



# TECHNICAL GUIDE

**Auto MIG Gun**

CONSUMABLES & ACCESSORIES

## Reliable Automatic Welding Equipment

The Lightning<sup>®</sup> AUTO MIG gun is made to stand up to the high heat conditions typical in the production environment. Lightning<sup>®</sup> precision consumables are designed to reduce change-out related downtime. All gun components and consumables are made in the USA.

### High Strength Cable

The outer cover is strengthened using electron beam accelerators which cross-link the polymers and increase the tear, stretch and abrasion resistance of the cable. Hytrel inner tubing is kink and impact resistant for smooth and reliable wire feed. The copper strand count of our premium cable assures long life and maximum productivity.

### Lightning<sup>®</sup> Contact Tips

Tapered seat designed to dissipate heat and maximize electrical conductivity.

Our dual start-point thread allows re-seating of the tip. When wire wear begins to effect performance, simply rotate the tip 180° to a new wear-point and double the life of the contact tip.

### Heavy Duty Handle

Lifetime Warranty on gun body.

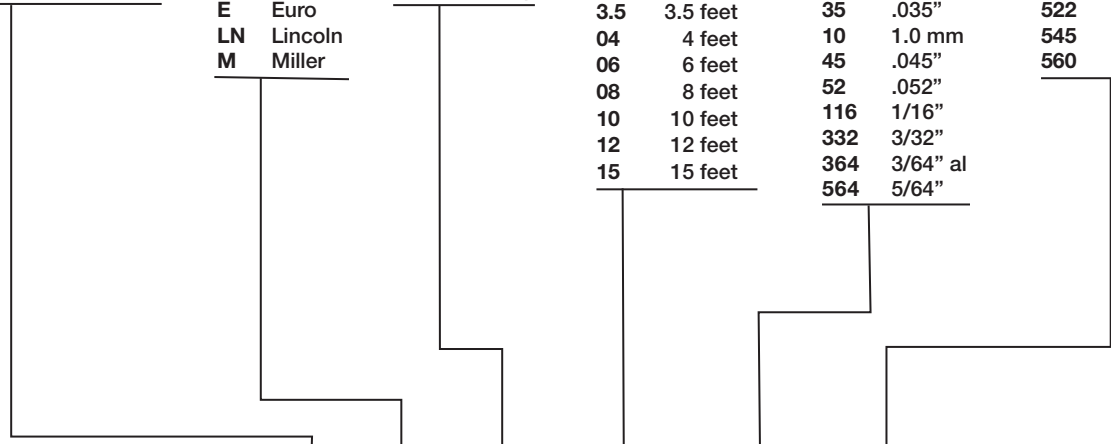
Fiber reinforced resin stands up to extreme heat and impact.

Slim compact design.

## Amperage Ratings (duty cycle)

| 100% Duty Cycle |           | 60% Duty Cycle |           |
|-----------------|-----------|----------------|-----------|
| Co2             | Mixed Gas | Co2            | Mixed Gas |
| 500 amps        | 350 amps  | 650 amps       | 500 amps  |

## PART NUMBERING SYSTEM

| LIGHTNING HANDLE<br>L Lightning  | Power Pin<br>T Tweco<br>E Euro<br>LN Lincoln<br>M Miller | Gun Model<br>53 500 amp | Cable Length<br>03 3 feet<br>3.5 3.5 feet<br>04 4 feet<br>06 6 feet<br>08 8 feet<br>10 10 feet<br>12 12 feet<br>15 15 feet | Wire Size<br>30 .030"<br>35 .035"<br>10 1.0 mm<br>45 .045"<br>52 .052"<br>116 1/16"<br>332 3/32"<br>364 3/64" al<br>564 5/64" | Gooseneck (opt)<br>500 180°<br>522 22°<br>545 45°<br>560 60° |
|--|--|-------------------------|--|---|--|
|  |  |                         |  |   |  |
| <b>L E 53 04 - 45 - 560</b>  |  |                         |  |   |  |

## NOZZLES

## ID

|         |                              |      |          |
|---------|------------------------------|------|----------|
| 63-2138 | HD * Flush                   | 3/8" | (09.5mm) |
| 63-2662 | HD 1/8" Stick-Out            | 5/8" | (15.9mm) |
| 63-2150 | HD 1/8" Tip Recess           | 1/2" | (12.7mm) |
| 63-2162 | HD 1/8" Tip Recess           | 5/8" | (15.9mm) |
| 63-2175 | HD 1/8" Tip Recess           | 3/4" | (19.1mm) |
| 64-2562 | Extra HD Cu 1/4" Tip Rec.    | 5/8" | (15.9mm) |
| 64-2575 | Extra HD Cu 1/4" Tip Rec.    | 3/4" | (19.1mm) |
| 65-2550 | HD Cu 1/8" Tip Recess        | 1/2" | (12.7mm) |
| 65-2562 | HD Cu 1/8" Tip Recess        | 5/8" | (15.9mm) |
| 65-2575 | HD Cu 1/8" Tip Recess        | 3/4" | (19.1mm) |
| 64-2950 | HD Bottleneck 1/8 Stick-out  | 1/2" | (12.7mm) |
| 63-2950 | HD Bottleneck 1/8 Recess     | 1/2" | (12.7mm) |
| 65-2662 | Extra HD 1/8 Stick-out       | 5/8" | (15.9mm) |
| 65-2362 | Extra HD Brass 1/8 Stick-out | 5/8" | (15.9mm) |

Threaded versions available for all nozzles.  
Add "T" to part number.

