

Precision TIG[®] 225

Processes

Stick, TIG

Product Number

K2535-1 208/230/1/60 Ready-Pak[®]

K2535-2 208/230/1/60 Ready-Pak[®]
with Cart

K2533-2 460/575/1/60 Machine Only

See back for more specs

Input Power

208/230/1/60

460/575/1/60

Input Current @ Rated Output

42/39A, 18/15A

Rated Output

90A/23.4V/100% Duty Cycle

Output Range

5-230 Amps AC

5-230 Amps DC

Max. OCV: 75V

Weight/Dimensions (H x W x D)

192 lbs. (87 kg)

20.7 x 14.5 x 25.6 in.
(526 x 368 x 650 mm)

The Power to Perform!SM

Professional features, like the most auxiliary power and the widest output range in its class, make the Precision TIG[®] 225 a great value.

FEATURES

- ▶ **5-230 amps** is the widest welding range in its class.
- ▶ **Patented Micro-Start[™] II Technology** delivers extremely stable low amperage starting, welding and cratering for AC and DC welding.
- ▶ **FREE TIG Pulser** – Optimal heat input control results in reduced warping and burnthrough on thin materials and improved appearance.
- ▶ **Excellent Stick Welder** – even with Fleetweld[®] 5P (E6010).
- ▶ **AC Auto Balance[®]** automatically sets the optimal cleaning vs. penetration levels for great looking aluminum welds.
- ▶ **115 volt auxiliary power** receptacles with 20 amp service reliably powers water coolers or other tools (208/230V model only, all other models 6 amps).
- ▶ **Standard torch parts storage** compartment and cable hanger keeps you organized.
- ▶ **Fan-As-Needed[™] (F.A.N.)** prevents overheating. F.A.N. reduces power consumption noise, motor wear and dust in the machine.
- ▶ **CSA C/US** certified.

APPLICATIONS

- ▶ **Automotive/Motorsports**
- ▶ **Vocational Schools**
- ▶ **Home/Shop**
- ▶ **General Fabrication**



Shown:
K2535-2 Ready-Pak[®] With Cart Pkg.

WHAT'S INCLUDED

- ▶ Precision TIG[®] 225 (208/230/1/60)
- ▶ Torch Parts Storage Compartment
- ▶ Torch Hanger
- ▶ 10 ft. (3.0 m) Work Cable & Clamp
- ▶ Removable Lift Eye
- ▶ 9 ft. (2.7 m) Input Power Cord with NEMA 6-50P Plug
- ▶ NEMA 6-50R Receptacle
- ▶ TIG Procedure Guide
- ▶ GTAW (TIG) Handbook

INPUT



OUTPUT



THE LINCOLN ELECTRIC COMPANY

KEY CONTROLS

- Large, well-spaced controls make it easy to view and set up with gloved hands.

- 1) Power Switch
- 2) AC Balance Control with Auto Balance® Setting
- 3) Mode Switch
- 4) Digital Amp Meter (Preset/Actual)
- 5) Thermal Shutdown Light (Back Lit)
- 6) Output Preset Control
- 7) Post Flow Time
- 8) Pulse Frequency Control and Pulse Rate Indicator Light
- 9) Polarity Switch
- 10) Twist Mate™ Output Connector for TIG Torch or Electrode Cable for Stick Welding
- 11) Attached Work Cable
- 12) Remote Receptacle



ARC PERFORMANCE

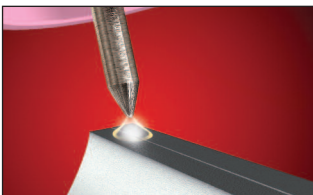
- Micro-Start™ II Technology — More than just a starting aid.**
Better control for starting, arc stability and crater fill.

MICRO-START™ II
TECHNOLOGY



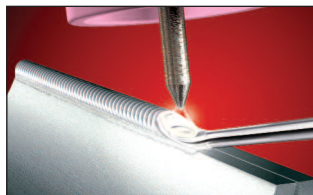
Great Starting

Micro-Start™ II Technology minimizes high frequency and 'hot starts' to deliver soft arc starts without arc wandering for AC and DC welding.



