

THERMAL ARC

STICK/TIG

INVERTER
PORTABLE DC WELDERS

home hobbyist

farm & ranch

educational institutions

maintenance & repair

light industrial

stainless steel fabrication

sanitary pipe repair

petro chemical fabrication

shipboard installation

on-site portable welding applications

The power you need

STICK/TIG INVERTER

PORTABLE DC WELDERS



**Offering from 95 Amps to 200 Amps
of welding power,**

the Thermal Arc® 95 S, 161 S, 161 STL and 201 TS inverters tackle a complete range of portable Stick & TIG jobs.

The inverters are attractive not only to the DIY market, but also to companies who want to save labor and transportation costs by bringing the welder right to the job site.

And on the site, the compact size makes it easy for a worker to move from job to job, plugging the inverter into most standard outlets. The price, power and portability make these welders extremely favorable for the following applications and industries:

- Home hobbyists
- Farm and ranch
- Educational institutions
- Maintenance and repair
- Light industrial
- Stainless steel & sanitary pipe fabrication
- Petro / chemical fabrication
- Shipboard installation and repair
- On-Site & portable welding application

THERMAL ARC

The power you need

These units offer...

advanced operating features, a wide range of welding output power, and the capability of utilizing 115V / 230V single phase power. The compact and light-weight portable welders offer numerous benefits including superior value, increased electrical efficiencies, reduced amperage draw when compared to traditional style power supplies, and a wider range of welding output on smaller input power circuitry (115V).

The power source is faster responding to variations in arc lengths, and in making welding power, which provides a smoother, more stable arc with more control.



COMPARISONS

Primary Power	95 S	161 S	161 STL	201 TS
Primary Voltage	115V	115/208-230V	115/208-230V	115/208-230V
Hertz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Phase	1 PH	1 PH	1 PH	1 PH
Designed To	IP23S	IP23S	IP23S	IP23S
Approvals	EN 60974-1	EN 60974-1	EN 60974-1	EN 60974-1
Process Capability				
Stick (SMAW)	*	*	*	*
Lift TIG (GTAW)	*	*	*	*
HF TIG (GTAW)				*
Power Supply Features				
Cooling	Fan Cooled	Fan Cooled	Fan Cooled	Fan Cooled
Hot Start	*	*	*	*
Fixed Arc Force	*	*		
Adjustable Arc Force			*	*
8 Pin Control Socket			*	*
Down Slope Control			*	*
Gas Solenoid			*	*
2T/4T			*	*
HF Start				*

95 S INVERTER

PORTABLE DC WELDER



- 1) Power Indicator Light
- 2) Overheat / Fault Indicator Light
- 3) Weld Amperage Control Knob
- 4) Stick/Lift TIG Process Switch
- 5) Negative Weld Output 25 mm Dinse Receptacle
- 6) Positive Weld Output 25 mm Dinse Receptacle



FAN COOLED



THERMAL OVERLOAD



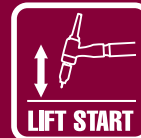
INPUT POWER



STICK WELDING



TIG WELDING



WARRANTY



The Thermal Arc® 95 S Portable DC Welder is perfect for beginners, do-it-yourselfers or home hobbyists and makes it easy and affordable to produce high quality welds at home, in the garage, or in the field.

As the only product in its class, with Stick and Lift TIG capabilities, the 95 S is capable of delivering 95 Amps of power on 115 Volt circuits and allows you to cover a wide range of light maintenance and repair jobs, as well as light fabrication.

The unit is available in two packages: a Stick welding package and a combination Stick/TIG welding package. The inverter welding power source is extremely portable at only 9.7 lbs.

