ECI 6 series RS-232 Command Reference

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This document details the RS-232C control protocol for the ECI 6, ECI 6D, ECI 6DS and ECI 6DX. It will outline the communication settings, message format as well as accepted commands and their expected responses.

Version 1

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Contents

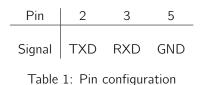
1	Com	nmunication settings	2
2	Com	nmand formats	2
	2.1	Command structure	2
	2.2	Response Structure	3
	2.3	Command sequence	4
3	Com	nmand list	4
	3.1	Simple Commands	4
	3.2	Query Commands	4
	3.3	Advanced Commands	5
	3.4	Firmware upgrade	6

1 Communication settings

Port type RS-232C DCE

Connector 9-pin DSUB female

Cable Straight through cable (null modem cable will not work)



Baud Rate	Data Bits	Parity	Stop Bit	Flow Control
9600	8	None	1	None

Table 2: Communication settings

2 Command formats

2.1 Command structure

Each command starts with a # sign (ASCII 0x23), followed by a 3-character command code. If there are any parameters for the command, the parameters are given in text format, separated by a space (ASCII 0x20) from the command code. The # character (ASCII 0x23) must never appear in the parameters. A carriage return (ASCII 0x0d) indicates the end of the command. Each command must not exceed 25 bytes including the start of command and end of command bytes.

Listing 1: Command structure format <Command> = <Start of Command> <Command Code>[<sp><Parameters>] <End of Command>

```
<Start of Command> = #, ASCII 0x23
<Command Code> = <byte><byte><byte><
sp> = space, ASCII 0x20
<Parameters> = command-specific
<End of Command> = \r, ASCII 0x0d
```

Listing 2: Command examples

#PON\r #SDL 25\r

2.2 Response Structure

Upon receiving a command, the command is executed and a response is sent back. The response starts with an @ sign (ASCII 0x23) followed by a result code, either OK or ER. If there are any parameters or additional message, the parameters or message is given in text format, separated by a space (ASCII 0x20) from the result code. The @ character (ASCII 0x40) must never appear in the parameters or message. A carriage return (ASCII 0x0d) indicates the end of response. Each response must not exceed 25 bytes including the start of response and the end of response bytes.

Listing 3: Response structure

Listing 4: Response examples

@OK ON\r @OK CX1\r @ER INVALID\r

2.3 Command sequence

Commands are executed in the order they are received. The host should wait for a response before sending the next command.

If a new command is received before executing the previous command, the previous command may be discarded.

If the host does not receive a response 10 seconds after the command is issued, the host may consider the command or response lost during transmission, and can retransmit the command.

3 Command list

This section lists all supported commands and their expected responses.

The different products of the ECI 6 range differ in their supported inputs. Unless explicitly mentioned, all other commands are supported on all units. Please refer to table 3 for the different inputs of the different products.

Product	Command code	Label	Physical?
All	CDP	CD	Y
All	DVD	DVD	Y
All	AUX	AUX	Y
All	HTI	HT	Y
6D, 6DS & 6DX	CX1	COAX1	Y
6D, 6DS & 6DX	CX2	COAX2	Y
6D, 6DS & 6DX	TL1	TOSLink1	Y
6D, 6DS & 6DX	TL2	TOSLink2	Y
6D, 6DS & 6DX	USB	USB	Y
6DS	RAD	RADIO	N
6DS	MEM	MEMSTICK	N
6DS	DLN	DLNA	N

Table 3: Inputs supported on the different products

3.1 Simple Commands

This group is direct commands for performing a single operation. Many of the commands are mapped to IR remote control buttons. These commands are processed in the same way as if the corresponding remote button code is received. No parameters are needed.

3.2 Query Commands

This group of commands queries current operating status.

Command	Remote key	Function	Response
PON		Power On	OK ON
POF		Power Off	OK OFF
POW		Toggle standby	OK ON, or OK OFF
VUP	VOL+	Increase volume by	OK
		one step	
VDN	VOL-	Decrease volume by	OK
		one step	
MUT		Mute audio	OK ON, or OK OFF
DIM	DIM AMP	Dim display one step	OK <n>, where n in</n>
		down,cyclic.	[0, 25, 50, 75, 100]
<input/>	<input/>	Set the specified in-	OK <input/>
		put, refer to table 3	
NUP		Navigator UP	OK
NDN		Navigator DOWN	OK
NLT		Navigator LEFT	OK <new input=""></new>
NRT		Navigator RIGHT	OK <new input=""></new>
RST		No action	OK

Table 4: Common simple commands

Command code	Function	Response
QPW	Query power status	OK ON, or OK OFF
QMU	Query mute status	OK ON, or OK OFF
QINF	Query active input	OK <input/>
QDL	Query dim level	OK <n>, where n in [0, 25,</n>
		50, 75, 100]

Table 5: Query commands

3.3 Advanced Commands

This group of commands takes a parameter for easily setting multiple operating options.

Command code	Parameters	Function	Response
SDL		Set display dimming	OK <n>, where n in</n>
	75, 100]		[0, 25, 50, 75, 100]
		for full-off, 100 for	
		full-on.	
SIN	<input/>	Set input	OK <input/>

Table 6: Advanced commands

3.4 Firmware upgrade

This command is used for updating firmware from EC Updater. Do not attempt to update firmware from any other source than EC Updater or manually.

This command is *not* supported on the ECI 6DX, since that unit auto-manages all of its own firmware.

	С	command code	Parameters	Function	Response	
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UPD	AVR	Starts firmware upgrade.	OK
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Table 7: Firmware upgrade