

POWER WAVE[®] 300C

ADVANCED PROCESS WELDER



THE ULTIMATE ALL-IN-ONE MACHINE

From technical training to industrial fabrication, the Power Wave 300C delivers the ultimate 300 amp- “Do-Everything” welder. Packed with all the arc performance and technology you expect from a Power Wave system, this compact machine takes the industrial “all-in-one” class of welders to the next level.

Processes »

SMAW, GTAW, GMAW, GMAW-P, FCAW
SMAW-AC*, GTAW-AC*, GTAW-HF*, STT MIG*

Applications »

General Fabrication, Education

Output »



Input »



Product Numbers »

POWER WAVE 300C STANDARD

K4487-1

POWER WAVE 300C ADVANCED

K4488-1

POWER WAVE 300C ADVANCED, EDUCATIONAL ONE-PAK

K4934-1

POWER WAVE 300C ADVANCED (CE)

K4490-5

*Available on Power Wave 300C Advanced Model

For full waveform list please visit
www.PowerWaveSoftware.com

KEY FEATURES

- **Best-in-Class Performance** Industry's only true 300Amp, 100% Duty Cycle, All-Process Machine.
- **All-Process Versatility** Stick, TIG, MIG, Flux-Cored, Arc Gouging processes, with advanced weld modes and integrated High Frequency and AC/DC capabilities*.
- **Intelligent Connectivity** Intelligent, operator-focused interface and powerful Industry 4.0 capabilities including CheckPoint® Production Monitoring.
- **Flexible Input Power** PowerConnect® Technology allows for 200V-600V input power while maintaining consistent and reliable arc performance.
- **Ready-to-Run™ Design** Standard features for simple and straightforward operation, including cable management hooks, integrated cart with tilting bottle rack, and TIG solenoid.

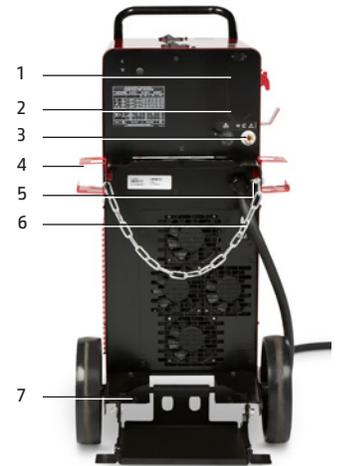
*Available on Power Wave 300C Advanced Model

KEY CONTROLS - POWER SOURCE

1. User Interface / Controls w/USB Port
2. Cable / Torch Hanger
3. Remote Connection, 12 pin
4. Gun Trigger Connection, 4 pin
5. Power Source ON/OFF
6. MIG/FCAW Gun Connection
7. Sense Lead Connection (if required)
8. Twist Mate™ Connections w/ integrated TIG gas solenoid



1. Auxiliary 115V Outlet (optional K2829-1)
2. Ethernet Connection
3. MIG/FCAW Shielding Gas Input
4. Tool Holder
5. Power Cable Input
6. TIG Shielding Gas Input
7. Tilting Bottle Rack



KEY CONTROLS - USER INTERFACE

Memory Name

Dual Procedure Indicator

Wire Feed Speed/Amperage Setting: Use the left knob to adjust.

Wire Feed Speed/Amps

7 in. IP67 High-Resolution Display

Process Details

True Energy®: Displays the True Energy® calculation from the last weld.

Navigation/Select

One-Click Process Selection

USB Port

Voltage Setting: Use the right knob to adjust.

Volts/Trim

Synergic Voltage Indicator: Nominal voltage is shown. Lowering the voltage below nominal will move the bar to the left. Raising the voltage above nominal will move the bar to the right. **NOTE:** In Simplified Mode, Start/End Settings will not appear on the home screen even when set to a non-zero value.

Menu Bar: Use the Navigation/Select knob to scroll through the options along the bottom of the screen. Press the knob to select the highlighted option.

