SERIAL PROTOCOL

C e p i s o d e ECA-70VMINI-60W AMPLIFIER

OVERVIEW

The following information will guide the installer through simple set up and programming for serial control of Episode™ ECA-70VMINI-60W Amplifiers.

Please read the entire document before any RS-232 setup.

If you have any questions about serial control after reading this document, please contact Technical Support.

CONTACTING TECHNICAL SUPPORT

- Phone: 866.838.5052 or 704.909.5229
- Email: support@episodeaudio.com

BEFORE BEGINNING

Make sure the following items are close at hand for setup:

- ECA-70VMINI-60W Amplifier
- Control system with serial output
- Control system documentation
- ECA-70VMINI-60W Installation Manual
- · Serial cables and adapters for connection between controller and amplifier
- · List of the functions to program into the control system

FIRMWARE VERSION

The information in this document applies to ECA-70VMINI-60W amplifier with firmware version 01.00.78.370, or higher. If the firmware version is below 01.00.78.370, please update to the latest version.

UPDATING FIRMWARE

- 1. Download the latest firmware from the product web page.
- 2. Put the sav70m.hex file on a root of a USB stick.
- 3. Plug the USB stick into the amplifier at the service port.
- 4. Apply AC power to the amplifier.
- 5. The LED will blink, pause for a moment, blink slowly, then stay solid if upgrade was successful.
- 6. Remove the USB stick and remove AC power.
- 7. Wait for the LED to go OFF and power up the unit again.

RS-232 PORT CONFIGURATION

The ECA-70VMINI-60W Amplifier receives control data on the "Rx" pin and transmits control data on the "Tx" pin of the screw-down terminal serial port at the back of the amplifier. The connection cable between the amplifier and the control system will need to be configured so the Rx pin on the amplifier is connected to the TX pin on the control system, and the Tx pin on the amplifier is connected to the Rx pin on the control system. See the illustration below for details.

Configuration for the control system ports can vary. Refer to the documentation for the control system you are using to ensure proper connection and configuration.

Pin	Function	Screw Terminal Connector
Rx	Data Receive	
Tx	Data Transmit	
		Tx (Data Transmit)
GND	Ground	Rx (Data Receive)

SERIAL COMMUNICATIONS FORMAT

Set the serial communications to the following format on the control system control port.

Baud Rate	9600 bps
Data Bit	8 bits
Parity	None
Stop Bit	1 bit

POWER

System_ Power=	Power State	Carriage Return	Line Feed
Example #1: Power On the Amplifier.			
System_Power=	On	<cr></cr>	<lf></lf>
Example #2: Power Off the amplifier.			
System_Power=	Off	<cr></cr>	<lf></lf>
Example #3: Automatically power on the amplifier to active.	the input that become	es active and power o	ff when no inputs are
System_Power=	Auto	<cr></cr>	<lf></lf>

Response

Example #1: Power On the Amplifier.

System_Power=On<CR><LF>

Example #2: Power Off the amplifier.

System_Power=Off<CR><LF>

Example # 3: Automatically power on the amplifier to the input that becomes active and power off when no inputs are active.

System_Power=Auto<CR><LF>

INPUT SWITCH

Command Switch_Audio=	Input	Colon Delimiter	Input Type	Colon Delimiter	Input (Up to 3 Bytes)	Comma Delimiter	Output	Colon Delimiter	Output Type	Colon Delimiter	Output (Up to 3 Bytes)	Carriage Return	Line Feed
Example #	1: Swit	ch Liı	ne Leve	l Audi	o Input 1	l to Outp	ut Speak	er 1 (both c	onfigured f	or Stereo m	ode, if ap	plicable).	
Switch_ Audio=	Input	:	Line	:	1	1	Output	:	Speaker	:	1	<cr></cr>	<lf></lf>
Example #	2: Sum	or m	ix all in	puts t	o output	Speake	r 1.						
Switch_ Audio=	Input	:	Sum	:	1	1	Output	:	Speaker	:	1	<cr></cr>	<lf></lf>

*Inputs: Input 1 - Balanced, Input 2 - 3.5 mm Stereo, Input 3 - Unbalanced RCA

Response

Example #1: Switch Line Level Audio Input 1 to Output Speaker 1 (both configured for Stereo mode, if applicable).

