

Welcome to Master Appliance®

Introduction



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® 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 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.

Master Appliance®

Table of Contents

01 Electric Heat Guns

1	Master & Varitemp® Heat Guns	4			
2	Master & Varitemp® Kits & Accessories				
3	Master Deluxe Varitemp® Heat Gun	6			
4	Proheat® Quick-Touch™ & Dualtemp™ Heat Guns & Kit	7			
5	Proheat® Varitemp® Heat Gun & Kit	8			
6	Proheat® LCD Dial-in Heat Gun & Kit	9			
7	Proheat® LCD Plastic Welding Kit	10			
8	Proheat® LCD Programmable Heat Gun & Kit	11			
9	Proheat® Heat Gun Attachments & Accessories	12			
10	Proheat® Heat Gun Attachment Compatibility	13			
11	Proheat® STC™ Heat Gun	14			
12	Proheat® STC™ Dual Mode Heat Gun	15			
13	Ecoheat® Heat Gun & Kit	16			
14	Masterflow® Heat Blower	16			
15	Master-Mite® Heat Gun	17			
16	Master-Mite® ESD Heat Gun	17			

02 Butane-Powered Soldering Irons/Heat Tools

1	Econolron® EL-20 Kit	18
2	High Performance Ultratip® Technology	19
3	Ultratorch® UT-40Si & UT-40SiH	20
4	Ultratorch® UT-50	21
5	Ultratorch® UT-100 & UT-100-TC	22
6	Ultratorch® UT-100Si, UT-100SiK & UT-100Si-TC	23
7	Ultratorch® UT-100 & UT-100Si Ultratips® and Accessories	24
8	Ultratorch® UT-200 & UT-200Si Ultratips® and Accessories	25
9	Ultratorch® UT-200 & UT-200Si Ultratips® and Accessories	26

03 Butane-Powered Torches

1	Microtorch MT-11 & MT-11K	27
2	Microtorch MT-30	27
3	Mini-Triggertorch MT-70 & MT-70P	28
4	Microtorch MT-51, MT-51B & MT-51H	29
5	Triggertorch™ MT-76 & MT-76K	30
6	General Industrial Torch GT-70	31
7	Ultratane® Butane	31

04 Butane-Powered Glue Guns

1	Master PortaPro® Glue Gun — GG 100	32
2	Master PortaPro® Glue Gun — GG 200	33

05 Sealed Electrical Systems

1	Advantages of Heat-Sealed Electrical Connectors	34
2	Proseal™ Connector Assortment Kits	35
3	Solderseal™ Connector Assortment Kits	36
4	Multiseal™ Connector Assortment Kits	37
5	Heat-Shrink Tubing Assortment Kits	38
6	Crimping Tools	39

06 Heat Technology Applications

	Heat Technology	40
2	Master Heat® Tool Applications	41
}	Master Heat® Tool Factory Warranty	41
	Resource Center	42

Master & Varitemp® Heat Guns











Replacement **Heating Element**

Master He	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
HG-501A	500-750°F	260-400°C	23 CFM	120V	60 Hz	14A	1680W	HAS-011K
HG-751B	750-1000°F	400-540°C	23 CFM	120V	60 Hz	14.5A	1740W	HAS-043K
HG-202A	200-300°F	93-150°C	23 CFM	220V	50 Hz	3A	600W	HAS-012K
HG-302A	300-500°F	150-260°C	23 CFM	220V	50 Hz	6A	1440W	HAS-013K
HG-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

Master Va	Master Varitemp Heat Gun						
Model 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

■ . . . 120V Models

Momentary Contact Switch

Tool Net Weight: 3.7 lbs.

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

- · High temperature and power ratings: up to 1000°F/540°C at 1740 watts
- 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 & Varitemp® Kits & Accessories







A-160-HG Shrink attachment for tubing up to 3/4"



A-170-HG Shrink attachment for tubing 3/4" to 2" O.D.



35245 Three of our most popular attachments



30202* Solder preform attachment



51013 Rugged, plastic storage and carrying case for HG & VT Heat Guns only



51309* 3/8" Pinpoint attachment



51542 Glass protector attachment



51543 2-1/4" Spreader attachment



51544 7/8" Reducer attachment

Master He	Master Heat Gun Kit							
Model No.	Description							
HG-201AK	200-300°F	93-150°C	23 CFM	120V	60 Hz	5A	600W	
HG-301AK	300-500°F	150-260°C	23 CFM	120V	60 Hz	12A	1440W	
HG-501AK	500-750°F	260-400°C	23 CFM	120V	60 Hz	14A	1680W	
HG-751BK	750-1000°F	400-540°C	23 CFM	120V	60 Hz	14.5A	1740W	

M	Master Varitemp Heat Gun Kit										
М	odel No.	Description									
V	T-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.

Optional Accessories Part No. Description A-160-HG Shrink attachment for tubing up to 3/4" O.D. A-170-HG Shrink attachment for tubing 3/4" to 2" O.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

Solder/Desolder



Thaw Pipes



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

^{*} Not for use with HG-751B or HG-752A

Master Deluxe Varitemp® Heat Gun





Perfect for bench-top use in manufacturing and repair



Deluxe stand gives more hands-free choices



Ergonomic handle with spring loaded slide grip

Master Varitemp VTS Heat Gun							
Model No.	Description						Replacement Element
VTS-750	Amb1000°/540°C	23 CFM	120V	60 Hz	14.5A	1740W	HAS-043K
VTS-752	Amb750°/400°C	23 CFM	220V	50 Hz	7A	1680W	HAS-014K

Specifications

Air Volume: 23 CFMAir 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 6" W x 12" H

■ . . 120V Models

■ Tool Net Weight: 5 lbs.

