IR-550-300 MARK III-CE Infrared Heat Gun Maintenance Manual

PCN C66438-000

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SECTION 1 **GENERAL DESCRIPTION**

General

The IR-550-300 MARK III-CE is a portable electric infrared heating tool for fast reliable installations of Raychem's SolderSleeve devices, MiniSeal devices, SolderTacts contacts and Thermofit heat-shrinkable products. It can be used as a hand tool but it is primarily designed as a bench top-heating tool. As a hand tool it is operated by a switch on the handle; as a bench top-heating tool it is operated by a foot switch or the handle switch.

The IR-550-300 MARK III-CE uses a tungsten-halogen lamp as its radiant heat source. Reflectors focus the heat from the lamp, concentrating heat energy within the work area of the front reflector. An optical filter between the lamp and the work area reduces glare from the lamp, allowing the operator to observe the heating process. The tool is also equipped with a viewing window to assist in operator eye comfort. To further improve operator comfort the tool incorporates a 30 degree base designed to further reduce eye strain and reduce glare to others working nearby.

A number of interchangeable front reflectors are available for the IR-550-300 MARK III-CE infrared heat gun. These reflectors have been designed for specific product applications. Their use is described in detailed application literature.

The IR-550-300 MARK II-CE infrared heat gun contains a fan to keep external surfaces cool and to allow for long-duration heating. Since the front reflector is outside the cooling air stream, it may get hot during long heating cycles.

The IR-550-300 MARK III-CE infrared heat gun is also equipped with a thermostatic switch to protect it from overheating. Overheating activates the switch, which disconnects the heat lamp temporarily. The thermostat automatically resets after the tool has cooled to a safe temperature. This switch provided for a duty cycle of up to 80 percent with maximum heating times in the 90-second range.

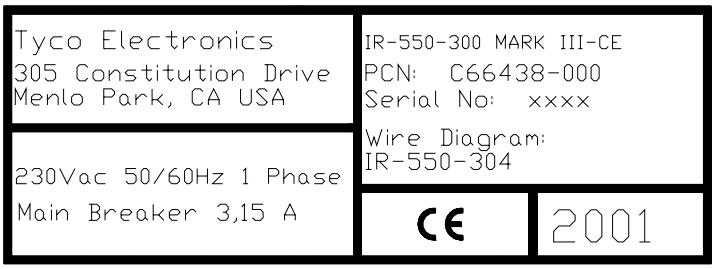
Controls include a power switch, a foot switch, and a handle-mounted switch, (both the foot switch and handle mounted switch activate the heating cycle).

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SECTION 2 **SAFETY**

Labels and Warning Symbols

The IR-550-300 MARK III-CE infrared heat gun carries a label (shown below) that displays the product part number, (PCN), product description, electrical rating, and wiring schematic drawing number.



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SECTION 2 **SAFETY** Continued

Labels and Warning Symbols
The IR-550-300 MARK III-CE infrared heat gun also carries the following general safety warning labels.

Read Manual Warning



General Warning



Electrical Warning



Hot Surface Warning



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SECTION 2 **SAFETY** Continued



General

As with all electrical equipment, the IR-550-300 MARK III-CE infrared heat gun must be operated properly. Carefully read and observe all of the instructions and warnings in this manual.

Incorrect use of the IR-550-300 MARK III-CE infrared heat gun can cause serious injury. This equipment must be operated and maintained only by fully trained and qualified personnel.

Failure to follow the manufacturer's instructions may void the warranty of this equipment.

The IR-550-300 MARK III-CE infrared heat gun must be operated in accordance with safe working practices and local safety codes and regulations.

Do not use the IR-550-300 MARK III-CE infrared heat gun for any purpose other than its intended function.

The IR-550-300 MARK III-CE infrared heat gun assembly carries an International Protection (IP) Code of IP12.5 and the Control Module carries an International Protection (IP) Code of IR2.5. Never expose the IR- 550-300 MARK III-CE infrared heat gun to rain or moisture.

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SECTION 2 **INSTALLATION**

Unpacking

Remove any packaging and inspect the IR-550-300-MARK III-CE infrared heat gun for any damage. Check that all items have been supplied. Contact Tyco Electronics for assistance or missing parts if necessary.



Electrical

The IR-550-300 MARK III-CE infrared heat gun is not equipped with an emergency shut-off switch. To turn equipment off press the “I / O” switch to the “O” position located within the power module on the control unit.

The IR-550-300 MARK III-CE infrared heat gun is supplied with two IEC power cords and plugs. It is the users responsibility to install the appropriate cord that meets local and national requirements.

The provided power cord uses the following color code:

Earth - Green/Yellow
Neutral – Blue
Live – Brown



The IR-550-300 MARK III-CE infrared heat gun must be correctly earthed. Failure to do so could cause serious injury to the user. Before changing a reflector, or replacing a filter or burnt out lamp always turn off the equipment and unplug it from the mains supply.



Hot Surfaces

Parts of the IR-550-300 MARK III-CE infrared heat gun become hot during normal use. Use caution when loading and un-loading product from the front reflector.
Allow the IR-550-300 MARK III-CE to cool before performing any maintenance procedures.

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SECTION 4 **GENERAL CLEANING**



Failure to disconnect the IR-550-300 MARK III-CE from the power source before performing maintenance may result in injury.

Front Filter and Outer Filter Face Cleaning

Heat from the lamp is directed by the reflectors and is concentrated in the heating zone in the front reflector.

