

Remote Access to NB HMIs and CJ or CP Series PLCs Quick Start Guide

Overview:

1. Omron has partnered with eWON, a global supplier of connectivity software tools, for a simple to implement solution for remote access to PLCs and HMIs at a customer.
2. This guide covers steps to download eWON connectivity tools and how to configure the router for NB series HMIs and CJ or CP series PLCs.
3. eWON solves the biggest problem with industrial remote access - connecting quickly and securely through a customer's LAN without knowing the network setup beforehand.

Remote Access Made Easy with eWON

An eWON/ Omron Collaboration

eWON is the global leader in secure remote access.

Founded in 1991, eWON is a Belgian manufacturer of industrial connectivity devices. Over the last 15 years, eWON has become the global market leader for intelligent cloud-managed remote access devices, and works with manufacturers of PLCs and automation systems throughout the world.

Solution Advantage

By combining Omron's automation expertise with eWON's connectivity know-how, OEMs and machine builders get a cohesive, global solution for remote access.

The experience is as good as being next to the machine. eWON allows users to upload projects, gain remote use of an HMI, debug the PLC program and, if necessary, download new settings or programs, all done remotely to immediately support the customer.

No More IT Challenges!

Once an eWON device is configured, it can be deployed anywhere in the world. Because the eWON makes an outbound connection, it eliminates the need for customer network/firewall changes. In most cases, **it just works.**

It is the best solution to the biggest problem with industrial remote access - connecting quickly and securely through a customer's LAN without knowing the network setup beforehand.

Fully Compatible with Partner products

Omron's business is Machine Automation, they provide the latest in sensing, motion and control technology, to help customers develop better machines.

As a trusted worldwide partner in Automation, providing customers the support to operate globally requires secure remote connectivity. Remote access made possible by eWON allows Omron to expand its communications offerings.



The eWON COSY 141

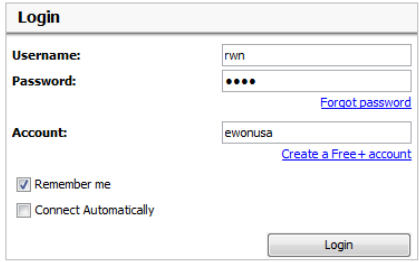


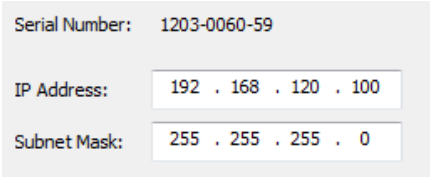


Quick Facts

- Simple remote maintenance for CJ or CP PLC with NB HMI setup.
- Outbound communication means no complications with IT depts.
- Quickly support your customer
- Eliminate expensive trips
- Easy and secure remote access using existing LAN
- Preconfigure your eWON before deployment

