

# Idealarc® DC-655

## Processes

Stick, TIG, MIG, Flux-Cored,  
Submerged Arc, Gouging

## Product Number

K1609-2 230/460/575V

K1610-1 230/400V CE

*See back for complete specs*

## Input Power (Voltage/Phase/Hertz)

K1609-2: 230/460/575V/3/60

K1610-1: 230/400V/3/50/60

## Input Current at Rated Output (100% Duty Cycle)

230V: 122A

400V: 70A

460V: 61A

575V: 49A

## Rated Output

650A/44V/100%

815A/44V/60%

## Output Range

CV/CC: 50A/13V - 815A/44V

Max. OCV: 46V (CV), 68V (CC)

## Weight/Dimensions (H x W x D)

720 lbs. (327 kg)

27.5 x 22.2 x 38.0 in.

(699 x 564 x 965 mm)

## Industrial DC Multi-Process Welders

Rugged construction, simple controls and a 100% duty cycle output rating make these machines a sound investment for heavy duty shop applications. Add the outstanding traditional SCR rectifier arc action delivering high quality, attractive welds and your operators will agree – it's hard to go wrong with an Idealarc® DC-655.

### FEATURES

- ▶ **CC arc force control knob** with built-in "hot start".
- ▶ **"Idle shutdown mode"** automatically shuts machine off when not in use to minimize power consumption.
- ▶ **Fan-As-Needed™ (F.A.N.™)** solid state thermally controlled cooling fan operates only when required. Minimizes power consumption, operating noise and dust intake.
- ▶ **115V duplex receptacle** provides 20 amps of auxiliary power (no receptacle on CE model).
- ▶ **Separate output studs** let you choose low or high inductance. Select high for most stick or wire processes. Select low for Innershield® NR-211-MP, NR-212 and NR-203.
- ▶ **Remote and mode switches** are behind front latched panel for added protection.
- ▶ **Low profile case** allows stacking machines up to three high to conserve floor space.
- ▶ **Seven-year warranty** on power rectifier.



Shown: K1609-2

### APPLICATIONS

- ▶ Metal Fabrication
- ▶ Heavy Industrial
- ▶ Construction

### INPUT



### OUTPUT



<sup>(1)</sup> CE model only.



Two Year Extended  
Warranty Available in  
the U.S.A. and Canada.



## RECOMMENDED ACCESSORIES

### GENERAL OPTIONS



**Digital Meter Kit**  
Accurately displays welding amps and volts.  
**Order K1482-1**



**Air Filter Kit**  
Mounts on the front of the machine and uses cleanable, all metal air filters. Not compatible with Dual Process Switch.  
**Order K1486-1**



**Dual Process Switch**  
Mounts on front of machine and provides polarity change or electrical isolation. Great for arc gouging applications and where two separate feeders require different output polarity or inductance settings. Not compatible with Air Filter Kit.  
**Order K1528-1**



**Paralleling Kit**  
Permits paralleling of two power sources.  
**Order K1611-1**



**Undercarriage**  
Platform undercarriage with mountings for two gas cylinders at rear of welder.  
**Order K842**



**All-Terrain Undercarriage**  
For moving by hand at construction sites. Maneuvers over obstacles. Heavy-duty puncture-resistant tires.  
**Order K1737-1**



**Welding Fume Extractors**  
Lincoln offers a wide variety of welding fume extraction environmental system solutions, ranging from portable systems easily wheeled around the shop to shop-wide central systems servicing many dedicated welding stations.  
**Request Publication E13.40**



**Accessory Kit**  
For stick welding. Includes 35 ft. (10.7 m) 2/0 electrode cable with lug, 30 ft. (9.1 m) 2/0 work cable with lugs, headshield, filter plate, cover plate, work clamp and electrode holder. 400 amp capacity.  
**Order K704**



**Remote Output Control**  
Provides 25 ft. or 100 ft. (7.6 m or 30 m) of remote output control (6-pin plug connection). Requires K864 Control Cable Adapter.  
**Order K857** 25 ft. (7.6 m)  
**Order K857-1** 100 ft. (30 m)



**Remote Control Adapter**  
Y connection adapter for connecting K857 Remote Output Control (6-pin plug connection) and wire feeder input cable (14-pin plug connection) to power source 14-pin receptacle.  
**Order K864**



**TIG Module**  
Supplies high frequency for superior starting, contactor control, remote control capability and a gas valve for TIG welding.  
**Order K930-2**



**Control Cable**  
Connects TIG Module to power source.  
**Order K936-1** for 9-pin to 14-pin



**Adapter Cable**  
Male 14-pin control cable to terminal strip of power source.  
**Order K1798**



**Control Cable Extension**  
Allows the TIG Module to be operated at distances up to 200 ft. (61 m) from the power source. Available in 45 ft. (13.7 m) sections.  
**Order K937-45**



**Docking Kit**  
Allows you 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 381 mm). Includes a latch and provisions for a user-supplied padlock to lock the TIG Module in place.  
**Order K939-1**



**Foot Amptrol™**  
Provides 25 ft. (7.6 m) of remote output control for TIG welding. (6-pin plug connection).  
**Order K870**



**Amptrol™ Adapter Kit**  
Adapts Amptrol's 6-pin MS-type plug connection to terminal strip on power source.  
**Order K843**



**Deluxe Adjustable Gas Regulator & Hose Kit**  
Accommodates CO<sub>2</sub>, 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**

## PRODUCT SPECIFICATIONS

Product Name	Product Number	Input Power	Rated Output Current/Voltage/Duty Cycle	Input Current @ Rated Output	Output Range	H x W x D inches (mm)	Net Weight lbs. (kg)
Idealarc® DC-655	K1609-2	230/460/575/3/60	650A/44V/100%	122/61/49A	50-815A	27.5 x 22.2 x 38.0 (699 x 564 x 965)	720 (327)
Idealarc® DC-655 CE	K1610-1	230/400/3/50/60	815A/44V/60%	122/70A	13-44V Max. OCV: 46V (CV) 68V (CC)		

For best welding results with Lincoln Electric equipment, always use Lincoln Electric consumables.  
Visit [www.lincolnelectric.com](http://www.lincolnelectric.com) for more details.

### CUSTOMER ASSISTANCE POLICY

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