Memory Selection

3XX Stainless | .045" | 98% Ar 2% CO₂

True Energy® | 605 kJ | 12.1 s

Wire Type | Wire Diameter | Gas Type | GMAW Type | *** More

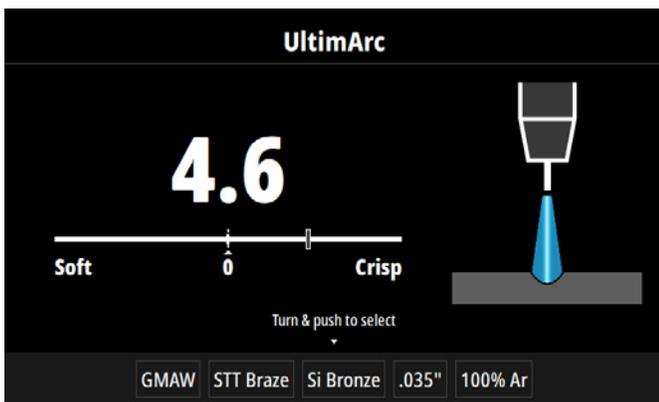
NEXT GENERATION OF SIMPLICITY & CONTROL

The Power Wave 300C user interface helps maximize arc time and allow operators of all skill levels to focus more on making great welds.

- One-button process changes
- Straightforward, easy-to-understand navigation
- Memory buttons for preferred settings
- ArcFX® Technology for visual arc settings feedback
- Single point of use – all controls in one location on the feeder
- Multilingual options for true global compatibility



Power Wave 300C - Home Screen



Power Wave 300C - process configuration screen with ArcFX® Technology



Power Wave 300C - language option screen

FINE-TUNED ARC PERFORMANCE

The Power Wave 300C comes loaded with an expansive list of weld modes optimized for maximum performance with the industry's most common filler metals, wire diameters, and gas mixtures offered by Lincoln Electric's Waveform Control Technology®.

- Stick modes optimized for cellulosic and low hydrogen electrodes
- MIG modes optimized for 0.035-0.052 in. for steel, 0.035-0.045 in. for stainless, 0.045-0.052 in. for metal cored, and 0.035, 3/64, and 1/16 in. for aluminum
- MIG modes optimized for simplicity (Smart Pulse™) and fume management (Low Fume Pulse™)*
- Flux-cored modes optimized for 0.045 in., 0.052 in., 1/16 in
- High-Frequency and AC/DC TIG Modes*

* Available on the Power Wave 300C Advanced Model



Power Wave 300C Standard

- DC Output
- Multi-Process Capabilities

What's Included

- Magnum® PRO Curve™ 300 Gun Ready-Pak (K2951-2-6-45)
- Harris Flowmeter/Regulator and Hose Kit (310021)
- 10 ft. (3 m) Work Lead
- 0.035/0.045 in. (0.9/1.2 mm) Combination V-Groove Drive Rolls (Included in Wire Drive Assembly) (KP1696-1)

Order

K4487-1 Standard



Power Wave 300C Advanced

- AC/DC Output
- Multi-Process Capabilities, with Advanced Waveforms:
 - Smart Pulse™, Low Fume Pulse™, and STT®
 - HF TIG including AC Aluminum Modes

What's Included

- Magnum PRO Curve 300 Gun Ready-Pak (K2951-2-6-45)
- Harris Flowmeter/Regulator and Hose Kit (310021)
- 10 ft. (3 m) Work Lead
- 0.035/0.045 in. (0.9/1.2 mm) Combination V-Groove Drive Rolls (Included in Wire Drive Assembly) (KP1696-1)

Order

K4488-1 Advanced

K4490-5 Advanced CE



Power Wave 300C Advanced Educational One-Pak

What's Included

- Power Wave 300C Advanced (K4488-1)
- Magnum PRO Curve 300 Gun Ready-Pak (K2951-2-6-45)
- Harris Flowmeter/Regulator and Hose Kit (310021)
- 10 ft. (3 m) Work Lead
- PTA-17F TIG Torch Ready-Pak (12.5 ft, 1 pc.) (K1782-14)
- Foot Amptrol™ - 25 ft (7.6 m), 12-pin (K870-2)
- Stick Electrode Holder, Cable (w/ Twist Mate) (K2374-1)
- 0.035/0.045 in. (0.9/1.2 mm) Combination V-Groove Drive Rolls (Included in Wire Drive Assembly) (KP1696-1)

Order

K4934-1

ADDITIONAL POWER WAVE 300C ACCESSORIES



K4866-1 Power Wave 300C Dual Gas Bottle Upgrade Kit

Allows for the use of multiple gas bottles or a combination of a gas bottle and water cooler on the rear of a Power Wave 300C



K4898-1 Power Wave 300C Water Cooler Adapter Kit

Allows Cool Arc® 40 Water Cooler to be installed in place of a gas bottle on the 300C single or dual bottle rack. Kit Includes: (1) 300C Cool Arc 40 Mounting Assembly and Hardware Kit, (1) Cool Arc 40 CGA to QD Water Hose Extension Kit, and (2) Quick Disconnect Adapters (KP4642-1).