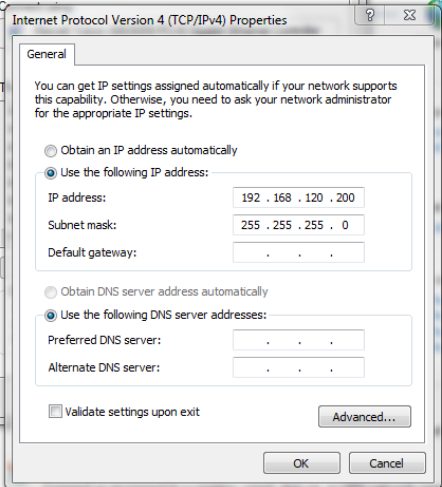


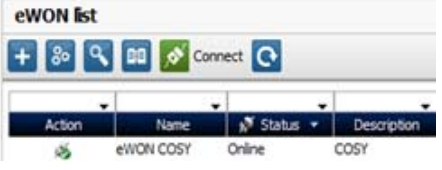
Get Up and Running with Omron and eWON

Select and Connect in Under 20 Minutes

Step	Action	Illustration
1.	<p>Download and Install eCatcher and eBuddy onto your Windows PC http://www.ewon.us/us/Support/software-download.html</p> <p><i>Note: On Windows 7 Right click the eCatcher installation file and run as administrator.</i></p>	
2.	<p>Launch eCatcher and select "Create Free+ Account." From there, you'll fill out all the information we need to activate your account.</p> <p><i>*Make sure you use a valid email address! We'll send you an email with a link that activates your new account.</i></p>	
3.	<p>Log in with your new account and click the "+" button to add a new device.</p> <p>Now you'll name your eWON, fill out some custom fields (if desired) and get your activation key</p> <p><i>*Click "Copy to Clipboard" to save yourself some time.</i></p>	
4.	<p>Connect an Ethernet cable from your computer to one of the four LAN ports on your COSY.</p> <p><i>* Straight-through or cross-over cables will work</i></p>	
5.	<p>Connect an Ethernet cable from your network to the WAN port so the COSY is able to reach the internet.</p>	
6.	<p>Open eBuddy and select the "Set IP Address" option. Here we will set the LAN IP address of your eWON.</p> <p><i>* Make sure to pick an IP address that won't conflict with your eWON's WAN IP or your computer's IP!</i></p> <p><i>More information can found here:</i> http://wiki.ewon.biz/COSY/0_Set_eWON_Machine_LAN_IP_address</p>	

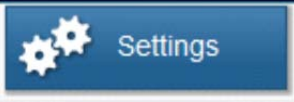

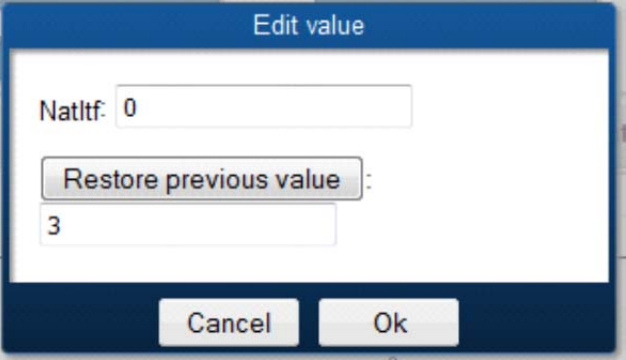
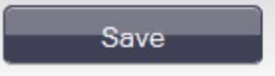
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<p>7.</p>	<p>Set your computer's IP address to be in the same range as the IP address chosen for the eWON's LAN.</p> <p><i>*These settings are accessible from the Control Panel in the Network and Sharing Center.</i></p>	
<p>8.</p>	<p>Open your web browser and enter the LAN IP address of your eWON into the address bar.</p> <p><i>*The default username and password are both "adm"</i></p>	
<p>9.</p>	<p>Select the "Quick Launch Wizard" button and fill out each section of the wizard completely.</p> <p><i>*You will be asked for the "Activation Key" that was copied to your clipboard earlier.</i></p> <p><i>*There are four sections that need to be completed: System, Internet, Talk2M, and Gateway.</i></p>	
<p>10.</p>	<p>Lastly, unplug the Ethernet cable connecting your computer to the eWON's LAN part and return your computer's IP settings to the original configuration.</p>	
<p>12.</p>	<p>Congratulations! Your eWON is now ready to go, simply open eCatcher, select your eWON, and click connect!</p>	

