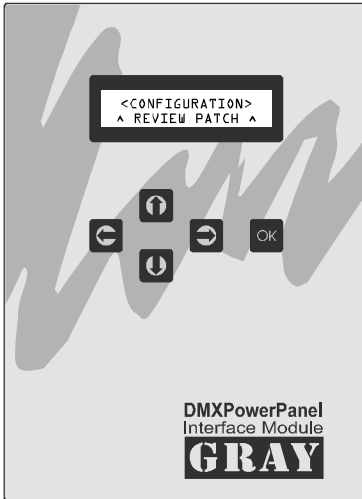


ABOUT DMXPOWERPANEL



Each **DMXPowerPanel** provides a DMX512 interface for control of a Square D POWERLINK® AS circuit breaker panel. A system is comprised of a Gray Interfaces DMXPowerPanel Interface Module and a Square D POWERLINK circuit breaker panel.

Square D POWERLINK AS circuit breakers are dual purpose; they provide both circuit overcurrent protection as well as offering sophisticated remote load switching control. Each circuit breaker incorporates a 24VDC motor along with a drive train and linkage. When the circuit breaker handle is in the ON position, the motor can open and close the contacts. When the handle is in the OFF position or the circuit breaker is tripped, the contacts cannot be closed remotely.

There is also an auto/manual switch on each circuit breaker that provides a mechanical override capability. In manual mode the motor drive is disconnected and the handle operates like a conventional circuit breaker.

We designed **DMXPowerPanel** to allow entertainment lighting control consoles and architectural control systems to operate POWERLINK AS using industry standard DMX512 control.



DANGER!
THIS INSTALLATION SHOULD ONLY BE UNDERTAKEN BY A QUALIFIED ELECTRICIAN.

DANGER!
ENSURE THAT THE POWER TO THE SQUARE D POWERLINK AS PANEL IS TURNED OFF BEFORE PROCEEDING WITH THIS INSTALLATION.

INSTALLATION

Refer to the installation diagram on the next page for the following procedures.

MOUNTING

Usually the DMXPowerPanel Interface Module will be installed attached to the one side of the POWERLINK breaker panel. Two holes in the POWERLINK panel will be required; one for data and one for power. A template is provided to assist in locating these holes.

Securely mount the DMXPowerPanel backbox to the wall, lining up the two openings you've made in both the interface and the panel. Use one of the conduit fittings supplied at the hole that will be used to pass the data link between the POWERLINK panel and the Interface Module. Mount the power transformer (Hammond BD2F 120V/16V, included) in the other hole with the other conduit fitting, so that the pigtails extend into the POWERLINK panel.

CONNECTIONS

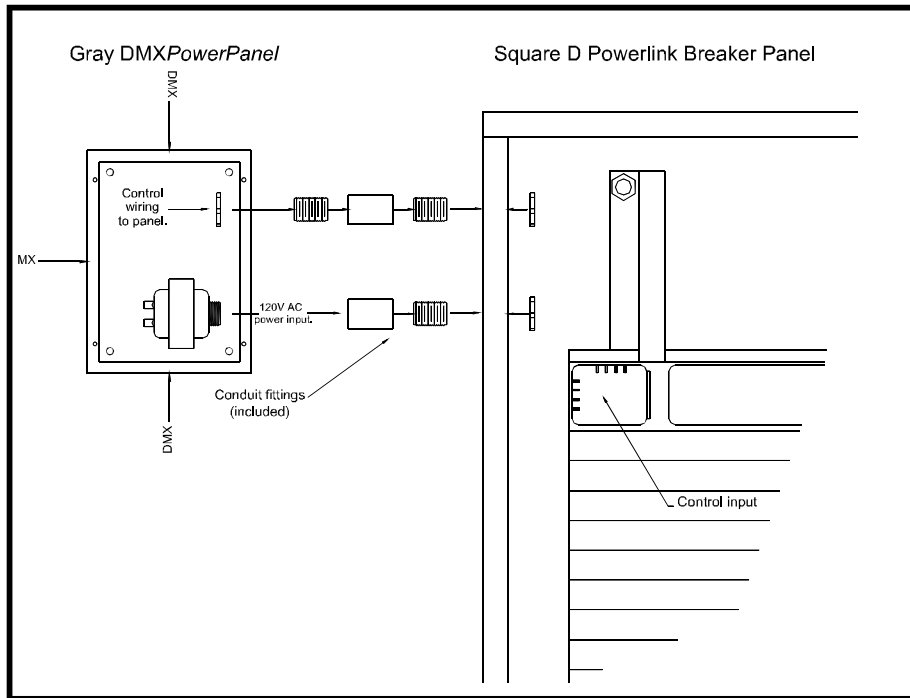
Connect the incoming DMX data line to the terminal strip marked DMX INPUT.