MACHINE FEATURES:

- ★ Versatile, multi-process Stick/TIG capability
- ★ High 95 Amp welding output
- ★ Excellent, smooth & stable arc performance
- ★ Highly efficient inverter design
- ★ Ultra-light for maximum portability (9.7 lbs.)
- ★ Simple & easy, ready to weld package

MACHINE SPECIFICATIONS	
Type: Constant Current	DC Stick & TIG Welder
Maximum Output	95A
Welding Amperage Range 115V	Stick 5-90A / TIG 5-95A
Welding Amperage Range 230V	N/A
Rated Output: Stick 115V, 15A	60A / 22.4V @ 45%
TIG 115V, 15A	85A / 13.4V @ 25%
Stick 115V, 20A	90A / 23.6V @ 20%
TIG 115V, 20A	95A / 13.8V @ 20%
Nominal OCV Volt/DC	60V
Power Source Dimensions: (H x W x D)	9.0" (229mm) x 5.1" (130mm) x 13.0" (330mm)
Power Source Weight	9.7 lbs. (4.4kg)
Warranty	1 Year
PRIMARY POWER	
Primary Voltage	115V
Hertz	50/60 Hz
Phase	1 PH
Designed To	IP23S
Approvals	EN 60974-1

Stick Welding Package (Part No. W1003202)

- ★ Thermal Arc 95 S inverter welding power source
- ★ Tweco® WeldSkill® style electrode holder with 10ft (3m) lead
- ★ Tweco WeldSkill style ground clamp with 10ft (3m) lead
- ★ 20 Amp adapter plug & cable
- ★ Operating manual
- ★ Quick set-up DVD
- ★ 4 general purpose stick electrodes (E6013)
- ★ Carry case

Pictured: Stick/TIG Package

Stick/TIG Package (Part No. W1003203)

- ★ INCLUDES ALL ITEMS ABOVE PLUS:
- ★ 17V style TIG torch 10ft (3m) & accy. kit
- ★ Argon regulator / flow gauge



161S INVERTER

PORTABLE DC WELDER



- 1) Power Indicator Light
- 2) Overheat / Fault Indicator Light
- 3) Weld Amperage Control Knob
- 4) Stick/Lift TIG Process Switch
- 5) Negative Weld Output 50 mm Dinse Receptacle
- 6) Positive Weld Output 50 mm Dinse Receptacle



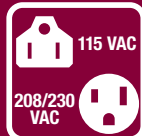
FAN COOLED



THERMAL OVERLOAD



INPUT POWER



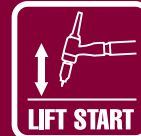
115 VAC
208/230 VAC

STICK WELDING



5/32"
(4.0mm) MAX

TIG WELDING



LIFT START

WARRANTY



3
YEAR

The Thermal Arc® 161 S Portable DC Welder is designed for Stick & Lift TIG welding operations and provides a greater range of output for the advanced hobbyist or light industrial applications.

It is capable of delivering 110 Amps on 115 Volt circuits for Stick & TIG welding. When used on 208-230 Volt circuits, maximum output is 160 Amps for either welding process.

This welder features optimized hot start and arc-force circuits delivering superior arc starting and control when Stick welding.

MACHINE FEATURES:

- ★ Versatile, multi-process Stick/TIG capability
- ★ 160 Amps maximum welding output
- ★ Multi-voltage input power 115 & 208/230 VAC
- ★ Excellent, smooth & stable arc performance
- ★ Highly efficient inverter design
- ★ Lightweight and portable
- ★ Simple & easy, ready to weld package

MACHINE SPECIFICATIONS	
Type: Constant Current	DC Stick & TIG Welder
Maximum Output	160A
Welding Amperage Range 115V	Stick & TIG 10-110A
Welding Amperage Range 230V	Stick & TIG 10-160A
Rated Output: Stick 115V, 15A	70A / 22.8V @ 60%
TIG 115V, 15A	100A / 14V @ 60%
Stick 115V, 20A	100A / 24V @ 35%
TIG 115V, 20A	110A / 14.4V @ 30%
Stick 230V	160A / 26.4V @ 30%
TIG 230V	160A / 16.4V @ 30%
Nominal OCV Volt/DC	71V
Power Source Dimensions: (H x W x D)	9.0" (229mm) x 5.3" (135mm) x 15.5" (394mm)
Power Source Weight	17.4 lbs. (7.9kg)
Warranty	3 Years
PRIMARY POWER	
Primary Voltage	115/208-230V
Hertz	50/60 Hz
Phase	1 PH
Designed To	IP23S
Approvals	EN 60974-1

Stick Welding Package (Part No. W1003602)

