



www.longevity-inc.com

SpoolGun 140 compatible with the MigWeld 140



www.longevity-inc.com

Operating Manual

For



SpoolGun 140

Spool Gun compatible with the MigWeld 140



www.longevity-inc.com

SpoolGun 140 compatible with the MigWeld 140

Table of Contents:

PG. 3: Thank you From LONGEVITY

PG. 4-6: Warranty/Shipping Damage/Order Information

PG. 7-9: Warning and Safety Information

PG. 10: Specifications

PG. 11-12: Parts List

PG. 13: Voltage Settings

PG. 14: Loading Aluminum Wire

PG. 15: Components and Controls

PG. 16: P6 Connector Pin-out

PG. 17: Enjoy your new welding accessory from LONGEVITY!



www.longevity-inc.com

SpoolGun 140 compatible with the MigWeld 140

THANK YOU!

We, at LONGEVITY, want to thank you for purchasing our product. You are almost ready to experience Longevity Welding first hand. Longevity definitely appreciates your business and understand that this equipment may be overwhelming to setup and operate so we have prepared a manual that will assist you in understand your new plasma cutter/welder. If you have any questions during or after reading this manual, please feel to contact us! Please take a moment to register your product on our website at www.longevity-inc.com or www.lweld.com

Once again, thank you for choosing Longevity as your main welding supplier!

Longevity Global, Inc.
23591 Foley St
Hayward, CA 94545



www.longevity-inc.com

SpoolGun 140 compatible with the MigWeld 140

Toll-Free Customer Support: 1-877-LONG-INC / 1-877-566-4462

Website: www.longevity-inc.com

Sales: sales@longevity-inc.com

Customer Service: help@longevity-inc.com

Dealers: dealers@longevity-inc.com

Complaints: complaints@longevity-inc.com

Please join our welding forums to share welding tips and tricks, to receive useful information from customers who also use our products, and to be a part of the Longevity™ welding community at www.freeweldingforum.com



Check out LONGEVITY Racing at www.longevity-racing.com



www.longevity-inc.com

SpoolGun 140 compatible with the MigWeld 140

Warranty

A manufacturer's limited warranty covers parts only, unless indicated below, and is furnished for five years from the date of purchase warranting the product to be free of material defect or workmanship as follows:

Plasma Cutters, Welders, and Multi-Purpose Welders (Coverage for Parts and Labor for five years from the purchase date at our facility).

In the event of product failure or malfunction, the purchaser/recipient must contact LONGEVITY™ GLOBAL, INC. to obtain an RMA (return or missing) number and a location of a designated repair facility. The welder, plasma cutter, multi-purpose unit, or any other welding related equipment comes with warranty on all internal components. The torch, cables, power cord, clamps, air regulator, argon regulator, hoses, case, paint, and consumables are not covered under warranty. Packages that are not pre-approved for return, and that do not have an RMA number will be refused and returned to the purchaser/recipient at the purchasers/recipients own cost. The product must be returned in its original packaging, with all accompanying components. Repair or replacement of the defective product will be at our option. The repaired/replaced product will then be returned to the purchaser. LONGEVITY Global, Inc. will cover the return and replacement shipping charges (both ways) for units in need of warranty within and only for the first 30 days from the purchase date. After the 30 days from the purchase date, the purchaser shall be responsible for all shipping and handling costs of returning (both ways) the defective/faulty products for repair or replacement. We are not responsible for lost returns. The labor coverage only applies if the unit is serviced at our facility or one of our authorized dealers. We will not reimburse the labor if your wish to have a third-party or unauthorized repair technicians work on the product.

Shipping Damage

Your machine is insured against damage during shipping. Keep all packing materials and containers in case machine must be returned. We will initiate a claim with the shipping company to cover damage or loss. If there is shipping damage upon opening your package, our customer service team will work with you to get the matter resolved.



www.longevity-inc.com

SpoolGun 140 compatible with the MigWeld 140

In Warranty Service

Customers, who own machines that are in warranty and require service, should contact our Warranty Department by email at help@longevity-inc.com to obtain a return authorization code. In addition to the warranty we offer, we would like for you to register your product on our website at www.longevity-inc.com/resources. Remember, warranty starts from the date of purchase. For your convenience, write your order information below so you can track your order in case you need warranty work.

