

## Dane produktu

### Charakterystyki

# BMXAMI0410

Moduł wejść analogowych 4 napięcie/prąd Izolowane



### Główne

Gama produktów	Platforma automatyzacji Modicon M340
Typ produktu lub komponentu	Moduł wejść analogowych
Przyłącza elektryczne	1 złącze 20 żył
Izolacja wejścia wyjścia	Izolowany
Poziom wejściowy	Wysoki poziom
Numer wejścia analogowego	4
Typ wejścia analogowego	Prąd +/- 20 mA Prąd 0...20 mA Prąd 4...20 mA Napięcie +/- 10 V Napięcie +/- 5 V Napięcie 0...10 V Napięcie 0...5 V Napięcie 1...5 V

### Uzupełnienie

Przetwarzanie analog/cyfra	24 bitów
Rozdzielczość wejścia analogowego	16 bitów
Impedancja wejściowa	10 MΩ
Dopuszczalne przeciążenie na wejściach	+/- 30 V +/- 10 V +/- 30 V +/- 5 V +/- 30 V 0...10 V +/- 30 V 0...5 V +/- 30 V 1...5 V +/- 90 mA +/- 20 mA +/- 90 mA 0...20 mA +/- 90 mA 4...20 mA
Wewnętrzny opornik przekształcający	250 Ohm
Dokładność wewnętrznego rezystora konwersji	0,1 % - 15 ppm/°C
Rodzaj filtru	Filtracja cyfrowa pierwszego rzędu
Szybki czas cyklu czytania	1 ms + 1 ms x liczba kanałów w użyciu
Znamionowy czas odczytu	5 ms dla 4 kanałów
Błąd pomiaru	<= 0,1 % pełnej skali +/- 10 V 0...60 °C <= 0,1 % pełnej skali +/- 5 V 0...60 °C <= 0,1 % pełnej skali 0...10 V 0...60 °C <= 0,1 % pełnej skali 0...5 V 0...60 °C <= 0,1 % pełnej skali 1...5 V 0...60 °C <= 0,3 % pełnej skali +/- 20 mA 0...60 °C <= 0,3 % pełnej skali 0...20 mA 0...60 °C <= 0,3 % pełnej skali 4...20 mA 0...60 °C 0,075 % pełnej skali +/- 10 V 25 °C 0,075 % pełnej skali +/- 5 V 25 °C 0,075 % pełnej skali 0...10 V 25 °C 0,075 % pełnej skali 0...5 V 25 °C 0,075 % pełnej skali 1...5 V 25 °C 0,15 % pełnej skali +/- 20 mA 25 °C 0,15 % pełnej skali 0...20 mA 25 °C 0,15 % pełnej skali 4...20 mA 25 °C
Dryf temperaturowy	15 ppm/°C +/- 10 V 15 ppm/°C +/- 5 V 15 ppm/°C 0...10 V 15 ppm/°C 0...5 V 15 ppm/°C 1...5 V 30 ppm/°C +/- 20 mA 30 ppm/°C 0...20 mA

	30 ppm/°C 4...20 mA
Wzorcowanie ponowne	Wewnętrzny
Tryb wspólny między kanałami	120 dB
Format wartości cyfrowej	+/- 10000 domyślnie +/- 32000 w skali użytkownika
Napięcie izolacji	300 V DC pomiędzy kanałami 1400 V DC między kanałami a ziemią 1400 V DC między kanałami a magistralą
Rozdzielczość pomiarowa	0,35 mV +/- 10 V 0,35 mV +/- 5 V 0,35 mV 0...10 V 0,35 mV 0...5 V 0,35 mV 1...5 V 0,92 µA +/- 20 mA 0,92 µA 0...20 mA 0,92 µA 4...20 mA
Maksymalna wartość konwersji	+/- 11,4 V +/- 10 V +/- 11,4 V +/- 5 V +/- 11,4 V 0...10 V +/- 11,4 V 0...5 V +/- 11,4 V 1...5 V 0...30 mA +/- 20 mA 0...30 mA 0...20 mA 0...30 mA 4...20 mA
Lampka led LED informująca o stanie łącznika	1 lampka LED zielony RUN 1 LED na kanał zielony kanał diagnostyczny 1 lampka LED RED ERR 1 LED RED Wej/Wyj
Masa produktu	0.143 kg
Obciążenie prądowe	150 mA w 3.3 V DC 45 mA w 24 V DC

## Środowisko

temperatura otoczenia dla pracy urządzenia	0...60 °C
wilgotność względna	10...95 % bez kondensacji
stopień ochrony IP	IP20
Pokrycie ochronne	TC

## Oferta zrównoważonego rozwoju

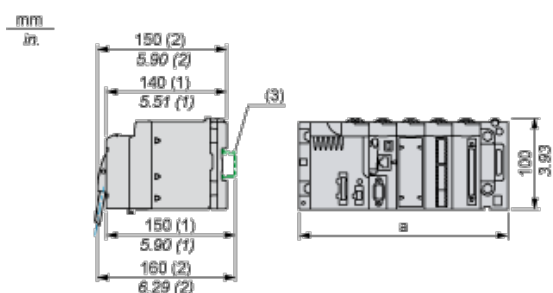
Status oferty zrównoważonego rozwoju	Produkt ekologiczny Green Premium
RoHS (kod daty: RRTT)	Zgodność - od 0722 - Deklaracja zgodności Schneider Electric
REACH	Referencja nie zawiera SVHC powyżej wartości progowej
Profil ekologiczny produktu	Dostępny
Instrukcje dotyczące zakończenia okresu eksploatacji produktu	Dostępny

## Contractual warranty

Okres	18 miesięcy
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## Modules Mounted on Racks

### Dimensions



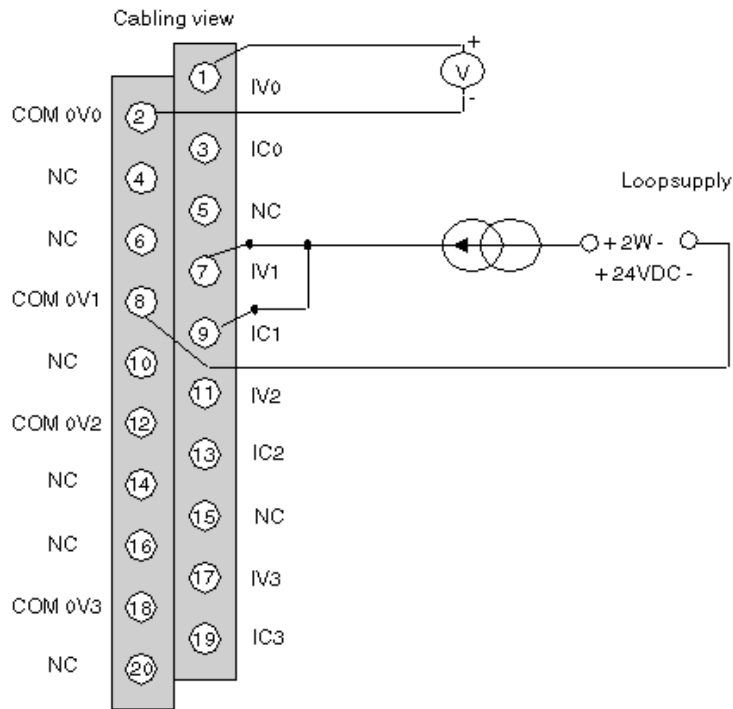
(1) With removable terminal block (cage, screw or spring).

(2) With FCN connector.

(3) On AM1 ED rail: 35 mm wide, 15 mm deep. Only possible with BMXXBP0400/0400H/0600/0600H/0800/0800H rack.

Rack references	a in mm	a in in.
BMXXBP0400 and BMXXBP0400H	242.4	09.54
BMXXBP0600 and BMXXBP0600H	307.6	12.11
BMXXBP0800 and BMXXBP0800H	372.8	14.68
BMXXBP1200 and BMXXBP1200H	503.2	19.81

## Wiring Diagram



**IVx** + pole input for channel x

**COM 0Vx-** pole input for channel x

**ICx** current reading resistor + input

**Channel**voltage sensor

0

**Channel**2-wire current sensor

1

# X80

## B800 to X80 I/O Modernization Instruction Sheet

04/2016

The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein. This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications. It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof. Neither Schneider Electric nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein. If you have any suggestions for improvements or amendments or have found errors in this publication, please notify us.

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All pertinent state, regional, and local safety regulations must be observed when installing and using this product. For reasons of safety and to help ensure compliance with documented system data, only the manufacturer should perform repairs to components.

When devices are used for applications with technical safety requirements, the relevant instructions must be followed.

Failure to use Schneider Electric software or approved software with our hardware products may result in injury, harm, or improper operating results.

Failure to observe this information can result in injury or equipment damage.

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# Safety Information



## Important Information

### NOTICE

Read these instructions carefully, and look at the equipment to become familiar with the device before trying to install, operate, service, or maintain it. The following special messages may appear throughout this documentation or on the equipment to warn of potential hazards or to call attention to information that clarifies or simplifies a procedure.



The addition of this symbol to a “Danger” or “Warning” safety label indicates that an electrical hazard exists which will result in personal injury if the instructions are not followed.



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

## **DANGER**

**DANGER** indicates a hazardous situation which, if not avoided, **will result in death** or serious injury.

## **WARNING**

**WARNING** indicates a hazardous situation which, if not avoided, **could result in death** or serious injury.

## **CAUTION**

**CAUTION** indicates a hazardous situation which, if not avoided, **could result** in minor or moderate injury.

## **NOTICE**

**NOTICE** is used to address practices not related to physical injury.

**PLEASE NOTE**

Electrical equipment should be installed, operated, serviced, and maintained only by qualified personnel. No responsibility is assumed by Schneider Electric for any consequences arising out of the use of this material.

A qualified person is one who has skills and knowledge related to the construction and operation of electrical equipment and its installation, and has received safety training to recognize and avoid the hazards involved.

## 800 Series to X80 I/O Modernization

### Introduction

The X80 Automation Series supports a full range of high performance I/O modules designed to interface with a wide variety of field devices. Schneider Electric Services offers a series of conversion products to ease the migration from 800 series I/O to X80 I/O.

**NOTE:** Analog modules require configuration parameters to be set that match the B800 module being replaced. For additional information refer to the publication *Modicon M340 Using Unity Pro Analog Input/Output modules User Guide* (Document Number 35011978).

The Evolution PLC-I/O Chassis (Figure 1) consists of a base plate and a chassis door. This assembly is designed to fit into the same footprint, and use the same mounting hardware, as the B800 housing. The assembly is made of aluminum and is available in both 19 and 27 inch sizes.

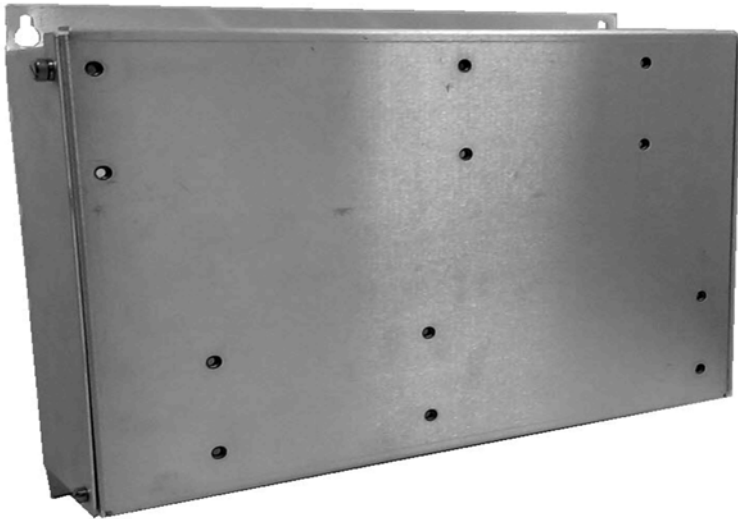


Figure 1

**NOTE:** The X80 backplanes are not included as part of the Evolution PLC-I/O Chassis assembly. You will need to determine the proper size and type of backplane your application requires, then add the part number(s) and quantities to your Bill of Materials.

Refer to the list of Evolution PLC-I/O Chassis part numbers ([see page 14](#)).

The conversion offer consists of printed circuit board adapters and cabling assemblies to route the field wiring from the 800 series field connector to the X80 I/O module. Cabling is available for mounting the new X80 I/O modules in either of two styles:

- Direct connection adapter: a factory pre-wired assembly (Figure 2)
- Generic adapter: requires installer wiring of X80 terminal (Figure 3)

**⚠ CAUTION****LOSS OF INPUT/OUTPUT FUNCTION**

Generic I/O adapters do not contain fuses or other measures to help protect against external events, such as circuit overload, short circuit, or sensor/pre-actuator voltage errors. Confirm that sufficient module protection measures are in place. Refer to the *Modicon M340 Using Unity Pro Discrete Input/Output Modules User Manual* (35012474) for details regarding X80 module external protection recommendations.

**Failure to follow these instructions can result in injury or equipment damage.**

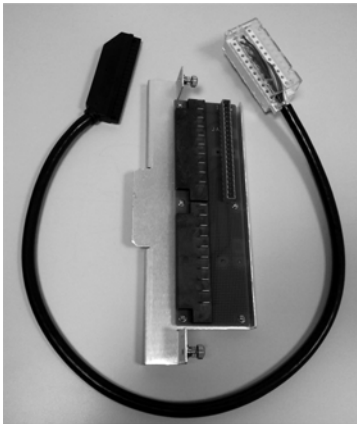


Figure 2

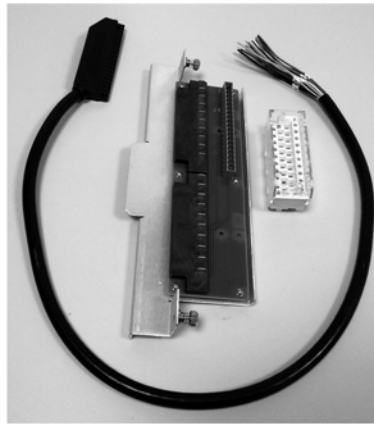


Figure 3

Both of these assemblies let you connect the existing 800 series field wiring to X80 I/O, without disturbing existing wiring connections.

**Safety Precautions****⚠ DANGER****HAZARD OF ELECTRIC SHOCK, EXPLOSION OR ARC FLASH**

- Apply appropriate personal protective equipment (PPE) and follow safe electrical work practices. Follow local electrical codes and standards.
- Turn OFF all power before working on or inside equipment.
- Always use a properly rated voltage sensing device to confirm that power is OFF.

**Failure to follow these instructions will result in death or serious injury.**

## Assembling Cables

If you are using a generic adapter in the modernization, assemble all of these cables (using the appropriate wiring guide) before beginning the modernization:

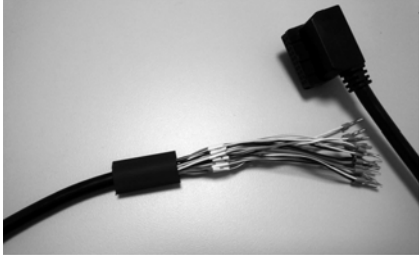

Step	Action	
1	Before wiring the X80 connector to the cable, place the supplied shrink tube over the cable (Figure 4). After all wiring is completed, you can trim back the unused wires at the outer jacket and then shrink the tubing over the end of the jacket.	
2	Each generic cable comes with a marking flag tie wrap (Figure 5) included in the packaging. Schneider Electric recommends that you use the marking flag for easier identification of each cable during installation.	
3	After the X80 connector wiring is completed, secure the cable to the connector with the supplied tie-wrap. Schneider Electric recommends that the tie-wrap connection point be on the cable jacket and not the individual wires.	

Figure 4

Figure 5

## Removing Existing Modules and Housing

### CAUTION



#### RISK OF ELECTRIC SHOCK

Before removing existing modules and housing, turn off all power to the 800 series rack, including rack power, I/O field power, and so forth.

If there are unused B800 AC or DC connections, disconnect the wires at the source (terminal strip, etc.) so the power is no longer present on the B800 field connector.

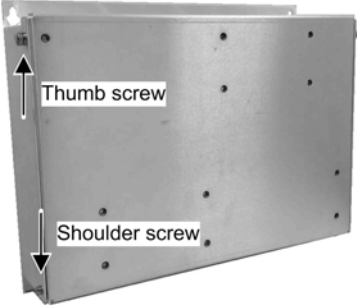

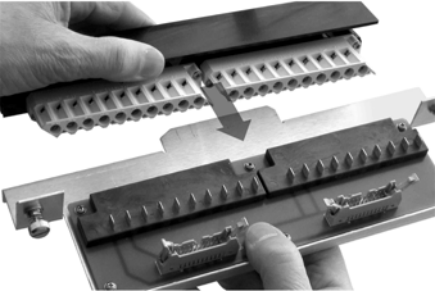
**Failure to follow these instructions can result in injury or equipment damage.**

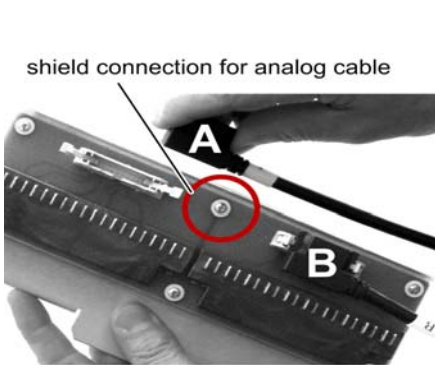
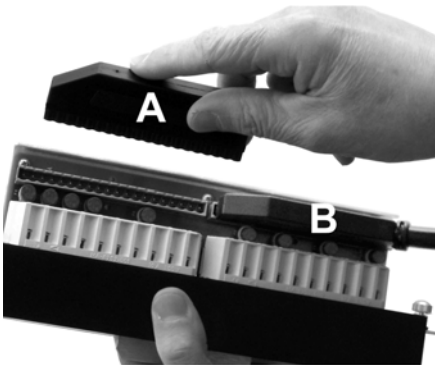
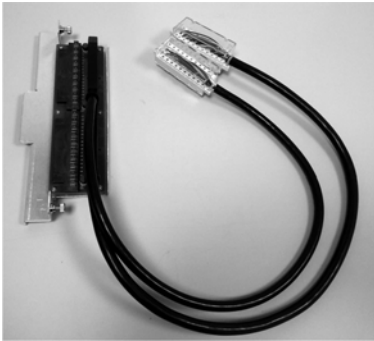
To remove existing modules and housing:

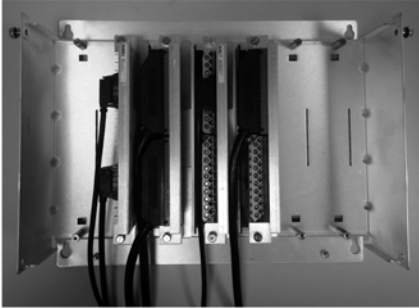
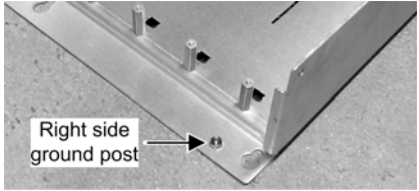
Step	Action	
1	Turn off all power to the 800 series rack, including rack power, I/O field power, and so forth.  <b>NOTE:</b> Disconnect any unused B800 AC or DC connections at the source (terminal strip, etc.) so the power is no longer present on the B800 field connector.	 <p data-bbox="943 610 1023 634">Figure 6</p>
2	Remove any communications cabling from the PLC system and set them aside (if applicable).	
3	Remove the 800 series I/O modules. Each module has a built-in handle attached at the front of the module. To remove a module: <ol style="list-style-type: none"> <li>1. Loosen the captive screws at the top and bottom of the module.</li> <li>2. Grasp the handle and pull the module straight out (Figure 6).</li> </ol>	
4	(Optional) Check each field wire connection to confirm it is tightly fastened.	
5	Remove the two Phillips head screws fastening each 800 series I/O field connector to the housing. One screw is located on the top of the housing, and the other is located on the bottom of the housing.	 <p data-bbox="948 1125 1030 1149">Figure 7</p>
6	Remove the field connectors (Figure 7). Keep the wiring intact for later use.	
7	(Optional) Label the field connector with its original slot number and module part number.	
8	Remove the 800 series I/O housing.  <b>NOTE:</b> Retain the mounting hardware for use when installing the Evolution chassis.	

