ASPEN MANUFACTURING

INSTALLATION GUIDE

"N" SERIES ELECTRIC HEAT KITS FOR ASPEN MULTI-POSITION AIR HANDLERS

WARNING **Disconnect ALL power before servicing or installing this unit. Multiple power sources may be present. Failure to do so may cause property damage, personal injury, or death.**

The unit is designed for operation with 208/240 V, single phase, 60 Hz power supply. Aspen will not be responsible for damages caused due to modification of the unit to operate with alternative power sources.

This product designed and manufactured to permit installation in accordance with local and national building codes. It is the installer's responsibility to ensure that product is installed in strict compliance with national and local codes. Manufacturer takes no responsibility for damage (personal, product or property) caused due to installations violating regulations. Installation of this unit shall be made in accordance with the National Electric Code, NFPA No. 90A and 90B, and any other local codes or utilities requirements.

Do not bypass safety devices.

N SERIES ELECTRIC HEAT KITS

	Kit #	Description		Kit #	Description	Models Where Used
W/ Terminal Block	NTS03	3KW Heat Strip w/ Terminal Block	*W/ Circuit Breaker*	NCS03	3KW Heat Strip w/ Circuit Breaker	LEM24A-E
	NTS05	5KW Heat Strip w/ Terminal Block		NCS05	5KW Heat Strip w/ Circuit Breaker	
	NTS08	8KW Heat Strip w/ Terminal Block		NCS08	8KW Heat Strip w/ Circuit Breaker	
	NTS10	10KW Heat Strip w/ Terminal Block		NCS10	10KW Heat Strip w/ Circuit Breaker	
	NTM03	3KW Heat Strip w/ Terminal Block		NCM03	3KW Heat Strip w/ Circuit Breaker	
	NTM05	5KW Heat Strip w/ Terminal Block		NCM05	5KW Heat Strip w/ Circuit Breaker	LEM24F-J LEM36A-E
	NTM08	8KW Heat Strip w/ Terminal Block		NCM08	8KW Heat Strip w/ Circuit Breaker	
	NTM10	10KW Heat Strip w/ Terminal Block		NCM10	10KW Heat Strip w/ Circuit Breaker	
	NTM15	5KW Heat Strip w/ Terminal Block		NCM15	15KW Heat Strip w/ Circuit Breaker	
	NTL03	3KW Heat Strip w/ Terminal Block		NCL03	3KW Heat Strip w/ Circuit Breaker	
	NTL05	5KW Heat Strip w/ Terminal Block		NCL05	5KW Heat Strip w/ Circuit Breaker	LEM36F-J LEM48A-E LEM60A-E
	NTL08	8KW Heat Strip w/ Terminal Block		NCL08	8KW Heat Strip w/ Circuit Breaker	
	NTL10	10KW Heat Strip w/ Terminal Block		NCL10	10KW Heat Strip w/ Circuit Breaker	
	NTL15	15KW Heat Strip w/ Terminal Block		NCL15	15KW Heat Strip w/ Circuit Breaker	
	NTX03	3KW Heat Strip w/ Terminal Block		NCX03	3KW Heat Strip w/ Circuit Breaker	
	NTX05	5KW Heat Strip w/ Terminal Block		NCX05	5KW Heat Strip w/ Circuit Breaker	LEM48F-J LEM60F-J
	NTX08	8KW Heat Strip w/ Terminal Block		NCX08	8KW Heat Strip w/ Circuit Breaker	
	NTX10	10KW Heat Strip w/ Terminal Block		NCX10	10KW Heat Strip w/ Circuit Breaker	
	NTX15	15KW Heat Strip w/ Terminal Block		NCX15	15KW Heat Strip w/ Circuit Breaker	
	NTX20	20KW Heat Strip w/ Terminal Block		NCX20	20KW Heat Strip w/ Circuit Breaker	

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Instructions

STEP 1: Refer to Table 1 for appropriate kit

STEP 2: Check kit for physical damage, do not installed damaged kit.

STEP 3: Remove the upper access panel from air handler.