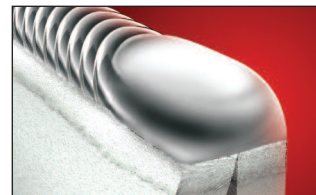
Stable, Focused Arc

Micro-Start™ II Technology aids arc stability THROUGHOUT THE WELD CYCLE – even at the lowest amperage!



Precise Crater Fill

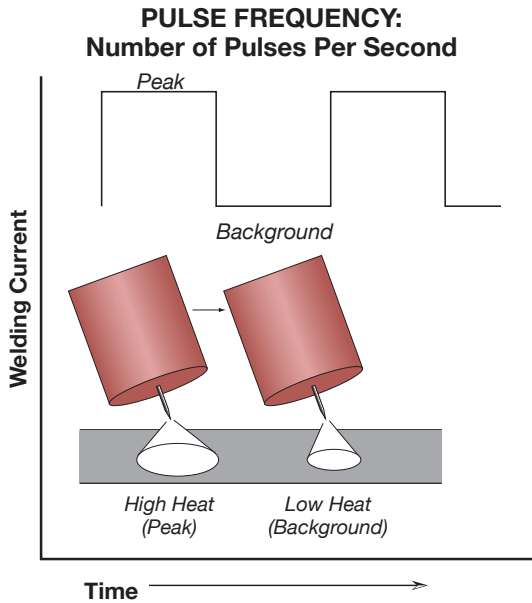
Micro-Start™ II Technology controlled ramp down helps precisely fill the weld crater for quality results.



**“Set It/See It” Pulse Control —
Make attractive and consistent welds!**

What Is It?

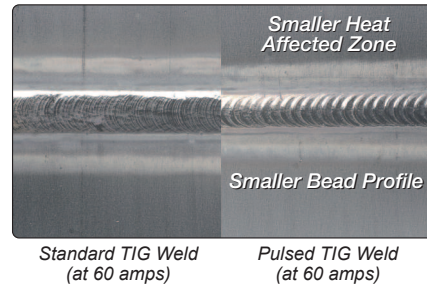
Pulse welding systems vary weld current between peak (high heat) and background current (low heat) levels. Adjusting the pulse frequency controls the level of heat input applied to the weld relative to the weld travel speed. For the Precision TIG® 225, pulse frequency can be varied from 0.1 to 20 pulses per second.



Results

Better control of heat input in the weld, resulting in:

- Reduced warping and burnthrough on thin materials.
- Smaller heat-affected zone.
- Smaller bead profile without compromising proper penetration.



Great For

- **Thin materials** – Faster pulse settings help to narrow the bead profile and minimize the heat-affected zone and resulting warping or burnthrough.
- **Consistent appearance** – Slower pulse settings aid in timing the application of filler metal to produce the consistent stacked bead appearance associated with high quality TIG welding.
- **Maintaining a steady welding rhythm.**



Easy Operation:

- Flashing indicator light lets you see the pulse rate before you strike an arc.

AC Auto Balance® Controls —

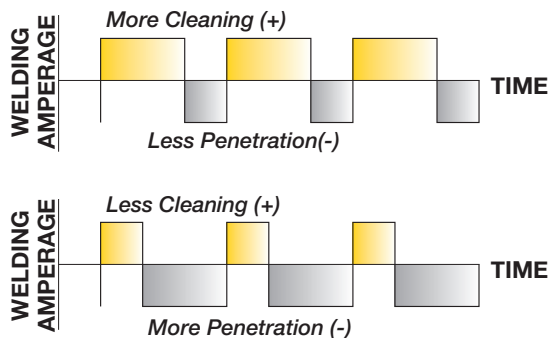
Automatically sets the optimal cleaning vs. penetration level for aluminum welding!

What Is It?

When aluminum welding, the positive (+) portion of the AC welding amperage cleans the oxides from the aluminum surface. The negative (-) portion delivers more heat input, increasing penetration level.

