Q-Controls™ Link Modules

SETUP GUIDE

ACN# 088 609 661

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I. SAFETY INSTRUCTIONS

The symbols below are used throughout this manual and on the product to identify warnings and notes. It is very important for you to read and understand the information that follows these symbols completely.

WARNING! Failure to follow the prescribed instructions can cause personal injury or component damage or malfunction and/or void the warranty.

NOTE: Indicates additional information for using this product.

Using this product safely depends upon your diligence in following the warnings, notes, and instructions in this owner's manual. Safe operation also depends upon you exercising good judgement.

WARRANTY

For two (2) years from the date of purchase, Pride will repair or replace at our option, to the original purchaser, free of charge, any of the Link Modules and their components found upon examination by an authorized representative of Pride to be defective in material and/or workmanship. This warranty does not apply to products abused or misused by the user and deemed such by Pride Mobility Products Corp. Claims and repairs should be processed through the nearest Quantum Rehab Specialist.

EXPRESSED AGREEMENT OF INDEMNIFICATION

In accepting delivery of this product, the Purchaser specifically promises that s/he will not change, alter, or modify this product or remove or render inoperable or unsafe any guards, shields, or other safety features of the product; or remove, obliterate, or obstruct any safety and instruction signs, or fail, refuse, or neglect to install any retrofit kits from time to time provided by Pride to enhance user safety. Purchaser also specifically agrees that if s/he breaches any such promises, or if s/he is remiss, neglect, or deficient in the safe operation or maintenance of this product, the purchaser will indemnify and hold harmless Pride from any and all types of actions, suits, claims, or demands, including products liability claims by purchaser, for injuries or loss arising out of the operation, maintenance, repair or other use of this product. Purchaser specifically agrees that this Express Agreement of Indemnification is a condition of sale supported by adequate consideration and was read and understood by the purchaser before purchasing and delivery of the product.

We have compiled this manual from the latest specifications and product information available at the time of publication. We reserve the right to make changes, as they become necessary. Any changes to our products may cause slight variations between the illustrations and explanations in this manual and the product you have purchased.

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II. INTRODUCTION

About Q-Controls Link Modules

Q-Controls Link Modules are wireless interfaces between activating mechanisms and the Q-Controls system, enabling the user to remotely operate household items via the Q-Controls. Available Link Modules are:

- **Nurse-Link** Provides switches for an alarm and/or nurse call system
- **Door-Link** Provides switches for door latches and/or door opening mechanisms
- **Window-Link** Provides switches for a window opening mechanism
- **Curtain-Link** Provides switches for a curtain opening/closing mechanism
- **Universal-Link** Provides two general purpose switches for operating a wide range of third-party equipment
- **Computer-Link** Provides remote access from the Q-Controls to a personal computer (when used in conjunction with scanning software and an on-screen keyboard)

Electronics

The Link series of products are designed to remotely switch low voltage loads via two relays contained within the unit. Switching is controlled by radio waves from the Q-Controls system.

Connection is made by way of 1/8 inch (3.5mm) jack sockets or direct cabling via internal screw terminal blocks. Cord lengths should be less than 1 yard (approximately 1 meter) long and 3/16 inch (5mm) in outside diameter. Maximum rating of all contacts is 24V/100mA, unless a lower rating is specified in the installation section of this manual.

WARNING! This device may emit electromagnetic radiation, which may interfere with the operation of other equipment within the vicinity. Similarly, other equipment may interfere with the operation of this device. To minimize these effects, Pride recommends that you keep other electrically powered equipment away from this device and keep cable lengths as short as possible.

