



RAYCHEM HEAT SHRINK HAND TOOLS

The Tools to Make Every Connection Count

TE Connectivity (TE) offers a variety of dependable hand tools for heating heat-shrinkable products. The tools help give you more accuracy in terminations— increasing productivity, reducing rework, and taking the guesswork out of procedures. With easy-to-use controls and ergonomic design, our hand tools help make the job go faster and easier.

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RAYCHEM HEAT SHRINK HAND TOOLS

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Specifications

Heating Tool

- **Supply Voltage:** 24.0 VAC Nom.
- **Typical Operating Temperature:**
600°C @ 10-second operation
- **Typical Heating Time:** 15 to >70 seconds
- **Lamp:** 250 W tungsten halogen, 800 cycles
- **Noise:** 51 dB (A)
- **Weight:** 1.1 kg (2.4 lb.)
- **Power Cord Length:** 3.1 m

Controller

- **Supply Voltage:** 230 V, 50 Hz or 110 V, 50-60 Hz
- **Input Current:** 6.3 A
- **Output Voltage:** 24.0 VAX
- **Weight:** 8.0 kg (17.6 lb.)
- **Dimension:** 160 x 120 x 250 mm

Ordering Information

Part Number	Description	Explanation
TOOLS		
CV3948-000	IR1759-MK5-AT3130-EDCont	Mini-Ray infrared heating tool, MK5, includes: - Heating tool IR-1759 MK5 (CV4411-000) - Universal controller 230 & 110V, MK5 (CV4409-000) - AT-3130 reflector with Vee block (988299-000)
2485546-1	IR1759-MK5-AT3130-EDCONT-CN	Mini-Ray infrared heating tool, MK5, Chinese, includes: - Heating tool IR-1759 MK5 Chinese (1-2485546-1) - Universal controller 230 & 110V, MK5, Chinese (1-2485546-2) - AT-3130 reflector with Vee block (988299-000)

Part Number	Description	Explanation
MODULES		
CV4409-000	ED-7-CONT-230/110V-MK5	Universal controller, 230v & 110v, MK5
CV4411-000	IR-1759-MK5-GUN	Heating tool, standard aperture
1-2485546-2	ED-7-CONT-230/110V-MK5-CN	Universal controller, 230v & 110v, MK5, Chinese
1-2485546-1	IR-1759-MK5-GUN-CN	Heating tool, standard aperture, Chinese
REFLECTORS for STANDARD APERTURE		
988299-000	AT-3130	Reflector, standard aperture, Vee block
988300-000	AT-3131	Reflector, standard aperture, SolderTact Contacts
988301-000	AT-3132	Reflector, standard aperture, with clamps
879865-000	AT-3132-MK31	Reflector, standard aperture, 5mm mask and clamps
588701-000	AT-3191	Reflector, standard aperture, special Vee block
988596-000	AE-205	Reflector, standard aperture, linear
REFLECTORS for LARGE APERTURE (requires conversion kit AE-897)		
966953-000	AE-897	Conversion kit, from standard to large aperture
988303-000	AT-3134	Reflector, large aperture, Vee block
988328-000	AT-3147	Reflector, large aperture, with clamps
988314-000	AE-206	Reflector, large aperture, linear
INNER REFLECTORS		
547918-000	AE-424 (1759)	Inner reflector, standard aperture
988285-000	AE-153 (3104)	Inner reflector, large aperture

Ordering Information (continued)

Part Number	Description	Explanation
REPLACEMENT PARTS		
988208-000	NAE-143-3	Bulb, 12v, 250w, IR1759 & IR3104 (wear part)
CV4416-000	IR-1759-MK5-TRIGGER-PCB	PCB for trigger / handle
CV4418-000	IR-1759-MK5-THRMSW-PLT	Thermal switch with plate / tubing
431468-000	IR1759-100-FILTER-DUL	Dual filter
CV4414-000	ED-7-CONT-230/110V-MK5	Main PCB, control box
277774-000	AE-900	Filter spring IR-1759
EG2846-000	IR1759-MK5-REPCON-DEPINTL	Replacement connector, de-pin tool & instructions
CV4412-000	IR-1759-MK5-CABLE-ASY	Cable, trigger, PCB lamp holder and thermal switch

**IR-1759 MK5 is UL & CE approved

**IR-1759 MK5 Chinese meets CCC



MINI-RAY MK4 INFRARED HEATING TOOL

Designed for installing SolderSleeve termination products up to 9 mm diameter.

