#### **On-Site Repair Kit Guide for Warmup Mats**

#### and Loose Wire Systems

**Warranty Disclaimer:** This guide and the repair kit included have been provided by Warmup Inc. to aid in the repair of Warmup Mat & Loose Wire systems 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 and conform with current IEE Wiring Regulations. For any 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 Repair kit consisting of: 2x Large heat shrink 12x Small heat shrink 12x Small butt crimp 1x Length of bridge wire 2. Crimping Tool
- 3. Heat gun
- 4. Stanley knife / Wire strippers
- 5. Side cutters
- 6. Multimeter

#### Warmup NADWS Loose Wire Systems

Model NADWS-120V	Resistance	Model NADWS-240V	Resistance
NADWS-140-120	102.9	NADWS-350-240	164.6
NADWS-210-120	68.6	NADWS-560-240	102.9
NADWS-280-120	51.4	NADWS-700-240	82.3
NADWS-350-120	41.1	NADWS-1050-240	54.9
NADWS-420-120	34.3	NADWS-1260-240	45.7
NADWS-560-120	25.7	NADWS-1540-240	37.4
NADWS-700-120	20.6	NADWS-2100-240	27.4
NADWS-840-120	17.1	NADWS-2520-240	22.9
NADWS-1050-120	13.7	NADWS-3080-240	18.7
NADWS-1260-120	11.4	NADWS-3240-240	17.8
NADWS-1540-120	9.4		
NADWS-1620-120	8.9		

#### Testing of the Heater During and 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 +/-5%.

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

# Heating Wire Construction

#### Warmup NADWM Mat Systems

Model NADWM-120V	Resistance	Model NADWM-240V	Resistance
NADWM-140-120	102.9	NADWM-350-240	164.6
NADWM-210-120	68.6	NADWM-560-240	102.9
NADWM-280-120	51.4	NADWM-700-240	82.3
NADWM-350-120	41.1	NADWM-1050-240	54.9
NADWM-420-120	34.3	NADWM-1260-240	45.7
NADWM-560-120	25.7	NADWM-1540-240	37.4
NADWM-700-120	20.6	NADWM-2100-240	27.4
NADWM-840-120	17.1	NADWM-2520-240	22.9
NADWM-1050-120	13.7	NADWM-3080-240	18.7
NADWM-1260-120	11.4	NADWM-3240-240	17.8
NADWM-1540-120	9.4		
NADWM-1620-120	8.9		



US +1 (888) 927-6333 ussales@warmup.com www.warmup.com | www.warmup.ca Use side cutters to remove any damaged heating wire.



#### 2

Use the wire strippers or Stanley knife to carefully remove approximately 50mm of the outer sheath to expose the earth braid on both ends of the wire cut.



## 3

Unravel the earth braid on both ends of the wire.



#### 4

Twist the earth braid.



## 5

Slide one piece of the large black heat shrink over one end of the wire.



#### 6

On both ends of the cut wire, use the wire strippers or Stanley knife to very carefully strip off approximately 7mm of the insulation covering both heater cores.

It is critical not to damage the heating wire core.



#### 7

Attach a butt crimp to either end of the heater cores using a crimping tool.



#### 8

Slide one piece of the small heat shrink over each end of the heating elements up to the earth braid.



#### 9

Cut a section of the "bridge" wire provided to a length suitable to replace the wire removed from the heating elements. Strip 10mm from either end of this wire and fit these ends into the butt crimps located on the ends of the core wire and crimp using the crimping tool. Test the resistance of the heater.



## 10

Slide the small heat shrink pieces over the butt crimps so that any bare metal is covered. Use a heat gun in order to activate the heat shrink.





Attach a butt crimp to either end of the earth braid using a crimping tool.



## 12

Slide one small piece of heat shrink over both sections of exposed earth braid. Cut a section of the "bridge" wire provided to a length suitable to replace the wire removed from the heating element. Strip 10mm from eirther end of this wire into the butt crimps located on the ends of the earth braid and crimp using the crimping tool.



# 13

Slide the small heat shrink pieces over the butt crimps so that the entire crimp is covered. Use a heat gun in order to activate the heat shrink.



## 14

Slide the large pieces of heat shrink over the small heat shrink and apply the heat gun. Allow the new joints to cool. Test resistance of the heater and then tile as normal.







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