ENGINEERING BULLETIN

REVISIONS

REV	DESCRIPTION	DATE	CHG	APPR
A	Release per ECN 21681			

APPROVALS	**UBA GmbH** Neu-Anspach		
ORIGINATOR:	BULLETIN, ROUTER ASSEMBLY		
PRODUCT ENG:	INSTALLATION		
CHECKED:			Rev: A
ENGINEERING:		Sheet: 1 0f 7	
QUALITY:			

QUALITY:

ROUTER ASSEMBLY KITS PARTS LISTS

PART NO.	DESCRIPTION	QUANTITY IN KIT, 803A024-x					
		HS -1	LSTP -2	LSTX -3	HS -4	LSTP -5	LSTX -6
3617884-1	Router Assembly	1	1	1	1	1	1
3617885-1	Power Supply	1	1	1	1	1	1
3617694-1	Debug Cable	1	1	1	1	1	1
803U005-1	Outline & Dimension Drawing	1	1	1	1	1	1
5515195-1	ID Tag	1	1	1	1	1	1
3617577-1	Power Cable, 115 V	1	1	1			
3617504-15	D Subcon Connector	1	1		1	1	
3616958-20101	100 ohm Resistor	2	2		2	2	
803D001-1	Router Modification, Low Speed		1	1		1	1
803A021-1	Twinax Y Adapter			1			1
3616575-1	Power Cable, 250 V				1	1	1

Key: **HS** High Speed
LSTP Low Speed Twisted Pair Cable
LSTX Low Speed Twinax Cable

PREPARING THE ROUTER

1. Determine the type of VistaNET system, to identify the correct kit part number.

System Type	Kit Part Number
High Speed, 115 VAC	803A024-1
Low Speed Twisted Pair Cable, 115 VAC	803A024-2
Low Speed Twinax Cable, 115 VAC	803A024-3
High Speed, 230 VAC	803A024-4
Low Speed Twisted Pair Cable, 230 VAC	803A024-5
Low Speed Twinax Cable, 230 VAC	803A024-6

2. Verify the positions of the jumpers on the back panel of the Router Assembly (see Figure 1). For high speed systems, the three jumpers should be in the positions marked by the HS arrows. For low speed systems, the three jumpers should be in the positions marked by the LS arrows.
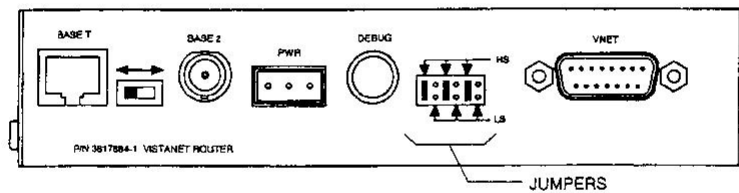

Figure 1. ROUTER ASSEMBLY, BACK VIEW

INSTALLING THE ROUTER IN A HIGH SPEED SYSTEM

1. Turn OFF all power to the VistaNET system.

2. On the D Sub connector (supplied in the kit), connect the Belden type 9841 cable (or its equivalent) from an Analyzer, white wire to pin 5, blue wire to pin 12, and shield (screen) to pin 8. (The Analyzer has its own D Sub connector for the other end of the cable.)

NOTE

This cable must not exceed 250 feet (76 meters) in total length.

3. Connect the D Sub connector to the VNET connector on the back of the Router Assembly (see Figure 1 for location).

4. Connect the Ethernet cable from the Media Converter to the BASE T or BASE 2 connector on the back of the Router Assembly (see Figure 1).

5. Set the Ethernet switch on the back of the Router Assembly toward the Ethernet cable you just connected.

6. Connect one end of the Debug cable (supplied in the kit) to the DEBUG connector on the back of the Router Assembly and connect the other end of this cable to the serial port of the PC you will use to configure the Router Assembly.

7. Connect the cable from the Power Supply (supplied in the kit) to the PWR connector on the back of the Router Assembly.

