

Worldwide Corporate Headquarters

Master Appliance Corp. 2420 18th Street Racine, WI 53403-2381 U.S.A.

Sales/Customer Service: 800-558-9413 (US & Canada) Local and International: 262-633-7791 Fax: 262-633-9745

MasterAppliance.com Sales@MasterAppliance.com

For Master Appliance products contact:





# North America Product Catalog

## Welcome to Master Appliance<sup>®</sup>

Introduction



Master Appliance Corp. 2420 18th Street Racine, WI 53403-2381 U.S.A.

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Online: MasterAppliance.com Email: Sales@MasterAppliance.com

#### Master Appliance Corp. Designers and Manufacturers of Heat Tools for Industry

Located near the western shores of Lake Michigan in Racine, Wisconsin, Master Appliance invented and introduced the first industrial quality heat gun to the worldwide marketplace in 1958. In 1985, we introduced North America's first butane-powered, cordless soldering iron, torch and flameless heat tool, ideal for field use. These professional quality heat tools, and others developed since, have enjoyed worldwide market success. Today our products are used in thousands of facilities, workshops and in the field for drying, welding, shrinking, soldering, desoldering, gluing and for many other common and unique applications, where heat is the need.



#### Local Availability, Sales, Parts & Service

Master Heat<sup>®</sup> Tools are sold worldwide through a network of Authorized Stocking Distributors. Trained Sales and Customer Service Representatives, located at our headquarters and throughout the world, ensure fast personal service. Contact us for the name, address and telephone number of your nearest stocking distributor or sales representative. Visit our website for up-to-date information on products, accessories, parts, warranty and repair service.



#### Engineering, Design, Research and Development

Master is continually developing innovative new heat tool products with enhanced capabilities, making it easier to work with new materials and processes used throughout industry. Our Heat Tool Specialists use state-of-the-art technology to develop innovative new heat tools, which meet the needs of our customers for professional quality heat tools.



#### Manufacturing

Master Heat Tool products are made with superior, quality materials and the finest craftsmanship. Great designs and expert assembly, in a lean, efficient manufacturing setting, assure our customers maximum product quality, performance and value.

#### **01 Electric Heat Guns**

- 1 Master & Varitemp<sup>®</sup> Heat Guns
- 2 Master & Varitemp<sup>®</sup> Kits & Accessories
- 3 Master Deluxe Varitemp<sup>®</sup> Heat Gun
- 4 Proheat<sup>®</sup> Quick-Touch<sup>™</sup> & Dualtemp<sup>™</sup> Heat Guns & Kit
- 5 Proheat<sup>®</sup> Varitemp<sup>®</sup> Heat Gun & Kit
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- 2 High Performance Ultratip® Technology
- 3 Ultratorch® UT-40Si & UT-40SiH
- 4 Ultratorch® UT-50
- 5 Ultratorch<sup>®</sup> UT-100 & UT-100-TC
- 6 Ultratorch<sup>®</sup> UT-100Si, UT-100SiK & UT-100Si-TC
- 7 Ultratorch<sup>®</sup> UT-100 & UT-100Si Ultratips<sup>®</sup> and Accessories
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# Master Appliance<sup>®</sup>

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## 

## Master & Varitemp® Heat Guns





Master H	eat Gun							
Model No.	Description							Replacement Element
HG-201A	200-300°F	93-150°C	23 CFM	120V	60 Hz	5A	600W	HAS-042K
HG-301A	300-500°F	150-260°C	23 CFM	120V	60 Hz	12A	1440W	HAS-041K
IG-501A	500-750°F	260-400°C	23 CFM	120V	60 Hz	14A	1680W	HAS-011K
IG-751B	750-1000°F	400-540°C	23 CFM	120V	60 Hz	14.5A	1740W	HAS-043K
G-202A	200-300°F	93-150°C	23 CFM	220V	50 Hz	3A	600W	HAS-012K
IG-302A	300-500°F	150-260°C	23 CFM	220V	50 Hz	6A	1440W	HAS-013K
IG-502A	500-750°F	260-400°C	23 CFM	220V	50 Hz	7A	1680W	HAS-014K
HG-752A	750-1000°F	400-540°C	23 CFM	220V	50 Hz	9A	1980W	HAS-016K

M	Master Varitemp Heat Gun								
Mo	odel No.	Description						Replacement Element	
VT	-750C	Amb. to 1000°F/540°C	23 CFM	120V	60 Hz	14.5A	1740W	HAS-043K	
VT	-752C	Amb. to 750°F/400°C	23 CFM	220V	50 Hz	7A	1680W	HAS-014K	

## Specifications

- Air Volume: 23 CFM
- Air Velocity: 3000 FPM
- Motor: Universal
- Nozzle Opening: 1.2" I.D., 1.5" O.D.
- Cordset: 6 ft., 3-wire grounded
   Dimensions: 9" L x 5.2" W x 10.1" H
- Momentary Contact Switch 
   Tool Net Weight: 3.7 lbs.

• ...... 120V Models

- Shipping Weight Tool: 5 lbs.
- Shipping Weight Kit: 10 lbs.
- NOTE: Users should independently evaluate the suitability of the product for their application.

## Professional Quality, Heavy-duty, Multiple Use Heat Guns

Replacement

Heating Element

 High temperature and power ratings: up to 1000°F/540°C at 1740 watts

Rotating

Swivel Stand

- Varitemp model features variable temperature control which allows selection of temperatures from ambient to 1000°F/540°C
- High air flow rating: 23 CFM at 3000 FPM gets the job done fast
- Powerful high speed universal motor
- Sturdy die cast aluminum housing
- Double protected heating element housing

- Easily replaceable, reinforced, mica-insulated ceramic heating element
- Externally accessible carbon brush holders for quick replacement
- Three position "OFF-COLD-HOT" rocker switch
  Contoured, well balanced handle
- Non-slip rubber-backed base with 90° rotation
- 6 foot, 3-wire grounded cordset made with flexible, oil and sunlight resistant rubber jacket
- Use to shrink tubing and packaging, bend plastics, cure adhesives, dry and heat parts, strip paint, defrost frozen pipes, heat sensitive materials, solder/desolder and more
- Optional Momentary Contact Switch : Unit shuts off when switch is released. An option for Master Heat Gun models. To order add "MC" suffix to model number. Example: HG-501A-MC
- International Voltages Available: International voltage models with appropriate cordsets are available upon request. Contact our Sales Department for model numbers and availability.









Master Heat Gun Kit							
Model No.	Description						
HG-201AK	200-300°F	93-150°C	23 CFM	120V	60 Hz	5A	
HG-301AK	300-500°F	150-260°C	23 CFM	120V	60 Hz	12A	
HG-501AK	500-750°F	260-400°C	23 CFM	120V	60 Hz	14A	
HG-751BK	750-1000°F	400-540°C	23 CFM	120V	60 Hz	14.5A	

	Master Varitemp Heat Gun Kit									
	Model No.	Description								
	VT-750CK	Amb1000°F/540°C	23 CFM	120V	60 Hz	14.5A	1740W			

NOTE: Users should independently evaluate the suitability of the product for their application.

#### Solder/Desolder







# **Electric Heat Guns**

## Master & Varitemp® Kits & Accessories





51013 Rugged, plastic storage and carrying case for

HG & VT Heat Guns only



3/8" Pinpoint attachment



Glass protector attachment



51543 2-1/4" Spreader attachment



51544 7/8" Reducer attachment

600W 1440W 1680W 1740W

0.11					
Optional Accessories					
Part No.	Description				
A-160-HG	Shrink attachment for tubing up to 3/4" 0.D.				
A-170-HG	Shrink attachment for tubing 3/4" to 2" 0.D.				
35245	Three popular attachments				
30202*	Solder preform attachment				
51013	Molded storage carrying case				
51309*	3/8" pinpoint attachment				
51542	Glass protector attachment				
51543	2-1/4" spreader attachment				
51544	7/8" reducer attachment				

\* Not for use with HG-751B or HG-752A



## Add Versatility to Your HG & VT Model Heat Guns

- Professional quality stainless steel attachments
- Storage/carrying case protects heat gun and provides ample storage space for attachments
- Kits include a Master Heat Gun or Varitemp Heat Gun, A-160-HG shrink attachment, 51543 spreader attachment and 51544 reducer attachment packed in a rugged, plastic storage/carrying case







PH-1100K Proheat Dual Temperature Heat Gun with rugged storage case and 2 attachments (35016 & 35017)

Proheat Quick-Touch Heat Gun (with momentary contact switch)								
Model No.	Air Temp.	Air Velocity	Air Volume					
PH-1000	1000°F	4000 FPM	16 CFM	12				

Proheat Dualtemp Heat Gun								
Model No.	Air Temp	Air Velocity	Air Volume					
PH-1100	500° or 1000°F	4000 FPM	16 CFM	12				
PH-1100K	PH-1100 Heat Gun with storag	e case and 2 attachr	ments ( <b>35016</b> & <b>35</b>	017				

#### **Quick-Touch & Dual Temperature Heat Guns**

- Compact, lightweight, easy-to-use
- Balanced ergonomic design prevents operator fatigue Two heat settings 500°F or 1000°F (260°C or 540°C)
  - is released

# **Electric Heat Guns**

## Proheat<sup>®</sup> Quick-Touch<sup>™</sup> & Dualtemp<sup>™</sup> Heat Guns & Kit





Quality attachments for professional applications



35336 Proheat Nozzle Guard



#### Specifications

- Motor: Permanent Magnet
- Nozzle Opening: .88" I.D., 1.31" O.D.
- Cordset: 6 ft., 3-wire grounded
- Dimensions: 8.2" L x 3.0" W x 7.3" H
- 👞 120V Models
- Momentary Contact Switch (20)
- Tool Net Weight: 1.6 lbs.
- Shipping Weight Tool: 3 lbs.
- Shipping Weight Kit: 7 lbs.
- **NOTE:** Users should independently evaluate the suitability of the product for their application.

Base provides built-in stand for hands-free use

- Protective hand/switch guard and hanging loop
- New Quick-Touch PH-1000 has Momentary
- Contact Switch unit shuts off when switch
- · Use to activate adhesives, bend plastics, dry filler material, shrink tubing and more
- Make your Proheat even more versatile. See our wide variety of professional quality attachments & accessories (page 12)

## 0 1 5

# **Electric Heat Guns**

#### Proheat<sup>®</sup> Varitemp<sup>®</sup> Heat Gun & Kit





**PH Series** 

PH-1200K Proheat Varitemp Heat Gun with rugged storage case and 5 specialty attachments

Quality attachments for professional applications

PH-1200-1 Bench-Top Heat Shrink System

Proheat Va	roheat Varitemp Heat Gun								
Model No.	Air Temp.	Air Velocity	Air Volume						
PH-1200	130°-1000°F/50° - 540°C	4000 FPM	16 CFM	120V	60 Hz	11A	1300W		
PH-1200K	PH-1200 Heat Gun with storage case and all 5 attachments (Part No. 35309) see page 12 for details								
PH-1200-1	PH-1200 Heat Gun with bench	stand (35216) and	specialty connector	attachment	( <b>35292</b> )				

#### **Specifications**

Proheat

Nozzle Guard

- Motor: Permanent Magnet
- Nozzle Opening: .88" I.D., 1.31" O.D.
- Cordset: 6 ft., 3-wire grounded
- **Dimensions:** 8.2" L x 3.0" W x 7.3" H
- Tool Net Weight: 1.6 lbs.
- Shipping Weight Tool: 3 lbs.
- Shipping Weight Kit: 7 lbs.
- **NOTE:** Users should independently evaluate the suitability of the product for their application.

#### **Dial-in Variable Temperature Heat Gun**

- Compact, lightweight, easy-to-use
- Balanced ergonomic design prevents operator fatigue
- Variable temperature from 130° 1000°F (50° 540°C)
  - Base provides built-in stand for hands-free use

from overheating

Protective hand/switch guard and hanging loop

Electronic closed loop temperature control system

maintains constant temperature and protects unit

- Use to heat temperature sensitive materials including specialty connectors, solder preforms, shrink tubing
- Make your Proheat even more versatile. See our wide variety of professional quality attachments & accessories (page 12)



PH-1400K Proheat LCD Dial-in Heat Gun with rugged storage case and 5 specialty attachments

Proheat LCD Dial-in Heat Gun							
Model No.	Air Temp.	Air Velocity	Air Volume				
PH-1400	130° - 1000°F/50° - 540°C	737 - 4000 FPM	4 - 16 CFM	12			
PH-1400K	PH-1400 Heat Gun with storag	e case and all 5 atta	chments (Part No. <b>3</b>	530			

#### **Dial-in Variable Temperature and Airflow LCD Heat Gun**

- Compact, lightweight, easy-to-use
- LCD with digital display of temperature and air flow settings
- Dial-in temperatures in 10° increments from 130° 1000°F (50° - 540°C) displayed in degrees Fahrenheit or Celsius
- Proloc Magnetic key provided with every unit locks controls to prevent changing of temperature and airflow
- Electronic closed-loop temperature control system maintains constant temperature when varying air flow
- or using specialty attachments
- Base functions as built-in stand for hands-free use
- Power-interrupt Reset feature prevents unattended heat gun from resuming heat after a power failure

# **Electric Heat Guns**

## Proheat<sup>®</sup> LCD Dial-in Heat Gun & Kit



- Adjustable air flow from 4 to 16 CFM
- Use to heat or dry temperature sensitive materials, shrink tubing, shrink packaging and specialty connectors, solder and desolder, bend plastics, activate adhesives, remove decals, defrost frozen pipes and more
- Make your Proheat even more versatile. See our wide variety of professional quality attachments & accessories (page 12)









Welding Flooring Material

A Complete Plastic Welding System

• The Master Proheat Plastic Welding Kit makes fabricating and repairing thermoplastics

fast and simple. Each kit is a self-contained, general purpose plastic welding system

with everything needed for hot air welding a wide variety of thermoplastic materials:

rigid and flexible plastics, auto bumpers, tarps, liners, covers, tents, inflatables and

more. The kit includes practice welding rod and instruction manual.