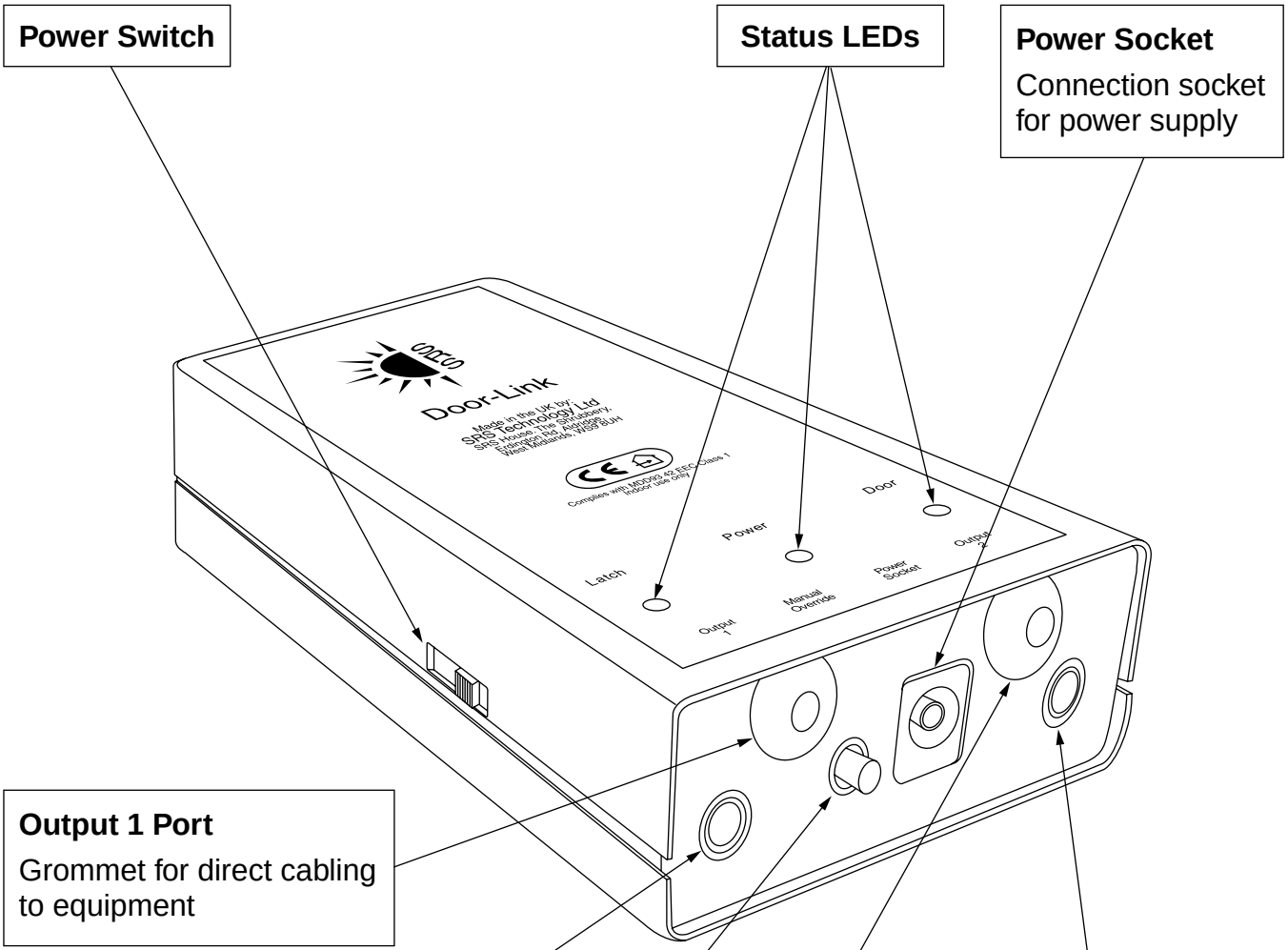
Battery

The Link Modules contain an 8.4V (150mAh) NiCad battery pack, BP00201. This provides for over 6 hours of continuous operation in the event of an interruption to the main power supply. Pride recommends that you replace the battery pack every two years.

WARNING! Use caution when handling batteries and wash your hands after doing so. Follow the instructions on the battery when changing, charging, and disposing of the battery.

Features

Figure 1 illustrates the main components of the Link Module.



Power Switch

Status LEDs

Power Socket
Connection socket for power supply

Output 1 Port
Grommet for direct cabling to equipment

Output 1 Jack Socket
Jack socket for connecting to equipment

Manual Override
Press this button to override and reset the switches.

A secondary use of this button is to program the Link Module for use with Q-Controls unit.

Output 2
Grommet for direct cabling to equipment

Output 2 Jack Socket
Jack socket for connecting to equipment

Figure 1. Link Module Features (Door-Link shown)

III. INSTALLATION

Link Modules can be installed by jack plug or by direct cabling and can be mounted to a wall or other flat surface, or simply placed in a convenient location, away from any source of moisture.

NOTE: Position the Link Module in line of sight of the user so that the Power and Function LEDs are visible.

NOTE: If you are installing the Universal-Link, please configure the Link Module BEFORE installing. See VI. Appendix A.

Perform the following pre-installation checks before wiring:

- ☐ Decide where you are going to mount the Link Module.
- ☐ Ensure that the chosen location is close to an *unused* and functioning power outlet and that the power cord will reach.
- ☐ Ensure that the switches and connectors will not be obstructed by any objects.
- ☐ If you are going to mount the Link Module to a wall, ensure that the wall is free from any concealed wiring and that it is safe to drill into.
- ☐ Measure suitable lengths of cable to connect the Link Module to the operating device (such as the curtain opener).
- ☐ Ensure that the cable is appropriate for the intended use as described in that operating device's documentation.

WARNING! This device is for indoor use only, within the Q-Controls environmental control system.

WARNING! Use, transport, and store this device within a temperature range of -4 to 158°F (-20 to 70°C) and a humidity range of 20% to 80% without condensation. Prior to transportation and/or storage, turn off the power to the device, using the switch located on its side.

Installation by Jack Plugs:

Connect the jack plugs to the appropriate ports as shown in figure 2.

