

SP-135 Plus

Ready To Weld!

This user-friendly wire feeder/welder from Lincoln Electric is ready to help you make short work of many around-the-home jobs, hobby projects, autobody repairs or farm chores! The SP-135 Plus handles MIG welds on a wide range of materials including mild steel, stainless steel and aluminum. Flux-cored welds on mild steel are a breeze. Achieve outstanding performance on thin sheet metal to medium plate by fine-tuning the arc with the continuous output voltage and wirefeed speed controls. The SP-135 Plus also boasts industry leading output and arc performance in the 115V machine class. To top it off, we've made it easy to get started – virtually everything you need to MIG weld mild steel is included in one convenient package! Just add shielding gas.



Processes

MIG Flux-Cored

Description

Output    Input  

Advantage Lincoln

- Ready To Weld! Includes mild steel MIG wire and adjustable gas regulator and hose kit. Just add shielding gas (sold separately).
- Continuous full-range adjustment of voltage and wire feed speed allows for fine-tuning of the arc and precise control of heat input.
- Capabilities include welding 24 gauge through 5/16" mild steel plate. Install K663-2 to weld 22 gauge through 1/8" aluminum.
- Designed to feed .023-.035" (0.6-0.9mm) diameter mild and stainless steel MIG wire, .035" (0.9mm) diameter flux-cored wire and .035" diameter 4043 aluminum MIG wire.
- Welder settings reference chart conveniently located inside wire feed section door makes it easy to set the machine for mild steel welding jobs.
- Gun trigger safety feature keeps welding wire electrically "cold" until trigger is pressed.
- Adjustable brake spindle accommodates both 8" (200mm) diameter and 4" (100mm) diameter spools of wire.
- Built-in "burnback" function insures proper wire stick-out after each weld with no sticking in the weld puddle.
- Manufactured under a quality system certified ISO 9001 requirements.
- Three year warranty on parts and labor.


Base Unit Includes

- Magnum® 100L welding gun and 10 ft. (3.0m) cable assembly, with gas nozzle, .023"-.035" (0.6-0.9mm) cable liner and .023/.025" (0.6mm) contact tip.
- 10 ft. (3.0m) work cable and work clamp.
- 6 ft. (1.8m) input power cord with NEMA Type 5-15P plug for connection to standard 115 volt receptacles.
- Guide tubes and reversible drive roll ready to feed Lincoln's .025" (0.6mm), .030" (0.8mm) and .035" (0.9mm) diameter SuperArc™ L-56 MIG wire and .035" (0.9mm) diameter Innershield® NR®-211-MP flux-cored wire.
- Factory installed gas solenoid valve for MIG welding
- Adjustable gas regulator and 4.5 ft. (1.37m) hose for argon and argon-blend gases. Gas regulator requires an adapter (sold separately) for use with CO₂ cylinders.
- 2 lb. (0.90kg) spool of .025" (0.6mm) SuperArc L-56 wire.
- .030" (0.8mm) contact tip.
- One-Pak™ includes everything above plus Welding Cart.

Recommended General Options

Carts, MIG Wire Drive Roll, Flux-Cored Wire Drive Roll, .035" Innershield® Welding Kit, .035" Aluminum Welding Kit, Deluxe Adjustable Gas Regulator & Hose Kit

Order

 K1874-2 SP-135 Plus 115/1/60
K2299-1 SP-135 Plus One-Pak™ with Welding Cart 115/1/60

TECHNICAL SPECIFICATIONS

Product Name	Product Number	Input Power	Rated Output Current/Voltage/Duty Cycle	Input Current @ Rated Output	Output Range	Dimensions H x W x D inches (mm)	Net Weight lbs. (kg)
SP-135 Plus	K1874-2	115/1/60	90A/18V/20%	20A	25-135A 50-400 ipm WFS (1.2-10.2 m/min) Max. OCV: 28V	12 x 9.75 x 16.5 (305 x 248 x 419)	54 (24.3)



ADVANTAGE LINCOLN, CON'T.

- Engineered and built for dependable service and long life.
- “Quick Release” idle pressure arm easily adjusts wire tension for positive wire feeding.
- High torque low-RPM drive motor provides extra long life and quiet operation.
- Electronic full range motor speed control compensates for power supply variations to maintain constant wire feed speed.
- Electronic and thermostatic protection from current overload and excessive temperatures.
- CSA NRTL/C approved.
- Three year warranty on parts and labor. (90 days warranty on gun and cable).
- Manufactured under a quality system certified to ISO 9001 requirements.

