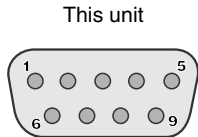


# RS-232C Interface

Control of this unit via a computer is possible by connecting the computer to this unit with a RS-232C cross cable (D-Sub 9 pin).

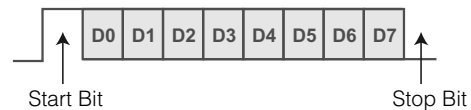
## RS-232C Specifications



Pin No.	Signal	Operation	Signal Direction
2	RxD	Receive data	This unit ← PC
3	TxD	Transmit data	This unit → PC
5	GND	Signal ground	—
1, 4, 6 – 9	N/C	—	—

● PC refers to the controller such as a personal computer.

Mode	Non-synchronous
Character Length	8 bit
Parity	None
Start Bit	1
Stop Bit	1
Data Rate	19200 bps
Data Format	Binary



## Command Format

The command between this unit and the computer consists of “Header”, “Unit ID”, “Command”, “Data” and “End”.

● Header (1 byte), Unit ID (2 bytes), Command (2 bytes), Data (n bytes), End (1 byte)

### ■ Header

This ASCII code indicates the start of communication.

ASCII code	Type	Description
21	Operating command	PC → This unit
3F	Reference command	PC → This unit
40	Response command	This unit → PC
06	ACK	This unit → PC (When the command is accepted without error, it returns to PC)

### ■ Unit ID

This code specifies the unit. The ASCII code is fixed at “8901”.

## ■ Command and data

Operating command and data (ASCII code)

Command	Type	Data description
0000	Connection check	Checks whether communication is available between this unit and the PC during standby.
5057	Power supply	During standby 31: Turns on the power. During power on 30: Turns off the power. (Standby mode)
4950	Input	During power on 30: S-VIDEO 31: VIDEO 32: COMP. 36: HDMI 1 37: HDMI 2
5243	Remote Control	Sends the same code as the supplied remote control. ● "Remote control code" (P50)

Reference command and data (ASCII code)

Command	Type	Data description
5057	Power supply	During standby or power on 30: Standby mode 31: Power-on mode 32: During Cool Down mode 34: Error in unit
4950	Input	During power on 30: S-VIDEO 31: VIDEO 32: COMP. 36: HDMI 1 37: HDMI 2

## ■ End

This code indicates the end of communication. The ASCII code is fixed at "0A".

# RS-232C Interface (Continued)

## ■ Remote control code

- ASCII code is sent during communication.

Remote control button name	ASCII code
▲	37 33 30 31
▼	37 33 30 32
EXIT	37 33 30 33
OPERATE ON	37 33 30 35
OPERATE OFF	37 33 30 36
HIDE	37 33 31 44
MENU	37 33 32 45
ENTER	37 33 32 46
▶	37 33 33 34
◀	37 33 33 36
VIDEO	37 33 34 42
S-VIDEO	37 33 34 43
COMP.	37 33 34 44
TEST	37 33 35 39
CINEMA	37 33 36 39
NATURAL	37 33 36 41
DYNAMIC	37 33 36 42

Remote control button name	ASCII code
USER1	37 33 36 43
USER2	37 33 36 44
USER3	37 33 36 45
HDMI 1	37 33 37 30
HDMI 2	37 33 37 31
INFO	37 33 37 34
GAMMA	37 33 37 35
COLOR TEMP	37 33 37 36
ASPECT	37 33 37 37
CONTRAST (+)	37 33 37 38
CONTRAST (-)	37 33 37 39
BRIGHT (+)	37 33 37 41
BRIGHT (-)	37 33 37 42
COLOR (+)	37 33 37 43
COLOR (-)	37 33 37 44
SHARP (+)	37 33 37 45
SHARP (-)	37 33 37 46

## RS-232C Communication Examples

This section shows the communication examples of RS-232C.

### ■ Operating command

Type	Command	Description
Connection check	PC → This unit: 21 89 01 00 00 0A This unit → PC: 06 89 01 00 00 0A	Checks connection
Power (On)	PC → This unit: 21 89 01 50 57 31 0A This unit → PC: 06 89 01 50 57 0A	When power is turned on from standby mode
Power (Off)	PC → This unit: 21 89 01 50 57 30 0A This unit → PC: 06 89 01 50 57 0A	When power is turned off (standby mode) from power-on mode
Input (COMP.)	PC → This unit: 21 89 01 49 50 32 0A This unit → PC: 06 89 01 49 50 0A	When video input is set to component
Remote Control (MENU)	PC → This unit: 21 89 01 52 43 37 33 32 45 0A This unit → PC: 06 89 01 52 43 0A	When the same operation as pressing the [MENU] button on the remote control is made

### ■ Reference command

Type	Command	Description
Power (On)	PC → This unit: 3F 89 01 50 57 0A This unit → PC: 06 89 01 50 57 0A This unit → PC: 40 89 01 50 57 31 0A	When information on power-on mode is acquired
Input (S-VIDEO)	PC → This unit: 3F 89 01 49 50 0A This unit → PC: 06 89 01 49 50 0A This unit → PC: 40 89 01 49 50 30 0A	When information on S-VIDEO input is acquired