

POWER WAVE[®] S350

ADVANCED PROCESS WELDER



Shown: K2823-3
Power Wave S350

PORTABLE, POWERFUL, MULTI-PROCESS.

The multi-process Power Wave[®] S350 is packed with Lincoln Electric performance technology on both the input and output side. It provides an extremely fast arc response, includes powerful and advanced welding waveforms for optimized performance on almost any application, and efficiently converts input power to reduce operational costs – all in a compact, rugged case.

Processes »

Stick, DC TIG, Pulsed DC TIG, MIG, Pulsed MIG, Flux-Cored

Applications »

Construction, Aerospace, Fabrication, Automotive, Production, Weld Training

Output »



Input »



Product Numbers »

K2823-3 Power Wave S350
K3005-3 Power Wave S350 Ready-Pak (Steel)

INDUSTRY LEADING
5-YEAR
STANDARD
WARRANTY



KEY FEATURES

- **PowerConnect® Technology** – Automatically adjusts input power from 200-600V, 50 or 60 Hz, three phase. Welding output remains constant through the entire input voltage range.
- **CheckPoint® Welding Production Monitoring** – A cloud-based system to view or analyze your welding data. Track equipment usage, store weld data, configure fault limits and more.
- **Optional 115V (10A) AC Duplex Auxiliary Power Receptacle** – Features Surge Blocker™ Technology to ensure simultaneous welding performance is not compromised by high starting current devices such as grinders (typically requiring 60A or more peak surge current).
- **Built to Last** – Constructed for maximum durability with an IP23 rating for harsh environments and backed by an industry leading 5 year warranty.
- **Standard Ethernet** – Allows for effortless software upgrades through PowerWaveSoftware.com

KEY CONTROLS - POWER SOURCE

FRONT

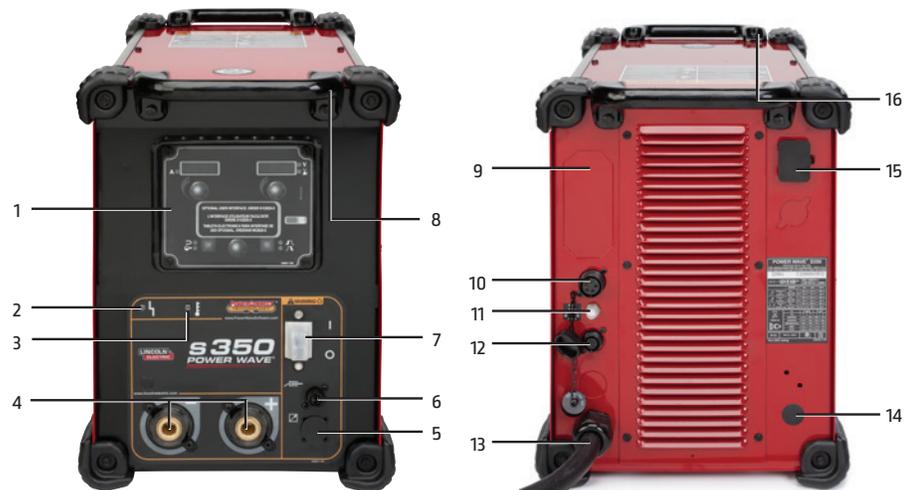
1. Optional S-Series User Interface (K3001-2) for Stick, TIG and CV MIG with voltage sensing feeder
2. Status Light
3. Thermal Fault Indicator Light
4. Tweco®-Style Cam-Lock Output Terminals
5. Optional Output Control Receptacle – 12-pin - (included with K3001-2 S-Series User Interface)
6. Work Sense Lead Receptacle
7. Main Power Switch
8. Reversible Handles

BACK

9. 115V (10 Amp) AC Duplex Auxiliary Power - Receptacle and Circuit Breaker - (Optional - Order K2829-1 Kit)
10. ArcLink® Welding System Component - Communication Cable Receptacle
11. Circuit Breaker
12. Sync Tandem/STT® Receptacle
13. Input Power Cable Connection
14. TIG Solenoid Kit Knockout - (optional TIG Solenoid included with K3001-2 S-Series User Interface)
15. Ethernet Cable Receptacle
16. Reversible Handles



Reversible handles shown



OPTIONAL USER INTERFACE AND CONNECTIVITY KITS

This optional interface provides full control of welding parameters from the front panel of the power source for Stick and TIG processes. Kit also includes 12-pin Receptacle and TIG Gas Solenoid.

