

USER GUIDE  
UGD073-0120

# Dryer Thermal Cut Out Kit

Installation Guide for W Series Dryers with DC-A Control



Please record your equipment's model and serial number(s) and the date you received it in the spaces provided.

It's a good idea to record the model and serial number(s) of your equipment and the date you received it in the User Guide. Our service department uses this information, along with the manual number, to provide help for the specific equipment you installed.

Please keep this User Guide and all manuals, engineering prints, and parts lists together for documentation of your equipment.

Date:

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Manual Number: UGD073-0120

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Serial Number(s):

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Model Number(s):

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**DISCLAIMER:** Neither Conair nor its employees shall be liable for errors contained in this User Guide or for incidental, consequential damages in connection with the furnishing, performance or use of this information. Conair makes no warranty of any kind with regard to this information, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose.

# ATTENTION:

## Read This So No One Gets Hurt

We design equipment with the user's safety in mind. You can avoid the potential hazards identified on this machine by following the procedures outlined below and elsewhere in the User Guide.



**WARNING: Improper installation, operation, or servicing may result in equipment damage or personal injury.**



This equipment should be installed, adjusted, and serviced by qualified technical personnel who are familiar with the construction, operation, and potential hazards of this type of machine.

All wiring, disconnects, and fuses should be installed by qualified electrical technicians in accordance with electrical codes in your region. Always maintain a safe ground. Do not operate the equipment at power levels other than what is specified on the machine serial tag and data plate.



**WARNING: Voltage hazard**



This equipment is powered by three-phase alternating current, as specified on the machine serial tag and data plate. Reference supplemental equipment's manuals for their power requirements.

A properly sized conductive ground wire from the incoming power supply must be connected to the chassis ground terminal inside the electrical enclosure. Improper grounding can result in severe personal injury and erratic machine operation.

Always disconnect and lock out the incoming main power source before opening the electrical enclosure or performing non-standard operating procedures, such as routine maintenance. Only qualified personnel should perform troubleshooting procedures that require access to the electrical enclosure while power is on.



**WARNING: Voltage hazard**

Adding this kit requires accessing a powered control enclosure. Only qualified personnel should perform troubleshooting procedures that require access to the electrical enclosure while power is on.

# **ATTENTION:**

## **Read This So No One Gets Hurt**

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### **CAUTION: Hot Surfaces**



Always protect yourself from hot surfaces inside the dryer and hopper. Also exercise caution around exterior surfaces that may become hot during use. These include the hopper door frame, the exterior of an uninsulated hopper, the return air hose and the dryer's process filter housing and exhaust outlet and the Hopper Temperature Controller (HTC) GasTrac Heater (CGT), or Heater Pack.



### **WARNING: Do not place aerosol, compressed gas or flammable materials on or near this equipment**

The hot temperatures associated with the drying process may cause aerosols or other flammable materials placed on the dryer or hopper to explode.

# Dryer Thermal Cut Out Kit

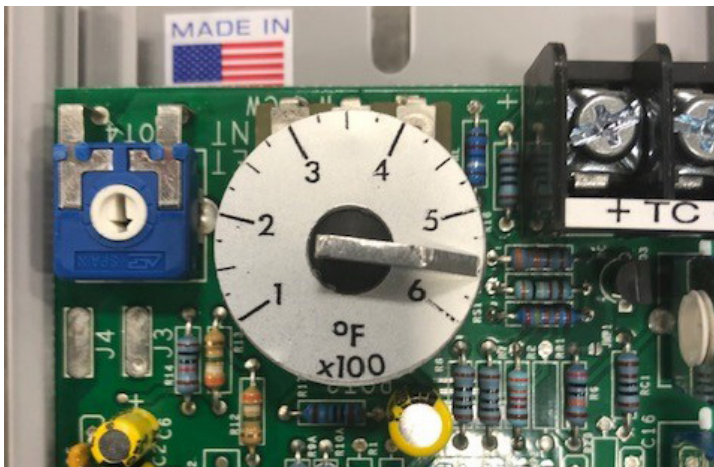
The Thermal Cut Out Kit comes as a package (Part #18199901). Unpack the parts required for installation. Parts required for installation are:

- (1) Settable thermostat cut out switch
- (1) Type J thermocouple
- (1) Heyco strain-relief bushing
- (1) Heyco Wire grip (part 209-009-10)
- (1) 4 inch cut strip of 3M double-stick tape
- 3 ft length {1 meter} of 16 gauge red wire
- 3 ft length {1 meter} of 16 gauge white wire
- 3 ft length {1 meter} of 16 gauge blue wire



Type J Thermocouple on Left; Cut Out Switch on Right.

