QUICK INSTALLATION GUIDE

Emerson™ SolaHD® S4K-D UPS1000-3000VA LV

IMPORTANT: Before installing, connecting to supply, or operating your Emerson SolaHD S4K-D UPS, please review the Safety and Regulatory Statements sheet. For detailed installation, operating, maintenance and troubleshooting information refer to the S4K-D User Guide for your model by scanning the QR code below, or visiting **www.Emerson.com**.

Thank you for your recent purchase of an Emerson SolaHD S4K-D Online Double Conversion Uninterruptible Power Supply! We appreciate your business and are confident that your new product will provide many years of uninterrupted power for your connected equipment.

With this purchase, you may also want to consider the complete line of Emerson products or just the power supplies, power conditioners, surge protectors and transformers needed for your connected equipment.

If you require assistance or support please email our 24/7 technical support team at **solahd.technicalservices@emerson.com** or call them at (800) 377-4384. We sincerely hope that you will continue to select Emerson for all of your future Power Quality needs.
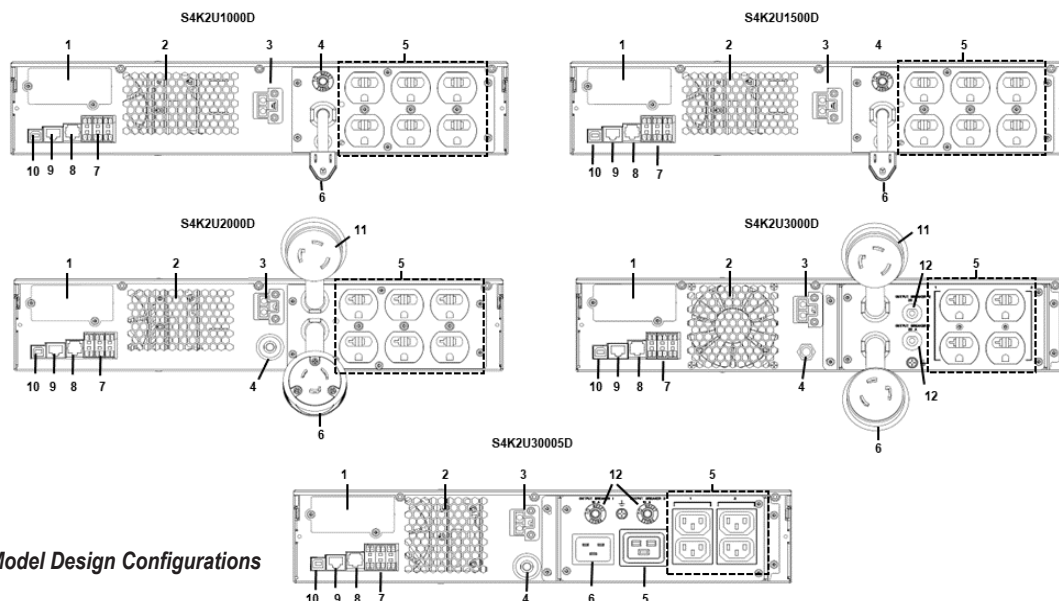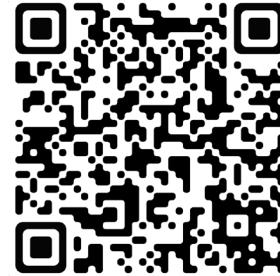
The Emerson SolaHD Team

Figure 1: Model Design Configurations

Item	Description	Item	Description
1	IntelliSlot™ Communication Port	7	Dry Contact Input/Output Terminal Block
2	Ventilation Exhaust Area	8	RS-232 Port - Used for CLI Monitoring
3	External Battery Connector	9	RS-485 Port - Used for External Battery Temperature Sensor
4	Input Circuit Breaker	10	USB Port
5	Output Receptacles (Sockets on S4K2U30005D)	11	Output Cord & Receptacle (S4K2U2000D & S4K2U3000D)
6	Input Cord & Plug (Sockets on S4K2U30005D)	12	Output Circuit Breakers (S4K2U3000D & S4K2U30005D)

Pre-Installation Checks

1. **Inspecting the UPS** Visually inspect the UPS for any damage. If damage is visible, do not install the unit and call our technical support line for assistance at (800) 377-4384 or email at **solahd.technicalservices@emerson.com**.

2. **Conditions for Installation** Install the UPS in a temperature controlled environment that is free of corrosive and conductive contaminants. Avoid locations near heat or water sources and exposed to direct sunlight. For proper ventilation, leave four inches clearance on all sides of the UPS. The input outlet should be nearby and easily accessible.

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Installation

Installing the UPS:

The UPS and optional External Battery Cabinets (EBCs) may be installed in either a tower or rack configuration.

For Tower Installation:

1. Assemble the tower support stands, and spacers if EBCs are used.
2. Place the UPS, and the EBC if it is used, on the tower support stands.

For Rack Installation:

NOTE: Internal batteries may be removed from the UPS to be installed easier.

1. Attach the handles to the UPS with four screws on each side.
2. Align the rack kit with the desired rack U number. Install the rail kit in the rack with two screws on the front and two screws on rear of each rail.
3. Install the UPS in the rack.
4. Secure the handles to the rack with two screws on each side.

NOTE: If internal batteries were removed, reinstall internal batteries.

NOTE: Do not attempt to rotate the UPS display. The UPS display content will automatically adjust based on rack or tower installation.
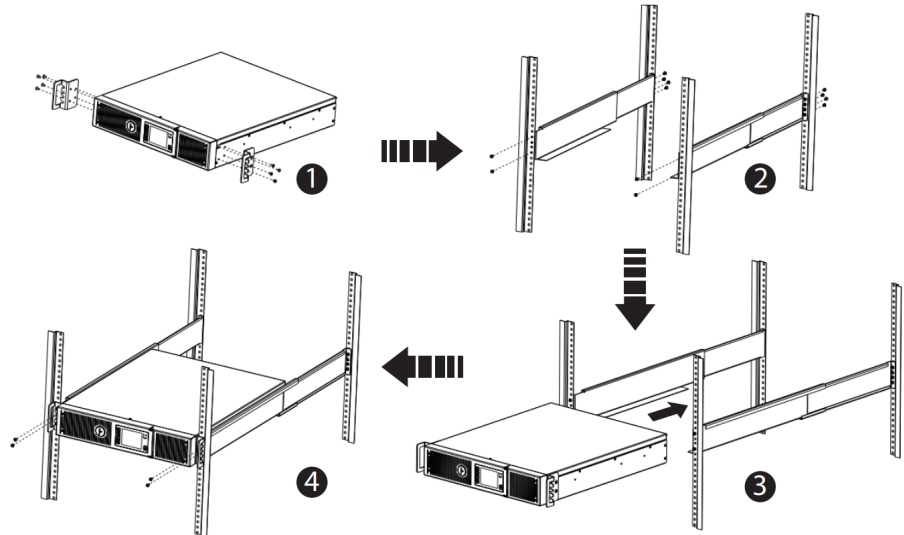
Connections

Connecting EBCs (optional)

EBCs provide longer battery run time for connected devices. Refer to S4K-D User Guide to select the appropriate model and quantity for your S4K-D model and applications. Refer to Figure 3 for UPS and EBC connections.

1. Confirm that the EBC circuit breaker is in the OFF position (1a on the image). If multiple EBCs are used, confirm on each EBC (1b).
2. Connect one end of the supplied EBC power cable to the UPS and one end to the top connector on the EBC (2a). If connecting more than one EBC, connect an additional EBC power cable to the bottom connector on the first EBC and to the top connector on the second EBC. Repeat for each EBC.
3. Connect one end of the supplied communication cable to the UPS dry terminal contact number 3. Connect the other end to the top connector on the EBC (3a). If connecting more than one EBC, connect an additional communication cable to the bottom connector on the first EBC and the top connector on the second EBC. Repeat for each EBC.
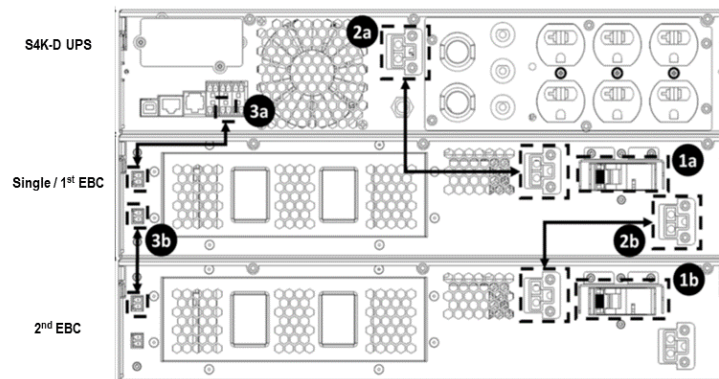
Network Communication Card Connection (optional)

Advanced monitoring and simple control of the S4K-D can be done with the use of an IntelliSlot™ RDU101 Communications card.

1. Remove the two screws and protective cover on the rear panel network communications port.
2. Insert the card into the port and secure it with the screws. Refer to the documentation with the card for cable connection and operation.

Figure 2: Rack Installation

Figure 3: S4K-D UPS and EBC Connections

Connecting AC Input

The UPS has a 5-15P, L5-20P (with 5-20P adapter if desired), or a L5-30P input plug depending on your model.

The UPS is equipped with output receptacles. Connect the equipment to be protected to the output receptacles. Ensure all loads are first powered off.

Connect the input power plug to an input power supply that is properly protected by a circuit breaker in accordance with national and local electrical codes.

Hardwired Input/Output

The UPS can also be equipped with a hardwired input/output. Connect the equipment to be protected to the proper terminals. Detailed instructions for terminal installation are below. Scan the QR code in this Quick Installation Guide for more information.

Recommended upstream circuit breakers, cable sizing, and torque requirements are shown in the Wiring Table.

Converting to Hardwired Input/Output

1. Remove and retain the 6 screws to remove the cord and receptacle plate (Figure 4).
2. Loosen the input and output wiring on the bottom row of screws on the terminal block to completely remove the cord and receptacle plate.
3. Attach the optional hardwire I/O box (10076157 for 1-2KVA model or 10076156 for 3KVA model) using the screws from step 1. Install the field wiring through the provided conduit/cable gland holes and wiring to the proper input and output terminal block and torque the connections (Figure 5).
4. Install the I/O box cover plate with the provided screws (Figure 6).

Install Notes

a. Input/Output disconnect devices and branch protection are required to be installed in the field.
b. Hardwiring Input/Output modification can only be performed by Qualified Service Personnel.
c. When the unit is hardwired, it changes from Overvoltage Category II to become Overvoltage Category III.
d. The upstream branch over current protection will need the capability to trip within 3.5 cycles (or 0.07 seconds) in the event of a short circuit.
e. The equipment Class is Class I. The Supply Configuration is L-N-G for 120V models. The Supply Configuration is TN/TT/IT for 200V-240V units.
f. If a Short-Circuit Current is detected, the 200V-240V unit will shut down in 134ms with Peak 39.92A, RMS 28.6A.

Wiring Table

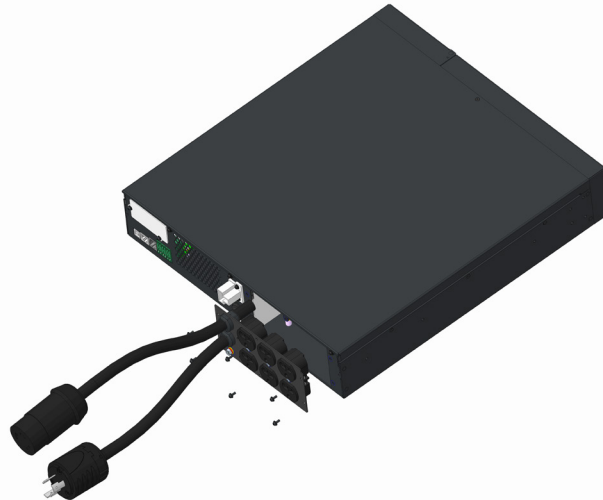| Model	Recommended Over-Current Protection	Recommended Wire Size (Including Ground Wire) (75-90°C Copper Wire)	Hardwire Terminal Block Torque
S4K2U1000D	15 A	14AWG	
S4K2U1500D	15 A	14AWG	
S4K2U2000D	20 A	12AWG	20 lb-in (2.26 Nm)
S4K2U3000D	30 A	10AWG	
S4K2U30005D	20 A	12AWG	