Safe and Efficient

- Product being installed is visible during the heating cycle
- Optical filter eliminates unwanted UV emissions and excess visible light, reducing glare for the operator
- Heat energy from a tungsten halogen lamp is focused onto the product with a reflector

Versatile

- Controller can be used in a manual mode with the trigger switch or by pre-set time and power
- Up to 20 memory locations are available for the storage of time/power values

Components

- The ED-7-Cont-230 V/110 V controller is a simple unit, with no variable time or variable power memory functions
- The ED-7-001/002 control units provide controls for both power and time, and are suitable where the use of pre-set installation conditions is required
- The ED-7-Batterybox controller is designed for remote areas, and can install approximately 50 x 30 second installations before recharging

Complete

- Controller can be used in a manual mode with the trigger switch or by pre-set time and power

IR1759-MK4-AT3130-EDCont

IR1759-MK4-AT3130-ED-7-001

The Raychem Mini-Ray MK4 tool from TE is a hand held infrared heating tool designed for use in installing SolderSleeve termination products. The tool is portable, lightweight and convenient for use where workspace is restricted. The hand tool is fan cooled and has low heat emission as the lamp is only energized on demand. A duty cycle up to 50% is permissible with a maximum heating time of 50 seconds. With the ED-7-Cont and ED-7-Batterybox, this duty cycle is fixed within the controller software.

The controllers have a new software feature that improves filter and bulb life. The heat energy is derived from a halogen lamp and is focused onto the product by means of the reflector design. The IR-1759-MK4/A standard aperture is recommended for products up to 6 mm diameter and the IR-3104-MK4/A large aperture for products up to 9 mm diameter. This version of the tool will accept larger diameter components, but uniform heating is not then assured.

Note: Current optical filters still fit the older MK III tools.

Specifications (Mini-Ray MK4 Heating Tool System)

IR-1759 Infrared Heating Tools

	Hand Tool	Control Units		
	IR-1759/IR-3104	IR-1759/IR-3104	ED-7-Cont	ED-7-Batterybox
Supply Voltage	21.5 VAC nom.	230 VAC, 50 Hz and 110 V, 50-60 Hz	230 VAC, 50 Hz or 110 V, 50-60 Hz	NP7-12FR battery 12 V 7 Ah
Input Current	-	4 A/10 A	6.3 A	2 x 12 V batteries, not supplied
Output Voltage	-	16-22 VAC (dependent on program)	21.5 VAC	22 VDC nominal
Weight	1.1 kg (2.4 lb.)	6.2 kg (13.6 lb.)	8.0 kg (17.6 lb.)	8.5 kg, 160 (18.7 lb.)
Typical Operating Temperature	500°C @ 10 second operation	-	-	-
Typical Heating Time	15 seconds	-	-	-
Halogen Lamp. Power/ Live, Typical Values	250 W x 24 V average life 10,000 cycles @ 50% duty cycle	-	-	-
Noise	41 dB (A)	-	-	-
Power Cord Length	3.1 m	-	-	-
Dimensions	-	-	6.3" x 4.7" x 9.8"	-
Timer A Memory Locations (001 and 002 only)	-	1-250 secs 20 Memory	-	-

Ordering Information

Part Number	Description	Explanation
CONTROL BOXES		
CF0024-000	IR1759-MK4-AT3130-EDCont	Mini-Ray infrared heating tool, MK4, includes: - Heating tool IR-1759 MK4 (CF0025-000) - Universal controller 230 & 110V, MK4 (CF0026-000) - AT-3130 reflector with Vee block (988299-000)
EG3472-000	IR1759-MK4-AT3130-ED-7-001	Mini-Ray infrared heating tool, MK4, includes: - Heating tool IR-1759 MK4 (CF0025-000) - Programmable controller 230v, MK4 (CF0199-000) - AT-3130 reflector with Vee block (988299-000)

Ordering Information (continued)

