

Panasonic ideas for life



Product Number : **PT-VX400**

Product Name : LCD Projector

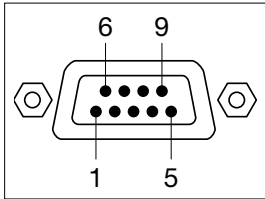
As of October 2011. Specifications and appearance are subject to change without notice.

SFL11M013-1

Serial connector

The serial connector complies with RS-232C. To control the projector from a personal computer, commands must be input through communication software, based on the format and satisfying the communication conditions shown below.

Pin assignments and signal names



D-sub 9-pin (male)
Serial input

No.	Signal name	Description	No.	Signal name	Description
1	-	NC	6	-	NC
2	TXD	Send data	7	-	NC
3	RXD	Receive data	8	-	NC
4	-	NC	9	-	NC
5	GND	Ground			

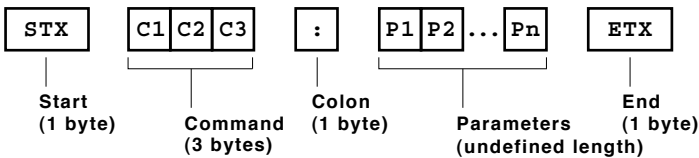
Communication conditions (factory setting)

Signal level	RS-232C-compliant
Synchronization method	Start-stop synchronization
Baud rate	19,200 bps
Parity	None

Character length	8 bits
Stop bit	1 bit
X parameter	None
S parameter	None

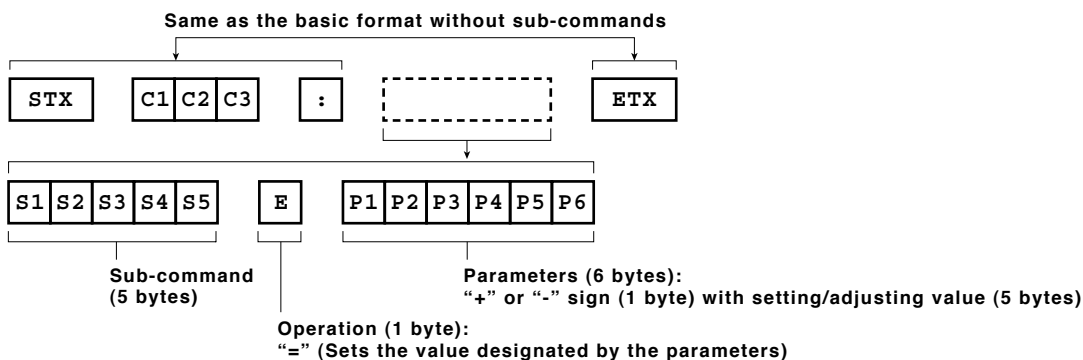
Basic format

Transmission from the computer begins with STX, then command, parameter, and ETX are sent in this order. Add parameters according to the details of control.



NOTE: When sending commands without parameters, a colon (:) is not necessary.

Basic format with sub-commands

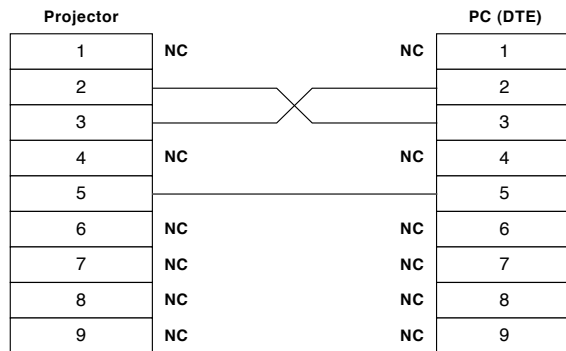


NOTE: When sending sub-commands that require no parameters, operation (E) and parameters are not necessary.

CAUTION

- It may not be possible to send or receive commands for about 10 to 60 seconds when the lamp is first turned on. If this occurs, wait for 60 seconds, then try sending or receiving again.
- When sending multiple commands, be sure to wait for at least 0.5 second after receiving a response from the projector before sending the next command.
- Additional time is sometimes required for response due to processing inside the projector. Set the time-out period for command response to 10 seconds or more.

Cable specifications



Control commands

Command: <Parameter>	Function	Callback: <Parameter>	Parameter value	
			Min	Max
PON*1/*2	Power on (standby mode on)	PON	-	-
POF*1	Power off (standby mode off)	POF	-	-
AVL:<p1>	Volume control	AVL:<p1>	0	63
IIS:<input signal>	Input signal selection	IIS:<input signal>	-	-
OFZ:<off on>	Freeze	OFZ:<off on>	0	1
VPM:STD	Picture mode: Standard	VPM:STD	-	-
VPM:DYN	Picture mode: Dynamic	VPM:DYN	-	-
VPM:CIN	Picture mode: Cinema	VPM:CIN	-	-
VPM:REA	Picture mode: Real	VPM:REA	-	-
VPM:BBD	Picture mode: Blackboard	VPM:BBD	-	-
VPM: CBD	Picture mode: Colorboard	VPM: CBD	-	-
VPM:IM1	Picture mode: Image 1	VPM:IM1	-	-
VPM:IM2	Picture mode: Image 2	VPM:IM2	-	-
VPM:IM3	Picture mode: Image 3	VPM:IM3	-	-
VPM:IM4	Picture mode: Image 4	VPM:IM4	-	-
AUU	Volume up	AUU	-	-
AUD	Volume down	AUD	-	-
OSH*1	AV mute	OSH	-	-
DZU	Digital zoom: Enlargement	DZU	-	-
DZD	Digital zoom: Reduction	DZD	-	-

*1 Do not send PON, POF, or OSH commands continuously in a short period of time. Doing so may burst the lamp or shorten the lamp replacement cycle.