Order K3001-2

The Power Wave® Wireless Connectivity Module delivers a simple and secure solution for machine connectivity – allowing users to make use of powerful process monitoring and control capabilities such as Checkpoint® and MQTT without the hassle of costly network infrastructure.

Order K4352-1



WHAT'S INCLUDED

Ready-Pak Packages

Ready-Pak packages are assembled and shipped on one pallet. Welding wire and shielding gas must be ordered separately.

Power Wave S350 Ready-Pak (for Steel)

- Power Wave S350 Power Pak Source (K2823-3)
- Power Feed 84 Wire Feeder (Bench Model) (K3328-13)
- .035 in. (0.9 mm) Drive Roll and Split Wire Guide Kit (KP1505-035S)
- .040-.045 in. (1.0-1.2 mm) Drive Roll and Split Wire Guide Kit (KP1505-045S)
- Magnum® PRO Curve™ 400 Gun and Cable Package (K2952-2-10-45)

- Work Lead and Wire Feeder Power Source Cables Package – 350 amps, 60% duty cycle with Tweco style Cam-Lock connectors and Ground Clamp (K1803-2)
- Inverter and Wire Feeder Cart (K3059-4)
- Harris® Flowmeter and Regulator (3100211)

Order K3005-3

Power Wave S350 Aluminum One-Paks (See Publication E5.93.3)

TECHNOLOGIES



PowerConnect® Technology

Features PowerConnect technology, Planar Transformer™ Technology and 120kHz output to provide exceptional welding performance while still maintaining a high power factor and efficiency.



Rugged Reliability

Tested under severe conditions:

- Extreme Temperature Ranges
- Extreme Humidity
- Rain
- Dirt and Dust
- IP23 Rated Performance



CheckPoint® Welding Production Monitoring

CheckPoint, cloud server-based and mobile delivery solutions, is the welding industry's most advanced weld data collection and monitoring tool, allowing fabricators to analyze their welding operations and processes. These tools can provide necessary data for customer ISO, Six Sigma, statistical process control (SPC), quality cost delivery (QCD), overall equipment effectiveness (OEE) and lean manufacturing efforts. CheckPoint is offered at no charge with every Power Wave purchase.

Waveform Control Technology®

Advanced software-driven hardware architecture allows for Lincoln Electric exclusive welding processes such as STT®, Rapid X®, HyperFill® and Low Fume Pulse®. For a full list of available welding processes and waveforms as well as requirements and software update details for Power Wave® advanced process welding systems, please visit: www.PowerWaveSoftware.com

RECOMMENDED ACCESSORIES

GENERAL OPTIONS



Wireless Connectivity Module

Simple and secure machine connectivity solution for monitoring and control capabilities without the hassle of costly network cables.

Order K4352-1



S-Series User Interface Kit

This optional interface provides full control of welding parameters from the front panel of the power source for Stick and TIG processes. Includes TIG gas solenoid and 12-pin remote connector.

Order K3001-2



115V Auxiliary Kit

Add a duplex 115V receptacle to the back of the machine. Includes PC board and harness which must be installed.

Order K2829-1



Inverter and Wire Feeder

Cart Rear-wheeled cart with frontcasters and gas bottle platform. Convenient handles allow for easy cable storage. Small footprint fits through 30 in. (762 mm) door. Not intended for use with double head wire feeders.