STEP 4: Unplug the Mate-n-Lock connector (FIG. 3) and Remove block-off plate or existing heater kit from air handler by removing 6 screws (See FIG. 2)

STEP 5: Slide the heater kit into the slot and secure element plate and to divider deck with the six previously removed screws

STEP 6: Insert power leads into the circuit breaker lugs or terminal block and tighten (FIG. 3)

STEP 7: Connect ground wire to ground lug (FIG. 3)

STEP 8: Plug in the Mate-N-Lock connector

STEP 9: Break out appropriate number of circuit breaker openings (if applicable) on the access panel of the air handler

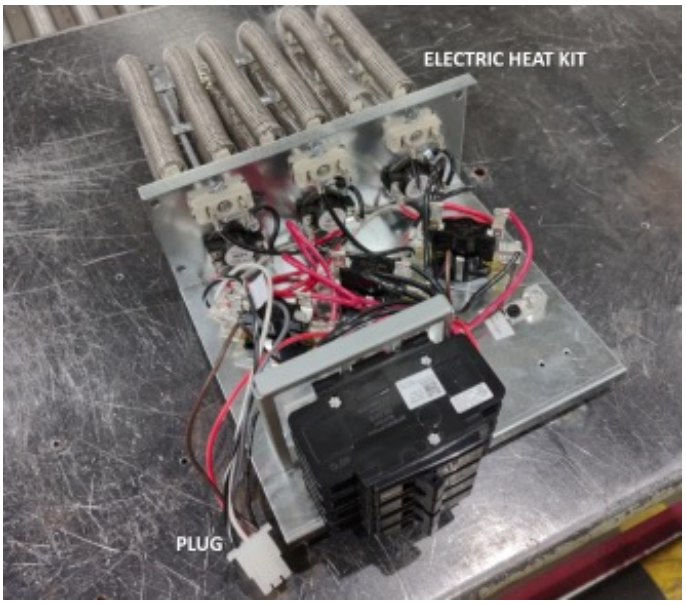

Figure 1

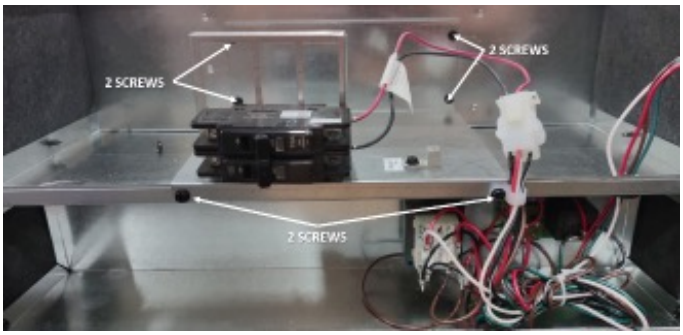

Figure 2

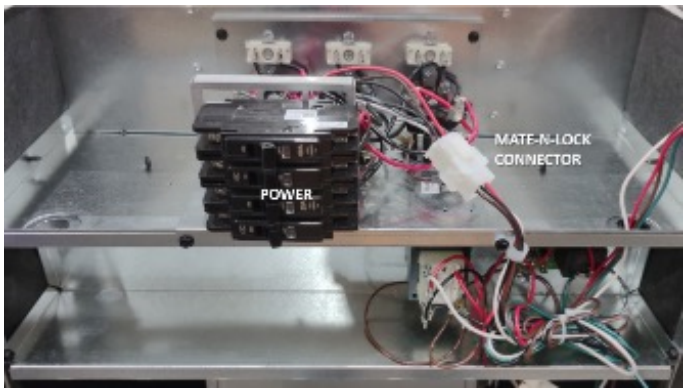

Figure 3

STEP 10: Find the nameplate of the air handler unit and cross out the existing configuration and check the new heat kit model configuration that was installed. Nameplate shown below is a sample only.

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Intertek — CONFORMS TO UL STD 60335-2-40 CERTIFIED TO CSA STD C22.2#236 CTL# 64786

