# The Little Torch™ Kit

Gas Equipment

# **Quick Specs**

#### **Applications**

Jewelry manufacturing and repair Electronics manufacturing and repair Precision metal work Hobby and crafts Plumbing Plastic Polishing

# Oxy-Fuel Processes

Brazing Soldering Heating Welding

#### **Fuel Gases**

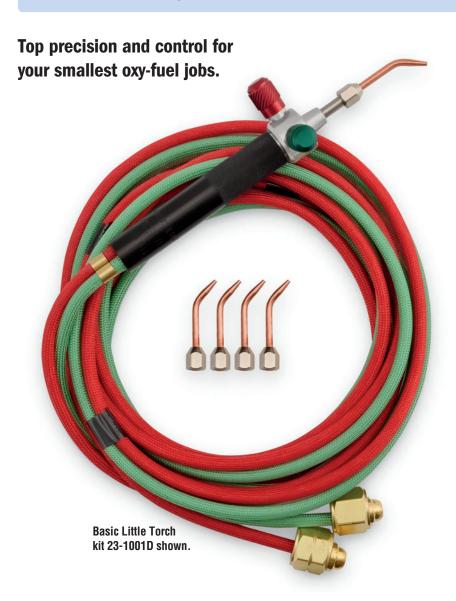
Acetylene Propane Propylene Natural Gas Hydrogen

#### **Torch**

Net weight: 0.75 lb. (0.34 kg) Length: 4.625 in. (118 mm)

#### **Curved Tip**

Length: 1.5 in. (38 mm) Angle: 45 degrees



### **Designed for Precision**

**Light weight at 1.5 ounces** for infinite control on small-part soldering and brazing.

**3.6 times smaller than conventional torches** to easily maneuver in tight areas.

No. 2 and 3 tip orifices are fitted with laser-drilled synthetic sapphire for accurate gas flow and consistent flame.

**Produces thread-thin flame** hot enough to melt weldable metals, glass and ceramics.

### **Unmatched Flexibility**

Range of tip orifices provide wide spectrum of flame length and heat output for various metals and thickness.

Variety of settings produces controlled flame that melts up to three ounces of gold or silver.

**Works with different tank sizes** of commercially available oxy-fuel systems from large pressurized cylinders to smaller disposable types.

**Superior flexible hoses** connect to standard pressure regulator for a variety of projects.

## **Meets Strict Manufacturing Standards**

Certified by leading nationally recognized testing authorities ensuring that you are using a safe, properly designed and manufactured product.



**Underwriters Laboratories (UL) Listed** for gas pressure regulators.



**Electrical Testing Laboratories (ETL) Listed** for oxy-fuel torches and tips.



Warranted for one years, parts and labor.



#### Miller Electric Mfg. LLC

An ITW Welding Company 1635 West Spencer Street P.O. Box 1079 Appleton, WI 54912-1079 USA

#### **Equipment Sales US and Canada**

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International Phone: 920-735-4554 International FAX: 920-735-4125







# **Little Torch™ Kits**



### **Basic Little Torch Kits**

Net weight for each kit is 0.75 lb. (0.34 kg).

23-1001D With "B" hose fittings (fuel: 9/16"-18 LH, oxygen: 9/16"-18 RH)
23-1013A With Australian hose fittings (fuel: 5/8"-18 LH, oxygen: 5/8"-18 RH)
239-047B With British hose fittings (fuel: G-3/8"-19 LH, oxygen G-3/8"-19 RH)
239-048A With European hose fittings (fuel: G-3/8"-19 LH, oxygen: G-1/4"-19 RH)

Component	Description				
Little Torch Anodized aluminum body with separate inlet nipples					
Curved Tips	No. 3, 4, 5, 6, 7				
Covered Hoses	8 ft. (2.4 m) length / 1/8 in. (3.2 mm) inside diameter				



# **Little Torch with Regulators Kits**

Use regulators to provide low regulated pressures and flows necessary for fine flame adjustment and stability. Net weight for each kit is 7.15 lb. (3.24 kg).

23-1003 With fuel regulator and CGA 200 inlet connection for 10 cu. ft. "MC" cylinder
 23-1003B With fuel regulator and CGA 520 inlet connection for 40 cu. ft. "B" cylinder

23-1003P With fuel regulator and CGA 510 inlet connection for larger propane/acetylene cylinder

