

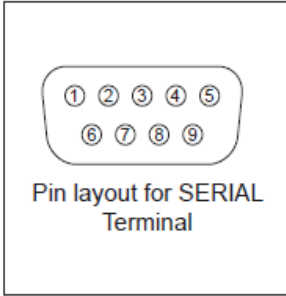
SERIAL COMMAND FORMAT

- **Communication parameters**

Signal level	RS-232C compliant
Synchronization method	Asynchronous
Baud rate	9600 bps
Parity	None
Character length	8 bits
Stop bit	1 bit
Flow control	None

- **Hardware**

Signal names for SERIAL IN terminal:

 <p>Pin layout for SERIAL Terminal</p>	Pin No.	Signal Name
	②	RXD
	③	TXD
	④	DTR
	⑤	GND
	⑥	DSR
	⑦	↔ (Shorted in this set)
	⑧	
	①⑨	NC

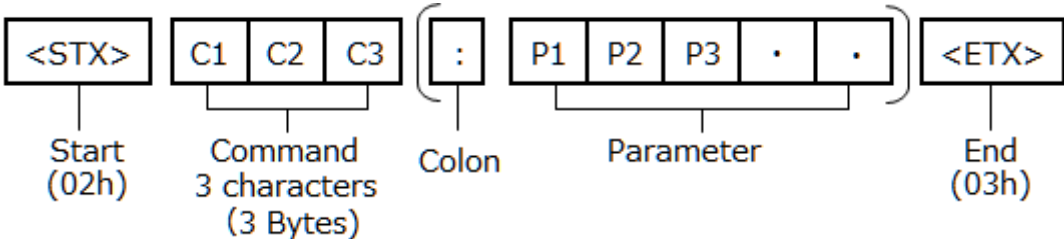
These signal names are those of computer specifications.

Type of cable: Straight cable

● **Basic format for control data:**

The transmission of control data starts with a STX signal, followed by the command, the parameters, and lastly an ETX signal in that order.

If there are no parameters, the colon ":" does not need to be sent.



(Example)

- **Power on**

Transmission

Character	<STX>	P	O	N	<ETX>
Binary	02	50	4F	4E	03

Reception

Character	<STX>	P	O	N	<ETX>
Binary	02	50	4F	4E	03

- **Change inputs / HDMI1**

Transmission

Character	<STX>	I	M	S	:	H	M	1	<ETX>
Binary	02	49	4D	42	3A	48	4D	31	03

Reception

Character	<STX>	I	M	S	<ETX>
Binary	02	49	4D	42	03

- **Input inquiry / HDMI1**Transmission

Character	<STX>	Q	M	I	<ETX>
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Binary	02	51	4D	49	03
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Reception

Character	<STX>	Q	M	I	:	H	M	1	<ETX>
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Binary	02	51	4D	49	3A	48	4D	31	03
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- **Picture mode inquiry**Transmission

Character	<ST	Q	P	C	:	M	E	N	<ETX>
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Binary	02	51	50	43	3A	4D	45	4E	03
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Reception

Character	<STX>	Q	P	C	:	M	E	N	D	Y	N	<ETX>
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Binary	02	51	50	43	3A	4D	45	4E	44	59	4E	03
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(Notes)

- If an incorrect command is sent, this unit will reply an "ER401" command to the computer.
- If customer send multiple commands, be sure to wait for the response for the first command to come before sending the next command.
- The length of the Parameters are different for each command.

LAN COMMAND FORMAT

● Communication parameters

Baud rate	100Mbps/10Mbps
Protocol	Socket through protocol(TCP/IP) / Telnet
Port	10101(Fixed)

● Format

● Login process

- After connecting to port, the Display will request login user name and password
- User & Password default is "dispadmin" & "@Panasonic".
- If the Display request to change password, please change password.
- If success to login, the Display will reply "OK". If fail to login, the Display will reply message "Login incorrect" and disconnect immediately
- If no data during 1 minute, the Display will disconnect for security.

(Example)

1) The Display will send after connecting

Character	L	o	g	i	n	:
Binary	4C	6F	67	69	6E	3A

2) The host needs to send login username (example: default login user name)

Character	d	i	s	p	a	d	m	i	n	<CR>	<LF>
Binary	64	69	73	70	61	64	6D	69	6E	0D	0A

-Sending <LF> can be omitted

3) The Display will send

Character	<CR>	<LF>	P	a	s	s	w	o	r	d	:
Binary	0D	0A	50	61	73	73	77	6F	62	64	4D

4) The host needs to send password (example: default password)

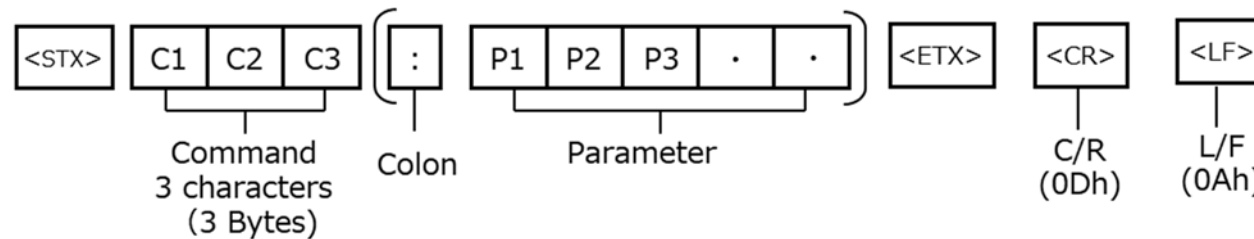
Character	@	P	a	n	a	s	o	n	i	c	<CR>	<LF>
Binary	64	69	73	70	61	64	6D	69	6E	6E	0D	0A

-Sending <LF> can be omitted

5) The Display will send

Character	O	K	<CR>	<LF>
Binary	4F	4B	0D	0A

● Command transferring format



-Sending <LF> can be omitted

After login success, use serial commands with <STX> and <ETX>/<CR>/(<LF>) communicate with the Display

● Disconnection

- The host sends CTRL+C(EXT) , CTRL+D(EOT) to the Display
- The host send "BYE¥r¥n" command to the Display
- The host sends FIN packet to the unit (FIN request by the client software on the host side)