

DC-400

400 Amp DC Multi-Process Welding Power Source

This heavy-duty, industrial, three-phase multi-process power source from Lincoln Electric scores big in MIG, flux-cored, submerged arc, stick and DC TIG welding. It's a great choice for arc gouging too. And flexibility doesn't mean complicated – the DC-400 is easy to set-up and use. Changeover between processes is as simple as turning a switch with the factory or field installed multi-process switch. On-board ammeter and voltmeter make monitoring of key welding parameters a snap. Inductance and arc force controls allow the operator to efficiently refine the arc for the job at hand.



(Shown with Multi-Process Switch option)

Processes

Stick Gouging TIG MIG Flux-Cored Subarc

Advantage Lincoln

- Large, conveniently located switch makes it easy to change between CC (Stick/TIG/arc gouging), CV (MIG/flux-cored) and CV Submerged Arc modes.
- Arc force control adjusts short circuit current for a soft arc or a forceful driving arc in the CC (Stick/TIG) mode.
- Arc control adjustment changes pinch effect of the arc to control spatter, fluidity, and bead shape in the MIG/Flux-Cored mode.
- Capable of stick and DC TIG welding, and air carbon arc gouging with up to 5/16" (8mm) diameter carbon rods.
- Solid state circuitry provides extra long life for repetitive welding applications.
- Outstanding welding performance with a single range full output control potentiometer.
- Analog ammeter/voltmeter are standard.
- ± 10% input line voltage compensation for maintaining weld consistency.
- Low profile case allows stacking machines up to three high to conserve floor space. (Stacking not recommended when using undercarriage.)

Description

Output



Input



Recommended General Options

Multi-Process Switch, Remote Output Control, Deluxe Adjustable Gas Regulator and Hose Kit, Undercarriage

Recommended Stick Options

Accessory Kit

Recommended TIG Options

Pro-Torch™ TIG Torches, TIG Module, Docking Kit, Hand Amptrol™, Foot Amptrol, Remote Control Adapter, Amptrol Adapter Kit, Water Valve, TIG Control Cable Extension

Recommended Wire Feeders

LN-7, LN-7 GMA, LN-742, LN-8, LN-9, LN-9 GMA, LN-10, DH-10, LN-15, LN-23P, LN-25, Cobramatic®, NA-3, NA-5, LT-7

Order

- K1308-11 DC-400 230/460/3/60
- K1308-12 DC-400 (w/Multi-Process Switch) 230/460/3/60
- K1309-20 DC-400 220/380/440/3/50/60
- K1309-21 DC-400 (w/Multi-Process Switch) 220/380/440/3/50/60

Technical Specifications

Product Name	Product Number	Input Power	Rated Output ⁽¹⁾ Current/Voltage/Duty Cycle	Input Current @ Rated Output	Output Range	Dimensions H ⁽²⁾ x W x D in. (mm)	Net Weight lbs. (kg)
DC-400	K1308-11 K1308-12	230/460/3/60	400A/36V/100% (450A/38V/60%) (500A/40V/50%)	78/39A	60-500A 12-42V	27.5 x 22.3 x 33.1 (698 x 566 x 840)	473 (215)
	K1309-20 K1309-21	220/380/440/ 3/50/60		81/47/40A			

(1) NEMA Class I Rated Output / Based on a 10 min. period.

(2) Add 3.3 in. (84mm) for lift bail.

Advantage Lincoln

- Fan cooled for long life expectancy. Electronic and thermostatic protection safeguard DC-400 from current overload and excessive temperatures.
- Windings and rectifiers protected against moisture and corrosive environments.
- Both 14 pin MS-style cable connection and terminal strip access for remote control and wire feeder connections and output studs for weld cables.
- Circuit breaker protected on-board power for a wire feeder: 115V available from the terminal strip, 42V and 115V available from the 14-pin connector receptacle.
- K1309 models have Continental European receptacle that provides 220V, 2-amp AC auxiliary power for operating water cooler.
- 115V AC power on/off switch with pilot light provides added user safety.
- Durable powder paint system protects both sides of all painted surfaces to prolong machine's life.
- K1308 models are UL and CSA approved.
- Three year warranty on parts and labor.
- Manufactured under a quality system certified to ISO 9001 requirements.

System Selection

Typical MIG welding systems.

DC-400/LN-7 GMA – .045 MIG Welding System

Our most popular MIG and flux-cored welding system!

Description	Order Number
DC-400 power source	K1308-11
LN-7 GMA (Two Roll) wire feeder	K440-2
Feeder Control Cable – 10 ft.	K1818-10
.045 Drive Roll – solid wire	KP653-052S
Universal Stand	K1524-1
Swivel Platform	K1557-1
Magnum® 400 Gun & Cable asbly	K471-2
Gun Connector Kit	K466-1
Weld Power Cable – 10 ft. (2 req'd.)	K1842-10
GC-500 Work Clamp	K910-2
Undercarriage (twin cylinder)	K841
Gas Regulator and Hose Kit	K586-1

DC-400/LN-10 – .045 MIG Welding System

Where premium welding performance is demanded – this system delivers!