Part Number	Description	Explanation
CONTROL BOXES		
CF0026-000	ED-7-CONT-230/110V-MK4	Universal controller, 230v & 110v, MK4
CF0199-000	ED-7-001-MK4-230V-50HZ	Programmable controller, 230v 50Hz, MK4
CF0201-000	ED-7-BATTBOX-MK4-230/110V	Battery box, Universal, MK4 (2)
CF0200-000	ED-7-002-MK4-110V-60HZ	Programmable controller, 110v 50Hz, MK4
HEAT GUNS (without reflector)		
CF0025-000	IR-1759-MK4/A	Heating tool, MK4, standard aperture
EG3472-000	IR-3104-MK4/A	Heating tool, MK4, large aperture
REFLECTORS for STANDARD APERTURE		
988299-000	AT-3130	Reflector, standard aperture, Vee block (1)
988300-000	AT-3131	Reflector, standard aperture, SolderTact Contacts (1)
988301-000	AT-3132	Reflector, standard aperture, with clamps (1)
879865-000	AT-3132-MK31	Reflector, standard aperture, 5mm mask and clamps (1)
588701-000	AT-3191	Reflector, standard aperture, special Vee block (1)
988596-000	AE-205	Reflector, standard aperture, linear
REFLECTORS for LARGE APERTURE (requires conversion kit AE-897)		
988303-000	AT-3134	Reflector, large aperture, Vee block (1)
988328-000	AT-3147	Reflector, large aperture, with clamps (1)
988314-000	AE-206	Reflector, large aperture, linear
INNER REFLECTORS		
547918-000	AE-424 (1759)	Inner reflector, standard aperture (1)
988285-000	AE-153 (3104)	Inner reflector, large aperture (1)
KITS		
934630-000	AT-3134/AE-897	Large aperture conversion kit + reflector AT-3134 (1)
REPLACEMENT PARTS		
988208-000	NAE-143-3	Bulb, 12v, 250w, IR1759 & IR3104 (wear part) (1)
431468-000	IR1759-100-FILTER-DUL	Standard filter (1)
F52511-000	IR1759-300-FLTR-LRG	Large filter
277774-000	AE-900	Filter spring IR-1759
966953-000	AE-897	Conversion kit, from standard to large aperture (1)
585643-000	IR1759/3104-CABLE-ASSY	Hat gun cable + trigger PCB + fan+ lamp holder (1)
988382-000	NAE109-02	Heat gun lamp support
988204-000	NAE-152-1	Heat gun fan
CA3022-000	ED-7-CONT-PCB	Universal control box PCB
139128-000	ED-7CONT-TRANSFORMER	Transformer, MK4
132692-000	ED-7-BATT-FRONT-PANEL	Front panel + PCB for Battery control box, MK4
CM8837-000	MINIRAY-GUN-CASE	Mini-Ray heat gun case, empty

(1) Parts compatible with IR-1759 MK2 & MK3

(2) Battery box requires 2 x 12v batteries type NP7-12FR. Please note that TE Connectivity does not supply replacement batteries.

NOTE: IR-1759 MK4 tools are CE approved



CV1981 AND CV1983 SERIES THERMOGUN HEATING TOOLS

ThermoGun heating tools are used for installation of TE heatshrink products, molded parts, and SolderSleeve terminations.

Versatile

- Heavy-duty bench or hand held hot air tool
- Intelligent e-Drive operating unit
- Digital temperature indicator (AT models) for easy adjustment to product requirements

Capable

- Wide temperature range: 40°C to +650°C
- Precise temperature control on AT models allows tool temperature to be matched to the heat-shrink product's requirements
- Closed-loop controlled temperature
- Open-loop controlled air volume

Safe

- Ergonomic handling
- Modern design
- Safety guard

CV1981 SERIES THERMOGUN HEATING TOOL

Raychem CV1981 and CV1983 Series ThermoGun heating tools from TE are intelligent, robust, double insulated heavy-duty tools. The tools use an internal thermocouple to ensure accurate output temperature.

CV1981 AT model use closed-loop control to ensure that the set value is achieved even while supply voltage varies slightly. The digital display shows set temperature and measured temperature simultaneously. AT models also feature adjustable airflow.

A motor-driven fan forces air through the heating element, which is enclosed in a stainless steel barrel and safety guard. The tool is fitted with power control, to allow for adjustment of output temperature. An integral stand allows the tool to be used as a bench tool.

The heating tool is available in a variety of models and is suited to a wide range of heat-shrink applications. The various PR Series push-on reflectors are easily and quickly attached to the gun.

Specifications

	CV1981	CV1983
Power Consumption	1600 W	2300 W/2400 W/3400 W
Voltage	120 V or 230 V	
Temperatures	40°C to 650°C	
Air Flow (20°C)	240 l/min max.	
Dimensions	Tool: 338 mm L x 90 mm dia. (13.3" L x 3.5" dia.) Handle: 56 mm (2.2" dia.)	
Weight	990 g (2 lb.)	1.3 kg (2.9 lb.)

