



S-1200/ 1200U RS-232 & RC-5 Control Parameters

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RS-232 Code Set

1. Preparing for RS-232 Connectivity

The S-1200/ 1200U can be controlled remotely via an RS-232 connection. All of the features and functions of the unit can be accessed via RS-232 command strings.

NOTE: The S-1200/ 1200U can only recognize the “1pwrz” command while in stand-by mode. This insures that the unit is energized and ready to accept command strings. Once the unit is active, then commands can be sent. Feedback can be received when the unit is in stand-by mode.

- A. The S-1200/ 1200U and All Krell components require a straight non-nulling RS-232 cable.

2. Settings

The RS-232 protocol settings for status and control are as follows:

9600 Baud, 8 Data Bits, 1 Stop Bit, No Parity

3. DB-9 Pin-out

- A. Data Carrier Detect
- B. Received Data
- C. Transmitted Data
- D. Data Terminal Ready
- E. Signal Ground
- F. Data Set Ready
- G. Request To Send
- H. Clear To Send
- I. Ring Indicator

Notes

- A. The decode preferences are dependant on the source data, not all formats are available to every input stream.

S-1200/ 1200U RS-232 CONT...

COMMAND	RS-232 COMMAND		
Menu Commands		Back speaker trim (000 - 020, sets -10 to +10 dB)	XXXBVLZ
Up	UPZ	Subwoofer trim (000 - 020, sets -10 to +10 dB)	XXXSVLZ
Down	DWNZ	Current Zone Balance Select (then use UPZ and DWNZ)	IBALZ
Left	LFTZ	Balance (000 - 026, sets right off, left +6, through right +6, left off 1/2 dB steps)	XXBALZ
Right	RGTZ	Mute Current Zone	MUTZ
Menu	MENZ	Mute Main Zone	MUTMZ
Enter	ENTZ	Night Compression	NTCZ
Previous	PRVZ	Normal Compression	NMCZ
		Max Compression	MXCZ
Auto-Status Commands		Generic Zone Direct Select Commands (works on current zone)	
Disable Auto Status	ASTDZ	7.1 Input select	AMCZ
Enable Auto Status	ASTEZ	Analog Audio Input-1	AS1Z
Get Status	STAZ	Analog Audio Input-2	AS2Z
		Analog Audio Input-3	AS3Z
Device Select Commands		Analog Audio Input-4	AS4Z
Dvd Device Select	DVDZ	Analog Audio Input-5	AS5Z
Cable Device Select	LDZ	Analog Audio Input-6	AS6Z
Satellite Device Select	SATZ	Analog Audio Input-7	AS7Z
DVR Device Select	VCRZ	Analog Balanced Input	AB1Z
Blu-Ray Device Select	TVZ	Analog Tape Select	ATPAZ
CD Device Select	CDZ	Analog VCR Select	AVCAZ
Tuner Device Select	TUNZ	Coax-1 Digital Audio Input Select	CO1Z
AUX Device Select	AU1Z	Coax-2 Digital Audio Input Select	CO2Z
Game Device Select	AU2Z	Coax-3 Digital Audio Input Select	CO3Z
Tape/ VCR Monitor Select	TPZ	Coax-4 Digital Audio Input Select	CO4Z
		Optical-1 Digital Audio Input Select	OPT1Z
Level Commands		Optical-2 Digital Audio Input Select	OPT2Z
Up	UPZ	Optical-3 Digital Audio Input Select	OPT3Z
Down	DWNZ	Optical-4 Digital Audio Input Select	OPT4Z
Main Speaker Volume (000 - 152)	XXXMVLZ		
Remote Zone Speaker Volume (000 - 152)	XXXRVLZ		
Center Trim Select (then use UPZ and DWNZ) (must be on main zone)	ICVLZ		
Surround Trim Select (then use UPZ and DWNZ) (Send Twice for Back Trim Select)(must be on main zone)	IRVLZ		
Sub Trim Select (then use UPZ and DWNZ)(must be on main zone)	ISUBZ		
Center speaker trim (000 - 020, sets -10 to +10 dB)	XXXCVLZ		
Surround speaker trim (000 - 020, sets -10 to +10 dB)	XXXSRLZ		