- 1 Set the cut-out switch to “550” by turning the dial so that the indicator points to the 5.5 mark on the dial. This is the high temperature cut out point. If this temperature is reached, the isolation contactor will cut power to the heaters and alarm at the control.



## Tools Required for Installation

- Wire strippers
- Flathead screw driver
- Small terminal screw driver
- 3/32” Allen Key
- 3/16” Allen Key
- 7/16” box wrench

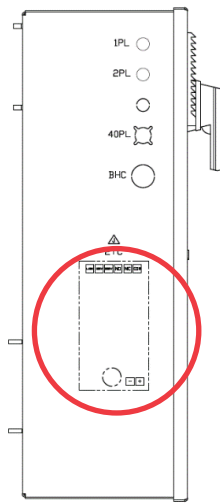
## Time Required

1 hour

**IMPORTANT:** Always use proper lock out tag out procedures when working inside an electrical enclosure. See Conair Dryer manual for proper procedures and practices. Only qualified personnel should complete this task, complying with all local, regional, and national procedures and regulations.

## Dryer Thermal Cut Out Kit (Continued)


- 2** Open the electrical enclosure on the dryer using flat head screwdriver to turn the lock. If your unit is a W15-W100 this will be located at the back of the unit. If it is a W150-W400 then it will be located in the front
- 3** Apply double side tape to the back of the switch and stick the assembly to the inside of the enclosure. Refer to the drawing that came with the kit for the recommended location for your dryer size. For most installations, this will be the left side of the interior of the enclosure approximately 9 inches from the bottom. Fasten the unit so that it is oriented with the (6) terminals at the top and (2) terminals at the bottom.



Orientation of Switch  
(switch is placed on INSIDE of panel)



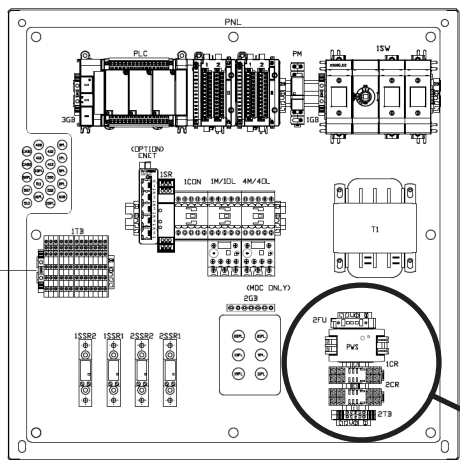
Orientation of Switch

 **Note:** the kit information is included as an appendix to these instructions.

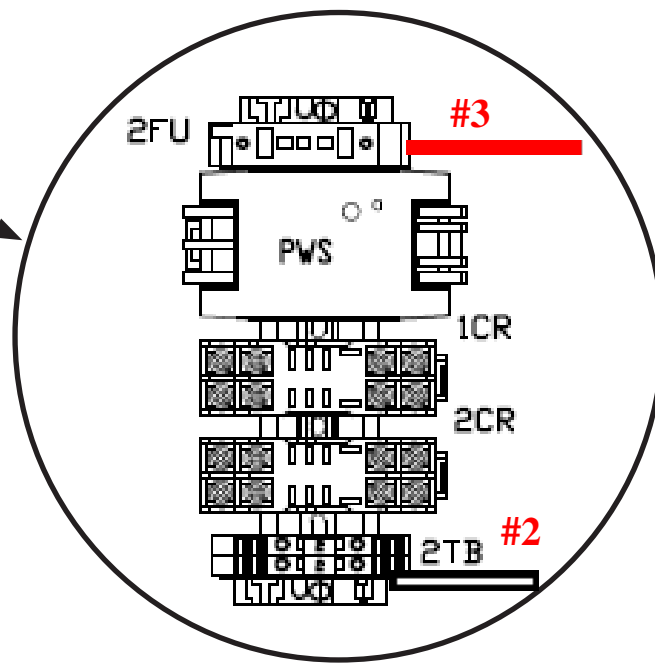
# Dryer Thermal Cut Out Kit (Continued)