## CONTACT TIPS

## ID

|          |               |           |         |      |
|----------|---------------|-----------|---------|------|
| 63-1130  | HD*           | .030      | (0.8mm) | .037 |
| 63-1135  | HD            | .035      | (0.9mm) | .043 |
| 63-1140  | HD            | .040      | (1.0mm) | .048 |
| 63-1145  | HD            | .045      | (1.2mm) | .055 |
| 63-1152  | HD            | .052      | (1.3mm) | .063 |
| 63-1178  | HD            | 5/64      | (2.0mm) | .093 |
| 63-1193  | HD            | 3/32      | (2.4mm) | .110 |
| 63-1162  | HD            | 1/16"     | (1.6mm) | .073 |
| 63-1230  | HD Tapered    | .030      | (0.8mm) | .037 |
| 63-1235  | HD Tapered    | .035      | (0.9mm) | .043 |
| 63-1245  | HD Tapered    | .045      | (1.2mm) | .055 |
| 63-1252  | HD Tapered    | .052      | (1.3mm) | .063 |
| 63-1335  | HD CuCr **    | .035      | (0.9mm) | .043 |
| 63-1345  | HD CuCr       | .045      | (1.2mm) | .050 |
| 63-1352  | HD CuCr       | .052      | (1.3mm) | .059 |
| 63-1362  | HD CuCr       | 1/16"     | (1.6mm) | .070 |
| 63-1378  | HD CuCr       | 5/64"     | (2.0mm) | .093 |
| 63-1394  | HD CuCr       | 3/32"     | (2.4mm) | .110 |
| 65-1130  | Extra HD      | .030      |         | .037 |
| 65-1135  | Extra HD      | .035      |         | .043 |
| 65-1145  | Extra HD      | .045      |         | .055 |
| 65-1162  | Extra HD      | 1/16      |         | .073 |
| 65-1178  | Extra HD      | 5/64      |         | .093 |
| 65-1193  | Extra HD      | 3/32      |         | .110 |
| 65-11120 | Extra HD      | 7/64      |         | .120 |
| 65-11125 | Extra HD      | 1/8       |         | .136 |
| 65-1235  | Extra HD      | .035 tprd |         | .043 |
| 65-1245  | Extra HD      | .045 tprd |         | .055 |
| 65-1252  | Extra HD      | .052 tprd |         | .063 |
| 65-1335  | Extra HD CuCr | .035      |         | .040 |
| 65-1345  | Extra HD CuCr | .045      |         | .050 |
| 65-1352  | Extra HD CuCr | .052      |         | .060 |
| 65-1362  | Extra HD CuCr | 1/16      |         | .070 |

## GAS DIFFUSERS & RETAINER

|           |   |
|-----------|---|
| 63-3201   | Diffuser for HD Contact Tip             |
| 63-3104   | Nozzle Retainer (for 63-3201 above)     |
| 63-3103   | Diffuser HD                             |
| 63-3116   | R/M Thread-on Diffuser HD               |
| 65-3116   | R/M Thread-on Extra Heavy Duty Diffuser |
| 65-3103   | Diffuser Extra HD                       |
| 65-3103-2 | Robotic Extra HD                        |
| 63-3301   | Gas Diffuser O-Ring                     |

## SHOCK WASHERS

|           |              |
|-----------|--------------|
| 63-6202   |              |
| 63-6202HD | (Heavy Duty) |

## LIGHTNING® GOOSENECKS

|          |       |      |
|----------|-------|------|
| 65-5100A | Fixed | 180° |
| 65-5122A | Fixed | 22°  |
| 65-5145A | Fixed | 45°  |
| 65-5160A | Fixed | 60°  |

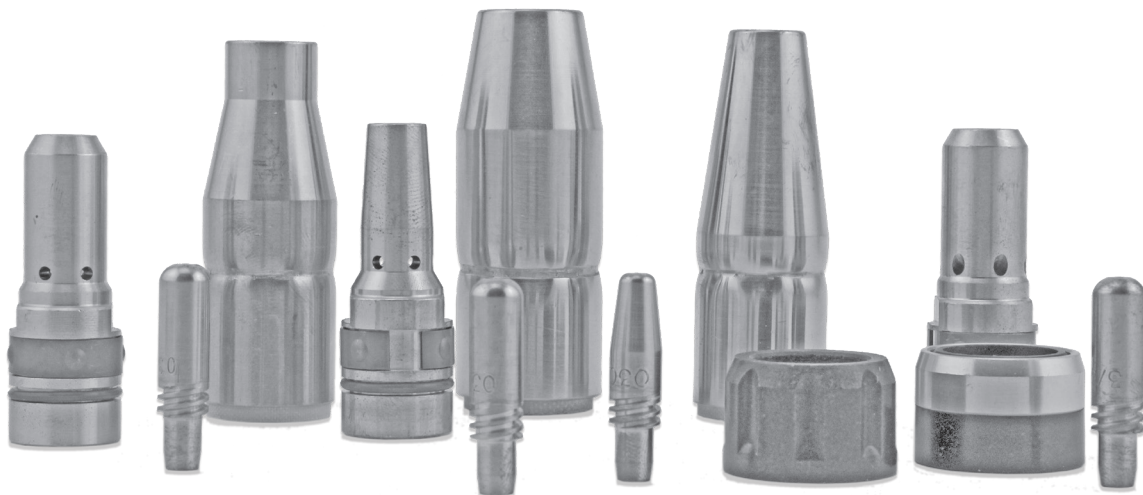
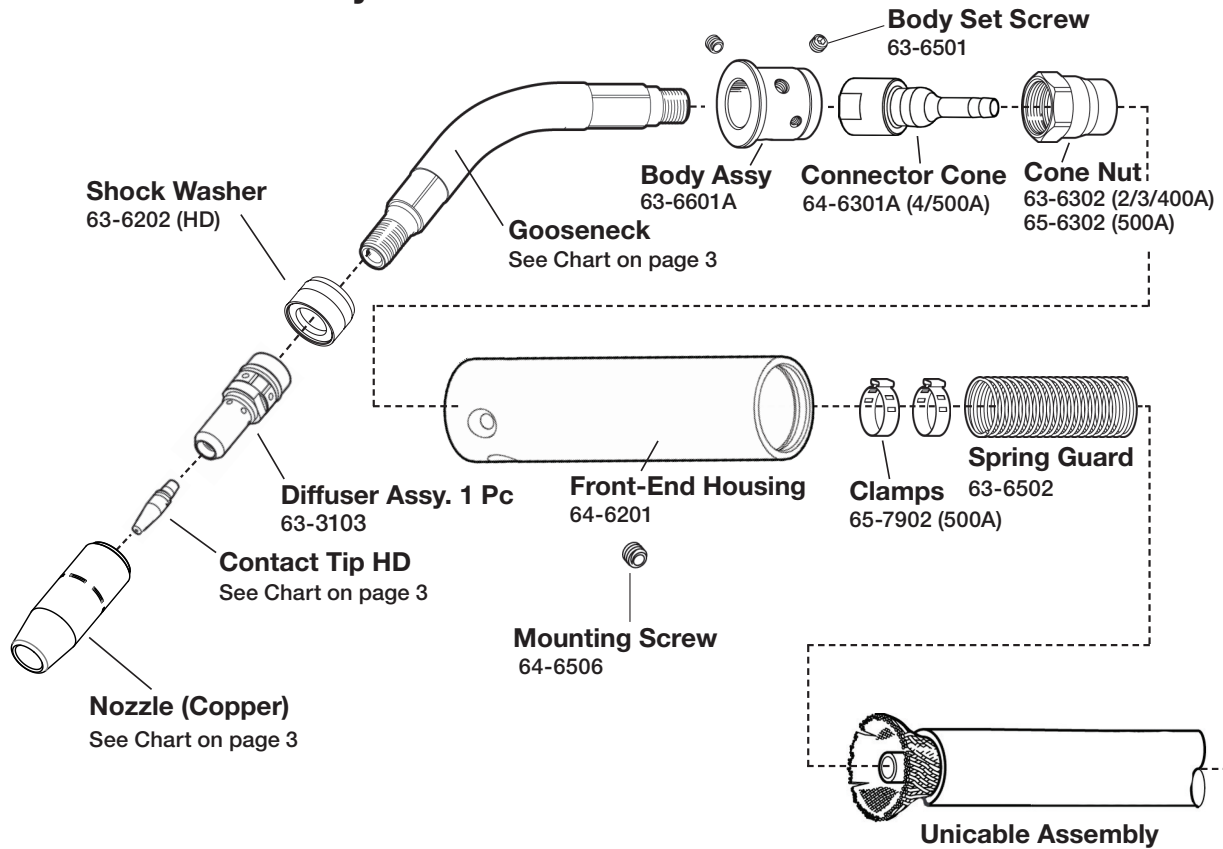
## LINERS

