



Worldwide Corporate Headquarters

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

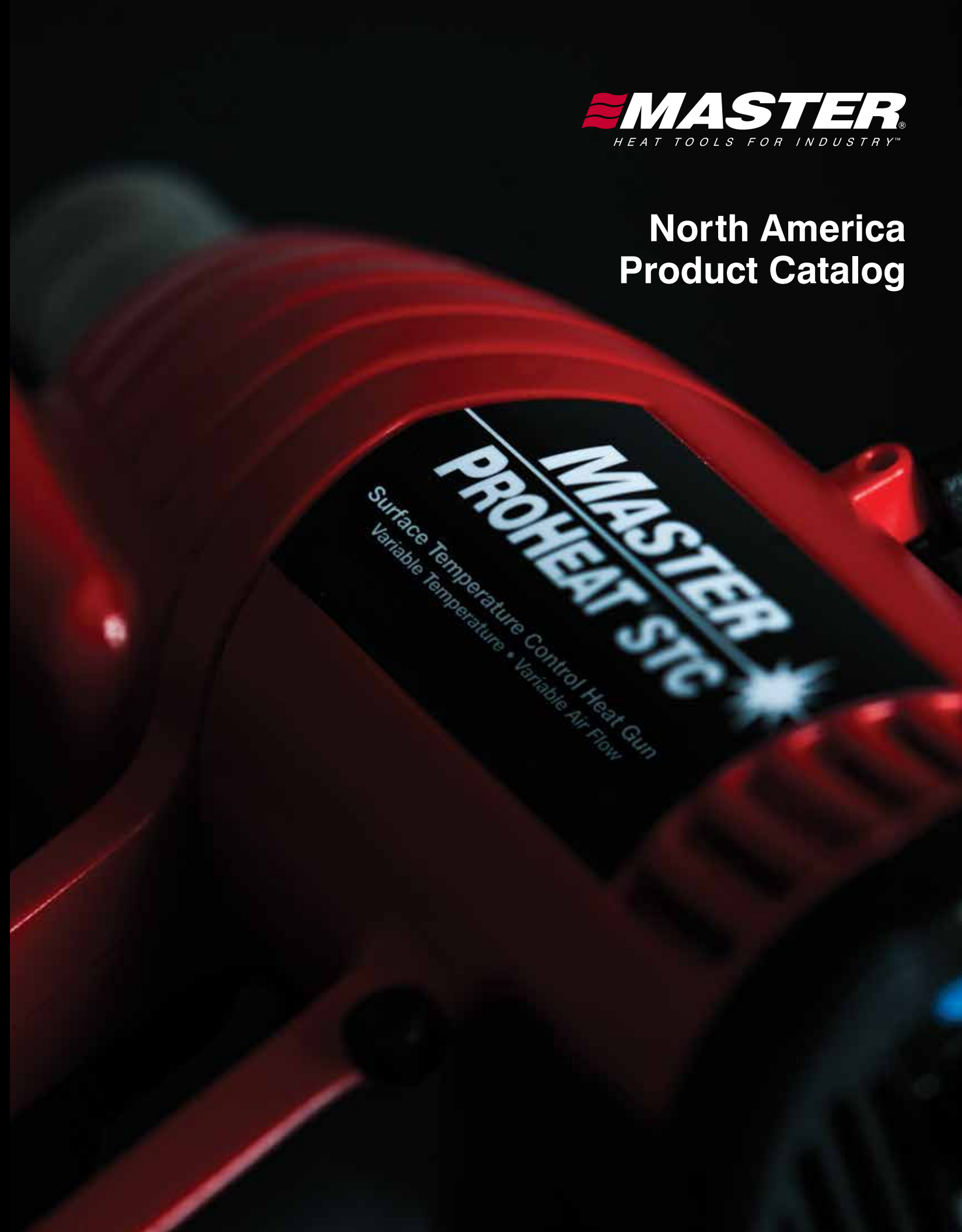
Sales/Customer Service: 800-558-9413 (US & Canada)
Local and International: 262-633-7791
Fax: 262-633-9745

MasterAppliance.com
Sales@MasterAppliance.com

For Master Appliance products contact:



North America Product Catalog





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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® 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.

01 Electric Heat Guns

1	Master & Varitemp® Heat Guns	4
2	Master & Varitemp® Kits & Accessories	5
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® Variair® Heat Gun & Kit	9
7	Proheat® LCD Dial-in Heat Gun & Kit	10
8	Proheat® LCD Plastic Welding Kit	11
9	Proheat® LCD Programmable Heat Gun & Kit	12
10	Proheat® Heat Gun Attachments & Accessories	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® EI-20 & EL-20 Kit	18
2	High Performance Ultratip® Technology	19
3	Ultratorch® UT-40Si, UT-40SiH & UT-40SiK	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-5	27
2	Microtorch MT-11 & MT-11K	27
3	Microtorch MT-30	28
4	Mini-Triggertorch MT-70 & MT-70P	28
5	Microtorch MT-51, MT-51B & MT-51H	29
6	Triggertorch™ MT-76 & MT-76K	30
7	General Industrial Torch GT-70	31
8	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	Heat-Shrink Tubing Kit Refills	39
7	Crimping Tools	39

06 Heat Technology Applications

1	Heat Technology	40
2	Master Heat® Tool Applications	41
3	Master Heat® Tool Factory Warranty	41
4	Resource Center	42

Electric Heat Guns

Master & Varitemp® Heat Guns



HG Series
Master Heat Gun



VT Series
Varitemp Heat Gun



Rotating
Swivel Stand

Replacement
Heating Element

Master Heat 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 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 11680W	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.

Electric Heat Guns

Master & Varitemp® Kits & Accessories



HG Series
Master Heat Gun Kit



VT Series
Varitemp Heat Gun Kit



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 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

Master Varitemp Heat Gun Kit

Model No.	Description
VT-750CK	Amb.-1000°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



Thaw Pipes



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

* 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

Electric Heat Guns

Master Deluxe Varitemp® Heat Gun

VTS Series Master Deluxe Varitemp Heat Gun

Pivoting stand and adjustable slide grip handle



Ergonomic handle with spring loaded slide grip



Reflector Attachment for Heat Shrinking

Perfect for bench-top use in manufacturing and repair



Deluxe stand gives more hands-free choices

Master Varitemp VTS Heat Gun							
Model No.	Description						Replacement Element
VTS-750	Amb.-1000°/540°C	23 CFM	120V	60 Hz	14.5A	1740W	HAS-043K
VTS-752	Amb.-750°/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 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.

