d	OSD Down/Dynamic	0x2d	4	0x3d		0x4d	S
0x0e	Contour HF-	0x1e	Mute	0x2e	5	0x3e		0x4e	R
0x0f	Contour LF+	0x1f	Digital In Select	0x2f	6	0x3f		0x4f	Filter (EQ)

key:		key:		key:		key:	
0x50		0x60	Neo:6 Music	0x70	Preset Down		
0x51		0x61	Neo:6 Cinema	0x71	Power All Zones Off		
0x52	Display On/Off	0x62	PLII Music Panorama on/off toggle	0x72	Frequency Up		
0x53	PLII / 3 Stereo	0x63	PLII Music Dimension_up [0~6]	0x73	Frequency Down		
0x54	dts Neo:6	0x64	PLII Music Dimension_down [0~6]	0x74	PLII Game		
0x55	FM	0x65	PLII Music CenterWidth_up [0~7]	0x75	Output Resolution		
0x56	AM	0x66	PLII Music CenterWidth_down [0~7]	0x76			
0x57	Music 1	0x67	Tone	0x77			
0x58	Music 2	0x68	DD EX / XS on/off	0x78	HDMI Amp Mode*		
0x59	Music 3	0x69	Tuning select	0x79	HDMI TV Mode*		
0x5a	Music 4	0x6a	Preset select	0x7a			
0x5b	5 Ch Stereo	0x6b	Source	0x7b	HDMI Bypass Off*		
0x5c	7 Ch Stereo	0x6c	Mute On	0x7c	HDMI Bypass On*		
0x5d	PLII Cinema	0x6d	Mute Off	0x7d			
0x5e	PLII Music	0x6e	Party Mode Toggle	0x7e			
0x5f	Dolby Pro Logic	0x6f	Preset Up	0x7f	NULL key		
				0xff	Display Refresh		

* Additional commands added on software V1.1.8

3. PC -> RSX1058 (Direct Select Main Zone)

Start	Count	ID	Type	Key	Chk
0xfe	0x03	0xc8	0x14	xx	xx

key:		key:	
0x00	RMC Vol+	0x1e	Mute
0x01	RMC Vol-		
0x02	CD	0x6c	Mute On
0x03	Tuner	0x6d	Mute Off
0x04	Tape		
0x05	Video1		
0x06	Video2		
0x07	Video3		
0x08	Video4		
0x09	Video5		
0x0a	Power		

4. PC -> RSX1058 (Direct Select Record Source)

Start	Count	ID	Type	Key	Chk
0xfe	0x03	0xc8	0x15	xx	xx

key:		key:	
0x02	CD	0x6b	Source
0x03	Tuner		
0x04	Tape		
0x05	Video1		
0x06	Video2		
0x07	Video3		
0x08	Video4		
0x09	Video5		

5. PC -> RSX1058 (Direct Select Zone 2)

Start	Count	ID	Type	Key	Chk
0xfe	0x03	0xc8	0x16	xx	xx

key:		key:		key:		key:	
0x00	RMC Vol+	0x20	Tune/Preset	0x2a	1	0x4a	Zone Power Off
0x01	RMC Vol-	0x21	Preset Scan	0x2b	2	0x4b	Zone Power On
0x02	CD	0x22		0x2c	3	0x55	FM
0x03	Tuner	0x23		0x2d	4	0x56	AM
0x04	Tape	0x24	Band	0x2e	5	0x69	Tune
0x05	Video1	0x25		0x2f	6	0x6a	Preset
0x06	Video2	0x26	Mono	0x30	7	0x6b	Source
0x07	Video3	0x27		0x31	8	0x6c	Mute On
0x08	Video4	0x28	Tune+	0x32	9	0x6d	Mute Off
0x09	Video5	0x29	Tune-	0x33	0		
0x0a	Zone Power					0x1e	Mute
						0x6e	Party Mode
						0x6f	Preset Up
						0x70	Preset Down
						0x71	All Zones Pwr Off
						0x72	Frequency Up
						0x73	Frequency Down
						0x74	
						0x75	
						0x76	

6. PC -> RSX1058 (Direct Select Zone 3)

Start	Count	ID	Type	Key	Chk
0xfe	0x03	0xc8	0x17	xx	xx

key:		key:		key:		key:		key:	
0x00	RMC Vol+	0x20	Tune/Preset	0x2a	1	0x4a	Zone Power Off	0x6e	Party Mode
0x01	RMC Vol-	0x21	Preset Scan	0x2b	2	0x4b	Zone Power On	0x6f	Preset Up
0x02	CD	0x22		0x2c	3	0x55	FM	0x70	Preset Down
0x03	Tuner	0x23		0x2d	4	0x56	AM	0x71	All Zones Pwr Off
0x04	Tape	0x24	Band	0x2e	5	0x69	Tune	0x72	Frequency Up
0x05	Video1	0x25		0x2f	6	0x6a	Preset	0x73	Frequency Down
0x06	Video2	0x26	Mono	0x30	7	0x6b	Source	0x74	
0x07	Video3	0x27		0x31	8	0x6c	Mute On	0x75	
0x08	Video4	0x28	Tune+	0x32	9	0x6d	Mute Off	0x76	
0x09	Video5	0x29	Tune-	0x33	0				
0x0a	Zone Power					0x1e	Mute		

