Original Installation & Operation Manual

EDGE EEH-23 Extraction Hoods

EDGE EEC-23 Hood Controls

Retain This Manual for Future Reference

To be Installed by Qualified Personnel Only

For use with the following EDGE Ovens:

EDGE-1830	EDGE-2440	EDGE-3240
EDGE-2460	EDGE-2460S	EDGE-3260
EDGE-3260S	EDGE-3860	EDGE-3860S
EDGE-4460	EDGE-4460S	EDGE-3270
EDGE-3870	EDGE-4470	

TYPE 1 HOOD

CONFORMS TO:
UL 710:2012 Ed.6+R:16Feb2021
NSF/ANSI 2:2021

Complies to: ULC S646:2010 Ed.3

3133776

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GENERAL DESCRIPTION

Introducing the EDGE EEH-23 hood, exclusively crafted for the EDGE conveyor oven model line. The EEH-23 hood is meticulously engineered to efficiently capture smoke and vapors filled with grease. Consequently, the EEH-23 hood boasts the lowest extraction CFM among all the hoods available for the EDGE oven model line.

If you have any questions regarding installation, operation, or service please feel free to reach out to EDGE at (1)888-480-EDGE during our regular business hours of Monday to Friday, 8:00AM to 5:00PM EST. Alternatively, you can also email us at support@edgeovens.com.

HOOD SYSTEM COMPATIBILITY AND CAPABILITIES

The EDGE EEH-23 hood system has obtained ETL approval for usage in both the United States and Canada. Specifically designed for the EDGE conveyor oven model line, this hood system is compatible with double or triple stacked ovens. It incorporates closure skirts for both the hood capture area and the conveyor belts, effectively lifting and expediting the extraction of emitted gases, enhancing the performance of the EEH-23 hood system.

To operate the EEH-23 hood system, an extraction fan system is necessary, and careful consideration should be given to Make Up Air (MUA) balancing. In the event that make-up air is utilized, it should be activated whenever the exhaust fan for the hood is in operation to maintain proper air balance within the kitchen, except during a fire incident in the oven.

To ensure the safety of the cooking equipment in case of a fire, the oven's power source (whether dry gas or electric) must be connected to the fire suppression dry contacts (micro switches). In the case of electrical control, this connection is typically established by linking the oven's power inlet to a shunt trip breaker connected to the fire suppression dry contacts. For natural gas supply, an electronically actuated solenoid valve is connected to the fire suppression dry contacts to fulfill this requirement.

EDGE EEH-23 hoods may be equipped with the EEC-23 control. Specific features of the EEC-23 control may be found on page 3 and 4 of this manual.

HOOD MODEL SELECTION

Model naming convention: **EEH-23-**{XX}{ZZ}

Where: { XX - Width of EDGE OVEN }
- and -
{ ZZ - Length of EDGE OVEN }

Ex: EEH-23-3240 mates with the EDGE-3240

*Ovens under this extraction hood MUST all be the same model.

WARRANTY

12 months parts and labor warranty (US & Canada Only). Warranty is limited to the hood and hood control system only. Grease filters, exhaust fans, ducting, fire suppression fittings, etc. are not covered under warranty.

Damage due to over-current, loose customer connections, or improper installation are not covered under warranty.

IMPORTANT INFORMATION

Please avoid leaving the hood exposed to inclement weather conditions for an extended period.

The EEH-23 extraction hood system has been exclusively developed and approved for use with EDGE conveyor ovens. It is crucial that you DO NOT install this extraction hood system above any unapproved appliances.

It is essential to have trained professionals install the hood system. The installation of the hood must adhere to NFPA 96 guidelines, which govern the removal of smoke and grease-laden vapors from commercial cooking equipment.

The exhaust air flow rates provided were determined under controlled laboratory conditions. Certain situations may necessitate higher exhaust flow rates to ensure complete removal of vapor and smoke.

The accessories provided with the EEH-23 extraction hood are mandatory. The skirting accessories are designed to enhance the extraction of vapor and heat. Please DO NOT attempt to remove the hood skirting or belt skirting while the EDGE conveyor ovens are in operation or still hot. Operating the EDGE conveyor ovens without the hood skirting or belt skirting, whether partially or entirely removed, is strictly prohibited.