8. Connect one end of the Power Cable (supplied in the kit) to the Power Supply and the other end to the AC power source.

INSTALLING THE ROUTER IN A LOW SPEED TWISTED PAIR CABLE SYSTEM

1. Turn OFF all power to the VistaNET system.

2. On the D Sub connector (supplied in the kit), connect the Belden type 9773 cable (or its equivalent) from an Analyzer, white wire to pin 5, blue wire to pin 12, and shield (screen) to pin 8. (The Analyzer has its own D Sub connector for the other end of the cable.)

NOTE

This cable must not exceed 2000 feet (610 meters) in total length.

3. Connect the D Sub connector to the VNET connector on the back of the Router Assembly (see Figure 1 for location).

4. Connect the Ethernet cable to the BASE T or BASE 2 connector on the back of the Router Assembly (see Figure 1).

5. Set the Ethernet switch on the back of the Router Assembly toward the Ethernet cable you just connected.

6. Connect one end of the Debug cable (supplied in the kit) to the DEBUG connector on the back of the Router Assembly and connect the other end of this cable to the serial port of the PC you will use to configure the Router Assembly.

7. Connect the cable from the Power Supply (supplied in the kit) to the PWR connector on the back of the Router Assembly.

8.   Connect one end of the Power Cable (supplied in the kit) to the Power Supply and the other end to the AC power source.

INSTALLING THE ROUTER IN A LOW SPEED TWINAX CABLE SYSTEM

1.   Turn OFF all power to the VistaNET system.

2.   Prepare a connecting cable using Belden type 9207 cable (or its equivalent), a Twinax Y connector from the Twinax Y Adapter supplied in the kit and a second connector from a Twinax Y Adapter supplied with an Analyzer.
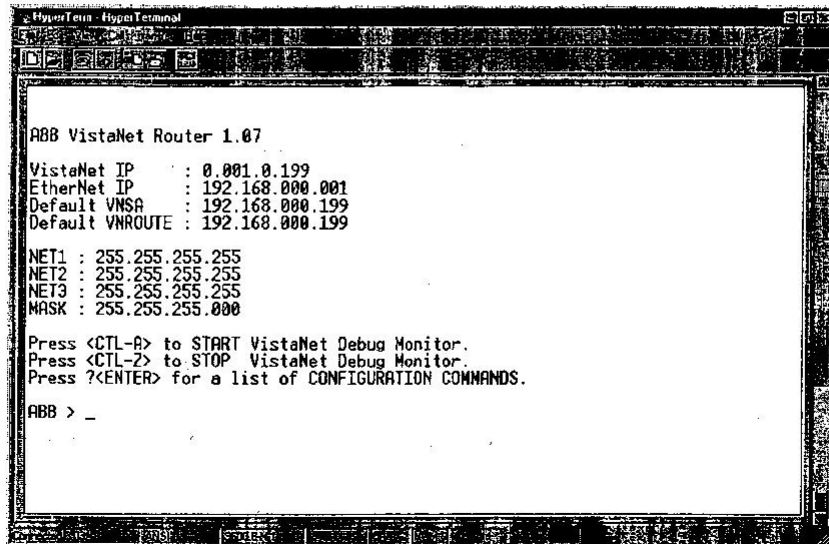
NOTE

This cable must not exceed 5000 feet (1525 meters) in total length.

3.   Connect one end of this cable to the Twinax Y Adapter in the Analyzer.

4.   Connect the other end of the cable to the VNET connector on the back of the Router Assembly (see Figure 1 for location).

5.   Connect the Ethernet cable to the BASE T or BASE 2 connector on the back of the Router Assembly (see Figure 1).

6.   Set the Ethernet switch on the back of the Router Assembly toward the Ethernet cable you just connected.

7.   Connect one end of the Debug cable (supplied in the kit) to the DEBUG connector on the back of the Router Assembly and connect the other end of this cable to the serial port of the PC you will use to configure the Router Assembly.

