Remote Link II
Technical Guide
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Remote Link II Overview

The OE419-06 Remote Link II is a modem used for alarm call-outs and/or to provide for remote communications with your control system. A second Remote Link II is required at the remote computer when remote communication with the job site is desired.

The Remote Link II connects to the CommLink communications interface at the control system location via a nine-pin serial cable. A telephone line connects the Remote Link to the local phone service. Using another Remote Link II connected to a computer and phone service at a remote location, you can monitor and control the system using Prism software. Connection is made by dialing the telephone number of the job site where the Remote Link II is located.

**NOTE:** WattMaster will not support any other internal or external modems by other manufacturers.

System Requirements

To enable the Remote Link II to work with Prism, you will need the following:

- Remote Link II package which includes modem, 9 VDC power supply, 6 ft. long USB cable, 7 ft. long phone cable, serial cable, and installation instructions
- Conventional phone service (POTS), not attached to a PBX
- CommLink IV with power adapter and USB cable
- USB drivers on CD-ROM (supplied)
- PC with available USB 1.1 or 2.0 port or serial port (supplied by others)
- Microsoft® Windows® XP, Vista, or 7 (must be installed on the PC you are going to use)
- Prism or Prism II software (can be downloaded from any of our websites)
Quick Guide

Important Notes

- Follow the instructions to install the USB drivers. Make sure you follow the appropriate directions for your Windows version - Windows XP directions are different from Windows Vista and 7.
- Follow the included Remote Link II connection and wiring instructions sheet (Figures 2, 3, and 4 on pages 10-11) to connect and configure the Remote Link IIs.
- Make sure you follow the appropriate directions for your Prism version - Prism directions are different from Prism II.
- Familiarize yourself with all system components and review all documentation. Pay special attention to “Cautions,” “Notes,” and “Warnings” since these may keep you from experiencing unnecessary problems.
- If you encounter any problems, please refer to the Troubleshooting section of this guide first. If you can’t resolve the problem, please call WattMaster Technical Support at our toll free number—1-866-918-1100.

Quick Guide for Windows XP

Follow the four steps below to get your Remote Link II up and running in no time.

Step 1: At the job site, connect the Remote Link II to the CommLink IV using the supplied serial cable and connect the CommLink IV to a computer. See Figure 2 on page 10. Install the USB drivers for the CommLink IV using the supplied serial cable and connect the CommLink IV to a computer. See Figure 2 on page 10. If you are using the Remote Link II solely for alarm call-outs, skip the steps below and go to “Prism Setup for Alarm Call-Outs” on page 15.

Step 2: At the remote dial-out site, connect the Remote Link II to your PC using either a serial cable connection or USB cable connection. See Figures 3 and 4 on page 11.

Quick Guide for Windows Vista & 7

Follow the four steps below to get your Remote Link II up and running in no time.

Step 1: At the job site, install the USB drivers for the CommLink IV. Connect the Remote Link II to the CommLink IV using the supplied serial cable and connect the CommLink IV to a computer. See Figure 2 on page 10. If you are using the Remote Link II solely for alarm call-outs, skip the steps below and go to “Prism Setup for Alarm Call-Outs” on page 15.

Step 2: At the remote dial-out site, if you are using a USB connection, you first need to install the USB drivers located on the included CD-ROM and then determine the COM port number before using Prism. If you are using a serial connection, you need to determine what serial port (COM1 or COM2) the Remote Link II is using before you set up Prism.

Step 3: At the remote dial-out site, connect the Remote Link II to your PC using either a serial cable connection or USB cable connection. See Figures 3 and 4 on page 11.

Step 4: Install and set up Prism software on your computer to access your remote job site.
USB Serial Converter Driver Installation for Windows’ XP

These instructions only apply to the remote dial-out site.

**CAUTION:** You must use the drivers on the CD-ROM supplied with the Remote Link II.

**NOTE:** If for any reason you cancel out of the New Hardware Wizard before installing the USB drivers or if you receive an error message during installation, the drivers will not be installed. You must then install the drivers using the directions in the XP Troubleshooting Section on page 18.