Order No.: _____

Date of Purchase: _____

Warranty Period: _____

Out-of-Warranty Service

Customers, who own machines that are out of warranty and require service, should contact us for an estimate. Longevity offers an exchange program on out of warranty units. We also help non LONGEVITY customers with repairs, replacement, and service.

If your unit is not manufactured by Longevity and you cannot receive service from your manufacturer or seller, Longevity will lend out hand. Our warranty policy is also available for all plasma cutters and welders. For more information, please email us at help@longevity-inc.com

Safety Tips

Consider the following tips to ensure safe operation of your welding/cutting equipment:

- Ensure that this welding equipment is installed in an area free of corrosive chemical gases, flammable gases or materials, and explosive chemicals.
- The area should contain little dust, and have a humidity of no more than 80%.
- Operate the welding equipment in an area sheltered from direct sunlight and precipitation. Work area temperature should be maintained at -10°C to +40°C;
- If, because of an overload, the machine suddenly stops, and it is necessary to restart it, leave the internal fan operating to lower the inside temperature.
- Always wear protective clothing and a welding mask to protect your skin.
- Wear safety goggles designed to darken the arc generated by your machine.
- Wear suitable noise protection to protect your hearing.
- Ensure that machine is grounded through the power cord or on the machine case.
- Never operate the machine in bare feet or on a wet floor.
- Never switch the machine off while it's in use. Doing so will damage the internal circuitry.
- Ensure that your circuit breaker is rated to handle the current requirements of your machine.
- Use a UL approved receptacles and plugs with your machine. Never hard wire the machine to main power.
- Work in a well-ventilated area to avoid smoke. Keep your head out of the smoke. Ensure that air is flowing away from you to avoid inhaling smoke.
- Ensure proper ventilation through the machine's louvers. Maintain a distance of at least 12 inches between this cutting equipment and any other objects in the work area.
- Use a screen or curtain designed to keep passer byes from viewing the arc.
- The arc spray and metal spray from machine use may cause nearby fires. Use caution.
- If, after reviewing this manual, you have any problems in setting up or operating your machine, contact us at help@longevity-inc.com.

WARNING ARC WELDING can be hazardous

When using tool, basic safety precautions should always be followed to reduce the risk of personal injury and damage to equipment Read all instructions before using this tool!

ELECTRIC SHOCK can KILL

Improper use of electric arc welders can cause electric shock ,injury,and death! Take all precautions described in this manual to reduce the possibility of electric shock.



FUMES AND GASES

Fumes and gases can be dangerous do not breathe fumes that are produced by the arc welding operation .These fumes are dangerous. Keep the head and face out of the welding fumes Shielding gases used for arc welding can displace air and cause injury or death. Always use enough ventilation, especially in confined areas, to insure breathing air is safe.



WELDING SPARKS

Welding sparks can cause fire or explosion. DO not operate any electric arc welder in areas where flammable or explosive vapors may be present. Take precautions to be sure that flying sparks and heat do not cause flames in hidden areas, cracks, etc. Always keep a fire extinguisher accessible while performing arc welding operations. Before starting or servicing any electric arc welder, read and understand all instructions. Failure to follow safety precautions or instructions can cause equipment damage and/or serious personal injury or death. All installation, maintenance, repair and operation of this equipment should be performed by qualified persons only in accordance with national, state, and local codes



SpoolGun 140 compatible with the MigWeld 140

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 open arc welding. Head shield and filter lens should conform to ANSI Z87 standards.

Use suitable clothing made from durable flame-resistant material to protect your skin and that of your helpers from the arc rays. Protect other nearby personnel with suitable non-flammable screening and/or warn them not to watch the arc nor expose themselves to the arc rays or to hot spatter or metal.