8.   Connect the cable from the Power Supply (supplied in the kit) to the PWR connector on the back of the Router Assembly.

9.   Connect one end of the Power Cable (supplied in the kit) to the Power Supply and the other end to the AC power source.

CONFIGURING THE ROUTER

1.   Turn ON power to the VistaNET system.

2.   Verify that the Host PC Terminal Application is set up for **9600 baud, no parity, 8 data bits, 1 stop bit.**

3. When the VN Router hardware boots up it automatically enters "SERIAL CONFIGURATION" mode. The Terminal Emulation window should appear (see Figure 2).


```
ABB VistaNet Router 1.07

VistaNet IP    : 0.001.0.199
EtherNet IP    : 192.168.000.001
Default VNSA   : 192.168.000.199
Default VNROUTE : 192.168.000.199

NET1 : 255.255.255.255
NET2 : 255.255.255.255
NET3 : 255.255.255.255
MASK : 255.255.255.000

Press <CTL-A> to START VistaNet Debug Monitor.
Press <CTL-Z> to STOP  VistaNet Debug Monitor.
Press ?<ENTER> for a list of CONFIGURATION COMMANDS.

ABB > _
```

Figure 2. TERMINAL EMULATION WINDOW

The first line of the banner ("ABB VistaNet Router 1.07") displays the current release version of the VistaNET Router Embedded Application.

The remaining lines should display the following:

- first four-line group (VistaNET commands)–the currently ACTIVE VistaNet IP, EtherNet IP, VNSA IP, and VNROUTE IP addresses, respectively

- second four-line group (Gateway and Mask commands)–the currently ACTIVE default Gateway and mask commands

- three-line group (Help and other commands)–some available commands. The <CTL-A> and <CTL-Z> key sequences can be used to ENTER and EXIT the VistaNet Kernel Serial Debug Monitor mode.

4. To set or change a Serial Command, you must enter the command you want to set or change and then press ENTER to execute the command. The following paragraphs explain each command in detail.

VistaNET Commands

The VIP xxx.xxx.xxx.xxx command sets the currently active VistaNET Router VistaNET IP address.

Example: **VIP 0.2.0.162** will set VistaNET IP Address 0.2.0.162

1. Type the VIP xxx.xxx.xxx.xxx command.

2. Press **ENTER** to execute the command.

3. Immediately after executing the VIP command you will be prompted to "*** Please Wait ***" while the VistaNET Router application reconfigures the VistaNet Port IP address (takes approximately 1 second).

   The new VistaNET IP address takes effect immediately, but it is only in effect for the current VNRouter Session (i.e. if you POWER OFF the unit, the VISTANET.INI file will be used to reconfigure the IP addresses at next power on).

4. To cause the new VIP Address to be the system default value execute the **VINI** command (described in "Help and Other Commands").

The **EIP xxx.xxx.xxx.xxx** command sets the currently active VistaNET Router Ethernet IP address.

   Example: **EIP 192.168.0.162** will set Ethernet IP Address 192.168.0.162

1. Type the EIP xxx.xxx.xxx.xxx command.

2. Press **ENTER** to execute the command.

3. Immediately after executing the EIP command you will be prompted to "*** Please Wait ***" while the VistaNET Router application reconfigures the Ethernet Port IP address (takes approximately 1 second).

   The new Ethernet IP address takes effect immediately, but it is only in effect for the current VNRouter Session (i.e. if you POWER OFF the unit, the VISTANET.INI file will be used to reconfigure the IP addresses at next power on).

4. To cause the new EIP Address to be the system default value execute the **VINI** command (described in "Help and Other Commands").

The **VNSA xxx.xxx.xxx.xxx** command sets the currently active VistaNET Name Server Application IP address.

1. Type the VNSA xxx.xxx.xxx.xxx command.

2. Press **ENTER** to execute the command.

3. Immediately after executing the VNSA command you will be prompted to "*** Please Wait ***" while the VistaNET Router application reconfigures the Ethernet Port IP address (takes approximately 1 second).