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

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

Electric Heat Guns

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



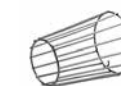
PH-1100K
Proheat Dual Temperature Heat Gun with rugged storage case and 2 attachments (35016 & 35017)



PH Series Proheat Dualtemp Heat Gun



Quality attachments for professional applications



35336
Proheat
Nozzle Guard

Proheat Quick-Touch Heat Gun

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	4000 FPM	16 CFM	120V	60 Hz	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
- **Ⓢ 120V Models**
- **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 13)

Electric Heat Guns

Proheat® Varitemp® Heat Gun & Kit



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



PH Series
Proheat Varitemp Heat Gun

Easy access variable temperature control



Quality attachments for professional applications



PH-1200-1
Bench-Top Heat Shrink System

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 13 for details						
PH-1200-1	PH-1200 Heat Gun with bench stand (35216) and specialty connector attachment (35292)						

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.

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
- 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 13**)

Electric Heat Guns

Proheat® Variair® Heat Gun & Kit



PH-1300K
Proheat Variair Heat Gun with rugged storage case and 5 specialty attachments

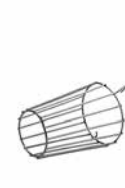


PH Series
Proheat Variair Heat Gun

Dial-in variable temperature and air flow controls



Quality attachments for professional applications



35336
Proheat Nozzle Guard

Proheat Variair Heat Gun

Model No.	Air Temp.	Air Velocity	Air Volume				
PH-1300	130° - 1000°F/50° - 540°C	737 - 4000 FPM	4 - 16 CFM	120V	60 Hz	11A	1300W
PH-1300K	PH-1300 Heat Gun with storage case and all 5 attachments (Part No. 35309) see page 13 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.

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)
- Variable air flow from 4 - 16 CFM
- Electronic closed loop temperature control system maintains constant temperature when varying air flow or using specialty attachments
- 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 and more
- Make your Proheat even more versatile. See our wide variety of professional quality attachments & accessories (**page 13**)

Electric Heat Guns

Proheat® LCD Dial-in Heat Gun & Kit

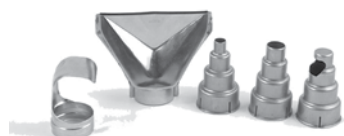


PH-1400K
Proheat LCD Dial-in Heat Gun with rugged storage case and 5 specialty attachments

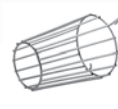


PH Series
Proheat LCD
Dial-in Heat Gun

Dial-in variable temperature & air flow controls



Quality attachments for professional applications



35336
Proheat
Nozzle Guard



Proloc™
Magnetic Key

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 13 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.

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 13**)

Electric Heat Guns

Proheat® LCD Plastic Welding Kit

Each Welding Kit Includes:



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



1/4" Shrink Attachment (35017)
Reflects air around shrink tubing or pipe



Plastic Welding & Proheat Instruction Manuals

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

Proheat LCD Dial-in Heat Gun (PH-1400)

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

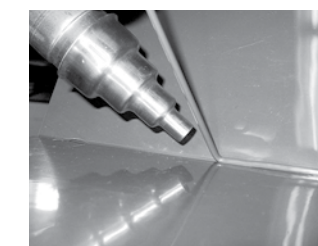
- Dial-in LCD display of temperature and air flow settings
- Dial-in temperatures in 10° increments 130°F to 1000°F
- Dial-in air flow from 4 to 16 CFM (113 to 453 l/min)
- Control system prevents overheating when using specialty attachments
 - Temperature & airflow lock-in feature
 - Assembled in USA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

Proheat LCD Plastic Welding Kit

Model No. **PH-1400WK**



Welding Flooring Material



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.

Electric Heat Guns

Proheat® LCD Programmable Heat Gun & Kit



PH Series
Proheat LCD
Programmable Heat Gun

Programmable temperature and air flow controls with 6 memory functions

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

Quality attachments for professional applications

Use Preset Programs or Create Your Own

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	120V	60 Hz	11A	1300W
PH-1500	130° - 1000°F/50° - 540°C	737 - 4000 FPM	4 - 16 CFM				
PH-1500K	PH-1500 Heat Gun with storage case and all 5 attachments (Part No. 35309) see page 13 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 13)

Electric Heat Guns







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	35293* 5/8" (14 mm) Reducer Provides concentrated air flow	35270 3/4" (20 mm) Reducer 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

					
35272 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	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	35291 Seam Roller with ball bearings For lap welding, edging tape and roofing applications	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 Butti 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

				
35297 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

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

Electric Heat Guns

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	4000 FPM	16 CFM	120V	60 Hz	11A	1300W

PH-1600K	PH-1600 Heat Gun with storage case (Part No. 35309) see page 13 for details						
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Optional Accessories – Master Proheat STC and STC Dual Mode (Page 13) Heat Guns

Part No.	Description
35542	Master Proheat STC storage/carrying case
35337	Master Proheat STC nozzle guard

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

Electric Heat Guns

Proheat® STC™ Dual Mode Heat Gun



Master Proheat 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	16 CFM	120V	60 Hz	11A	1300W
PH-1610K	PH-1610 Heat Gun with storage case (Part No. 35309) see page 13 for details						

Master Proheat STC Dual Mode Heat Gun – Standard Mode

Model No.	Air Temp.	Air Velocity	Air Volume				
PH-1610	170-1000°F/80-540°C	4000 FPM	16 CFM	120V	60 Hz	11A	1300W
PH-1610K	PH-1610 Heat Gun with storage case (Part No. 35309) see page 13 for details						

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

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.

* Optional Accessory. See page 14 for details.

Electric Heat Guns

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

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

Specifications

- 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
- Dimensions:** 8.5" L x 3.2" W x 7.7" H
- 120V 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.

Masterflow® Heat Blower



* NEMA 5-20P Plug Replacement Heating Element

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.	Description	Replacement Element
AH-301	300°F 150°C 120V 60 Hz 10A 1200W	815
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
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

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.