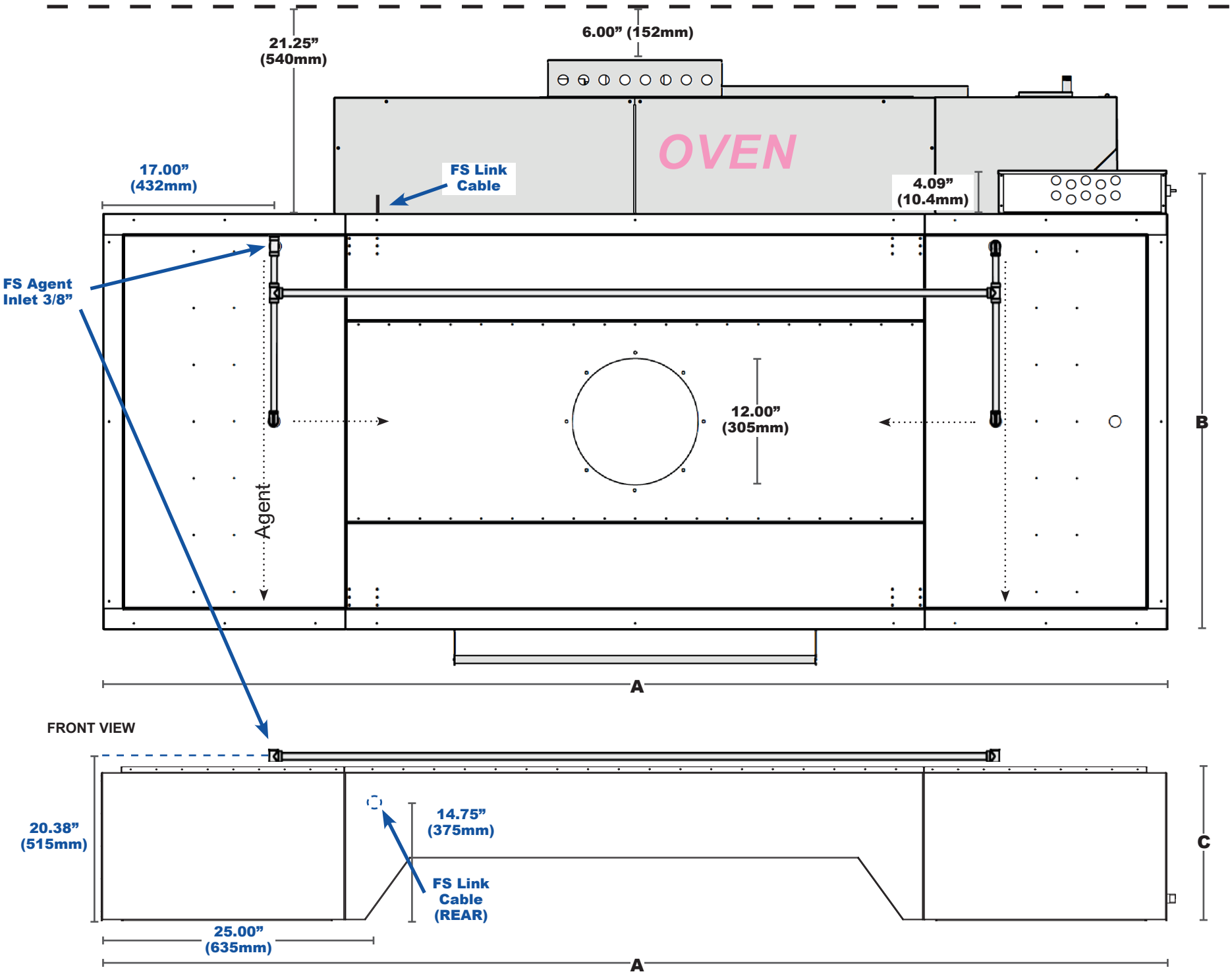
The EEC-23 control systems provide switching of extraction fan power, MUA signaling, and receptacle power. This switching is intended to provide ease-of-use features and convenience. If the switching performed by the control system is disputed, local code prevails.

The EEH-23 hood requires 18” of clearance from combustible materials. A fire barrier approved by local codes must be used within this distance.

DO NOT connect the EEC-23 control to existing exhaust fan systems without a full inspection of the fan motor. Capacitors for PSC motors should be replaced prior to installing this system.

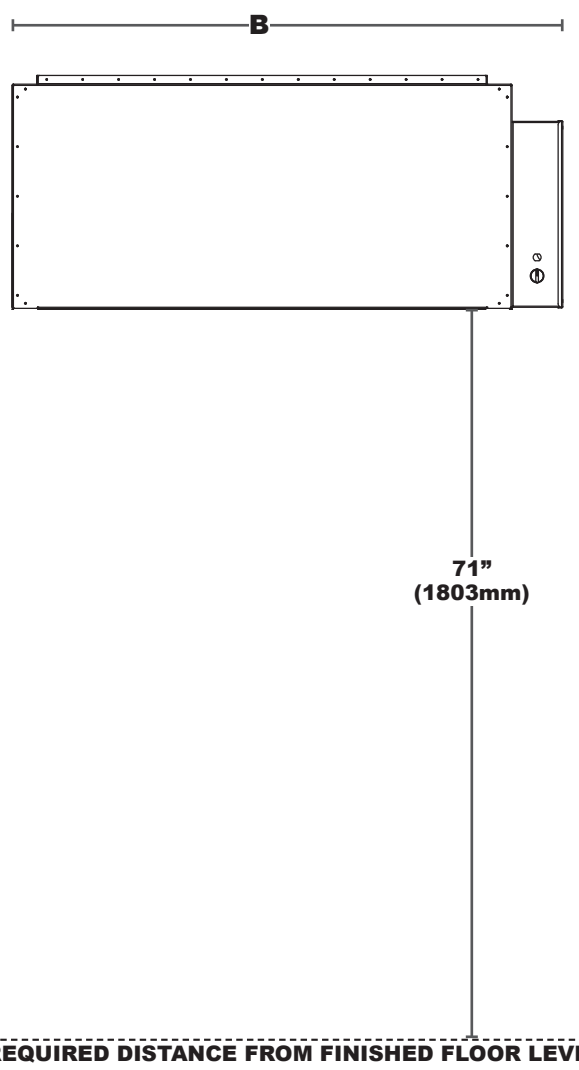
HOOD DIMENSIONS

PLAN VIEW (ABOVE OVENS)



FRONT VIEW

SIDE VIEW



HOOD DIMENSIONS (CONTINUED)