Pendulum Welding



Speed Welding





• The heart of the system is the Master Proheat LCD Model PH-1400 Dial-in Electric Heat Gun. Dial-in control lets you set both temperature and airflow. Once the proper temperature and airflow for a specific welding application is determined, it can be "locked-in" and saved for use again and again with the exclusive, innovative magnetic key lock-in feature. An electronic control system prevents over-heating when the heat gun is used with special welding attachments.



PH-1500K Proheat LCD Programmable Heat Gun with rugged storage case and 5 specialty attachments

Proheat LC	Proheat LCD Programmable Heat Gun								
Model No.	Air Temp.	Air Velocity	Air Volume						
PH-1500	130° - 1000°F/50° - 540°C	737 - 4000 FPM	4 - 16 CFM	120V	60 Hz	11A			
PH-1500K	PH-1500 Heat Gun with storag	e case and all 5 atta	chments (Part No. <b>3</b>	<b>5309</b> ) see p	age 12 for	details			

## Six Programmable Temperature & Air Flow Settings with LCD Display

- Use to heat or dry temperature sensitive materials, shrink tubing, shrink packaging and specialty connectors, solder and desolder, bend plastics, activate adhesives, remove decals, defrost frozen pipes and more
- Compact, lightweight, easy-to-use
- Six programmable settings with digital display of temperature and air flow
- Program temperature in 10° increments from 130° to 1000°F (50° - 540°C) in your choice of degrees Fahrenheit or Celsius

# **Electric Heat Guns**

## Proheat<sup>®</sup> LCD Programmable Heat Gun & Kit



- Motor: Permanent Magnet
- Nozzle Opening: .88"I.D., 1.31" O.D.
- Cordset: 6 ft., 3-wire grounded
- Dimensions: 8.2" L x 3.0" W x 7.3" H
- 🐵 120V Models
- Tool Net Weight: 1.6 lbs.
- Shipping Weight Tool: 3 lbs.
- Shipping Weight Kit: 7 lbs.
- **NOTE:** Users should independently evaluate the suitability of the product for their application.
- Base provides built-in stand for hands-free use

1300W

- Ergonomic handle provides balanced grip
- Power-interrupt Reset feature prevents unattended heat gun from resuming heat after a power failure
- Electronic closed loop temperature control system maintains constant temperature when varying air flow or using specialty attachments
- Temperature & Air Flow Lock-In feature provides added management control.
- Make your Proheat even more versatile. See our wide variety of professional quality attachments & accessories (page 12)





Proheat<sup>®</sup> Heat Gun Attachments & Accessories

Professional quality attachments and accessories add versatility to your Proheat Heat Guns. Direct, concentrate or reflect heat to allow more versatile and precise applications for your heat tool.

->>

35270\*

3/4" (20 mm)

Reduction Nozzle

Concentrated air flow

#### **Reducer Attachments**



3/8" (9 mm) Reducer Concentrates air flow Also used with weld tips







**Deflector Attachments** 

35264\* 3/8" (9 mm) ector, Shrink Attachmen For shrinking small

35293\*

5/8" (14 mm) Reducer

Provides concentrated

air flow



**Accessories** 

various applications

35296\*

3/4" (20 mm)

Lap Welding Nozzle

For lap welding plastic

materials, use with 3/8" reducer

solder & crimp connectors

35261 3" (75mm) Large Reflector For shrinking large Reflects air around surface's diameter tubing

35260

2" (50mm) Spreader Nozzle

Spreads air evenly over

wide area

35017

such as tubing or pipe



```
Attachment Kit
Kit of 5 most popular
   attachments
```

35016

3" (75 mm) Spreader

Spreads air evenly over

wide area

**Attachment Kit** 



diameter tubing

Deflects heat away

from windows

35271\*

Tacking Tip

For tacking parts together prior

to welding so they will not

move, use with 3/8" reducer

35262 2" (50mm) Window Nozzle Deflecto Deflects heat away from windows

35295\*

Plastic Welding

Rod Nozzle w/ 7mm intake

For use with welding rod.

use with 3/8" reducer

Welding Attachments



35216 Bench Stand To position guns for

35291 Seam Boller with ball bearings For lap welding, edging tape

and roofing applications

35266\*

1 1/2" 40mm

Angle Slit Nozzle

Lap welds roofing

materials

35336 Nozzle Guard To protect hands and surface from hot nozzle tip

35351 Storage Case Transport & store in a rugged plastic case



35267\* 3" (75mm) Teflon Coated Butt Welding Heat Disc For butt welding

**PVC** pipes



Lap Welding Slit Nozzle For lap welding PVC Sheeting





35301 HDPE Welding Rod High Density Polyethylene, for welding HDPE plastics

Model No.	Description	PH-1000	PH-1100	PH-1200	PH-1400	PH-1500	PH-1600	PH-1610*
Reducer & Sprea	der Attachments							
35294	3/8" (9MM) Reducer			•	•	•		•
35293	5/8" (14mm) Reducer			•	•	•		•
35270	3/4" (20mm) Reducer			•	•	•		•
35260	2" (50mm) Spreader	•	•	•	•	•		•
35016	3" (75mm) Spreader	•	•	•	•	•		•
Reflector Attachn	nents							
35272	3/8" (9MM) Reflector			•	•	•		•
35264	3/8" (9MM) Reflector w/ Reducer			•	•	•		•
35292	5/8" (14mm) Specialty Connector			•	•	•		•
35261	3" (75mm) Large Reflector	•	•	•	•	•		•
35017	1 1/4" Shrink	•	•	•	•	•		•
Attachment Kit								
35309	Attachment Kit - 5 Items			•	•	•		•
Deflector Attachn	nents							
35262	2" (50mm) Window Glass Deflector	•	•	•	•	•		•
35263	3" (75mm) Window Glass Deflector	•	•	•	•	•		•
Welding Tips								
35295	7mm Rod, Speed Welding Tip			•	•	•		•
35271	Tacking Tip			•	•	•		•
35296	3/4" (20mm) Lap Welding			•	•	•		•
35266	1 1/2" (40mm) Angle Slit Attach.			•	•	•		•
35267	3" (75mm) Teflon Butt Weld Disk			•	•	•		•
35268	1 1/2" (40mm) Lap Welding Tip			•	•	•		•

\* Nozzle Sensing Mode Only

_		
_		
	35297	
	00201	
	nnihloW 284	Rod

Welding Rods (Pkg. of 16) Round, 1/8" Dia. x 9" Long

Acrylonitrile Butadiene Styne, Natural, for welding ABS plastics

12 MasterAppliance.com 800.558.9413



PP Welding Rod Polypropylene, Natural, for welding PP plastics

35299 PVC Welding Rod Polyvinyl Chloride, Grey, for welding PVC plastics

35300 LDPE Welding Rod Low Density Polyethylene, Natural, for welding LDPE plastics

# **Electric Heat Guns**

## Proheat<sup>®</sup> Heat Gun Attachment Compatibility

#### Professional quality stainless steel attachments add versatility to your Proheat.

Reduce, concentrate, pinpoint, spread, reflect or weld, attachments enable the precise application of heat to your job. These Attachments & Tips can be used on the following Models:



## Proheat<sup>®</sup> STC<sup>™</sup> Heat Gun



Master Pr	oheat STC Heat Gun						
Model No.	Air Temp.	Air Velocity	Air Volume				
PH-1600	90 - 500°F/40 - 270°C	4000 FPM	4 - 16 CFM	120V	60 Hz	11A	1300W
PH-1600K	PH-1600 Heat Gun with stor	age case					
<b>Optional A</b>	ccessories – Master P	roheat STC an	d STC Dual M	ode (Pag	e 12) He	at Guns	;
Part No.	Description						
35542	Master Proheat STC storage,	Master Proheat STC storage/carrying case					
35337	Master Proheat STC nozzle g	juard					

#### Master Proheat STC Surface Temperature Control Heat Gun

- Surface temperature range: up to 500°F/270°C at 1300 watts
- Unique Laser Targeting System<sup>™</sup> provides accurate temperature measurement
- Surface temperature displays on the bottom row of the LCD and target temperature displays on top row

- **Specifications**
- Motor: Permanent Magnet
- Nozzle Opening: .88" I.D., 1.31" O.D. Cordset: 6 ft., 3-wire grounded
- Dimensions: 8.2" L x 3.0" W x 7.3" H
- 🕸 120V Models
- Tool Net Weight: 1.6 lbs.
- Shipping Weight Tool: 2 lbs. 10oz.
- Shipping Weight Kit: 3. lbs. 14oz.
- **NOTE:** Users should independently evaluate the suitability of the product for their application.
- Enables you to work in upper limits of the cure zone to • Temperature display in either degrees Celsius bring surfaces up to temperature fast

Proloc locking system prevents changing of

- Green, yellow and red LED lights indicate progress in

temperature and airflow

heating process

- or Fahrenheit
  - Regulates heater to maintain target temperature
  - · Avoids overheating or burning heat sensitive materials
  - Built-in hanging loop for storage in production area



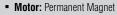
master Pro	Master Proneat STC Dual Mode Heat Gun – STC Mode								
Model No.	Air Temp.	Air Velocity	Air Volume						
PH-1610	90 - 500°F/40 - 270°C	4000 FPM	4 - 16 CFM	120V					
PH-1610K	PH-1610 Heat Gun with storag	e case							
Master Pro	heat STC Dual Mode He	eat Gun – Stan	dard Mode						
Model No.	Air Temp.	Air Velocity	Air Volume						
PH-1610	170-1000°F/80-540°C	4000 FPM	4 - 16 CFM	120V					
PH-1610K	PH-1610 Heat Gun with storage case								

## Master Proheat STC Surface Temperature Control Heat Gun

- Surface temperature range: up to 500°F/270°C at 1300 watts when used in STC Mode, and up to 1000°F/540°C at 1300 watts when used in Standard Mode
- Easily switch from STC Mode to Standard Mode and vice versa
- Unique Laser Targeting System<sup>™</sup> provides accurate temperature measurement
- Surface temperature displays on the bottom row of the LCD and target temperature displays on top row in STC Mode
- on bottom
- Standard mode allows for use of Master's professional quality attachments (18 attachment available)
- Enables you to work in upper limits of the cure zone to bring surfaces up to temperature fast

# **Electric Heat Guns**

## Proheat<sup>®</sup> STC<sup>™</sup> Dual Mode Heat Gun



- Nozzle Opening: .88" I.D., 1.31" O.D.
- Cordset: 6 ft., 3-wire grounded
- Dimensions: 8.2" L x 3.0" W x 7.3" H
- 🐠 120V Models
- Tool Net Weight: 1.6 lbs.
- Shipping Weight Tool: 2 lbs. 10oz.
- Shipping Weight Kit: 3 lbs. 14oz.
- NOTE: Users should independently evaluate the suitability of the product for their application.

 In Standard Mode target temperature is displayed on top, actual nozzle temperature is displayed

60 Hz 11A

60 Hz 11A 1300W

1300W

- Proloc locking system prevents changing of temperature and airflow
- · Green, yellow and red LED lights indicate progress in heating process while in STC Mode
- Temperature display in either degrees Celsius or Fahrenheit
- Regulates heater to maintain target temperature
- · Avoids overheating or burning heat sensitive materials



#### Ecoheat<sup>®</sup> Heat Gun & Kit



#### **Specifications**

14

- Air Volume: 7 or 9 CFM
- Air Velocity: 720 or 1100 FPM
- **Motor:** Permanent Magnet
- Nozzle Opening: 1.2" I.D., 1.35" O.D.
- Cordset: 6 ft., 3-wire grounded
- Tool Net Weight: 2 lbs. • Shipping Weight Tool: 3 lbs.
- Shipping Weight Kit: 5 lbs.