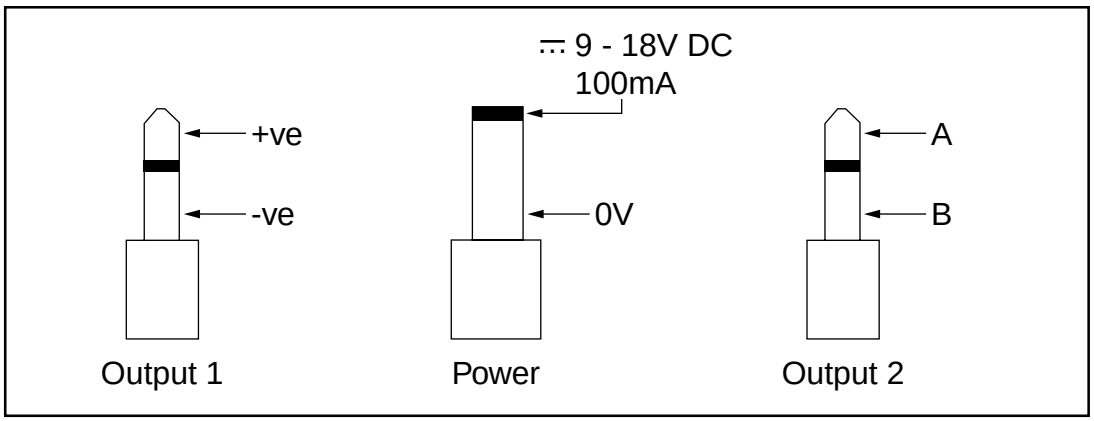


Figure 2. Jack Plug Connections

NOTE: After installing the jack plugs, refer to VII. Appendix B for connecting a Computer-Link to a personal computer.

Installation by Direct Cabling:

1. Remove the four screws from the back of the Link Module.
2. Take the front cover off. You will see that the Link Module contains two connector blocks for outputs 1 and 2 on the lower part of its circuit board.
3. Pass the cables through the grommets in the Link Module case.
4. Connect the cables as depicted in the diagram appropriate to your Link Module. See VIII. Appendix C for configurations.

5. Replace the front cover and screws.
6. Connect the cables to the operating device as described in that operating device's documentation.

Mounting the Link Module:

NOTE: Complete the wiring of your Link Module before attempting to affix it to its final position.

NOTE: If you need a mounting plate, please contact Q-Controls.

1. Place the mounting plate against the surface where you intend to mount the Link Module and use it as a template to mark where the two drill holes will go (approximately 2 7/8 inches, 73mm, apart). See figure 3.
2. Drill two holes at the marked position. These should be approximately 3/16 inch (5mm) in diameter and 3/4 inch (2cm) deep.
3. Insert wall plugs (not included) if necessary.
4. Install screws (not included) in the wall, so that the screw heads protrude from the mounting surface by about 3/16 inch (5mm).
5. Remove the four screws from the Link Module's back panel and use them to attach the mounting plate to the Link Module.

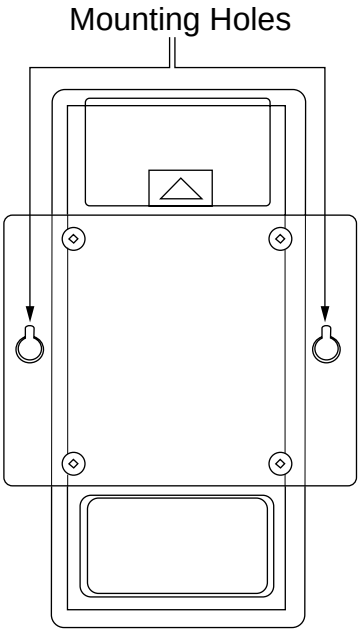


Figure 3. The Mounting Plate

6. Position the mounting plate holes over the screws and pull down on the Link Module to fasten it into place. If necessary, adjust the penetration of the screws so that the Link Module is securely mounted.

IV. PROGRAMMING THE LINK MODULE

The Q-Controls system must be programmed using the Q-Controls Management Software before it can operate Link Modules. Follow the instructions supplied with the software. The Link Module must also be programmed to work with the Q-Controls system. The following steps describe this process:

1. If the Link Module has been installed by direct cabling, skip to step 2. Otherwise, plug the power supply cord into a properly wired electrical outlet.
2. Pushing in the Manual Override button, slide the switch on the side of the Link Module to the On position. The Power LED should illuminate with a green color and a series of beeps should be heard. This indicates that the module is now ready for programming.

NOTE: If the Power LED is red and flashing, check the power supply and connections, then repeat the above procedure. If the Power LED is orange, slide the power switch to the off position and repeat the above procedure. See IX. Appendix D for additional information on LED light displays.

3. Release the Manual Override button.
4. On the Q-Controls system, select the icon associated with the operation it is to perform. The Link Module is now programmed for use with the Q-Controls system and all functions are associated with the relevant icons.