## Installing the Evolution PLC/I/O Chassis Base Plate and Chassis Door

To install the Evolution PLC/I/O Chassis base plate:

Step	Action	
1	<p>The Evolution PLC/I/O Chassis assembly is shipped with the chassis door attached to the base plate. For ease of installation, you can detach the chassis door before installing the base plate. To detach the chassis door:</p> <ol style="list-style-type: none"> <li>1. Loosen the two captive thumb screws fastening the top of the chassis door to the base plate (Figure 8).</li> <li>2. Remove the two shoulder screws fastening the chassis door to the base plate (Figure 8).</li> <li>3. Remove the chassis door from the base plate (Figure 9).</li> </ol> <p><b>NOTE:</b> The chassis door has a label placed on the left side of the top lip. This will be used to properly orientate the door when adding the X80 rack(s) and when attaching to base plate..</p>	 <p style="text-align: center;">Figure 8</p>
2	<p>Securely fasten the base plate in your preferred location.</p> <p><b>NOTE:</b> As you perform this step, keep in mind that you need to install the base plate so that the front door of the chassis assembly will swing upward to close. Use the chassis identification label, located at the upper left corner of the chassis, to determine mounting orientation.</p>	 <p style="text-align: center;">Figure 9</p>
3	<p>Mate the 800 series field connector(s) (removed in Step 6 of the Remove Existing Modules and Housing procedure (<a href="#">see page 7</a>)) to the Evolution I/O adapters assembly (Figure 10).</p>	 <p style="text-align: center;">Figure 10</p>

Step	Action
4	<p>If there are two interconnecting cables: first connect one I/O adapter cable to the lower mating connector (B); then connect the second I/O adapter cable to the upper mating connector (A). For a single cable adapter: connect the I/O adapter cable to the mating connector. (Figure 11: low power or analog connections; Figure 12: high power connections).</p> <p><b>NOTE:</b> If the assembly is for analog, attach the cable assembly ring lug shield connection to the ground standoff located between the two cable assembly connectors on the adapter card.</p> <div data-bbox="293 386 728 748"><p>shield connection for analog cable</p><p>A</p><p>B</p></div> <p data-bbox="463 760 555 784">Figure 11</p> <div data-bbox="773 386 1208 748"><p>A</p><p>B</p></div> <p data-bbox="934 760 1026 784">Figure 12</p>
5	<p>If you are using one Evolution I/O Adapter assembly with two X80 modules (Figure 13), confirm that the adapter cables are connected to the correct X80 modules so that the point / channel addressing matches the logic.</p> <div data-bbox="808 800 1182 1138"></div> <p data-bbox="938 1154 1030 1179">Figure 13</p>

Step	Action	
6	<p>The mated assembly can then be mounted in any available position on the base plate (Figure 14).</p> <p><b>NOTE:</b> Schneider Electric recommends that you locate the adapter assembly as near as possible to a position just below the X80 module.</p>	 <p data-bbox="975 529 1070 553">Figure 14</p>
7	<p>Fasten each adapter assembly to the base plate by tightening the two captive screws. The recommended tightening torque for these mounting screws is 2...4 lb-in (0.23...0.45 N•m).</p>	
8	<p>Attach X80 backplane(s) to the door. The recommended tightening torque for these screws is 25...30 lb-in (2.8...3.4 N•m).</p> <p><b>NOTE:</b></p> <ul style="list-style-type: none"> <li>● If an Ethernet X80 backplane or a non-Ethernet backplane (PV02 or higher) is being installed, use the shorter 16 mm (5/8 in) mounting screws that are supplied with the Chassis assembly.</li> <li>● If a non-Ethernet X80 backplane (PV01 only) is being installed, use the longer 19 mm (3/4 in) mounting screws that were supplied.</li> <li>● Note that there is a label attached to the top left lip of the chassis door. Use this label to orient the door position when installing the X80 backplane(s).</li> </ul>	
9	<p>Re-attach door to chassis, using the orientation label mentioned previously. Tighten both head and shoulder screws. The recommended tightening torque for these screws is 15...20 lb-in (1.7...2.3 N•m).</p> <p><b>NOTE:</b> Use the label attached to the top left lip of the chassis door to orient the door position when installing the X80 backplane(s).</p>	
10	<p>(Optional) Two ground posts are included at the bottom of the chassis base plate: one on the left side and one on the right side (see Figure 15). Use these to provide additional grounding for the chassis. If the ground posts are used, the recommended tightening torque is 15...20 lb-in (1.7...2.3 N•m.)</p>	 <p data-bbox="948 1268 1042 1292">Figure 15</p>

### Installing the X80 System

To install the X80 system:

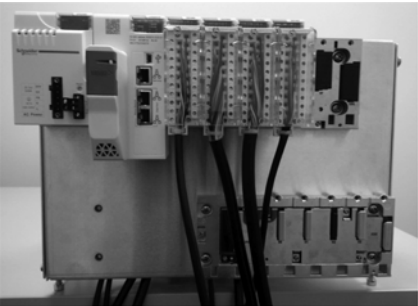
Step	Action	
1	Mount all the required X80 modules (power supply, CPU, I/O, etc.) into the correct slots in the backplane. Fasten each module by tightening the captive Phillips head screw at the top of the module (Figure 16). The recommended tightening torque for this screw is 10.6...13.3 lb-in (1.2...1.5 N•m).	
2	Plug each X80 I/O field connector into its corresponding I/O module.  <b>NOTE:</b> X80 module I/O connector keying is recommended. Refer to the analog I/O (35011978) and discrete I/O (35012474) user guides for I/O connector key instructions.  Tighten the captive Phillips head screw at the top and bottom of each connector. The recommended tightening torque for these screws is 2.7...3.5 lb-in (0.3...0.4 N•m).	
3	Re-attach any other communications cables that previously had been detached.	

Figure 16

### Maintenance

#### Strap Usage:

The chassis door can be opened for ease of access. You can attach a strap (or similar implement) to the top shoulder screw and in the door hole to hold the chassis door in place while it is open (Figure 17).

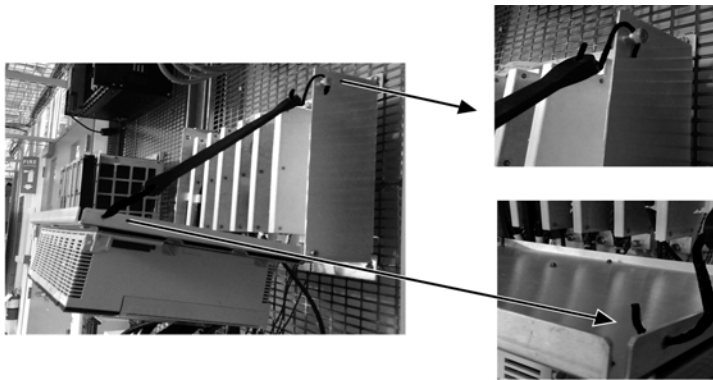


Figure 17

**Replacement Fuse Trim Procedure:**

Each original fuse that comes with the I/O adapter has its legs pre-trimmed at the factory, so that the fuse sits flush to the top of the fuse holder. If you replace a fuse, it is recommended that the fuse legs are trimmed using a wire cutter (or similar tool) to a length of 3.3...3.4 mm (0.130...0.134 in.) before installing it.

**Fuse Replacement Procedure:**

Some I/O adapters have replaceable fuses. The I/O adapter boards with fuses include a spare fuse on the assembly, which is labeled *SPARE* on the PCB.

The fuses on the I/O Adapters are inaccessible when the system is assembled. If fuse replacement is required, the I/O adapter assembly needs to be disassembled and removed from the Evolution PLC/IO Chassis:

Step	Action
1	Remove power from the system.
2	Unscrew the thumb screws at the top of the chassis assembly, and open the assembly.
3	Unscrew the fastening screws for the I/O adapter assembly.
4	Partially remove the I/O adapter assembly from the chassis assembly, then remove the interconnecting cables from the I/O adapter.
5	Remove the 800 series field connector from the I/O adapter assembly.
6	Remove the I/O adapter assembly from the chassis assembly.
7	Replace the blown fuse: <ol style="list-style-type: none"> <li>1. Pull the blown fuse straight out to remove it.</li> <li>2. If necessary, trim the fuse leads as described in the "Replacement Fuse Trim Procedure", above.</li> <li>3. Line up the two pins on the rear of the fuse with the holes on the adapter board, then push the new fuse into place.</li> </ol>
8	Install the I/O adapter in the reverse order (steps 5 through 2, above). <b>NOTE:</b> When replacing the interconnecting cables (step 4), verify that the cables are connected to the correct mating connector.
9	Apply power to the system and verify operation.

**Fuse Part Numbers:**

Replacement fuses can be purchased from the following manufacturers:

Fuse Description	Where Used	Part Number	Manufacturer
6.3 A (fast acting)	990ADB80X80212/ 213	HUA41100	Schneider Electric

**I/O Adapter Replacement Cables:**

You can also obtain replacement I/O adapter cables from Americas MRO. For part numbers, refer to the list of I/O Adapter Replacement Cables ([see page 15](#)).

## B800 to X80 I/O Adapter Hardware References

### Evolution PLC-I/O Chassis

From B800 Series	Part Number	Notes
H819 7 slots (19 inch)	990CHB80X80819	There are no X80 backplanes mounted to these assemblies. Order these separately.
H827 11 slots (27 inch)	990CHB80X80827	

### X80 Backplanes

I/O Slots	Part Number
X Bus Only Racks <sup>1</sup> (M340/M580 Main and Extended Racks):	
4	BMXXBP0400
6	BMXXBP0600
8	BMXXBP0800
12 <sup>2</sup>	BMXXBP1200
Ethernet + X-Bus Racks (M580 Main Racks):	
4	BMEXBP0400
8	BMEXBP0800
12 <sup>2</sup>	BMEXBP1200
Dual Power Supply Ethernet + X-Bus Racks (M580 Main Racks):	
6	BMEXBP0602
10 <sup>2</sup>	BMEXBP1002
1. Product Version 02 or higher.	
2. Used only with chassis part number 990CHB80X80827.	

## I/O Adapter Replacement Cables

Replacement cables – B800 to X80	
Description	Part Number
High Power I/O Adapter Replacement Cable 2 ft	990X80CABLE016
High Power I/O Adapter Replacement Cable 5 ft	990X80CABLE516
High Power I/O Adapter Replacement Pig Tail Cable 2 ft	990X80CABL016PT
High Power I/O Adapter Replacement Pig Tail Cable 5 ft	990X80CABL516PT
High Density I/O Adapter Replacement Cable 2 ft	990X80CABLE017
High Density I/O Adapter Replacement Cable 5 ft	990X80CABLE517
High Density I/O Adapter Replacement Pig Tail Cable 2 ft	990X80CABL017PT
High Density I/O Adapter Replacement Pig Tail Cable 5 ft	990X80CABL517PT
Analog/ Shielded I/O Adapter Replacement Cable 2 ft	990X80CABLE018
Analog/ Shielded I/O Adapter Replacement Cable 5 ft	990X80CABLE518
Analog/ Shielded I/O Adapter Replacement Pig Tail Cable 2 ft	990X80CABL018PT
Analog/ Shielded I/O Adapter Replacement Pig Tail Cable 5 ft	990X80CABL518PT
Analog/ Shielded I/O Adapter Replacement Cable 28 pin conn., 2 ft	990X80CABL019
Analog/ Shielded I/O Adapter Replacement Cable 28 pin conn., 5 ft	990X80CABL519

### I/O Adapter Replacement Cable Details

High Power 990X80CABLEx16 990X80CABLx16PT		High Density 990X80CABLEx17 990X80CABLx17PT		Analog 990X80CABLEx18 990X80CABLx18PT 990X80CABLx19	
Wire #	Wire Color	Wire #	Wire Color	Wire #	Wire Color
1	Black	1	Black	1	Black
2	Brown	2	Brown	2	Brown
3	Red	3	Red	3	Red
4	Orange	4	Orange	4	Orange
5	Yellow	5	Yellow	5	Yellow
6	Green	6	Green	6	Green
7	Blue	7	Blue	7	Blue
8	Purple	8	Purple	8	Purple
9	Gray	9	Gray	9	Gray
10	White	10	White	10	White
11	Pink	11	White/ Black	11	White/ Black
12	Light Green	12	White/ Brown	12	White/ Brown
13	Black/ White	13	White/ Red	13	White/ Red
14	Brown/ White	14	White/ Orange	14	White/ Orange
15	Red/ White	15	White/ Yellow	15	White/ Yellow
16	Orange/ White	16	White/ Green	16	White/ Green
17	Green/ White	17	White/ Blue	17	White/ Blue
18	Blue/ White	18	White/ Violet	18	White/ Violet
19	Yellow/ White	19	White/ Gray	19	White/ Gray
20	Purple/ White	20	Brown/ Black	20	Brown/ Black
-	-	-	-	None (Shield)	Black Wire with Ring Lug

### Dedicated Adapter Usage

Dedicated Assembly Usage		
<b>990ADB80X80206, 990ADB80X80207</b>		
From		To
AS-B827-032	=>	(2x) BMXDDI1602
<b>990ADB80X80212 &amp; 990ADB80X80213</b>		
From		To
AS-B838-032	=>	(2x) BMXDDO1602
<b>990ADB80X80120 &amp; 990ADB80X80121</b>		
From		To
AS-B875-111	=>	BMXAMI0810

**Generic Adapter Usage: Generic Assemblies 1...7 (Sorted by Wiring Guide #)****⚠ CAUTION****LOSS OF INPUT/OUTPUT FUNCTION**

Generic I/O adapters do not contain fuses or other measures to help protect against external events, such as circuit overload, short circuit, or sensor/pre-actuator voltage errors. Confirm that sufficient module protection measures are in place. Refer to the *Modicon M340 Using Unity Pro Discrete Input/Output Modules User Manual* (35012474) for details regarding X80 module external protection recommendations.

**Failure to follow these instructions can result in injury or equipment damage.**

Generic 1: 990ADB80X80198, 990ADB80X80199			
Low Density B800, One High Power Cable		One 20 pin X80 Connector	Wiring Guide #
From	=>	To	
AS-B802-008	=>	BMXDRA0805	2
AS-B803-008	=>	BMXDAI0814	3
AS-B804-x16	=>	BMXDAO1605	4
AS-B804-x16	=>	BMXDRA1605	5
AS-B805-016	=>	BMXDAI1604	6
AS-B808-016	=>	BMXDAO1605	7
AS-B808-016	=>	BMXDRA1605	8
AS-B810-008	=>	BMXDRA0805	10
AS-B814-108	=>	BMXDRA0805	11
AS-B824-016	=>	BMXDDO1602	12
AS-B825-016	=>	BMXDDI1602	13
AS-B840-108	=>	BMXDRA0805	14
AS-B840-108	=>	BMXDRA0804T	15

<b>Generic 2: 990ADB80X80296 , 990ADB80X80297</b>			
<b>High Density B800, Two High Power Cables</b>		<b>Two 20 pin X80 Connectors</b>	<b>Wiring Guide #</b>
<b>From</b>	<b>=&gt;</b>	<b>To</b>	
AS-B806-032	=>	(2x) BMXDAO1605	16
AS-B806-032	=>	(2x) BMXDRA1605	17
AS-B807-132	=>	(2x) BMXDAI1604	18
AS-B817-116	=>	(2x) BMXDAI0814	19
AS-B817-216	=>	(2x) BMXDAI0805	20
AS-B826-032	=>	(2x) BMXDDO1602	21
AS-B836-016	=>	(2x) BMXDRA0804T	22
AS-B881-508	=>	BMXDRA0804T	23

<b>Generic 3:990ADB80X80194, 990ADB80X80195</b>			
<b>Low Density B800, One High Density Cable</b>		<b>One 20 pin X80 Connector</b>	<b>Wiring Guide #</b>
<b>From</b>	<b>=&gt;</b>	<b>To</b>	
AS-B832-016	=>	BMXDDO1612	24
AS-B833-016	=>	BMXDDI1602	25
AS-B837-016	=>	BMXDDI1602	26
AS-B837-016	=>	BMXDAI1602	27
AS-B849-016	=>	BMXDDI1603	28
AS-B849-016	=>	BMXDAI1603	29


<b>Generic 4: 990ADB80X80292, 990ADB80X80293</b>			
<b>High Density B800, Two Analog Cables</b>		<b>Two 28 pin X80 Connectors</b>	<b>Wiring Guide #</b>
<b>From</b>	<b>=&gt;</b>	<b>To</b>	
AS-B846-001	=>	(2x) BMXAMI0810	30
AS-B846-002	=>	(2x) BMXAMI0810	31
AS-B877-111	=>	(2x) BMXAMI0810	32

