ESD make MODBUS HOOTER MANUAL

Index

1.1 Product photo

1.2 Specifications

Model	: Modbus Hooter
Audio Output	: 80 db
Volume control	: Using volume control potentiometer
Interface	: RS 485 (2 wire)
Protocol	: Modbus RTU
Parity	: None
Data byte	: 8 bit
Stop bit	: 1
Function supported	: Write single coil (05)
Device address	: Selectable from 1 to 255 using 8 way DIP switch
Baud rate	: Selectable from 2400, 4800, 9600, 19200 using 2 way DIP switch
LED Indication	: 2 nos. of 3 mm RED LED
	(1 nos. flashing for system healthy and 1 nos. for communication status)
Test Push button	: Manual hooter ON command.
Relative Humidity	: Less than 90% non condensing
Ambient Temp.	: 5 to 55°C
Power supply	: 24 VDC, +/- 10 %
Current consumption	: Idle current 50 mA, full load 400 mA
Termination	: Pluggable screwed type suitable for 2.5 mm² wire
Dimensions	: 186 x 92 mm, 60 mm (D)
Mounting	: Wall
Weight	: 1 kg approx.

Note: Termination resistor of 120 ohms is provided separately with each unit.

1.3 Illustrations

TEST PB to manually test hooter

180 mm

170 mm

85 mm 75 mm

TEST PB

DIP-1

DIP1 for address selection of slave device

System Healthy

Communication status

ADDRESS

BAUD

DIP-2

DIP2 for baud rate selection

24 V DC   RS 485
+   -   Tx+ Tx-
1   2   3   4

U2

Tweeter

Connector suitable for 2.5 mm2 wire for supply & RS-485 Connection

Volume Control
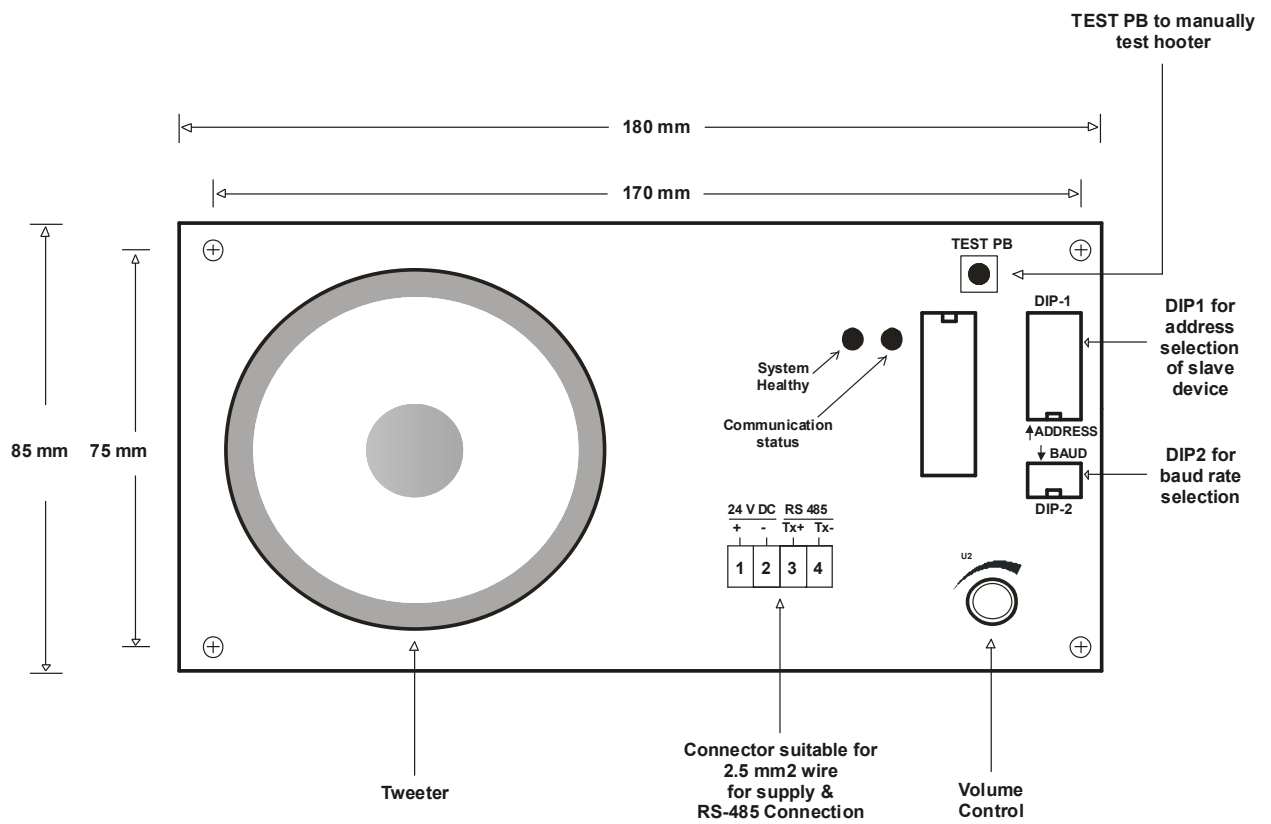
1.4 Communication protocol

