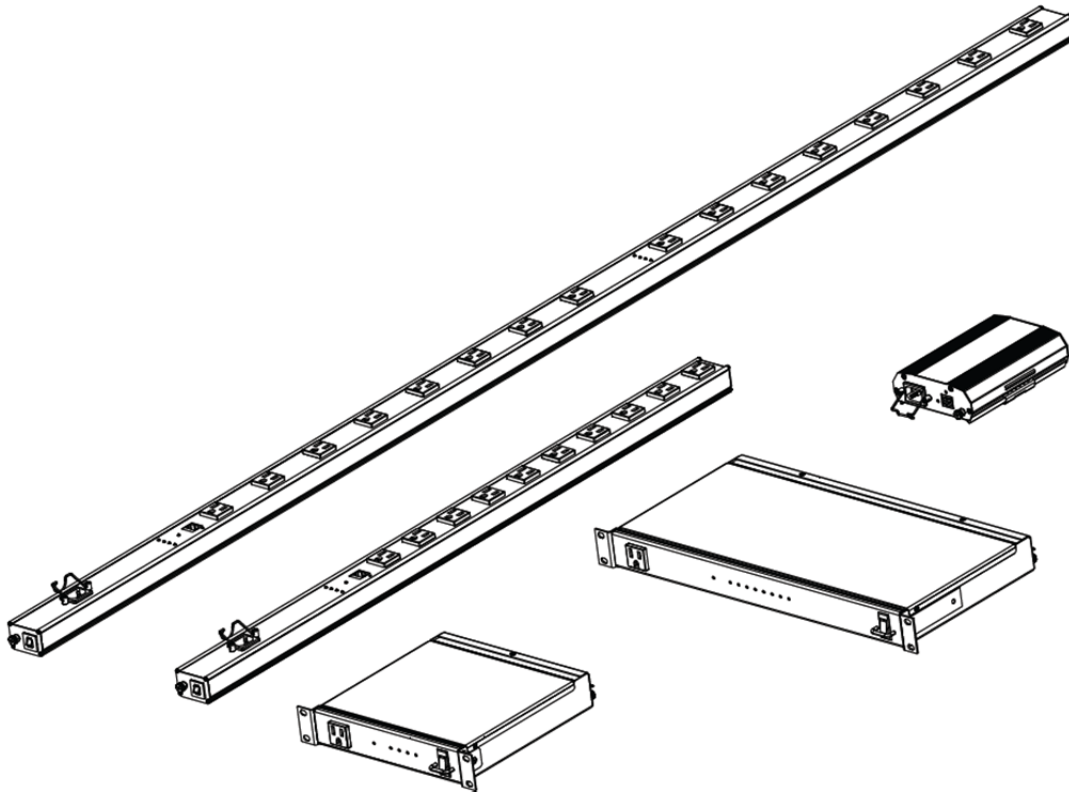


# SELECT SERIES PDU WITH RACKLINK®

MONITOR | CONTROL | ALERT | REPORT | ANALYZE



## THANK YOU

Thank you for purchasing a Select Series PDU with RackLink® product. Please read these instructions thoroughly before installing this product.



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# IMPORTANT SAFETY INSTRUCTIONS / INSTRUCTIONS IMPORTANTES SUR LA SÉCURITÉ



**DANGER HAZARDOUS VOLTAGE/DANGER HAUTE TENSION** The lightning flash with the arrowhead symbol, within an equilateral triangle is intended to alert the user to the presence of uninsulated dangerous voltage within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

L'éclair avec le symbole de flèche dans un triangle équilatéral est destiné à alerter l'utilisateur de la présence d'une tension dangereuse non isolée dans l'enceinte du produit qui peut être d'une ampleur suffisante pour constituer un risque de choc électrique pour les personnes.



**CAUTION/ATTENTION** The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

Le point d'exclamation dans un triangle équilatéral est destiné à alerter l'utilisateur de la présence d'importants instructions d'opération et de maintenance (entretien) dans la documentation accompagnant l'appareil.



**WARNING!** Failure to read, understand and follow the following information can result in serious personal injury, damage to the equipment or voiding the warranty. It is the responsibility of the Installer/User to ensure that this product is loaded according to specifications.



**ADVERTISSEMENT!** Refus de lire, comprendre et suivre la renseignements suivants peut traduire par de graves blessures, des dommages à l'équipement ou invalider la garantie. Il est la responsabilité de l'installateur / utilisateur de s'assurer que ce produit est chargé conformément aux spécifications.



**ATTENTION!** La prise de courant doit être facilement accessible.



**CAUTION!** Use indoor in dry locations only.



**ATTENTION!** Pour être utilisé en intérieur dans un endroit sec seulement.

## REGULATORY COMPLIANCE

### **Federal Communications Commission (FCC) Compliance Statement**

**CAUTION!** Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

**ATTENTION:** Les changements ou modifications non expressément approuvés par la partie responsable de la conformité pourraient annuler l'autorité de l'utilisateur à utiliser l'équipement.

**NOTE:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

**REMARQUE:** Cet équipement a été testé et jugé conforme aux limites d'un dispositif numérique de classe B, conformément à la partie 15 des règles de la FCC. Ces limites sont conçues pour fournir une protection raisonnable contre les interférences nuisibles dans une installation résidentielle. Cet équipement génère, utilise et peut émettre de l'énergie radiofréquence et, si non installé et utilisé conformément aux instructions, peut provoquer des interférences dans les communications radio. Cependant, il n'y a aucune garantie que des interférences ne se produiront pas dans une installation particulière. Si cet équipement provoque des interférences nuisibles à la réception radio ou de télévision, ce qui peut être déterminé en allumant et éteignant l'équipement, l'utilisateur est encouragé à essayer de corriger l'interférence par une ou plusieurs des mesures suivantes:

- Réorienter ou déplacer l'antenne de réception.
- Augmenter La distance entre l'équipement et le récepteur.
- Brancher l'équipement dans une prise sur un circuit différent de celui sur lequel est branché le récepteur.
- Consulter le revendeur ou un technicien radio / TV expérimenté.

### **Industry Canada (IC)**

ICES-003 Class B Notice - Avis NMB-003, Classe B This Class B digital apparatus complies with Canadian ICES-003. Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

# IMPORTANT SAFETY INSTRUCTIONS

## Safety Instructions - Rack Mount

- A. Elevated Operating Ambient - If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient. Therefore, consideration should be given to installing the equipment in an environment compatible with the maximum ambient temperature (T<sub>ma</sub>) specified by the manufacturer.
- B. Reduced Air Flow- Installation of the equipment in a rack should be such that the amount of air flow required for safe operation of the equipment is not compromised.
- C. Mechanical Loading - Mounting of the equipment in the rack should be such that a hazardous condition is not achieved due to uneven mechanical loading.
- D. Circuit Overloading - Consideration should be given to the connection of the equipment to the supply circuit and the effect that overloading of the circuit might have on overcurrent protection and supply wiring. Appropriate consideration of equipment nameplate ratings should be used when addressing this concern.
- E. Reliable Earthing - Reliable earthing of rack-mounting equipment should be maintained. Particular attention should be given to supply connections other than direct connections to the branch circuit (e.g. use of power strips).
- Disconnect Device (Pluggable Equipment) - The socket-outlet shall be installed near the equipment and shall be easily accessible.

When using electrical products, basic precautions should always be followed, including the following:

- Read and follow all instructions before using.
- There are no user-serviceable components within this device. Removal of the cover from this device may present a shock hazard, and void the warranty.
- DANGER – To reduce the risk of electrical shock:
  - Always unplug this device from the electrical outlet before cleaning.
- WARNING – To reduce the risk of burns, fire, electric shock, or injury to persons:
  1. Unplug from outlet before performing any servicing, including putting on or taking off parts.
  2. Close supervision is necessary when this device is used by, or near children, invalids, or disabled persons.
  3. Use this device only for its intended use as described in these instructions. Do not use attachments not recommended by the manufacturer.
  4. Never operate the device if it has a damaged cord or plug, if it is not working properly, if it has been dropped or damaged, or dropped into water. Return the device to a service center for examination and repair.
  5. Protect the power cord from being walked on or pinched particularly at plugs, convenience outlets, and the point where they exit from the apparatus.
  6. Keep the cord away from heated surfaces.
  7. Never drop or insert any object into any opening.
  8. Do not use outdoors.

9. Do not operate where aerosol (spray) products are being used or where oxygen is being administered.
10. To disconnect, turn all controls to the off position, then remove plug from outlet.
11. **WARNING: Risk of Electric Shock – Connect the device to a properly grounded outlet only.**  
Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
12. **WARNING: The apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.**
13. The mains plug is used as your disconnect device. This device shall remain readily operable.
14. Clean only with dry cloth.
15. Unplug this apparatus during lightning storms or when unused for long periods of time.
16. Only use attachments/accessories specified by the manufacturer.
17. Do not overload the wall outlet where this device is being connected. Do not overload this device. Ensure the total load to this device does not exceed that which is listed in the specifications section of this manual.
18. Ensure this device is connected to a properly grounded AC power source. Ensure the device is plugged into a source providing the required 120V. Do not use a plug adapter that defeats the ground pin of the AC plug.

SAVE ALL INSTRUCTIONS

# INSTRUCTIONS IMPORTANTES SUR LA SÉCURITÉ

## Consignes de sécurité - montage en rack

- A. Température de fonctionnement élevée - Si installé dans un rack fermé ou à unités multiples, la température ambiante de fonctionnement de l'environnement du rack peut être supérieure à ambiante de la pièce. Par conséquent, il faudrait envisager d'installer l'équipement dans un environnement compatible avec la température ambiante maximale (T<sub>ma</sub>) spécifiée par le constructeur.
- B. Réduction Air accréditives Installation de l'équipement dans un rack doit être telle que la quantité de flux d'air nécessaire au bon fonctionnement de l'équipement ne soit pas compromise.
- C. Chargement mécanique - Le montage de l'équipement dans le rack doit être telle qu'une condition dangereuse ne soit liée à un chargement mécanique irrégulier.
- D. Surcharge des circuits - Il faudrait envisager à la connexion de l'équipement au circuit d'alimentation et l'effet que la surcharge du circuit pourrait avoir sur la protection contre les surintensités et le câblage d'alimentation. Examen approprié des équipements évaluations de la plaque signalétique doit être utilisée pour traiter de cette préoccupation.
- E. Mise à la terre fiable - Fiable mise à la terre de l'équipement de montage en rack doit être maintenue. Une attention particulière devrait être accordée aux connexions d'alimentation autres que les connexions directes vers le circuit de dérivation (par exemple de l'utilisation de bandes de puissance).
  - Appareil Disconnect (Équipement Pluggable) - La prise de courant doit être installée à proximité du matériel et doit être facilement accessible.

Lors de l'utilisation des produits électriques, des précautions de base doivent toujours être respectées, y compris les suivantes:

- Lire et suivre toutes les instructions avant l'utilisation du matériel.
- Il n'ya pas de composants réparables par l'utilisateur au sein de cet appareil. Retrait de la couverture de cet appareil peut présenter un danger d'électrocution et annuler la garantie.
- DANGER - Pour réduire le risque de choc électrique:  
Toujours débrancher le meuble de la prise électrique avant de le nettoyer.
- AVERTISSEMENT - Pour réduire les risques de brûlures, d'incendie, de choc électrique ou de blessures:
  1. Débranchez l'appareil avant d'effectuer tout l'entretien, y compris de mettre ou d'enlever des pièces.
  2. Surveiller étroitement ce meuble s'il est utilisé par ou à proximité d'un enfant, d'une personne invalide ou handicapée.
  3. N'utiliser ce meuble que pour l'usage auquel il est destiné, tel que décrit dans la présente fiche d'instructions. Ne pas utiliser d'accessoires non recommandés par le fabricant.
  4. Ne jamais utiliser ce meuble si le cordon ou la prise est endommagé, s'il ne fonctionne pas correctement, s'il est tombé ou est endommagé, ou s'il est tombé dans l'eau. Renvoyer le meuble à un centre de service après-vente pour qu'il soit examiné et réparé.
  5. Le cordon d'alimentation doit être placé de manière à éviter qu'il soit piétiné ou pincé, notamment au niveau des prises, des réceptacles et à la sortie de l'appareil.



6. Garder le cordon d'alimentation loin des surfaces chauffées.
7. Ne jamais faire tomber ou introduire un objet dans une ouverture.
8. Ne pas utiliser en extérieur.
9. Ne pas utiliser dans des lieux où des produits aérosols sont utilisés ou à proximité d'une source d'oxygène.
10. Pour débrancher, placer tous les boutons en position off, puis retirer la fiche de la prise électrique.
11. AVERTISSEMENT: Risque de choc électrique - Brancher le meuble uniquement à une prise correctement mise à la terre. Ne pas détériorer le dispositif de sécurité de la fiche polarisée ou de la fiche de terre. Une fiche polarisée possède deux broches, dont l'une plus large que l'autre. Une fiche de type terre possède deux broches et une troisième de mise à la terre. La broche large ou la troisième fiche sont fournies pour des raisons de sécurité. Si la fiche fournie n'entre pas dans votre prise de courant, veuillez faire appel à un électricien pour remplacer la prise obsolète.
12. AVERTISSEMENT: L' appareil ne doit pas être exposé à des éclaboussures et aucun objet rempli de liquide, comme des vases, ne doit être placé sur l'appareil.
13. La fiche secteur est utilisée comme sectionneur de courant. Ce dispositif doit rester en état de marche.
14. Nettoyer uniquement avec un chiffon sec.
15. Débrancher cet appareil pendant les orages ou s'il n'est pas utilisé pendant de longues périodes.
16. Utiliser uniquement les pièces/accessoires indiqués par le fabricant.
17. Ne surchargez pas le réceptacle de mur ou le circuit qui fournit l'énergie à ce appareil. Ne pas surcharger cette appareil.
18. S'assurer que la charge totale à cet appareil ne dépasse pas celle qui est répertoriée dans la section des spécifications de ce manuel.
19. Assurez-vous cet appareil est connecté à une source d'alimentation C/A avec mise à la terre. Assurez-vous cet appareil est branché sur une source d'alimentation fournissant les nécessaires 120V. Ne pas utiliser un adaptateur qui contrecarre la broche de terre de la prise du cordon d'alimentation.

CONSERVER CES INSTRUCTIONS.

# INTRODUCTION

Thank you for purchasing a Select Series PDU with RackLink™ product (subsequent references as RackLink or RackLink device). RackLink simplifies installation and reduces the cost of service and support by providing intelligent power designed for AV systems. With its versatility in new vertical PDU, traditional rackmount and compact form factors, RackLink allows control anywhere it's needed. All form factors are enabled with RackLink technology, creating a system for IP control of power distribution locally or anywhere in the world. This system is a simple, cost effective method for adding intelligent outlet control to applications with basic power distribution. It expands the range of applications and systems that can become IP controlled.

Ensuring system reliability and uptime, it uses intuitive setup and operation, pre-emptive problem notification and automatic problem resolution. RackLink is also designed to maximize productivity through universal control via local network, third party control systems, or third party cloud partners.

## Key Features

- Remotely reboot connected equipment.
- AutoPing feature provides the ability to reboot remote equipment and/or email status notifications.
- Integrated sequencing.
- Individual outlet control supported locally and remotely via the web or connected control system.
- Set email alerts.
- Open platform communications protocol provides seamless integration with any TCP/IP-based control systems.
- RackLink device Mobile applications are available for iOS® and Android™.

## SYSTEM REQUIREMENTS

- Windows® 7 32/64-bit or later with .Net 4.0 Framework or later.
- Macintosh® OS X® 10.8 or later.
- The latest version of Google Chrome™ is recommended.
- You must configure a port on your firewall to allow passthrough traffic to your RackLink device whether you use DDNS or a static TCP/IP address. Please refer to your router's instructions regarding port configuration. If you do not have a static TCP/IP address, you must first setup a method for handling the address changes, such as using a DDNS service. Once completed, please follow the same instructions as if you had a static address, and then open a port on your router to allow passthrough traffic to your RackLink device.

For information about setting your RackLink device to use a static TCP/IP address, see "Setting Up Your RackLink Device for the First Time" on page 19.

