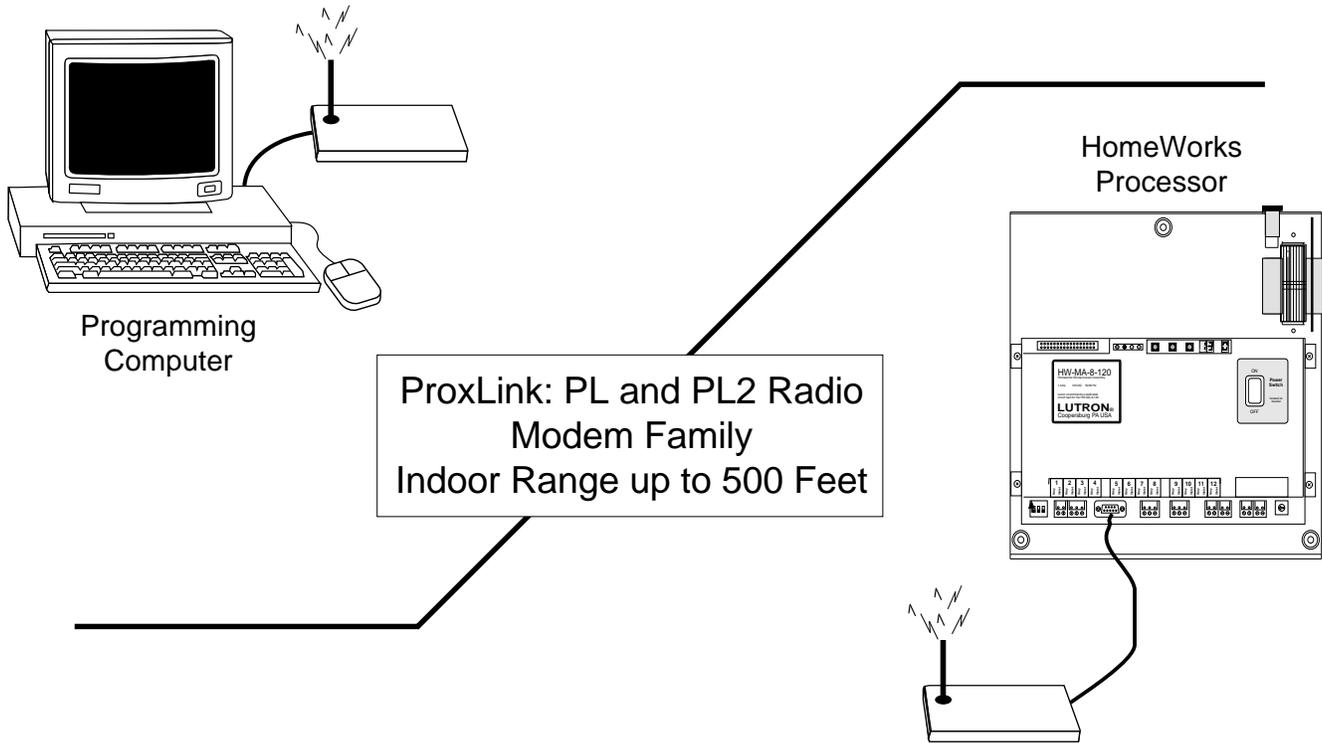


LUTRON®

For Your Information ...

RF-Modem Installation for HomeWorks™



Overview

Let's face it. If you conduct your panel programming in the confines of a 110° garage, it is not only uncomfortable but inaccurate in terms of lighting levels and scenes. When you yell back and forth to your co-worker(s), it does not help the situation nor does it leave a good impression on your client. The only alternative seems to be running back and forth from the panel (and your computer) to the area you are adjusting or using walkie-talkies. Either way, you can become exhausted and/or frustrated because there was no other way. Until now!

