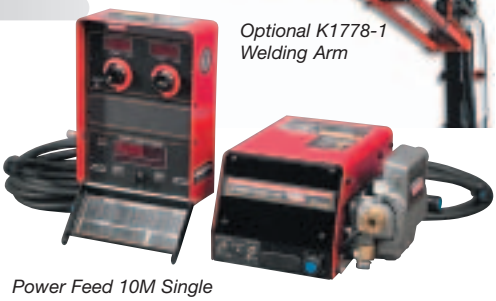
NEW!

Power Feed™ 10M

Single and Dual Boom Wire Feeders

Power Feed 10M wire feeders for boom mounting – your top choice for neat, uncluttered semiautomatic work stations. The 10M single or dual industrial wire feeders are recommended for multi-process wire welding in the automotive manufacturing, pressure vessels/heavy plate, or job shop fabrication industries, particularly when code quality work is required. Why? With the MSP4 user interface panel, you can access Lincoln's industry-leading Waveform Control Technology™ for an unprecedented level of arc control on virtually any material. You also get the IR Port with Lincoln's Palm™ OS-based Weld Manager™ software, for wireless remote access to system configuration, allowing you to manage one or many welding systems from the palm of your hand.

Optional K1778-1 Welding Arm



Power Feed 10M Single Boom Model shown.

Processes

MIG Pulsed STT® Flux-Cored Stick TIG Gouging

Advantage Lincoln

- Employed to provide a wider elevated radius for larger weldment fabrication.
- Operators will love the close access to welding controls, added features and balanced reach of the recommended Lincoln 6000 Series Welding Arm.
- World-class arc performance on steel, stainless steel, and aluminum. Install custom software to weld exotic alloys like copper, nickel and silicon bronze with ease.
- Waveform Control Technology™ featuring patented processes like Pulse-On-Pulse™, for a TIG-like bead appearance, and Power Mode™, for a stable arc at low current levels.
- ArcLink® capability for networking welding equipment.
- Synergic CV MIG welding with ideal voltage setting indicator for accurate settings.
- Pulsed MIG process - great for low spatter, low heat input and out-of-position applications – makes virtually any operator a better welder!
- Easy-to-understand user interface panel with large numeric displays so it's easy to set weld parameters.
- Three-year warranty on parts and labor.

Description

Output **Input** 40 VDC

Single and Dual Boom Models Include:

MSP4 Panel, 8 ft. and 25ft. ArcLink/Linc-Net control cables, high speed pinion gear, gun trigger cable, hardware kit for wire drive and control box mounting. The weld power cable is not included.

Recommended General Options

ArcLink/LincNet™ Control Extension Cables, Weld Power Cables, Coaxial Weld Power Cables, Feed Plate Gun Receiver Bushings, Drive Roll and Wire Guide Kits, Magnum Gun and Cable Assemblies, Dual Procedure Switch, ArcLink "T" Connector Kit, Wire Straightener, Spindle Adapters, Readi-Reel Adapters, Coil Adapter, Wire Covers, Incoming Bushing for Lincoln Conduit, Gas Guard Regulator, Water Connection Kit, Magnum Flow Sensor, 6000 Series Welding Arm

Additional Options For Single Boom Model

Dual Procedure/Memory Panel.

Note: Push-Pull support for aluminum is available on the Power Feed 10M Single and Dual Bench Feeders. This feature is not supported on the Boom models.

Recommended Power Source Options

Power Wave® 355M, Power Wave 455M, Power Wave 455M/STT, Power Wave 655 Robotic, Power Wave 355(1), Power Wave 455(1), Power Wave 455/STT(1)

Order

K2314-1 Power Feed 10M Single Boom Model
K2316-1 Power Feed 10M Dual Boom Model

(1) The LincNet Power Waves will provide limited capabilities.