I20V Models

• Dimensions: 8.5" L x 3.2" W x 7.7" H

NOTE: Users should independently evaluate the suitability of the product for their application.

#### Masterflow<sup>®</sup> Heat Blower



Creations	
Specifications	
Air Volume: 47 CFM	Dimensions: 12" L x 6" W x 9" H
Air Velocity: 2200 FPM	■ @ All Models
Motor: Induction	Base Size: 6" x 6"
• Nozzle Opening: 1.85" I.D., 2.25" O.D.	Net Weight: 6 lbs.
Cordset: 6 ft., 3-wire grounded	Shipping Weight: 8 lbs
<b>NOTE:</b> Users should independently evaluate to	he suitability of the product for their application

#### Economical, Lightweight, Multi-use Heat Gun

Two heat settings: 500°F or 1000°F (260°C or 540°C)

operator fatigue

knocks and bumps

• Two fan speeds - Low or High (7 or 9 CFM)

angle for long periods of time, eliminates

Built-in hand guard - Protects hand and

fingers. Recessed switch guards against

Lightweight - 1 lb. - Easy to hold at any

- Thermoplastic housing For high impact durability
- Built-in stand Very stable, allows user to set heat gun down in an upright position for hands-free use
- Use to bend and form plastics, dry body fillers, remove decals, spot dry paint, shrink tubing, packaging and more
- 3-wire arounded cordset Positive grounding system for user safety

Ecoheat Heat Gun & Kit								
Model No.	Description							
EC-100	500° or 1000°F 260° or 540°C 7 or 9 CFM 120V 60 Hz 10A 1200W							
EC-100K	Kit includes EC-100 Heat Gun, 7/8" reducer attachment, 1-1/4" shrink tubing reflector, 1-15/16" and 3-1/8" spreader attachments packed in a durable storage/carrying case							
35225	Attachment kit contains 7/8" reducer attachment, 1-1/4" shrink tubing reflector, 1-15/16" and 3-1/8" spreader attachments							
35215	Durable storage/carrying case							

#### Professional Quality, Continuous-duty, Process Heat Blower

- 3 models produce 300°F, 500°F or 750°F. High temperatures accommodate many heating, drying & shrinking applications
- High air flow: 47 CFM at 2200 FPM gets job done fast
- Brushless induction type motor for quiet, continuous-duty operation
- Easily replaceable, reinforced, mica-insulated heating element

 Rubber-backed stand permits 90° non-slip adjustability

- Use in any position or mount on equipment
- Ergonomic handle for carrying or portable use
- Mount over conveyor line or on machinery
- Use to heat or dry materials, bend plastics, shrink wrap and more

Ecoheat H	leat Gun	& Kit					
Model No.	Descript	ion					Replacement Element
AH-301**	300°F	150°C	120V	60 Hz	10A	1200W	<b>815</b> (3.5"), <b>35485</b> (6")
AH-501	500°F	260°C	120V	60 Hz	14A	1680W	30310
AH-751*	750°F	400°C	120V	60 Hz	18A	2160W	30312
AH-302**	750°F	400°C	240V	60 Hz	5.2A	2160W	<b>816</b> (3.5"), <b>35486</b> (6")
AH-502	500°F	260°C	240V	60 Hz	7.3A	1680W	30311
AH-752	750°F	400°C	240V	60 Hz	9.4A	2160W	30313

\*\* 815 and 816 Element for 3.5" Nozzle, 35485 and 35486 Element for 6" Nozzle.

Master-Mite Heat Gun							
Model No.	Descrip	tion					
10008	650°F	343°C	120V	60 Hz	4.5A	475W	
10009	650°F	343°C	220V	50 Hz	2.0A	450W	

Optional Replacement Heating Elements					
Part No.	Descript	ion			
20012	Blue	500°F	260°C	120V	340W
20013	Silver	650°F	343°C	120V	475W
20014	Black	800°F	427°C	120V	525W
20033	Blue	500°F	260°C	220V	400W
20034	Silver	650°F	343°C	220V	450W
20035	Black	800°F	427°C	220V	500W
20160	Blue	500°F	260°C	240V	400W
20161	Silver	650°F	343°C	240V	450W
20162	Black	800°F	427°C	240V	500W

Master-M	ite ESD	Heat Gu	in			
Model No.	Descrip	tion				
10012	800°F	427°C	120V	60 Hz	4.5A	525W
Optional F	Replace	ment He	ating Ele	ements		
Part No.	Descrip	tion				
20012	Blue	500°F	260°C	120	VC	340W
20012 20013	Blue Silver	500°F 650°F	260°C 343°C	120 120		340W 475W

Specifications	
• Air Volume: 3.8 CFM	Housing Static Decay:
Air Velocity: 700 FPM	5000V to <50V <0.01 sec
<ul> <li>Motor: Shaded Pole</li> </ul>	Housing Surface Res.:
Nozzle Opening: .99" I.D.,	<500 ohms/sg.
1.03 O.D."	I20V Models
• Cordset: 6 ft., 3-wire grounded	Net Weight: 1.75 lbs.
Dimensions:	Shipping Weight: 3 lbs.
8.8" L x 3.3" W x 7" H	
NOTE: Users should independently e	valuate the suitability of the product
for their application.	

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# **Electric Heat Guns**

## Master-Mite<sup>®</sup> Heat Gun

#### Continuous-duty **Bench-top Heating System**

- Complete system comes standard with 650°F/343°C heating element, adjustable stand and heat shrink attachment
- Quiet-running shaded pole motor, eliminates noisy production areas
- 3 optional easyto-change plug-in heating elements available: 500°, 650° & 800°F
- Ideal heat & air flow (3.8 CFM), performs benchtop heating jobs without blowing components around the work station
- Use to activate adhesive cure epoxies, dry components, melt solder preforms, remove decals, shrink tubing and more





#### **Specifications**

Optional Accessories

Share 1

40060

Heat

shrink

attachment

Ċ

50675

Bench

stand

1.5

30201

Solder

preform

attachment

40061

1/4"

pinpoint

attachment

• Air Volume: 3.8 CFM - Air Velocity: 700 FPM • Motor: Shaded Pole • Nozzle Opening: .99" I.D., 1.03 O.D." - Cordset: 6 ft., 3-wire grounded

- Dimensions: 8.8" L x 3.3" W x 7" H
- Net Weight: 1.7 lbs.
- Shipping Weight: 3 lbs.

NOTE: Users should independently evaluate the suitability of the product for their application.

## Master-Mite<sup>®</sup> ESD Heat Gun



## **Continuous-duty ESD Bench-top Heating System**

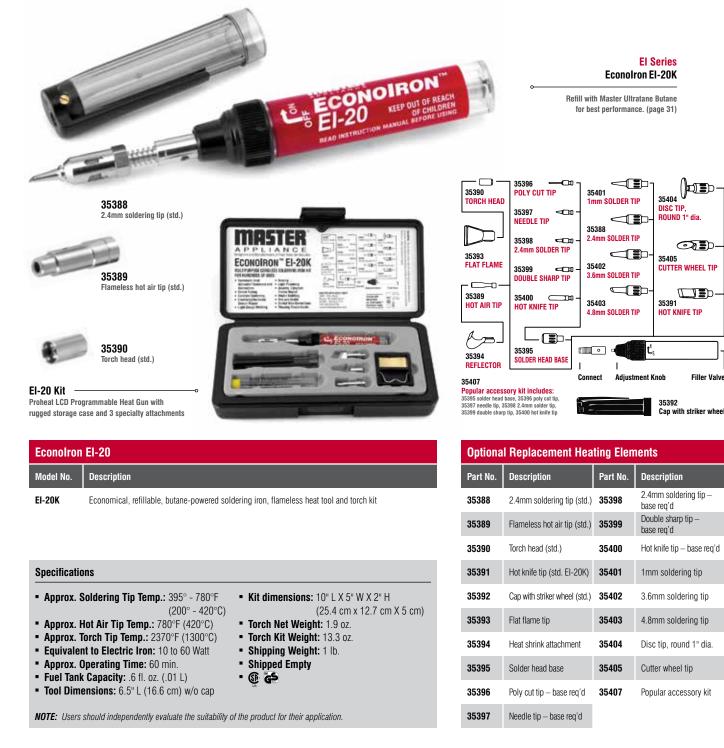
- · Complete system comes standard with black 800°F/427°C heating element, shrink attachment and adjustable stand
- Totally grounded system with housing surface conductivity 500 ohms square. Conductive housing will not build up or hold a static charge
- Housing helps to shield against EMI & RFI (electromagnetic & radio frequency interference)
- Quiet-running, maintenance free shaded pole motor
- · Low velocity air flow will not blow components around the workstation
- 3 optional interchangeable plug-in heating elements available
- Complete line of attachments available
- Use to activate adhesive, cure epoxies, dry components, melt solder preforms, remove decals, shrink tubing and more



# **Butane-Powered Soldering Irons**

Econolron<sup>®</sup> EI-20 Kit

0 2



#### Economical, Butane-powered Soldering Iron, Flameless Heat Tool & Torch Kit

- Standard with soldering tip, hot air tip and torch tip
- Kit contains tool, soldering tip, hot air tip, torch tip, hot knife tip, coil of 60/40 solder, sponge and tool stand packed in rugged plastic storage case
- Completely portable, lightweight and easy to handle
- Temperatures up to 2370°F/1300°C
- Ignite tool with flint lighter built into the cap
- Use to pinpoint flameless heat, silver solder, solder and desolder, heat shrink tubing and environmental connectors, strip insulation and cut plastics with hot knife tip, use as an open flame torch and more

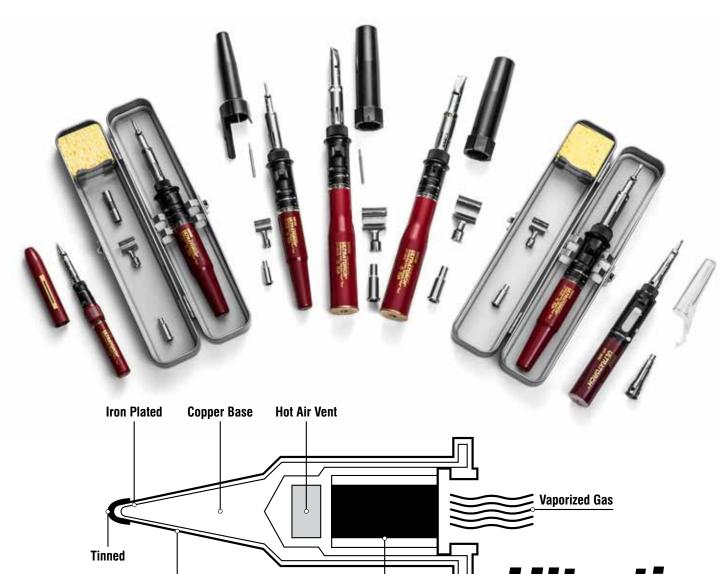
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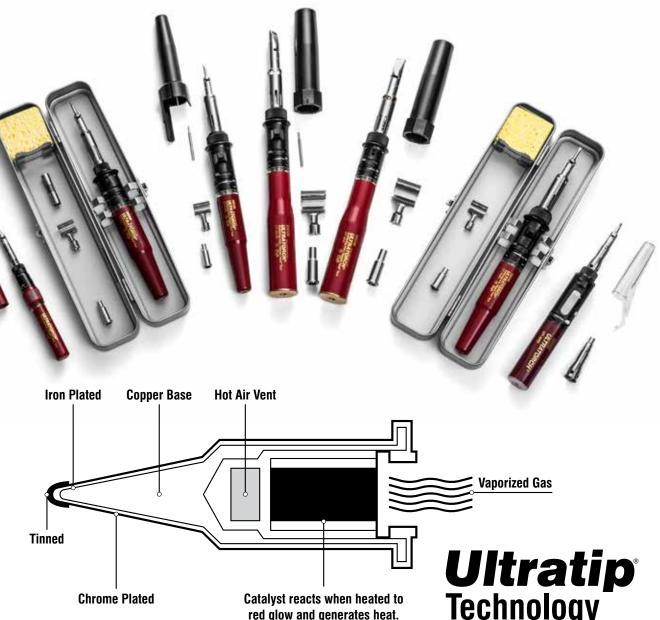
Filler Valv

UTTER WHEEL TIP

SC TIP

OUND 1" dia





#### Longer Tip Life, Superior Thermal Conductivity

Master Appliance Ultratorch® heat tools feature Ultratip soldering tips. Ultratip is the long lasting, oxygen-free, copper based, iron and chrome plated soldering tip with a built-in catalyst, tinned with lead-free solder.

Ultratorch heat tools, with Ultratip Technology, are perfect for use with today's lead-free solders. In fact, Ultratip soldering tips have more than double the iron and chrome plating thickness of our competitors' brass based tips, providing higher thermal conductivity and much longer tip life.

on the joint.