7. PC -> RSX1058 (Direct Select Zone 4)

Start	Count	ID	Type	Key	Chk
0xfe	0x03	0xc8	0x18	xx	xx

key:		key:		key:		key:		key:	
0x00	RMC Vol+	0x20	Tune/Preset	0x2a	1	0x4a	Zone Power Off	0x6e	Party Mode
0x01	RMC Vol-	0x21	Preset Scan	0x2b	2	0x4b	Zone Power On	0x6f	Preset Up
0x02	CD	0x22		0x2c	3	0x55	FM	0x70	Preset Down
0x03	Tuner	0x23		0x2d	4	0x56	AM	0x71	All Zones Pwr Off
0x04	Tape	0x24	Band	0x2e	5	0x69	Tune	0x72	Frequency Up
0x05	Video1	0x25		0x2f	6	0x6a	Preset	0x73	Frequency Down
0x06	Video2	0x26	Mono	0x30	7	0x6b	Source	0x74	
0x07	Video3	0x27		0x31	8	0x6c	Mute On	0x75	
0x08	Video4	0x28	Tune+	0x32	9	0x6d	Mute Off	0x76	
0x09	Video5	0x29	Tune-	0x33	0				
0x0a	Zone Power					0x1e	Mute		

8. PC -> RSX1058 (Volume Direct)

Start	Count	ID	Type	Key	Chk
0xfe	0x03	0xc8	0x30	xx	xx

key:		key:	
0x00	volume min	0x10	volume 16
0x01	volume 1		
0x02	volume 2	0x20	volume 32
0x03	volume 3		
0x04	volume 4	0x30	volume 48
0x05	volume 5		
0x06	volume 6	0x40	volume 64
0x07	volume 7		
0x08	volume 8	0x50	volume 80
0x09	volume 9		
0x0a	volume 10	0x5f	volume 95
0x0b	volume 11	0x60	volume max
0x0c	volume 12		
0x0d	volume 13		
0x0e	volume 14		
0x0f	volume 15		

9. PC -> RSX1058 (Volume Direct Zone 2)

Start	Count	ID	Type	Key	Chk
0xfe	0x03	0xc8	0x32	xx	xx

key:		key:	
0x00	volume min	0x10	volume 16
0x01	volume 1		
0x02	volume 2	0x20	volume 32
0x03	volume 3		
0x04	volume 4	0x30	volume 48
0x05	volume 5		
0x06	volume 6	0x40	volume 64
0x07	volume 7		
0x08	volume 8	0x50	volume 80
0x09	volume 9		
0x0a	volume 10	0x59	volume 89
0x0b	volume 11	0x5a	volume max
0x0c	volume 12		
0x0d	volume 13		
0x0e	volume 14		
0x0f	volume 15		

10. PC -> RSX1058 (Volume Direct Zone 3)

Start	Count	ID	Type	Key	Chk
0xfe	0x03	0xc8	0x32	xx	xx

key:		key:	
0x00	volume min	0x10	volume 16
0x01	volume 1		
0x02	volume 2	0x20	volume 32
0x03	volume 3		
0x04	volume 4	0x30	volume 48
0x05	volume 5		
0x06	volume 6	0x40	volume 64
0x07	volume 7		
0x08	volume 8	0x50	volume 80
0x09	volume 9		
0x0a	volume 10	0x59	volume 89
0x0b	volume 11	0x5a	volume max
0x0c	volume 12		
0x0d	volume 13		
0x0e	volume 14		
0x0f	volume 15		

11. PC -> RSX1058 (Volume Direct Zone 4)

Start	Count	ID	Type	Key	Chk
0xfe	0x03	0xc8	0x32	xx	xx

key:		key:	
0x00	volume min	0x10	volume 16
0x01	volume 1		
0x02	volume 2	0x20	volume 32
0x03	volume 3		
0x04	volume 4	0x30	volume 48
0x05	volume 5		
0x06	volume 6	0x40	volume 64
0x07	volume 7		
0x08	volume 8	0x50	volume 80
0x09	volume 9		
0x0a	volume 10	0x59	volume 89
0x0b	volume 11	0x5a	volume max
0x0c	volume 12		
0x0d	volume 13		
0x0e	volume 14		
0x0f	volume 15		

RSX 1058 RS232 Controller Command List

Table: RSX 1058 Waveform format expected:

Baud Rate	Parity	Valid Data Bits	Stop Bit Value	Handshaking	Data Type
38400	N	8	1	None	String

Table: RSX 1058 expected format of a request by RS 232 controller:

Start	Count	Device ID	Type	Key	Checksum
0xFE	0x03	0xC8	0x10	0xXX	0xXX

Table 1: Type 10 Primary Command List

NOTE: The values in the table below show the exact byte sequence of all requests. The device will expect the bytes only - no spaces, no delimiter, etc. The controlling device may implement its own method to download each command sequence. The numerical values in the first column are Hexadecimal.