Heat metal can burn

Electric arc welding operations cause sparks and heat metal to temperatures that can cause severe burns[Use protective gloves and clothing when performing any metal working operation.

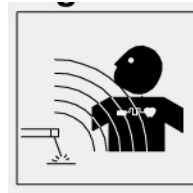
Make sure that all persons in the welding area are protected from heat, sparks, and ultraviolet rays. Use additional face shields and flame resistant barriers as needed.



Never touch work pieces until completely cold.

ELECTRIC AND MAGNETIC FIELDS

Electric and magnetic fields may be dangerous. The electromagnetic field that is generated during arc welding may interfere with the operation of various electrical and electronic devices such as cardiac pacemakers. Persons using such devices should consult with their physician prior to performing any electric arc welding operations.



Route the wire gun and work cables together and secure with tape when possible. Never wrap arc welder cables around the body.

Always position the wire gun and work leads so that they are on the same side of the body.

Exposure to electromagnetic fields during welding may have other health effects which are not known.

CYLINDER may explode if damaged.

Use only compressed gas cylinders containing the correct shielding gas for the process used and properly operating regulators designed for the gas and pressure used. All hoses, fittings, etc. should be suitable for the application and maintained in good condition.

Always keep cylinders in an upright position securely chained to an undercarriage or fixed support.

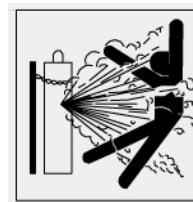
Cylinders should be located: Away from areas where they may be struck or subjected to physical damage.

A safe distance from arc welding or cutting operations and any other source of heat, sparks, or flame.

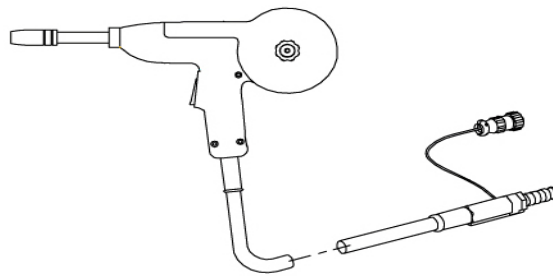
Never allow the electrode, electrode holder or any other electrically "hot" parts to touch a cylinder.

Keep your head and face away from the cylinder valve outlet when opening the cylinder valve. Valve protection caps should always be in place and hand tight except when the cylinder is in use or connected for use.

Carefully read the operation manual prior to using, installing and maintaining the electric welding machine for the purpose of preventing damages such as fire, electric shock and etc. from occurring. Please keep the manual for the reference in the future



