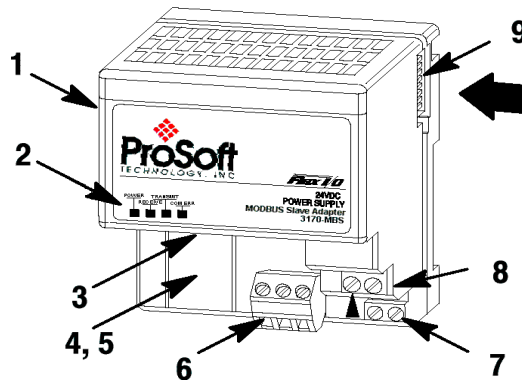


**Modbus Slave Adapter
3170-MBS
Installation Instructions**

The following documents are available off the web site:

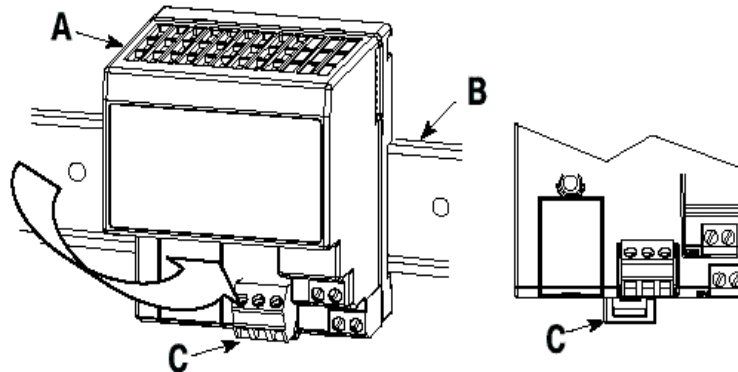
<http://www.prosoft-technology.com>

User & Programming Manual



Component Identification	
1	Modbus Adapter module
2	Indicators
3	Communication reset pushbutton (PRL)
4	Access door to switches S1 and S2
5	Switches S1 and S2 (Behind access door)
6	Modbus cable connector
7	+24V dc connections
8	24V common connections
9	Flexbus connector

Installation

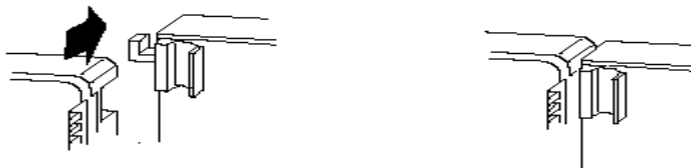


Mounting on a DIN Rail before installing the terminal base units

1. Position the Modbus adapter module **A** on a 35 X 7.5mm DIN rail **B** (A-B pt. no. 199-DR1: 46277-3; EN 50022) at a slight angle.
2. Hook the lip on the rear of the adapter (**A**) onto the top of the DIN rail (**B**), and rotate the adapter module onto the rail.
3. Press the adapter module down onto the DIN rail until flush. Locking tab (**C**) will snap into position and lock the adapter module to the DIN rail.
4. If the adapter module does not lock in place, use a screwdriver or similar device to move the locking tab down while pressing the adapter module flush onto the DIN rail and release the locking tab to lock the adapter module in place. If necessary, push up on the locking tab to lock.
5. Connect the adapter wiring as shown under "Wiring" later in this document.

Mounting (or Replacing) the module on an existing system

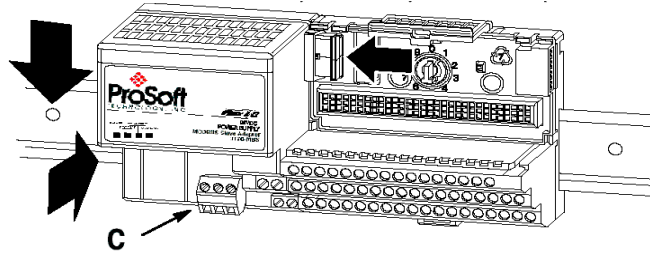
1. Remove the Modbus plug-in connector from the front of the adapter.
2. Disconnect any wiring jumpered to the adjacent terminal base.
3. Using a screwdriver or similar tool, open the lock and remove the module from the base unit to which the adapter will be attached.
4. Push the flexbus connector toward the right side of the terminal base to unplug the backplane connection.
5. Release the locking tab and remove the adapter.
6. Before installing the new adapter, notice the notch on the right rear of the adapter. This notch accepts the hook on the terminal base unit. The notch is open at the bottom. The hook and adjacent connection point keep the terminal base and adapter tight together, reducing the possibility of a break in communication over the backplane.
7. Complete the adapter mounting as shown below.



ATTENTION: Make Certain that the hook on the terminal base is properly hooked into the adapter. Failure to lock the hook into the adjacent base/adapter can result in loss of communication on the backplane.