1. At the remote site, plug the USB cable attached to the Remote Link II into your computer’s USB port.
2. Insert the USB Drivers CD-ROM into your CD-ROM drive.
3. A message should pop up from the toolbar that reads, “Found New Hardware.” Click on the message.
4. The Found New Hardware Wizard will open and ask the question, “Can Windows connect to Windows Update to search for software?” Select “No, not this time” and click <Next>.

5. The next window that appears will ask, “What do you want the wizard to do?” Select “Install from a list or specific location (Advanced)” and click <Next>.

6. In the next window that appears, select the radio button in front of the option “Search for the best driver in these locations.” Uncheck the box that reads, “Search removable media” and instead check the box “Include this location in the search.”

7. Click <Browse> and locate the drive that your CD-ROM is located on. Click <Next>.
8. Highlight the Win98_Win_2000_Win98 directory by clicking on it and then click <OK>.

9. The screen will now state, “Please wait while the wizard installs the software...”

10. While the files are downloading, a Hardware Installation Window might pop up as shown below. Click <Continue Anyway>.

11. The wizard will then finish installing the software.

12. Once the wizard is done, click <Finish>.

USB Serial Port Driver Installation for Windows® XP

1. Once the USB Serial Converter software is installed, the Found New Hardware Wizard will appear again to download the USB Serial Port software.

2. Follow steps 1 though 7 of the previously described USB Serial Converter Driver Installation instructions.

3. Click <Finish> when the wizard is done downloading the software.

4. Windows® XP requires you to restart your computer before the new settings will take effect.

5. Continue with the next section “Disabling the Analog Modem Driver Installation in Windows® XP” on page 8.
USB Serial Converter and Serial Port Driver Installation for Windows Vista & 7

1. Insert the USB Drivers CD-ROM into your CD-ROM drive or download the USB Drivers file from www.orioncontrols.com/software-new.html. If using the CD-ROM, go to Step 2. If downloading the file, click on the USB Driver Setup.zip file to unzip the file and then go to Step 3.

2. Double-click on the Vista/Win_7 folder.

3. The WattMaster USB Driver Installation Window will appear.

4. If you wish to change the Destination Folder, click <Browse> and change the location. Click <Install> to install the software. Then, open the WattMaster USB Driver folder in the temp directory on your hard drive or the new location if you changed the destination folder.

5. Double-click USBInstall.exe.

6. Then click the <Begin Install> button.

7. The installation program will walk you through the rest of the steps. The program might prompt you to remove old USB drivers from your computer. Click <Yes> if so. Once installation is complete, you will need to reboot your computer to have the new settings take effect.

8. With successful USB driver installation, you can now connect your USB device.

9. Follow the procedures on page 9 to verify the Comm Port.
Disabling The Analog Modem Driver Installation in Windows XP

1. After the USB Drivers have been loaded, the message “Found New Hardware for Analog Modem” will pop up from the toolbar. Click on this message.

2. The Found New Hardware Wizard Window will appear. Click <Cancel> to cancel out of the hardware installation process.

3. A new message will pop up from the toolbar that states, “A problem occurred during hardware installation. Your new hardware might not work properly.”

4. You now need to access the Device Manager. Left-click on <Start>, click <Control Panel>, and double-click the <System> icon. Click the <Hardware> tab and then click the <Device Manager> button. The Device Manager Window will pop up. Click on “Other Devices.”

5. There will be a question mark and exclamation point in front of Analog Modem. Right-click on Analog Modem and select Disable.

6. A message will appear that states, “Disabling this device will cause it to stop functioning. Do you really want to disable it?” Click <Yes>.

7. The question mark in front of Analog Modem will now have a red X on it.

8. Continue with the next section “Finding What COM Port Number the Remote Link II is Using” on page 9.
Finding What COM Port Number the Remote Link II is Using

1. **Left-click** on `<Start>`, located on the bottom left of the Windows toolbar. **Select** `<Control Panel>`. **Double-click** the `<System>` icon.

2. **Click** the `<Hardware>` tab. **Click** the `<Device Manager>` button.

3. **Click** on the plus sign next to Ports to see all of the COM ports.

