Hardware Setting & Mode Configuration

Jumper Settings for RS-422 or RS-485

Inside the unit, there is one 3-pin DIP switch which is set to select the mode of operation. You need to open the case then you can set the switch settings to RS-422 mode, or RS-485 mode, as per the requirements of your application. After setting of switches, you then proceed to insert the driver CD and start driver installation.



The RS-422 & RS-485 Mode Block Configuration Settings are listed as follows.

RS-422 & RS-485 Mode Block Configuration



SW (External DIP Switch) for Mode Setting

	Operation Mode	S1	S2	S3
RS-422	4 wire with Handshaking	ON	ON	ON
RS-485	Full Duplex (4 wire)	OFF	ON	ON
	Half Duplex (2 wire) with Echo	OFF	OFF	ON
	Half Duplex (2 wire) - without Echo	OFF	OFF	OFF

Example jumper block setting (RS-422 mode)



Inside the unit, there is one 3 x 7 (21 pin) header blocks which are jumpered to enable Tx, Rx, CTS 120 Ohm termination resistors and Tx, Rx 750 Ohm BIASing resistor.

You will need to open the case than set the jumper setting for RS-422 mode or RS-485 mode as per the requirements of your application.

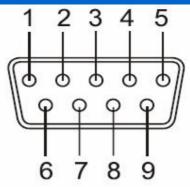
Settings are listed as follows:

Jump	er	Function
1-2	enable	Tx Termination of 120 Ohm. This jumper should always be
2-3	disable	populated for RS-485 mode.
4-5	enable	Pull-up Tx+ to VCC by 750 Ohm Bias resistor. This jumper should
5-6	disable	be populated for pull-up Tx+.
7-8	enable	Pull-down Tx- to GND by 750 Ohm Bias resistor. This jumper
8-9	disable	should be populated for pull-down Tx
10-11	enable	Rx Termination of 120 Ohm. This jumper should always be
11-12	disable	populated for RS-422 mode.
13-14	enable	Pull-up Rx+ to VCC by 750 Ohm Bias resistor. This jumper should
14-15	disable	be populated for pull-up Rx+.
16-17	enable	Pull-down Rx- to GND by 750 Ohm Bias resistor. This jumper
17-18	disable	should be populated for pull-down Rx
19-20	enable	CTS Termination of 120 Ohm. This jumper should always be
20-21	disable	populated for RS-422 mode.

Note: all other positions = no jumper populated.

Sometimes, when operating in RS-422 or RS-485, it is necessary to configure 120 Ohm termination of the data transmission lines. Generally this must be done in the cabling, since this depends on the installation of connections. Before applying the option, check your cable specification for proper impedance matching.

RS-422/485 Pin-outs & RS-422/485 Signal Wiring



RS-422 Signal Pin-outs of DB-9 Male

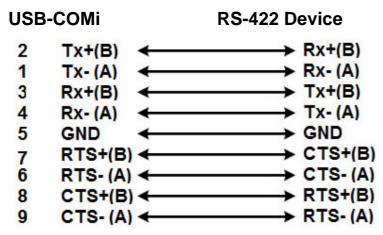
Pin 1	TxD- (A)
Pin 2	TxD+(B)
Pin 3	RxD+(B)
Pin 4	RxD-(A)
Pin 5	GND
Pin 6	RTS- (A)
Pin 7	RTS+(B)
Pin 8	CTS+(B)
Pin 9	CTS- (A)

RS-422 Signal Wiring

Point-to-Point 4 Wire Full Duplex



RS-422 with Handshaking



RS-485 2-Wire (Half duplex) Signal Pin-outs of DB-9 Male

Pin 1	Data- (A)
Pin 2	Data+(B)
Pin 5	GND

RS-485 Signal Wiring

• Multidrop RS-485 2-Wire Half-duple

