# **Invertec**<sup>®</sup> V160-T

# For TIG and Stick Welding

The Invertec<sup>®</sup> V160-T is a full function DC TIG inverter intended for alloy fabrication or critical maintenance work. Its built-in gas handling capability and choice of High Frequency or Touch-Start<sup>™</sup> TIG starting make it ideal for a wide variety of tough TIG applications. The V160-T can also weld stick with a variety of popular Lincoln stick electrodes. Its portable, rugged design and auto-sensing 115/230V 50/60Hz operation make it ideal for both shop or field use.

# **Processes**

Stick TIG Pulsed

# **Advantage Lincoln**

- Advanced inverter technology delivers superior TIG performance.
- Selectable Touch-Start<sup>™</sup> TIG starting or high frequency starting makes it easy to establish an arc under a variety of conditions.
- Built-in pulsing functions give you greater control over thin materials.
- Add TIG capability to your arsenal by using remote power from an engine driven generator.
- Auto-reconnect between 115/230V 50/60Hz input power eliminates operator error.
- Integral gas and power connector for simple torch connections and quick changes between TIG and stick welding.
- Lightweight, rugged package make it easy to take TIG welding capability where it's needed.
- Thermal and voltage overload protection for long life of internal components.
- Three year warranty on parts and labor.



# Description



# Base Unit Includes

- 115V Input cord (10 ft.) and plug (NEMA 5-15P)
- 20 Amp Plug (NEMA 5-20P)
- Twist-Mate<sup>™</sup> Torch Adapter for PTA-9 or -17 one-piece torch
- Fully adjustable shoulder strap
- Work clamp and cable

# **Recommended General Options**

Welding Cart

# **Recommended Stick Options**

Stick Electrode Holder Cable Assembly

# **Recommended TIG Options**

NEWD TIG-Mate<sup>™</sup> 17 Air-Cooled TIG Torch Starter Pack, TIG-Mate<sup>™</sup> 20 Water-Cooled TIG Torch Starter Pack, Pro-Torch<sup>™</sup> TIG Torch, Foot Amptrol<sup>™</sup>, Hand Amptrol<sup>™</sup>, Arc Start Switch, Cool Arc<sup>™</sup> 40 Water Cooler, Cut Length Consumables

# Order

K1845-1 Invertec® V160-T 115/230/1/50/60

r	Rated Output Current/Voltage/Duty Cycle	Input Current @ Bated Outnut <sup>(1)</sup>	Autnut Bann	

TECHNICAL SPECIFICATIONS

Product Name	Product Number	Input Power	Rated Output Current/Voltage/Duty Cycle	Input Current @ Rated Output <sup>(1)</sup>	Output Range	H x W x D inches (mm)	Net Weight Ibs.(kg)
		115V/1/50/60 20A Branch Circuit	90A/13.6V/100% TIG 60A/22.4V/100% Stick	20A			
Invertec <sup>∞</sup> V160-T	K1845-1	115V/1/50/60 30A Branch Circuit	110A/14.4V/100% TIG 80A/23.2V/100% Stick	25A	5-160 Amps DC Max OCV: 48V	13 x 8 x 17 (330 x 203 x 432)	24 (10.8)
		230V/1/50/60 30A Branch Circuit	130A/15.2V/100% TIG 130A/25.2V/100% Stick	25A			

(1) Input amps on 60Hz input.



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- 1) Stick/Touch-Start TIG/HF Start TIG
- 2) 2-Step/4-Step Trigger Interlock
- 3) Dual Range Pulsing
- 4) Adjustable Pulse Frequency
- 5) Adjustable Pulse Background Current
- 6) Adjustable Down Slope
- 7) Adjustable Post Flow
- 8) Output Control

Stick Welding

- 9) Digital Meter (Preset/Actual)
- 10) MS-Type remote connector
- 11) Twist-Mate<sup>™</sup> Torch/Gas & Work connections

Not only is the Invertec V160-T great for TIG welding, it is also capable of stick welding with such popular

electrodes as Fleetweld® 35, Fleetweld® 37,

Fleetweld<sup>®</sup> 180 and Excalibur<sup>®</sup> 7018.







Pulsing capabilities can be used to control heat input on thin materials.





# GENERAL OPTIONS

#### Welding Cart

Full-featured cart is designed to store and transport a welder, 80 cubic foot gas cylinder, welding cables and accessories. Includes an angled top shelf for easy access to welder controls, a lower tray for added storage space, a sturdy handle and a convenient cable wrap hanger. **Order K2275-1** 

# STICK OPTIONS

Stick Electrode Holder, Work Clamp, Cable & Twist-Mate<sup>™</sup> Set Includes 200 amp stick holder, welding cable, work cable, work clamp and Twist-Mate<sup>™</sup> set. Order K2394-1

# **TIG OPTIONS**

# TIG-Mate<sup>™</sup> 9 Air-Cooled TIG Torch Starter Pack

Get everything you need for TIG welding in one complete easy-toorder kit packaged in its own portable carrying case. Includes: PTA-9 Ultra-Flex<sup>™</sup> torch, gas lens parts kit, Harris<sup>®</sup> flowmeter/regulator, Twist-Mate<sup>™</sup> adapter, gas hose, work clamp and cable. **Order K2413-1** 

# TIG-Mate™ 17 Air-Cooled TIG Torch Starter Pack

Get everything you need for TIG welding in one complete easy-toorder kit packaged in its own portable carrying case. Includes: PTA-17 torch, parts kit, Harris<sup>®</sup> flowmeter/regulator, 10 ft. gas hose, Twist-mate<sup>™</sup> adapter, and work clamp and cable. **Order K2266-1** 



# TIG-Mate<sup>™</sup> 20 Water-Cooled TIG Torch Starter Pack

Get everything you need for TIG welding in one complete easy-toorder kit packaged in its own portable carrying case. Includes: PTW-20 torch, parts kit, Harris<sup>®</sup> flowmeter/regulator, 10 ft. gas hose, Twist-Mate<sup>™</sup> adapter, work clamp and cable and 10 ft. water hose.

Order K2267-1















#### Pro-Torch<sup>™</sup> TIG Torches

One piece Air-Cooled PTA-9 or -17 TIG torches may be connected directly with the included K1622-1 TIG Torch Adapter. **Order K1781-1** for PTA-9, 12.5 ft., 1-cable. **Order K1782-1** for PTA-17, 12.5 ft., 1-cable.

A full line of TIG torches in various lengths and types are available. **Request Lincoln Publication E12.150 for more information.** 

#### Foot Amptrol®

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

#### Hand Amptrol®

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

#### Arc Start Switch

May be used in place of the Foot or Hand Amptrol<sup>®</sup>. Comes with a 25 ft. (7.6m) cable. Attaches to the TIG torch for convenient finger control to start and stop the weld cycle at the current set on the machine. **Order K814** 

# Cool-Arc<sup>™</sup> 40 Water Cooler

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

#### **Cut Length Consumables**

TIG welding filler metals are available for welding stainless steel, mild steel, aluminum and copper alloys. Request Lincoln Publication

C9.10 for more information.

#### **Small Canvas Cover**

Protect your machine when not in use. Made from attractive red canvas that is flame retardant, mildew resistant and water repellent. Includes a convenient side pocket to hold welding torch or gun. **Order K2377-1** 



INVERTEC <sup>®</sup> V160-T ORDER FORM						
PRODUCT DESCRIPTION	ORDER NUMBER	QUANTITY	PRICE			
Invertec <sup>®</sup> V160-T	K1845-1					
Recommended General Options						
Welding Cart	K2275-1					
Recommended Stick Options						
Stick Electrode Holder, Work Clamp, Cable & Twist-Mate <sup>™</sup> Set	K2394-1					
Recommended TIG Options						
TIG-Mate <sup>™</sup> 9 Air-Cooled TIG Torch Starter Pack	K2413-1					
TIG-Mate <sup>™</sup> 17 Air-Cooled TIG Torch Starter Pack	K2266-1					
TIG-Mate <sup>™</sup> 20 Water-Cooled TIG Torch Starter Pack	K2267-1					
Pro-Torch <sup>™</sup> TIG Torches:						
PTA-9 TIG Torch, 12.5 ft. 1-cable, 125 amps	K1781-1					
PTA-17 TIG Torch, 12.5 ft. 1-cable, 150 amps	K1782-1					
TIG Torch Adapter (required for PTA-9, -17)	K1622-1					
Foot Amptrol <sup>®</sup>	K870					
Hand Amptrol®	K963-3					
Arc Start <sup>™</sup> Switch	K814					
Cool Arc <sup>™</sup> 40 Water Cooler:						
115/1/50/60	K1813-1					
220-240/1/50/60	K2187-1					
Cut Length Consumables	See Publication C9.10					
Small Canvas Cover	K2377-1					
	TOTAL:					

#### CUSTOMER ASSISTANCE POLICY

The business of The Lincoln Electric Company is manufacturing and selling high quality welding equipment, consumables, and cutting equipment. Our challenge is to meet the needs of our customers and to exceed their expectations. On occasion, purchasers may ask Lincoln Electric for advice or information about their use of our products. We respond to our customers based on the best information in our possession at that time. Lincoln Electric is not in a position to warrant or guarantee such advice, and assumes no liability, with respect to such information advice. We expressly disclaim any warranty of any kind, including any warranty of fitness for any customer's particular purpose, with respect to such information or advice. A matter of practical consideration, we also cannot assume any responsibility for updating or correcting any such information or advice orce it has been given, nor does the provision of information or advice create, expand or alter any warranty with respect to the sale of our products.

Lincoln Electric is a responsive manufacturer, but 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.

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22801 St. Clair Ave., Cleveland, OH 44117-1199 • 216.481.8100 • www.lincolnelectric.com