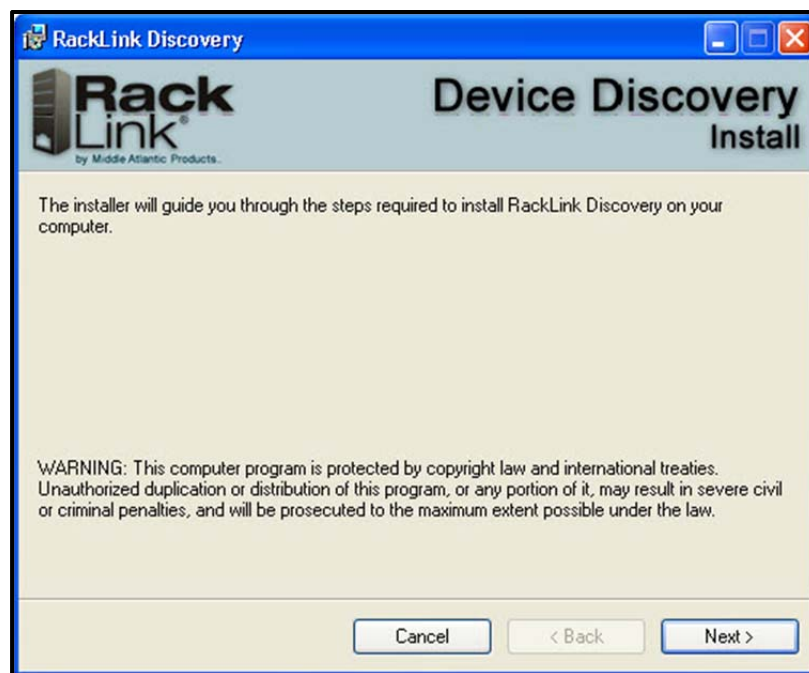
# INSTALLING THE DEVICE DISCOVERY SOFTWARE AND ACCESSING A CONNECTED RACKLINK'S BROWSER-BASED INTERFACE

## Installing the RackLink Device Discovery software on a PC:

To install RackLink Device Discovery software on a PC:

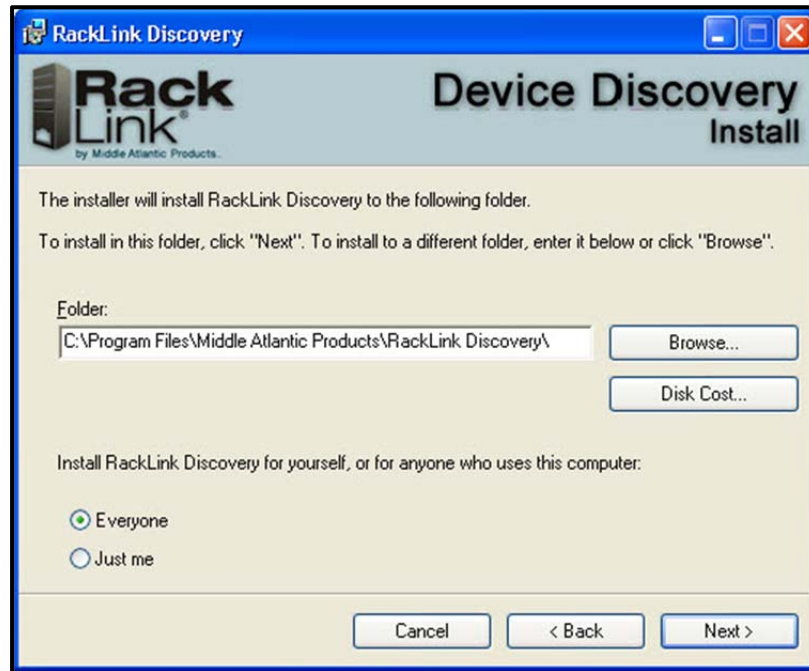
1. Access <http://www.middleatlantic.com/downloads>.
2. Download and run the RackLink Device Discovery **setup.exe** file.

The Device Discovery Setup dialog box appears.



3. Click **Next**.

Additional installation options appear.



4. Click **Browse** if you wish to change the software installation folder.

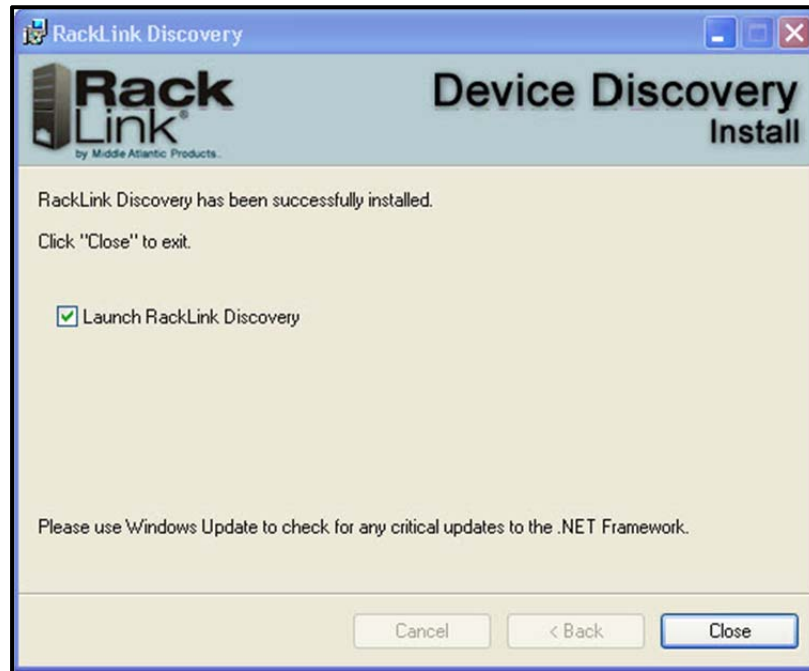
If desired, select whether you want to install RackLink Discovery for everyone, or just the current user.

5. Click **Next**.



The installer indicates that it's ready to install RackLink Discovery on your computer.

6. Click **Next** to begin the installation.



The installer indicates that RackLink Discovery has been successfully installed and provides a default check box selection to Launch RackLink Discovery after closing the installer.

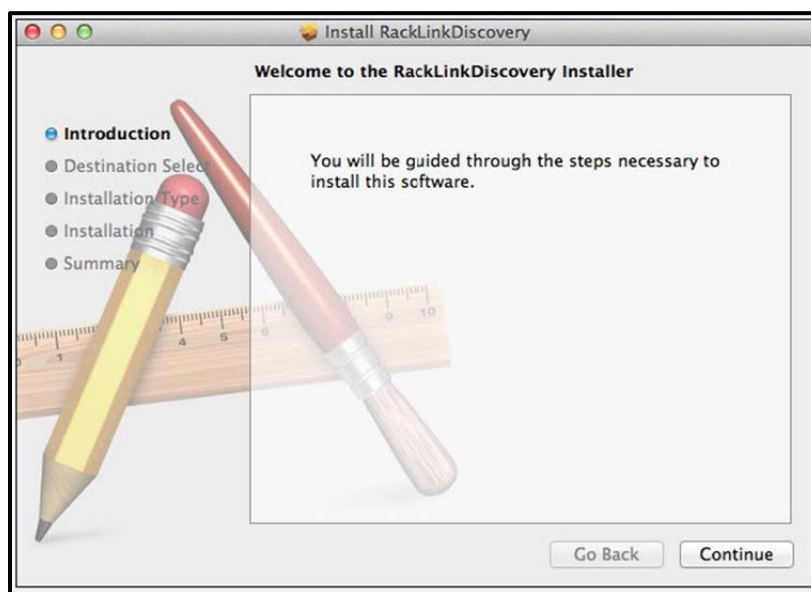
7. Click **Close**.

## Installing the RackLink Device Discovery software on a MAC:

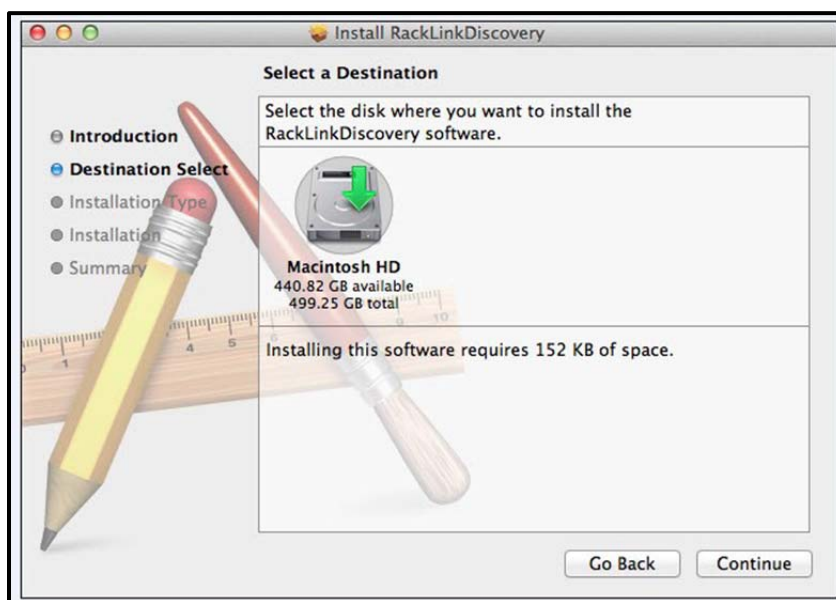
To install RackLink Device Discovery software on a MAC:

1. Access <http://www.middleatlantic.com/downloads>.
2. Download and run the **RackLinkDiscovery.pkg** file.

The Device Discovery Setup dialog box appears.

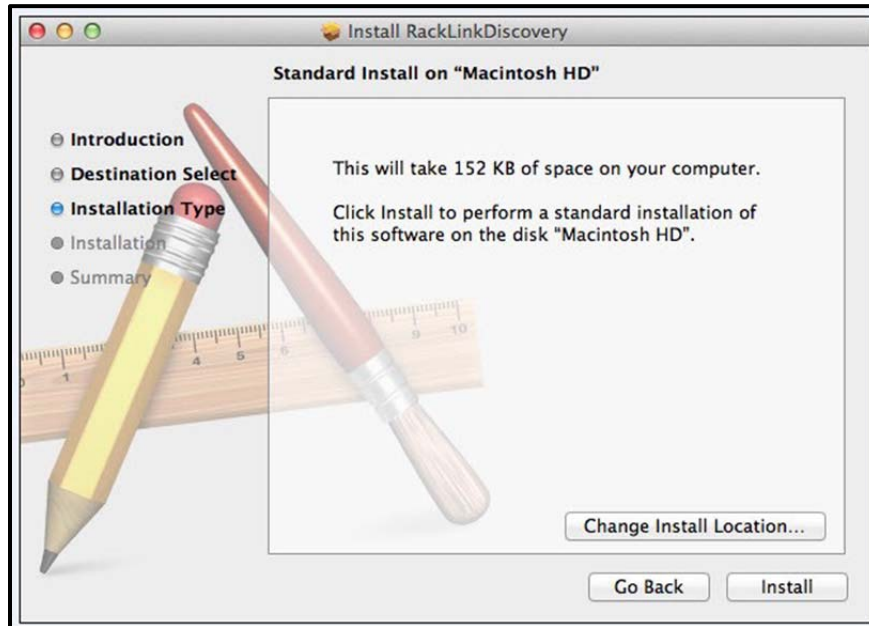


3. Click the disk and modify the location if you wish to change the software installation folder.

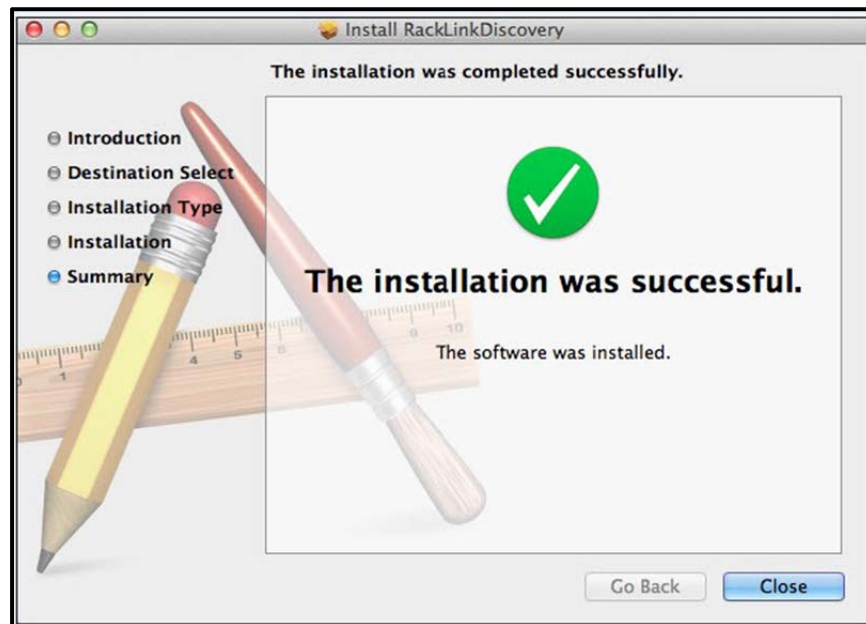


4. Click **Continue**.

The Installation Type screen appears.



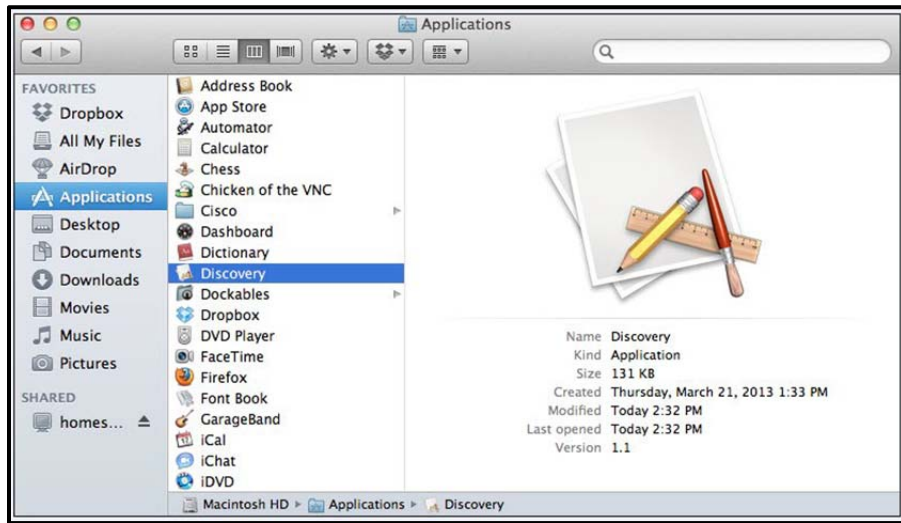
5. Click **Change Install Location** if you wish to change the software installation folder.
6. Click **Install**.
7. The installer indicates that the installation was completed successfully.



8. Click **Close**.



9. Click **Applications** in the Finder to locate the RackLink Discovery application.



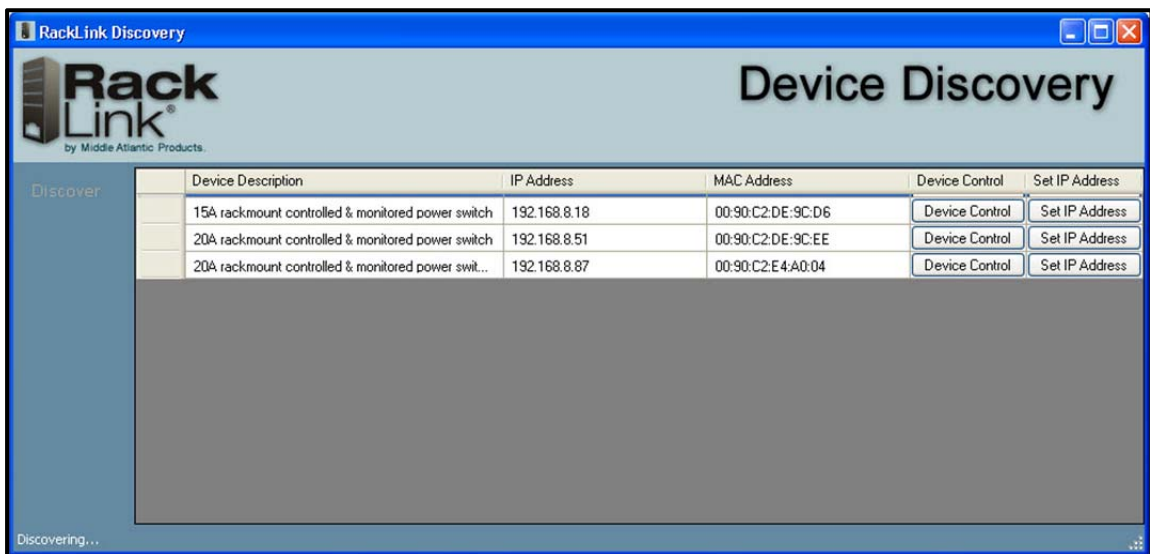
## Using Device Discovery

To use device discovery:

1. After launching your RackLink Device Discovery program, the tool automatically discovers all RackLink devices on the subnet to which you are connected.

Use the Discover button to refresh the screen and discover any newly connected RackLink devices. By default, the RackLink device is set for DHCP. You can identify each device by the MAC address or IP address.

**NOTE:** You may need to disable your Windows firewall to discover your RackLink device.



2. Click **Device Control** to access the browser-based interface for a specific device.

The system prompts you for a username and password.



**NOTE:**

- To log in as an administrator, the default credentials are **admin/admin**.
- To log in as a user, the default credentials are **user/user**.

## SETTING UP YOUR RACKLINK DEVICE FOR THE FIRST TIME

Out of the box, your RackLink device is configured to use DHCP. If you are using a DHCP server, your RackLink device should work automatically and you can skip to “Using the Browser-Based Interface” on page 28. If you are not using a DHCP server, use the following procedures to configure your RackLink device using a static TCP/IP address.

The following items are required:

- A RackLink device.
- A network crossover cable (Cat 5 or better).
- A standard network cable (Cat 5 or better).
- A pen and paper.

**NOTE:** The following procedure shows steps using Windows 7. The setup steps are similar in other operating systems.

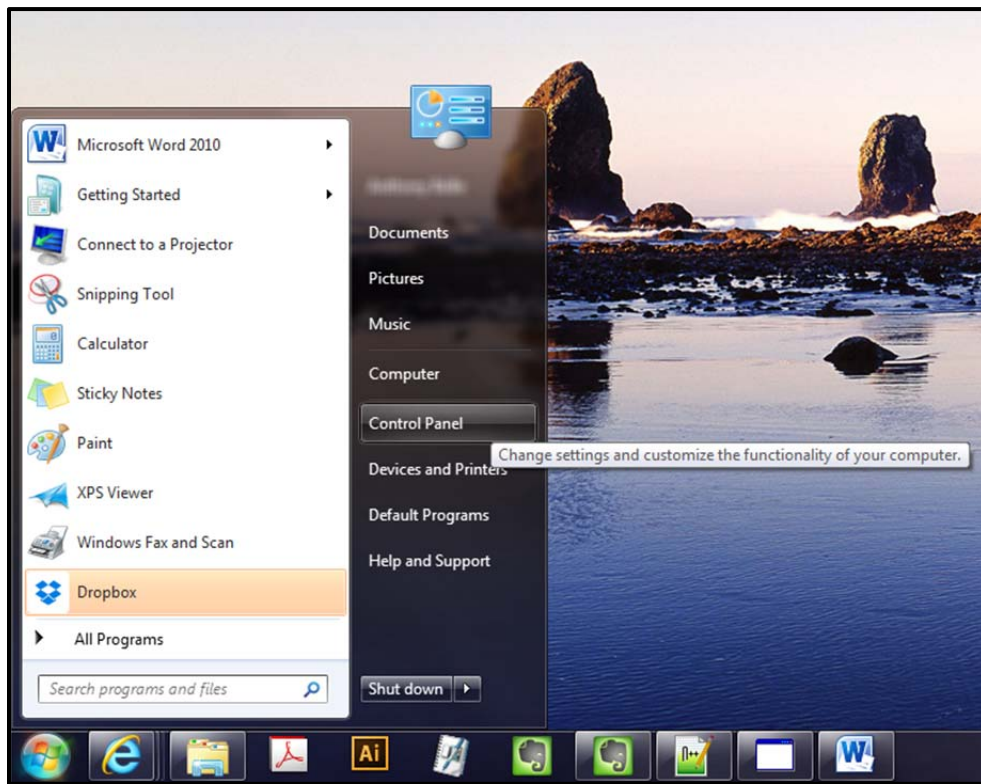
### Configuring TCP/IP on Your PC

First configure TCP/IP on your PC, and then configure TCP/IP on your RackLink device via either the browser-based interface or Device Discovery. For more information, see “Configuring TCP/IP in RackLink via Browser-Based Interface” on page 23 and “Configuring TCP/IP in RackLink via Device Discovery” on page 25.