Generic 5: 990ADB80X80190, 990ADB80X80191			
Two 18 pin Buchanan, One Analog Cable		One 20 pin X80 Connector	Wiring Guide #
From	=>	To	
AS-B873-001	=>	BMXAMI0410	33
AS-B873-002	=>	BMXAMI0410	34
AS-B873-011	=>	BMXAMI0410	35
AS-B873-012	=>	BMXAMI0410	36

Generic 6: 990ADB80X80288, 990ADB80X80289			
High Density B800, Two Analog Cables		One 20 pin X80 Connectors	Wiring Guide #
From	=>	To	
AS-B872-100	=>	BMXAMO0410	37
AS-B872-200	=>	BMXAMO0410	38

Generic 7: 990ADB80X80286, 990ADB80X80287			
Two 18 pin Buchanan, Two Analog Cables		One 28 pin X80 Connector	Wiring Guide #
From	=>	To	
AS-B875-001	=>	BMXAMI0810	39
AS-B875-002	=>	BMXAMI0810	40
AS-B875-011	=>	BMXAMI0810	41
AS-B875-012	=>	BMXAMI0810	42
AS-B875-101	=>	BMXAMI0810	43
AS-B875-102	=>	BMXAMI0810	44

### Generic Adapter Usage: Generic Assemblies 1...7 (Sorted by B800 Module Number)

 CAUTION
<p><b>LOSS OF INPUT/OUTPUT FUNCTION</b></p> <p>Generic I/O adapters do not contain fuses or other measures to help protect against external events, such as circuit overload, short circuit, or sensor/pre-actuator voltage errors. Confirm that sufficient module protection measures are in place. Refer to the <i>Modicon M340 Using Unity Pro Discrete Input/Output Modules User Manual</i> (35012474) for details regarding X80 module external protection recommendations.</p> <p><b>Failure to follow these instructions can result in injury or equipment damage.</b></p>

Module Part Numbers		Adapter Part Numbers		Cable Type #	Wiring
From	To	2 Foot Cable	5 Foot Cable	Style	Guide #
AS-B802-008	BMXDRA0805	990ADB80X80198	990ADB80X80199	Generic 1	2
AS-B803-008	BMXDRA10814	990ADB80X80198	990ADB80X80199	Generic 1	3
AS-B804-x16	BMXDAO1605	990ADB80X80198	990ADB80X80199	Generic 1	4
AS-B804-x16	BMXDRA1605	990ADB80X80198	990ADB80X80199	Generic 1	5
AS-B805-016	BMXDRA1604	990ADB80X80198	990ADB80X80199	Generic 1	6
AS-B806-032	(2x) BMXDAO1605	990ADB80X80296	990ADB80X80297	Generic 2	16
AS-B806-032	(2x) BMXDRA1605	990ADB80X80296	990ADB80X80297	Generic 2	17
AS-B807-132	(2x) BMXDRA1604	990ADB80X80296	990ADB80X80297	Generic 2	18
AS-B808-016	BMXDAO1605	990ADB80X80198	990ADB80X80199	Generic 1	7
AS-B808-016	BMXDRA1605	990ADB80X80198	990ADB80X80199	Generic 1	8
AS-B809-016 <sup>1</sup>	-	-	-	-	-
AS-B810-008	BMXDRA0805	990ADB80X80198	990ADB80X80199	Generic 1	10
AS-B814-108	BMXDRA0805	990ADB80X80198	990ADB80X80199	Generic 1	11
AS-B817-116	(2x) BMXDRA0814	990ADB80X80296	990ADB80X80297	Generic 2	19
AS-B817-216	(2x) BMXDRA0805	990ADB80X80296	990ADB80X80297	Generic 2	20
AS-B824-016	BMXDRA1602	990ADB80X80198	990ADB80X80199	Generic 1	12
AS-B825-016	BMXDRA1602	990ADB80X80198	990ADB80X80199	Generic 1	13
AS-B826-032	(2x) BMXDRA1602	990ADB80X80296	990ADB80X80297	Generic 2	21
AS-B827-032	(2x) BMXDRA1602	990ADB80X80206	990ADB80X80207	Dedicated	-
AS-B832-016	BMXDRA1612	990ADB80X80194	990ADB80X80195	Generic 3	24
AS-B833-016	BMXDRA1602	990ADB80X80194	990ADB80X80195	Generic 3	25
AS-B836-016	(2x) BMXDRA0804T	990ADB80X80296	990ADB80X80297	Generic 2	22
AS-B837-016	BMXDRA1602	990ADB80X80194	990ADB80X80195	Generic 3	26
AS-B837-016	BMXDRA1602	990ADB80X80194	990ADB80X80195	Generic 3	27
AS-B838-032	(2x) BMXDRA1602	990ADB80X80212	990ADB80X80213	Dedicated	-
AS-B840-108	BMXDRA0805	990ADB80X80198	990ADB80X80199	Generic 1	14
AS-B840-108	BMXDRA0804T	990ADB80X80198	990ADB80X80199	Generic 1	15
AS-B846-001	(2x) BMXDRA0810	990ADB80X80292	990ADB80X80293	Generic 4	30
AS-B846-002	(2x) BMXDRA0810	990ADB80X80292	990ADB80X80293	Generic 4	31
AS-B849-016	BMXDRA1603	990ADB80X80194	990ADB80X80195	Generic 3	28
AS-B849-016	BMXDRA1603	990ADB80X80194	990ADB80X80195	Generic 3	29
AS-B872-100	BMXDRA0410	990ADB80X80288	990ADB80X80289	Generic 6	37
AS-B872-200	BMXDRA0410	990ADB80X80288	990ADB80X80289	Generic 6	38
AS-B873-001	BMXDRA0410	990ADB80X80190	990ADB80X80191	Generic 5	33
AS-B873-002	BMXDRA0410	990ADB80X80190	990ADB80X80191	Generic 5	34
AS-B873-011	BMXDRA0410	990ADB80X80190	990ADB80X80191	Generic 5	35
AS-B873-012	BMXDRA0410	990ADB80X80190	990ADB80X80191	Generic 5	36
AS-B875-001	BMXDRA0810	990ADB80X80286	990ADB80X80287	Generic 7	39
AS-B875-002	BMXDRA0810	990ADB80X80286	990ADB80X80287	Generic 7	40
AS-B875-011	BMXDRA0810	990ADB80X80286	990ADB80X80287	Generic 7	41
AS-B875-012	BMXDRA0810	990ADB80X80286	990ADB80X80287	Generic 7	42
AS-B875-101	BMXDRA0810	990ADB80X80286	990ADB80X80287	Generic 7	43
AS-B875-102	BMXDRA0810	990ADB80X80286	990ADB80X80287	Generic 7	44
AS-B875-111	BMXDRA0810	990ADB80X80120	990ADB80X80121	Dedicated	-
AS-B877-111	(2x) BMXDRA0810	990ADB80X80292	990ADB80X80293	Generic 4	32
AS-B881-508	BMXDRA0804T	990ADB80X80296	990ADB80X80297	Generic 2	23

1. For modernization of the AS-B809-016 module, contact Schneider Electric for information, at [modicon.migrations@schneider-electric.com](mailto:modicon.migrations@schneider-electric.com).

## Wiring Guides

### Using the Wiring Guides

The following wiring guides provide information for initial wiring of the cable/connector, and for maintenance. The diagram, below, shows you how to read and use the following wiring guides.

Use the two left columns when constructing the cables. They provide details on how to build the cable, by identifying the wire number and color that is connected to each X80 connector pin number.

Use the four right columns for system maintenance and troubleshooting. They provide the X80 pin number / function and its association to the B800 connector pin number.

#### 2 Left Columns

How to wire	
Cable Wire # / Wire Color	X80 Conn Number
1 Black	1
2 Brown	2
3 Red	3
4 Orange	4
7 Blue	5
8 Purp	6
9 Gray	7
10 White	8
11 Pink	9
12 Light Grn	10
13 Blk/Wht	11
14 Brn/Wht	12
17 Grn/Wht	13
18 Blue/Wht	14
19 Yell/Wht	15
20 Purp/Wht	16

#### 4 Right Columns

Maintenance			
B800 Information		B800 Information	
B800 Desc	B800 pin #	X80 pin #	X80 Desc
Input 1	1	1	Input 0
Neutral 1	2	2	Neutral 0
Input 2	3	3	Input 1
Neutral 2	4	4	Neutral 1
Input 3	7	5	Input 2
Neutral 3	8	6	Neutral 2
Input 4	9	7	Input 3
Neutral 4	10	8	Neutral 3
Input 5	11	9	Input 4
Neutral 5	12	10	Neutral 4
Input 6	13	11	Input 5
Neutral 6	14	12	Neutral 5
Input 7	17	13	Input 6
Neutral 7	18	14	Neutral 6
Input 8	19	15	Input 7
Neutral 8	20	16	Neutral 7

## Generic #1 Wiring Guides: B800 to 990ADB80X80198, 990ADB80X80199

### Wiring Guide #1

**NOTE:** Wiring Guide #1 has been reserved for future use.

### Wiring Guide #2

## WARNING

### RISK OF ELECTRICAL SHOCK

Disconnect the A.C. Neutral wires from their source (for example, a terminal strip) that connects to the B800 connector pins 3, 9, 13 and 19.

**Failure to follow these instructions can result in death, serious injury, or equipment damage.**

Wiring Guide #2 B802-008 (8 point) => DRA0805 (8 point) 115 VAC Output 990ADB80X80198 , 990ADB80X80199					
Cable Assembly: How to wire		Maintenance			
Cable Wire # / Color	X80 Conn. Number	B800 Information		X80 Information	
		B800 Desc	B800 pin #	X80 pin #	X80 Desc
1 Black	1	Output 1	1	1	Output 0
2 Brown	3	Output 2	2	3	Output 1
-	-	Neutral Grp 1	3	-	-
4 Orange	2, 4	Hot Grp 1	4	2, 4	Hot Grp 1
7 Blue	5	Output 3	7	5	Output 2
8 Purp	7	Output 4	8	7	Output 3
-	-	Neutral Grp 2	9	-	-
10 White	6, 8	Hot Grp 2	10	6, 8	Hot Grp 2
11 Pink	9	Output 5	11	9	Output 4
12 Light Grn	11	Output 6	12	11	Output 5
-	-	Neutral Grp 3	13	-	-
14 Brn/Wht	10,12	Hot Grp 3	14	10, 12	Hot Grp 3
17 Grn/Wht	13	Output 7	17	13	Output 6
18 Blue/Wht	15	Output 8	18	15	Output 7
-	-	Neutral Grp 4	19	-	-
20 Purp/Wht	12,14	Hot Grp 4	20	12, 14	Hot Grp 4

## Wiring Guide #3

Wiring Guide #3 B803-008 (8 point) => DAI0814 (8 point) 115 VAC Input 990ADB80X80198 , 990ADB80X80199					
Cable Assembly: How to wire		Maintenance			
Cable Wire # / Color	X80 Conn. Number	B800 Information		X80 Information	
		B800 Desc	B800 pin #	X80 pin #	X80 Desc
1 Black	1	Input 1	1	1	Input 0
2 Brown	2	Neutral 1	2	2	Neutral 0
3 Red	3	Input 2	3	3	Input 1
4 Orange	4	Neutral 2	4	4	Neutral 1
7 Blue	5	Input 3	7	5	Input 2
8 Purp	6	Neutral 3	8	6	Neutral 2
9 Gray	7	Input 4	9	7	Input 3
10 White	8	Neutral 4	10	8	Neutral 3
11 Pink	9	Input 5	11	9	Input 4
12 Light Grn	10	Neutral 5	12	10	Neutral 4
13 Blk/Wht	11	Input 6	13	11	Input 5
14 Brn/Wht	12	Neutral 6	14	12	Neutral 5
17 Grn/Wht	13	Input 7	17	13	Input 6
18 Blue/Wht	14	Neutral 7	18	14	Neutral 6
19 Yell/Wht	15	Input 8	19	15	Input 7
20 Purp/Wht	16	Neutral 8	20	16	Neutral 7

Wiring Guide #4

**⚠ WARNING**

**RISK OF ELECTRICAL SHOCK**

Disconnect the A.C. Neutral wires from their source (for example, a terminal strip) that connects to the B800 connector pins 9 and 19.

**Failure to follow these instructions can result in death, serious injury, or equipment damage.**

Wiring Guide #4 B804-x16 (16 point)=> DAO1605 (16 point) 115 VAC Output 990ADB80X80198, 990ADB80X80199					
Cable Assembly: How to wire		Maintenance			
Cable Wire # / Color	X80 Conn. Number	B800 Information		X80 Information	
		B800 Desc	B800 pin #	X80 pin #	X80 Desc
1 Black	1	Output 1	1	1	Output 0
2 Brown	2	Output 2	2	2	Output 1
3 Red	3	Output 3	3	3	Output 2
4 Orange	4	Output 4	4	4	Output 3
5 Yellow	6	Output 5	5	6	Output 4
6 Green	7	Output 6	6	7	Output 5
7 Blue	8	Output 7	7	8	Output 6
8 Purp	9	Output 8	8	9	Output 7
-	-	Neutral Grp 1	9	-	-
10 White	5, 10	Hot Grp 1	10	5, 10	Hot Grp 1
11 Pink	11	Output 9	11	11	Output 8
12 Light Grn	12	Output 10	12	12	Output 9
13 Blk/Wht	13	Output 11	13	13	Output 10
14 Brn/Wht	14	Output 12	14	14	Output 11
15 Red/Wht	16	Output 13	15	16	Output 12
16 Orn/Wht	17	Output 14	16	17	Output 13
17 Grn/Wht	18	Output 15	17	18	Output 14
18 Blue/Wht	19	Output 16	18	19	Output 15
-	-	Neutral Grp 2	19	-	-
20 Purp/Wht	15, 20	Hot Grp 2	20	15, 20	Hot Grp 2

## Wiring Guide #5

**⚠ WARNING****RISK OF ELECTRICAL SHOCK**

Disconnect the A.C. Neutral wires from their source (for example, a terminal strip) that connects to the B800 connector pins 9 and 19.

**Failure to follow these instructions can result in death, serious injury, or equipment damage.**

Wiring Guide #5 B804-x16 (16 point) => DRA1605 (16 point) 15 VAC Output 990ADB80X80198, 990ADB80X80199					
Cable Assembly: How to wire		Maintenance			
Cable Wire # / Color	X80 Conn. Number	B800 Information		X80 Information	
		B800 Desc	B800 pin #	X80 pin #	X80 Desc
A-1 Black	1	Output 1	1	1	Output 0
A-2 Brown	2	Output 2	2	2	Output 1
A-3 Red	3	Output 3	3	3	Output 2
A-4 Orange	4	Output 4	4	4	Output 3
A-5 Yellow	5	Output 5	5	5	Output 4
A-6 Green	6	Output 6	6	6	Output 5
A-7 Blue	7	Output 7	7	7	Output 6
A-8 Purp	8	Output 8	8	8	Output 7
-	-	Neutral Grp 1	9	-	-
A-10 White	9, 10	Hot Grp 1	10	9, 10	Hot Grp 1
A-11 Pink	11	Output 9	11	11	Output 8
A-12 Light Grn	12	Output 10	12	12	Output 9
A-13 Blk/Wht	13	Output 11	13	13	Output 10
A-14 Brn/Wht	14	Output 12	14	14	Output 11
A-15 Red/Wht	15	Output 13	15	15	Output 12
A-16 Orn/Wht	16	Output 14	16	16	Output 13
A-17 Grn/Wht	17	Output 15	17	17	Output 14
A-18 Blue/Wht	18	Output 16	18	18	Output 15
-	-	Neutral Grp 2	19	-	-
A-20 Purp/Wht	19, 20	Hot Grp 2	20	19, 20	Hot Grp 2

Wiring Guide #6

**⚠ CAUTION**

**RISK OF UNINTENDED OPERATION**

This wiring guide combines the B800 groups 1 & 2 VAC Neutrals. The X80 replacement module has one group of 16 inputs, unlike the B800 module which had 2 groups of 8 inputs. Verify that this is suitable for the current wiring. If not, make the appropriate wiring changes.

**Failure to follow these instructions can result in injury or equipment damage.**

Wiring Guide #6 B805-016(16 point) => DAI1604 (16 point) 115 VAC Input 990ADB80X80198, 990ADB80X80199					
Cable Assembly: How to wire		Maintenance			
Cable Wire # / Color	X80 Conn. Number	B800 Information		X80 Information	
		B800 Desc	B800 pin #	X80 pin #	X80 Desc
1 Black	1	Input 1	1	1	Input 0
2 Brown	2	Input 2	2	2	Input 1
3 Red	3	Input 3	3	3	Input 2
4 Orange	4	Input 4	4	4	Input 3
5 Yellow	5	Input 5	5	5	Input 4
6 Green	6	Input 6	6	6	Input 5
7 Blue	7	Input 7	7	7	Input 6
8 Purp	8	Input 8	8	8	Input 7
9 Gray	17, 19	Neutral Grp 1	9	17, 19	-
11 Pink	9	Input 9	11	9	Input 8
12 Light Grn	10	Input 10	12	10	Input 9
13 Blk/Wht	11	Input 11	13	11	Input 10
14 Brn/Wht	12	Input 12	14	12	Input 11
15 Red/Wht	13	Input 13	15	13	Input 12
16 Orn/Wht	14	Input 14	16	14	Input 13
17 Grn/Wht	15	Input 15	17	15	Input 14
18 Blue/Wht	16	Input 16	18	16	Input 15
19 Yell/Wht	17, 19	Neutral Grp 2	19	17, 19	-
-	18, 20 <sup>1</sup>	-	-	18, 20	AC Hot <sup>1</sup>

1. Connect AC Hot line to this pin.

## Wiring Guide #7

**⚠ WARNING****RISK OF ELECTRICAL SHOCK**

Disconnect the A.C. Neutral wires from their source (for example, a terminal strip) that connects to the B800 connector pins 9 and 19.

