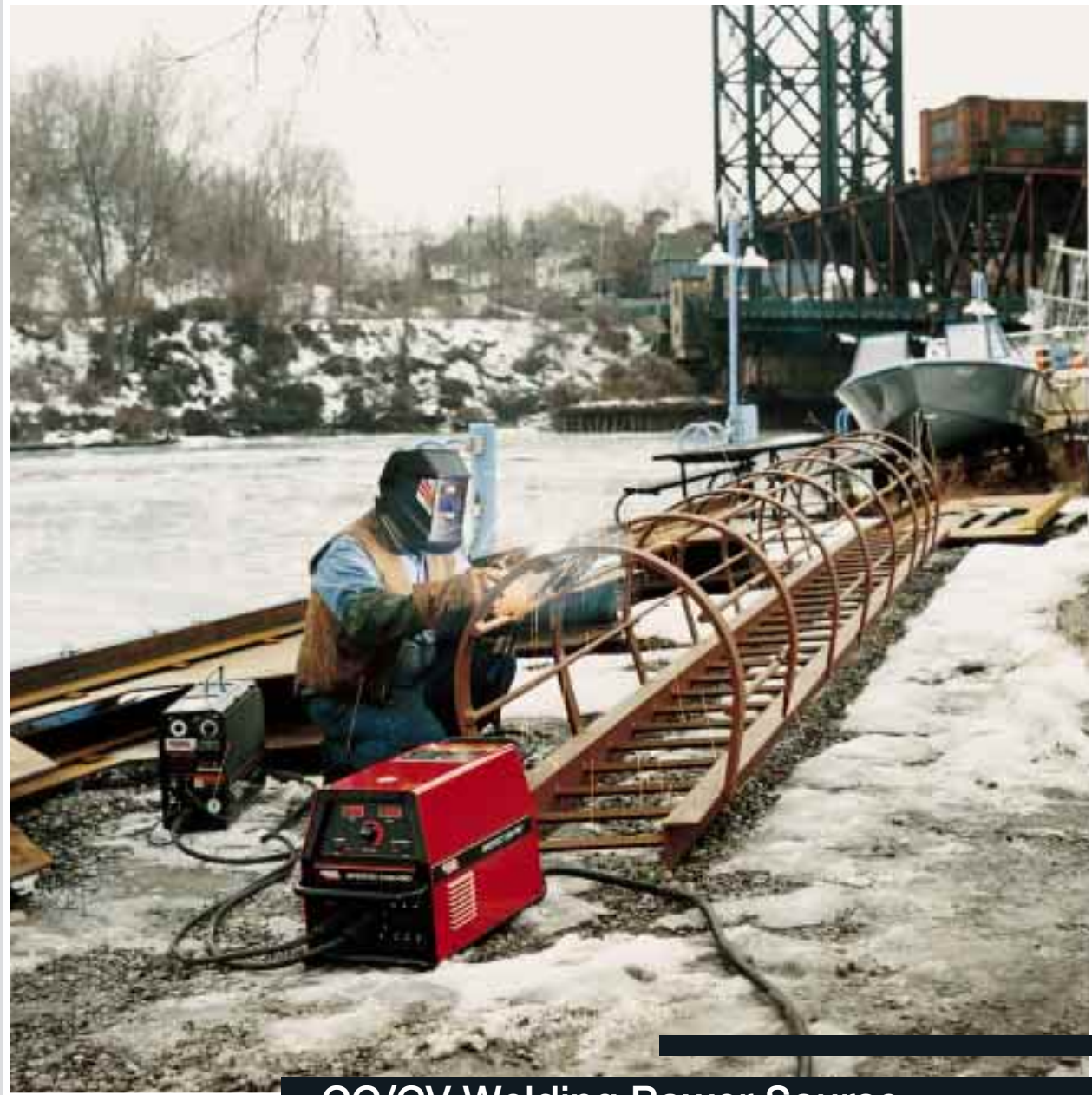


# INVERTEC<sup>®</sup> V350-PRO

*Designed Smart. Built Tough.*



**CC/CV Welding Power Source**

**NEW!**

**LINCOLN<sup>®</sup>**  
**ELECTRIC**  
THE WELDING EXPERTS

# INVERTEC® V350-PRO



## Designed Smart. Built Tough.

The Invertec V350-PRO is the most powerful inverter power source in its class. Very lightweight, the smart design allows it to handle constant current Stick (SMAW), DC TIG (GTAW), air carbon arc cutting (CAC) and constant voltage MIG (GMAW) and Flux-Cored (FCAW) welding applications. Advanced inverter technology gives you a very portable power source that can be carried to just about any DC welding job needing between 5 and 425 amps. Built tough, the V350-PRO can endure the rigors of harsh work environments.

