

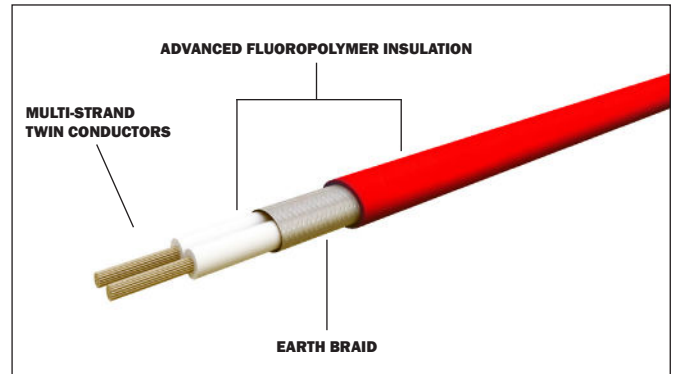
**Warranty Disclaimer:** This guide and the repair kit included have been provided by Warmup Inc to aid in the repair of a Warmup Loose Wire System (NADWS) or Heating Mat (NADWM) damaged on-site. Warmup cannot warranty the repair or guarantee the proper function of the heating system following a repair. Warmup recommends that all repair work be carried out by a qualified electrician in accordance with the National Electrical Code. For further assistance, please contact Warmup on 1-888-927-6333.

**CAUTION:** Before commencing with the repair, ensure that the heating system has been completely disconnected from the power source.

### TOOLS & ITEMS REQUIRED FOR REPAIR:

1. One Joint Repair kit consisting of:
  - 1x Large heat shrink
  - 2x Small heat shrink
  - 2x Small butt crimp
  - 1x Solder sleeve
2. Crimping Tool
3. Heat gun
4. Stanley knife / Wire strippers
5. Multi meter

### HEATING WIRE CONSTRUCTION:



### TESTING OF THE HEATER DURING & AFTER REPAIR

Do not tile if the heater does not pass all the tests. There may be a problem with new joint or additional wire breaks. Actual value should be +/-10%.

Contact Warmup at 1-888-927-6333 for further assistance.

Model NADWS-120V	Resistance
NADWS-140-120	102.9
NADWS-210-120	68.6
NADWS-280-120	51.4
NADWS-350-120	41.1
NADWS-420-120	34.3
NADWS-560-120	25.7
NADWS-700-120	20.6
NADWS-840-120	17.1
NADWS-1050-120	13.7
NADWS-1260-120	11.4
NADWS-1540-120	9.4
NADWS-1620-120	8.9

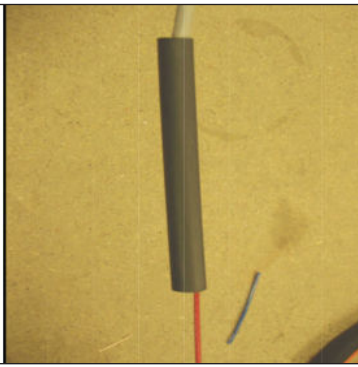
Model NADWS-240	Resistance
NADWS-350-240	164.6
NADWS-560-240	102.9
NADWS-700-240	82.3
NADWS-1050-240	54.9
NADWS-1260-240	45.7
NADWS-1540-240	37.4
NADWS-2100-240	27.4
NADWS-2520-240	22.9
NADWS-3080-240	18.7
NADWS-3240-240	17.8

Model NADWM-120V	Resistance
NADWM-140-120	102.8
NADWM-210-120	68.5
NADWM-280-120	51.4
NADWM-350-120	41.2
NADWM-420-120	34.3
NADWM-560-120	25.7
NADWM-700-120	20.6
NADWM-840-120	17.1
NADWM-1050-120	13.7
NADWM-1260-120	11.4
NADWM-1540-120	9.4
NADWM-1620-120	8.9

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NADWM-1260-240	45.7
NADWM-1540-240	37.4
NADWM-2100-240	27.4
NADWM-2520-240	22.9
NADWM-3080-240	18.7
NADWM-3240-240	17.8

**1**

Slide the large heat shrink over the power supply cable. (This will be needed to cover the final joint )



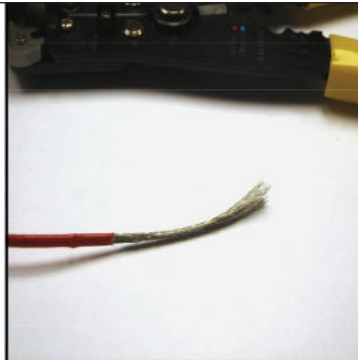
**2**

Slide the solder sleeve shrink over the heating element.  
(This will be needed to make the earth connection )



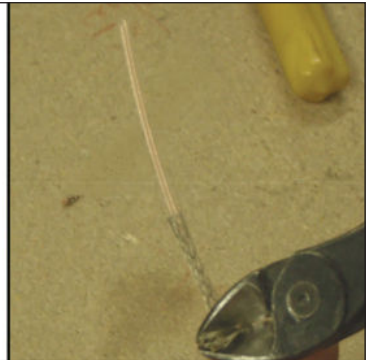
**3**

Strip back approximately 40mm of the outer insulation from the heating wire to expose the earth braid around the heating element cores.



