

# Instruction Sheet

**Subject: Conversion from single-phase to three-phase power or from three-phase to single phase power.  
Kit PN: 4533009**

**Models: MCO-ED/ES-10/20, MCO-ED/ES-10S/20S, SEM 100/200, SUME 100/200, SCO-ES-10S/20S**

This kit is for the conversion from single-phase to three-phase power OR from three-phase to single-phase power. This kit is NOT intended for voltage conversion.

## TO BE DONE BY A QUALIFIED ELECTRICIAN PERSONNEL.

Ovens are shipped wired for either single-phase or three-phase power according to the original factory order. If the oven installation requires changing the type of power used by the oven, follow the procedure below:

### WIRING THE OVEN:

1. DISCONNECT OVEN FROM POWER SUPPLY.
2. Remove the right-front side cover from the oven.
3. Locate the wires running from the supply-power terminal block (TB1) to the contactor, heaters, and fuses. Attach the wires per the applicable diagram below. For single-phase, see Figure 1; for three-phase, see Figure 2:

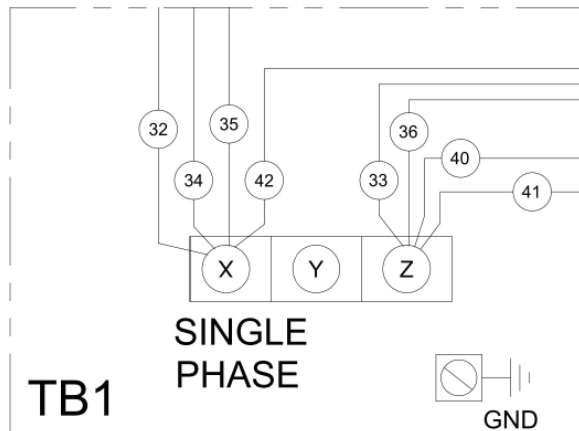


Figure #1—Example of finished Single Phase wiring.

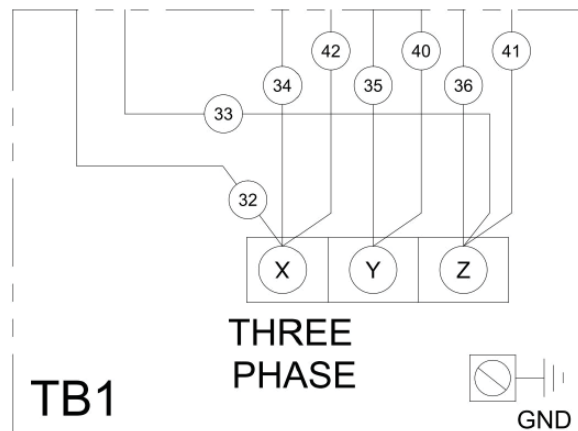


Figure #2— Example of finished Three Phase wiring.

### APPLYING NEW RATING INFORMATION TO OVEN:

1. The oven rating plate will need to be modified because the conversion altered the electrical configuration of the oven. Locate this rating plate on the oven that has been converted. Refer to Figure 3. "Rating Plate Example".

Cleveland Range, LLC, Cleveland, Ohio, USA

Model No. **MCO-ES-10S-XXXX**

Serial No. **SAMPLE**

VOLTS	PH	WIRES	HZ	MAXIMUM FULL LOAD AMPS	MINIMUM SUPPLY A.W.G.
208	1	2	60	50	4

CAUTION: FOR SUPPLY CONNECTION USE ONLY COPPER WIRE OF THE GAUGE NOTED ABOVE SUITABLE FOR AT LEAST **90°C ( 194°F)**  
ATTENTION: POUR L'ALIMENTATION UTILISEZ DES FILS DE CUIVRE DE CALIBRE TEL QUE MENTIONNÉ CI-HAUT ET SUFFISANT POUR AU MOINS **90°C ( 194°F)**

MINIMUM CLEARANCE TO COMBUSTIBLE CONSTRUCTION.  
DÉGAGEMENT MINIMUM DES CONSTRUCTION COMBUSTIBLE.

BACK	IN	LEFT SIDE	IN	RIGHT SIDE	IN
ARRIÈRE	6	PÔ CÔTÉ GAUCHE	1	PÔ CÔTÉ DROIT	1

MOTOR RATING/DECHAQUE MOTEUR VOLTS 208-230, 9.8/4.2 A, 60/50 HZ

Figure #3— Rating Plate Example.

2. Locate the label set shown in Figure 4.

**CHOOSE NEW CONFIGURATION, PEEL OFF AND PLACE ONTO RATING PLATE. SEE INSTRUCTIONS.**  
**CHOISIR UNE NOUVELLE CONFIGURATION. DÉTACHEZ L'ÉTIQUETTE ET PLACEZ-LA SUR LA PLAQUE SIGNALÉTIQUE. LIRE LES INSTRUCTIONS.**

VOLTS	PH	WIRES	Hz	AMPS	SIZE
208	1	2	60	50	4
240	1	2	60	43	6
208	3	3	60	30	8
240	3	3	60	26	8

**CAUTION: THIS UNIT HAS BEEN CONVERTED FROM 1 PHASE TO 3 PHASE** | **AVERTISSEMENT: CET APPAREIL A ÉTÉ CONVERTI DE 1 PHASE À 3 PHASES**

**CAUTION: THIS UNIT HAS BEEN CONVERTED FROM 3 PHASE TO 1 PHASE** | **AVERTISSEMENT: CET APPAREIL A ÉTÉ CONVERTI DE 3 PHASES À 1 PHASE**

4533011-A

Figure #4— Label set Example.