4. **Locate** the USB Serial Port (COM#). The COM# in parentheses is the port it is located on. **Write** this COM port number down. You will need to know this when setting up the Prism software.

5. If the COM port number is 10 or greater, go to “Changing the USB Serial COM Port Number” in the Troubleshooting section on page 19; otherwise, continue with the section “Prism Setup” on page 12 or “Prism II Setup” on page 13.
Connections and Wiring

Figure 2: Remote Link II Connection and Wiring at Controls System Location

NOTE: If desired, a 24VAC Transformer (not included) rated at 12VA minimum may be used instead of the supplied power pack. Use 16 gauge minimum 2 conductor wire between the Transformer & CommLink IV Terminals.
**Figure 3: Remote Link II Installation at Remote Dial-Out Site Using USB Connection**

**Figure 4: Remote Link II Installation at Remote Dial-Out Site Using Serial Connection**
Prism Setup for Remote Dial-Out

1. Open your Prism software.

2. Click on the <Key> button and type in your level 3 passcode (default “sm”). Click <Done>.

3. If Prism is online, click <Communications> and then click <Go Offline>.

4. Click on the <Edit Jobsite> button to enter jobsite information.

5. Click on an empty location. Type in a job name and press <Enter>.

6. Double-click in the Port location on the same line as the job name. The PortCtl Class Properties Window will pop up.

7. Click on the down arrow on the Port pull down box and select the COM port that the Remote Link II is using. If using a USB connection, this port number is the one you should have found in the Device Manager. If using a serial connection, the COM port will be COM1 or COM2. Click <Apply> and then click <OK>.

8. In the Job Site Window's CommLink field, type in the number “1” if the CommLink is a single loop CommLink; otherwise, leave the default “0” for multiple loop. Press <Enter>.

9. In the Job Site Window’s Phone Number field, type in the phone number of the remote job you want to connect to and press <Enter>. Click <Done>. The Job Site Window will close.

10. Click on the <Dial-Out> button, located at the top of the Prism Screen, to begin dialing. The Dialing Status Window should appear. Verify that you are calling the correct jobsite.
11. If complications occur, click on the <Stop> button to cancel the dial-out. If everything is working properly, you will know connection has been made when the Dialing Status Window closes and the DET LED on the Remote Link lights up.

12. Click <Communications> and select <Search for Units>.

```
<table>
<thead>
<tr>
<th>Communications</th>
<th>Setup</th>
<th>Help</th>
</tr>
</thead>
<tbody>
<tr>
<td>Go OffLine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>View Status Screen</td>
<td></td>
<td></td>
</tr>
<tr>
<td>View Summary Screen</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Start AutoLog</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Setup CommLink</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Search For Units</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Terminal Mode</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
```

13. The Search for Installed Units Window will pop up. Click <Start> to start the search.

```
Search For Installed Units

Search Status

Start

Current Loop

Units Found on this Loop

Units Found on System
```

14. If everything is working and wired correctly at the job site, Units Found on this Loop should increment. When you are done searching for units, click <Exit>.

15. To access a unit, find the address of the board in the Unit Descriptions Window and double-click on it.

16. To disconnect the remote dial-out, click on the <Terminate Dial-Out> button.

Prism II Setup for Remote Dial-Out

1. Open your Prism II software.

2. Click on the <Login> button and type in your level 3 passcode (default “9288”). Click <OK>.

```
<table>
<thead>
<tr>
<th>Enter Passcode</th>
</tr>
</thead>
<tbody>
<tr>
<td>****</td>
</tr>
</tbody>
</table>
```

3. If Prism II is online, click the <ON LINE> button to make it go <OFFLINE>.

4. Click the <Job-Site> button to open the Job Sites Window.

5. Click on any empty location in the Job-Sites Window and type in a job name in the Selected Location field. Press <Enter>.

```
<table>
<thead>
<tr>
<th>Job-Sites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job-Site Selection</td>
</tr>
<tr>
<td>Selected Location</td>
</tr>
<tr>
<td>Connected Site</td>
</tr>
<tr>
<td>For Remote Site: ( Use sequential number of remote site)</td>
</tr>
<tr>
<td>Job - Site Name</td>
</tr>
<tr>
<td>Job - Site Number</td>
</tr>
</tbody>
</table>

Serial Port ( Not Required for TCP/IP Operations )

USB Serial Port (COM1)

No Port Selected

Communications Port (COM1)

Communications Port (COM2)
```

6. In the Serial Port field, click on the pull down box and select the COM port that the Remote Link II is using. If using a USB connection, this port number is the one you should have found in the Device Manager. If using a serial connection, the COM port will be COM1 or COM2.