Video Direct Select Commands (works on selected zone)		Power Commands	
Select Main Zone for Video Direct Select	DIMZ	Power On	1PWRZ
HDMI video-1	HM1Z	Power Off	0PWRZ
HDMI video-2	HM2Z		
HDMI video-3	HM3Z	Room EQ Commands	
HDMI video-4	HM4Z	Room EQ Select (xxx = 000-004) (000 = off) (001-004 selects memory 1-4)	xxxEQMZ
Component video-1	CM1Z	Trigger Commands	
Component video-2	CM2Z	Trigger-1 (OFF)	0TR1Z
Component video-3	CM3Z	Trigger-1 (ON)	1TR1Z
Composite video-1	CS1Z	Trigger-2 (OFF)	0TR2Z
Composite video-2	CS2Z	Trigger-2 (ON)	1TR2Z
Composite video-3	CS3Z	Trigger-3 (OFF)	0TR3Z
S video-1	SV1Z	Trigger-3 (ON)	1TR3Z
S video-2	SV2Z	Trigger-4 (OFF)	0TR4Z
S video-3	SV3Z	Trigger-4 (ON)	1TR4Z
		Decode Mode Select Commands	
Direct Select Commands		Mode 1	MS1Z
Main Analog Audio Input-1	AS1MZ	Mode 2	MS2Z
Main Analog Audio Input-2	AS2MZ	Prologic	MVZ
Main Analog Audio Input-3	AS3MZ	Stereo	STZ
Main Analog Audio Input-4	AS4MZ	Preamp	PAZ
Main Analog Audio Input-5	AS5MZ	Numeric Mode Select Commands	
Main Analog Audio Input-6	AS6MZ	Mode Set (000 - 029, sets mode) (see below)	XXXMODZ
Main Analog Audio Input-7	AS7MZ	000 Dolby Digital 5.1	
Main Analog Balanced Input	AB1MZ	001 AC3 2/0 Stereo Mode (Pass Mode)	
Main Analog Tape Select	TPAMZ	002 AC3 2/0 Pro-Logic II Movie Mode	
Main Analog VCR Select	VCAMZ	003 AC3 2/0 Pro-Logic II Music Mode	
Main DVR Device Select	DVRMZ	004 AC3 2/0 Pro-Logic II Matrix Mode	
Main Game Device Select	GAMMZ	005 AC3 2/0 Pro-Logic II Emulation Mode	
Main CD Device Select	CDMZ	006 AC3 2/0 Pro-Logic II Virtual	
Main DVD Device Select	DVDMZ	007 DTS 5.1 Music	
Main DVDR Device Select	VDRMZ	008 DTS 5.1 Movie	
Main Satellite Device Select	SATMZ	009 DTS 5.1 Matrix	
Main Tape Device Select	TPMZ	010 DTS 6.1 Discrete	
Main Tuner Device Select	TUNMZ	011 Stereo Mode (Pass Mode)	
Main TV Device Select	TVMZ		
Main VCR Device Select	VCRMZ		

012	Pro-Logic II Movie Mode	
013	Pro-Logic II Music Mode	
014	Pro-Logic II Matrix Mode	
015	Pro-Logic II Emulation Mode	
016	Pro-Logic II Virtual	
017	DTS Neo:6 Cinema 6 Mode	
018	DTS Neo:6 Music Mode	
019	Party Mode	
020	General Admission Mode	
021	Front Row Mode	
022	On Stage Mode	
023	Enhanced Stereo Mode	
024	Orchestra Mode	
025	Mezzanine Mode	
026	Full Range + Sub Mode	
027	Monophonic Mode	
028	Pre Amp mode	
029	2496 decode mode	

OVERVIEW

The S-1200/ 1200U is equipped with a system that can report back its operational status via the RS-232 port. The system reports its operational status by transmitting a block of status data. The block is configured as 18, 8 bit words. The first and last word always contains hexadecimal code 55 to facilitate message framing and synchronization. When the data block is sent through an RS-232 port, each 8 bit word transmitted will also have 1 stop bit associated with it.

The feedback system is only available via the RS-232 port. The Status can be activated in 2 ways. The first way is to ask for status to be sent by sending the RS-232 command "STAZ". The second way is to enable auto status by sending the RS-232 command "ASTEZ". Once this command is sent, the S-1200/ 1200U will transmit a status block whenever the status changes. Auto Status is disabled by sending the RS-232 command "ASTDZ". Auto Status remains enabled until AC power is removed or turned off.

