Panasonic®

RS-232C Serial Interface
Model: RL-P3001

Instruction for Use

For your convenience and protection, enter the information below and retain for future reference. The model and serial numbers are on the bottom of the unit. A separate warranty registration card is packed with the unit. This should be completed and mailed to Panasonic as soon as possible. If you received no warranty registration card with your purchase, please contact your Panasonic dealer, they may have registered the unit for you.
Notice: In several countries a warranty registration card is not necessary.

Model No. _____   Dealer Name _____

Serial No. _____   Dealer Address _____City_____State _____Zip

Purchase Date _____   Dealer Telephone _____

GENERAL DESCRIPTION   The RS-232C along with its connecting cable joins you to other computers and their peripherals (modems, high speed printers, and so on). It allows the HHC to receive data and programs from data networks. The RS-232C has optional capsule programs which give you menu options to facilitate this connection.

CONNECTION   The RS-232C, like other HHC peripherals, has a connector which fits into any I/O Adaptor slot or into the left-hand side slot of the HHC Primary Unit.

THE RS-232C CABLE (OPTION)   The RS-232C cable, 1.5 meters long, connects either end first to the RS-232C input/output port on the top, and the other end connects to a matching port on the device to be connected to. Those two connections are uni-directional: they can only be made one way. Do not force fit a wrong connection. Every device needs its own cable. The cables are not necessary interchangeable.

PROGRAM CAPSULES (OPTION)   As developed, new capsule programs will be released which will expand the capability of the RS-232C—for instance, by allowing you to connect with other or newer devices. They can be mounted where the present RS-232C capsule program is, under the door on the bottom of the unit. Instructions will be provided with the capsule programs themselves.

Push to open
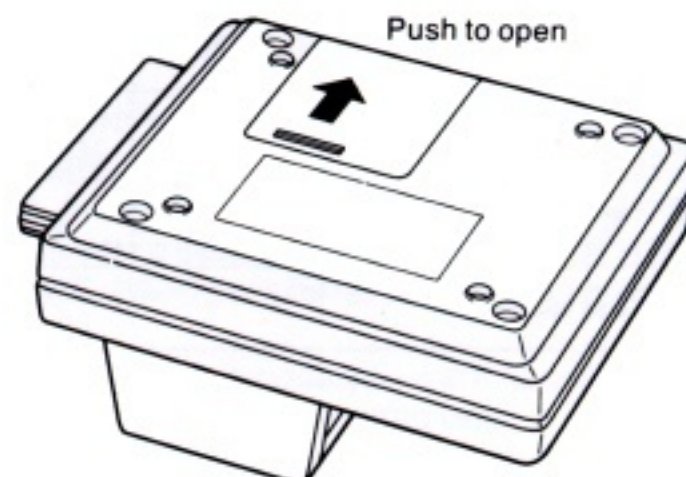
HOW TO SELECT BAUD RATE

To select the baud rate, open the door at the bottom of the unit; you will see the dip switch for this purpose. The switch has numbers from 1 to 8 and an indicator for ON. Use the following chart to choose the baud rate:
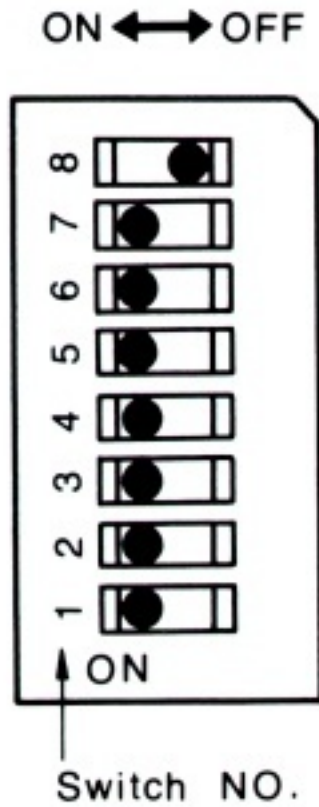
ON ◀──▶ OFF

Switch NO.