Hood Model	Dimensions (Including Hood Control)			Minimum Exhaust CFM			Hood Weight (lbs)	Valance Weight (lbs)			Skirt Weight (lbs)	
	A Length	B Depth	C Height	Single	Double	Triple		8ft	9ft	10ft	Double	Triple
EEH-23-1830	75.57”	30.42”	18.85”	184	367	440	214	27	58	76	33	21
EEH-23-2440	85.32”	36.42”	18.85”	234	467	560	238	31	66	87	37	23
EEH-23-2460	103.82”	36.42”	18.85”	234	467	560	267	36	76	101	37	23
EEH-23-3240	85.32”	44.42”	18.85”	300	600	720	252	33	70	93	40	25
EEH-23-3260	103.82”	44.42”	18.85”	300	600	720	280	38	80	106	40	25
EEH-23-3270	113.83”	44.42”	18.85”	300	600	720	295	40	86	114	40	25
EEH-23-3860	103.82”	50.42”	18.85”	350	700	840	290	39	84	111	44	27
EEH-23-3870	113.83”	50.42”	18.85”	350	700	840	305	42	89	118	44	27
EEH-23-4460	103.82”	56.42”	18.85”	400	800	960	300	41	87	115	47	29

- 18 inches of clearance is required from all combustible surfaces

HOOD EXTRACTION SPECIFICATIONS

Hood Model	Capture (Linear ft)	Minimum FPM (Linear ft)			Minimum CFM (Cubic ft)		
		Single	Double	Triple	Single	Double	Triple
EEH-23-1830	3.67	50	100	120	184	367	440
EEH-23-2440	4.67	50	100	120	234	467	560
EEH-23-3240	6.00	50	100	120	300	600	720
EEH-23-2460	4.67	50	100	120	234	467	560
EEH-23-3260	6.00	50	100	120	300	600	720
EEH-23-3860	7.00	50	100	120	350	700	840
EEH-23-4460	8.00	50	100	120	400	800	960
EEH-23-3270	6.00	50	100	120	300	600	720
EEH-23-3870	7.00	50	100	120	350	700	840

FILTER SPECIFICATIONS

	EEH-23-1830	EEH-23-2440	EEH-23-3240	EEH-23-2460	EEH-23-3260	EEH-23-3860	EEH-23-4460	EEH-23-3270	EEH-23-3870
FILTER - 12” x 16”	X	X	2	X	2	X	6	2	X
FILTER - 12” x 20”	2	2	2	2	2	4	X	2	4
BLANK - 2”	2	X	X	X	X	2	X	X	2
BLANK - 8”	X	2	X	2	X	X	X	X	X

Filters are provided as standard with your hood system according to the above specification.

Filter Manufacturer: Kason

Filter Series: “Trapper” 7001 or 7002

HOOD CONTROLS GENERAL DESCRIPTION

The EEC-23 hood extraction controls have been designed specifically for the EEH-23 EDGE Hood product family.

The EEC-23-B (Basic) control is a single extraction speed control unit which meets the basic needs of most kitchen installations. This control unit provides power switching of the Extraction Fan unit, switching of the MUA or HVAC Fan control voltage, and may be configured to provide local control of the Extraction Fan speed. The control provides Fire Suppression electrical connections which allow the Extraction Fan to be activated in the event of a fire. Additionally, (3) NEMA-5-20R outlets are incorporated which must be connected to independently protected circuits for providing oven power.

The EEC-23-A (Advanced) control includes all the features of the EEC-23-B and much more. Automatic, responsive extraction and MUA are available by means of control signal outputs. MUA may also be controlled by means of (3) cascading damper control relays (1, 1+2, 1+2+3). As the connected ovens are brought on-line, the EEC-23-A responds with the configured 0-10v control signal for the Extraction and MUA unit, while also engaging any connected MUA damper. Air Switch proofing may also be incorporated to ensure Extraction and/or MUA are functioning prior to energizing the connected ovens.

HOOD CONTROL SELECTION

Use the following feature list to determine which control system meets your minimum requirements.

FEATURES	EEC-23-A	EEC-23-B
EXTRACTION INTERFACE		
SINGLE SPEED CONTROL	✓	✓
MULTI-SPEED CONTROL	✓	⊘
ON-OFF CONTROL	✓	✓
AIR SWITCH CAPABLE	✓	✓
0-10v REMOTE SPEED SIGNAL	✓	✓
AUTOMATIC SPEED ADJUSTMENT	✓	⊘
RECEPTACLE MONITORING (AUTO-SPEED)	✓	⊘
MAKE-UP AIR INTERFACE		
SINGLE DAMPER ON-OFF	✓	✓
MULTI DAMPER ON-OFF	✓	⊘
AIR SWITCH CAPABLE	⊘	⊘
0-10v REMOTE SPEED SIGNAL	✓	⊘
RECEPTACLE MONITORING (AUTO-SPEED)	✓	⊘
FIRE SYSTEM INTERFACE		
RESPONSIVE EXTRACTION (ON or OFF)	✓	✓
RESPONSIVE MUA (OFF)	✓	✓
RESPONSIVE RECEPTACLES (OFF)	✓	✓