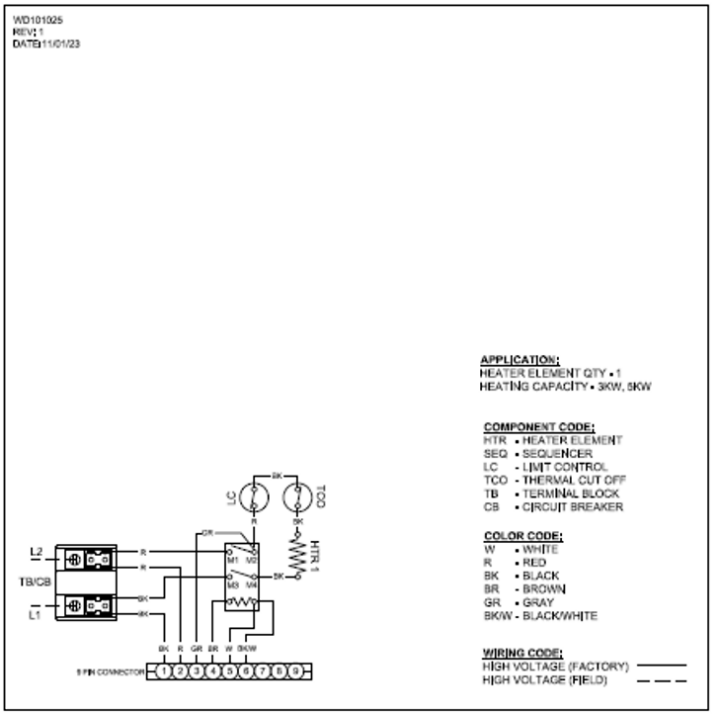
MEMBER AHRI

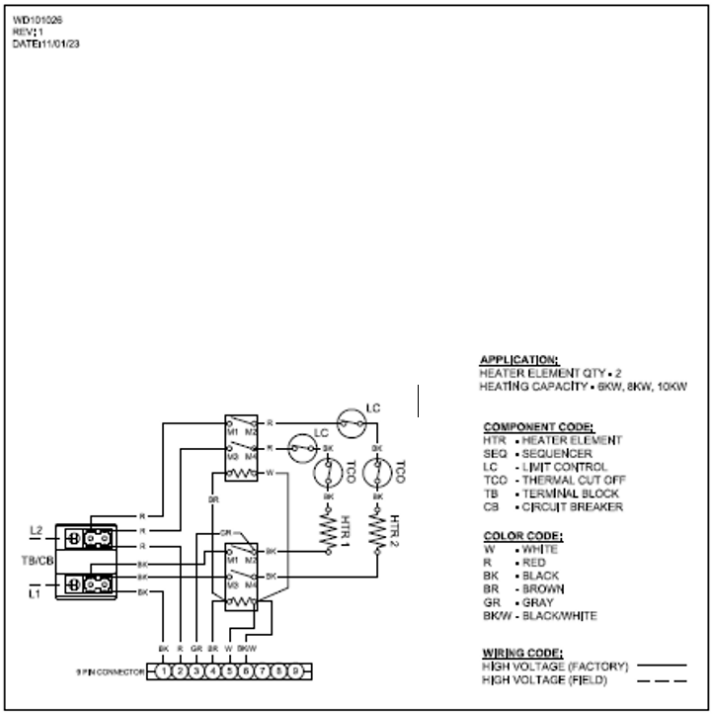
MODEL NO. : LEM48AJ-000-NCL10
SERIAL NO. : H24-00000001
VOLTS : 208 / 240
PH / HZ : 1 / 60
MOTOR HP : 1.00
MOTOR FLA : 7.600
TEST DUCT STATIC PRESS. : 0.5 IN. W.C. (MAX)
REFRIGERANT : R454B
MAX ALLOWABLE PRESSURE : 650 PSIG / 4.482 MPa
FACTORY CHARGED NITROGEN : 150 PSIG / 1.034 MPa

HEATER KIT MODEL NO.	ELECTRIC HEAT RATED (KW)	ELECTRIC HEAT ACTUAL (KW)		TOTAL UNIT AMPS		MINIMUM CIRCUIT AMPACITY		MAX FUSE OR BREAKER (HACR) AMPACITY		MIN. HEATING BLOWER SPEED
		208V	240V	208V	240V	208V	240V	208V	240V	
NO ELEC. HEAT	0 ☐	0	0	7.6	7.6	9.5	9.5	15	15	NA
+NCL00, +NTL00	0 ☐	0	0	7.6	7.6	9.5	9.5	15	15	NA
+NCL03, +NTL03	3 ☐	2.3	3	18.4	20.1	23	25.1	25	30	T2
+NCL05, +NTL05	5 ☐	3.6	4.8	24.9	27.6	31.1	34.5	35	35	T2
+NCL06, +NTL06	6 ☐	4.5	6	29.2	32.6	36.5	40.8	40	45	T2
+NCL08, +NTL08	8 ☐	6	8	36.4	40.9	45.6	51.2	50	60	T3
+NCL10, +NTL10	10 ☑	7.2	9.6	42.2	47.6	52.8	59.5	60	60	T3
+NCL15, +NTL15	15 ☐	10.8	14.4	42.2/17.3	47.6/20	52.8/21.6	59.5/25	60/25	60/25	T3
+NCL20, +NTL20	20 ☐	14.4	19.2	42.2/34.6	47.6/40	52.8/43.3	59.5/50	60/45	60/50	T3