**Failure to follow these instructions can result in death, serious injury, or equipment damage.**

Wiring Guide #7 B808-016 (16 point) => DAO1605 (16 point) 230 VAC Output 990ADB80X80198, 990ADB80X80199					
Cable Assembly: How to wire		Maintenance			
Cable Wire # / Color	X80 Conn. Number	B800 Information		X80 Information	
		B800 Desc	B800 pin #	X80 pin #	X80 Desc
1 Black	1	Output 1	1	1	Output 0
2 Brown	2	Output 2	2	2	Output 1
3 Red	3	Output 3	3	3	Output 2
4 Orange	4	Output 4	4	4	Output 3
5 Yellow	6	Output 5	5	6	Output 4
6 Green	7	Output 6	6	7	Output 5
7 Blue	8	Output 7	7	8	Output 6
8 Purp	9	Output 8	8	9	Output 7
–	–	Neutral Grp 1	9	–	–
10 White	5, 10	Hot Grp 1	10	5, 10	Hot Grp 1 & 2
11 Pink	11	Output 9	11	11	Output 8
12 Light Grn	12	Output 10	12	12	Output 9
13 Blk/Wht	13	Output 11	13	13	Output 10
14 Brn/Wht	14	Output 12	14	14	Output 11
15 Red/Wht	16	Output 13	15	16	Output 12
16 Orn/Wht	17	Output 14	16	17	Output 13
17 Grn/Wht	18	Output 15	17	18	Output 14
18 Blue/Wht	19	Output 16	18	19	Output 15
–	–	Neutral Grp 2	19	–	–
20 Purp/Wht	15, 20	Hot Grp 2	20	15, 20	Hot Grp 3 & 4

## Wiring Guide #8

**⚠ WARNING****RISK OF ELECTRICAL SHOCK**

Disconnect the A.C. Neutral wires from their source (for example, a terminal strip) that connects to the B800 connector pins 9 and 19.

**Failure to follow these instructions can result in death, serious injury, or equipment damage.**

Wiring Guide #8 B808-016 (16 point) => DRA1605 (16 point) 230 VAC Output 990ADB80X80198, 990ADB80X80199					
Cable Assembly: How to wire		Maintenance			
Cable Wire # / Color	X80 Conn. Number	B800 Information		X80 Information	
		B800 Desc	B800 pin #	X80 pin #	X80 Desc
A-1 Black	1	Output 1	1	1	Output 0
A-2 Brown	2	Output 2	2	2	Output 1
A-3 Red	3	Output 3	3	3	Output 2
A-4 Orange	4	Output 4	4	4	Output 3
A-5 Yellow	5	Output 5	5	5	Output 4
A-6 Green	6	Output 6	6	6	Output 5
A-7 Blue	7	Output 7	7	7	Output 6
A-8 Purp	8	Output 8	8	8	Output 7
-	-	Neutral Grp 1	9	-	-
A-10 White	9,10	Hot Grp 1	10	9, 10	Hot Grp 1
A-11 Pink	11	Output 9	11	11	Output 8
A-12 Light Grn	12	Output 10	12	12	Output 9
A-13 Blk/Wht	13	Output 11	13	13	Output 10
A-14 Brn/Wht	14	Output 12	14	14	Output 11
A-15 Red/Wht	15	Output 13	15	15	Output 12
A-16 Orn/Wht	16	Output 14	16	16	Output 13
A-17 Grn/Wht	17	Output 15	17	17	Output 14
A-18 Blue/Wht	18	Output 16	18	18	Output 15
-	-	Neutral Grp 2	19	-	-
A-20 Purp/Wht	19, 20	Hot Grp 2	20	19, 20	Hot Grp 2

**Wiring Guide #9**

**NOTE:** Wiring Guide #9 has been reserved for future use.

**Wiring Guide #10**

## **WARNING**

**RISK OF ELECTRICAL SHOCK**

Disconnect the A.C. Lamp Supply Line and Neutral wires from their source (for example, a terminal strip) that connects to the B800 connector pins 15 and 20.

**Failure to follow these instructions can result in death, serious injury, or equipment damage.**

Wiring Guide #10 B810-008 (8 point) => DRA0805 (8 point) 115 VAC Output 990ADB80X80198, 990ADB80X80199					
Cable Assembly: How to wire		Maintenance			
Cable Wire # / Color	X80 Conn. Number	B800 Information		X80 Information	
		B800 Desc	B800 pin #	X80 pin #	X80 Desc
1 Black	2	Hot 1	1	2	C 0
2 Brown	1	Output 1	2	1	Output 0
3 Red	4	Hot 2	3	4	C 1
4 Orange	3	Output 2	4	3	Output 1
6 Green	6	Hot 3	6	6	C 2
7 Blue	5	Output 3	7	5	Output 2
8 Purp	8	Hot 4	8	8	C 3
9 Gray	7	Output 4	9	7	Output 3
11 Pink	10	Hot 5	11	10	C 4
12 Light Grn	9	Output 5	12	9	Output 4
13 Blk/Wht	12	Hot 6	13	12	C 5
14 Brn/Wht	11	Output 6	14	11	Output 5
-	-	Lamp Hot	15	-	-
16 Orn/Wht	14	Hot 7	16	14	C 6
17 Grn/Wht	13	Output 7	17	13	Output 6
18 Blue/Wht	16	Hot 8	18	16	C 7
19 Yell/Wht	15	Output 8	19	15	Output 7
-	-	Lamp Neutral	20	-	-

## Wiring Guide #11

**⚠ CAUTION****UNINTENDED APPLICATION BEHAVIOR**

This X80 replacement module has only Normally Open relay contacts, unlike the B800 module that can be either Normally Open or Normally Closed. Verify that this is suitable for the current wiring. If not, make the appropriate changes to accommodate for the Normally Open contact configuration.

**Failure to follow these instructions can result in injury or equipment damage.**

Wiring Guide #11 B814-108 ( 8 point)=> DRA0805 (8 point) AC/DC Relay Output 990ADB80X80198, 990ADB80X80199					
Cable Assembly: How to wire		Maintenance			
Cable Wire # / Color	X80 Conn. Number	B800 Information		X80 Information	
		B800 Desc	B800 pin #	X80 pin #	X80 Desc
1 Black	1	Output 1 A	1	1	Output 0
2 Brown	2	Output 1 B	2	2	C 0
3 Red	3	Output 2 A	3	3	Output1
4 Orange	4	Output 2 B	4	4	C 1
6 Green	5	Output 3 A	6	5	Output 2
7 Blue	6	Output 3 B	7	6	C 2
8 Purp	7	Output 4 A	8	7	Output 3
9 Gray	8	Output 4 B	9	8	C 3
11 Pink	9	Output 5 A	11	9	Output 4
12 Light Grn	10	Output 5 B	12	10	C 4
13 Blk/Wht	11	Output 6 A	13	11	Output 5
14 Brn/Wht	12	Output 6 B	14	12	C 5
16 Orn/Wht	13	Output 7 A	16	13	Output 6
17 Grn/Wht	14	Output 7 B	17	14	C 6
18 Blue/Wht	15	Output 8 A	18	15	Output 7
19 Yell/Wht	16	Output 8 B	19	16	C 7

## Wiring Guide #12

**⚠ CAUTION****RISK OF UNINTENDED OPERATION**

This wiring guide combines the B800 groups 1 & 2 +24 VDCs. It also combines the B800 groups 1 & 2 Returns. The X80 replacement module has one group of 16 outputs, unlike the B800 module which had 2 groups of 8 outputs. Verify that this is suitable for the current wiring. If not, make the appropriate wiring changes.

**Failure to follow these instructions can result in injury or equipment damage.**

Wiring Guide #12 B824-016 (16 point) => DDO1602 (16 point) 24 VDC Output 990ADB80X80198, 990ADB80X80199					
Cable Assembly: How to wire		Maintenance			
Cable Wire # / Color	X80 Conn. Number	B800 Information		X80 Information	
		B800 Desc	B800 pin #	X80 pin #	X80 Desc
1 Black	1	Output 1	1	1	Output 0
2 Brown	2	Output 2	2	2	Output 1
3 Red	3	Output 3	3	3	Output 2
4 Orange	4	Output 4	4	4	Output 3
5 Yellow	5	Output 5	5	5	Output 4
6 Green	6	Output 6	6	6	Output 5
7 Blue	7	Output 7	7	7	Output 6
8 Purp	8	Output 8	8	8	Output 7
9 Gray	17, 19	Comm Grp 1	9	17 19	Comm
10 White	18, 20	24 VDC Grp 1	10	18, 20	24 VDC
11 Pink	9	Output 9	11	9	Output 8
12 Light Grn	10	Output 10	12	10	Output 9
13 Blk/Wht	11	Output 11	13	11	Output 10
14 Brn/Wht	12	Output 12	14	12	Output 11
15 Red/Wht	13	Output 13	15	13	Output 12
16 Orn/Wht	14	Output 14	16	14	Output 13
17 Grn/Wht	15	Output 15	17	15	Output 14
18 Blue/Wht	16	Output 16	18	16	Output 15
19 Yell/Wht	17, 19	Comm Grp 2	19	17, 19	Comm
20 Purp/Wht	18, 20	24 VDC Grp 2	20	18, 20	24 VDC

## Wiring Guide #13

Wiring Guide #13 B825-016 (16 point) => DDI1602 (16 point) 24 VDC Input 990ADB80X80198, 990ADB80X80199					
Cable Assembly: How to wire		Maintenance			
Cable Wire # / Color	X80 Conn. Number	B800 Information		X80 Information	
		B800 Desc	B800 pin #	X80 pin #	X80 Desc
1 Black	1	Input 1	1	1	Input 0
2 Brown	2	Input 2	2	2	Input 1
3 Red	3	Input 3	3	3	Input 2
4 Orange	4	Input 4	4	4	Input 3
5 Yellow	5	Input 5	5	5	Input 4
6 Green	6	Input 6	6	6	Input 5
7 Blue	7	Input 7	7	7	Input 6
8 Purp	8	Input 8	8	8	Input 7
9 Gray	17, 19	Comm	9	17, 19	Comm
10 White	17, 19	Comm	10	17, 19	Comm
11 Pink	9	Input 9	11	9	Input 8
12 Light Grn	10	Input 10	12	10	Input 9
13 Blk/Wht	11	Input 11	13	11	Input 10
14 Brn/Wht	12	Input 12	14	12	Input 11
15 Red/Wht	13	Input 13	15	13	Input 12
16 Orn/Wht	14	Input 14	16	14	Input 13
17 Grn/Wht	15	Input 15	17	15	Input 14
18 Blue/Wht	16	Input 16	18	16	Input 15
19 Yell/Wht	17, 19	Comm	19	17, 19	Comm
20 Purp/Wht	18, 20	24 VDC	20	18, 20	24 VDC

## Wiring Guide #14

**⚠ CAUTION****UNINTENDED APPLICATION BEHAVIOR**

This X80 replacement module has only Normally Open relay contacts, unlike the B800 module that can be either Normally Open or Normally Closed. Verify that this is suitable for the current wiring. If not, make the appropriate changes to accommodate for the Normally Open contact configuration.

**Failure to follow these instructions can result in injury or equipment damage.**

Wiring Guide #14 B840-108 (8 point)=> DRA0805 (8 point) AC/DC Relay Output 990ADB80X80198, 990ADB80X80199					
Cable Assembly: How to wire		Maintenance			
Cable Wire # / Color	X80 Conn. Number	B800 Information		X80 Information	
		B800 Desc	B800 pin #	X80 pin #	X80 Desc
1 Black	1	Output 1 A	1	1	Output 0 A
2 Brown	2	Output 1 B	2	2	Output 0 B
3 Red	3	Output 2 A	3	3	Output 1 A
4 Orange	4	Output 2 B	4	4	Output 1 B
6 Green	5	Output 3 A	6	5	Output 2 A
7 Blue	6	Output 3 B	7	6	Output 2 B
8 Purp	7	Output 4 A	8	7	Output 3 A
9 Gray	8	Output 4 B	9	8	Output 3 B
11 Pink	9	Output 5 A	11	9	Output 4 A
12 Light Grn	10	Output 5 B	12	10	Output 4 B
13 Blk/Wht	11	Output 6 A	13	11	Output 5 A
14 Brn/Wht	12	Output 6 B	14	12	Output 5 B
16 Orn/Wht	13	Output 7 A	16	13	Output 6 A
17 Grn/Wht	14	Output 7 B	17	14	Output 6 B
18 Blue/Wht	15	Output 8 A	18	15	Output 7 A
19 Yell/Wht	16	Output 8 B	19	16	Output 7 B

**Wiring Guide #15**

**⚠ CAUTION**

**UNINTENDED APPLICATION BEHAVIOR**

This X80 replacement module has only Normally Open relay contacts, unlike the B800 module that can be either Normally Open or Normally Closed. Verify that this is suitable for the current wiring. If not, make the appropriate changes to accommodate for the Normally Open contact configuration.

**Failure to follow these instructions can result in injury or equipment damage.**

Wire Guide #15 B840-108 (8 point) => DRA0804T (8 point) AC/DC Relay Output 990ADB80X80198, 990ADB80X80199					
Cable Assembly: How to wire		Maintenance			
Cable Wire # / Color	X80 Conn. Number	B800 Information		X80 Information	
		B800 Desc	B800 pin #	X80 pin #	X80 Desc
1 Black	1	Output 1 A	1	1	Output 0
2 Brown	2	Output 1 B	2	2	C 0
3 Red	3	Output 2 A	3	3	Output 1
4 Orange	4	Output 2 B	4	4	C 1
6 Green	5	Output 3 A	6	5	Output 2
7 Blue	6	Output 3 B	7	6	C 2
8 Purp	7	Output 4 A	8	7	Output 3
9 Gray	8	Output 4 B	9	8	C 3
11 Pink	9	Output 5 A	11	9	Output 4
12 Light Grn	10	Output 5 B	12	10	C 4
13 Blk/Wht	11	Output 6 A	13	11	Output 5
14 Brn/Wht	12	Output 6 B	14	12	C 5
16 Orn/Wht	13	Output 7 A	16	13	Output 6
17 Grn/Wht	14	Output 7 B	17	14	C 6
18 Blue/Wht	15	Output 8 A	18	15	Output 7
19 Yell/Wht	16	Output 8 B	19	16	C 7

## Generic #2 Wiring Guides: B800 to 990ADB80X80296, 990ADB80X80297

### Wiring Guide #16

## WARNING

### RISK OF ELECTRICAL SHOCK

Disconnect the A.C. Neutral wires from their source (for example, a terminal strip) that connects to the B800 connector pins 2 and 21.

**Failure to follow these instructions can result in death, serious injury, or equipment damage.**

Wiring Guide #16 B806-032(32 point) => Two DAO1605 (16 point x2) 115VAC Output 990ADB80X80296, 990ADB80X80297					
Cable Assembly: How to wire		Maintenance			
Cable Wire # /Color	X80 Conn. Number	B800 Information		X80 Information	
		B800 Desc	B800 pin #	X80 pin #	X80 Desc
				X80 Module #1	
-	-	Neutral Grp 1	2	-	-
A-3- Red	A - 1	Output 1	3	A - 1	Output 0
A-4 Orange	A - 2	Output 2	4	A - 2	Output 1
A-5 Yellow	A - 3	Output 3	5	A - 3	Output 2
A-6 Green	A - 4	Output 4	6	A - 4	Output 3
A-7 Blue	A - 6	Output 5	7	A - 6	Output 4
A-8 Purp	A - 7	Output 6	8	A - 7	Output 5
A-9 Gray	A - 8	Output 7	9	A - 8	Output 6
A-10 White	A - 9	Output 8	10	A - 9	Output 7
A-12 Light Grn	A - 11	Output 9	12	A - 11	Output 8
A-13 Blk/Wht	A - 12	Output 10	13	A - 12	Output 9
A-14 Brn/Wht	A - 13	Output 11	14	A - 13	Output 10
A-15 Red/Wht	A - 14	Output 12	15	A - 14	Output 11
A-16 Oran/Wht	A - 16	Output 13	16	A - 16	Output 12
A-17 Grn/Wht	A - 17	Output 14	17	A - 17	Output 13
A-18 Blue/Wht	A - 18	Output 15	18	A - 18	Output 14
A-19 Yell/Wht	A - 19	Output 16	19	A - 19	Output 15
A-20 Purp/Wht	A - 5, 10, 15, 20	Hot Grp 1	20	A - 5, 10, 15, 20	Hot

<b>Wiring Guide #16</b> <b>B806-032(32 point) =&gt; Two DAO1605 (16 point x2)</b> <b>115VAC Output</b> <b>990ADB80X80296, 990ADB80X80297</b>					
<b>Cable Assembly:</b> <b>How to wire</b>		<b>Maintenance</b>			
<b>Cable Wire # /Color</b>	<b>X80 Conn. Number</b>	<b>B800 Information</b>		<b>X80 Information</b>	
		<b>B800 Desc</b>	<b>B800 pin #</b>	<b>X80 pin #</b>	<b>X80 Desc</b>
				<b>X80 Module #2</b>	
-	-	Neutral Grp 2	21	-	-
B-3- Red	B - 1	Output 17	22	B - 1	Output 0
B-4 Orange	B - 2	Output 18	23	B - 2	Output 1
B-5 Yellow	B - 3	Output 19	24	B - 3	Output 2
B-6 Green	B - 4	Output 20	25	B - 4	Output 3
B-7 Blue	B - 6	Output 21	26	B - 6	Output 4
B-8 Purp	B - 7	Output 22	27	B - 7	Output 5
B-9 Gray	B - 8	Output 23	28	B - 8	Output 6
B-10 White	B - 9	Output 24	29	B - 9	Output 7
B-12 Light Grn	B - 11	Output 25	31	B - 11	Output 8
B-13 Blk/Wht	B - 12	Output 26	32	B - 12	Output 9
B-14 Brn/Wht	B - 13	Output 27	33	B - 13	Output 10
B-15 Red/Wht	B - 14	Output 28	34	B - 14	Output 11
B-16 Oran/Wht	B - 16	Output 29	35	B - 16	Output 12
B-17 Grn/Wht	B - 17	Output 30	36	B - 17	Output 13
B-18 Blue/Wht	B - 18	Output 31	37	B - 18	Output 14
B-19 Yell/Wht	B - 19	Output 32	38	B - 19	Output 15
B-20 Purp/Wht	B - 5, 10, 15, 20	Hot Grp 2	40	B - 5, 10, 15, 20	Hot

## Wiring Guide #17

**⚠ WARNING****RISK OF ELECTRICAL SHOCK**

Disconnect the A.C. Neutral wires from their source (for example, a terminal strip) that connects to the B800 connector pins 2 and 21.

