# **External Network Interface**

User's Guide



990 South Rogers Circle, Suite 11 Boca Raton, FL 33487 Tel: 561 997-2299 Fax: 561 997-5588 www.alber.com



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## Safety Information

Except as explained in this manual, do not attempt to service Albér equipment yourself. Opening the equipment may expose you to dangerous voltages. Refer servicing beyond that described in this manual to authorized personnel.

Do not allow liquids or moisture to get into the equipment. If liquid does get into the equipment, unplug it immediately and contact your nearest authorized service center or Albércorp directly.

Ensure equipment is provided adequate ventilation. Do not block equipment ventilation openings.

Do not exceed equipment voltage or power ratings and capabilities.

Make sure that equipment is properly grounded.

Do not let unauthorized persons operate or service the equipment.

#### **Final Connection**

After quitting the HyperTerminal program, do the following:

Disconnect the DB-9 cable from the computer COM port and connect it to a DB-9 to DB-9 null modem adaptor.

Connect the null modem adaptor to the LAN port on a BDS controller or to the rear RS-232 port on an MPM-100.

Connect the LAN network cable to the RJ-45 connector on the External Network Interface.

Information in this document is subject to change without notice.

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Select **1** to set the IP address, Default Gateway and Netmask. These settings can be obtained from your network administrator.

Select **2** to set the Protocol to Modbus/ASCII, Slave(s) Attached, and Serial Interface to 9600, 7, N, 2, RS232, DB25.

Select S to save the settings and then Q to quit.

```
Use serial connector (1=DB25 2=DB9) (001)
Interface Type (1=RS232 2=RS422 3=RS485) (001)
Enter serial parameters (9600,7,N,2)
CoBox MB Setup, Lantronix, Inc.
1) Network/IP Settings:
     Ethernet Interface TPI
      Default Gateway ..... - not set --
     Netmask ..... - not set --
2) Serial & Mode Settings:
      Protocol ..... Modbus/ASCII, Slave attached
      Serial Interface ..... 9600,7,N,2,RS232,DB25
3) Modem Control Settings:
      DCD Output ..... Fixed High/Active
      CTS Output ..... Fixed High/Active
4) Advanced Modbus Protocol settings:
      Slave Addr/Unit Id Source .. Modbus/TCP header
      Modbus Serial Broadcasts ... Disabled
      Character, Message Timeout .. 1000 ms,05000 ms
D)efault settings, S)ave, Q)uit without save
Select Command or parameter set (1..4) to change:
```

#### **Figure 6. Settings Confirmation**

**NOTE**: The IP address shown in the preceding Settings Confirmation figure is for illustration only and should not be used.

# **General Description**

Use the Lantronix CoBox External Network Interface to connect an MPM or BDS monitor to your local network. The CoBox is used with MPM monitors that do not have an internal network port and with all BDS monitors.

### Initial Connection

Connect the 15V line from the wall mount transformer to the Power connector on the CoBox.

Connect the DB-9 to DB-25 cable between an available DB-9 COM port on the computer and the DB-25 CH1 connector on the External Network Interface.

Plug the transformer into a 115VAC outlet.

### HyperTerminal Setup

HyperTerminal<sup>®</sup> is a program distributed with Windows 95, 98, and NT and is located in the Start|Programs|Accessories folder. To start HyperTerminal, click the Hypertrm.exe icon. Type the name **Network Setup** in the field provided, select an icon of your choice, and click OK.



**Figure 1. Connection Description** 

In the Connect Using field, click the drop-down menu and select the COM port to which the External Network Interface is connected. Click OK.

Phone Number	? ×
Network	k Setup
Enter details for	the phone number that you want to dial:
Country code:	United States of America (1)
Arga code:	561
Phone number:	
Cognect using	Direct to Com 1
	OK Cancel

Figure 2. Phone Number

On the Properties dialog box, select 9600 from the Bits per Second drop-down menu, and select None from the Flow Control menu. Click OK.

COH1 Properties	? ×
Port Settings	
Bits per second: 9600	
Qətə bits: B	
Early: None 💌	
Stop bit: 1	
Flow control: Neiza	
Advanced Restore Defaul	ts
	-
OK Cancel A	207

**Figure 3. Properties** 

**NOTE**: In the following steps, you must press Enter within four seconds of getting the first message (below) to press Enter. (The red State LED on the External Network Interface will be flashing.) If Enter is not pressed soon enough, the interface module will default to a normal power on state, and you will have to press X and cycle the power again.

Unplug the power from the External Network Interface. While holding down the X key on the keyboard, reconnect the power to the interface. When the screen displays the following, release the X key:

\*Lantronix, Inc. CoBox Modbus Serial Number 1536-191 Software Version V01.1 (990709)

Press Enter to go into Setup Mode, wait to close

#### Figure 4. Connection

Press the Enter key to display the following:

CoBox MB Setup, Lantronix, Inc.		
1) Network/IP Settings:		
Ethernet Interface TPI		
IP Address 0.0.0.0/DHCP		
Default Gateway not set		
Netmask not set		
2) Serial & Mode Settings:		
Protocol Modbus/RTU,Slave(s)attached		
Serial Interface 9600,8,E,1,RS232,DB25		
3) Modem Control Settings:		
DCD Output Fixed High/Active		
CTS Output Fixed High/Active		
4) Advanced Modbus Protocol settings:		
Slave Addr/Unit Id Source Modbus/TCP header		
Modbus Serial Broadcasts Disabled		
Character, Message Timeout 00050 ms, 05000 ms		
D)efault settings, S)ave, Q)uit without save		
Select Command or parameter set (14) to change:		

Figure 5. Settings