PERFORMANCE PLUS

SP-135 PLUS WELDING CAPABILITIES																	
Metal To Weld	Process	Weld Appearance	Wire Electrode	Wire Dia.	24ga. .024"	22ga. .030"	20ga. .036"	18ga. .048"	14ga. .075"	12ga. .105"	1/8" .125"	10ga. .135"	3/16" .188"	1/4" .25"	5/16" .313"	3/8" .375"	1/2" .50"
Mild Steel	Self-Shielded Flux-Cored ⁽¹⁾	Good. Slag must be removed.	Innershield® NR®-211-MP	.035	SINGLE PASS										MULTIPLE PASS		
	Gas-Shielded MIG ⁽¹⁾	Excellent. Little or no cleaning.	SuperArc™ L-56	.025	SINGLE PASS												
				.030	SINGLE PASS												
Aluminum	Gas-Shielded MIG ⁽¹⁾	Excellent. Little or no cleaning.	SuperGlaze™ 4043	.035	SINGLE PASS										P.H.*		

**P.H. = PREHEAT: Preheat to 250°F (121°C) required. Single pass.*

⁽¹⁾The use of the MIG or flux-cored process on thicker materials than recommended can result in welds of poor quality. The welds may appear to be fine, but may lack the fusion necessary to provide a strong weld. This is called “cold casting” or “cold lapping”, and is somewhat similar to a cold solder joint. Weld failure may result.

MAGNUM 100L GUN EXPENDABLE PARTS		
Part	Description	Product Number
Magnum™ 100L Gun & Cable Assembly, 10 ft. (3.0m) cable length	.035" (0.9mm) flux-cored wire .023-.035" (0.6-0.9mm) MIG wire and flux-cored wire	K530-3 K530-5 ⁽¹⁾
Cable Liner	.035-.045" (0.9-1.2mm) .023-.030" (0.6-0.8mm) .030-.035" (0.8-0.9mm) .035" (0.9mm) Teflon (Aluminum)	KP1937-1 KP1937-2 KP1937-3 ⁽¹⁾⁽²⁾ KP1959-1 ⁽⁴⁾
Gas Diffuser		KP2040-1 ⁽¹⁾
Contact Tips	.023/.025" (0.6mm) Standard Duty .030" (0.8mm) Standard Duty .035" (0.9mm) Standard Duty .023/.025" (0.6mm) Tapered .030" (0.8mm) Tapered .035" (0.9mm) Tapered .035" (0.9mm) Aluminum	KP2039-1 ⁽¹⁾ KP2039-2 ⁽¹⁾ KP2039-3 ⁽²⁾ KP2052-1 KP2052-2 KP2052-3 KP2078-1 ⁽³⁾
Gas Nozzle	1/2" (12.7mm) Fixed – Tip Flush 3/8" (9.5mm) Fixed – Tip Recessed 1/2" (12.7mm) Fixed – Tip Recessed 5/8" (15.9mm) Fixed – Tip Recessed	KP1938-1 ⁽¹⁾ KP1942-1 KP1942-2 KP1942-3
Gasless Nozzle		KP1939-1 ⁽²⁾
Gun Tube Assembly	(60°)	KP2038-1 ⁽¹⁾

⁽¹⁾Included with SP-135 Plus. ⁽²⁾Included with K549-1, .035" Innershield Welding Kit. ⁽³⁾Included with K663-2, .035" Aluminum Welding Kit.

TOTAL SOLUTION

For MIG welding on mild or stainless steel:

- Properly orient the drive rolls and install the correct contact tip for selected wire diameter. Included with the SP-135 Plus: .023/.025" contact tip, .030" contact tip and 2 lb. spool of .025" SuperArc™ L-56 wire (other contact tips and wire types/sizes sold separately).
- Obtain shielding gas (sold separately). The gas regulator that comes with the SP-135 Plus is suitable for argon and argon-blend gases. For welding procedures requiring straight CO₂ shielding gas, purchase adapter for the existing regulator or order K586-1 Deluxe Adjustable Gas Regulator and Hose Kit.
- Use electrode positive (DC+) polarity.

For FCAW-SS welding on mild steel:

- Properly orient the drive rolls and install .035" contact tip (not included with SP-135 Plus). For convenience, order K549-1

.035" Innershield Welding Kit. Order KP666-035C knurled drive roll for better wire feedability.

