



LINGUN® PROMIG™ UD

PARAMETER CONTROL

AIR COOLED	
W100000297	LINGUN PROMIG 300 UD 4M
WATER COOLED	
W100000298	LINGUN PROMIG 500W UD 4M



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SAFETY INSTRUCTIONS



WARNING

This equipment have to be used by qualified personnel. Be sure that all installation, operation, maintenance and repair procedures are performed only by qualified person. Read and understand this manual before operating this equipment. Failure to follow the instructions in this manual could cause serious personal injury, loss of life, or equipment damage. Read and understand the following explanations of the warning symbols. Lincoln Electric is not responsible for damages caused by improper installation, improper care or abnormal operation.

	WARNING: This symbol indicates that instructions must be followed to avoid serious personal injury, loss of life, or equipment damage. Protect yourself and others from possible serious injury or death.
	READ AND UNDERSTAND INSTRUCTIONS: Read and understand this manual before operating this equipment. Arc welding can be hazardous. Failure to follow the instructions in this manual could cause serious personal injury, loss of life, or equipment damage. Before any internal verifications and repair work, make sure that the equipment is separated from the electric installation by electrical isolation (by electrical isolation is meant a group of operations designed to separate and keep the equipment de-energized).
	ELECTRIC SHOCK CAN KILL: Welding equipment generates high voltages. Do not touch the electrode, work clamp, or connected work pieces when this equipment is turned on. Insulate yourself from the electrode, work clamp, and connected work pieces.
	ELECTRICALLY POWERED EQUIPMENT: Regularly inspect the input, electrode, and work clamp cables. If any insulation damage exists replace the cable immediately. Do not place the electrode holder directly on the welding table or any other surface in contact with the work clamp to avoid the risk of accidental arc ignition. At least every six months, you must check the proper condition of the insulation and connections of the electric equipment and accessories such as plugs, flexible wires, ducts, connectors, extension leads, part holders, electrode-holders, or torches etc.
	ELECTROMAGNETIC FIELD MAY BE DANGEROUS: Electric current flowing through any conductor creates electromagnetic field (EMF). EMF fields may interfere with some pacemakers, and welders having a pacemaker shall consult their physician before operating his equipment. Never wrap the welding/cutting cable round your body or rest it on your shoulder;
	CE COMPLIANCE: This equipment complies with the European Community Directives.
	ARTIFICIAL OPTICAL RADIATION: According with the requirements in 2006/25/EC Directive and EN 12198 Standard, the equipment is a category 2. It makes mandatory the adoption of Personal Protective Equipment (PPE) having filter with a protection degree up to a maximum of 15, as required by EN169 Standard.
	FUMES AND GASES CAN BE DANGEROUS: Welding may produce fumes and gases hazardous to health. Avoid breathing these fumes and gases. To avoid these dangers the operator must use enough ventilation or exhaust to keep fumes and gases away from the breathing zone.
	ARC RAYS CAN BURN: Use a shield with the proper filter and cover plates to protect your eyes from sparks and the rays of the arc when welding or observing. To protect the skin, use suitable clothing made of durable, fireproof material. Protect other nearby personnel with suitable, non-flammable screening and warn them not to watch the arc nor expose themselves to the arc.
	WELDING SPARKS CAN CAUSE FIRE OR EXPLOSION: Remove fire hazards from the welding area and have a fire extinguisher easily accessible. Welding sparks and hot materials from the welding process can easily go through small cracks and openings to adjacent areas. Do not weld on any tanks, drums, containers, or material until the proper steps have been taken to insure that no flammable or toxic vapors will be present. Never use this equipment when flammable gases, vapors or flammable liquids are present.
	WELDED MATERIALS CAN BURN: Welding generates a large amount of heat. Hot surfaces and materials in work area can cause serious burns. Use gloves and pliers when touching or moving materials in the work area.
	CYLINDER MAY EXPLODE IF DAMAGED: Use only certificate, compressed gas cylinders containing the correct shielding gas for the process used and properly operating regulators designed for the gas and pressure used. Always keep cylinders in an upright position securely chained to a fixed support. Do not move or transport gas cylinders with the protection cap removed. Do not allow the electrode, electrode holder, work clamp or any other electrically live part to touch a gas cylinder. Gas cylinders must be located away from areas where they may be subjected to physical damage or the welding process including sparks and heat sources.
	HOT COOLANT CAN BURN SKIN: Always be sure coolant is NOT HOT before servicing the cooler.

The manufacturer reserves the right to make changes and/or improvements in design without upgrade at the same time the operator's manual.