LUTRON has now tested and approved the use of RF modems. With an indoor range up to 500' and an outdoor range up to 1000', you can now conduct your system programming in an area you feel is best. Not only does it save you countless hours, but it can actually improve the quality of the installation. The ability to actually see the light level you are adjusting in real-time is not only convenient but accurate. Furthermore, you can actually demonstrate the scenes you are programming while sitting with your client at their dining room table. It does not get any easier than that.

Connecting the Modems

You will need two (2) ProxLink-PL modems for this application.

Manufactured By: Proxim, Inc.
295 North Bernardo Ave.
Mountain View, CA
Phone: (415) 960-1630
Fax: (415) 964-5181

Distributed By: Connectronics
234-33rd Street Drive S.E.
Cedar Rapids, IA 52403-1314
Phone: (319) 366-4971

- 1a.** The ProxLink modem comes with a DB9 Male to DB25 Female RS-232 cable. Attach the DB9 connector to the ProxLink modem and attach the DB25 Female connector to your computer's com port.

***Tip:** Generally, your serial port is the MALE connector, **NOT** the FEMALE connector, which is most likely your parallel printer port.*

Note: If your computer has a 9-pin serial port, as do most laptop computers, you will need a device called a "gender changer" with a DB25 Male to DB9 Female configuration.

- 1b.** Since both the connector on the ProxLink *and* the HomeWorks processor is a DB9 Female, you will need to purchase a DB9 Male to DB9 Male cable (see page 6).

- 2.** Apply power to both computer, laptop, and modems.

Note: Both modems come supplied with a 9VDC power supply that must be plugged into a 120VAC outlet.

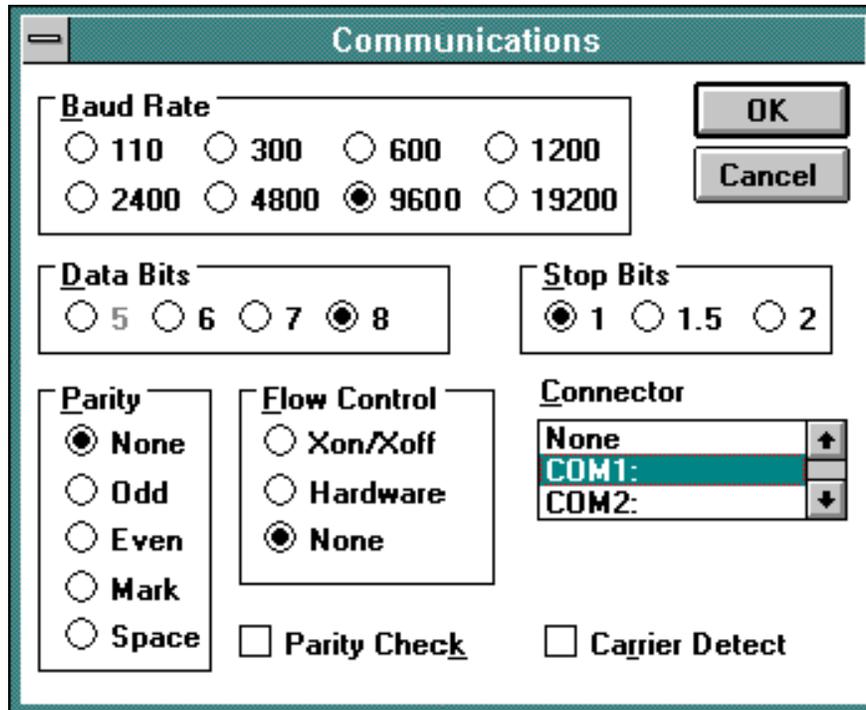
- 3.** Using a standard communications program (Windows 3.1 Terminal or Windows 95 HyperTerminal) set the following communication parameters for the com port you will be using:

- 9600 baud
- 8 data bits
- 1 stop bit
- no parity
- no flow control

Windows 3.1

In Program Manager, find your “Accessories” program group icon and double-click on it. When it has opened, locate the “Terminal” icon and double-click on it. At the top of your screen click on the “Settings” drop-down menu then drag and select the “Communications” option; the “Communications” dialog box appears as shown below. Set the appropriate properties for the modem as shown on page 2.

