

POWERFUL. RELIABLE. COMPLIANT.

Vantage® 549



Handle any job anywhere with the new, powerful Vantage 549 welder.

The Vantage 549 provides 525A of DC output for large diameter wires and gouging with 3/8" (9.5mm) carbons. All with a sub 50 HP engine, which makes it compliant with all EPA and state emissions regulations.

Processes »

Flux-Cored, Gouging, MIG, Pulsed Mig, Stick, TIG

Output »



Input »



Product Number »

K3534-1

FEATURES

POWERFUL

- 500A machine capable of 525 amps at 41VDC with a 100% duty cycle.
- 19,000 watts of 3 phase auxiliary power to run pumps, plasma cutters, or an additional inverter welder for multi-operator use.
- 11,000 watts of single phase power for tools and lights.
- Capable of gouging with up to 3/8 in. (9.5mm) carbons.

RELIABLE

- All-copper windings in rotor and stator with high quality insulation for longer life.
- Durable all aluminum radiator.
- Potting provides extra protection for PC boards from the elements.
- Corrosion resistant stainless steel paneling.
- Proven, rugged, turbocharged Deutz® TD2.9L4 engine.
- Engine designed for more reliable cold-weather starting.

COMPLIANT

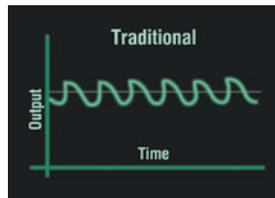
- 49.4 HP engine meets all state and federal non-road diesel engine emissions regulations.
- Move the machine freely across state lines without extra compliance fees.
- Meets or exceeds all Tier 4 Final standards to dramatically reduce particulate and nitrous oxide emissions.

PERFORMANCE

Superior Arc Performance

- 525A at 41VDC with a 100% duty cycle. Minimal Spatter
- Customized modes for stainless, aluminum, and steel, with pulse capabilities. *Requires Power Feed® 25M Feeder.
- Arc gouging with up to a 3/8 in. (9.5 mm) carbon. A separate arc gouging mode maximizes output.

WHAT IS CHOPPER TECHNOLOGY?



Traditional weld control is more variable around the desired output.



Chopper Technology® delivers extremely fast response for tighter output control.

Patented and award-winning Lincoln Electric  Chopper Technology delivers superior DC arc welding performance for general purpose stick, downhill pipe, DC TIG, MIG, cored-wire and arc gouging.

Benefits of Chopper Technology include:

- Easy arc starting
- Smooth arc action
- Low spatter levels
- Excellent bead appearance

VRD™ (Voltage Reduction Device™) reduces OCV (open circuit voltage) in CC-stick welding mode for added safety.

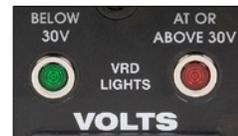
WHAT IS VRD™?

The VRD provides additional safety in the CC-stick weld mode, especially when working in an environment with a higher risk of electrical shock such as wet areas and hot, humid, sweaty conditions. The VRD reduces the OCV at the welding output terminals while not welding to less than 30 volts DC.

The VRD is activated by flipping a toggle switch inside the machine to the "ON" position. Indicator lights monitor the voltage: green for less than 30 volts while not welding, and either red (greater than 30 volts) or green while welding, depending on the actual voltage of the arc.

Other weld modes when VRD is on:

- Downhill Pipe – There is no output.
- CV-Wire – OCV is not reduced.
- Touch Start TIG® – No difference in operation. TIG is normally a low voltage (less than 30 volts) operation.



VRD portion of nameplate with green light on.

Vantage 549 Controls »

1. DASHBOARD GAUGE
2. WELD TERMINALS ON SWITCH
3. DOOR LATCH
4. ARC CONTROL
5. WELD MODE SELECTOR SWITCH
6. 42V / 115V WIRE FEEDER VOLTAGE SWITCH
7. 5-PIN CONNECTOR
8. START/GLOW PLUG
9. RUN/STOP/IDLE
10. 12-PIN CONNECTOR
11. 14-PIN CONNECTOR
12. GFCI MODULES
13. WELD OUTPUT TERMINALS
14. OUTPUT CONTROL
15. VRD (Voltage Reduction Device) INDICATOR LIGHTS
16. DIGITAL OUTPUT METERS
17. LOCAL/REMOTE SWITCH
18. WIREFEEDER VOLTMETER POLARITY SWITCH
19. 10A ARCLINK CIRCUIT BREAKER
20. 42VAC CIRCUIT BREAKER
21. 50A 240V 3 PHASE BREAKER
22. BATTERY 20A BREAKER
23. 20A 120V AUXILIARY BREAKERS
24. 240VAC THREE PHASE RECEPTACLE
25. 120/240 VAC SINGLE PHASE RECEPTACLE
26. 120 VAC SINGLE PHASE RECEPTACLES
27. GROUND STUD