RSX 1058 HEX	Command	Command Description
FE 03 C8 10 02 DC	CD	Source CD
FE 03 C8 10 03 DD	Tuner	Source Tuner
FE 03 C8 10 04 DE	Tape	Source Tape
FE 03 C8 10 05 E0	Video 1	Source Video 1
FE 03 C8 10 06 E1	Video 2	Source Video 2
FE 03 C8 10 07 E2	Video 3	Source Video 3
FE 03 C8 10 08 E3	Video 4	Source Video 4
FE 03 C8 10 09 E4	Video 5	Source Video 5
FE 03 C8 10 0A E5	Power	Power Toggle
FE 03 C8 10 0B E6	Vol+	Volume Up
FE 03 C8 10 0C E7	Vol-	Volume Down
FE 03 C8 10 0D E8	Treble+	Treble Up
FE 03 C8 10 0E E9	Treble-	Treble Down
FE 03 C8 10 0F EA	Bass+	Bass Up
FE 03 C8 10 10 EB	Bass-	Bass Down
FE 03 C8 10 11 EC	Stereo	DSP Stereo
FE 03 C8 10 12 ED	3 Stereo	DSP Dolby 3 Stereo
FE 03 C8 10 13 EE	Pro Logic	DSP Pro Logic
FE 03 C8 10 14 EF	DSP	DSP Music
FE 03 C8 10 15 E0	Multi	Multi Input
FE 03 C8 10 16 F1	Dynamic	Dynamic Range
FE 03 C8 10 17 F2	Rec	Record
FE 03 C8 10 18 F3	OSD Menu	OSD Menu
FE 03 C8 10 19 F4	OSD Enter	OSD Enter
FE 03 C8 10 1A F5	OSD Right (+)	OSD Right
FE 03 C8 10 1B F6	OSD Left (-)	OSD Left
FE 03 C8 10 1C F7	OSD Up	OSD Up
FE 03 C8 10 1D F8	OSD Down / Dynamic	OSD Down / Dynamic
FE 03 C8 10 1E F9	Mute	Mute

RSX 1058 HEX	Command	Command Description
FE 03 C8 10 1F FA	Digital In Select	Digital Input Select
FE 03 C8 10 20 FB	Tune / Preset	Tune / Preset Toggle
FE 03 C8 10 21 FC	Preset Scan	Preset Scan
FE 03 C8 10 22 FD	Surround+	Next Surround Mode
FE 03 C8 10 23 FE	Zone 2 / Main	Zone
FE 03 C8 10 24 FF	Band	Tuner Band
FE 03 C8 10 25 00	Freq. Direct	Tuner Frequency Direct
FE 03 C8 10 26 01	FM Mono	Tuner FM Mono
FE 03 C8 10 27 02	Memory / Enter	Tuner Memory Enter
FE 03 C8 10 28 03	Tuning+	Tuner Up
FE 03 C8 10 29 04	Tuning-	Tuner Down
FE 03 C8 10 2A 05	1	1
FE 03 C8 10 2B 06	2	2
FE 03 C8 10 2C 07	3	3
FE 03 C8 10 2D 08	4	4
FE 03 C8 10 2E 09	5	5
FE 03 C8 10 2F 0A	6	6
FE 03 C8 10 30 0B	7	7
FE 03 C8 10 31 0C	8	8
FE 03 C8 10 32 0D	9	9
FE 03 C8 10 33 0E	0	0
FE 03 C8 10 44 1F	Display	Tuner Display
FE 03 C8 10 45 20	PTY	RDS PTY
FE 03 C8 10 46 21	TP	RDS TP
FE 03 C8 10 47 22	TA	RDS TA
FE 03 C8 10 4A 25	Power Off	Power Off
FE 03 C8 10 4B 26	Power On	Power On
FE 03 C8 10 4C 27	C	Center
FE 03 C8 10 4D 28	S	Subwoofer
FE 03 C8 10 4E 29	R	Surround
FE 03 C8 10 4F 2A	Filter (EQ)	Cinema EQ
FE 03 C8 10 52 2D	FL On / Off	FL Display Toggle
FE 03 C8 10 53 2E	Pro Logic / 3 Stereo	Dolby 3 Stereo
FE 03 C8 10 54 2F	dts Neo:6	dts Neo:6
FE 03 C8 10 55 30	FM	FM
FE 03 C8 10 56 31	AM	AM
FE 03 C8 10 57 32	Music 1	Music 1
FE 03 C8 10 58 33	Music 2	Music 2
FE 03 C8 10 59 34	Music 3	Music 3
FE 03 C8 10 5A 35	Music 4	Music 4
FE 03 C8 10 5B 36	5Ch Stereo	5Ch Stereo
FE 03 C8 10 5C 37	7Ch Stereo	7Ch Stereo
FE 03 C8 10 5D 38	PLII Cinema	PLII Cinema
FE 03 C8 10 5E 39	PLII Music	PLII Music
FE 03 C8 10 5F 3A	PLII Emulation	PLII Emulation
FE 03 C8 10 60 3B	dts Neo:6 Music	dts Neo:6 Music
FE 03 C8 10 61 3C	dts Neo:6 Cinema	dts Neo:6 Cinema
FE 03 C8 10 62 3D	PLII Panorama	PLII Panorama