WARNING! Unless the Link Module is to be deactivated or serviced, it should be connected to the power supply and switched on at all times.

V. OPERATING

Although the Q-Controls owner's manual contains some of this information, it may be necessary to instruct the user on how to operate functions enabled by the Link Modules. (See IX. Appendix D for information on LED light status display.) Instructions are as follows:

Nurse-Link:

- To activate the alarm or call a nurse, highlight and select or or

(depending on how the Q-Controls unit has been configured).

- To stop the alarm, highlight and select (if configured) or press the Cancel Alarm button on the base of the Nurse-Link unit.

NOTE: If an alarm is sent to a centralized nurse call system, the alarm can only be cancelled at the centralized nursing station.

Curtain-Link:

- To open the curtain, highlight and select
- To close the curtain, highlight and select

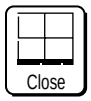
Door-Link:

- To open the door, highlight and select

The door will close automatically.

Window-Link:

- To open the window, highlight and select

- To close the window, highlight and select 

Computer-Link:

- To activate the Computer-Link function, highlight and select

- To return to Q-Controls normal operation, press any key or switch on the Q-Controls unit.

NOTE: If the Computer-Link function remains inactive for more than 30 seconds, Q-Controls will automatically return to normal operation.

VI. APPENDIX A — Configuring the Universal-Link

The Universal-Link can be set up in one of two configurations for Output 1 (Output 2 is a fixed on/off switch for supplies of up to 24V/100mA maximum):

- **Configuration 1**: For switching low voltage supplies of up to 24V/100mA maximum (to activate a nurse call system or operate a computer remotely, for example)

- **Configuration 2**: For providing a switched output of 6-12V/100mA maximum (to operate a siren or door opening mechanism, for example)

To set the configuration:

1. Remove the four screws on the back of the Link Module.
2. Take the front cover off. Locate the jumpers (see figure 4) and configure as needed (see figure 5).

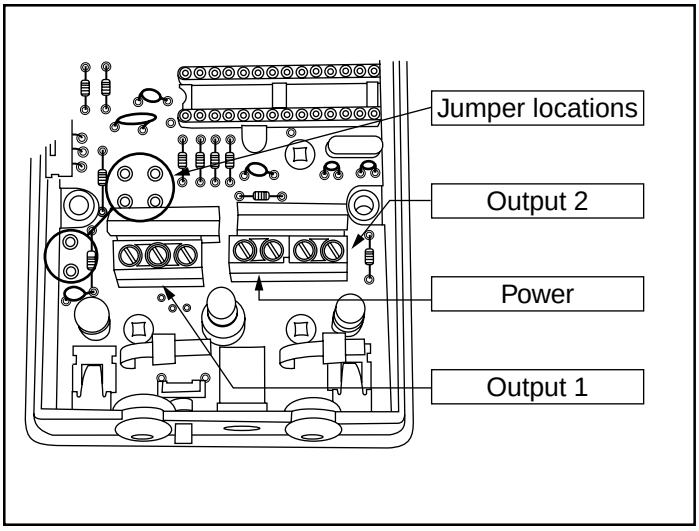


Figure 4. Universal-Link Internal Locations

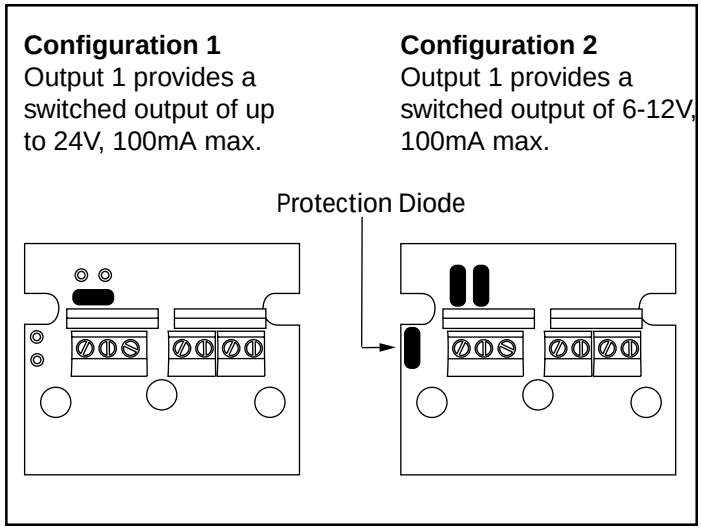


Figure 5. Jumper Configurations

VII. APPENDIX B — Connecting the Computer-Link Module to a Computer

1. Attach a Q-Controls Serial Switch box to the serial port of the computer. See figure 6.
2. Connect Output 1 of the Computer-Link Module to one of the inputs on the Serial Switch box using a Q-Controls 1/8-inch (3.5mm) low voltage cable. See figure 6.
3. Configure the on-screen keyboard software to respond to the COM port as described in its documentation.