Ordering Information

Part Number	Description	Explanation
HEAT GUN CV1981 AT		
EG1106-000	CV1981-ATPID-230V1600W-EU	CV1981-AT, 230v 1600W, EU plug
EG1108-000	CV1981-ATPID-230V1600W-UK	CV1981-AT, 230v 1600W, UK plug
EG1110-000	CV1981-ATPID-120V1600W-US	CV1981-AT, 120v 1600W, US plug
EG1112-000	CV1981-ATPID-120V1600W-CEE	CV1981-AT, 120v 1600W, CCE plug
HEAT GUN CV1981 ST		
EG1114-000	CV1981-ST-230V1600W-EU	CV1981-ST, 230v 1600W, EU plug
EG1115-000	CV1981-ST-230V1600W-CH	CV1981-ST, 230v 1600W, Swiss plug
EG1116-000	CV1981-ST-230V1600W-UK	CV1981-ST, 230v 1600W, UK plug
EG1118-000	CV1981-ST-120V1600W-US	CV1981-ST, 120v 1600W, US plug
EG1120-000	CV1981-ST-120V1600W-UK	CV1981-ST, 120v 1600W, UK plug
HEAT GUN CV1983 ST		
EG0998-000	CV1983-ST-230V3400W-EU	CV1983-ST, 230v 3400W, EU plug
EG1100-000	CV1983-ST-230V2300W-EU	CV1983-ST, 230v 2300W, EU plug
EG1102-000	CV1983-ST-120V2400W-CEE	CV1983-ST, 120v 2400W, CEE plug
EG1104-000	CV1983-ST-230V3400W-CEE	CV1983-ST, 230v 3400W, CEE plug
ACCESORIES - ADAPTERS		
989172-000	AD-1962-CV1648-PR-RFL-ADP	Adapter, CV1983 gun to PR-xx refelctors
EG3417-000	CV2014-PR-ADAPTOR	Adapter, CV2014 gun to PR-xx reflectors
2479707-1	AD-2023-CV2023PR-RFL-ADP	Adapter, CV2023 gun to PR-xx reflectors
ACCESORIES - SPARE PARTS		
EG8165-000	CV1981-ATSTELEM-230V1600W	Heating element, CV1981, 230v 1600W
EG8166-000	CV1981-ATSTELEM-123V1600W	Heating element, CV1981, 120v 1600W
EG8167-000	CV1983-STELEM-230V3400W	Heating element, CV1983, 230v 3400W
EG8168-000	CV1983-STELEM-230V2300W	Heating element, CV1983, 230v 2300W
EG8169-000	CV1983-STELEM-120V2400W	Heating element, CV1983, 120v 2400W
091282-000	CV-1981-PID-ELEM-230V	PID element, CV1981AT, 230v
179178-000	CV-1981-PID-ELEM-120V	PID element, CV1981AT, 120v



CV2023 SERIES THERMOGUN HEATING TOOL

Tool is used for installing TE heat-shrink tubing and SolderSleeve terminations, and for making cable repairs.

Space And Weight Efficient

- Compact, ergonomic design
- Lightweight: 750 g (1.65 lb.)

Powerful

- Produces temperatures to 650°C
- Electronic steplessly controlled temperature
- Electronic steplessly controlled airflow
- Electronic heating element protection

Safe

- Low noise
- Tool can be calibrated
- Wireless communication

CV2023-SOLANO-230V2300W-EU

The CV2023 tool features complete electronic control for temperature and air flow, as well as electronic protection against power cuts to prevent accidental activation. Also, this tool is capable to cool down and keep pre-heating for faster activation. Calibration is available to maintain results accurately, thanks to wireless communication.

PR-xx-S reflectors can be used on this tool, as well as AD-2023 adapter for PR-xx reflectors

Specifications

	CV2023
Power Consumption	2300 W
Voltage	230 V
Frequency	50/60 Hz
Air Flow (20°C)	210 - 350 l/min (a 20°C), stepless
Temperature	50 - 650 °C / 122 - 1202 °F, stepless
Dimensions	Length x Width x Height: 270 x 75 x 240 mm
Weight	750g / 1.65lb.
Noise Emission	< 65 dB(A)

Ordering Information

Part Number	Description	Explanation
HEAT GUN CV2023 AT		
2479539-1	CV2023-SOLANO-230V2300W-EU	CV2023 "SOLANO AT", 230V 2300W, EU plug



HL-1920E & HL-2020E HEAT GUNS

Tools are designed for installation of TE heat-shrink products and SolderSleeve devices.