3. Choose the label overlay that matches the new configuration of the oven. (In this example, three-phase was chosen for 208V). See Figure 5.

<b>3</b>	<b>3</b>	<b>60</b>	<b>30</b>	<b>8</b>
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Figure #5— Label overlay Example.

4. Peel off the chosen label overlay and apply to the rating plate, covering the old configuration. Be sure to properly align the values on the label to the correct column on the rating plate. See Figure 6.

Cleveland Range, LLC, Cleveland, Ohio, USA

Model No. **MCO-ES-10S-XXXX**

Serial No. **SAMPLE**

VOLTS	PH	WIRES	HZ	MAXIMUM FULL LOAD AMPS	MINIMUM SUPPLY A.W.G.
208	3	3	60	30	8

**UL** LISTED COMMERCIAL COOKING APPLIANCE 414L

**NSF**

CAUTION: FOR SUPPLY CONNECTION USE ONLY COPPER WIRE OF THE GAUGE NOTED ABOVE SUITABLE FOR AT LEAST **90°C ( 194°F)**  
 ATTENTION: POUR L'ALIMENTATION UTILISEZ DES FILS DE CUIVRE DE CALIBRE TEL QUE MENTIONNÉ CI-HAUT ET SUFFISANT POUR AU MOINS **90°C ( 194°F)**

**MINIMUM CLEARANCE TO COMBUSTIBLE CONSTRUCTION.**  
**DÉGAGEMENT MINIMUM DES COMBUSTIBLE CONSTRUCTION.**

BACK	6 IN	LEFT SIDE	1 IN	RIGHT SIDE	1 IN
ARRIÈRE	PO	CÔTÉ GAUCHE	PO	CÔTÉ DROIT	PO

MOTOR RATING/DECHAQUE MOTEUR VOLTS 208-230, 9.8/4.2 A, 60/50 HZ

Figure #6— Rating Plate Example.

5. Choose the applicable "CAUTION" label and apply next to the rating plate. See Figure 7.

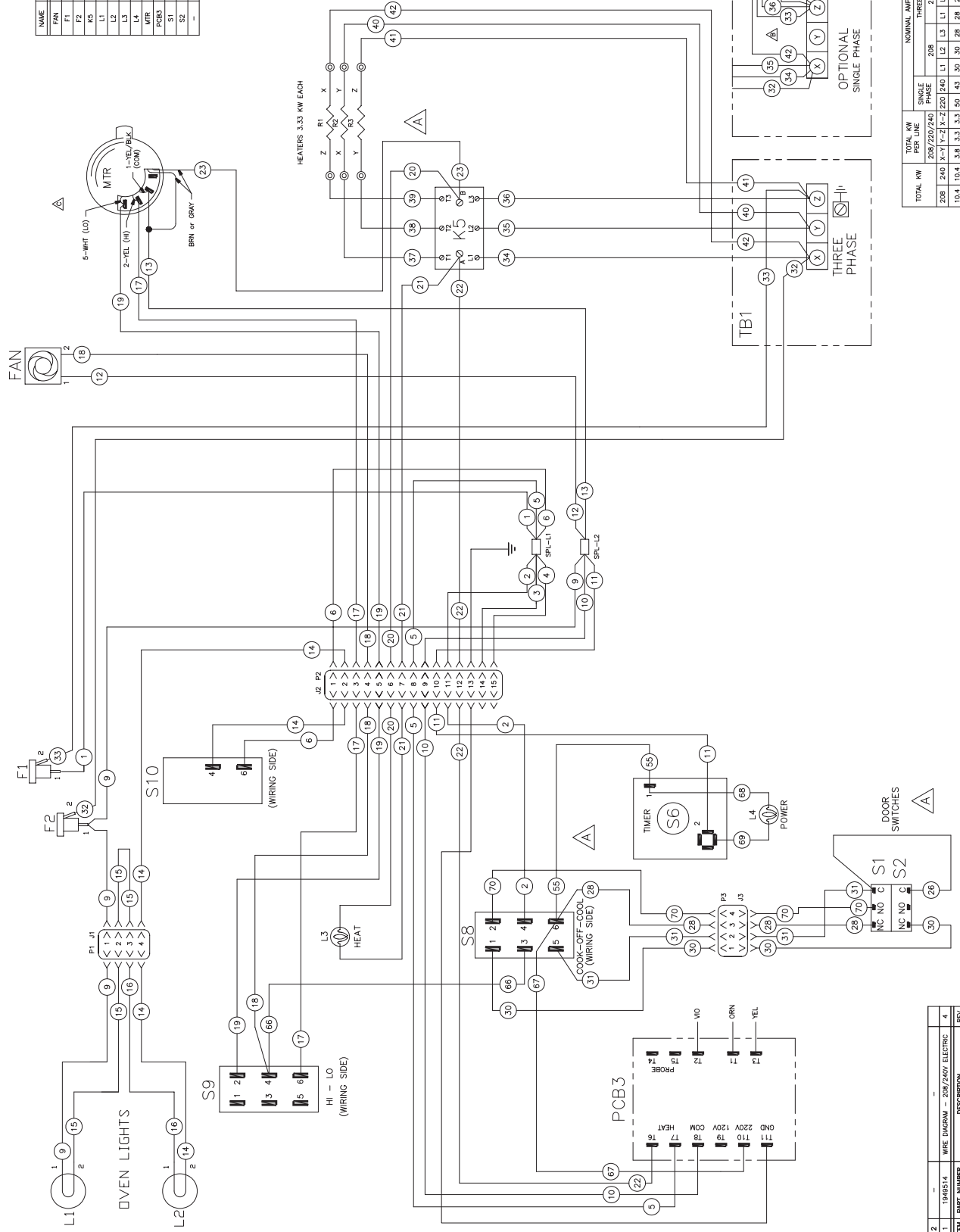
**CAUTION: THIS UNIT HAS BEEN CONVERTED FROM 1 PHASE TO 3 PHASE** | **AVERTISSEMENT: CET APPAREIL A ÉTÉ CONVERTI DE 1 PHASE À 3 PHASES**

