Troubleshooting 920i® / iQUBE® Email Issues

If you are having trouble connecting to your networked 920i, the problem might be caused by IP addressing or network firewall issues. First, see the below diagram for a typical network setup:



One of the most common problems is a firewall (or multiple firewalls). In many cases, the firewall simply doesn't know the Ethernet address of the 920i. Thus, it is rejected and can't make it past this point. The remedy is a firewall configuration by the company's IT department to add the 920i's address to the device.

Other common problems occur within mail servers. Local email clients use the Post Office Protocol version 3 (POP3), an application-layer Internet standard protocol, to retrieve email from a remote server over a TCP/IP connection. If the 920i's IP address isn't allowed to relay (send) mail, the message could be rejected. The email server needs to be manually configured to allow the 920i to do this.

Additionally, the receiving mail server might get an email from the 920i and go back to ask the network's mail server if it, in fact, sent the message, which would make it allowable. Since the 920i sent the message, the mail server replies with "No, it's not from me" and the email is discarded. Again, a typical IT department is fully capable of correcting this.

There may also be multiple spam filters existing within the network, any one of which could interpret the message as coming from a fictitious address. The address from which the 920i sends an email must be added to the server and added to any third-party spam filters as being a "safe sender." The address will follow the format 920_1@companydomain.com, where "1" could be any number, depending on how many 920s are installed.

Of course, before the 920i can begin to function on a network, it needs to be assigned an IP address and be configured. If this has not been done, refer to the following information.

Assigning an IP Address to the 920i

An IP address must be assigned and configured before a network connection is available. The preferred method is to use Lantronix's Device Installer, which is located on the Ethernet Configuration CD provided by Rice Lake Weighing Systems (PN 72763) or downloadable from www.lantronix.com. Ensure you are using the latest version of Device Installer and consult your company's IT department for a recommended IP address to assign.

- 1. Insert the Ethernet Configuration CD and follow the Lantronix Device Installer on-screen instructions.
- 2. Start the Device Installer program.

Lantronix DeviceInstaller 4.1.	0.12				
<u>File E</u> dit <u>V</u> iew <u>D</u> evice <u>T</u> ools <u>H</u> elp					
Search Assign IP					
🖃 🚰 Lantro ix Devices - 9 device(s)	Туре	Name Group	IP Address	Hardware Address	Status
🖃 📲 Local Area Connection (128.1	👻 UDS-10/Cobox 4.X		128.1.120.50	00-20-4A-52-5F-15	Online
	😪 XPort-01		128.1.1.152	00-20-4A-81-E5-16	Online
III · CIIII XPort	😪 XPort-03		128.1.1.150	00-20-4A-93-7A-28	Online
	😪 XPort-03		128.1.1.182	00-20-4A-91-F7-F6	Online
	😪 XPort-03		128.1.1.192	00-20-44-93-81-35	Online
	😪 XPort-03		128.1.40.3	00-20-4A-93-7A-37	Online
Assign IP button	😪 XPort-03		128.1.40.4	00-20-44-93-25-98	Online
-	😪 XPort-03		128.1.40.5	00-20-4A-92-CF-19	Online
	📽 XPress DR+		128.1.1.123	00-20-4A-66-EF-49	Online
Seady				.::	

Note: Make sure you assign a Static IP address rather than enabling Dynamic Host Control Protocol (DHCP).

The Web connection to the 920i Ethernet card requires the original JAVA by Sun Microsystems. For a free download, go to www.JAVA.com.

- 3. Using the Hardware Address column to determine which card is yours, locate your card and click on it.
- 4. Click the Assign IP button as shown in the above illustration.
 - The Assign IP Address dialog box appears.

📚 Assign IP Address		×
	Assignment Method	
	Would you like to specify the IP address or should the unit get its settings from a server out on the network?	
12 70 3-5	C Obtain an IP address automatically	
	O Assign a specific IP address	
	TCP/IP Tutorial	
*		
	< Back Next > Cancel Help	

5. Select Assign a specific IP address and click Next.

🗞 Assign IP Address		X
	IP Settings Please fill in the IP address, subnet, and gateway to assign the device. The subnet will be filled in automatically as you type, but please verify it for accuracy. Incorrect values in any of the below fields can make it impossible for your device to communicate, and can cause network disruption. IP address: 128.1.120.50 Subnet mask: 255.255.0.0 Default gateway 0.0.0.0	
	< Back Next > Cancel Help	

- 6. Type the IP address you would like to assign to the card, enter the Subnet mask and Default gateway, and click Next.
- 7. Click Assign to assign the IP address to the device. A status message indicates when the assignment is complete.
- 8. To exit, click Finish.