- ★ Thermal Arc 161 S inverter welding power source
- ★ Tweco® WeldSkill® 200 Amp electrode holder with 13ft (4m) lead
- ★ Tweco WeldSkill 200 Amp ground clamp with 10ft (3m) lead
- ★ Adapter plug from 230V 50 Amp to 115V 15 Amp circuits
- ★ Operating manual
- ★ Product family overview DVD
- ★ 4 general purpose stick electrodes (E6013)
- ★ Carry case

Pictured: Stick/TIG Package

Stick/TIG Package (Part No. W1003603)

- ★ INCLUDES ALL ITEMS ABOVE PLUS:
- ★ 17V style TIG torch 12.5ft (3.8m) & accy. kit
- ★ Victor® Argon regulator / flow gauge



161STL INVERTER

PORTABLE DC WELDER



- 1) Power Indicator Light
- 2) Overheat / Fault Indicator Light
- 3) 2T/4T Trigger Switch / Hold
- 4) Stick / Lift TIG Process Switch
- 5) Weld Amperage Control Knob
- 6) Down Slope / Arc Force Control Knob
- 7) Gas Output Fitting 5/8"-18 Female
- 8) Negative Weld Output 50 mm Dinse Receptacle
- 9) Positive Weld Output 50 mm Dinse Receptacle
- 10) 8 Pin Control Socket



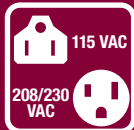
FAN COOLED



THERMAL OVERLOAD



INPUT POWER



STICK WELDING



TIG WELDING



GAS CONTROL



REMOTE CONTROL



WARRANTY



The Thermal Arc® 161 STL Portable DC Welder is designed to provide increased control and superior arc performance for tackling more demanding DC Stick and Lift TIG welding applications. It is capable of delivering up to 125 Amps on 115 volt circuits for Stick welding and 160 Amps for TIG. When used on 208-230 Volt circuits, maximum output is 160 Amps for either welding process.

The 161 STL features optimized hot start and user adjustable arc-force circuits delivering superior arc starting and control when Stick welding. It also features improved control when DC Lift TIG welding: the 161 STL includes a trigger hold function (2T/4T), down slope timer, a gas solenoid for flow through gas and the ability to use torch switch or foot control accessories.

The TIG torch included in the package has an integrated amperage control dial and on/off switch, which allows for the ultimate in welding control and simplicity.

MACHINE FEATURES:

- * Versatile, multi-process Stick/TIG capability
- * 160 Amps maximum welding output
- * Excellent, smooth & stable arc performance
- * 8 pin remote control with trigger latch
- * Gas solenoid valve
- * Arc force & down slope controls
- * Highly efficient inverter design
- * Lightweight and portable
- * Simple & easy, ready to weld package

MACHINE SPECIFICATIONS	
Type: Constant Current	DC Lift TIG & Stick Welder
Maximum Output	160A
Welding Amperage Range 115V	Stick 10-125A / TIG 10-160A
Welding Amperage Range 230V	Stick & TIG 10-160A
Rated Output: Stick 115V, 15A	70A / 22.8V @ 70%
TIG 115V, 15A	100A / 14V @ 60%
Stick 115V, 20A	100A / 24V @ 45%
TIG 115V, 20A	150A / 16V @ 34%
Stick 230V	160A / 26.4V @ 30%
TIG 230V	160A / 16.4V @ 30%
Nominal OCV Volt/DC	71V
Power Source Dimensions: (H x W x D)	9.0" (229mm) x 5.3" (135mm) x 17.7" (450mm)
Power Source Weight	21.6 lbs. (9.7kg)
Warranty	3 Years
PRIMARY POWER	
Primary Voltage	115/208-230V
Hertz	50/60 Hz
Phase	1 PH
Designed To	IP23S
Approvals	EN 60974-1

Stick/TIG Package (Part No. W1003701)

- * Thermal Arc 161 STL inverter welding power source
- * Tweco® WeldSkill® 200 Amp electrode holder with 13ft (4m) lead
- * Tweco WeldSkill 200 Amp ground clamp with 10ft (3m) lead
- * 17 style TIG torch w/integrated controls 12.5ft (3.8m) & accy. kit
- * Victor® Argon regulator / flow gauge
- * Gas hose
- * Adapter plug from 230V 50 Amp to 115V 15 Amp circuits
- * Operating manual
- * Product family overview DVD
- * 4 general purpose stick electrodes (E6013)
- * Carry case