- 4** Strip the end of the red wire that will be used to run 120VAC power to the switch. Connect this to the terminal #3 fuse block located above the 24V DC power supply. Run this wire along the bottom of the enclosure, strip the opposite end and connect it to the terminal label “120” on the switch.
- 5** Strip the end of the white wire that will be used to run Neutral to the switch. Connect this to terminal #2 located below the 24V DC power supply. Run this wire along the bottom of the enclosure, strip the opposite end and connect it to the terminal label “LN” on the switch.

**Note:** Refer to the wiring diagram that came with your kit for the various dryer sizes. Illustrations and photos shown are for representation purposes only

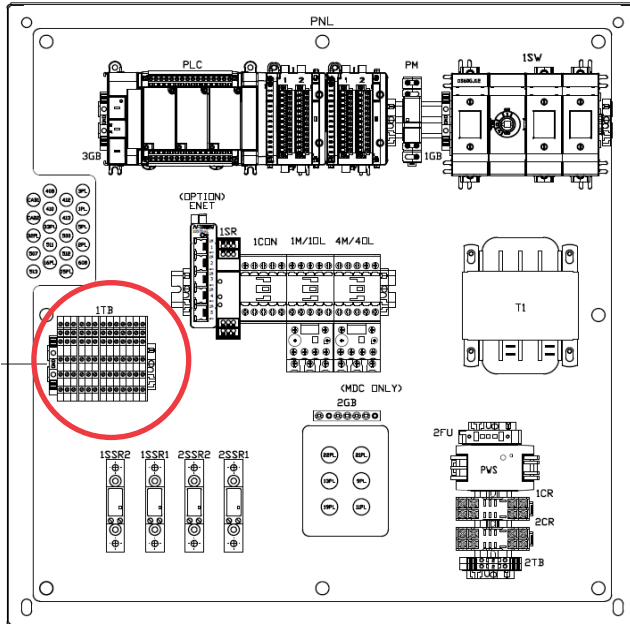


Connecting Power



# Dryer Thermal Cut Out Kit (Continued)

- 6** Next, remove wire 515 from the top of the I/O terminal block and connect it to “C” on the switch.



I/O Terminal Block Location in Enclosure



Wire 515 in Panel

- 7** Strip the end of a new wire and connect this to terminal 515 where the previous wire was removed. Run the wire to the switch and connect it to the Normally Open or “NO” terminal.



Switch with Power and Circuit Wires Installed

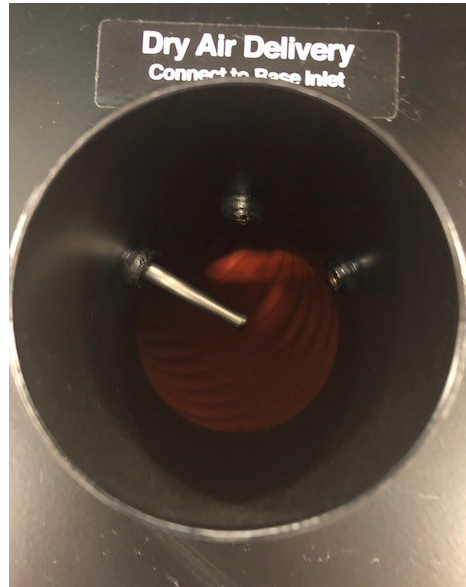
(Continued)

## Dryer Thermal Cut Out Kit (Continued)

- 8** Remove the cover from the Dryer to access the process-air delivery stub at the exit of the unit. There will be a 1/8" NPT pipe plug that should be removed. Using your 7/16" box wrench install the Type J thermocouple into the hole as shown below. Before tightening, make certain that the tip of the thermocouple is located in the center of the delivery pipe.