Electric Heat Guns

Master-Mite® Heat Gun



Optional Accessories



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 easy-to-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

- 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 Heat Gun

Model No.	Description
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.	Description
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-Mite ESD Heat Gun

Model No.	Description
10012	800°F 427°C 120V 60 Hz 4.5A 525W

Optional Replacement Heating Elements

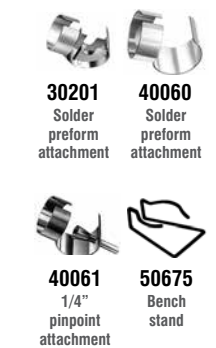
Part No.	Description
20012	Blue 500°F 260°C 120V 340W
20013	Silver 650°F 343°C 120V 475W
20014	Black 800°F 427°C 120V 525W

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
- Housing Static Decay:** 5000V to <50V <0.01 sec.
- Housing Surface Res.:** <500 ohms/sq.
- 120V Models
- Net Weight:** 1.75 lbs.
- Shipping Weight:** 3 lbs.

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

Optional Accessories



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

Master-Mite® ESD Heat Gun



Butane-Powered Soldering Irons

Econolron® EI-20 & EI-20 Kit



- 35388**
2.4mm soldering tip (std.)
- 35389**
Flameless hot air tip (std.)
- 35390**
Torch head (std.)



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

EI Series Econolron EI-20

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

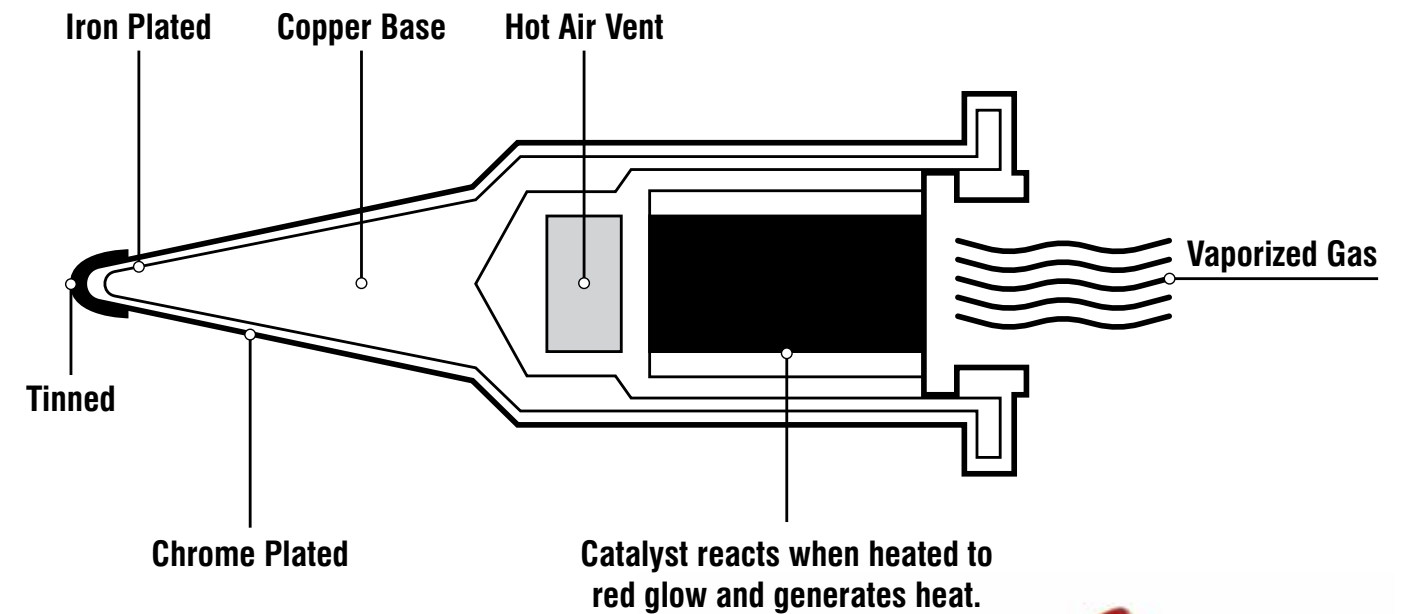
35390 TORCH HEAD	35396 POLY CUT TIP	35401 1mm SOLDER TIP	35404 DISC TIP, ROUND 1" dia.
35397 NEEDLE TIP	35388 2.4mm SOLDER TIP	35402 3.6mm SOLDER TIP	35405 CUTTER WHEEL TIP
35398 2.4mm SOLDER TIP	35399 DOUBLE SHARP TIP	35403 4.8mm SOLDER TIP	35406 SCRAPING BLADE
35393 FLAT FLAME	35400 HOT KNIFE TIP	35391 HOT KNIFE TIP	35391 HOT KNIFE TIP
35389 HOT AIR TIP	35395 SOLDER HEAD BASE	35392 Cap with striker wheel	
35394 REFLECTOR			

35407
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

Butane-Powered Soldering Irons

High Performance Ultratip® Technology

Ultratip Technology



Econolron EI-20	
Model No.	Description
EI-20	Economical, refillable, butane-powered soldering iron, flameless heat tool and torch
EI-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**

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

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.

Butane-Powered Soldering Irons

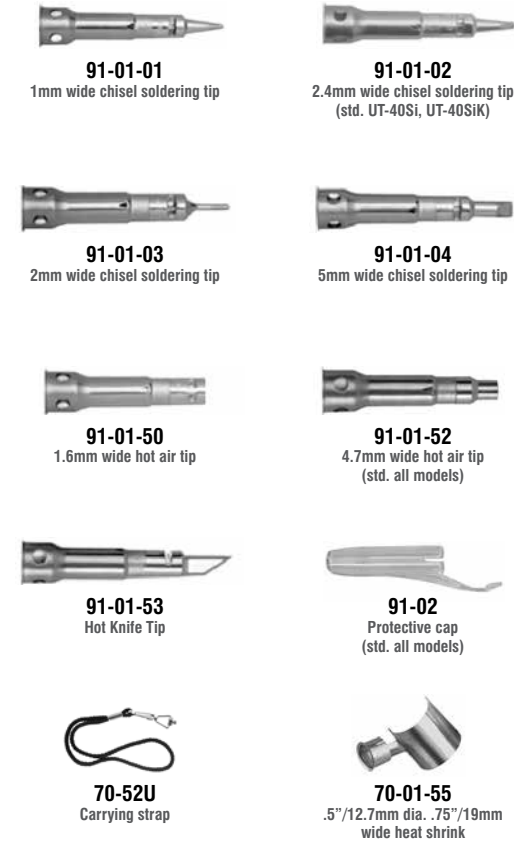
Ultratorch® UT-40Si, UT-40SiH & UT-40SiK



