SPRINTER™ 180Si

STICK / PULSED TIG WELDER



Shown:
Sprinter 180Si, K5453-1

PORTABLE. VERSATILE. POWERFUL.

The Sprinter™ 180Si delivers **industrial-grade performance** in a compact, portable design. Weighing under 20 lbs., it's built to go wherever the job takes you—with the power to get it done.

With 180 amps of output, it easily handles electrodes up to 5/32", and features two dedicated stick modes for 7018 and 6010 for excellent arc performance.

More than just a stick welder, the Sprinter 180Si includes advanced TIG capabilities— including high-frequency start, pulsed TIG mode, and amptrol compatibility—making it a full-featured TIG solution in a lightweight package.

For easy operation, a simple, intuitive display allows for fast setup and easy adjustments – allowing you to easily dial in the right settings for whatever project comes your way.

Processes »
DC Stick, DC Touch-Start TIG, DC High Frequency TIG, DC Pulsed TIG

Applications »
Light Duty Fabrication, Maintenance, Farm, Auto Body, Aerospace, Light structural, Shipbuilding

Output » CC DC

Input » 1 PHASE 60 Hz

Product Numbers »
K5453-1 Sprinter 180Si
K5585-2 Sprinter 180Si W/ Foot Pedal & Case
K5953-2 Sprinter 180Si W/ Hand Slide & Case

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VALUE-ADDED FEATURES

- **Two Stick Modes -** Dedicated E6010 and E7108 weld modes allow for greater welding versatility and superior performance
- **Dual Input -** Automatically adjust to run off 120V or 230V
- **Adaptive Arc Force -** Helps minimize the electrode sticking in the weld puddle for improved ease-of-use
- **Automatic Hot Start -** Senses and adjusts the weld current during arc striking for easier and cleaner starting
- **High Frequency TIG -** Provides reliable arc starting without touching the tungsten to the workpiece
- **Pulsed TIG Mode -** Provides heat management and enhanced control on thinner materials
- **Automatic Post Flow -** Built-in post-flow control based on selected amperage to protect weld/tungsten from contamination
- **Industrial IP23 Protection** – Designed with high-impact resistant plastics to deliver reliable performance in challenging conditions

KEY CONTROLS



1. Carry Handle
2. Seven Segment Display
3. Weld Selection Button
4. Thermal Indicator
5. Voltage Reduction Device Indicator
6. Pulse Mode On/Off Button
7. Amperage Adjustment Knob
8. Twist Mate™ Receptacles
9. 8-Pin Receptacle

INTERFACE - WELD MODES / INDICATORS

Crisp Stick Mode - Tuned for cellulosic electrodes such as 6010/6013

Soft Stick Mode - Tuned for electrodes such as 7018

VRD - Indicates when automatic voltage reduction is active during non-welding periods

Pulse Rate - Indicates selected pulse frequency (0.1 - 100 pulses per second)

Hi Frequency TIG Mode - For use with remote control such as Hand Amptrols or Foot Pedal

Touch Start TIG Mode - For use to initiate arc by touch & lifting tungsten

Pulsed TIG – Precision and Control

The Sprinter™ 180Si delivers advanced Pulsed TIG capabilities for superior arc control - allowing for professional TIG performance without a large, high-end system.

Why Pulsed TIG?

- **Reduce Heat Distortion:** Controlled heat input minimizes warping and burn-through—especially on stainless steel and thin metals.
- **Cleaner Weld Appearance:** Controlled pulsing produces a tighter bead profile and improved aesthetics.
- **Increase Travel Speed:** Faster movement across the joint without sacrificing penetration or quality.
- **Better Control:** Ideal for precision work where consistency and finish are critical.

Sprinter Features:

- **Easy Pulse Adjustment –** Set pulse frequency (0.1 - 100 pulses per second) with a single button for quick, precise tuning.
- **Automatic Current Regulation –** When using an amptrol, the system automatically balances peak and background amperage for consistent heat control.

PULSED TIG PERFORMANCE



RECOMMENDED ACCESSORIES



Machine Carrying Case
Water resistant, lockable case designed with enough space to store the Sprinter 180Si welder and all of the TIG One-Pak accessories.
Order K5549-1



Welding Cart
Designed to store and transport a welder, gas cylinder, cables and accessories.
Order K2275-1



Foot Pedal
Pedal for TIG Welding
Order K4361-1



Caliber® 17/18/26 Series TIG Torch Expendables Kit - 1/16"-1/8"
Includes all of the front end parts needed to run a Gas Lens setup on 17/18/26 Series TIG Torches.
Order KP4760-HD



Gas Regulator with Hose.
Compensated flowmeter regulator shielding gas kit for use with Argon (Ar).
Order 3100211



Caliber® 17 Series TIG Torch - Flexible, 12.5 ft.
Premium Caliber® TIG Torch with a Flexible Torch Head and a 150A 60% Duty Cycle.
Order K4841-17F-1 and K1622-7



Cut Length Consumables
TIG welding filler metals are available for welding stainless steel, mild steel and copper alloys.
Request Lincoln Publication C1.10 for more information.



Linear Slide Hand Amptrol
Optional for HF TIG operation to initiate the arc and control welding current
Order K5924-1



Rotary Hand Amptrol
Optional for HF TIG operation to initiate the arc and control welding current
Order K963-5



Arc Start Switch
Optional for TIG operation to initiate arc without Amptrol.
Order: K814



8 Pin to 6 Pin Adapter
Adapt machine to work with 6 pin accessories
Buy as K5685-1

PACKAGES AVAILABLE



K5453-1 Sprinter™ 180Si Base Model
- Sprinter 180Si welder
- Insulated Electrode Holder and Cable
- Heavy Duty Work Clamp and Cable
- 230V to 120V Power Cord Adapter



K5953-2 Sprinter 180Si W/ Hand Slide & Case
Includes everything in base model (K5453-1), plus:
- Caliber 17 Flexible Head TIG Torch (K4841-17F-1)
- Parts Kit for 17 Series TIG Torch (KP4760-HD)
- Linear Slide Hand Amptrol (K5924-1)
- Adjustable Gas Regulator and Hose (3100211)
- TIG Torch Adapter (K1622-7)



K5585-2 Sprinter 180Si W/ Foot Pedal & Case
Includes everything in base model (K5453-1), plus:
- Caliber 17 Series TIG Torch (K4841-17F-1)
- Parts Kit for 17 series Tig Torch (KP4760-HD)
- Foot Pedal (K4361-1)
- Adjustable Gas Regulator and Hose (3100211)
- TIG Torch Adapter (K1622-7)

PRODUCT SPECIFICATIONS

Product Name	Product Number	Input Power	Rated Output Current/Voltage/ Duty Cycle	Input Current @ Rated Output	Output Range	Open Circuit Voltage (OCV)	Dimensions H x W x D in (mm)	Net Weight lb (kg)
Sprinter 180Si	K5453-1	120/1/60	TIG: 110A/14.6V/40% STICK: 85A/23.2V/40%	120 VAC: 20A	10-140A DC TIG 20-110DC STICK	Average OCV - 65V Peak OCV - 110V VRD OCV (Peak) - 14V	11.8 x 6.25 x 16 (299.7 x 158.8 x 406.4)	19.5(8.8)
		230/1/60	TIG: 200A/16.4V/25% STICK: 180A/26.4V/25%	230 VAC: 20A	10-200A DC TIG 20-180A STICK			

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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