



MDP 500 Preamplifier Processor

RS-232 command set

Version MDP500-1.1, 22.6.2000

Technical specification

9600bps (with an external baud rate converter – available from Myryad Systems), 8 data bits, one stop bit, no parity binary transmission, no flow control.

RS-232 baud rate converter and connectors

Baud Rate Converter: This is a small self-contained module which is fitted between the MDP 500 and the system controller, dimensions approximately 63x54x16mm. It has 25-pin “D” i/o connections. The male connector goes towards the MDP 500 and the female towards the system controller.

The RS-232 pin connections are as follows:

MDP 500 9 pin i/o (male)	Signal	Baud Rate Converter 25 pin i/o (male/female)
1	+5V	8
2	Tx out	3
3	Rx in	2
4	No connection	
5	Ground	7
6	No connection	
7	No connection	
8	No connection	
9	No connection	

Input commands

The following commands are all single bytes sent to the RS-232 port. They create various output data depending on the system status, so a comprehensive output data feedback can't be given.

RS-232 Byte	MDP 500 User Command	Description (if not MDP 500 User Command) or additional information	Internal System Command Name
6	STANDBY	Toggle function	UI_STANDBY_TOGGLE
7	MUTE	Toggle function	UI_MUTE
8	SOURCE +		UI_SOURCEPLUS
9	SOURCE -		UI_SOURCEMINUS
10	MODE -		UI_MODEMINUS
11	MODE +		UI_MODEPLUS
12	COMP		UI_COMPRESSION_TOGGLE
13	AUX 2		UI_AUDIO_IN1
14	AUX 1		UI_AUDIO_IN2
15	SAT		UI_AUDIO_IN3
16	VCR		UI_AUDIO_IN4

RS-232 Byte	MDP 500 User Command	Description (if not MDP 500 User Command) or additional information	Internal System Command Name
17	TV		UI_AUDIO_IN5
18	DVD		UI_AUDIO_IN6
19	CD		UI_AUDIO_IN7
20	TUNER		UI_AUDIO_IN8
23	TEST	Enter TEST (Noise) mode – toggle function	UI_NOISE
24	LEVEL	Enter LEVEL mode (as R/C command)	UI_LEVEL
25	DELAY	Enter DELAY mode (as R/C command)	UI_DELAY
31	TAPE MONITOR	Toggle function	UI_TAPEMON_NONSTICKY_TOGGLE
32		MUTE ON – not toggle function	UI_MUTE_ON
33		MUTE OFF – not toggle function	UI_MUTE_OFF
34		Switches to Standby – not toggle function	UI_STANDBY
35		Switches out of Standby – not toggle function	UI_WAKEUP
37		COMP ON – not toggle function	UI_COMPRESSION_ON
38		COMP OFF – not toggle function	UI_COMPRESSION_OFF
39		TAPE MON ON – not toggle function	UI_TAPEMON_OFF
41		TAPE MON OFF – not toggle function	UI_TAPEMON_NONSTICKY_ON
42		Go to MONO mode	UI_MONO
43		Go to STEREO mode	UI_STEREO
44		Go to DOLBY PRO LOGIC mode	UI_PROLOGIC
45		Go to NATURAL music mode	UI_MUSIC1
46		Go to CLUB music mode	UI_MUSIC2
47		Go to CONCERT music mode	UI_MUSIC3
48		Go to PARTY music mode	UI_MUSIC4
49	VOL +		REMOTE_VOLUME_PLUS
50	VOL -		REMOTE_VOLUME_MINUS
53		Volume +/- as front panel control.	FRONTPANEL_VOLUME_PLUS
54		Does not de-mute in MUTE mode.	FRONTPANEL_VOLUME_MINUS
68		Increase BASS setting by 1dB	UI_BASS_PLUS
69		Decrease BASS setting by 1dB	UI_BASS_MINUS
70		Increase TREBLE setting by 1dB	UI_TREBLE_PLUS
71		Decrease TREBLE setting by 1dB	UI_TREBLE_MINUS
96		Go to SPEAKER (Bass Management) setup mode Speaker size set using TRIM +/-	UI_SPEAKER
97		Increase SUBWOOFER level setting by 1dB	UI_SUBWOOFER_PLUS
98		Decrease SUBWOOFER level setting by 1dB	UI_SUBWOOFER_MINUS
99	CINE EQ	Toggle function	UI_CINE_EQ_TOGGLE
101	TRIM +	These commands operate in LEVEL and DELAY modes only and after Command #96.	UI_TRIM_PLUS
102	TRIM -		UI_TRIM_MINUS
103	MENU		UI OSD_SETUP
104	CURSOR UP		UI_CURSOR_UP
105	CURSOR DOWN		UI_CURSOR_DOWN
106	CURSOR LEFT		UI_CURSOR_LEFT
107	CURSOR RIGHT		UI_CURSOR_RIGHT
108	SELECT		UI_CURSOR_ENTER
109	EXIT		UI_ESCAPE
122	STATUS		UI OSD_STATUS
133	E-BASS	Toggle function	UI_BASS_MIX_TOGGLE
136	7.1 CHANNEL	Toggle function	UI_AUDIO_IN_EXT71_TOGGLE