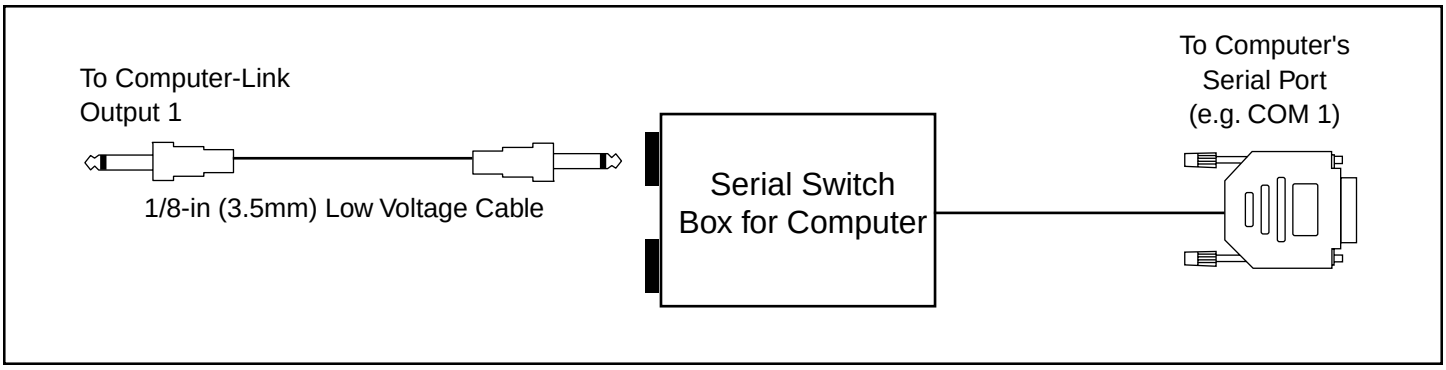


Figure 6. Computer Connection

VIII. APPENDIX C — Direct Cabling Configurations

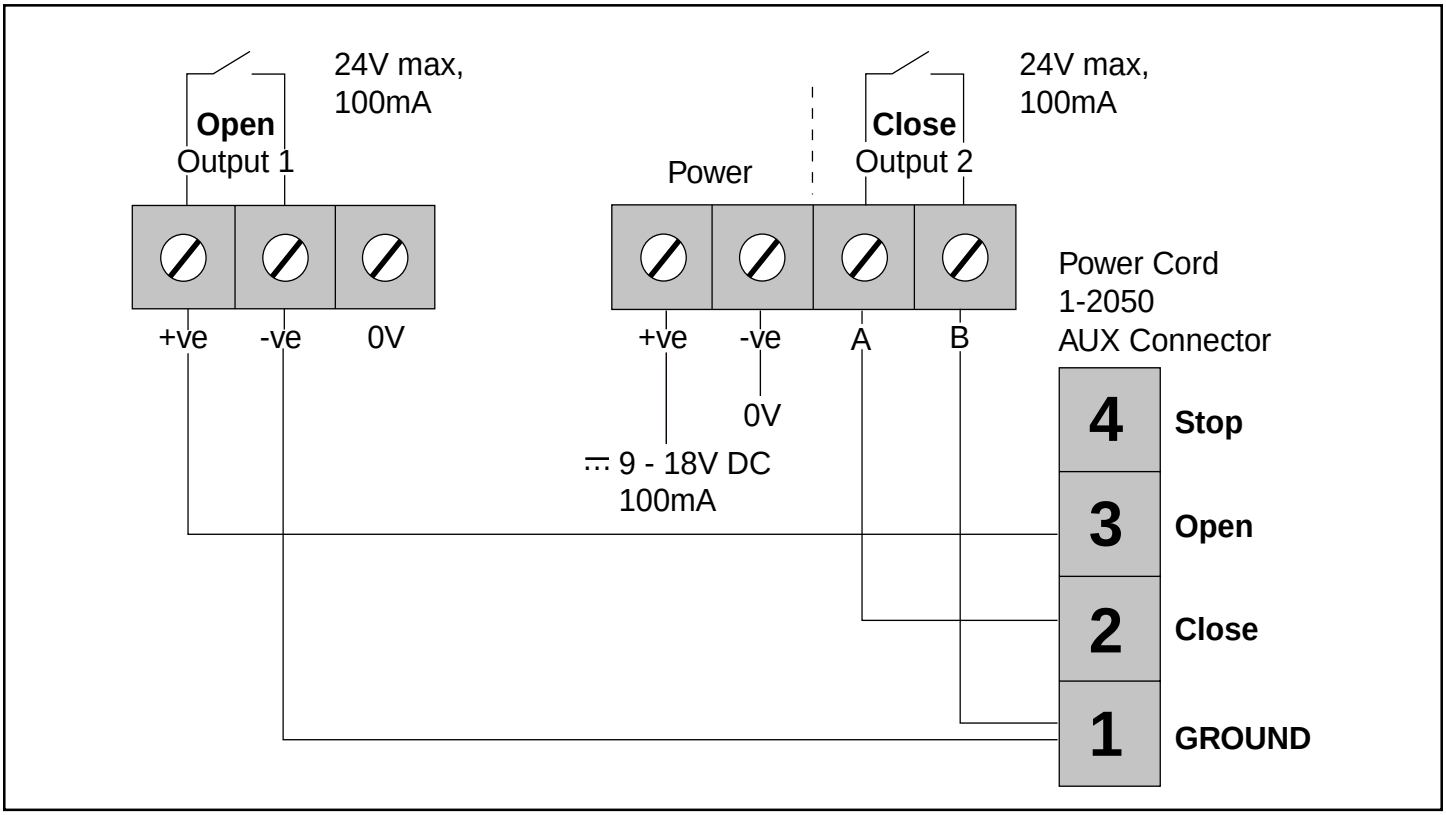


Figure 7. Curtain-Link Configuration

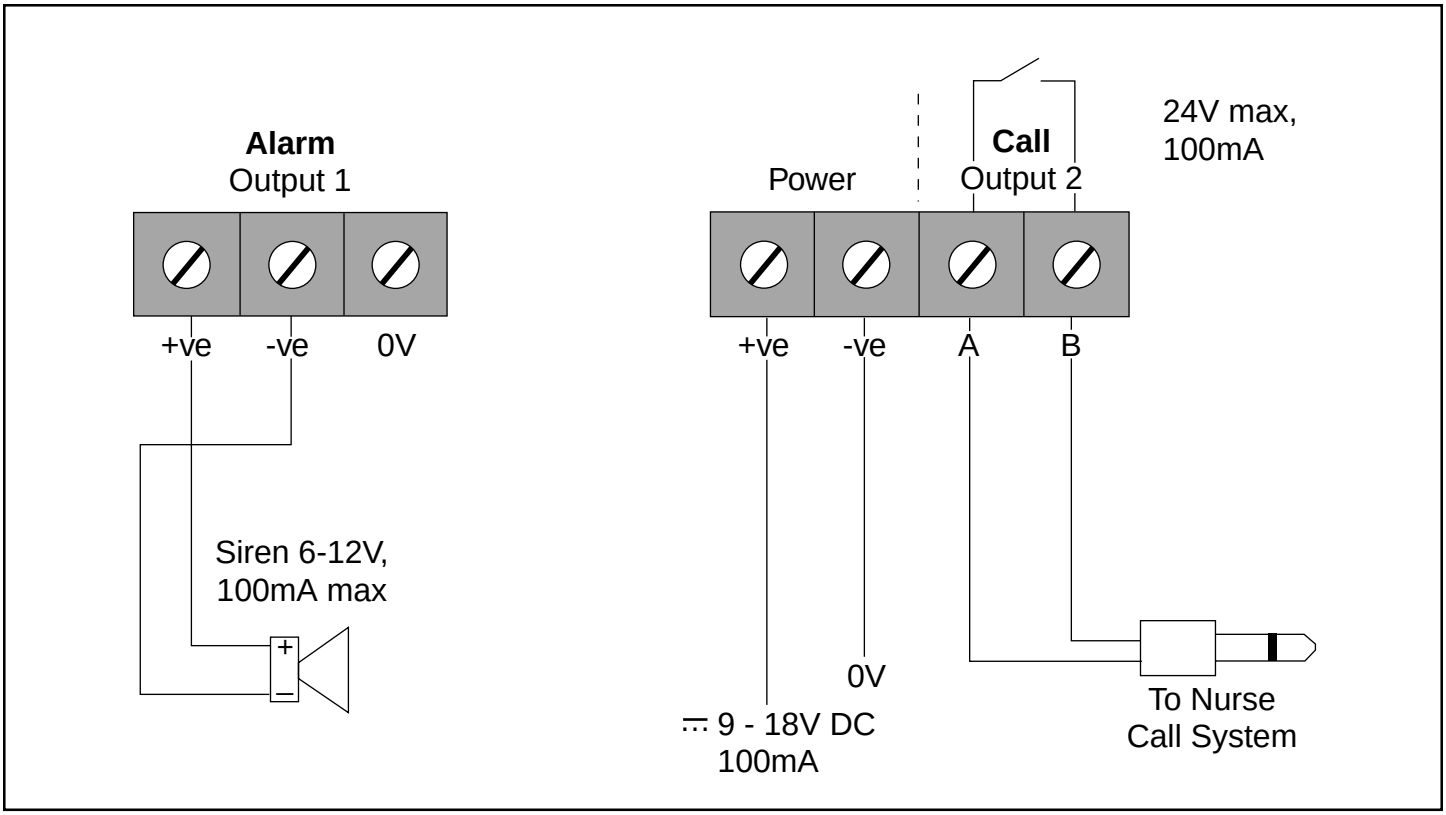


Figure 8. Nurse-Link Configuration

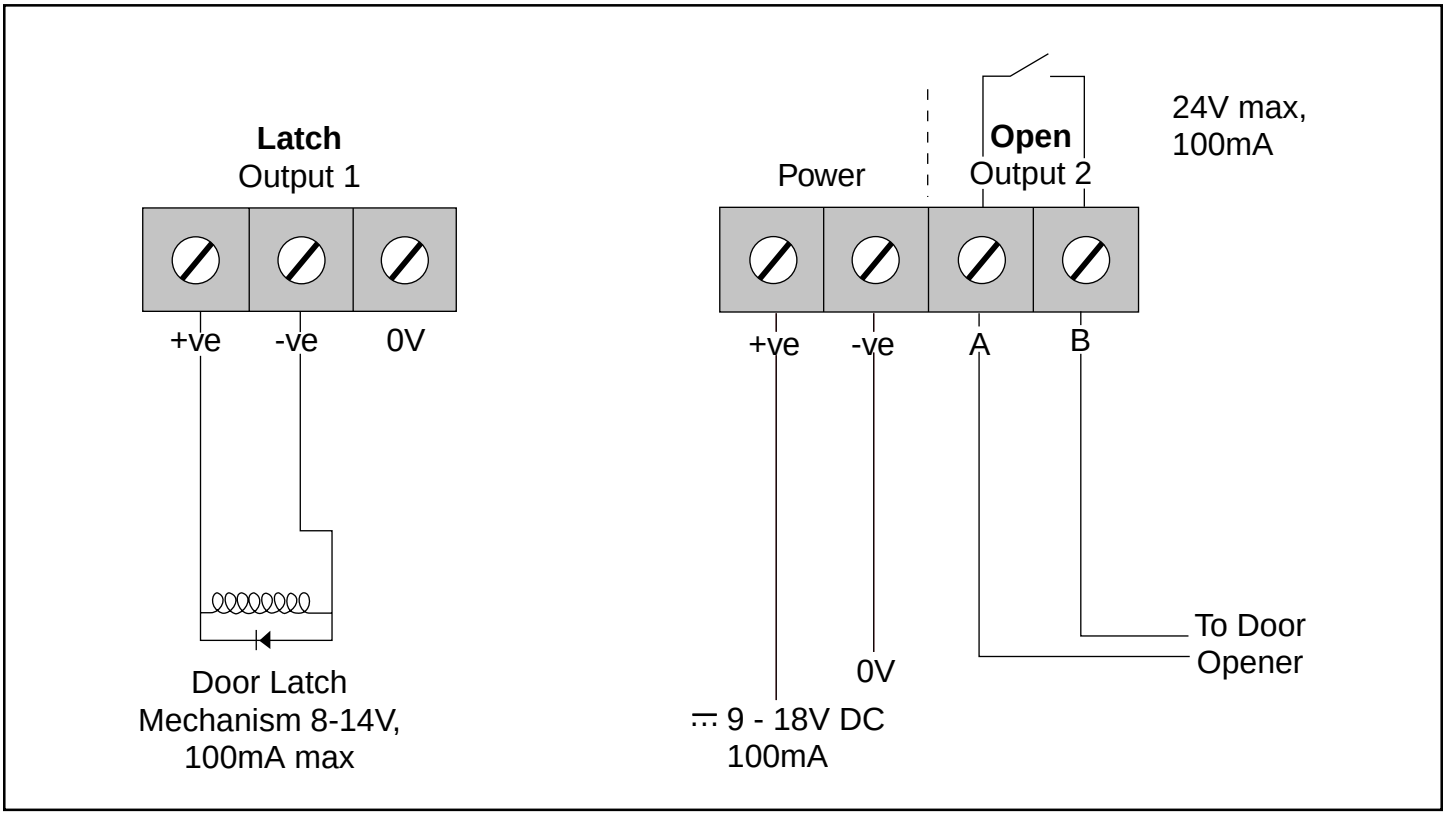


Figure 9. Door-Link Configuration

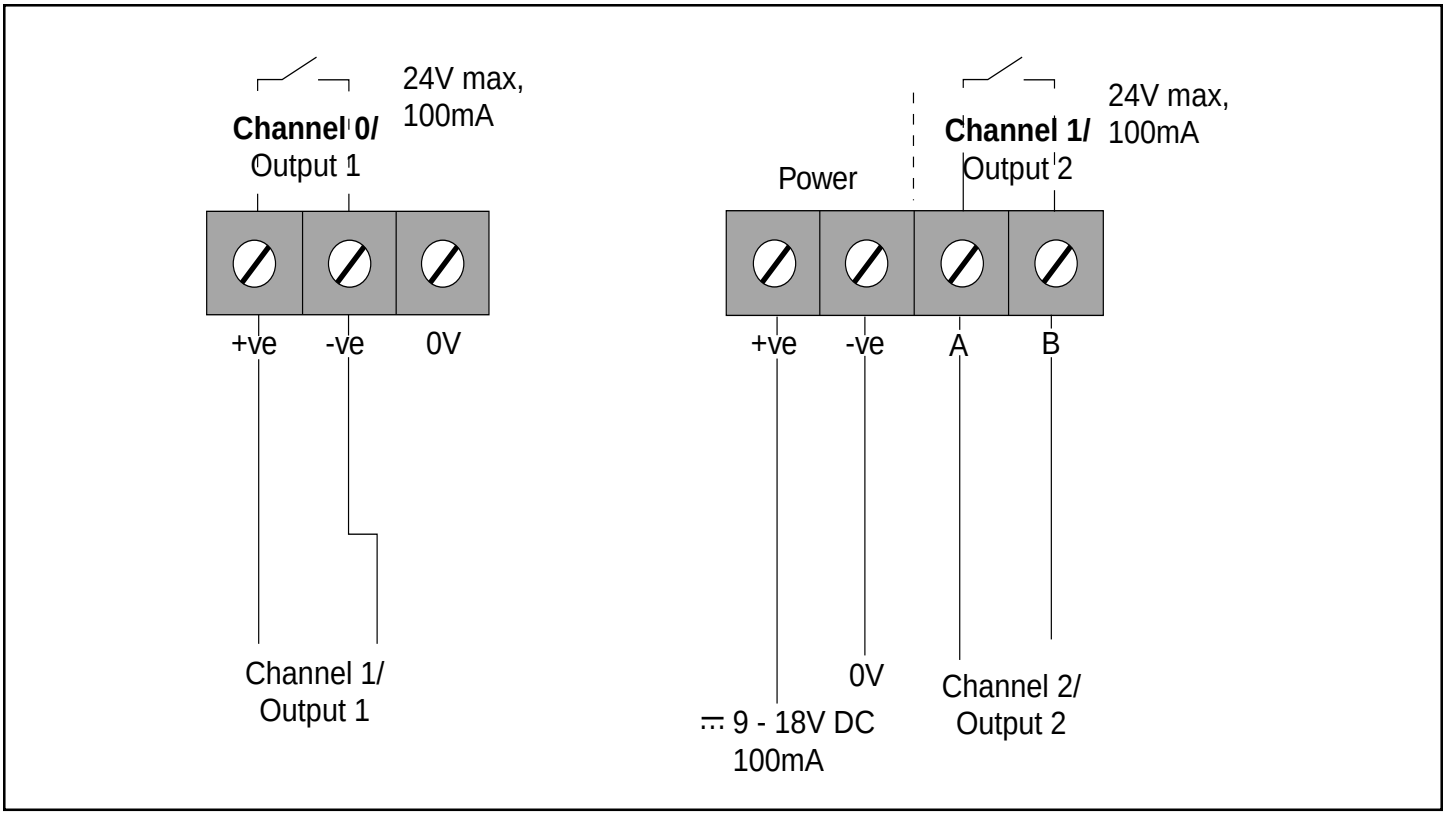


