



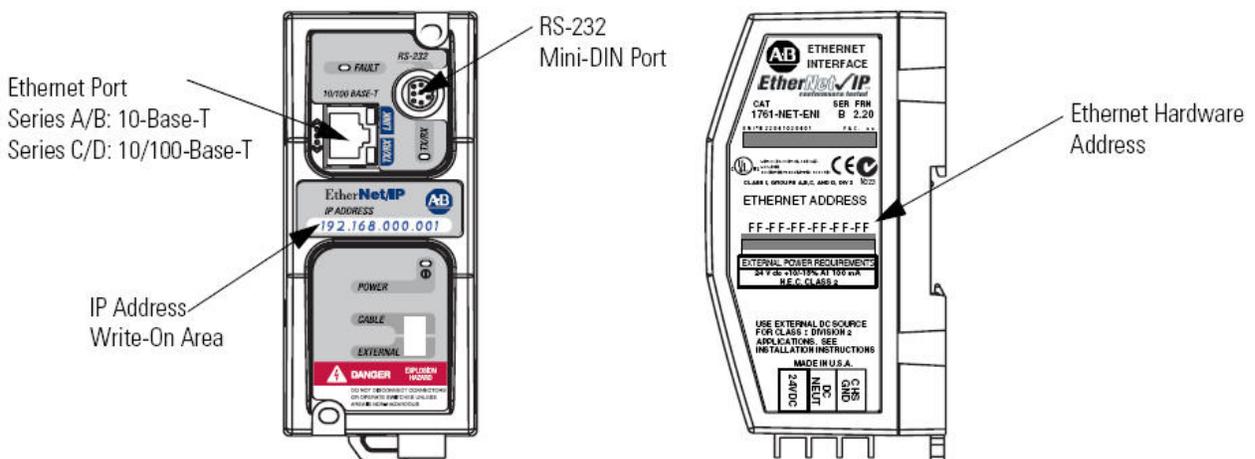
ONLINE XPert ENI [Option]

Section

6

The Oasis Online XPert ENI [Ethernet Network Interface] was developed to provide remote communications and real time monitoring (such as daily wash reports) via the Internet. Online XPert also provides a means of remote diagnostics. A technician can browse the Internet to a specific location and machine, determine current system status, diagnose the machine, and recommend any action that may be required.

Fig 1. The Ethernet Network Interface



The Online XPert Package

The Online XPert package consists of the following:

1. Ethernet Network Interface [1761-NET-ENI]. This unit [Fig 1] is an interface device allowing communication between the Programmable Logic Controller (PLC) and other devices that use the Ethernet Protocol.
2. Cable [1761-CBL-AMOO], which provides communication between the PLC and the ENI.
3. Hardware Firewall, VPN End Point/Client Access, Router .

Hardware Firewall provides protection on your private network to prevent unauthorized access to devices on that network.

Virtual Private Network (VPN) End Point/Client allows a remote user to log onto the private network through a secure tunnel and make use of all authorized network resources as if the user was connected directly to the network. This feature allows Oasis Car Wash Systems' technicians to connect to a site, download program updates, and monitor program status.

Router provides Internet Protocol (IP) addressing to the private network, and routes requests to and from the Internet to the correct device or destination.



Site Requirements

1. A broadband connection to the Internet by one of the following:
 - Digital Subscriber Line (DSL)
 - Cable Modem
 - T1 Line
 - ♦ This cannot be a standard dial-up line using a standard modem.
 - ♦ The connection must be static, meaning it must have an IP address that does not change. You will have to specifically ask your Internet Service Provider [ISP] for this option.
 - ♦ The connection cannot be static on a PPOE [Point-to-Point Over Ethernet].
2. Patch Cables, Cat 5, to reach from the Control Panel to the location of the Router. This is in addition to the cable needed for the XPert HMI.

Site Installation

The Router should be located in a cool, dry area of the equipment room, in close proximity to the 115V AC receptacle it will be connected to. To reduce electrical interference, there should be no motors on the same circuit as the Router. Also, Oasis recommends that any electrical device be connected to a surge protector.