• Shipping Weight Kit: 8 lbs.

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

Optional Accessories					
Part No.	Description				
A-160-HG	Shrink attachment for tubing up to 3/4" O.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				

Variable Temperature Heat Gun with Versatile Pivoting Stand

- 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
- Stable, deluxe heavy-duty, pivoting metal stand with non-slip rubber feet
- Unique, adjustable spring loaded slide handle with ergonomic grip
- Easy selection of multiple pivoting angles for hands-free or hands-on use, to provide the best balance and aim
- High temperature and power ratings: Ambient to 1000°F/540°C at 1740 watts
- Variable temperature control provides easy dial-in temperatures
- Powerful high speed universal motor
- High air flow rating: 23 CFM at 3000 FPM gets the job done fast
- 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
- 6 foot, 3-wire grounded cordset made with flexible, oil and sunlight resistant rubber jacket

Proheat® Quick-Touch™ & Dualtemp™ Heat Guns & Kit









Quality attachments for professional applications



35336 Proheat Nozzle Guard

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	120V	60 Hz	11A	1300W		

Proheat Dualtemp Heat Gun								
Model No.	Air Temp	Air Velocity	Air Volume					
PH-1100	500° or 1000°F	11A	1300W					
PH-1100K	PH-1100 Heat Gun with storage case and 2 attachments (35016 & 35017)							

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

Momentary Contact Switch

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.

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)
- 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 is released
- 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)

Proheat® Varitemp® Heat Gun & Kit



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



Proheat 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 (35292)									

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.

Bench-Top

Heat Shrink System

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)
- Electronic closed loop temperature control system maintains constant temperature and protects unit from overheating

professional applications

- Base provides built-in stand for hands-free use
- Protective hand/switch guard and hanging loop
- 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)

Proheat® LCD Dial-in Heat Gun & Kit



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	120V	60 Hz	11A	1300W			
PH-1400K	PH-1400 Heat Gun with storage case and all 5 attachments (Part No. 35309) see page 12 for details									

Specifications

• Motor: Permanent Magnet

Nozzle Opening: .88" I.D., 1.31" 0.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.

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
- Adjustable air flow from 4 to 16 CFM
- 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
- 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)

Proheat® LCD Plastic Welding Kit





Heavy Duty Storage & Carrying Case

Safely and conveniently stores kit contents



Speed Welding Tip (35295)

For welding rod up to 6 mm diameter



Tacking Tip (35271)

For tacking parts together prior to welding so they will not move



3/8" Reducer (35294)

Required to attach welding tips



5/8" Reducer (35293)

Provide concentrated airflow



11/4" Shrink Attachment (35017)

Reflects air around shrink tubing or pipe



Provides Informative How-to-Use Instructions

5 Starter Welding Rod Assortment (6 ea.)

Round 1/8" Diameter, 9" Long:

- PVC Welding Rod
- PP Welding Rod
- ABS Welding Rod
- HDPE Welding Rod
- LDPE Welding Rod



One compact, Light weight, Easy-to-use, Master Proheat Model PH-1400 Heat Gun

- Dial-in LCD display of temperature and air flow settings
- Dial-in temperatures in 10° increments 130°F to 1000°F
- Dial-in air flow from 4 to 16 CFM (113 to 453 I/min)
 - Control system prevents overheating when using specialty attachments
 - Temperature & airflow lock-in feature
 - Assembled in USA
 - See page 10 for more details

Proheat LCD Plastic Welding Kit

Model No.

PH-1400WK



Welding Flooring Material



MASTER PR

Pendulum Welding



Speed Welding



Mirror Welding

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.
- 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.

Proheat® LCD Programmable Heat Gun & Kit



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



Quality attachments for professional applications

Preset	Temp °F /°C	Air Flow	Application
1	250 / 120	8	Applying specialty composites
2	450 / 230	12	Shrinking tubing
3	650 / 340	14	De-soldering circuit boards
4	850 / 450	16	Bending & forming plastics
5	1000 / 540	12	Soldering

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	1300W		
PH-1500K	PH-1500 Heat Gun with storage case and all 5 attachments (Part No. 35309) see page 12 for details								

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: 3 lbs.

• Shipping Weight Kit: 7 lbs.

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

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
- Base provides built-in stand for hands-free use
- Ergonomic handle provides balanced grip
- Power-interrupt Reset feature prevents unattended heat gun from resuming heat after a power failure
- Program temperature in 10° increments from 130° to 1000°F (50° - 540°C) in your choice of degrees Fahrenheit or Celsius
- 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® 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.