HL1920E

Convenient

- Electronic temperature control
- Hand-held and self-resting
- Industrial grade rubber power cord

HL2020E

Reliable

- Thermal fuse
- Dual air vents
- Ergonomic soft grip handle

Safe, Comfortable

- Residual heat indicator to prevent burns
- Ergonomic soft grip handle

HL1920E

The HL1920E heat gun is a powerful, electronically controlled hot air gun with temperature control and cool air stage.

The switch, located on the grip handle, is used for setting temperature and airflow. The heat gun can be conveniently operated using one hand.

Temperature range 50°C to 600°C @150/300/500 l/min.

Both tools are suited for heat-shrink products and SolderSleeve devices.

HL2020E

The HL2020E heat gun from TE is a microprocessor-controlled, high-end heat gun with temperature control, LCD display, and cold air stage. The heat gun features a joystick for making temperature adjustments, and the current working temperature is identified on an LCD display.

Temperature range: 80°C to 630°C in 10°C steps @150/300/500 l/min.

Specifications

	HL2020E	HL1920E
Temperatures	80°C to 630°C	50°C to 600°C
Power	120 V - 60 Hz, 12.5 A	230 V - 50 Hz, 8.7 A
Heater Element Power	120 V, 2000 W	230 V, 2000 W
Weight	900 g (2.0 lb.)	
Cord Length	2.2 m (7.2') approx.	

Ordering Information

Part Number	Description	Explanation
HL1920E		
EG8160-000	HL1920E-230V-UK	HL1920E tool, 230V, UK plug
EG8162-000	HL1920E-230V-EURO	HL1920E tool, 230V, EURO plug
EG8164-000	HL1920E-KIT-230V-EURO	HL1920E tool, 230V, EURO plug + SolderSleeve reflector
EG8163-000	HL1920E-KIT-120V-US	HL1920E tool, 120V, US plug + SolderSleeve reflector
HL2020E		
EG6424-000	HL2020E-230V-UK	HL2020E tool, 230V, UK plug
EG6426-000	HL2020E-230V-EURO	HL2020E tool, 230V, EURO plug
EG6428-000	HL2020E-KIT-230V-EURO	HL2020E tool, 230V, EURO plug + SolderSleeve reflector
EG6425-000	HL2020E-KIT-120V-US	HL2020E tool, 120V, US plug + SolderSleeve reflector

Part Number	Description	Explanation
ACCESSORIES - REFLECTORS		
EH0600-000	HL-SOLDER-SLV-REFLECTOR	Reflector for SolderSleeve products
EH0599-000	HL-GEN-TUBE-REFLECTOR	Reflector for tubing
ACCESSORIES - REDUCTION NOZZLES		
EH0601-000	HL-9MM-REDUCTION-NOZ	9mm nozzle for small-to-medium tubing
EH0602-000	HL-14MM-REDUCTION-NOZ	14mm medium nozzle
ACCESSORIES - ADAPTER		
EH0598-000	HL-ADPT-PR-REFLECTORS	Adapter, HL series tools to PR-xx reflectors
ACCESSORIES - STAND		
EH0603-000	HL-BENCH-STAND	Bench stand for fixed position environments



