











Raychem Application Tooling

The Tools to Make Every Connection Count

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HIGH QUALITY

- Manufactured to TE Connectivity's strict quality standards
- Tools are designed to make every job easy and trouble-free
- Made from the highest quality materials for low cost of ownership

EASY TO USE

- Designed and developed with the operator in mind
- Convenient, easy to use features make installations faster and easier
- More choice in tooling, from simple hand tools to advanced, automatic operation

APPLICATION SPECIFIC

- Tools offered by TE are designed to aid in the installation of TE wire and cable products
- Decades of experience are applied to the development of all TE installation tools
- Choose from a wide range of tools for any cable management task

TE Connectivity (TE) offers a variety of dependable hand and bench-mount tools for crimping Raychem devices and 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, Raychem tools help make the job go faster and easier.

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Empower Engineers to Solve Problems, Moving the World Forward.

Raychem AD-1377 Hand Crimping Tool

VERSATILE

- Crimps MiniSeal splices, covering a wire range from 26 to 12 AWG
- Ratchet-controlled release handle
- Pre-set crimp depth that provides the optimum combination of tensile strength and insulation integrity in the finished splice

HIGH PERFORMANCE

- Built-in ratchet system ensures full cycling of the tool and prevents early release
- Designed for an easy and smooth effort to achieve the crimp
- Inside cavities are polished to bring maximum reliability to the crimping operation

QUALIFICATIONS

- Tool: MIL-DTL-22520/37-01
- Calibration Gauge: MIL-DTL-22520/39-01



AD-1377 Hand Crimping Tool
Tool is used for crimping wire terminations with MiniSeal splices.

AD-1377-CRIMP-TOOL-3-CVTY
MIL-DTL-22520/37-01

The Raychem AD-1377 crimp tool from TE is designed for MiniSeal splices. It has a pre-set crimp depth that provides the optimum combination of tensile strength and insulation integrity in the finished splice. The ratcheted release ensures full closure of the tool to help prevent undercrimping.

The tool is calibrated with standard gauge pins or with TE calibration gauge AD-1386. The drawing supplied with the tool defines appropriate cavity dimensions as diameters for the “Go” and “No Go” conditions.

Specifications

DIMENSION

- **Overall Length:** 230 mm (9”) approx.

WEIGHT

- 350 g (12.3 oz.)

Ordering Information

AD-1377 Crimp Tool for MiniSeal Splices

Model	Description	Part No.
Mil Spec MiniSeal Splice Crimp Tool AD-1377	AD-1377-CRIMP-TOOL-3-CVTY	992008-000
MiniSeal Splice Crimp Tool	AD-1377-S-SPEC-CRIMP-TOOL	959025-000
Calibration Gauge	AD-1386-CALIBRATION-GAUGE	992013-000

Accessories and Replacement Parts

Parts	Description	Part No.
Crimp Locator	AD-1377-103-CRIMP-LOCATOR	994855-000
Spring	AD-1377-P-E118-TOR-SPRNG	994123-000

RoHS Compliant

ROHS Information can be found at the following website: http://www.te.com/customersupport/productcompliance/

This product must not be disposed of as municipal waste.

Raychem AD-1522-1 Hand Crimping Tool

VERSATILE

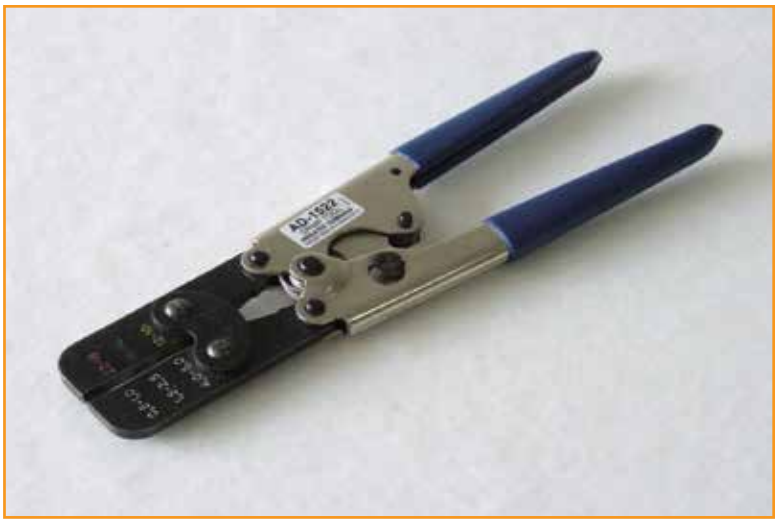
- Crimps DuraSeal crimp splices, covering a range from 22 to 10 AWG

EASY TO USE

- Ratchet-controlled release handle
- Pre-set crimp depth that provides the optimum combination of tensile strength and insulation integrity in the finished splice

HIGH PERFORMANCE

- Built-in ratchet system ensures full cycling of the tool and prevents early release
- Designed for an easy and smooth effort to achieve the crimp
- Inside cavities are polished to bring maximum reliability to the crimping operation



AD-1522-1 Hand Crimping Tool
Tool is used for completing wire terminations using DuraSeal splices.

The Raychem AD-1522-1 crimp tool from TE can be used on all DuraSeal splices. It has a pre-set crimp depth that provides the optimum combination of tensile strength and insulation integrity in the finished splice. The ratcheted release ensures full closure of the tool to help prevent undercrimping.

The tool is calibrated with standard gauge pins or with TE calibration gauge AE-2245. The drawing supplied with the tool defines appropriate cavity dimensions as diameters for the “Go” and “No Go” conditions.

Specifications

DIMENSION

- **Overall Length:** 230 mm (9") approx.

WEIGHT

- 350 g (12.3 oz.)

PRODUCT RANGE

- DuraSeal Crimp Splices and Terminals

Ordering Information

AD-1522-1 Crimp Tool for DuraSeal Splices

Product	Description	Part No.
Crimp Tool	AD-1522-1-CRIMPING-TOOL	047011-000
Calibration Gauge	AE-2245	020435-000

RoHS Compliant

ROHS Information can be found at the following website: http://www.te.com/customersupport/productcompliance/

This product must not be disposed of as municipal waste.

Raychem AD-1381 Hand Crimping Tool

VERSATILE

- Crimps cold-applied gel-filled splices, covering a wire range from 26 to 12 AWG

EASY TO USE

- Ratchet-controlled release handle
- Pre-set crimp depth that provides the optimum combination of tensile strength and insulation integrity in the finished splice

HIGH PERFORMANCE

- Built-in ratchet system ensures full cycling of the tool and prevents early release
- Designed for an easy and smooth effort to achieve the crimp

QUALIFICATIONS

- Tool: MIL-DTL-22520/44-01
- Calibration Gauge: MIL-DTL-22520/39-03



AD-1381 Hand Crimping Tool
Tool is used to crimp cold-applied gel-filled splices with wires ranging from 26 to 12 AWG.

