



BLAZE 40/60E ELECTRIC FAN HEATER

PRODUCT MANUAL



IMPORTANT INSTRUCTIONS

READ AND UNDERSTAND THIS MANUAL BEFORE ASSEMBLING, STARTING OR SERVICING THE HEATER. IMPROPER USE OF HEATER CAN CAUSE SERIOUS INJURY. KEEP THIS MANUAL FOR FUTURE REFERENCE.

SAVE THESE INSTRUCTIONS

FOR PROFESSIONAL USE ONLY

BLAZE 40 and 60 E (240V/480V and 600V) OPERATING INSTRUCTIONS MANUAL

Suitable for Indoor or Outdoor Installation / Unvented / Unattended Type

GENERAL HAZARD WARNING:

- **FAILURE TO COMPLY WITH THE PRECAUTIONS AND INSTRUCTIONS PROVIDED WITH THIS HEATER, CAN RESULT IN DEATH, SERIOUS BODILY INJURY AND PROPERTY LOSS OR DAMAGE FROM HAZARDS OF FIRE, EXPLOSION, BURNS ASPHYXIATION, OR ELECTRICAL SHOCK**
- **ONLY PERSONS WHO CAN UNDERSTAND AND FOLLOW THE INSTRUCTIONS SHOULD USE OR SERVICE THIS HEATER.**
- **IF YOU NEED ASSISTANCE OR HEATER INFORMATION SUCH AS AN INSTRUCTIONS MANUAL, LABEL, ETC. CONTACT THE MANUFACTURER**
- **WARNING: FIRE, BURN, INHALATION AND EXPLOSION HAZARD, KEEP SOLID COMBUSTIBLES, SUCH AS BUILDING MATERIALS, PAPER, OR CARDBOARD, A SAFE DISTANCE AWAY FROM THE HEATER AS RECOMMENDED BY THE INSTRUCTIONS**
- **NEVER USE THE HEATER IN SPACES WHICH DO OR MAY CONTAIN VOLATILE OR AIRBORNE COMBUSTIBLES, OR PRODUCTS SUCH AS GASOLINE SOLVENTS, PAINT THINNER, DUST PARTICLES OR UNKNOWN CHEMICALS**
- **WARNING: NOT FOR HOME OR RECREATIONAL VEHICLE USE**

- **EXTREME CAUTION IS NECESSARY WHEN ANY HEATER IS USED BY OR NEAR CHILDREN OR INVALIDS AND WHEN-EVER THE HEATER IS LEFT OPERATING AND UNATTENDED.**
- **DO NOT OPERATE ANY HEATER AFTER IT MALFUNCTIONS. DISCONNECT POWER AT SERVICE PANEL AND HAVE HEATER INSPECTED BY A REPUTABLE ELECTRICIAN BEFORE REUSING.**
- **TO DISCONNECT HEATER, TURN CONTROLS TO OFF, AND TURN OFF POWER TO HEATER CIRCUIT AT MAIN DISCONNECT PANEL.**
- **DO NOT INSERT OR ALLOW FOREIGN OBJECTS TO ENTER ANY VENTILATION OR EXHAUST OPENING AS THIS MAY CAUSE AN ELECTRIC SHOCK OR FIRE, OR DAMAGE THE HEATER.**
- **USE THIS HEATER ONLY AS DESCRIBED IN THIS MANUAL. ANY OTHER USE NOT RECOMMENDED BY THE MANUFACTURER MAY CAUSE FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS.**
- **PREVENT A POSSIBLE FIRE, DO NOT BLOCK AIR INTAKES OR EXHAUST IN ANY MANNER.**
- **STORE HEATER IN A CLEAN DRY AREA WHEN NOT IN USE.**

WARNING: HEATER MUST BE PROPERLY INSTALLED BEFORE IT IS USED

Introduction

You have just received a Blaze 40 or 60 E (240V/480V or 600V) 40kW or 60kW Electric Construction Heater manufactured by Campo Equipment Co. Ltd.

Use: The Blaze 40 or 60 E Electric Construction Heater is designed for temporary heat only. The heater may be installed indoors or outdoors and used to bring 100% outdoor air, or heat and re-circulate building air. The Blaze 40 or 60 E is designed to heat large spaces, buildings and machines without worrying about on site fuel.