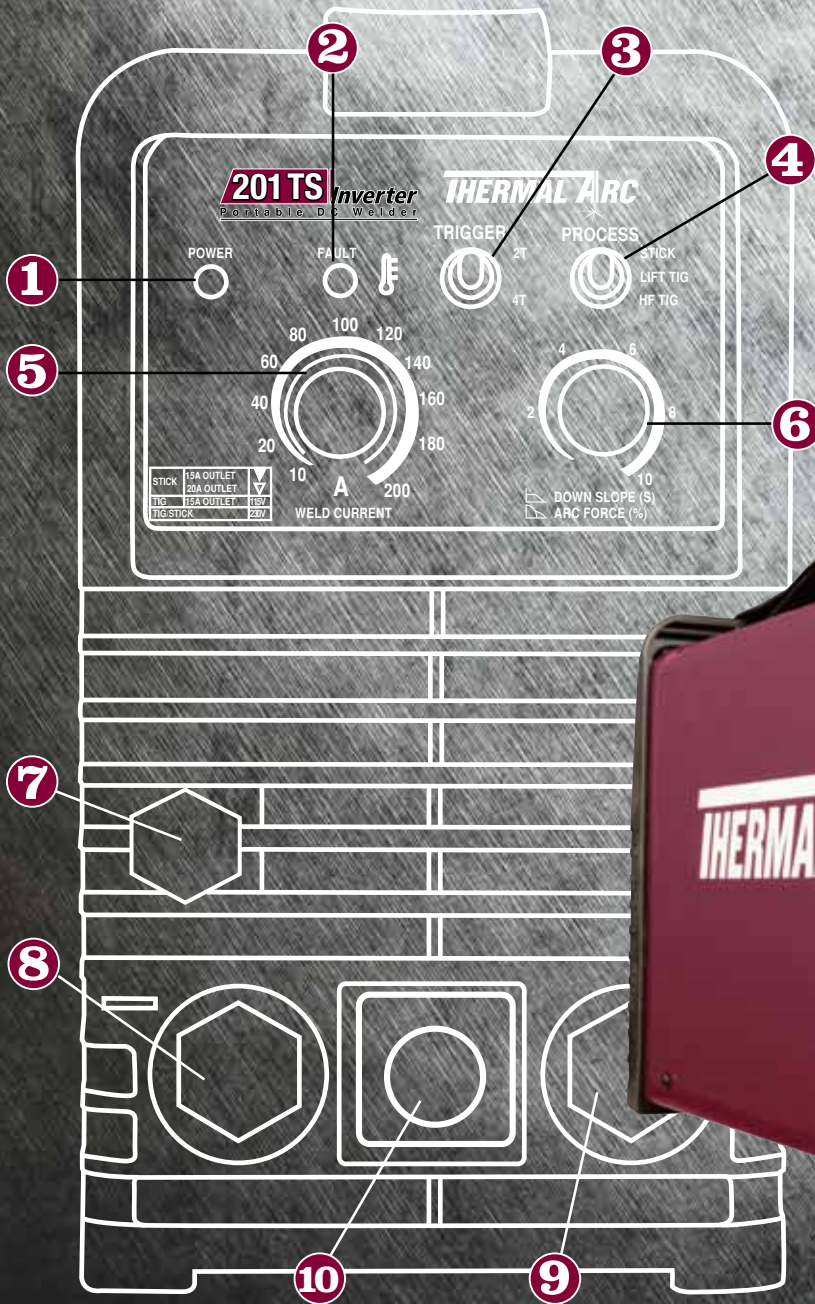


INTEGRATED TORCH CONTROL

- * On/Off, amperage

201 TS INVERTER

PORTABLE DC WELDER



- 1) Power Indicator Light
- 2) Overheat / Fault Indicator Light
- 3) 2T/4T Trigger Switch / Hold
- 4) Stick / Lift TIG / HF TIG Process Switch
- 5) Weld Amperage Control Knob
- 6) Down Slope / Arc Force Control Knob
- 7) Gas Output Fitting 5/8"-18 Female
- 8) Negative Weld Output 50 mm Dinse Receptacle
- 9) Positive Weld Output 50 mm Dinse Receptacle
- 10) 8 Pin Control Socket