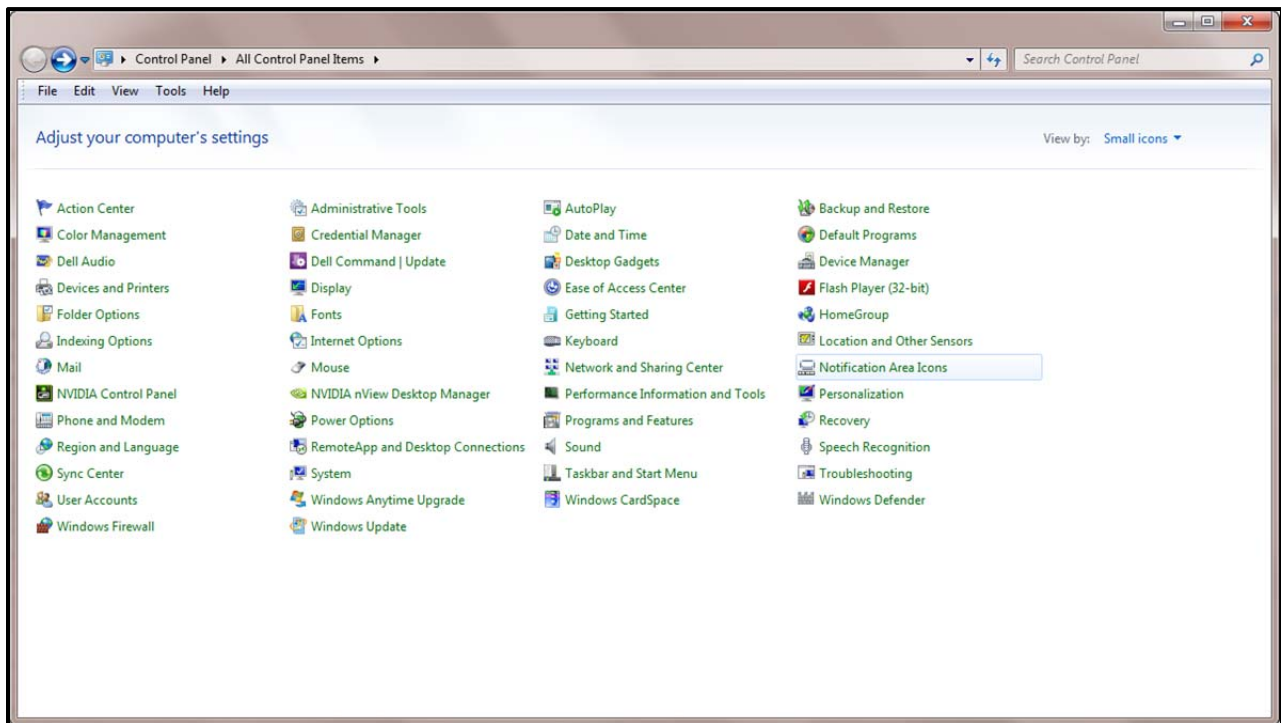
#### To configure TCP/IP on your PC:

1. Disconnect the PC from any networks.
2. Click **Start**.

4. Click **Control Panel**.

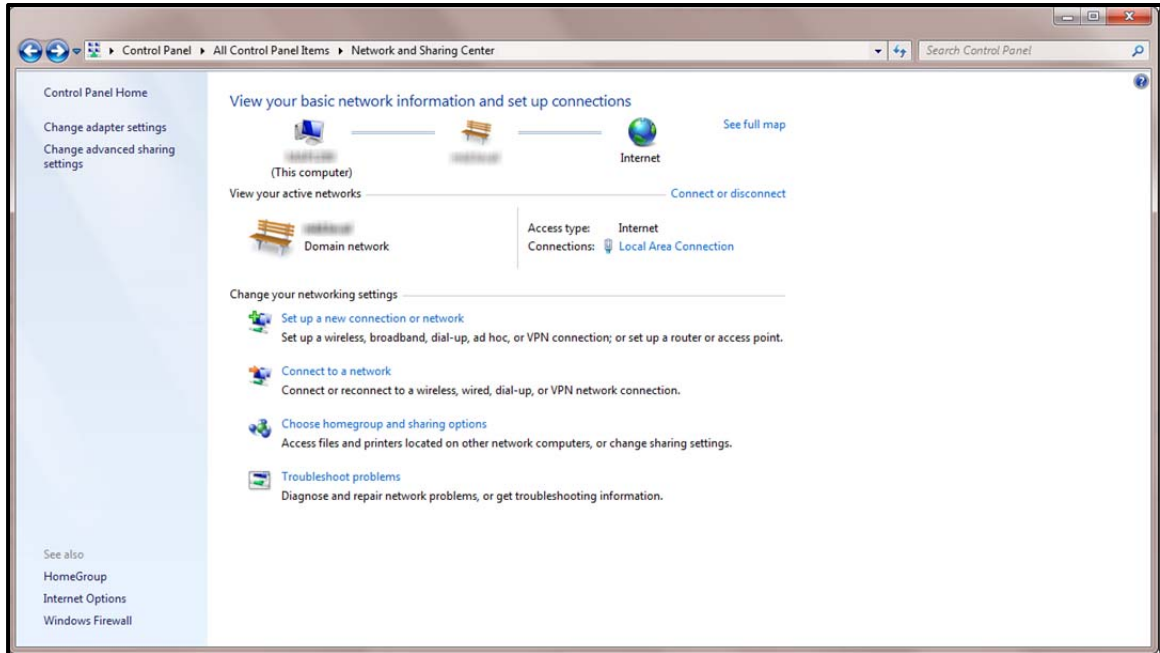


The Control Panel appears.



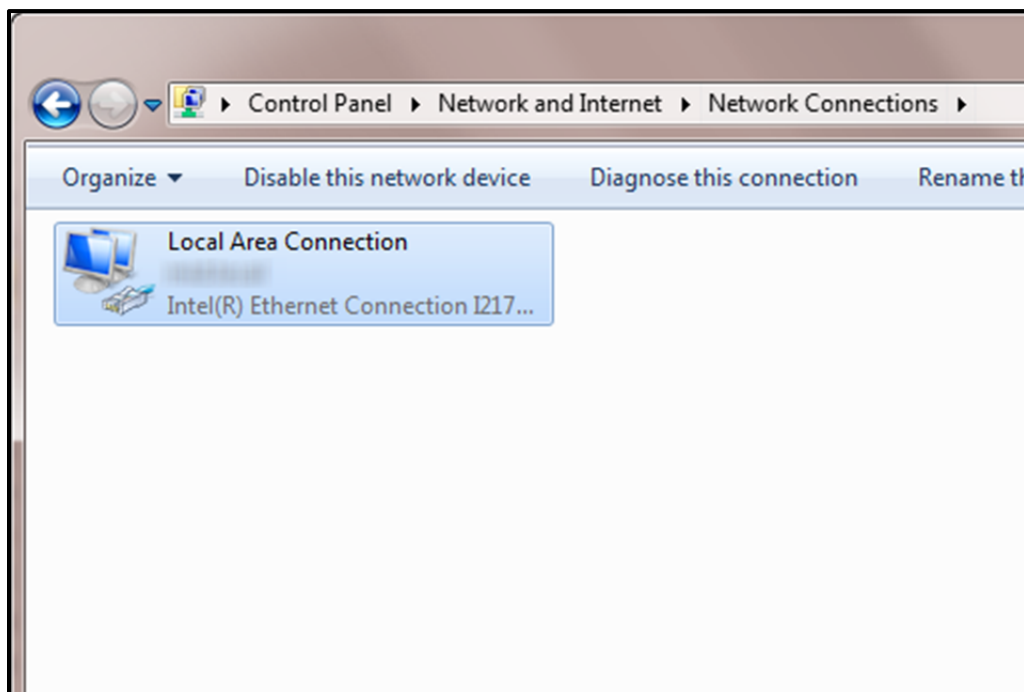
5. Double click **Network Sharing Center**.

The Network Sharing Center screen appears.



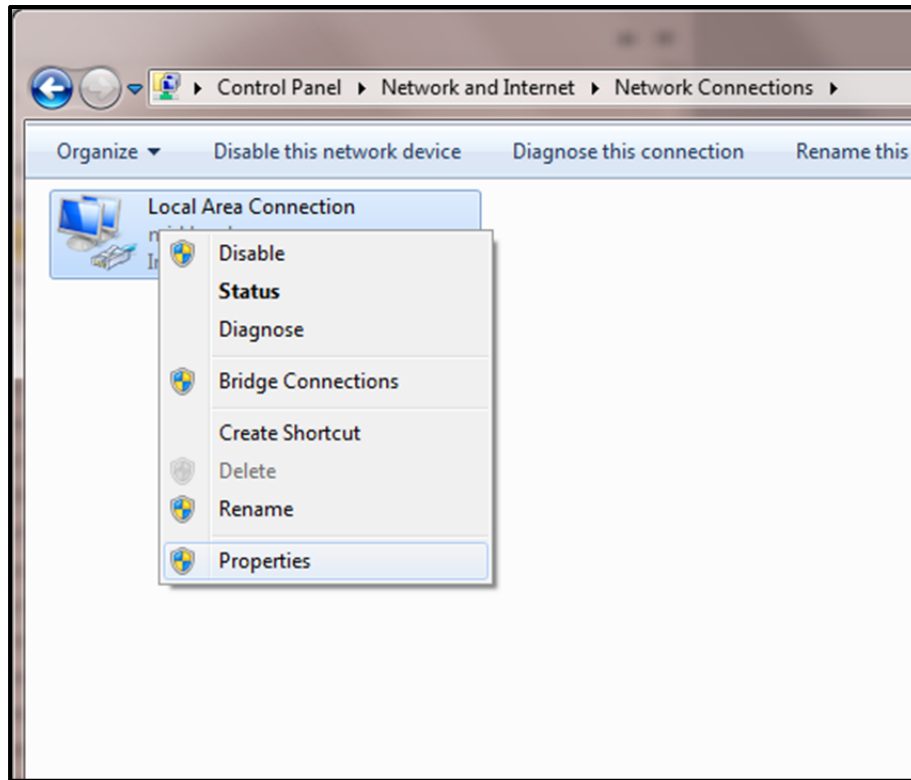
6. Click **Change adapter settings**.

The Network Settings screen appears.

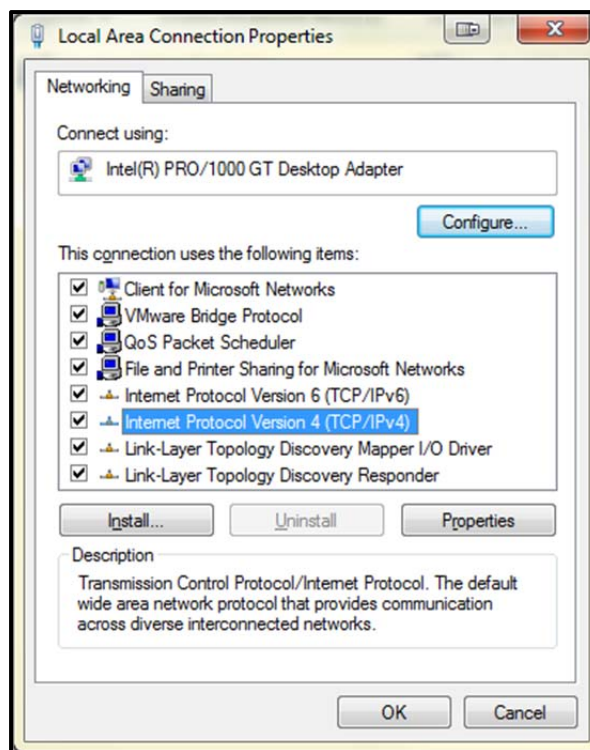


Locate the computer's wired network connection, which should be listed in the LAN or High-Speed Internet group and be named similar to "Local Area Connection."

7. Right-click the wired network connection and select **Properties**.



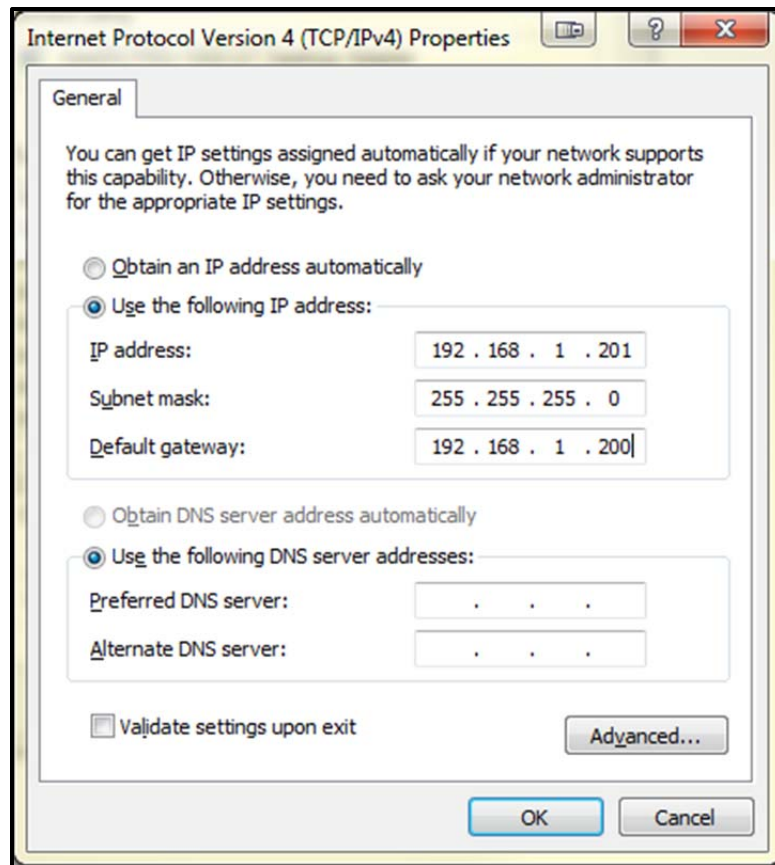
The Local Area Connection Properties window appears.



8. Click **Internet Protocol Version 4 (TCP/IPv4)** to highlight the row.

9. Click **Properties**.

The Internet Protocol (IP) Properties window appears.



10. Write down the computer's current TCP/IP settings.

**NOTE:** Save these settings. You will use them to restore the computer back to the original configuration after your RackLink device is directly connected to your PC.

11. Select Use the following TCP/IP address and configure the following:

- In the IP address field, enter 192 . 168 . 1 . 201.
- In the Subnet mask field, enter 255 . 255 . 255 . 0.
- In the Default gateway field, enter 192 . 168 . 1 . 200.

12. Click **OK**.

**NOTE:** You may need to reboot your PC for the new settings to take effect.

## Configuring TCP/IP in RackLink via Browser-Based Interface

First configure TCP/IP on your PC, and then configure TCP/IP on your RackLink device via either the browser-based interface or Device Discovery. For more information, see “Configuring TCP/IP on Your PC” on page 19 and “Configuring TCP/IP in RackLink via Device Discovery” on page 25.

**To configure TCP/IP in RackLink via the browser-based interface:**

1. With your RackLink device still powered off, plug one end of the network crossover cable into the network jack on the rear of your RackLink device.
2. Plug the other end of the network crossover cable into the PC's network jack.
3. Plug in and power on your RackLink device.

**NOTE:**

- After a few seconds, the computer and the RackLink unit should establish a network connection.
  - The RackLink's alert light blinks red when it is attempting to acquire a network address. The alert light stops blinking once it has a valid TCP/IP address.
4. Open a web browser on the PC (Microsoft Internet Explorer 9 or later is recommended) and navigate to <http://192.168.1.200>.
  5. Log in to the administrative setup section of the interface.

For more information, see “Logging in to Administrative Setup” on page 35.

- a. If you are signed into the User account, you are asked to sign in in using the Admin account credentials.



- b. Enter **admin/admin**.
  - c. Click **Login**.
6. Click **Network**.
  7. Change the network information to your preferred values for **IP Address**, **Subnet Mask**, **Gateway**, and **DNS Server**.



8. Click **Save**.

**NOTE:** After these settings have been changed, you no longer can access your RackLink device from your PC connected via crossover cable.

9. Disconnect the network crossover cable connecting your RackLink device and your PC.

10. Restore the PC to the original TCP/IP settings using the information you wrote down during “Configuring TCP/IP on your PC” on page 19.