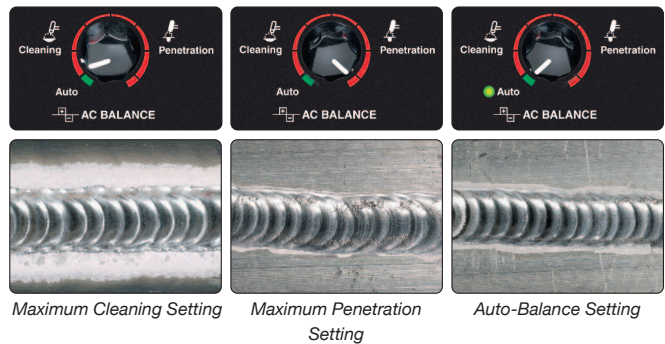
Patented AC Auto Balance® automatically sets the ratio of cleaning action (+) versus penetration (-) based on amperage.

Manual balance control provides the flexibility to customize the arc to your preference.



Easy Operation:

- Set it and forget it or override when you choose to customize the settings.



Don't miss these great convenience features!

LINCOLN EXCLUSIVE!



Torch Parts Storage Compartment



Torch / Cable / Helmet Holder



Hidden Pull Handle for Mobility on Undercarriage



Pro-Torch™ TIG Torch with Ultra-Flex™ Cable (Ready-Pak® models)

LINCOLN EXCLUSIVE!



Input Power Cord with Integral Power Plug (NEMA 6-50) and Receptacle included (208/230V models)



FREE!
GTAW (TIG) Procedure Guide and Handbook



Shown:
K2535-2 Ready-Pak® With Cart Package

Optional Understorage Cart adds these great features: (standard with K2535-2 Ready-Pak® With Cart Package)

LINCOLN EXCLUSIVE!



Personal Storage Drawer

Filler Rod Holders

Low Lift Shielding Gas Bottle Platform

LINCOLN EXCLUSIVE!
20 Amps
MORE POWER for BIGGER TOOLS



Portable MIG Welder



Welding Fume Extraction



Water Cooler



Grinders

Ready-Pak® Packages

Take the hassle out of ordering. Order a Ready-Pak® pre-assembled welding package.

Precision TIG® 225 Ready-Pak® Package

Includes:

- Precision TIG® 225 (208/230/1/60)
- Torch Parts Storage Compartment
- Torch Hanger
- 10 ft. (3.0 m) Work Cable & Clamp
- Removable Lift Eye
- 9 ft. (2.7 m) Input Power Cord with NEMA 6-50P Plug
- NEMA 6-50R Receptacle
- TIG Procedure Guide
- GTAW (TIG) Handbook
- PTA-17 One-Piece TIG Torch
 - 12 ft. (3.6 m) Ultra-Flex™ Cable
 - Twist Mate™ Adapter
 - 3/32 in. (2.4 mm) 2% Thoriated Tungsten
 - Collet & Collet Body
 - 7/16 in. (11.1 mm) Alumina Nozzle
 - Long Back Cap
- Gas Regulator with Hose
- Foot Amptrol™ (K870)

Order K2535-1



Precision TIG® 225 Ready-Pak® with Cart Package

Includes everything in Ready-Pak® Package, plus:

- Understorage Cart

Order K2535-2



Build Your Own Package

Do you need to customize your own package to fit your performance needs or budget? Here's everything you need to pick and choose the accessories you want.



1	2	3	4	5
Select Precision TIG® 225 Machine	Optional Understorage Cart	Select Remote Control Device	Select TIG Torch Starter Pack	Select Water Cooler
K2533-2 460/575/1/60 K2534-1 380/400-415/1/50/60	K2348-1	K870 Foot Amptrol™ K963-3 Hand Amptrol™ K814 Arc Start Switch	Air-Cooled Water-Cooled	N/A K1813-1 Cool Arc® 40 115V 50/60Hz K2187-1 Cool Arc® 40 230V 50/60Hz
			K2266-1 TIG-Mate™ 17 K2267-1 TIG-Mate™ 20	