Technology

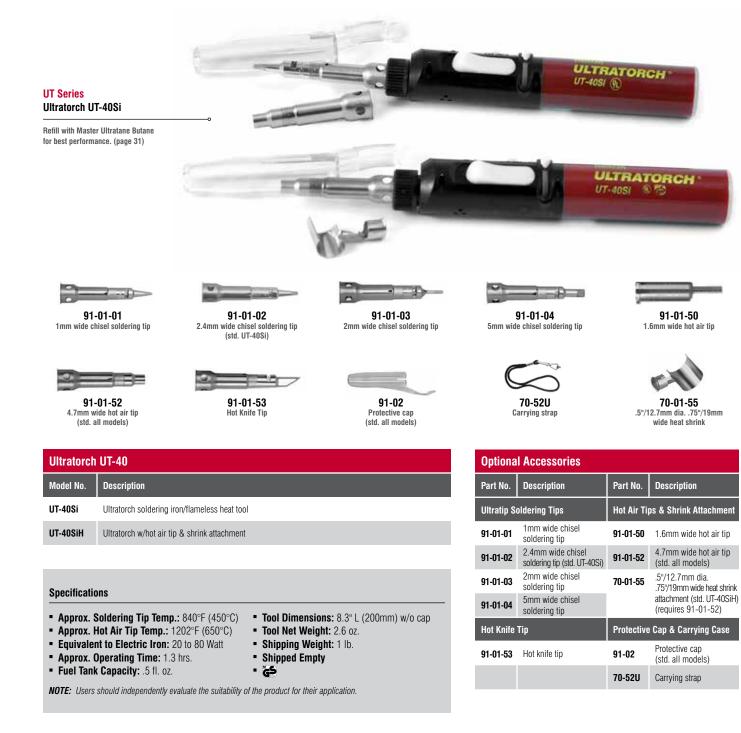
#### **Tips for Lead-Free Hand Soldering**

Because hand soldering tends to be done at the end of the line, where the value of a board is at its highest, switching to lead-free solder may have a significant effect on your manufacturing yields, costs and productivity. Simply increasing tip temperature is not the answer because it can cause flux to evaporate before it's had time to activate.

The keys to success here are tip material, tip shape, tip condition, the soldering iron's power output and it's time By choosing the tip shape closest to the component you're soldering, and always selecting the largest tip, you'll transfer heat more efficiently at lower settings. We offer a wide selection of tips for your applications.

Since lead-free solder's higher tin content erodes the tip's iron plating faster, Ultratip's thicker iron and chrome plating will significantly extend the tip life. Cleaning your tips often and immediately re-tinning them will also keep them in top condition longer.

## Ultratorch<sup>®</sup> UT-40Si & UT-40SiH



#### Professional Quality, Economical, Self-igniting Soldering Iron & Flameless Heat Tool & Kit

• Standard with Ultratip<sup>®</sup> soldering tip, hot air tip and protective cap

Adjustable temperature lever for temperatures up to 1202°F

Convenient slide switch ignition system for

- Equivalent to a 20-80 watt electric soldering iron
  - Compact size, lightweight and completely portable, features a rugged, easy-to-hold plastic body
  - Patented gas catalyst reaction system
- · Use to pinpoint heat, remove surface mount components, repair vinyl, heat shrink tubing, solder & desolder, spot dry, strip insulation with hot knife and more

71-01-02

2.4mm dia. chisel tip

(standard)

71-01-01 1mm dia. tapered needle tip

71-01-03 2mm dia. spade tip

Ultratorch	Ultratorch UT-50	
Model No.	Description	
UT-50	Butane-powered soldering iron, flameless heat tool and torch	

#### Specifications

- Approx. Soldering Tip Temp.: 392° 842°F (200° - 450°C) Tool Dimensions: 6.5" L (165mm) • Approx. Hot Air Tip Temp.: 806°F (430°C) Net Weight: 2.2 oz Approx. Torch Tip Temp.: 2372°F (1300°C) • Shipping Weight: 1 lb. • Equivalent to Electric Iron: 20 to 60 Watt Shipped Empty
- Approx. Operating Time: 20 min.

NOTE: Users should independently evaluate the suitability of the product for their application.

## Professional Quality, Pen-sized Butane-powered Soldering Iron, Flameless Heat Tool and Torch

- Standard with Ultratip<sup>®</sup> soldering tip, hot air tip and protective cap
- fuel level

• 🛃 🐠

- Pen-sized heat tool fits in your shirt pocket for absolute portability

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quick ignition

# **Butane-Powered Soldering Irons**



Aluminum fuel tank with viewing window to indicate

Optional tips and accessories available

- Operates for approximately 20 minutes on a full charge
- Use to pinpoint heat, remove surface mount components, repair vinyl, heat shrink tubing, solder and desolder, spot dry, torch materials and more

**EMASTER** 21



UT Series Ultratorch UT-100-TC

Includes heat tool, 3 soldering tips, flameless hot air and open flame torch tips, hot knife, solder, wire cutter, needle nose pliers and cap in a rugged storage/carrying case







Solder

Torch

Ultratorch UT-100		Specifications	
Model No.	Description	<ul> <li>Approx. Soldering Tip Temp.:</li> </ul>	<ul> <li>Approx. Operating Time: 120 min.</li> </ul>
UT-100-TC	Includes Ultratorch, three Ultratip soldering tips: 70-01-02, 70-01-05, 70-01-11, hot air tip: 70-01-52, shrink attachment: 70-01-55, hot knife: 70-01-16, torch ejector 70-07TU, ejector, sponge, cap, solder, wire cutter and needle nose pliers packed in a rugged plastic carrying case	<ul> <li>392° - 932°F (200° - 500°C)</li> <li>Approx. Hot Air Tip Temp.: 1112°F (600°C)</li> <li>Approx. Torch Tip Temp.: 2372°F (1260°C)</li> </ul>	<ul> <li>Fuel Tank Capacity: 1 fl. oz. (28 cc)</li> <li>Tool Dimensions: 9.5" L (242mm)</li> <li>Tool Net Weight: 3.7 oz.</li> <li>UT-100 Shipping Weight: 1 lb.</li> <li>UT-100-TC Shipping Weight: 3 lbs.</li> </ul>
UT-100	Includes Ultratorch, Ultratip soldering tip: 70-01-02, hot air tip: 70-01-52, shrink attachment: 70-01-55, torch ejector 70-07TU, ejector, sponge and steel case	Equivalent to Electric Iron: 20 to 80 Watt NOTE: Users should independently evaluate	<ul> <li>Shipped Empty</li> <li>Some</li> <li>the suitability of the product for their application.</li> </ul>

Soldering temperature up to 932°F, ideal for use

• Hot air temperature up to 1202°F, perfect for

Sturdy metal tank with fuel viewing window holds

Torch temperatures up to 2372°F/1260°C

enough fuel for 2 hours of operation

Use to pinpoint heat, remove surface mount

Solderseal<sup>™</sup> environmental "heat and seal" connectors

with today's lead-free solder

## Butane-powered Soldering Iron, Flameless Heat Tool and Torch

- Triple function soldering iron, flameless heat tool and brazing torch
- Features oxygen-free, copper based Ultratip<sup>®</sup> soldering tips, with thick iron and chrome plating for long life and high thermal conductivity
- Cordless and completely portable, ready-to-use in 30 seconds
- Adjustable temperature control

- components, repair vinyl, heat shrink tubing, solder and desolder, spot dry, torch materials and more
- Refill with Master Ultratane Butane for best performance (page 31)
- Optional accessories available and interchangeable between UT-100 & UT100Si (page 24)



Includes heat tool, 3 soldering tips and flameless hot air tip, hot knife, solder, wire cutter, needle nose pliers and cap in a rugged storage/carrying case

Ultratorch UT-100Si	
Model No.	Description
UT-100Si	Includes Ultratorch, Ultratip soldering tip: 70-01-02, hot air tip: 70-01-52, shrink attachment: ejector and cap
UT-100SiK	Includes Ultratorch, Ultratip soldering tip: 70-01-02, hot air tip: 70-01-52, shrink attachment: 70-01-55, ejector, sponge and steel case
UT-100Si-TC	Includes Ultratorch, three Ultratip soldering tips: 70-01-02, 70-01-05, 70-01-11, hot air tip: 70-01-52, shrink attachment: 70-01-55, hot knife: 70-01-16, ejector, sponge, cap, solder, wire cutter and needle nose pliers packed in a rugged plastic carrying case
UT-100Si-HK	Includes Ultratorch, hot knife: 70-01-16, ejector and cap

#### Professional Self-igniting Butane-powered Soldering Iron, Flameless Heat Tool & Torch

- Triple function, self-igniting soldering iron, flameless heat tool and torch
- Features oxygen-free, copper based Ultratip® soldering tips, with thick iron and chrome plating for long life and high thermal conductivity
- Cordless and completely portable, ready-to-use in 30 seconds
- Self-ignition with push button for fast, easy starting

connectors

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# **Butane-Powered Soldering Irons**

## Ultratorch<sup>®</sup> UT-100Si, UT-100SiK & UT-100Si-TC

**UT Series** Ultratorch UT-100SiK



**NOTE:** Users should independently evaluate the suitability of the product for their application.

Adjustable temperature control

- Soldering temperature up to 932°F, ideal for use with today's lead-free solder
- Hot air temperature up to 1202°F, perfect for Solderseal<sup>™</sup> environmental "heat and seal"
- Sturdy metal tank with fuel viewing window holds enough fuel for 2 hours of operation
- Blue pin-point flame function
- Contains everything needed to heat shrink tubing and specialty connectors, remove surface mount components, solder and desolder, repair vinyl, spot dry and cut materials
- · Refill with Master Ultratane Butane for best performance (page 31)
- Optional accessories available and interchangeable between UT-100 & UT100Si (page 24)

#### Ultratorch<sup>®</sup> UT-100 & UT-100Si Ultratips<sup>®</sup> and Accessories

#### 0 | 1 70-01-02 70-01-03 70-01-04 70-01-05 70-01-06 3.3mm dia. chisel 2mm dia. spade 3mm dia. spade 0.5mm dia. tapered needle 2mm dia. micro spade . . 副太日 70-01-09 70-01-08 70-01-10 70-01-11 70-01-12 3mm dia. 35° spade 8mm dia, high powered chise 2mm dia. 35° spade 1mm dia. offset tapered needle 3mm dia. high powered en -70-01-15 7mm dia. 45° spade 70-01-51 4.25 0.D./3.3 I.D. (mm) ( (TERRORIE AND A TERRORIE AND A TER 70-01-53 8.0 0.D./6.9 I.D. (mm) 70-01-14 8.4 tip adapter 70-01-55 .5"/12.7mm dia., .75"/19mm wide heat shrink ..... 70-07TU Eiector. torch Protective cap (std. UT-100Si, UT-100Si-TC) 70-35 90-02 Ejector spanner wrench

#### Ultratip Soldering Tips for Use with UT-100 & UT-100Si Ultratorches

- Oxygen-free, copper based Ultratip soldering tips have thick iron and chrome plating for long life and high thermal conductivity
- Ultratips are manufactured using a patented process which produces uniform iron and chrome plating thickness
- Ultratip soldering tips feature leading-edge combustion chamber/exhaust port design All tips pre-tinned with lead-free solder
  - Optional tips interchangeable between all UT-100 &
  - UT-100Si models



Ultratorch	UT-200 and UT-200Si
Model No.	Description
UT-200	Butane-powered soldering iron, heat tool and torch with soldering tip, hot air shrink attachment and protective cap
UT-200Si	Self-igniting, butane-powered soldering iron/heat tool, with soldering tip, hot tip, shrink attachment and protective cap

#### Specifications

Approx. Soldering Tip Temp.:	Fuel Tank Capacity: 2.2 fl. oz. (63)
482° - 986°F (250° - 530°C)	Tool Dimensions: 11.9" L (300m)
Approx. Hot Air Tip Temp.:	Tool Net Weight: 9 oz.
1004°F (540°C)	Tool Kit Weight: 13.3 oz.
Approx. Torch Tip Temp.:	Shipping Weight: 1 lb.
UT-200 2372°F (1260°C)	<ul> <li>Shipped Empty</li> </ul>
• Approx. Operating Time: 120 min.	• 😸
NOTE: User should be descendently such that the	

**NOTE:** Users should independently evaluate the suitability of the product for their application.

#### **Butane-powered Soldering Iron/Heat Tools**

#### UT-200

- Operates as a soldering iron, flameless heat tool and butane torch
- Standard with Utratip soldering tip, hot air tip, shrink attachment and protective cap
- Equivalent to 200 watt max. electric soldering iron
- Adjustable temperatures up to 2372°F/1260°C
- High power (BTU's) makes it perfect for heavy-duty service and maintenance
- Sturdy metal tank holds enough fuel for 2.6 hours of operation at middle temperature setting
- Use to pinpoint heat, heat shrink tubing, solder and desolder, strip insulation, terminate specialty connectors, torch materials and more
- Refill with Master Ultratane Butane for best performance (page 31)
- Optional accessories interchangeable between UT-200 and UT-200Si models