**Failure to follow these instructions can result in death, serious injury, or equipment damage.**

Wiring Guide #17 B806-032 (32 point) => Two DRA1605 (16 point x 2) 115 VAC Output => 990ADB80X80296, 990ADB80X80297					
Cable Assembly: How to wire		Maintenance			
		B800 Information		X80 Information	
Cable Wire #/Color	X80 Conn. Number	B800 Desc	B800 pin #	X80 pin #	X80 Desc
				X80 Module #1	
-	-	Neutral Grp 1	2	-	-
A-3- Red	A - 1	Output 1	3	A - 1	Output 0
A-4 Orange	A - 2	Output 2	4	A - 2	Output 1
A-5 Yellow	A - 3	Output 3	5	A - 3	Output 2
A-6 Green	A - 4	Output 4	6	A - 4	Output 3
A-7 Blue	A - 5	Output 5	7	A - 5	Output 4
A-8 Purp	A - 6	Output 6	8	A - 6	Output 5
A-9 Gray	A - 7	Output 7	9	A - 7	Output 6
A-10 White	A - 8	Output 8	10	A - 8	Output 7
A-12 Light Grn	A - 11	Output 9	12	A - 11	Output 8
A-13 Blk/Wht	A - 12	Output 10	13	A - 12	Output 9
A-14 Brn/Wht	A - 13	Output 11	14	A - 13	Output 10
A-15 Red/Wht	A - 14	Output 12	15	A - 14	Output 11
A-16 Oran/Wht	A - 15	Output 13	16	A - 16	Output 12
A-17 Grn/Wht	A - 16	Output 14	17	A - 17	Output 13
A-18 Blue/Wht	A - 17	Output 15	18	A - 18	Output 14
A-19 Yell/Wht	A - 18	Output 16	19	A - 19	Output 15
A-20 Purp/Wht	A - 9, 10, 19, 20	Hot Grp 1	20	A - 9, 10, 19, 20	Hot

Wiring Guide #17 B806-032 (32 point) => Two DRA1605 (16 point x 2) 115 VAC Output => 990ADB80X80296, 990ADB80X80297					
Cable Assembly: How to wire		Maintenance			
Cable Wire #/Color	X80 Conn. Number	B800 Information		X80 Information	
		B800 Desc	B800 pin #	X80 pin #	X80 Desc
				X80 Module #2	
-	-	Neutral Grp 2	21	-	-
B-2 Brown	B - 1	Output 17	22	B - 1	Output 0
B-3- Red	B - 2	Output 18	23	B - 2	Output 1
B-4 Orange	B - 3	Output 19	24	B - 3	Output 2
B-5 Yellow	B - 4	Output 20	25	B - 4	Output 3
B-6 Green	B - 5	Output 21	26	B - 5	Output 4
B-7 Blue	B - 6	Output 22	27	B - 6	Output 5
B-8 Purp	B - 7	Output 23	28	B - 7	Output 6
B-9 Gray	B - 8	Output 24	29	B - 8	Output 7
B-11 Pink	B - 11	Output 25	31	B - 11	Output 8
B-12 Light Grn	B - 12	Output 26	32	B - 12	Output 9
B-13 Blk/Wht	B - 13	Output 27	33	B - 13	Output 10
B-14 Brn/Wht	B - 14	Output 28	34	B - 14	Output 11
B-15 Red/Wht	B - 15	Output 29	35	B - 15	Output 12
B-16 Oran/Wht	B - 16	Output 30	36	B - 16	Output 13
B-17 Grn/Wht	B - 17	Output 31	37	B - 17	Output 14
B-18 Blue/Wht	B - 18	Output 32	38	B - 18	Output 15
B-20 Purp/Wht	B - 9, 10, 19, 20	Hot Grp 2	40	B - 9, 10, 19, 20	Hot

## Wiring Guide #18

**⚠ CAUTION****RISK OF UNINTENDED OPERATION**

This wiring guide combines the B800 groups 1 & 2 VAC Neutrals and groups 3 & 4 VAC Neutrals. Each of the two X80 replacement module has one group of 16 inputs, unlike the B800 module which had 4 groups of 8 inputs. Verify that this is suitable for the current wiring. If not, make the appropriate wiring changes.

**Failure to follow these instructions can result in injury or equipment damage.**

Wiring Guide #18 B807-132 (32 point) => Two DAI1604(16 point x2) 115VAC Input 990ADB80X80296, 990ADB80X80297					
Cable Assembly: How to wire		Maintenance			
Cable Wire #/Color	X80 Conn. Number	B800 Information		X80 Information	
		B800 Desc	B800 pin #	X80 pin #	X80 Desc
				X80 Module #1	
A-2 Brown	A - 17, 19	Neutral Grp 1	2	A - 17, 19	Neutral
A-3- Red	A - 1	Input 1	3	A - 1	Input 0
A-4 Orange	A - 2	Input 2	4	A - 2	Input 1
A-5 Yellow	A - 3	Input 3	5	A - 3	Input 2
A-6 Green	A - 4	Input 4	6	A - 4	Input 3
A-7 Blue	A - 5	Input 5	7	A - 5	Input 4
A-8 Purp	A - 6	Input 6	8	A - 6	Input 5
A-9 Gray	A - 7	Input 7	9	A - 7	Input 6
A-10 White	A - 8	Input 8	10	A - 8	Input 7
A-11 Pink	A - 17, 19	Neutral Grp 2	11	A - 17, 19	Neutral
A-12 Light Grn	A - 9	Input 9	12	A - 9	Input 8
A-13 Blk/Wht	A - 10	Input 10	13	A - 10	Input 9
A-14 Brn/Wht	A - 11	Input 11	14	A - 11	Input 10
A-15 Red/Wht	A - 12	Input 12	15	A - 12	Input 11
A-16 Oran/Wht	A - 13	Input 13	16	A - 13	Input 12
A-17 Grn/Wht	A - 14	Input 14	17	A - 14	Input 13
A-18 Blue/Wht	A - 15	Input 15	18	A - 15	Input 14
A-19 Yell/Wht	A - 16	Input 16	19	A - 16	Input 15
-	A - 18, 20 <sup>1</sup>	-	20	A - 18, 20	AC Hot <sup>1</sup>

Wiring Guide #18 B807-132 (32 point) => Two DAI1604(16 point x2) 115VAC Input 990ADB80X80296, 990ADB80X80297					
Cable Assembly: How to wire		Maintenance			
Cable Wire #/Color	X80 Conn. Number	B800 Information		X80 Information	
		B800 Desc	B800 pin #	X80 pin #	X80 Desc
				X80 Module #2	
B-2 Brown	B - 1	Input 17	22	B - 1	Input 0
B-3- Red	B - 2	Input 18	23	B - 2	Input 1
B-4 Orange	B - 3	Input 19	24	B - 3	Input 2
B-5 Yellow	B - 4	Input 20	25	B - 4	Input 3
B-6 Green	B - 5	Input 21	26	B - 5	Input 4
B-7 Blue	B - 6	Input 22	27	B - 6	Input 5
B-8 Purp	B - 7	Input 23	28	B - 7	Input 6
B-9 Gray	B - 8	Input 24	29	B - 8	Input 7
B-10 White	B - 17, 19	Neutral Grp 3	30	B - 17, 19	Neutral
B-11 Pink	B - 9	Input 25	31	B - 9	Input 8
B-12 Light Grn	B - 10	Input 26	32	B - 10	Input 9
B-13 Blk/Wht	B - 11	Input 27	33	B - 11	Input 10
B-14 Brn/Wht	B - 12	Input 28	34	B - 12	Input 11
B-15 Red/Wht	B - 13	Input 29	35	B - 13	Input 12
B-16 Oran/Wht	B - 14	Input 30	36	B - 14	Input 13
B-17 Grn/Wht	B - 15	Input 31	37	B - 15	Input 14
B-18 Blue/Wht	B - 16	Input 32	38	B - 16	Input 15
B-19 Yell/Wht	B - 17, 19	Neutral Grp 4	39	B - 17, 19	Neutral
-	B - 18, 20 <sup>1</sup>	-	40	B - 18, 20	AC Hot <sup>1</sup>

1. Connect AC Hot line to this pin.

## Wiring Guide #19

Wiring Guide #19					
B817-116 (16 point)=> Two DAI0814 (8 point x2)					
115 VAC Input					
990ADB80X80296, 990ADB80X80297					
Cable Assembly: How to wire			Maintenance		
Cable Wire #/Color	X80 Conn. Number	B800 Information		X80 Information	
		B800 Desc	B800 pin #	X80 pin #	X80 Desc
			X80 Module #1		
A-1 Black	A - 1	Input 1	1	A - 1	Input 0
A-2 Brown	A - 2	Neutral 1	2	A - 2	Neutral 0
A-3- Red	A - 3	Input 2	3	A - 3	Input 1
A-4 Orange	A - 4	Neutral 2	4	A - 4	Neutral 1
A-5 Yellow	A - 5	Input 3	5	A - 5	Input 2
A-6 Green	A - 6	Neutral 3	6	A - 6	Neutral 2
A-7 Blue	A - 7	Input 4	7	A - 7	Input 3
A-8 Purp	A - 8	Neutral 4	8	A - 8	Neutral 3
A-13 Blk/Wht	A - 9	Input 5	13	A - 9	Input 4
A-14 Brn/Wht	A - 10	Neutral 5	14	A - 10	Neutral 4
A-15 Red/Wht	A - 11	Input 6	15	A - 11	Input 5
A-16 Oran/Wht	A - 12	Neutral 6	16	A - 12	Neutral 5
A-17 Grn/Wht	A - 13	Input 7	17	A - 13	Input 6
A-18 Blue/Wht	A - 14	Neutral 7	18	A - 14	Neutral 6
A-19 Yell/Wht	A - 15	Input 8	19	A - 15	Input 7
A-20 Purp/Wht	A - 16	Neutral 8	20	A - 16	Neutral 7
			X80 Module #2		
B-1 Black	B - 1	Input 9	21	B - 1	Input 0
B-2 Brown	B - 2	Neutral 9	22	B - 2	Neutral 0
B-3- Red	B - 3	Input 10	23	B - 3	Input 1
B-4 Orange	B - 4	Neutral 10	24	B - 4	Neutral 1
B-5 Yellow	B - 5	Input 11	25	B - 5	Input 2
B-6 Green	B - 6	Neutral 11	26	B - 6	Neutral 2
B-7 Blue	B - 7	Input 12	27	B - 7	Input 3
B-8 Purp	B - 8	Neutral 12	28	B - 8	Neutral 3
B-13 Blk/Wht	B - 9	Input 13	33	B - 9	Input 4
B-14 Brn/Wht	B - 10	Neutral 13	34	B - 10	Neutral 4
B-15 Red/Wht	B - 11	Input 14	35	B - 11	Input 5
B-16 Oran/Wht	B - 12	Neutral 14	36	B - 12	Neutral 5
B-17 Grn/Wht	B - 13	Input 15	37	B - 13	Input 6
B-18 Blue/Wht	B - 14	Neutral 15	38	B - 14	Neutral 6
B-19 Yell/Wht	B - 15	Input 16	39	B - 15	Input 7
B-20 Purp/Wht	B - 16	Neutral 16	40	B - 16	Neutral 7

Wiring Guide #20

**⚠ CAUTION**

**RISK OF UNINTENDED OPERATION**

This wiring guide combines the B800 Inputs 1-8 VAC Neutrals together on one of the X80 replacement modules. It also combines Inputs 9-16 VAC Neutrals on the second X80 replacement module. Each of the two X80 replacement modules has 1 group of 8 inputs, unlike the B800 module which had 16 groups of 1 input. Verify that this is suitable for the current wiring. If not, make the appropriate wiring changes.

**Failure to follow these instructions can result in injury or equipment damage.**

Wiring Guide #20 B817-216 (16 point) => Two DAI0805 (8 point x2) 230 VAC Input 990ADB80X80296, 990ADB80X80297					
Cable Assembly: How to wire		Maintenance			
Cable Wire #/Color	X80 Conn. Number	B800 Information		X80 Information	
		B800 Desc	B800 pin #	X80 pin #	X80 Desc
				X80 Module #1	
A-1 Black	A - 1	Input 1	1	A - 1	Input 0
A-2 Brown	A - 17, 19	Neutral 1	2	A - 17, 19	Neutral
A-3- Red	A - 3	Input 2	3	A - 3	Input 1
A-4 Orange	A - 17, 19	Neutral 2	4	A - 17, 19	Neutral
A-5 Yellow	A - 5	Input 3	5	A - 5	Input 2
A-6 Green	A - 17 19	Neutral 3	6	A - 17, 19	Neutral
A-7 Blue	A - 7	Input 4	7	A - 7	Input 3
A-8 Purp	A - 17, 19	Neutral 4	8	A - 17, 19	Neutral
A-13 Blk/Wht	A - 9	Input 5	13	A - 9	Input 4
A-14 Brn/Wht	A - 17, 19	Neutral 5	14	A - 17, 19	Neutral
A-15 Red/Wht	A - 11	Input 6	15	A - 11	Input 5
A-16 Oran/Wht	A - 17, 19	Neutral 6	16	A - 17, 19	Neutral
A-17 Grn/Wht	A - 13	Input 7	17	A - 13	Input 6
A-18 Blue/Wht	A - 17, 19	Neutral 7	18	A - 17, 19	Neutral
A-19 Yell/Wht	A - 15	Input 8	19	A - 15	Input 7
A-20 Purp/Wht	A - 17, 19	Neu 8	20	A - 17, 19	Neutral
-	A - 18, 20 <sup>1</sup>	-	-	A - 18, 20	AC Hot <sup>1</sup>

<b>Wiring Guide #20</b> <b>B817-216 (16 point) =&gt; Two DAI0805 (8 point x2)</b> <b>230 VAC Input</b> <b>990ADB80X80296, 990ADB80X80297</b>					
<b>Cable Assembly:</b> <b>How to wire</b>		<b>Maintenance</b>			
		<b>B800 Information</b>		<b>X80 Information</b>	
<b>Cable Wire #/Color</b>	<b>X80 Conn. Number</b>	<b>B800 Desc</b>	<b>B800 pin #</b>	<b>X80 pin #</b>	<b>X80 Desc</b>
				X80 Module #2	
B-1 Black	B - 1	Input 9	21	B - 1	Input 0
B-2 Brown	B - 17, 19	Neutral 9	22	B - 17, 19	Neutral
B-3- Red	B - 3	Input 10	23	B - 3	Input 1
B-4 Orange	B - 17, 19	Neutral 10	24	B - 17, 19	Neutral
B-5 Yellow	B - 5	Input 11	25	B - 5	Input 2
B-6 Green	B - 17, 19	Neutral 11	26	B - 17, 19	Neutral
B-7 Blue	B - 7	Input 12	27	B - 7	Input 3
B-8 Purp	B - 17, 19	Neutral 12	28	B - 17, 19	Neutral
B-13 Blk/Wht	B - 9	Input 13	33	B - 9	Input 4
B-14 Brn/Wht	B - 17, 19	Neutral 13	34	B - 17, 19	Neutral
B-15 Red/Wht	B - 11	Input 14	35	B - 11	Input 5
B-16 Oran/Wht	B - 17, 19	Neutral 14	36	B - 17, 19	Neutral
B-17 Grn/Wht	B - 13	Input 15	37	B - 13	Input 6
B-18 Blue/Wht	B - 17, 19	Neutral 15	38	B - 17, 19	Neutral
B-19 Yell/Wht	B - 15	Input 16	39	B - 15	Input 7
B-20 Purp/Wht	B - 17, 19	Neutral 16	40	B - 17, 19	Neutral
-	B - 18, 20 <sup>1</sup>	-	-	B - 18, 20	AC Hot <sup>1</sup>

1. Connect AC Hot line to this pin.

## Wiring Guide #21

Wiring Guide #21 B826-032 ( 32 point) => Two DDO1602 (16 point x2) 24 VDC Output 990ADB80X80296, 990ADB80X80297					
Cable Assembly: How to wire		Maintenance			
Cable Wire #/Color	X80 Conn. Number	B800 Information		X80 Information	
		B800 Desc	B800 pin #	X80 pin #	X80 Desc
				X80 Module #1	
A-1 Black	A - 1	Output 1	1	A - 1	Output 0
A-2 Brown	A - 2	Output 2	2	A - 2	Output 1
A-3- Red	A - 3	Output 3	3	A - 3	Output 2
A-4 Orange	A - 4	Output 4	4	A - 4	Output 3
A-5 Yellow	A - 5	Output 5	5	A - 5	Output 4
A-6 Green	A - 6	Output 6	6	A - 6	Output 5
A-7 Blue	A - 7	Output 7	7	A - 7	Output 6
A-8 Purp	A - 8	Output 8	8	A - 8	Output 7
A-9 Gray	A - 9	Output 9	9	A - 9	Output 8
A-10 White	A - 10	Output 10	10	A - 10	Output 9
A-11 Pink	A - 11	Output 11	11	A - 11	Output 10
A-12 Light Grn	A - 12	Output 12	12	A - 12	Output 11
A-13 Blk/Wht	A - 13	Output 13	13	A - 13	Output 12
A-14 Brn/Wht	A - 14	Output 14	14	A - 14	Output 13
A-15 Red/Wht	A - 15	Output 15	15	A - 15	Output 14
A-16 Oran/Wht	A - 16	Output 16	16	A - 16	Output 15
A-18 Blue/Wht	A - 18, 20	24 VDC	18	A - 18, 20	24 VDC
A-20 Purp/Wht	A - 17, 19	Comm	20	A - 17, 19	Comm

<b>Wiring Guide #21</b> <b>B826-032 ( 32 point) =&gt; Two DDO1602 (16 point x2)</b> <b>24 VDC Output</b> <b>990ADB80X80296, 990ADB80X80297</b>					
Cable Assembly: How to wire		Maintenance			
		B800 Information		X80 Information	
Cable Wire #/Color	X80 Conn. Number	B800 Desc	B800 pin #	X80 pin #	X80 Desc
				X80 Module #2	
B-1 Black	B - 1	Output 17	21	B - 1	Output 0
B-2 Brown	B - 2	Output 18	22	B - 2	Output 1
B-3- Red	B - 3	Output 19	23	B - 3	Output 2
B-4 Orange	B - 4	Output 20	24	B - 4	Output 3
B-5 Yellow	B - 5	Output 21	25	B - 5	Output 4
B-6 Green	B - 6	Output 22	26	B - 6	Output 5
B-7 Blue	B - 7	Output 23	27	B - 7	Output 6
B-8 Purp	B - 8	Output 24	28	B - 8	Output 7
B-9 Gray	B - 9	Output 25	29	B - 9	Output 8
B-10 White	B - 10	Output 26	30	B - 10	Output 9
B-11 Pink	B - 11	Output 27	31	B - 11	Output 10
B-12 Light Grn	B - 12	Output 28	32	B - 12	Output 11
B-13 Blk/Wht	B - 13	Output 29	33	B - 13	Output 12
B-14 Brn/Wht	B - 14	Output 30	34	B - 14	Output 13
B-15 Red/Wht	B - 15	Output 31	35	B - 15	Output 14
B-16 Oran/Wht	B - 16	Output 32	36	B - 16	Output 15
-	B - 18, 20 <sup>1</sup>	-	38	B - 18, 20	24 VDC <sup>1</sup>
-	B - 17, 19 <sup>2</sup>	-	40	B - 17, 19	Comm <sup>2</sup>
1. Connect DC+ to this pin. 2. Connect DC- to this pin.					