Smart, Tough - the Invertec V350-PRO is also versatile. Three

different models have been designed for different welding applications. Choose the one that best suits your needs:

- **The Factory Model** has full remote capabilities, 14-pin MS-type connectors, and can accept a variety of Lincoln wire feeders. An intelligent machine with advanced technology allows you to simply plug your wire feeder into your power source. The V350-PRO will make the local or remote control selection automatically. It is designed for high production applications such as in a factory setting. This model is ideal for high production MIG and flux cored welding.

- **The Advanced Process Model** has the full capabilities of the Factory Model plus advanced MIG welding processes. Includes pulsed MIG and the new constant power MIG program for superior welding of thin steel, stainless and aluminum. This model is great for the shop that wants the best MIG welding performance in a mid-size industrial inverter power source.

- **The Construction Model** is lighter and simpler, yet still provides the most outstanding inverter technology for MIG, flux cored and stick applications. We've eliminated the 14-pin MS-type connectors. This model works excellently for stick welding, wire welding with the LN-25 wire feeder and also costs less!

All models of the V350-PRO are suited for applications that require an extremely smooth arc, process versatility and portability. Examples include: construction sites, shop and maintenance welding applications, welder training schools, technical training centers and pressure and process piping.

# ADVANTAGE LINCOLN

## MIG / FLUX CORED

- Superior arc control for soft or crisp arc using different types of wire.
- Extraordinary smooth arc for outstanding operator appeal.
- Recommended for use with the LN-25.
- Advanced wire feeder control for MIG and flux-cored welding. (factory and advanced process models)
- Automatically recognizes wire feeders or remote controls that regulate output. (factory model)
- Remote welding output control for Stick, TIG or MIG. (factory model)
- Recommended for use with the LN-7, LN-7 GMA, LN-10, DH-10, LN-742 and Cobramatic. (factory model)
- Auxiliary 42 VAC and 115 VAC power for wire feeders. (factory model)

## TIG (all models)

- Smooth, easy to use. Touch-Start TIG™ is standard.
- The Touch-Start TIG design permits the TIG welding arc to be established without high frequency starting techniques. For high frequency starts, use the optional TIG module.
- Optional solenoid kit (K1762-1) puts

gas control right inside the V350-PRO.

## STICK (all models)

- Variable Hot Start control produces either a gentle start for thin gauge material or open gap weldments, or a more powerful start for positive penetration on pipe and critical weldments or dirty/rusty steel.
- Variable Arc Force control delivers either a soft or driving arc depending upon your application.
- Two stick modes for specific welding characteristics. “Soft” mode for welding with E7018 and “Crisp” mode for vertical down welding with E6010 and for welding applications such as API pipe.

## ADDITIONAL FEATURES (all models)

- Just press the mode switch and instantly select Stick, TIG or MIG processes.
- Electronic and thermostatic protection from over-current and over-temperature with thermal indicator light.
- Line voltage compensation insures weld consistency, even with line voltage changes of  $\pm 10\%$ .
- Units can be easily paralleled for up to 700 Amps for gouging in CC mode.
- Built tough. A durable aluminum

case with skid for protected transport.

- Compact and lightweight yet tough enough for portable welding applications.
- Bright, large digital amp and volt meters for easy procedure monitoring even in sunlight.
- Presettable digital meters for precise welding procedure control.
- Control panel is simple in design and easy to operate.
- Special F.A.N.™ (Fan-As-Needed) cooling for less energy use and less dust drawn into the machine.
- Recessed front panel protects operating controls.
- Magnum Twist-Mate™ output connectors provide easy tool less - hook-up with welding cables, and save time when changing polarity (two Twist-Mate cable plugs included).
- Large input range 200-575 VAC.
- Potted PCBs.
- Greased connection for better environmental protection.
- No single phase derating.
- 3 year warranty on parts and labor.
- Manufactured under a quality system certified to ISO 9001 requirements.