UT Series
Ultratorch UT-40Si

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

UT-40Si Kit
Ultratorch UT-40Si with rugged storage case and 3 specialty attachments



Optional Accessories			
Part No.	Description	Part No.	Description
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, UT-40SiK)	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 attachment (std. UT-40SiH, UT-40SiK) (requires 91-01-52)
91-01-04	5mm wide chisel soldering tip		
Hot Knife Tip		Protective Cap & Carrying Case	
91-01-53	Standard with UT-40SiK	91-02	Protective cap (std. all models)
		70-52U	Carrying strap

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

Specifications	
<ul style="list-style-type: none"> ▪ 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 	<ul style="list-style-type: none"> ▪ Tool Net Weight: 2.6 oz. ▪ Shipping Weight: 1 lb. ▪ Shipping Weight Kit: 2 lb. ▪ Shipped Empty

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

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

- Standard with Ultratip® soldering tip, hot air tip and protective cap
- Kit contains Ultratorch, Ultratip soldering tip, hot air tip, hot knife tip, shrink attachment, cap, sponge and stand, packed in a rugged plastic storage/carrying case
- 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

Butane-Powered Soldering Irons

Ultratorch® UT-50



UT Series
Ultratorch UT-50

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

Specifications	
<ul style="list-style-type: none"> ▪ Approx. Soldering Tip Temp.: 392° - 842°F (200° - 450°C) ▪ Approx. Hot Air Tip Temp.: 806°F (430°C) ▪ Approx. Torch Tip Temp.: 2372°F (1300°C) ▪ Equivalent to Electric Iron: 20 to 60 Watt ▪ Approx. Operating Time: 20 min. 	<ul style="list-style-type: none"> ▪ Fuel Tank Capacity: .2 fl. oz. (6 cc) ▪ Tool Dimensions: 6.5" L (165mm) ▪ Net Weight: 2.2 oz ▪ Shipping Weight: 1 lb. ▪ Shipped Empty

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

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

Butane-Powered Soldering Irons

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.	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, open end wrench, 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, open end wrench, ejector, sponge and steel case

Specifications	
<ul style="list-style-type: none"> ▪ 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 	<ul style="list-style-type: none"> ▪ 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
<p>NOTE: Users should independently evaluate the suitability of the product for their application.</p>	

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)

Butane-Powered Soldering Irons

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



UT Series
Ultratorch UT-100Si-TC

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



UT Series
Ultratorch UT-100SiK



UT Series
Ultratorch UT-100Si-HK



UT Series
Ultratorch UT-100Si

Ultratorch UT-100Si	
Model No.	Description
UT-100Si	Includes Ultratorch, Ultratip soldering tip: 70-01-02, hot air tip: 70-01-52, shrink attachment: open end wrench, ejector and cap
UT-100SiK	Includes Ultratorch, Ultratip soldering tip: 70-01-02, hot air tip: 70-01-52, shrink attachment: 70-01-55, open end wrench, 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, open end wrench, 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, open end wrench, ejector and cap

Specifications	
<ul style="list-style-type: none"> ▪ 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. 	<ul style="list-style-type: none"> ▪ 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
<p>NOTE: Users should independently evaluate the suitability of the product for their application.</p>	

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)

Butane-Powered Soldering Irons

Ultratorch® UT-100 & UT-100Si Ultratips® and Accessories



Ultratorch UT-100 & UT-100Si Tips and Accessories

Model No.	Description	Model No.	Description
Soldering Tips			
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 Tip			
70-01-16	Hot knife tip (std. UT-100-TC, UT-100Si-TC, UT-100SiHK)	Adapter	
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	70-40U	Metal storage box (std. with UT-100, UT-100SiK)
70-01-55	.5"/12.7mm dia., .75"/19mm wide heat shrink attachment (std. all models)	70-43	Tool holder (std. with UT-100, UT-100SiK)
70-02	Protective cap (std. UT-100, UT-100-TC)	70-52U	Carrying strap
70-07TU	Ejector, torch (std. UT-100, UT-100-TC)	80-40	Open end wrench (std. UT-100Si, UT-100SiK and UT-100Si-TC)
70-35	Ejector spanner wrench	90-02	Protective cap (std. UT-100Si, UT-100Si-TC)
70-37U	Tip cleaner sponge (std. with UT-100, UT-100SiK)		

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



Butane-Powered Soldering Irons

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



Ultratorch UT-200

Model No.	Description
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

Specifications

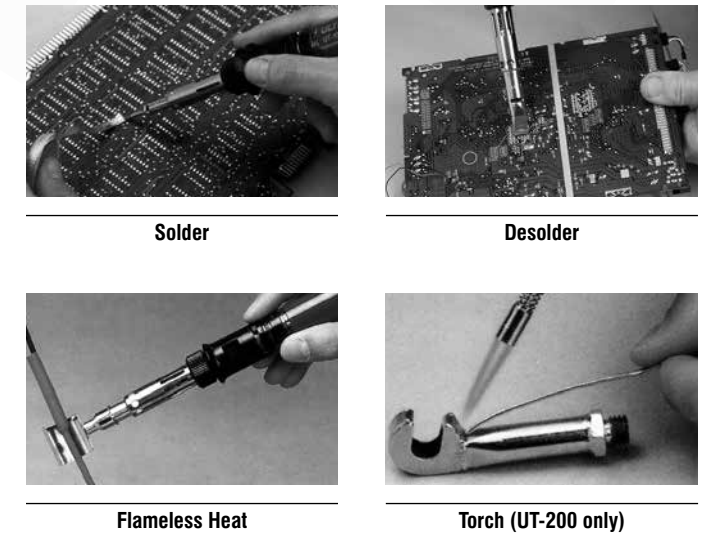
- Approx. Soldering Tip Temp.:** 482° - 986°F (250° - 530°C)
- Approx. Hot Air Tip Temp.:** 1004°F (540°C)
- Approx. Torch Tip Temp.:** UT-200 2372°F (1260°C)
- Approx. Operating Time:** 120 min.
- Fuel Tank Capacity:** 2.2 fl. oz. (63 cc)
- Tool Dimensions:** 11.9" L (300mm)
- Tool Net Weight:** 9 oz.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