## Wiring Guide #22

Wiring Guide #22					
B836-016 (16 point) => Two DRA0804T ( 8 point x2)					
12-250VDC					
990ADB80X80296, 990ADB80X80297					
Cable Assembly: How to wire			Maintenance		
Cable Wire #/Color	X80 Conn. Number	B800 Information		X80 Information	
		B800 Desc	B800 pin #	X80 pin #	X80 Desc
			X80 Module #1		
A-1 Black	A - 1	Output 1 A	1	A - 1	Output 0
A-2 Brown	A - 2	Output 1B	2	A - 2	C 0
A-3- Red	A - 3	Output 2 A	3	A - 3	Output 1
A-4 Orange	A - 4	Output 2B	4	A - 4	C 1
A-5 Yellow	A - 5	Output 3 A	5	A - 5	Output 2
A-6 Green	A - 6	Output 3B	6	A - 6	C 2
A-7 Blue	A - 7	Output 4 A	7	A - 7	Output 3
A-8 Purp	A - 8	Output 4B	8	A - 8	C 3
A-13 Blk/Wht	A - 9	Output 5 A	13	A - 9	Output 4
A-14 Brn/Wht	A - 10	Output 5B	14	A - 10	C 4
A-15 Red/Wht	A - 11	Output 6 A	15	A - 11	Output 5
A-16 Oran/Wht	A -12	Output 6B	16	A - 12	C 5
A-17 Grn/Wht	A - 13	Output 7 A	17	A - 13	Output6
A-18 Blue/Wht	A - 14	Output 7B	18	A - 14	C 6
A-19 Yell/Wht	A - 15	Output 8 A	19	A - 15	Output 7
A-20 Purp/Wht	A - 16	Output 8B	20	A - 16	C 7
			X80 Module #2		
B-1 Black	B - 1	Output 9 A	21	B - 1	Output 0
B-2 Brown	B - 2	Output 9B	22	B - 2	C 0
B-3- Red	B - 3	Output 10 A	23	B - 3	Output 1
B-4 Orange	B - 4	Output 10B	24	B - 4	C 1
B-5 Yellow	B - 5	Output 11 A	25	B - 5	Output 2
B-6 Green	B - 6	Output 11B	26	B - 6	C 2
B-7 Blue	B - 7	Output 12 A	27	B - 7	Output 3
B-8 Purp	B - 8	Output 12B	28	B - 8	C 3
B-13 Blk/Wht	B - 9	Output 13 A	33	B - 9	Output 4
B-14 Brn/Wht	B - 10	Output 13B	34	B - 10	C 4
B-15 Red/Wht	B - 11	Output 14 A	35	B - 11	Output 5
B-16 Oran/Wht	B - 12	Output 14B	36	B - 12	C 5
B-17 Grn/Wht	B - 13	Output 15 A	37	B - 13	Output 6
B-18 Blue/Wht	B - 14	Output 15B	38	B - 14	C 6
B-19 Yell/Wht	B - 15	Output 16 A	39	B - 15	Output 7
B-20 Purp/Wht	B - 16	Output 16B	40	B - 16	C 7

## Wiring Guide #23

**⚠ WARNING****RISK OF ELECTRICAL SHOCK**

Disconnect the EXT. IN and EXT. RET. wires from their source (for example, a terminal strip) that connects to the B800 connector pins 1, 2, 3, 21, 22 and 23.

**Failure to follow these instructions can result in death, serious injury, or equipment damage.**

Wiring Guide #23 B881-508 (8 point) => DRA0804T (8 point) 125 VDC Output 990ADB80X80296 & 990ADB80X80297					
Cable Assembly: How to wire		Maintenance			
Cable Wire #/Color	X80 Conn. Number	B800 Information		X80 Information	
		Jumper as Necessary	B800 Desc	B800 pin #	X80 pin #
-	-		EXT IN 1	1	-
-	-		EXT IN 2	2	-
-	-		EXT RET	3	-
-	-	Γ	Ch1 POS	4	-
A-5 Yellow	1	L	Ch1 POS	5	1
A-6 Green	2	Γ	Ch1 NEG	6	2
-	-	L	Ch1 NEG	7	-
-	-	Γ	Ch2 POS	8	-
A-9 Gray	3	L	Ch2 POS	9	3
A-10 White	4	Γ	Ch2 NEG	10	4
-	-	L	Ch2 NEG	11	-
-	-	Γ	Ch3 POS	12	-
A-13 Blk/Wht	5	L	Ch3 POS	13	5
A-14 Brn/Wht	6	Γ	Ch3 NEG	14	6
-	-	L	Ch3 NEG	15	-
-	-	Γ	Ch4 POS	16	-
A-17 Grn/Wht	7	L	Ch4 POS	17	7
A-18 Blue/Wht	8	Γ	Ch4 NEG	18	8
-	-	L	Ch4 NEG	19	-

Wiring Guide #23 B881-508 (8 point) => DRA0804T (8 point) 125 VDC Output 990ADB80X80296 & 990ADB80X80297					
Cable Assembly: How to wire		Maintenance			
Cable Wire #/Color	X80 Conn. Number	B800 Information		X80 Information	
		Jumper as Necessary	B800 Desc	B800 pin #	X80 pin #
-	-		EXT IN 3	21	-
-	-		EXT IN 4	22	-
-	-		EXT RET	23	-
-	-	Γ	Ch5 POS	24	-
B-5 Yellow	9	L	Ch5 POS	25	9
B-6 Green	10	Γ	Ch5 NEG	26	10
-	-	L	Ch5 NEG	27	-
-	-	Γ	Ch6 POS	28	-
B-9 Gray	11	L	Ch6 POS	29	11
B-10 White	12	Γ	Ch6 NEG	30	12
-	-	L	Ch6 NEG	31	-
-	-	Γ	Ch7 POS	32	-
B-13 Blk/Wht	13	L	Ch7 POS	33	13
B-14 Brn/Wht	14	Γ	Ch7 NEG	34	14
-	-	L	Ch7 NEG	35	-
-	-	Γ	Ch8 POS	36	-
B-17 Grn/Wht	15	L	Ch8 POS	37	15
B-18 Blue/Wht	16	Γ	Ch8 NEG	38	16
-	-	L	Ch8 NEG	39	-

**NOTE:** Only one of the supplied X80 20-pin connectors is used for this module.

## Generic #3 Wiring Guides: B800 to 990ADB80X80194, 990ADB80X80195

### Wiring Guide #24

<b>Wiring Guide #24</b> <b>B832-016 (16 point)=&gt; DDO1612 (16 point)</b> <b>24 VDC Output</b> <b>990ADB80X80194 , 990ADB80X80195</b>					
<b>Cable Assembly:</b> <b>How to wire</b>		<b>Maintenance</b>			
<b>Cable Wire #/Color</b>	<b>X80 Conn. Number</b>	<b>B800 Information</b>		<b>X80 Information</b>	
		<b>B800 Desc</b>	<b>B800 pin #</b>	<b>X80 pin #</b>	<b>X80 Desc</b>
1 - Black	1	Output 1	1	1	Output 0
2 - Brown	2	Output 2	2	2	Output 1
3 - Red	3	Output 3	3	3	Output 2
4 - Orange	4	Output 4	4	4	Output 3
5 - Yellow	5	Output 5	5	5	Output 4
6 - Green	6	Output 6	6	6	Output 5
7 - Blue	7	Output 7	7	7	Output 6
8 - Purp	8	Output 8	8	8	Output 7
9 - Gray	17, 19	Common	9	17, 19	Common
10 - White	17, 19	Common	10	17, 19	Common
11 - Wht/Blk	9	Output 9	11	9	Output 8
12 - Wht/Brn	10	Output 10	12	10	Output 9
13 - Wht/Red	11	Output 11	13	11	Output 10
14 - Wht/Orn	12	Output 12	14	12	Output 11
15 - Wht/Yel	13	Output 13	15	13	Output 12
16 - Wht/Grn	14	Output 14	16	14	Output 13
17 - Wht/Blu	15	Output 15	17	15	Output 14
18 - Wht/Vio	16	Output 16	18	16	Output 15
19 - Wht/Gra	17, 19	Common	19	17, 19	Common
20 - Brn/Blk	18, 20	24 VDC	20	18, 20	24 VDC

## Wiring Guide #25

Wiring Guide #25 B833-016(16 point) => DD11602 (16 point) 24 VDC Input 990ADB80X80194, 990ADB80X80195					
Cable Assembly: How to wire		Maintenance			
Cable Wire #/Color	X80 Conn. Number	B800 Information		X80 Information	
		B800 Desc	B800 pin #	X80 pin #	X80 Desc
1 - Black	1	Input 1	1	1	Input 0
2 - Brown	2	Input 2	2	2	Input 1
3 - Red	3	Input 3	3	3	Input 2
4 - Orange	4	Input 4	4	4	Input 3
5 - Yellow	5	Input 5	5	5	Input 4
6 - Green	6	Input 6	6	6	Input 5
7 - Blue	7	Input 7	7	7	Input 6
8 - Purp	8	Input 8	8	8	Input 7
9 - Gray	17, 19	Common	9	17, 19	Common
10 - White	17, 19	Common	10	17, 19	Common
11 - Wht/Blk	9	Input 9	11	9	Input 8
12 - Wht/Brn	10	Input 10	12	10	Input 9
13 - Wht/Red	11	Input 11	13	11	Input 10
14 - Wht/Orn	12	Input 12	14	12	Input 11
15 - Wht/Yel	13	Input 13	15	13	Input 12
16 - Wht/Grn	14	Input 14	16	14	Input 13
17 - Wht/Blu	15	Input 15	17	15	Input 14
18 - Wht/Vio	16	Input 16	18	16	Input 15
19 - Wht/Gra	17, 19	Common	19	17, 19	Common
20 - Brn/Blk	18, 20	24 VDC	20	18, 20	24 VDC

## Wiring Guide #26

**⚠ WARNING****RISK OF EXPLOSION OR ARC FLASH**

The B800 module can accommodate either 24 VAC or 24 VDC for the input groups. This wiring guide is for 24 VDC and combines the B800 groups 1 & 2 Commons. The X80 replacement module has one group of 16 inputs, unlike the B800 module which had two groups of 8 inputs. Verify that this is suitable for the current wiring. If not, make the appropriate wiring changes.

**Failure to follow these instructions can result in death, serious injury, or equipment damage.**

Wiring Guide #26 B837-016 (16 point) => DDI1602 (16 point) 24 VAC/DC Input 990ADB80X80194, 990ADB80X80195					
Cable Assembly: How to wire		Maintenance			
Cable Wire #/Color	X80 Conn. Number	B800 Information		X80 Information	
		B800 Desc	B800 pin #	X80 pin #	X80 Desc
1 - Black	1	Input 1	1	1	Input 0
2 - Brown	2	Input 2	2	2	Input 1
3 - Red	3	Input 3	3	3	Input 2
4 - Orange	4	Input 4	4	4	Input 3
5 - Yellow	5	Input 5	5	5	Input 4
6 - Green	6	Input 6	6	6	Input 5
7 - Blue	7	Input 7	7	7	Input 6
8 - Purp	8	Input 8	8	8	Input 7
9 - Gray	17, 19	Comm Group1	9	17, 19	Common
11 - Wht/Blk	9	Input 9	11	9	Input 8
12 - Wht/Brn	10	Input 10	12	10	Input 9
13 - Wht/Red	11	Input 11	13	11	Input 10
14 - Wht/Orn	12	Input 12	14	12	Input 11
15 - Wht/Yel	13	Input 13	15	13	Input 12
16 - Wht/Grn	14	Input 14	16	14	Input 13
17 - Wht/Blu	15	Input 15	17	15	Input 14
18 - Wht/Vio	16	Input 16	18	16	Input 15
19 - Wht/Gra	17, 19	Comm Group2	19	17, 19	Common
-	18, 20 <sup>1</sup>	-	-	18, 20	24 VDC <sup>1</sup>

1. Add +24 VDC.

Wiring Guide #27

**⚠ WARNING**

**RISK OF EXPLOSION OR ARC FLASH**

The B800 module can accommodate either 24 VAC or 24 VDC for the input groups. This wiring guide is for 24 VAC and combines the B800 groups 1 & 2 Commons. The X80 replacement module has one group of 16 inputs, unlike the B800 module which had two groups of 8 inputs. Verify that this is suitable for the current wiring. If not, make the appropriate wiring changes.

**Failure to follow these instructions can result in death, serious injury, or equipment damage.**

Wiring Guide #27 B837-016 (16 point) => DAI1602 (16 point) 24 VAC/DC Input 990ADB80X80194, 990ADB80X80195					
Cable Assembly: How to wire		Maintenance			
Cable Wire #/Color	X80 Conn. Number	B800 Information		X80 Information	
		B800 Desc	B800 pin #	X80 pin #	X80 Desc
1 - Black	1	Input 1	1	1	Input 0
2 - Brown	2	Input 2	2	2	Input 1
3 - Red	3	Input 3	3	3	Input 2
4 - Orange	4	Input 4	4	4	Input 3
5 - Yellow	5	Input 5	5	5	Input 4
6 - Green	6	Input 6	6	6	Input 5
7 - Blue	7	Input 7	7	7	Input 6
8 - Purp	8	Input 8	8	8	Input 7
9 - Gray	17, 19	Neutral Group1	9	17, 19	Neutral
11 - Wht/Blk	9	Input 9	11	9	Input 8
12 - Wht/Brn	10	Input 10	12	10	Input 9
13 - Wht/Red	11	Input 11	13	11	Input 10
14 - Wht/Orn	12	Input 12	14	12	Input 11
15 - Wht/Yel	13	Input 13	15	13	Input 12
16 - Wht/Grn	14	Input 14	16	14	Input 13
17 - Wht/Blu	15	Input 15	17	15	Input 14
18 - Wht/Vio	16	Input 16	18	16	Input 15
19 - Wht/Gra	17, 19	Neutral Group2	19	17, 19	Neutral
-	18, 20 <sup>1</sup>	-	-	18, 20	AC Hot <sup>1</sup>

1. Connect AC Hot line to this pin.

## Wiring Guide #28

**⚠ DANGER****RISK OF EXPLOSION OR ARC FLASH**

The B800 module can accommodate either 48 VAC or 48 VDC for the input groups. This wiring guide is for 48 VDC and combines the B800 groups 1 & 2 Commons. The X80 replacement module has one group of 16 inputs, unlike the B800 module which had two groups of 8 inputs. Verify that this is suitable for the current wiring. If not, make the appropriate wiring changes.

**Failure to follow these instructions will result in death or serious injury.**

Wiring Guide #28 B849-016 (16 point) => DD11603 (16 point) 48 DC Input 990ADB80X80194, 990ADB80X80195					
Cable Assembly: How to wire		Maintenance			
Cable Wire #/Color	X80 Conn. Number	B800 Information		X80 Information	
		B800 Desc	B800 pin #	X80 pin #	X80 Desc
1 - Black	1	Input 1	1	1	Input 0
2 - Brown	2	Input 2	2	2	Input 1
3 - Red	3	Input 3	3	3	Input 2
4 - Orange	4	Input 4	4	4	Input 3
5 - Yellow	5	Input 5	5	5	Input 4
6 - Green	6	Input 6	6	6	Input 5
7 - Blue	7	Input 7	7	7	Input 6
8 - Purp	8	Input 8	8	8	Input 7
9 - Gray	17, 19	Comm Group1	9	17, 19	Common
11 - Wht/Blk	9	Input 9	11	9	Input 8
12 - Wht/Brn	10	Input 10	12	10	Input 9
13 - Wht/Red	11	Input 11	13	11	Input 10
14 - Wht/Orn	12	Input 12	14	12	Input 11
15 - Wht/Yel	13	Input 13	15	13	Input 12
16 - Wht/Grn	14	Input 14	16	14	Input 13
17 - Wht/Blu	15	Input 15	17	15	Input 14
18 - Wht/Vio	16	Input 16	18	16	Input 15
19 - Wht/Gra	17, 19	Comm Group2	19	17, 19	Common
-	18, 20 <sup>1</sup>	-	-	18, 20	DC + <sup>1</sup>

1. Connect DC+ to this pin.

## Wiring Guide #29

**⚠ DANGER****RISK OF EXPLOSION OR ARC FLASH**

The B800 module can accommodate either 48 VAC or 48 VDC for the input groups. This wiring guide is for 48 VAC and combines the B800 groups 1 & 2 Commons. The X80 replacement module has one group of 16 inputs, unlike the B800 module which had two groups of 8 inputs. Verify that this is suitable for the current wiring. If not, make the appropriate wiring changes.