GENERAL DESCRIPTION

The LINGGUN® PROMIG™ UD Amps guns have been designed to meet IEC 60974-7 specification for welding with steel electrode using the GMAW (gas metal arc welding) and gas-shielded FCAW (flux-cored arc welding) processes. LINGGUN® PROMIG™ UD guns are manually guided and air cooled or water cooled (models with "W").

The LG PROMIG UD models feature Up/Down and Cross-Switch functions

which allows to adjust welding parameters from the gun. This functionality is available to LINCON ELECTRIC machines with 12 pin plug.

For the best performance is recommended to use these guns with the complete Lincoln Electric solution: welders, coolers and FREEZCOOL.

Please always use the original wear parts.

DESCRIPTION OF OPERATION

The supplied welding gun has module 2-button module (Up/Down) already installed. It can be easily changed to a Cross-Switch module which is added to the box.

Up/Down functionality



Up/Down module allows to adjust Wire Feeding Speed (WFS). Pressing the upper button will increase the speed to the maximum, pressing the lower button will decrease it, accordingly to the wire feeder parameters regulation.

In all configurations other than "Disable Joystick" chosen on the welding machine, Up/Down module will adjust the wire feed speed while welding and while not welding.

Cross-Switch functionality

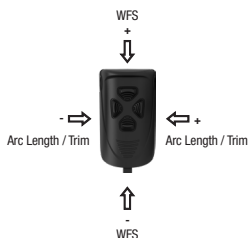


The Cross Switch module allows you to switch between different welding modes (left and right buttons) and to adjust WFS (top and lower button). WFS adjustment can be done all the time: while welding and not welding.

By using a Cross Switch module it can be chosen one of the adjustment options as below:

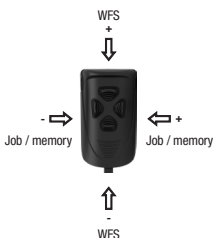
1. Wire Feeding Speed and Arc Length / Trim
2. Wire Feeding Speed and Job
3. Wire Feeding Speed and Procedure A-B

Wire Feeding Speed and Arc Length / Trim



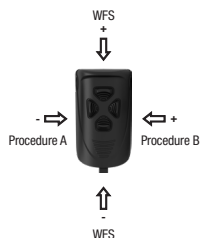
The left and right buttons will adjust arc length or trim (arc voltage) accordingly to the welding mode. These changes can be done during welding.

Wire Feeding Speed and Job



The left and right buttons allow to switch between saved set of welding parameters (a user memory) while not welding.

Wire Feeding Speed and Procedure A-B



The left and right buttons can be used to select procedure A and B while welding and while not welding.

Note: There may be a slight delay when changing procedures, which is not a product defect.

TECHNICAL SPECIFICATIONS

PN	Description	Cooling	Duty Cycle	Length
W100000297	LINGGUN PROMIG 300 UD 4M	Air	300 A CO2 / 270 A M21 @ 60%	4 m
W100000298	LINGGUN PROMIG 500W UD 4M	Water	500A CO2 / 450A M21 @100%	4 m

Voltage class	113 V		
Gas flow	10 - 18 l/min		
Using wires	LINGGUN PROMIG 300 UD 4M	0,8 - 1,2 mm	
	LINGGUN PROMIG 500W UD 4M	1,0 - 1,6 mm	
Trigger contact	50 mA, 32V DC		
Power connection	NF A85-631		

LINGGUN PROMIG 500W UD:

Minimal water flow	1,5 l/min
Water pressure	min.2, max. 5 bar
Inlet water max temperature	45°C
Minimal power of water cooling system	1000 W

ORIGINAL EQUIPMENT FITTED TO THE GUN

Gun	Wire to be used	Contact tip	Nozzle	
LG PROMIG 300 UD 4M	1,2 mm steel	W000345582	W000345422	Ø16
LG PROMIG 500W UD 4M	1,2 mm steel	W000345589	W000345427	Ø16

EXPENDABLE REPLACEMENT PARTS

LG PROMIG		Ø mm	Contact tip	Diffuser	Nozzle	Internal liner		
						3 m	4 m	5 m
AIR COOLED								
300 UD	Steel	1.0	W000345580	W000345341	W000345420* (D12) or W000345421 (D14) or W000345422 (D16)	W100000282	W100000283	W100000284
		1.2	W000345582			W100000282	W100000283	W100000284
		1.4	W000345584			W100000285	W100000286	W100000287
		1.6	W000345585			W100000285	W100000286	W100000287
	Aluminium	1.0	W000345581			W100000288	W100000289	W100000290
		1.2	W000345583			W100000288	W100000289	W100000290
500W UD	Steel	1.0	W000345587	W000345347	W000345427 (D16) or W000345428 (D19)	W100000282	W100000283	W100000284
		1.2	W000345589			W100000282	W100000283	W100000284
		1.4	W000345591			W100000285	W100000286	W100000287
		1.6	W000345592			W100000285	W100000286	W100000287
	Aluminium	1.0	W000345588			W100000288	W100000289	W100000290
		1.2	W000345590			W100000288	W100000289	W100000290
		1.6	W000345593			W100000291	W100000292	W100000293