RSX 1058 HEX	Command	Command Description
FE 03 C8 10 63 3E	PLII Dimension Up	PLII Dimension Up
FE 03 C8 10 64 3F	PLII Dimension Down	PLII Dimension Down
FE 03 C8 10 65 40	PLII Center Width Up	PLII Center Width Up
FE 03 C8 10 66 41	PLII Center Width Down	PLII Center Width Down
FE 03 C8 10 67 42	Shift (Treble Bass)	Tone Controls
FE 03 C8 10 68 43	DD EX On/Off	DD EX On/Off
FE 03 C8 10 69 44	Tuning Select	Discrete Tune Select
FE 03 C8 10 6A 45	Preset Select	Discrete Preset Select
FE 03 C8 10 6E 49	Party Mode	Party Mode Toggle
FE 03 C8 10 6F 4A	Preset Up	Tuner Preset Up
FE 03 C8 10 70 4B	Preset Down	Tuner Preset Down
FE 03 C8 10 71 4C	All Zones Off	Power Off All Zones
FE 03 C8 10 72 4D	Frequency Up	Tuner Frequency Up
FE 03 C8 10 73 4E	Frequency Down	Tuner Frequency Down
FE 03 C8 10 74 4F	PLII Game	Dolby PLII Game
FE 03 C8 10 75 50	Output Resolution	Output Resolution
FE 03 C8 10 78 53	HDMI Amp Mode	HDMI Amp Mode
FE 03 C8 10 79 54	HDMI TV Mode	HDMI TV Mode
FE 03 C8 10 7C 57	HDMI Bypass Off	HDMI Bypass Off
FE 03 C8 10 7D 58	HDMI Bypass On	HDMI Bypass On
FE 03 C8 10 FF DA	Display Refresh	Display Refresh

Table 1A: Commands Sent with exceptions or modifications required

RSX 1058 HEX	Command Expected	Command Description
FE 03 C8 10 22 FD	FE 03 C8 10 22 FD 00	Surround Mode
FE 03 C8 10 23 FE	FE 03 C8 10 23 FD 01	Zone2 / Main

The table above list commands with exceptions. To keep the RSX 1058 from encountering the start byte FE in any position other than as the start byte, any occurrence of the bytes FE or FD in the command string must be converted to either FD 00 (for FD) or FD 01 (for FE). This will allow the string to pass while masking any occurrence of the byte FE except as the start byte.

Table 2: Type 14 Main Zone Command List

It is recommended for multi zone applications that these commands be used for main zone control instead of the type 10 commands above to avoid any potential conflicts with remote zone control.

RSX 1058 HEX	Command	Command Description
FE 03 C8 14 00 DF	Vol+	Main Zone Volume Up
FE 03 C8 14 01 E0	Vol-	Main Zone Volume Down
FE 03 C8 14 02 E1	Main CD	Main Zone Source CD
FE 03 C8 14 03 E2	Main Tuner	Main Zone Source Tuner
FE 03 C8 14 04 E3	Main Tape	Main Zone Source Tape
FE 03 C8 14 05 E4	Main Video 1	Main Zone Source Video 1
FE 03 C8 14 06 E5	Main Video 2	Main Zone Source Video 2
FE 03 C8 14 07 E6	Main Video 3	Main Zone Source Video 3
FE 03 C8 14 08 E7	Main Video 4	Main Zone Source Video 4

RSX 1058 HEX	Command	Command Description
FE 03 C8 14 09 E8	Main Video 5	Main Zone Source Video 5
FE 03 C8 14 0A E9	Main Power	Main Zone Power Toggle
FE 03 C8 14 1E FD	Main Mute	Main Zone Mute
FE 03 C8 14 4A 29	Main Power Off	Main Zone Power Off
FE 03 C8 14 4B 2A	Main Power On	Main Zone Power On
FE 03 C8 14 6C 4B	Main Mute On	Main Zone Mute On
FE 03 C8 14 6D 4C	Main Mute Off	Main Zone Mute Off

Table 2A: Commands Sent with exceptions or modifications required

RSX 1058 HEX	Command Expected	Command Description
FE 03 C8 14 1E FD	FE 03 C8 14 1E FD 00	Main Zone Mute

The table above list commands with exceptions. To keep the RSX 1058 from encountering the start byte FE in any position other than as the start byte, any occurrence of the bytes FE or FD in the command string must be converted to either FD 00 (for FD) or FD 01 (for FE). This will allow the string to pass while masking any occurrence of the byte FE except as the start byte.

Table 3: Type 15 Record Source Command List

RSX 1058 HEX	Command	Command Description
FE 03 C8 15 02 E2	Record CD	Record Source CD
FE 03 C8 15 03 E3	Record Tuner	Record Source Tuner
FE 03 C8 15 04 E4	Record Tape	Record Source Tape
FE 03 C8 15 05 E5	Record Video 1	Record Source Video 1
FE 03 C8 15 06 E6	Record Video 2	Record Source Video 2
FE 03 C8 15 07 E7	Record Video 3	Record Source Video 3
FE 03 C8 15 08 E8	Record Video 4	Record Source Video 4
FE 03 C8 15 09 E9	Record Video 5	Record Source Video 5
FE 03 C8 15 6B 4B	Record Source	Record Source

Table 4: Type 16 Zone 2 Command List

RSX 1058 HEX	Command	Command Description
FE 03 C8 16 00 E1	Vol+	Zone 2 Volume Up
FE 03 C8 16 01 E2	Vol-	Zone 2 Volume Down
FE 03 C8 16 02 E3	Zone 2 CD	Zone 2 Source CD
FE 03 C8 16 03 E4	Zone 2 Tuner	Zone 2 Source Tuner
FE 03 C8 16 04 E5	Zone 2 Tape	Zone 2 Source Tape
FE 03 C8 16 05 E6	Zone 2 Video 1	Zone 2 Source Video 1
FE 03 C8 16 06 E7	Zone 2 Video 2	Zone 2 Source Video 2
FE 03 C8 16 07 E8	Zone 2 Video 3	Zone 2 Source Video 3
FE 03 C8 16 08 E9	Zone 2 Video 4	Zone 2 Source Video 4
FE 03 C8 16 09 EA	Zone 2 Video 5	Zone 2 Source Video 5
FE 03 C8 16 0A EB	Zone 2 Power	Zone 2 Power Toggle
FE 03 C8 16 1E FF	Zone 2 Mute	Zone 2 Mute Toggle
FE 03 C8 16 20 01	Zone 2 Tune / Preset	Zone 2 Tune / Preset Toggle
FE 03 C8 16 21 02	Zone 2 Preset Scan	Zone 2 Preset Scan
FE 03 C8 16 24 05	Zone 2 Band	Zone 2 Band

