



Installation Instructions

SLC 500 Power Supplies

Catalog Numbers 1746-P1, 1746-P2, 1746-P3, 1746-P4, 1746-P5, 1746-P6, 1746-P7

http://literature.rockwellautomation.com/idc/groups/literature/documents/in/1746-in004_-mu-p.pdf

FR

Cette publication est disponible en français sous forme électronique (fichier PDF). Pour la télécharger, rendez-vous sur la page Internet indiquée ci-dessus.

IT

Questa pubblicazione è disponibile in Italiano in formato PDF. Per scaricarla collegarsi al sito Web indicato sopra.

DE

Diese Publikation ist als PDF auf Deutsch verfügbar. Gehen Sie auf die oben genannte Web-Adresse, um nach der Publikation zu suchen und sie herunterzuladen.

JP

本書は PDF ファイルとして日本語でも公開しています。日本語版の閲覧およびダウンロードについては、上記のウェブアドレスをご参照下さい

Important User Information

Solid state equipment has operational characteristics differing from those of electromechanical equipment. Safety Guidelines for the Application, Installation and Maintenance of Solid State Controls (publication SGI-1.1 available from your local Rockwell Automation sales office or online at <http://literature.rockwellautomation.com>) describes some important differences between solid state equipment and hard-wired electromechanical devices. Because of this difference, and also because of the wide variety of uses for solid state equipment, all persons responsible for applying this equipment must satisfy themselves that each intended application of this equipment is acceptable.





In no event will Rockwell Automation, Inc. be responsible or liable for indirect or consequential damages resulting from the use or application of this equipment.

The examples and diagrams in this manual are included solely for illustrative purposes. Because of the many variables and requirements associated with any particular installation, Rockwell Automation, Inc. cannot assume responsibility or liability for actual use based on the examples and diagrams.

No patent liability is assumed by Rockwell Automation, Inc. with respect to use of information, circuits, equipment, or software described in this manual.

Reproduction of the contents of this manual, in whole or in part, without written permission of Rockwell Automation, Inc., is prohibited.

Throughout this manual, when necessary, we use notes to make you aware of safety considerations.

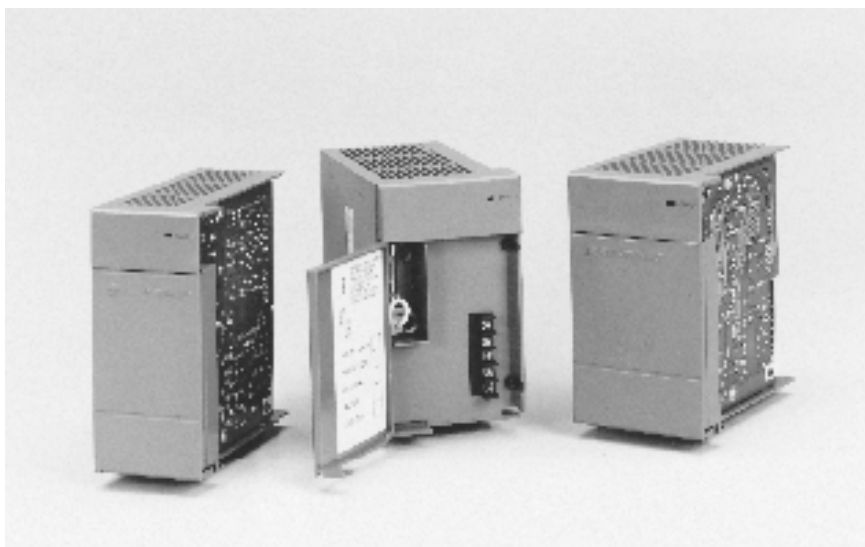
<p>WARNING</p> 	<p>Identifies information about practices or circumstances that can cause an explosion in a hazardous environment, which may lead to personal injury or death, property damage, or economic loss.</p>
<p>IMPORTANT</p>	<p>Identifies information that is critical for successful application and understanding of the product.</p>
<p>ATTENTION</p> 	<p>Identifies information about practices or circumstances that can lead to personal injury or death, property damage, or economic loss. Attentions help you to identify a hazard, avoid a hazard, and recognize the consequences.</p>
<p>SHOCK HAZARD</p> 	<p>Labels may be on or inside the equipment, for example, a drive or motor, to alert people that dangerous voltage may be present.</p>
<p>BURN HAZARD</p> 	<p>Labels may be on or inside the equipment, for example, a drive or motor, to alert people that surfaces may reach dangerous temperatures.</p>