TECHNICAL SPECIFICATIONS

Product Name	Product Number	Input Power	Rated Output Current / Duty Cycle	Wire Feed Speed Range ipm (m/min)	Wire Size Range ipm (m/min) Solid	Wire Size Range ipm (m/min) Cored	Dimensions H x W x D Inches (mm)		Net Weight lbs (kg)
Power Feed 10M Single Boom Model	K2314-1	40 VDC	600A/60% 500A/100%	**High Speed:** 75-1200 (2.0-30.5)	**High Speed:** .025 - 1/16 (0.6 - 1.6)	.035 - 5/64 (0.9 - 2.0)	Control:	13.0 x 8.5 x 4.0 (330 x 215 x 105)	8.5 (3.8)
							Wire Drive:	7.6 x 12.9 x 13.7 (195 x 325 x 345)	30 (13.6)
Power Feed 10M Dual Boom Model	K2316-1			**Low Speed:** 50-800 (1.27-20.3)	**Low Speed:** .025 - 3/32 (0.6 - 2.4)	.035 -.120 (0.9 - 3.0)	Control:	13.0 x 8.5 x 4.0 (330 x 215 x 105)	8.5 (3.8)
							Wire Drive:	9.0 x 19.0 x 15.5 (228 x 483 x 394)	50 (22.7)

LINCOLN ELECTRIC
THE WELDING EXPERTS℠

FEATURES

MSP4 User Interface Panel – The New MSP4 User Interface Panel provides full control of mode selection, arc control, weld sequence and — through the IR Port — lockout control.

IR Port

Weld Manager™, the Lincoln Electric Palm® OS-based software product, builds upon the usability and efficiency of the Power Feed 10M user interface design. It offers remote access and availability to system information, set-up, and configuration, allowing you to manage your Power Wave system from the palm of your hand. The versatile design allows for wireless communication with the Infrared Port on the Power Feed 10M or through a serial connection and your cradle - the decision is yours.

- Quick and easy user interface set-up that can be transferred across multiple machines.
- Ensure parameters are maintained by locking out numerous options on the user interface panel.
- Easy set-up of the system and repeatability between multiple cells by transferring memory through a 'back-up'/'restore' or a memory 'clone'.
- Verify current system information right on the production floor
- Ensure security of the loaded settings through password protection.
- Any Palm™ Operating System version 3.5 or higher.

Weld Mode provides easy access to the multiple welding waveform programs in the Power Wave power sources.

Arc Control — Also known as Inductance or Wave Control. It allows the operator to vary the arc characteristics from “soft” to “crisp” in most weld modes.

Large, easy-to-read alpha numeric display.

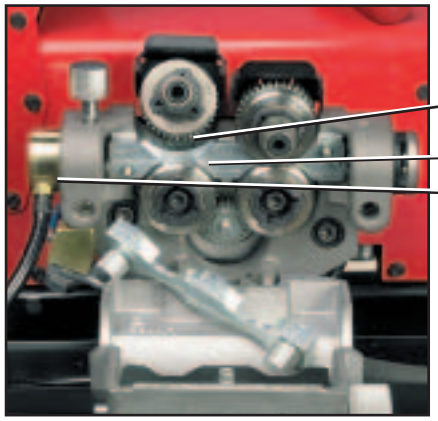
Start Options — preflow time, run-in wire feed speed, starting wire feed speed, and start time.

End Options — crater time, ending wire feed speed, burnback time, and postflow time.

A welding waveform program chart, conveniently located on the Power Feed 10M Control Box panel, makes standard program selection easy. Delivering an unprecedented level of arc control, the Power Feed 10M includes a number of preset welding waveform programs for applications on a variety of materials, including steel, stainless steel, aluminum, nickel alloys and silicon bronze. Lincoln Electric can add or design custom waveform programs for those customers requiring targeted solutions for other materials, joint configurations, welding procedures, shielding gases or other variables. In addition, Lincoln’s Wave Designer™ software, available upon request, allows you to build or customize waveform programs yourself.