* Narrow nozzle W000345420 (D12) can be used only with a special contact tip holder: W000345342

HOW TO CHANGE THE PARAMETER CONTROL MODULE



1

2

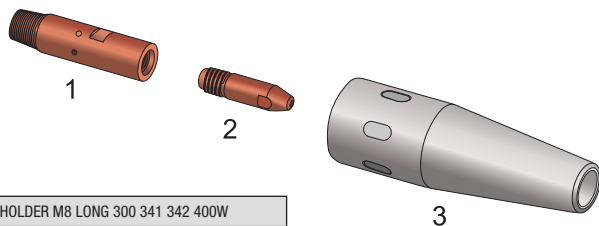
3

4

OPTIONS

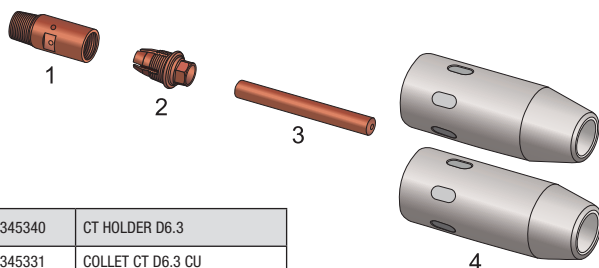
LG PROMIG 300 UD

Extended Reach



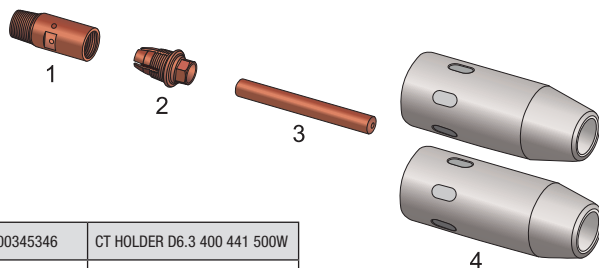
1	W000345342	CT HOLDER M8 LONG 300 341 342 400W
2	Standard Contact Tips	
3	W000345420	NOZZLE D12 XL 300 341 400W

Adjustable Long Tip:



1	Special Contact Tip Holder	W000345340	CT HOLDER D6.3
2	Collet	W000345331	COLLET CT D6.3 CU
3	Special Contact Tip	W000345561	C TIP D6.3X55 1,0ST CUCRZR
3	Special Contact Tip	W000345563	C TIP D6.3X55 1,2ST CUCRZR
3	Special Contact Tip	W000345566	C TIP D6.3X55 1,6ST CUCRZR
3	Special Contact Tip	W000345564	C TIP D6.3X55 1,2AL CU
4	Nozzles	Please use standard nozzles for LGP 300	