Quality: The Blaze 40 or 60 E is built with the highest quality of components, giving our Customers the confidence they deserve in a Ecoblaze product.

Convenience: The Blaze 40 or 60 E gives our customers the flexibility of a 20kw/40kw or 20kw/40kw/60kw heat setting respectively.

Colour coded Cam Lock power connections for easy installation. A remote thermostat option is available.

Safety

NOTE :

Wiring procedures and connections shall be in accordance with the national and local codes having jurisdiction.

Always verify that you have proper voltage supply.(240V/480V or 600V— depending on the which version you have purchased) It is important to check the wiring connections inside the heater before plugging in the Cam Locks.

Use a meter to measure volt supply to each cam lock.

CAUTION:

Work on the internal systems should only be attempted by an authorized service representative and only when power has been disconnected and cannot be reconnected to the heater.

Grounding

The heater is supplied with a cam lock system with a grounding connection and is indicated with a "G" on the cam lock panel. It is very important to double check that all grounding connections are properly secure.

The appliance, when installed, must be electrically grounded in accordance with local codes, or in the absence of local codes with the *National Electrical Code, ANS/NFPA 70; or the Canadian Electrical Code, CSA C22.1*

Clearance to Combustibles

This heater is hot when in use. To avoid burns, do not let bare skin touch hot surfaces. Keep combustible materials, such as furniture, pillows, bedding, papers, clothes, etc. and curtains at least 15 feet (4.6 m) from the front of the heater and keep them away from the sides and rear. The discharge temperature of these units may reach very high temperatures. Maintain minimum distance from combustible materials as follows:

MINIMUM CLEARANCES

Top to Combustibles	6" (152 mm)
Sides to Combustibles	6" (152 mm)
Bottom to Combustibles	6" (152 mm)
Discharge End to Combustibles	15' (4.6 m)

MAINTENANCE

Before cleaning, make sure the power has been turned off at the circuit breaker panel and that the heating element of the heater is cool

- 1 Every heater should be inspected before each use, and at least annually by a qualified service person
- 2 The appliance must be kept clear and free from combustible materials, gasoline and other flammable vapors, and/or liquids
- 3 The flow of ventilation air must not be obstructed. Be sure to check the fan assembly and ensure the motor and blade are operating properly
- 4 Compressed air may be used to keep components free of dust and dirt build up.

WARNING

Any non-routine maintenance must be performed by an authorized service representative.

Pre-Start Checklist

- 1 Heater must be level and lockable wheels must be in the locked position
- 2 Make sure fan switch and heat selection switch are in the "OFF" position.
- 3 Make sure the air intake is free from any obstruction(s)
- 4 Make sure the heater outlet is free from any obstruction(s)
- 5 Make sure the heater is properly grounded
- 6 Check power supply voltage and amps.

START UP INSTRUCTIONS

- 1 Determine power source-240V or 480V or 600V(confirm power source is correct for version of Blaze 40 or 60 E that you have purchased)
- 2 Remove top cover and inspect all wiring
(once complete, secure top cover to heater using the same hardware)
- 3 Connect Flanged Cam locks to female cam locks
(colour coded) Connect cam locks as follows:

RED L1
BLACK L2
BLUE L3
Ground G



3PHASEUNITCONNECTION

- 4 Turn on power supply
- 5 Determine "Bypass" or "Remote Stat"(if remote, set desired temperature)
- 6 Turn Heat on/off switch to the "ON" position
(The blower will start and heater elements will start to heat up)
- 7 Turn on heater settings as desired

CAUTION: Failure to have proper air flow will cause heater to shut down, it is imperative to maintain proper air flow.

