



# Allen-Bradley

Quick Start Guide for 350 VA Industrial UPS

Guide de démarrage rapide de l'onduleur industriel 350 VA

Guía de inicio rápido del SAI industrial de 350 VA

Guia de inicialização rápida do no-break industrial de 350 VA

Schnellstart-Anleitung für 350 VA Industrie-USV

Guida introduttiva per gruppi di continuità industriali da 350 VA

1609-S350NS

350 VA, 120 V

1609-S350ES

350 VA 220-240 V



Installation and Operation

Installation et fonctionnement

Instalación y funcionamiento

Instalação e operação

Installation und Betrieb

Installazione e funzionamento



## Quick Start Guide for 350 VA Industrial UPS

1609-S350NS - 350 VA, 120 V  
1609-S350ES - 350 VA, 220-240 V



### Installation and Operation

## Installation

Read the safety instruction sheet before installing the UPS.

### Unpacking

Inspect the UPS upon receipt. Notify the carrier and dealer if there is damage.

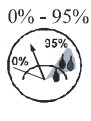
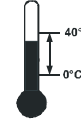
The packaging is recyclable; save it for reuse or dispose of it properly.

Check the package contents for: the UPS, serial cable and APC® PowerChute® software.

### Environmental Specifications

Do not operate the UPS where there is excessive dust or in temperature and humidity outside the specified limits.

0° - 40°C



### Mounting the UPS

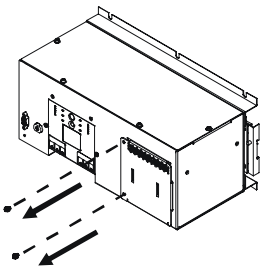
This unit is designed to mount on the back panel of an enclosure. An optional Din rail mounting kit, 1609-SDK1, is also available.

If mounted in an enclosure, use six screws appropriate for the weight of the unit and the mounting surface material.

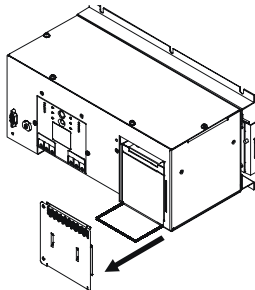
### Connecting the Battery

Remove the Battery Door, Connect the Battery, and Reinstall the Battery Door.

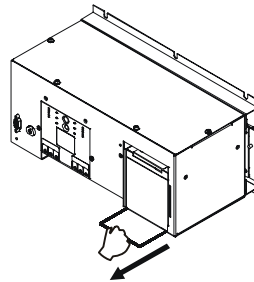
1



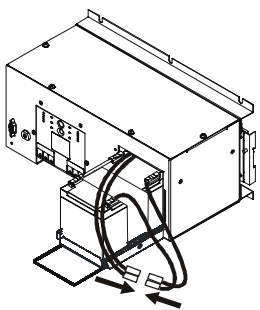
2



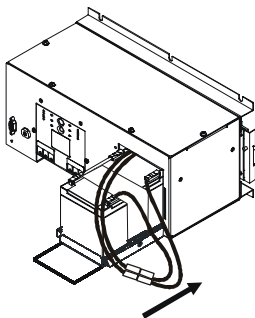
3



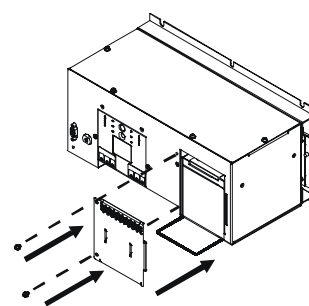
4



5



6




# Allen-Bradley Automation

## Hardwiring


Wiring of the UPS should be performed by a qualified electrician using appropriate wire gauges.

## Start-Up

### Connecting Power and Equipment to the UPS

1. The UPS features a transient voltage surge-suppression (TVSS) screw  located on the front panel. The TVSS screw is used for connecting the ground lead on surge suppression devices.

**Prior to connecting the grounding cable, ensure that the UPS is NOT connected to input (utility), or battery power.**

2. Connect the battery (see *Connecting the Battery*).
3. Hardwire the UPS.
4. Connect equipment to the UPS.
5. Turn on all connected equipment. To use the UPS as a master on/off switch, be sure all connected equipment is switched on.
6. Press the  button on the front panel to start the UPS.
  - The battery charges to 90% capacity during the first four hours of normal operation.
  - Do not expect full battery run capability during this initial charge period.
7. For optimal computer system security, install PowerChute® monitoring software included with the UPS.

### Communications/Serial Port



Use the cable supplied with the UPS. A standard standard interface cable is incompatible with the UPS.















This port enables remote configuration and monitoring with the use of PowerChute software.