*2 These commands are effective when the standby mode is set to eco. (Other commands are not effective.)

Status request commands

Command	Description	Callback <Parameter>	
QPW	Standby power status	<power condition>	
Q\$S	Lamp status	<lamp condition>	
QIN	Input signal status	<input signal>	
QAV	Volume adjustment value	<p1>	
QPM	Picture mode status	Standard	STD
		Dynamic	DYN
		Cinema	CIN
		Real	REA
		Blackboard	BBD
		Colorboard	CBD
		Image 1	IM1
		Image 2	IM2
	Image 3	IM3	
	Image 4	IM4	
QFZ	Freeze status	<off on>	
Q\$L	Lamp run time	<acctch>	
QSH	AV mute function status	<off_on>	

NOTE: If a wrong command is received, the projector will send an ER401 command to the computer.

Parameter format

Parameter format	Size (Byte)	Definition
<p1>	3 (1 or 2 bytes also possible when under control)	Decimal without signs: 0 to 999 (000, 001, 002...999) Decimal with signs: -99 to +99 (-99...-01, +00, +01, +02...+99) Callback from the projector is 3 Byte.
<off on>	1	0 = off, 1 = on
<input signal>	3	HD1 = HDMI, RG1 = computer 1, RG2 = computer 2, VID = video, SVD = S-Video
<power condition>	3	000 = power off (standby mode off), 001 = power on (standby mode on)
<lamp condition>	1	0 = standby, 1 = lamp on under control, 2 = lamp on, 3 = lamp off under control
<acctch>	4	Decimal without signs: 0000-9999 hours

NOTE: If a wrong command is received, the projector will send an ER401 command to the computer.

Command example

To set the volume to +30, send the command as shown below.

```

STX   AVL   :   30   ETX
 |     |     |     |
Start Command Parameter End

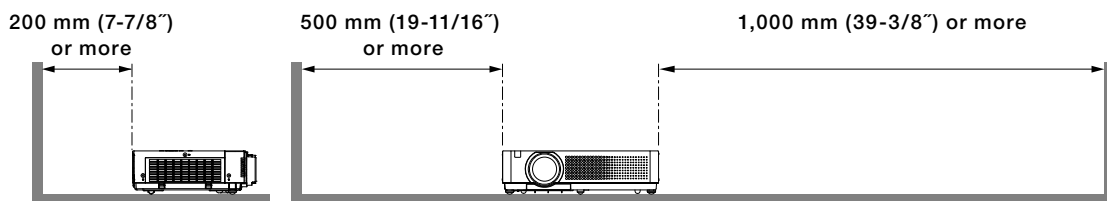
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NOTE: When sending commands without parameters, a colon (:) is not necessary.

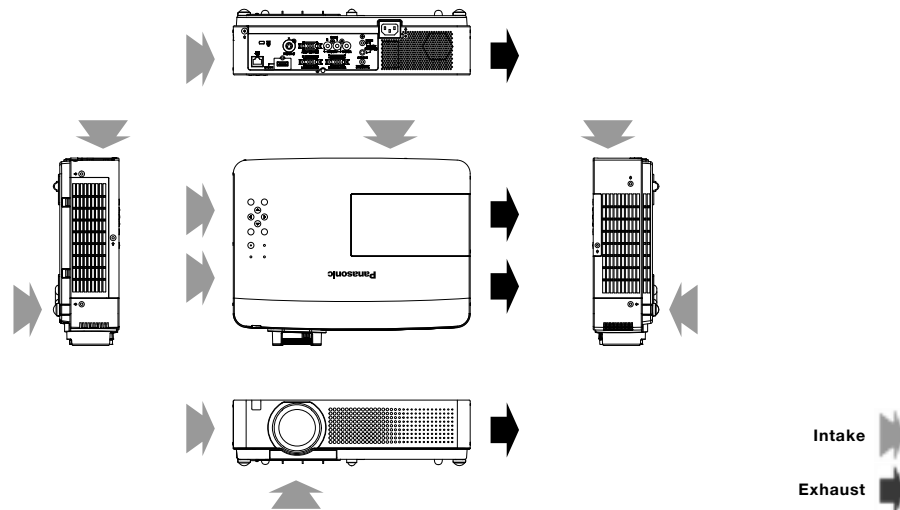
Notes on projector placement and operation

The projector uses a high-wattage lamp that becomes very hot during operation. Please observe the following precautions.

1. Never place objects on top of the projector while it is operating.
2. Make sure there is the unobstructed space as shown below or more around the projector's exhaust openings. In addition to this space, also ensure that there is a sufficient work space for removing and installing the lamp, filter and other parts.
3. Make sure that nothing blocks the projector's air intake and exhaust openings. Also, install the projector so that cool or hot air from other air conditioning equipment does not flow directly toward the projector's air intake or exhaust openings.
4. Do not install the projector in an enclosed space. If it is necessary to install it in an enclosed space, add a separate ventilation system. If ventilation is insufficient, hot air will accumulate at the intake opening. This may cause the projector's protective circuit to interrupt projector operation.



Direction of air intake and exhaust



Operating the projector continuously

1. If the projector is to be operated continuously 12 hours or more, lamp replacement cycle duration becomes shorter.
2. The lamp replacement cycle duration becomes shorter if the projector is operated repeatedly for short periods (one hour or less).

Weights and dimensions shown are approximate. Specifications and appearance are subject to change without notice. Product availability differs depending on region and country. This product may be subject to export control regulations.

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