All numeric values described in the following are decimal values unless otherwise noted. The description of the eighteen 8 bit words are as follows:

WORD 1: Start of Message

Bit	7	6	5	4	3	2	1	0
	0	1	0	1	0	1	0	1

Bit 7 – 0: Hexadecimal 55

WORD 2: General Status I

Bit	7	6	5	4	3	2	1	0
	System Mute	User Mute	Reserved	Current Zone	Input Trigger	Reserved	Reserved	Main Power

Bit 7: System Mute 1 = Internal mute is active

Bit 6: Main Mute 1 = Main mute is active

Bit 5: Reserved

Bit 4: Reserved

Bit 3: Input Trigger 1 = 12V input trigger is active

Bit 2: Reserved

Bit 1: Reserved

Bit 0: Main Power 1 = Main power is on

WORD 3: General Status II

Bit	7	6	5	4	3	2	1	0
	Menu Mode	Auto Status Enabled	PLL Locked	Trigger 4 On	Trigger 3 On	Trigger 2 On	Trigger 1 On	DSP Running

Bit 7:	Menu mode	1 = Menu mode is active
Bit 6:	Auto Status	1 = Auto Status Enabled
Bit 5:	PLL Locked	1 = PLL is locked (Valid Digital input signal detected)
Bit 4:	Trigger 4 on	1 = Trigger 4 is on
Bit 3:	Trigger 3 on	1 = Trigger 3 is on
Bit 2:	Trigger 2 on	1 = Trigger 2 is on
Bit 1:	Trigger 1 on	1 = Trigger 1 is on
Bit 0:	DSP Running	1 = DSPs are not reset

WORD 4: Current Device

Bit	7	6	5	4	3	2	1	0
	N/A	N/A	N/A	N/A	MN CD3	MN CD2	MN CD1	MN CD0

Bits 7 - 4: Reserved

Bits 3 - 0: Main Zone Current Device

Devices

0	DVD
1	CABLE
2	SAT
3	DVR
4	BLU-RAY
5	CD
6	TUNER
7	AUX
8	GAME
9	TAPE/VCR

WORD 5: Main Volume

Bit	7	6	5	4	3	2	1	0
	VOL 7	VOL 6	VOL 5	VOL 4	VOL 3	VOL 2	VOL 1	VOL 0

Bit 7 - 0: Current Main Volume setting 0 - 152

WORD 6: Zone 2 Volume

Bit	7	6	5	4	3	2	1	0
	VOL 7	VOL 6	VOL 5	VOL 4	VOL 3	VOL 2	VOL 1	VOL 0

Bit 7 - 0: Current Zone 2 Volume setting 0 - 152

WORD 7: Video Input

Bit	7	6	5	4	3	2	1	0
	VID IN 7	VID IN 6	VID IN 5	VID IN 4	VID IN 3	VID IN 2	VID IN 1	VID IN 0

Bit 7 - 0: Current Video Input

Video Inputs

- 1 S-Video 1
- 2 S-Video 2
- 3 S-Video 3
- 4 S-Video 4
- 5 Component Video 1
- 6 Component Video 2
- 7 Component Video 3
- 8 Composite Video 1
- 9 Composite Video 2
- 10 Composite Video 3
- 11 Composite Video 4
- 12 Composite Video 5
- 13 Composite Video 6
- 14 HDMI Video 1
- 15 HDMI Video 2
- 16 HDMI Video 3
- 17 HDMI Video 4

WORD 8: Main Audio Input

Bit	7	6	5	4	3	2	1	0
	MN AUD IN 7	MN AUD IN 6	MN AUD IN 5	MN AUD IN 4	MN AUD IN 3	MN AUD IN 2	MN AUD IN 1	MN AUD IN 0

Bit 7 - 0: Main Audio Input

Audio Inputs

- 1 Digital: COAX 1
- 2 Digital: COAX 2
- 3 Digital: COAX 3
- 4 Digital: COAX 4
- 5 Digital: Optical 1
- 6 Digital: Optical 2
- 7 Digital: Optical 3
- 8 Digital: Optical 4
- 9 HDMI SPDIF
- 10 HDMI AUTO
- 11 Analog: B1
- 12 Analog: S1

13	Analog: S2
14	Analog: S3
15	Analog: S4
16	Analog: S5
17	Analog: Tape
18	Analog: VCR
19	Reserved
20	Reserved
21	5.1 Input Digital
22	5.1 Input Analog Preamp

WORD 9: Reserved

Bit	7	6	5	4	3	2	1	0
	Reserved	Reserved	Reserved	Reserved	Reserved	Reserved	Reserved	Reserved