120V



GENERAL OPTIONS

Power Plug Kit (20A)

Provides four 120V plugs rated at 20 amps each, and one dual voltage, full KVA 1-phase plug rated at 120/240V, 50 amps. 120V plug may not be compatible with common household receptacles.

Order K802N



Full-KVA Power Plug (1-Phase)

One dual voltage plug rated at 120/240V, 50 amps. NEMA 14-50P.

Order T12153-9



Full-KVA Power Plug (3-Phase)

One plug rated at 240V, 50 amps. NEMA 15-50P.

Order T12153-10



Full-KVA Adapter Kit (1-Phase)

Provides convenient connection of Lincoln Electric equipment having a 240V AC 1-phase plug (NEMA 6-50P) to the full-KVA receptacle on Lincoln engine-driven welders.

Order K1816-1



Large two wheel trailer

For heavy duty, on and off-road, plant and yard use. Includes pivoting jack stand, safety chains, and 13 in. (339mm) wheels. Stiff .120 in. (3.0mm) welded rectangular steel tube frame construction is phosphate etched and powder coat painted for superior rust and corrosion resistance. Low sway suspension gives outstanding stability with manageable tonne weight. Wheel bearings are packed with high viscosity, high pressure, low washout Lubriplate™ grease. Includes a Duo-Hitch™, a 2in. (51mm) ball/lunette eye combination hitch. Overall width 60in. (1524mm). Overall length 124in. (3150mm).

Order:

K2637-2 Trailer

K2639-1 Fender & Light Kit

K2640-1 Cable Rack

Shown with optional K2639-1 Fender & Light Kit



Four-Wheeled Steerable Yard Trailer

For off-road, plant and yard use. Includes an automatically engaging drawbar lock when the drawbar is raised to the verticle position. 13 in. (330 mm) wheels. Wheel bearings are packed with high viscosity, high pressure, low washout Lubriplate grease. Stiff 3/16 in. (4.8 mm) welded rectangular steel frame construction is phosphate etched and powder-coat painted for superior rust and corrosion resistance. Also includes a Duo-Hitch – a 2 in. (51 mm) Ball/ Lunette Eye combination hitch. Overall width 55 in. (1397 mm). Overall length 132 in. (3353 mm).

Order K2641-2



Spark Arrestor Kit

Mounts to muffler exhaust tube to significantly reduce spark emissions.

Order K3985-1



Polarity/Multi-Process Switch

For easy polarity switching. Example: DC-stick root pass on pipe and DC+ stick for hot, fill and cap passes. Also for an easy process change. Example: DC+ stick root pass on pipe and DC - Innershield® self-shielded flux-cored wire for hot, fill and cap passes. 6 and 14-pin remote connections can be made to this unit. For all Lincoln Electric Chopper Technology engine-driven welders. Mounts on roof with K2663-1 Docking Kit.

Order K2642-1



Docking Kit

Secures the K2642-1 Polarity/Multi-Process Switch to the engine-driven welder roof. Release latch permits removal of K2642-1 Polarity/Multi-Process Switch. Made from stainless steel for rust-free operation. For all Lincoln Electric Chopper Technology engine-driven welders.

Order K2663-1



STICK OPTIONS

Accessory Kit

Includes 35 ft. (10.7 m) 2/0 electrode cable with lug, 30 ft. (9.1 m) 2/0 work cable with lugs, headshield, filter plate, cover plate, work clamp and electrode holder. 400 amp capacity.

Order K704



Remote Output Control

Detachable Control Box can be stowed in your truck or job box to deter job site theft. Customizable MIN/MAX Range is easy to set up in seconds. Precisely set the range you need for the job at hand. Includes a 115V duplex receptacle that can be used to power lights, grinders and other tools right where welding occurs.