7. In the Phone Number field, type in the phone number of the remote job you want to connect to and press <Enter>.

```
| Phone Number ( For Remote Site Modern Number ) |
```
8. In the Type of CommLink selection box, select the type of CommLink you are using.

<table>
<thead>
<tr>
<th>Type of CommLink</th>
</tr>
</thead>
<tbody>
<tr>
<td>CommLink 2 or CommLink 3</td>
</tr>
<tr>
<td>CommLink 4 or USB Link</td>
</tr>
</tbody>
</table>

9. In the Network Configuration selection box, select the mode for the CommLink you are using at the job site. This will be either Multiple Loop Configuration or Single Loop Configuration.

<table>
<thead>
<tr>
<th>Network Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Loop Configuration</td>
</tr>
<tr>
<td>Single Loop Configuration</td>
</tr>
<tr>
<td>Auxiliary CommLink</td>
</tr>
<tr>
<td>USB Link Network</td>
</tr>
<tr>
<td>USB Link Stand Alone</td>
</tr>
</tbody>
</table>

10. Click <Exit> to close out of the Job Sites Window.

11. Click on the <Dial-Out> button, located at the top of the Prism II Screen, to begin dialing. The Dialing Status Window should appear. Verify that you are calling the correct jobsite.

12. If complications occur, click on the <CANCEL DIALOUT> button to cancel the dial-out.

If everything is working properly, you will know a connection has been made when the Dialing Status Window closes and the DET LED on the Remote Link II lights up.

13. From the <Communications> menu, select <Search for Units>.

<table>
<thead>
<tr>
<th>Communications Menu</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintenance Section</td>
</tr>
<tr>
<td>Search For Units</td>
</tr>
<tr>
<td>Start Autolog</td>
</tr>
<tr>
<td>Setup CommLink</td>
</tr>
<tr>
<td>CommLink IP Web Settings</td>
</tr>
<tr>
<td>Terminal Mode</td>
</tr>
<tr>
<td>Monitor Para Blocks</td>
</tr>
<tr>
<td>Monitor Raw Input Voltages</td>
</tr>
<tr>
<td>Diagnostics Mode</td>
</tr>
<tr>
<td>Monitor Controller Variables</td>
</tr>
</tbody>
</table>

14. The Search for Units Window will pop up. Click <Start Search> to initiate an automatic detection of all installed controllers on your system.

15. If everything is working and wired correctly at the remote job site, Units Found on this Loop should increment. When you are done searching for units, select <Cancel Search> and then click <Exit>.

16. A window will pop up that asks, “Do you want to save the search results?” Click <Yes> if you wish to save the results. Click <No> if not.

17. To access a unit, find the address of the board in the Unit Selection Window and double-click on it.

18. To disconnect the remote dial-out, click on the <HANG UP> button.
Prism Setup for Alarm Call-Outs

1. Open your Prism software. Click on the `<Key>` button and type in your level 3 passcode (default “sm”). Click `<Done>`.

2. If Prism is offline, click `<Communications>` and then click `<Go Online>`.

3. Click `<Communications>` and then click `<Setup CommLink>`.

4. The CommLink Setup Window will appear. Click `<Load Settings>`. Type in the number of the receiving cell phone in the pager field. Click `<Save Settings>` and then click `<Done>`.

5. In your cell phone entries, create an entry for each of your job sites with its corresponding phone number so that you know which job site has an alarm.

Prism II Setup for Alarm Call-Outs

1. Open your Prism II software. Click on the `<Keys>` button and type in your level 3 passcode (default “9288”). Click `<OK>`.

