

Unless otherwise specified dimensions are in millimeters.
Inches dimensions are in between brackets.

**Installation Procedure for
Solder Sleeve Devices Ring Terminal
– Series SGRT –
Installed with Hot Air Gun**

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1. Product selection According to Application

Consult the Specification Control Drawing (SCD)

2. Application Equipment

2.1 Hot Air Gun CV-1981

Model	Set-up	Temperature*	Reflector
CV- 1981 110V or 220V 1460W	8.5 vent open	440±10°C	PR-25D

* Temperature controlled with the reflector AD-1999 and a numerical thermometer.

Installation time in seconds (Averages calculated from samples terminated with the heating parameters defined above)		
Product Size	Copper Cross Section (See SCD)	
	Minimum	Maximum
SGRT-2-XX	15s	18s
SGRT-3-XX	24s	31s
SGRT-4-XX	32s	45s

2.2 Hot Air Gun "STEINEL HL-1802-E"

Model	Set-up	Temperature*	Reflector
HL-1802-E 110V or 220V 2000W	11 Air flow 3	400±10°C	074616 (Steinel)

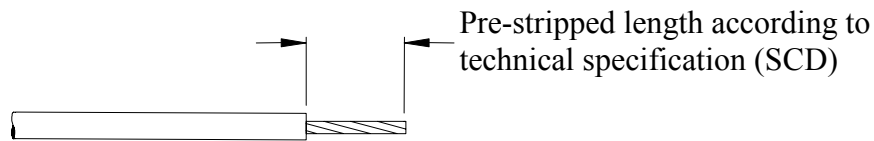
* Temperature controlled with a numerical thermometer and the sensor is placed in the middle of the reflector.

Installation time in seconds (Averages calculated from samples terminated with the heating parameters defined above)		
Product Size	Copper Cross Section (See SCD)	
	Minimum	Maximum
SGRT-2-XX	15s	17s
SGRT-3-XX	19s	24s
SGRT-4-XX	31s	45s

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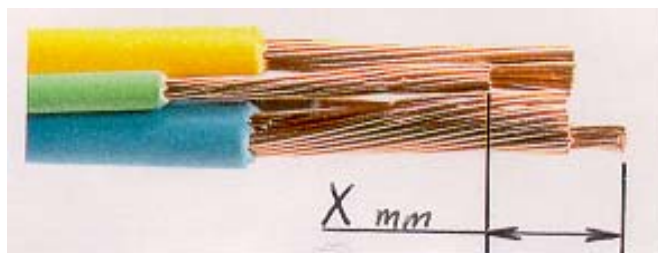
3. Wire Preparation

- 3.1 Pre-strip the end of each wire to be connected. The pre-stripped length is left in place, at it will be removed at the assembly step, in order to prevent oxidation or wire strands deterioration
- 3.2 The pre-stripped length is given on the technical product specification (SCD)
- 3.3 Inspection
The jacket must be cut precisely, the strands must not be damaged or cut
Check presence of pre-cut strip at the wire end

**4. Installation Procedure**

- 4.1 Remove the pre-stripped length of the wires to be connected
- 4.2 Align the stripped ends visually
The maximum acceptable misalignment of the wire ends is indicated below:

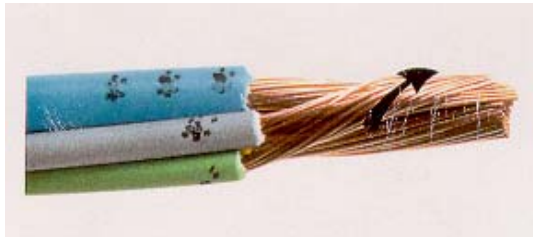
	SGRT-2-XX	SGRT-3-XX	SGRT-4-XX
Maximum gap: X (mm)	3	4	5



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- 4.3 Slightly twist all the conductors together in order to prevent fold back of the strands during the SolderSleeve device insertion.
Turn right as indicated below.