Order K3059-4



Dual Cylinder Inverter & Wire Feeder Cart

Rear-wheeled cart with front casters and dual cylinder platform. Convenient handles allow for easy cable storage. Small footprint fits through 30 inch (762 mm) door.

Order K3059-5



Tweco Style Cam-Lock Adapter

Plug for Work & Electrode Cables Cable plug for 2/0 (50 mm²) cable.

Order K2946-1



Work Voltage Sense Lead Kit

Required to accurately monitor voltage at the arc.

Order K940-25 for 25 ft. (7.6 m)

Order K1811-50 for 50 ft. (15.2 m)

Order K1811-100 for 100 ft. 30.5 m]

Shown: K1811-100



LC-40

Tweco-Style Plug (male, 1/0 Thru 2/0)

Order K3416-70



LC-40

Tweco-Style Receptacle (female, 1/0 Thru 2/0)

Order K3417-70



LC-40HD

Tweco-Style Plug (male, 3/0 Thru 4/0)

Order K3416-90



LC-40HD

Tweco-Style Receptacle (female, 3/0 Thru 4/0)

Order K3417-90



Deluxe Adjustable Gas Regulator & Hose Kit

Accommodates CO₂, Argon, or Argon-blend gas cylinders. Includes a cylinder pressure gauge, dual scale flow gauge and 4.3 ft. (1.3 m) gas hose.

Order K586-1

RECOMMENDED ACCESSORIES

General Options Continued

Cool Arc 55 Water Cooler

Designed to integrate with Power Wave S350 and S500 power sources to cool water-cooled welding guns or torches rated up to 500 amps. Recommended for and hand-held MIG, TIG and Plasma cutting operations. 115V/1/60. The 55 S model includes an ArcLink communication flow sensor that detects water flow to prohibit welding when no flow is present.

Order K3086-1 for Cool Arc 55
Order K3086-2 for Cool Arc 55 S



Shown: Cool Arc 55 S

STICK OPTIONS

Accessory Kit

Complete kit for stick welding. Includes 30 ft. (9.1 m) electrode cable, 25 ft. (7.6 m) work cable, headshield, work clamp and electrode holder.

Order K875 for 150 amps



Remote Output Control with 12-pin Universal Connector

Permits remote adjustment of output. Requires K3001-1 Stick/TIG User Interface.

Order K857-2 for 25 ft. (7.6 m)



12-pin to 6-pin Adapter

Allows older 6-pin remote controls (K870, K963-3, K857) to be used with 12-pin Universal Connector.

Order K2909-1



TIG OPTIONS

PTA-26FV 200 Amp Air-Cooled TIG Torch

Order K1783-11 for 12.5 ft. (3.8 m) length, 1-cable. With Tweco-style adapter.



Foot Amptrol™ with 12-pin Universal Connector

Provides 25 ft. (7.6 m) of remote current control for TIG welding. Requires K3001-2 S-Series User Interface Kit.

Order K870-2



Parts Kits

Magnum Parts Kits provide all the torch accessories you need to start welding. Parts kits provide collets, collet bodies, a back cap, alumina nozzles and tungstens in a variety of sizes, all packaged in an easy to carry reclosable box.

Order KP508 for PTA-17

Order KP509 for PTA-26



Hand Amptrol™ with 12-pin Universal Connector

Provides 25 ft. (7.6 m) of remote current control for TIG welding. Requires K3001-2 S-Series User Interface Kit.

Order K963-4



Tweco Style TIG Torch Adapter

Allows a one-cable TIG Torch to connect to the machine's Tweco style output terminal.

Order K960-3



WIRE FEEDER OPTIONS

Work and Wire Feeder 2/0 Weld Package

Includes Tweco-style Cam-Lock connectors, work clamps, 15 ft. (4.5 m) work cable and 10 ft. (3.0 m) electrode cable. Rated 350 amps, 60% duty cycle.