SpoolGun 140 compatible with the MigWeld 140



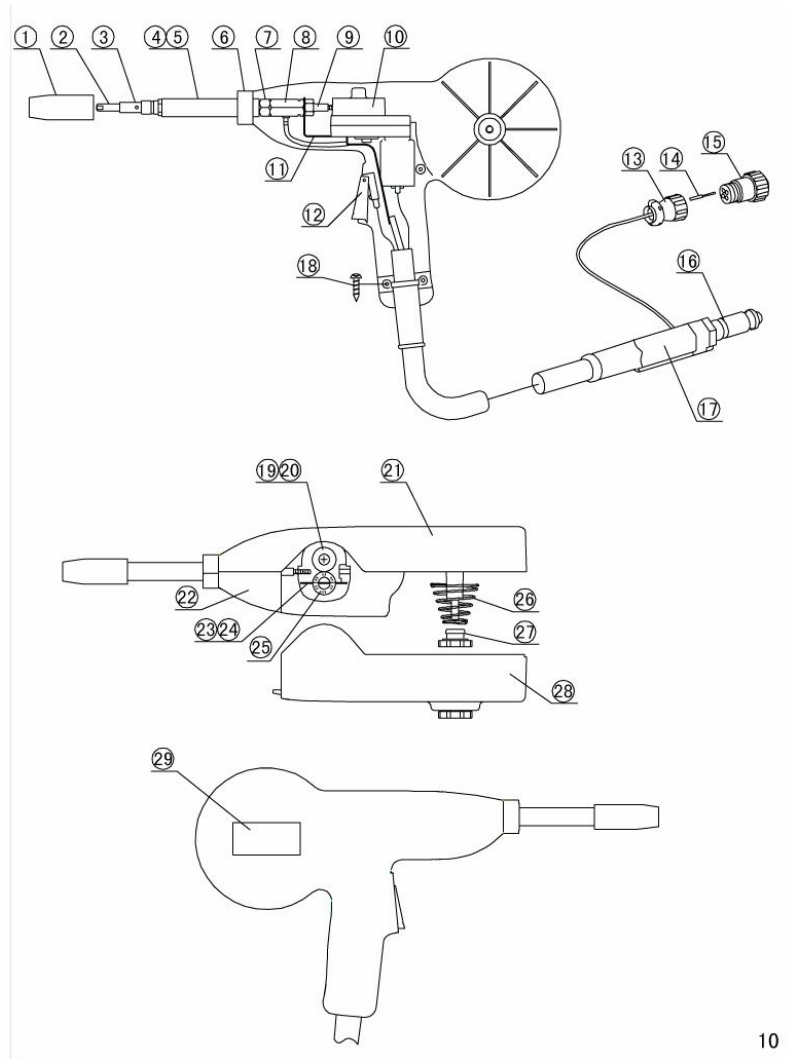
Model	SpoolGun 140
Welding Process	Aluminum GMAW(MIG)
Wire Sizes(Diameters)	Solid wire 0.030 or 0.035 inches
Spool Size	1 lb. weight ,4 inch diameter spool
Rated Welding Current	130amps @30% duty cycle
Rated Input Voltage	12VDC
Wire Feed Rate	1.0-13m/min

NOTE: DUTY CYCLE is a welding equipment specification, which defines the number of minutes, within a given time interval, during which a given welding machine can safely produce a particular welding current, It is usually expressed as a ratio of the uninterrupted no-load duration to the total time (usually 10 minutes)

SpoolGun 140 compatible with the MigWeld 140

ITEM	DESCRIPTION	PART NO.	QTY	
1	Nozzle	SB8-03-11	1	
2	Contact tip	SB8-03-01	1	
3	Diffuser	SB8-03-02	1	
4	Neck Pipe	SB8-03-03	1	
5	Shielding Pipe	SB8-03-07	1	
6	Body Nut	SB8-01-06	1	
7	Tight Nut	SB8-03-05	1	
8	Hexagon Connector	SB8-03-04	1	
9	Liner Assembly	SB8-03-06	1	
10	Driver Assembly	SB8-02-00	1	
11	Copper Tag	SB8-03-08	1	
12	Trigger Assembly	SB8-04-00	1	
13	Diffuser Pedestal	SB8-05-19	1	
14	P6 Connector	SB8-05-18	4	
15	Master Key Way	SB8-05-15	1	
16	O Ring	18001250	2	
17	Cable Assembly	SB8-05-00	1	
18	Screw ST3.5*16		3	
19	Roll	SB8-02-13	1	
20	Screw M4*5		1	
21	Right Body	SB8-01-01	1	
22	Left Body	SB8-01-02	1	
23	Upper Spring	SB8-02-14	1	
24	Lower Spring	SB8-02-15	1	
25	Bearing 61800-2RS		1	
26	Conical Spring	SB8-01-04	1	
27	Cover Nut	SB8-01-05	1	
28	Cover Assembly	SB8-01-03	1	
29	Warning Sticker	SB8-01-07	1	

SpoolGun 140 compatible with the MigWeld 140



10

SpoolGun 140 compatible with the MigWeld 140

Voltage Tap Settings to Table D-1 (For MIG140).