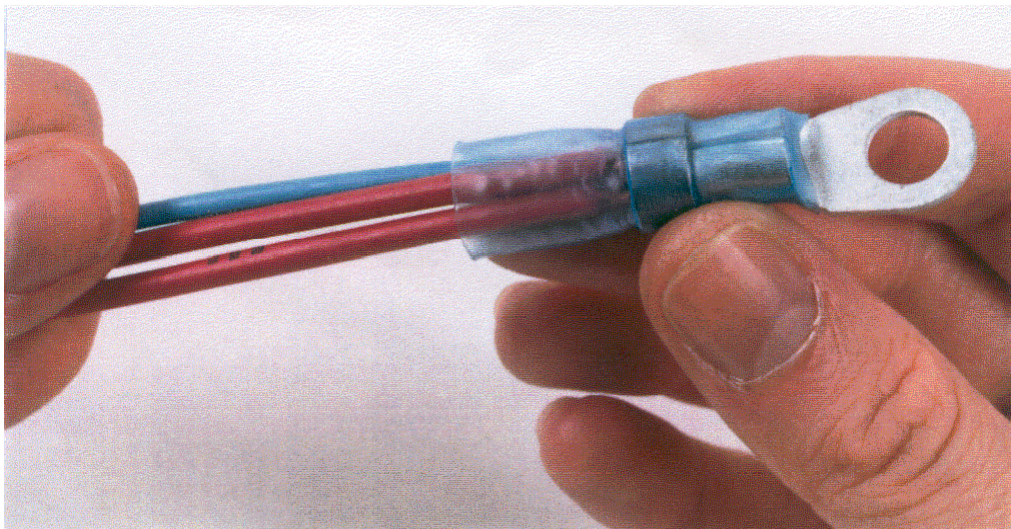
Correct



Incorrect

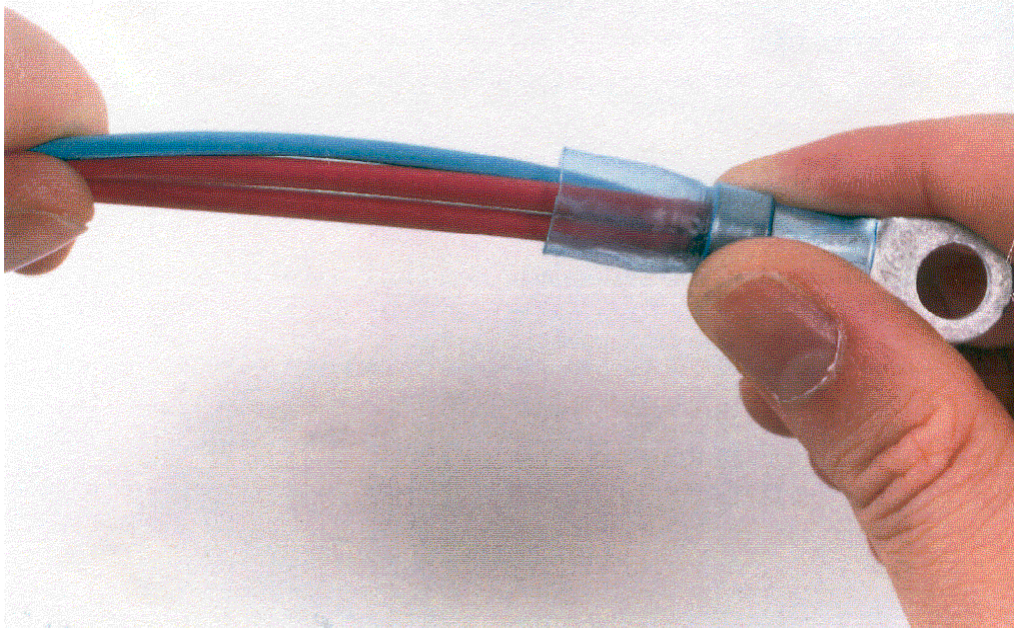


- 4.4 Slide and slightly rotate the SolderSleeve Device onto the conductors, until the conductors meet the front end of the copper coil.

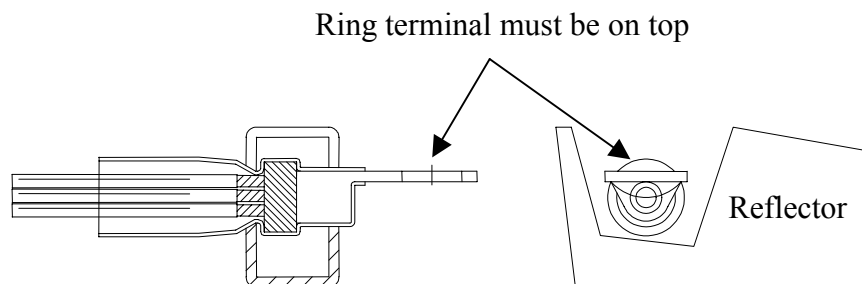


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Push firmly and screw the device in a clockwise direction as indicated below with approximately one full turn.



- 4.5 Equip the hot air gun with the reflector and then allow it to warm up until the operating temperature is reached (See paragraph 2)
Position the device assembly so that the solder preform is located in the middle of the Reflector, and the ring terminal is on top (See below)



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- 4.6 Concentrate the heat on the solder preform until the sleeve shrinks, and the solder preform melts and flows in to the turns of the copper coil.
- 4.7 After the solder ring has completely disappeared, continue heating for 4 seconds for sizes 2 and 3, and 6 seconds for the size 4. This will ensure wires reach proper soldering temperature.
NOTE: See the installation time indicated in paragraph 2.
- 4.8 Allow the assembly to cool down until the solder solidifies.
- 5. Inspection**
- 5.1 Correct Positioning
- The conductors must be aligned as indicated in 4.2.
 - The SolderSleeve device must cover the stripped lengths.
- 5.2 Correct Heating
- The solder preform must be completely melted and have flowed through the helical coil
 - The solder must be visible among the strands of the conductor, at the open end of the copper coil.
 - Visible remnant of the solder preform indicates an under heated termination.
 - A discolored dark brown sleeve and wire insulation melted outside of the sleeve indicate an overheated termination.
 - The tubing must be completely recovered in the termination area.
 - It is acceptable to have the tubing slightly flared at the end where the conductor insulation is exposed, in order to prevent damage to the jacket.
- 5.3 Assembly Integrity
- The SolderSleeve device must not be split or cut.
 - There must be no wire strands poking through the sleeve.
 - The tubing and the wire insulation should not exhibit signs of mechanical damage or overheating such as cuts, melting, charring.
 - A slight browning of the sleeve is acceptable during the installation process since this does not affect the product performance.
- 6. Repair (If Necessary)**
- 6.1 Repair of an under heated Termination.
Reheat the under heated termination to obtain proper solder flow (See paragraph 4).
- 6.2 Repair of an Overheated Termination.
Cut the wires at the sleeve limit and install a new device in accordance with the paragraphs 3 and 4.