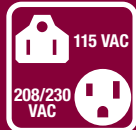
FAN COOLED



THERMAL OVERLOAD



INPUT POWER



STICK WELDING



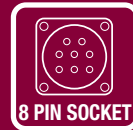
HF START



GAS CONTROL



REMOTE CONTROL



WARRANTY



The Thermal Arc® 201 TS Portable DC Welder packs a serious punch and is ideal for tradesmen or welders with more demanding requirements. Powerful yet compact and portable, the 201TS can deliver 125 Amps on 115 Volt circuits for Stick welding and 160 Amps for TIG. When used on 208-230 Volt circuits, maximum output is 200 Amps for either welding process.

The 201 TS features optimized hot start and user adjustable arc-force circuits delivering superior arc starting and control when Stick welding. The power source has High Frequency or Lift TIG circuitry for TIG welding and includes a trigger hold function (2T/4T), down slope timer, gas solenoid for flow through gas and the ability to use torch switch or foot control accessories.

The TIG torch included in the package has an integrated amperage control dial and on/off switch, which allows for the ultimate in welding control and simplicity.

MACHINE FEATURES:

- * Versatile, multi-process Stick/TIG capability
- * 200 Amps maximum welding output
- * Excellent, smooth & stable arc performance
- * 8 pin remote control with trigger latch
- * Gas solenoid valve
- * Arc force & down slope controls
- * Highly efficient inverter design
- * Lightweight and portable
- * Simple & easy, ready to weld package
- * High frequency arc starting

MACHINE SPECIFICATIONS	
Type: Constant Current	DC HF TIG, Lift TIG & Stick Welder
Maximum Output	200A
Welding Amperage Range 115V	Stick 10-125A / TIG 10-160A
Welding Amperage Range 230V	Stick & TIG 10-200A
Rated Output: Stick 115V, 15A	70A / 22.8V @ 70%
TIG 115V, 15A	100A / 14V @ 60%
Stick 115V, 20A	100A / 24V @ 45%
TIG 115V, 20A	150A / 16V @ 34%
Stick 230V	200A / 28.0V @ 20%
TIG 230V	200A / 18.0V @ 20%
Nominal OCV Volt/DC	71V
Power Source Dimensions: (H x W x D)	9.0" (229mm) x 5.3" (135mm) x 17.7" (450mm)
Power Source Weight	21.6 lbs. (9.7kg)
Warranty	3 Years
PRIMARY POWER	
Primary Voltage	115/208-230V
Hertz	50/60 Hz
Phase	1 PH
Designed To	IP23S
Approvals	EN 60974-1

Stick/TIG Package (Part No. W1003801)

- * Thermal Arc 201 TS inverter welding power source
- * Tweco® WeldSkill® 200 Amp electrode holder with 13ft (4m) lead
- * Tweco WeldSkill 200 Amp ground clamp with 10ft (3m) lead
- * 26 style TIG torch w/integrated controls 12.5ft (3.8m) & accy. kit
- * Victor® Argon regulator / flow gauge
- * Gas hose
- * Adapter plug from 230V 50 Amp to 115V 15 Amp circuits
- * Operating manual
- * Product family overview DVD
- * 4 general purpose stick electrodes (E6013)
- * Carry case