| Wire Size      | Length   | Part #  | OD    |
|----------------|----------|---------|-------|
| .023" (.6mm)   | 15'      | 64-4115 | 0.150 |
| .035" (.9mm)   | 15'      | 62-4315 | 0.156 |
| .035" (.9mm)   | 25'      | 62-4325 | 0.156 |
| .045" (1.6mm)  | 15'      | 62-4515 | 0.156 |
| .045" (1.6mm)  | 25'      | 62-4525 | 0.156 |
| .030" (.8mm)   | 15'      | 64-4215 | 0.182 |
| .035" (.9mm)   | 10'      | 64-4310 | 0.175 |
| .035" (.9mm)   | 15'      | 64-4315 | 0.175 |
| .035" (.9mm)   | 25'      | 64-4325 | 0.175 |
| .035" (.9mm)   | 25'      | 64-4325 | 0.175 |
| .035" (.9mm)al | 15'      | 64-4415 | 0.189 |
| .045" (1.6mm)  | 10'      | 64-4510 | 0.189 |
| .045" (1.6mm)  | 15'      | 64-4515 | 0.189 |
| .045" (1.6mm)  | 25'      | 64-4525 | 0.189 |
| 3/64" (1.6mm)  | 10'      | 64-4510 | 0.189 |
| 3/64" (1.6mm)  | 15'      | 64-4515 | 0.189 |
| 3/64" (1.6mm)  | 25'      | 64-4525 | 0.189 |
| .52" (1.6mm)   | 10'      | 64-4510 | 0.189 |
| .52" (1.6mm)   | 15'      | 64-4515 | 0.189 |
| .52" (1.6mm)   | 25'      | 64-4525 | 0.189 |
| 1/16" (1.6mm)  | 10'      | 64-4510 | 0.189 |
| 1/16" (1.6mm)  | 15'      | 64-4515 | 0.189 |
| 1/16" (1.6mm)  | 25'      | 64-4525 | 0.189 |
| 3/64-1/16 al   | 15'      | 64-4615 | 0.189 |
| 5/64-3/32      | 15' Flat | 64-4715 | 0.189 |
| 5/64-3/32      | 25' Flat | 64-4725 | 0.21  |
| 5/64 & 1/16"   | FC 10'   | 64-4815 | 0.21  |
| .035 - .045    | 15'      | 64-4915 | 0.192 |

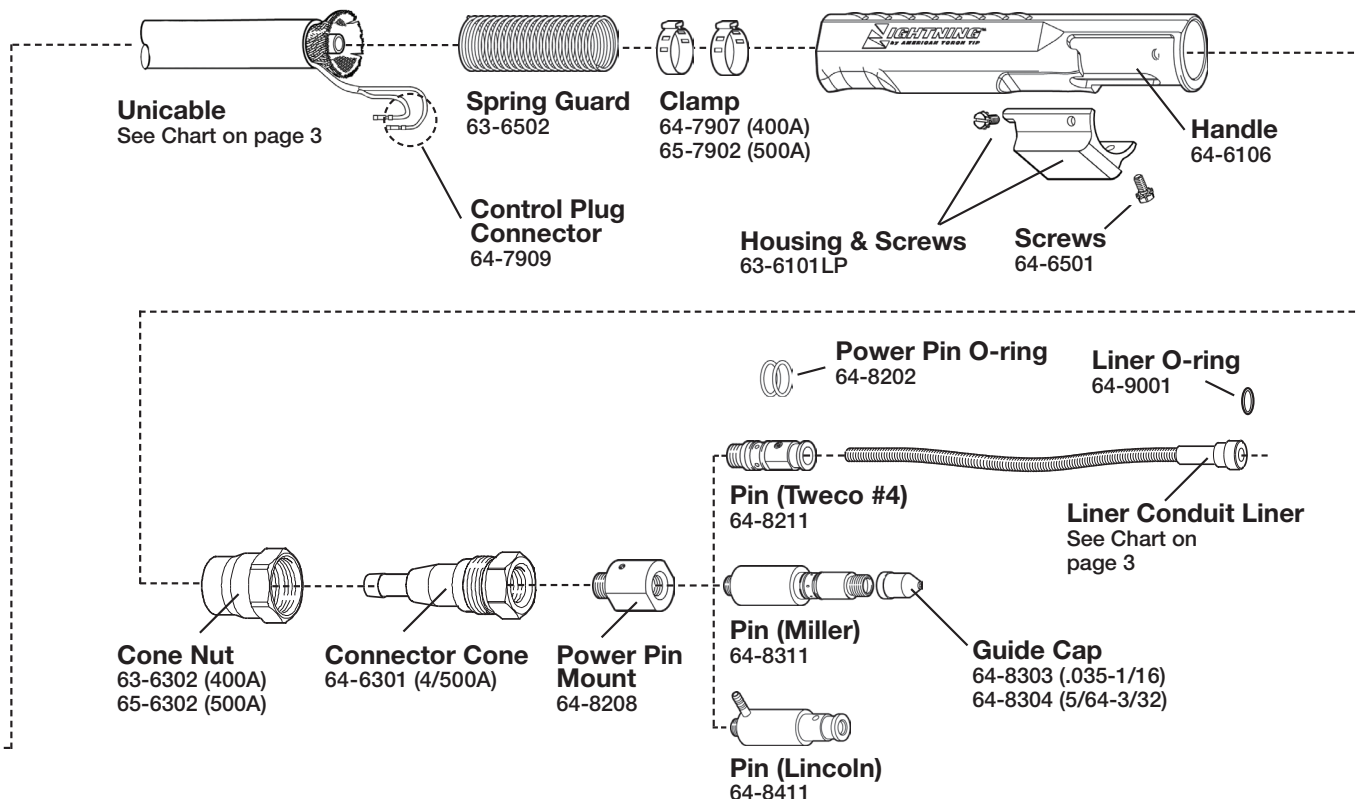
(for S.S. Wire)

