

SURESTEP™

STEPPING SYSTEMS

USER MANUAL

Please include the Manual Number and the Manual Issue, both shown below, when communicating with Technical Support regarding this publication.

Manual Number: STP-SYS-M-WO
Issue: Seventh Edition, Revision E
Issue Date: 04/08/2025

Publication History		
Issue	Date	Description of Changes
First Edition	7/28/04	Original
1st Ed, Rev A	8/26/04	AC power fuse changed from 2A slow blow to 3A fast acting, plus other minor changes and corrections.
1st Ed, Rev B	3/28/07	Added wiring diagrams for both sink and source for indexers and PLCs with 12-24 VDC outputs. Also corrected value for r^4 from 64 to 1296 in formula under Step 4 on page 15 of Appendix A.
Second Edition	11/2008	Changed name of user manual (was STP-SYS-M). Added new components: 3 new power supplies: STP-PWR-4805, -4810, -7005 2 new drives: STP-DRV-4850, -80100 5 new motors: STP-MTR-17040, STP-MTRH-23079, -34066, -34097, -34127 2 new cables: STP-EXTH-020, STP-232RJ11-CBL Other minor changes throughout.
2nd Ed, Rev A	06/2009	Advanced drives RS-232 communication port pin-out; pages 3-4 & B-7
2nd Ed, Rev B	09/2009	Advanced drives Digital Output max current rating; page 3-10
2nd Ed, Rev C	02/2011	Ch 2,3: drive storage temperature specs Ch 4: motor storage temperature specs; motor Torque vs Speed curves Ch 5: power supply Watt loss specs
2nd Ed, Rev D	11/2011	Ch 2: RoHS, Wiring for Encoder Following Ch 3: Connection Locations & Pin-out; Wiring for Encoder Following Appx B: PLC connection diagrams
2nd Ed, Rev E	02/2012	Appx B: PLC connection diagrams
Third Edition	09/2012	Ch 1,4: Added new STP-MTR(H)-xxxxx(D) dual-shaft motors
Fourth Edition	12/2012	Added new drive STP-DRV-6575 & accessories; chapter renumberings
Fifth Edition	07/2018	Manual update throughout for Integrated Motors/Drives additions. New Chapter 5, 8, and 9 added.

Publication History, continued		
Issue	Date	Description of Changes
5th Ed, Rev A	10/2018	Addition of SureStep Encoders and NEMA 14 motors.
5th Ed, Rev B	01/2019	Addition of SureStep IP65 motors.
Sixth Edition	11/2019	Addition of AC drives and step motors.
Seventh Edition	04/2020	Addition of CUI encoders
7th Ed, Rev A	06/2020	Chapter 6: Update sourcing output connection diagram Appendix B: Change serial connection diagram comm port from RJ12 to RJ11
7th Ed, Rev B	11/2020	Addition of Linear SureStep Actuators.
7th Ed, Rev C	06/2021	Addition of NEMA 42 MTRAC(H) motors.
7th Ed, Rev D	03/2022	Change of factory default for jumper S4 on STP-DRV-4845 and STP-DRV-6575 from 150kHz to 2MHz.
7th Ed, Rev E	04/2025	Changed CUI Devices to Same Sky brand. Part numbers unchanged. Incremental minor fixes throughout manual.