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TEMPERATURE SETTINGS

HEAT SETTING	BTU/Hr.	CFM
60kW	205,000	4,500
40kW	136,500	4,500
20kW	68,250	4,500
FAN ONLY		04,500

SHUTDOWN

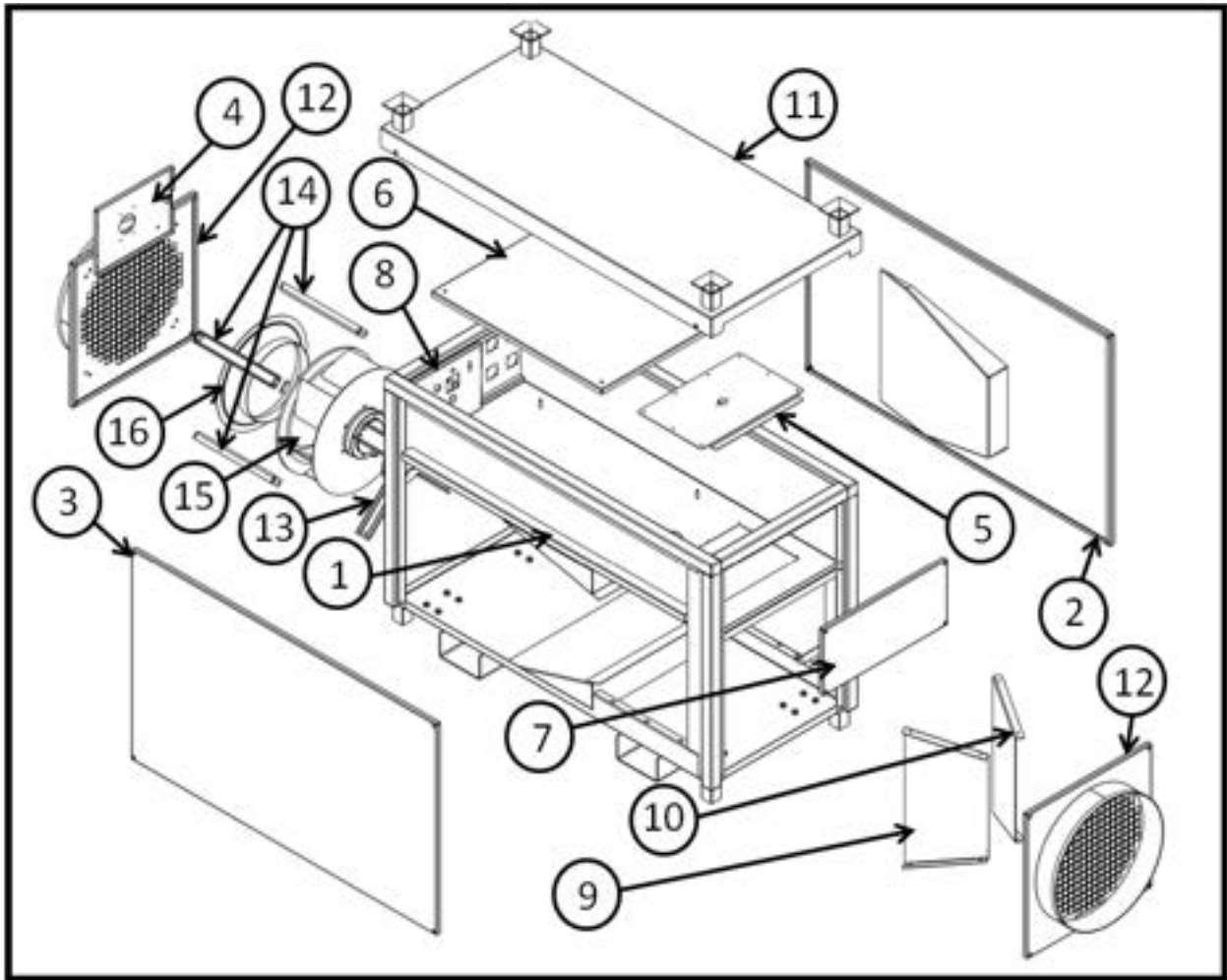
- 1 Move heat ON/OFF control setting to the "OFF" position
- 2 When cooling fan shuts down you may shut off power source
- 3 Shut off power source
- 4 Disconnect all power sources
- 5 Store heater

HEATER TECHNICAL SPECIFICATIONS

MODEL		BLAZE 150 E	
Power Requirements	Available in 240V/480V or 600V		
MAXIMUM INPUT(KW)	136,500 BTU (Blaze 40E), 205,000 BTU (Blaze 60E)		
		240V/480V	600V
AMP DRAW	60KW	144/72AMPS	58 AMPS
	40KW	96/48AMPS	39 AMPS
	20KW	48/24AMPS	19.5 AMPS
INLETSIZE	12" Dia.		
OUTLETSIZE (Designed for 20" Dia. Ducting)	12" or 16" Dia.		
DIMENSIONS HXLXW (IN.)	51.5" X 22" X 35.5"		
WEIGHT	300 LBS		