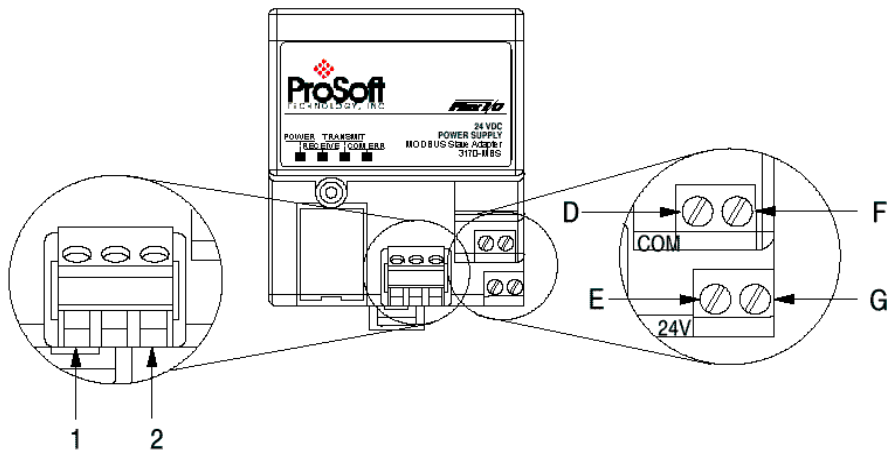
Push down and in at the same time to lock the adapter to the DIN rail.

When the adapter is locked onto the DIN rail, gently push the flexbus connector into the adapter to complete the backplane.



8. If the adapter module does not lock in place, use a screwdriver or similar device to move the locking tab **C** down while pressing the adapter module flush onto the DIN rail. Then release the locking tab to lock the adapter module in place. If necessary, push up on the locking tab to lock.
9. Reinstall the module into the terminal base unit.

Wiring



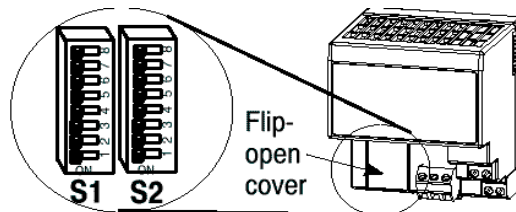
ATTENTION: When connecting wiring, torque terminal screws to 7-9 inch-pounds.

Connect	To
TxRxD-	1
TxRxD+	2

1. Connect the Modbus cable to the removable connector.
2. Connect +24V dc input to the left side of the lower connector, terminal **E**.
3. Connect 24V common to the left side of the upper connector, terminal **D**.
4. Connections **G** and **F** are used to pass 24V dc power (G) and 24V common (F) to the next module in the series (if required).

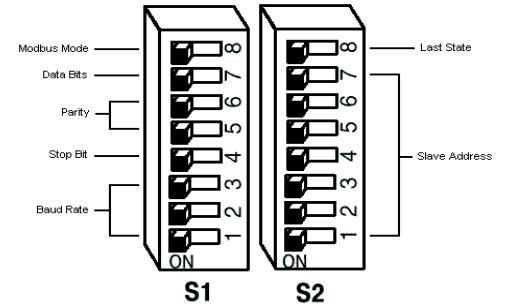
Setting the switches

The adapter switches are located under a flip-open cover on the front of the adapter. Set the switches as shown below.



1. Lift the hinged switch cover on the front of the adapter to expose the switches.
2. Set the switches as shown below.
3. Cycle power to the adapter after setting the switches.

Baud Rate	S1-1	S1-2	S1-3
1200	OFF	OFF	OFF
2400	ON	OFF	OFF
4800	OFF	ON	OFF
9600	ON	ON	OFF
19200	OFF	OFF	ON
38400	ON	OFF	ON
62.5K	OFF	ON	ON
Undefined(Defaults to 19200)	ON	ON	ON
Stop Bit	S1-4		
1	OFF		
2	ON		
Parity	S1-5	S1-6	
None	OFF	OFF	
Odd	ON	OFF	
Even	OFF	ON	
Data Bits	S1-7		
8	OFF		
7	ON		
Modbus Mode	S1-8		
RTU	OFF		
ASCII	ON		



Address	S2-1	S2-2	S2-3	S2-4	S2-5	S2-6	S2-7
0	OFF	OFF	OFF	OFF	OFF	OFF	OFF
1	ON	OFF	OFF	OFF	OFF	OFF	OFF
2	OFF	ON	OFF	OFF	OFF	OFF	OFF
3	ON	ON	OFF	OFF	OFF	OFF	OFF
4	ON	OFF	ON	OFF	OFF	OFF	OFF
5	OFF	ON	ON	OFF	OFF	OFF	OFF
6	ON	ON	ON	OFF	OFF	OFF	OFF
-----	-----	-----	-----	-----	-----	-----	-----
127	ON	ON	ON	ON	ON	ON	ON
Last State	S2-8						
Off	OFF						
Hold	ON						

Address 0 – Test Mode – Puts unit into a transmit only mode. Connect a terminal at 19200 baud, 8N1 to view data.
 Address 1 to 127 Valid Slave addresses.

Installation Instructions:

Power, input and output wiring must be in accordance with Class I, Division 2 wiring methods – Article 501-4 (b) of the National Electrical Code, NFPA 70 and in accordance with the authority having jurisdiction. The following warnings must also be heeded:

- A. WARNING – EXPLOSION HAZARD – SUBSTITUTION OF COMPONENTS MAY IMPAIR SUITABILITY FOR CLASS I, DIV. 2;
- B. WARNING – EXPLOSION HAZARD – WHEN IN HAZARDOUS LOCATIONS, TURN OFF POWER BEFORE REPLACING OR WIRING MODULES, and
- C. WARNING – EXPLOSION HAZARD – DO NOT DISCONNECT EQUIPMENT UNLESS POWER HAS BEEN SWITCHED OFF OR THE AREA IS KNOWN TO BE NONHAZARDOUS.
- D. “THIS DEVICE SHALL BE POWERED BY CLASS 2 OUTPUTS ONLY.”