Reducer Attachments



35294*
3/8" (9 mm) Reducer
Concentrates air flow.
Also used with weld tips



5/8" (14 mm) Reducer Provides concentrated air flow



35270*
3/4" (20 mm)
Reduction Nozzle
Concentrated air flow



35260
2" (50mm) Spreader Nozzle
Spreads air evenly over
wide area



35016 3" (75 mm) Spreader Spreads air evenly over wide area

Reflector Attachments



3/8" (9 mm)
Reflector, Shrink Attachment
For shrinking small diameter tubing
Use with PN35294 3/8" Reducer



35264*
3/8" (9 mm)
Reflector, Shrink Attachment
For shrinking small
diameter tubing



35292*
5/8" (14 mm)
Special Connector
Use to terminate shrink,
solder & crimp connectors



35261 3" (75mm) Large Reflector For shrinking large diameter tubing



35017 1 1/4" Shrink Attachment Reflects air around surface's such as tubing or pipe



Attachment Kit

35309*
Attachment Kit
Kit of 5 most popular
attachments

Deflector Attachments



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



35263 3" (75mm) Window Nozzle Deflector Deflects heat away from windows



Accessories

35216

Bench Stand

To position guns for various applications



Seam Roller with ball bearings For lap welding, edging tape and roofing applications

35291



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



35351 Storage Case Transport & store in a rugged plastic case

Welding Attachments



35295*
Plastic Welding
Rod Nozzle w/ 7mm intake
For use with welding rod,
use with 3/8" reducer



35271*
Tacking Tip
For tacking parts together prior
to welding so they will not
move, use with 3/8" reducer



35296*
3/4" (20 mm)
Lap Welding Nozzle
For lap welding plastic
materials, use with 3/8" reducer



35266*
1 1/2" 40mm
Angle Slit Nozzle
Lap welds roofing
materials



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



35268* 1 1/2" (40mm) Lap Welding Slit Nozzle For lap welding PVC Sheeting

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



ABS Welding Rod
Acrylonitrile Butadiene Styne,
Natural, for welding ABS plastics



35298
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



35301

HDPE Welding Rod

High Density Polyethylene,
for welding HDPE plastics

Proheat® 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:

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			•	•	•		•

Proheat® STC™ Heat Gun



Master Proheat STC Heat Gun										
Model No.	Air Temp. Air Velocity Air Volume									
PH-1600	90 - 500°F/40 - 270°C	90 - 500°F/40 - 270°C 4000 FPM 4 - 16 CFM 120V 60 Hz 11A 1300W								
PH-1600K	PH-1600 Heat Gun with sto	PH-1600 Heat Gun with storage case								
Optional Accessories – Master Proheat STC and STC Dual Mode (Page 12) Heat Guns										
Part No.	Description									
		Master Proheat STC storage/carrying case								
35542	Master Proheat STC storage	carrying case/								

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

Master Proheat STC Surface Temperature Control Heat Gun

- Surface temperature range: up to 500°F/270°C at 1300 watts
- Unique Laser Targeting System[™] provides accurate temperature measurement
- Surface temperature displays on the bottom row of the LCD and target temperature displays on top row
- Enables you to work in upper limits of the cure zone to bring surfaces up to temperature fast
- Proloc locking system prevents changing of temperature and airflow
- Green, yellow and red LED lights indicate progress in heating process
- Temperature display in either degrees Celsius or Fahrenheit
- Regulates heater to maintain target temperature
- Avoids overheating or burning heat sensitive materials
- Built-in hanging loop for storage in production area

Proheat® STC™ Dual Mode Heat Gun



Master Pro	oheat STC Dual Mode Heat Gun – STC Mode									
Model No.	Air Temp.									
PH-1610	90 - 500°F/40 - 270°C 4000 FPM 4 - 16 CFM 120V 60 Hz 11A 1300W									
PH-1610K	PH-1610 Heat Gun with storage case									
Master Pro	heat STC Dual Mode H	eat Gun – Sta	ndard Mode							
Model No.	Air Temp.	Air Velocity	Air Volume							
PH-1610	170-1000°F/80-540°C	4000 FPM	4 - 16 CFM	120V	60 Hz	11A	1300W			
PH-1610K	PH-1610 Heat Gun with storage case									

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.

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[™] provides accurate temperature measurement
- Surface temperature displays on the bottom row of the LCD and target temperature displays on top row in STC Mode
- In Standard Mode target temperature is displayed on top, actual nozzle temperature is displayed 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
- 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® Heat Gun & Kit





Kit includes storage case and four specialized nozzle attachments

Economical, Lightweight, Multi-use Heat Gun

- Two heat settings: 500°F or 1000°F (260°C or 540°C)
- Two fan speeds Low or High (7 or 9 CFM)
- Lightweight 1 lb. Easy to hold at any angle for long periods of time, eliminates operator fatigue
- Built-in hand guard Protects hand and fingers. Recessed switch guards against knocks and bumps
- 3-wire grounded cordset Positive grounding system for user safety

- 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

Specifications

- Air Volume: 7 or 9 CFM
- Air Velocity: 720 or 1100 FPM
- Motor: Permanent Magnet
- Cordset: 6 ft., 3-wire grounded
- Nozzle Opening: 1.2" I.D., 1.35" O.D.
- **Dimensions:** 8.5" L x 3.2" W x 7.7" H
- . 40 × 120 V Models
- Tool Net Weight: 2 lbs. • Shipping Weight Tool: 3 lbs.
- Shipping Weight Kit: 5 lbs.