If the DMX signal is to be daisy-chained on to other DMX receiving devices, connect the outgoing DMX line to the terminal strip marked DMX THRU . Ensure that both JP1 jumpers are set to THRU.

Using a length of Belden 9829, 9842 (not included) or equivalent, connect one end to the Interface Module terminal strip marked POWERLINK. The shield must be connected to the terminal marked GND.

(Continued on page 2)

INSTALLATION CONTINUED



INSIDE THE POWERLINK PANEL

- Locate the Power Interface Module inside the POWERLINK panel. On the left side there is a plastic cover labeled TERMINAL COVER. Embossed on the cover are instructions for its removal using a slot screwdriver. Remove the cover. Inside there are a number of terminals. Locate the terminals labeled EXP. Connect the data cable leading from the terminal strip marked "POWERLINK" inside the Interface Module, to the EXP terminals. Use the table below to ensure your connections are correct.

Interface Module terminals	POWERLINK EXP terminals
GND	SH
TXD	RX
RXD	TX

- Connect one of the pigtails from the transformer installed in the Interface Module to a standard breaker (not controllable). Connect the other pigtail to the neutral bar.
- Connect the output of the supplied transformer to the PWR SUPPLY (V+ and COM) terminals using the wires supplied. These wires can be reversed.

LINE TERMINATION

If the interface module is the last DMX device on the line, it must be properly terminated. Set both JP1 jumpers to the TERM position.

REMOTE LOCATION

If desired, the Interface Module can be installed up to 25 feet away from the POWERLINK panel. The data line should be a single Belden 9829, 9729, or 9842 (not included) or equivalent.

CLOSE IT UP

Verify all connections and then install the DMXPowerPanel Interface Module in its enclosure. Replace all covers on the POWERLINK panel. Ensure that it is safe to do so, and turn on the power to the POWERLINK panel. The LCD display on the DMXPowerPanel Interface Module should light up and read LOADING VERSION (software version) for a few seconds while the software loads.

STATUS MESSAGES

NO DMX INPUT

Check the DMX INPUT connection, check your DMX source.

BRKRS: ALL ON

BRKRS: MAINTAINED

BRKRS: ALL OFF

These breaker status messages appear when the DMX data feed has been interrupted (no DMX input) and indicate what action has been taken as a result. See 'Status Hold' for more information.

1 OR MORE BRKRS NOT RESPONDING

If breakers have been removed from control, this message will appear. Breakers are considered to be removed from control if they are tripped, in the 'off' position, or have the AUTO/MAN switch on the breaker in the 'MAN' position.

COMM ERROR

The communication link with the POWERLINK panel is not working. Check the connections and power to the POWERLINK panel.

PANEL CONFIGURATION

Each breaker must have a DMX address assigned so that it will respond to DMX control. You can either set a 1-to-1 patch (DMX 1 = relay 1, DMX 2 = relay 2, etc.) or a custom patch where you define each breaker's DMX address.

To configure the POWERLINK panel for DMX control, press either **⏪** or **⏩** to go to the CONFIGURATION Menu. Press **OK** to EDIT PATCH. Note that a two pole breaker will take up two "spaces" in the breaker numbering scheme. For example, if the first breaker in the panel is a two pole breaker, the second breaker will be breaker number three.

NOTE

As a security feature, the Interface Module will return to status display mode if 15 seconds pass without a button being pressed. Any unsaved work will be lost.

1-TO-1 PATCH

1-to-1 is often useful for testing. From the EDIT PATCH Menu use the **⏪** or **⏩** buttons to locate 1-TO-1 PATCH, then press OK. You will be asked if you wish to discard the existing custom patch, since setting a 1-to-1 patch will overwrite any existing patches. Press **OK** to continue. Next you will be asked to define the 'start address'. In a situation where there are other devices controlled by DMX (such as dimmers) you may wish to start the breaker numbering at a number other than 1 in order to accommodate those other devices. Use the **⏪** or **⏩** buttons to set the DMX address for the first breaker. In 1-to-1 the rest of the breaker numbers will increment from that number. Press OK to save the patch.