PATENTED DRIVE ROLL SYSTEM — FOUR DRIVEN ROLLS

- Split wire guide provides easy wire loading and maintenance.
- Variety of drive rolls for any application.
- High speed gear for most fine wire applications. Low speed gear for higher torque with cored wire electrodes.
- Wire feed speed calibrated to monitor and maintain constant speed.
- Tachometer feedback to monitor and maintain constant speed.
- Brass-to-brass connections and rugged aluminum cast housing provide reliable performance.
- Angled drive system for ease of payoff and less stress on MIG gun cables.
- Interchangeable gun bushings for use with a variety of guns.



4-Drive Roll System

A CLOSER LOOK

Key Controls

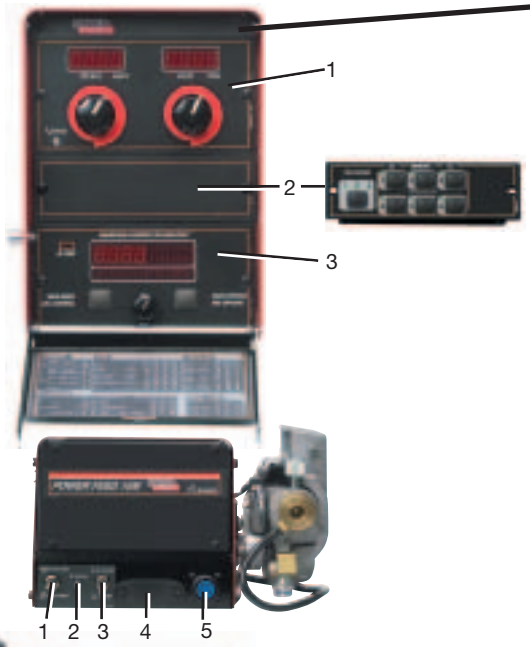
Dual Procedure/Memory Panel shown for Power Feed 10M Single Boom Model

The Dual Procedure/Memory Panel is standard equipment on Power Feed 10M Dual Boom Model and optional on Single Boom Model. This panel performs three functions: weld procedure selection, feed head selection and memory saving/recall. There are two procedure memories (A and B) and six user memories (1- 6) for each feed head to store your favorite settings.

Synergic Control CV Voltage Display

Synergic Control CV programs provide you with ideal voltage best suited for most procedures. Use this voltage as a starting point for the weld procedure and adjust if needed based on personal preference. When the voltage knob is rotated, the display will show an upper or lower bar indicating that the voltage is above or below the ideal voltage.

- *Above ideal voltage (upper bar display)* — 25.7
- *At ideal voltage (no bar displayed)* — 24.6
- *Below ideal voltage (lower bar display)* — 23.9

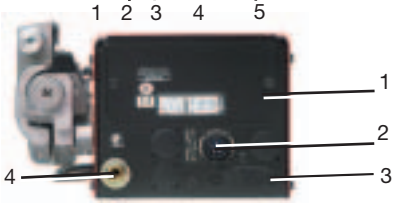


Front of Control Box:

1. Bright, high intensity large digital display of voltage and wire feed speed.
2. Dual Procedure Memory Panel - retain settings in memory to switch back and forth between two different well procedures. Use any of six memories to store your favorite settings.
3. MSP4 Panel (see page 2).

Front of Wire Drive:

1. Cold Inch/Gas Purge Switch — feed wire through a gun, or purge gas line to set flow rate all with welding output off for safety and gas savings.
2. ArcLink Status Light Emitting Display (LED).
3. 2-Step/4-Step Trigger Switch — change from simple ON/OFF in 2-step position to trigger interlock in 4-step position.
4. Water Cooler Kit Connection (Optional).
5. 5-pin Amphenol Gun Trigger Connector.



Back of Wire Drive:

1. Access Panel — remove to change DIP settings.
2. ArcLink Control Cable Connector.
3. Water Cooler Connection (Optional).
4. Shielding Gas Inlet — industry standard 5/8 - 18 CGA connection.