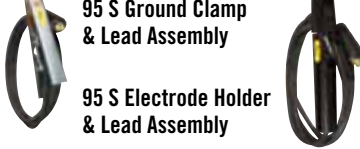




INTEGRATED TORCH CONTROL



- * On/Off, amperage

ORDERING INFORMATION





PORTABLE DC WELDERS

SYSTEM PACKAGE CONTENTS

Product	Part No.	Contents
 17V WeldSkill® TIG Torch	W4012500	17V style TIG torch; 10ft (3m) lead gas hose; 5/8"-18UNF hose connections; gas valve, 25mm dinse connection; TIG accessory kit with .040", 1/16" thoriated tungstens; .040", 1/16" collets; .040", 1/16" collet bodies; No.4, 5, 6 Alumina nozzle; short back cap; long back cap
 17V WeldSkill TIG Torch	W4012600	17V style TIG torch with 12.5' 5/8"-18 UNF hose connection, gas valve, 50mm dinse connection and TIG accessory kit with 1/16", 3/32", 1/8" thoriated tungstens; 1/16", 3/32", 1/8" collets; 1/16", 3/32", 1/8" collet bodies; No.4, 5, 6 Alumina nozzle; short back cap; long back cap
 17 TIG Torch w/ Integrated Controls	W4012701	17 style TIG torch with built in amperage control, on/off button, 5/8"-18 UNF hose connection, gas valve, 50mm dinse connection and TIG accessory kit with 1/16", 3/32", 1/8" thoriated tungstens; 1/16", 3/32", 1/8" collets; 1/16", 3/32", 1/8" collet bodies; No.5,6,7 Alumina nozzle; short back cap; long back cap
 26 TIG Torch w/ Integrated Controls	W4013600	26 style TIG torch with built in amperage control, on/off button, 5/8"-18 UNF hose connection, gas valve, 50mm dinse connection and TIG accessory kit with 1/16", 3/32", 1/8" thoriated tungstens; 1/16", 3/32", 1/8" collets; 1/16", 3/32", 1/8" collet bodies; No.5,6,7 Alumina nozzle; short back cap; long back cap
 95 S Ground Clamp & Lead Assembly  95 S Electrode Holder & Lead Assembly	Only Available in Kits	Tweco style electrode holder with 10ft (3m) lead, 25mm dinse connector. Tweco style ground clamp with 10ft (3m) lead, 25mm dinse connector.
 Tweco® Electrode Holder & Lead Assembly	WS200E13	Tweco WeldSkill 200 Amp electrode holder with 13ft (4m) lead, 50mm dinse connector
 Tweco Ground Clamp & Lead Assembly	WS200G10	Tweco WeldSkill 200 Amp ground clamp with 10ft (4m) lead, 50mm dinse connector
 Argon Regulator / Flow Gauge	600300	Argon shielding gas regulator with 5/8"-18 UNF hose connection
 Victor Argon Regulator / Flow Gauge	0781-4169	Argon shielding gas regulator with 5/8"-18 UNF hose connection







95 S		
Stick Kit W1003202	Stick/TIG Kit W1003203	
		
	★	
★	★	
	★	

Note: All system packages include a sample pack of 4 general purpose E6013 stick electrodes

	161 S		161 STL	201 TS
	Stick Kit W1003602	Stick/TIG Kit W1003603	Stick/TIG Kit W1003701	Stick/TIG Kit W1003801
				
		★		
			★	
				★
	★	★	★	★
	★	★	★	★
		★	★	★

(Continued on next page)

ORDERING INFORMATION PORTABLE DC WELDERS

SYSTEM PACKAGE CONTENTS (cont.)			95 S	
Product	Part No.	Contents	Stick Kit	Stick/TIG Kit
			W1003202	W1003203
 Power Adapter – 115V 20A to 15A	W4013300	Power adapter - 115V 20A to 15A	★	★
 Power Adapter – 230V to 115V, 15A	W4014000	Power adapter - 230V to 115V, 15A		
 Small Toolbox Case	W4012801	Small toolbox case for 95 S	★	★
 Large Toolbox Case	W4012802	Large toolbox case for 160 S, 160 TS, 161 S, 161 STL, 201 TS		
Note: All system packages include a sample pack of 4 general purpose E6013 stick electrodes				
OPTIONAL ACCESSORIES				
 Foot Control	10-4015	Foot control with 8 pin amphenol 15'		
 Foot Control	600285	Low duty foot control with 8 pin amphenol 15'		

WELDING HELMETS

Variable shade 9-13 auto-darkening welding helmets, include spare cover lens and operating manual

Welding Helmet (USA)
Part No. W4011700



Welding Helmet (Claret)
Part No. W4011900



Welding Helmet (Canada)
Part No. W4011800



Welding Helmet (Black)
Part No. W4012000



	161 S		161 STL	201 TS
	Stick Kit W1003602	Stick/TIG Kit W1003603	Stick/TIG Kit W1003701	Stick/TIG Kit W1003801
	★	★	★	★
	★	★	★	★
			★	★
			★	★

**For more information on the
new portable DC welders please visit
www.ThermalArcOnTheMove.com**

THERMAL ARC



A Global Cutting & Welding Market Leader™

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International Customer Care: 940-381-1212 / FAX 940-483-8178**

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