HOOD CONTROL ELECTRICAL SPECIFICATIONS

ELECTRICAL SPECIFICATIONS	EEC-23-A	EEC-23-B
MAXIMUM WIRE SIZE ALL TERMINALS	12 AWG Cu	
EXHAUST FAN SYSTEM SUPPLY		
VOLTAGE	120V	
PHASE	1 (SINGLE)	
HERTZ	60Hz	
MAX AMPERES	12A	
TIGHTENING TORQUE	14-15 lbs-in	
EXHAUST FAN CONTROL SIGNAL		
VOLTAGE	0 ~ 10V DC	
RECOMMENDED WIRE SIZE (UL 13/444, SHIELDED)	(2C)18 AWG	
MAXIMUM TIGHTENING TORQUE	7 lbs-in	
MAKE-UP AIR CONTROL SWITCHING		
VOLTAGE	0 ~ 24	
MAX AMPERES	5A	
RECOMMENDED WIRE SIZE	18 AWG @ 24V, 14 AWG @ 120V	
MAXIMUM TIGHTENING TORQUE	7 lbs-in	
MAKE-UP AIR CONTROL SIGNAL		
VOLTAGE	0 ~ 10V DC	⃠
MAXIMUM WIRE SIZE	14 AWG	⃠
RECOMMENDED WIRE SIZE (UL 13/444, SHIELDED)	(2C)18 AWG,	⃠
MAXIMUM TIGHTENING TORQUE	7 lbs-in	⃠
FIRE SYSTEM INTERFACE CONTROL SIGNAL		
SIGNAL TYPE (FROM CONTROL)	120V AC, 2 AMP MAX LOAD	
LANDING TYPE	N. O. DRY CONTACT	
RECOMMENDED WIRE SIZE	14 AWG (Per local code requirements)	
LANDING TYPE	7 lb-in	
OVEN RECEPTACLES (UP TO 3)		
VOLTAGE	0 ~ 120V	
PHASE	1 (SINGLE)	
HERTZ	60Hz	
MAX AMPERES	20A, Dedicated branch (L & N) per oven	
RECOMMENDED WIRE SIZE	12 AWG Cu	
MAXIMUM TIGHTENING TORQUE	13-15 lb-in	

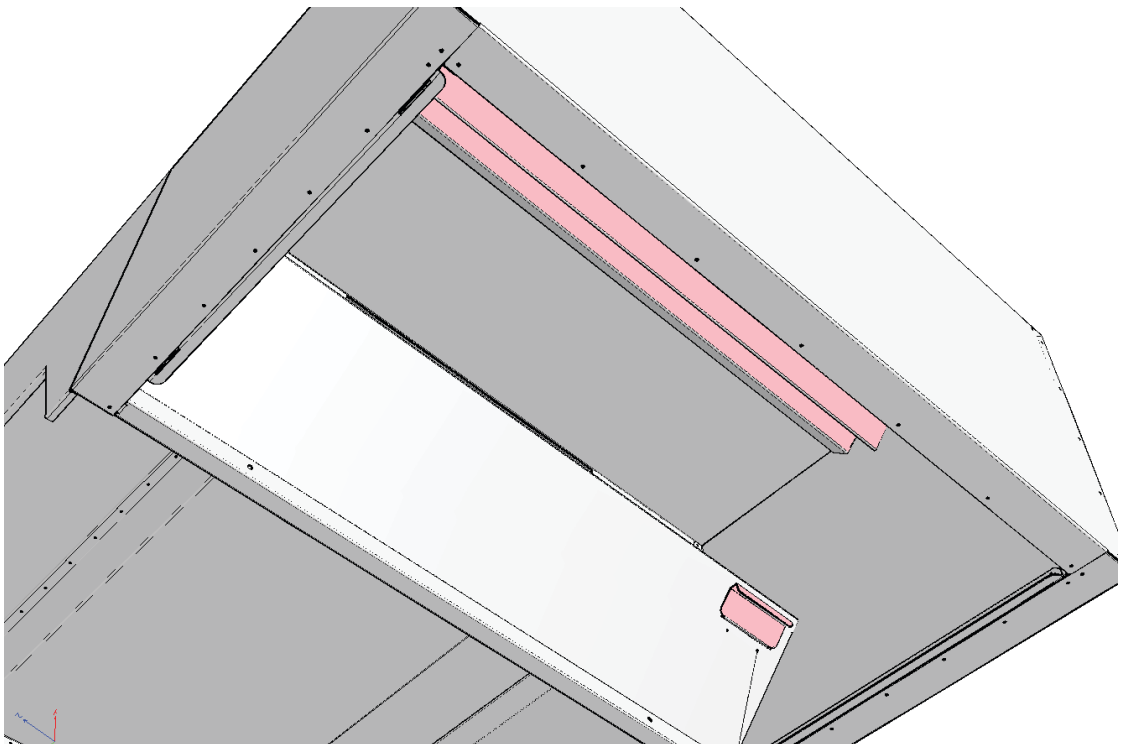
HOOD FINAL ASSEMBLY

After completing the installation of the hood and placing the oven in position, it is imperative to proceed with the installation of the hood accessories.

FILTERS & GREASE CUPS

Please consult the specifications for the required filters. For some hood models, a spacer or blank is included for each side. Install spacers (fillers) at the rear of the hood on both sides, towards the back of the oven.