Order K857 for 6 pin, 25 ft. (7.6 m)

K857-3 for 12 pin, 100ft. (30.5m)

K857-2 for 12 pin, 25 ft. (7.6 m)

K857-1 for 6 pin, 100 ft. (30.5 m)

K4268-1 for 6 pin, 125 ft (38.1 m)



TIG OPTIONS

Pro-Torch™ PTA-26V TIG Torch

Air-cooled 200 amp torch (2 piece) equipped with valve for gas flow control. 25 ft. (7.6 m) length.

Order K1783-9



Magnum Parts Kit for PTA-26V TIG Torch

Magnum® Parts Kit provides all the torch accessories you need to start welding. Parts kit provides collets, collet bodies, a back cap, alumina nozzles and tungstens in a variety of sizes, all packaged in an easy to carry reclosable case.

Order KP509



Foot Amptrol™

Provides 25 ft. (7.6 m) of remote output control for TIG welding.

Order K870 (6 pin connection)

K870-2 (12 pin connection)



Hand Amptrol™

Provides 25 ft. (7.6 m) of remote current control for TIG welding. (6-pin plug connection). Velcro straps secure torch. (one size fits all Pro-Torch™ TIG Torches)

Order K963-3



Square Wave TIG 200

This 46 lb (21 kg) TIG and stick welder includes adjustable AC Frequency Control and AC Balance for great results on aluminum, pulse mode and 120V or 230V input power capability.

Order K5126-1



WIRE FEEDER OPTIONS

LN-25 Ironworker® Wire Feeder

Portable CV unit for flux-cored and MIG welding with MAXTRA™ wire drive system. Includes digital meters for wire feed speed/ amperage and voltage, gas solenoid, internal contactor and 5/64 in. (2.0 mm) drive roll kit for cored wire. Has 83% reduced wire feed speed capability for 6 o'clock pipe welding with Innershield wire.

Order K2614-9



K126® PRO Innershield Gun

For self-shielded wire with 15 ft. (4.5 m) cable. For .062-5/64 in. (1.6-2.0 mm) wire. Includes K466-10 Connector Kit.

Order K126-12



Drive Roll and Guide Tube Kit

For .068-.072 in. (1.7-1.8 mm) cored or solid steel wire.

Order KP1697-068

RECOMMENDED ACCESSORIES



Magnum® PRO Curve™ Semiautomatic Guns
Magnum PRO Curve guns for MIG or flux-cored, gas-shielded welding. Combine our classic curved handle with our Copper Plus™ contact tips and Magnum PRO gun extendables to deliver longer hours of fabrication welding with less frequent tip and gun extendable parts changes.
Publication E12.05



Magnum SG Spool Gun
The Magnum SG – a lightweight, well balanced semiautomatic spool gun designed for easy and reliable aluminum wire feeding with a variety of CV power sources and engine-driven welders. Rated 250 amps @ 60%, the Magnum SG features a generous 25 ft (7.5 m) gun cable and integrated wire feed speed control in the handle to cut your trips back to the power source.

*Requires K488 Control Module for operation
Order K487-25



SG Control Module
The interface between the power source and the spool gun. Provides control of the wire speed and gas flow. For use with a spool gun.
Order K488



Control Cable
(For SG Control Module) For Lincoln engine power sources with 14-pin MS-type connection, separate 115V NEMA receptacles and output stud connections.
Order K691-10



ADVANCED PROCESS
Power Feed® 25M Plastic Case Wire Feeder
Arclink® enabled feeder accesses pulse and synergic modes. Also provides 8 memories with limits for process control.
Order K2536-5



Power Feed 25M Aluminum Case Wire Feeder
Arclink enabled feeder accesses pulse and synergic modes. Also provides 8 memories with limits for process control.
Order K2536-4



Deluxe Adjustable Gas Regulator & Hose Kit
Accommodates CO₂, argon, or argon-blend gas cylinders. Includes a cylinder pressure gauges, dual scale flow gauge and 4.3 ft. (1.3 m) gas hose.
Order K586-1



Micro Wire Straightener
Straightens .035-1/16 inch (0.9-1.6 mm) wire for use with portable feeders.
Order K1733-4



Heavy Duty ArcLink Control Cable
Order K2683-25, 25 ft. (7.6 m)
K2683-50, 50 ft. (15.2 m)
K2683-100, 100 ft. (30.5 m)