Component	Description						
Little Torch	Anodized aluminum body with separate inl	et nipples					
Curved Tips	No. 3, 4, 5, 6, 7						
Check Valves	1 pair (fuel and oxygen), reverse-flow, reg	1 pair (fuel and oxygen), reverse-flow, regulator-mounted					
Covered Hoses	8 ft. (2.4 m) length / 1/8 in. (3.2 mm) inside diameter						
Regulators Body Material Delivery Pressure Max. Inlet Pressure Outlet Connection Inlet Connection For Cylinder Type Gauge Size Gauge Outlet Gauge Inlet	Fuel Gas  Forged brass  O-15 psig (0-1 bar)  400 psig (28 bar)  9/16"-18 LH "B"  See kit descriptions above  See kit descriptions above  in (51 mm)  30 psig (2 bar)  400 psig (28 bar)	Oxygen  • Forged brass  • 0-20 psig (0-1 bar) • 3,000 psig (207 bar) • 9/16"-18 RH "B" • CGA 540 • 0C20 20 cu. ft. cylinder • 2 in. (51 mm) • 30 psig (2 bar) • 4,000 psig (276 bar)					

### 23-1003B

# **Little Torch for Disposable Tanks Kit**

Maximum portability in locations where larger pressurized cylinders are not allowed. Kit may be used with disposable propylene or propane and oxygen cylinders (cylinders not included). Net weight for kit is 1.75 lb. (0.79 kg).

Note: Disposable oxygen and fuel tanks may be purchased at your local hardware or gas distributors.

Component	Description							
Little Torch	Anodized aluminum body with separate inlet	Anodized aluminum body with separate inlet nipples						
Curved Tip	No. 5	No. 5						
Covered Hoses	8 ft. (2.4 m) length / 1/8 in. (3.2 mm) inside	8 ft. (2.4 m) length / 1/8 in. (3.2 mm) inside diameter						
Cylinder Holder	Metal frame support, tilts the disposable cylinders for proper use							
Regulators Body Material Delivery Pressure Max. Inlet Pressure Inlet Connection For Cylinder Type	Propane  • Aluminum with aluminum adjusting knob  • 0-15 psig (0-1 bar)  • 500 psig (34 bar)  • CGA 600  • Disposable propylene or propane cylinder (not included)	• Brass with aluminum adjusting knob • 0-15 psig (0-1 bar) • 500 psig (34 bar) • CGA 601 • Disposable oxygen cylinder (not included)						



23-1014



# **Little Torch**™ **Kits** (Continued)



# **Little Torch Caddy Kits**

It is the complete works in a handy self-contained lightweight unit. These highly portable kits come complete with everything you need for your soldering or brazing operations.

**23-1015P** With 30-15-510 propane regulator, 13558 (5 lb.) refillable propane cylinder, OC20 20 cu. ft. oxygen cylinder and powder-coated metal carrier. Net weight for kit is 40.7 lb. (18.46 kg).

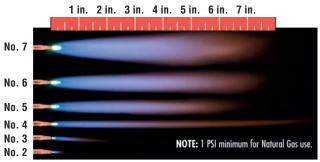
**23-1004A** With 30-15-200 acetylene regulator, 2329E (10 cu. ft.) acetylene cylinder, OC20 20 cu. ft. oxygen cylinder and 13493 plastic caddy carrier. Net weight for kit is 36.1 lb. (16.37 kg).

**23-1010P** With 249-500 B preset propane regulator, OC20 20 cu. ft. oxygen cylinder and plastic caddy carrier. Required 14.1 oz. disposable LP cylinder is NOT included. Net weight for kit is 26.15 lb. (11.86 kg).

Component	Description								
Little Torch	Anodized aluminum body with sep	Anodized aluminum body with separate inlet nipples							
Curved Tips	No. 3, 4, 5, 6, 7								
Check Valves	1 pair (fuel and oxygen), reverse-f	low, regulator-mounted							
Covered Hoses	8 ft. (2.4 m) length / 1/8 in. (3.2 m	8 ft. (2.4 m) length / 1/8 in. (3.2 mm) inside diameter							
Cylinder Type	See kit descriptions above								
Regulators Body Material Delivery Pressure Max. Inlet Pressure Outlet Connection Inlet Connection Gauge Size Gauge Outlet Gauge Inlet	Fuel Gas (23-1015P Kit)  Forged brass  0-15 psig (0-1 bar)  400 psig (28 bar)  9/16"-18 LH "B"  CGA 510  2 in. (51 mm)  30 psig (2 bar)  400 psig (28 bar)	Fuel Gas (23-1004A Kit)  Forged brass  0-15 psig (0-1 bar)  400 psig (28 bar)  9/16"-18 LH "B"  CGA 200  2 in. (51 mm)  30 psig (2 bar)  400 psig (28 bar)	Fuel Gas (23-1010P Kit)  • 360 brass  • 0-15 psig (0-1 bar)  • 500 psig (35 bar)  • 9/16"-18 LH "B"  • CGA 500  • N/A  • N/A	Oxygen (All Kits) • Forged brass • 0-20 psig (0-1 bar) • 3,000 psig (207 bar) • 9/16"-18 RH "B" • CGA 540 • 2 in. (51 mm) • 30 psig (2 bar) • 4,000 psig (276 bar)					

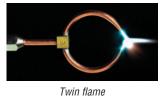


# **Tips** (All tips are 100 percent flame tested.)



Approximate curved tip flame sizes at neutral mixture (oxygen/acetylene)

**Curved Tip** 





Twin Flame Tip



Three-inch Flexible Tip Extension 2327-3SP For customizing angle and distance from handle.