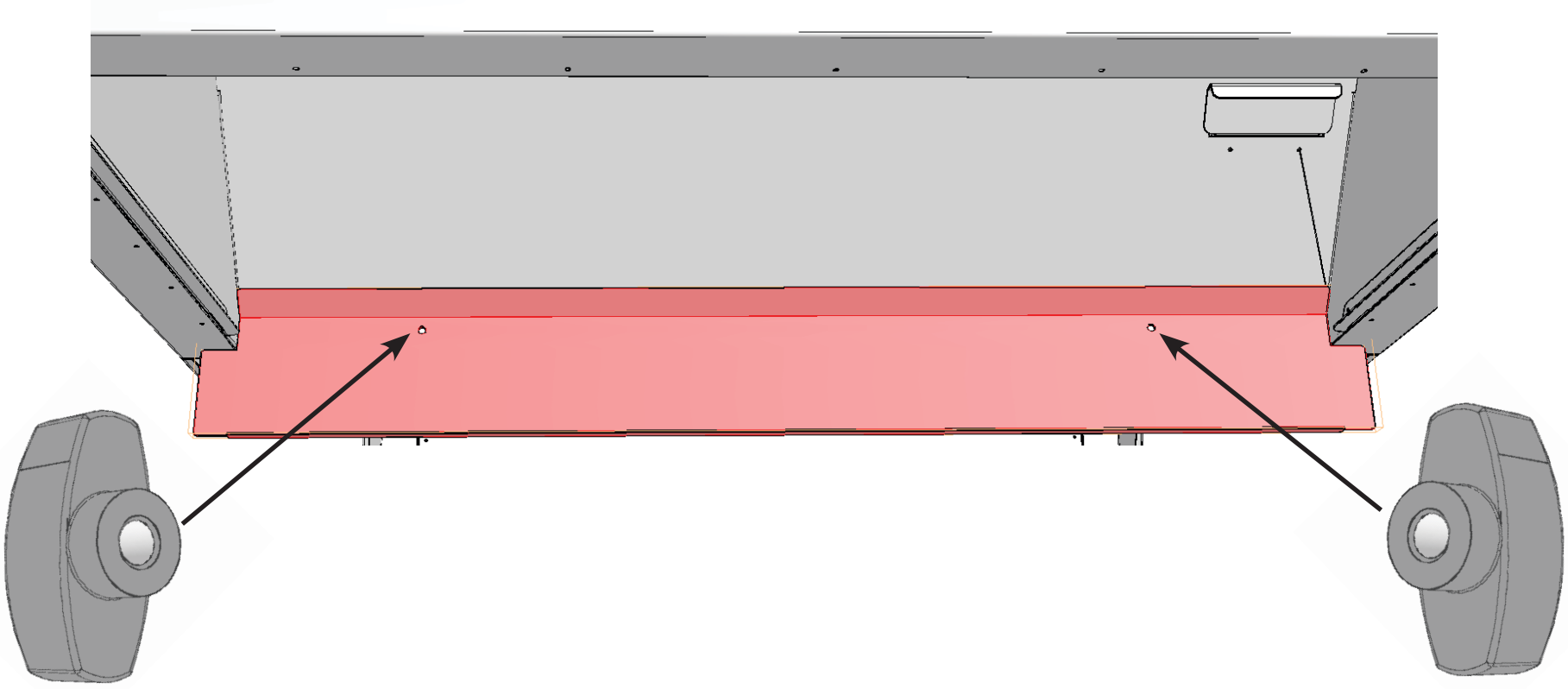
Place the provided filters on each side of the hood. Install the filters into the top bracket first, then lower them into the lower bracket. Install the provided grease cups in each side of the hood.



HOOD SKIRTING

INNER HOOD SKIRTS

With the oven in place, securely attach the inner hood skirts at either end of the oven, using the two (2) wingnuts provided to secure in place.



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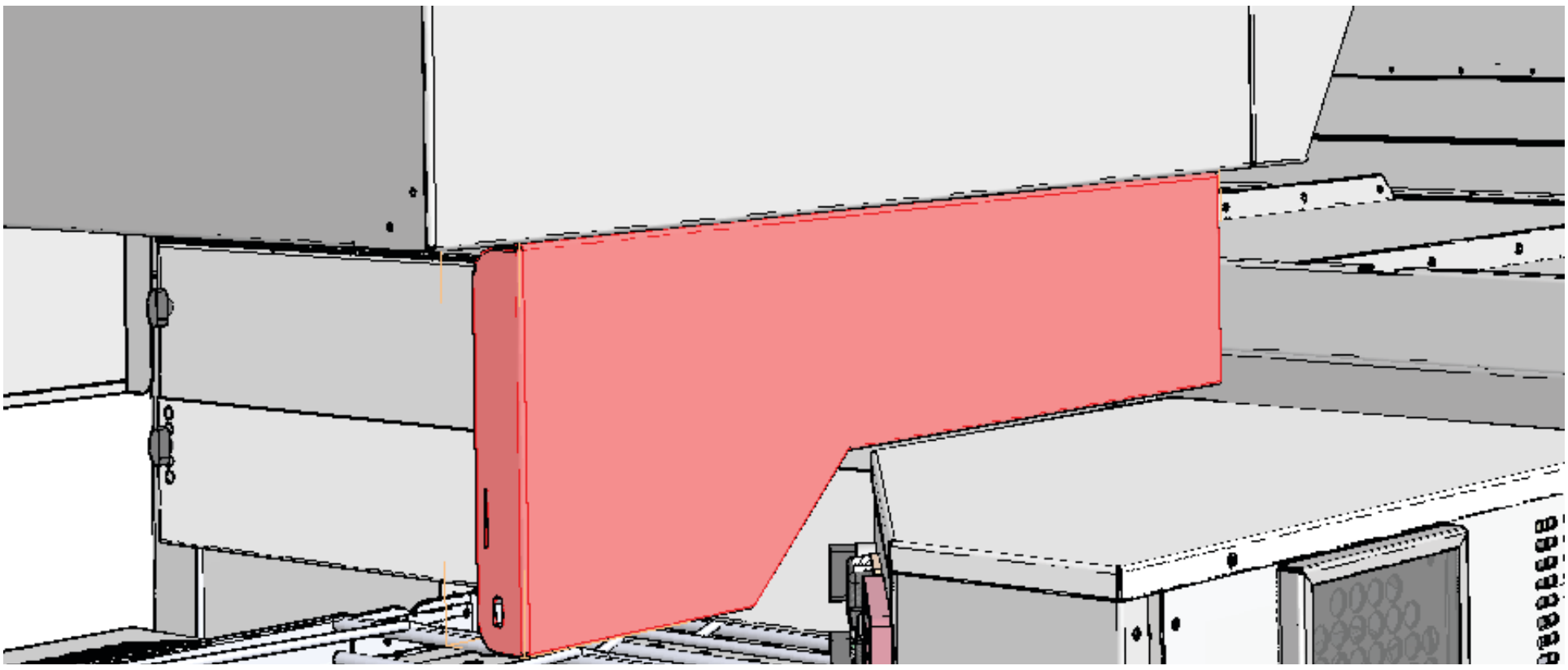
HOOD FINAL ASSEMBLY (CONT.)