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

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 Kit includes EC-100 Heat Gun, 7/8" reducer attachment, 1-1/4" shrink tubing reflector, EC-100K 1-15/16" and 3-1/8" spreader attachments packed in a durable storage/carrying case Attachment kit contains 7/8" reducer attachment, 1-1/4" shrink tubing reflector, 35225 1-15/16" and 3-1/8" spreader attachments 35215 Durable storage/carrying case

Masterflow® Heat Blower



Specifications

- Air Volume: 47 CFM
- Air Velocity: 2200 FPM
- Motor: Induction
- **Nozzle Opening:** 1.85" I.D., 2.25" O.D.
- **Cordset:** 6 ft., 3-wire grounded
- **Dimensions:** 12" L x 6" W x 9" H
- . . All Models
- Base Size: 6" x 6"
- Net Weight: 6 lbs.
- Shipping Weight: 8 lbs

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

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 Heat Gun & Kit										
Model No.	Descripti	ion	Replacement Element							
AH-301**	300°F	150°C	120V	60 Hz	10A	1200W	815 (3.5"), 35485 (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	816 (3.5"), 35486 (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

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

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



Optional Accessories



attachment



attachment



40061 1/4"

pinpoint attachment

50675 Bench stand

Specifications

- 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

- · 120V Models
- Net Weight: 1.7 lbs.
- Shipping Weight: 3 lbs.

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

Master-Mite® ESD Heat Gun

Master-Mite ESD Heat Gun Model No. Description 10012 800°F 427°C 120V 60 Hz 4.5A 525W **Optional Replacement Heating Elements** Part No. Description 20012 500°F 260°C 340W Blue 120V 20013 Silver 650°F 343°C 120V 475W 20014 Black 427°C 120V 525W 800°F

Specifications

- 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

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

Housing Static Decay:

Housing Surface Res.:

<500 ohms/sq.

• Net Weight: 1.75 lbs.

• Shipping Weight: 3 lbs.

5000V to < 50V < 0.01 sec.

Optional Accessories





Heat shrink attachment



40061 1/4" pinpoint attachment

50675 Bench stand



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

Econolron® EI-20 Kit



El Series Econolron El-20K

Refill with Master Ultratane Butane for best performance. (page 31)



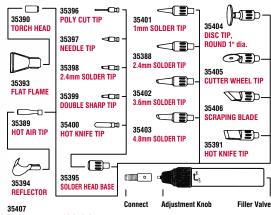




35390 Torch head (std.)

EI-20 Kit
Proheat LCD Programmable Heat Gun with
rugged storage case and 3 specialty attachments





Popular accessory kit includes: 35395 solder head base, 35396 poly cut tip, 35397 needle tip, 35398 2.4mm solder tip, 35399 double sharp tip, 35400 hot knife tip



35392 Cap with striker wheel

Econolron El-20 Model No. Description El-20K Economical, refillable, butane-powered soldering iron, flameless heat tool and torch kit

Specifications

- Approx. Soldering Tip Temp.: 395° 780° F (200° 420° C)
- Approx. Hot Air Tip Temp.: 780°F (420°C)
- Approx. Torch Tip Temp.: 2370°F (1300°C)
 Equivalent to Electric Iron: 10 to 60 Watt
- Approx. Operating Time: 60 min.
 Fuel Tank Capacity: .6 fl. oz. (.01 L)
- Tool Dimensions: 6.5" L (16.6 cm) w/o cap
- Kit dimensions: 10" L X 5" W X 2" H
- (25.4 cm x 12.7 cm X 5 cm)
- Torch Net Weight: 1.9 oz.
 Torch Kit Weight: 13.3 oz.
 Shipping Weight: 1 lb.
- Shipped Empty
- · (1)

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

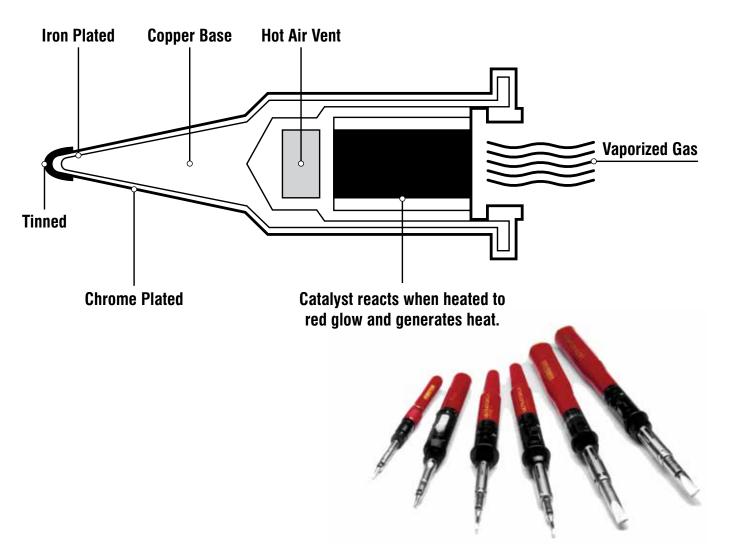
Optional Replacement Heating Elements			
Part No.	Description	Part No.	Description
35388	2.4mm soldering tip (std.)	35398	2.4mm soldering tip – base req'd
35389	Flameless hot air tip (std.)	35399	Double sharp tip – base req'd
35390	Torch head (std.)	35400	Hot knife tip – base req'd
35391	Hot knife tip (std. EI-20K)	35401	1mm soldering tip
35392	Cap with striker wheel (std.)	35402	3.6mm soldering tip
35393	Flat flame tip	35403	4.8mm soldering tip
35394	Heat shrink attachment	35404	Disc tip, round 1" dia.
35395	Solder head base	35405	Cutter wheel tip
35396	Poly cut tip – base req'd	35406	Scraping blade
35397	Needle tip – base req'd	35407	Popular accessory kit

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

High Performance Ultratip® Technology

Ultratip Technology



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.