The Raychem AD-1381 crimping tool from TE terminates cold-applied splices, which are TE's in-line, sealed, crimp splices designed for 150°C applications.

The tool has a pre-set crimp depth that provides the optimum combination of tensile strength and insulation integrity in the finished splice. The ratcheted release ensures full closure of the tool to help prevent undercrimping.

The tool is calibrated with standard gauge pins or with the TE calibration gauge AD-1382. The drawing supplied with the tool defines appropriate cavity dimensions as diameters for the "Go" and "No Go" conditions.

Specifications

DIMENSION

- **Overall Length:** 230 mm (9") approx.

WEIGHT

- 350 g (12.3 oz.)

COLD-APPLIED SPLICE PRODUCT RANGE

- **D-436-36-COLD:** 26 to 20 AWG wire range
- **D-436-37-COLD:** 18 to 16 AWG wire range
- **D-436-38-COLD:** 14 to 12 AWG wire range

Ordering Information

AD-1381 Hand Crimping Tool

Model	Description	Part No.
AD-1381 Hand Crimping Tool	AD-1381-CRIMP-TOOL-3-CVTY	CS1660-000
Calibration Gauge	AD-1382-CALIBRATION-GAUGE	992013-000

RoHS Compliant

ROHS Information can be found at the following website: http://www.te.com/customersupport/productcompliance/

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Raychem IR-550/ED-7 Heating Tool and Controller Kit

COMPREHENSIVE

- Controller and foot-pedal-operated portable infrared heating tool
- Controller keypad enables the selection of the operation mode up to 20 stored programmed sequences

EASY TO USE

- Provides reliable installation of SolderSleeve and MiniSeal devices, SolderTacts contacts, and TE heat-shrinkable products
- Controller can be used in a manual or automatic mode

FLEXIBLE OPERATION

- **Manual Mode:** Applies full power when foot pedal is depressed, and removed power when the pedal is released
- **Automatic Mode:** Controls duration and level of power according to a preset sequence stored in memory when foot pedal is pressed and released



IR-550/ED-7 Heating Tool and Controller Kit
Kit is used to install SolderSleeve and MiniSeal devices, SolderTacts contacts, and TE heat-shrinkable products.

The Raychem IR-550/ED-7 from TE provides a convenient portable electric infrared heating tool and controller. This system gives fast, reliable installations of SolderSleeve devices, MiniSeal devices, SolderTacts contacts, and TE heat-shrinkable products.

The foot-pedal-operated, benchtop tool allows both manual and automatic control of the heating tool. In the manual mode, the operator uses the foot pedal to start and stop the heating sequence. In the automatic mode, the power and duration of heating—including varying levels and times in the sequence—allow consistent and precise application of heat. The controller can store up to 20 sequences in memory.

Specifications

INPUT POWER

- **IR-550/ED-7-KIT:** 220 V, 50 Hz, 7.3 A
- **ED-7-001-550 Controller:** 220 V, 50 Hz, 2.8 A
- **IR-550-MK3-CE-MINUS Heating Tool:** 220 V, 50 Hz, 4.5 A

DIMENSIONS

- **ED-7-001-550:** 160 mm x 120 mm x 250 mm (6.29" x 4.7" x 9.8")
- **IR-550-MK3-CE-MINUS:** 113.2 mm x 119.3 mm x 250 mm (4.46" x 4.7" x 9.8")

WEIGHT

- **IR-550/ED-7-KIT:** 8.7 kg (19.1 lb.)
- **ED-7-001-550:** 6.2 kg (13.6 lb.)
- **IR-550-MK3-CE-MINUS:** 2.5 kg (5.5 lb.)



Ordering Information

IR-550/ED-7 Heating Tool and Controller Kit

Model	Description	Part No.
IR-550/ED-7 Heating Tool and Controller	IR-550/ED-7-KIT	CV1032-000

Accessories and Replacement Parts

Parts	Description	Part No.
Infrared Heating Tool	IR-550-MK3-CE-MINUS-00	CY8483-000
Controller*	ED-7-001-550	CV2777-000
Lamp 220/230 500 W Lamp	IR-550-303-CE-LAMP	F95965-000
Foot Switch Assembly	IR-550-301-CE-FOOT-SW-ASSY	F91912-000
Viewing Window (frame not included)	IR-550-238-VIEWING-WINDOW	007510-000
RG-2 Reflector, SolderSleeve Reflector, 19 mm (.75")	IR-500-24-RG-2-SLD-SL-REF	993770-000
RG-6 Reflector, Large-Diameter Solder Sleeve Terminations. Aperture is 25, 4 mm (1.0") wide	IR-550-19-RG-6-NOSECONE	994590-000
Holding Fixture	ED-7-001-550-HOLD-FIX	CV4406-000
PCB for Controller	ED-7-001-550-PCB	CV4408-000
Filter	IR-550-237-FLTR-DUAL-COAT	118902-000

*Controller can be purchased separately.

RoHS Compliant

ROHS Information can be found at the following website: http://www.te.com/customersupport/productcompliance/

This product must not be disposed of as municipal waste.

Raychem IR-550 Infrared Heating Tools

CAPABLE

- Designed for fast installation of SolderSleeve terminations, MiniSeal terminations, SolderTacts contacts, and heat-shrinkable tubing
- Controls include a power switch, foot switch, and a handle-mounted switch
- The IR-550-300-MARKIII-CE unit is CE approved

SAFE OPERATION

- Fan keeps external surfaces cool and allows for long-duration heating
- Thermostatic switch helps protect from overheating
- Optical filter helps reduce glare from the lamp for safer observation
- A 30-degree base reduces eye strain and glare to others working nearby

CONVENIENT

- Viewing window enables viewing of the heating process
- Foot switch or handle switch operation
- Designed primarily as a benchtop heating tool



IR-550-50-MARKII-HT-TOOL - 120 V



IR-550-300-MARKIII-CE - 230 V

IR-550-50-MARKII-HT-TOOL (120 V)
IR-550-300-MARKIII-CE (230 V)

The Raychem IR-550 heating tool from TE is a portable electric infrared heating tool designed for fast, reliable installation of Raychem SolderSleeve terminations, MiniSeal terminations, SolderTacts contacts, and heat-shrinkable tubing.