11. Put your RackLink device in its final location.

## Configuring TCP/IP via Device Discovery

**NOTE:** This procedure also shows how to configure TCP/IP via DHCP.

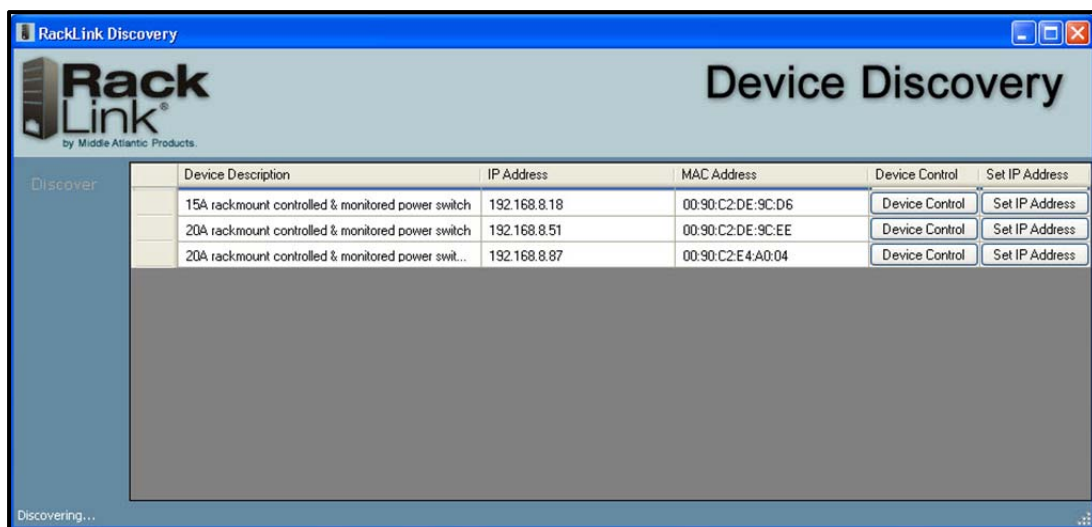
First configure TCP/IP on your PC, and then configure TCP/IP on your RackLink device via either the browser-based interface or Device Discovery. For more information, see “Configuring TCP/IP on Your PC” on page 19 and “Configuring TCP/IP in RackLink via Browser-Based Interface” on page 23.

### To configure TCP/IP in RackLink via Device Discovery:

1. After launching your RackLink Device Discovery software, the tool automatically discovers all RackLink devices on the subnet to which you are connected.

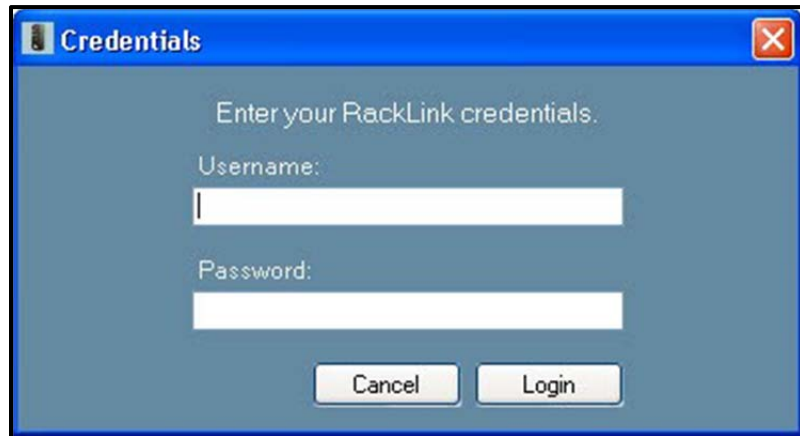
Use the Discover button to refresh the screen and discover any newly connected RackLink devices. By default, the RackLink device is set for DHCP. You can identify each device by the MAC address or IP address.

**NOTE:** You may need to disable your Windows firewall to discover your RackLink device.



2. Click **Set IP Address**.

The RackLink device prompts you for admin credentials.



3. Enter **admin/admin**.

4. Click **Login**.

The IP settings dialog box appears.



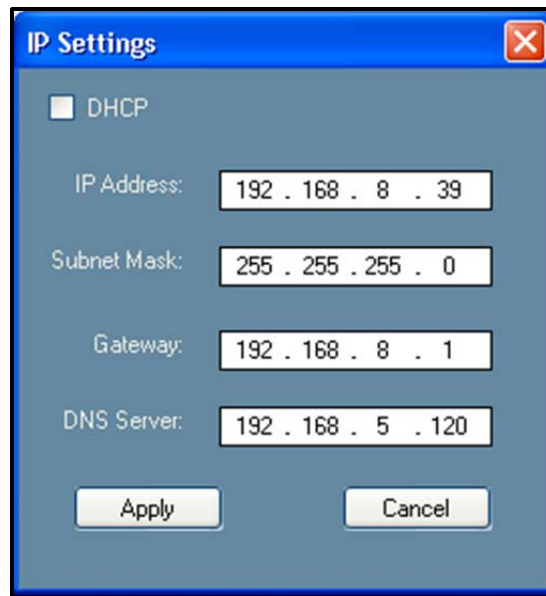
- If you use a DHCP server, leave the DHCP check box selected and continue with the following steps:

a. Click **Apply**.

Your RackLink device then acquires an IP address from your DHCP server.

- If you don't use a DHCP server, Clear the **Use DHCP** check box and continue with the following steps:

The text fields on the dialog box change from read only to write.



- a. Change the network information to your preferred values for **IP Address**, **Subnet Mask**, **Gateway**, and **DNS Server**.
  - b. Click **Apply**.
5. You may now access the browser-based interface using any of the following ways:
- Click **Refresh** in the Device Discovery tool.
  - Type the IP address into a browser and click **Go**.
  - Click the **Device Control** button of the corresponding row of your RackLink device listed in Device Discovery.
  - Double-click anywhere on the corresponding row of your RackLink device listed in Device Discovery.

## DOWNLOADING AND USING THE MOBILE APP

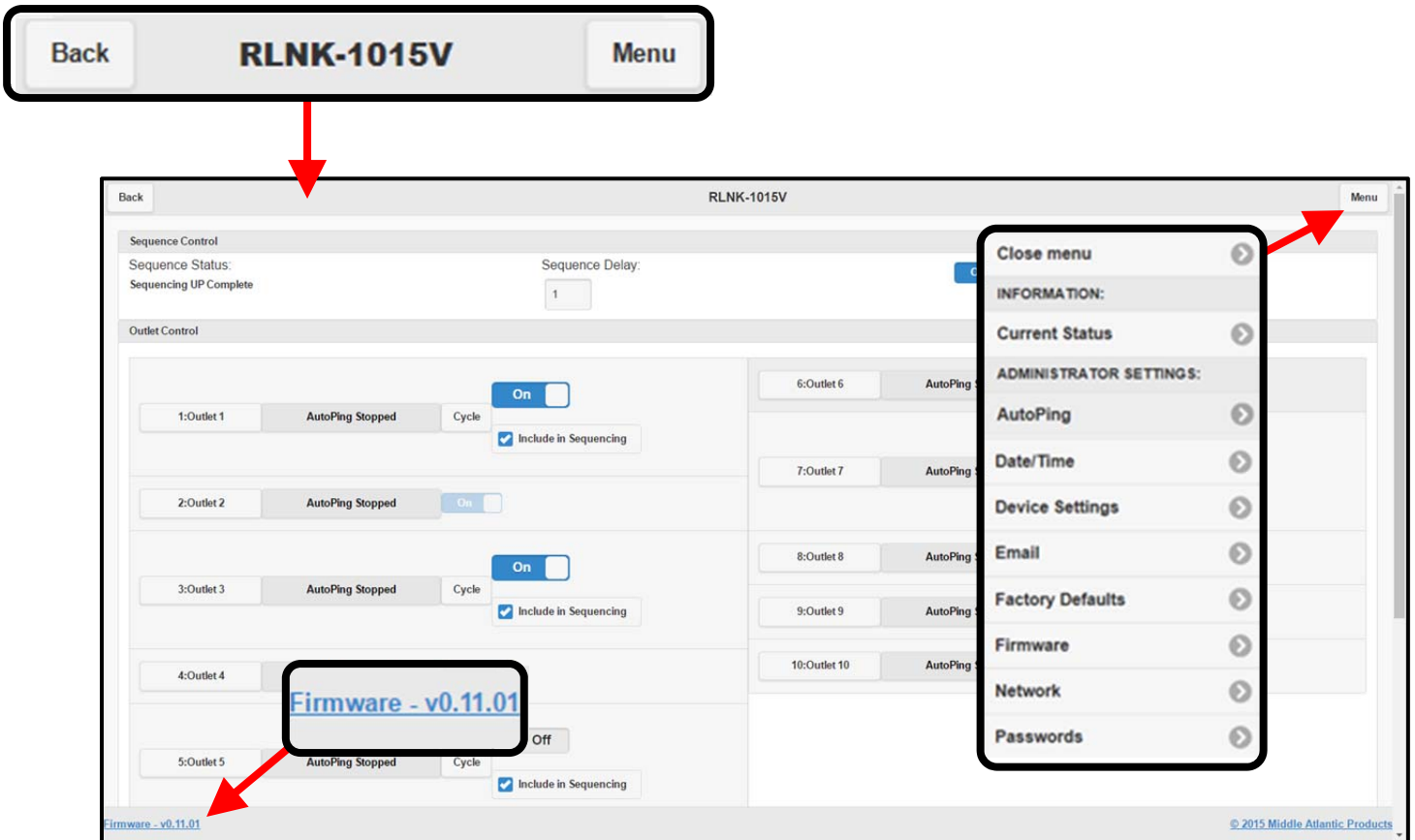
The mobile application allows real-time control of any controllable outlet from your mobile phone. Download the RackLink app from the Google Play™ store or the App Store®.

## USING THE BROWSER-BASED INTERFACE

The browser-based interface allows you to control your RackLink device from a PC. You can access it from the Device Discovery tool or by entering your RackLink device's IP address in a browser.

Every screen of the browser-based interface includes your connected RackLink device's name and model number, firmware version with the date and facility code, a Back button, and a Menu button.

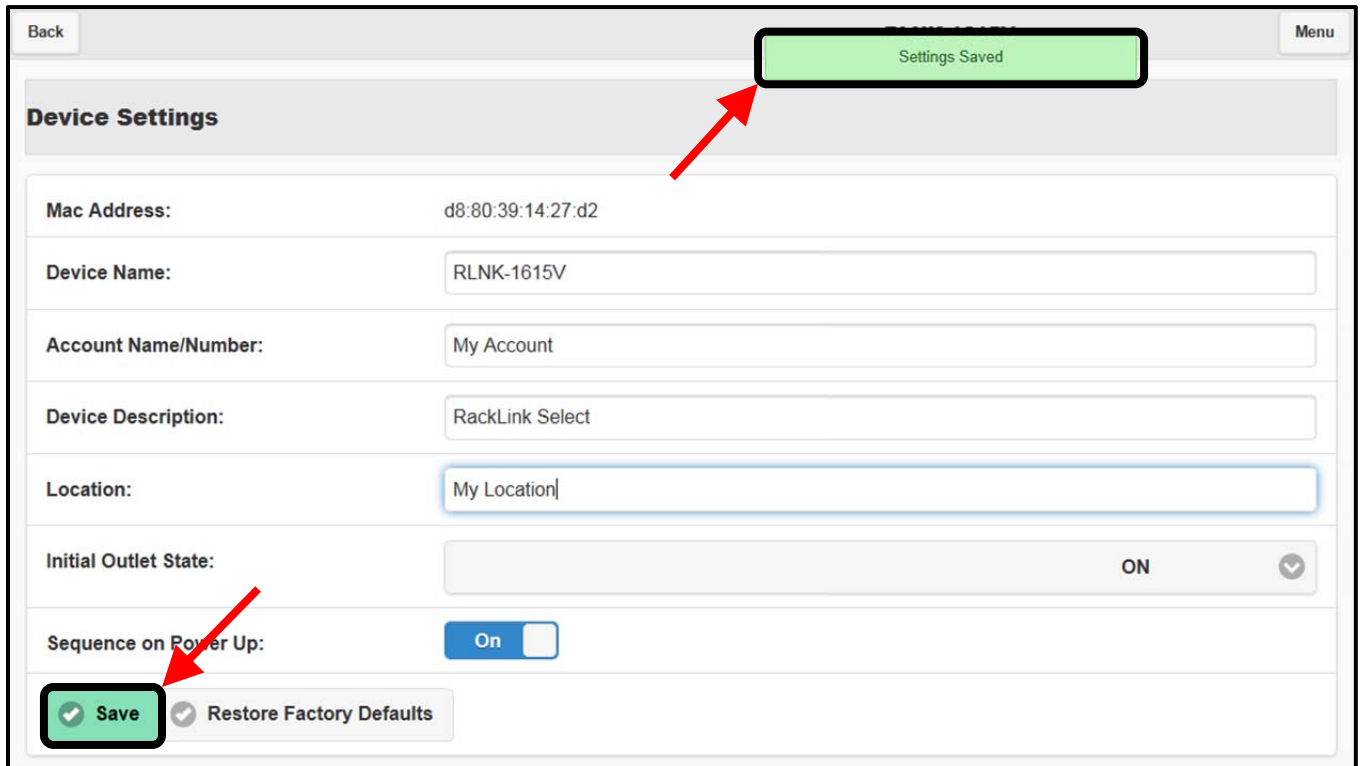
Right menu items appear when you click the Menu button and are used for viewing the Current Status and providing Administrator Settings such as AutoPing, Date/Time, Device Settings, Email, Factory Defaults, Firmware, Network, and Passwords settings.



### NOTE:

- The browser-based interface is pictured in white in this manual (as opposed to the darker UI theme). Some screenshots have also been slightly modified to improve legibility.
- The number of outlets appearing on the interface for specific devices is model specific. For more information, see “RackLink Select Model Diagrams” on page 58.
- The device name can be modified in the admin setup. For more information, see “Configuring Administrative Settings” on page 34.

- Whenever changes are made on the screen and you move to a different field, the Save button is colored green indicating that your changes must be saved before leaving the screen. When you click Save, a notification appears confirming your changes.



## Configuring and Viewing Information

The main Information menu contains a selection for Current Status. Current Status includes Sequencing, Outlet Control, and Event Log screen sections.

### ***Current Status Settings***

**To configure current status settings:**

1. Click **Current Status** on the right menu.

The Current Status screen appears.

The screenshot displays the RLNK-1015V interface. At the top, there is a 'Back' button on the left and a 'Menu' button on the right. The main content is divided into three sections:

- Sequence Control:** Shows 'Sequence Status: Sequencing UP Complete' and 'Sequence Delay: 1' with an 'On' toggle switch.
- Outlet Control:** A grid of 10 outlets (1:Outlet 1 to 10:Outlet 10). Each outlet has an 'AutoPing Stopped' status, a 'Cycle' button, and an 'Include in Sequencing' checkbox. Outlets 1, 3, and 5 have 'On' toggle switches, while outlets 6, 7, and 8 have 'Off' toggle switches.
- Events:** A table with columns for Date & Time, Event, and Outlets 1 through 10. The table contains 17 rows of event logs.

Date & Time	Event	Outlet 1	Outlet 2	Outlet 3	Outlet 4	Outlet 5	Outlet 6	Outlet 7	Outlet 8	Outlet 9	Outlet 10
2015.02.01 08:59:59	Normal	ON	ON	ON	ON	OFF	ON	OFF	ON	ON	ON
2015.02.01 08:59:59	Normal	ON	ON	ON	ON	OFF	ON	OFF	ON	ON	ON
2015.02.01 08:59:59	Normal	ON	ON	OFF	ON	OFF	ON	OFF	ON	ON	ON
2015.02.01 08:59:59	Normal	ON	ON	OFF	ON	OFF	ON	OFF	ON	ON	ON
2015.02.01 08:59:59	Normal	ON	ON	OFF	ON	OFF	ON	OFF	ON	ON	ON
2015.02.01 08:59:59	Normal	ON	ON	OFF	ON	OFF	ON	OFF	ON	ON	ON
2015.02.01 08:59:59	Normal	ON	ON	OFF	ON	OFF	ON	OFF	ON	ON	ON
2015.02.01 08:59:59	Normal	ON	ON	OFF	ON	OFF	ON	OFF	ON	ON	ON
2015.02.01 08:59:59	Normal	ON	ON	OFF	ON	OFF	ON	OFF	ON	ON	ON
2015.02.01 08:59:59	Normal	ON	ON	OFF	ON	OFF	ON	OFF	ON	ON	ON
2015.02.01 08:59:59	Normal	ON	ON	OFF	ON	OFF	ON	OFF	ON	ON	ON
2016.05.16 16:58:14	Normal	ON	ON	OFF	ON	OFF	ON	OFF	ON	ON	ON
2016.05.16 16:58:14	Normal	ON	OFF	OFF	ON	OFF	ON	OFF	ON	ON	ON
2016.05.16 16:58:14	Normal	ON	ON	OFF	ON	OFF	ON	OFF	ON	ON	ON
2016.05.16 16:58:13	Normal	ON	ON	ON	ON	OFF	ON	OFF	ON	ON	ON
2016.02.01 4:00:03	Normal	ON	ON	ON	ON	OFF	ON	OFF	ON	ON	ON

2. The Sequence Control section of the screen includes the following:

- **Sequence Status:** Indicates the current sequence state. With sequencing disabled, the field shows “Not Sequenced”. If sequencing has not been initiated or if any sequenced outlet has changed state, the field shows “Not Sequenced”. Otherwise, one of the following statuses appear in this field:
  - Sequence ON in Progress
  - Sequence ON Complete
  - Sequence OFF in Progress
  - Sequence OFF Complete

- **Delay (sec.):** Set the sequence delay to specify a number of seconds between each controlled outlet in the sequence. The set delay time applies to all sequenced outlets and can be set from 0 – 999 seconds.
- **Control:** These user-selectable On/Off buttons enables/disables the sequencing of controllable outlets.

3. The Outlet Control section of the screen includes the following functions for each controllable outlet in your RackLink device:

- **Number and Description:** Indicates the outlet number from left to right on the back of your RackLink device.