Configuring the 920i and Lantronix Card

Once you have an IP address assigned to the 920i, accessing the configuration parameters is simple.

1. Configure the Lantronix card to the correct settings. This can be done via Web configuration or a telnet session on Port 9999 under *Channel 1 configuration*. If using telnet, it is recommended that you first default the card and then proceed with the following settings.

There are only three settings that need to be changed: *connection mode* needs to be set to C4 in telnet or Manual Connection using the Web interface; the *inactivity timer* needs to be set to 00:15; and the *alert port* must be set.

Note: The alert format port must be set (within the 920i) to the port the Ethernet option is wired to.

The following screen shots illustrate correct settings in telnet and the Web configuration.

LANTRO	DNI <mark>X</mark> °	Firmware Version: V6.1.0.0 MAC Address: 00-20-4A-91-F7-F6
企 Network	Protocol: TCP 🖌	Set Active Connect to Manual Connection
Server	Passive Connection:	Active Connection:
	Accort Incoming: Mac	Active Connect: Manual Connection
Channel 1	Accept incoming. Yes	Active Connection
Serial Settings	Password Required: OYes 💿 No	Start Character: 0x 0D (in Hex)
Connection		
Email	Password:	Modem Mode: None 💙
Trigger 1		Mdm Esc Seq 👝 No.
Trigger 2		Pass Thru: Vies Vie
Trigger 3		
Configurable Pins	Endpoint Configuration:	
Apply Settings	Local Port: 10001	Auto increment for active connect
Apply Factory Defaults	Remote Port: 0	Remote Host: 0.0.0.0
	Common Options:	
	Telnet Mode: 🛛 Disable 💙	Connect Response: None 🛛 👻
	Terminal Name:	Use Hostlist: 🔿 Yes 💿 No 🛛 LED: Blink 💌
	Disconnect Mode	Set Inactivity Timeout to 0:15
	On Mdm_Ctrl_In Drop: ◯ Yes ⊙ No	n Hard Disconnect: 💿 Yes 🔘 No
	Check EOT(Ctrl-D): 🔘 Yes 💿 No	nactivity Timeout: 0 : 15 (mins : secs)

XPort-03 v.6.1.0.0

	Selected Channel : 1	
Menu	Serial Port Settings	
Unit Configuration	Serial Protocol	RS232
Server Properties	Sheed	9600
Port Properties	Character Site	8
Factory Settings1	Character Size	None
Update Settings	Parity	1
Select Channel	Stopbit	None
Select Chamler	Flow Control	
Channel1	Connect Mode Settings	
	UDP Datagram Mode	Disable
	UDP Datagram Type	
		Change Address Table
Change Startup	Incoming Connection	Accept unconditional
to Manual	Response	Nothing (quiet)
Connection	Startup	Manual Connection
	Dedicated Connection	
	Remote IP Address	
	Remote Port	
	Local Port	10001
	Flush Mode Input Buffer (Network to Line)	
	On Active Connection	Disable
	On Passive Connection	Disable
	At Time To Disconnect	Disable
	Packing Algorithm	
	Packing Algorithm	Disable
	Idle Time	Force Transmit 12ms
	Trailing Characters	None
	Send Immediate After Sendchars	Disable
	Sendchar Define 2-Byte Servience	Disable
	Send Character 01	00
	Send Character of	00
	Send Character 02	
	Additional Settings	
	Disconnect Mode	Ignore DTR
	Check for CTRL-D To Disconnect	Disable
	Port Password	Disable
	Telnet Mode	Disable
Set Inactivity	Inactivity Timeout	Enable
Timeout to 0:15	Inactivity Timer	0:15
	Port Password	

XPort-01 v1.50

Device Details Web Configuration Telnet Configuration	
IP Address 128.1.1.148 Port 9999 Disconnect Clear	
9 Save and exit Your choice ? 1	^
Baudrate (9600) ? I/F Mode (4C) ? Flow (00) ?	
Port No (10001) ? ConnectMode (C4) ? Remote IP Address : (000) .(000) .(000) .(000)	
Remote Port (0) ? DisConnMode (00) ? FlushMode (00) ?	
DisConnTime (00:15) ?: Set DisConnTime to (00:15) SendChar 1 (00) ? SendChar 2 (00) ?	