NOTE: 65-11xx series tips are only to be used with 65 series Lightning® diffusers.

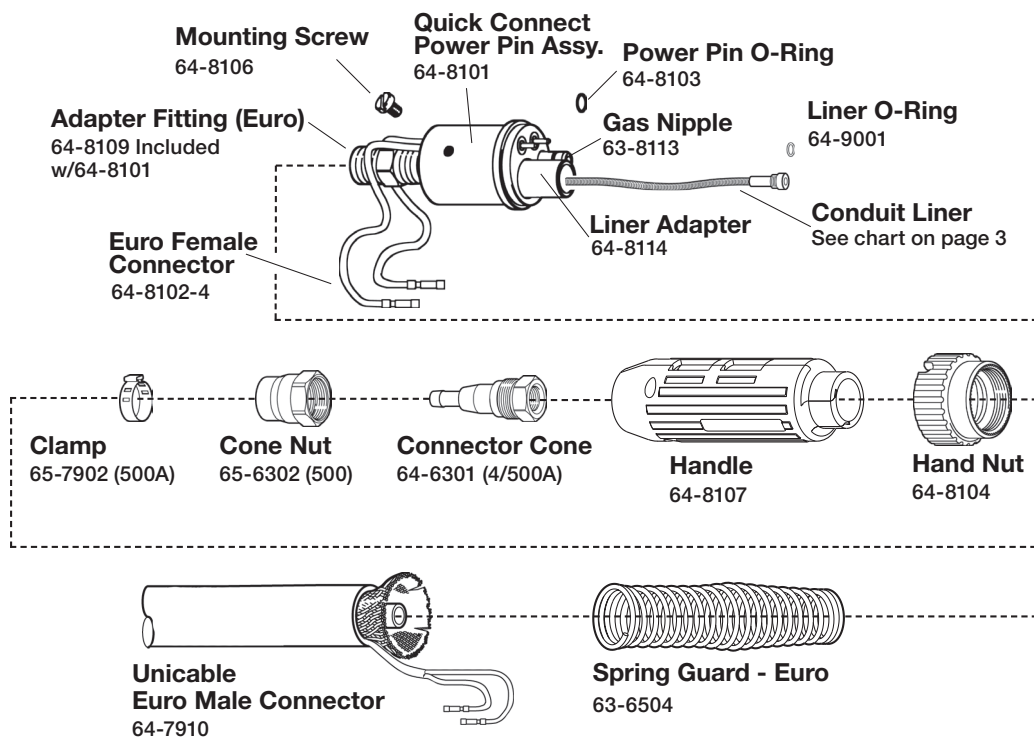
## Front-End Assembly



## Back-End Assembly



## European Assembly





## Nozzle And Contact Tip Systems

### Removal And Replacement

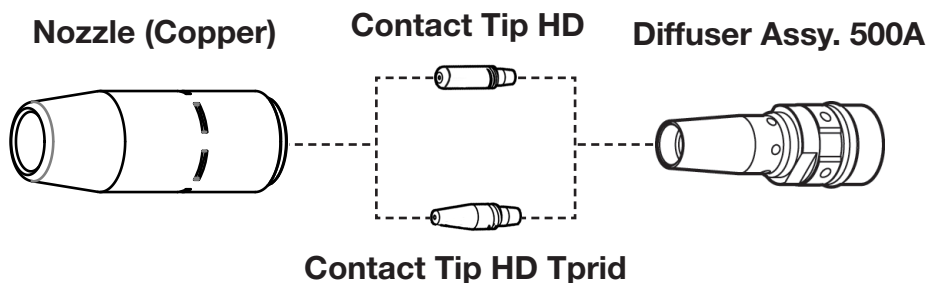
Pull slip-on nozzles off with a clockwise twisting motion.  
 When installing nozzle, exposed insulator should nest inside shock washer to assure concentricity.  
 Shock washers are positioned on the end of the gooseneck with the large insulated counterbore facing the nozzle.  
 Replace nozzle retainer with deep counterbore toward the gooseneck.  
 Tighten until retainer and shock washer are secure.

### Thread-On (Optional For Tweco HD)

Thread-on nozzle system does not require nozzle retainer and cannot be used with heavy duty head.  
 Shockwasher must be in place.  
 External gooseneck thread can be cleaned with a 9/16"-18 die.

### Important

Shock washer must be in place before welding to maintain insulation of gooseneck. Be sure all parts are tightened will before welding.  
 When using the heavy duty retaining head make sure it is tightened with a 11/16" wrench to prevent overheating of contact tip.  
 To prevent scoring on heavy duty retaining head do not use pliers.