You can also click on the number and “Add Description” to provide a name or quickly access AutoPing options for a specific outlet.

**Outlet 1:**

**Name** | AutoPing

Name:  
Add Description

Cancel Save

**Outlet 1:**

Name | **AutoPing**

Status:  
AutoPing Stopped

Enabled:  
Off

IP Address to Ping:  
[ ][ ][ ][ ]

Frequency (sec.):  
30  
(30-999 seconds)

Failures:  
3  
(2-200)

Recovery Action:  
None (default) ✓

Outlet Cycle (sec.):  
30  
(1-999 seconds)

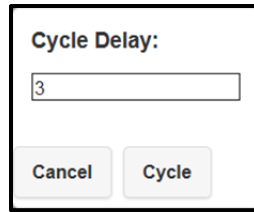
Cancel Save

For more information, see “Configuring AutoPing Settings” on page 35.

- **Starting AutoPing...:** Indicates the AutoPing status. Click to access AutoPing settings.  
For more information, see “Configuring AutoPing Settings” on page 35.



- **Cycle:** Click Cycle and options appear allowing you to specify a cycle delay value (1 – 999 seconds with a 3 second default) or cycle the outlet power one time only when the outlet is on.

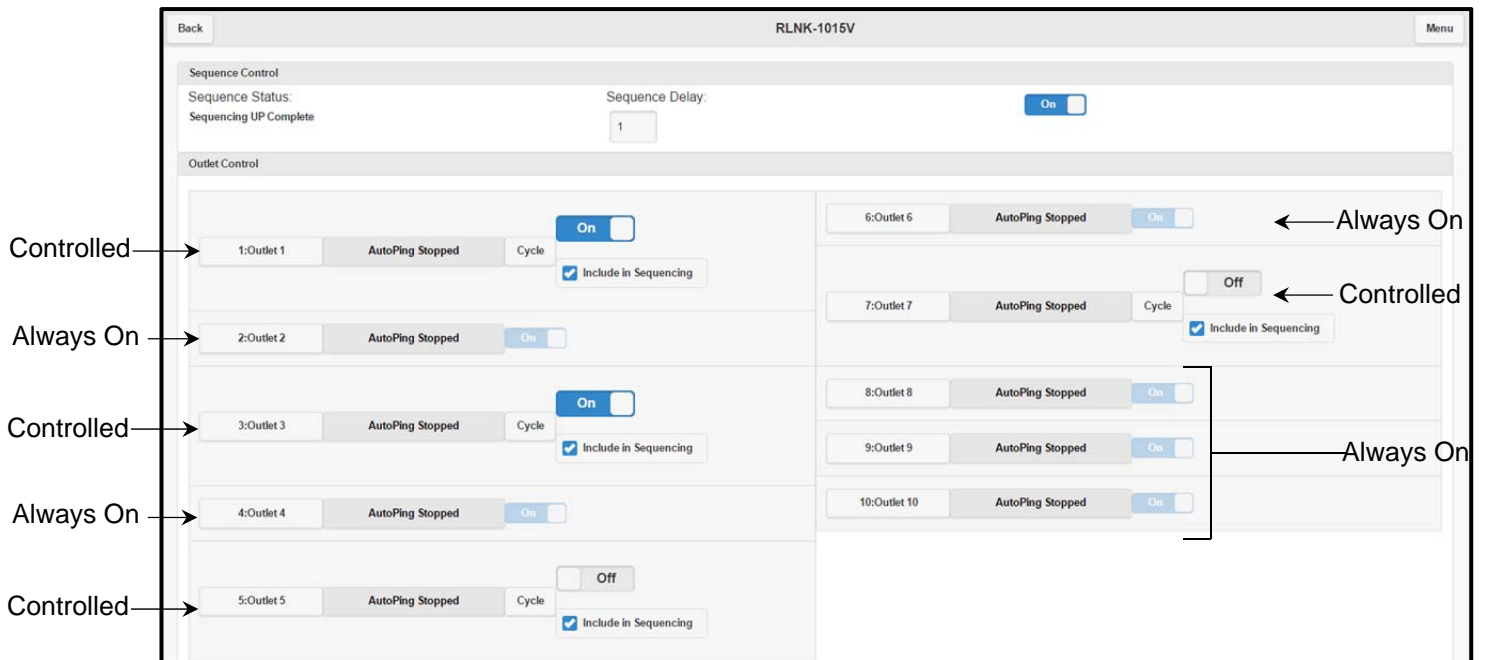


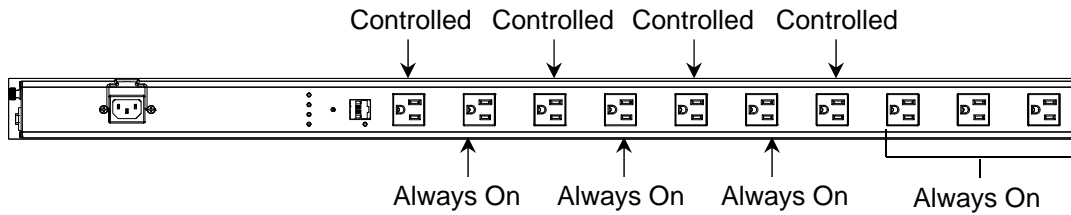
**NOTE:**

- New commands received on a given outlet supersede the cycle command.
- This value is different than the Cycle-Time set on specific Auto Pings in the Auto Ping screen.

- **Control:** For controllable outlets, you can manually turn them On/Off. The default status is On.

**NOTE:** Vertical RackLink models (RLNK-1015V and RLNK-1615V) start with a controlled outlet and then alternate with switched outlets down the unit. The Current Status screen shows the alternating controlled outlets. On the RLNK-1015V model, shown below, the last three outlets are switched.





- **Include in Sequencing:** Select the check box to include or exclude the specific outlet as part of the overall sequence.

4. The Events section of the screen includes log entries for events taking place in your RackLink device:

Logs provide you with the ability to view historical data as follows:

- Current Outlet States
- Events

Log entry events have the following reasons:

- Normal Event
  - AutoPing Fault
  - AutoPing Recovery
- Click a log entry to view the corresponding energy management states of the devices connected to your RackLink outlets. One of the following InfoComm Standard energy management states appear:
    - D: Disconnected
    - s: Standby
    - I: On
    - o:Off
    - U: Unknown

## Configuring Administrator Settings

The Settings features that appear on the right menu are only accessible using the Admin account. The features include AutoPing, Date/Time, Device Settings, Email, Factory Defaults, Firmware, Network, and Passwords.

## Logging in to Administrator Settings

If you are signed into the User account, you are asked to sign in in using the Admin account credentials before accessing the Administrator Settings features.

### To log in to administrator settings:

1. Install and launch your RackLink software and connect to a RackLink device.

For more information, see “Installing the Device Discovery Software and Accessing a Connected RackLink’s Browser-Based Interface” on page 12.

2. Click any of the right menu items beneath the Administrator Settings heading.

The RackLink device prompts you for admin credentials.



3. Enter `admin/admin`.
4. Click **Login**.

You now have administrative permissions to access the AutoPing, Date/Time, Device Settings, Email, Factory Defaults, Firmware, Network, and Passwords right menu items.

## Configuring AutoPing Settings

These settings may be used to configure your RackLink device to automatically Ping another IP address and create actions in the event of a failure.

**TIP:** For an example AutoPing configuration, see “Understanding an AutoPing Configuration” on page 53.

### To configure AutoPing Settings:

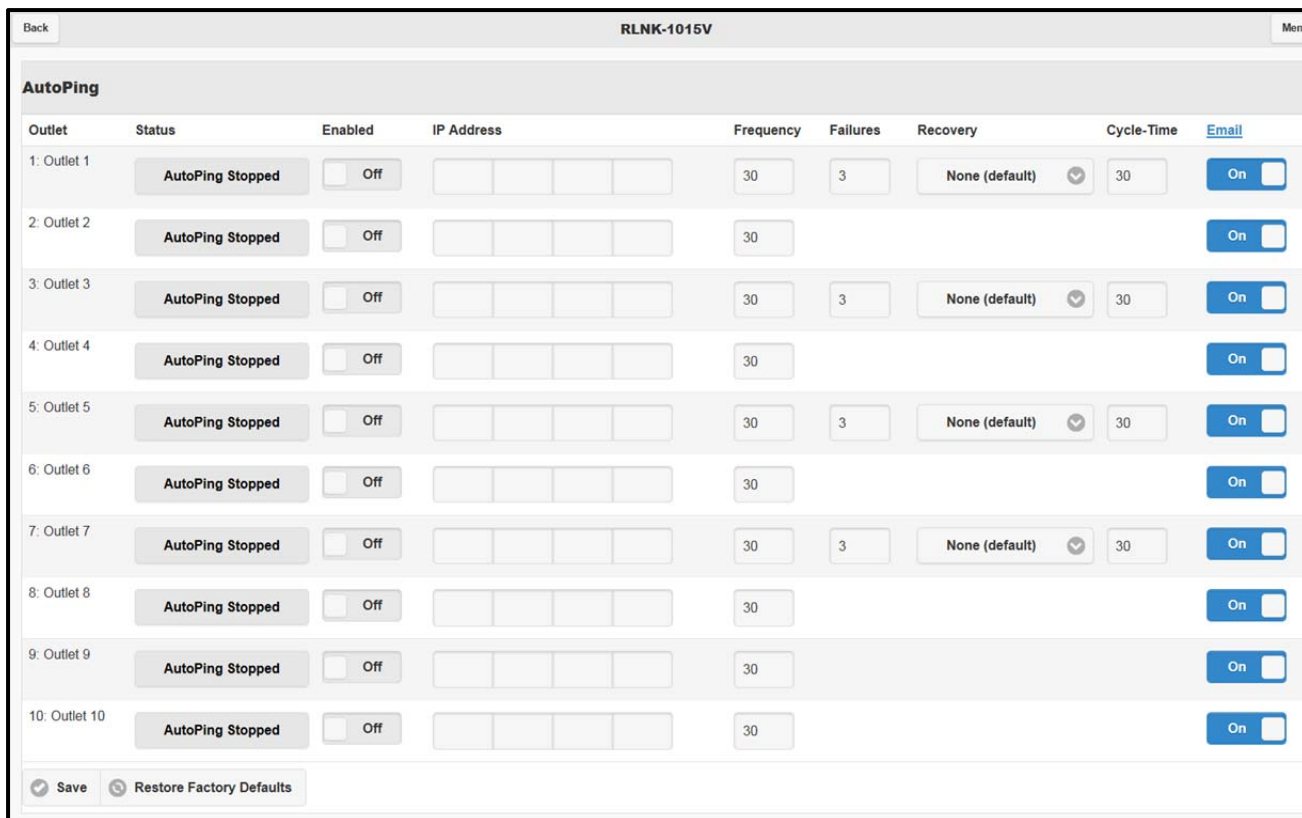
1. Install and launch your RackLink software and connect to a RackLink device.

For more information, see “Installing the Device Discovery Software and Accessing a Connected RackLink’s Browser-Based Interface” on page 12.

2. Click **AutoPing Settings** on the right menu.

If you are signed into the User account, you are asked to sign in in using the Admin account credentials. For more information, see “Logging in to Administrative Setup” on page 35.

The AutoPing Settings screen appears.



**NOTE:** The screenshot shows the AutoPing screen on a RLNK-1015V. On that model, outlets 1, 3, 5, and 7 are controlled.

3. AutoPing Settings include the following:

- **Outlet:** These numbered labels correspond to the number of controlled outlets on your RackLink device.
- **Status:** This display field shows the current status of communication between your Ping device and your RackLink device outlet. The statuses and corresponding color indicators include the following:
  - **AutoPing Replied** (Green status indicator appears.)
  - **AutoPing Failed** (Red status indicator appears.)

- **AutoPing not started** (Gray status indicator appears.)
- **Attempting communication...** (Gray status indicator appears.)
- **Starting AutoPing...** (Gray status indicator appears.)
- **Stopping AutoPing...** (Gray status indicator appears.)
- **AutoPing Stopped** (Gray status indicator appears.)
- **No status** (Gray status indicator appears.)

**NOTE:** The Alert LED is red if any outlet has a failed AutoPing, or green if all outlets indicate AutoPing replied.

- **Enabled:** Select to turn AutoPing On or Off on your RackLink device outlet.
- **IP Address:** Enter the IP address of the Ping device.
- **Frequency (in seconds):** Enter how often (in seconds) your RackLink device initiates an AutoPing. You can configure 30 - 999 seconds and the default is 30.
- **Failures:** Enter the number of times your RackLink device will Ping the preset address if no response is received. You can configure 2 - 200 retries and the default is 3. For example, using the default settings with a Frequency of 30 seconds and three Failures, the device being Pinged would need to be offline for 90 seconds before the recovery action is executed.
- **Recovery:** Use this drop-down field to set a desired outlet action while the configured Ping device does not reply. The actions cease whenever the Ping device does reply. The actions include the following:
  - Power-cycle Until Recovery
  - Power-cycle Once
  - Power Off Pending Recovery
  - Power Off
  - Power On Pending Recovery
  - Power On

**NOTE:** Only one action per outlet can be performed at a time.

4. **Cycle-Time:** Provide a cycle time delay value (in seconds) for the specific AutoPing. You can configure 1 - 999 seconds and the default is 3.

**NOTE:** This value is different than the Cycle Delay set on specific outlets in the Current Status screen.

5. **Email:** Turn email alerts On or Off for the specific Auto Ping.

**TIP:** Click the Email column heading to quickly access the SMTP screen.

6. Click **Save**.

**NOTE:** Click **Restore Factory Defaults** to revert your settings to their original settings, if desired.

## ***Configuring Date/Time Settings***

### **To configure date/time settings:**

1. Install and launch your RackLink software and connect to a RackLink device.

For more information, see “Installing the Device Discovery Software and Accessing a Connected RackLink’s Browser-Based Interface” on page 12.

2. Click **Date/Time** on the right menu.

If you are signed into the User account, you are asked to sign in in using the Admin account credentials. For more information, see “Logging in to Administrative Setup” on page 35.

The Date/Time Settings screen appears.

The Current Settings section of the screen displays the current date and time.

3. The Configuration area of the screen includes the following:
  - a. **Time Zone:** Click the drop-down to select a time zone.
  - b. **Settings:** Selecting NTP or Manual produces different fields as follows:
    - If you select NTP, the NTP Server 1 field remains. Specify an NTP server address of your choice. (The default is north-america.pool.ntp.org).

- If you select Manual, the Date and Time fields appear. Specify a date and time as desired.



The screenshot shows a settings panel with a 'Settings:' label. At the top right, there are two tabs: 'NTP' (disabled) and 'Manual' (active). Below the tabs, there are two input fields: 'Date:' with the value '2015-02-01' and 'Time:' with the value '08:59'.

4. Click **Save**.

**NOTE:** Click **Restore Factory Defaults** to revert your settings to their original settings, if desired.

## ***Configuring Device Settings***

### **To configure device settings:**

1. Install and launch your RackLink software and connect to a RackLink device.

For more information, see “Installing the Device Discovery Software and Accessing a Connected RackLink’s Browser-Based Interface” on page 12.

2. Click **Device Settings** on the right menu.

If you are signed into the User account, you are asked to sign in in using the Admin account credentials. For more information, see “Logging in to Administrative Setup” on page 35.



The Device Settings screen appears.

The screenshot shows the 'Device Settings' interface for a device labeled 'RLNK-1015V'. At the top, there are 'Back' and 'Menu' buttons. The settings are organized into several rows:

- Mac Address:** d8:80:39:14:27:d2
- Device Name:** RLNK-1015V
- Account Name/Number:** (empty text input field)
- Device Description:** RackLink Select
- Location:** (empty text input field)
- Initial Outlet State:** ON (with a dropdown arrow)
- Sequence on Power Up:** On (with a toggle switch)

At the bottom, there are two buttons: 'Save' (with a checkmark icon) and 'Restore Factory Defaults' (with a circular arrow icon).

3. The Device Settings screen includes the following:

- **MAC Address:** Displays the unique MAC Address of your specific RackLink device.
- **Device Name:** The name of your RackLink device that appears in the top of the browser-based interface.
- **Account Name/Number:** A user-defined field for reference.
- **Device Description:** The description you provide here appears in the RackLink Discovery Tool.
- **Location:** Specify a particular location where your RackLink device is kept.
- **Initial Outlet State:** ON is the factory default setting for outlet. When doing a firmware upgrade the outlet state will default to the selected setting. The three settings include:
  - **Remember prior state:** The outlets remain in their prior state
  - **OFF:** The outlets default to off as their default setting.

- **ON**: The outlets default to on as their default setting.

**NOTE:** This setting is only applicable to outlets that are not included in sequencing or when **Sequence on Power Up** is disabled.

For more information about which outlets are included or excluded from sequencing, see “Current Status Settings” on page 30.

- **Sequence on Power Up**: Use this control to determine whether or not your RackLink device will perform a sequence while powering up. Select from ON/OFF options. The default setting is ON.

For more information about which outlets are included or excluded from sequencing, see “Current Status Settings” on page 30.

4. Click **Save**.

**NOTE:** Click **Restore Factory Defaults** to revert your settings to their original settings, if desired.

## ***Configuring Email Settings***

### **To configure email settings:**

1. Install and launch your RackLink software and connect to a RackLink device.

For more information, see “Installing the Device Discovery Software and Accessing a Connected RackLink’s Browser-Based Interface” on page 12.

2. Click **Email** on the right menu.

If you are signed into the User account, you are asked to sign in in using the Admin account credentials. For more information, see “Logging in to Administrative Setup” on page 35.

The Email screen appears.