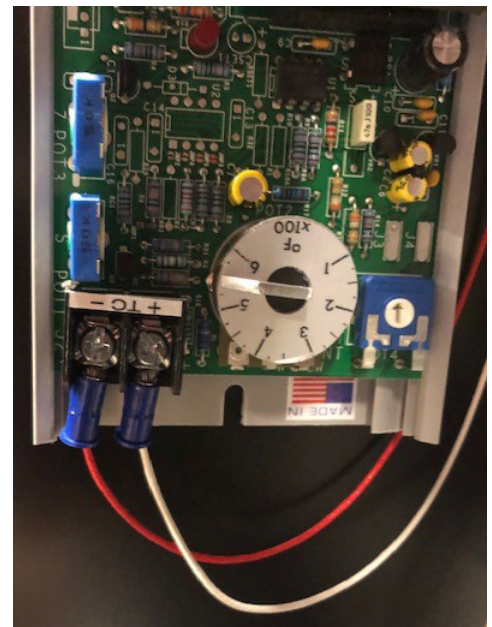


Install Compression Fitting and TC



Proper Location of TC

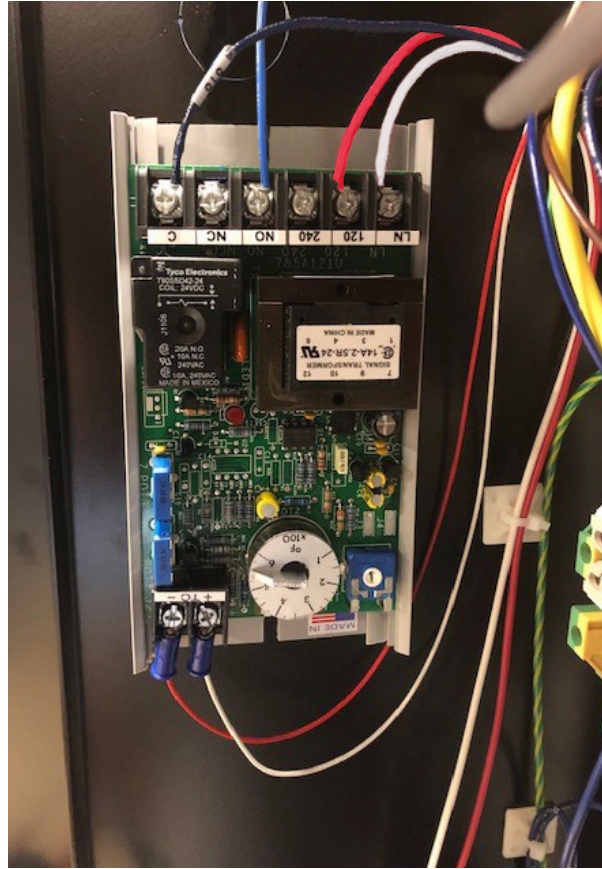
- 9** Remove the included metal strain-relief from the end of the Thermocouple wiring. This piece will not be used.
- 10** From the inside of the electrical enclosure, pop one of the wire plugs out. Create a hole through from the enclosure to the inside of the dryer. Run the red and white thermocouple wires through this hole and into the enclosure. Land the white wire Thermocouple wire on the Positive (+) terminal and the Red wire on the negative (-) terminal. Use the Heyco strain-relief to protect the wiring through the enclosure



Landing of TC Wires

## Dryer Thermal Cut Out Kit (Continued)

**11** Verify that your wiring and switch should look like this:



**12** Close the enclosure, place the cover back on the dryer, and restore power to the dryer. Test the dryer, as instructed in the user guide that came with your dryer. If the switch and Thermocouple are installed incorrectly, an alarm condition will occur. If the switch and Thermocouple are installed correctly, the dryer should operate as normal.



**Note:** Qualified electricians can verify that the light on the switch inside the enclosure illuminates when the dryer is powered up and the switch is working correctly.

# We're Here to Help

Conair has made the largest investment in customer support in the plastics industry. Our service experts are available to help with any problem you might have installing and operating your equipment. Your Conair sales representative also can help analyze the nature of your problem, assuring that it did not result from misapplication or improper use.

**Additional manuals and prints for your Conair equipment may be ordered through the Customer Service or Parts Department for a nominal fee.**


**Most manuals can be downloaded free of charge from the product section of the Conair website.**

**[www.conairgroup.com](http://www.conairgroup.com)**

## How to Contact Customer Service

To contact Customer Service personnel, call:



 **NOTE:** Normal operating hours are 8:00 am - 5:00 pm EST. After hours emergency service is available at the same phone number.