Installation Instructions

SLC 500 Power Supplies

Catalog Numbers 1746-P1, 1746-P2, 1746-P3, 1746-P4, 1746-P5, 1746-P6, 1746-P7



ATTENTION**Environment and Enclosure**

This equipment is intended for use in a Pollution Degree 2 industrial environment, in overvoltage Category II applications (as defined in IEC publication 60664-1), at altitudes up to 2000 m (6561 ft) without derating.

This equipment is considered Group 1, Class A industrial equipment according to IEC/CISPR Publication 11. Without appropriate precautions, there may be potential difficulties ensuring electromagnetic compatibility in other environments due to conducted as well as radiated disturbance.

This equipment is supplied as open type equipment. It must be mounted within an enclosure that is suitably designed for those specific environmental conditions that will be present and appropriately designed to prevent personal injury resulting from accessibility to live parts. The interior of the enclosure must be accessible only by the use of a tool. Subsequent sections of this publication may contain additional information regarding specific enclosure type ratings that are required to comply with certain product safety certifications.

See NEMA Standards publication 250 and IEC publication 60529, as applicable, for explanations of the degrees of protection provided by different types of enclosure. Also, see the appropriate sections in this publication, as well as the Allen-Bradley Industrial Automation Wiring and Grounding Guidelines, publication 1770-4.1, for additional installation requirements pertaining to this equipment.

Overview

Install your power supply using these installation instructions. The only tools you require are flat head (1/8") and Phillips head (1/4", #2) screwdrivers.

ATTENTION



Electrostatic discharge can damage integrated circuits or semiconductors if you touch backplane connector pins. Follow these guidelines when you handle the power supplies.

- Touch a grounded object to discharge static potential.
- Do not touch the backplane connector or connector pins.
- Do not touch circuit components inside the power supply.
- Use a static-safe work station, if available.
- Keep the power supplies in their static-shield packaging when not in use.

IMPORTANT

If the equipment is not installed and used as described in this manual, the protection provided by the equipment may be impaired.

Hazardous Location Considerations

Products marked CL1, DIV 2, GP A, B, C, D are suitable for use in Class I, Division 2, Groups A, B, C, D or nonhazardous locations only. Each product is supplied with markings on the rating nameplate indicating the hazardous location temperature code. When combining products within a system, the most adverse temperature code (lowest T number) may be used to help determine the overall temperature code of the system. Combinations of equipment in your system are subject to investigation by the local authority having jurisdiction at the time of installation.

WARNING



EXPLOSION HAZARD

- Do not disconnect equipment unless power has been removed or the area is known to be nonhazardous.
- Do not disconnect connections to this equipment unless power has been removed or the area is known to be nonhazardous. Secure any external connections that mate to this equipment using screws, sliding latches, threaded connectors, or other means provided with this product.
- Substitution of components may impair suitability for Class I, Division 2.
- All wiring must comply with N.E.C. article 501-4(b).

Environnements dangereux

Les produits marqués « CL 1, DIV 2, GP A, B, C, D » ne conviennent qu'à une utilisation en environnements de Classe I, Division 2, Groupes A, B, C, D dangereux et non dangereux. Chaque produit est livré avec des marquages sur sa plaque d'identification qui indiquent le code de température pour les environnements dangereux. Lorsque plusieurs produits sont combinés dans un système, le code de température le plus défavorable (code de température le plus faible) peut être utilisé pour déterminer le code de température global du système. Les combinaisons d'équipements dans le système sont sujettes à inspection par les autorités locales qualifiées au moment de l'installation.