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 Ultratip 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 Ultratip 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



02 Butane-Powered Soldering Irons

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



Ultratorch UT-200 & UT-200Si Tips and Accessories

Model No.	Description
Soldering Tips	
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° spade soldering tip
Hot Air Tips	
72-01-51	5.6 O.D./3.6 I.D. (mm) hot air tip
72-01-52	8.6 O.D./6.6 I.D. (mm) hot air tip (std. all models)
72-01-53	11.5 O.D./9.7 I.D. (mm) hot air tip
Adapter	
72-01-14	Adapter (5mm dia. x 8mm pitch) tip
Accessories	
72-01-54	1 1/25.4mm dia., 1 1/25.4mm wide heat shrink attachment
72-01-55	1.25 1/32mm dia., 1.25 1/32mm 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)

Butane-powered Soldering Iron/heat Tools

- 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

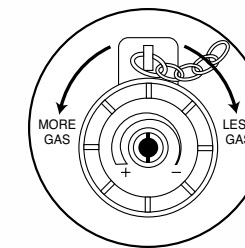
03

Butane-Powered Torches

Microtorch MT-5

Pocket-sized, Self-igniting Butane-powered Microtorch

- Compact pocket size, fits easily into pocket or tool kit
- Quick starting self-igniting piezo electric ignition eliminates the need for lighters or matches
- Flame resists wind and moisture and is perfect for outdoor use
- Adjustable flame height for low and high temperatures up to 2500°F/1300°C blue flame
- Hands-free mode
- Safety lock and attached safety cap prevent unintentional ignition
- Meets Consumer Products Safety Commission (CPSC) Child Safety Requirements
- Use to heat and ignite materials, repair glass, shrink tubing, solder and desolder, terminate specialty connectors and more
- Refill with Master Ultratane Butane for best performance (page 31)



Microtorch MT-5

Model No.	Description
MT-5	Microtorch, pocket-sized
Specifications	
<ul style="list-style-type: none"> • Approx. Flame Temp. 2500°F • Fuel Tank: Plastic, Built-in, Refillable • Approx. Run Time: 20 min. @ max. setting • Dimensions: 2.9" H x 1.3" W x .9" D 	<ul style="list-style-type: none"> • Tool Net Weight: 1.7 oz. • Shipping Weight Tool: 1 lb. • Shipped Empty

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
- Meets Consumer Products Safety Commission (CPSC) Child Safety Requirements
- Ships via ground transportation without hazmat charges
- 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) (page 31)

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	
<ul style="list-style-type: none"> • Approx. Flame Temp. 2500°F • Fuel Tank: Refillable Fuel Cell • Approx. Run Time: 20 min. @ max. setting • Dimensions: 4.3" H x 2.5" W x 1" D 	<ul style="list-style-type: none"> • Tool Net Weight: 2.1 oz. • Shipping Weight Tool: 1 lb. • Shipping Weight Kit: 2 lbs.



Butane-Powered Torches

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**
-

Microtorch MT-30

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

Mini-Triggertorch MT-70 & MT-70P



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)

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**
-

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

Butane-Powered Torches

Microtorch MT-51, MT-51B & MT-51H

MT Series Microtorch MT-51B

Included butane canister (10448) provides three fuel refills



MT Series Microtorch MT-51



MT Series Microtorch MT-51H

Includes Hot Air Tip (35387) & Heat Reflector (35394) for heat shrink applications



Heat Shrinking

Mini-Triggertorch MT-70

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)

Butane-Powered Torches

Triggertorch™ MT-76 & MT-76K



MT Series
Triggertorch MT-76K

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

Triggertorch MT-76

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

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)



MT Series
Triggertorch MT-76

3 tools in 1 — Open Flame Torch, Soldering Iron and Flameless Hot Air



Solder



Flameless Hot Air



2 Hour Run Time

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.

Butane-Powered Torches

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 hand-held 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 3/4 oz. (106 gram), and 1 5/16 oz. (26 gram) canisters
- 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 1/8 oz. (145 gram) canister with universal tip adapter
11799	3 3/4 oz. (106 gram) canister with universal tip adapter
10448	1 5/16 oz. (26 gram) canister with universal tip adapter



Butane-Powered Glue Guns

04

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



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 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)

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:** 1/2"
- **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**

NOTE: 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
- 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



GG Series
PortaPro Glue Gun GG-200

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**

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 1/4 oz. (145 gram) canister with universal tip adapter
11799	3 3/4 oz. (106 gram) canister with universal tip adapter
10448	1 3/8 oz. (26 gram) canister with universal tip adapter

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
- 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**)



Available in three styles:

Proseal™
Crimp and heat-seal connectors

Solderseal™
Solder & heat-seal connectors

Multiseal™
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 (3 items & 45 pieces)

AWG	Description	Kit QTY	10pc Refill	50pc Refill
Butt Connectors				
20-18	Butt Connector, Red	20	10932	10666
16-14	Butt Connector, Blue	20	10934	10667
12-10	Butt Connector, Yellow	5	10936	10668

10600 — Assortment Proseal Connector Kit (20 items & 115 pieces)

AWG	Description	Kit QTY	10pc Refill	50pc Refill
Ring Terminals				
20-18	#6 Stud, Red	5	10906	10658
20-18	#10 Stud, Red	5	10908	10659
16-14	#8 Stud, Blue	5	10910	10648
16-14	#10 Stud, Blue	5	10912	10649
16-14	1/4" Stud, Blue	5	10914	10650
16-14	3/8" Stud, Blue	5	10916	10652
12-10	#8 Stud, Yellow	5	10918	10653
12-10	#10 Stud, Yellow	5	10920	10654
12-10	1/4" Stud, Yellow	5	10922	10655
12-10	3/8" Stud, Yellow	5	10924	10657
Spade Terminals				
20-18	#10 Stud, Red	5	10926	10665
16-14	#10 Stud, Blue	5	10928	10663
12-10	#10 Stud, Yellow	5	10930	10664
Butt Connectors				
20-18	Butt Connector, Red	10	10932	10666
16-14	Butt Connector, Blue	10	10934	10667
12-10	Butt Connector, Yellow	10	10936	10668
Insulated Couplers				
20-18	Female, .250 Tab, Red	5	10940	10669
20-18	Male, .250 Tab, Red	5	10938	10672
16-14	Female, .250 Tab, Blue	5	10944	10671
16-14	Male, .250 Tab, Blue	5	10942	10673

