# 6. RS-232C SPECIFICATIONS

The Presenter can be controlled by a PC connected to the Presenter through the RS-232C terminal [RS-232C].

#### O Setting up

(1) Connect the Presenter to a PC with an RS-232C connection cable.

Note: When using an RS-232C cable available in the market, make sure of the connection shown in the next page.

**Note:** To protect the Presenter and the PC, be sure to turn OFF all the power switches of all equipment before connecting.

(2) Start the PC, and set the communication mode of the RS-232C to the communication mode of the Presenter.

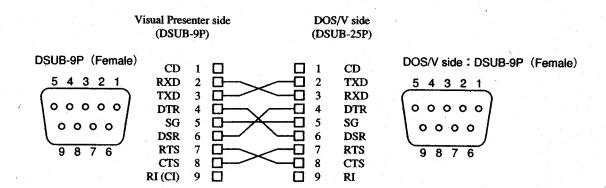
**Note:** For the information how to set the communication mode of the RS-232C, refer to the instruction manual of the PC.

- (3) Start the PC program to operate the Presenter.
- (4) Control through the RS-232C will start.

Note: For communication control, be sure to take the above steps for setting.

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### O Cable connection



## ○ RS-232C connector specifications (DSUB-9P)

Pin No.	Code	Name	Direction of data Visual Presenter PC			
1	CD	Carrier Detect	<del>-</del>			
2	RXD	Received Data	<b>+</b>			
3	TXD	Transmitted Data				
4	DTR	Data Terminal Ready	→ ·			
5	SG	Signal Ground				
6	DSR	Data Set Ready	<b>+</b>			
7	RTS	Request To Send	<b>→</b>			
8	CTS	Clear To Send	<b>←</b>			

### O Table of the communication commands

Function	Command	Parameter	Data	Comments
Auto Focus	AF	0		Command to execute the one-step auto focus.
Focus adjustment	FO	+ (NEAR) - (FAR) 0 (STOP)		Command to adjust the focus.
Zoom adjustment	ZO	+ (TELE) - (WIDE) 0 (STOP)		Command to adjust the Zoom.
Iris adjustment	IR	+ (OPEN) - (CLOSE) 0 (STOP) 1 (NORMAL)		Command to adjust the Iris.
Lighting selection	PL	0 (OFF) 1 (L:ON) 2 (L, R:ON)		Command to select the Lighting.
Nega/Posi conversion	NP	0 (POSI) 1 (NEGA)		Command to convert Nega/Posi.
Color/B&W selection	СВ	0 (COLOR) 1 (B&W)		Command to select Color/B&W.
Enlarged image movement	PM	0 (STOP) 1 (→) 2 (←) 3 (↑) 4 (↓) 5 (↗) 6 (↖) 7 (↘) 8 (∠)		When the electronic image enlargement is ON, the enlarged image moves.  1: To the right side 2: To the left side 3: To the upper side 4: To the lower side 5: To the upper right 6: To the upper left 7: To the lower right 8: To the lower left
Electronic image enlargement	MA	0 (OFF) 1 (ON)		Command to enlarge the image to double the center area of the image.
Local lockout	LL	0 (OFF) 1 (ON)		Command to invalidate the switches on the front operation panel and wireless remote control.
Default	DF	0		Command to reset to the initialized mode.
Status request	QS	0		Command to inquire the status of the equipment.
ROM version	QR	0		Command to refer to the ROM version.
Acknowledge check	SA	0 (OFF) 1 (ON)		Command to select the command acknowledge for each operation command. (Default :ON)
Add CR command	SC	0 (OFF) 1 (ON)		Command to add CR [0Dh] to the end of the acknowledge data. (Default :OFF)

Note: "
IIIII" in the data column means that SPACE [20H] should be transmitted twice.

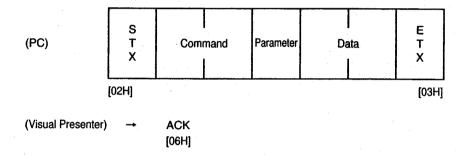
# O Data format specifications

This command is executed in the form of 1-command/1 packet. The next command is not accepted until the previous processing is completed.

- The communication command always starts with STX (Start of Text) [02H], and ends with ETX (End of Text) [03H].
- If the communication format or command name is wrong, NAK (Negative Acknowledgement) [15H] will be sent from the Presenter as a result of failing to receive correctly.
- When the communication format is correctly received, the Presenter sends ACK (Normal Acknowledgement) [06H].

#### ◆ Transmission Command (PC→Visual Presenter)

Each operation command is executed in ASCII code, and transmitted in a set of 7 bytes as follows:

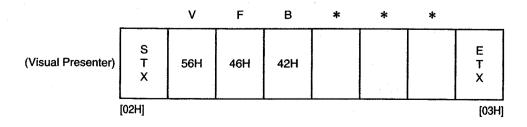


#### ■ Response data format (Visual Presenter→PC)

• Status request format (Parameter 0)

(Visual Presenter)	S T X	Lighting selection	30H	Nega /Posi	Color /B&W	30H \	Electronic image enlargement	30H	Local Lock out	E T X	
[02H]										[03H]	

#### • ROM version



# Transmission specifications

• Full duplex start-stop sync. mode

• Start bit : 1 bit

• Data bit : 8 bits

• Stop bit : 1 bit

• Parity bit : None

• X parameter : None

• Baud rate (Communication speed) : 9600bps

### **○** Connection

If the RS-232C cable is not correctly connected between the Presenter and the PC, no acknowledgement is transmitted. Connect the RS-232C cable correctly, and fix it firmly with the connector set screws before the operation.