Note: Regardless of your operating system, your screen should display the available modem configurations.



Windows 95

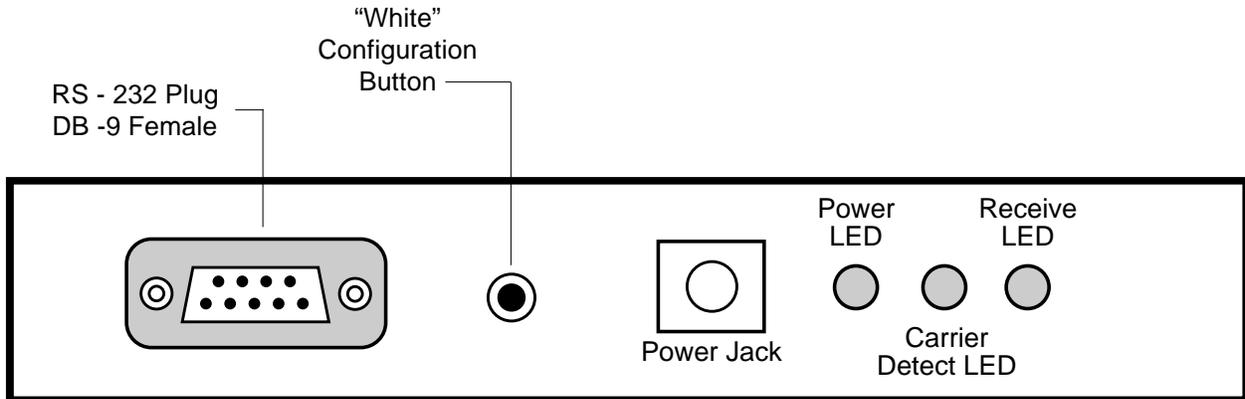
Click on the “Start” button on the bottom right of your screen. Highlight “Programs” on the menu bar and a second menu appears. Move the pointer to “Accessories” and a third menu layout appears. Move the pointer to the “Hypertrm.exe” file and click.

In the Hyperterminal menu window, double-click on the “Hyperterminal” icon. You now need to give the new connection a name and an icon. To do this type in “PROXIM” for the name and then click on any icon you desire. Press **ENTER**.

Set the appropriate properties for the modem. In the “direct to com” area (direct to com “X”) select the port you are to be using for this modem. Now click on “configure” and set the port as specified in step 3 above and click “OK.” Click “OK” again to exit to the Hyperterminal main screen.

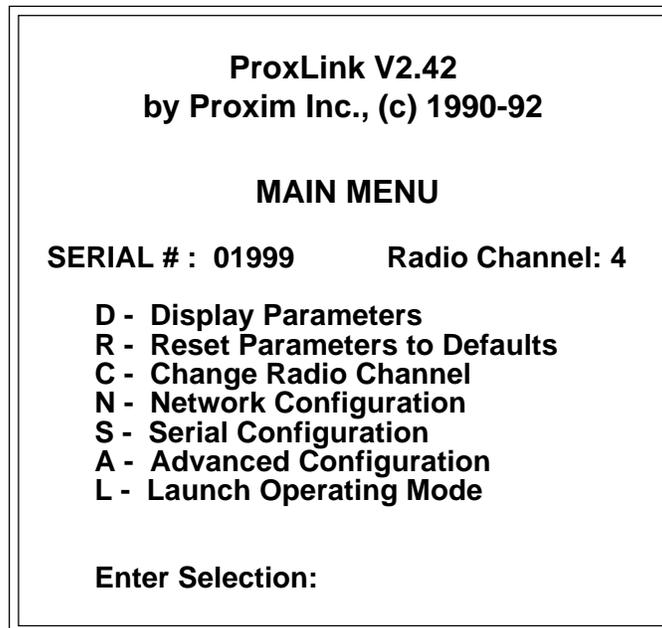
Configuring the Modems

After the correct settings are entered and you are at the main screen, press the small "white" configuration button on the front of the modem next to the serial port as shown below.



