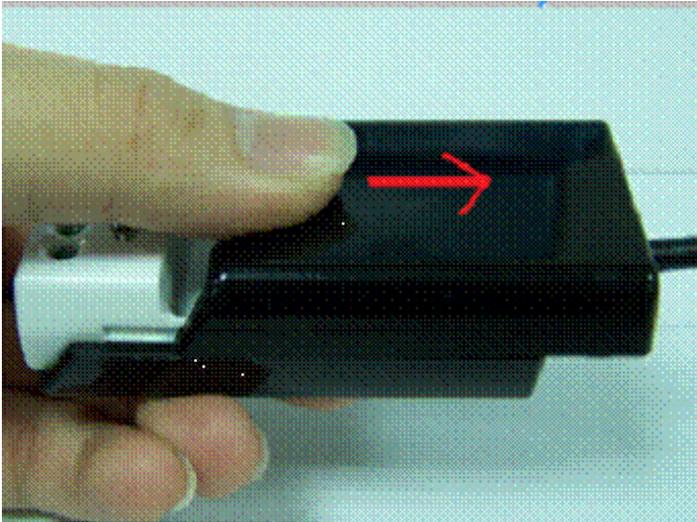


Hardware Setting & Mode Configuration

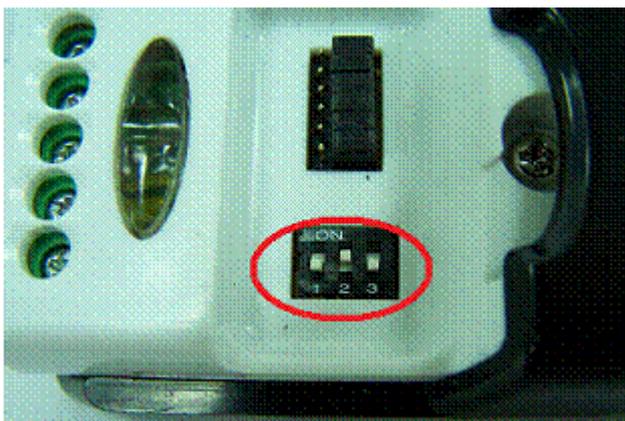
Inside the unit, there is one 3-pin DIP switch which is set to select the mode of operation. You will need to open up the upper case (see below) and set the switch settings to RS-422 mode, or RS-485 mode, as per the requirements of your application. After setting of switches, you then plug the adapter to USB port to start driver installation. The RS-422 & RS-485 Mode Block Configuration Settings are listed as follows.



Push down the upper case and slide it to open

RS-422 & RS-485 Mode Block Configuration SW (DIP Switch) for Mode Setting

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



3-pin DIP switch for operating mode selection

6x3 (18-pin) Header Block for Termination and Biasing Option Configuration

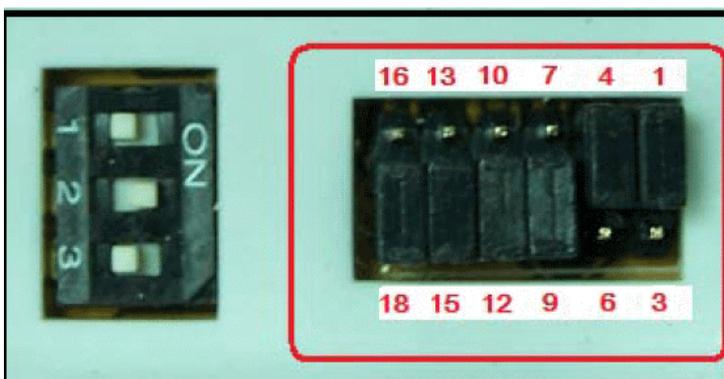
Inside the unit, there are 6x3 (18-pin) header block which are jumpered to enable Tx, Rx, 120 Ohm termination resistors and Rx, Tx 750 Ohm biasing resistor. You will need to open up the case and set the jumper setting for RS-422 mode, or RS-485 mode, as per the requirements of your application. Settings are listed as follows:

Jumper	Function
1-2 enable 2-3 disable	Tx+/- Termination of 120 Ohm. This jumper should always be populated for RS485 half-Duplex mode.
4-5 enable 5-6 disable	Pull-up Tx+ to VCC by 750 Ohm Bias resistor. This jumper should be populated for pull-up Tx+.
7-8 enable 8-9 disable	Pull-down Tx- to GND by 750 Ohm Bias resistor. This jumper should be populated for pull-down Tx-.
10-11 enable 11-12 disable	Rx+/- Termination of 120 Ohm. This jumper should always be populated for RS-422/485 full-duplex mode.
13-14 enable 14-15 disable	Pull-up Rx+ to VCC by 750 Ohm Bias resistor. This jumper should be populated for pull-up Rx+.
16-17 enable 17-18 disable	Pull-down Rx- to GND by 750 Ohm Bias resistor. This jumper should be populated for pull-down Rx-.

Note: Sometimes, when operating in RS-422 or RS-485, it is necessary to configure termination and biasing 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.

Biasing of data lines must only occur at a single point anywhere in the cabling. USB-COMi-TB provides biasing for ease of installation. Please be sure to disable this inside the unit, if your cabling already provides biasing.

Termination must not be installed in the middle of the cable. It is only permitted at both ends. Since a computer controlled serial port is almost always at one end of the cable, termination is disabled by default.



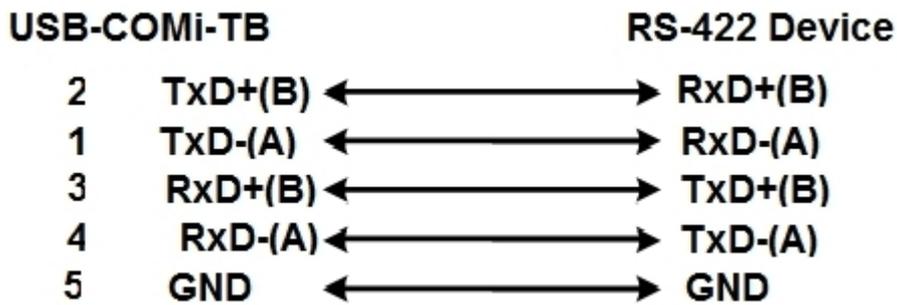
6x3 header block for enable the termination and biasing resistors

RS-422 Signal Pin-outs of Terminal Block

Pin 1	TxD- (A)
Pin 2	TxD+(B)
Pin 3	RxD+(B)
Pin 4	RxD-(A)
Pin 5	GND

RS-422 Signal Wiring

- **Point-to-Point 4 Wire Full Duplex**



RS-485 4 Wire (Full duplex) Signal Pin-outs of Terminal Block

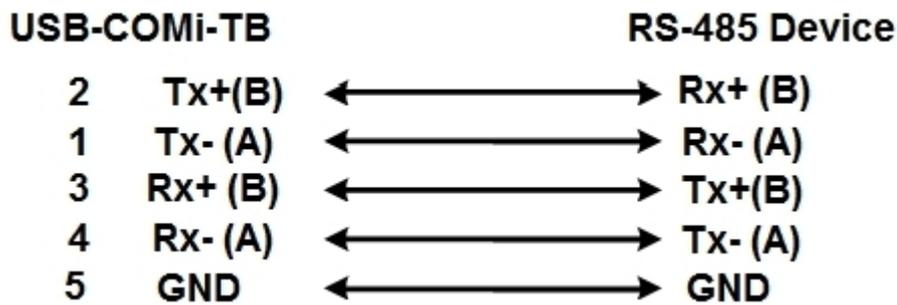
Pin 1	TxD- (A)
Pin 2	TxD+(B)
Pin 3	RxD+(B)
Pin 4	RxD-(A)
Pin 5	GND

RS-485 2 Wire (Half duplex) Signal Pin-outs of Terminal Block

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

RS-485 Signal Wiring

- **Point-to-Point 4 Wire Full Duplex**



- **Multidrop RS-485 2-Wire Half-duplex**