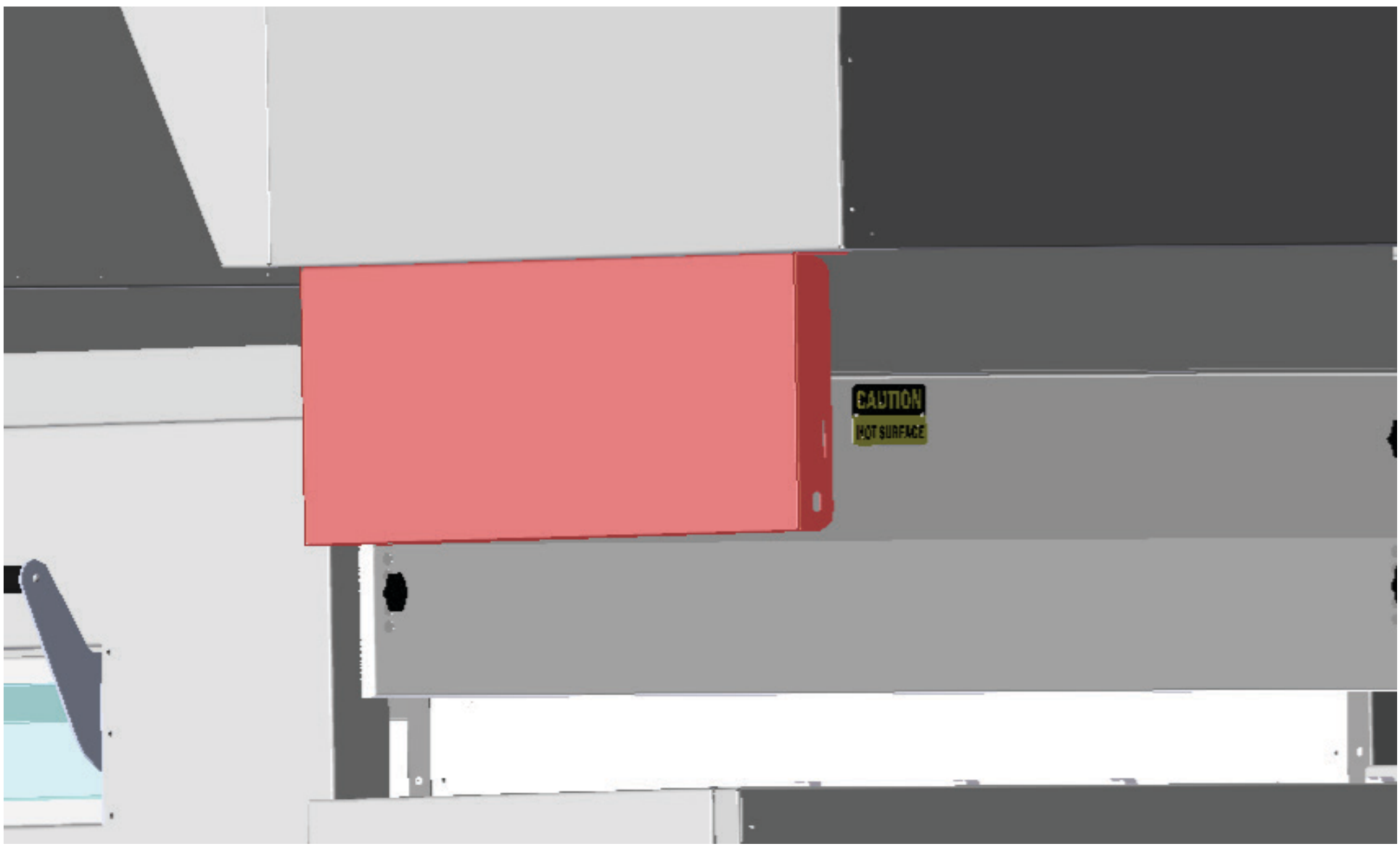
SIDE HOOD SKIRTS

The hood skirting consists of four side skirts in total. Three of these skirts are similar in design, while the remaining skirt has a notched angular configuration.

1. Begin by installing the notched skirt above the control cabinet. This is achieved by simply inserting the tabs into corresponding slots located in the underside of the hood.