Run the Cat 5 Patch Cables to the Control Panel from the Router, avoiding any sharp bends, staples or unnecessary coiling of the cable, as this could create communication problems.

Using the Online XPert

All information on the Online XPert is for viewing purposes only. No values can be changed except N50:14, explained under Technical Operation [Page 6.4].

1. Open a web browser window, such as Internet Explorer.
2. Type the IP address of the ENI into the address bar of the web browser, and click 'Go'. The IP address is printed on the front of the ENI [Fig 1, Page 6.1]. The 'Home' page [Fig 2, Page 6.3] will display.
 - The row of red buttons along the top allows navigation to the data pages, or you can click on a link in the Home page window.
 - 'Ref' and 'Event' navigation buttons are not currently being used.
3. Click 'Page 1' of the navigation buttons. 'Customer Data Page 1' will display [Fig 3, Page 6.3].
 - Results are shown in the column titled 'Writes from Device'.
 - In order to display a result for 'Total Money Received', the cost per vend must be entered on the HMI [Refer to Section 5].
 - 'System Condition / Fault 0 = System Ready' result will display '0' when the system is ready, or will display an Error Code [See Pg 7.12 & 7.13] if the machine is down or needs attention.
 - 'In Bay Status / 0 = All Home' indicates the position of the bridge, trolley and wand. The table in Fig 3 lists the possible results and what each one indicates.
 - To display the results for Vend 3 and Vend 4, click 'Page 2' of the navigation buttons.