The IR-550 heating tool can be used as a hand tool, but is primarily designed as a bench-top heating tool. As a hand tool, it is operated using a switch on the handle. As a bench-top heating tool, it can be operated by either a foot switch or handle switch.

A halogen lamp provides the radiant heat source, and reflectors focus the heat from the lamp to concentrate it within the work area of the front reflector. Interchangeable front reflectors are designed for specific product applications.

An optical filter between the lamp and the work area reduces the glare from the lamp, allowing the operator to observe the heating process. The tool also has a viewing window to further reduce glare. The 30-degree base has been designed to further reduce eye strain and glare to others working nearby.

The IR-550-50 is a single unit containing both controls and infrared tool. For the IR-550-300, the control box and infrared tool are separate units.



Specifications

	IR-550-50	IR-550-300
Input Power	120 V, 50-60 Hz, 4.5 A	230 V, 50–60 Hz, 3 A
Weight	2.5 kg (5.5 lb.)	4.8 kg (10 lb.) approx.
Dimensions	113 x 120 x 249 mm (4.46″ x 4.7″ x 9.8″)	**Control Box:** 152 x 120 x 19.mm (6″ x 4.7″ x .75″) **Tool:** 114 x 209 x 249 mm (4.5″ x 8.2″ x 9.8″)
Duty Cycle	80%, 90-second max. heating times	
Lamp Life	1000+ hours of intermittent use	

Ordering Information

IR-550 Infrared Heating Tools

Model	Description	Part No.
IR-550-50 Heating Tool	IR-550-50-MARKII-HT-TOOL	994350-000
IR-550-300 Heating Tool	IR-550-300-MARKIII-CE	C66438-000

Reflectors

Parts	Description	Part No.
RG-2 Reflector for SolderSleeve Terminations 19.0 mm (.75″) Wide Aperture	IR-500-24-RG-2-REFLECTOR	993770-000
RG-6 Reflector For Large-Diameter SolderSleeve Terminations 25.4 mm (1.0″) Wide Aperture	IR-550-19-RG-6-NOSECONE	994590-000
RG-9 Reflector 9.525 mm (.375″) Wide Aperture	IR-550-39-RG-9-REFLECTOR	993693-000
RG-11 Reflector; 12.7 mm (9.5″) Wide Aperture	IR-550-41-RG-11-REFLECTOR	993695-000

Accessories and Replacement Parts

Parts Common to Both IR-550-50 and -300	Description	Part No.
Upgrade Kit: Filter, Viewing Window, Inner Reflector-Outer Reflector	IR-550-240-Refurb-KIT	529600-000
Filter	IR-550-237-FLTR-DUAL-COAT	118902-000
Button, Large, Black	AES-IR550-C23-BUTTON	C33802-000
Viewing Window (Frame Not Included)	IR-550-238-VIEWING-WINDOW	007510-000
Parts for IR-550-50 Only		
Lamp (120 V)	IR-1000-P-N-13-LAMP	993020-000
Foot Switch Assembly	IR-550-216-FOOT-SWITCH-ASSY	994375-000
Parts for IR-550-300 Only		
Lamp (220-230 V), 500 W	IR-550-303-CE-LAMP	F95965-000
Foot Switch Assembly	IR-550-301-CE-FOOT-SW-ASSY	F91912-000
PC Board	AES-IR550-63-PC-BRD	576297-000

RoHS Compliant

ROHS Information can be found at the following website: http://www.te.com/customersupport/productcompliance/

This product must not be disposed of as municipal waste.

Raychem Mini-Ray MK5 Infrared Heating Tool

CONVENIENT

- Portable, lightweight and convenient for use where workspace is constrained
- Product being installed is visible during the heating cycle
- Available as a complete kit, comprised of manual control box, hand tool, AT3130 reflector and spare bulb

SAFE AND EFFICIENT

- Heat energy is derived from a tungsten halogen lamp and focused onto the product with a reflector
- Optical filter eliminates unwanted UV emissions and excess visible light, reducing glare for the operator
- UL Approved

EASY TO USE

- Hand-held unit with simple trigger operation
- Options available for products up to 9 mm diameter
- Tool can be used with either 230 V or 110 V (nom.) power supply

RoHS Compliant

ROHS Information can be found at the following website: http://www.te.com/customersupport/productcompliance/

This product must not be disposed of as municipal waste.



Mini-Ray MK5 Infrared Heating Tool
Tool is designed for installing SolderSleeve termination products up to 9 mm diameter.

IR1759-MK5-AT3130-ED-CONT

The Raychem Mini-Ray MK5 tool from TE is a hand-held infrared heating tool designed for use in installing TE's SolderSleeve termination products. The tool is portable, lightweight and convenient for use where workspace is constrained.

The hand tool is fan cooled and has low heat emission, as the lamp is only energized on demand. The heat energy is derived from a halogen lamp and is focused onto the product by means of the reflector design.

The IR1759-MK5 standard aperture is recommended for products up to 6 mm diameter, and the IR-3104-MK4/A large aperture for installing products up to 9 mm diameter. This version of the tool will accept larger diameter components, but uniform heating cannot be assured.

The Raychem ED-7 controller is a simple unit, with no variable time or variable power memory functions. It maintains power to the lamp for as long as the tool's trigger switch remains depressed. The controller can be used with either 230 V or 110 V supply voltage.

NOTE: Control unit ED-7-CONT-230/110V-MK5 is used with the IR-1759-MK5-GUN and cannot be used with or fitted to other existing Mini-Ray systems (such as 1759-MK4/A and IR-3104-Mk4/A hand tool).



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

IR-1759 Infrared Heating Tools

Model	Description	Part No.
Mini-Ray Infrared Heating Tool	IR1759-MK5-AT3130-EDCont (With manual control box, hand tool, AT3130 reflector and spare bulb)	CV3948-000