2. Repeat for the remaining three (3) side hood skirts on both ends of the oven.

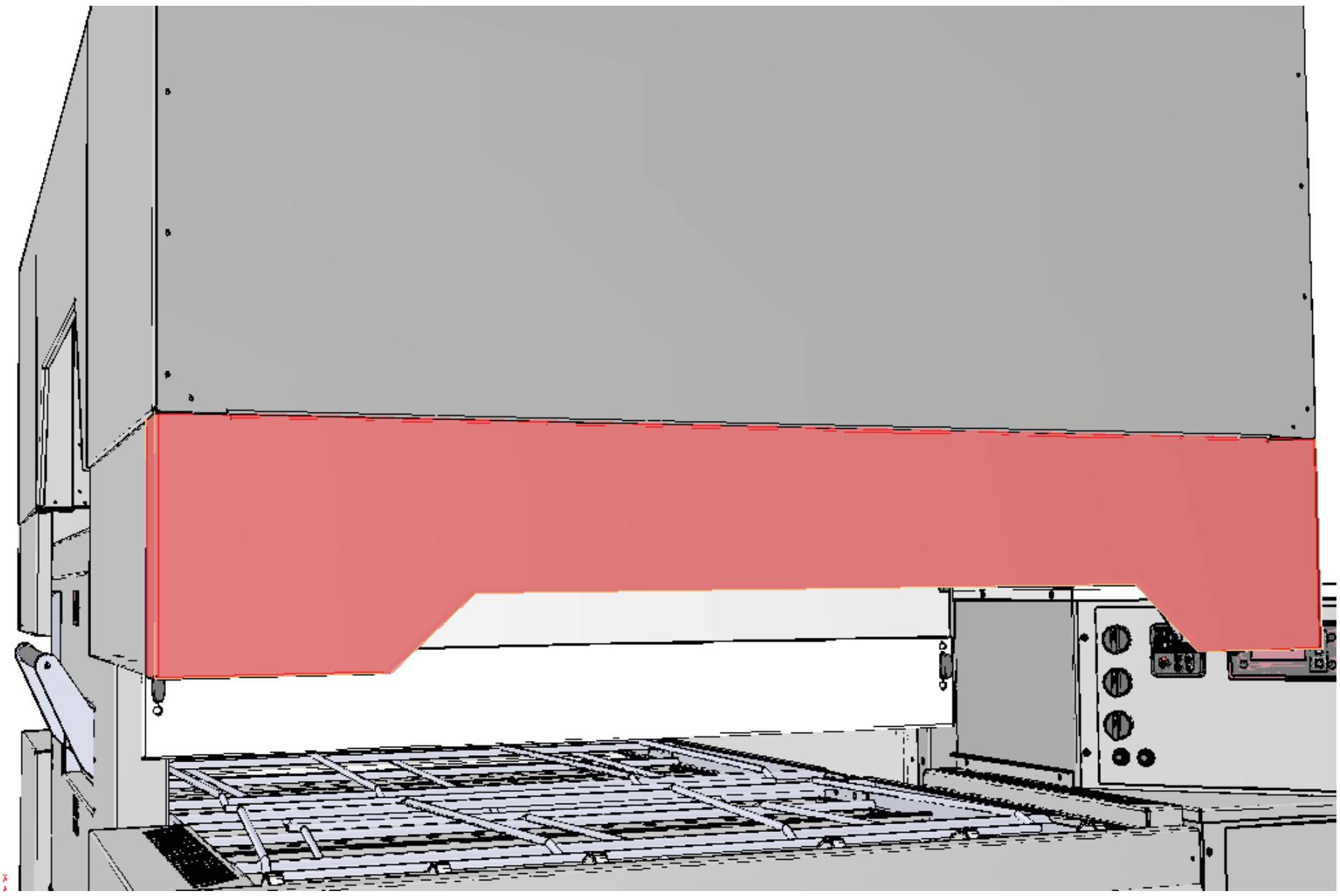


HOOD FINAL ASSEMBLY (CONT.)

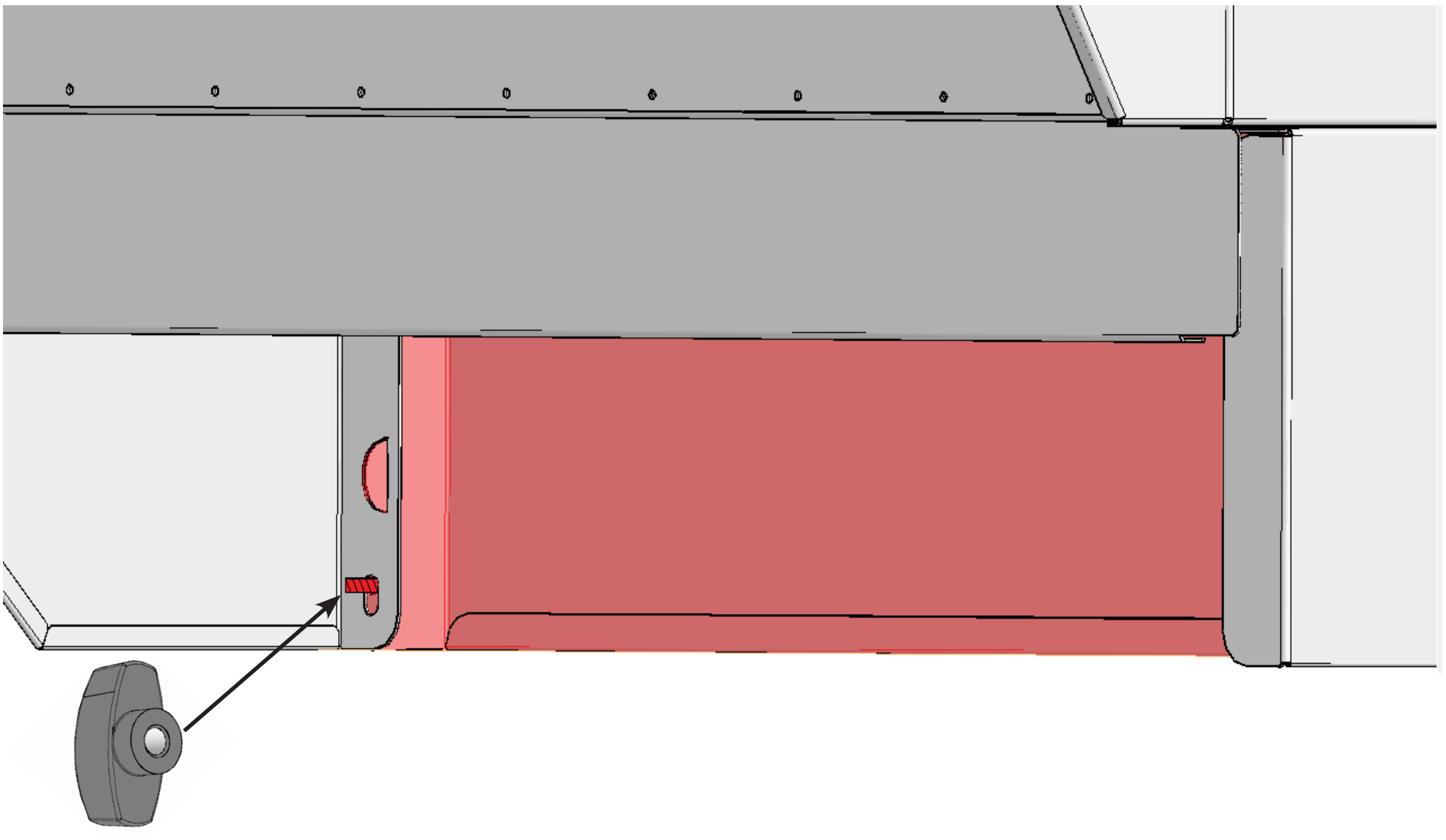
HOOD SKIRTING (CONTINUED)