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)
Precision TIG® 225 Ready-Pak® Pkg.	K2535-1	208/230/1/60	90A/23.4V/100%	42/39A	5-230 Amps AC 5-230 Amps DC Max. OCV: 75V	20.7 x 14.5 x 25.6 (526 x 368 x 650)	212 (96)
Precision TIG® 225 Ready-Pak® w/Cart Pkg.	K2535-2					31.2 x 19.8 x 38 (794 x 503 x 966)	258 (117)
Precision TIG® 225 Base Models	K2533-2	460/575/1/60		18/15A		20.7 x 14.5 x 25.6 (526 x 368 x 650)	192 (87)
	K2534-1	380/400-415/1/50/60		21/20A			

RECOMMENDED ACCESSORIES TO EXPAND MACHINE CAPABILITIES



GENERAL OPTIONS

Understorage Cart

Adds easy shop mobility and provides shielding gas bottle platform, handy storage drawer and two filler rod holders.
Order K2348-1



Medium Canvas Cover

Protect your machine when not in use. Made from attractive red canvas that is flame retardant, mildew resistant and water repellent. Fits any POWER MIG® (without spool gun attached) or Precision TIG® 225 machine with undercarriage.
Order K2378-1



STICK OPTIONS

Stick Electrode Holder & Cable
Includes Twist Mate™ connector. 12.5 ft. (3.8 m) cable length.
Order K2374-1



TIG OPTIONS

TIG-Mate™ 17 Air-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: PTA-17 Ultra-Flex™ 12.5 ft. (3.8 m) torch, parts kit, Harris® flowmeter/regulator, 10 ft. (3.0 m) gas hose, Twist Mate™ adapter, and work clamp and cable.
Order K2266-1



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 12.5 ft. (3.8 m) torch, parts kit, Harris® flowmeter/regulator, 10 ft. (3.0 m) gas hose, Twist Mate™ adapter, work clamp and cable and 10 ft. (3.0 m) water hose.
Order K2267-1



Parts Kit for PTA-17 TIG Torch

Parts kit provides collets, collet bodies, a back cap, alumina nozzles and tungstens in a variety of sizes, all packaged in an easy to carry reclosable sack.
Order KP508



Parts Kit for PTW-18 and PTA-26 Torches

Parts kit provides collets, collet bodies, a back cap, alumina nozzles and tungstens in a variety of sizes, all packaged in an easy to carry reclosable box.
Order KP509



Ultra-Flex™ PTA-9F TIG Torch Package

Includes a PTA-9F flex head torch with a 12.5 ft. (3.8 m) 1 piece Ultra-Flex™ cable and K1622-1 Twist Mate™ adapter. Also includes a 1/16 in. (1.6 mm) tungsten, gas lens collet body, collet and gas lens.
Order K1781-9



Ultra-Flex™ PTA-26 TIG Torch Package

Includes a PTA-26 torch with a 12.5 ft. (3.8 m) 1 piece Ultra-Flex™ cable and K1622-3 Twist Mate™ adapter. Also includes a 1/8 in. (3.2 mm) tungsten, collet body, collet and gas nozzle.
Order K1783-12



Magnum Pro-Torch™ TIG Torches

A full line of air-cooled and water-cooled torches and Twist Mate™ adapters are available.
Request publication E12.150.



Foot Ampctrl™

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



Hand Ampctrl™

Provides 25 ft. (7.6 m) of remote current control for TIG welding. (6 pin plug connection). Velcro straps secure torch.
Order K963-3 (One size fits all Pro-Torch™ TIG Torches.)



Arc Start Switch

Needed if an Ampctrl™ is not used when TIG welding. Comes with a 25 ft. (7.6 m) cable. Attaches to the TIG torch for convenient finger control.
Order K814



Cool-Arc® 40 Water Cooler

Energy efficient long life cooler for water-cooled welding applications.
Order K1813-1 for 115V.
Order K2187-1 for 230V.

For best welding results with Lincoln Electric equipment, always use Lincoln Electric consumables. Visit www.lincolnelectric.com for more details.

CUSTOMER ASSISTANCE POLICY

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