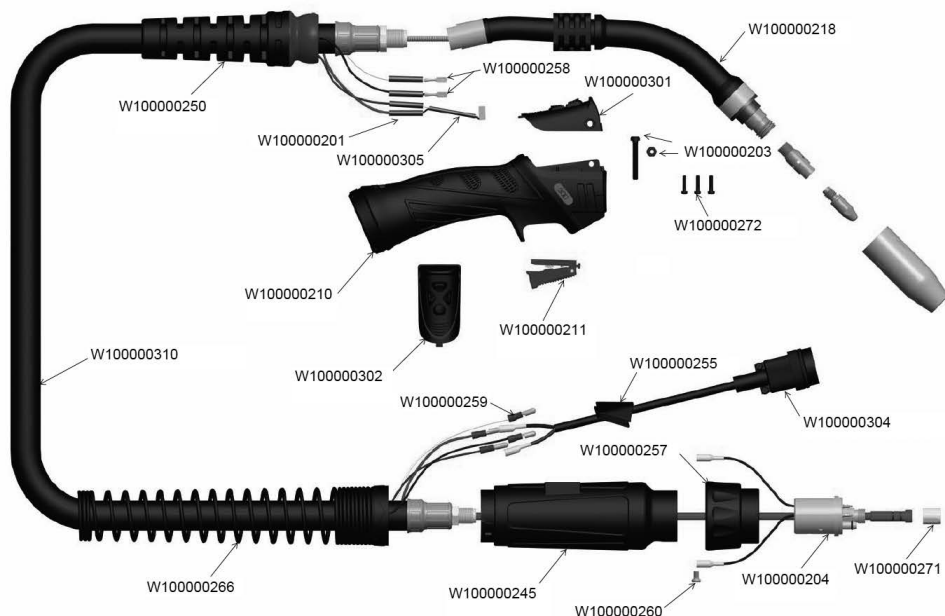
LG PROMIG 500W UD



1	Special Contact Tip Holder	W000345346	CT HOLDER D6.3 400 441 500W
2	Collet	W000345331	COLLET CT D6.3 CU
3	Special Contact Tip	W000345561	C TIP D6.3X55 1,0ST CUCRZR
3	Special Contact Tip	W000345563	C TIP D6.3X55 1,2ST CUCRZR
3	Special Contact Tip	W000345566	C TIP D6.3X55 1,6ST CUCRZR
3	Special Contact Tip	W000345564	C TIP D6.3X55 1,2AL CU
4	Nozzles	Please use standard nozzles for LGP 500W	

SPARE PARTS

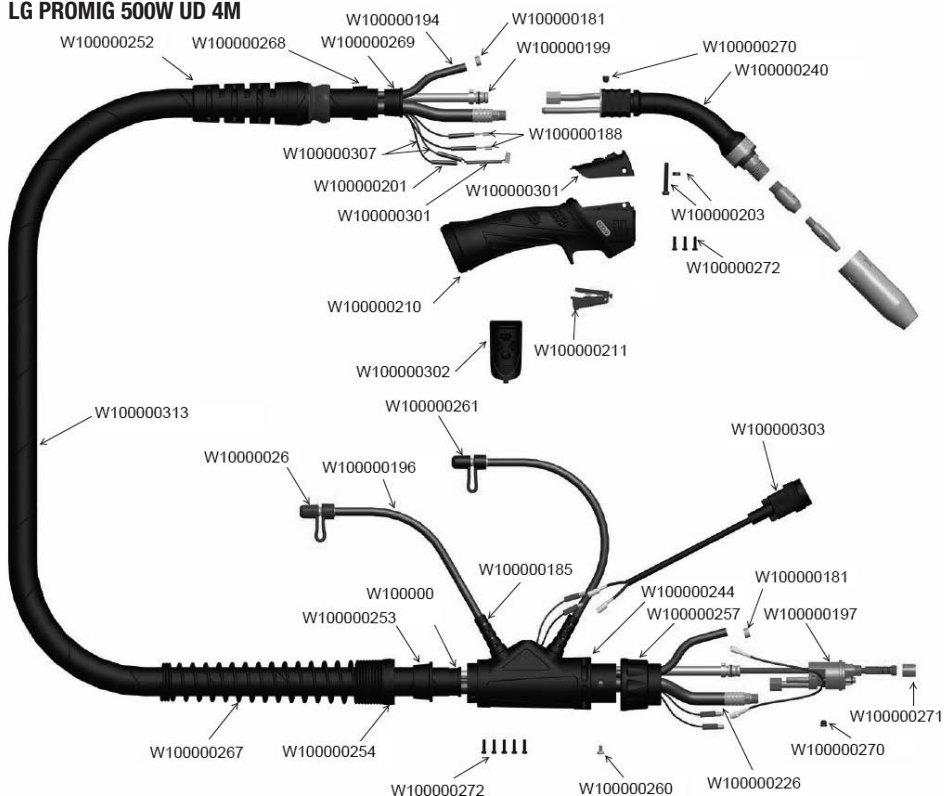
LG PROMIG 300 UD 4M



PN.	Description
W100000201	LG PROMIG HEAT SHRINK TUBE 3MM
W100000203	LG PROMIG 300/400/500W SCREW KIT
W100000204	LG PROMIG 300/400 Gun Plug Body C/W Spring Pins
W100000210	LG PROMIG Large Handle
W100000211	LG PROMIG Trigger
W100000218	LG PROMIG 300 Swan Neck
W100000245	LG PROMIG 300/400 Gun Plug Large Housing Assembly
W100000250	LG PROMIG 300/400 Cable Support C/W Ball Joint
W100000255	LG PROMIG 300/400 LARGE HOUSING WIRE COVER
W100000257	LG PROMIG GUN PLUG NUT
W100000258	LG PROMIG CABLE TERMINAL

