# Siemens WL Circuit Breaker BDA Troubleshooting Guide

ISSUE DESCRIPTION	SOLUTION
	Ensure that you are using a fully-assigned null modem cable. With a null modem cable, pins 2 and 3, 4 and 6, and 7 and 8 must be assigned and reversed with respect to each other.
	Ensure that 24VDC is available at the breaker or via the adaptor plug.
An error message appears (e.g. Modem is not initialized, recognized, etc.)	Before starting the BDA, disconnect the null modem cable from the BDA and reboot the BDA (DEVICE LED is green), then reconnect the cable.
	The COM port that you are using on the PC must not be utilized by a different application (go to the Device Manager to check it and free it up if necessary).
	Check the modem and data communications connection settings. You <u>must</u> choose "555" as the phone number and "ppp" as the user name.
	Set the baud rate for the COM interface that you are using to 115200.
	It is highly recommended to use Internet Explorer V5.5 or higher or Netscape Navigator V6.2 or higher.
	Ensure that the option "Use Java v1.4.0 <applet>" is active in the browser.</applet>
	Delete the cache memory of the browser.
Nothing happens after the language is selected on the first page.	Open the Java plug-in operator panel in the Control Panel. Check that the plug-in is active and Version 1.4.0 is selected under "Extended". On the "Browser" tab page, the browser that you are using must be active, and the Java VM cache can be deleted to be on the safe side. Then restart the system.
	The correct version of JAVA can be downloaded from this website
	http://java.sun.com/products/archive/j2 se/1.4.0_01/index.html
	If the problem persists, remove any older versions of Java you may have.

ISSUE DESCRIPTION	SOLUTION
	Use a test ping to check that the connection has been established correctly. Select Start and enter "ping 2.2.2.1" in the Run window. A DOS box appears that displays either "Reply from 2.2.2.1 after" (connection OK) or "Reply timed out" (connection not available). Under Internet Options in the browser (under Tools in Microsoft Internet Explorer) select Connections. Under LAN settings disable the proxy server.
You can not establish a connection with the BDA.	Check Network Connections to verify that the Standard 28800 bps Modem is selected and assigned to the right COM port (under properties of the "BDA Communication via RS232" dial-up connection).
	Verify that the Standard 28800 bps Modem is enabled and is working properly. Go to Phone and Modem Options in the Control Panel or Modems in the Hardware Device Manager.
	If the problem persists, disable any other modems that may be enabled. Go to Phone and Modem Options in the Control Panel or Modems in the Hardware Device Manager.
The system displays a message about security settings and the BDA pages stop loading.	The security level of the browser is set to "secure" and stops Java applets from running. For this reason, you have to reduce the security level to a level where the security message no longer appears and the BDA pages are displayed.

# **CHECK FOR PROPER CONFIGURATION**

#### JAVA Set-up

Go to Control Panel, then double click on Java Plug-in

≜ Java(1	r <mark>M) Plug-in</mark> Co	ontrol Panel					. 🗆 🗡
Basic	Advanced	Browser	Proxies	Cache	Certificates	About	
Java Ru	untime Enviroi	nment					
JRE 1	.4.2_06 in C:\\	Program File	s\Java\j2re	1.4.2_06			-
Use Ja	wa Plug-in De	fault					
JRE 1.	4.2_06 in C:\P	rogram File:	sWava\j2re1	1.4.2_06			
Other.							
Other							
· · · · · · · · · · · · · · · · · · ·							
Java Rur	itime Parame	ers					
			<u>A</u> pply	<u>R</u> eset	<u>H</u> elp		

Select version JRE 1.4.0\_01. If this version is not one of the selections, go to the Sun website and download this version.

http://java.sun.com/products/archive/j2se/1.4.0\_01/index.html

Go back to the Java Plug-in screen above and now select the proper version under Advanced. Under Browser make sure that Microsoft Internet Explorer is selected. Under Cache, it should look like this.

誊 Java(TM) Plug-in	Control Panel	_ 🗆 🗵
Basic Advanced	I Browser Proxies Cache Certificates About	
🗷 Enable Caching	View	<u>C</u> lear
Cache Settings		
Location	C:\Documents and Settings\slintm\Application Data\Sun\Java\Deployme	en 🗖
Size	O Unlimited	
	● Maximum 50 MB ▼	
Jar Compression	None	High
	<u>A</u> pply <u>R</u> eset <u>H</u> elp	

If there are problems viewing the pages in the BDA, clear the Cache by selecting Clear on this screen.