NOTE: Any of the above nozzle and contact tip systems can be used on the LIGHTNING GUN 50 AMP models. (See chart page 3)

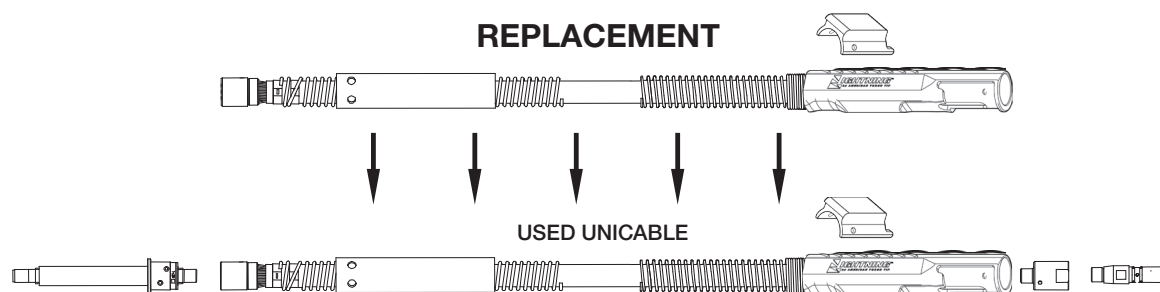
## Liner Replacement

### Tools Required

Vise  
 5/64 Allen wrench  
 Lineman pliers

1. Remove nozzle, contact tip and tip holder from gooseneck. (Not shown)
2. With gun straightened, loosen liner set screw on quick connect power pin at back end of gun using a 5/64" Allen wrench. (See Figure 1)
3. Using pliers, grip liner and remove from gun.
4. Install new liner by feeding through gun. Use short strokes to avoid kinking. Use clockwise rotation as needed.
5. Be sure o-rings on liner head seats into inside bore of power pin.
6. Tighten set screw on power pin to secure liner. Do not overtighten.

## Unicable Repair / Replacement



1. Remove liner from gun (See Liner Replacement, pg. 6).
2. Mount neck in vise.
3. Remove housing screws and slide housing back (front and back).
4. Loosen connector cone from neck using 1" (25 mm) wrench.
5. Remove from vise and thread out neck by hand.
6. Cable connection between cone and crimp ring should not be disturbed.
7. Unthread power pin and remove using 1 1/4" (32 mm) wrench on connector cone, and a 5/8" (16 mm) or 3/4" (19 mm) wrench on power pin. Install new power pin.
8. Retrieve front and rear housing. Slide housings onto new unicable assembly.
9. Repeat procedure in reverse to assemble remaining components.

## Lightning<sup>®</sup> Troubleshooting

### A. Wire not feeding or bumpy feeding

| Possible Cause                       | Possible Solution                                |
|--------------------------------------|--|
| 1. Feeder relay / malfunction        | Consult feeder manufacturer.                     |
| 2. Broken control lead               | Connect spare control leads.                     |
| 3. Poor adaptor connection           | Test and replace leads and/or contact pins.      |
| 4. Incorrect type of drive roll      | Use manufacturers recommended drive rolls        |
| 5. Improper drive rolls size         | Replace with proper size.                        |
| 6. Drive roll tension misadjusted    | Adjust tension at feeder.                        |
| 7. Burn back to contact tip          | See “E. <a href="#">Contact tip burn back.</a> ” |
| 8. Wrong size liner                  | Replace with correct size.                       |
| 9. Buildup inside of liner           | Replace liner, check condition of electrode.     |
| 10. Worn drive roll                  | Replace with new drive roll.                     |
| 11. Improper guide tube relationship | Eliminate all gaps in electrode path.            |
| 12. Improper wire guide diameter     | Replace with proper guide diameter.              |
| 13. Gaps at liner into gas diffuser  | Reset liner and lock or replace with new liner   |

### B. Premature contact tip failure

| Possible Cause                         | Possible Solution                      |
|--|--|
| 1. Improper voltage or wire feed speed | Set parameters.                        |
| 2. Erratic wire feeding                | See “G. <a href="#">Erratic arc.</a> ” |
| 3. Improper tip stickout               | Adjust nozzle/tip relationship.        |
| 4. Improper electrode stickout         | Change length of wire stickout.        |

### C. MIG Gun running hot

| Possible Cause                    | Possible Solution   |
|-----------------------------------|---|
| 1. Exceeding duty cycle           | Replace with properly rated duty cycle MIG Gun.<br>Decrease parameters to within Gun rating.  |
| 2. Loose or poor power connection | Clean and retighten all electrical connection.<br>Check rating and condition of ground clamp. |

### D. Porosity in weld

| Possible Cause                    | Possible Solution                      |
|-----------------------------------|--|
| 1. Nozzle/Insulator/O-rings worn  | Replace.                               |
| 2. Retaining head spring/band     | Replace retaining head.                |
| 3. Extreme heat or duty cycle     | Use X-heavy-duty consumables.          |
| 4. Gas not getting to the weld    | Check gas regulator/flowmeter/cylinder |
| 5. Gas ports plugged              | Clean or replace gas diffuser/nozzle.  |
| 6. Loose fittings or cut gas hose | Tighten or repair hose lines.          |



## Lightning<sup>®</sup> Troubleshooting

---

### E. Contact tip burn back

| Possible Cause |   | Possible Solution                        |
|----------------|---|--|
| 1.             | Improper voltage and/or wire feed speed | Set parameters.                          |
| 2.             | Erratic wire feeding                    | See “G. Erratic arc.”                    |
| 3.             | Improper tip stickout                   | Adjust nozzle / tip relationship.        |
| 4.             | Improper electrode stickout             | Adjust torch to base metal relationship. |
| 5.             | Faulty ground                           | Repair all cables and connectors.        |

### F. Tip disengages from retaining head

| Possible Cause |                           | Possible Solution                                       |
|----------------|---------------------------|---|
| 1.             | Worn retaining head       | Replace tip and/or retaining head.                      |
| 2.             | Improper tip installation | Finger tighten then slightly tighten with correct tool. |

### G. Erratic arc

| Possible Cause |                              | Possible Solution                            |
|----------------|------------------------------|--|
| 1.             | Worn contact tip             | Replace.                                     |
| 2.             | Buildup inside of liner      | Replace liner, check condition of electrode. |
| 3.             | Wrong tip size               | Replace with correct tip size.               |
| 4.             | Incorrect welding parameters | Use wire manufacturers parameters.           |