RSX 1058 HEX	Command	Command Description
FE 03 C8 16 26 07	Zone 2 FM Mono	Zone 2 FM Mono
FE 03 C8 16 28 09	Zone 2 Tune Up	Zone 2 Tune Up
FE 03 C8 16 29 0A	Zone 2 Tune Down	Zone 2 Tune Down
FE 03 C8 16 2A 0B	Zone 2 Preset 1	Zone 2 Preset 1
FE 03 C8 16 2B 0C	Zone 2 Preset 2	Zone 2 Preset 2
FE 03 C8 16 2C 0D	Zone 2 Preset 3	Zone 2 Preset 3
FE 03 C8 16 2D 0E	Zone 2 Preset 4	Zone 2 Preset 4
FE 03 C8 16 2E 0F	Zone 2 Preset 5	Zone 2 Preset 5
FE 03 C8 16 2F 10	Zone 2 Preset 6	Zone 2 Preset 6
FE 03 C8 16 30 11	Zone 2 Preset 7	Zone 2 Preset 7
FE 03 C8 16 31 12	Zone 2 Preset 8	Zone 2 Preset 8
FE 03 C8 16 32 13	Zone 2 Preset 9	Zone 2 Preset 9
FE 03 C8 16 33 14	Zone 2 Preset 0	Zone 2 Preset 0
FE 03 C8 16 4A 2B	Zone 2 Power Off	Zone 2 Power Off
FE 03 C8 16 4B 2C	Zone 2 Power On	Zone 2 Power On
FE 03 C8 16 55 36	Zone 2 FM	Zone 2 FM
FE 03 C8 16 56 37	Zone 2 AM	Zone 2 AM
FE 03 C8 16 6B 4C	Zone 2 Source	Zone 2 Source
FE 03 C8 16 6C 4D	Zone 2 Mute On	Zone 2 Mute On
FE 03 C8 16 6D 4E	Zone 2 Mute Off	Zone 2 Mute Off
FE 03 C8 16 6E 4F	Party Mode	Party Mode Toggle
FE 03 C8 16 6F 50	Zone 2 Preset Up	Zone 2 Tuner Preset Up
FE 03 C8 16 70 51	Zone 2 Preset Down	Zone 2 Tuner Preset Down
FE 03 C8 16 71 52	All Zones Off	Power Off All Zones
FE 03 C8 16 72 53	Zone 2 Frequency Up	Zone 2 Tuner Frequency Up
FE 03 C8 16 73 54	Zone 2 Frequency Down	Zone 2 Tuner Frequency Down

Table 5: Type 17 Zone 3 Command List

RSX 1058 HEX	Command	Command Description
FE 03 C8 17 00 E2	Vol+	Zone 3 Volume Up
FE 03 C8 17 01 E3	Vol-	Zone 3 Volume Down
FE 03 C8 17 02 E4	Zone 3 CD	Zone 3 Source CD
FE 03 C8 17 03 E5	Zone 3 Tuner	Zone 3 Source Tuner
FE 03 C8 17 04 E6	Zone 3 Tape	Zone 3 Source Tape
FE 03 C8 17 05 E7	Zone 3 Video 1	Zone 3 Source Video 1
FE 03 C8 17 06 E8	Zone 3 Video 2	Zone 3 Source Video 2
FE 03 C8 17 07 E9	Zone 3 Video 3	Zone 3 Source Video 3
FE 03 C8 17 08 EA	Zone 3 Video 4	Zone 3 Source Video 4
FE 03 C8 17 09 EB	Zone 3 Video 5	Zone 3 Source Video 5
FE 03 C8 17 0A EC	Zone 3 Power	Zone 3 Power Toggle
FE 03 C8 17 1E 00	Zone 3 Mute	Zone 3 Mute Toggle
FE 03 C8 17 20 02	Zone 3 Tune / Preset	Zone 3 Tune / Preset Toggle
FE 03 C8 17 21 03	Zone 3 Preset Scan	Zone 3 Preset Scan
FE 03 C8 17 24 06	Zone 3 Band	Zone 3 Band
FE 03 C8 17 26 08	Zone 3 FM Mono	Zone 3 FM Mono
FE 03 C8 17 28 0A	Zone 3 Tune Up	Zone 3 Tune Up
FE 03 C8 17 29 0B	Zone 3 Tune Down	Zone 3 Tune Down

