

AMERICAN TORCH TIP **ATTTC**®



ALL GUNS ARE MADE BY ATTTC TO OUR
HIGHEST QUALITY STANDARDS AND ARE GUARANTEED
AGAINST ALL MATERIAL OR MANUFACTURING DEFECTS.

T-500 MIG GUN

Compatible with Tweco® 500 AMP

RATING:

**500A C02 350A MIXED GAS @ 100% DUTY CYCLE
0.035mm TO 3/32" WIRE**

Technical Guide

MIG Gun Part Numbering System 500 AMP

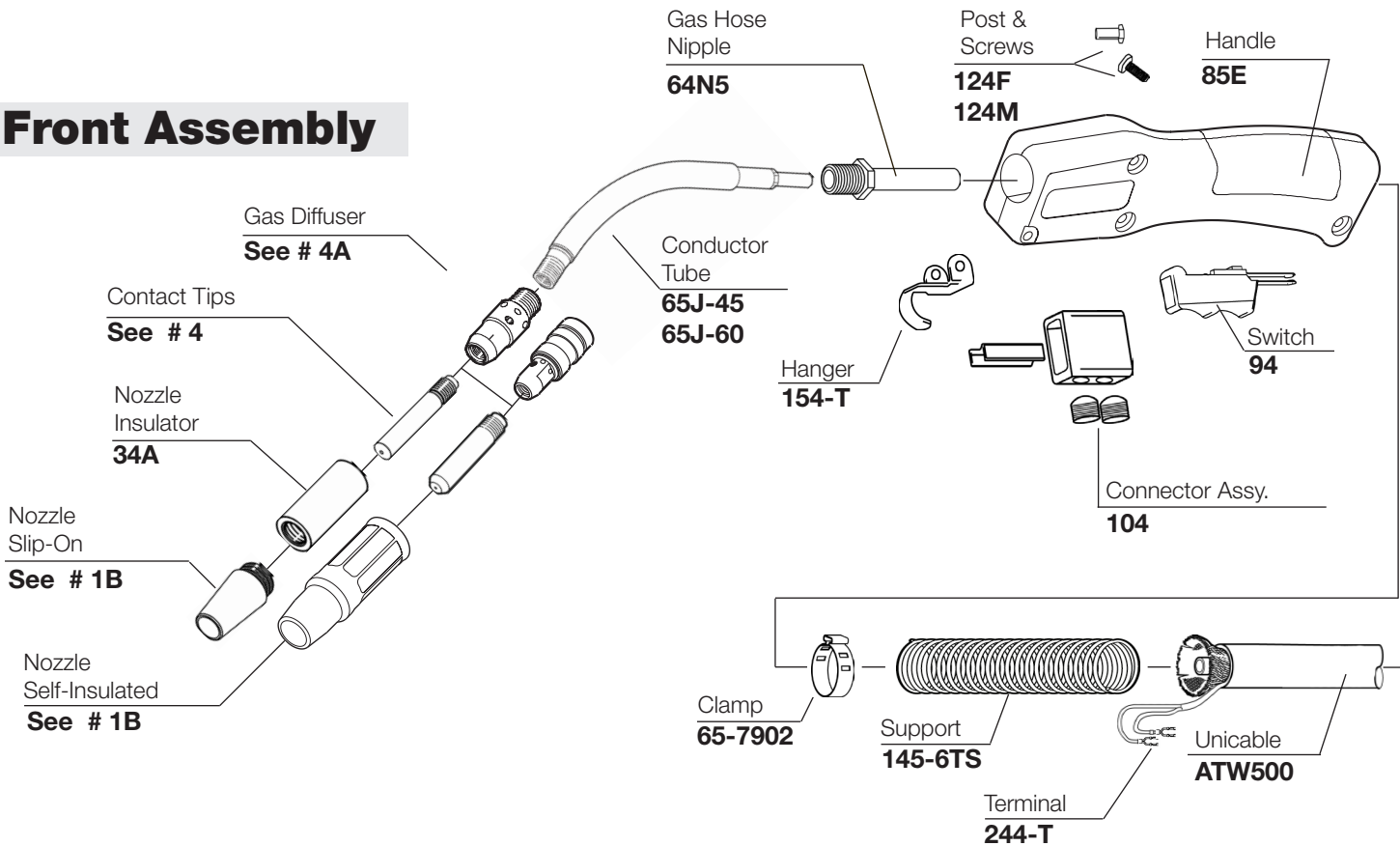
AT510 - 35	
Plugs	Wire Size
AT = Tweco	23 - .023
ALN = Lincoln	30 - .030
AX = Euro	35 - .035
AM = Miller	40 - .040
	45 - .045
	52 - .052
	116 - 1/16
Gun Amperage	Length
5 = 500 amp	10 = 10 ft
	12 = 12 ft
	15 = 15 ft
	20 = 20 ft
	25 = 25 ft