Front View of ProxLink Radio Module

After pressing the button, the following menu should appear.



4. Options you will need to change from the factory defaults of the modem.

Main Menu Choice	Sub-Menu Choice	Setting
N - Network Configuration	P - Point to Point	Enter serial number found on the label of the other modem.
S - Serial Communications	F - Flow Control	C - Generate CTS (disabled) D - Generate DTR (disabled)

5. To make a selection from the main menu, simply press the corresponding key followed by pressing **ENTER**. To return from a sub-menu, press the **ESCAPE** key. The **ESCAPE** key also returns the user from any prompt without making any changes to the parameter. Settings can be reviewed by selecting option “D” from the main menu. If everything is set correctly, the display should read:

```

PARAMETER SETTINGS
Serial #: 31999

Serial Port
-----
Operating Mode: Pass-Through           Delimiters: None
Echo Mode: None                       Max Length: 576
Baud Rate: 9600                       Input Time-Out: 1

XON/XOFF Generation: Disabled         XON/XOFF Recognition: Disabled
CTS Generation: Disabled              DSR Generation: Disabled

Network
-----
Radio Channel: 4                       Radio Speed: 121 KBaud
Subchannel: 1                          Broadcast Address: 1

Dest. Serial #: 32520                  Lost Communication: Continue
Serial # Filter: 32520                 Type Filter: None

Press <Enter> to continue...

```

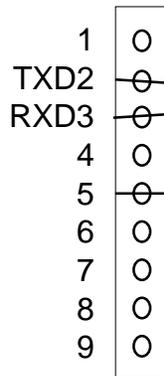
Network settings, such as the serial number, may be different, but the Serial Port settings should be exactly as shown above. Put the modem into run mode by selecting “L” from the main menu and confirm by selecting “Yes.” You should receive the confirmation message “Entering Operating Mode.”

6. Repeat steps 1 through 5 to program the second modem the same as the first (of course, the serial number of the destination will be different). After the second modem is programmed, you may close the terminal application as it is not needed anymore.

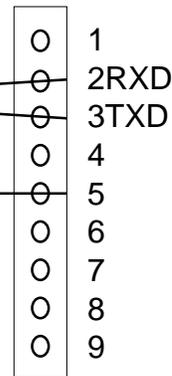
Connecting the Modem to the HomeWorks System

1. To connect to the HomeWorks panel a special cable with the following pin layout is needed:

Connect to Modem DB-9 Male



Connect to HomeWorks DB-9 Male



2. Apply power to the modem connected to the panel. **A 120VAC Power Supply is required!**
3. The operating distance for the modem is 500 feet indoors and 1000 feet outdoors. The actual range may vary due to physical operating environments.

Using the Modems With HomeWorks Programming Utility

Once you have launched the programming utility and opened the file you want, you must tell the program into which serial port you have plugged the modem. Select the "Communications" menu bar and choose the "Setup" option. A window is displayed and you must choose into which com port the modem is plugged. Click "OK" when you have selected the correct port.

You can quickly verify that the modems are communicating correctly by running the Terminal screen of the HomeWorks Programming Utility. Select the "Communications" drop-down menu and choose the "Terminal" option. Once you have entered into the "Terminal" dialog box, type (send) a question mark ("?"). If the response from the HomeWorks panel is an exclamation point ("!"), you have verified the modem link. Congratulations....you are now **WIRELESS!**

Worldwide Technical and Sales Assistance

If you need assistance call the toll-free
Lutron Technical Assistance Hotline:

(800) 523-9466 (U.S.A., Canada, and the Caribbean)
Other countries call (610) 282-3800

Lutron Electronics Co., Inc.
7200 Suter Road
Coopersburg, PA 18036-1299 U.S.A.
Phone: (610) 282-3800
Fax: (610) 282-3090

Lutron is a registered trademark and HomeWorks is a trademark of Lutron Electronics Co., Inc. © 1997 Lutron Electronics, Co., Inc.