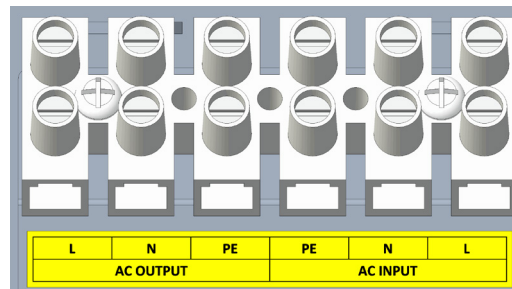*Figure 4: Remove Cord and Receptacle Plate*
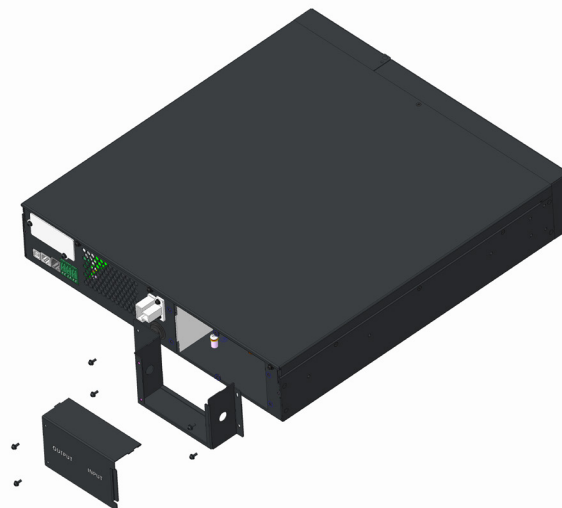

Figure 5: Terminal Block

Figure 6: Install I/O Box Cover Plate

NOTE: Allow the batteries to charge at least eight (8) hours before first startup to ensure adequate backup time.

The batteries charge when the UPS is connected to AC input regardless of whether the UPS is on or off.

Powering the UPS

NOTE: Do not start the UPS until the installation has been completed, the system is commissioned by an authorized engineer, and the external input circuit breakers have been closed.

1. Make sure the panel feeder breaker supplying power to the UPS is closed.
2. If an optional POD is installed, make sure the bypass switch is in UPS position.
3. If EBCs are connected, close the breakers on the rear of each EBC.
4. When the UPS is first connected, startup guidance screens will appear. Use the Up, Down, and Enter buttons to confirm settings. Then, press and hold the power button to power on the UPS.

NOTE: The UPS alarm will sound when the output receptacles are not powered. Press and hold the Esc button for two (2) seconds to silence the alarm.

Operation and Display Panel

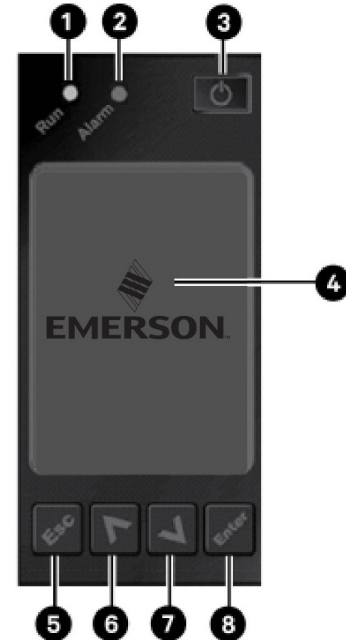| Item	Description
1	Run indicator LED
2	Alarm indicator LED
3	Power button
4	Display screen
5	Escape button
6	Up arrow button
7	Down arrow button
8	Enter button

Figure 7: Display Panel

The information in this manual is provided as a guide for installation, operation, and maintenance. It does not affect or exceed our obligations under the Terms and Conditions of Sale. Note that unit specifications are subject to change without notice.

Technical Support
Website: www.solahd.com

Technical Support E-Mail: **solahd.technicalservices@emerson.com**

Toll-Free: (800) 377-4384

USA: (847) 268-6651

Warranty Information
Please refer to the "Terms & Conditions of Sale" at https://www.appleton.emerson.com/documents/appleton-grp-llc-terms-of-sale-policies-procedures-en-us-7444090.pdf

Product Literature
For additional product literature, including French and Spanish manuals, please visit **www.solahd.com**.

While every precaution has been taken to ensure accuracy and completeness in this manual, Appleton Grp LLC d/b/a Appleton Group assumes no responsibility, and disclaims all liability for damages resulting from use of this information or for any errors or omissions.

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