RSX 1058 HEX	Command	Command Description
FE 03 C8 17 2A 0C	Zone 3 Preset 1	Zone 3 Preset 1
FE 03 C8 17 2B 0D	Zone 3 Preset 2	Zone 3 Preset 2
FE 03 C8 17 2C 0E	Zone 3 Preset 3	Zone 3 Preset 3
FE 03 C8 17 2D 0F	Zone 3 Preset 4	Zone 3 Preset 4
FE 03 C8 17 2E 10	Zone 3 Preset 5	Zone 3 Preset 5
FE 03 C8 17 2F 11	Zone 3 Preset 6	Zone 3 Preset 6
FE 03 C8 17 30 12	Zone 3 Preset 7	Zone 3 Preset 7
FE 03 C8 17 31 13	Zone 3 Preset 8	Zone 3 Preset 8
FE 03 C8 17 32 14	Zone 3 Preset 9	Zone 3 Preset 9
FE 03 C8 17 33 15	Zone 3 Preset 0	Zone 3 Preset 0
FE 03 C8 17 4A 2C	Zone 3 Power Off	Zone 3 Power Off
FE 03 C8 17 4B 2D	Zone 3 Power On	Zone 3 Power On
FE 03 C8 17 55 37	Zone 3 FM	Zone 3 FM
FE 03 C8 17 56 38	Zone 3 AM	Zone 3 AM
FE 03 C8 17 6B 4D	Zone 3 Source	Zone 3 Source
FE 03 C8 17 6C 4E	Zone 3 Mute On	Zone 3 Mute On
FE 03 C8 17 6D 4F	Zone 3 Mute Off	Zone 3 Mute Off
FE 03 C8 17 6E 50	Party Mode	Party Mode Toggle
FE 03 C8 17 6F 51	Zone 3 Preset Up	Zone 3 Tuner Preset Up
FE 03 C8 17 70 52	Zone 3 Preset Down	Zone 3 Tuner Preset Down
FE 03 C8 17 71 53	All Zones Off	Power Off All Zones
FE 03 C8 17 72 54	Zone 3 Frequency Up	Zone 3 Tuner Frequency Up
FE 03 C8 17 73 55	Zone 3 Frequency Down	Zone 3 Tuner Frequency Down

Table 6: Type 18 Zone 4 Command List

RSX 1058 HEX	Command	Command Description
FE 03 C8 18 00 E3	Vol+	Zone 4 Volume Up
FE 03 C8 18 01 E4	Vol-	Zone 4 Volume Down
FE 03 C8 18 02 E5	Zone 4 CD	Zone 4 Source CD
FE 03 C8 18 03 E6	Zone 4 Tuner	Zone 4 Source Tuner
FE 03 C8 18 04 E7	Zone 4 Tape	Zone 4 Source Tape
FE 03 C8 18 05 E8	Zone 4 Video 1	Zone 4 Source Video 1
FE 03 C8 18 06 E9	Zone 4 Video 2	Zone 4 Source Video 2
FE 03 C8 18 07 EA	Zone 4 Video 3	Zone 4 Source Video 3
FE 03 C8 18 08 EB	Zone 4 Video 4	Zone 4 Source Video 4
FE 03 C8 18 09 EC	Zone 4 Video 5	Zone 4 Source Video 5
FE 03 C8 18 0A ED	Zone 4 Power	Zone 4 Power Toggle
FE 03 C8 18 1E 01	Zone 4 Mute	Zone 4 Mute Toggle
FE 03 C8 18 20 03	Zone 4 Tune / Preset	Zone 4 Tune / Preset Toggle
FE 03 C8 18 21 04	Zone 4 Preset Scan	Zone 4 Preset Scan
FE 03 C8 18 24 07	Zone 4 Band	Zone 4 Band
FE 03 C8 18 26 09	Zone 4 FM Mono	Zone 4 FM Mono
FE 03 C8 18 28 0B	Zone 4 Tune Up	Zone 4 Tune Up
FE 03 C8 18 29 0C	Zone 4 Tune Down	Zone 4 Tune Down
FE 03 C8 18 2A 0D	Zone 4 Preset 1	Zone 4 Preset 1
FE 03 C8 18 2B 0E	Zone 4 Preset 2	Zone 4 Preset 2
FE 03 C8 18 2C 0F	Zone 4 Preset 3	Zone 4 Preset 3

RSX 1058 HEX	Command	Command Description
FE 03 C8 18 2D 10	Zone 4 Preset 4	Zone 4 Preset 4
FE 03 C8 18 2E 11	Zone 4 Preset 5	Zone 4 Preset 5
FE 03 C8 18 2F 12	Zone 4 Preset 6	Zone 4 Preset 6
FE 03 C8 18 30 13	Zone 4 Preset 7	Zone 4 Preset 7
FE 03 C8 18 31 14	Zone 4 Preset 8	Zone 4 Preset 8
FE 03 C8 18 32 15	Zone 4 Preset 9	Zone 4 Preset 9
FE 03 C8 18 33 16	Zone 4 Preset 0	Zone 4 Preset 0
FE 03 C8 18 4A 2D	Zone 4 Power Off	Zone 4 Power Off
FE 03 C8 18 4B 2E	Zone 4 Power On	Zone 4 Power On
FE 03 C8 18 55 38	Zone 4 FM	Zone 4 FM
FE 03 C8 18 56 39	Zone 4 AM	Zone 4 AM
FE 03 C8 18 6B 4E	Zone 4 Source	Zone 4 Source
FE 03 C8 18 6C 4F	Zone 4 Mute On	Zone 4 Mute On
FE 03 C8 18 6D 50	Zone 4 Mute Off	Zone 4 Mute Off
FE 03 C8 18 6E 51	Party Mode	Party Mode Toggle
FE 03 C8 18 6F 52	Zone 4 Preset Up	Zone 4 Tuner Preset Up
FE 03 C8 18 70 53	Zone 4 Preset Down	Zone 4 Tuner Preset Down
FE 03 C8 18 71 54	All Zones Off	Power Off All Zones
FE 03 C8 18 72 55	Zone 4 Frequency Up	Zone 4 Tuner Frequency Up
FE 03 C8 18 73 56	Zone 4 Frequency Down	Zone 4 Tuner Frequency Down