SolderSleeve Reflector



9mm Reduction Nozzle



Reflector Tubing



REFLECTORS AND ADAPTERS

Ordering Information

Part Number	Description	Explanation
ACCESORIES - PR-xx REFLECTORS (Match CV-1981)		
991973-000	PR-12-REFLECTOR	PR-12 reflector - tubing 6 to 25mmØ
991963-000	PR-13-REFLECTOR	PR-13 reflector - tubing up to 6mmØ
991974-000	PR-13-C-REFLECTOR	PR-13-C reflector - tubing 6 to 12mmØ
991984-000	PR-21-REFLECTOR	PR-21 reflector - tubing 6 to 25mmØ
991964-000	PR-24-REFLECTOR	PR-24 reflector - Small molded parts & Tubing 25 to 35mmØ
991989-000	PR-24-A-REFLECTOR	PR-24-A reflector - Small molded parts & Tubing 35 to 60mmØ
991965-000	PR-25-REFLECTOR	PR-25 reflector - SolderSleeves up to 6mmØ
989523-000	PR-25-D-REFLECTOR	PR-25-D reflector - SolderSleeves 6 to 12mmØ
991967-000	PR-26-REFLECTOR	PR-26 reflector - Miniature SolderSleeves & small products
997858-000	PR-27-REFLECTOR	PR-27 reflector - Special
997768-000	PR-33-REFLECTOR	PR-33 reflector - SolderSleeves 20 to 27mmØ
989111-000	PR-34-REFLECTOR	PR-34 reflector - SolderSleeves 12 to 20mmØ
EG2498-000	PR-38-REFLECTOR	PR-38 reflector - Large cable repair
113069-000	PR-51-REFLECTOR	PR-51 reflector
ACCESORIES - PR-xx-S REFLECTORS (Match CV-2023)		
2479707-2	PR-25-S-REFLECTOR	PR-25-S reflector - SolderSleeves up to 6mmØ
xxx	PR-25-D-S-REFLECTOR	PR-25-D-S reflector - SolderSleeves 6 to 12mmØ
xxx	PR-26-S-REFLECTOR	PR-26-S reflector - Miniature SolderSleeves & small products
ACCESORIES - SPECIAL REFLECTORS (Match CV-1981)		
932525-000	AD-1999-TEMP-MEAS-RFLT	AD1999 Reflector, temperature measurement
ACCESORIES - ADAPTERS		
989172-000	AD-1962-CV1648-PR-RFL-ADP	Adapter, CV1983 gun to PR-xx refelctors
EG3417-000	CV2014-PR-ADAPTOR	Adapter, CV2014 gun to PR-xx reflectors
2479707-1	AD-2023-CV2023PR-RFL-ADP	Adapter, CV2023 gun to PR-xx reflectors



AA-400 SUPER HEATER COMPRESSED-AIR HEATING TOOL

Tool is used to quickly and accurately install Raychem heat-shrinkable devices.

Applications

- For installing heat-shrinkable tubing in confined spaces
- Small SolderSleeve devices
- Devices (wire-to-pin applications)
- SolderTacts contacts

Versatile

- Very focused heat
- Wide variety of reflectors available
- Excellent tool for small items and confined areas

Easy To Use

- Automatic power cut-off switch to protect heating element if air flow is interrupted
- Pressure regulator and gauge for adjusting air flow and temperature
- Indicator light to show when power is applied to heating element

AA-400-32-MK3 (120V) AA-400-200-CE-SUPERHTR (230V) CE

Specifications

Power

- **120 V model:** 120 VAC, 4 A, 50-60 Hz
- **240 V model:** 240 VAC, 2 A, 50-60 Hz

Air

- 60 psi /413 kPa /4 bar minimum, 5 cfm, oil free

Dimension

- 152 x 108 x 89 mm (6 x 4.25 x 3.5") with regulator

Weight

- 1kg (2.2 lb.)

Temperatures

- **Standard Tool as Supplied:** 375°C to 400°C
- **Tool with Needlepoint Tip:** 283°C to 306°C
- **Tool with Mini SolderSleeve Reflector:** 347°C to 459°C (Temperatures achieved within the specified pressure switch operating range as shown on the front of controller.)

Ordering Information

Part Number	Description	Explanation
TOOLS		
582602-000	AA-400-32-MK3 (120v)	AA-400 Superheater, 120v (UL)
281917-000	AA-400-200-CE-SUPERHTR	AA-400 Superheater, 240v (CE)

Part Number	Description	Explanation	NSN Stock No.
ACCESSORIES			
979646-000	AA-400-94-SLD-SLV-TIP-KIT	SolderSleeve Reflector	4940-00-609-4993
979647-000	AA-400-96	Needlepoint Tip	4940-00-148-9847
979691-000	AA-400-101	Boot and Tubing Tip	4940-00-148-9848
979663-000	AA-400-102	Mini SolderSleeve Reflector	4940-01-043-7634
979672-000	AA-400-103	Low-Flow Tip	3439-01-173-8810
013750-000	AA-400-128	Heating Element Replacement Kit, 120v	
444179-000	AA-400-228-EL-KIT-240V-CE	Heating Element Replacement Kit, 240v (CE)	
979649-000	AA-400-09	Stand	
979673-000	AA400-P-Y-92-Filter	Input Air Filter	
156653-000	AA-400-136	Air Hose Replacement Kit	
238231-000	AA-400-229-GUN-HSE-KIT	Gun and Air Hose Replacement Tip	



RH-396X TINEL-LOCK INSTALLATION TOOL

Tool is designed specifically to install TE Connectivity's Tinel-Lock rings for screened terminations.