NOTE: RE-CHECK APPRORIATE BOX ☐ FOR HEATER KIT CHANGES IN THE FIELD.
SUITABLE FOR _0_ INCH CLEARANCE BETWEEN UNIT AND COMBUSTIBLE SURFACES AND _0_ INCH CLEARANCE BETWEEN OUTLET PLENUM AND FIRST 3 FEET OF OUTLET DUCT AND COMBUSTIBLE SURFACES WHEN HEATERS ARE INSTALLED. MAXIMUM OUTLET AIR TEMPERATURE NOT TO EXCEED 197°F

STEP 11: Find the wiring diagram label that is included in the heat kit and stick it near the nameplate. Wiring Diagram shown below is a sample only.





HOW TO REPLACE A DEFECTIVE THERMAL CUT OFF (TCO) OF A HEATER KIT:

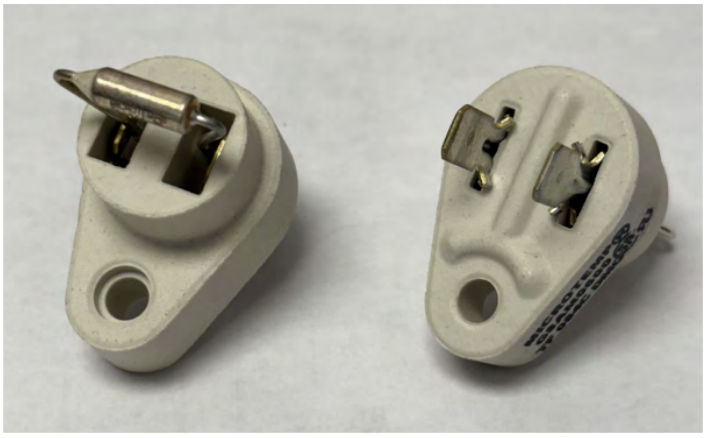


Figure 1 - TCO Image

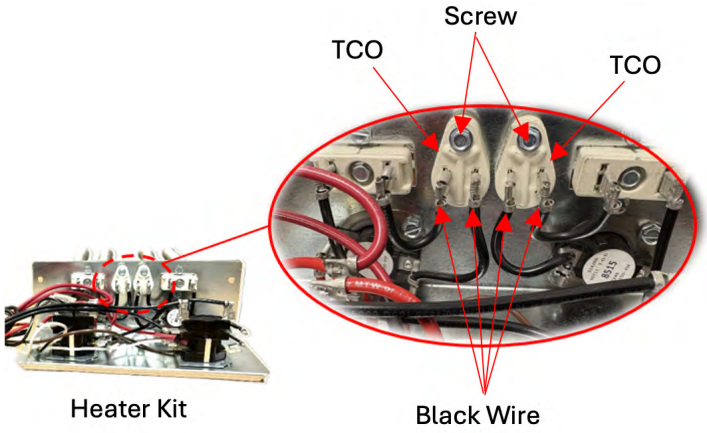


Figure 2 - Heater Kit w/ TCO

1. Disconnect power, unscrew and open upper access panels to access the heater kit from the unit.
2. Locate the TCO(s) and disconnect the 2 black wires per TCO. Using a multimeter, measure continuity/ resistance of the fuse element by placing the test probes across the two terminals to verify if the fuse has failed. The quantity of TCO's depends on the heater kit model. The heater kit model shown in Figure 2 has two TCOs.
3. Unscrew the defective TCO from the base plate and using the same screw(s) mount the new one back in the same spot.
4. Re-connect all the wirings in the same terminals that you disconnect it from.
5. Mount the access panel back in the unit.

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