Communication   : RS-485 (2 wire)
Protocol   : MODBUS RTU
Baud Rate   : Selectable between 2400, 4800, 9600 & 19200 bps
Interface   : RS 485 (2 wire)
Parity   : None
Data byte   : 8 bit
Stop bit   : 1
Device Address   : Programmable from 1 to 255
Function supported   : Write single coil (05)
Write Coil Address   : Decimal: 35351, Hexadecimal: 0x8A17
Response Timeout (By master): 200 msec minimum

FUNCTION: Message Formats
Message Format: (Request initiated by Master)

Slave Address	Function Code	Start Address (Hi)	Start Address (Lo)	Data High (Hi) byte	Data Low (Lo) byte	CRC Check (Lo)	CRC Check (Hi)
01	05	8A	17	00	00	57	D6

Message Formats: (Response by the slave for the request initiated by the master)

| Slave Address	Function Code	Byte Count(Hi)	Byte Count(Lo)	Data(Hi)	Data(Lo)	CRC Check (Lo)	CRC Check (Hi)
01	05	8A	17	00	00	57	D6

1.5 Address selection procedure

Modbus RTU is "Master/Slave" communication protocol. Usually, there is one master & multiple slave devices on one multi-drop RS-485 serial bus. Each slave is assigned a unique slave address. Here, the address is determined by the DIP switch setting. DIP switch (DIP-1) position 1 to 8 sets the slave address from 1 to 255. Whenever user changes the device address and baud rate settings, the unit needs to be restarted. If all the DIP positions in address DIP (DIP-1) are kept in OFF position, then it is treated as a default address 1.

ON - Shift DIP to ON side
OFF- Shift DIP to numerical side

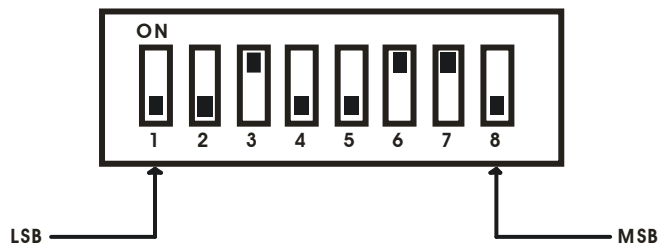e.g 1) To set slave address 1, postion1 = ON & all other position are OFF
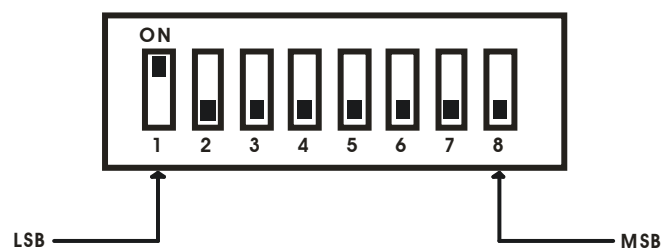
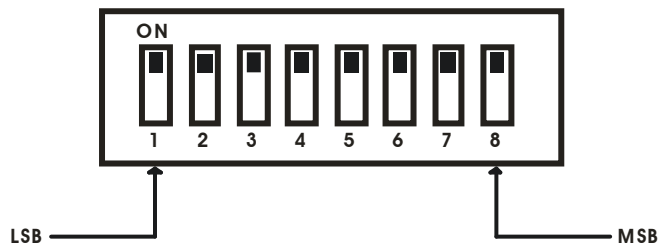e.g 2) To set slave address 2, postion2 = ON & all other position are OFF
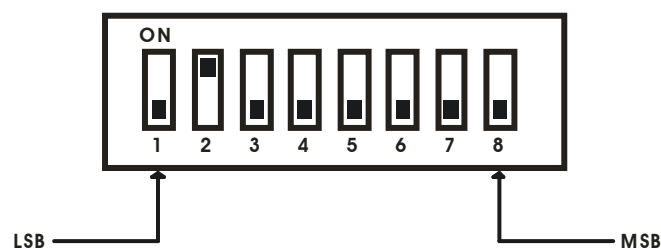
e.g 3) To set slave address 3, postion1,2 = ON & all other position are OFF
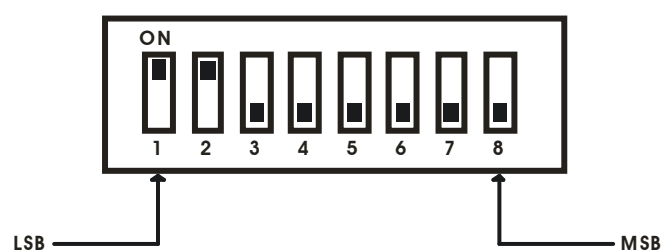
e.g 4) To set slave address 100, postion3,6,7 = ON & all other position are OFF
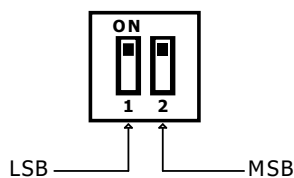

e.g 5) To set slave address 255, postion1, 2, 3, 4, 5, 6, 7, 8 = ON.

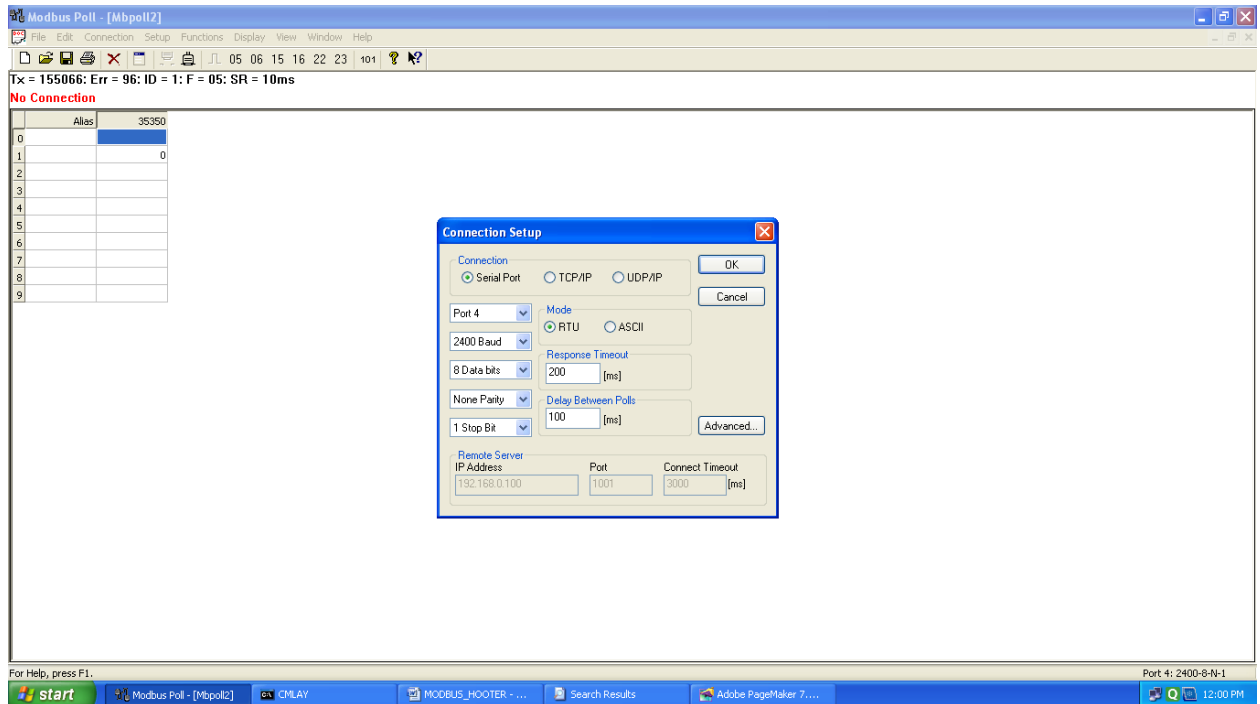## 1.6 Baud rate selection procedure

DIP switch (DIP-2) position 1 & 2 can be used to set the baud rate. Modbus hooter supports 4 different baud rates. i.e. 2400, 4800, 9600 and 19200 bps.
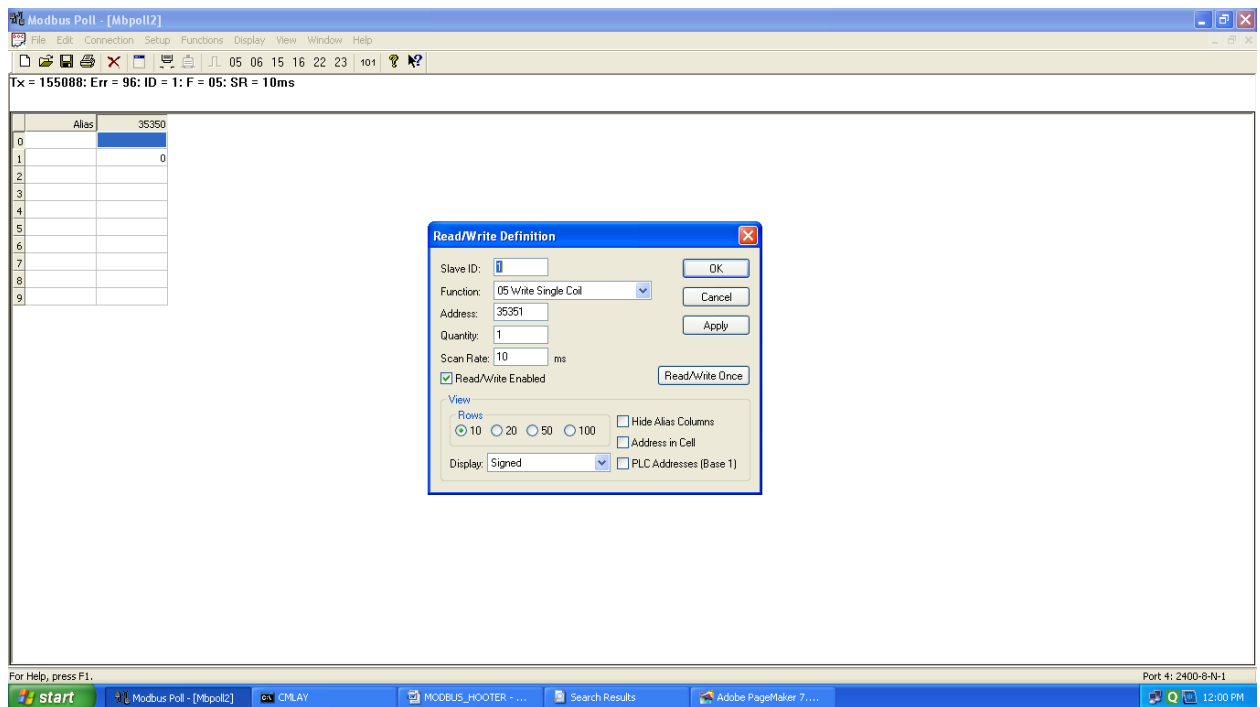