Bit 7 - 0: Reserved

Audio Inputs

11	Reserved
12	Reserved
13	Reserved
15	Reserved
15	Reserved
16	Reserved
17	Reserved
23	Reserved
24	Reserved
25	Reserved

WORD 10: Speakers / Current Audio Decode Mode

Bit	7	6	5	4	3	2	1	0
	Back Enabled	Sub Enabled	Surround Enabled	Center Enabled	Input Stream 3	Input Stream 2	Input Stream 1	Input Stream 0

Bit 7:	Back Enabled	1 = Back Speaker(s) is(are) enabled
Bit 6:	Sub Enabled	1 = Subwoofer is enabled
Bit 5:	Surround Enabled	1 = Surround Speakers are enabled
Bit 4:	Center Enabled	1 = Center Speaker is enabled
Bits 3-0	Current Input Stream Mode	

Input Stream Modes

1	PCM
2	Dolby Digital 2.0
3	Dolby Digital 5.1
4	DTS 5.1
5	24 Bit, 96KHz PCM
6	PCM Digital Input
7	PCM Analog Input
8	Dolby Digital X/Y
9	5.1 (6 Channel Discrete)
10	DTS 6.1 ES Matrix
11	DTS 6.1 ES Discrete
12	DTS 6.1 ES Matrix & Discrete
13	DTS 2496
14	AAC 2.0
15	AAC 5.1
16	AAC XY
17	AAC 1+1
18	Multi Channel Preamp
19	HDMI IIS
20	HDMI PCM2

WORD 11: Current Audio Decode Modes

Bit	7	6	5	4	3	2	1	0
	CAD 7	CAD 6	CAD 5	CAD 4	CAD 3	CAD 2	CAD 1	CAD 0

Bit 7 - 0: Current Audio Decode Modes

	Hex	Decimal	
IF Stream ID =	6	6	PCM Digital
Stereo Mode (Pass Mode)	1	1	
Pro-Logic IIX Movie Mode	2	2	
Pro-Logic IIX Music Mode	3	3	
Pro-Logic IIX Matrix Mode	4	4	
Pro-Logic IIX Emulation Mode	5	5	
Pro-Logic IIX Virtual	6	6	
Multi-Channel Input Mode	7	7	
DTS Neo:6 Cinema 6 Mode	9	9	
2496 decode mode	0A	10	
DTS Neo:6 Music Mode	0B	11	
DTS Neo:6 Cinema 6 + THX Mode	0C	12	
Party Mode	0E	14	

S-1200/ 1200U RS-232 FEEDBACK CONT...

General Admission Mode	0F	15	PCM Digital CONT...
Front Row Mode	10	16	
On Stage Mode	11	17	
Enhanced Stereo Mode	12	18	
Orchestra Mode	13	19	
Mezzanine Mode	14	20	
Full Range + Sub Mode	15	21	
Monophonic Mode	16	22	
Analog only preamp mode	17	23	
IF Stream ID =	7	7	ANALOG
Stereo Mode (Pass Mode)	1	1	
Pro-Logic IIX Movie Mode	2	2	
Pro-Logic IIX Music Mode	3	3	
Pro-Logic IIX Matrix Mode	4	4	
Pro-Logic IIX Emulation Mode	5	5	
Pro-Logic IIX Virtual	6	6	
Multi-Channel Input Mode	7	7	
DTS Neo:6 Cinema 6 Mode	9	9	
2496 decode mode	0A	10	
DTS Neo:6 Music Mode	0B	11	
DTS Neo:6 Cinema 6 + THX Mode	0C	12	
Party Mode	0E	14	
General Admission Mode	0F	15	
Front Row Mode	10	16	
On Stage Mode	11	17	
Enhanced Stereo Mode	12	18	
Orchestra Mode	13	19	
Mezzanine Mode	14	20	
Full Range + Sub Mode	15	21	
Monophonic Mode	16	22	
Analog only preamp mode	17	23	
	7	7	
IF Stream is AC320, Stream ID =	2	2	AC3 2.0
Stereo Mode (Pass Mode)	18	24	
Pro-Logic II Movie Mode	19	25	
Pro-Logic II Music Mode	1a	26	
Pro-Logic II Matrix Mode	1b	27	
Pro-Logic II Emulation Mode	1c	28	
Pro-Logic II Virt	1d	29	
IF Stream is Dolby Digital 5.1, Stream ID =	3	3	AC3
Dolby Digital 5.1	2f	47	
Dolby Digital 5.1 + PLIIX MOVIE	30	48	
Dolby Digital 5.1 + PLIIX MUSIC	b1	177	
Dolby Digital 5.1 EX	c7	199	
Dolby Digital Plus	d8	216	

Dolby Digital 1+1	41	65	AC3 CONT...
Dolby Digital 1/0	42	66	
Dolby Digital 3/0	43	67	
Dolby Digital 2/1	44	68	
Dolby Digital 3/1	45	69	
Dolby Digital 2/2	46	70	
IF Stream is DTS, Stream ID =	4	4	DTS
DTS 5.1 Music	35	53	
DTS 5.1 Movie	32	50	
DTS 5.1 MATRIX	b3	179	
DTS 5.1 DISCRETE	b7	183	
DTS 96K 24 Bit	48	72	
IF Stream is AAC 20, Stream ID =	E	14	AAC 2.0
AAC 2.0	4b	75	
IF Stream is AAC 51, Stream ID =	E	14	AAC 5.1
AAC 5.1	4f	79	
IF Stream is AAC 11, Stream ID =	11	17	AAC 1+1
AAC 1+1	4a	74	
AAC 1L1	55	85	
AAC 1R1	56	86	
IF Stream is AAC XY, Stream ID =	10	16	AAC XY
AAC 1/0	58	88	
AAC 3/0	4c	76	
AAC 3/1	4d	77	
AAC 3/2	4e	78	
AAC 7.1	50	80	
IF Stream is HDMI, Stream ID =	13	19	HDMI Auto
HDMI PCM 2 Channel	D8	216	
HDMI PCM 5.1 Channel	DD	221	
HDMI PCM 7.1 Channel	DE	222	
Dolby TrueHD 48K	D9	217	
Dolby TrueHD 96K	DA	218	
Dolby Digital Plus	DB	219	
DTS MA	DC	220	
DTS HRA	DF	223	
DTS LBR	E0	224	

IF Stream ID =	14	20	HDMI SPDIF
Stereo Mode (Pass Mode)	1	1	
Pro-Logic IIX Movie Mode	2	2	
Pro-Logic IIX Music Mode	3	3	
Pro-Logic IIX Matrix Mode	4	4	
Pro-Logic IIX Emulation Mode	5	5	
Pro-Logic IIX Virtual	6	6	
Multi-Channel Input Mode	7	7	
DTS Neo:6 Cinema 6 Mode	9	9	
2496 decode mode	0A	10	
DTS Neo:6 Music Mode	0B	11	
DTS Neo:6 Cinema 6 + THX Mode	0C	12	
Party Mode	0E	14	
General Admission Mode	0F	15	
Front Row Mode	10	16	
On Stage Mode	11	17	
Enhanced Stereo Mode	12	18	
Orchestra Mode	13	19	
Mezzanine Mode	14	20	
Full Range + Sub Mode	15	21	
Monophonic Mode	16	22	
Analog only preamp mode	17	23	

WORD 12: Main Zone Balance / Compression Mode

Bit	7	6	5	4	3	2	1	0
	Reserved	Cmode 1	Cmode 0	BAL 4	BAL 3	BAL 2	BAL 1	BAL 0

Bits 4 - 0: Balance Setting 0 – 26

Bits 5 - 6: Compression Mode

Balance Settings

Balance Settings						
0	Right Off	9	Left +2.0	18	Right +2.5	
1	Left +6		10	Left +1.5	19	Right +3.0
2	Left +5.5	11	Left +1.0	20	Right +3.5	
3	Left +5.0	12	Left +0.5	21	Right +4.0	
4	Left +4.5	13	Centered	22	Right +4.5	
5	Left +4.0	14	Right +0.5		23	Right +5.0
6	Left +3.5	15	Right +1.0		24	Right +5.5
7	Left +3.0	16	Right +1.5		25	Right +6.0
8	Left +2.5	17	Right +2.0		26	Left Off

Compression Modes

1	Max
2	Normal
3	Night

WORD 13: Room EQ/Zone 2 Balance

Bit	7	6	5	4	3	2	1	0
	Room EQ 2	Room EQ 1	Room EQ 0	BAL 4	BAL 3	BAL 2	BAL 1	BAL 0

Bit 7 - 5: Room EQ Setting

Room EQ Setting

- 0 Room EQ OFF
- 1 Room EQ Memory 1
- 2 Room EQ Memory 2
- 3 Room EQ Memory 3
- 4 Room EQ Memory 4