ECO BLAZE 60E (240V/480V)

BLAZE 60E (240V/480V) PARTS BREAKOUT REV 1



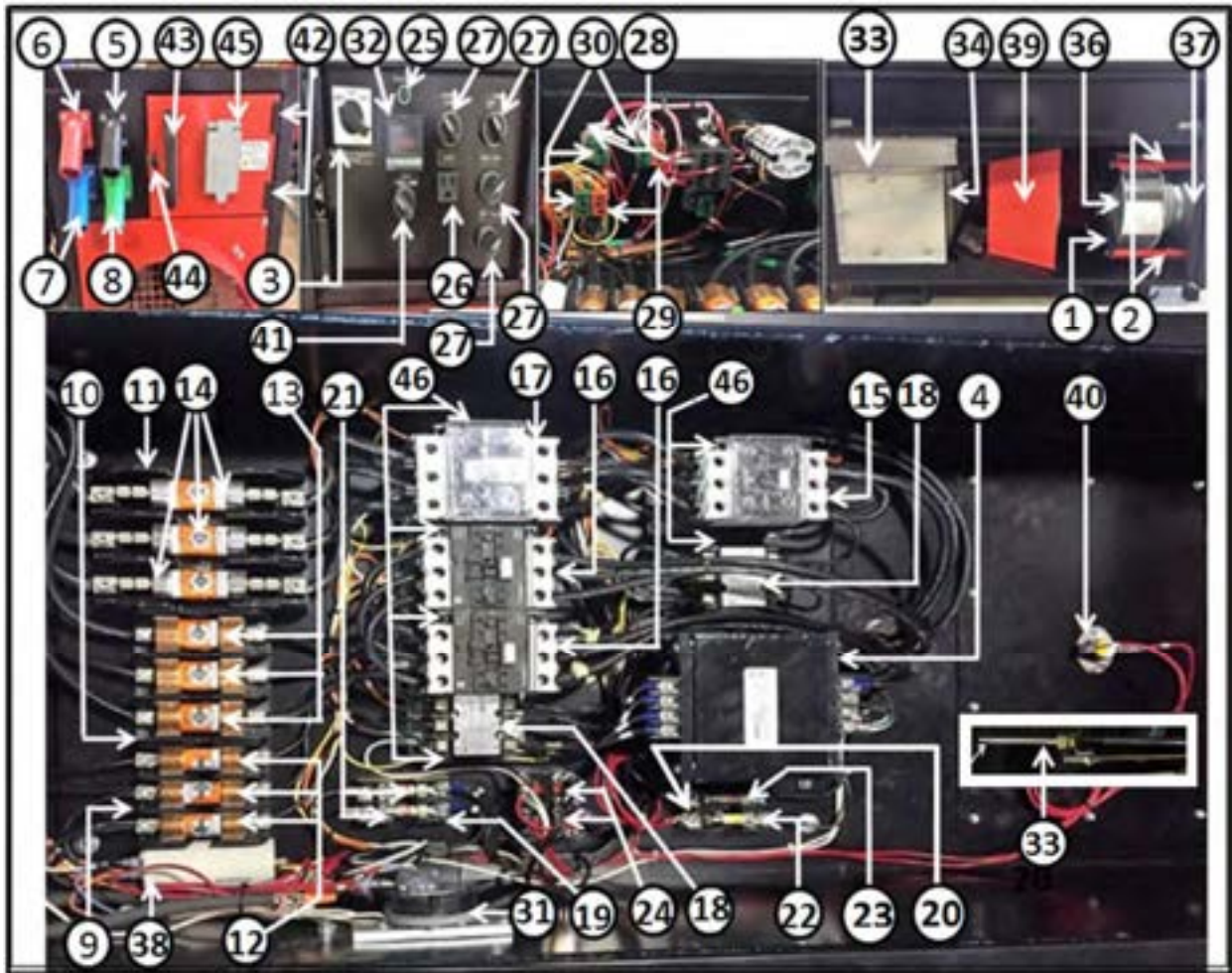
ITEM#	PART #	DESCRIPTION	QUANTITY
1	C50115	FRAME	1
2	C50116	SIDE PANEL LEFT	1
3	C50117	SIDE PANEL RIGHT	1
4	C50118	DOOR PANEL	1
5	C50119	ACCESS PANEL	1
6	C50120	ELECTRICAL PANEL	1
7	C50121	PANEL	1
8	C50122	ELECTRICAL PANEL (CONTROLS)	1
9	C50123	DEFLECTOR RIGHT	1
10	C50124	DEFLECTOR LEFT	1
11	C50125	TOP PANEL	1
12	C50126	RETURN PANEL/SUPPLY PANEL	1
13	C50127	FAN MOUNT	1
14	C50128	FAN POST	4