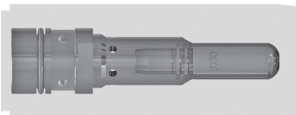
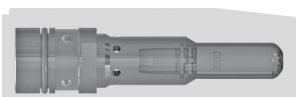
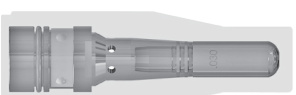
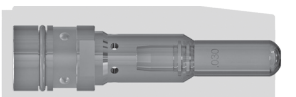
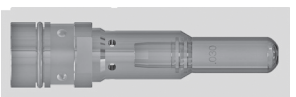
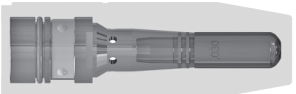
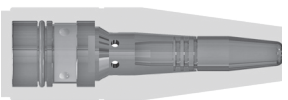
### H. Excess spatter

| Possible Cause |                                 | Possible Solution                              |
|----------------|---------------------------------|--|
| 1.             | Improper machine parameters     | Adjust parameters.                             |
| 2.             | Incorrect tip or installation   | Adjust nozzle / tip relationship.              |
| 3.             | Incorrect nozzle or shielding   | Use correct nozzle and shielding gas coverage. |
| 4.             | Contaminated wire or work piece | Replace wire and clean work piece.             |

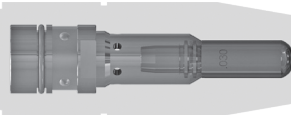
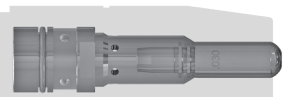
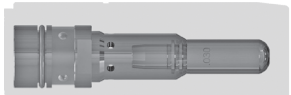
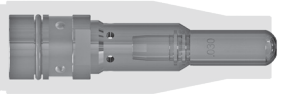
### I. Discolored Liner

| Possible Cause |                                      | Possible Solution                         |
|----------------|--------------------------------------|---|
| 1.             | Short circuit to electrode           | Check for wire short circuiting in feeder |
| 2.             | Cuts in outer jacket, copper exposed | Replace gun.                              |

# LIGHTNING® MIG Consumable Parts Reference



| Nozzle   | 63-2138<br>3/8" Bore<br>Flush<br>Copper<br>0.938" O.D. | 63-2150<br>1/2" Bore<br>1/8" Recess<br>Copper<br>0.938" O.D. | 63-2162<br>5/8" Bore<br>1/8" Recess<br>Copper<br>0.938" O.D. | 63-2175<br>3/4" Bore<br>1/8" Recess<br>Copper<br>0.938" O.D.<br>Straight Bore | 63-2362<br>5/8" Bore<br>1/8" Recess<br>Brass<br>1.120" O.D.<br>Straight Bore | 63-2662<br>5/8" Bore<br>1/8" Stickout<br>Copper<br>0.938" O.D. | 63-2950B<br>1/2" Bore<br>1/8" Recess<br>Brass<br>0.938" O.D.<br>Straight Bore | 64-2562<br>5/8" Bore<br>1/4" Recess<br>Copper<br>1.062" O.D. | 64-2575<br>3/4" Bore<br>1/4" Recess<br>Copper<br>1.062" O.D. |
|----------|--|--|--|---|--|--|---|--|--|
| Diffuser | 63-3103-2  | 63-3103-2  | 63-3103  | 63-3103   | 63-3103  | 63-3103  | 63-3103-2   | 63-3103  | 63-3103  |
| Tip      | 63-12XX  | 63-11XX  | 63-11XX  | 63-11XX   | 63-11XX  | 63-11XX  | 63-11XX   | 63-11XX  | 63-11XX  |



| Nozzle   | 64-2387<br>7/8" Bore<br>1/4" Recess<br>Brass<br>1.062" O.D.<br>Straight Bore | 64-2950<br>1/2" Bore<br>1/8" Stickout<br>Brass<br>0.938" O.D.<br>Straight Bore | 64-2962<br>5/8" Bore<br>Flush<br>Copper<br>1.062" O.D.<br>Bottle Neck | 65-2562<br>5/8" Bore<br>1/8" Recess<br>Copper<br>1.062" O.D. | 65-2362<br>5/8" Bore<br>1/8" Stickout<br>Brass<br>1.062" O.D. | 65-2375<br>3/4" Bore<br>1/4" Recess<br>Brass<br>1.120" O.D.<br>Straight Bore | 65-2575<br>3/4" Bore<br>1/8" Recess<br>Copper<br>1.062" O.D. | 65-2662<br>5/8" Bore<br>1/8" Stickout<br>Copper<br>1.062" O.D. | 65-2550<br>1/2" Bore<br>1/8" Recess<br>Copper<br>1.062" O.D. |
|----------|--|--|---|--|---|--|--|--|--|
| Diffuser | 63-3103  | 63-3103  | 63-3103   | 63-3103  | 63-3103   | 63-3103  | 63-3103  | 63-3103  | 63-3103  |
| Tip      | 63-11XX  | 63-11XX  | 63-11XX   | 63-11XX  | 63-11XX   | 63-11XX  | 63-11XX  | 63-11XX  | 63-11XX  |

All Lightning® consumables are interchangeable for custom configurations.  
All nozzles are available in threaded versions for use with threaded diffuser.

XX denotes wire size.  
See chart on page 3 for details.



Visit [AmericanTorchTip.com/Lightning](http://AmericanTorchTip.com/Lightning) for more information  
and helpful MIG resources, including catalogs, videos and articles.





**LIMITED WARRANTY – Subject to the terms and conditions below**



American Torch Tip Co. (ATTC) warrants its products to the original end user for the periods listed below:

| PLASMA  | MIG   |
|---|---|
| <b>LIFETIME</b><br>*PHD and PHDX Torch Bodies | <b>LIFETIME</b><br>*Lightning® Handle and Trigger Switch<br><br><b>ONE YEAR</b><br>*Lightning® Semi-Automatic MIG Guns<br>*Lightning® Robotic MIG Guns<br>*Lightning® Fixed Automation MIG Guns<br><br><b>180 DAYS</b><br>*All Other Gun Models |
| THERMAL SPRAY                                 | TIG   |
| <b>ONE YEAR</b><br>*Thermal Spray Guns        | <b>ONE YEAR</b><br>*TIG Torches   |

\*Limited Warranty on Manufacturing and Material Defects. Warranty Terms Do Not Apply to Consumable Products.