Bits 4 - 0: Balance Setting 0 – 26

Balance Settings

- | | | | | | |
|---|-----------|----|------------|----|------------|
| 0 | Right Off | 9 | Left +2.0 | 18 | Right +2.5 |
| 1 | Left +6 | 10 | Left +1.5 | 19 | Right +3.0 |
| 2 | Left +5.5 | 11 | Left +1.0 | 20 | Right +3.5 |
| 3 | Left +5.0 | 12 | Left +0.5 | 21 | Right +4.0 |
| 4 | Left +4.5 | 13 | Centered | 22 | Right +4.5 |
| 5 | Left +4.0 | 14 | Right +0.5 | 23 | Right +5.0 |
| 6 | Left +3.5 | 15 | Right +1.0 | 24 | Right +5.5 |
| 7 | Left +3.0 | 16 | Right +1.5 | 25 | Right +6.0 |
| 8 | Left +2.5 | 17 | Right +2.0 | 26 | Left Off |

WORD 14: Center Trim

Bit	7	6	5	4	3	2	1	0
	Reserved	Reserved	Reserved	CT 4	CT 3	CT 2	CT 1	CT 0

Bits 4 - 0: Center Trim

Trim Settings

- | | | | | | | | |
|---|--------|----|-------|----|-------|----|--------|
| 0 | -10 dB | 6 | -4 dB | 12 | +2 dB | 18 | +8 dB |
| 1 | -9 dB | 7 | -3 dB | 13 | +3 dB | 19 | +9 dB |
| 2 | -8 dB | 8 | -2 dB | 14 | +4 dB | 20 | +10 dB |
| 3 | -7 dB | 9 | -1 dB | 15 | +5 dB | | |
| 4 | -6 dB | 10 | 0 dB | 16 | +6 dB | | |
| 5 | -5 dB | 11 | +1 dB | 17 | +7 dB | | |

WORD 15: Surround Trim

Bit	7	6	5	4	3	2	1	0
	Reserved	Reserved	Reserved	RT 4	RT 3	RT 2	RT 1	RT 0

Bits 4 - 0: Surround Trim

Trim Settings

0	-10 dB	6	-4 dB	12	+2 dB	18	+8 dB
1	-9 dB	7	-3 dB	13	+3 dB	19	+9 dB
2	-8 dB	8	-2 dB	14	+4 dB	20	+10 dB
3	-7 dB	9	-1 dB	15	+5 dB		
4	-6 dB	10	0 dB	16	+6 dB		
5	-5 dB	11	+1 dB	17	+7 dB		

WORD 16: Back Trim

Bit	7	6	5	4	3	2	1	0
	Reserved	Reserved	Reserved	BT 4	BT 3	BT 2	BT 1	BT 0

Bits 4 - 0: Back Trim

Trim Settings

0	-10 dB	6	-4 dB	12	+2 dB	18	+8 dB
1	-9 dB	7	-3 dB	13	+3 dB	19	+9 dB
2	-8 dB	8	-2 dB	14	+4 dB	20	+10 dB
3	-7 dB	9	-1 dB	15	+5 dB		
4	-6 dB	10	0 dB	16	+6 dB		
5	-5 dB	11	+1 dB	17	+7 dB		

WORD 17: Sub Trim

Bit	7	6	5	4	3	2	1	0
	Reserved	Reserved	Reserved	ST 4	ST 3	ST 2	ST 1	ST 0

Bits 4 - 0: Sub Trim

Trim Settings

0	-10 dB	6	-4 dB	12	+2 dB	18	+8 dB
1	-9 dB	7	-3 dB	13	+3 dB	19	+9 dB
2	-8 dB	8	-2 dB	14	+4 dB	20	+10 dB
3	-7 dB	9	-1 dB	15	+5 dB		
4	-6 dB	10	0 dB	16	+6 dB		
5	-5 dB	11	+1 dB	17	+7 dB		

WORD 18: End of Message

Bit	7	6	5	4	3	2	1	0
	0	1	0	1	0	1	0	1

Bit 7 – 0: Hexadecimal 55

RC-5 Control

RC-5 Code Set

1. Preparing for RC-5 Connectivity

The S-1200/ 1200U can be controlled using RC-5 remote control communication protocol. All of the remote control functions as well as the majority of internal functions can be accessed via RC-5 communication. The S-1200/ 1200U is designed to receive un-modulated data only. The input does supply power(+5v) to be used with several IR receiving devices.

NOTE: When the RC-5 IR receiver port is in use, the front panel IR receiver is disabled.

2. Settings

Settings will vary for different remote devices, the table below describes code sets commonly used for popular remote control systems.

3. RC-5 Cable Pin-out

A stereo tip, ring, sleeve 1/8" mini connector is used in the following configuration:

Tip = RC-5 data, Ring = +5 V, Sleeve = GND.