2. Click `<Communications>` and then click `<Setup CommLink>`.

3. The CommLink Settings Window will appear. Click `<Load>`. Type in the number of the receiving cell phone in the cell/pager field. Click `<Save>` and then click `<Exit>`.

4. In your cell phone entries, create an entry for each of your job sites with its corresponding phone number so that you know which job site has an alarm.
Remote Link II Technical Guide

Remote Link II LED Descriptions

Figure 5: Remote Link II LED Display

LED Descriptions

SIG - Indicates a call to the Remote Link is being made.

DET - Indicates a call between two Remote Links has been connected.

RDY - Indicates that the CommLink or computer that is connected to the Remote Link is ready to transmit and receive data.

SND - Indicates that the Remote Link is sending data.

REC - Indicates that the Remote Link is receiving data.

PWR - Indicates that the Remote Link has power.
**Troubleshooting Tips**

**Problems with Prism Software**

- Verify that the correct COM port, created by the USB or serial connection, is selected in the Job Site Window. The COM port number is found in <Control Panel>, <System>, <Hardware>, <Device Managers>, <Ports>.

- Verify that the phone number of the remote job site was typed correctly.

**Problems with the USB Connection**

- Verify that the RDY LED lights up when you try to connect to a job remotely in Prism. If it doesn’t light up, disconnect and reconnect the USB connection.

- Verify that the USB drivers have been installed properly.

**NOTE:** WattMaster Controls Technical Support cannot troubleshoot internal PC and/or Windows®-based operating system problems.
Troubleshooting the USB Drivers for Windows® XP

If the Found New Hardware Window did not appear when you plugged in your Remote Link II or if you canceled out of the installation procedure for any reason, you will have to follow these instructions to install the USB drivers.

1. **Plug** the USB cable attached to the Remote Link II into your computer’s USB port.

2. **Click** <Start>, click <Control Panel>, and then double-click <System>. The System Properties Window will appear. Click the <Hardware> tab and then click <Device Manager>.

3. The Device Manager Window will appear. In this window, look for an exclamation point in the categories, “Other devices,” “Ports,” or “Universal Serial Bus controllers.” Click the item containing the exclamation point.

4. **Right-click** on USB Serial Port and then click <Update Driver>. The Hardware Update Window will appear.

5. In response to the question, “Can Windows search for software?” click the radio button, “No, not at this time” and then click <Next>. Insert your USB Drivers CD-ROM into your CD-ROM drive, and then click the radio button, “Install from a list or specific location” and click <Next>.

6. The screen will now display the message, “Search for driver software in this location:” If the location is correct, click <Next> and go to step 8. If not, click <Browse>.

7. **Select** the CD-ROM location from the list of folders and then click <OK>.

8. A message will appear that states, “Please wait while the wizard installs the software...”

9. When the installation is complete, the window below will appear. Click <Finish>.
Changing the USB Serial COM Port Number

When the Remote Link II is first plugged in, it will be assigned a COM port number to be used for communicating with the Prism software. If the port number is 10 or greater, it needs to be changed to a value less than 10 to be recognized by Prism.

1. Click <Start>, click <Control Panel>, click <System>, click the <Hardware> tab, and then click <Device Manager> to get to the Device Manager Window.

2. Click on the plus sign next to Ports to see all of the COM ports.

3. Right-click on “USB Serial Port (COM#)” and select <Properties>. In the Properties Window, select the <Port Settings> tab.

4. To assign a port number less than 10, click on <Advanced>. The Advanced Settings Window will appear.

5. In the COM Port Number drop box, select which COM port you wish to use. Make sure you select a COM port number that is not currently in use (you can see the ports in use in the Device Manager Window). Select a port that is less than 10.

NOTE: Windows® will assign a port number to every device that has ever been installed on your computer. So if there are no available ports below 10, choose a port number less than 10 for a device listed that you know you are not currently using.

6. Once you select the correct COM port number, click <OK> and close any windows opened in the process of changing the port number. Make note of this number because you will need it when setting up Prism.