Back RLNK-1015V Menu

---

### SMTP Settings

Server Settings

Server's IP/Host Name:

Sender's Email Address:

Port:

SSL/TLS Required:

Save Server Settings

Authentication

Authentication Required:

Username:

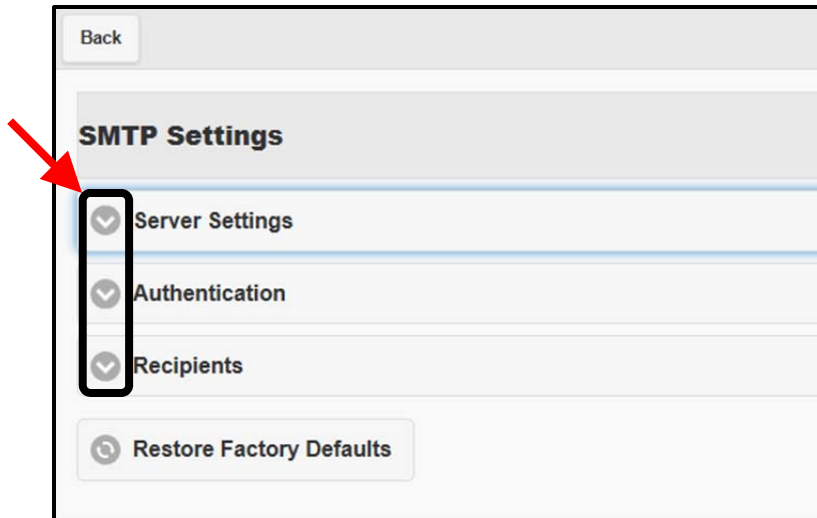
Password:

Save Authentication Settings

Recipients

Name	Email Address	Status		
<input type="text" value="Name"/>	<input type="text" value="Email"/>	<input type="text"/>	<input checked="" type="checkbox"/> Save	<input checked="" type="checkbox"/> Delete
<input type="text" value="Name"/>	<input type="text" value="Email"/>	<input type="text"/>	<input checked="" type="checkbox"/> Save	<input checked="" type="checkbox"/> Delete
<input type="text" value="Name"/>	<input type="text" value="Email"/>	<input type="text"/>	<input checked="" type="checkbox"/> Save	<input checked="" type="checkbox"/> Delete
<input type="text" value="Name"/>	<input type="text" value="Email"/>	<input type="text"/>	<input checked="" type="checkbox"/> Save	<input checked="" type="checkbox"/> Delete
<input type="text" value="Name"/>	<input type="text" value="Email"/>	<input type="text"/>	<input checked="" type="checkbox"/> Save	<input checked="" type="checkbox"/> Delete

**NOTE:** Click the arrow on the upper-left of screen sections on the Email screen to collapse and expand them for convenience.



3. The Server Settings section of the screen includes the following:

- **Server's IP/Host Name:** Enter the IP or host name of your mail server.
- **Sender's E-mail Address:** Enter up to 5 email addresses in the text boxes for notification for AutoPing no response, recovery from a threshold violation, and when a threshold has gone above or below an assigned value.
- **Port:** Enter the port you wish to use on your mail server. The default port is 25.

**NOTE:**

- Ensure that the server name you provide is a fully qualified domain name.
- Verify you are using the correct port number and verify that your network is not blocking outbound traffic on the port.
- **SSL/TLS Required:** Select the check box if you wish to use SSL/TLS encryption on your server.
- Click **Save Server Settings** to keep your configurations made on this portion of the screen.

4. The Authentication section of the screen includes the following:

- **Authentication Required:** Select the check box if authentication is required on your mail server. This enables the User Name and Password fields.
- **Username:** Enter the user name on your mail server.
- **Password:** Enter the password on your mail server.

- Click **Save Authentication Settings** to keep your configurations made on this portion of the screen.
5. The Recipients section of the screen includes the following:
- Provide **Name** and **Email Address** information for up to 5 email recipients.  
**NOTE:** Click **Save** or **Delete** on specific rows for up to 5 corresponding email recipients.
  - Status information appears next to corresponding email recipients for the following events:
    - **Success. Email Sent.**
    - **Failure. SMTP Server could not be resolved.**
    - **Failure. The SMTP server connection failed or was prematurely terminated.**
    - **Failure. The SMTP return code was ###.**
  - **Send Test Email:** Click **Send Test** to send one test email to ensure your email alert system is working properly.

**NOTE:** Click **Restore Factory Defaults** to revert your settings to their original settings, if desired.

### ***Restoring Factory Defaults***

**NOTE:** The Factory Reset button on your RackLink unit resets to DHCP and default passwords. For more information, see “RackLink Select Model Diagrams” on page 60.

You can restore the factory default settings for different areas of your RackLink device as follows:

- AutoPing Defaults
- Date/Time Defaults
- Contact Defaults
- Network Defaults
- SMTP Defaults
- Password Defaults
- Sequencing Defaults
- All Defaults (defaults all previously listed settings)

**To restore factory defaults:**

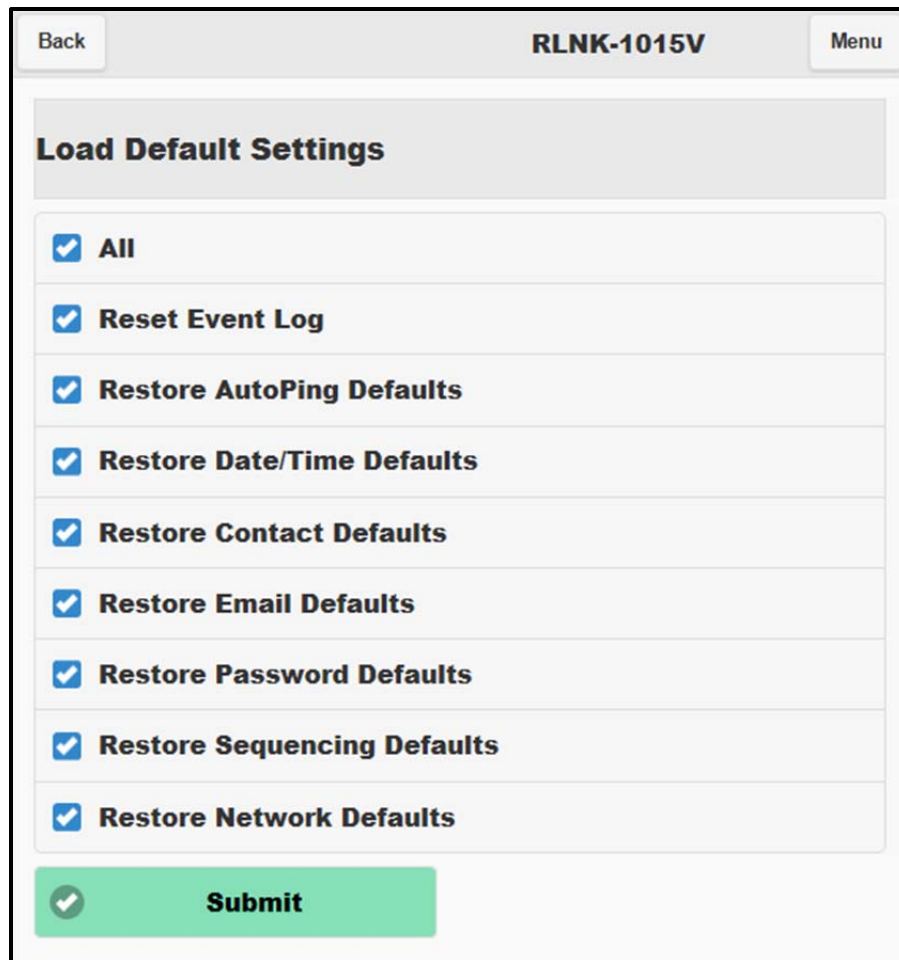
1. Install and launch your RackLink software and connect to a RackLink device.

For more information, see “Installing the Device Discovery Software and Accessing a Connected RackLink’s Browser-Based Interface” on page 12.

2. Click **Factory Defaults** on the right menu.

If you are signed into the User account, you are asked to sign in in using the Admin account credentials. For more information, see “Logging in to Administrative Setup” on page 35.

The Load Default Settings screen appears.



The screenshot shows a web interface for a device labeled "RLNK-1015V". At the top, there are "Back" and "Menu" buttons. The main heading is "Load Default Settings". Below this, there is a list of settings, each with a checked checkbox:

- All
- Reset Event Log
- Restore AutoPing Defaults
- Restore Date/Time Defaults
- Restore Contact Defaults
- Restore Email Defaults
- Restore Password Defaults
- Restore Sequencing Defaults
- Restore Network Defaults

At the bottom of the list is a green "Submit" button with a checkmark icon.

3. Select the default setting check boxes for the items you wish to restore on your RackLink device. Select the **All** check box to mark them all with a single click.
4. Click **Submit**.  
A conformation dialog box appears.
5. Click **OK**.

## Updating Device Firmware

### To update device firmware:

1. Install and launch your RackLink software and connect to a RackLink device.

For more information, see “Installing the Device Discovery Software and Accessing a Connected RackLink’s Browser-Based Interface” on page 12.

2. Click **Firmware** on the right menu.

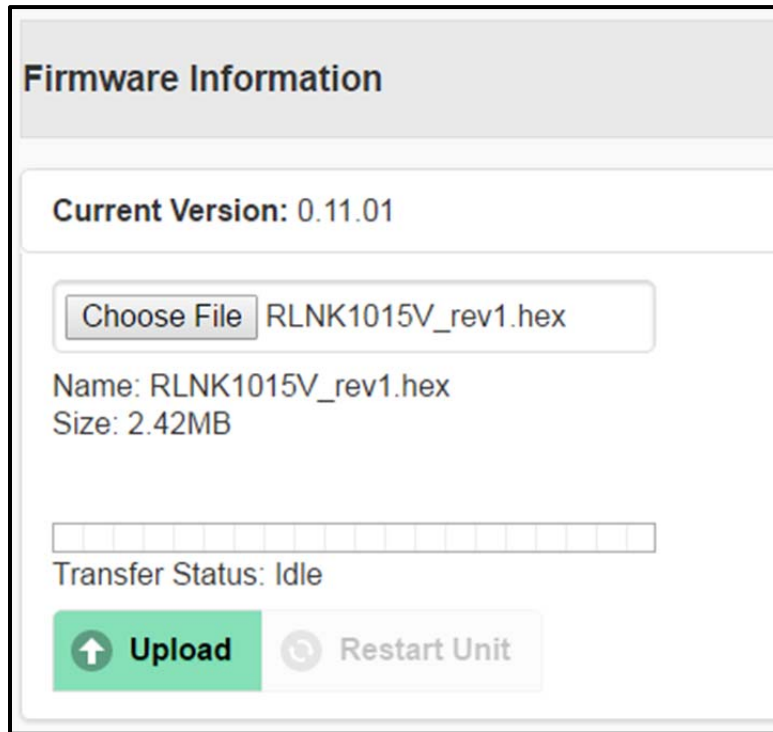
If you are signed into the User account, you are asked to sign in in using the Admin account credentials. For more information, see “Logging in to Administrative Setup” on page 35.

The Firmware screen appears.



3. View the **Current Version** for the number of the latest firmware installation.
4. Click **Choose File** to locate a newer firmware version file you wish to upload to your RackLink device.

5. The file Name, Size, and a Transfer Status bar appear. The Upload button is then enabled.

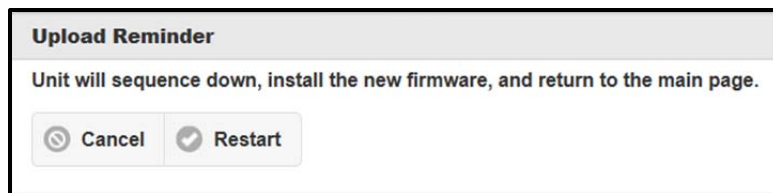


6. Click **Upload**.

7. The Transfer Status bar progresses and indicates a percentage. The status then changes to **Finalizing** until indicating **Transfer Successful**. The Restart Unit button is then enabled.

8. Click **Restart Unit**.

9. The system then displays a pop-up indicating that the "Unit will sequence down, install the new firmware, and return to the main page."



10. Click **Restart**.

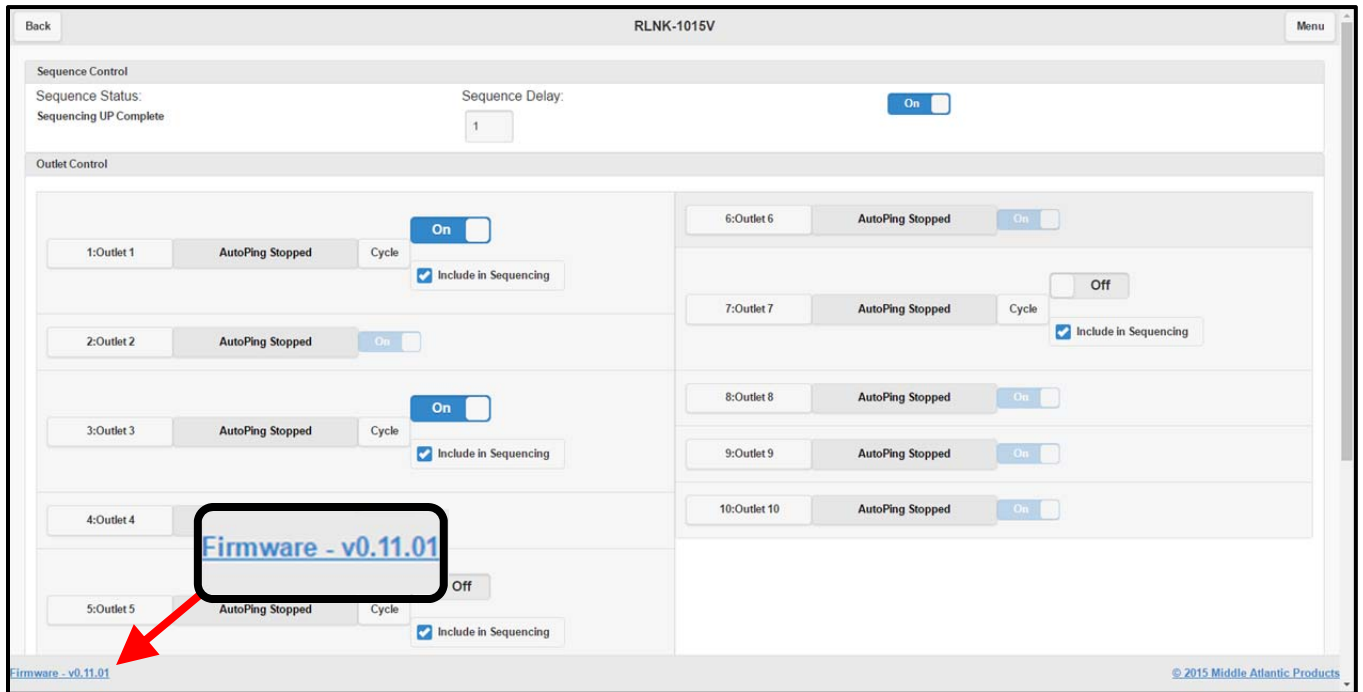
A message then appears indicating "Sequencing down to install new firmware."

**NOTE:**

- The unit will sequence down, install the new firmware version, and then power back up.
- The Alert LED blinks green while the system restarts. Do not power down your unit during the system restart.



11. When the Current Status screen appears, confirm that the firmware version is correct.



## Configuring Network Settings

To configure network settings:

1. Install and launch your RackLink software and connect to a RackLink device.

For more information, see “Installing the Device Discovery Software and Accessing a Connected RackLink’s Browser-Based Interface” on page 12.

2. Click **Network** on the right menu.

If you are signed into the User account, you are asked to sign in in using the Admin account credentials. For more information, see “Logging in to Administrative Setup” on page 35.

The Network screen appears.

The screenshot shows the Network Settings interface for an RLNK-1015V device. At the top, there are 'Back' and 'Menu' buttons. The main title is 'IP Settings'. Below this, the MAC Address is displayed as 'd8:80:39:14:27:d2'. A 'DHCP' checkbox is checked. The IP Address is set to 10.90.51.55, Subnet Mask to 255.255.254.0, Gateway to 10.90.50.1, DNS 1 to 10.90.48.118, and DNS 2 to 10.90.48.91. The HTTP Port is set to 80. At the bottom, there are 'Save' and 'Restore Factory Defaults' buttons.

3. IP Settings include the following:

- **MAC Address:** Displays the unique MAC Address of your specific RackLink device.
- **DHCP:** Select this check box to use a DHCP server for configuring all IP address settings.
- **IP Address Settings:** Clear the Use DHCP check box if you wish to specify your own IP settings and provide values for the following:
  - Device IP Address
  - Subnet Mask
  - Gateway
  - Primary DNS
  - Secondary DNS (Optional)
- **HTTP Port:** Port 80 is set as the default. You may not change value to a port that is already in use. Ports used by the system include 7 (ICMP/Ping), 443 (HTTPS), 54632

(Discovery), and 60000 (Control Protocol). If you choose any of these ports the system will not change the port of the HTTP Server.

4. Click **Save**.

**NOTE:**

- Click **Restore Factory Defaults** to revert your settings to their original settings, if desired.
- The Alert LED blinks green while acquiring an IP Address. If the device does not receive a DHCP request after 30 seconds, it will default to 192.168.1.200 and the Alert LED alternates between red and green.

## ***Passwords***

When logged in to the browser-based interface using the Admin account, you can change the passwords for the User, Admin, and Control Systems accounts.

**NOTE:**

- The default account names and passwords for the Administrator, User, and Control Systems, respectively, on your RackLink device are as follows:
  - **admin/ admin**
  - **user/ user**
  - **user/password**
- While passwords may be changed by the admin, account names are fixed and cannot be changed.

### **To configure new passwords:**

1. Install and launch your RackLink software and connect to a RackLink device.

For more information, see “Installing the Device Discovery Software and Accessing a Connected RackLink’s Browser-Based Interface” on page 12.

2. Click **Passwords** on the right menu.

If you are signed into the User account, you are asked to sign in in using the Admin account credentials. For more information, see “Logging in to Administrative Setup” on page 35.

The Passwords screen appears.

