

ASPECT[®] 230 TIG WELDER

THE CONSISTENCY YOU WANT, THE PERFORMANCE YOU NEED.



Shown:
Aspect 230 AC/DC (K4340-1) and
Aspect 230 DC (K4346-1)

KEY FEATURES

The Aspect 230 TIG Welder is an inverter based arc welding power source optimized for AC/DC TIG and Stick Welding. A true professional's choice with advanced waveforms, full sequencer, and pulse controls this machine will deliver the arc you need. All of the features you want can be easily customized to your application and saved in the available memory settings. TIG weld like a champion with the new Aspect 230 AC/DC and DC machines.

Processes »
GTAW, SMAW

Applications »
Shipbuilding, Aerospace, Advanced Motorsports, Nuclear, Production Fabrication

Output »

Input »

Product Number »
K4340-1 Aspect 230 AC/DC
K4346-1 Aspect 230 DC

KEY FEATURES

» **Intellistart™ Technology**

Automatically provides softer starts and minimal distortion on thinner materials and hotter starts required for thicker materials

» **PowerConnect® Technology**

Automatically adjusts to input power from 120-460V, 50 or 60 Hz, single or three phase

» **AC Auto Balance® Technology**

Automatically provides optimal mix of cleaning and penetration when welding aluminum

» **Memory Capability**

The memory function allows saving up to 9 specific welding procedures

» **Fan-As-Needed**

The cooling fan operates only when needed to assure proper cooling of the machine

» **Green Mode**

Ability to put machine in standby mode after 10 minutes of inactivity to reduce power consumption

» **Cooler Power Supply**

Built-in Cooler Power Supply comes standard on all models

PERFORMANCE

Exceptional Arc Response and Stability

- With up to 230 amps of maximum output, you can TIG weld up to 1/4 in. (6.4 mm)
- Maximize productivity and spend more time welding with a rated 35% duty cycle at 230 amps
- Advanced aluminum controls, AC Auto Balance technology, pulse, frequency, and additional waveforms
- Portable, lightweight and easy to transport
- IP23 rated for harsh environments

ASPECT 230 PACKAGES

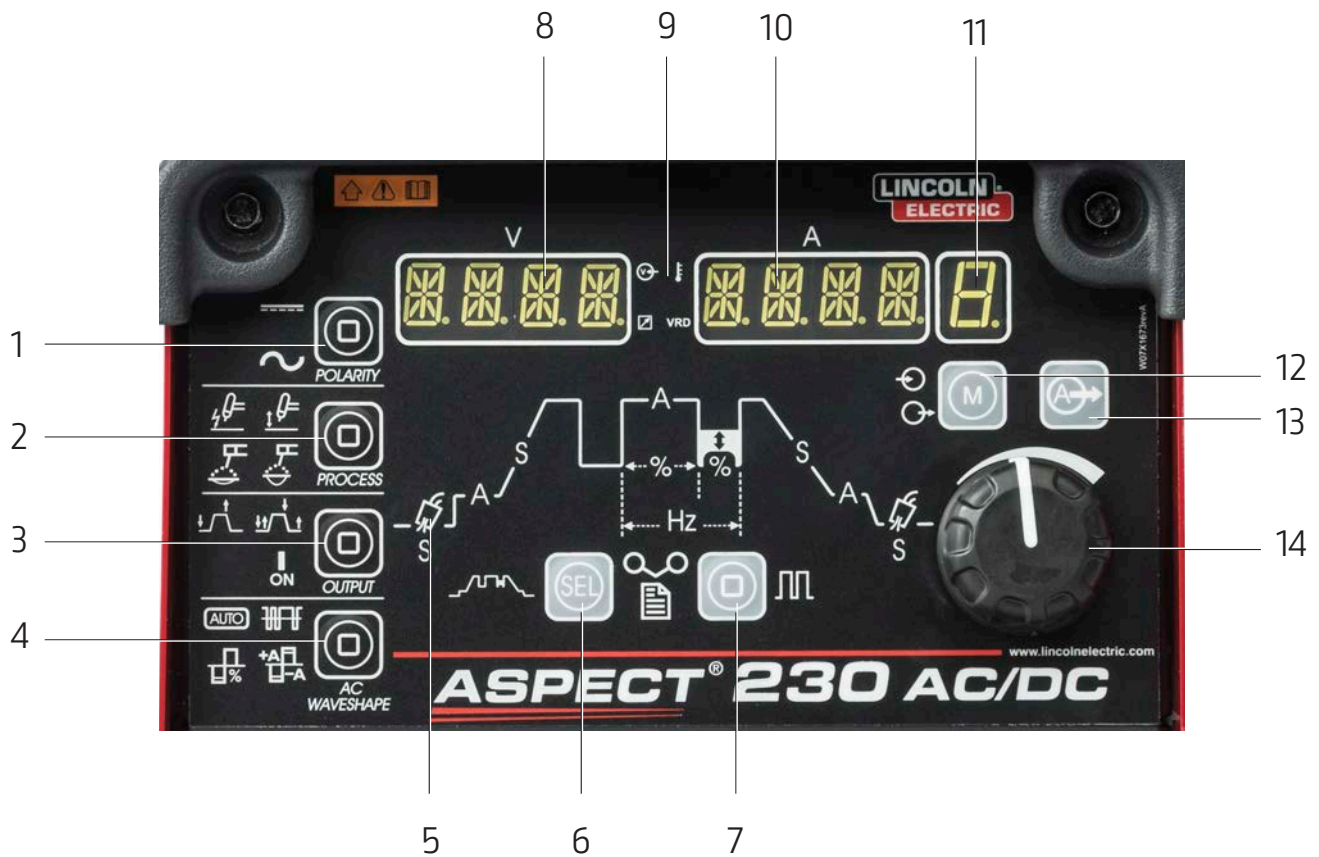
Product Name	Product Number	Aspect 230 AC/DC Water-Cooled One-Pak® (K4342-1)	Aspect 230 AC/DC Air-Cooled One-Pak (K4341-1)	Aspect 230 DC Air-Cooled One-Pak (K4347-1)
Aspect 230 AC/DC	K4340-1	•	•	
Aspect 230 DC	K4346-1			•
Cart	K4441-1	•		
Cool Arc® 22	K3475-1	•		
Foot Pedal	K870	•	•	•
Expendables kit for PTW-18 and PTA-26	KP509		•	•
Gas Lens Kit for PTW-20	KP2414-1	•		
Air Cooled TIG Torch 200A PTA-26 25 FT FLEX HEAD	K1783-10		•	•
Water Cooled TIG Torch PTW-20 250A 25FT	K1784-4	•		
Low Conductivity Coolant	KP4159-1	•		
Zippered Cable Cover (25 Foot)	K918-4	•		
Regulator With Flow Gauge and Hose Kit	3100211	•	•	•
Ground Clamp Set w/ 15 foot cable	K1803-3	•	•	•
Torch Twist Mate™ Connector	K1622-5	•		
Torch Twist Mate Connector ASM	K1622-3		•	•