**From outside the United States, call: 814-437-6861**

You can commission Conair service personnel to provide on-site service by contacting the Customer Service Department. Standard rates include an on-site hourly rate, with a one-day minimum plus expenses.

## Before You Call...

**If you do have a problem, please complete the following checklist before calling Conair:**

- Make sure you have all model, control type from the serial tag, and parts list numbers for your particular equipment. Service personnel will need this information to assist you.
- Make sure power is supplied to the equipment.
- Make sure that all connectors and wires within and between control systems and related components have been installed correctly.
- Check the troubleshooting guide of this manual for a solution.
- Thoroughly examine the instruction manual(s) for associated equipment, especially controls. Each manual may have its own troubleshooting guide to help you.

## Equipment Guarantee

Conair guarantees the machinery and equipment on this order, for a period as defined in the quotation from date of shipment, against defects in material and workmanship under the normal use and service for which it was recommended (except for parts that are typically replaced after normal usage, such as filters, liner plates, etc.). Conair's guarantee is limited to replacing, at our option, the part or parts determined by us to be defective after examination. The customer assumes the cost of transportation of the part or parts to and from the factory.

## Performance Warranty

Conair warrants that this equipment will perform at or above the ratings stated in specific quotations covering the equipment or as detailed in engineering specifications, provided the equipment is applied, installed, operated, and maintained in the recommended manner as outlined in our quotation or specifications.

Should performance not meet warranted levels, Conair at its discretion will exercise one of the following options:

- Inspect the equipment and perform alterations or adjustments to satisfy performance claims. (Charges for such inspections and corrections will be waived unless failure to meet warranty is due to misapplication, improper installation, poor maintenance practices, or improper operation.)
- Replace the original equipment with other Conair equipment that will meet original performance claims at no extra cost to the customer.
- Refund the invoiced cost to the customer. Credit is subject to prior notice by the customer at which time a Return Goods Authorization Number (RGA) will be issued by Conair's Service Department. Returned equipment must be well crated and in proper operating condition, including all parts. Returns must be prepaid.

Purchaser must notify Conair in writing of any claim and provide a customer receipt and other evidence that a claim is being made.

## Warranty Limitations

**Except for the Equipment Guarantee and Performance Warranty stated above, Conair disclaims all other warranties with respect to the equipment, express or implied, arising by operation of law, course of dealing, usage of trade or otherwise, including but not limited to the implied warranties of merchantability and fitness for a particular purpose.**

ITEM NO.	QTY	U/M	PART NUMBER	LOC	DESCRIPTION
1	1	EA	20949105		CONTROLLER
2	1	EA	CHART		THERMOCOUPLE ASSEMBLY
3	4	FT	2050091802		WIRE, #18, MTW, RED
4	4	FT	2050091806		WIRE, #18, MTW, WHITE
5	8	FT	2050091808		WIRE, #18, MTW, BLUE
6	1	EA	20900909		BUSHING, STRAIN RELIEF, 1/2" DIA.
7	0.5	FT	26674001		TAPE, VHB
8	1	EA	UGD073-1019		INSTRUCTIONS, THERMAL CUTOUT, DCA

BOM ITEM NUMBER	DESCRIPTION	2
ASSEMBLY NUMBER	DESCRIPTION	TC ASSEMBLY CPN
1819990101	PROCESS PROT KIT, DCA-W, 15-100	20802606
1819990102	PROCESS PROT KIT, DCA-W, 150-400	20802611

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**MACHINING TOLERANCES:**  
 FRACTIONS ±1/32  
 DECIMAL MACHINING: ±0.015  
 XX: ±0.005  
 XXX: ±0.015  
 FORMED SHEETMETAL: ±1/2"  
 ANGLES:  
 FINISH: 125

**CONAIR**  
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 A.S.

**PROCESS PROTECTION, KIT  
 DCA-W**

DRAWN BY: JRS DATE: 10/8/2019  
 SHEET: 1 OF 1 DWG NO.: 18199901  
 REV: A

REV	BY	DATE	APP	ECN	DXF
A	JRS	10/16/2019	JWG	200205	