70-01-01

1mm dia. tapered needle

70-01-07

0.5mm dia. square

tapered pyramid

70-01-13

.5mm dia. high powered long

tapered chisel

70-01-50

2.5 0.D./1.59 I.D. (mm)

AND ADDRESS MADE 70-01-52 5.7 0.D./4.9 I.D. (mm)

70-01-16

Hot knife tip

70-01-54 .75"/19mm dia.. .825"/22.2mm wide heat shrink



70-02 Protective cap

70-35



Tool holde

70-37U Tin cleaner snonge

Elector spanner wrench

70-40U Metal storage box

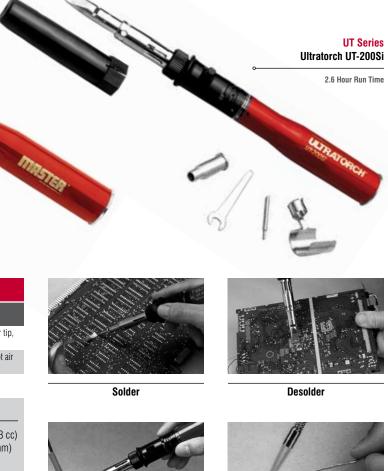
70-52U

90-02 Protective cap Carrying strap

			round head
Ultratorch UT-100 & UT-100Si Tips and Accessories			
Model No.	Description	Model No.	Description
Soldering Ti	ps		
70-01-01	1mm dia. tapered needle soldering tip	70-01-08	$2mm$ dia. $35^\circ$ spade soldering tip
70-01-02	3.3mm dia. chisel soldering tip (std., all models)	70-01-09	3mm dia. 35° spade soldering tip
70-01-03	2mm dia. spade soldering tip	70-01-10	1mm dia. offset tapered needle soldering tip
70-01-04	3mm dia. spade soldering tip	70-01-11	8mm dia. high powered chisel soldering tip (std.,UT-100-TC, UT-100Si-TC)
70-01-05	0.5mm dia. tapered needle soldering tip (std. UT-100-TC, UT-100Si-TC)	70-01-12	3mm dia. high powered round head needle tip
70-01-06	2mm dia. micro spade soldering tip	70-01-13	.5mm dia. high powered long tapered chisel tip
70-01-07	0.5mm dia. square tapered pyramid soldering tip	70-01-15	7mm dia. 45° spade soldering tip
Hot Air Tips			
70-01-50	2.5 O.D./1.59 I.D. (mm) hot air tip	70-01-52	5.7 0.D./4.9 I.D. (mm) hot air tip (std. all models)
70-01-51	4.25 O.D./3.3 I.D. (mm) hot air tip	70-053	8.0 0.D./6.9 l.D. (mm) hot air tip
Hot Knife Tij	p	Adapter	
70-01-16	Hot knife tip (std. UT-100-TC, UT-100Si-TC, UT-100SiHK)	70-01-14	8.4 tip adapter (4mm dia. x .7 pitch mm)
Accessories			
70-01-54	.75"/19mm dia., .825"/22.2mm wide heat shrink attachment	70-37U	Tip cleaner sponge (std. with UT-100, UT-100Sik
70-01-55	.5"/12.7mm dia., .75"/19mm wide heat shrink attachment (std. all models)	70-40U	Metal storage box (std. with UT-100, UT-100SiK)
70-02	Protective cap (std. UT-100, UT-100-TC)	70-43	Tool holder (std. with UT-100, UT-100SiK)
70-07TU	Ejector, torch (std. UT-100, UT-100-TC)	70-52U	Carrying strap

# **Butane-Powered Soldering Irons**

## Ultratorch<sup>®</sup> UT-200 & UT-200Si Ultratips<sup>®</sup> and Accessories



m)

r tip. t air



Flameless Heat



Torch (UT-200 only)

#### UT-200Si

- Operates as a soldering iron and flameless heat tool
- Self-ignition with push button for fast, easy starting
- Standard with Utratip soldering tip, hot air tip, shrink attachment, spanner and open end wrenches, and protective cap
- Equivalent to 200 watt max. electric soldering iron
- Adjustable temperatures up to 1004°F/540°C
- High power (BTU's) makes it perfect for heavy-duty service and maintenance
- Sturdy metal tank holds enough fuel for 2.6 hours of operation at middle temperature setting
- Use to pinpoint heat, heat shrink tubing, solder and desolder, strip insulation, terminate specialty connectors, torch materials and more
- Refill with Master Ultratane Butane for best performance (page 31)
- Optional accessories interchangeable between UT-200 and UT-200Si models



## 0 2 9

# **Butane-Powered Soldering Irons**

## Ultratorch<sup>®</sup> UT-200 & UT-200Si Ultratips<sup>®</sup> and Accessories



72-01-54 1"/25.4mm dia.. .1"/25.4mm wide heat shrink

72-01-55 1.25"/32mm dia., 1.25"/32mm wide heat shrink

CONTRACTOR OF 80-35

Ejector spanner wrench





80-40 Open end wrench



Ultratorch UT-200 & UT-200Si Tips and Accessories		
Model No.	Description	
Soldering Ti	ps	
72-01-01	3mm dia. tapered needle soldering tip	
72-01-02	10mm dia. chisel soldering tip (std. UT-200, UT-200Si)	
72-01-03	4mm dia. spade soldering tip	
72-01-05	1mm dia. tapered needle soldering tip	
72-01-06	4mm dia. micro spade soldering tip	
72-01-11	7mm dia. chisel soldering tip	
72-01-12	4mm dia. chisel soldering tip	
72-01-13	12.5mm dia. $45^{\circ}$ spade soldering tip	
Hot Air Tips		
72-01-51	5.6 0.D./3.6 I.D. (mm) hot air tip	
72-01-52	8.6 0.D./6.6 I.D. (mm) hot air tip (std. all models)	
72-01-53	11.5 0.D./9.7I.D. (mm) hot air tip	
Adapter		
72-01-14	Adapter (5mm dia. x 8mm pitch) tip	

#### 72-01-14

Accessories	
72-01-54	1"/25.4mm dia., .1"/25.4mm wide heat shrink attachment
72-01-55	1.25"/32mm dia., 1.25"/32mm wide heat shrink attachment (std. UT-200, UT-200Si)
72-02	Protective cap (std. UT-200, UT-200Si)
72-52U	Carrying strap
80-35	Ejector spanner wrench (std. UT-200Si)
80-40	Open end wrench (std. UT-200, UT-200Si)

#### Ultratip Soldering Tips

- Oxygen-free, copper based Ultratip soldering tips have thick iron and chrome plating for long life and high thermal conductivity
- Ultratips are manufactured using a patented process which produces a uniform iron and chrome plating thickness
- Ultratip soldering tips feature leading-edge combustion chamber/exhaust port design
- · All tips are pre-tinned with lead-free solder
- Optional accessories interchangeable between UT-200 and UT-200Si models



- Built-in self-igniting system with safety lock
- Temperatures up to 2500°F/1300°C
- Compact palm-sized, perfect for tool kits and field service kits
- Adjustable wind-resistant flame
- Meets Consumer Products Safety Commission (CPSC) Child Safety Requirements
- Ships via ground transportation without hazmat charges

#### Microtorch MT-11 Model No. Description MT-11 Microtorch, palm-sized, shipped without fuel MT-11K Microtorch with 15/16 oz. can of butane (10448) Specifications Approx. Flame Temp. 2500°F • Tool Net Weight: 2.1 oz. • Fuel Tank: Refillable Fuel Cell - Shipping Weight Tool: 1 lb. • Approx. Run Time: 20 min. @ max. setting Shipping Weight Kit: 2 lbs.

- Dimensions: 4.3" H x 2.5" W x 1" D

and more

(included)



Microtorch MT-30		
Model No.	Description	
MT-30	Microtorch, low profile table-top	

# **Butane-Powered Torches**

## Microtorch MT-11 & MT-11K

 Kit includes microtorch with empty fuel cell and 15/16 oz. can of butane packed in single shipper carton with proper D.O.T. markings

- Use to heat materials, ignite materials, pinpoint torch, shrink tubing, solder and desolder, terminate specialty connectors

Replaceable, refillable "fuel cell"



## Microtorch MT-30

#### Low Profile, Table-top Microtorch with Stable Base

- Built-in self-igniting system with safety lock that ensures the switch is not turned on when not in use
- Wide, heavy, stable base is perfect for bench-top use
- Durable self-contained, refillable metal fuel tank
- Large capacity fuel tank for 60-minute continuous run time on full charge
- Adjustable broad or pinpoint flame with temperatures up to 2500°F/1300°C
- Use for laboratory applications, to heat materials, shrink tubing, terminate specialty connectors, work with silver wire, add patina to copper jewelry, as a pinpoint torch and more
- Refill with Master Ultratane Butane for best performance (page 31)

#### **Specifications**

- Approx. Flame Temp. 2500°F
- Fuel Tank: Metal, Built-in, Refillable
- Approx. Run Time: 60 min. @ max. setting
- **Dimensions:** 5.1" L x 3" W x 3.5" D
- Tool Net Weight: 12 oz.
- Shipping Weight Tool: 1 lb.
- Shipped Empty
- 🍋 ( 🤆

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# **Butane-Powered Torches**

## Mini-Triggertorch MT-70 & MT-70P





Mini-Triggertorch MT-70	
Model No.	Description
MT-70	Mini-Triggertorch, mini, table-top
MT-70P	MT-70 Mini-Triggertorch & MT-11 Palm-sized Microtorch

#### Specifications

- Approx. Flame Temp. 2500°F
- Fuel Tank: Plastic, Built-in, Refillable
- Approx. Run Time: 60 min. @ max. setting Shipped Empty
- MT-70 dimensions: 5.5" L x 3.8" H x 1.3" W
- Tool Net Weight: 6.4 oz.
- Shipping Weight Tool: 1 lb.
  MT-70P Shipping Weight Kit: 2 lbs.
- 🚯 🔁

## Self-igniting Butane-powered Microtorch, Soldering Iron, Heat Tool

off operation

- Gas adjustment wheel provides adjustable, long blue torch flame with temperatures up to 2500°F/1300°C
- · Self-igniting piezo electric ignition is easy to start and eliminates the need for lighter or matches
- Incorporates "trigger" switch with "pulldown" lock to meet Consumer Products Safety Commission (CPSC) Child Safety Requirements
- "Hands-free" slide lock for continuous use and instant
- Ergonomic handle design ensures a non-slip grip
- Removable base for table-top or hand-held use
- 60 minute continuous run time with a full charge
- Durable self-contained, refillable plastic fuel tank
- Unique shutter lever to easily extinguish ignition flame if using optional soldering or hot air tip attachments
- Use to heat parts, ignite materials, melt plastic, shrink tubing, solder & desolder, terminate specialty connectors and more
- Refill with Master Ultratane Butane for best performance (page 31)









	Microtorch MT-51	
	Model No.	Description
	MT-51	Microtorch, table-top
	MT-51B	Microtorch, table-top with 15/16 oz. butane (10448)
	MT-51H	Microtorch, table-top includes hot air tip (35387) and 1" diameter heat shrink attachment (35394)

#### Hand-held or Table-top Butane-powered Microtorch

- Built-in self-igniting system with safety lock
- "Hands-free" slide lock for continuous use and instant off operation
- · Durable self-contained, refillable plastic fuel tank
- · Wide, stable base is perfect for hands-free use
- Meets Consumer Products Safety Commission (CPSC) Child Safety Requirements

# **Butane-Powered Torches**

#### **Specifications**

- Approx. Flame Temp. 2500°F
- Fuel Tank: Plastic, Built-in, Refillable
- Approx. Run Time: 2 hours
- **Dimensions:** 6.1" H x 3" W x 1.3" D
- Tool Net Weight: 5 oz.
- Shipping Weight: 1 lb.
- Shipped Empty
- · 🚯 🔁

NOTE: Users should independently evaluate the suitability of the product for their application.