10723 — Proseal Connector Kit with Tool Slot (12 items & 75 pieces)

AWG	Description	Kit QTY	10pc Refill	50pc Refill
Ring Terminals				
20-18	#10 Stud, Red	5	10908	10659
16-14	#8 Stud, Blue	5	10910	10648
16-14	#10 Stud, Blue	5	10912	10649
16-14	1/4" Stud, Blue	5	10914	10650
16-14	3/8" Stud, Blue	5	10916	10652
12-10	#10 Stud, Yellow	5	10920	10654
12-10	3/8" Stud, Yellow	5	10924	10657
Butt Connectors				
20-18	Butt Connector, Red	10	10932	10666
16-14	Butt Connector, Blue	10	10934	10667
12-10	Butt Connector, Yellow	10	10936	10668
Insulated Couplers				
16-14	Female, .250 Tab, Blue	5	10944	10671
16-14	Male, .250 Tab, Blue	5	10942	10673

AWG	Description	Kit QTY	10pc Refill	50pc Refill
Butt Connectors				
20-18	Butt Connector, Red	10	10932	10666
16-14	Butt Connector, Blue	10	10934	10667
12-10	Butt Connector, Yellow	10	10936	10668
Insulated Couplers				
16-14	Female, .250 Tab, Blue	5	10944	10671
16-14	Male, .250 Tab, Blue	5	10942	10673



10054
Proseal Butt Splice Connector Minipack



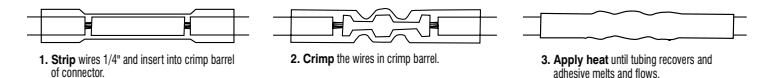
10600
Assortment Proseal Connector Kit



10723
Proseal Connector Kit with Tool Slot



10719
Proseal Connector Kit with UT-100Si & Crimper



Crimp Mechanical reliability holds wires in place

Seal Durable insulation • Watertight connection



Crimp barrel inside

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%



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**

Sealed Electrical Systems

Solderseal™ Connector Assortment Kits



10756
Solderseal Butt Splice Connector Minipack



10724
Solder seal Connector Kit

10056 — Solderseal Butt Splice Connector Minipack (4 items & 55 pieces)				
AWG	Description	Kit QTY	10pc Refill	50pc Refill
Butt Connectors				
24-22	Butt Connector, Clear	10	10795	10834
20-18	Butt Connector, Red	15	10796	10835
16-14	Butt Connector, Blue	15	10797	10836
12-10	Butt Connector, Yellow	15	10798	10837

10724 — Solder seal Connector Kit (25 items & 135 pieces)				
AWG	Description	Kit QTY	10pc Refill	50pc Refill
Ring Terminals				
20-18	#6 Stud, Red	5	10772	10811
20-18	#8 Stud, Red	5	10773	10812
20-18	#10 Stud, Red	5	10774	10813
20-18	1/4" Stud, Red	5	10775	10814
16-14	#8 Stud, Blue	5	10779	10818
16-14	#10 Stud, Blue	5	10780	10819
16-14	1/4" Stud, Blue	5	10781	10820
16-14	3/8" Stud, Blue	5	10783	10822
12-10	#10 Stud, Yellow	5	10784	10823
12-10	1/4" Stud, Yellow	5	10785	10824
12-10	3/8" Stud, Yellow	5	10787	10826
12-10	1/2" Stud, Yellow	5	10788	10827

10729 — Solderseal Connector Kit with Tool Slot (12 items & 80 pieces)				
AWG	Description	Kit QTY	10pc Refill	50pc Refill
Spade Terminals				
20-18	#10 Stud, Red	5	10792	10831
16-14	#10 Stud, Blue	5	10793	10832
12-10	#10 Stud, Yellow	5	10794	10833
Butt Connectors				
24-22	Butt Connector, Clear	5	10795	10834
20-18	Butt Connector, Red	10	10796	10835
16-14	Butt Connector, Blue	10	10797	10836
12-10	Butt Connector, Yellow	5	10798	10837
Insulated Couplers				
20-18	Female, .250 Tab, Red	5	10799	10838
20-18	Male, .250 Tab, Red	5	10801	10840
16-14	Female, .250 Tab, Blue	5	10802	10841
16-14	Male, .250 Tab, Blue	5	10804	10843
12-10	Female, .250 Tab, Yellow	5	10805	10844
12-10	Male, .250 Tab, Yellow	5	10807	10846

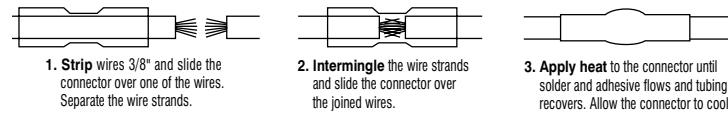
10725 — Solderseal Connector Kit with UT-100Si (12 items & 80 pieces)				
AWG	Description	Kit QTY	10pc Refill	50pc Refill
Ring Terminals				
20-18	#10 Stud, Red	5	10774	10813
16-14	#10 Stud, Blue	5	10780	10819
16-14	1/4" Stud, Blue	5	10781	10820
16-14	3/8" Stud, Blue	5	10783	10822
12-10	#10 Stud, Yellow	5	10784	10823
12-10	3/8" Stud, Yellow	5	10787	10826
Butt Connectors				
24-22	Butt Connector, Yellow	10	10795	10834
20-18	Butt Connector, Red	10	10796	10835
16-14	Butt Connector, Blue	10	10797	10836
12-10	Butt Connector, Yellow	10	10798	10837
Insulated Couplers				
16-14	Female, .250 Tab, Blue	5	10802	10841
16-14	Male, .250 Tab, Blue	5	10804	10843



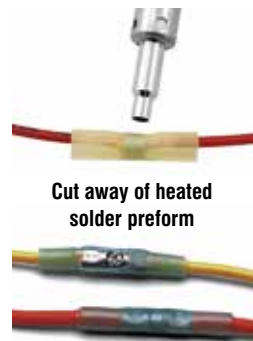
10729
Solderseal Connector Kit with Tool Slot



10725
Solderseal Connector Kit with UT-100Si



Solder preform inside



Cut away of heated solder preform

Solder Ultimate tensile strength • Superior conductivity

Seal Durable insulation • Watertight connection

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%
- Corrosion resistance: Non-corrosive
- Fungus Resistance: Non-nutrient
- Water absorption: <0.1%