QUALITY AND RELIABILITY

- Rugged steel case, sturdy controls and quality meter displays.
- Ambient temperature range for operation [14° F to 104° F (-10° C to +40° C)] and storage [-40° F to 104° F (-40° C to +40° C)].
- Designed to resist electrical noise.
- Conforms to $_{c}CSA_{UL}$ / CE Standards: C22.2 No. 60, UL551, EN 60974-5, EN 50199.
- Meets IP21S rating.
- Printed circuit boards are environmentally-shielded using Lincoln's engineered potting and protective frame trays.

- Three-year Lincoln warranty on parts and labor.
- Manufactured under a quality system certified to ISO 9001 requirements and ISO 14001 environmental standards.

WHAT IS NEXTWELD®?

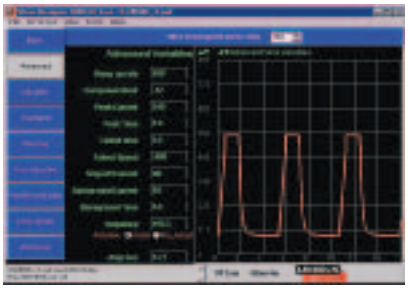
Nextweld integrates Lincoln's technologies, processes and products to create a comprehensive, flexible, user-friendly welding system that can increase efficiency and reduce fabrication costs. Waveform Control Technology™ and digital communications provide the foundation for Nextweld innovations like Pulse-On-Pulse™, Power Mode™, STT® and ArcLink®. Look for Nextweld for ultimate arc control, high efficiency/reliability and seamless system integration.

Waveform Control Technology®

Driving Superior Welding Performance

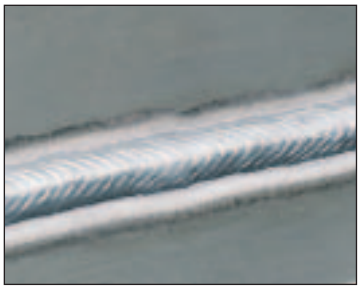
Lincoln's Waveform Control Technology controls and shapes the output waveforms (or weld modes) to adapt to virtually any application, material or weld position. In addition, you can have our Application Engineering department add or customize standard waveform programs or request Lincoln Wave Designer™ software to build or customize waveform programs yourself.

For more information see Nextweld Document #NX-1.10



Lincoln Nextweld Innovations for Challenging Applications

Waveform Control Technology makes it possible to take advantage of Lincoln innovations like these patented processes using the Power Feed 10M and a Power Wave® power source:



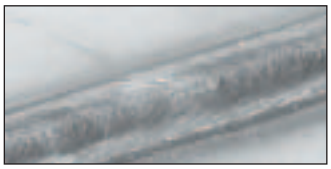
Pulse-On-Pulse on 3 mm Aluminum

Pulse-On-Pulse™ uses a sequence of varying pulse wave shapes to produce a TIG-like bead appearance and excellent weld properties when MIG welding aluminum. Pulse-On-Pulse controls arc length and heat input together, making it easier to achieve good penetration.

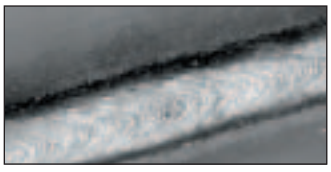
For more information see Nextweld Document #NX-2.10

Power Mode™ uses high-speed regulation of output power to deliver extremely fast response to changes in the arc, for example, when using a whip technique. The result is improved MIG welding performance, including low spatter, very uniform, consistent bead wetting and controlled penetration. Power Mode benefits are especially apparent on low voltage applications on thin steel and stainless steel material less than 20 gauge (0.7 mm). It also delivers excellent arc characteristics on aluminum and other alloys such as silicon bronze and nickel alloys.