Accessories and Replacement Parts

Part	Description	Part No.
Heating Tool	IR-1759-MK5-GUN*	CV4411-000
Controller	ED-7-CONT-230/110V-MK5*	CV4409-000
Reflectors for Standard Aperture		
Reflector With Vee Block	AT-3130	988299-000
Reflector for SolderTacts Contacts	AT-3131	988300-000
Reflector With Clamps	AT-3132	988301-000
Reflector With Clamps and 5 mm Mask	AT-3132 -MK31	879865-000
Reflector With Special Vee Block	AT-3191	588701-000
Linear Reflector	AE-205	988596-000
Reflectors For Large Aperture (Requires Conversion Kit AE-897)		
Conversion Kit From Standard To Large Aperture	AE-897	966953-000
Reflector With Clamps	AT-3134	988303-000
Reflector With Clamps	AT-3147	988328-000
Linear Reflector	AE-206	988314-000
Inner Reflectors		
For Standard Aperture	AE-424 Standard IR-1759	547918-000
For Large Aperture	AE-153 3104	988285-000
Replacement Parts		
PCB For Trigger/Handle	IR-1759-MK5-TRIGGER-PCB	CV4416-000
Thermal Switch With Plate/Tubing	IR-1759-MK5-THRMSW-PLT	CV4418-000
Dual Filter	AES-IR1759-100- FILTER-DUL	431468-000
Main PCB	ED-7-CONT-MK5-PCB	CV4414-000
Filter Spring IE-1759	AE-900	277774-000
Bulb, 250 W, 24 V IR1759/3104	NAE-143-3	988208-000
Replacement Connector, De-Pin Tool, and Instructions	IR1759-MK5-REPCON-DEPINTL	EG2846-000
Cable, Trigger PCB, Lamp Holder, and Thermal Switch	IR-1759-MK5-CABLE-ASY	CV4412-000

*Note: Heating tool and controller not sold separately.

Raychem Mini-Ray MK4 Heating Tool Systems

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

- A kit product is available, comprising manual control box, hand tool, AT3130 reflector and bulb



Mini-Ray MK4 Infrared Heating Tool
Designed for installing SolderSleeve termination products up to 9 mm diameter.

IR-1759-MK4/A, IR-3104-MK4/A
ED-7-001/002, ED-7-CONT-230 V/110 V
ED-7-BATTERYBOX-230 V/110 V

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

	Hand Tool	Control Units		
	IR-1759/IR-3104	**ED-7-001/002**	**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 Yuasa 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	—	—

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

Ordering Information

IR-1759 Infrared Heating Tools

Model	Description	Part No.
Mini-Ray MK4 Heating Tool System	IR1759-MK4-AT3130-EDCont Hand tool/Reflector/Control Box	CF0024-000
IR-1759-MK4/A (1)	Hand tool, standard aperture	CF0025-000
IR-3104-MK4/A (1)	Hand tool large aperture	CF5497-000
IR1759-MK4AT3130-ED-7-001	Hand tool/standard aperture/ Timed 230 V Control Box	EG3472-000
ED-7-001-MK4-230V-50HZ	Control Box with time control-230 V	CF0199-000
ED-7-002-MK4-110V-60HZ	Control Box with time control-110 V	CF0201-000
ED-7-CONT-230/110V-MK4	Control Box manual control 110/230	CF0026-000
ED-7-BATTBOX-MK4-230/110V	Battery Box†	CF0200-000

†Battery box takes 2X12V batteries, type NP7-12FR. Please note that TE does not supply replacement batteries.
(1) Note: No control box or reflector supplied. Hand tool only.



Ordering Information (continued)

Accessories and Replacement Parts

Model	Description	Part No.
AE-153	Inner reflector for large aperture (3104)*	988285-000
AE-424	Inner reflector for standard aperture*	547918-000
AES-IR1759-100- FILTER-DUL	Standard filter*	431468-000
AES-IR1759-300-FLT-LRG	Large filter	F52511-000
ED-7-CONT-PCB	PCB*	CA3022-000
AE-900	Filter spring IR-1759*	277774-000
AE-897	Conversion kit for standard to Large aperture*	966953-000
AT-3130	Reflector to fit standard aperture standard Vee block*	988299-000
AT-3131	Reflector to fit standard aperture for SolderTacts contacts*	988300-000
AT-3132	Reflector to fit standard aperture*	988301-000
AT-3132-MK31/1	Reflector to fit standard aperture with clamps*	879865-000
AT-3134	Reflector to fit large aperture with standard Vee block*	988303-000
AT-3147	Reflector to fit large aperture with clamps*	988328-000
AT-3191	Reflector to fit standard aperture special Vee block*	588701-000
ED-7-CONT-TRANSFORMER	Transformer	139128-000
ED-7-BATT-FRONT-PANEL	Comes complete with PCB	132692-000
IR-1759/3104-CABLE-ASSY	Trigger PCB/cable/fan/lamp holder*	585643-000
NAE-143-3	Bulb 250 W, 24 V IR1759/3104*	988208-000
AE-205	Linear reflector for standard aperture	988596-000
AE-226	Linear reflector for large aperture	988314-000
AT-3134/AE-897	Reflector and conversion kit (see above)	934630-000
NAE-109-02	Lamp support	988382-000
NAE-152-1	Fan	988204-000
MINIRAY-GUN-CASE	Mini-Ray heat gun case	CM8837-000

*Items marked with an asterisk are compatible and can be used with MK2/MK3 IR1759.

RoHS Compliant

ROHS Information can be found at the following website: http://www.te.com/customersupport/productcompliance/

This product must not be disposed of as municipal waste.

Raychem CV2014 Series ThermoGun Heating Tool

SPACE AND WEIGHT EFFICIENT

- Ultra compact design
- Lightweight: 600 g (1.32 lb.)

POWERFUL

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

SAFE

- Low noise
- Built in stand
- UL Approved



CV2014 Series ThermoGun Heating Tool
Tool is used for installing TE heat-shrink tubing and SolderSleeve terminations, and for making cable repairs.

CV2014-JETS-120V460W-UL
CV2014-JETS-230V460W-EU
CV2014-JETS-230V460W-UK

The small, but powerful Raychem CV2014 hot air gun is capable of producing temperatures of up to 600°C. It can be used for installing heat-shrink tubing, SolderSleeve devices, and cable repair products.

PR Reflectors as shown below can be used with a reflector adapter.

Specifications

POWER

- **Voltage:** 120 V (US models) or 230 V (UK/EU models)
- **Power Consumption:** 460 W

AIR

- **Air Flow (@ 20°C):** 20 to 80 l/min

TEMPERATURE

- **Temperature Range:** 40°C to 650°C

DIMENSIONS

- **Size (L x ø):** 235 mm L × 70 mm dia., 9.25″ L x 2.75 dia. Handle is 40 mm (1.6″) dia.