- Temperatures up to 2500°F/1300°C
- 2 hour continuous burn time, perfect for continuous heat applications
- Adjustable broad or pinpoint flame
- MT-51B ships via ground transportation with no Hazmat charges
- Use to heat materials, ignite materials, pinpoint torch, shrink tubing, solder and desolder, terminate specialty connectors and more
- Refill with Master Ultratane Butane for best performance (page 31)



# **Butane-Powered Torches**

## Triggertorch<sup>™</sup> MT-76 & MT-76K



and Hot Knife in a rugged storage/carrying case

Triggertorch with table-top stand, soldering tip (35386) & hot air tip (35387)

Triggertorch kit with table-top stand, soldering tip (35386), hot air tip (35387),

hot knife tip (35400), shrink attachment (35394), polyfoam cutter (35396),

5" wire cutter, 5" needle nose pliers, lead free solder and sponge packed







Solde

lead free solder, and stand with sponge packed in a

Incorporates "trigger" switch with "pulldown" lock to

meet Consumer Products Safety Commission (CPSC)

• "Hands-free" slide lock for continuous use and instant

durable plastic storage/carrying case

Child Safety Requirements

off operation

2 Hour Run Time

#### **Specifications**

- Approx. Flame Temp.: 2500°F - Shipping Weight Tool: 1 lb.
- Fuel Tank: Plastic, Built-in, Refillable • Shipping Weight Kit: 3 lbs.
- Approx. Operating Time: 2 hours Shipped Empty
- Dimensions: 6.5" H x 3.8" W x 1.3" D - 🚯 🔁
- MT-76 Weight: 8 oz.

**NOTE:** Users should independently evaluate the suitability of the product for their application.

**Flameless Hot Air** 

## Professional Quality, Hand-held or Table-top, Butane-powered, Self-igniting Triggertorch, Soldering Iron and Flameless Heat Tool

 Gas adjustment wheel provides adjustable, long blue torch flame with temperatures up to 2500°F/1300°C

in a durable plastic case

**Triggertorch MT-76** 

Descriptio

Model No.

MT-76

MT-76K

- Self-igniting piezo electric ignition is easy to start and eliminates the need for lighter or matches
- MT-76 includes soldering tip and hot air tip for soldering up to 752°F/400°C and heating up to 932°F/500°C
- Durable self-contained, refillable plastic fuel tank with capacity for 2 hour run time
- Kit includes triggertorch, removable stand, 5" wire Unique shutter lever to easily extinguish ignition flame cutter, 5" needle nose pliers, soldering tip, hot air tip, when using soldering or hot air tip attachments shrink attachment, polyfoam cutter, hot knife tip, roll
  - Ergonomic handle design ensures a non-slip grip
  - Removable base for table-top or hand-held use
  - Use to heat parts, ignite materials, melt plastic, shrink tubing, solder & desolder, terminate specialty connectors and more
  - Refill with Master Ultratane Butane for best performance (page 31)

#### Hand-held or Table-top. Butane-powered, Heavy-duty, General Industrial Torch

- Self-igniting piezo electric ignition is easy to start and eliminates need for lighter or matches
- Large capacity, built-in, durable, metal fuel tank for 30-minute continuous run time on a full charge
- Large sized adjustable blue flame accommodates heavy-duty industrial applications with temperatures up to 2500°F/1300°C
- Safety lock prevents unintentional ignition, locks for storage
- Commission (CPSC) Child Safety Requirements Use to braze with special alloy welding rods, heat and bend thin metals, loosen rusted bolts, pop dents out of metal, shrink

held use

- best performance (page 31)

#### **General Industrial Torch GT-70** Description Model No.

GT-70 General Industrial Torch

#### Specifications

Approx. Flame Temp. 2500°F

Dimensions: 6.5" H x 5" W x 1.8" D

- Fuel Tank: Metal, Built-in, Refillable • Approx. Run Time: 30 min.
- Shipping Weight Tool: 1 lb. Shipped Empty

material charges

hazardous material charges

• Tool Net Weight: 10.6 oz.

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NOTE: Users should independently evaluate the suitability of the product for their application.

#### For Use with All Master Butane-powered Products

- Recommended fuel for all Master butane-powered products
- Triple-refined formula reduces clogging of filters
- Special vapor pressure promotes consistent ignition
- Contains no CFC's
- Available in three convenient sizes: 5 <sup>1</sup>/<sub>8</sub> oz. (145 gram), 3 <sup>3</sup>/<sub>4</sub> oz. (106 gram), and <sup>15</sup>/<sub>16</sub> oz. (26 gram) cannisters



Ultratane	Ultratane Butane	
Model No.	Description	
51773 5 ½ oz. (145 gram) canister with universal tip adapter		
11799	3% oz. (106 gram) canister with universal tip adapter	
10448	$^{15}\!$	

# **Butane-Powered Torches**

## General Industrial Torch GT-70



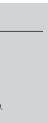
· Removable base for table-top or hand-

Meets Consumer Products Safety

and terminate heavy wall adhesive-lined tubing, solder and desolder and more

• Refill with Master Ultratane Butane for







#### Ultratane<sup>®</sup> Butane

 Model 10448 and 11799 meet Limited Quantity Class Markings and can ship via ground transportation without hazardous

 Model 51773 has proper D.O.T. markings and ships via ground transportation with











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# **Butane-Powered Glue Guns**

# **Butane-Powered Glue Guns**

#### Master PortaPro<sup>®</sup> Glue Gun — GG-100



**GG** Series PortaPro Glue Gun GG-100

Includes: glue gun, general purpose tip (35408) and four general purpose 6" glue sticks





Continuous use operating times up to 140 minutes Cordless operation is fast and convenient

- Completely portable, lets you work almost anywhere

• Reaches operating temperature in less than 4 minutes

• 140 minutes continuous run time with a full charge

Industrial power and durability

One touch, fast piezo ignition

PortaPro Glue Gun				
Model No.	Description			
GG-100	PortaPro Glue Gun			
GG-100K	PortaPro Glue Gun Kit			
Specificatio	ons			
<ul> <li>Specifications</li> <li>Approx. Operating Temp: 392°F/200°C</li> <li>Ramp Up Time: 3-4 minutes</li> <li>Recommended Glue Stick: ½"</li> <li>Glue Melt Rate: up to 1.9 lbs. per hour</li> <li>Approx. Run Time: 140 minutes (full tank)</li> <li>Fuel Capacity: 20 ml.</li> </ul>		<ul> <li>Dimensions: 8.4" L x 2.1" W x 8.0" H sec.</li> <li>Tool Net Weight: 14.8 oz. w/o fue</li> <li>Shipping Weight Tool: 2 lbs.</li> <li>Shipping Weight Kit: 3 lbs.</li> <li>Shipped Empty</li> <li>G</li> </ul>		
<b>NOTE:</b> Users should independently evaluate the suitability of the product for their application.				

#### **Cordless, Butane-powered Hotmelt Glue Gun**

• Use to bond corrugated materials, chipboard and wood, fasten plastics, light metals, textiles, shock absorbent packaging, capacitors, resistors, soldered parts, electrical potting/staking parts on PC boards and jumper wires, reseal products during packaging, and glue down carpeting



**GG** Series PortaPro Glue Gun GG-100K Includes: glue gun, 4 tips, 8 general purpose 6" long glue sticks

& manual packed in a rugged storage case. Case has slot to hold Master Butane (51773 not included)

Optional Accessories			
Part No.	Description		
35408	Standard general purpose tip — Dia. 4.47mm 0.D.		
35409	Needle extension tip — 7.8mm long Dia. 3.2mm O.D.		
35410	Diagonal cut extension tip — 8.4mm long x $45^\circ$ Dia. 4.74mm 0.D.		
35411	Spreader extension tip — 7.6mm(L) x 6.6mm(W) 0.50mm I.D. slot		
35412	12 General purpose glue sticks 12" long x 1/2" dia.		
35413	12 Carton closing glue sticks 12" long x $1/2$ " dia		
35414	12 Woodworking glue sticks 12" long x 1/2" dia.		
35454	20 lbs. General purpose glue sticks (approx. 290 sticks)		
35455	20 lbs. Carton closing glue sticks (approx. 290 sticks)		

35456 20 lbs. Woodworking glue sticks (approx. 290 sticks)

- Fuel view window indicates fuel level
- Built-in fold away stand
- Unlimited versatility
- · Refill with Master Ultratane Butane for best performance (page 31)





35409 Needle extension tin



Diagonal cut extension tip



Spreader extension tip

35411





Easy to refill



**Cordless operation is** fast and convenient

PortaPro Glue Gun				
Model No.	Description			
GG-200	PortaPro Glue Gun			
Specificatio	ins			
392°F/200 Ramp Up Recomm Glue Melt	Dperating Temp: )°C Time: 3-4 minutes ended Glue Stick: ½" Rate: up to .67 lbs. per hour Run Time: 120 minutes (full tank)	<ul> <li>Fuel Capacity: 6 grams</li> <li>Dimensions: 6.75" L x 1.25" W x</li> <li>Tool Net Weight: 7.9 oz. w/o fue</li> <li>Shipping Weight Tool: 2 lbs.</li> <li>Shipped Empty</li> <li>Signa</li> </ul>		

**NOTE:** Users should independently evaluate the suitability of the product for their application.

#### Master PortaPro Glue Gun – GG-200

- Use to bond corrugated materials, chipboard and wood, fasten plastics, light metals, textiles, shock absorbent packaging, capacitors, resistors, soldered parts, electrical potting/staking parts on PC boards and jumper wires and glue down carpeting
- Completely portable, lets you work almost anywhere
- · Fuel view window indicates fuel level

## Master PortaPro<sup>®</sup> Glue Gun — GG-200

6" H

Part No.	Description
35412	12 General purpose glue sticks 12" long x 1/2" dia.
35413	12 Carton closing glue sticks 12" long x 1/2" dia
35414	12 Woodworking glue sticks 12" long x 1/2" dia.
51773	$5\ensuremath{\ensuremath{^{/}}\xspace}$ oz. (145 gram) canister with universal tip adapter
11799	3% oz. (106 gram) canister with universal tip adapter
10448	$^{15}\!$

Industrial power and durability

- One touch, fast piezo ignition
- Reaches operating temperature in less than 4 minutes
- 120 minutes continuous run time with a full charge
- Unique temperature control thermostat controls glue gun chamber temperature and regulates gas flow
- Lightweight (7.9 oz.)
- Refill with Master Ultratane Butane for best performance (page 31)



Advantages of Heat-Sealed Electrical Connectors

0 5

## Available in three styles:

**Proseal**<sup>™</sup> Crimp and heat-seal connectors

**Solder**seal<sup>™</sup> Solder & heat-seal connectors

**Multiseal**<sup>™</sup> Crimp, solder & heat-seal connectors

#### **Environmentally Sealed Connections Create Permanent Repairs**

The past decade has seen the advent of sweeping technological advances in the automotive, fleet, and marine industries. Many of these advances involve improved electrical systems, controlled by miniature onboard computers. Consequently, small variations in voltage can significantly affect vehicle performance.

To combat these problems and increase longevity, the major manufacturers in these industries are using completely sealed electrical systems. Unfortunately, the repair and maintenance industry is lagging behind. The integrity of sealed electrical harnesses is often breached when repairs are made with inferior, unsealed electrical connectors. Master Appliance has the solution

The heat shrink connector is the innovative solution that allows the aftermarket to keep pace with changing technology. Each repair made with a heat shrink connector is individually protected from corrosion, contaminants and current leakage. This ensures that the original integrity of the wiring harness is maintained.