Back RLNK-1015V Menu

### Passwords

Administrator Password

Password:

Password Confirm:

Save

User Password

Password:

Password Confirm:

Save

Control Systems Password

Password:

Password Confirm:

Save

Defaults

3. Change the passwords for **Administrator**, **User**, and **Control System** accounts as desired.
4. Click **Save**.

## UNDERSTANDING AN AUTOPING CONFIGURATION

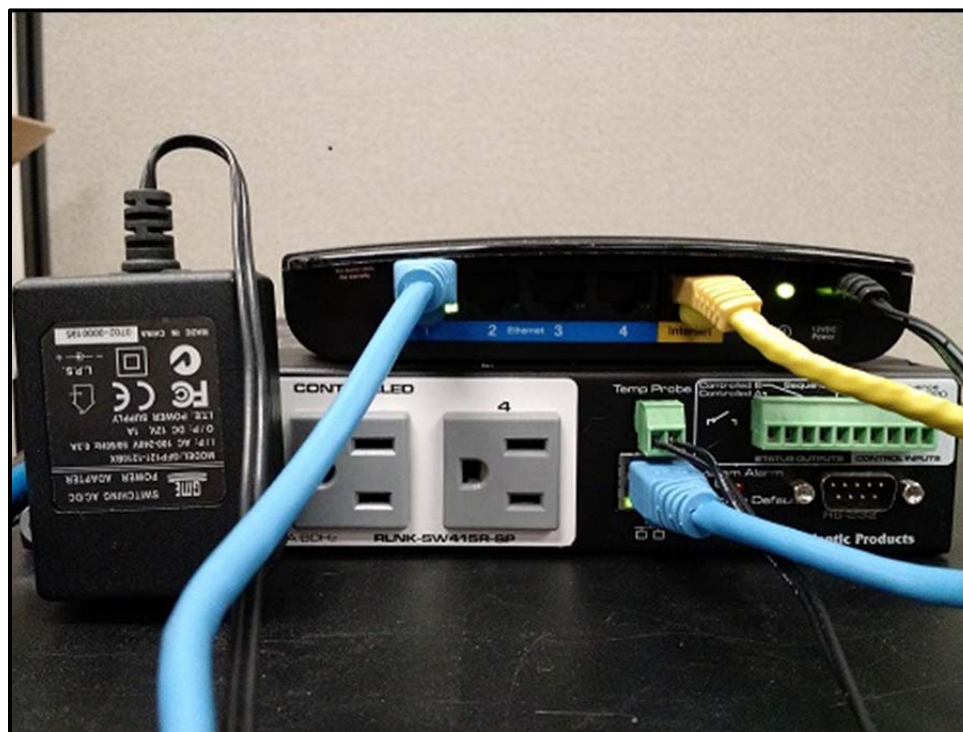
This section takes you through an AutoPing configuration where your RackLink reboots a modem/router in the event that its Internet connection stops working.

### NOTE:

- A proper AutoPing configuration prevents cyclic outlet rebooting. Cyclic outlet rebooting is the result of AutoPing settings not taking the modem/router's start-up time into account. This results in your RackLink continuously turning the controlled outlet on and off.
- Understand that email notifications are not received in the event that your Internet connection goes down. Instead, a recovery notification is sent when the connection is reestablished. Refer to the log entry for more information about when the actual failure occurred. For more information, see "Current Status Settings" on page 30.

## Connecting Your Equipment

This picture shows the following connections you should make to your equipment:



- Connect your modem/router's (black box above the RackLink) power cable into a controlled outlet on the RackLink.
- Connect your RackLink's Ethernet cable (blue) into switch port 1 on the modem/router.
- Connect your modem/router to the Internet (yellow cable).

## Measuring Modem/Router Start-Up Time

When configuring AutoPing, it's important to know the start-up time of the modem/router. The start-up time is the amount of time between when the modem/router is powered-up until it starts routing traffic to the Internet.

**NOTE:** If your Internet connection is down from your Internet Service Provider (ISP) or your AutoPing settings don't take your modem/router's start-up time into account, the result is referred to as Cyclic Rebooting, where your RackLink continuously turns the controlled outlet on and off.

### To measure your modem/router start-up time:

1. Leave your modem/router unplugged/powered off.
2. Open a command prompt and Ping an address on the internet using the `-t` option (Ping continuously) as follows:

```
ping -t www.google.com
```

You should see replies indicating "Request timed out".

3. Start a stopwatch while plugging in the modem/router's power cable.

Once you see "Reply from..." as a response, stop the stopwatch.

This is your start-up time for the modem/router.

**NOTE:** It may be beneficial to add a few seconds to the start-up time just to be safe. For our example, we will assume the modem/router boots up in about 2 minutes.

## Calculating Frequency, Failures, and Cycles

Before configuring AutoPing in your RackLink device, it's important to understand the relationship between Frequency, Failures, and Cycles. It is good practice to keep the default values for Frequency and Failures (30 and 3, respectively) and adjust your outlet recovery cycle time (Cycle-Time) to equal your measured recovery time from "Measuring Modem/Router Start-Up Time" on page 54, plus at least 1 frequency.

In our example, we set Frequency to 30 seconds, Failures to 3, which results in your Internet connection being down for 90 seconds in order to trigger an AutoPing recovery. Finally, we set an outlet Cycle-Time of 150 seconds (a modem/router reboot of 120 seconds + a Frequency of 30 seconds).

## Configuring AutoPing in Your RackLink

For more general AutoPing information, see "Configuring AutoPing Settings" on page 35; otherwise, continue here with this example configuration.

## To configure AutoPing in your RackLink:

1. Install and launch your RackLink software and connect to a RackLink device.

For more information, see “Installing the Device Discovery Software and Accessing a Connected RackLink’s Browser-Based Interface” on page 12.

2. Click **AutoPing Settings**.

If you are signed into the User account, you are asked to sign in in using the Admin account credentials. For more information, see “Logging in to Administrative Setup” on page 35.

The AutoPing Settings screen appears.

Outlet	Status	Enabled	IP Address	Frequency	Failures	Recovery	Cycle-Time	Email
1: Outlet 1	AutoPing Stopped	Off		30	3	None (default)	30	On
2: Outlet 2	AutoPing Stopped	Off		30				On
3: Outlet 3	AutoPing Stopped	Off		30	3	None (default)	30	On
4: Outlet 4	AutoPing Stopped	Off		30				On
5: Outlet 5	AutoPing Stopped	Off		30	3	None (default)	30	On
6: Outlet 6	AutoPing Stopped	Off		30				On
7: Outlet 7	AutoPing Stopped	Off		30	3	None (default)	30	On
8: Outlet 8	AutoPing Stopped	Off		30				On
9: Outlet 9	AutoPing Stopped	Off		30				On
10: Outlet 10	AutoPing Stopped	Off		30				On

Save Restore Factory Defaults

3. Make the following configurations on a controlled outlet.

**NOTE:** The screenshot shows the AutoPing screen on a RLNK-1015V. On that model, outlets 1, 3, 5, and 7 are controlled.

- You can configure the IP Address to Ping Google's DNS server at 8.8.8.8. However, this address could be the outside interface of your router or your next hop to the Internet. Find your next hop to the Internet by issuing the following at the command prompt:

tracert [www.google.com](http://www.google.com)

```

Administrator: C:\Windows\system32\cmd.exe
C:\>tracert www.google.com
Tracing route to www.google.com [74.125.226.178]
over a maximum of 30 hops:
  0  <1 ms    <1 ms    <1 ms    192.168.8.1
  1  1 ms     1 ms     1 ms     65.122.56.65 [65.122.56.65]
  2  3 ms     3 ms     3 ms     eur-edge-10.inet.quest.net [209.35.101]
  3  9 ms     8 ms     8 ms     dcx2-edge-01.inet.quest.net [167.14.28.66]
  4  9 ms     9 ms     9 ms     65.122.109.214
  5  9 ms     8 ms     9 ms     209.85.242.140
  6  10 ms    11 ms    10 ms    209.85.143.210
  7  16 ms    17 ms    16 ms    209.85.143.223
  8  16 ms    16 ms    16 ms    209.85.249.213
  9  15 ms    15 ms    15 ms    209.85.245.183
 10  15 ms    15 ms    15 ms    lga15s45-in-f18.1e100.net [74.125.226.178]
Trace complete.
C:\>

```

The next hop is the first address that is not internal or private. In this screenshot, the next hop is 65.122.56.65.

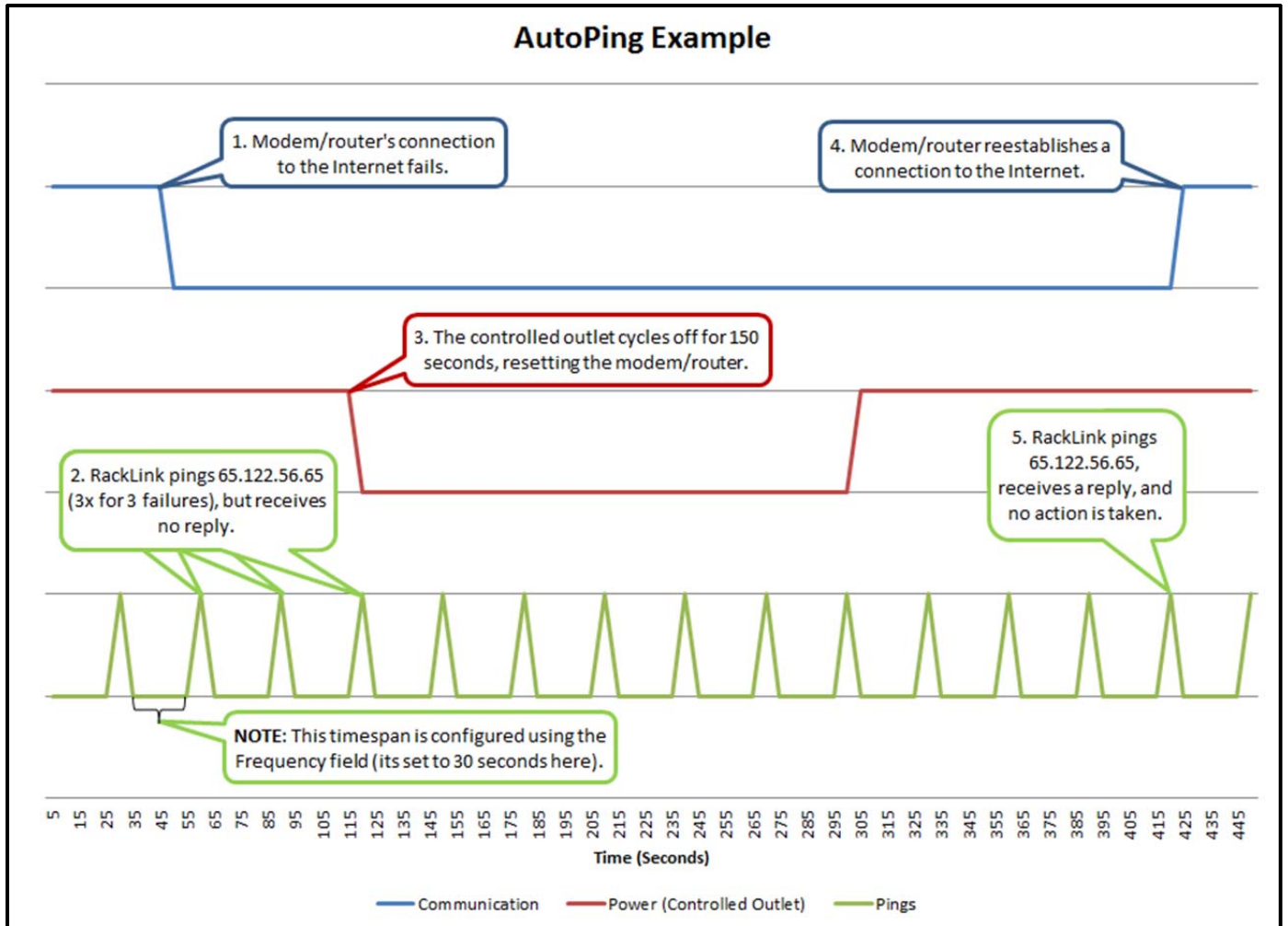
- Configure the Frequency. This is the time (in seconds) between each Ping. You can set it as short as 30 seconds. More frequent Pings mean that your RackLink device will respond to outages quicker. However, more frequent Pings does increase your network traffic and may have an adverse effect on your network throughput.
- Configure the Failures to 3. With a Frequency of 30 seconds and 3 Failures, the device being Pinged would need to be offline for 90 seconds before the recovery action is executed.
- Configure the Recovery to "Power-Cycle Until Recovery". This results in the outlet continuously cycling until an Internet connection is reestablished.
- Configure the Cycle-Time for your power cycle delay to 150 seconds.

**NOTE:** We are using 150 seconds because we assumed our start-up time to be 2 minutes and a Frequency of 30 seconds. For more information, see "Calculating Frequency, Failures, and Cycles" on page 54.

Our configuration will begin cycling the controlled outlet after 90 seconds (Frequency is 30 seconds and Failures are 3) of no response from address 65.122.56.65.



The following diagram shows each step of our example AutoPing.



# FREQUENTLY ASKED QUESTIONS

## General Questions

**Question:** What if I forget my password?

**Answer:** Press the Factory Reset button on the device. This defaults the permissions to admin/admin. For more information, see “RackLink Select Model Diagrams” on page 60.

**NOTE:** If you have configured your RackLink to use TCP/IP, resetting the system restores it to using DHCP. For more information, see “Setting Up Your RackLink Device for the First Time” on page 19.

**Question:** What if my RackLink device is inoperable after I perform a firmware upgrade?

**Answer:** Contact Middle Atlantic Products Technical Support at 1-800-266-7225.

**Question:** What if my RackLink device is not receiving power?

**Answer:** Ensure that the IEC connector on the line cord is fully inserted into the rear outlet and the line cord retention clip is securely fastened. Confirm that the circuit breaker is in the ON position. Plug another device into the exact same outlet your RackLink device was using and see if the other device functions.

## Connectivity Questions

**Question:** I connected RackLink to my network, but I can't find it in the Device Discovery program. What's wrong?

**Answers:** The Device Discovery program can only find RackLink devices that are on the same subnet as the computers accessing them.

- If you are using a DHCP connection, and your RackLink device is unable to obtain an IP address from the DHCP server, set your computer's IP address to 192.168.1.xxx. Where xxx is any number between 1 and 199 or 201 to 254. Your RackLink will default its IP address to 192.168.1.200 and connect with your PC.
- If you are using a TCP/IP connection, consider the following scenario:  
If your PC has an IP address of 192.168.1.50 and a subnet mask of 255.255.255.0, and your RackLink has an IP address of 192.168.2.50 and a subnet mask of 255.255.255.0, the RackLink will not be listed in the Device Discovery program. This is because the third octets of the IP addresses (1 and 2, respectively) differ. With a subnet mask of 255.255.255.0, the first three octets of the IP addresses on the PC and RackLink would have to match.

For more information regarding IP addresses, refer to Microsoft's TechNet articles at <http://technet.microsoft.com/en-us/library/cc958829.aspx>.

**Question:** What could be wrong if I can't access the browser-based interface?

**Answer:** Check to see if you can access any webpage. Verify that the Ethernet port's LEDs on the back of your RackLink device are solid yellow and blinking green. Review the procedures in "Setting Up Your RackLink Device for the First Time" on page 19.

## Control System Questions

**Question:** I press the Factory Reset button and reset my RackLink to factory defaults, but I'm getting a login denied response from RackLink when I sign in using the default Control Systems account and password. Why is this happening?

**Answer:** Earlier versions of RackLink firmware did not reset the Control Systems account password after pressing the Default Restoration button. Reset it manually by accessing the **Passwords** screen and setting the Control Systems account password to match your Control System.

**Question:** Every time I send a command from my control system to my RackLink it responds with a "Bad Length" error. Why is this happening?

**Answer:** The length byte is in Hexadecimal format. When you add up the total command length, make sure you convert the length from decimal format to hexadecimal format.

**Question:** Every time I send a command from my control system to my RackLink it responds with a "Bad Checksum" error. Why is this happening?

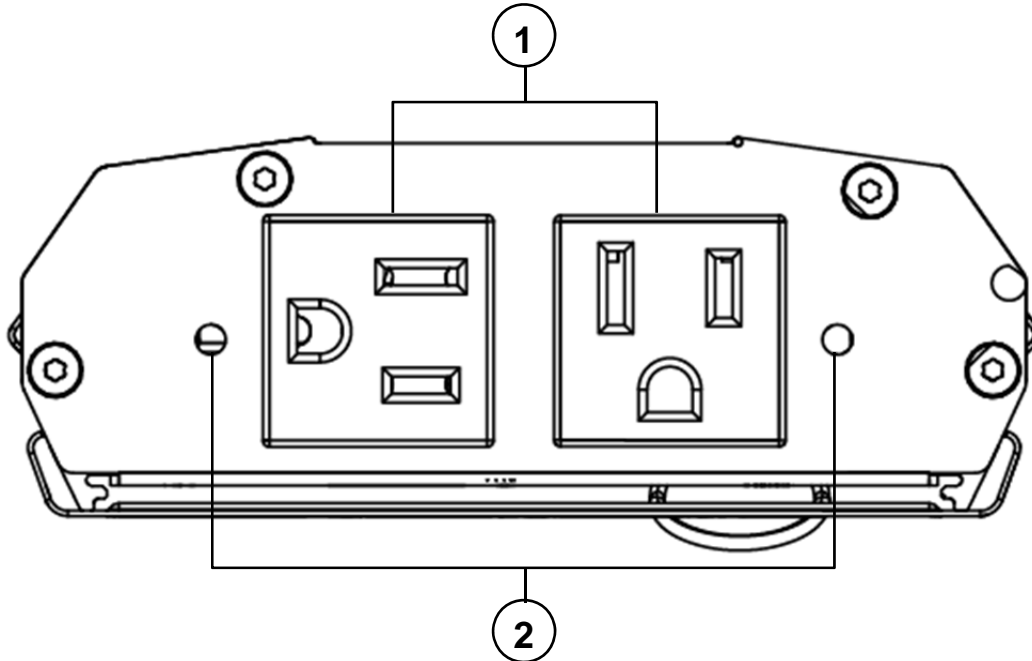
**Answer:** Review the Checksum section of the [Serial Communication Protocol](#) document on the website. Make sure to AND the sum with 127 (0x7F) or modulus the sum with 128 (0x80).