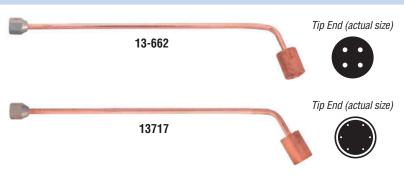
Tip	Stock	Size	Use with Oxygen and:	Orifice Diameter	Drill	Gas Pressure (psi)		Gas Consumption (cfh)			Brazing Capacity	
Type	Number				Size	Oxygen	Fuel	Fuel	Oxygen	Btu/Hour	Copper Pipe	
Curved	12-1401-02	No. 2*	Acetylene or hydrogen only	.006 in.	97	2	2	.09	.11	130	_	
	12-1401-03	No. 3*	Any fuel gas	.011 in.	85	4	4	.78	.94	1,150	Up to 1/8 in.	
	12-1401-04	No. 4		.020 in.	76	5	5	1.57	1.88	2,300	1/4-3/8 in.	
	12-1401-05	No. 5		.029 in.	69	6	6	2.58	3.1	3,800	5/16-5/8 in.	
	12-1401-06	No. 6		.037 in.	63	6	6	4.48	5.38	6,585	3/8-3/4 in.	
	12-1401-07	No. 7		.047 in.	56	8	8	6.27	7.52	9,200	1/2-7/8 in.	
Twin	12-1402-04	No. 4	Any fuel gas	.020 in.	76	5	5	2.91	3.49	4,300	1/4-5/8 in.	
Flame	12-1402-05	No. 5		.029 in.	69	6	6	4.70	5.64	6,900	5/16-3/4 in.	
	12-1402-06	No. 6		.037 in.	63	6	6	6.50	7.8	9,550	3/8-7/8 in.	

Note: All values in chart are determined using acetylene gas.

# Heating Tips (All tips are 100 percent flame tested.)



Heating tip (rosebud)



Heating tips melt up to three ounces of gold or silver.

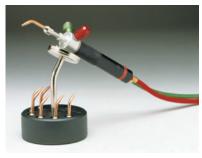
			Gas Pi	Gas Pressure (psi)		sumption (cfh)	
Stock Number	Length	Fuel Gas	Oxygen	Fuel Gas	Oxygen	Fuel Gas	Flame Average Btu/Hour
13-662	6 in. (153 mm)	Acetylene	15	10	6.0	5.5	7,900
		Hydrogen			5.5	11.0	3,300
		Propylene			2.3	0.5	1,100
13717	6 in. (153 mm)	Propane	15	10	5.0	2.4	5,300
		Natural gas	7	5	3.0	3.0	3,200

Note: Heating tips are not for use with disposable oxygen tanks.



<sup>\*</sup>Due to the extremely small orifice diameter tips No. 2 and 3, they are fitted with a laser-drilled synthetic sapphire to assure accurate gas flow and consistent flame characteristics.

# **Accessories and Replacement Parts**



# Magnetic Torch Stand and Tip Organizer 14014

Solid metal stand comes with holes drilled and numbered for No. 2–7 tips. Just a twist of the wrist removes the torch from the magnet. Magnetic clip mounts easily on the Little Torch body. Torch and tips sold separately.

### **Replacement Parts**



Little Torch™
11-1101C "B" 9/16"-18 hose fittings
11-1107 Australian hose fittings
11-1104C British hose fittings
11-1110 European hose fittings
Replacement torch with 8 ft. (2.4 m) oxygen and fuel hoses. Hoses come crimped onto torch



Little Torch™ Valve Assemblies 7345 Green, oxygen 7346 Red, fuel 7348 PTFE Valve Packing

handle with "B" regulator fittings.

Replacement valves control the flow of oxygen and fuel gas.



Cylinder Holder 13296

Disposable cylinder holder. Metal frame support tilts the disposable cylinders for proper use.





Preset Regulators 249-499B Oxygen 249-500B Propane Disposable cylinder regulators.





Reverse-Flow Check Valves H698
Regulator-mount check valves close automatically



### Covered Hoses (red/green)

13254-4-8 "B" 9/16"-18 hose fittings 13254-5-8 Australian hose fittings 13254-6-8 British hose fittings 13254-7-8 European hose fittings 8 ft. (2.4 m) length, 1/8 in. (3.2 mm) inside diameter. Each covered hose set includes two hose ferrules and one crimping tool.