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 on the joint.

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® UT-40Si & UT-40SiH





UT Series Ultratorch UT-40Si

91-01-03

2mm wide chisel soldering tip

91-01-04

5mm wide chisel soldering tip

91-01-50

1.6mm wide hot air tip

1mm wide chisel soldering tip









91-01-52 4.7mm wide hot air tip (std. all models)



91-02 Protective cap (std. all models)

70-01-55 .5"/12.7mm dia. .75"/19mm wide heat shrink

Ultratorch UT-40	
Model No.	Description
UT-40Si	Ultratorch soldering iron/flameless heat tool
UT-40SiH	Ultratorch w/hot air tip & shrink attachment

Specifications

- Approx. Soldering Tip Temp.: 840°F (450°C)
- Approx. Hot Air Tip Temp.: 1202°F (650°C)
- Equivalent to Electric Iron: 20 to 80 Watt
- Approx. Operating Time: 1.3 hrs.
- Fuel Tank Capacity: .5 fl. oz.
- Tool Dimensions: 8.3" L (200mm) w/o cap
- Tool Net Weight: 2.6 oz.
- Shipping Weight: 1 lb.
- Shipped Empty

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

Optiona	l Accessories			
Part No.	Description	Part No.	Description	
Ultratip So	Ultratip Soldering Tips		Hot Air Tips & Shrink Attachment	
91-01-01	1mm wide chisel soldering tip	91-01-50	1.6mm wide hot air tip	
91-01-02	2.4mm wide chisel soldering tip (std. UT-40Si)	91-01-52	4.7mm wide hot air tip (std. all models)	
91-01-03	2mm wide chisel soldering tip	70-01-55	.5"/12.7mm dia. .75"/19mm wide heat shrink	
91-01-04	5mm wide chisel soldering tip		attachment (std. UT-40SiH) (requires 91-01-52)	
Hot Knife	Hot Knife Tip		Protective Cap & Carrying Case	
91-01-53	Hot knife tip	91-02	Protective cap (std. all models)	
		70-52U	Carrying strap	

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

- Standard with Ultratip® soldering tip, hot air tip and
- Adjustable temperature lever for temperatures up to 1202°F
- · Convenient slide switch ignition system for quick ignition
- 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

Ultratorch® UT-50



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

cifications	
Approx. Soldering Tip Temp.: 392° - 842°F	• Fuel Tank Capacity: .2 fl. oz. (6 cc)
(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.	· (3).

Optional Accessories		
Part No.	Description	
71-01-01	1mm dia. tapered needle tip	
71-01-02	2.4mm dia. chisel tip (std.)	
71-01-03	2mm dia. spade tip	
71-01-04	3mm dia. spade tip	
70-35	Ejector spanner wrench	
71-01-50	1.5mm dia. hot air tip	
71-01-52	4.7mm dia. hot air tip (std.)	
70-01-55	.5"/12.7mm dia., .75"/19mm wide heat shrink attachment	
70-52U	Carrying strap	

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

- Standard with Ultratip[®] soldering tip, hot air tip and protective cap
- Pen-sized heat tool fits in your shirt pocket for absolute portability
- Aluminum fuel tank with viewing window to indicate fuel level
- 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

Ultratorch® UT-100 & UT-100-TC



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

UT Series Ultratorch UT-100









Solder

Flameless Heat

Torch

Ultratorch UT-100

Model No. D

Description

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

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

Specifications

- Approx. Soldering Tip Temp.: 392° - 932°F (200° - 500°C)
- Approx. Hot Air Tip Temp.: 1112°F (600°C)
- Approx. Torch Tip Temp.: 2372°F (1260°C)
- Equivalent to Electric Iron: 20 to 80 Watt
- Approx. Operating Time: 120 min.
- Fuel Tank Capacity: 1 fl. oz. (28 cc)
- Tool Dimensions: 9.5" L (242mm)
- Tool Net Weight: 3.7 oz.
- UT-100 Shipping Weight: 1 lb.
- UT-100-TC Shipping Weight: 3 lbs.
- Shipped Empty
- **65** .0.

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

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® 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

- 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™ environmental "heat and seal" connectors
- Torch temperatures up to 2372°F/1260°C
- Sturdy metal tank with fuel viewing window holds enough fuel for 2 hours of operation
- Use to pinpoint heat, remove surface mount

- 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)

Ultratorch® UT-100Si, UT-100SiK & UT-100Si-TC

UT Series Ultratorch UT-100SiK





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

Specifications

- Approx. Soldering Tip Temp.: 482° - 932°F (250° - 500°C)
- Approx. Hot Air Tip Temp.: 1202°F (650°C)
- **Approx. Flame Temp.:** 2500°F (1371°C)
- Equivalent to Electric Iron: 20 to 80 Watt
- Approx. Operating Time: 120 min.
- Fuel Tank Capacity: 1 fl. oz. (28 cc)
- **Tool Dimensions:** 10.3" L (260mm)
- **Tool Net Weight:** 5.5 oz. (100 g)
- UT-100Si Shipping Weight: 1 lb.
- UT-100SiK Shipping Weight: 2 lbs.
- UT-100Si-TC Shipping Weight: 3 lbs.
- Shipped Empty
- GS

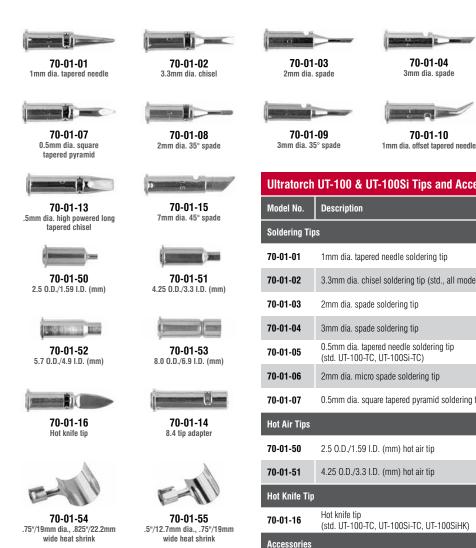
NOTE: Users should independently evaluate the suitability of the product for their application.