Figure 10. Universal-Link, Computer-Link, Window-Link Configuration

IX. APPENDIX D — LED Lights Explanation

The Link Module is equipped with three LEDs to indicate the status of its switches, power supply, and batteries. You can use the Manual Override button on the base of the Computer-Link to reset the switches.

Power

Indicator light showing the status of the Link Module power supply:

Orange - Switched on and functioning correctly

Flashing red - Switched on but the main power supply has been disrupted. Battery backup power is in use.

Green - Switched on and ready to be programmed with a Q-Controls unit.

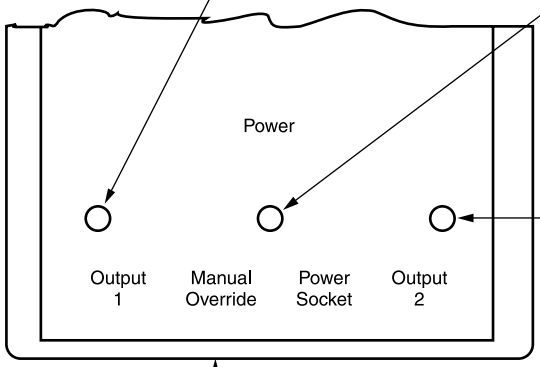
Off - Switched off or the main power supply has been disrupted and the battery is now spent.

1/Latch/Open/Alarm

Indicator light showing the status of the Link Module's Output 1:

Off - The switch has not been enabled.

Blue - The switch is on. The associated icon has been selected on the Q-Controls units.



2/Door/Close/Call

Indicator light showing the status of the Link Module's Output 2:

Off - The switch has not been enabled.

Blue - The switch is on. The associated icon has been selected on the Q-Controls unit. (When used as an alarm device, it must be reset manually.)

Manual Override Button

Pride

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