1. Check the wire and then choose the polarity and decide if the gas should be used.
2. Connect earth clamp to the work piece and be sure the connection is in good condition and in correct polarity.
3. Protecting with helmet press the trigger to weld. Keep the contact tip and the work piece in a distance of 5-10mm.
4. To stop welding by just releasing the trigger.
5. Close the valve of the gas bottle (if the gas is used) when the welding work finished, then press the trigger to discharge the compressed air inside the hose.

Reference parameters for Aluminum welding (Table D-1)

Methods of Welding	Welding Wire Specifications	Shielding GAS	Voltage/Wire Feed Rate Regulation			
			0.8mm	1.6mm	2.5mm	3mm
MIG DC+	Aluminum Welding Wire With diameter at 09mm	100% Argon	C-5	E-8	H-10	J-10

Table D-1

SpoolGun 140 compatible with the MigWeld 140

Loading Aluminum Wire (see FigureC-1)

1. Remove left cover (9), nut (8), conical spring (7) in sequence. Load 4" (100mm) wire (6) on the spindle, (note: the direction of the wire running is counterclockwise). Then install back all removed parts followed by conical spring, nut, left cover.
2. Extend approximately 12 inches of wire (2) from spool. Straighten it out by back-bending it. Use care to prevent the wire from unwinding.
3. Cut Off bent end of wire, leaving 100mm long straight section
4. Gently pull open the idle roll assembly to expose the drive roll groove. Guide straightened wire through inlet wire guide (4) and toward drive roll groove (3).
While holding open the idle roll (5), slide end of wire through drive roll's groove and toward gun tube liner (1).
5. Release the idle roll assembly and the straightened wire.

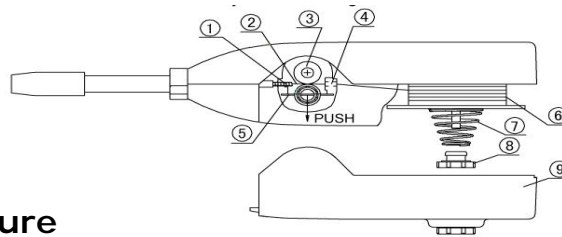


Figure C-1

Welding Procedure

1. Connect input power to the machine.
2. Screw off the nozzle and contact tip,
- 3~ Press the trigger, then the driver feeds the wire into the gun, Release the trigger when wire come out from the mouth of the gun,
4. Screw on the contact tip and nozzle.
5. Cut off the aluminum wire so that it extends about 1/4 inches (6-10mm) from the contact tip.

When welding

1. Select suitable wire and gas according to the type and thickness of the work piece refer to related Welding Manual.

2. According to the wire and thickness of the work piece set wire speed and

Unpacking
When unpacking, check to make sure the following parts are include
(See Figure A-1)

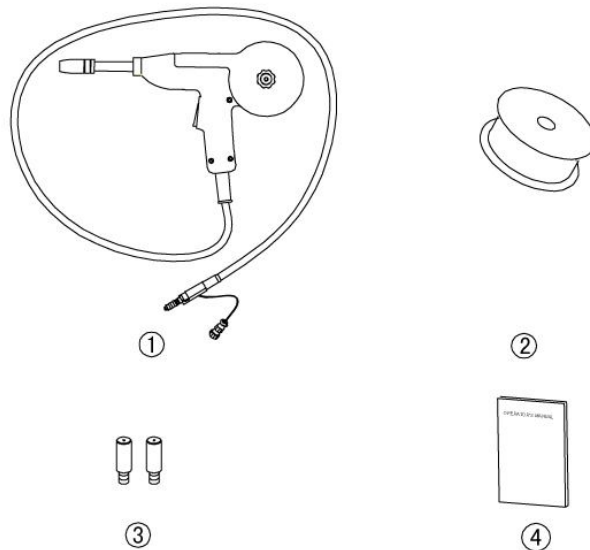


Figure A-1

1. Torch SB8
2. 1lb 0.9mm Aluminum Wire
3. 0.9mm Contact tip
4. Operator's manual

Components and Controls (See Figure B-1)