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

- 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™ environmental "heat and seal" connectors
- 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® UT-100 & UT-100Si Ultratips® and Accessories



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° 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 O.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 O.D./6.9 I.D. (mm) hot air tip
Hot Knife Ti	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
70-35	Ejector spanner wrench	90-02	Protective cap (std. UT-100Si, UT-100Si-TC)

70-01-05

0.5mm dia. tapered needle

70-01-11

8mm dia. high powered chisel

70-01-06

2mm dia. micro spade

70-01-12

3mm dia. high powered

70-35 Ejector spanner wrench



70-02





70-43

Tool holder

70-07TU

70-37U Tip cleaner sponge

70-40U Metal storage box

70-52U Carrying strap

90-02 Protective cap

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 & UT-200Si Ultratips® and Accessories



Ultratorch UT-200 and UT-200Si

UT-200	Butane-powered soldering iron, heat tool and torch with soldering tip, hot air tip, shrink attachment and protective cap
UT-200Si	Self-igniting, butane-powered soldering iron/heat tool, with soldering tip, hot air tip, shrink attachment and protective cap





Solder

Desolder

Specifications

- Approx. Soldering Tip Temp.: 482° - 986°F (250° - 530°C)
- Approx. Hot Air Tip Temp.: 1004°F (540°C)
- Approx. Torch Tip Temp.: UT-200 2372°F (1260°C)
- Approx. Operating Time: 120 min.
- Fuel Tank Capacity: 2.2 fl. oz. (63 cc)
- **Tool Dimensions:** 11.9" L (300mm)
- Tool Net Weight: 9 oz.
- Tool Kit Weight: 13.3 oz. Shipping Weight: 1 lb.
- **Shipped Empty**
- .D.
- **NOTE:** Users should independently evaluate the suitability of the product for their application.







Flameless Heat

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

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

Ultratorch® UT-200 & UT-200Si Ultratips® and Accessories







72-01-11 7mm dia. chisel



72-01-13 12.5mm dia. 45° spade



72-01-51 6 O.D./3.6 I.D. (mm



72-01-53 11.5 O.D./9.7I.D. (mm)



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



72-01-02 10mm dia. chisel



72-01-05 1mm dia. tapered needle



72-01-07 1.5mm dia. tapered pyramid



72-01-12 4mm dia. chisel



72-01-14 Adapter



72-01-52 .6 O.D./6.6 I.D. (mm



1

72-01-551.25"/32mm dia., 1.25"/32mm wide heat shrink





80-35 Ejector spanner wrench



80-40 Open end wrench



72-52U Carrying strap

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

Microtorch MT-11 & MT-11K

Palm-sized Microtorch

- · 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

Microtorch MT-11

Model No.

MT-11

MT-11K

Specifications

- Meets Consumer Products Safety Commission (CPSC) Child Safety Requirements
- Ships via ground transportation without hazmat charges

Description

■ Approx. Flame Temp. 2500°F

Fuel Tank: Refillable Fuel Cell

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

Approx. Run Time: 20 min. @ max. setting

Microtorch, palm-sized, shipped without fuel

Microtorch with 15/16 oz. can of butane (10448)

- 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 and more
- Replaceable, refillable "fuel cell" (included)

• Tool Net Weight: 2.1 oz.

Shipping Weight Tool: 1 lb.

• Shipping Weight Kit: 2 lbs.



Microtorch MT-30

MRSTER 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)

Microtorch MT-30

Model No. Description

MT-30 Microtorch, low profile table-top

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
- **₫** (€

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
- 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.
- Shipped Empty
- · @ &

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

- 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 off operation
- 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, MT-51B & MT-51H



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)	

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.

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
- Temperatures up to 2500°F/1300°C
- 2 hour continuous burn time, perfect for continuous heat applications
- Adjustable broad or pinpoint flame
- Meets Consumer Products Safety Commission (CPSC) Child Safety Requirements
- 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)

Triggertorch™ MT-76 & MT-76K



4 tools in 1 — Open Flame Torch, Soldering Iron, Flameless Hot Air and Hot Knife in a rugged storage/carrying case







Solder

Flameless Hot Air

2 Hour Run Time

Triggertorch MT-76

990	330		
Model No.	Description		
MT-76	Triggertorch with table-top stand, soldering tip (35386) & hot air tip (35387)		
MT-76K	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 in a durable plastic case		

Specifications

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

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

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
- 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 cutter, 5" needle nose pliers, soldering tip, hot air tip, shrink attachment, polyfoam cutter, hot knife tip, roll lead free solder, and stand with sponge packed in a durable plastic storage/carrying case
- 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 off operation
- Unique shutter lever to easily extinguish ignition flame when using soldering or hot air tip attachments
- 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)