^N Two Quick Connect Fittings are Required

• Included

KEY CONTROLS

- | | | |
|--------------------------|----------------------|----------------------|
| 1. Polarity Select | 6. Sequencer Control | 11. Memory Display |
| 2. Process Select | 7. Pulse Sequencer | 12. Memory Selection |
| 3. Output Control | 8. Voltage Display | 13. Exit Menu Button |
| 4. AC Wave Shape Control | 9. Status Lights | 14. Control Knob |
| 5. Sequencer | 10. Amperage Display | |



KEY CONTROLS

- 15. Electrode Connector
- 16. 15V DC Supply
- 17. 6-Pin Remote Receptacle
- 18. Work Connector
- 19. Input Power Cord
- 20. Power Switch
- 21. Gas Solenoid Input
- 22. 9-Pin Water Cooler Connection



AC WAVE SHAPE CONTROLS

Setting	Range	Results	
AC Frequency	40-400 Hz	A lower frequency results in a wider bead	A higher frequency results in a more focused bead
AC Balance Control	35-99% (EN%)	A lower AC Balance (EN%) results in an arc with increased cleaning action	A higher AC Balance (EN%) results in an arc with higher penetration
Electrode Positive (EP) and Negative Offset (EN)	2-230 Amps EP	A higher Electrode Positive (EP) current value results in intensified cleaning action	
	2-230 Amps EN	A higher Electrode Negative (EN) current value results in intensified penetration	

PULSE FUNCTIONS

Setting	Range	Results
AC Pulse Frequency	0.1-25% of AC output frequency setting in pulses per second	Alternating the current between peak and background helps better manage heat input and minimize material distortion Provides for better arc control and faster freezing for uphill welding
DC Pulse Frequency	0.1-2,000 pulses per second	Helps moderate filler metal deposition at low pulse frequencies (less than 10 pulses per second)

AC WAVE FORMS

Setting	Results
Soft Square	Increased puddle control
Sine	A soft sounding arc
Square	Faster travel speeds
Triangular	Reduced heat input on thinner materials. Also provides for better cleaning on anodized applications

RECOMMENDED ACCESSORIES

GENERAL OPTIONS



Foot Amptrol™ for TIG welding. The Foot Amptrol energizes the output and controls the output remotely. The Foot Amptrol connects directly to the 6-pin remote control connector.
Order K870



Hand Amptrol™ for TIG welding. The Hand Amptrol energizes the output and controls the output remotely. The Hand Amptrol connects directly to the 6-pin remote control connector.
Order K963-3



Arc Start Switch
Energizes the output for TIG welding if remote output control of the amperage is not desired. It allows on/off TIG welding at the amperage set by the Current Control on the control panel.
Order K814