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**

Sealed Electrical Systems

Multiseal™ Connector Assortment Kits

10058 - Multiseal Butt Splice Connector Minipack (3 items & 50 pieces)				
AWG	Description	Kit QTY	10pc Refill	50pc Refill
Butt Connectors				
20-18	Butt Connector, Red	20	11513	11572
16-14	Butt Connector, Blue	20	11514	11579
12-10	Butt Connector, Yellow	10	11515	11567

10067 Multiseal Connector Kit (20 items & 120 pieces)				
AWG	Description	Kit QTY	10pc Refill	50pc Refill
Ring Terminals				
20-18	#6 Stud, Red	5	11516	11573
20-18	#10 Stud, Red	5	11525	11576
16-14	#10 Stud, Blue	5	11518	11568
16-14	1/4" Stud, Blue	5	11519	11574
16-14	3/8" Stud, Blue	5	11520	11581
12-10	#10 Stud, Yellow	5	11521	11569
12-10	1/4" Stud, Yellow	5	11523	11582
12-10	3/8" Stud, Yellow	5	11524	11570
12-10	1/2" Stud, Yellow	5	11525	11576

10066 — Multiseal Connector Kit with Tool Slot (14 items & 90 pieces)				
AWG	Description	Kit QTY	10pc Refill	50pc Refill
Spade Terminals				
20-18	#10 Stud, Red	5	11517	11580
16-14	#10 Stud, Blue	5	11526	11583
12-10	#10 Stud, Yellow	5	11527	11571

10068 — Multiseal Connector Kit with UT-100Si & Crimper (14 items & 90 pieces)				
AWG	Description	Kit QTY	10pc Refill	50pc Refill
Butt Connectors				
24-22	Butt Connector, Clear	5	11512	11566
20-18	Butt Connector, Red	10	11513	11572
16-14	Butt Connector, Blue	15	11514	11579
12-10	Butt Connector, Yellow	10	11515	11567
Insulated Couplers				
20-18	Female, .250 Tab, Red	5	11528	11577
20-18	Male, .250 Tab, Red	5	11529	11578
16-14	Female, .250 Tab, Blue	5	11530	11584
16-14	Male, .250 Tab, Blue	5	11531	11585



10058
Multiseal Butt Splice Connector Minipack



10067
Multiseal Connector Kit



10066
Multiseal Connector Kit with Tool Slot



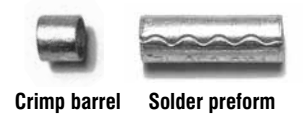
10068
Multiseal Connector Kit with UT-100Si & Crimper



Crimp Mechanical reliability holds wires in place

Solder Ultimate tensile strength • Superior conductivity

Seal Durable insulation • Watertight connection



Crimp barrel inside Solder preform inside

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%

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 seal tubing application

Sealed Electrical Systems

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

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	10pc Refill
3/16" pre-shrink I.D., 6" length, Black	5	11601
3/16" pre-shrink I.D., 6" length, Red	5	11602
1/4" pre-shrink I.D., 6" length, Black	5	11603
1/4" pre-shrink I.D., 6" length, Blue	5	11604
3/8" pre-shrink I.D., 6" length, Black	5	11605
3/8" pre-shrink I.D., 6" length, Yellow	5	11606
1/2" pre-shrink I.D., 6" length, Black	4	11607
3/4" pre-shrink I.D., 6" length, Black	3	11608
1" pre-shrink I.D., 6" length, Black	2	11609

10062 — Thin Wall Flexible Shrink Tubing Kit (9 items & 103 pieces)

Description	Kit QTY	10pc Refill
3/16" pre-shrink I.D., 6" length, Black	20	11601
3/16" pre-shrink I.D., 6" length, Red	15	11602
1/4" pre-shrink I.D., 6" length, Black	20	11603
1/4" pre-shrink I.D., 6" length, Blue	10	11604
3/8" pre-shrink I.D., 6" length, Black	10	11605
3/8" pre-shrink I.D., 6" length, Yellow	10	11606
1/2" pre-shrink I.D., 6" length, Black	10	11607
3/4" pre-shrink I.D., 6" length, Black	5	11608
1" pre-shrink I.D., 6" length, Black	3	11609

10063 — Flexible Adhesive-Lined Shrink Tubing Minipack (6 items & 24 pieces)

Description	Kit QTY	8pc Refill
1/8" pre-shrink I.D., 6" length, Black	5	11620
1/4" pre-shrink I.D., 6" length, Black	5	11626
3/8" pre-shrink I.D., 6" length, Black	5	11629
1/2" pre-shrink I.D., 6" length, Black	4	11632
3/4" pre-shrink I.D., 6" length, Black	3	11635
1" pre-shrink I.D., 6" length, Black	2	11638

10064 — Flexible Adhesive-Lined Shrink Tubing Kit (18 items & 48 pieces)

Description	Kit QTY	8pc Refill
1/8" pre-shrink I.D., 6" length, Black	5	11620
1/8" pre-shrink I.D., 6" length, Clear	3	11621
1/8" pre-shrink I.D., 6" length, Red	3	11622
3/16" pre-shrink I.D., 6" length, Black	5	11623
3/16" pre-shrink I.D., 6" length, Clear	2	11624
3/16" pre-shrink I.D., 6" length, Red	2	11625
1/4" pre-shrink I.D., 6" length, Black	5	11626
1/4" pre-shrink I.D., 6" length, Clear	2	11627
1/4" pre-shrink I.D., 6" length, Red	2	11628
3/8" pre-shrink I.D., 6" length, Black	5	11629
3/8" pre-shrink I.D., 6" length, Clear	2	11630
3/8" pre-shrink I.D., 6" length, Red	2	11631
1/2" pre-shrink I.D., 6" length, Black	3	11632
1/2" pre-shrink I.D., 6" length, Clear	2	11633
1/2" pre-shrink I.D., 6" length, Red	2	11634
3/4" pre-shrink I.D., 6" length, Black	1	11635
3/4" pre-shrink I.D., 6" length, Clear	1	11636
3/4" pre-shrink I.D., 6" length, Red	1	11637