Table 7: Type 30 Volume Direct Command List

RSX 1058 HEX	Command	Command Description
FE 03 C8 30 00 FB	Volume Min	Volume Min
FE 03 C8 30 01 FC	Volume 1	Volume 1
FE 03 C8 30 02 FD	Volume 2	Volume 2
FE 03 C8 30 03 FE	Volume 3	Volume 3
FE 03 C8 30 04 FF	Volume 4	Volume 4
FE 03 C8 30 05 00	Volume 5	Volume 5
FE 03 C8 30 06 01	Volume 6	Volume 6
FE 03 C8 30 07 02	Volume 7	Volume 7
FE 03 C8 30 08 03	Volume 8	Volume 8
FE 03 C8 30 09 04	Volume 9	Volume 9
FE 03 C8 30 0A 05	Volume 10	Volume 10
FE 03 C8 30 0B 06	Volume 11	Volume 11
FE 03 C8 30 0C 07	Volume 12	Volume 12
FE 03 C8 30 0D 08	Volume 13	Volume 13
FE 03 C8 30 0E 09	Volume 14	Volume 14
FE 03 C8 30 0F 0A	Volume 15	Volume 15
FE 03 C8 30 10 0B	Volume 16	Volume 16
FE 03 C8 30 20 1B	Volume 32	Volume 32
FE 03 C8 30 30 2B	Volume 48	Volume 48
FE 03 C8 30 40 3B	Volume 64	Volume 64
FE 03 C8 30 50 4B	Volume 80	Volume 80
FE 03 C8 30 5F 5A	Volume 95	Volume 95
FE 03 C8 30 60 5B	Volume Max	Volume Max

Table 7A: Commands Sent with exceptions or modifications required

RSX 1058 HEX	Command Expected	Command Description
FE 03 C8 30 02 FD	FE 03 C8 30 02 FD 00	Volume 2
FE 03 C8 30 03 FE	FE 03 C8 30 03 FD 01	Volume 3

The table above list commands with exceptions. To keep the RSX 1058 from encountering the start byte FE in any position other than as the start byte, any occurrence of the bytes FE or FD in the command string must be converted to either FD 00 (for FD) or FD 01 (for FE). This will allow the string to pass while masking any occurrence of the byte FE except as the start byte.

Table 8: Type 32 Zone 2 Volume Direct Command List

RSX 1058 HEX	Command	Command Description
FE 03 C8 32 00 FD	Zone 2 Volume Min	Zone 2 Volume Min
FE 03 C8 32 01 FE	Zone 2 Volume 1	Zone 2 Volume 1
FE 03 C8 32 02 FF	Zone 2 Volume 2	Zone 2 Volume 2
FE 03 C8 32 03 00	Zone 2 Volume 3	Zone 2 Volume 3
FE 03 C8 32 04 01	Zone 2 Volume 4	Zone 2 Volume 4
FE 03 C8 32 05 02	Zone 2 Volume 5	Zone 2 Volume 5
FE 03 C8 32 06 03	Zone 2 Volume 6	Zone 2 Volume 6
FE 03 C8 32 07 04	Zone 2 Volume 7	Zone 2 Volume 7
FE 03 C8 32 08 05	Zone 2 Volume 8	Zone 2 Volume 8
FE 03 C8 32 09 06	Zone 2 Volume 9	Zone 2 Volume 9
FE 03 C8 32 0A 07	Zone 2 Volume 10	Zone 2 Volume 10
FE 03 C8 32 0B 08	Zone 2 Volume 11	Zone 2 Volume 11
FE 03 C8 32 0C 09	Zone 2 Volume 12	Zone 2 Volume 12
FE 03 C8 32 0D 0A	Zone 2 Volume 13	Zone 2 Volume 13
FE 03 C8 32 0E 0B	Zone 2 Volume 14	Zone 2 Volume 14
FE 03 C8 32 0F 0C	Zone 2 Volume 15	Zone 2 Volume 15
FE 03 C8 32 10 0D	Zone 2 Volume 16	Zone 2 Volume 16
FE 03 C8 32 20 1D	Zone 2 Volume 32	Zone 2 Volume 32
FE 03 C8 32 30 2D	Zone 2 Volume 48	Zone 2 Volume 48
FE 03 C8 32 40 3D	Zone 2 Volume 64	Zone 2 Volume 64
FE 03 C8 32 50 4D	Zone 2 Volume 80	Zone 2 Volume 80
FE 03 C8 32 5F 56	Zone 2 Volume 95	Zone 2 Volume 95
FE 03 C8 32 60 57	Zone 2 Volume Max	Zone 2 Volume Max

Table 8A: Commands Sent with exceptions or modifications required

RSX 1058 HEX	Command Expected	Command Description
FE 03 C8 32 00 FD	FE 03 C8 32 01 FD 00	Zone 2 Volume MIN
FE 03 C8 32 01 FE	FE 03 C8 32 02 FD 01	Zone 2 Volume 1

The table above list commands with exceptions. To keep the RSX 1058 from encountering the start byte FE in any position other than as the start byte, any occurrence of the bytes FE or FD in the command string must be converted to either FD 00 (for FD) or FD 01 (for FE). This will allow the string to pass while masking any occurrence of the byte FE except as the start byte.