K1813-1 Cool Arc 40 Water Cooler

Industrial water cooler that can function in both horizontal and vertical orientation for minimized footprint

* For use of Lincoln Electric Magnum PRO semi-automatic water cooled guns, order Fast-Mate gun and K489-8 adapter.

RECOMMENDED ACCESSORIES

GENERAL OPTIONS



Power Wave 300C 115V Auxiliary Kit
Adds a duplex 115v outlet to the rear of the machine. Includes harness and PC board.
Order K2829-1

Screen Protector
Order KP4735-1



Remote Output Control with 12-pin Universal Connector
Consists of a control box with choice of two cable lengths. Permits remote adjustment of output.
Order K857-2 (25 ft, 7.6 m)
Order K857-3 (100 ft, 30.5 m)

WIRE FEEDER OPTIONS



Magnum PRO Welding Guns
See publications E12.05 and E12.08.



Gun Connector Kit
Power Wave 300C / POWER MIG
Configures Lincoln Electric Magnum PRO guns to connect to Power Wave 300C and POWER MIG® power sources. For use with KP42 & KP44 series liners
Order K466-6



Magnum PRO Dual Procedure Adapter
Required to use Magnum PRO Dual Procedure or Dual Schedule guns with the Power Wave 300C
Order K3159-1



Magnum Curve 300 AL Push Gun
10 ft. *The Magnum PRO AL Push Gun is a cost effective solution for welding 3/64-1/16 in. aluminum wire over distances up to 10 ft. This welding gun solution was designed with the soft wire in mind, and includes the proper expendables to ensure premium performance for the recommended applications
Order K4700-1-6-116A



Fast-Mate™ Adapter
Allows guns with a Fast-Mate™ style back end to connect into Power Wave 300C and POWER MIG power sources
Order K489-8



Spindle Adapter for Small Spools
Permits 8 in. (200 mm) O.D. spools to be mounted on 2 in. (51 mm) O.D. spindles
Order K468



Spindle Adapter for 14lb Coils
Permits 14 lb. (6 kg) Innershield® coils to be mounted on 2 in (51mm) O.D. spindles
Order K435



Readi-Reel™ Adapter
Adapts 22-30 lb. (10-14 kg) Lincoln Readi-Reels® of electrode to 2 in (51mm) spindle
Order K363P



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. The enhanced feeding capabilities will reduce downtime and increase arc on time.
Order K4797-2 (Air Cooled) or K4798-2 (Water Cooled)
E12.14



Magnum Pro 250LX GT Spool Gun With longer-lasting Magnum PRO Expendables and direct connect functionality
The Magnum PRO 250LX GT spool gun results in less downtime and hassle-free setup.
*Will need Lincoln 7-pin to 12-pin Adapter (K2910-1)
Order K3569-2 and K2910-1
E12.28

TIG OPTIONS



PTA-17 Air Cooled TIG Ready-Pak®
Flexible head and Ultra-Flex™ cables provide ultimate comfort and maneuverability. Pre-configured package with K1622-1 Twist-Mate™ adapter, cable cover. Includes: #7 nozzle, 1/16 in. (1.6 mm) and 3/32 in. (2.4 mm) collets, collet bodies and E3® Tungsten
Order: K1782-14 (12.5 ft, 3.8 m)
Order K1782-18 (25 ft, 7.6 m)
Additional TIG torch options in E12.150



Arc Start Switch (00001862)
Attaches to TIG torch for convenient finger control. Comes equipped with 12-pin connector
Order K814-2



Hand Amptrol Rotary Track Style, 12-pin
Amphenol (25 ft) Remote current control for TIG welding
Order K963-4



Foot Amptrol (00002440)
Provides 25 ft. (7.6 m) of remote output control for TIG welding. (12-pin plug connection).
Order K870-2



TIG-Mate 20 Water-Cooled TIG Torch Starter Pack
Get everything you need for TIG welding in one complete easy to-order kit packaged in its own portable carrying case. Includes: PTW-20 torch, parts kit, Harris flowmeter/regulator, Twist-Mate adapter, 10 ft. (3.0 m) gas hose, water hose coupler and water hoses, work clamp and cable.
Order K2267-1