COMMAND	System (Hex)	Command (Hex)	System (Dec)	Command (Dec)	RC5 Word (Hex)	CCF Codes
Sub	1C	1	28	1	3701	5000 0000 0000 0001 001C 0001
Rear	1C	2	28	2	3702	5000 0000 0000 0001 001C 0002
Back	1C	3	28	3	3703	5000 0000 0000 0001 001C 0003
Center	1C	6	28	6	3706	5000 0000 0000 0001 001C 0006
Mute	1C	7	28	7	3707	5000 0000 0000 0001 001C 0007
Down	1C	B	28	11	370B	5000 0000 0000 0001 001C 000B
Menu	1C	C	28	12	370C	5000 0000 0000 0001 001C 000C
Right	1C	D	28	13	370D	5000 0000 0000 0001 001C 000D
Enter	1C	E	28	14	370E	5000 0000 0000 0001 001C 000E
Left	1C	F	28	15	370F	5000 0000 0000 0001 001C 000F
Tape	1C	10	28	16	3710	5000 0000 0000 0001 001C 0010
Up	1C	11	28	17	3711	5000 0000 0000 0001 001C 0011
Prev	1C	12	28	18	3712	5000 0000 0000 0001 001C 0012
EQ Off	1C	14	28	20	3714	5000 0000 0000 0001 001C 0014
EQ Memory 1	1C	15	28	21	3715	5000 0000 0000 0001 001C 0015
EQ Memory 2	1C	16	28	22	3716	5000 0000 0000 0001 001C 0016
EQ Memory 3	1C	17	28	23	3717	5000 0000 0000 0001 001C 0017
EQ Memory 4	1C	18	28	24	3718	5000 0000 0000 0001 001C 0018
Multi-Channel	1C	19	28	25	3719	5000 0000 0000 0001 001C 0019
Balance	1C	1A	28	26	371A	5000 0000 0000 0001 001C 001A
B1	1C	1B	28	27	371B	5000 0000 0000 0001 001C 001B
S1	1C	1C	28	28	371C	5000 0000 0000 0001 001C 001C
S2	1C	1D	28	29	371D	5000 0000 0000 0001 001C 001D
S3	1C	1E	28	30	371E	5000 0000 0000 0001 001C 001E
S4	1C	1F	28	31	371F	5000 0000 0000 0001 001C 001F
S5	1C	20	28	32	3720	5000 0000 0000 0001 001C 0020
COAX1	1C	21	28	33	3721	5000 0000 0000 0001 001C 0021
COAX2	1C	22	28	34	3722	5000 0000 0000 0001 001C 0022
OPT1	1C	23	28	35	3723	5000 0000 0000 0001 001C 0023
OPT2	1C	24	28	36	3724	5000 0000 0000 0001 001C 0024
OPT3	1C	25	28	37	3725	5000 0000 0000 0001 001C 0025
OPT4	1C	26	28	38	3726	5000 0000 0000 0001 001C 0026
Tape On	1C	27	28	39	3727	5000 0000 0000 0001 001C 0027
Tape Off	1C	28	28	40	3728	5000 0000 0000 0001 001C 0028
S-Video1	1C	29	28	41	3729	5000 0000 0000 0001 001C 0029
S-Video2	1C	2A	28	42	372A	5000 0000 0000 0001 001C 002A
S-Video3	1C	2B	28	43	372B	5000 0000 0000 0001 001C 002B
Composite1	1C	2D	28	45	372D	5000 0000 0000 0001 001C 002D
Composite2	1C	2E	28	46	372E	5000 0000 0000 0001 001C 002E
Composite3	1C	2F	28	47	372F	5000 0000 0000 0001 001C 002F
Music1	1C	33	28	51	3733	5000 0000 0000 0001 001C 0033
Stereo	1C	35	28	53	3735	5000 0000 0000 0001 001C 0035
Main Vol Zero	1C	37	28	55	3737	5000 0000 0000 0001 001C 0037
PWR ON	1C	38	28	56	3738	5000 0000 0000 0001 001C 0038
PWR OFF	1C	39	28	57	3739	5000 0000 0000 0001 001C 0039
Mute On	1C	3A	28	58	373A	5000 0000 0000 0001 001C 003A
Mute Off	1C	3B	28	59	373B	5000 0000 0000 0001 001C 003B
Main VOL +10	1C	3C	28	60	373C	5000 0000 0000 0001 001C 003C
Main VOL -10	1C	3D	28	61	373D	5000 0000 0000 0001 001C 003D
Prologic	1C	3E	28	62	373E	5000 0000 0000 0001 001C 003E
Music2	19	0	25	0	3640	5000 0000 0000 0001 0019 0000
DVD	19	1	25	1	3641	5000 0000 0000 0001 0019 0001
CABLE	19	2	25	2	3642	5000 0000 0000 0001 0019 0002

S-1200/ 1200U RC-5 CONTROL CONT...