Order K1803-2



Magnum® PRO AL Fixed Conduit Push-Pull Guns

The new, improved Magnum PRO AL Fixed Conduit Push-Pull Guns feature a new rigid liner which provides a smooth, premium aluminum welding solution. Uses Magnum PRO MIG Gun expendables. Available in 12-pin connections.

Request Publication E12.14



Power Wave STT Module

This module allows easy connection and fast digital communication with compatible Power Wave S-Series power sources, Power Feed wire feeders, and compatible water coolers. Add STT capability without having to purchase a second power source.

Order K2902-1 US/Int'l (shown)

Order K2921-1 CE



Power Wave Advanced Module

Provides multi-process reverse polarity (DC+), straight polarity (DC-), AC, high frequency TIG and STT functionality. Compatible with Power Wave S350 and S500.

Order K3685-1

PRODUCT SPECIFICATIONS

Product Name	Product Number	Input Voltage	Output Range ^[3]	Rated Output / Voltage / Duty Cycle	Input Current @ Rated Output	Dimensions H x W x D in (mm)	Net Weight lb (kg)
Power Wave® S350	K2823-3	208/230/380-415/460/575/1/3/50/60	5-350A	GMAW: 350A/31.5V/40% ^[2] GMAW: 300A/29V/100% SMAW: 325A/33V/40% ^[2] SMAW: 250A/30V/100% GTAW-DC: 350A/24V/40% GTAW-DC: 300A/22V/100%	3 Ph / 40% Duty Cycle: 39/35/19/17/14	20.40 x 14 x 24.80 (518 x 356 x 630)	85 (38.6)
Power Wave S350 Ready-Pak	K3005-3					3 Ph / 100% Duty Cycle: 31/28/15/14/11	52 x 39 x 26 (1321 x 991 x 660)
Power Wave® S350 CE Advanced Process Welder	K2823-2						
Power Wave® S350 Air Cooled Magnum® PRO Front Trigger Aluminum 15 ft One-Pak®	K3552-3						
Power Wave® S350 Air Cooled Magnum® PRO Front Trigger Aluminum 25 ft One-Pak®	K3552-4						
Power Wave® S350 Air Cooled Magnum® PRO Pistol Grip Aluminum 25 ft One-Pak®	K3553-1				1 Ph / 40% Duty Cycle: 60/67 ^[1] /NA/NA/NA		
Power Wave® S350 Water Cooled Magnum® PRO Pistol Grip Aluminum 25 ft One-Pak®	K3554-1				1 Ph / 100% Duty Cycle: 60/53/NA/NA/NA		

^[1] Based on the U.S. National Electrical Code

^[2] On 230 Volt / 1 Phase inputs, the peak rating is at a duty cycle of 30%, except for GTAW processes

^[3] On 208 Volt inputs, the maximum output is limited to 300 amps

For best welding results with Lincoln Electric® equipment, always use Lincoln Electric consumables. Visit www.lincolnelectric.com for more details.

CUSTOMER ASSISTANCE POLICY

The business of Lincoln Electric is manufacturing and selling high quality welding equipment, automated welding systems, consumables, and cutting equipment. Our challenge is to meet the needs of our customers, who are experts in their fields, and to exceed their expectations. On occasion, purchasers may ask Lincoln Electric for information or technical information about their use of our products. Our employees respond to inquiries to the best of their ability based on information and specifications provided to them by the customers and the knowledge they may have concerning the application. Our employees, however, are not in a position to verify the information provided or to evaluate the engineering requirements for the particular weldment, or to provide engineering advice in relation to a specific situation. Accordingly, Lincoln Electric does not warrant or guarantee or assume any liability with respect to such information or communications. Moreover, the provision of such information or technical information does not create, expand, or alter any warranty on our products. Any express or implied warranty that might arise from the information or technical information, including any implied warranty of merchantability or any warranty of fitness for any customers' particular purpose or any other equivalent or similar warranty is specifically disclaimed.

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