Baud Rate	Switch No.							
	1	2	3	4	5	6	7	8
9600 bps	ON	ON	ON	ON	ON	ON	ON	OFF
4800 bps	ON	ON	ON	ON	ON	ON	OFF	ON
2400 bps	ON	ON	ON	ON	ON	OFF	ON	ON
1200 bps	ON	ON	ON	ON	OFF	ON	ON	ON
600 bps	ON	ON	ON	OFF	ON	ON	ON	ON
300 bps	ON	ON	OFF	ON	ON	ON	ON	ON
150 bps	ON	OFF	ON	ON	ON	ON	ON	ON
75 bps	OFF	ON	ON	ON	ON	ON	ON	ON

200 bps	ON	ON	OFF	OFF	ON	ON	ON	ON
110 bps	ON	OFF	ON	OFF	ON	OFF	OFF	OFF
50 bps	OFF	OFF	ON	ON	ON	ON	ON	ON

WHAT CAN GO WRONG You can transmit unintelligible signals by selecting the wrong mode of transmission for the particular device you are connecting to.
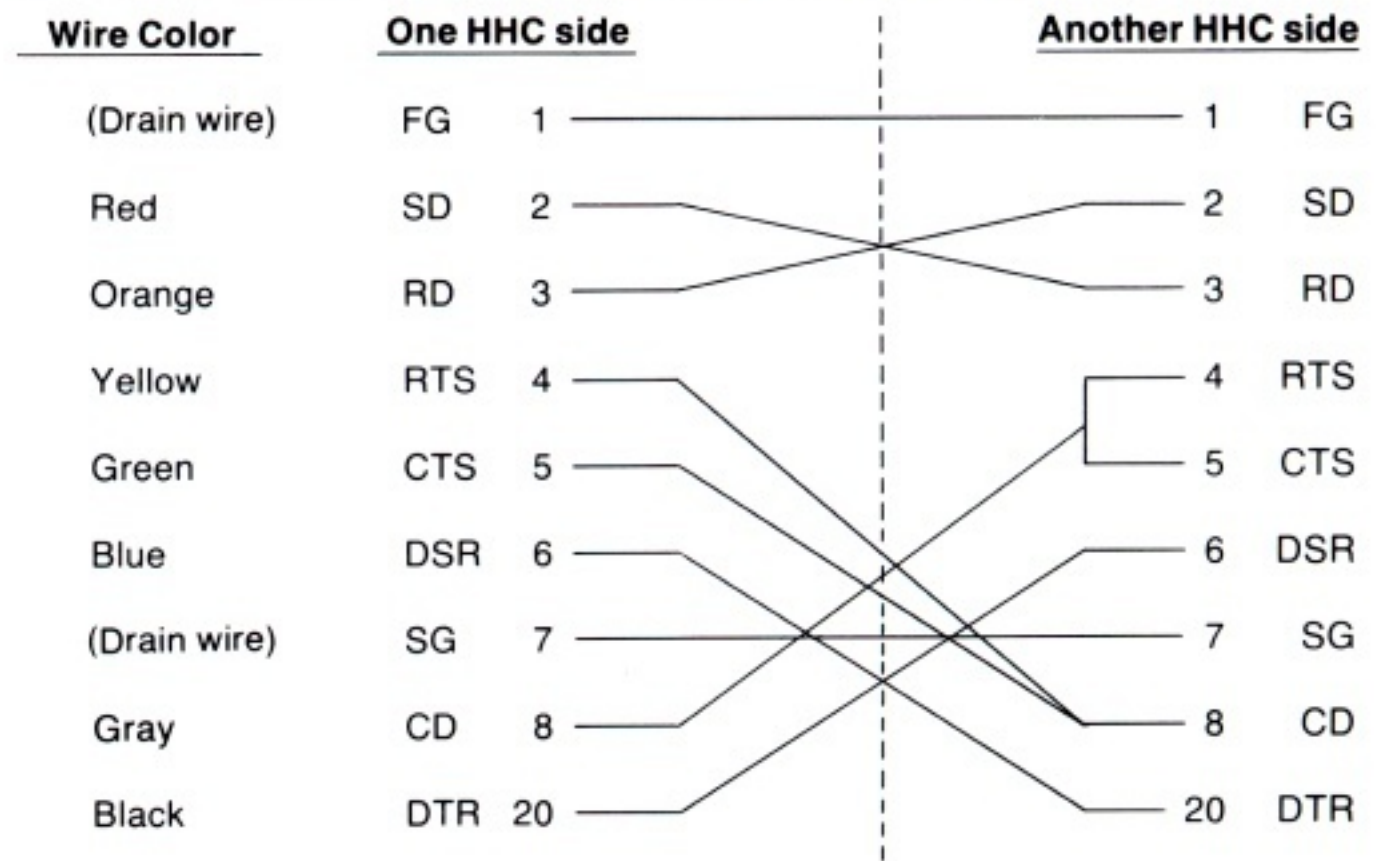
PRIMARY UNIT KEYS AFFECTING YOUR RS-232C The I/O key when pressed gives you the I/O menu from which you type the