- Heavy Duty Trucking
- Marine & RV Plant Maintenance Departments
  - OEM & Automotive Aftermarket
  - Heavy Duty Equipment
  - Oil Fields & Mining
  - Municipalities & Military Bases



10054 Proseal Butt Splice Connector Minipack



10600 Assortment Proseal Connector Kit





1. Strip wires 1/4" and insert into crimp barrel of connector

strain relief

## High Quality Crimp & Heat-seal Connectors

2. Crimp the wires in crimp barrel

- The finest "Crimp & Heat-Seal" connector on the market today. Better wire contact - Less voltage drop -Better current flow
- Seamless butt connectors & brazed seam rings and spades — Prevents opening of connector barrel for stronger crimp
- Uniform adhesive flow does not overflow onto terminal to impede contact

# **Sealed Electrical Systems**

## Proseal<sup>™</sup> Connector Assortment Kits



10054 — Proseal Butt Splice Connector Minipack (3 items & 45 pieces)				
AWG	Description	Kit QTY	50pc Refill	
Butt Connector	Butt Connectors			
20-18	Butt Connector, Red	20	10666	
16-14	Butt Connector, Blue	20	10667	
12-10	Butt Connector, Yellow	5	10668	

10600 — Assortment Proseal Connector Kit (20 items & 115 pieces)			
AWG	Description	Kit QTY	50pc Refill
<b>Ring Terminals</b>			
20-18	#6 Stud, Red	5	10658
20-18	#10 Stud, Red	5	10659
16-14	#8 Stud, Blue	5	10648
16-14	#10 Stud, Blue	5	10649
16-14	1/4" Stud, Blue	5	10650
16-14	3/8" Stud, Blue	5	10652
12-10	#8 Stud, Yellow	5	10653
12-10	#10 Stud, Yellow	5	10654
12-10	1/4" Stud, Yellow	5	10655
12-10	3/8" Stud, Yellow	5	10657
Spade Termina	ls		
20-18	#10 Stud, Red	5	10665
16-14	#10 Stud, Blue	5	10663
12-10	#10 Stud, Yellow	5	10664
Butt Connectors	\$		
20-18	Butt Connector, Red	10	10666
16-14	Butt Connector, Blue	10	10667
12-10	Butt Connector, Yellow	10	10668
Insulated Coup	lers		
20-18	Female, .250 Tab, Red	5	10669
20-18	Male, .250 Tab, Red	5	10672
16-14	Female, .250 Tab, Blue	5	10671
16-14	Male, .250 Tab, Blue	5	10673

#### Specifications

- **Temperature rating:** -67°F to 230°F (-55°C to 110°C)
- Longitudinal change: +1, -10%
- Recovery temperature: 275°F/135°C
- Dialectic strength: 900 Volts/Mil.
- UL Voltage Rating: 600 Volts
- Water absorption: <0.1%
- Corrosion resistance: Non-corrosive
- Fungus Resistance: Non-nutrient
- Water absorption: <0.1%



**Crimp** Mechanical reliability holds wires in place

**Seal** Durable insulation • Watertight connection

 Heat shrink tubing does not reduce in length, creating better insulation along with superior wire support and

Translucent, adhesive-lined polyolefin shrink tubing - Allows visual inspection, prevents wire corrosion and provides a water and contaminant resistant seal

- Color-coded tubing with wire gauge imprint Provides easy identification of the correct part for the job
- Superior integrity of electrical systems Sealed electrical systems ensure the original integrity of wire connections and wiring harnesses and conforms with OEM standards. 89 lbs tensile strength



# **Sealed Electrical Systems**

#### Solderseal<sup>™</sup> Connector Assortment Kits

10056 — Solderseal Butt Splice Connector Minipack (4 items & 55 pieces)				
AWG	Description	Kit QTY	50pc Refill	
Butt Connectors				
24-22	Butt Connector, Clear	10	10834	
20-18	Butt Connector, Red	15	10835	
16-14	Butt Connector, Blue	15	10836	
12-10	Butt Connector, Yellow	15	10837	

WG	Description	Kit QTY	50pc Refill
Ring Termi	nals		
20-18	#6 Stud, Red	5	10811
20-18	#8 Stud, Red	5	10812
20-18	#10 Stud, Red	5	10813
20-18	1/4" Stud, Red	5	10814
16-14	#8 Stud, Blue	5	10818
16-14	#10 Stud, Blue	5	10819
16-14	1/4" Stud, Blue	5	10820
6-14	3/8" Stud, Blue	5	10822
2-10	#10 Stud, Yellow	5	10823
12-10	1/4" Stud, Yellow	5	10824
12-10	3/8" Stud, Yellow	5	10826
12-10	1/2" Stud, Yellow	5	10827
Spade Tern	ninals		
20-18	#10 Stud, Red	5	10831
16-14	#10 Stud, Blue	5	10832
12-10	#10 Stud, Yellow	5	10833
Butt Conne	ctors		
24-22	Butt Connector, Clear	5	10834
20-18	Butt Connector, Red	10	10835
6-14	Butt Connector, Blue	10	10836
2-10	Butt Connector, Yellow	5	10837
nsulated C	ouplers		
20-18	Female, .250 Tab, Red	5	10838
20-18	Male, .250 Tab, Red	5	10840
6-14	Female, .250 Tab, Blue	5	10841
16-14	Male, .250 Tab, Blue	5	10843
2-10	Female .250 Tab, Yellow	5	10844
12-10	Male .250 Tab. Yellow	5	10846



10056 Solderseal Butt Splice Connector Minipack



10724 Solder seal Connector Kit

the joined wires.



- Temperature rating: -67°F to 230°F (-55°C to 110°C)
- Longitudinal change: +1, -10%
- Recovery temperature: 275°F/135°C
- Dialectic strength: 500 Volts/Mil.
- UL Voltage Rating: 600 Volts
- Water absorption: <0.1%
- Corrosion resistance: Non-corrosive Fungus Resistance: Non-nutrient
- Water absorption: <0.1%

Solder Ultimate tensile strength • Superior conductivity

**Seal** Durable insulation • Watertight connection

#### High Quality Solder & Heat-seal Connectors

- High quality, sealed solder connection that takes the guesswork out of soldering water tight connections
- Low temperature pre-measured solder with flux for greater tensile strength and superior current flow
- Uniform adhesive flow does not overflow onto terminal to impede contact
- Heat shrink tubing does not reduce in length creating better insulation along with wire superior support and strain relief

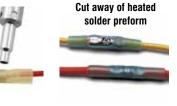
Solder preform inside

1. Strip wires 3/8" and slide the

Separate the wire strands

connector over one of the wires.

 Translucent, adhesive-lined polyolefin shrink tubing - Allows visual inspection, prevents wire corrosion and provides a water and contaminant resistant seal

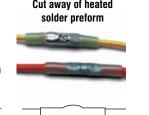


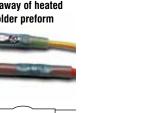
2. Intermingle the wire strands and slide the connector over

Ensures the original integrity of wire connections and

wiring harnesses and conforms with OEM standards.

102 lbs tensile strength





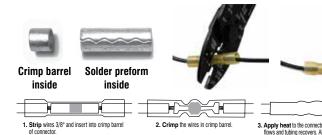
3. Apply heat to the connector until solder and adhesive flows and tubing recovers. Allow the connector to coo



10058 Multiseal Butt Splice Connector Minipack



10067 Multiseal Connector Kit



Apply heat to the connector until solder and adhesive flows and tubing recovers. Allow the connector to cool.

## High Quality Crimp, Solder & Heat-seal Connectors

- Crimped for mechanical reliability, soldered for strength and conductivity, and heat sealed for superior durability
- Low temperature pre-measured solder with flux for greater tensile strength and superior current flow
- Uniform adhesive flow does not overflow onto terminal to impede contact
- Translucent, adhesive-lined polyolefin shrink tubing Allows visual inspection, prevents wire corrosion, and provides a water and contaminant resistant seal

# **Sealed Electrical Systems**

Descriptio

AWG Butt Co

## Multiseal<sup>™</sup> Connector Assortment Kits

Kit QTY 50pc Refill

ultiseal Butt Splice Connector Minipack (3 items & 50 pie



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**Crimp** Mechanical reliability holds wires in place

Solder Ultimate tensile strength • Superior conductivity

Seal Durable insulation • Watertight connection

- Prevents opening of connector barrel for stronger crimp
- Heat shrink tubing does not reduce in length creating better insulation along with superior wire support and strain relief
- Color-coded tubing with wire gauge imprint Provides easy identification of the correct part for the job
- Superior integrity of electrical systems Sealed electrical systems ensure the original integrity of wire connections and wiring harnesses and conforms with OEM standards. 103 lbs tensile strength

20-18	Butt Connector, Red	20	11572	
16-14	Butt Connector, Blue	20	11579	
12-10	Butt Connector, Yellow	10	11567	
10067 Mul	tiseal Connector Kit (20 items & 120 p	ieces)		
AWG	Description	Kit QTY	50pc Refill	
Ring Termina	als			
20-18	#6 Stud, Red	5	11573	
20-18	#10 Stud, Red	5	11576	
16-14	#10 Stud, Blue	5	11568	
16-14	1/4" Stud, Blue	5	11574	
16-14	3/8" Stud, Blue	5	11581	
12-10	#10 Stud, Yellow	5	11569	
12-10	1/4" Stud, Yellow	5	11582	
12-10	3/8" Stud, Yellow	5	11570	
12-10	1/2" Stud, Yellow	5	11575	
Spade Termi	nals			
20-18	#10 Stud, Red	5	11580	
16-14	#10 Stud, Blue	5	11583	
12-10	#10 Stud, Yellow	5	11571	
Butt Connect	tors			
24-22	Butt Connector, Clear	5	11566	
20-18	Butt Connector, Red	10	11572	
16-14	Butt Connector, Blue	15	11579	
12-10	Butt Connector, Yellow	10	11567	
Insulated Couplers				
20-18	Female, .250 Tab, Red	5	11577	
20-18	Male, .250 Tab, Red	5	11578	
16-14	Female, .250 Tab, Blue	5	11584	
16-14	Male, .250 Tab, Blue	5	11585	

#### **Specifications**

- **Temperature rating:** -67°F to 230°F (-55°C to 110°C)
- Longitudinal change: +1, -10%
- Recovery temperature: 275°F/135°C
- Dialectic strength: 900 Volts/Mil.
- UL Voltage Rating: 600 Volts
- Corrosion resistance: Non-corrosive
- Fungus Resistance: Non-nutrient
- Water absorption: <0.1%

# **Sealed Electrical Systems**

Thin Wall Flexible Heat-shrink

**Tubing with No Adhesive** 

Self-extinguishing UL224 (except clear)

MIL-DTL-23053/5 Class 1 (colors)

UL E35506 (except clear),

CSA LR31929 (except clear) **Recovery temp.:** 250°F/121°C Dielectric strength: 900 Volts/Mil. Continuous oper. temp.:

-67°F to 275°F/-55°C to 135°C

**Dual Wall Flexible Heat-shrink** Tubing with Adhesive Lining

Polyolefin, 3 to 1 shrink ratio Highly flexible for conforming to

 Self-extinguishing UL224 (except clear) Internal layer of thermo-plastic adhesive

provides a barrier against contaminants

MIL-DTL-23053/4 Class 3

Recovery temp.: 250°F/121°C

Dielectric strength: 700V/Mil.

-67°F to 230°F/-55°C to 110°C

Continuous oper. temp.:

irregular shapes

**Specifications** 

UL E157227

Polyolefin, 2 to 1 shrink ratio Highly flexible for conforming to

irregular shapes

**Specifications** 

Class 2 (clear)

#### Heat-Shrink Tubing Assortment Kits



10061 Thin Wall Flexible Shrink Tubing Minipack



10062 Thin Wall Flexible Shrink Tubing Kit



10063 Flexible Adhesive-Lined Shrink Tubing Minipack



10064 Flexible Adhesive-Lined Shrink Tubing Kit



10065 Flexible Adhesive-Lined Shrink Tubing Kit

10061 — Thin Wall Flexible Shrink Tubing Minipack (9 items & 39	pieces)
Description	Kit QTY
3/16" pre-shrink I.D., 6" length, Black	5
3/16" pre-shrink I.D., 6" length, Red	5
1/4" pre-shrink I.D., 6" length, Black	5
1/4" pre-shrink I.D., 6" length, Blue	5
3/8" pre-shrink I.D., 6" length, Black	5
3/8" pre-shrink I.D., 6" length, Yellow	5
1/2" pre-shrink I.D., 6" length, Black	4
3/4" pre-shrink I.D., 6" length, Black	3
1" pre-shrink I.D., 6" length, Black	2

10062 — Thin Wall Flexible Shrink Tubing Kit (9 items & 10	)3 pieces)
Description	Kit QTY
3/16" pre-shrink I.D., 6" length, Black	20
3/16" pre-shrink I.D., 6" length, Red	15
1/4" pre-shrink I.D., 6" length, Black	20
1/4" pre-shrink I.D., 6" length, Blue	10
3/8" pre-shrink I.D., 6" length, Black	10
3/8" pre-shrink I.D., 6" length, Yellow	10
1/2" pre-shrink I.D., 6" length, Black	10
3/4" pre-shrink I.D., 6" length, Black	5
1" pre-shrink I.D., 6" length, Black	3

10063 — Flexible Adhesive-Lined Shrink Tubing Minipack (6 items	& 24 pieces)
Description	Kit QTY
1/8" pre-shrink I.D., 6" length, Black	5
1/4" pre-shrink I.D., 6" length, Black	5
3/8" pre-shrink I.D., 6" length, Black	5
1/2" pre-shrink I.D., 6" length, Black	4
3/4" pre-shrink I.D., 6" length, Black	3
1" pre-shrink I.D., 6" lenoth, Black	2

Description	Kit QTY
1/8" pre-shrink I.D., 6" length, Black	5
1/8" pre-shrink I.D., 6" length, Clear	3
1/8" pre-shrink I.D., 6" length, Red	3
3/16" pre-shrink I.D., 6" length, Black	5
3/16" pre-shrink I.D., 6" length, Clear	2
3/16" pre-shrink I.D., 6" length, Red	2
1/4" pre-shrink I.D., 6" length, Black	5
1/4" pre-shrink I.D., 6" length, Clear	2
1/4" pre-shrink I.D., 6" length, Red	2
3/8" pre-shrink I.D., 6" length, Black	5
3/8" pre-shrink I.D., 6" length, Clear	2
3/8" pre-shrink I.D., 6" length, Red	2
1/2" pre-shrink I.D., 6" length, Black	3
1/2" pre-shrink I.D., 6" length, Clear	2
1/2" pre-shrink I.D., 6" length, Red	2
3/4" pre-shrink I.D., 6" length, Black	1
3/4" pre-shrink I.D., 6" length, Clear	1
3/4" pre-shrink I.D., 6" length, Red	1