MULTI-PROCESS
Multi-Weld® 350
Connect Multiple DC+ Welders to One Power Supply. The Multi-Weld 350 is a 350 amp, DC+, 100% duty cycle welder capable of CV-wire, CC-stick or arc gouging. With its high efficiency, the Multi-Weld 350 allows operators to have high performance welding control right where they need it – at the arc.
Order K1735-1



Invertec® V350 PRO Multi-Process Welder (Construction Model)
Multi process inverter that can run off the auxiliary power for multiple arcs off one machine.
Order K1728-5



PLASMA CUTTING
Tomahawk® 375 Air Plasma Cutter
With its internal air compressor, the Tomahawk 375 Air plasma cutting system arrives ready to go for fast and precise cutting. With the 375 Air, forget the grinder – simply pick up the torch and cut in seconds.
Order K2806-1



Tomahawk 1000
Cuts metal using the AC generator power from the engine-driven welder.
Order K2808-1

Machine Packages

VANTAGE 549 PACKAGES	Product Number	Ready-Pak 1 (shipped fully assembled) (K3534-1-RP1)	Ready-Pak 3 (shipped fully assembled) (K3534-1-RP3)
Large Welder Trailer	K2637-2	•	•
Fender and Light Kit	K2639-1	•	•
Cable Rack	K2640-1	•	•
Electrode Cable 3/0, two 50 ft. (15.3 m) lengths	K2485-3 (QTY 2)	•	
Electrode Cable 3/0, 10 ft. (3 m)	K2483-3	•	
Work Cable 3/0, 50 ft. (15.3 m)	K2484-3	•	
Cable Connectors - two	K2487-1 (QTY 2)	•	
400A Electrode Holder	K909-8	•	
500A Work Clamp	K910-2	•	

SPECIFICATIONS

VANTAGE 549 - OUTPUT

Product Number	Description	Rated Output at 104° F (40° C) Current/Volts/Duty Cycle	Welding Range	Open Circuit Voltage	AC Generator Power ⁽¹⁾	Dimensions ⁽²⁾⁽³⁾ H x W x L in (mm)	Weight lb (kg)
K3534-1	Vantage 549 SD Deutz T4F	IEC Rating: 525A/41V/100% Max Rating: 575A/38V/60%	30-575A CC/CV 20-250A TIG	60VDC Max OCV@ 1800 RPM	120/240 VAC 11kW, 60Hz, Single Phase 19kW, 60Hz, Three Phase	42 ⁽²⁾ x 32.9 ⁽³⁾ x 69 (1067 x 836 x 1753)	1662 (753)

[1] Output rating in watts is equivalent to volt-amperes at unity power factor. Output voltage is within +/- 10% at all loads up to rated capacity. When welding, available auxiliary power will be reduced.

[2] Height is to the top of the enclosure. Add 16.8" (427mm) for exhaust and air cleaner.

[3] Includes door,. Base is 31.6" (803mm) wide.

VANTAGE 549 - INPUT

Engine Model	Description	Speed (RPM)	Displacement	Starting System	Capacities
Deutz TD2.9L4 Diesel Engine EPA Tier 4 Final Compliant	4 cyl. 49.4 HP (37 kw) Turbocharged Liquid-Cooled Diesel Engine	High Idle: 1800 Low Idle: 1525 Full Load: 1800	178 cu in (2.9L) Bore x Stroke 3.62 x 4.33 in (92 x 110 mm)	12VDC Battery and Starter w/ Automatic Glow Plugs	Fuel: 25 U.S. gal (94.6L) Oil: 2.25 U.S. gal (8.5L)

For best welding results with Lincoln Electric equipment, always use Lincoln Electric consumables. Visit www.lincolnelectric.com for more details.

Manufactured at a facility with certified ISO Quality and Environmental Management Systems.

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 information or advice about their use of our products. Our employees respond to inquiries to the best of their ability based on information 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. Accordingly, Lincoln Electric does not warrant or guarantee or assume any liability with respect to such information or advice. Moreover, the provision of such information or advice does not create, expand, or alter any warranty on our products. Any express or implied warranty that might arise from the information or advice, including any implied warranty of merchantability or any warranty of fitness for any customers' particular purpose is specifically disclaimed.

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.

Subject to Change – This information is accurate to the best of our knowledge at the time of printing. Please refer to www.lincolnelectric.com for any updated information.



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