**Warranty Terms**

This warranty shall not apply to any product that has been modified or used in a manner inconsistent with ATTC's installation instructions and operating guidelines. Within the warranty periods listed above and at ATTC's sole discretion, ATTC will repair or replace any warranted parts or components that fail due to such defects in material or workmanship. ATTC must be notified within thirty (30) days of such defect or failure, at which time ATTC will determine if a Return Goods Authorization (RGA) is justified and issue an RGA number, authorization of a RGA number shall not be unreasonably withheld. ATTC will supply a RGA form, which must be included with the returned products for inspection by ATTC. Shipping and packing costs shall be the responsibility of the party returning the goods. Once received, ATTC shall inspect and determine if a warranty claim is justified and at ATTC's sole discretion authorize a repair or replacement. Once authorization has been granted ATTC shall provide instructions on the warranty claim procedures to be followed. Where authorized, repair or replacement constitutes the sole remedy for breach of warranty and expressly excludes claims for lost revenue, down time and other consequential damages. The warranty is limited to the conditions stated above and excludes, to the fullest extent permitted by law, all conditions, warranties and representations express or implied by statute, law or otherwise in relation to the supply or delay in supplying the goods/services. There are no agreements, promises or understandings, either verbal or written that are not fully expressed in this warranty. This warranty may be amended or altered only if agreed to in writing and signed by ATTC.

ATTC Limited Warranty 0418

## Thank You

For selecting the Lightning® MIG Gun. The Lightning® Gun is for welding professionals who want durability and comfort while working in harsh welding environments. This technical guide with instructions and illustrations is designed to make it easy to maintain your Lightning® Gun. Please read and follow all the safety procedures. For technical support, please call our Customer Service department at 1-800-371-8477 between 8:00 AM and 5:00 PM EST Monday through Friday. We are committed to providing the best-quality products and services. We are constantly working to improve our products. We would appreciate hearing your suggestions.

## The **LIGHTNING** Family of MIG Guns, Consumables and Accessories

### Semi-Auto MIG Gun

**LIGHTNING**  
SEMI-AUTOMATIC MIG

**VIRTUALLY INDESTRUCTIBLE**

**Inner Armor**  
Protective inner armor – a brass alloy insert – guards against wear and extends nozzle life.  
The cool-running Lightning® tapered-seat contact tip is designed to dissipate heat quickly through increased surface area, and maximize electrical conductivity.  
Dual start-point threads allow re-seating of the tip when wire wear begins to affect performance. Just rotate the tip counter-clockwise 180° to a new wear-point and double the life of the contact tip.  
Insulated aircraft aluminum protects the 650 AMP capacity gooseneck.

**Hard Body**  
High-strength plastic handle is engineered with special impact additives and reinforcing ribs, making it virtually indestructible. The solid construction puts Lightning® in a class of its own.  
**Lifetime Warranty** on handle and trigger switch.

**Defensive Shield**  
The secret behind Lightning®'s super tough cable is electron-beam accelerators that modify and strengthen the outer cover. This protective shield guards against tearing, stretching and abrasion.  
Inner tubing, made of Hywel®, is kink and impact resistant for smooth and reliable wire feed.  
Copper strand-count and gauge is optimized for each cable's ampere rating, resulting in a perfect blend of flexibility and strength.

**Plug-and-Play**  
Lightning® is ready to work right out of the box with most popular welding systems. Components are designed for quick, easy switch-outs.

**Specs**  
**Type** Semi-automatic  
**Air-cooled MIG**  
**Amperage** 250, 350, 450, 550  
**Cable Length** 9' – 25'  
**Gooseneck** 180°, 22°, 45°, 60°  
**Wire Size** .030 – .092  
1/16" – 5/64"  
**Compatibility** Compatible with a complete range of welding machines and wire feeders.  
**Lifetime Warranty** Handle and trigger switch have a Lifetime Warranty.

More information, contact tips, nozzles, and gun part numbers – page 2

Learn more at our website  
AmericanTorchTip.com/lightning  
or call us at 800-342-8477

**LIGHTNING**  
Made in the USA by American Torch Tip

### Large Curve MIG Gun

**LIGHTNING CURVE**  
LARGE CURVE SEMI-AUTOMATIC MIG

**VIRTUALLY INDESTRUCTIBLE**

**Inner Armor**  
Protective inner armor – a brass alloy insert – guards against wear and extends nozzle life.  
The cool-running Lightning® tapered-seat contact tip is designed to dissipate heat quickly through increased surface area, and maximize electrical conductivity.  
Dual start-point threads allow re-seating of the tip when wire wear begins to affect performance. Just rotate the tip counter-clockwise 180° to a new wear-point and double the life of the contact tip.  
Insulated aircraft aluminum protects the 650 AMP capacity gooseneck.

**Hard Body**  
High-strength plastic handle is engineered with special impact additives and reinforcing ribs, making it virtually indestructible. The solid construction puts Lightning® in a class of its own.  
**Lifetime Warranty** on handle and trigger switch.

**Defensive Shield**  
The secret behind Lightning®'s super tough cable is electron-beam accelerators that modify and strengthen the outer cover. This protective shield guards against tearing, stretching and abrasion.  
Inner tubing, made of Hywel®, is kink and impact resistant for smooth and reliable wire feed.  
Copper strand-count and gauge is optimized for each cable's ampere rating, resulting in a perfect blend of flexibility and strength.

**Plug-and-Play**  
Lightning® is ready to work right out of the box with most popular welding systems. Components are designed for quick, easy switch-outs.

**Specs**  
**Type** Semi-automatic  
**Air-cooled MIG**  
**Amperage** 250, 350, 450, 550  
**Cable Length** 9' – 25'  
**Gooseneck** 180°, 22°, 45°, 60°  
**Wire Size** .030 – .092  
1/16" – 5/64"  
**Compatibility** Compatible with a complete range of welding machines and wire feeders.  
**Lifetime Warranty** Handle and trigger switch have a Lifetime Warranty.