ECO BLAZE 60E (240V/480V)

15	C40029	FAN MOTOR E	1
16	C40030	INLET CONE FOR FAN MOTOR E	1
<u>OPTIONAL PARTS</u>			
	C40051	FAN MOTOR R	1
	C40052	INLET CONE FOR FAN MOTOR R	1
	C50159	12" SUPPLY PANEL	1
	C50160	16" SUPPLY PANEL	1

ECO BLAZE 60E (240V/480V)

BLAZE 60E (240V/480V) CONTROL PANEL BREAKOUT REV 1



ITEM#	PART #	DESCRIPTION	QUANTITY
1	C50127	FAN MOUNT	1
2	C50128	FAN POST	4
3	C50129	ROTARY SWITCH	1
4	C50130	TRANSFORMER	1
5	C50131	BLACK CAM LOCK	1
6	C50132	RED CAM LOCK	1
7	C50133	BLUE CAM LOCK	1
8	C50134	GREEN CAM LOCK	1
9	C50135	FUSE HOLDER	1
10	C50136	FUSE HOLDER	1
11	C50162	FUSE HOLDER	1
12	C50137	30A FUSE	3
13	C50138	60A FUSE	3
14	C50163	100A FUSE	3

ECO BLAZE 60E (240V/480V)

15	C50257	CONTACTOR	1
16	C50140	CONTACTOR	2
17	C50164	CONTACTOR	1
18	C50256	CONTACTOR	2
19	C50038	FUSE HOLDER	1
20	C50141	FUSE HOLDER	2
21	C50142	4A 600V T.D. FUSE	2
22	C50143	2A 250V T.D. FUSE	1
23	C50144	10A 250V T.D. FUSE	1
24	C90050	RELAY 1	2
25	C90025	POWER ON INDICATOR LIGHT GREEN	1
26	C90029	OUTLET FOR PLUG	1
27	C70065	SELECTOR SWITCH	4
28	C70069	FIXING COLLAR	3
29	C70071	CONTACT BLOCK	2
30	C50166	CONTACT BLOCK	3
31	C50155	AIR SWITCH	1
32	C40033	TEMPERATURE CONTROLLER	1
33	C50156	THERMOCOUPLE ASSEMBLY	1
34	C50167	ELEMENT	1
35	C50168	CASTER	4
36	C40029	FAN MOTOR E	1
37	C40030	INLET CONE FOR FAN MOTOR E	1
38	C90055	CAPACITOR FOR FAN MOTOR E	1
39	C50124	DEFLECTOR LEFT	1
40	C90041	HIGH LIMIT SWITCH	1
41	C70064	SELECTOR SWITCH	1
42	C50299	HINGE	2
43	C70087	GRAB HANDLE	1
44	C50298	1/4 TURN LATCH	1
45	C70072	FLIP LID COVER HOUSING	1
46	C50242	AUX. CONTACT	6
<u>OPTIONAL PARTS</u>			
	C50158	CONTACTOR	2
	C50161	CONTACTOR	1
	C40028	THERMOCOUPLE ASSEMBLY	1
	C90054	CAPACITOR FOR FAN MOTOR R	1
	C40051	FAN MOTOR R	1
	C40052	INLET CONE FOR FAN MOTOR R	1
	C50260	FAN MOTOR P	1

ECO BLAZE 60E (240V/480V)