## RACKLINK SELECT MODEL DIAGRAMS

### RLNK-215 Diagrams

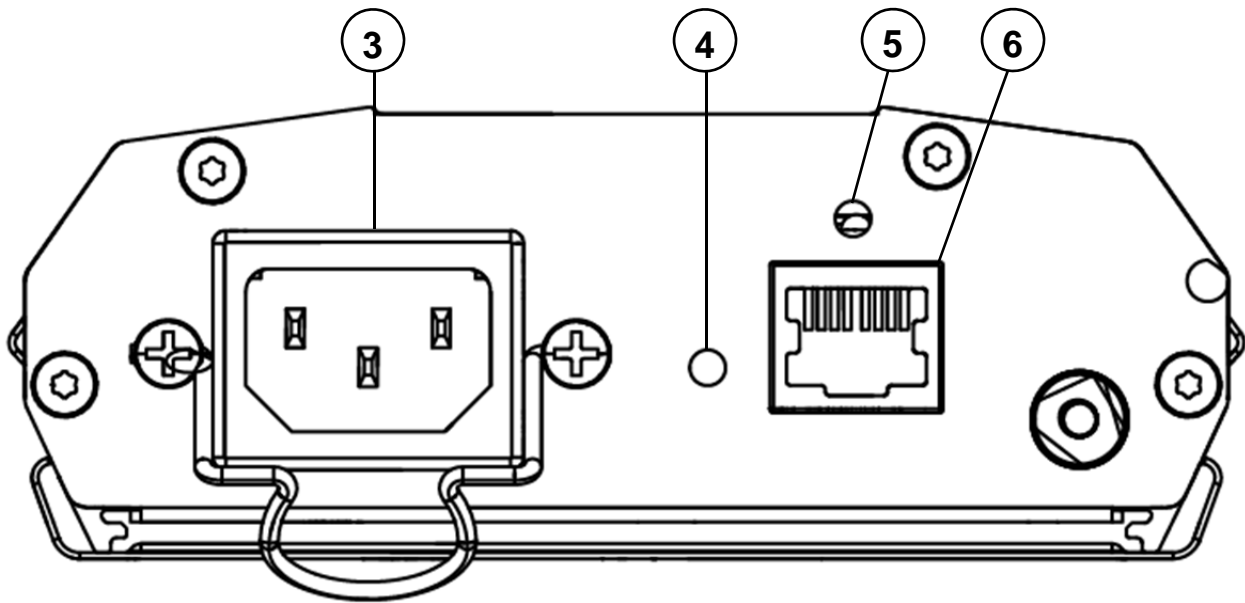
The following front and rear views of the RLNK-215 include callouts that correspond to numbered descriptions.

#### *RLNK-215 Front View*



1. Two Controlled Outlets
2. Integrated Controlled Outlet ON/OFF LED: The LED illuminates green when outlet is energized.

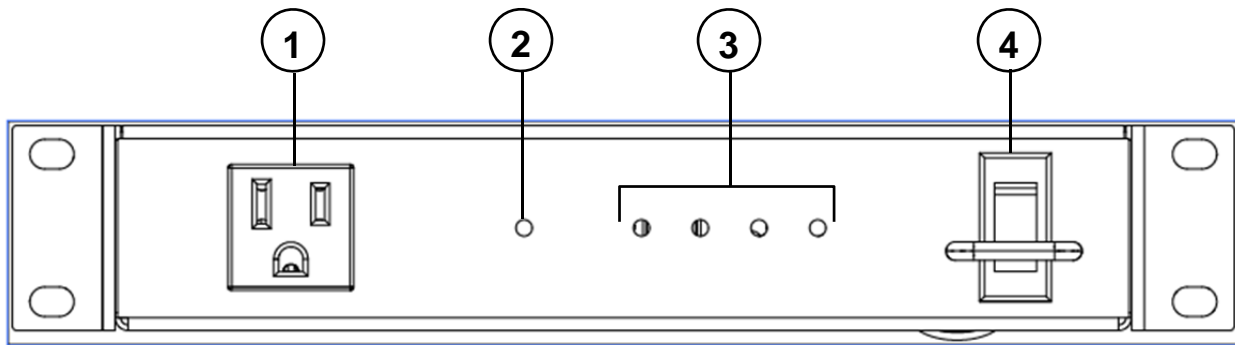
**NOTE:** Each controlled outlet has an associated LED. The LED number corresponds with the numbered controlled outlet.

**RLNK-215 Rear View**

3. IEC C14 Power Input: 120V nominal, 12A (total load, all outlets), 60Hz input with cord retainer.
4. Factory Reset Button: Resets to DHCP and default passwords. For more information, see “Configuring Network Settings” on page 42 and “Passwords” on page 51.
5. Alert LED: The LED illuminates red when an alarm condition occurs (any AutoPing failure). For more information, see “Configuring SMTP Settings” on page 42.
6. Ethernet Port (10/100): Used to connect to a network, requires a Cat-5 (or better) cable.

**RLNK-415R Diagrams**

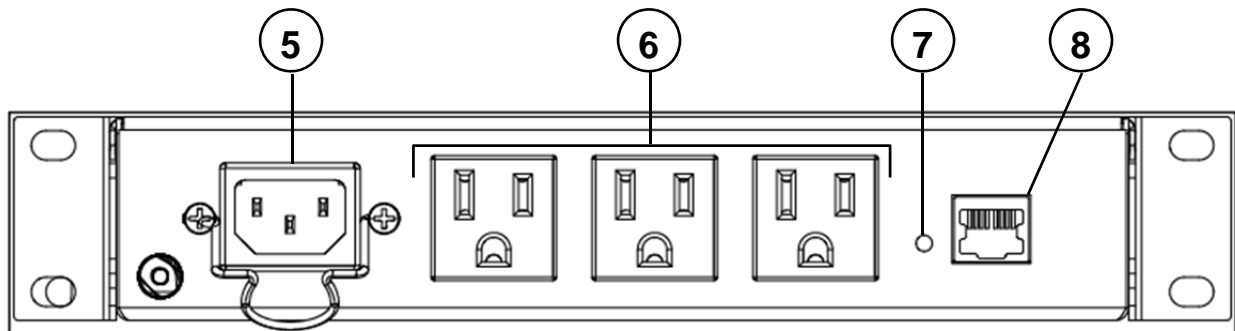
The following front and rear views of the RLNK-415R include callouts that correspond to numbered descriptions.

**RLNK-415R Front View**

1. Controlled Outlet
2. Alert LED: The LED illuminates red when an alarm condition occurs (any AutoPing failure). For more information, see “Configuring SMTP Settings” on page 42.
3. Integrated Controlled Outlet ON/OFF LEDs: The LED illuminates green when outlet is energized.

**NOTE:** Each controlled outlet has an associated LED. The LED number corresponds with the numbered controlled outlet.

4. Integrated Power Switch/Circuit Breaker

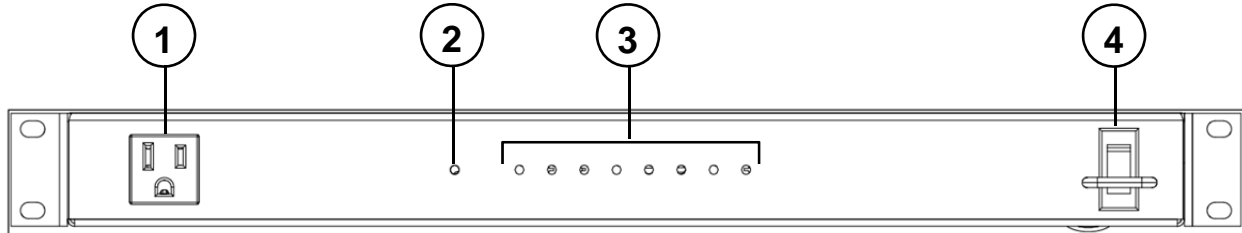
**RLNK-415R Rear View**

5. IEC C14 Power Input: 120V nominal, 12A (total load, all outlets), 60Hz input with cord retainer.
6. Three Controlled Outlets
7. Factory Reset Button: Resets to DHCP and default passwords. For more information, see “Configuring Network Settings” on page 42 and “Passwords” on page 51.
8. Ethernet Port (10/100): Used to connect to a network, requires a Cat-5 (or better) cable.

## RLNK-915R Diagrams

The following front and rear views of the RLNK-915R include callouts that correspond to numbered descriptions.

### RLNK-915R Front View

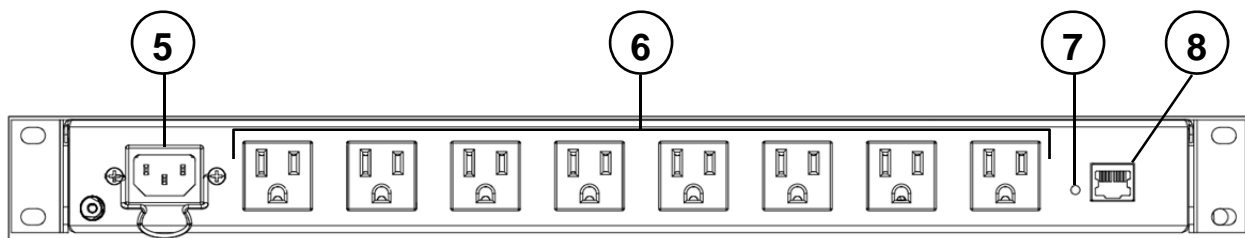


1. Switched Outlet: Controlled by the main power switch.
2. Alert LED: The LED illuminates red when an alarm condition occurs (any AutoPing failure). For more information, see “Configuring SMTP Settings” on page 42.
3. Integrated Controlled Outlet ON/OFF LEDs: The LED illuminates green when outlet is energized.

**NOTE:** Each controlled outlet has an associated LED. The LED number corresponds with the numbered controlled outlet.

4. Integrated Power Switch/Circuit Breaker

### RLNK-915R Rear View



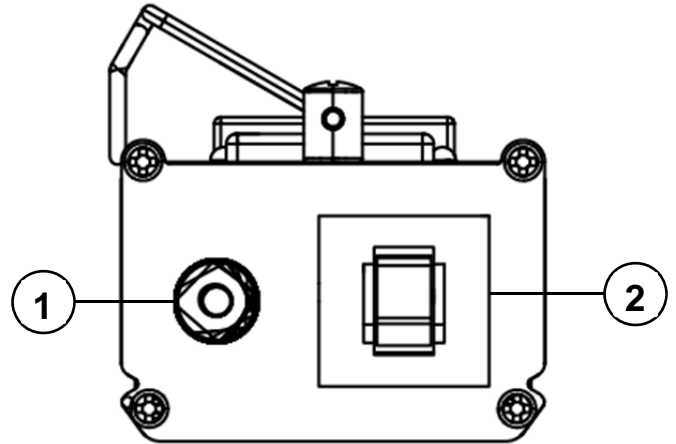
5. IEC C14 Power Input: 120V nominal, 12A (total load, all outlets), 60Hz input with cord retainer.
6. Eight Controlled Outlets
7. Factory Reset Button: Resets to DHCP and default passwords. For more information, see “Configuring Network Settings” on page 42 and “Passwords” on page 51.
8. Ethernet Port (10/100): Used to connect to a network, requires a Cat-5 (or better) cable.

## RLNK-1015V Diagrams

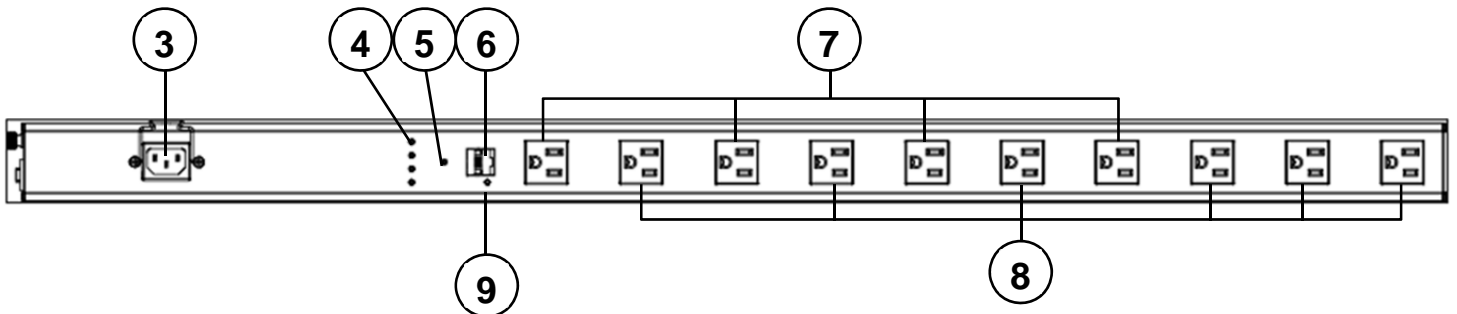
The following bottom and top views of the RLNK-1015V include callouts that correspond to numbered descriptions.

### RLNK-1015V Bottom View

1. Ground/Bond Stud
2. Circuit Breaker



### RLNK-1015V Top View



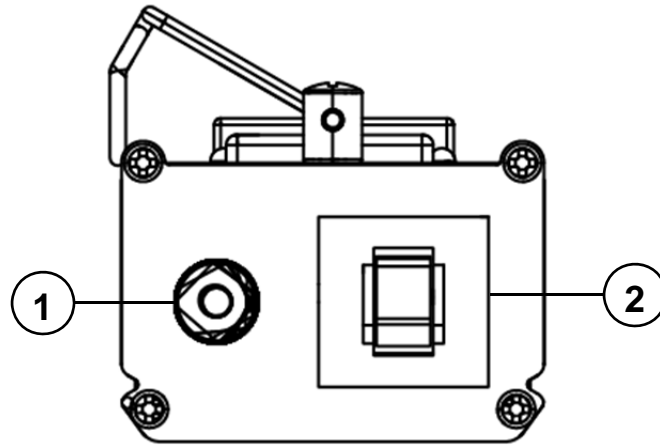
3. IEC C14 Power Input: 120V nominal, 12A (total load, all outlets), 60Hz input with cord retainer.
4. Integrated Controlled Outlet ON/OFF LEDs: The LED illuminates green when outlet is energized.  
**NOTE:** Each controlled outlet has an associated LED. The LED number corresponds with the numbered controlled outlet.
5. Alert LED: The LED illuminates red when an alarm condition occurs (any AutoPing failure). For more information, see “Configuring SMTP Settings” on page 42.
6. Ethernet Port (10/100): Used to connect to a network, requires a Cat-5 (or better) cable.
7. Controlled Outlets
8. Switched Outlets: Energized by the main power switch.
9. Factory Reset Button: Resets to DHCP and default passwords. For more information, see “Configuring Network Settings” on page 42 and “Passwords” on page 51.



## RLNK-1615V Diagrams

The following bottom and top views of the RLNK-1615V include callouts that correspond to numbered descriptions.

### *RLNK-1615V Bottom View*



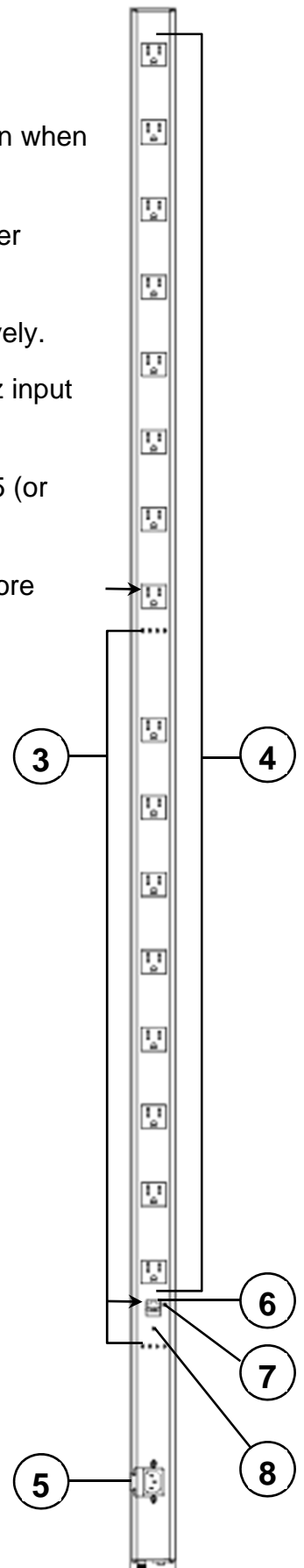
1. Ground/Bond Stud
2. Circuit Breaker

**RLNK-1615V Top View**

3. Integrated Controlled Outlet ON/OFF LEDs: The LED illuminates green when outlet is energized.

**NOTE:** Each controlled outlet has an associated LED. The LED number corresponds with the numbered controlled outlet.

4. Sixteen outlets alternate upward from controlled to switched, respectively.
5. IEC C14 Power Input: 120V nominal, 12A (total load, all outlets), 60Hz input with cord retainer.
6. Ethernet Port (10/100): Used to connect to a network, requires a Cat-5 (or better) cable.
7. Factory Reset Button: Resets to DHCP and default passwords. For more information, see “Configuring Network Settings” on page 42 and “Passwords” on page 51.
8. Alert LED: The LED illuminates red when an alarm condition occurs (any AutoPing failure). For more information, see “Configuring SMTP Settings” on page 42.



# WARRANTY

For warranty information, refer to [www.middleatlantic.com/terms](http://www.middleatlantic.com/terms).

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