Output data

The following data are sent out to the RS-232 port whenever the status of the current parameter or function is changed.

The output data consist of at least three bytes: <command> <data> <EOT>. For example when the main zone volume is changed to -25dB the following three bytes are sent out: 225 75 255.

Output Data Name	RS-232 Byte	Function and data range	<data>
RS_VOLUME	225	Master volume: <data> = 10...120	10 = -90dB, 100 = 0dB, 120 = +20dB
RS_MUTE	226	Mute: <data> = 0/1	0 = unmuted, 1 = muted
RS_AUDIO_SOURCE	227	Source: <data> = 1...8	1...8 = Source number
RS_VIDEO_SOURCE	228	Composite/SVIDEO video source: <data> = 1...6	1...6 = Source number
RS_OPER_MODE	229	<data> = 0/1	0 = Standby, 1 = on
RS_TAPEMONITOR	235	TapeMonitor status: <data> = 0/1	0 = TapeMonitor off 1 = TapeMonitor on
RS_STEREO_MODE	236	Stereo mode: <data> = 0...10	0 = Stereo 1 = Dolby Pro Logic 2 = Natural 3 = Club 4 = Concert 6 = Party 7 = Mono downmix 10 = Stereo modes not available
RS_SIGNAL_TYPE	237	Audio signal type: <data> = 0...8	1 = silent, zero signal 2 = Digital PCM 3 = Dolby Digital 4 = DTS 6 = Noise (generated by the DSP) 7 = Analog 8 = Digital Error (unrecognized or corrupted digital signal)
RS_AUDIO_INPUT_TYPE	238	Audio signal physical input type: <data> = 0...2	0 = Analogue 1 = Coaxial 2 = Optical
RS_COMPRESSION	239	Late Night compression status: <data> = 0/1	0 = Compression off 1 = Compression on
RS_CINEEQ	240	Cine EQ status: <data> = 0/1	0 = Cine EQ off, 1 = Cine EQ on
RS_VIDEO_INPUT_TYPE	241	Type of input video signal: <data> = 0...2	0 = unknown / no input signal 1 = Composite 2 = S-Video
RS_TREBLE	242	Treble equalizer: <data> = 0...24	0 = -12dB, 12 = 0dB, 24 = +12dB
RS_BASS	243	Bass equalizer: <data> = 0...24	0 = -12dB, 12 = 0dB, 24 = +12dB
RS_SUBWOOFER	246	Subwoofer trim level: <data> = 0...24	0 = -12dB, 12 = 0dB, 24 = +12dB
RS_TRIGGER1	247	Trigger 1 status: <data> = 0/1	0 = trigger inactive, 1 = trigger active
RS_TRIGGER2	248	Trigger 2 status: <data> = 0/1	0 = trigger inactive, 1 = trigger active
RS_TV_SYSTEM	249	TV system of the video input signal: <data> = 0...2	0 = unknown, 1 = PAL, 2 = NTSC
RS_EOT	255	Sent out as a last byte of each transmission from the serial port	

Please address technical questions to tech@myryad.co.uk, other inquiries to:

Myryad Systems Ltd.
 2 Pipers Wood, Waterberry Drive
 Waterlooville, Hants, PO7 7XU
 Tel: +44 (0) 23 92265508
 Fax: +44 (0) 23 92231407
info@myryad.co.uk
www.myryad.co.uk