Figure #7— Caution Label Example.

6. Conversion complete

# COMPONENT DESCRIPTION

NAME	DESCRIPTION	NAME	DESCRIPTION
FAN	COOLING FAN	S9	TIMER
F1	LINE 1 FUSE	S8	COOK/COOL DOWN SWITCH
F2	LINE 2 FUSE	S7	FAN SPEED SWITCH
L1	ELEMENT	S6	OVEN LIGHT
L2	OVEN LIGHT	SP1-L1	LINE 1 SPRAKE
L3	HEAT PILOT LAMP	SP1-L2	LINE 2 SPRAKE
L4	POWER ON PILOT LAMP	TB1	TERMINAL BLOCK
MTR	MOTOR		
PCB3	THERMOSTAT BOARD		
S1	DOOR SWITCH		
S2	DOOR SWITCH		



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4	ADDED 220V LANDING CHART	03-8/25	46	10
3	C UPDATE MOTOR ILLUSTRATION	0801-03/03	47	10
2	B SWAP WIRES 41 & 42 IN SHIELDING	01-07/19	48	10
1	A ADD WIRE 70	01-05/09	49	10
1	A CHANGE CIRCUITS TO S1, S2, S8	01-05/09	50	10
0	RELEASED ITEM/S 1	03/23	51	10
0	RELEASED ITEM/S 2	03/23	52	10
0	CHANGE DESCRIPTION	ECO	53	10
0	RELEASED ITEM/S 3	03/23	54	10
0	RELEASED ITEM/S 4	03/23	55	10
0	RELEASED ITEM/S 5	03/23	56	10
0	RELEASED ITEM/S 6	03/23	57	10
0	RELEASED ITEM/S 7	03/23	58	10
0	RELEASED ITEM/S 8	03/23	59	10
0	RELEASED ITEM/S 9	03/23	60	10
0	RELEASED ITEM/S 10	03/23	61	10
0	RELEASED ITEM/S 11	03/23	62	10
0	RELEASED ITEM/S 12	03/23	63	10
0	RELEASED ITEM/S 13	03/23	64	10
0	RELEASED ITEM/S 14	03/23	65	10
0	RELEASED ITEM/S 15	03/23	66	10
0	RELEASED ITEM/S 16	03/23	67	10
0	RELEASED ITEM/S 17	03/23	68	10
0	RELEASED ITEM/S 18	03/23	69	10
0	RELEASED ITEM/S 19	03/23	70	10

TOTAL KW PER LINE	SINGLE PHASE	THREE PHASE	NOMINAL AMPERES PER LINE
208	240	220	240
10.4	10.4	3.8	3.3

DESCRIPTION	DATE	DR. BY	DR. ON	APP.
WIRE DIAGRAM	09/27/20			
Z06/Z20/Z40	60HZ			
MODEL(S)				
FILE NAME				

ITEM	PART NUMBER	DESCRIPTION	REV
2	1949514	WIRE DIAGRAM - Z06/Z40V ELECTRIC	4
1			

TOLERANCE (EXCEPT AS NOTED)	SCALE FACTOR	SIZE
FRACTIONAL ±1/64	DECIMAL ±.005	ANGULAR ±1°

FRONT VIEW	RIGHT SIDE VIEW	TOP VIEW	BACK VIEW

PROBE	HEAT	COM	120V	220V	NO	ORN	VEL
T4	T5	T6	T7	T8	T9	T10	T11

NC	NO	C
S1	S2	

NO	ORN	VEL
S6	S7	S8

NO	ORN	VEL
S9		