PN.	Description
W100000259	LG PROMIG CABLE TERMINAL MALE
W100000260	LG PROMIG GUN PLUG SCREW
W100000266	LG PROMIG 300/400 HOUSING SPRING (SHORT)
W100000271	LG PROMIG LINER RETAINING NUT
W100000272	LG PROMIG DELTA-PT-WN5452-25X12-DIN50962-TX8
W100000301	2 BUTTON MODULE FOR LGP UD
W100000302	CROSS SWITCH MODULE FOR LGP UD
W100000304	12 PIN AMPHENOL PLUG W/WIRE COVER FOR LGP UD
W100000305	BUS CONNECTION WIRE FOR LGP UD
W100000310	LG PROMIG 300 UD Coax Cable Assy x 4m

LG PROMIG 500W UD 4M



PN.	Description
W100000181	LG PROMIG W CLAMP(10.5MM)
W100000185	LG PROMIG W Hose Support
W100000186	LG PROMIG 300/400/500W Handle Control Cover
W100000188	LG PROMIG W Switch Lead Assembly X 4M
W100000194	LG PROMIG 500W Water Inlet Hose Assembly X 4M
W100000196	LG PROMIG Water Outlet Hose Assembly
W100000197	LG PROMIG Water Cooled Plug Body Assembly
W100000199	LG PROMIG W Outer Liner Assembly X 4M
W100000201	LG PROMIG HEAT SHRINK TUBE 3MM
W100000203	LG PROMIG 300/400/500W SCREW KIT
W100000210	LG PROMIG Large Handle
W100000211	LG PROMIG Tigger
W100000226	LG PROMIG 500W Power Cable Assembly X 4M
W100000240	LG PROMIG 500W Swan Neck
W100000244	LG PROMIG Gun Plug Housing Assembly
W100000252	LG PROMIG 500W Cable Support C/W Ball Joint
W100000253	LG PROMIG W CANVAS COVER CLAMP

PN.	Description
W100000254	LG PROMIG SPRING CABLE SUPPORT NUT
W100000257	LG PROMIG GUN PLUG NUT
W100000260	LG PROMIG GUN PLUG SCREW
W100000261	LG PROMIG BLUE CAP STOPPER
W100000262	LG PROMIG RED CAP STOPPER
W100000267	LG PROMIG HOUSING SPRING
W100000268	LG PROMIG W SHEATH COVER
W100000269	LG PROMIG W CANVAS COVER RETAINER SMALL
W100000270	LG PROMIG W SCREW GB/T78 M6X6 (12.9)
W100000271	LG PROMIG LINER RETAINING NUT
W100000272	LG PROMIG DELTA-PT-WN5452-25X12-DIN50962-TX8
W100000301	2 BUTTON MODULE FOR LGP UD
W100000302	CROSS SWITCH MODULE FOR LGP UD
W100000303	12 PIN AMPHENOL PLUG FOR LGP UD
W100000305	BUS CONNECTION WIRE FOR LGP UD
W100000307	SWITCH LEAD ASSEMBLY 4M FOR LGP 500W UD
W100000313	CABLE ASSEMBLY 4M FOR LGP 500W UD

MAINTENANCE

Periodically remove and clean the nozzle, contact tip and gas diffuser. Replace the nozzle if damaged. Regular use of an antispatter compound will reduce the adherence of spatter and ease its removal. Clean cable liner after using approximately 140 kg of electrode. Remove the cable from the wire feeder and lay it out straight on the floor. Remove the contact tip from the gun. Using an air hose and only partial pressure, gently blow out the cable liner from the gas diffuser end.

CAUTION!

Excessive pressure at the start may cause the dirt to form a plug. Flex the cable over its entire length and again blow out the cable. Repeat this procedure until no further dirt comes out.

Lincoln Electric Europe EU DECLARATION OF CONFORMITY



Manufacturer and technical
documentation holder:

Lincoln Electric Iberia S.L.
Ctra. Laureà Miró 396-398
08980 Sant Feliu de Llobregat (Barcelona)
Spain

This declaration of conformity is issued under the sole responsibility of the manufacturer.

Object of the declaration:

Welding Equipment

LINGGUN PROMIG 300 UD 4M
LINGGUN PROMIG 500W UD 4M

Product numbers:

W100000297, W100000298

The object of the declaration described above is in conformity with the relevant Union harmonisation legislation:

Is in conformity with Council Directives
and amendments:

Low Voltage Directive 2014/35/EU
RoHS Directive 2011/65/EU

References to the relevant harmonized standards used, and references to the other technical specifications in relation to which conformity is declared:

EN 60974-7: 2013 ; Arc Welding Equipment
- Part 7: Torches

Signed for and on Behalf of:
Lincoln Electric Iberia

Agnieszka Kujacz - Koralewska
Product Manager Equipment Welding Guns EMEAR

Barcelona, 27.03.2022