Table 9: Type 33 Zone 3 Volume Direct Command List

RSX 1058 HEX	Command	Command Description
FE 03 C8 33 00 FE	Zone 3 Volume Min	Zone 3 Volume Min
FE 03 C8 33 01 FF	Zone 3 Volume 1	Zone 3 Volume 1
FE 03 C8 33 02 00	Zone 3 Volume 2	Zone 3 Volume 2
FE 03 C8 33 03 01	Zone 3 Volume 3	Zone 3 Volume 3
FE 03 C8 33 04 02	Zone 3 Volume 4	Zone 3 Volume 4
FE 03 C8 33 05 03	Zone 3 Volume 5	Zone 3 Volume 5
FE 03 C8 33 06 04	Zone 3 Volume 6	Zone 3 Volume 6
FE 03 C8 33 07 05	Zone 3 Volume 7	Zone 3 Volume 7
FE 03 C8 33 08 06	Zone 3 Volume 8	Zone 3 Volume 8
FE 03 C8 33 09 07	Zone 3 Volume 9	Zone 3 Volume 9
FE 03 C8 33 0A 08	Zone 3 Volume 10	Zone 3 Volume 10
FE 03 C8 33 0B 09	Zone 3 Volume 11	Zone 3 Volume 11
FE 03 C8 33 0C 0A	Zone 3 Volume 12	Zone 3 Volume 12
FE 03 C8 33 0D 0B	Zone 3 Volume 13	Zone 3 Volume 13
FE 03 C8 33 0E 0C	Zone 3 Volume 14	Zone 3 Volume 14
FE 03 C8 33 0F 0D	Zone 3 Volume 15	Zone 3 Volume 15
FE 03 C8 33 10 0E	Zone 3 Volume 16	Zone 3 Volume 16
FE 03 C8 33 20 1E	Zone 3 Volume 32	Zone 3 Volume 32
FE 03 C8 33 30 2E	Zone 3 Volume 48	Zone 3 Volume 48
FE 03 C8 33 40 3E	Zone 3 Volume 64	Zone 3 Volume 64
FE 03 C8 33 50 4E	Zone 3 Volume 80	Zone 3 Volume 80
FE 03 C8 33 5F 57	Zone 3 Volume 95	Zone 3 Volume 95
FE 03 C8 33 60 58	Zone 3 Volume Max	Zone 3 Volume Max

Table 9A: Commands Sent with exceptions or modifications required

RSX 1058 HEX	Command Expected	Command Description
FE 03 C8 33 00 FE	FE 03 C8 33 01 FD 01	Zone 3 Volume MIN

The table above list commands with exceptions. To keep the RSX 1058 from encountering the start byte FE in any position other than as the start byte, any occurrence of the bytes FE or FD in the command string must be converted to either FD 00 (for FD) or FD 01 (for FE). This will allow the string to pass while masking any occurrence of the byte FE except as the start byte.

Table 10: Type 34 Zone 4 Volume Direct Command List

RSX 1058 HEX	Command	Command Description
FE 03 C8 34 00 FF	Zone 4 Volume Min	Zone 4 Volume Min
FE 03 C8 34 01 00	Zone 4 Volume 1	Zone 4 Volume 1
FE 03 C8 34 02 01	Zone 4 Volume 2	Zone 4 Volume 2
FE 03 C8 34 03 02	Zone 4 Volume 3	Zone 4 Volume 3
FE 03 C8 34 04 03	Zone 4 Volume 4	Zone 4 Volume 4
FE 03 C8 34 05 04	Zone 4 Volume 5	Zone 4 Volume 5
FE 03 C8 34 06 05	Zone 4 Volume 6	Zone 4 Volume 6
FE 03 C8 34 07 06	Zone 4 Volume 7	Zone 4 Volume 7
FE 03 C8 34 08 07	Zone 4 Volume 8	Zone 4 Volume 8
FE 03 C8 34 09 08	Zone 4 Volume 9	Zone 4 Volume 9
FE 03 C8 34 0A 09	Zone 4 Volume 10	Zone 4 Volume 10
FE 03 C8 34 0B 0A	Zone 4 Volume 11	Zone 4 Volume 11
FE 03 C8 34 0C 0B	Zone 4 Volume 12	Zone 4 Volume 12
FE 03 C8 34 0D 0C	Zone 4 Volume 13	Zone 4 Volume 13
FE 03 C8 34 0E 0D	Zone 4 Volume 14	Zone 4 Volume 14
FE 03 C8 34 0F 0E	Zone 4 Volume 15	Zone 4 Volume 15
FE 03 C8 34 10 0F	Zone 4 Volume 16	Zone 4 Volume 16
FE 03 C8 34 20 1F	Zone 4 Volume 32	Zone 4 Volume 32
FE 03 C8 34 30 2F	Zone 4 Volume 48	Zone 4 Volume 48
FE 03 C8 34 40 3F	Zone 4 Volume 64	Zone 4 Volume 64
FE 03 C8 34 50 4F	Zone 4 Volume 80	Zone 4 Volume 80