Special Part Numbering System

AT510 - 35 - X

Special Setup
If Required

Front Assembly



No.	Part No.	Description	I.D.
1A	25CT-50	Nozzle Coarse Thread	1/2" (12.7mm)
	25CT-62	Nozzle Coarse Thread	5/8" (15.9mm)
	25CT-75	Nozzle Coarse Thread	3/4" (19.1mm)
1B	HD24L-50	Nozzle Std. Recess	1/2" (12.7mm)
	HD24L-62	Nozzle Std.	5/8" (15.9mm)
	HD24L-75	Nozzle Std.	3/4" (19.1mm)
	HD24L-50F	Nozzle Flush	1/2"
	HD24L-62F	Nozzle Flush	5/8"
	HD24L-75F	Nozzle Flush	3/4"
	HD24-50	Nozzle H.D. Recess	1/8"
	HD24-62	Nozzle H.D. Recess	5/8"
	HD24-75	Nozzle H.D. Recess	3/4"
	HD-24-50F	Nozzle H.D. Flush	1/2"
	HD24-62F	Nozzle H.D. Flush	5/8"
	HD24-75F	Nozzle H.D. Flush	3/4"

No.	Part No.	Description
2	35CT	Nozzle Insulator Coarse Thread

No.	Part No.	Description	I.D.
3A	15AH-364	Contact Tip H.D.	3/64" Al. (1.2mm) .059
	15AH-116	Contact Tip H.D.	1/16" Al. (1.6mm) .081
	15H-35	Contact Tip H.D.	.035 (0.9mm) .043
	15H-45	Contact Tip H.D.	.045 (1.2mm) .055
	15H-52	Contact Tip H.D.	.052 (1.3mm) .063
	15H-116	Contact Tip H.D.	1/16" (1.6mm) .073
	15H-564	Contact Tip H.D.	5/64" (2.0mm) .093
	15H-332	Contact Tip H.D.	3/32" (2.4mm) .110
	15H-764	Contact Tip H.D.	7/64" (2.8mm) .120
	15H-18	Contact Tip H.D.	1/8" (3.2mm) .144