WEIGHT

- 0.6 kg (1.3 lb.) (with 3 m cord)



Ordering Information

CV2014 Series ThermoGun Heating Tools

Model	Plug	Description	Part No.
Hot Jet S 120 V/460 W	UL (US)	CV2014-JETS-120V460W-UL	EG2900-000
Hot Jet S 230 V/460 W	Schuko (EU)	CV2014-JETS-230V460W-EU	EG2902-000

Reflectors

Reflector/Application	Description	Part No.
PR Reflector adaptor	CV2014-PR-ADAPTOR	EG3417-000
PR-38: Large cable repair	PR-38-REFLECTOR	EG2498-000
PR-13: Tubing up to 6 mm dia.	PR-13-REFLECTOR	991963-000
PR-13-C: Tubing 6 to 12 mm dia.	PR-13C-REFLECTOR	991974-000
PR-25: SolderSleeve products up to 6 mm dia.	PR-25-REFLECTOR	991965-000
PR-25-D: SolderSleeve products 6 to 12 mm dia.	PR-25D-REFLECTOR	989523-000
PR-26: Miniature SolderSleeve products and small products	PR-26-REFLECTOR	991967-000
PR-33: For SolderSleeve products 20 to 27 mm dia.	PR-33-REFLECTOR	997768-000

RoHS Compliant

ROHS Information can be found at the following website: http://www.te.com/customersupport/productcompliance/

This product must not be disposed of as municipal waste.

Raychem CV1981 and CV1983 Series ThermoGun Heating Tools

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 and CV1983 Series ThermoGun Heating Tools
ThermoGun heating tools are used for installation of TE heat-shrink products, molded parts, and SolderSleeve terminations.

CV1981 Series ThermoGun Heating Tool
CV1983 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

Heating Tools

Model	Description	Part No.
CV1981 AT Series (with Controlled Temperature, Adjustable Air Volume, and Digital Display)		
230 V, 1600 W, EU Plug	CV1981-ATPID-230V1600W-EU	EG1106-000
230 V, 1600 W, UK Plug	CV1981-ATPID-230V1600W-UK	EG1108-000
120 V, 1600 W, US Plug	CV1981-ATPID-120V1600W-US	EG1110-000
120 V, 1600 W, CEE Plug	CV1981-ATPID120V1600W-CEE	EG1112-000
CV1981 ST Series†		
230 V, 1600 W, EU Plug	CV1981-ST-230V1600W-EU	EG1114-000
230 V, 1600 W, Swiss Plug	CV1981-ST-230V1600W-CH*	EG1115-000
230 V, 1600 W, UK Plug	CV1981-ST-230V1600W-UK*	EG1116-000
120 V, 1600 W, US Plug	CV1981-ST-120V1600W-US*	EG1118-000
120 V, 1600 W, CEE Plug	CV1981-ST-120V1600W-CEE*	EG1120-000
CV1983 ST Series†		
230 V, 3400 W, EU Plug	CV1983-ST-230V3400W-EU	EG0998-000
230 V, 2300 W, EU Plug	CV1983-ST-230V2300W-EU	EG1100-000
120 V, 2400 W, CEE Plug	CV1983-ST-120V2400W-CEE	EG1102-000
230 V, 3400 W, CEE Plug	CV1983-ST-230V3400W-CEE	EG1104-000

*Note: Refer to TE installation guides and Codes of Practice for appropriate temperature settings.
† ST tooling does not feature digital display.

Accessories and Replacement Parts

Spare/replacement elements for CV1981 and CV1983

Description	Part No.
CV1981-ATSTELEM-230V1600W	EG8165-000
CV1981-ATSTELEM-120V1600W	EG8166-000
CV1983-STELEM-230V3400W	EG8167-000
CV1983-STELEM-230V3400W	EG8168-000
CV1983-STELEM-120V2400W	EG8169-000

Accessories and Replacement Parts (continued)

Spares for CV1981MK2-PID, CV1983M2

Description	Part No.
CV-1981-PID-ELEM-120V	179178-000
CV-1981-PID-ELEM-230V	091282-000
CV-1983-M2-230V-2200W-ELE	D40442-000
CV-1983-M2-230V-3060W-ELE	123906-000

Reflectors

Part	Description	Part No.
AD-1962-CV1648-PR.RFL-ADP	Adaptor to CV1983 for PR Series Reflectors	989172-000
AD-1999-Temp-Meas-Rflt	Temperature Measurement Reflector	932525-000
PR-12-REFLECTOR	For Tubing 6 to 25 mm Dia.	991973-000
PR-13-REFLECTOR	For Tubing up to 6 mm Dia.	991963-000
PR-13C-REFLECTOR	For Tubing 6 - 12 mm Dia.	991974-000
PR-21-REFLECTOR	For Tubing 6 - 25 mm Dia.	991984-000
PR-24-REFLECTOR	For Small Molded Parts and Tubing 25 to 35 mm Dia.	991964-000
PR-24-A-REFLECTOR	For Small Molded Parts and Tubing 35 to 60 mm Dia.	991989-000
PR-25-REFLECTOR	For SolderSleeve Products up to 6 mm Dia.	991965-000
PR-25-D-REFLECTOR	For SolderSleeve Products 6 to 12 mm Dia.	989523-000
PR-26-REFLECTOR	For Miniature SolderSleeve Products and Small Products	991967-000
PR-27-REFLECTOR	Special	997858-000
PR-33-REFLECTOR	For SolderSleeve Products 20 to 27 mm Dia.	997768-000
PR-34-REFLECTOR	For SolderSleeve Products 12 to 20 mm Dia.	989111-000
PR-ATUM-HTAT-16/4-32/8	For HTAT 16/4 - 32/8	463664-000
AD-7-025	Unicure Heat Shield (HS1)	121629-000

Accessories and Replacement Parts

Reflectors	Applications	Description	Part No.
A-160-HG	Up to 19 mm (0.75") Dia. Tubing	TG-12/A-160-HG-RFL-SMALL	991017-000
A-170-HG	19 to 51 mm (0.75" to 2") Dia. Tubing	A-170-HG	991018-000
TG-23	44 to 51 mm (1.75") Dia. Tubing	TG-23/A-205-HG	991026-000
TG-24	Molded Parts	TG-24-RFL-LGE-BOOT	991027-000



A-160-HG Reflector



A-170-HG Reflector



TG-23 Reflector

TG-23 and TG-24 reflectors will fit CV-1981 and CV-1983 heat guns using adaptor part 989172-000 AD-1962-CV1648-PR.RFL-ADP

RoHS Compliant

ROHS Information can be found at the following website: http://www.te.com/customersupport/productcompliance/

This product must not be disposed of as municipal waste.

Heat Guns for Raychem Products

HL1920E

CONVENIENT

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

RELIABLE

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

HL2020E

ADVANCED

- Electronically controlled hot air tool with LCD display
- Adjustable by joystick from 80°C to 630°C in 10°C steps
- Current working temperature and airflow rate is indicated on the display

SAFE, COMFORTABLE

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

RoHS Compliant

ROHS Information can be found at the following website: http://www.te.com/customersupport/productcompliance/

This product must not be disposed of as municipal waste.