CUSTOM PATCH

To create your own patch that reflects the requirements of your facility, use the Custom Patch menu. Here you can assign any valid DMX address to each breaker. If you wish, you may assign the same address to more than one breaker, in effect 'grouping' them under a single control.

To create your patch, use the arrow keys to go to the CONFIGURATION menu, EDIT PATCH. Press OK. Use the arrow keys to choose CUSTOM PATCH. Press OK. You should see something like this:

BRKR#	DMX#
▲ 01 ▲	000

Use the **⏪** or **⏩** buttons to select a breaker. Then press **⏩** to move the cursor to the DMX# field. Now use the **⏪** or **⏩** buttons to select a DMX address. Once you have indicated the breaker/DMX relationship you want, press the **⏪** key to move on to the next breaker. If you do not wish a breaker to be under DMX control, set the address to 000. When all breaker addresses have been set, press OK. You will be asked if you wish to SAVE CHANGES? Pressing OK will overwrite any existing patch information.

REVIEW PATCH

If you need to review your patch configuration without then possibility of making any changes, use REVIEW PATCH in the Configuration menu. Use the **⏪** or **⏩** buttons to move through the breaker numbers. The DMX address set for that breaker will be shown on the right under DMX#.

STATUS HOLD

In the event that DMX communication from your control system is lost, you have several options for DMX Power-Panel action. The correct selection will depend on your application. Your options are:

MAINTAINED This will hold the relays in their current state, according to the last DMX information received, until the DMX signal is restored. This is also referred to as 'status quo'.

ALL ON In this mode, all breakers will be turned on (unless tripped or switched off), regardless of their previous state, when DMX is interrupted.

ALL OFF All breakers will be turned off when DMX is interrupted.

Status Hold is set in the CONFIGURATION menu.

PANEL CONFIGURATION CONTINUED

SET THRESHOLD

When a DMX signal is used to control relays or breakers, on or off operation occurs as the DMX signal levels pass through the 'threshold' that has been set by the user.

To set the DMX thresholds for the panel, go to the CONFIGURATION menu and select SET THRESHOLD.

Use the **⬆** or **⬇** buttons to select one of the following three threshold settings:

OFF Threshold	ON Threshold
65%	75%
45%	55%
25%	35%

Press OK to set the selected threshold.

DIAGNOSTICS

VERSION NUMBER

The version number of the software is the first item shown in the DIAGNOSTICS menu. You will need this information if you call for technical support.

BREAKER STATUS

You can check the status of each breaker from this menu item. You will see OFF, ON or NO RESPONSE. The latter will be displayed if the breaker has been set to MAN at the panel, it is in the off or tripped positions, or the breaker is not installed or is defective.

BREAKER TEST

You can test breakers directly from the Interface Module by using the BREAKER TEST function in the DIAGNOSTICS section. Use the **⬆** or **⬇** buttons to select the breaker and then press OK. That breaker will be 'flashed' once. That is if the breaker is off, it is turned on for approximately one second, then turned off again. If the breaker is already on, the opposite action takes place.

TROUBLESHOOTING

COMM ERROR	<ul style="list-style-type: none">• Verify wiring from DMXPowerPanel to EXP port on the POWERLINK panel• Verify that the green LED inside TERM compartment on the POWERLINK panel is flashing. If not, the POWERLINK control module is not powered or is defective..
No DMX Control	<ul style="list-style-type: none">• Ensure that the DMX control unit is sending DMX and that channels/dimmers at the controller are patched correctly• Ensure that breakers are correctly addressed in the Interface Module• Check to see that the red RxD LED inside the Interface Module is flashing, indicating that DMX is being received.
Interface Module doesn't start up	<ul style="list-style-type: none">• Check power connections• Check the green RUN LED inside Interface Module. If LED is not on, return module for replacement.

WARRANTY & SUPPORT

The Gray DMXPowerPanel is covered by a one year warranty against defective parts and labor. If you need to return anything for any reason, contact the factory in advance for return instructions.

Technical support is available from Pathway Connectivity at (403) 243-8110, Monday to Friday, from 8:30 a.m. to 5 p.m. Mountain time. Please have the software version number and interface serial number ready when you call.

POWERLINK® is a registered mark of Square D, Groupe Schneider



Pathway Connectivity Inc. (Formerly Gray Interfaces)
1439 17th Avenue SE, #103, Calgary, AB T2G 1J9
+1 403.243-8110 • fax +1 403.287-1281
www.pathwayconnect.com