Switch_Audio=Input:Line:001,Output:Speaker:001<CR><LF>

Example #2: Sum or mix all inputs to output Speaker 1.

Switch_Audio=Input:Sum:001,Output:Speaker:001<CR><LF>

OUTPUT VOLUME

Command Output_Volume=	Output	Colon Delimiter	Output Type	Colon Delimiter	Output (Up to 3 Bytes)	Comma Delimiter	Volume	Carriage Return	Line Feed
Example #1: Adjust the volume	e to 50% fo	or Sp	eaker 1.						
Output_Volume=	Output	:	Speaker	:	1	,	50	<cr></cr>	<lf></lf>
Example #2: Increase the volur	me for Spe	eaker	1.						
Output_Volume=	Output	:	Speaker	:	1	,	+	<cr></cr>	<lf></lf>
Example #3: Decrease the volu	me for Sp	eake	r 1.						
Output_Volume=	Output	:	Speaker	:	1	,	-	<cr></cr>	<lf></lf>
Example #4: Adjust the volume	e to 0% for	Spea	aker 1.						
Output_Volume=	Output	:	Speaker	:	1	,	0	<cr></cr>	<lf></lf>
Example #5: Mute sound for Sp	beaker 1.								
Output_Mute=	Output	:	Speaker	:	1	,	ON	<cr></cr>	<lf></lf>
Example #6: Unmute sound for	Speaker	1.							
Output_Mute=	Output	:	Speaker	:	1	,	Off	<cr></cr>	<lf></lf>

Response
Example #1: Adjust the volume to 50% for Speaker 1.
"Output_Volume=Output:Speaker:001,050 <cr><lf>"</lf></cr>
Example #2: Increase the volume for Speaker 1.
"Output_Volume=Output:Speaker:001,051 <cr><lf>"</lf></cr>
Example #3: Decrease the volume for Speaker 1.
"Output_Volume=Output:Speaker:001,050 <cr><lf>"</lf></cr>
Example #4: Mute sound for Speaker 1.
"Output_Mute=Output:Speaker:001,ON <cr><lf>"</lf></cr>
Example #5: Unmute sound for Speaker 1.
"Output_Mute=Output:Speaker:001,0FF <cr><lf>"</lf></cr>

OUTPUT EQ

Command Output_Bass=	Output	Colon Delimiter	Output Type		Output (Up to 3 Bytes)	Comma Delimiter	Tone Command	Carriage Return	Line Feed
Example #1: Increase bass out	put in Spe	eaker	1.						
Output_Bass=	Output	:	Speaker	:	1	,	+	<cr></cr>	<lf></lf>
Example #2: Adjust bass outpu	ıt to +2dB	*.							
Output_Bass=	Output	:	Speaker	:	1	,	+2	<cr></cr>	<lf></lf>
Example #3: Adjust bass outpu	ıt in Speal	ker 1	to 0.						
Output_Bass=	Output	:	Speaker	:	1	,	0	<cr></cr>	<lf></lf>

*Any number -6 to +6, real step is 2dB (Even numbers only, odd numbers will not have an audible change).

Response									
Example #1: Increase bass out	put in Speal	ker 1.							
"Output_Bass=Output:Speaker:	001,+01 <c< th=""><td>R><lf< td=""><td>>″</td><td></td><td></td><td></td><td></td><td></td><td></td></lf<></td></c<>	R> <lf< td=""><td>>″</td><td></td><td></td><td></td><td></td><td></td><td></td></lf<>	>″						
Example #2: Adjust bass outpu	t to +2dB.								
"Output_Bass=Output:Speaker:	001,+02 <c< th=""><td>R><lf< td=""><td>>″</td><td></td><td></td><td></td><td></td><td></td><td></td></lf<></td></c<>	R> <lf< td=""><td>>″</td><td></td><td></td><td></td><td></td><td></td><td></td></lf<>	>″						
Example #3: Adjust bass outpu	t in Speake	r 1 to 0).						
"Output_Bass=Output:Speaker:	001,00 <cr< th=""><td>:><lf>'</lf></td><td>"</td><td></td><td></td><td></td><td></td><td></td><td></td></cr<>	:> <lf>'</lf>	"						
						er	_	_	
		iter		iter	0 3	mit	and	:urr	