number corresponding to "RS 232C IN", and "RS 232C OUT". You can exit the I/O menu with either ENTER or the I/O key.
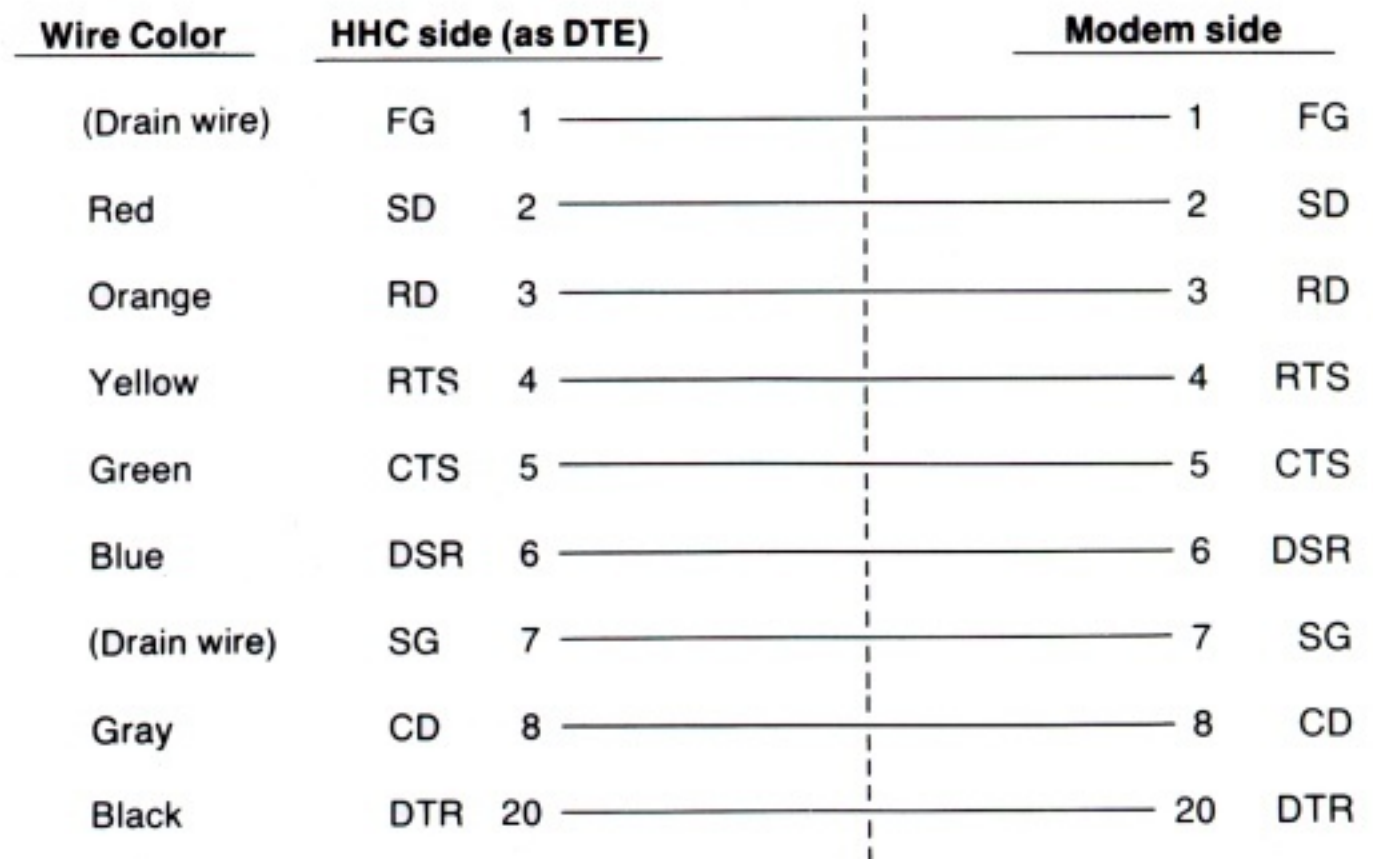
THE CONNECTION OF RS-232C WIRES In order for RS-232C peripherals to be connected to any desired terminals, one side of RS-232C cable is not connected to the pins of DB25 type connector. For your reference, examples of wiring are shown in figure 1 and figure 2. Figure 1 is applicable in case you'd like to connect the devices whose assignment of pins are as same as the RS-232C peripheral (in case you have communication between another HHC system).
Also, this wiring is applicable in case you want to connect with EPSON printer which has RS-232C interface card.

