

ZED

Single-Axis Servo Drive

Quick Start Guide

ORIGINAL DOCUMENT
Manual Revision 2.0



Revision History

Manual Rev.	Date	Notes
Rev.2.0	19 Dec. 2023	Product name changed from servSD to ZED. Updated section Ordering Information. Updated document format.
Rev.1.0		

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ZED is a trademark of STXI Motion Ltd.

CANopen and CiA are registered trademarks of the CAN in Automation User's Group

Windows is a registered trademark of Microsoft Corporation

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CANopen Vendor-ID

Vendor-ID **0513** has been registered to STXI Motion Ltd.
(specified in object 1018h sub-index 01).

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1 Ordering Information

	SD01	-	030	1D	AB	CA	-	000
ZED Single-Axis Servo Drive								
Rating – Cont. Current, Peak Current								
015	12/14.4 (*) 40 Arms @ 24 VDC							
025	18/20 (*) 63 Arms @ 48 VDC							
030	20/23 (*) 70 Arms @ 24 VDC							
xxx	Custom							
Power								
1D	Bus 20-60 VDC, Logic 24 VDC optional							
xx	Custom							
Feedback								
AB	Incremental AB quad, index, Halls, 12-bit RS422							
AS	Absolute SSI							
xx	Custom							
Communication								
CA	CANopen							
xx	Custom							
Options								
000	Standard							
xxx	Custom							

(*) Requires external heatsink. Refer to *ZED User Manual*.

2 Safety

Only qualified personnel may perform installation, operation, service and maintenance procedures. These persons must have sufficient technical training and knowledge to foresee and recognize potential hazards that may occur when using the product, modifying settings, and operating the mechanical, electrical and electronic components of the entire machine system.

All persons working on and with the product must be fully familiar with all applicable standards, directives, and accident prevention regulations when performing such work.

The ZED servo drive is intended for use as a component within a machine system.

The machine builder and integrator must ensure the protection of both personnel and the complete machine system.

The machine builder and/or integrator must perform a risk assessment in view of using the ZED drive in the intended application. Based on the results, the appropriate safety measures must be implemented.

The ZED drive must be used in compliance with all applicable safety regulations and directives, and all technical specifications and requirements.

Before installing the ZED, be sure to review the safety instructions in the product documentation. Failure to follow the safety instructions may result in personal injury or equipment damage.



The ZED drive utilizes hazardous voltages. It must be properly grounded.



The machine builder and the machine owner are responsible for the safety of the machine operators.



The machine owner and the machine operator are responsible for ensuring personnel cannot enter the hazard zone while the machine is energized unless adequate functional safety mechanisms are in place.

3 Installation Overview

To install the ZED, perform the following steps.