### RS-232 Cable

The cable between the BDA and the PC must be a fully assigned null modem cable configured per the following drawing.

<b>Bg female</b>		DB 9 female
Connector 1	Connector 2	Function
2	3	Rx ← Tx
3	2	Tx → Rx
4	6	DTR $\rightarrow$ DSR
5	5	Signal ground
6	4	DSR 🔶 DTR
7	8	RTS → CTS
8	7	CTS 🔶 RTS

#### Power Requirements to the BDA

24VDC must be connected to the circuit breaker trip secondary terminals (X8.3 and X8.4) or a 24VDC power supply must be connected to the BDA. The front connection on the trip unit or the CubicleBUS will provide the 24VDC power to the BDA as long as terminals X8.3 and X8.4 have 24VDC connected to them.

#### **Device LEDs**

The Device LED must turn to green after boot-up of the BDA. If the BDA is connected to the CubicleBUS (via the front connection on the trip unit or an RJ45 plug at a CubicleBus accessory) the CubicleBUS led must also turn to green.

## Verifying Modem Settings

Go to control panel and double-click on Modem or Phone and Modem Options. Disable any other modems on this screen by selecting Properties/General and disabling the modem in the current hardware profile. Go back to the main screen and select the Standard 28800 bps Modem and click on Properties.

Phone and Modem Options	<u>? ×</u>
Dialing Rules Modems Advanced	
The following modems are installed:	
Modem	Attached To
Conexant D480 MDC V.92 Modem	Not functional
Standard 28800 bps Modem	COM1
E	
:Add Rem	nove Properties
ОК	Cancel Apply

Under General verify that the Modem is enabled and that it is working properly. Under Modem verify that the port is COM1 and that the maximum port speed is 115200.

### Verify Port Settings

Go to Control Panel and double-click on System, select Hardware and then select Device Manager. Under General verify that the COM port being used is enabled and that it is working properly. Under Port Settings verify the settings shown on the following screen.

Communica	ations Port (COM1) Properties
General F	Port Settings Driver Details Resources
	Bits per second: 115200
	Data bits: 8
	Parity: Even
	Stop bits: 1
	Flow control: None
	Advanced Restore Defaults
	OK Cancel

# Verify Network Connection set-up

Go to control panel and right click on Network Connections and select Properties. Under General verify that the Standard 28800 bps Modem is selected and the phone number is 555. Single-click on Configure and verify that the Maximum speed is 115200 and hardware control is enabled. Under Security verify that the Typical (Recommended Settings) box is selected and that the check box under the Typical option shows "Allow unsecured password". Under Networking verify that the boxes Internet Protocol (TCP/IP) and Client for Microsoft Networks are checked. Under Advanced select Settings, then select Advanced on the Windows Firewall screen. Verify that BDA Communications is not selected (the Firewall is not enabled).

🔚 BDA Communication via R5232 Properties 🛛 🤗 🗙			
General Options Security Networking Advanced			
Connect using:			
✓ Modem - Standard 28800 bps Modem (COM1)     ○      F5 Networks VPN Adapter (GENERIC16-0)			
All devices call the same numbers Configure			
Phone number for Standard 28800 bps Modem			
Area code: Phone number:   555 Alternates			
Country/region code:			
Use dialing rules			
Show icon in notification area when connected			
OK Cancel			

Modem Configuration		<u>?</u> ×
Standard 28800 bps	Modem (COM1)	
Maximum speed (bps):	115200	•
Modem protocol		~
Hardware features		
Enable hardware flow co	ontrol	
Enable modem error con	ntrol	
Enable modern compres	sion	
🔲 Show terminal window		
🔲 Enable modem speaker		
	OK Canc	el

Windows Firewall	
General Exceptions Advanced Network Connection Settings Windows Firewall is enabled for the connections selected exceptions for an individual connection, select it, and ther	below. To add a click Settings:
■ BDA Communication via RS232 ✓ Local Area Connection Wireless Network Connection	Settings
Security Logging You can create a log file for troubleshooting purposes.	Settings
ICMP With Internet Control Message Protocol (ICMP), the computers on a network can share error and status information.	Settings
Default Settings To restore all Windows Firewall settings to a default state, click Restore Defaults.	Restore Defaults
0	K Cancel