General Industrial Torch GT-70

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

- · Removable base for table-top or handheld use
- Meets Consumer Products Safety 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 and terminate heavy wall adhesive-lined tubing, solder and desolder and more
- · Refill with Master Ultratane Butane for best performance (page 31)



General Industrial Torch GT-70

Model No. Description

GT-70 General Industrial Torch

Specifications

- Approx. Flame Temp. 2500°F
- Fuel Tank: Metal, Built-in, Refillable
- Approx. Run Time: 30 min.
- **Dimensions:** 6.5" H x 5" W x 1.8" D
- Tool Net Weight: 10.6 oz.
- Shipping Weight Tool: 1 lb.
- **Shipped Empty**
- ⊕ 🗲

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

Ultratane® Butane

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 1/8 oz. (145 gram), 3 \(^4\) oz. (106 gram), and 15/16 oz. (26 gram) cannisters
- Model 10448 and 11799 meet Limited Quantity Class Markings and can ship via ground transportation without hazardous material charges
- Model 51773 has proper D.O.T. markings and ships via ground transportation with hazardous material charges



Ultratane Butane		
Model No.	Description	
51773	$5\ \%$ oz. (145 gram) canister with universal tip adapter	
11799	3 ¾ oz. (106 gram) canister with universal tip adapter	
10448	$^{15}\!\!/_{6}$ oz. (26 gram) canister with universal tip adapter	



Butane-Powered Glue Guns

Master PortaPro® 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

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





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)



35408 Standard general purpose tip



35409 Needle extension tip



Diagonal cut extension tip



35411 Spreader extension tip

Optional Accessories	
Part No.	Description
35408	Standard general purpose tip — Dia. 4.47mm O.D.
35409	Needle extension tip — 7.8mm long Dia. 3.2mm O.D.
35410	Diagonal cut extension tip — 8.4mm long x 45° Dia. 4.74mm O.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)

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
- Completely portable, lets you work almost anywhere
- Industrial power and durability
- One touch, fast piezo ignition
- Reaches operating temperature in less than 4 minutes
- 140 minutes continuous run time with a full charge
- Fuel view window indicates fuel level
- · Built-in fold away stand
- Unlimited versatility
- · Refill with Master Ultratane Butane for best performance (page 31)

Butane-Powered Glue Guns

Master PortaPro® Glue Gun — GG-200



Easy to Refill



Cordless operation is fast and convenient



PortaPro Glue Gun		
Model No.	Description	
GG-200	PortaPro Glue Gun	

Specifications

- Approx. Operating Temp: 392°F/200°C
- Ramp Up Time: 3-4 minutes
- Recommended Glue Stick: 1/2"
- Glue Melt Rate: up to .67 lbs. per hour
- Approx. Run Time: 120 minutes (full tank)
- Fuel Capacity: 6 grams
- **Dimensions:** 6.75" L x 1.25" W x 6" H
- Tool Net Weight: 7.9 oz. w/o fuel
- Shipping Weight Tool: 2 lbs.
- Shipped Empty
- **(II**

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

Optional Accessories		
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 ½ oz. (145 gram) canister with universal tip adapter	
11799	3% oz. (106 gram) canister with universal tip adapter	
10448	$^{15}\!\!/\!$	

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
- 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
- Fuel view window indicates fuel level
- 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)

05

Advantages of Heat-Sealed Electrical 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

Proseal[™] Connector Assortment Kits



10054 Proseal Butt Splice Connector Minipack



10600 Assortment Proseal Connector Kit



Apply heat until tubing recovers and adhesive melts and flows.

Proseal Butt Splice Connector Minipack (3 items & 45 pieces) Butt Connect 20-18 Butt Connector, Red 20 10666 16-14 Butt Connector, Blue 20 10667 12-10 Butt Connector, Yellow 10668

10600 — Assortment Proseal Connector Kit (20 items & 115 pieces)			
AWG	Description	Kit QTY	50pc Refill
Ring Term	ninals		
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 Te	rminals		
20-18	#10 Stud, Red	5	10665
16-14	#10 Stud, Blue	5	10663
12-10	#10 Stud, Yellow	5	10664
Butt Conn	ectors		
20-18	Butt Connector, Red	10	10666
16-14	Butt Connector, Blue	10	10667
12-10	Butt Connector, Yellow	10	10668
Insulated	Couplers		
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

High Quality Crimp & Heat-seal Connectors

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

Solderseal[™] Connector Assortment Kits

10056 — Solderseal Butt Splice Connector Minipack (4 items & 55 pieces)			
AWG	Description	Kit QTY	50pc Refill
Butt Connecto	ors		
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

10724 —	Solder seal Connector Kit (25 items	s & 135 pieces)	
AWG	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
16-14	3/8" Stud, Blue	5	10822
12-10	#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
16-14	Butt Connector, Blue	10	10836
12-10	Butt Connector, Yellow	5	10837
Insulated C	ouplers		
20-18	Female, .250 Tab, Red	5	10838
20-18	Male, .250 Tab, Red	5	10840
16-14	Female, .250 Tab, Blue	5	10841
16-14	Male, .250 Tab, Blue	5	10843
12-10	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

Specifications

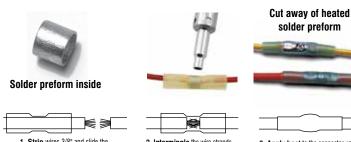
■ Temperature rating: -67°F to 230°F (-55°C to 110°C)

Longitudinal change: +1, -10%
 Recovery temperature: 275°F/135°C
 Dialectic strength: 500 Volts/Mil.
 UL Voltage Rating: 600 Volts
 Water absorption: <0.1%

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



Strip wires 3/8" and slide the connector over one of the wires.