Easy To Use

- Designed specifically to install Tinel-Lock ring screened
- terminations in the correct position
- Tinel-Lock rings have thermochromic patch to aid in consistent installation
- Thermochromic patch color changes to black to provide visual verification of correct installation
- Tool switches off when pressure on jaws is released

Fast

- 5 to 15-second typical installation time for a Tinel-Lock ring
- Simple line-up and squeeze-handle installation

Versatile

- Accommodates Tinel-Lock rings from size TR04 to TR24 inclusive

RH-3960-1-TINEL-KIT-120V

RH-3965-1-TINEL-KIT-220V

The RH-396X manually operated resistance heating tool is designed specifically to install TE Connectivity's Tinel-Lock rings for screened terminations. Available in 120 V and 220 V versions, it is designed to accommodate our Tinel-Lock rings from size TR04 through TR24 inclusive.

The tool makes it easy to install Tinel-Lock rings consistently and quickly. The operator uses the hand-held tool to install the Tinel-Lock ring in its correct position on screened terminations. The ring has a patch of thermochromic paint, which turns to a black color upon successful installation.

The operator positions the ring on the termination, ensuring that the patch of thermochromic color is visible. The jaws of the installation tool are then clamped onto the ring to start the installation. When the thermochromic paint turns black, installation is complete.

The RH-396X Tinel-Lock ring installation tool is available in North America and Asia Pacific only.

Specifications

Power

- Supply: 250 W/2.8 VAC

Transformer Dimensions

- 260 mm x 210 mm x 165 mm (10.25" x 8.25" x 6.5")

Weight

- 3.18 kg (7.0 lb.)

Ordering Information

Recommended for installing Tinel-Lock rings TC series and TR04 thru TR20.

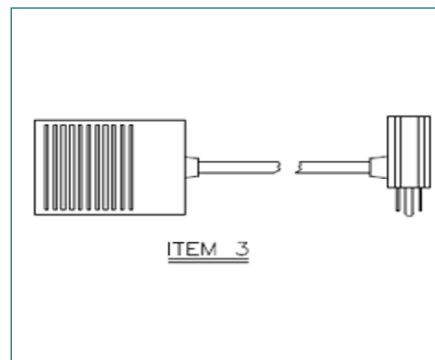
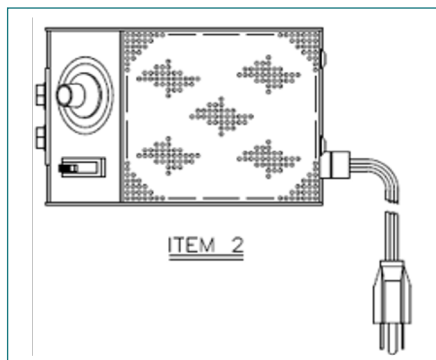
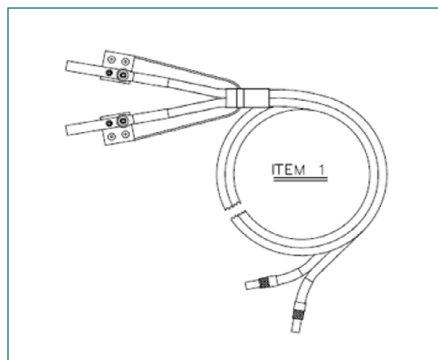
A complete tool includes the hand tool assembly and electrodes.

- Standard electrodes are used for Tinel-Lock rings, sizes TR04 through TR24
- Resistance Heating Tool: 915088-01
- Use with American Beauty Transformer 105-A12 (110 V) or 105-A12-220V (220 V) and Foot Switch 10519

Part Number	Description	Explanation
TOOLS		
173643-000	RH-3960-1	Tinel-lock Installation tool, 120V
859855-000	RH-3965-1	Tinel-lock Installation tool, 220V, CEE 7/7
2472408-1	RH-3965-1	Tinel-lock Installation tool, 220V, BS 1363
2472409-1	RH-3965-1	Tinel-lock Installation tool, 220V, NEMA 5/15

NOTE: All tools include handpiece (ITEM 1), Power unit (Item 2) and Foot switch (Item 3)

Part Number	Description	Explanation	Item #
SPARE PARTS			
2481205-1		HAND PIECE	1
2472419-1		ELECTRODE KIT (wear part, included in hand piece)	
995119-000		Power unit, 120V	2
574557-000		Power unit + foot switch, 220V CEE 7/7	2+3
2472420-1		Power unit + foot switch, 220V BS1363	2+3
2472421-1		Power unit + foot switch, 220V NEMA 5/15	2+3
993702-000		Foot Switch for 120V power unit	3





AD-1319-9 HOLDING FIXTURE

Tool is used for installing heat-shrinkable tubing and devices.

