

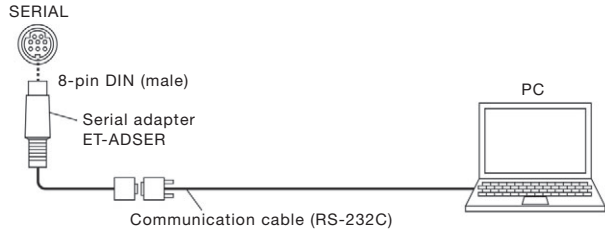
Panasonic Projector RS-232C Control Specifications
PT-LB51NT/LB51/LB51S

Serial connector

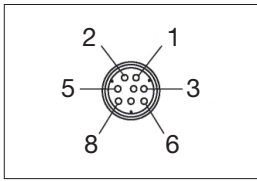
The serial connector complies with RS-232C. To control the projector from a personal computer, commands must be input through communication software, based on the format and satisfying the communication conditions shown below.

CAUTION

Be sure to see that an optional serial adapter ET-ADSER and a RS-232C communication cable match the PC to be connected.



Pin assignments and signal names



Mini DIN 8-pin

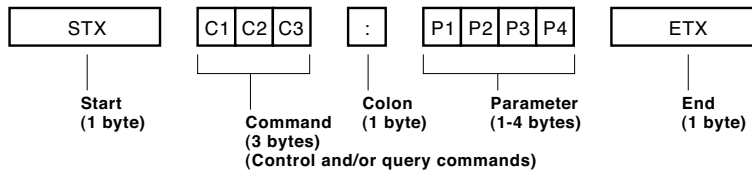
No.	Signal name	Description	No.	Signal name	Description
1	-	Connected internally	5	TXD	Send data
2	-	Connected internally	6	-	Connected internally
3	RXD	Receive data	7	-	NC
4	GND	Ground	8	-	NC

Communication conditions (factory setting)

Signal level	RS-232C-compliant
Synchronization method	Start-stop synchronization
Baud rate	9,600 bps
Parity	None
Character length	8 bits
Stop bit	1 bit
X parameter	None
S parameter	None

Basic format

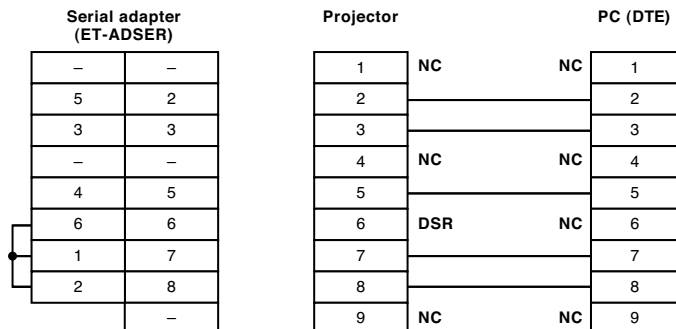
Transmission from the computer begins with STX, then the ID, command, parameter, and ETX are sent in this order. Add parameters according to the details of control.



CAUTION

When sending multiple commands, be sure to send the next command after receiving a response from the projector.

Cable specifications



Control commands

Command: <Parameter>	Function	Callback: <Parameter>	Parameter value	
			Min	Max
PON*1	Power on (standby mode on)	PON	-	-
POF*1	Power off (standby mode off)	POF	-	-
AVL:<pl>	Volume control	AVL:<pl>	0	63
IIS:<input signal>	Input signal selection	IIS:<input signal>	-	-
OST	The same function as "default" button	OST	-	-
OFZ:<off on>	Freeze	OFZ:<off on>	0	1
OEN	Enter	OEN	-	-
VPM:<picture mode>	Picture mode	VPM:<picture mode>	-	-
:<NAT>	Natural	:<NAT>	-	-
:<STD>	Standard	:<STD>	-	-
:<DYN>>	Dynamic	:<DYN>	-	-
:<BBD>	Blackboard	:<BBD>	-	-
AUU	Volume up	AUU	-	-
AUD	Volume down	AUD	-	-
OMN	Menu	OMN	-	-
OCU	Cursor up	OCU	-	-
OCD	Cursor down	OCD	-	-
OCL	Cursor left	OCL	-	-
OCR	Cursor right	OCR	-	-
OAS	Auto setup	OAS	-	-
OSH*1/*2	Shutter	OSH	-	-
OIX	Index window	OIX	-	-
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 When a command other than OSH is sent while the shutter function is operating, the projector will send an ER401 command in reply and release the shutter function.

Status asking commands

Command	Description	Callback <Parameter>
QPW	Standby power status	<power condition>
QSS	Lamp status	<lamp condition>
QIN	Input signal status	<input signal>
QAV	Volume adjustment value	<pl>
QVC	Color adjustment value	<pl>
QVT	Tint adjustent value	<pl>
QVB	Brightness adjustment value	<pl>
QVR	Contrast adjustment value	<pl>
QVS	Sharpness adjustment value	<pl>
QWR	White balance: R adjustment value	<pl>
QWG	White balance: G adjustment value	<pl>
QWB	White balance: B adjustment value	<pl>
QHP	Horizontal position adjustment value	<pl>
QVP	Vertical position adjustment value	<pl>
QCP	Clock phase adjustment value	<pl>
QDC	Dot clock adjustment value	<pl>
QSP	Installation setting status	<pl>
QLG	On-screen menu language	<pl>
QPM	Picture mode status	Natural <NAT>
		Standard <STD>
		Dynamic <DYN>
		Blackboard <BBD>
QFZ	Freeze status	<off on>
QSL	Lamp run time	<acctch>
QSH	Shutter function status	<off/on>
QKS	Keystone correction status	<pl>
QTE	Color temperature adjustment status	<color temp>

Parameter format

Parameter format	Size (Byte)	Definition
<pl>	3 (1 or 2 bytes also possible when under control)	Dicimal without signs: 0-999 (000, 001, 002...999) Dicimal 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	RG1 = computer 1, RG2 = computer 2, NWP = network, VID = video, SVD = S-Video
<installation>	1	0 = front, 1 = rear, 2 = ceiling and front, 3 = ceiling and rear
<language>	3	ENG = English, DEU = German, FRA = French, ESP = Spanish, ITL = Italian, JPN = Japanese, CHI = Chinese, POR = Portuguese, SVE = Swedish, NOR = Norwegian, DAN = Danish, POL = Polish, CES = Czech, MAG = Hungarian, RUS = Russian, THA = Thai, KOR = Korean
<power condition>	3	000 = power on (standby mode on), 001 = power off (standby mode off)
<lamp condition>	1	0 = standby, 1 = lamp on under control, 2 = lamp off, 3 = lamp off under control
<acctch>	4	Dicimal without signs: 0000-9999 hours
<lamp power>	1	0 = economy, 1 = normal
<color temp>	1	0 = low, 1 = standard, 2 = high

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

```

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