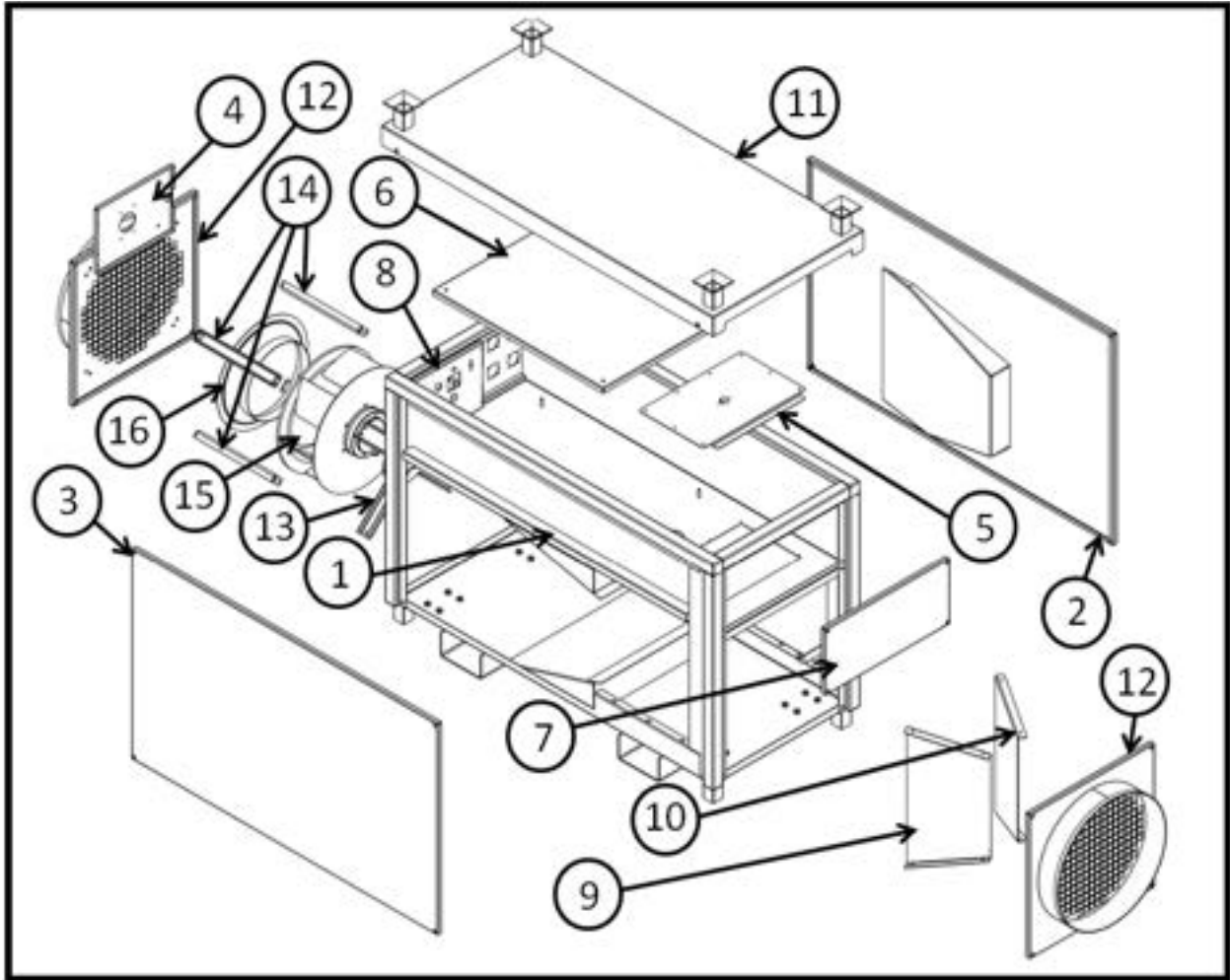
BLAZE 60E (240V/480V) DECAL KIT BREAKOUT REV 1



C50316	BLAZE 60E 240/480V DECAL KIT
C50317	SERIAL NUMBER (VARIABLE DATA)
C50302	CAMPO LOGO
C50303	CAUTION--SHOCK RISK
C50304	CAUTION--BURN/FIRE HAZ.
C50305	CAUTION CAM LOCKS
C50306	DANGER--MOVING PARTS
C50307	DANGER--HAZ. VOLTAGE
C50308	CAUTION--AIR FLOW BLOCK
C50309	MUST BE GROUNDED
C50318	BLAZE 60E
C50311	BUTTONS