Description	Order Number
DC-400 power source	K1308-11
LN-10 (four roll) wire feeder	K1559-3
.045 Drive Roll – solid wire	KP1505-045S
Swivel Platform	K1557-1
Magnum 400 Gun Package	K471-21 ⁽¹⁾
Weld Power Cable – 10 ft. (2 req'd.)	K1842-10
GC-500 Work Clamp	K910-2
Undercarriage (twin cylinder)	K841
Gas Regulator and Hose Kit	K586-1

DC-400/LN-742 – .045 MIG Welding System

Best for applications where more process control is required for arc starting, welding and crater control!

Description	Order Number
DC-400 power source	K1308-11
LN-742 (Two Roll) wire feeder	K617-1
Feeder Control Cable – 10 ft	K1819-10
.045 Drive Roll – solid wire	KP653-052S
Universal Stand	K1524-1
Swivel Platform	K1557-1
Magnum 400 Gun & Cable asbly	K471-2
Gun Connector Kit	K466-1
Weld Power Cable – 10 ft. (2 req'd.)	K1842-10
GC-500 Work Clamp	K910-2
Undercarriage (twin cylinder)	K841
Gas Regulator and Hose Kit	K586-1

DC-400/DH-10 – .035 & .045 MIG Welding System

For maximum welding flexibility select the DH-10 dual feeder. Weld with two different types and sizes of wire with two different welding procedures⁽³⁾!

Description	Order Number
DC-400 power source	K1308-11
DH-10 wire feeder	K1499-3
.045 Drive Roll – solid wire	KP1505-045S
.035 Drive Roll – solid wire	KP1505-035S
Magnum 400 Gun Package	K471-21 ^{(1) (2)}
Weld Power Cable – 10 ft.	K1842-10
GC-500 Work Clamp	K910-2
Undercarriage (twin cylinder)	K841
Gas Regulator and Hose Kit	K586-1

⁽¹⁾ Fully assembled, no gun connector required.

⁽²⁾ Two required.

⁽³⁾ Both electrodes must have the same polarity.

Note: Above systems do not include shielding gas. Sold separately.

Recommended Options



Multi-Process Switch

3-position switch allows quick and easy change from electrode positive or negative semiautomatic/automatic wire feed welding to stick or air carbon arc gouging.

Order K804-1.



Remote Output Control

Consists of a control box with choice of two cable lengths. Permits remote adjustment of output. 6 pin connection.

Order K857 for 25 ft. (7.6m) or K857-1 for 100 ft. (30.5m).



Deluxe Adjustable Gas Regulator and 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.

Undercarriage

Platform undercarriage with mountings for two gas cylinders at rear of welder.

Order K841.



Accessory Kit

For stick welding. Includes 35 ft. (10.7m) 2/0 electrode cable with lug, 30 ft. (9.1m) 2/0 work cable with lugs, headshield, filter plate, cover plate, work clamp and electrode holder.

Order K704.



TIG Module

Supplies high frequency for superior starting, contactor control, remote control capability and a gas valve for TIG welding.

Order K930-2.



Docking Kit

Provides a means to "dock" the TIG Module on top of a flat-roofed power source, or any other flat surface measuring at least 10 x 15 in. (254 x 381mm). It includes a latch and provisions for a user-supplied padlock to lock the TIG Module in place.

Order K939-1.



Hand Amptrol™

Varies current for making critical TIG welds. Fastens to the torch for convenient thumb control. Comes with a 25 ft. (7.6m) cable. Fully extend the slide forward to achieve maximum current. Returning to the start position finishes the weld and starts the afterflow cycle.

Order K963-1

(For smaller handle 9, 17 or 20 series torches).

Order K963-2

(For larger handle 26 or 18 series torches).



Amptrol Adapter Kit

Adapts Amptrol's 6-pin MS-type plug connection to terminal strip on power source.

Order K843.



Water Valve

For use with TIG Module. Shuts off water flow when the arc is extinguished when using Magnum® water-cooled TIG torches.

Order K844-1.



Foot Amptrol™

Varies current for making critical TIG welds. Depress pedal to increase current. Depressing pedal fully achieves maximum set current. Fully raising the pedal finishes the weld and starts the afterflow cycle. Includes 25 ft. (7.6m) control cable.

Order K870.



TIG Control Cable Extension

Allows the TIG Module to be operated at up to 45 ft. (13.7m) from power source. Connects between the 2 ft. (0.6m) control cable and the TIG Module.

Order K937-45.



Remote Control Adapter

Y connection adapter for connecting K857, K963 or K870 (6-pin plug connection) and wire feeder input cable (14-pin plug connection) to power source's 14 pin receptacle.

Order K864.