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

HL1920E
HL2020E

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

TEMPERATURE

- **HL2020E:** 80°C to 630°C
- **HL1920E:** 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

Heat Guns

Models	Description	Part No.
HL1920E Tools		
230 V, UK Plug	HL1920E-230V-UK	EG8160-000
230 V, EU Plug	HL1920E-230V-EURO	EG8162-000
Kit, 230 V, EU Plug	HL1920E-KIT-230V-EURO	EG8164-000
Kit, 120 V, US Plug	--	CJ2086-000
HL2020E Tools		
230 V, UK Plug	HL2020E-230V-UK	EG6424-000
230 V, EU Plug	HL2020E-230V-EURO	EG6422-000
Kit, 230 V, EU Plug	HL2020E-KIT-230V-EURO	EG6426-000
Kit, 120 V, US Plug	--	CJ2087-000

Note: Kit contains heating tool plus SolderSleeve reflector EH0600-000.

Accessories and Replacement Parts

Part/Application	Description	Part No.
Reflectors		
Adaptor for PR Series Reflectors	*HL-ADPT-PR-REFLECTORS	EH0598-000
Reflector For Tubing	HL-GEN-TUBE-REFLECTOR	EH0599-000
Reflector for SolderSleeve Products	HL-SOLDER-SLV-REFLECTOR	EH0600-000
Reduction Nozzles		
9 mm Nozzle For Small-to-Medium Tubing	HL-9MM-REDUCTION-NOZ	EH0601-000
14 mm Medium Nozzle	HL-14MM-REDUCTION-NOZ	EH0602-000
20 mm Medium-to-Large Nozzle	*PR-12-REFLECTOR	991973-000
Stands		
Bench Stand for Fixed Position Environments	HL-BENCH-STAND	EH0603-000

Note - Reflector: SolderSleeve reflector comes with the kit only.
*HL-ADPT-PR-REFLECTORS required for use with PR-12-REFLECTOR.



SolderSleeve Reflector



20 mm Reduction Nozzle



Small to Medium Tubing



Reflector Tubing

Raychem AA-400 Super Heater Compressed-Air Heating Tool

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 Super Heater Compressed-Air Heating Tool
Tool is used for installing heat-shrinkable tubing and devices.

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

AA-400 Super Heater

Model	Voltage AC	Description	Part No.
AA-400 Super Heater (With stand, needlepoint tip, Mini SolderSleeve reflector, and input air filter	120	AA-400-32-Mk3 (120 V)	582602-000
	240 CE	AA-400-200-CE-SUPERHTR	281917-000

Note: Controller is not sold separately.

Accessories and Replacement Parts

Parts	Description	Part No.	NSN Stock No.
SolderSleeve Reflector	AA-400-94-SLD-SLV-TIP-KIT	979646-000	4940-00-609-4993
*Needlepoint Tip	AA-400-96	979647-000	4940-00-148-9847
Boot And Tubing Tip	AA-400-101	979691-000	4940-00-148-9848
*Mini SolderSleeve Reflector	AA-400-102	979663-000	4940-01-043-7634
Low-Flow Tip	AA-400-103	979672-000	3439-01-173-8810
Heating Element Replacement Kit, 120 V	AA-400-128	013750-000	
Heating Element Replacement Kit, 240 V (CE)	AA-400-228-EL-KT-240V-CE	444179-000	
*Stand	AA-400-09	979649-000	
*Input Air Filter	AA-400-P-Y-92-Filter	979673-000	
Air Hose Replacement Kit	AA-400-136	156553-000	
Gun And Air Hose Replacement Kit	AA-400-229-GUN-HSE-KIT	238231-000	

*Indicates parts that come with the Super Heater

RoHS Compliant

ROHS Information can be found at the following website: http://www.te.com/customersupport/productcompliance/

This product must not be disposed of as municipal waste.

Raychem HT-900B Compressed Air Nitrogen Heater Tools

CAPABLE

- 290°C to 495°C temperature range
- Compressed air/nitrogen 80 to 200 psi
- Regulated air/nitrogen through the hose
- Air/nitrogen monitored by small sensing hose

EASY TO USE

- Temperature is controlled by the controller setting and on thermo-couple feedback
- On/Off power switch handle with overload protection controls electrical supply

SAFE

- Automatic shutdown if air supply falls below 5.0 psi
- Compressed air/nitrogen runs through four orifices to cool handle of tool
- Power on light for unit
- Heated air light for heating element



HT-900B Compressed Air Nitrogen Heater Tools (Available in the US only)
Tools are used for the field installation of heat-shrinkable insulation and termination products.

HT-900B-1-HT-TOOL-YELLOW (115 V)
HT-900B-30-HT-TOOL-OLIVE (115 V)
HT-920B-10-HT-TOOL-YELLOW (230 V)
HT-920B-1-HT-TOOL-OLIVE (230 V)

The Raychem HT900B compressed air/nitrogen heating tool from TE supplies a stream of heated air or nitrogen to aid in the field installation of heat-shrinkable insulation and termination products.

The heating tool consists of a heat gun and a control module. The tool comes with hot air reflectors, a spare heating element, thermocouple, and operating instructions. The heat gun is permanently attached to the control module by a hose assembly, which contains air hoses and electrical wires.

The compressed air/nitrogen heating tool operates by passing a stream of air or nitrogen through an electrical heated element located in the body of the heat gun.

Specifications

ELECTRICAL

- **HT-900B:** 115 VAC, 50-400 Hz, single-phase, 7 A
- **HT-920B:** 220 VAC, 50-400 Hz, single-phase, 3.5 A

WEIGHT

- 9 kg (20 lb.)