Fig 2. Home Page

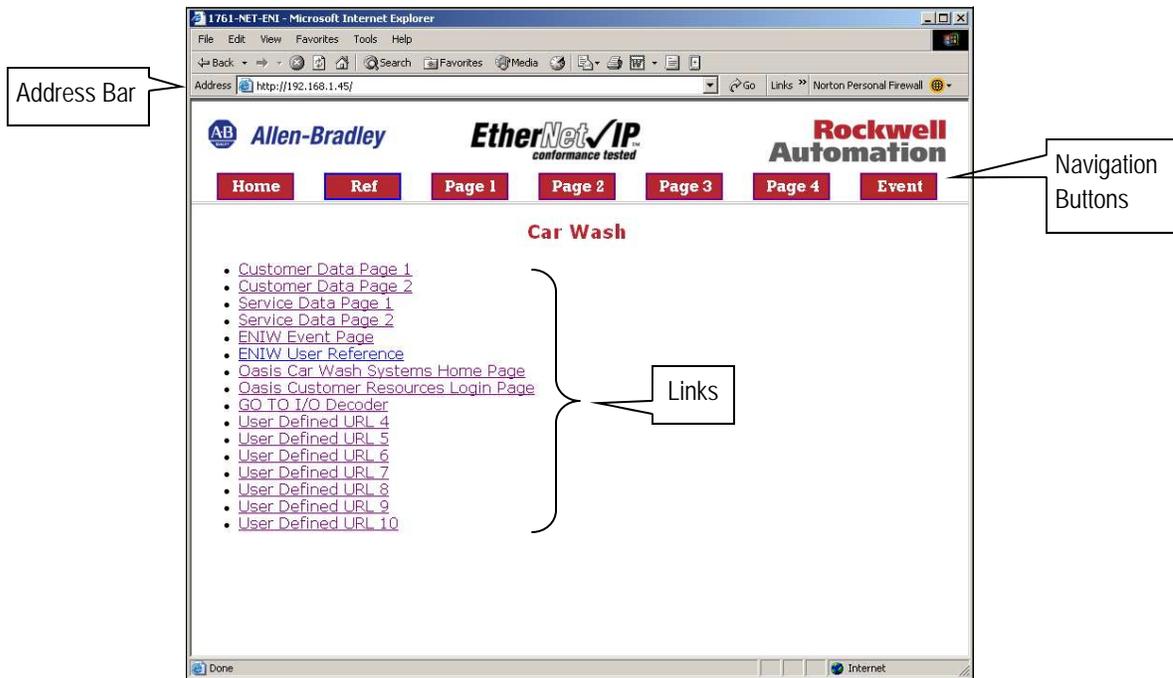


Fig 3. Customer Data Page 1

Result	Indication
0	Bridge, Trolley & Wand in Home Position
1	Bridge Only Not Home
2	Trolley Only Not Home
3	Bridge & Trolley Not Home
4	Wand Only Not Home
5	Bridge & Wand Not Home
6	Trolley & Wand Not Home
7	Bridge, Trolley & Wand Not Home



Technical Operation

'Page 3' and 'Page 4' are used for diagnosis of the XP. A technician will use these two pages, along with the I/O Decoder, to determine the position of the bridge, trolley and wand, along with other data needed to troubleshoot problems [faults].

1. Click the 'Page 3' navigation button. 'Service Data Page 1' will display [Fig 4, Page 6.5].
 - The first line in the display, labeled 'Current Data=0 Historical Data=1-5', is the only field that allows user inputs. In the first box to the far right, under the column titled 'Writes to Device', you will enter either a 0, 1, 2, 3, 4 or 5.
 - ♦ Entering '0' will display results in real time...what is happening in the bay at that exact moment.
 - ♦ Entering '1' will display results of the last fault that occurred. In addition, there are four (4) other storage areas of fault information, providing a valuable troubleshooting tool. This history is retrieved by entering the number '2', '3', '4' or '5' in the box, which will display the second, third, fourth or fifth fault.
 - Steps 2 thru 6 below will take you through the process of accessing and interpreting the information.
2. Enter a '1' into the box next to the label 'N50:14'.
3. Enter your password [assigned by Oasis Car Wash Systems] into the box near the bottom of the page, and click 'Write to Device'. The display refreshes to show data relevant to the most recent fault for Input/Output Data 1-5. The results for Input/Output Data 6-8 can be accessed at this time by simply clicking the 'Page 4' navigation button. Print these pages or copy the information down on a sheet of paper, as you will need it in Step 5.
4. Click the 'Home' navigation button. On the Home page, click the link for [I/O Decoder](#). This will open a page similar to the one in Fig 5 [Page 6.5]. *Note:* This is an interactive Excel web page. You must have Microsoft Office on your PC and Web Components enabled to use this feature.
5. Enter data from the Online XPert 'Input/Output Data' fields obtained in Step 3 into the corresponding fields (indicated by a blue color on your screen) in the Decoder. A '1' will show to the right of any input/output that is 'ON' at the time you entered the data.
6. Repeat this process until you have located the information you need. Enter another number into 'N50:14' of the Online XPert to view data for another fault, or '0' to view current data. Faults are stored with the most recent in storage '1', and the oldest in storage '5'.

Fig 4. Service Data Page 1

Enter '0' to view real time information, or a 1, 2, 3, 4 or 5 to view details from any of the last 5 faults

Enter this data into the corresponding fields in the I/O Decoder

Type password here

Click after entering password

Data Description	Writes from Device	Writes to Device
Current Data=0 Historical Data=1-5	0	
Fault Incurred	1	N50:14
Vend Selected 1-4	1	N50:15
Sequence Number	0	N50:16
Function Number	0	N50:17
Input /Output Data 1	0	N50:18
Input /Output Data 2	0	N50:19
Input /Output Data 3	0.00000000	N50:20
Input /Output Data 4	16384.0000	F51:06
Input /Output Data 5	0.00000000	F51:07
		F51:08

Fig 5. I/O Decoder

Blue Fields

Blue Fields

Indicates output is 'ON'

Data 1 (N50:19)	Data 2 (N50:20)	Data 3 (F51:6)	Data 4 (F51:7)
0	18	0	0

Data 5 (F51:8)	Data 6 (N50:21)	Data 7 (N50:22)	Data 8 (N50:23)
0	0	0	0



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