For more information, please refer to the manual for your equipment or contact the nearest servicenter.

Example of wiring for communication between HHCs (Figure 1)

Wire Color	One HHC side			Another HHC side
(Drain wire)	FG	1	1	FG
Red	SD	2	2	SD
Orange	RD	3	3	RD
Yellow	RTS	4	4	RTS
Green	CTS	5	5	CTS
Blue	DSR	6	6	DSR
(Drain wire)	SG	7	7	SG
Gray	CD	8	8	CD
Black	DTR	20	20	DTR

Example of wiring for the connection to the MODEM (Figure 2)

Wire Color	HHC side (as DTE)			Modem side
(Drain wire)	FG	1	1	FG
Red	SD	2	2	SD
Orange	RD	3	3	RD
Yellow	RTS	4	4	RTS
Green	CTS	5	5	CTS
Blue	DSR	6	6	DSR
(Drain wire)	SG	7	7	SG
Gray	CD	8	8	CD
Black	DTR	20	20	DTR

Signal Description and Pin Assignment

Pin No.	Signal Name	Direction	Description	Wire Color
1	FG	——	Frame Ground	(Drain wire)
2	SD	Out	Transmitted Data	Red
3	RD	In	Received Data	Orange
4	RTS	Out	Request to Send (This is the signal to request sending the signal for the connected terminal.)	Yellow
5	CTS	In	Clear to Send (This signal is used for withholding timing of the transmitted data.)	Green
6	DSR	In	Data Set Ready (This signal is showing the timing of setting data from the terminal.)	Blue
7	SG	——	Signal Ground	(Drain wire)
8	CD	In	Received Line Signal Detector (In case the modem is connected, this signal is used for the carrier detect.)	Gray
20	DTR	Out	Data Terminal Ready (This signal is showing the connected terminal is ready or not.)	Black

Note: "Direction"; This is the direction of signal flow as viewed from RS-232C peripheral. All signals are compatible with EIA RS-232C Standard.

SPECIFICATIONS

Transmission System:	Asyncronous serial transmission
Transmission Speed:	50, 75, 110, 150, 200, 300, 600, 1200, 2400, 4800, 9600 bps selectable; accuracy 0.5% or less
Transmission Code:	5, 6, 7 or data bits 1 or 2 stop bits
How to Set Transmission Speed:	Set manually by dip switches in the bottom of the unit
Output Level of Line Driver:	±10 V

Allowable Input Level of	
Line Receiver:	Within ±20 V
Line Driver:	Output termination current within ±12 mA
	Output impedance 300Ω or more
	(measured by applying ±12 V at output
	terminal when power off)
Input/Output Connecter for	
Transmission:	DB 25 type connector (CCITT-V24)
Control/Application	
Capsule Socket:	1 slot (in the bottom of the unit)
Power Source:	Supplied from the HHC Primary Unit or from
	the AC Adaptor
Power Consumption:	650 mW
Operating Temperature:	32°F–104°F (0°C–40°C)
Dimensions:	4-1/2''×2-13/32''×3-3/4''
	(113.5×61×95 mm)
Weight:	12.35 oz. (350 g)

Please refer to your capsule manual for more information.