More information, contact tips, nozzles, and gun part numbers – page 2

Learn more at our website  
AmericanTorchTip.com/lightning  
or call us at 800-342-8477

**LIGHTNING**  
Made in the USA by American Torch Tip

### Small Curve MIG Gun

**LIGHTNING CURVE**  
SMALL CURVE SEMI-AUTOMATIC MIG

**VIRTUALLY INDESTRUCTIBLE**

**Inner Armor**  
Protective inner armor – a brass alloy insert – guards against wear and extends nozzle life.  
The cool-running Lightning® tapered-seat contact tip is designed to dissipate heat quickly through increased surface area, and maximize electrical conductivity.  
Dual start-point threads allow re-seating of the tip when wire wear begins to affect performance. Just rotate the tip counter-clockwise 180° to a new wear-point and double the life of the contact tip.  
Insulated aircraft aluminum protects the 650 AMP capacity gooseneck.

**Hard Body**  
High-strength plastic handle is engineered with special impact additives and reinforcing ribs, making it virtually indestructible. The solid construction puts Lightning® in a class of its own.  
**Lifetime Warranty** on handle and trigger switch.

**Defensive Shield**  
The secret behind Lightning®'s super tough cable is electron-beam accelerators that modify and strengthen the outer cover. This protective shield guards against tearing, stretching and abrasion.  
Inner tubing, made of Hywel®, is kink and impact resistant for smooth and reliable wire feed.  
Copper strand-count and gauge is optimized for each cable's ampere rating, resulting in a perfect blend of flexibility and strength.

**Plug-and-Play**  
Lightning® is ready to work right out of the box with most popular welding systems. Components are designed for quick, easy switch-outs.

**Specs**  
**Type** Semi-automatic  
**Air-cooled MIG**  
**Amperage** 250, 350, 450  
**Cable Length** 9' – 25'  
**Gooseneck** 180°, 22°, 45°, 60°  
**Wire Size** .030 – .092  
1/16" – 5/64"  
**Compatibility** Compatible with a complete range of welding machines and wire feeders.  
**Lifetime Warranty** Handle and trigger switch have a Lifetime Warranty.

More information, contact tips, nozzles, and gun part numbers – page 2

Learn more at our website  
AmericanTorchTip.com/lightning  
or call us at 800-342-8477

**LIGHTNING**  
Made in the USA by American Torch Tip

### Automatic MIG Gun

**LIGHTNING AUTO**  
FIXED-AUTOMATIC MIG

**VIRTUALLY INDESTRUCTIBLE**

**Inner Armor**  
Protective inner armor – a brass alloy insert – guards against wear and extends nozzle life.  
The cool-running Lightning® tapered-seat contact tip is designed to dissipate heat quickly through increased surface area, and maximize electrical conductivity.  
Dual start-point threads allow re-seating of the tip when wire wear begins to affect performance. Just rotate the tip counter-clockwise 180° to a new wear-point and double the life of the contact tip.  
Insulated aircraft aluminum protects the 650 AMP capacity gooseneck.

**Hard Body**  
Lifetime Warranty on gun body.  
Reinforced rear stands up to extreme heat and impact. Slim compact design. Lifetime Warranty on gun body.

**Defensive Shield**  
The secret behind Lightning®'s super tough cable is electron-beam accelerators that modify and strengthen the outer cover. This protective shield guards against tearing, stretching and abrasion.  
Inner tubing, made of Hywel®, is kink and impact resistant for smooth and reliable wire feed.  
Copper strand-count and gauge is optimized for each cable's ampere rating, resulting in a perfect blend of flexibility and strength.

**Plug-and-Play**  
Lightning® is ready to work right out of the box with most popular welding systems. Components are designed for quick, easy switch-outs.

**Specs**  
**Type** Automatic/  
**Machine**  
**Air-cooled**  
**Amperage** 500  
**Cable Length** 4' – 10', plus custom lengths  
**Gooseneck** 180°, 22°, 45°, 60°  
**Wire Size** .030 – .092  
1/16" – 5/64"  
**Compatibility** Compatible with a complete range of welding machines and wire feeders.

More information, contact tips, nozzles, and gun part numbers – page 2

Learn more at AmericanTorchTip.com/lightning  
or call us at 800-342-8477

**LIGHTNING**  
Made in the USA by American Torch Tip

### Robotic MIG Gun

**LIGHTNING**  
ROBOTIC MIG

**VIRTUALLY INDESTRUCTIBLE**

**Inner Armor**  
Protective inner armor – a brass alloy insert – guards against wear and extends nozzle life.  
The cool-running Lightning® tapered-seat contact tip is designed to dissipate heat quickly through increased surface area, and maximize electrical conductivity.  
Dual start-point threads allow re-seating of the tip when wire wear begins to affect performance. Just rotate the tip counter-clockwise 180° to a new wear-point and double the life of the contact tip.  
Insulated aircraft aluminum protects the 650 AMP capacity gooseneck.

**Hard Body**  
Solid-body design created from aircraft aluminum that stands up to extreme impact.

**Defensive Shield**  
The secret behind Lightning®'s super tough cable is electron-beam accelerators that modify and strengthen the outer cover. This protective shield guards against tearing, stretching and abrasion.  
Inner tubing, made of Hywel®, is kink and impact-resistant for smooth and reliable wire feed.  
Copper strand-count and gauge is optimized for each cable's ampere rating, resulting in a perfect blend of flexibility and strength.

**Plug-and-Play**  
Lightning® is ready to work right out of the box with most popular welding systems. Components are designed for quick, easy switch-outs.

**Specs**  
**Type** Robotic  
**Air-cooled**  
**Amperage** 500  
**Cable Length** 4' – 10', plus custom lengths  
**Gooseneck** 22°, 45°, plus custom angles  
**Wire Size** .030 – .092  
1/16" – 5/64"  
**Compatibility** Compatible with a complete range of welding machines. Adapters are also available for most wire feeders.

More information, contact tips, nozzles, and gun part numbers – page 2

Learn more at  
AmericanTorchTip.com/lightning  
or call us at 800-342-8477

**LIGHTNING**  
Made in the USA by American Torch Tip

Made in the USA by  
American Torch Tip

ZZ-MAR-TECH-MIG-011  
1023