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

Description	Kit QTY	8pc Refill
1/8" pre-shrink I.D., 6" length, Black	10	11620
1/8" pre-shrink I.D., 6" length, Clear	10	11621
3/16" pre-shrink I.D., 6" length, Black	8	11623
3/16" pre-shrink I.D., 6" length, Clear	8	11624
1/4" pre-shrink I.D., 6" length, Black	6	11626
1/4" pre-shrink I.D., 6" length, Clear	6	11627
3/8" pre-shrink I.D., 6" length, Black	4	11629
3/8" pre-shrink I.D., 6" length, Clear	4	11630
1/2" pre-shrink I.D., 6" length, Black	3	11632
1/2" pre-shrink I.D., 6" length, Clear	3	11633
3/4" pre-shrink I.D., 6" length, Black	2	11635
3/4" pre-shrink I.D., 6" length, Clear	2	11636

Dual Wall Flexible Heat-shrink Tubing with Adhesive Lining

- Polyolefin, 3 to 1 shrink ratio
- Highly flexible for conforming to irregular shapes
- Self-extinguishing UL224 (except clear)
- Internal layer of thermo-plastic adhesive 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

Sealed Electrical Systems

Heat-Shrink Tubing Kit Refills

Thin Wall Flexible Shrink Tubing

Description	10pc Refill
3/16" pre-shrink I.D., 6" length, Black	11601
3/16" pre-shrink I.D., 6" length, Red	11602
1/4" pre-shrink I.D., 6" length, Black	11603
1/4" pre-shrink I.D., 6" length, Blue	11604
3/8" pre-shrink I.D., 6" length, Black	11605
3/8" pre-shrink I.D., 6" length, Yellow	11606
1/2" pre-shrink I.D., 6" length, Black	11607
3/4" pre-shrink I.D., 6" length, Black	11608
1" pre-shrink I.D., 6" length, Black	11609

Flexible Adhesive-Lined Shrink Tubing

Description	8pc Refill
1/8" pre-shrink I.D., 6" length, Black	11620
1/8" pre-shrink I.D., 6" length, Clear	11621
1/8" pre-shrink I.D., 6" length, Red	11622
3/16" pre-shrink I.D., 6" length, Black	11623
3/16" pre-shrink I.D., 6" length, Clear	11624
3/16" pre-shrink I.D., 6" length, Red	11625
1/4" pre-shrink I.D., 6" length, Black	11626
1/4" pre-shrink I.D., 6" length, Clear	11627
1/4" pre-shrink I.D., 6" length, Red	11628
3/8" pre-shrink I.D., 6" length, Black	11629
3/8" pre-shrink I.D., 6" length, Clear	11630
3/8" pre-shrink I.D., 6" length, Red	11631
1/2" pre-shrink I.D., 6" length, Black	11632
1/2" pre-shrink I.D., 6" length, Clear	11633
1/2" pre-shrink I.D., 6" length, Red	11634
3/4" pre-shrink I.D., 6" length, Black	11635
3/4" pre-shrink I.D., 6" length, Clear	11636
3/4" pre-shrink I.D., 6" length, Red	11637
1" pre-shrink I.D., 6" length, Black	11638
1" pre-shrink I.D., 6" length, Clear	11639
1" pre-shrink I.D., 6" length, Red	11640



MasterHeat® Guns or Butane-powered portable heat tools, when used with these flexible polyolefin connectors and shrink tubing, create wireharness repairs that meet OEM Standards.

Crimping Tools

Cutter, Stripper, Crimper

- Two precision-ground wire cutters: up-front anvil-type 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 heat-treated 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



35083
Cutter, Stripper, Crimper



35084
Crimping Tool, Ratcheting, Full Cycle

Facts About Heat

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

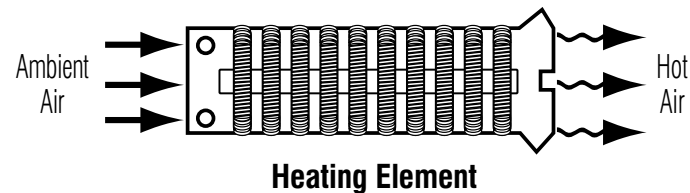
Heat is the form of kinetic energy which causes a rise in temperature in a body as it is absorbed or a reduction in temperature as it is lost to the environment.

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 its 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 gases 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
-58	-50	167	75	392	200	617	325	842	450	1067	575	1292	700
-49	-45	176	80	401	205	626	330	851	455	1076	580	1301	705
-40	-40	185	85	410	210	635	335	860	460	1085	585	1310	710
-31	-35	194	90	419	215	644	340	869	465	1094	590	1319	715
-22	-30	203	95	428	220	653	345	878	470	1103	595	1328	720
-13	-25	212	100	437	225	662	350	887	475	1112	600	1337	725
-4	-20	221	105	446	230	671	355	896	480	1121	605	1346	730
-5	-15	230	110	455	235	680	360	905	485	1130	610	1355	735
14	-10	239	115	464	240	689	365	914	490	1139	615	1364	740
23	-5	248	120	473	245	698	370	923	495	1148	620	1373	745
32	0	257	125	482	250	707	375	932	500	1157	625	1382	750
41	5	266	130	491	255	716	380	941	505	1165	630	1391	755
50	10	275	135	500	260	725	385	950	510	1175	635	1400	760
59	15	284	140	509	265	734	390	959	515	1184	640	1409	765
68	20	293	145	518	270	743	395	968	520	1193	645	1418	770
77	25	302	150	527	275	752	400	977	525	1202	650	1427	775
86	30	311	155	536	280	761	405	986	530	1211	655	1436	780
95	35	320	160	545	285	770	410	995	535	1220	660	1445	785
104	40	329	165	554	290	779	415	1004	540	1229	665	1454	790
113	45	338	170	563	295	788	420	1013	545	1238	670	1463	795
122	50	347	175	572	300	797	425	1022	550	1247	675	1472	800
131	55	356	180	581	305	806	430	1031	555	1256	680	1481	805
140	60	365	185	590	310	815	435	1040	560	1265	685	1490	810
149	65	374	190	599	315	824	440	1049	565	1274	690	1499	815
158	70	383	195	608	320	833	445	1058	570	1283	695	1508	820

Table of Values for Interpolation and 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 Conversion Formulas		°C = 5/9 (°F - 32)	°F = 9/5 (°C + 32)		

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 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 stripping
- Remove dents in fiberglass and other materials
- Remove/install plastic body 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

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. 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.

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.

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.