   The new VNSA address takes effect immediately, but it is only in effect for the current VNRouter Session (i.e. if you POWER OFF the unit, the VISTANET.INI file will be used to reconfigure the IP addresses at next power on).

4. To cause the new VNSA Address to be the system default value execute the **VINI** command (described in "Help and Other Commands").

The **VNROUTE xxx.xxx.xxx.xxx** command sets the currently active VNROUTE (ARD) IP address.

1. Type the VNROUTE xxx.xxx.xxx.xxx command.

2. Press **ENTER** to execute the command.

3. Immediately after executing the VNROUTE command you will be prompted to "*** Please Wait ***" while the VistaNET Router application reconfigures the Ethernet Port IP address (takes approximately 1 second).

The new VNROUTE address takes effect immediately, but it is only in effect for the current VNRouter Session (i.e. if you POWER OFF the unit, the VISTANET.INI file will be used to reconfigure the IP addresses at next power on).

4.   To cause the new VNROUTE Address to be the system default value execute the **VINI** command (described in "Help and Other Commands").

Gateway and Mask Commands

The Default Gateway commands **NET1**, **NET2**, and **NET3** set up three Default Gateway IP addresses. An IP address value 255.255.255.255 indicates that there is no Default Gateway entry.

You must execute the **VINI** command in order to cause a value to become a system default (described in "Help and Other Commands").

The **MASK xxx.xxx.xxx.xxx** command sets the network subnet IP mask. A default value of 255.255.255.255 indicates there is no mask implemented.

To cause a new subnet MASK to be the system default value execute the **VINI** command (described in "Help and Other Commands").

Help and Other Commands

You can display a list of available Serial Configuration commands by typing either "?<ENTER>", or "HELP<ENTER>" (these two command sequences function identically). After requesting the list of available Serial Configuration commands, the Serial Configuration display should appear (see Figure 3).

```
VIP xxx.xxx.xxx.xxx          Set VistaNet IP Address
EIP xxx.xxx.xxx.xxx          Set EtherNet IP Address
VNSA xxx.xxx.xxx.xxx         Set Default VNSA IP Address
VNROUTE xxx.xxx.xxx.xxx      Set Default VNROUTE IP Address
MASK xxx.xxx.xxx.xxx         Set Subnet IP Mask Address
NET1 xxx.xxx.xxx.xxx         Set Default Gateway[0] IP Address
NET2 xxx.xxx.xxx.xxx         Set Default Gateway[1] IP Address
NET3 xxx.xxx.xxx.xxx         Set Default Gateway[2] IP Address
VINI                        Update VISTANET.INI File
SHOW                        Show Current Configuration
HELP                        Show HELP text

Press <ENTER> to continue...
```

Figure 3. AVAILABLE SERIAL CONFIGURATION COMMANDS

The **VINI** command causes the VISTANET.INI file to be updated based on the currently active configuration. All of the previous commands (i.e. VIP, EIP, VNSA, and VNROUTE) only change the associated IP address for the current VN Router power session. If the power is cycled, the next time the VN Router powers up it uses the VISTANET.INI file to initialize configuration.

NOTE

The **VINI** command updates the **VISTANET.INI** file so that it reflects all currently active configuration settings.

The **SHOW** command redisplays the Serial Configuration window indicating the currently active IP addresses.

VistaNET Router Data Sheet

Date : 7/31/02

Sales Order Number : BF00954001   Tag Number :

Wire Protocol :   High Speed

Addressing

Domain # :   0.1

VistaNET IP   0.1.0.50

EtherNET IP :   192.168.0.50

Default VNSA :   192.168.0.200

Default Router :   192.168.0.50

NET1:   192.168.0.0

NET2:   255.255.255.255

NET3:   255.255.255.255

MASK: 255.255.255.255

Comments :

No Additional Comments