- Telnet
- 2. In iRev, enter the SMTP address and desired email address. This parameter is found under System Parameters » Features » Contact Information tab. Only the SMTP address and email address are needed to get the system to mail an alert. The rest of the information is the contact info. The alert format port must be set to the port the Lantronix card is connected to.

💈 iRev - [test1.920]		
File Edit Communications Tools Vie	w Help	
B 🖻 🔒 😂 🗠 🖇 🖻 💼	<i>.</i>	
Hardware	Features	
System Parameters		
?	1. General 2. Formatting 3. Sortkeys	<u>4</u> . Gravity Compensation <u>5</u> . Contact Information
Scales	Company Name	Phone Numbers
	Rice Lake Weighing Systems	1-800-472-6703
ŬĞ∕		
Communications	Company Address	
N	230 W Coleman St	
N	Rice Lake, WI 54868	Email Address
Features		example@ricelake.com
Ô		-
Digital I/O	Contact Names	Next Calibration Date
\sim	John Doe	7 / 4 /2007 💌
a la constante de la constante		Last Calibration Date
Analog Outputs		1/5/2007
<u> </u>		
Setpoints	SMTP Server IP Address for Email Aler	ts <u>Alert Phene (</u> Modem Support)
	0.0.0.0	
AL .		
Setpoint Names		

iRev settings

• The *SMTP server address* must be set in the 920i. This value can be set in iRev or by using the ALERT.SERV serial command. The SMTP server address cannot be set using the 920i menus. To disable alert notification, set the SMTP server address to 0.0.0.0.

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- The *alert contact email address* must be set to a valid address. This value can be set using the 920i menus (FEATURE menu, CONTACT submenu, email PARAMETER), through iRev or by using the CONTACT.EMAIL serial command.
- The *920i alert port* must be set to the port wired to the Ethernet card. This value can be set in iRev, by using the ALERT.PORT serial command, or by using the 920i front panel.

Troubleshooting RLWS Equipment on a Network

Due to a high number of variables, problems typically lie within the company's network. To double-check that all RLWS equipment is set up correctly and functioning properly, you can use Rice Lake's free SMTP Test Server program. This simulates a mail (SMTP) server, isolating the iQube and 920i from the network and making it easy to determine where the problem lies. For example, if you have not been able to receive an email from the 920i but the program shows it is functioning properly, you know there is an issue elsewhere on the network.

Notes: When an error occurs, the 920i makes one attempt to contact the mail server. There is a 15 second time out when unsuccessful. Before further troubleshooting, you should ensure the Ethernet card has blinking lights. If the lights are blinking, proceed with troubleshooting. If they are not, there is a problem with the card and/or cable.

Common Problems

- Mis-wiring the card
- Port settings
- Using crossover cable rather than patch cable (e.g., if you are connecting a computer directly to the card, use crossover cable between the card and the computer--and you must use a static IP address; if you are using a computer connected to a local area network, use a patch cable)
- Server address (must be set last)

Using the Email Test Server

- 1. Visit www.ricelake.com and download the SMTP Test Server program.
- 2. Once the Email Test Server program is installed and running, set the appropriate server address on the 920i.
- 3. Intentionally generate an error.
- 4. The Email Test Server program will show data sent from the 920i, confirming whether the email is sent successfully.



SMTP Test Server.

Alternatively, you can follow these steps:

- 1. Ping the 920i to ensure you have network connectivity.
- 2. Telnet to Port 10001 at the IP address of the card. Press Enter and see if question marks are returned. If they are, the 920i is communicating properly with the card.

Note: Question marks will not be returned after the SMTP server address is set to a value other than zero.

3. Ensure the port is set up for command.