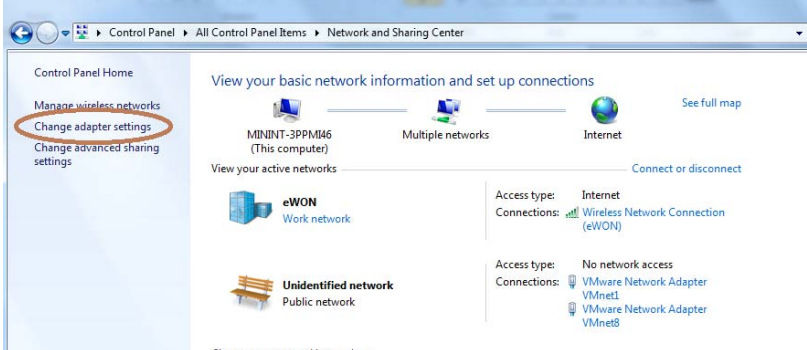

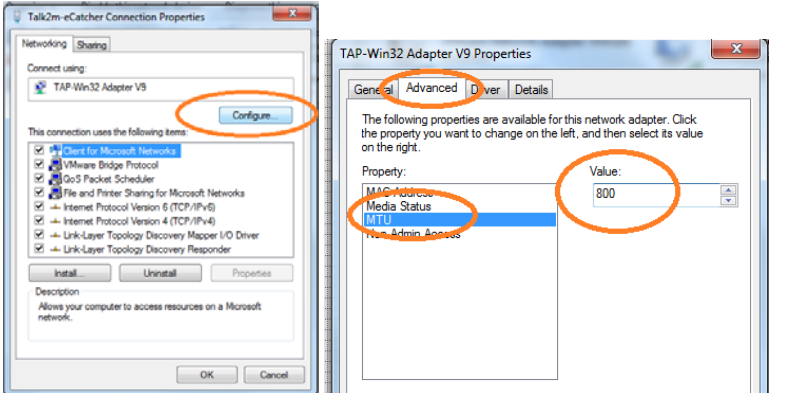
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13.	The NB is not compatible with the eWON's Plug'n Route feature. To disable Plug'n Route, browse to the eWON's web page and select "Settings"	
14.	Click on "Maintenance" and check the "Show advanced options" checkbox.	
15.	Click the "Edit COM configuration" to view the COSY's configuration page.	Edit COM configuration
16.	Find the parameter "NATlrf" and double click the value to pull up the editor. Change the value to equal "0". Click "Ok"	
17.	Click the "Save" button to save the configuration change and reboot the COSY to apply the change. NOTE: After you have disabled Plug'n Route, you must set the gateway in all Ethernet devices behind the eWON to be the eWON's LAN IP address. Unless the gateway is set, you will not be able to reach the device through a remote connection.	

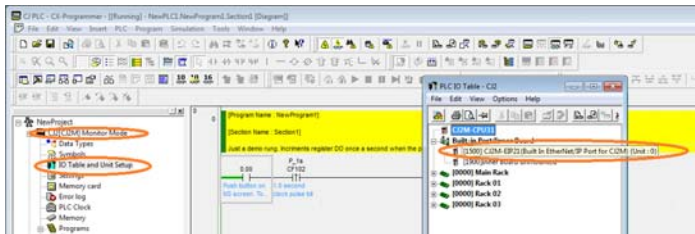
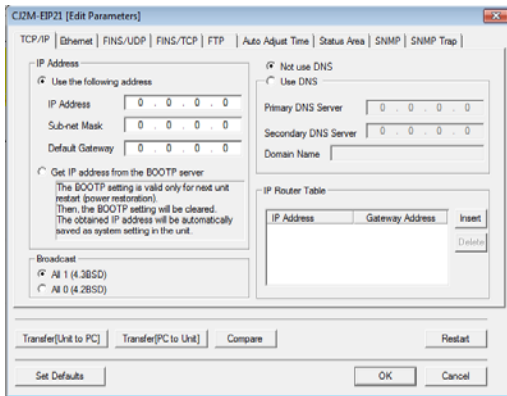
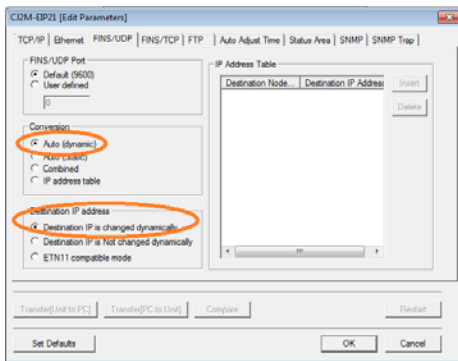
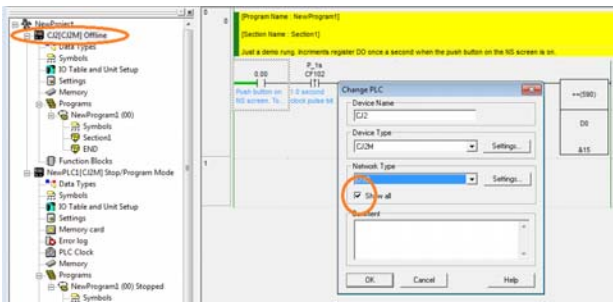
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<p>18. The NB requires changes to the MTU size of the Talk2m-eCatcher Connection network adapter. To modify this value, bring up your Network Control Panel and select "Change Adapter Settings"</p>	
<p>19. Double click on the Talk2m-eCatcher Connection network adapter</p>	
<p>20. From the Talk2m-eCatcher Connection Properties pane, select configure. Click on the Advanced tab, select the MTU property and set the value to 800. Click OK</p>	