DIMENSION

- **Tool Case:** 246 x 440 x 292 mm (9.7" x 17.3" x 11.5")

OUTPUT TEMPERATURE

- 290°C to 495°C

COMPRESSED AIR/NITROGEN

- 80 to 200 psi, 4 SCFM (Dry and oil-free)

Ordering Information

HT-900B Compressed Air Nitrogen Heater Tools (Available in the US only)

Model	Voltage	Description	Case Color	Part No.
HT-900B	115	HT-900B-1-HT-TOOL-YELLOW	Yellow	910987-000
HT-900B	115	HT-900B-30-HT-TOOL-OLIVE	Olive Drab	837097-000
HT-920B	230	HT-920B-10-HT-TOOL-YELLOW	Yellow	303754-000
HT-920B	230	HT-920B-1-HT-TOOL-OLIVE	Olive Drab	712121-000

Accessories and Replacement Parts

Part	Description	Part No.
Supplied with HT-900B and HT-920B tools, and as replacement parts		
Heating Element	HT-900A-112-SPAR-ELE-115V	252997-000
Thermocouple	HT-900A-114-TC-RPLMT-KIT	729711-000
1. Boot and Tubing Reflector	AA400-101-STAINLESS-BOOT	979691-000
2. Miniature Termination Sleeve Reflector	AA-400-102-MINI-SOLD-TIP	979663-000
3. Termination Sleeve Reflector	HT-900A-103-REFL-RPLMT-KT	491878-000
4. Needle Point Reflector	AA-400-96-NED-PNT-TIP-KIT	979647-000
5. Large Boot and Tubing Reflector	HT-900A-100-LBT-RPLMT-KIT	444100-000
Additional Replacement Parts		
Heater Element, 120 V	HT-900A-123-HTR-RPLMT-KIT	508744-000
Heating Element, 230 V	HT-920A-124-HTELE-RPL-KIT	011349-000
Handle Kit 115 V	HT-900A-32-HNDLE-KIT-115V	980123-000
Handle Assembly	HT-900A-34-HANDLE-ASSMBLY	074594-000





RoHS Compliant

ROHS Information can be found at the following website: http://www.te.com/customersupport/productcompliance/

This product must not be disposed of as municipal waste.

Raychem AD-5000 Installation Tool

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
- Various electrode types can be used to install other Tinel-Lock ring sizes and types



AD-5000 Installation Tool
Tool is used to correctly position and install size TR04 to TR24 Raychem Tinel-Lock rings in screened terminations.

AD-5000-TINEL-ASSY

The AD-5000 tool is a manually operated resistance-heating tool designed to install Raychem Tinel-Lock rings in screened terminations. Intended for small batches, the tool makes it easy to consistently and quickly install Tinel-Lock rings. Machine cycle time is typically 5 to 15 seconds, depending on ring size and braid type on the termination.

The tool accommodates Tinel-Lock rings from size TR04 to TR24. Various electrode (jaws) types can be used to install other ring sizes and types.

Specifications

POWER

- **Supply:** 220–240 V, 50 Hz
- **Main Fuse:** 240 V, 2 A (Type T) Anti-surge
- **System Noise:** Silent operation

DIMENSION

- 340 x 320 x 170 mm (13.4" x 13" x 6.7")

WEIGHT

- 4.2 kg (9.5 lb.)



Ordering Information

A complete tool includes the hand tool assembly and electrodes. Three types of electrodes are available:

- Standard electrodes are used for Tinel-Lock rings, sizes TR04 through TR24
- Conduit electrodes are used when terminating Tinel-Lock rings on conduit or double braids
- Square profile electrodes are used with TC02 and TC03 rings

Tinel installation tool AD-5000-TINEL-ASSY includes both the hand tool assembly (AD-5000-TINEL-HAND-TOOL) and standard electrodes (AD-5000-TINEL-STD-ELECT).

AD-5000 Installation Tool

Model	Description	Part No.
AD-5000 Installation Tool	AD-5000-TINEL-ASSY	411993-000

Accessories and Replacement Parts

Parts	Description	Part No.
Hand Tool Assembly	AD-5000-TINEL-HAND-TOOL	795257-000
Standard Electrodes	AD-5000-TINEL-STD-ELECT	180245-000
Conduit Electrodes	AD-5000-TINEL-COND-ELECT	747235-000
Square Profile Electrodes	AD-5000-TINEL-SQ-EXT-ELEC	065583-000

RoHS Compliant

ROHS Information can be found at the following website: http://www.te.com/customersupport/productcompliance/

This product must not be disposed of as municipal waste.

Raychem AD-5020 Installation Tool

CONVENIENT

- Designed specifically to install Tinel-Lock ring screened terminations in the correct position
- Foot pedal operated on and off
- Controller “POWER OUTPUT” is adjustable from 80% to 100%

EASY TO USE

- Ring’s thermochromic patch color changes to black to provide visual verification of correct installation
- Tool switches off when foot pedal is released

FAST

- 5 to 15-second typical installation time for a Tinel-Lock ring
- Simple line-up and press foot pedal switch installation



AD-5020 Installation Tool for Tinel-Lock Rings
Tool is used to correctly position and install size TR04 through TR24 Raychem Tinel-Lock rings in screened terminations.

AD-5020-TINEL-HAND-TOOL-230V
EG1245-000

The AD-5020 tool is a manually operated resistance-heating tool designed to install Tinel-Lock rings in screened terminations. Intended for small batches, the tool makes it easy to consistently and quickly install Tinel-Lock rings. Machine cycle times typically 5 to 15 seconds, depending on ring size and braid type on the termination.

The tool accommodates Tinel-Lock rings from size TR04 through TR24. A foot pedal is used to cycle the tool on and off.

Specifications

POWER

- **Supply:** 220–240 V, 50 Hz
- **Main Fuse:** 230 V, 4 A (Type T) Anti-surge
- **System Noise:** Silent operation

DIMENSIONS

- 160 x 120 x 250 mm (6.3″ x 4.7″ x 9.8″)
- **Power Lead:** 1.3 m (51”)
- **Foot Pedal Lead:** 2 m (78”)

WEIGHT

- 7.9 kg (17.4 lb.)



Ordering Information

AD-5020 Installation Tool

Model	Description	Part No.
AD-5020 Hand Tool	AD-5020-TINEL-HAND-TOOL	EG1245-000

Accessories and Replacement Parts

Model	Description	Part No.
Standard Electrodes	AD-5020-TINEL-ELECTRODE	EG7238-000
Jaws	AD-5020-TINEL-JAWS	EG7239-000
PCB for Controller	AD-5020-TINEL-PCB	EG7240-000

RoHS Compliant

ROHS Information can be found at the following website: http://www.te.com/customersupport/productcompliance/

This product must not be disposed of as municipal waste.

RH-3960 and RH-3965 Tinel-Lock Installation Tools

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-396X Tinel-Lock Installation Tool
Tool is designed specifically to install TE Connectivity's Tinel-Lock rings for screened terminations.