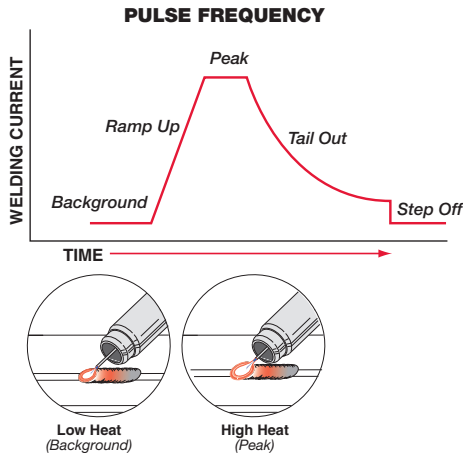
For more information see Nextweld Document #NX-2.60



Power Mode reduces spatter and improves bead appearance, even for low voltage procedures on stainless.



Power Mode aids bead wetting and penetration on aluminum.



Pulsed MIG varies weld current between peak (high heat) and background (low heat) current to provide better control of heat input, which reduces warping and burnthrough on thin materials. Pulsed MIG also enables in-the-flat, horizontal, vertical up, or overhead welding without a slag system. It can be used in hard automation, robotic, and high production semiautomatic applications. Optimized GMAW-P waveforms are readily available to use on aluminum, carbon steel, high strength low alloy steel, stainless steel, and nickel alloys.

For more information see Nextweld Document #NX-2.70

STT® (Surface Tension Transfer®) is a controlled GMAW short circuit transfer process that uses current controls to adjust the heat independent of wire feed speed, resulting in superior arc performance, good penetration, low heat input control, and reduced spatter and fumes. STT is especially well-suited for steel and stainless steel applications.

For more information see Nextweld Document #NX-2.20

Conventional CV short circuit transfer using CO_2 and .045" solid wire.

STT using CO_2 and .045" solid wire. Note reduced spatter and fume.

Synergic MIG

Synergic control of voltage and wire feed speed allows you to set weld procedures with only one control for simplicity and ease of use.

Set the wire feed speed and your voltage is automatically set. Override the setting with the voltage control for personal preference.

2. Voltage is automatically set.

1. Use one knob to set procedures.

Digital Communications

Fast, Reliable, System-Wide

ArcLink® ArcLink is the leading digital communications protocol for the arc welding industry. It integrates all welding components for seamless, time-critical data transfer. The strength of ArcLink lies in the ability to communicate with each system component in a pre-defined welding language. In addition, ArcLink is an open communications protocol, meaning that Lincoln Electric publishes how it works and encourages other companies to adopt it.

For more information see Nextweld Document #NX-1.30

RECOMMENDED OPTIONS

ARCLINK®/LINC-NET CONTROL EXTENSION CABLES

Description		Order Number
8 ft. (2.5m)	Without weld cable	K1543-8
16 ft. (4.8m)	Without weld cable	K1543-16
25 ft. (7.6m)	Without weld cable	K1543-25
50 ft. (15.2m)	Without weld cable	K1543-50
100 ft.(30.4m)	Without weld cable	K1543-100

WELD POWER CABLES

Description	Order Number
Lug to Lug, 3/0, 600A, 60% duty cycle, 10 ft.	K1842-10
Lug to Lug, 3/0, 600A, 60% duty cycle, 35 ft.	K1842-35
Lug to Lug, 3/0, 600A, 60% duty cycle, 60 ft.	K1842-60
Lug to Lug, 4/0, 600A, 60% duty cycle, 110 ft.	K1842-110

COAXIAL WELD POWER CABLES (2)

Description		Order Number
25 ft. (7.6m)	350 amps	K1796-25
50 ft. (15.2m)	350 amps	K1796-50
75 ft. (22.8m)	325 amps	K1796-75
100 ft. (30.4m)	300 amps	K1796-100

(2) Recommended for STT and pulse welding when using long distances between feeder and power source.