Contamination of the reflectors or the filter will decrease the efficiently of the tool. Therefore, they should be periodically inspected for cleanliness. Normally, only the front reflector and the outer face of the lamp filter will need cleaning. The rear reflector and inner face of the lamp filter are protected from the work area, so contamination is less likely. Contaminated surfaces should be cleaned with a soft cloth and isopropyl alchol.

Cleaning Fan and Housing

Since the lamp draws large quantities of air through the tool, dirt and lint may accumulate in the fan area and gradually restrict the air flow. Therefore, this part of the tool should be inspected occasionally and cleaned, when necessary with a soft brush. To facilitate cleaning, simply remove the mounting screws located on the rear of the fan cover.

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SECTION 5 **LAMP AND FILTER REPLACEMENT INSTRUCTIONS**



In the course of normal usage the effectiveness of the optical filter may gradually deteriorate. Any resulting increase in brightness may be corrected by replacemant of the filter.

Step 1
Disconnect the IR-550-300 MARK III-CE from its power source.

Step 2
Remove the front reflector by lifting the upper nose plunger from the hole in the reflector; tilt the reflector away from the tool housing. Lift the reflector off the lower plunger, and slide the reflector out of the housing.

Step 3
Remove the spiral retaining ring from the groove inside the funnel. First lift the narrow end of the spiral retaining ring from the groove with a screwdriver, then remove the remainder of the ring by hand.

Step 4
Remove the lamp filter by holding the heating tool in a vertical position with the front end down. The lamp filter will drop until it is stopped by the reflector nose plunger. Move the top plunger to release the lamp filter.



The lamp filter may be damaged if dropped.

Step 5
The lamp is now accessible if replacement is required. Remove the lamp by unscrewing it from the lamp socket.

Step 6
Install the new lamp. Keep the wrapper on the lamp while handling it, to avoid contaminating its surface with oils. Remove the wrapper when the lamp is securely screwed into the lamp socket.

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SECTION 5 **LAMP AND FILTER REPLACEMENT INSTRUCTIONS** Continued

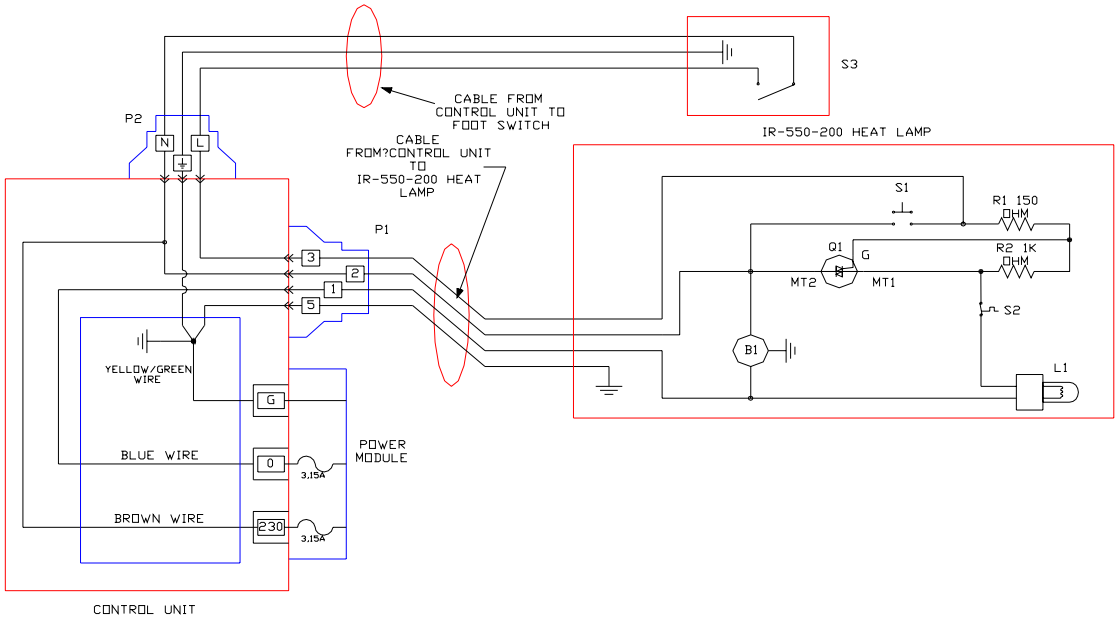
Step 7
Replace the lamp filter. The “bulls eye” coating of the filter should face the lamp.

Step 8
Install the spiral retaining ring.

Step 9
Replace the front reflector by sliding it over the nose plungers on the front end of the tool housing, lifting the top nose plunger, and inserting the reflector onto it.

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SECTION 6 **ELECTRICAL SCHMETIC**



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SECTION 7 **TECHNICAL SPECIFICATIONS**

Power supply	230 Vac, 3A, 50Hz
Maximum cycle time	90 Seconds
Duty Cycle	80 Percent

SECTION 8 **ACCESSORIES AND REPLACEMENT PARTS**

DESCRIPTION	PART NUMBER
220/230 500W Lamp	F95965-000
Lamp Filter	118902-000
Foot Switch Assembly	F91912-000
Viewing Window	007510-000
Button, Large, Black	C33802-000
PC Board	576297-000
RG-2 Reflector	993770-000
RG-6 Reflector	994590-000
Inner Reflector	F61921-000
IR-550 Base, Painted	994364-000
IR-550 Frame Window Assembly	102949-000

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Section 9 **CONTACT INFORMATION**

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