

# 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 »



#### Input »



#### Product Numbers »

K5453-1 Sprinter 180Si

K5585-2 Sprinter 180Si W/ Foot Pedal & Case

K5953-2 Sprinter 180Si W/ Hand Slide & Case

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

## 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 Amptrons 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.

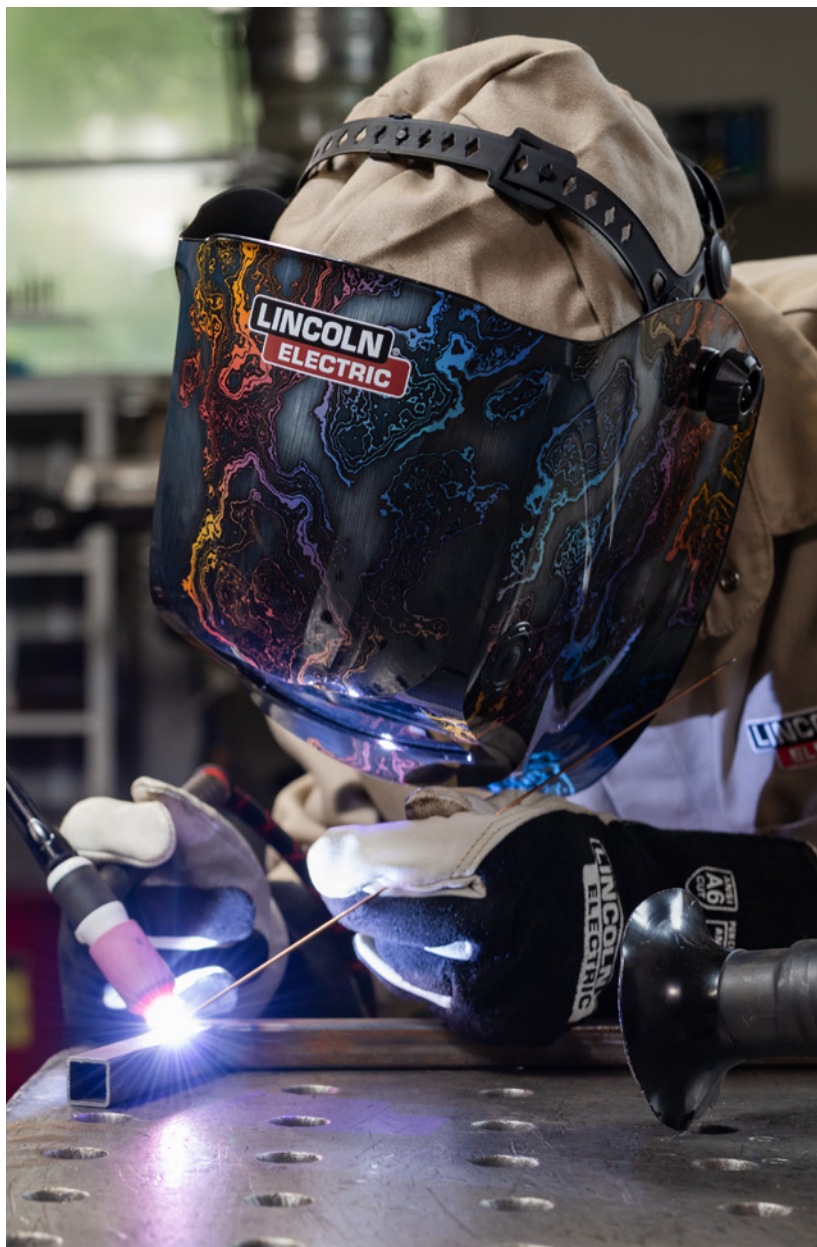
### Why Pulsed TIG?

- **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



### Gas Regulator with Hose.

Compensated flowmeter regulator shielding gas kit for use with Argon (Ar).

Order 3100211



### Linear Slide Hand Amptrol

Optional for HF TIG operation to initiate the arc and control welding current

Order K5924-1



### Welding Cart

Designed to store and transport a welder, gas cylinder, cables and accessories.

Order K2275-1



### 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



### Rotary Hand Amptrol

Optional for HF TIG operation to initiate the arc and control welding current

Order K963-5



### Foot Pedal

Pedal for TIG Welding

Order K4361-1



### 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.



### Arc Start Switch

Optional for TIG operation to initiate arc without Amptrol.

Order: K814



### 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



### 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 [K4361-1]
- 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/<br>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%<br>STICK: 85A/23.2V/40%  | 120 VAC: 20A                 | 10-140A DC<br>TIG<br><br>20-110DC<br>STICK | Average OCV - 65V<br>Peak OCV - 110V<br>VRD OCV (Peak) - 14V | 11.8 x 6.25 x 16<br>(299.7 x 158.8 x 406.4) | 19.5(8.8)          |
|                |                | 230/1/60    | TIG: 200A/16.4V/25%<br>STICK: 180A/26.4V/25% | 230 VAC: 20A                 | 10-200A DC<br>TIG<br><br>20-180A<br>STICK  |                                                              |                                             |                    |

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

The business of Lincoln Electric is manufacturing and selling high quality welding equipment, automated welding systems, consumables, and cutting equipment. Our challenge is to meet the needs of our customers, who are experts in their fields, and to exceed their expectations. On occasion, purchasers may ask Lincoln Electric for information or technical information about their use of our products. Our employees respond to inquiries to the best of their ability based on information and specifications provided to them by the customers and the knowledge they may have concerning the application. Our employees, however, are not in a position to verify the information provided or to evaluate the engineering requirements for the particular weldment, or to provide engineering advice in relation to a specific situation. Accordingly, Lincoln Electric does not warrant or guarantee or assume any liability with respect to such information or communications. Moreover, the provision of such information or technical information does not create, expand, or alter any warranty on our products. Any express or implied warranty that might arise from the information or technical information, including any implied warranty of merchantability or any warranty of fitness for any customers' particular purpose or any other equivalent or similar warranty is specifically disclaimed.

Lincoln Electric is a responsive manufacturer, but the definition of specifications, and the selection and use of specific products sold by Lincoln Electric is solely within the control of, and remains the sole responsibility of the customer. Many variables beyond the control of Lincoln Electric affect the results obtained in applying these types of fabrication methods and service requirements.