# A CLOSER LOOK



Factory Model Shown above



Advanced Process Model Shown above

## TECHNICAL SPECIFICATIONS

Product Name	Input AC Phase and Frequency	Rated DC Output <sup>(1)</sup> Amps/Volts/Duty Cycle	Input Amps at Rated DC Output								Output Range
			200	208	230	380	400	415	460	575	
Invertec® V350-PRO All Models	3 Phase 50/60Hz	350A / 34V / 60%	50	50	42	28	27	26	23	18	Amps 5-425
		275A / 31V / 100%	37	36	31	21	20	19	17	14	
	1 Phase 50/60Hz	350A / 34V / 60%	--	94	85	--	--	54	42	37	
		275A / 31V / 100%	--	70	62	--	--	38	34	27	

(1) Based on a 10 min. period.

# ORDERING INFORMATION

Product Number	Description	Weight	Dimensions <sup>(1)</sup>
K1728-1	Factory Model for all processes. Includes 14-pin MS-type connectors for remote voltage control and for wire feeders requiring control cables.	77 lbs. (35 kg) without input cable	14.8 x 13.3 x 27.9 (376 x 338 x 709 mm)
K1728-2	Construction Model for all CC and CV processes without 6-pin or 14-pin MS-type connectors or remote voltage control. Wire welding with LN-25 only.	76 lbs. (34 kg) without input cable	
K1728-4	Advanced Process Model includes all of the features of the Factory Model plus advanced pulse processes: Steel: .030, .035, .045, .052; Metal Core: .045, .052; Stainless: .030, .035, .045, Aluminum: .035, 3/64, 1/16, (4043 and 5356); Nickel: .035, .045. Constant Power MIG for thin steel, stainless & aluminum	77 lbs. (35 kg)	

(1) Includes handle.

# PROCESS CAPABILITIES

Process	Electrode	Electrode Polarity	Shielding Gas
Mild Steel MIG CV and Pulse*	.025 - .052 SuperArc™ L-50 and L-56 .035 - .052 SuperGlide S-3 and S-6	Positive (DC+)	CO <sub>2</sub> , Ar/ CO <sub>2</sub> Blend or 100% Argon
Mild Steel MIG CV and Pulse*	.030 - .045 Blue Max® Wire	Positive (DC+)	Ar/CO <sub>2</sub> Blend or Tri-Mix
Aluminum MIG CV and Pulse*	.035-1/16" Super Glaze™ 4043 and 5356 with Cobramatic wire feeder	Positive (DC+)	100% Argon
Mild Steel - FCAW Gas-Shielded Wire	.035 - 5/64" Outershield® Wire	Positive (DC+)	CO <sub>2</sub> or Ar/ CO <sub>2</sub> Blend; Depending on the wire.
Mild Steel - FCAW Self-Shielded Wire	.035 - 3/32" Innershield® Wire	Negative or Positive (DC-, DC+)	None Required (Self-Shielded)
Mild Steel SMAW Stick	3/32"-1/4", E6010 - E7018 Fleetweld®, Jetweld® & Excalibur™ Electrodes	Positive (DC+)	None Required (Self-Shielded)
Stainless Steel SMAW Stick	3/32"-3/16" Blue Max® or Red Baron™ Electrodes	Positive (DC+)	None Required (Self-Shielded)
Touch-Start TIG™	All sizes and types steel and stainless	Negative (DC-)	100% Argon or Ar/He Blend
Air Carbon Arc Gouging, CC or CV	5/32" - 5/16" Carbon Electrode (V350s can be easily paralleled for up to 700 Amps for gouging!)	Positive (DC+)	Compressed Air

\* Pulse with Advanced Process mode only.

#### 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 or 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. As a matter of practical consideration, we also cannot assume any responsibility for updating or correcting any such information or advice once 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.

# SYSTEM SELECTION

Ready-to-Weld, Fully Assembled Packages! Order one product number and receive all the items needed for a complete welding package (except wire and gas).

### V350-PRO / LN-7 GMA PACKAGE Order K1843-2

V350-PRO Power Source  
LN-7 GMA-2 Roll Wire Feeder with  
Wire Reel Stand, Control Cable,  
and .035-.052 Drive Rolls  
Magnum 300 Welding Gun  
15 ft., configured for .035-.045 wire  
Work and Wire Feeder Power Cables  
with Twist-Mate Connectors and  
Ground Clamp  
Harris Flowmeter Regulator  
Inverter and Wire Feeder Cart

### V350-PRO with Advanced Process Panel / LN-7 GMA PACKAGE Order K2146-1

V350-PRO, Advanced Process Model  
LN-7 GMA-2 Roll Wire Feeder with  
Wire Reel Stand, Control Cable, and  
.035-.052 Drive Rolls  
Magnum 300 Welding Gun  
15 ft., .035-.045 wire  
Work and Wire Feeder Power Cables  
with Twist-Mate Connectors and  
Ground Clamp  
Harris Flowmeter Regulator  
Inverter and Wire Feeder Cart

### V350-PRO with Advanced Process Panel / Cobramatic PACKAGE Order K2145-1

V350-PRO, Advanced Process Panel  
Cobramatic Cabinet  
Cobra Gold, 25', Air Cooled Gun  
w/contact tips  
Work and feeder power cables with  
Twist-Mates and ground clamp  
Harris flow meter regulator and hose  
Superglaze Aluminum wire spool, 16 lb.  
spool, 3/64", 5356  
Inverter and Wire Feeder Cart

#### — Typical Factory Welding System (Items Ordered Separately):

#### V350-PRO Advanced Process / LN-10 Wire Feeder

Where premium welding performance and control is demanded -  
this system delivers!

V350-PRO Advanced Process Model . . . . .K1728-4  
LN-10 Wire Feeder . . . . .K1559-3  
.035 Drive Roll . . . . .KP1505-035S  
Work and Wire Feeder Power Cables  
with Twist-Mate Connectors and  
Ground Clamp . . . . .K1803-1  
Magnum 300 Welding Gun, 15 ft.,  
.035-.045 wire . . . . .K470-2  
Gun Connector Kit . . . . .K466-2  
Adjustable Gas Regulator . . . . .K586-1

#### — Typical Field Construction Welding Systems (Items Ordered Separately):

#### V350-PRO / LN-25 Wire Feeder for Outershield® welding:

V350-PRO Power Source . . . . .K1728-2  
LN-25 with Contactor and  
Gas Solenoid . . . . .K449  
.045 Drive Roll . . . . .KP653-052C  
Magnum 300 Welding Gun, 15 ft.,  
.035-.045 wire . . . . .K1802-1  
Work and Wire Feeder Power Cables  
with Twist-Mate and Ground  
Clamp . . . . .K1803-1  
Adjustable Gas Regulator . . . . .K586-1

#### V350-PRO / LN-25 Wire Feeder for Innershield® Welding

V350-PRO Power Source . . . . .K1728-2  
LN-25 with Contactor and  
Gas Solenoid . . . . .K449  
5/64" Drive Roll . . . . .KP653-3/32  
Magnum Flux-Cored  
Gun 15', 350 A . . . . .K126-2  
Work and Wire Feeder Power Cables  
with Twist-Mate and Ground Clamp . . . . .K1803-1

# RECOMMENDED OPTIONS

## Invertec TIG Solenoid Kit

Mounts inside the back of the V350-PRO. Switches gas flow in the V350-PRO through the Twist-Mate connector. Includes gas hose and solenoid. (Not compatible with construction model.) **Order K1762-1**



## Twist-Mate Torch Adapter

For connection of Pro-Torch™ TIG torches (1 piece cable) to power sources *with* gas passing through the Twist-Mate connection. For use with K1762-1.

**For air-cooled PTA-9 or 17 torches, Order K1622-1**

**For air-cooled PTA-26 torches, Order K1622-3**

**For water-cooled torches, Order K1622-2**

## Twist-Mate Torch Adapter

For connection of PTA-9 or PTA-17V torches (1 piece cable) to power sources *without* gas passing through the Twist-Mate connection.

**Order K960-1**



## TIG Module

Portable, high frequency unit with gas valve for TIG welding. Rated at 300 amps / 60% duty cycle. Construction version also requires K936-4, 115V control cable. (Request publication E3.205 for information on control cables).

**Order K930-2**



## Amptrol™ for TIG welding

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

## Hand operated Amptrol™,

for: PTA-9, PTA-17, PTW-20 TIG Torches, **Order K963-1**  
for: PTA-26, PTW-18 TIG Torches, **Order K963-2**



## Foot operated Amptrol™,

**Order K870**



## Arc Start Switch

For remote TIG arc starting only. **Order K814**

## Pro-Torch™ TIG Torches

A full line of air-cooled and water-cooled torches available.

**Request Lincoln publication E12.150**

**Accessory Kit** - Complete kit for stick welding. Includes 30 ft. (9.1m) #3 electrode cable, 25 ft. (7.6 m) #3 work cable, headshield, work clamp and electrode holder.

**For 400 Amps, Order K704**

**For 200 Amps, Order K875**



## Twist-Mate Welding Cable Connectors

Twist-Mate™ plug for connecting welding cable to output terminals. Contains one plug.

**For 1/0-2/0 cable, Order K852-70**

**For 2/0-3/0 cable, Order K852-95**

**NOTE:** Machine is shipped with two male Twist-Mate cable plugs.

## Remote Output Control

For remote adjustment of welding output voltage. Consists of control box with 25 or 100 ft. (7.6 or 30m) of four conductor cable and 6 pin MS-type connector.

**For 25 ft. (7.6m), Order K857**

**For 100 ft. (30m), Order K857-1**



## Adjustable Gas Regulator

Adjustable flow rate gas regulator for MIG, TIG or FCAW processes.

**Order K586-1**



## Inverter and Wire Feeder Cart

Rear-wheeled cart includes front casters and no-lift gas bottle platform. Convenient handles allow for easy cable storage while full length side trays store parts and tools. Shipped fully assembled. Small footprint fits through 30 inch door. **Order K1764-1**



## Valet Style Undercarriage

Offers a unique pull-out handle. It provides cable storage and the ultimate in portability. **Order K1838-1**



# V350-PRO ORDER FORM

PRODUCT DESCRIPTION	ORDER NUMBER	QUANTITY	PRICE
V350-PRO - Factory Model	K1728-1		
V350-PRO - Construction Model	K1728-2		
V350-PRO - Advanced Process Model	K1728-4		
Ready-to-Weld Packages *			
V350 Pro/LN-7 GMA Package	K1843-2		
V350 Pro w/ Advanced Process Panel / LN-7 GMA	K2146-1		
V350-Pro w/ Advanced Process Panel / Cobramatic Stick Welding	K2145-1		
Accessory Kit			
- cables, clamps, helmet, 400 Amp	K704		
- cables, clamps, helmet, 200 Amp	K875		
<b>TIG Welding (Requires K1728-1 or K1728-4)</b>			
Pro-Torch™ TIG Torches	See Literature E12.150		
TIG Module	K930-2		
TIG Module Control Cable, 115V	K936-4		
Amptrol™ - Hand Operated			
for: PTA-9, PTA-17, PTW-20, TIG Torches	K963-1		
for: PTA-26, PTW-18, TIG Torches	K963-2		
Amptrol™ - Foot Operated	K870		
Arc Start Switch	K814		
Invertec TIG Solenoid Kit	K1762-1		
Twist-Mate Torch Adapter with gas pass through	K1622-1		
Twist-Mate Torch Adapter without gas pass through	K960-1		
<b>MIG or Flux-Cored Welding</b>			
V350-PRO/LN-7 GMA Package	K1843-1		
LN-7 GMA	See Literature E8.10		
LN-742	See Literature E8.20		
LN-10See Literature E8.200			
DH-10	See Literature E8.200		
Cobramatic	See Literature E8.300		
LN-25	See Literature E8.100		
MIG and Flux-Cored Guns	See Literature E12.10 and E12.100		
<b>Optional Features</b>			
Adjustable Gas Regulator	K586-1		
Work and Power Cables with Twist-Mate and Ground Clamp	K1803-1		
Twist-Mate Welding Cable Connectors:			
for 1/0-2/0 cable	K852-70		
for 2/0-3/0 cable	K852-95		
Remote Output Control:			
for 25 ft. (7.6m)	K857		
for 100 ft. (30m)	K857-1		
Inverter and Wire Feeder Cart	K1764-1		
Valet Style Undercarriage	K1838-1		
TOTAL:			

\* Fully Assembled

**LINCOLN®**  
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**THE WELDING EXPERTS**

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**E5.91 8/01**