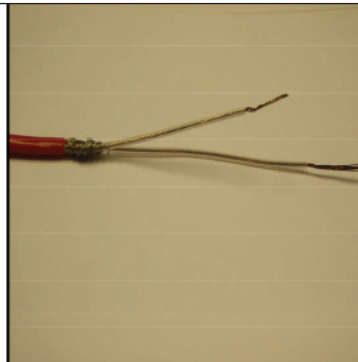
**4**

Remove the surplus earth braid leaving approx. 10mm of the braid exposed.



**5**

Cut back one of the cores so that the final crimped joints are staggered. (This will reduce the thickness of the joint.)  
Remove the inner insulation leaving approx 10mm of heating cores exposed.



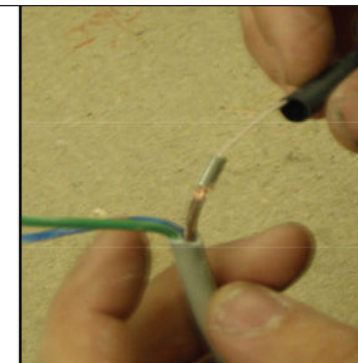
**6**

Attach butt crimp to the heating cores crimping once and slide the small heat shrink over each core of the heating element.



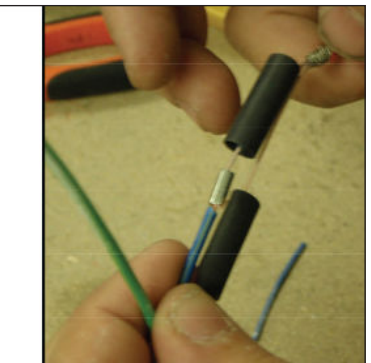
**7**

Attach the first heating element core to the Live from the power supply cable. Crimping once.

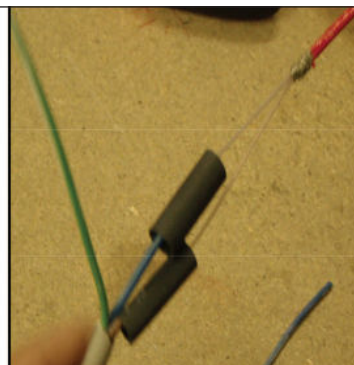


**8**

Line up the Neutral and attach to the heating element core, Crimping once.



The joint should now look like this .  
Conduct a resistance test to establish that there is a complete connection between the power supply cable and the heating element. (see page 1 for ohm value)



**CONTACT US at 1-888-927-6333**

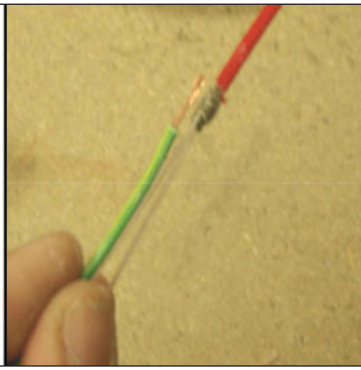
WARMUP INC.  
52 Federal Road Unit 1F 06810

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**Warmup**<sup>®</sup>

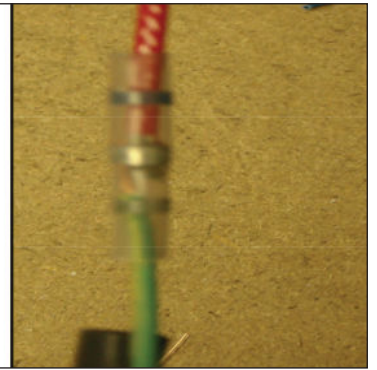
**9**

Line up the earth braid with the earth from the supply cable.



**10**

Position the Solder sleeve over the earth wire and the earth braid.



**11**



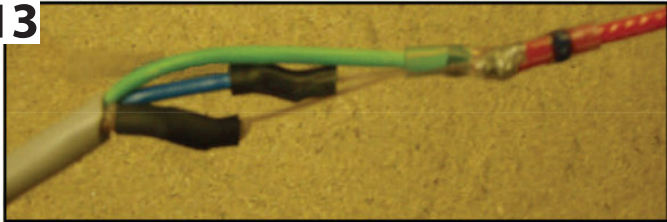
The joint should now look like this.  
(Re-test the heating element before shrinking down the heat shrink.)

**12**

Ensure solder sleeve covers the earths and that the small heat shrinks cover the entire crimp. Shrink using a heat gun.



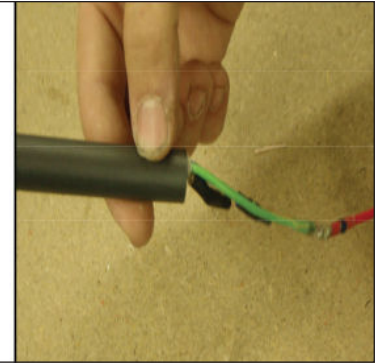
**13**



The joint should now look like this.

**14**

Slide the large heat shrink over entire joint.



**15**

Shrink large heat shrink using a heat gun.



**16**



The joint should now look like this.

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