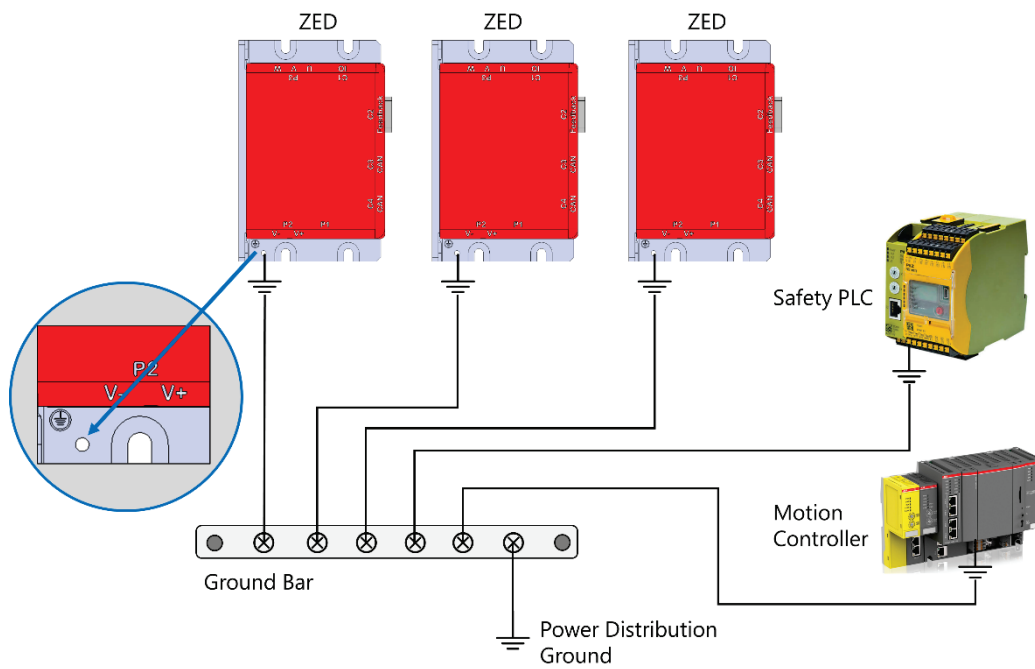
1. Mechanical installation: Mount the ZED.
2. Electrical installation: Make all wiring and cable connections, as required by your application:
 - I/Os (C1 connector)
 - Motor feedback (C2 connector)
 - CANopen fieldbus devices (C3 or C4 connector)
CANopen network: set 120Ω termination resistor on a CAN dongle cable
 - Safe torque off (STO) (P4 connector)
 - Motor U-V-W (P3 connector)
 - Motor brake (P1 connector)
 - Logic power (P1 connector)
 - Motor power (P2 connector)
3. Connect the ZED to the host computer.
4. Power up the ZED and the host computer.
5. Install software on the host computer for setup and tuning

