



Quick Install Guide

This Quick Install Guide is applicable for the MaxTrak™ 180

A copy of this Quick Install Guide, MaxTrak 180 Modbus manual, and the MaxTrak™ 180 product manual are also included on the digital communication information CD included in your shipment. The information is also available for [download](#).

Connecting to a Modbus Network

You will need the following to connect Modbus to your device:

1. A Modbus equipped MaxTrak 180.
2. A personal computer (PC) equipped with RS-485 interface or an external RS-485 convertor. Sierra offers our 29-0331 USB/RS-485 converters.
3. A HyperTerminal or some other terminal software to setup the Modbus ID number.
Note: HyperTerminal has been removed from Windows 7. Go to <http://helpdeskgeek.com/windows-7/windows-7-hyperterminal> for alternatives and information.
4. A 2-wire RS-485 network which must conform to the EIA RS-485 standards. See MaxTrak 180 Modbus Manual, Chapter 2.
Note: termination, pull up, and pull down resistors are recommended and become necessary at higher baud rates and node counts.
5. A 24 VDC power supply to power your MaxTrak 180. Sierra recommends the M180 100-T8F for all meters, or the 100-T10F for medium or high flow C180 models.

Note: You can buy cables and accessories for your MaxTrak 180 from our purchase [online site](#), if you did not purchase them in your original order.

Installation Steps

1. Connect the instrument to your RS-485 network.
2. Start HyperTerminal set to (Baud 9600, bits 8, Parity N, Stop 1)
3. Power-up the instrument.
4. Press "Enter" on your PC within 2 seconds of powering up the instrument to start the boot loader.
5. Setup the meter ID# (1 to 247), Baud, Parity. See MaxTrak 180 Modbus manual, Chapter 5 for complete COM setup instructions.
6. Quit the boot loader and start your Modbus application.
7. All available registers are listed below.

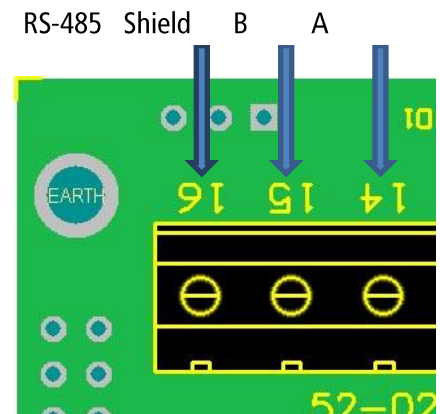


Figure 1: RS-485 Connections

Holding Registers

PDU Address	Register	Description	Read/Write	Data Type	No. Registers
Dynamic Data					
\$00	40001	Actual flow - low word	R	32 bits real	2
\$01	40002	Actual flow - high word			
\$02	40003	Set point - low word	R/W	32 bits real	2
\$03	40004	Set point - high word			
\$04	40005	Totalizer3,4	R/W (Reset)	BCD encoded	4
\$05	40006	Totalizer1,2	R		
\$06	40007	Totalizer7,8	R		
\$07	40008	Totalizer5,6	R		
\$08	40009	Valve power	R	16 bits int.	1
\$09	40010	Analog CH0	R	16 bits int.	1
\$0A	40011	Analog CH1	R	16 bits int.	1
\$0B	40012	Alarm status	R/W	16 bit int.	1
\$0C	40013	Factory f.s – low word	R	32 bits real	2
\$0D	40014	Factory f.s – high word			
\$0E	40015	User f.s – low word	R/W	32 bits real	2
\$0F	40016	User f.s – high word			
\$10	40017	Gas span – low word	R/W	32 bits real	2
\$11	40018	Gas span – high word			
\$12	40019	Trigger low – low word	R/W	32 bits real	2
\$13	40020	Trigger low – high word			
\$14	40021	Trigger high – low word	R/W	32 bits real	2
\$15	40022	Trigger high – high word			
\$16	40023	Alarm Control register	R/W	16 bit int.	1
\$17	40024	Trigger source 1	R/W	16 bit int.	1
\$18	40025	Analog input setting	R/W	8 bits int.	1
\$19	40026	Gas index	R/W	8 bits int.	1
\$1A	40027	Valve position index	R/W	8 bits int.	1
\$1B	40028	Flow unit index	R/W	8 bits int.	1
\$1C	40029	Password	R/W	16 bits int.	1
\$1D	40030	Input set point index	R/W	8 bits int.	1
\$1E	40031	Analog output index	R/W	8 bits int.	1
\$1F	40032	Device firm rev – low word	R	32 bits real	2
\$20	40033	Device firm rev – high word			
\$21	40034	Device type	R	16 bits ASCII	1
\$22	40035	Serial number – char 1,2	R	16 bits ASCII	4
\$23	40036	Serial number – char 3,4			
\$24	40037	Serial number – char 5,6			
\$25	40038	Serial number – char 7,8			
\$26	40039	Tag number - char 1,2	R	16 bits ASCII	5
\$27	40040	Tag number - char 3,4			
\$28	40041	Tag number - char 5,6			
\$29	40042	Tag number - char 7,8			
\$2A	40043	Tag number - char 9,10			
\$2B	40044	Gas 1 – char 1,2	R	16 bits ASCII	8
\$32	40051	Gas 1 – char 15,16			
\$33	40052	Gas 2 – char 1,2	R	16 bits ASCII	8
\$3A	40059	Gas 2 – char 15,16			
\$3B	40060	Gas 3 – char 1,2	R	16 bits ASCII	8
\$42	40067	Gas 3 – char 15,16			
\$43	40068	Gas 4 – char 1,2	R	16 bits ASCII	8
\$4A	40075	Gas 4 – char 15,16			

\$4B	40076	Gas 5 – char 1,2	R	16 bits ASCII	8
\$52	40083	Gas 5 – char 15,16			
\$53	40084	Gas 6 – char 1,2	R	16 bits ASCII	8
\$5A	40091	Gas 6 – char 15,16			
\$5B	40092	Gas 7 – char 1,2	R	16 bits ASCII	8
\$62	40099	Gas 7 – char 15,16			
\$63	40100	Gas 8 – char 1,2	R	16 bits ASCII	8
\$6A	40107	Gas 8 – char 15,16			
\$6B	40108	Gas 9 – char 1,2	R	16 bits ASCII	8
\$72	40115	Gas 9 – char 15,16			
\$73	40116	Gas 10 – char 1,2	R	16 bits ASCII	8
\$7A	40123	Gas 10 – char 15,16			
\$7B	40124	Sensor data	R	8 + 8 bit int.	1
\$7C	40125	Set unit to zero	R/W (\$A5)	8 bits int.	1
\$7D	40126	Reset unit to factory default	R/W (\$A5)	8 bits int.	1