**Failure to follow these instructions will result in death or serious injury.**

Wiring Guide #29 B849-016 (16 point) => DAI1603 (16 point) 48 VAC Input 990ADB80X80194, 990ADB80X80195					
Cable Assembly: How to wire		Maintenance			
Cable Wire #/Color	X80 Conn. Number	B800 Information		X80 Information	
		B800 Desc	B800 pin #	X80 pin #	X80 Desc
1 - Black	1	Input 1	1	1	Input 0
2 - Brown	2	Input 2	2	2	Input 1
3 - Red	3	Input 3	3	3	Input 2
4 - Orange	4	Input 4	4	4	Input 3
5 - Yellow	5	Input 5	5	5	Input 4
6 - Green	6	Input 6	6	6	Input 5
7 - Blue	7	Input 7	7	7	Input 6
8 - Purp	8	Input 8	8	8	Input 7
9 - Gray	17, 19	Neutral Group1	9	17, 19	Neutral
11 - Wht/Blk	9	Input 9	11	9	Input 8
12 - Wht/Brn	10	Input 10	12	10	Input 9
13 - Wht/Red	11	Input 11	13	11	Input 10
14 - Wht/Orn	12	Input 12	14	12	Input 11
15 - Wht/Yel	13	Input 13	15	13	Input 12
16 - Wht/Grn	14	Input 14	16	14	Input 13
17 - Wht/Blu	15	Input 15	17	15	Input 14
18 - Wht/Vio	16	Input 16	18	16	Input 15
19 - Wht/Gra	17, 19	Neutral Group2	19	17, 19	Neutral
-	18, 20 <sup>1</sup>	-	-	18, 20	AC Hot <sup>1</sup>

1. Connect AC Hot line to this pin.

## Generic #4 Wiring Guides: B800 to 990ADB80X80292, 990ADB80X80293

### Wiring Guide #30

<b>Wiring Guide #30</b> <b>B846-001 (16 channel) =&gt; Two AMI0810 (8 channel (x2))</b> <b>Analog Input Mux. (<math>\pm 10V</math>) =&gt; Analog Input Channel</b> <b>990ADB80X80292, 990ADB80X80293</b>					
Cable Assembly: How to wire		Maintenance			
Cable Wire #/Color	X80 Conn. Number	B800 Information		X80 Information	
		B800 Desc	B800 pin #	X80 pin #	X80 Desc
				X80 Module #1	
-	-	Output +	1	-	-
-	-	Output -	2	-	-
A-4 Orange	A - 3	Input 0 +	4	A - 3	Input 0 +
A-5 Yellow	A - 2	Input 0 -	5	A - 2	Input 0 -
A-6 Green	A - 4	Input 1 +	6	A - 4	Input 1 +
A-7 Blue	A - 5	Input 1 -	7	A - 5	Input 1 -
A-8 Purp	A - 9	Input 2 +	8	A - 9	Input 2 +
A-9 Gray	A - 8	Input 2 -	9	A - 8	Input 2 -
A-10 White	A - 10	Input 3 +	10	A - 10	Input 3 +
A-11 Wht/Blk	A - 11	Input 3 -	11	A - 11	Input 3 -
A-13 Wht/Red	A - 17	Input 4 +	13	A - 17	Input 4 +
A-14 Wht/Orn	A - 16	Input 4 -	14	A - 16	Input 4 -
A-15 Wht/Yel	A - 18	Input 5 +	15	A - 18	Input 5+
A-16 Wht/Grn	A - 19	Input 5 -	16	A - 19	Input 5 -
A-17 Wht/Blu	A - 23	Input 6 +	17	A - 23	Input 6 +
A-18 Wht/Vio	A - 22	Input 6 -	18	A - 22	Input 6 -
A-19 Wht/Gra	A - 24	Input 7 +	19	A - 24	Input 7 +
A-20 Brn/Blk	A - 25	Input 7 -	20	A - 25	Input 7 -

Wiring Guide #30 B846-001 (16 channel) => Two AMI0810 (8 channel (x2)) Analog Input Mux. ( $\pm 10V$ ) => Analog Input Channel 990ADB80X80292, 990ADB80X80293					
Cable Assembly: How to wire		Maintenance			
Cable Wire #/Color	X80 Conn. Number	B800 Information		X80 Information	
		B800 Desc	B800 pin #	X80 pin #	X80 Desc
				X80 Module #2	
B-4 Orange	B - 3	Input 8 +	24	B - 3	Input 0 +
B-5 Yellow	B - 2	Input 8 -	25	B - 2	Input 0 -
B-6 Green	B - 4	Input 9 +	26	B - 4	Input 1 +
B-7 Blue	B - 5	Input 9 -	27	B - 5	Input 1 -
B-8 Purp	B - 9	Input 10 +	28	B - 9	Input 2 +
B-9 Gray	B - 8	Input 10 -	29	B - 8	Input 2 -
B-10 White	B - 10	Input 11 +	30	B - 10	Input 3 +
B-11 Wht/Blk	B - 11	Input 11 -	31	B - 11	Input 3 -
B-13 Wht/Red	B - 17	Input 12 +	33	B - 17	Input 4 +
B-14 Wht/Orn	B - 16	Input 12 -	34	B - 16	Input 4 -
B-15 Wht/Yel	B - 18	Input 13 +	35	B - 18	Input 5+
B-16 Wht/Grn	B - 19	Input 13 -	36	B - 19	Input 5 -
B-17 Wht/Blu	B - 23	Input 14 +	37	B - 23	Input 6 +
B-18 Wht/Vio	B - 22	Input 14 -	38	B - 22	Input 6 -
B-19 Wht/Gra	B - 24	Input 15 +	39	B - 24	Input 7 +
B-20 Brn/Blk	B - 25	Input 15 -	40	B - 25	Input 7 -

**NOTE:** Configure the X80 module analog channels to match the Range and Scaling of the B800 module.

## Wiring Guide #31

Wiring Guide #31 B846-002 (16 channel) => Two AMI0810 (8 channel x2) Analog Input Mux. (4-20 mA) => Analog Input Channel 990ADB80X80292, 990ADB80X80293					
Cable Assembly: How to wire		Maintenance			
Cable Wire #/Color	X80 Conn. Number and (jumper target #)	B800 Information		X80 Information	
		B800 Desc	B800 pin #	X80 pin # and (jumper target #)	X80 Desc
				X80 Module #1	
-	-	Output +	1	-	-
-	-	Output -	2	-	-
A-4 Orange	A - 3 (A - 1)	Input 0 +	4	A - 3 (A - 1)	Input 0 +
A-5 Yellow	A - 2	Input 0 -	5	A - 2	Input 0 -
A-6 Green	A - 4 (A - 6)	Input 1 +	6	A - 4 (A - 6)	Input 1 +
A-7 Blue	A - 5	Input 1 -	7	A - 5	Input 1 -
A-8 Purp	A - 9 (A - 7)	Input 2 +	8	A - 9 (A - 7)	Input 2 +
A-9 Gray	A - 8	Input 2 -	9	A - 8	Input 2 -
A-10 White	A - 10 (A - 12)	Input 3 +	10	A - 10 (A - 12)	Input 3 +
A-11 Wht/Blk	A - 11	Input 3 -	11	A - 11	Input 3 -
A-13 Wht/Red	A - 17 (A - 15)	Input 4 +	13	A - 17 (A - 15)	Input 4 +
A-14 Wht/Orn	A - 16	Input 4 -	14	A - 16	Input 4 -
A-15 Wht/Yel	A - 18 (A - 20)	Input 5 +	15	A - 18 (A - 20)	Input 5+
A-16 Wht/Grn	A - 19	Input 5 -	16	A - 19	Input 5 -
A-17 Wht/Blu	A - 23 (A - 21)	Input 6 +	17	A - 23 (A - 21)	Input 6 +
A-18 Wht/Vio	A - 22	Input 6 -	18	A - 22	Input 6 -
A-19 Wht/Gra	A - 24 (A - 26)	Input 7 +	19	A - 24 (A - 26)	Input 7 +
A-20 Brn/Blk	A - 25	Input 7 -	20	A - 25	Input 7 -

Wiring Guide #31 B846-002 (16 channel) => Two AMI0810 (8 channel x2) Analog Input Mux. (4-20 mA) => Analog Input Channel 990ADB80X80292, 990ADB80X80293					
Cable Assembly: How to wire		Maintenance			
Cable Wire #/Color	X80 Conn. Number and (jumper target #)	B800 Information		X80 Information	
		B800 Desc	B800 pin #	X80 pin # and (jumper target #)	X80 Desc
				X80 Module #2	
B-4 Orange	B - 3 (B - 1)	Input 8 +	24	B - 3 (B - 1)	Input 0 +
B-5 Yellow	B - 2	Input 8 -	25	B - 2	Input 0 -
B-6 Green	B - 4 (B - 6)	Input 9 +	26	B - 4 (B - 6)	Input 1 +
B-7 Blue	B - 5	Input 9 -	27	B - 5	Input 1 -
B-8 Purp	B - 9 (B - 7)	Input 10 +	28	B - 9 (B - 7)	Input 2 +
B-9 Gray	B - 8	Input 10 -	29	B - 8	Input 2 -
B-10 White	B - 10 (B - 12)	Input 11 +	30	B - 10 (B - 12)	Input 3 +
B-11 Wht/Blk	B - 11	Input 11 -	31	B - 11	Input 3 -
B-13 Wht/Red	B - 17 (B - 15)	Input 12 +	33	B - 17 (B - 15)	Input 4 +
B-14 Wht/Orn	B - 16	Input 12 -	34	B - 16	Input 4 -
B-15 Wht/Yel	B - 18 (B - 20)	Input 13 +	35	B - 18 (B - 20)	Input 5+
B-16 Wht/Grn	B - 19	Input 13 -	36	B - 19	Input 5 -
B-17 Wht/Blu	B - 23 (B - 21)	Input 14 +	37	B - 23 (B - 21)	Input 6 +
B-18 Wht/Vio	B - 22	Input 14 -	38	B - 22	Input 6 -
B-19 Wht/Gra	B - 24 (B - 26)	Input 15 +	39	B - 24 (B - 26)	Input 7 +
B-20 Brn/Blk	B - 25	Input 15 -	40	B - 25	Input 7 -

**NOTE:**

- Configure the X80 module analog channels to match the Range and Scaling of the B800 module.
- Add a jumper to the X80 connector from the indicated pin # to the jumper target pin #.

## Wiring Guide #32

Wiring Guide #32 B877-111 (16 channel) => Two AMI0810 (8 channel x2) Analog Input (V or I) 990ADB80X80292, 990ADB80X80293					
Cable Assembly: How to wire		Maintenance			
Cable Wire # / Color	X80 Conn. Number and (jumper target #)	B800 Information		X80 Information	
		B800 Desc	B800 pin #	X80 pin # and (jumper target #)	X80 Desc
		X80 Module #1			
-	-	Case Gnd	1	-	-
A-3 Red	A -3 (A -1)	Input 1 +	3	A -3 (A -1)	Input 0 +
A-4 Orange	A 4 (A -6)	Input 2 +	4	A -4 (A -6)	Input 1 +
A-5 Yellow	A -2, 5	Input 1&2 Ret	5	A -2, 5	Input 0&1 Ret
A-7 Blue	A -9 (A -7)	Input 3 +	7	A -9 (A -7)	Input 2 +
A-8 Purp	A -10 (A -12)	Input 4 +	8	A -10 (A -12)	Input 3 +
A-9 Gray	A -8, 11	Input 4&5 Ret	9	A -8, 11	Input 2&3 Ret
A-11 Wht/Blk	A -17 (A -15)	Input 5+	11	A -17 (A -15)	Input 4 +
A-12 Wht/Brn	A -18 (A -20)	Input 6 +	12	A -18 (A -20)	Input 5 +
A-13 Wht/Red	A -16, 19	Input 5&6 Ret	13	A -16, 19	Input 4&5 Ret
A-15 Wht/Yel	A -23 (A -21)	Input 7+	15	A -23 (A -21)	Input 6 +
A-16 Wht/Grn	A -24 (A -26)	Input 8 +	16	A -24 (A -26)	Input 7 +
A-17 Wht/Blu	A -22, 25	Input 7&8 Ret	17	A -22, 25	Input 6&7
		X80 Module #2			
B-3 Red	B -3 (B -1)	Input 9+	23	B -3 (B -1)	Input 8 +
B-4 Orange	B -4 (B -6)	Input 10 +	24	B -4 (B -6)	Input 9 +
B-5 Yellow	B -2, 5	Input 9&10 Ret	25	B -2, 5	Input 8&9 Ret
B-7 Blue	B -9 (B -7)	Input 11+	27	B -9 (B -7)	Input 10 +
B-8 Purp	B -10 (B -12)	Input 12 +	28	B -10 (B -12)	Input 11 +
B-9 Gray	B -8 ,11	Input 11&12 Ret	29	B -8, 11	Input 10&11 Ret
B-11 Wht/Blk	B -17 (B -15)	Input 13+	31	B -17 (B -15)	Input 12 +
B-12 Wht/Brn	B -18 (B -20)	Input 14 +	32	B -18 (B -20)	Input 13 +
B-13 Wht/Red	B -16, 19	Input 13&14 Ret	33	B -16, 19	Input 12&13 Ret
B-15 Wht/Yel	B -23 (B -21)	Input 15+	35	B -23 (B -21)	Input 14 +
B-16 Wht/Grn	B -24 (B -26)	Input 16 +	36	B -24 (B -26)	Input 15 +
B-17 Wht/Blu	B -22, 25	Input 15&16 Ret	37	B -22, 25	Input 14&15 Ret
-	-	Ref +V	38	-	-
-	-	Ref -V	39	-	-

**NOTE:**

- Configure the X80 module analog channels to match the Range and Scaling of the B800 module.
- For current mode, add a jumper to the X80 connector from the indicated pin # to the jumper target pin #.

## Generic #5 Wiring Guides: B800 to 990ADB80X80190, 990ADB80X80191

### Wiring Guide #33

<b>Wiring Guide #33</b> <b>B873-001 (4 channel) =&gt; AMI0410 (4 channel)</b> <b>Analog Input (V or I)</b> <b>990ADB80X80190 , 990ADB80X80191</b>					
<b>Cable Assembly: How to wire</b>		<b>Maintenance</b>			
<b>Cable Wire #/Color</b>	<b>X80 Conn. Number</b>	<b>B800 Information</b>		<b>X80 Information</b>	
		<b>B800 Desc</b>	<b>B800 pin #</b>	<b>X80 pin #</b>	<b>X80 Desc</b>
-	-	Housing Gnd	1	-	-
2 - Brown	3	Input 1 Current	2	3	Input 0 Current
3 - Red	1	Input 1 +	3	1	Input 0 +
4 -Orange	2	Input 1 -	4	2	Input 0 -
-	-	Input 1 Shield	5	-	-
6 - Green	9	Input 2 Current	6	9	Input 1 Current
7 - Blue	7	Input 2 +	7	7	Input In1 +
8 - Purp	8	Input 2 -	8	8	Input 1 -
-	-	Input 2 Shield	9	-	-
10 - White	13	Input 3 Current	10	13	Input 2 Current
11 - Wht/Blk	11	Input 3 +	11	11	Input 2 +
12 - Wht/Brn	12	Input 3 -	12	12	Input 2 -
-	-	Input 3 Shield	13	-	-
14 -Wht/Orn	19	Input 4 Current	14	19	Input 3 Current
15 - Wht/Yel	17	Input 4 +	15	17	Input 3 +
16 - Wht/Grn	18	Input 4 -	16	18	Input 3 -
-	-	Input 4 Shield	17	-	-
-	-	Housing Gnd	18	-	-

**NOTE:** Configure the X80 module channels to match the Range and Scaling of the B800 module.

## Wiring Guide #34

Wiring Guide #34 B873-002 (4 channel) => AMI0410 (4 channel) Analog Input (V or I) 990ADB80X80190, 990ADB80X80191					
Cable Assembly: How to wire		Maintenance			
Cable Wire #/Color	X80 Conn. Number	B800 Information		X80 Information	
		B800 Desc	B800 pin #	X80 pin #	X80 Desc
–	–	Housing Gnd	1	–	–
2 Brown	3	Input 1 Current	2	3	Input 0 Current
3 Red	1	Input 1 +	3	1	Input 0 +
4 Orange	2	Input 1 -	4	2	Input 0 -
–	–	Input 1 Shield	5	–	–
6 Green	9	Input 2 Current	6	9	Input 1 Current
7 Blue	7	Input 2 +	7	7	Input 1 +
8 Purp	8	Input 2 -	8	8	Input 1 -
–	–	Input 2 Shield	9	–	–
10 White	13	Input 3 Current	10	13	Input 2 Current
11 Wht/Blk	11	Input 3 +	11	11	Input 2 +
12 Wht/Brn	12	Input 3 -	12	12	Input 2 -
–	–	Input 3 Shield	13	–	–
14 Wht/Orn	19	Input 4 Current	14	19	Input 3 Current
15 Wht/Yel	17	Input 4 +	15	17	Input 3 +
16 Wht/Grn	18	Input 4 -	16	18	Input 3 -
–	–	Input 4 Shield	17	–	–
–	–	Housing Gnd	18	–	–

**NOTE:** Configure the X80 module channels to match the Range and Scaling of the B800 module.

## Wiring Guide #35

Wiring Guide #35 B873-011 (4 channel) => AMI0410 (4 channel) Analog Input (V) 990ADB80X80190, 990ADB80X80191					
Cable Assembly: How to wire		Maintenance			
Cable Wire #/Color	X80 Conn. Number	B800 Information		X80 Information	
		B800 Desc	B800 pin #	X80 pin #	X80 Desc
–	–	Housing Gnd	1	–	–
3 Red	1	Input 1 +	3	1	Input 0 +
4 Orange	2	Input 1 -	4	2	Input 0 -
–	–	Input 1 Shield	5	–	–
7 Blue	7	Input 2 +	7	7	Input 1 +
8 Purp	8	Input 2 -	8	8	Input 1 -
–	–	Input 2 Shield	9	–	–
11 Wht/Blk	11	Input 3 +	11	11	Input 2 +
12 Wht/Brn	12	Input 3 -	12	12	Input 2 -
–	–	Input 3 Shield	13	–	–
15 Wht/Yel	17	Input 4 +	15	17	Input 3 +
16 Wht/Grn	18	Input 4 -	16	18	Input 3 -
–	–	Input 4 Shield	17	–	–
–	–	Housing Gnd	18	–	–

**NOTE:** Configure the X80 module channels to match the Range and Scaling of the B800 module.

## Wiring Guide #36

Wiring Guide #36 B873-012 (4 channel) => AMI0410 (4 channel) Analog Input (V) 990ADB80X80190, 990ADB80X80191					
Cable Assembly: How to wire		Maintenance			
Cable Wire #/Color	X80 Conn. Number	B800 Information		X80 Information	
		B800 Desc	B800 pin #	X80 pin #	X80 Desc
-	-	Housing Gnd	1	-	-
3 Red	1	Input 1 +	3	1	Input 0 +
4 Orange	2	Input 1 -	4	2	Input 0 -
-	-	Input 1 Shield	5	-	-
7 Blue	7	Input 2 +	7	7	Input 1 +
8 Purp	8	Input 2 -	8	8	Input 1 -
-	-	Input 2 Shield	9	-	-
11 Wht/Blk	11	Input 3 +	11	11	Input 2 +
12 Wht/Brn	12	Input 3 -	12	12	Input 2 -
-	-	Input 3 Shield	13	-	-
15 Wht/Yel	17	Input 4 +	15	17	Input 3 +
16 Wht/Grn	18	Input 4 -	16	18	Input 3 -
-	-	Input 4 Shield	17	-	-
-	-	Housing Gnd	18	-	-

**NOTE:** Configure the X80 module channels to match the Range and Scaling of the B800 module.

## Generic #6 Wiring Guides: B800 to 990ADB80X80288, 990ADB80X80289

### Wiring Guide #37

Wiring Guide #37 B872-100 (4 channel) => AM00410 (4 channel) Analog Output 990ADB80X80288, 990ADB80X80289					
Cable Assembly: How to wire		Maintenance			
Cable Wire #/Color	X80 Conn. Number	B800 Information		X80 Information	
		B800 Desc	B800 pin #	X80 pin #	X80 Desc
–	–	Case Gnd	1	–	–
–	–	Case Gnd	2	–	–
A-3 Red	2	I Sink Output 1	3	2	Com 0
A-4 Orange	1	I Source Output 1	4	1	Output 0
–	–	I Source Output 1	5	–	–
–	–	Monitor Output 1	6	–	–
A-11 Wht/Blk	8	I Sink Output 2	11	8	Com 1
A-12 Wht/Brn	7	I Source Output 2	12	7	Output 1
–	–	I Source Output 2	13	–	–
–	–	Monitor Output 2	14	–	–
B-3 Red	12	I Sink Output 3	23	12	Com 2
B-4 Orange	11	I Source Output 3	24	11	Output 2
–	–	I Source Output 3	25	–	–
–	–	Monitor Output 3	26	–	–
B-13 Wht/Red	18	I Sink Output 4	31	18	Com 3
B-12 Wht/Brn	17	I Source Output 4	32	17	Output 3
–	–	I Source Output 4	33	–	–
–	–	Monitor Output 4	34	–	–
–	–	Case Gnd	39	–	–
–	–	Case Gnd	40	–	–

**NOTE:**

- Remove the loop supply and connect together the analog channel wires that are connected to the loop supply.
- Configure the X80 module channels to match the Range and Scaling of the B800 module.