SAT	19	3	25	3	3643	5000 0000 0000 0001 0019 0003
DVR	19	4	25	4	3644	5000 0000 0000 0001 0019 0004
BLU-RAY	19	5	25	5	3645	5000 0000 0000 0001 0019 0005
CD	19	6	25	6	3646	5000 0000 0000 0001 0019 0006
Tuner	19	7	25	7	3647	5000 0000 0000 0001 0019 0007
AUX	19	8	25	8	3648	5000 0000 0000 0001 0019 0008
GAME	19	9	25	9	3649	5000 0000 0000 0001 0019 0009
VCR Input	19	D	25	13	364D	5000 0000 0000 0001 0019 000D
TAPE Input	19	E	25	14	364E	5000 0000 0000 0001 0019 000E
COMPONENT3	19	F	25	15	364F	5000 0000 0000 0001 0019 000F
COMPONENT1	19	10	25	16	3650	5000 0000 0000 0001 0019 0010
COMPONENT2	19	11	25	17	3651	5000 0000 0000 0001 0019 0011
COAX3	19	12	25	18	3652	5000 0000 0000 0001 0019 0012
COAX4	19	13	25	19	3653	5000 0000 0000 0001 0019 0013
TRIGGER1 On	19	16	25	22	3656	5000 0000 0000 0001 0019 0016
TRIGGER1 Off	19	17	25	23	3657	5000 0000 0000 0001 0019 0017
TRIGGER2 On	19	18	25	24	3658	5000 0000 0000 0001 0019 0018
TRIGGER2 Off	19	19	25	25	3659	5000 0000 0000 0001 0019 0019
TRIGGER3 On	19	1A	25	26	365A	5000 0000 0000 0001 0019 001A
TRIGGER3 Off	19	1B	25	27	365B	5000 0000 0000 0001 0019 001B
TRIGGER4 On	19	1C	25	28	365C	5000 0000 0000 0001 0019 001C
TRIGGER4 Off	19	1D	25	29	365D	5000 0000 0000 0001 0019 001D
Pre Amp	19	23	25	35	3663	5000 0000 0000 0001 0019 0023
SELECT MAIN Direct	19	27	25	39	3667	5000 0000 0000 0001 0019 0027
Max Dynr	19	28	25	40	3668	5000 0000 0000 0001 0019 0028
Night Dynr	19	29	25	41	3669	5000 0000 0000 0001 0019 0029
Norm Dynr	19	2A	25	42	366A	5000 0000 0000 0001 0019 002A
DIGIT 0	19	30	25	48	3670	5000 0000 0000 0001 0019 0030
DIGIT 1	19	31	25	49	3671	5000 0000 0000 0001 0019 0031
DIGIT 2	19	32	25	50	3672	5000 0000 0000 0001 0019 0032
DIGIT 3	19	33	25	51	3673	5000 0000 0000 0001 0019 0033
DIGIT 4	19	34	25	52	3674	5000 0000 0000 0001 0019 0034
DIGIT 5	19	35	25	53	3675	5000 0000 0000 0001 0019 0035
DIGIT 6	19	36	25	54	3676	5000 0000 0000 0001 0019 0036
DIGIT 7	19	37	25	55	3677	5000 0000 0000 0001 0019 0037
DIGIT 8	19	38	25	56	3678	5000 0000 0000 0001 0019 0038
DIGIT 9	19	39	25	57	3679	5000 0000 0000 0001 0019 0039
SET MODE	19	3A	25	58	367A	5000 0000 0000 0001 0019 003A
HDMI 1	19	3B	25	59	367B	5000 0000 0000 0001 0019 003B
HDMI 2	19	3C	25	60	367C	5000 0000 0000 0001 0019 003C
HDMI 3	19	3D	25	61	367D	5000 0000 0000 0001 0019 003D
Factory Test Mode	19	3E	25	62	367E	5000 0000 0000 0001 0019 003E
HDMI 4	19	3F	25	63	367F	5000 0000 0000 0001 0019 003F