Cool Arc 22 Water Cooler
Attaches underneath the Aspect 230 AC/DC welder and electrically connects to the Aspect 230 AC/DC. This smart cooler runs only when needed and shuts off welding if coolant flow is interrupted.
Order K3475-1



TIG Inverter Cart
Holds the Aspect 230 AC/DC welder, the Cool Arc 22 cooling system and all accessories. Features low lift bottle loader and drawer for convenient storage.
Order K4441-1



Zippered Cable Cover, 12.5 ft. (3.8 m)
Protects torch cables in high abrasion applications.
Order K918-1



Zippered Cable Cover, 25.0 ft. (7.6 m)
Protects torch cables in high abrasion applications. Regulator with Flow Gauge and Hose Kit (3100211)
Order K918-4



TIG-Mate™ 17 Air Cooled TIG Torch Starter Pack
One complete easy-to-order kit packaged in its own portable carrying case. Includes: PTA-17 torch, parts kit, Harris® flowmeter/regulator, 10 ft. gas hose, Twist Mate adapter, work clamp and cable.
Order K2266-1



Magnum® TIG Torches
The following standard Magnum TIG torches may be used with the Aspect 230 AC/DC welder.

Order:
K1782-1 for PTA-17 12.5 ft. (3.8 m) Air-Cooled 150A

K1782-3 for PTA-17 25 ft. (7.6 m) Air-Cooled 150A

K1782-14 for PTA-17 12.5 ft. (3.8 m) Air-Cooled 150A Ready-Pak®

K1783-1 for PTA-26 12.5 ft. (3.8 m) Air-Cooled 200A

K1783-3 for PTA-26 25 ft. (7.6 m) Air-Cooled 200A

Water-Cooled Torches
(The Cool Arc 22 is required)

Order
K1784-3 for PTW-20 Water-Cooled 12.5 ft. (3.8 m) 250A

K1784-4 for PTW-20 Water-Cooled 25 ft. (7.6 m) 250A



Twist Mate Adapter
Adapter needed for K4168-2 and K1784-3 and K1784-4 torches
Order K1622-5

NOTE: Each torch requires a Twist-Mate Adapter, collets, collet bodies, and nozzles and are not included and must be ordered separately.



Gas Lens Parts Kit
Order KP2414-1 for PTA-9 and PTW-20 Series Torches



Magnum Parts Kit
Order KP508 for PTA-17 Series Torches

Order KP509 for PTW-18 and PTA-26 Series Torches

Order KP510 for PTW-20, 20H-320-25R Series Torches



Work Lead Clamp with Twist Mate Plug, 15ft. (4.6 m)
Order K1803-3



Low Conductivity Coolant (1 gal)
Order KP4159-1



Twist Mate Adapter for PTA-26 TIG Torch
Order K1622-3



Twist Mate Adapter for PTA-17 TIG Torch
Order K1622-1

PRODUCT SPECIFICATIONS

Product Name	Product Number	Input Power Voltage/Phase/Hertz	Rated Output: Current/Voltage/Duty Cycle	Input Current @ Rated Output	Output Range	H x W x D in (mm)	Net Wt. lb (kg)
Aspect 230 AC/DC							
Base Model	K4340-1	120/1/50/60 or 208/230/400/460/ 1/3/50/60	120/1/50/60: 110A/100%/14.4V 125A/60%/15V 150A/35%/16V	120/208/230/400/460/1/50/60: 34/33/31/18/16A	120V: 2-150A TIG	16.5 x 9.7 x 19.9 (419 x 246 x 506)	50.5 (22.9)
Water-Cooled One-Pak	K4342-1			208/230/400/460/3/50/60: 19/17/10/9A	208/230/400/460V: 2-230A	46.5 x 22 x 24 (1118.1 x 558.8 x 609.6)	212 (96.2)
Air-Cooled One-Pak	K4341-1		208/230/400/460/1/3/50/60: 160A/100%/16.4V 190A/60%/17.6V 230A/35%/19.2V			16.5 x 9.7 x 19.9 (419 x 246 x 506)	79 (35.8)
Aspect 230 DC							
Base Model	K4346-1	120/1/50/60 or 208/230/400/460/ 1/3/50/60	120/1/50/60: 110A/100%/14.4V 125A/60%/15V 150A/35%/16V	120/208/230/400/460/1/50/60: 31/33/31/18/16A	120V: 2-150A TIG	16.5 x 9.7 x 19.9 (419 x 246 x 506)	46.5 (21.1)
Air-Cooled One-Pak	K4347-1		208/230/400/460/1/3/50/60: 160A/100%/16.4V 190A/60%/17.6V 230A/35%/19.2V	208/230/400/460/3/50/60: 19/17/10/9A	208/230/400/460V: 2-230A		75 (34.02)

For best welding results with Lincoln Electric equipment, always use Lincoln Electric consumables. Visit www.lincolnelectric.com for more details.
Manufactured at a facility with certified ISO Quality and Environmental Management Systems.

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