EASY TO USE

- Holding fixture simplifies and speeds installation of terminations and splices
- Two lateral clamps, simple to adjust and align
- Fixture secures wire or cable for consistent installation

Versatile

- Designed for use with Raychem heat-shrinkable devices
- Adjustable jaws set distance between clamps

AD-1319-9

The AD-1319-9 holding fixture is a tool that simplifies and speeds installation of Raychem devices. The fixture contains two wire clamps that are easily adjusted to center and secure the wire or cable for installation.

Specifications

Dimension

- 180 x 150 mm (7" x 6") approx.

Weight

- 300 g (.67 lb.)

Product range

- SolderSleeve splices
- DuraSeal splices
- MiniSeal splices
- One-Step BNC/TNC connectors
- Shield terminators: D-100-XX, D-144-XX, SO63, SO96
- SolderTacts contacts: D-602-XX

Ordering Information

Part Number	Description	Explanation
TOOLS		
993850-000	AD-1319-9	AD-1319-9 Holding fixture

NOTE: For holding fixtures for our SolderTacts products, please refer to brochure 1-1773722-5

Part Number	Description	Explanation
TOOLS		
395241-000	AT-1319-22	38999 Size 8 Contact
413186-000	AT-1319-78	38999 Size 16 Contact
993872-000	AT-1319-12	Subminiature Contact
993877-000	AT-1319-14	748 Contact
993938-000	AT-1319-19	723 Contact
993917-000	AT-1319-17	482 Size 16 Contact

Selecting the Equipment Needed To Install TE Connectivity Heat-Shrinkable Products

Selecting the proper tool is very important in order to ensure correct and efficient installation.

Our application equipment has been designed, selected, and engineered for maximum production efficiency, providing optimal heating temperatures, performance and control features.

TE has developed installation Codes of Practice and Product Installation Procedures that give instructions to our customers in the correct methods for successfully installing our heat-shrinkable products. These are either available as stand-alone documents, or are incorporated into the product drawings themselves.

Below are listed some of our heat-shrinkable products along with the recommended tooling that can be found within this catalog. Please note that there are some tools that can be used for the installation of several of our product families, such as our various types of heat gun.

In order to ensure the correct and focused delivery of heat, reflectors are recommended and available in a variety of sizes. For more details, see the Codes of Practice and Product Installation Guides, or contact your TE representative.

Product Family

MiniSeal Crimp Splices



Recommended Application Tooling

UL Approved MK5 Infrared Hand-Held Tooling

Mini-Ray MK4 Infrared Hand-Held Tooling

CV2014 Series ThermoGun Heating Tool

AA-400 Super Heater

DuraSeal Crimp Splices



CV1981/CV1983 Series ThermoGun Heating Tools

Reflectors for CV1981/CV1983 Tools

Heat Guns

Reflectors for Heating Guns

Product Family

Heat-Shrinkable Molded Boots and Shapes



Heat-Shrinkable Tubing (For example DR-25, RNF-100 Tubing)



Tinel-Lock Rings for TXR Backshells



Please note that our infrared tools are not suitable for installation of black-colored tubing.

The above are recommendations only. Please consult your TE representative for further details on our tooling or any of our Raychem heat-shrink tubing and molded shapes

Recommended Application Tooling

CV1981/CV1983 Series ThermoGun Heating Tools

Reflectors for CV1981/CV1983 Tools

Heat Guns

Reflectors for Heat Guns

CV1981/CV1983 Series ThermoGun Heating Tools

Reflectors for CV1981/CV1983 Tools

Heat Guns

Reflectors for Heating Guns

RH-3960/RH-3965 Tinel-Lock Installation Tool

Connect With Us

Our tooling is supported by an established, experienced, and responsive field service organization. TE Connectivity field engineers are located worldwide and are available to assist with on-site and remote service; selection and installation of new equipment; training; and technical support. Service agreements are available to provide protection and support for all your application tooling equipment.

Contact Us

Phone:

Americas 1-800-722-1111

EMEA 49-6151-607-1518

APAC 86-021-3325-9030

Tooling Portfolio: tooling.te.com

Field Service: te.com/fieldservice

te.com

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