# **Hose Fittings**



#### **Hose Nuts**

**16173** Oxygen "B" fitting, 9/16"-18 RH **16174** Fuel "B" fitting, 9/16"-18 LH For 1/8 in. (3.2 mm) inside diameter hose.



#### Hose Tailpiece 1882

Oxygen/fuel "B" fitting (barbed) for oxygen and fuel connections. For 1/8 in. (3.2 mm) inside diameter hose.



#### Hose Ferrule 7582-1

For oxygen and fuel hoses. Secures hose to torch. 3/16 in.

(5 mm) inside diameter. 9/32 in. (7 mm) length. Use crimping tool below to crimp ferrule onto torch hose.



## Crimping Tool 7799

Tool for crimping ferrule above to secure hose to torch.



# **Notes**



# **Notes**



# **Ordering Information**

Little Torch Kits	Stock No.	Description	Qty.	Price
Basic Little Torch™ Kits (Includes torch, curved tips and covered hoses)	23-1001D 23-1013A 239-047B 239-048A	With "B" hose fittings (fuel: 9/16"-18 LH, oxygen: 9/16"-18 RH) With Australian hose fittings (fuel: 5/8"-18 LH, oxygen: 5/8"-18 RH) With British hose fittings (fuel: G-3/8"-19 LH, oxygen G-3/8"-19 RH) With European hose fittings (fuel: G-3/8"-19 LH, oxygen: G-1/4"-19 RH)		
Little Torch™ with Regulators Kits (Includes torch, curved tips, covered hoses, check valves and regulators)	23-1003 23-1003B 23-1003P	With CGA 200 fuel regulator inlet connection for 10 cu. ft. "MC" cylinder With CGA 520 fuel regulator inlet connection for 40 cu. ft. "B" cylinder With CGA 510 fuel regulator inlet connection for larger propane/acetylene cylinders		
Little Torch™ for Disposable Tanks Kit (Includes torch, curved tips, covered hoses, regulators and cylinder holder)	23-1014	Can be used with disposable propylene or propane and oxygen cylinders (cylinders not included)		
Little Torch™ Caddy Kits (Includes torch, curved tips, covered hoses, check valves, regulators and carrier)	23-1004A 23-1015P 23-1010P	With 30-15-200 acetylene regulator, acetylene cylinder and plastic caddy carrier With 30-15-510 propane regulator, propane tank and powder-coated metal carrier With B preset propane regulator and plastic caddy carrier (LP tank NOT included)		
Tips		See page 4		
Accessories				
Magnetic Torch Stand and Tip Organizer	14014	Torch and tips sold separately		
Replacement Parts				
Little Torch	11-1101C 11-1107 11-1104C 11-1110	Includes torch and hoses. "B" 9/16"-18 hose fittings Includes torch and hoses. Australian hose fittings Includes torch and hoses. British hose fittings Includes torch and hoses. European hose fittings		
Little Torch Valve Assemblies	7345 7346 7348	Green, oxygen Red, fuel PFTE Valve Packing		
Plastic Caddy Carrier	13493	Replacement for 23-1004A kit		
Cylinder Holder	13296	Metal frame support tilts the disposable cylinders for proper use		
Preset Regulators	249-499B 249-500B	Oxygen. Can be used with 23-1014 Little Torch for Disposable Tanks kit Propane. Can be used with 23-1014 Little Torch for Disposable Tanks kit		
Reverse-Flow Check Valves	H698	Regulator mount		
Cylinders	0C20 2329E 13558	20 cu. ft. oxygen, 17.75 in. height / 5.25 in. diameter 10 cu. ft. "MC" acetylene, 14.5 in. height / 4.125 in. diameter 5 lb. propane, 12.5 in. height / 8 in. diameter		
Covered Hoses (red/green)	13254-4-8 13254-5-8 13254-6-8 13254-7-8	"B" 9/16"-18 hose fittings. 8 ft. (2.4 m) length, 1/8 in. (3.2 mm) inside diameter Australian hose fittings. 8 ft. (2.4 m) length, 1/8 in. (3.2 mm) inside diameter British hose fittings. 8 ft. (2.4 m) length, 1/8 in. (3.2 mm) inside diameter European hose fittings. 8 ft. (2.4 m) length, 1/8 in. (3.2 mm) inside diameter		
Hose Fittings				
Hose Nuts	16173 16174	Oxygen "B" fitting, 9/16"-18 RH Fuel "B" fitting, 9/16"-18 LH		
Hose Tailpiece	14186 1882	Oxygen/fuel "A" fitting (barbed) Oxygen/fuel "B" fitting (barbed)		
Hose Ferrule	7582-1	Secures hose to torch		
Crimping Tool	7799	Crimps ferrule to secure hose to torch		

Date: Total Quoted Price:

Distributed by:

