



Power Supply Modbus RTU Interface Programmer Power MBLink v1.3

for SR...*HL*...485+ models

Please download software for Modbus RTU from:

<https://www.heliosps.co.nz/sr-s-srhi-srhl-downloads/> and go to "Serial Modbus RTU downloads"

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INTRODUCTION

The 'Power MBLink' software is used to configure the Modbus address and baud rate of the interface. Also it is a useful tool to monitor real time the various Innovative Energies power supply parameters via the Modbus port.

Power MBLink v1.3 for L Version Power Supply

Innovative Energies - Power Supply - Modbus Interface Programmer

Power MBLink v1.3 for L Version Power Supply

Configuration | Configuration Instructions | Wiring Instructions | **Modbus Monitor** | Settings & Diagnostics

Power Supply Variables

Output Voltage: **00.0** Volts Power Supply Current: **00.0** Amps Battery Temperature: **00.0** DegC

Status

Normal Operation DC-OK

Alarms

Input Fail Poss. Input/PSU fail DC-Low Comms to PSU Fail
DC-High

Communication

Address: 1

Single Update

Continuous Update

Stop Update

Watchdog: 0

Notice

Code	Type	Description
03003	Notice	Innovative Energies MBLink Successfully Loaded And Initialised

SERIAL MODBUS RTU PROTOCOL

- 01 – Read Coil Status
- 03 – Read Holding Registers
- 05 – Force Single Coil
- 06 – Preset Single Register
- 15 – Force Multiple Coils
- 16 – Preset Multiple Registers
- 22 – Mask Write 4X Register

A maximum of 80 coils can be polled at one time using function 1

A maximum of 32 registers can be polled at one time using function 03

A maximum of 5 registers can be preset at one time using function 06

A maximum of 32 coils can be preset at one time using function 15

Modbus ASCII Mode is not supported.

DEFAULT COMMUNICATION PARAMETERS

- Modbus address 1
- Baud rate 9600
- No parity
- 8 data bits and
- 1 stop bit

COMMUNICATION SETTINGS

The communication parameters of the protocol converter can be changed via the software “Power MBLink”

The following Baud Rate Settings are possible:

- 9600
- 14400
- 19200
- 38400
- 5600
- 57600
- 115200

The Modbus slave device also can be changed via the software

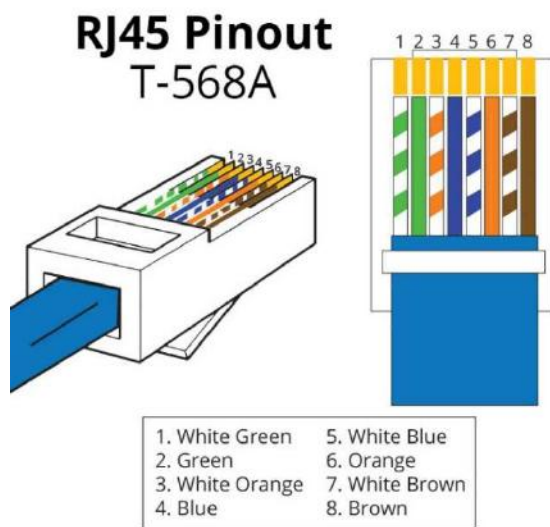
Parity can be changed to None, Odd, Even, Space and Mark only to models released after November 2009.

The Data Bits and Stop Bits cannot be changed and are set as 8 and 1 respectively.

CONNECTION PIN OUTS

RJ45 connector at SR...H.. charger/power supply.

RJ45	Cat5e/6e	Signal
1	White/Green	Data+ (A)
2	Green	Data- (B)
4	Blue	GND



MODBUS REGISTER SET (MODBUS FUNCTIONS 3, 6, 15 & 22)

GENERAL

Reference	Modbus Address	Description	Type	Read/Write
Watchdog	40001	Watchdog	Register	R

DIGITAL MONITORING

Reference	Modbus Address	Description	Type	Read/Write
BP	40011:5	DC - OK	Bit	R
BM	40011:6	DC - LOW	Bit	R
BL	40011:7	DC - HIGH	Bit	R

ANALOGUE PARAMETERS

Reference	Modbus Address	Description	Type	Read/Write
Vout	40014	Output Voltage (Scaled 1:10; 245 = 24.5 Volts)	Register	R
Ipsu	40016	Power Supply Current (Scaled 1:10; 123 = 12.3 Amps)	Register	R
Temp	40017	Temperature (in DegC)	Register	R

ANALOGUE SETTINGS

Reference	Modbus Address	Description	Type	Read/Write
DCLow	40019	DC Low alarm level (Scaled 1:10 in Volts)	Register	R
DCHigh	40021	DC High alarm level (Scaled 1:10 in Volts)	Register	R

MODBUS COIL (BIT) SET (MODBUS FUNCTIONS 1, 5 & 15)

Reference	Modbus Address	Description	Type	Read/Write
BP	00005	DC - OK	Bit	R
BM	00006	DC - LOW	Bit	R
BL	00007	DC - HIGH	Bit	R

REVISION HISTORY

Revision Number	Date Revised	Revised By	Description
1	9-Apr-12	RM	Initial Revision (Based on DZC-PCON-0030001-EM-03)