Description	Kit QTY
1/8" pre-shrink I.D., 6" length, Black	10
1/8" pre-shrink I.D., 6" length, Clear	10
3/16" pre-shrink I.D., 6" length, Black	8
3/16" pre-shrink I.D., 6" length, Clear	8
1/4" pre-shrink I.D., 6" length, Black	6
1/4" pre-shrink I.D., 6" length, Clear	6
3/8" pre-shrink I.D., 6" length, Black	4
3/8" pre-shrink I.D., 6" length, Clear	4
1/2" pre-shrink I.D., 6" length, Black	3
1/2" pre-shrink I.D., 6" length, Clear	3
3/4" pre-shrink I.D., 6" length, Black	2
3/4" pre-shrink I.D., 6" length, Clear	2

# 35083 Cutter, Striper, Crimpe

#### **Cutter, Stripper, Crimper**

- Two precision-ground wire cutters: up-front anviltype and scissors-type located behind pivot point
- Cuts, strips and crimps stranded wire in 22 to 10 AWG sizes and solid wire in 18 to 8 AWG sizes
- Cuts 6-32, 8-32, 10-32, 10-24 and 4-40 bolts and screws
- Scissors action wire stripper is precision-ground for accuracy and clean, neat stripping
- · Cushioned handle for user comfort, made of heattreated tool steel for long life, reliability and accuracy

## **Ratcheting Crimper**

- size connectors
- - size identification
    - complete crimp
      - and reliability

# **Sealed Electrical Systems**

## Crimping Tools



• Crimps 22-18, 16-14 and 12-10 AWG

• Rounded crimp die area for insulated terminals Industry standard color-coded crimp numbers for easy

• Full-cycle ratcheting handle ensures a

Made from heat-treated steel for long life

· Cushioned handle for user comfort

Hand tools for heat-seal electrical connectors					
Model No.	Description				
35083	Cutter, Stripper, Crimper				
35084	Crimp Tool, Ratcheting, Full Cycle				

# **Heat Technology Applications**

#### Facts About Heat

Applied heat technology is the basis of all Master Appliance products. Definitions of some of the basic principles of heat follow:

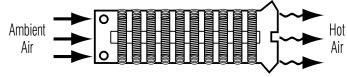
Heat is the form of kinetic energy which causes a rise in temperature in a body as it is absorbed or a reduction in temperature as it is lost to the environment.

Temperature differential is the driving force of heat energy. The greater the temperature differential between two objects, the greater the flow of heat energy from the highertemperature object to the cooler object.

BTU's (British Thermal Units) or calories are the units used to measure heat energy. One BTU is equivalent to 252 calories.

Thermal conductivity is the property of a material related to is ability to transfer heat through itself. The higher the thermal conductivity of a material, the greater the heat transfer rate. In general, metals have higher thermal conductivities than insulators. Copper and aluminum have higher thermal conductivities than steel, while steel has a higher thermal conductivity than wood or plastics.

The heat transfer rate is the quantity of heat energy flowing per unit of time through an object. It can be measured in BTU's per minute or by calories per second flowing through a specified area of the object.



Heating Element

#### **Common Modes of Heat Transfer**

- Convection employing a heated fluid such as air to convey heat from the source to the object being heated. Master Heat® guns are an example of applied convection.
- Conduction heat transfer within an object. Ultratorches, in the soldering mode, are an example of applied conduction.
- Radiation heat transfer employing electromagnetic waves similar to light or radio wave. This method does not require the presence of solids, liquids, or pases to transmit heat energy. The sun is the best example of radiant heat.

#### **Convection Heat/Hot Air**

Most Master Heat Tools use the convection principle to provide hot air for many different applications and processes.

Hot air is particularly well suited for use in a wide variety of applications and processes throughout industry.

The appropriate Master Heat Tool is selected depending on the airflow and temperature characteristics needed to do the job. Temperature is controlled by selecting a proper model or by using one of our variable temperature units. Air flow is determined by the unit selected, its outlet configuration and by the use of specially designed attachments if required.

#### How Master Heat Tools Work

Air is forced through (or over) an electric heating element. In the process, heat energy is transferred from the heating element to the air.

Most Master Heat Tools use a self-contained motor-driven fan to supply the air which is then passed over an electric heating element

						Fahrenh	eit to Centig	grade Convei	sion Table						
°F	°C	°F	°C	°F	°C	۴	°C	°F	°C	°F	°C	°F	°C	°F	°C
-58	-50	167	75	392	200	617	325	842	450	1067	575	1292	700	1517	825
-49	-45	176	80	401	205	626	330	851	455	1076	580	1301	705	1526	830
-40	-40	185	85	410	210	635	335	860	460	1085	585	1310	710	1535	835
-31	-35	194	90	419	215	644	340	869	465	1094	590	1319	715	1544	840
-22	-30	203	95	428	220	653	345	878	470	1103	595	1328	720	1553	845
-13	-25	212	100	437	225	662	350	887	475	1112	600	1337	725	1562	850
-4	-20	221	105	446	230	671	355	896	480	1121	605	1346	730	1571	855
-5	-15	230	110	455	235	680	360	905	485	1130	610	1355	735	1580	860
14	-10	239	115	454	240	689	365	914	490	1139	615	1364	740	1589	865
23	-5	248	120	473	245	698	370	923	495	1148	620	1373	745	1598	870
32	0	257	125	482	250	707	375	932	500	1157	625	1382	750	1607	875
41	5	266	130	491	255	716	380	941	505	1165	630	1391	755	1616	880
50	10	275	135	500	260	725	385	950	510	1175	635	1400	760	1625	885
59	15	284	140	509	265	734	390	959	515	1184	640	1409	765	1634	890
68	20	293	145	518	270	743	395	968	520	1193	645	1418	770	1643	895
77	25	302	150	527	275	752	400	977	525	1202	650	1427	775	1652	900
86	30	311	155	536	280	761	405	986	530	1211	655	1436	780	1661	905
95	35	320	160	545	285	770	410	995	535	1220	660	1445	785	1670	910
104	40	329	165	554	290	779	415	1004	540	1229	665	1454	790	1679	915
113	45	338	170	563	295	788	420	1013	545	1238	670	1463	795	1688	920
122	50	347	175	572	300	797	425	1022	550	1247	675	1472	800	1697	925
131	55	356	180	581	305	806	430	1031	555	1256	680	1481	805	1706	930
140	60	365	185	590	310	815	435	1040	560	1265	685	1490	810	1715	935
149	65	374	190	599	315	824	440	1049	565	1274	690	1499	815	1724	940
158	70	383	195	608	320	833	445	1058	570	1283	695	1508	820	1733	945
	Table of Values for Interpolation Above														
$\circ C = \circ F$ $\circ F = \circ C$															
	1°C = 1.8°F		4°C =	= 7.2°F		7°C = 12.6	°F	1	°F = 0.55°C			2.22°C		7°F = 3.88	°C
	$2^{\circ}C = 3.6^{\circ}F$		5°C =	= 9.0°F		8°C = 14.4	°F	2	°F = 1.11°C		$5^{\circ}F =$	2.77°C		$8^{\circ}F = 4.44$	°C

Temperature Con	version Formulas	°C - 5/	9 (°F - 32)	°E - 0/5 (°C + 32)		
$3^{\circ}C = 5.4^{\circ}F$	$6^{\circ}C = 10.8^{\circ}F$	9°C = 16.2°F	3°F = 1.66°C	6°F = 3.33°C	$9^{\circ}F = 5.00^{\circ}C$	
$2^{\circ}C = 3.6^{\circ}F$	$5^{\circ}C = 9.0^{\circ}F$	$8^{\circ}C = 14.4^{\circ}F$	2°F = 1.11°C	5°F = 2.77°C	$8^{\circ}F = 4.44^{\circ}C$	
10 1.01	10 1.21	10 12.01	11 0.00 0	TT LLL U	11 0.00 0	

# **Heat Technology Applications**

#### Master Heat Tools

Heat has many industrial applications. The proper use of the right heat technology and the right product are necessary to achieve optimum results in each application.

Master is continually developing new products and techniques to meet the demands of new applications. Master Heat guns are designed and constructed to provide our customers with dependable, cost-effective ways to apply heat properly for specific jobs.

As a leader with over fifty-five years of experience in the industry, the Master Appliance name assures its customers of an uncommon expertise in heat technology, guality products and unsurpassed service.

Our original heat gun met the heating needs of the maintenance, repair, operation and production applications of its time. Today's Master Heat Tools are designed with expanded capabilities, which make it easy to work with the growing range of new materials and processes being developed by industry.

Master Heat Tools are used for drying, heating, welding, shrinking, soldering and de-soldering as well as a variety of other applications. Wherever heat is the need, Master has the answer.

Because each application is unique, the Master Heat Tool line offers options such as varying temperatures and air flow, a choice of nozzle configurations, attachments and voltage/plug combinations to meet your needs.

The introduction of new plastics, adhesives and other materials is a continuous process. The range of options and attachments offered by Master Heat Tools enables you to use the newest materials and techniques while relying on the traditional Master quality and durability.

Master is always here to help. When you're considering a new application, material or process, call Master Appliance for professional, efficient and courteous assistance.

New applications and processes which require heat are discovered everyday. Users should independently evaluate the suitability of the product for their application. As with all electrical and butane-powered tools, for your safety, read the instruction manual before using. Product specifications are subject to change without notice.

#### One Year Warranty

At the end of the warranty period, Master Appliance shall be under no further obligation expressed or implied. Master Appliance assumes no responsibility for, and this warranty shall not cover, any incidental or consequential damages from any defect in products or their use. This warranty gives you specific rights. You may also have other rights which may vary from state to state. Warranty information is included within the Instruction Manual for each product or may be obtained by contacting Master's Customer Service Department at 800-558-9413, 262-633-7791 or www.MasterAppliance.com.

Every Master Heat Tool comes with a one year limited warranty Master Heat Tools are carefully tested and inspected before being shipped from the factory. We warrant our products to be free from defects in materials and workmanship, under normal use and service, for one year from the date of purchase. In the event of a defect in materials or workmanship we will either repair or replace, at our option, without charge any part which in our judgement shows evidence of such defect. Warranty does not apply to wearable items such as attachments, brushes, heating elements, soldering tips, hot air tips, burners or ejectors, which require periodic replacement, nor does it apply if the heat tool has been misused, abused, tampered with or altered

Master Heat Tools are sold worldwide through a network of Authorized Stocking Distributors. Trained Sales and Customer Service Representatives, located at our headquarters and throughout the world, insure fast personal service. Contact us for your nearest stocking distributor or sales representative. Visit our website for up-to-date information on products, accessories, parts, warranty and repair service.

## Master Heat<sup>®</sup> Tool Applications

#### **Applications/Processes**

hundreds of applications and processes

Master Heat Tools are being used for

throughout industry including:

Bend and form plastics and

Defrost freezers and frozen coils

Dry conformal coatings on

Desolder backs of printed circuit

boards to thru-hole components

Activate adhesives and

potting compounds

plastic laminates

Dry body filler

circuit boards

Expand metals

General heating and

drying applications

Manual Prepreg Layup

Post Heat Vinyl Wrap

Dry parts

Cure and set adhesives

- Preheat flux PVC bending
- Remove pin striping

- Remove dents in fiberglass and other materials
- Remove/install plastic autobody panels
- Remove windshield caulking
- Shrink and terminate environmental splices
- Shrink and terminate heat-shrinkable insulated solder preforms
- Shrink heat-shrinkable anti-static film
- Shrink heat-shrinkable molded parts
- Shrink heavy gauge shrink packaging
- Shrink heavy wall and adhesive-lined tubings
- Smooth vinyl tops
- Solder and desolder
- Spot dry paint
- Stretch vinyls
- Strip paint
- Vinyl repair
- Vehicle wrap installation and post heating
- Composite hand layup

## Master Heat<sup>®</sup> Tool Factory Warranty



# **Heat Technology Applications**

## **Resource Center**

Master offers its customers a Resource Center with the latest in helpful content and features. These resources are designed to help you enhance your knowledge about Master Heat Tools and Heat Technology.

Within the Resource Center you will find:

## **Applications**

• A list of the most common applications by industry.

#### Technical

Definitions, basic principles of heat and other technical information

## **How-to Articles**

• A library of short, actionable "how-to" articles.

## How-to Videos

• A collection of "how-to" videos using Master Appliance products.

## **Master Appliance News**

• News about the world's premier heat tool company.

## New Product Announcements

• Get the latest on Master's products as they are released.

## **Tool Tips and Other Miscellaneous Information**

Heat tool tips to drive creativity and efficiency.

Locate the Resource Center by visiting MasterAppliance.com.