WARNING

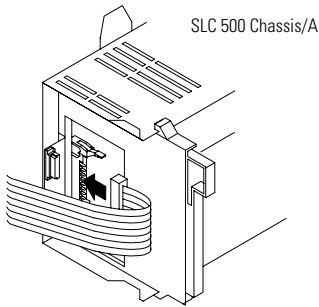


DANGER D'EXPLOSION

- Coupez l'alimentation ou vérifiez que l'environnement est classé non dangereux avant de débrancher l'équipement.
 - Coupez l'alimentation ou vérifiez que l'environnement est classé non dangereux avant de débrancher les connecteurs. Fixez tous les connecteurs externes reliés à cet équipement à l'aide de vis, loquets coulissants, connecteurs filetés ou autres moyens fournis avec ce produit.
 - La substitution de composants peut rendre cet équipement impropre à une utilisation en environnement de Classe I, Division 2.
 - Le câblage doit être conforme à l'article 501-4(b) du code national de l'électricité aux Etats-Unis et aux réglementations locales en vigueur.
-

Install the Chassis Interconnect Cable (optional)

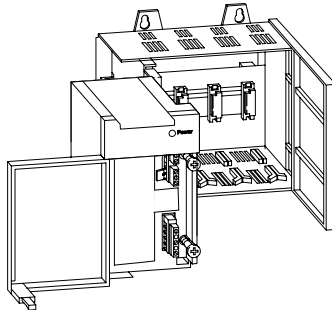
To connect up to three SLC 500 chassis together, install the chassis interconnect cable before installing the power supply.



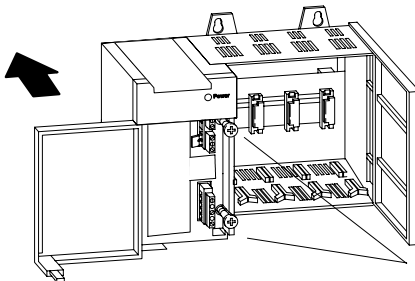
For more information, see the SLC 500 Modular Hardware Style User Manual, publication 1747-UM011.

Power Supply Installation

1. Align the circuit board of the power supply with the card guides on the left side of the chassis.



2. Slide the power supply in until it is flush with the chassis. Then fasten the power supply to the chassis.



Use these screws to fasten the power supply to the chassis with 1.2 Nm (11 lb-in) torque, max.

Power Supply Wiring

TIP

For more information on wiring, see Allen-Bradley Programmable Controller Grounding and Wiring Guidelines, publication 1770-4.1.



Refer to publication 1746-IN016, for chassis installation and grounding requirements.

1. Place the input voltage jumper to match the input voltage. (This does not apply to the 1746-P3, 1746-P5, 1746-P6, and 1746-P7 power supplies, which do not have a jumper.)

ATTENTION

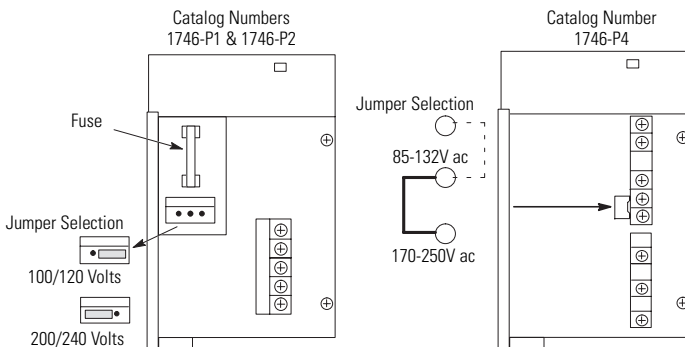


Set the input jumper before applying power. Hazardous voltage is present on exposed pins when power is applied; contact with the pin may cause injury to personnel.