Separate the wire strands.

2. Intermingle the wire strands and slide the connector over the initial wires

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

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
- Translucent, adhesive-lined polyolefin shrink tubing
 — Allows visual inspection, prevents wire corrosion and provides a water and contaminant resistant seal
- Ensures the original integrity of wire connections and wiring harnesses and conforms with OEM standards.
 102 lbs tensile strength

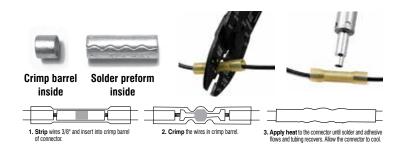
Multiseal™ Connector Assortment Kits



10058 Multiseal Butt Splice Connector Minipack



10067 Multiseal Connector Kit



10058 - Multiseal Butt Splice Connector Minipack (3 items & 50 pieces)			
AWG	Description	Kit QTY	50pc Refill
Butt Connec	tors		
20-18	Butt Connector, Red	20	11572
16-14	Butt Connector, Blue	20	11579
12-10	Butt Connector, Yellow	10	11567

AWG	Description	Kit QTY	50pc Refill
Ring Termi	nals		
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 Tern	ninals		
20-18	#10 Stud, Red	5	11580
16-14	#10 Stud, Blue	5	11583
12-10	#10 Stud, Yellow	5	11571
Butt Conne	ctors		
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 C	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%

Crimp Mechanical reliability holds wires in place

Solder Ultimate tensile strength • Superior conductivity

Seal Durable insulation • Watertight connection

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
- 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
- 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. 103 lbs tensile strength

Heat-Shrink Tubing Assortment Kits



Thin Wall Flexible Shrink Tubing Minipack



Thin Wall Flexible Shrink Tubing Kit

Thin Wall Flexible Heat-shrink **Tubing with No Adhesive**

- Polyolefin, 2 to 1 shrink ratio
- Highly flexible for conforming to irregular shapes
- Self-extinguishing UL224 (except clear)

Specifications

- MIL-DTL-23053/5 Class 1 (colors) Class 2 (clear)
- 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

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 &	& 103 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

此是民民民民民



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



10064

Flexible Adhesive-Lined Shrink Tubing Kit

Flexible Adhesive-Lined Shrink Tubing Kit

- irregular shapes
- provides a barrier against contaminants

Specifications

- MIL-DTL-23053/4 Class 3
- UL E157227
- Recovery temp.: 250°F/121°C
- Dielectric strength: 700V/Mil.
- Continuous oper. temp.: -67°F to 230°F/-55°C to 110°C

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" length, Black	2	

100C4 Florible Adhesive Lined Christ Tubing Vit (10 items 9 4)) winnes\
10064 — Flexible Adhesive-Lined Shrink Tubing Kit (18 items & 48	
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

10065 — Flexible Adhesive-Lined Shrink Tubing Kit (12 items & 66 pieces)						
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					

Crimping Tools



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

- Crimps 22-18, 16-14 and 12-10 AWG size connectors
- · Rounded crimp die area for insulated terminals
- Industry standard color-coded crimp numbers for easy size identification
- Full-cycle ratcheting handle ensures a complete crimp
- Made from heat-treated steel for long life and reliability
- · 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

Heat Technology

Facts About Heat

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

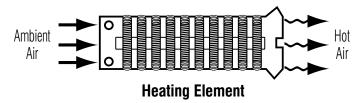
Heat is the form of kinetic energy which causes a rise in temperature in a body as it is absorbed or a reduction in temperature as it is lost to the environment.

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 higher-temperature 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.



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.

Fahrenheit to Centigrade Conversion Table															
°F	°C	°F	°C	°F	°C	°F	°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									
	°C = °F			°F = °C					
1°C = 1.8°F	4°C = 7.2°F	7°C = 12.6°F	1°F = 0.55°C	4°F = 2.22°C	7°F = 3.88°C				
2°C = 3.6°F	5°C = 9.0°F	8°C = 14.4°F	2°F = 1.11°C	5°F = 2.77°C	8°F = 4.44°C				
3°C = 5.4°F	6°C = 10.8°F	9°C = 16.2°F	3°F = 1.66°C	6°F = 3.33°C	9°F = 5.00°C				
Temperature Co	onversion Formulas	°C = 5/	′9 (°F -32)	°F = 9/5 (°C +32)					

Heat Technology Applications

Master Heat® Tool 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, quality 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.

Applications/Processes

Master Heat Tools are being used for hundreds of applications and processes throughout industry including:

- Activate adhesives and potting compounds
- Bend and form plastics and plastic laminates
- Cure and set adhesives
- Defrost freezers and frozen coils
- Desolder backs of printed circuit boards to thru-hole components
- Dry body filler
- Dry conformal coatings on circuit boards
- Dry parts
- Expand metals
- General heating and drying applications
- Manual Prepreg Layup
- Post Heat Vinyl Wrap
- 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

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.

Master Heat® Tool Factory Warranty

One Year Warranty

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.

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.

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.