ECO BLAZE 60E (600V)

BLAZE 60E (600V) PARTS BREAKOUT REV 1



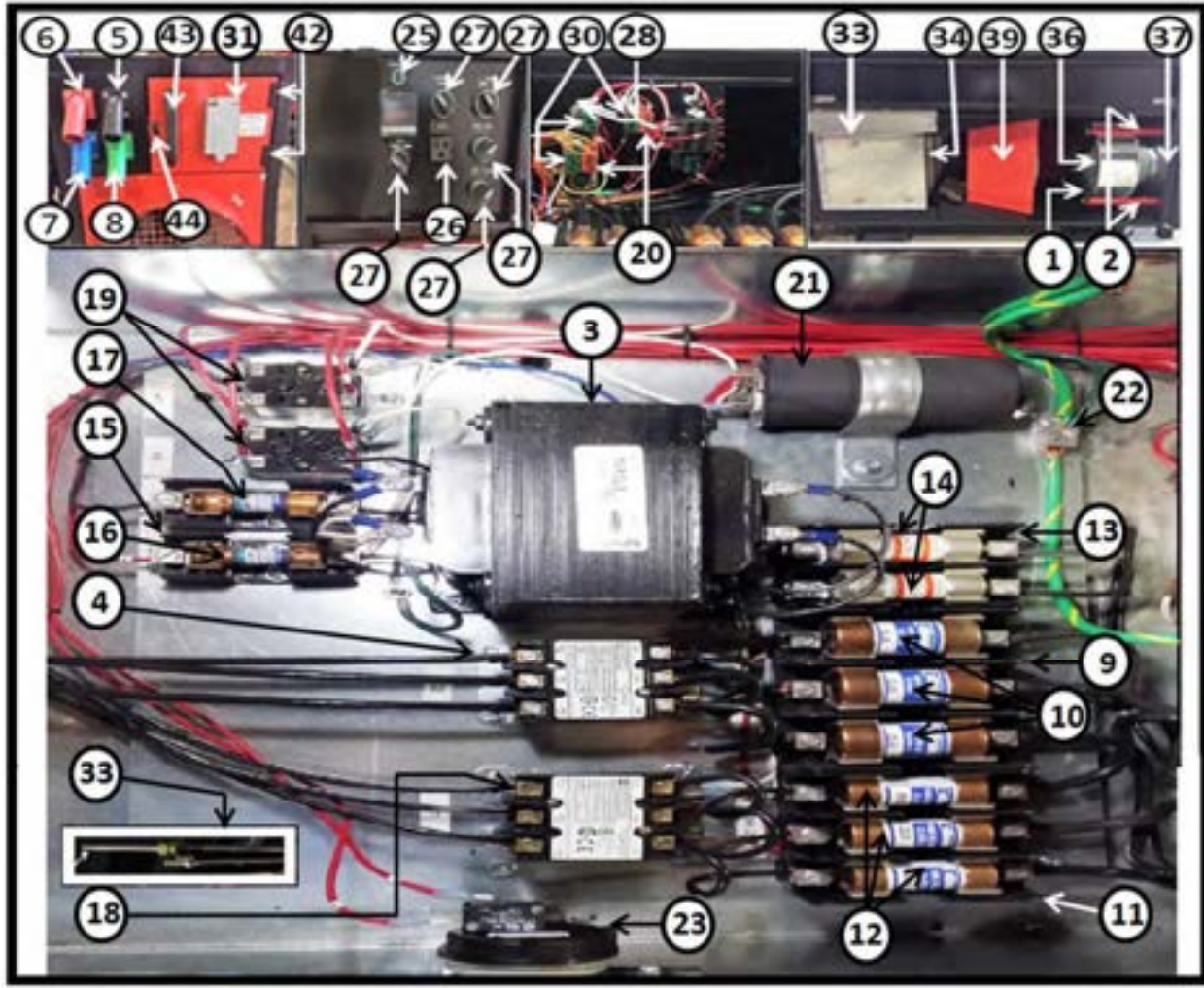
ITEM#	PART #	DESCRIPTION	QUANTITY
1	C50115	FRAME	1
2	C50116	SIDE PANEL LEFT	1
3	C50117	SIDE PANEL RIGHT	1
4	C50118	DOOR PANEL	1
5	C50119	ACCESS PANEL	1
6	C50120	ELECTRICAL PANEL	1
7	C50121	PANEL	1
8	C50122	ELECTRICAL PANEL (CONTROLS)	1
9	C50123	DEFLECTOR RIGHT	1
10	C50124	DEFLECTOR LEFT	1
11	C50125	TOP PANEL	1
12	C50126	RETURN PANEL/SUPPLY PANEL	1
13	C50127	FAN MOUNT	1
14	C50128	FAN POST	4