- Shielding gas is not required with Lincoln's Innershield wire.
- Use electrode negative (DC-) polarity.

For MIG welding on aluminum:

- Order K663-2 .035" Aluminum Welding Kit. Install non-metallic cable liner, contact tip and drive roll supplied in kit.
- Order .035" SuperGlaze aluminum MIG wire on 1 lb. spool.
- Obtain 100% argon shielding gas (sold separately). The gas regulator that comes with the SP-135 Plus is suitable for argon and argon-blend gases.
- Use electrode positive (DC+) polarity.

DRIVE ROLL KITS FOR MILD AND STAINLESS STEEL WIRES

Drive Roll	Groove 1	Groove 2
KP1881-1 ⁽¹⁾	.023-.025 Smooth (Solid Wire)	.030-.035 Smooth (Solid Wire)
KP666-035C	.035 Knurled (Flux-Cored Wire)	.035 Knurled (Flux-Cored Wire)

⁽¹⁾Included with SP-135 Plus.

RECOMMENDED OPTIONS

GENERAL OPTIONS



Welding Cart

Lightweight cart stores and transports welder, 80 cubic foot shielding gas cylinder, welding cables and accessories. Includes an angled top shelf for easy access to controls, lower tray for added storage capacity, a sturdy fixed handle and convenient cable wrap hanger.

Order K2275-1



Utility Cart

Heavy duty cart stores and transports welder, 150 cubic foot shielding gas cylinder, welding cables and accessories. Includes stable platforms for welder and gas bottle platform, lower tray for added storage capacity and adjustable height handle.

Order K520



MIG Wire Drive Roll

For feeding .023-.025" and .030-.035" solid wire.

Order KP1881-1



Flux-Cored Wire Drive Roll

For feeding .035" (0.9mm) flux-cored wire.

Order KP666-035C

.035" Innershield® Welding Kit

Includes everything needed for Magnum™ 100L gun and cable to use .035" (0.9mm) diameter flux-cored wire. Includes a contact tip, gasless nozzle, cable liner, and a 10 lb. (4.5kg) spool of .035" (0.9mm) Innershield® NR®-211-MP wire.

Order K549-1



.035" Aluminum Welding Kit

Includes drive roll, idle roll, guide tubes, non-metallic cable liner, and contact tips (qty. 5) for feeding .035" (0.9mm) SuperGlaze™ aluminum MIG wire.

Order K663-2



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. (1.3m) gas hose.

Order K586-1

SP-135 PLUS ORDER FORM

PRODUCT DESCRIPTION	ORDER NUMBER	QUANTITY	PRICE
SP-135 Plus 115/1/60	K1874-2		
SP-135 Plus One-Pak™ with Welding Cart 115/1/60	K2299-1		
Recommended General Options			
Welding Cart	K2275-1		
Utility Cart	K520		
MIG Wire Drive Roll ⁽¹⁾	KP1881-1 ⁽¹⁾		
Flux-Cored Wire Drive Roll (.035)	KP666-035C		
.035 Innershield® Welding Kit	K549-1		
.035 Aluminum Welding Kit	K663-2		
Deluxe Adjustable Gas Regulator & Hose Kit	K586-1		
	TOTAL:		

⁽¹⁾ Included with SP-135 Plus.

CUSTOMER ASSISTANCE POLICY

The business of The Lincoln Electric Company is manufacturing and selling high quality welding equipment, consumables, and cutting equipment. Our challenge is to meet the needs of our customers and to exceed their expectations. On occasion, purchasers may ask Lincoln Electric for advice or information about their use of our products. We respond to our customers based on the best information in our possession at that time. Lincoln Electric is not in a position to warrant or guarantee such advice, and assumes no liability, with respect to such information or advice. We expressly disclaim any warranty of any kind, including any warranty of fitness for any customer's particular purpose, with respect to such information or advice. As a matter of practical consideration, we also cannot assume any responsibility for updating or correcting any such information or advice once it has been given, nor does the provision of information or advice create, expand or alter any warranty with respect to the sale of our products.

Lincoln Electric is a responsive manufacturer, but 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.

Subject to Change – This information is accurate to the best of our knowledge at the time of printing. Please refer to www.lincolnelectric.com for any updated information.



THE LINCOLN ELECTRIC COMPANY

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