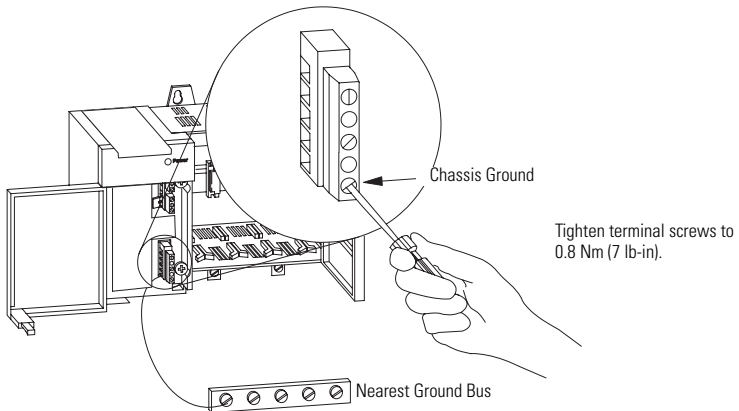
WARNING



If you connect or disconnect the wiring to the terminal blocks or if you insert or remove the power supply while power is on, an electrical arc can occur. This could cause an explosion in hazardous location installations. Be sure that power is removed or the area is nonhazardous before proceeding.



2. Connect the ground screw of the power supply to the nearest ground or ground bus. Use a 1.68 mm (#14 AWG) 75° Copper wire (Category 1 per Industrial Automation Wiring and Grounding Guidelines, publication 1770-4.1) and keep the leads as short as possible. The 1746-P4 is shown below.

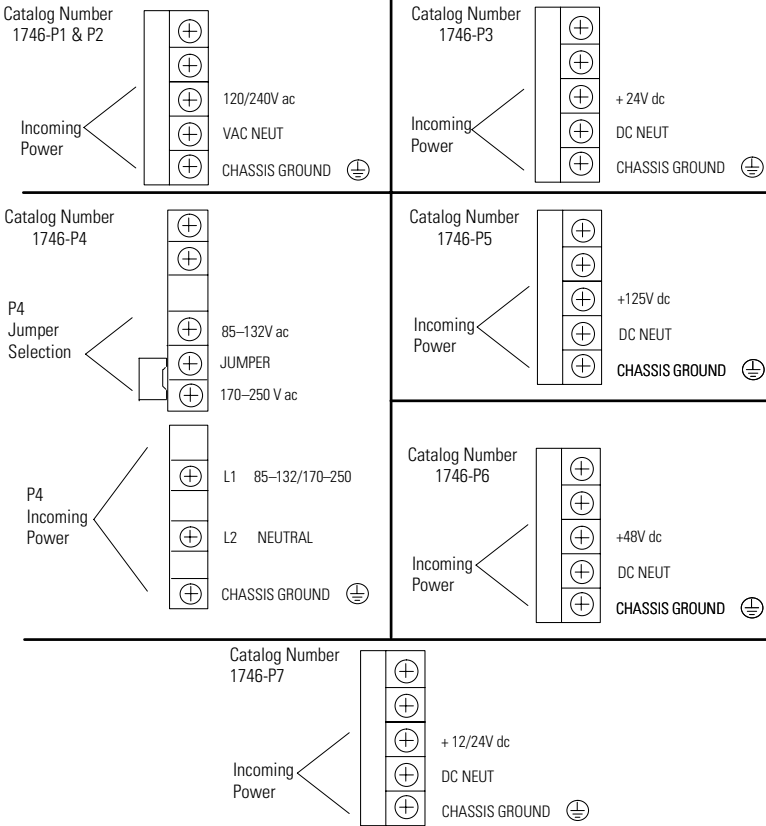


3. Refer to page 11 for special wiring considerations for the 1746-P3.
4. Connect incoming power. See illustration on page 10.

ATTENTION

Turn off incoming power before connecting wires; failure to do so could cause injury to personnel and/or equipment.

Use 1.68 mm (#14 AWG) Copper wire. Tighten terminal screws to 0.8 Nm (7 lb-in).



ATTENTION



Your SLC 500 power supply can be damaged by voltage surges when switching inductive loads such as motors, motor starters, solenoids, and relays. To avoid damage to your SLC 500 power supply in these applications, use an isolation transformer to isolate the power supply from harmful voltage surges.