SWITCH POSITION2	SWITCH POSITION1	BAUD RATE
OFF	OFF	2400
OFF	ON	4800
ON	OFF	9600
ON	ON	19200

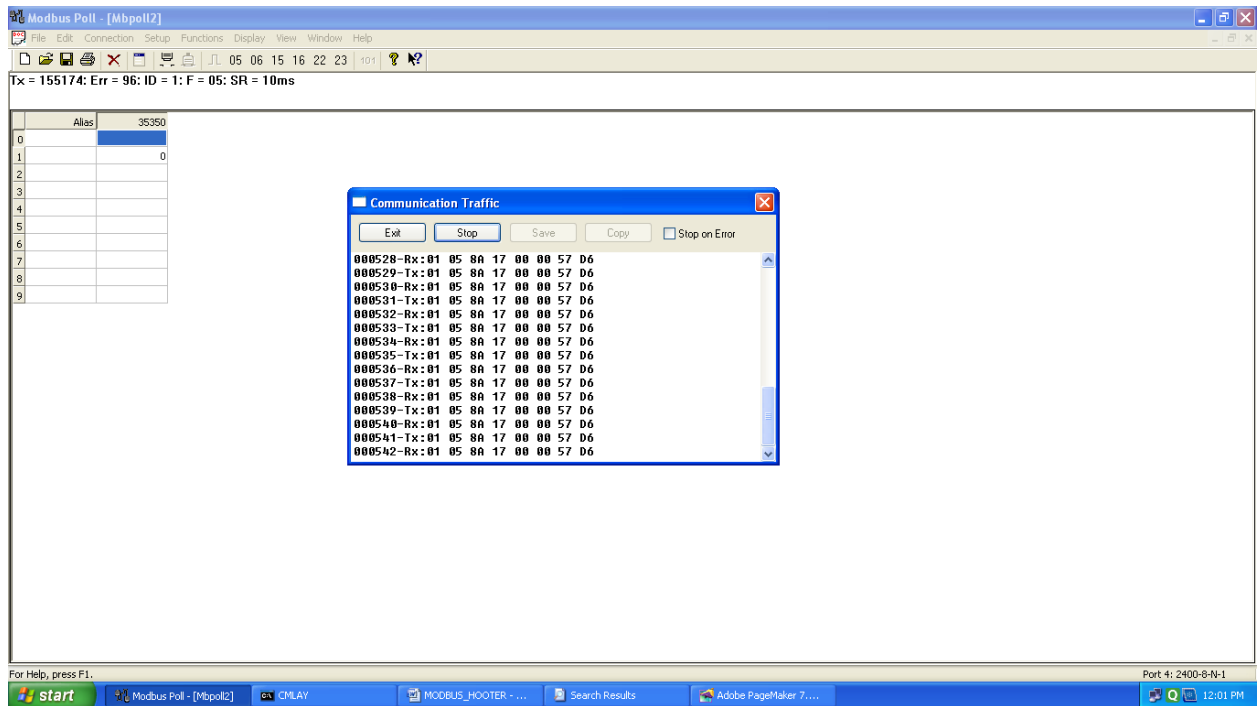## 1.7 Modbus Poll tester communication screen shots

a) Screen showing serial port settings.

b) Screen showing device communication settings.

c) Screen showing data exchanged while communicating with PC.

For queries or any other details, please contact.

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