## Wiring Guide #38

Wiring Guide #38 B872-200 (4 channel) => AMO0410 (4channel) Analog Output 990ADB80X80288, 990ADB80X80289					
Cable Assembly: How to wire		Maintenance			
Cable Wire #/Color	X80 Conn. Number	B800 Information		X80 Information	
		B800 Desc	B800 pin #	X80 pin #	X80 Desc
-	-	Case Gnd	1	-	-
-	-	Case Gnd	2	-	-
-	-	Comm Output 1	4	-	-
A-5 Yellow	2	Comm Output 1	5	2	Com 0
A-6 Green	1	Output 1	6	1	Output 0
-	-	Comm Output 2	12	-	-
A-13 Wht/Red	8	Comm Output 2	13	8	Com 1
A-14 Wht/Orn	7	Output 2	14	7	Output 1
-	-	Comm Output 3	24	-	-
B-5 Yellow	12	Comm Output 3	25	12	Com 2
B-6 Green	11	Output 3	26	11	Output 2
-	-	Comm Output 4	32	-	-
B-13 Wht/Red	18	Comm Output 4	33	18	Com 3
B-14 Wht/Orn	17	Output 4	34	17	Output 3
-	-	Case Gnd	39	-	-
-	-	Case Gnd	40	-	-

**NOTE:** Configure the X80 module channels to match the Range and Scaling of the B800 module.

## Generic #7 Wiring Guides: B800 to 990ADB80X80190, 990ADB80X80191

### Wiring Guide #39

Wiring Guide #39 B875-001 (8 channel) => AMI0810 (8 channel) Analog Input (V or I) 990ADB80X80286, 990ADB80X80287					
Cable Assembly: How to wire		Maintenance			
Cable Wire #/Color	X80 Conn. #	B800 Information		X80 Information	
		B800 Desc	B800 pin #	X80 pin #	X80 Desc
-	-	Housing Gnd	1	-	-
A-2 Brown	1	Input 1 Current	2	1	Input 0 Current
A-3 Red	3	Input 1 +	3	3	Input 0 +
A-4 Orange	2	Input 1 -	4	2	Input 0 -
-	-	Input 1 Shield	5	-	-
A-6 Green	6	Input 2 Current	6	6	Input 1 Current
A-7 Blue	4	Input 2 +	7	4	Input 1 +
A-8 Purp	5	Input 2 -	8	5	Input 1 -
-	-	Input 2 Shield	9	-	-
A-10 White	7	Input 3 Current	10	7	Input 2 Current
A-11 Wht/Blk	9	Input 3 +	11	9	Input 2 +
A-12 Wht/Brn	8	Input 3 -	12	8	Input 2 -
-	-	Input 3 Shield	13	-	-
A-14 Wht/Orn	12	Input 4 Current	14	12	Input 3 Current
A-15 Wht/Yel	10	Input 4 +	15	10	Input 3 +
A-16 Wht/Grn	11	Input 4 -	16	11	Input 3 -
-	-	Input 4 Shield	17	-	-
-	-	Housing Gnd	18	-	-
-	-	Housing Gnd	19	-	-
B-2 Brown	15	Input 5 Current	20	15	Input 4 Current
B-3 Red	17	Input 5 +	21	17	Input 4 +
B-4 Orange	16	Input 5 -	22	16	Input 4 -
-	-	Input 5 Shield	23	-	-
B-6 Green	20	Input 6 Current	24	20	Input 5 Current
B-7 Blue	18	Input 6 +	25	18	Input 5 +
B-8 Purp	19	Input 6 -	26	19	Input 5 -
-	-	Input 6 Shield	27	-	-
B-10 White	21	Input 7 Current	28	21	Input 6 Current
B-11 Wht/Blk	23	Input 7 +	29	23	Input 6 +
B-12 Wht/Brn	22	Input 7 -	30	22	Input 6 -
-	-	Input 7 Shield	31	-	-
B-14 Wht/Orn	26	Input 8 Current	32	26	Input 7 Current
B-15 Wht/Yel	24	Input 8 +	33	24	Input 7 +
B-16 Wht/Grn	25	Input 8 -	34	25	Input 7 -
-	-	Input 8 Shield	35	-	-
-	-	Housing Gnd	36	-	-

**NOTE:** Configure the X80 module channels to match the Range and Scaling of the B800 module.

## Wiring Guide #40

Wiring Guide #40					
B875-002 (8 channel) => AMI0810 (8 channel)					
Analog Input (V or I)					
990ADB80X80286, 990ADB80X80287					
Cable Assembly: How to wire		Maintenance			
Cable Wire #/Color	X80 Conn. Number	B800 Information		X80 Information	
		B800 Desc	B800 pin #	X80 pin #	X80 Desc
-	-	Housing Gnd	1	-	-
A-2 Brown	1	Input 1 Current	2	1	Input 0 Current
A-3 Red	3	Input 1 +	3	3	Input 0 +
A-4 Orange	2	Input 1 -	4	2	Input 0 -
-	-	Input 1 Shield	5	-	-
A-6 Green	6	Input 2 Current	6	6	Input 1 Current
A-7 Blue	4	Input 2 +	7	4	Input 1 +
A-8 Purp	5	Input 2 -	8	5	Input 1 -
-	-	Input 2 Shield	9	-	-
A-10 White	7	Input 3 Current	10	7	Input 2 Current
A-11 Wht/Blk	9	Input 3 +	11	9	Input 2 +
A-12 Wht/Brn	8	Input 3 -	12	8	Input 2 -
-	-	Input 3 Shield	13	-	-
A-14 Wht/Orn	12	Input 4 Current	14	12	Input 3 Current
A-15 Wht/Yel	10	Input 4 +	15	10	Input 3 +
A-16 Wht/Grn	11	Input 4 -	16	11	Input 3 -
-	-	Input 4 Shield	17	-	-
-	-	Housing Gnd	18	-	-
-	-	Housing Gnd	19	-	-
B-2 Brown	15	Input 5 Current	20	15	Input 4 Current
B-3 Red	17	Input 5 +	21	17	Input 4 +
B-4 Orange	16	Input 5 -	22	16	Input 4 -
-	-	Input 5 Shield	23	-	-
B-6 Green	20	Input 6 Current	24	20	Input 5 Current
B-7 Blue	18	Input 6 +	25	18	Input 5 +
B-8 Purp	19	Input 6 -	26	19	Input 5 -
-	-	Input 6 Shield	27	-	-
B-10 White	21	Input 7 Current	28	21	Input 6 Current
B-11 Wht/Blk	23	Input 7 +	29	23	Input 6 +
B-12 Wht/Brn	22	Input 7 -	30	22	Input 6 -
-	-	Input 7 Shield	31	-	-
B-14 Wht/Orn	26	Input 8 Current	32	26	Input 7 Current
B-15 Wht/Yel	24	Input 8 +	33	24	Input 7 +
B-16 Wht/Grn	25	Input 8 -	34	25	Input 7 -
-	-	Input 8 Shield	35	-	-
-	-	Housing Gnd	36	-	-

**NOTE:** Configure the X80 module channels to match the Range and Scaling of the B800 module.

## Wiring Guide #41

Wiring Guide #41 B875-011 (8 channel) => AMO0810 (8 channel) Analog Input (V) 990ADB80X80286, 990ADB80X80287					
Cable Assembly: How to wire		Maintenance			
Cable Wire #/Color	X80 Conn. Number	B800 Information		X80 Information	
		B800 Desc	B800 pin #	X80 pin #	X80 Desc
-	-	Housing Gnd	1	-	-
A-3 Red	3	Input 1 +	3	3	Input 0 +
A-4 Orange	2	Input 1 -	4	2	Input 0 -
-	-	Input 1 Shield	5	-	-
A-7 Blue	4	Input 2 +	7	4	Input 1 +
A-8 Purp	5	Input 2 -	8	5	Input 1 -
-	-	Input 2 Shield	9	-	-
A-11 Wht/Blk	9	Input 3 +	11	9	Input 2 +
A-12 Wht/Brn	8	Input 3 -	12	8	Input 2 -
-	-	Input 3 Shield	13	-	-
A-15 Wht/Yel	10	Input 4 +	15	10	Input 3 +
A-16 Wht/Grn	11	Input 4 -	16	11	Input 3 -
-	-	Input 4 Shield	17	-	-
-	-	Housing Gnd	18	-	-
-	-	Housing Gnd	19	-	-
B-3 Red	17	Input 5 +	21	17	Input 4 +
B-4 Orange	16	Input 5 -	22	16	Input 4 -
-	-	Input 5 Shield	23	-	-
B-7 Blue	18	Input 6 +	25	18	Input 5 +
B-8 Purp	19	Input 6 -	26	19	Input 5 -
-	-	Input 6 Shield	27	-	-
B-11 Wht/Blk	23	Input 7 +	29	23	Input 6 +
B-12 Wht/Brn	22	Input 7 -	30	22	Input 6 -
-	-	Input 7 Shield	31	-	-
B-15 Wht/Yel	24	Input 8 +	33	24	Input 7 +
B-16 Wht/Grn	25	Input 8 -	34	25	Input 7 -
-	-	Input 8 Shield	35	-	-
-	-	Housing Gnd	36	-	-

**NOTE:** Configure the X80 module channels to match the Range and Scaling of the B800 module.

## Wiring Guide #42

Wiring Guide #42 B875-012 (8 channel) => AMO0810 (8 channel) Analog Input (V) 990ADB80X80286, 990ADB80X80287					
Cable Assembly: How to wire		Maintenance			
Cable Wire #/Color	X80 Conn. Number	B800 Information		X80 Information	
		B800 Desc	B800 pin #	X80 pin #	X80 Desc
-	-	Housing Gnd	1	-	-
A-3 Red	3	Input 1 +	3	3	Input 0 +
A-4 Orange	2	Input 1 -	4	2	Input 0 -
-	-	Input 1 Shield	5	-	-
A-7 Blue	4	Input 2 +	7	4	Input 1 +
A-8 Purp	5	Input 2 -	8	5	Input 1 -
-	-	Input 2 Shield	9	-	-
A-11 Wht/Blk	9	Input n3 +	11	9	Input 2 +
A-12 Wht/Brn	8	Input 3 -	12	8	Input 2 -
-	-	Input 3 Shield	13	-	-
A-15 Wht/Yel	10	Input 4 +	15	10	Input 3 +
A-16 Wht/Grn	11	Input 4 -	16	11	Input 3 -
-	-	Input 4 Shield	17	-	-
-	-	Housing Gnd	18	-	-
-	-	Housing Gnd	19	-	-
B-3 Red	17	Input 5 +	21	17	Input 4 +
B-4 Orange	16	Input 5 -	22	16	Input 4 -
-	-	Input 5 Shield	23	-	-
B-7 Blue	18	Input 6 +	25	18	Input 5 +
B-8 Purp	19	Input 6 -	26	19	Input 5 -
-	-	Input 6 Shield	27	-	-
B-11 Wht/Blk	23	Input 7 +	29	23	Input 6 +
B-12 Wht/Brn	22	Input 7 -	30	22	Input 6 -
-	-	Input 7 Shield	31	-	-
B-15 Wht/Yel	24	Input 8 +	33	24	Input 7 +
B-16 Wht/Grn	25	Input 8 -	34	25	Input 7 -
-	-	In8 Shield	35	-	-
-	-	Housing Gnd	36	-	-

**NOTE:** Configure the X80 module channels to match the Range and Scaling of the B800 module.

## Wiring Guide #43

Wiring Guide #43					
B875-101 (8 channel)=> AMO0810 (8 channel)					
Analog Input (V or I)					
990ADB80X80286, 990ADB80X80287					
Cable Assembly: How to wire		Maintenance			
Cable Wire #/Color	X80 Conn. Number	B800 Information		X80 Information	
		B800 Desc	B800 pin #	X80 pin #	X80 Desc
-	-	Housing Gnd	1	-	-
A-2 Brown	1	Input 1 Current	2	1	Input 0 Current
A-3 Red	3	Input 1 +	3	3	Input 0 +
A-4 Orange	2	Input 1 -	4	2	Input 0 -
-	-	Input 1 Shield	5	-	-
A-6 Green	6	Input 2 Current	6	6	Input 1 Current
A-7 Blue	4	Input 2 +	7	4	Input 1 +
A-8 Purp	5	Input 2 -	8	5	Input 1 -
-	-	Input 2 Shield	9	-	-
A-10 White	7	Input 3 Current	10	7	Input 2 Current
A-11 Wht/Blk	9	Input 3 +	11	9	Input 2 +
A-12 Wht/Brn	8	Input 3 -	12	8	Input 2 -
-	-	Input 3 Shield	13	-	-
A-14 Wht/Orn	12	Input 4 Current	14	12	Input 3 Current
A-15 Wht/Yel	10	Input 4 +	15	10	Input 3 +
A-16 Wht/Grn	11	Input 4 -	16	11	Input 3 -
-	-	Input 4 Shield	17	-	-
-	-	Housing Gnd	18	-	-
-	-	Housing Gnd	19	-	-
B-2 Brown	15	Input 5 Current	20	15	Input 4 Current
B-3 Red	17	Input 5 +	21	17	Input 4 +
B-4 Orange	16	Input 5 -	22	16	Input 4 -
-	-	Input 5 Shield	23	-	-
B-6 Green	20	Input 6 Current	24	20	Input 5 Current
B-7 Blue	18	Input 6 +	25	18	Input 5 +
B-8 Purp	19	Input 6 -	26	19	Input 5 -
-	-	Input 6 Shield	27	-	-
B-10 White	21	Input 7 Current	28	21	Input 6 Current
B-11 Wht/Blk	23	Input 7 +	29	23	Input 6 +
B-12 Wht/Brn	22	Input 7 -	30	22	Input 6 -
-	-	Input 7 Shield	31	-	-
B-14 Wht/Orn	26	Input 8 Current	32	26	Input 7 Current
B-15 Wht/Yel	24	Input 8 +	33	24	Input 7 +
B-16 Wht/Grn	25	Input 8 -	34	25	Input 7 -
-	-	Input 8 Shield	35	-	-
-	-	Housing Gnd	36	-	-

**NOTE:** Configure the X80 module channels to match the Range and Scaling of the B800 module.

## Wiring Guide #44

Wiring Guide #44					
B875-102(8 channel) => AMO0810 (8 channel)					
Analog Input (V or I)					
990ADB80X80286, 990ADB80X80287					
Cable Assembly: How to wire		Maintenance			
Cable Wire #/Color	X80 Conn. Number	B800 Information		X80 Information	
		B800 Desc	B800 pin #	X80 pin #	X80 Desc
-	-	Housing Gnd	1	-	-
A-2 Brown	1	Input 1 Current	2	1	Input 0 Current
A-3 Red	3	Input 1 +	3	3	Input 0 +
A-4 Orange	2	Input 1 -	4	2	Input 0 -
-	-	Input 1 Shield	5	-	-
A-6 Green	6	Input 2 Current	6	6	Input 1 Current
A-7 Blue	4	Input 2 +	7	4	Input 1 +
A-8 Purp	5	Input 2 -	8	5	Input 1 -
-	-	Input 2 Shield	9	-	-
A-10 White	7	Input 3 Current	10	7	Input 2 Current
A-11 Wht/Blk	9	Input 3 +	11	9	Input 2 +
A-12 Wht/Brn	8	Input 3 -	12	8	Input 2 -
-	-	Input 3 Shield	13	-	-
A-14 Wht/Orn	12	Input 4 Current	14	12	Input 3 Current
A-15 Wht/Yel	10	Input 4 +	15	10	Input 3 +
A-16 Wht/Grn	11	Input 4 -	16	11	Input 3 -
-	-	Input 4 Shield	17	-	-
-	-	Housing Gnd	18	-	-
-	-	Housing Gnd	19	-	-
B-2 Brown	15	Input 5 Current	20	15	Input 4 Current
B-3 Red	17	Input 5 +	21	17	Input 4 +
B-4 Orange	16	Input 5 -	22	16	Input 4 -
-	-	Input 5 Shield	23	-	-
B-6 Green	20	Input 6 Current	24	20	Input 5 Current
B-7 Blue	18	Input 6 +	25	18	Input 5 +
B-8 Purp	19	Input 6 -	26	19	Input 5 -
-	-	Input 6 Shield	27	-	-
B-10 White	21	Input 7 Current	28	21	Input 6 Current
B-11 Wht/Blk	23	Input 7 +	29	23	Input 6 +
B-12 Wht/Brn	22	Input 7 -	30	22	Input 6 -
-	-	Input 7 Shield	31	-	-
B-14 Wht/Orn	26	Input 8 Current	32	26	Input 7 Current
B-15 Wht/Yel	24	Input 8 +	33	24	Input 7 +
B-16 Wht/Grn	25	Input 8 -	34	25	Input 7 -
-	-	Input 8 Shield	35	-	-
-	-	Housing Gnd	36	-	-

**NOTE:** Configure the X80 module channels to match the Range and Scaling of the B800 module.



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