DRIVE ROLL AND WIRE GUIDE KITS

Description	Order Number
Solid Steel Wire, Smooth V Groove:	
.023-.030" (0.6-0.8mm)	KP1505-030S
.035" (0.9mm) solid	KP1505-035S
.040-.045" (1.0-1.2mm)	KP1505-045S
.052" (1.4mm)	KP1505-052S
1/16" (1.6mm)	KP1505-1/16S
Cored Steel Wire, Knurled V Groove:	
.030-.035" (0.8-0.9mm)	KP1505-035C
.040-.045" (1.0-1.2mm)	KP1505-045C
.052" (1.4mm)	KP1505-052C
1/16" (1.6mm)	KP1505-1/16C
7/64" Hardfacing	KP1505-7/64H
(Knurled V Groove with matching Smooth U Groove)	
Cored or Solid Steel Wire, Knurled V Groove:	
.068-.072" (1.8mm)	KP1505-068
5/64" (2.0mm)	KP1505-5/64
3/32" (2.4mm)	KP1505-3/32
7/64" (2.8mm) Cored	KP1505-7/64
.120" (3.2mm) Cored	KP1505-120
Aluminum Wire, Smooth U Groove:	
.035" (0.9mm)	KP1507-035A
.040" (1.0mm)	KP1507-040A
3/64" (1.2mm)	KP1507-3/64A
1/16" (1.6mm)	KP1507-1/16A
3/32" (2.4mm)	KP1507-3/32A

FEED PLATE GUN RECEIVER BUSHINGS

K1500-1 Gun Receiver Bushing (Optional)	K1500-2 Gun Receiver Bushing (Standard)	K1500-3 Gun Receiver Bushing (Optional)	K1500-4 Gun Receiver Bushing (Optional)	K1500-5 Gun Receiver Bushing (Optional)	K489-7 Fast-Mate Gun Receiver Bushing (Optional)
• Magnum 200, 300 and 400 gun and cable assemblies with K466-1 connector kit. • Lincoln Innershield gun and cable assembly. • Magnum 550 gun and cable assembly with K613-1 connector kit.	• Magnum 200 and 400 fully assembled guns (K497-2x and K471-2x). • Magnum 200, 300 and 400 gun and cable assemblies with K466-10 connector kit. • Guns with Tweco® #2, #3, and #4 connectors.	• Magnum 550 gun and cable assembly with K613-7 connection. • Guns with Tweco #5 connectors.	• Magnum 200, 300 and 400 gun and cable assemblies with K466-3 connector kit.	• To adapt to OXO guns.	• Magnum gun and cable assemblies with Fast-Mate™ connections. • Handles both single and dual procedure guns.






RECOMMENDED OPTIONS

GENERAL OPTIONS

Magnum® Gas-Shielded Gun & Cable Assemblies
Available 200-550 amps, air-cooled, gas-shielded welding guns. Dual procedure capability with gun trigger lock available on 400 amp gun.
See bulletin E12.10

Magnum® Self-Shielded Gun & Cable Assemblies
Available 250-600 amps.
See bulletin E12.110

Dual Procedure Switch
Allows the use of two welding procedures with each Lincoln Magnum gun connected to an LN-10, DH-10 or Power Feed 10M Bench or Boom model.
15 ft. (7.6m).
Order K683-3

ArcLink "T" Connector Kit
For connecting multiple feeders to a single power source.
Order K2429-1

Wire Straightener
For Lincoln Electric 10 series wire feeders. Straightens wire for better, smoother feeding.
Order K1733-1

Spindle Adapter for 14 lb. (6 kg) Innershield® Coils
Permits 14 lb. (6 kg) Innershield electrode coils to be mounted on 2" (51 mm) O.D. spindles.
Order K435

Spindle Adapter for 8" O.D. Spools
Permits 8" (200mm) O.D. spools to be mounted on 2" (51mm) O.D. spindles.
Order K468

30 lb. (14 kg) Readi-Reel® Adapter
Adapts 22-30 lb. (10-14 kg) Lincoln Readi-Reels of electrode to 2" (51mm) spindle.
Order K363P

Wire Reel Cover Kit
Plastic enclosure for up to 44 lb. (20 kg) wire packages.
Order K1634-1