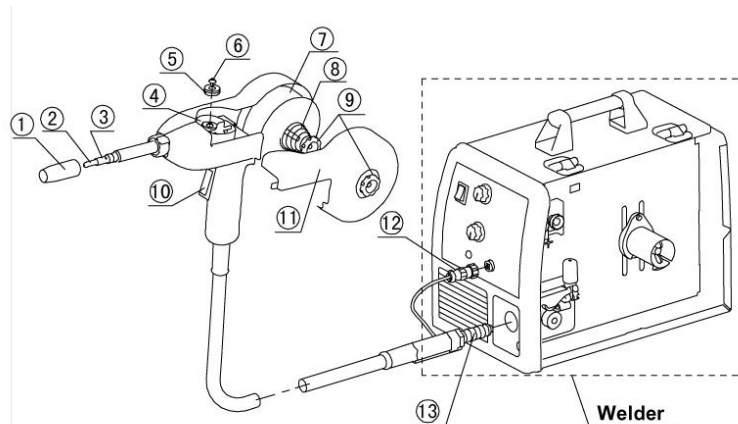


Figure B-1

1. Nozzle 2. Contact Tip 3. Diffuser 4. Wire Driver Assembly
5. Drive Roll 6. Screw 7. Spool of Wire 8. Press Spring 9. Nut
10. Trigger 11. Left Cover 12. Connector 13. Handle

Installation Spool Gun (See Figure B-1)

Connecting the gun to the welding machine

- 1, Disconnect input power to the machine
- 2, Fully insert gun cable connection (welding power and gas supply)
- 3, Plug P6 Connector Control Leads into the P6 Connector Key Way on the machine and turning until it be located in the position

P6 Connector Pin-out (See Table B-2 and Figure B-3)

Pin No.	Function	Gun Cable Lead Color
1	Trigger	Yellow
2	Trigger	Green
3	+ Motor	Red
4	- Motor	White

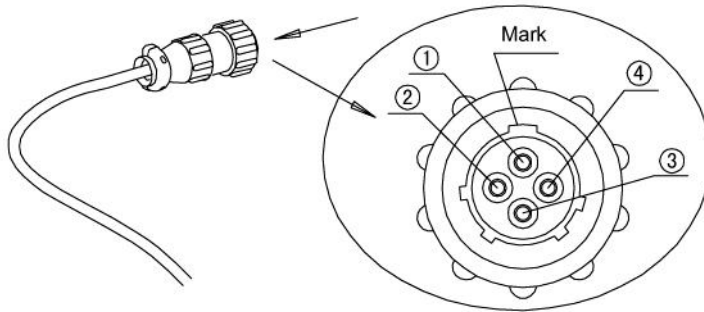


Figure B-3

Drive Roll Replacement (see Figure B-1)

One piece of 0.gram roll for SB8 installed in factory.

Replace the drive roll if necessary. The procedure of replacement is as follows.

1. Unscrew the screws (6)
2. Take out the roll (5)
3. Put the roll in position and screw to secure it (6)



www.longevity-inc.com

SpoolGun 140 compatible with the MigWeld 140

LONGEVITY® Global, Inc. thanks you for your purchase and the opportunity to be able to serve you. If, after reviewing this manual, you have any problems in setting up or operating your machine, contact us at help@longevity-inc.com.

LONGEVITY® Global, Inc.

Toll-Free 1-877-LONG-INC / 1-877-566-4462

Website: www.longevity-inc.com

Sales: sales@longevitywelding.com

Customer Service: help@longevitywelding.com

Dealers: dealers@longevity-inc.com

For the coolest LONGEVITY sponsored race teams plus a complete racing forum that covers everything from Drag Racing to RC Car Racing, please check out www.longevity-racing.com!

Enjoy your new welding machine from LONGEVITY! Thanks again!