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

TH-3960 and TH-3965 Installation Tools

Model	Description	Part No.
TH-3960 Installation Tool (120 VAC)	RH-3960-1-TINEL-KIT-120V	173643-000
TH-3965 Installation Tool (220 VAC)	RH-3965-1-TINEL-KIT-220V	859855-000

Accessories and Replacement Parts

Parts	Description	Part No.
Hand Tool Assembly	915088-01-TINI-RING-HEATR	170224-000
Foot Switch	IR-500-P-FOOT-SWITCH	993702-000
120 VAC Transformer	AES-RH3960-TRNSFMR-120V	9951119-000
220 VAC Transformer	TRNSFMR-220V-105-A12-250W	574557-000

RoHS Compliant

ROHS Information can be found at the following website: http://www.te.com/customersupport/productcompliance/

This product must not be disposed of as municipal waste.

Raychem Underwater Cable Splice (UWCS) Kit

CONVENIENT

- Portable
- Available in 110 V and 240 V
- Full range of spares available

FOR INSTALLING HIGH PERFORMANCE SPLICES

- Splices tested to 86 bar (on specified cables)
- Splices operating temperature range: -55°C to +95°C
- Kit: NATO Codified (110 V option)

RoHS Compliant

ROHS Information can be found at the following website: http://www.te.com/customersupport/productcompliance/

This product must not be disposed of as municipal waste.



Raychem Underwater Cable Splice Kit
Tool is used for jointing of TE specified polyethylene jacketed cables.

UWCS-AT3535-110V
UWCS-AT3535-220V

The Raychem underwater cable splice (UWCS) from TE is suitable for jointing of TE specified polyethylene jacketed cables, which are subject to water immersion and pressure.

The splice consists of molded polyethylene inserts, which are encased in a heat recoverable sleeve. The joint is placed in **a purpose-made oven**, which melts the joint components with the cable jacket and, when cooled, gives a water- and pressure-tight joint with the insulated conductor connections embedded within it.

Specifications

ELECTRIC

- 110 V
- 240 V

TOOL KITS

Voltage	Description	Part No.
110 V	UWCS-AT3535-110V	921209-000
240 V	UWCS-AT3535-220V	866776-000



Product Range

Cable Description (Diameter first)	EPD No.	Splice Kit	End Cap
6.8 mm, 6 mm² unscreened	26732C	UCWS-1U/6.8	UWCS-END-CAP/6.8
6.8 mm, 6 mm² unscreened	26732C	UCWS-1U/10.9-1U/6.8	
TO			
10.9 mm, 25 mm² unscreened		UCWS-2U/7.6	
7.6 mm, 2 core unscreened	21735F		UWCS-END-CAP/7.6
7.6 mm, 2 core unscreened	21735F	UCWS-2U/7.6-1C/5.8	
TO			
5.8 mm, 25 mm Coaxial	26640A	UCWS-2S/8.3	
8.3 mm, 2 core screened	21291G	UCWS-2S/8.3	UWCS-END-CAP/8.3
8.3 mm, 3 core screened	24171E	UCWS-3S/8.3	UWCS-END-CAP/8.3
8.3 mm, 4 core screened	21736E	UCWS-4S/8.3	UWCS-END-CAP/8.3
10.3 mm	45572Q		UWCS-END-CAP/8.3
10.9 mm, 25 mm² unscreened	31451A	UCWS-1U/10.9	
11.2 mm, 50'Ω Coaxial	25984G	UCWS-1C/11.2	UWCS-END-CAP/11.2
12.7 mm, 3 core unscreened	36892C	UCWS-3U/12.7	

* Please contact TE for more details

Raychem AD-1319-9 Holding Fixture

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

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

AD-1319-9 Holding Fixture

Model	Description	Part No.
AD-1319-9 Holding Fixture	AD-1319-9	993850-000

Note: For holding fixtures for our SolderTacts products, please refer to TE's SolderTacts brochure, 1-1773722-5.

Accessories and Replacement Parts

Parts	Description	Part No.
SolderTacts Adapters		
38999 Size 8 Contact	AT-1319-22	395241-000
38999 Size 16 Contact	AT-1319-78	413186-000
Subminiature Contact	AT-1319-12	993872-000
748 Contact	AT-1319-14	993877-000
723 Contact	AT-1319-19	993938-000
482 Size 16 Contacts	AT-1319-17	993917-000

RoHS Compliant

ROHS Information can be found at the following website: http://www.te.com/customersupport/productcompliance/

This product must not be disposed of as municipal waste.

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

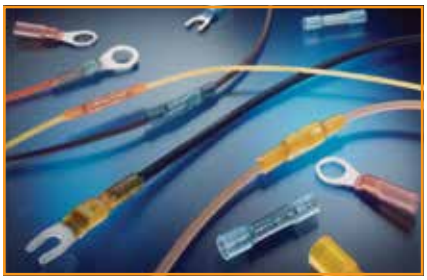
Selecting the proper tool is very important in order to ensure correct and efficient installation.

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	Recommended Application Tooling	Page
MiniSeal Crimp Splices		
	AD-1377 Hand Crimping Tool	3
	UL Approved MK5 Infrared Hand-Held Tooling	10-11
	Mini-Ray MK4 Infrared Hand-Held Tooling	12-13
	CV2014 Series ThermoGun Heating Tool	15-16
	AA-400 Super Heater	22-23
DuraSeal Crimp Splices		
	AD-1522-1 Hand Crimping Tool	4
	CV1981/CV1983 Series ThermoGun Heating Tools	17-19
	Reflectors for CV1981/CV1983 Tools	19
	Heat Guns	20-21
	Reflectors for Heating Guns	21

Product Family	Recommended Application Tooling	Page
Heat-Shrinkable Molded Boots and Shapes		
	CV1981/CV1983 Series ThermoGun Heating Tools	17-19
	Reflectors for CV1981/CV1983 Tools	19
	Heat Guns	20-21
	Reflectors for Heat Guns	21
Heat-Shrinkable Tubing (For example DR-25, RNF-100 Tubing)		
	CV1981/CV1983 Series ThermoGun Heating Tools	17-19
	Reflectors for CV1981/CV1983 Tools	19
	Heat Guns	20-21
	Reflectors for Heat Guns	21
Tinel-Lock Rings for TXR Backshells		
	AD-5000 Installation Tool	26-27
	AD-5020 Installation Tool	28-29
	RH-3960/RH-3965 Tinel-Lock Installation Tool	30-31

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



Notes



Notes

LET'S CONNECT

We make it easy to connect with our experts and are ready to provide all the support you need. Just call your local support number or visit www.te.com/industrial to chat with a Product Information Specialist.

Technical Support

te.com/support-center

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India (Toll-Free)	+800 440 5100		

te.com/Raychem-tooling

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Consult TE for the latest dimensions and design specifications.

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YDTS20F19-32BNV001 7-1617559-9 YDTS20F17-99SBV001 6-2007614-5 YDTS20F17-06SDV001
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