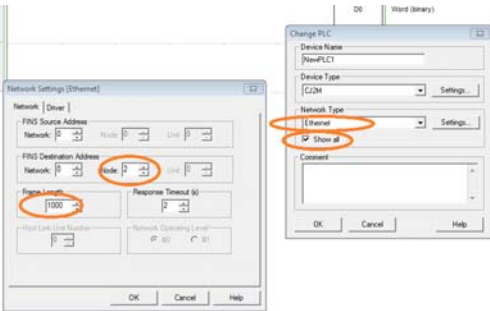
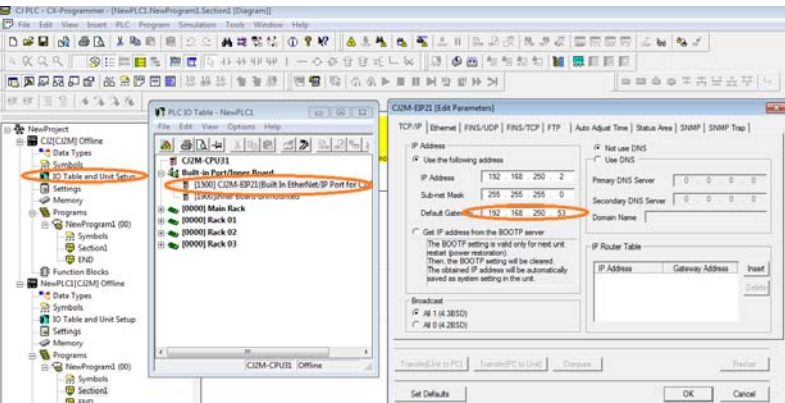
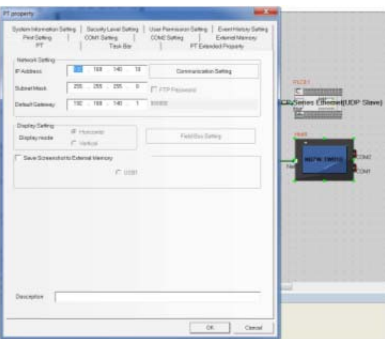
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<p>Configure Omron CJ2</p>	
<p>In CX Programmer, set the PLC IP Address.</p>	
<p>In this case the IP address is 0.0.0.0 which means default 192.168.250.x. x is the node number which is set by the node number rotary switches on the PLC near the Ethernet cable. (0 to 99). If you type in an address you get the full address range. For FIN's the auto mapping of Ethernet to FIN's only works to 254 on a Class C network.</p>	
<p>Set the dynamic IP address feature</p>	
<p>In CX Programmer, to find the PLC when connected remotely, select show all and then setting the network type to Ethernet – which gives you the Omron FIN's protocol.</p>	

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<p>FIN's has its own network and node address settings. It will be a lot easier if the PLC node number matches the Ethernet node address (the last octet in the IP address on a Class C network – 255.255.255.x).</p> <p>Since the NB requires changes to the MTU size of eCatcher's network adapter, we need to change the frame size for the PLC to 700 to communicate with it as well.</p>	
<p>Set the Default Gateway in the Ethernet settings to the eWON's LAN IP address</p>	
<p></p>	<p></p>
<p>Configure NB Panel</p>	<p></p>
<p>Set the Default Gateway address in the Panel to the eWON's LAN IP address</p> <p>Note: At this time the eWON is successful in communicating with the NB through the NB Ethernet Port only if the NB Ethernet port is being used to talk to a PLC. Just configuring the Ethernet port is not enough – it must be used with a PLC. Therefore if you use the serial port to talk to the PLC the eWON does not work with the Ethernet Port.</p>	

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