## Operation

### Display Panel Indicators and Buttons

Indicator	Title	Description
	On-Line	The UPS is supplying utility power to the connected equipment.*
	AVR Trim	The UPS is compensating for a high utility voltage.*
	AVR Boost	The UPS is compensating for a low utility voltage.*
	On Battery	The UPS is supplying battery power to the connected equipment.
	Overload	The connected equipment is drawing more than the UPS power rating allows.*
	Replace Battery/Battery Disconnected	The battery is disconnected or must be replaced.*

\* See *Troubleshooting*.

Feature	Function	Description
	Power On	Press this button to turn on the UPS. Read on for additional capabilities.
	Power Off	Press this button to turn off the UPS.
	Self-Test	<p><b>Automatic:</b> The UPS performs a self-test automatically when turned on, and every two weeks thereafter (by default). During the self-test, the UPS briefly operates the connected equipment on battery.</p> <p><b>Manual:</b> Press and hold the  button for a few seconds to initiate the self-test.</p>
	Cold Start	When there is no utility power and the UPS is off, the cold start feature will switch the UPS and connected equipment onto battery power (see <i>Troubleshooting</i> ).
<b>120 V    230 V</b>  <b>133</b>  <b>266</b>  <b>123</b>  <b>248</b>  <b>114</b>  <b>229</b>  <b>105</b>  <b>210</b>  <b>96</b>  <b>191</b> Battery Charge 	Diagnostic Utility Voltage	<p>The UPS has a diagnostic feature that indicates the utility voltage. The UPS starts a self-test as part of this procedure. The self-test does not affect the voltage display.</p> <p>Press and hold the  button to view the utility voltage bar graph indicator.</p> <p>After a few seconds, this five-LED <i>Battery Charge</i>  indicator on the right of the display panel will show the utility input voltage.</p> <p>Refer to the figure on the left for the voltage reading (values are not listed on the UPS). The indicator on the UPS shows the voltage is between the displayed value on the list and the next higher value (see <i>Troubleshooting</i>).</p>

## User Configurable Items

The UPS settings are adjusted through PowerChute software.

Function	Factory Default	User Selectable Choices	Description
Automatic Self-Test	Every 14 days (336 hours)	<ul style="list-style-type: none"><li>• Every 7 days (168 hours)</li><li>• On start up only</li><li>• No self-test</li></ul>	Set the interval at which the UPS will execute a self-test.
UPS ID	UPS_IDEN	Up to eight characters (alphanumeric)	Uniquely identify the UPS (i.e. server name or location) for network management purposes.
Date of Last Battery Replacement	Manufacture Date	mm/dd/yy	Reset this date when you replace the battery module.
Minimum Capacity Before Return from Shutdown	0 percent	<ul style="list-style-type: none"><li>• 0%</li><li>• 15%</li><li>• 30%</li><li>• 45%</li><li>• 60%</li><li>• 75%</li><li>• 90%</li></ul>	Specify the percentage to which battery module(s) will be charged following a low battery shutdown before powering connected equipment.
Voltage Sensitivity	High sensitivity	<ul style="list-style-type: none"><li>High sensitivity</li><li>Medium sensitivity</li><li>Low sensitivity</li></ul>	<p>The UPS detects and reacts to line voltage distortions by transferring to battery operation to protect the connected equipment.</p> <p>In situations of poor power quality, the UPS may frequently transfer to battery operation. If the connected equipment can operate normally under such conditions, reduce the sensitivity setting to conserve battery capacity and service life.</p>
Alarm Delay Control	Enable	<ul style="list-style-type: none"><li>• Enable</li><li>• Mute</li><li>• Disable</li></ul>	Mute ongoing alarms or disable all alarms permanently.
Shutdown Delay	90 seconds	<ul style="list-style-type: none"><li>• 0 s</li><li>• 90 s</li><li>• 180 s</li><li>• 270 s</li><li>• 360 s</li><li>• 450 s</li><li>• 540 s</li><li>• 630 s</li></ul>	Set the interval between the time when the UPS receives a shutdown command and actual shutdown.

### Storage

Store the UPS covered in a cool, dry location with the battery module(s) fully charged.

At 5° to 86° F (–15° to 30° C), charge the UPS battery module every six months.

At 86° to 113° F (30° to 45° C), charge the UPS battery module every three months.

### Installing/Replacing the Battery Module

This UPS has an easy-to-replace, hot-swappable battery module. The corresponding replacement battery module is 1609-500SBAT. Replacement is a safe procedure, isolated from electrical hazards. You may leave the UPS and connected equipment on during the replacement procedure.

For instruction, see applicable steps in *Battery Connection*.

### Troubleshooting

Access the troubleshooting guide for this UPS through PowerChute software.

**Allen-Bradley Company, LLC**  
**Industrial Components Business**  
**1201 South Second Street**  
**Milwaukee, WI 53204-2496 USA**  
**Phone 440.646.5800**  
**www.ab.com**

**Rockwell**  
**Automation**