50-60 lb. Readi-Reel® Adapter
Adapts 60 lb. (27.2 kg) coils of Lincoln electrode to 2" (51mm) spindle.
Order K438

GENERAL OPTIONS

50-60 lb. Coil Adapter
Adapts 50-60 lb. (22.6-27.2 kg) coils of Lincoln electrode to 2" (51mm) spindle.
Order K1504-1

Plastic Wire Cover
Plastic enclosure for up to 60 lb. (27.2 kg) wire packages.
Order K1634-2

Incoming Bushing for Lincoln Conduit
Feed Plate Incoming Bushings connect directly to wire conduit (not included), for use in boom system, long distances, or large payoff packages. Bushings can be used with any wire conduit (K515 or K565).
Order K1546-1 for .025-1/16" wire
Order K1546-2 for 1/16-1/8" wire

Gas Guard Regulator
For CO_2 and Argon blend gases. Reduces surge caused by excess pressure in supply hose. Includes adjustable flow regulator with removable adjustor key.
Order K659-1

Water Connection Kit
Includes fittings for use with water-cooled guns and Magnum Coolers. Kit provides for one gun.
Order K590-6

Magnum Flow Sensor
Rotary Flow Sensor with Leads monitors water cooling flow and shuts off power to gun if water stops.
Order K1536-1

6000 Series Welding Arm
Create a safe, uncluttered work environment where floor space is used effectively with a Lincoln Series 6000 Welding Arm. Glide the arm effortlessly into position when in use or swing it conveniently against a wall or beam for safe, out-of-the-way storage. An 18" x 18" (457 x 457mm) footprint ties up very little floor space.
Order K1778-1

OPTION FOR SINGLE BOOM MODEL

Dual Procedure/Memory Panel
Weld procedures are saved into memory for future use. Option on Power Feed 10M Single Boom model only.
Order K2360-1

POWER FEED 10M ORDER FORM

PRODUCT DESCRIPTION	ORDER NUMBER	QUANTITY	PRICE
POWER FEED 10M BOOM MODEL	**K2314-1**		
POWER FEED 10M DUAL BOOM MODEL	**K2316-1**		
RECOMMENDED GENERAL OPTIONS			
ArcLink/Linc-Net Control Extension Cables	See table on page 6		
Weld Power Cables	See table on page 6		
Coaxial Weld Power Cables	See table on page 6		
Feed Plate Gun Receiver Bushings	See table on page 6		
Drive Roll and Wire Guide Kits	See table on page 6		
Magnum Gun and Cable Assemblies	See publication E12.10		
Magnum Self-Shielded Gun and Cable Assemblies	See publication E12.110		
Dual Procedure Switch	K683-3		
ArcLink “T” Connector Kit	K2429-1		
Wire Straightener	K1733-1		
Spindle Adapter for 14 lb. Innershield Coils	K435		
Spindle Adapter for 8” O.D. Spools	K468		
30 lb. Readi-Reel Adapter	K363P		
Wire Reel Cover Kit	K1634-1		
50-60 lb. Readi-Reel Adapter	K438		
50-60 lb. Coil Adapter	K1504-1		
Plastic Wire Cover	K1634-2		
Incoming Bushing for Lincoln Conduit:			
- for .025-1/16” wire	K1546-1		
- for 1/16-1/8” wire	K1546-2		
Gas Guard Regulator	K659-1		
Water Connection Kit	K590-6		
Magnum Flow Sensor	K1536-1		
6000 Series Welding Arm	K1778-1		
ADDITIONAL OPTIONS FOR SINGLE BOOM MODEL			
Dual Procedure/Memory Panel	K2360-1		
RECOMMENDED POWER SOURCE OPTIONS			
Power Wave 355M	see publication E5.146		
Power Wave 455M and 455M/STT	see publication E5.161		
Power Wave 655 Robotic	see publication E10.95		
	TOTAL:		

LINCOLN ELECTRIC
THE WELDING EXPERTS℠

THE LINCOLN ELECTRIC COMPANY
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