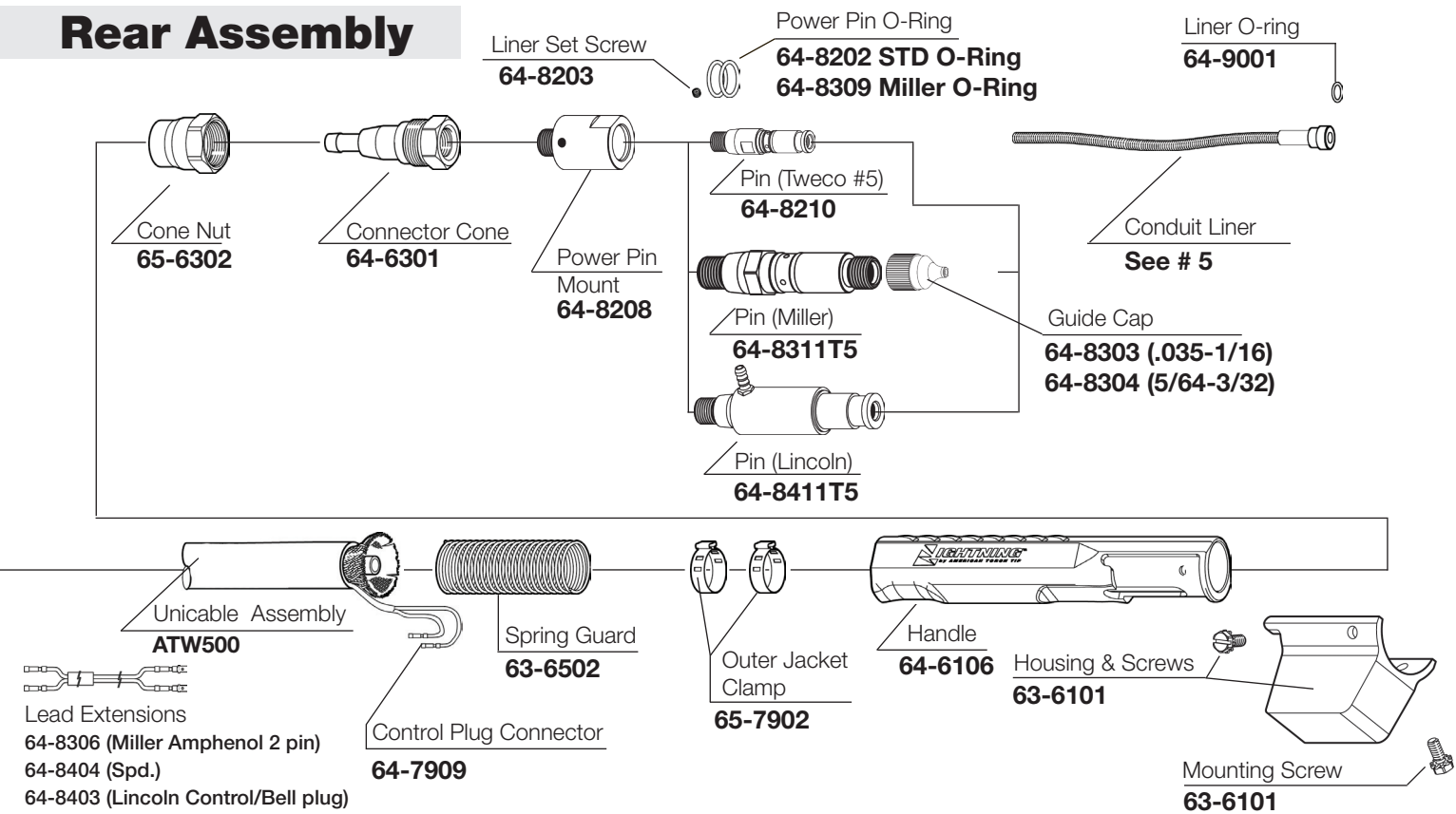
No.	Part No.	Description	I.D.
3B	16S-35	Contact Tip	.035 (1.2mm) .044
	16S-40	Contact Tip	.040 (1.0mm) .048
	16S-45	Contact Tip	.045 (0.9mm) .054
	16S-52	Contact Tip	.052 (1.3mm) .064
	16S-116	Contact Tip	1/16" (1.6mm) .073
	16S-564	Contact Tip AL	3/64" (2.0mm) .093
	16AS-364	Contact Tip AL	3/64" (1.2mm) .059
	16AS-116	Contact Tip AL	1/16" (1.6mm) .082

No.	Part No	Description	Liner
4A	55	Gas Diffuser	Use with 45N-116, 45-564
	55H	Gas Diffuser	Use with 45H-332, 45H-764
	55SW	Gas Diffuser	Use with 45-3545, 45116