CONSUMABLES

CONTACT TIPS AND LINERS

Wire Diameter - in. (mm)	Description	Order No.
FOR STEEL / STAINLESS STEEL / SILICON BRONZE		
0.045 [1.2]	350A Contact Tips (10)	KP2744-045
0.035 [0.9]	350A Contact Tips (10)	KP2744-035
0.030 [0.8]	350A Contact Tips (10)	KP2744-030
0.025 [0.6]	350A Contact Tips (10)	KP2744-025
0.035 - 0.045 [0.9 - 1.2]	Magnum PRO Curve 15 ft (4.5 m) Liner Solid Wire (1)	KP44-3545-15



Shown:
KP2744-045, Contact Tip

NOZZLES AND DIFFUSERS

Nozzle Diameter - in. (mm)	Description	Order No.
350A		
0.375 [9.5]	Thread-on Flush Nozzle	KP2742-1-38F
0.5 [12.7]	Thread-on Flush Nozzle	KP2742-1-50F
0.375 [9.5]	Thread-on Recessed Nozzle	KP2742-1-38R
0.5 [12.7]	Thread-on Recessed Nozzle	KP2742-1-50R
–	Steel Thread-on Nozzle	KP2746-1
550A		
0.625 [15.9]	Thread-on Flush Nozzle	KP2743-1-62F
0.75 [19.0]	Thread-on Flush Nozzle	KP2743-1-75F
0.625 [15.9]	AL Thread-on Recessed Nozzle	KP2743-1-62RA
0.75 [19.0]	Thread-on Recessed Nozzle	KP2743-1-75R
–	Steel Thread-on Diffuser	KP2747-1



Shown:
KP2742-1-38F, Thread-on Nozzel



Shown:
KP2746-1, Steel Thread-on Diffuser



Shown:
KP2747-1, Steel Thread-on Diffuser

For more options, please refer to the Magnum PRO Instruction Manual.

DRIVE ROLL KITS

Wire Type	Wire Diameter - in. (mm)	Order No.	
Solid	0.023-0.030 [0.6-0.8]	KP1696-030S	
	0.035 [0.9]	KP1696-035S	
	0.035/0.045 Combination	0.040 [1.0]	KP1696-1
		0.045 [1.2]	KP1696-2
			KP1696-045S
Cored	0.035 [0.9]	KP1697-035C	
	0.045 [1.2]	KP1697-045C	
Aluminum	0.035 [0.9]	KP1695-035A	
	3/64 [1.2]	KP1695-3/64A	
	1/16 [1.6]	KP1695-1/16A	



Shown:
KP1697-035C, Cored Drive Roll Kit

PRODUCT SPECIFICATIONS

Product Name	Product Number	Input Voltage / Phase / Hertz	Output Range	Rated Output / Voltage / Duty Cycle	Input Current @ Rated Output (Single Phase Values)	Dimensions H x W x D in (mm)	Net Weight lb (kg)
Power Wave 300C Standard	K4487-1	208/230/400/460/575/ 1/3/50/60	5-350A	GMAW: 350A/31.5V/40% GMAW: 300A/29V/100%	39/35/22/18/14.5 (57/52/NA/32/NA)	39.7 x 20.5 x 39.4 [1008 x 521 x 1001]	194 [88]
Power Wave 300C Advanced	K4488-1			SMAW: 325A/33V/40% SMAW: 280A/31.2V/100%	44/40/25/20/16.5 (61/58/NA/34/NA)		214 [97]
Power Wave 300C Advanced, Educational One-Pak	K4934-1			FCAW: 350A/31.5V/40% FCAW: 300A/29V/100%			259 [118]
Power Wave 300C Advanced (CE)	K4490-5	208/230/400/ 3/50/60		GMAW: 325A/30.3V/40% GMAW: 300A/29V/100%	44/40/25		214 [97]
				SMAW: 325A/33V/40% SMAW: 280A/31.2V/100%			
				FCAW: 325A/31.5V/40% FCAW: 300A/29V/100%			
				GTAW: 350A/24V/40% GTAW 300A/22V/100%			

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, cutting equipment and EV charging systems. 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 or application. 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.

Lincoln Electric is a responsive manufacturer, but the definition of specifications, and the selection and use of specific products sold by Lincoln Electric is solely within the control of, and remains the sole responsibility of the customer. Many variables beyond the control of Lincoln Electric affect the results obtained in applying these types of fabrication methods and service requirements.