Command Output_Treble:	Output		Output Type	Colon Delimite	Output (Up to 3 Bytes)	Comma Delimi	Tone Comman	Carriage Retur	Line Feed
Example #1: Decrease treble o	utput in S	peak	er 1.						
Output_Treble=	Output	:	Speaker	:	1	,	-	<cr></cr>	<lf></lf>
Example #2: Adjust treble outp	out in Spea	aker '	1 to -2dB.*						
Output_Treble=	Output	:	Speaker	:	1	,	-2	<cr></cr>	<lf></lf>

* Any number -6 to +6, real step is 2dB (Even numbers only, odd numbers will not have an audible change).

Response
Example #1: Decrease treble output in Speaker 1.
"Output_Treble=Output:Speaker:001,-01 <cr><lf>",</lf></cr>
Example #2: Adjust treble output in Speaker 1 to -2dB.
"Output_Treble=Output:Speaker:001,-02 <cr><lf>"</lf></cr>

Command Status=	Map	Colon Delimiter	Output Type	Colon Delimiter	Output (Up to 3 Bytes)	Carriage Return	Line Feed
Example #1: What input is currently se	elected on spe	eaker ou	tput 1?				
Status=	MAP	:	Speaker	:	1	<cr></cr>	<lf></lf>
Example #2: What is system Power sta	atus?						
Status=	Power	N/A	N/A	N/A	N/A	<cr></cr>	<lf></lf>
Example #3: What is the volume settin	g for speaker	output	1?				
Status=	Volume	:	Speaker	:	1	<cr></cr>	<lf></lf>
Example #4: What is the bass level set	ting for speal	ker outpi	ut 1?				
Status=	Bass	:	Speaker	:	1	<cr></cr>	<lf></lf>
Example #5: What is the treble level se	etting for spea	aker outp	out 1?				
Status=	Treble	:	Speaker	:	1	<cr></cr>	<lf></lf>
Example #6: What is the system Mute	status?						
Status=	Mute	:	Speaker	:	1	<cr></cr>	<lf></lf>
Example #7: What is the system Firmv	vare?						
Status=	Firmware	,	System	N/A		<cr></cr>	<lf></lf>

Response
Example #1: What input is currently selected on speaker output 1?
"Status=MAP:Input:Line:001,Output:Speaker:001 <cr><lf>"</lf></cr>
Example #2: What is system Power status?
"Status=Power:On <cr><lf>"</lf></cr>
Example #3: What is the volume level for speaker output 1?
"Status=Volume:Output:Speaker:001,050 <cr><lf>"</lf></cr>
Example #4: What is the bass level setting for speaker output 1?
"Status=Bass:Output:Speaker:001,+02 <cr><lf>"</lf></cr>
Example #5: What is the treble level setting for speaker output 1?
"Status=Treble:Output:Speaker:001,-04 <cr><lf>"</lf></cr>
Example #6: What is the system Mute status?
"Status=Mute:Output:Speaker:001,ON <cr><lf>"</lf></cr>
Example #7: What is the system Firmware version?
"Status=Firmware,System <cr><lf>Version01.00.78.370<cr><lf>"</lf></cr></lf></cr>

RESET

SonSSIPFactoryReset	Carriage Return	Line Feed
Example #1: Reset system to factory settings.		
SonSSIP_FactoryReset	<cr></cr>	<lf></lf>
Response		

* There is no "<CR><LF>" after the "OK".

CONTACT TECH SUPPORT

NEED HELP? CONTACT TECH SUPPORT!

For other information, instructional videos, support documentation, or ideas, visit our website and view your item's product page.

Phone: 866.838.5052

Email: support@episodeaudio.com

WARRANTY

2 YEAR LIMITED WARRANTY

This Episode product has a 2-Year limited warranty. This warranty includes parts and labor repairs on all components found to be defective in material or workmanship under normal conditions of use. This warranty shall not apply to products that have been abused, modified or disassembled. Products to be repaired under this warranty must be returned to a designated service center with prior notification and an assigned return authorization number (RA).

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