4B	HD54-16	Gas Diffuser
-----------	---------	--------------

No.	Part No	Description
5	45-116-15	Liner Assy. 15' 1/16" .076 .188
	45-116-25	Liner Assy. 25' 1/16" .076 .188
	45-3545-15	Liner Assy. 15' .035-.045 .066 .188
	45-3545-25	Liner Assy. 25' .035-.045 .066 .148
	45-564-15	Liner Assy. 15' 5/64" .098 .238
	45-564-25	Liner Assy. 25' 5/64" .098 .238
	45H-332-15	Liner Assy. 15' 3/32" .124 .268
	45H-764-15	Liner Assy. 15' 7/64" .130 .268
	45N-116-15	Liner Assy. 15' 1/16" .100 .185
	45N-3545-15	Liner Assy. 15' .035-.045 .066 .188
	65-4725	Liner Assy. 25'
	65-4715	Liner Assy. 15' 5/64"-3/32"

Rear Assembly



GENERAL SAFETY

1. Disconnect all power before servicing or changing welding gun components. Failure to disconnect power can lead to dangerous electrical shock which can kill.
2. Smoke, fumes and gases can be dangerous to your health. Keep smoke, fumes and gases from the breathing area. Fumes from welding are of various types and strengths, depending on the kind of base metal being welded.
3. Arc welding produces dangerous light radiation. Adequate eye protection must be worn.
4. All exposed skin must be covered with flame resistant, protective clothing. Do not wear clothing made from flammable synthetic fibers.
5. Protective screens or barriers should be used to protect others from spatter, flash and glare while welding.

TROUBLESHOOTING

Poor Wire Feed:

Liner clogged or kinked. Incorrect liner size or contact tip size. Liner cut to short and not seating properly in gas diffuser.

Gun Overheating:

Loose connection at the wire feeder. Gun being run beyond its amperage range. Insufficient gauge power cable or ground cable.

Weld Porosity:

Spatter built up in nozzle blocking gas. Leaks in gas hose or improper connection.

Short Tip Life:

Drive rolls too tight resulting in scoring of welding wire. Welding wire dirty, rusty or too much cast. Wrong tip size. Torch over rated duty cycle.

Warranty

180-day limited Warranty on manufacturing and material defects. Warranty terms DO NOT apply to consumable products.

LIGHTNING Semi-Auto MIG Gun

LIGHTNING SEMI-AUTOMATIC MIG 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 600 AMP capacity gooseneck.

Hard Body
High-strength plastic handle is engineered with special impact additive 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 Hytrel, is kink and impact resistant for smooth and reliable wire feed.

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: 5' – 25'
Gooseneck: 180°, 22°, 45°, 60°
Wire Size: .030" – .052"
1/16" – 5/64"

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

LIGHTNING Made in the USA by American Torch Tip

LIGHTNING Robotic MIG Gun

LIGHTNING ROBOTIC MIG 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 600 AMP capacity gooseneck.

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

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 Hytrel, is kink and impact resistant for smooth and reliable wire feed.

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: 5' – 25' plus custom lengths
Gooseneck: 22°, 45° plus custom angles
Wire Size: .030" – .052"
1/16" – 5/64"

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

LIGHTNING Made in the USA by American Torch Tip

LIGHTNING Automatic MIG Gun

LIGHTNING AUTO FIRED-AUTOMATIC MIG 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 600 AMP capacity gooseneck.

Hard Body
Lifetime Warranty on gun body. Fiber reinforced resin 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 Hytrel, is kink and impact resistant for smooth and reliable wire feed.
Copper strand-count and gauge is optimized for each cable's amperage 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' – 15' plus custom lengths
Gooseneck: 180°, 22°, 45°, 60°
Wire Size: .030" – .052"
1/16" – 5/64"

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

LIGHTNING Made in the USA by American Torch Tip