ECO BLAZE 60E (600V)

15	C40029	FAN MOTOR E	1
16	C40030	INLET CONE FOR FAN MOTOR E	1
<u>OPTIONAL PARTS</u>			
	C40051	FAN MOTOR R	1
	C40052	INLET CONE FOR FAN MOTOR R	1
	C50159	12" SUPPLY PANEL	1
	C50160	16" SUPPLY PANEL	1

ECO BLAZE 60E (600V)

BLAZE 60E (600V) CONTROL PANEL BREAKOUT REV 1



ITEM#	PART #	DESCRIPTION	QUANTITY
1	C50127	FAN MOUNT	1
2	C50128	FAN POST	4
3	C50235	TRANSFORMER	1
4	C50257	CONTACTOR	1
5	C50131	BLACK CAM LOCK	1
6	C50132	RED CAM LOCK	1
7	C50133	BLUE CAM LOCK	1
8	C50134	GREEN CAM LOCK	1
9	C50239	FUSE HOLDER	1
10	C50241	60A FUSE	3
11	C50135	FUSE HOLDER	1
12	C50137	30A FUSE	3
13	C50240	FUSE HOLDER	1

ECO BLAZE 60E (600V)

14	C50142	4A 600V T.D. FUSE	2
15	C50141	FUSE HOLDER	2
16	C50143	2A 250V T.D. FUSE	1
17	C50144	10A 250V T.D. FUSE	1
18	C50259	CONTACTOR	1
19	C90050	RELAY 1	2
20	C70071	CONTACT BLOCK	2
21	C90055	CAPACITOR FOR FAN MOTOR E	1
22	C70051	GROUND LUG	1
23	C50155	AIR SWITCH	1
25	C90025	POWER ON INDICATOR LIGHT GREEN	1
26	C90029	OUTLET FOR PLUG	1
27	C70065	SELECTOR SWITCH	4
28	C70069	FIXING COLLAR	3
30	C50166	CONTACT BLOCK	3
31	C70072	FLIP LID COVER HOUSING	1
32	C40033	TEMPERATURE CONTROLLER	1
33	C50156	THERMOCOUPLE	1
34	C50313	ELEMENT	1
35	C50168	CASTER	4
36	C40029	FAN MOTOR E	1
37	C40030	INLET CONE FOR FAN MOTOR E	1
39	C50124	DEFLECTOR LEFT	1
40	C90041	LIMIT SWITCH	1
42	C50299	HINGE	2
43	C70087	GRAB HANDLE	1
44	C50298	LOCK	1
<u>OPTIONAL PARTS</u>			
	C40028	THERMOCOUPLE ASSEMBLY	1
	C90054	CAPACITOR FOR FAN MOTOR R	1
	C40051	FAN MOTOR R	1
	C40052	INLET CONE FOR FAN MOTOR R	1
	C50260	FAN MOTOR P	

ECO BLAZE 60E (600V)

BLAZE 60E (600V) DECAL KIT BREAKOUT REV 1



C50319	BLAZE 60E 600V DECAL KIT
C50320	SERIAL NUMBER (VARIABLE DATA)
C50302	CAMPO LOGO
C50303	CAUTION--SHOCK RISK
C50304	CAUTION--BURN/FIRE HAZ.
C50305	CAUTION CAM LOCKS
C50306	DANGER--MOVING PARTS
C50307	DANGER--HAZ. VOLTAGE
C50308	CAUTION--AIR FLOW BLOCK
C50309	MUST BE GROUNDED
C50318	BLAZE 60E
C50311	BUTTONS