4 Grounding

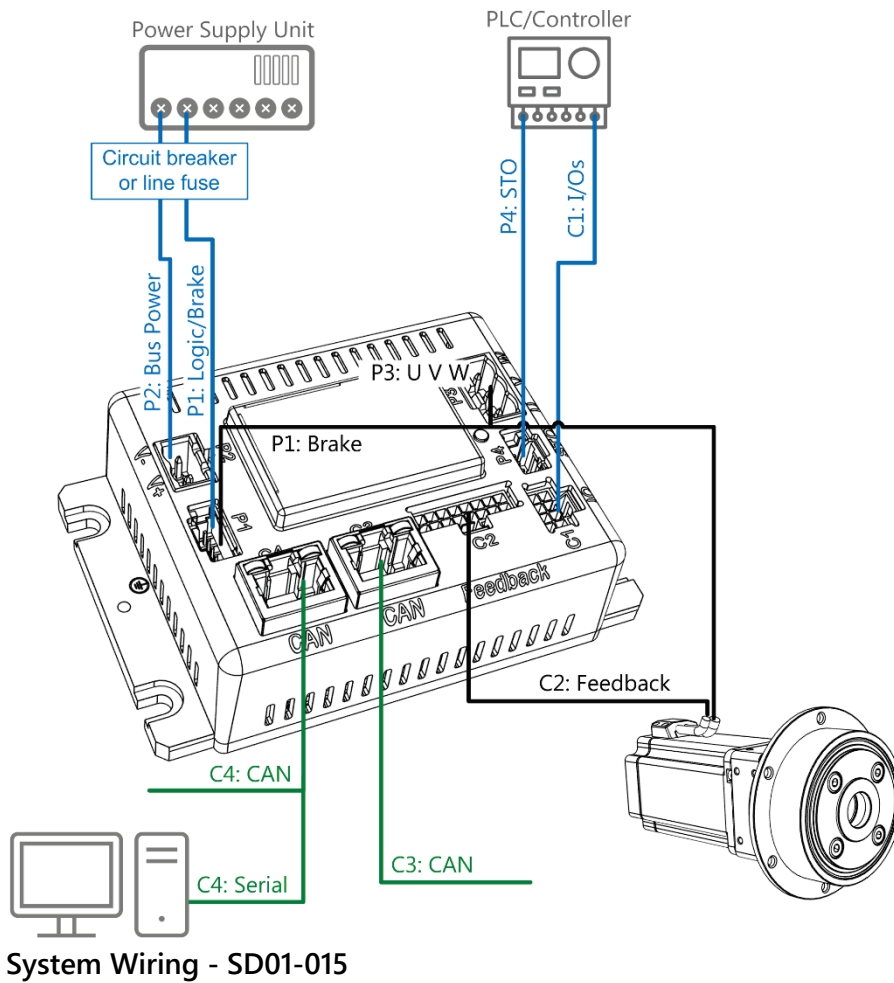


When connecting the ZED to other control equipment, be sure to follow two basic guidelines to prevent damage to the drive:

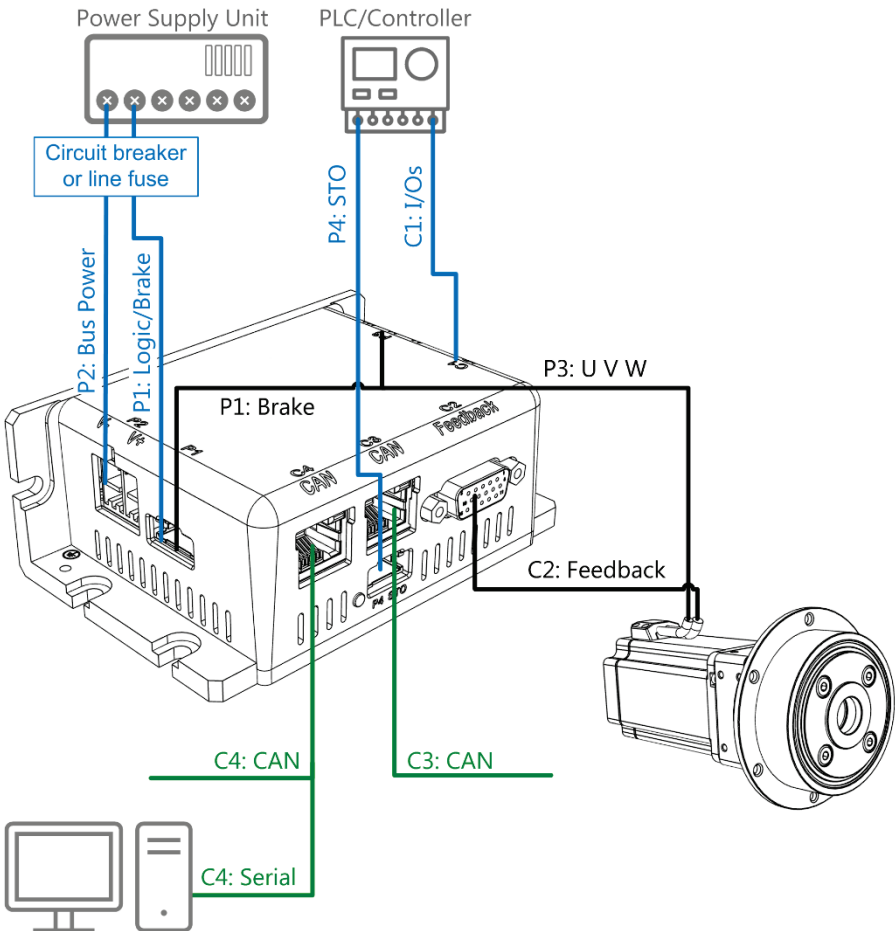
- The ZED must be grounded to the chassis of the machine.
- Any motion controller, PLC, or PC that is connected to the ZED must be grounded to the same earth ground as the ZED.



5 System Wiring



Use 75°C copper conductors only.



System Wiring - SD01-025 | SD01-030



Use 75°C copper conductors only.