FRONT HOOD SKIRTS

1. Install the front hood skirts by sliding the tabbed end into each end of the previously fitted side skirts.



2. Secure the skirts together by applying the two (2) wingnuts on threaded studs, located on the inside of the hood skirt. Repeat for both sides of the hood.

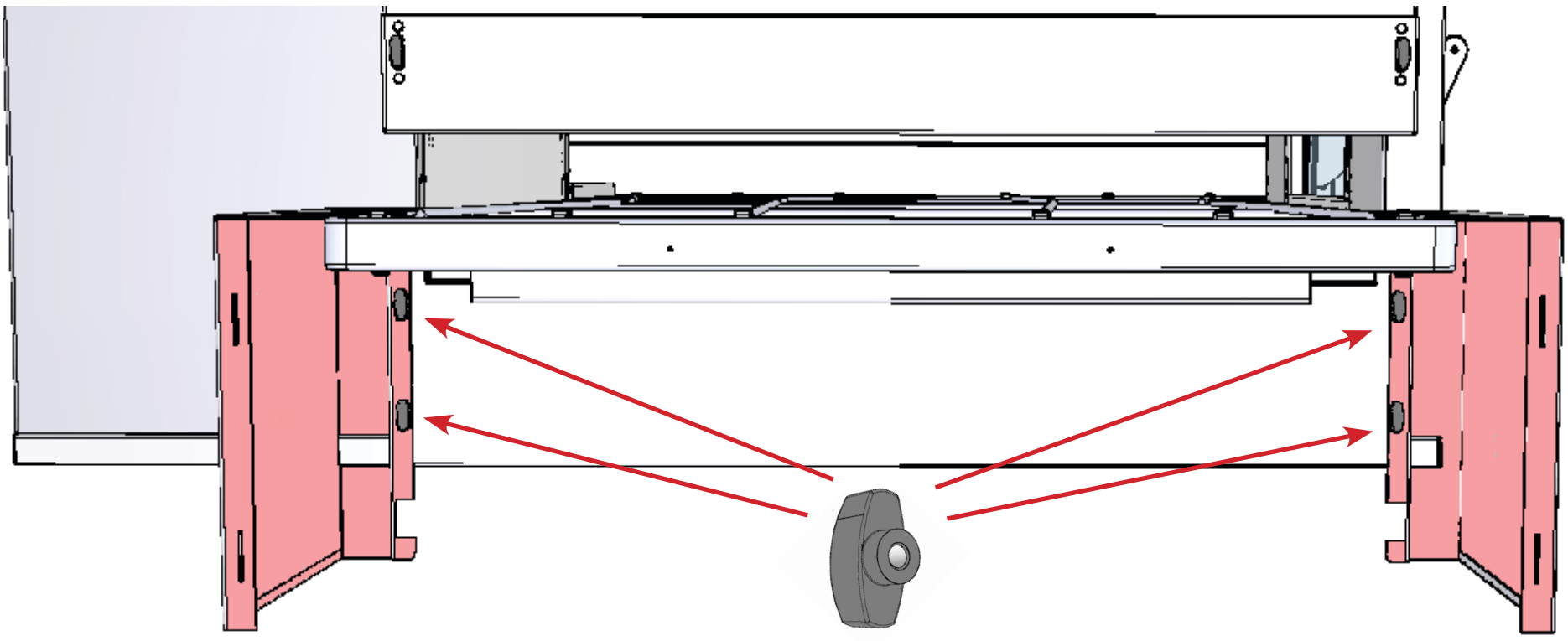


BELT SKIRTS & HEAT SHIELD

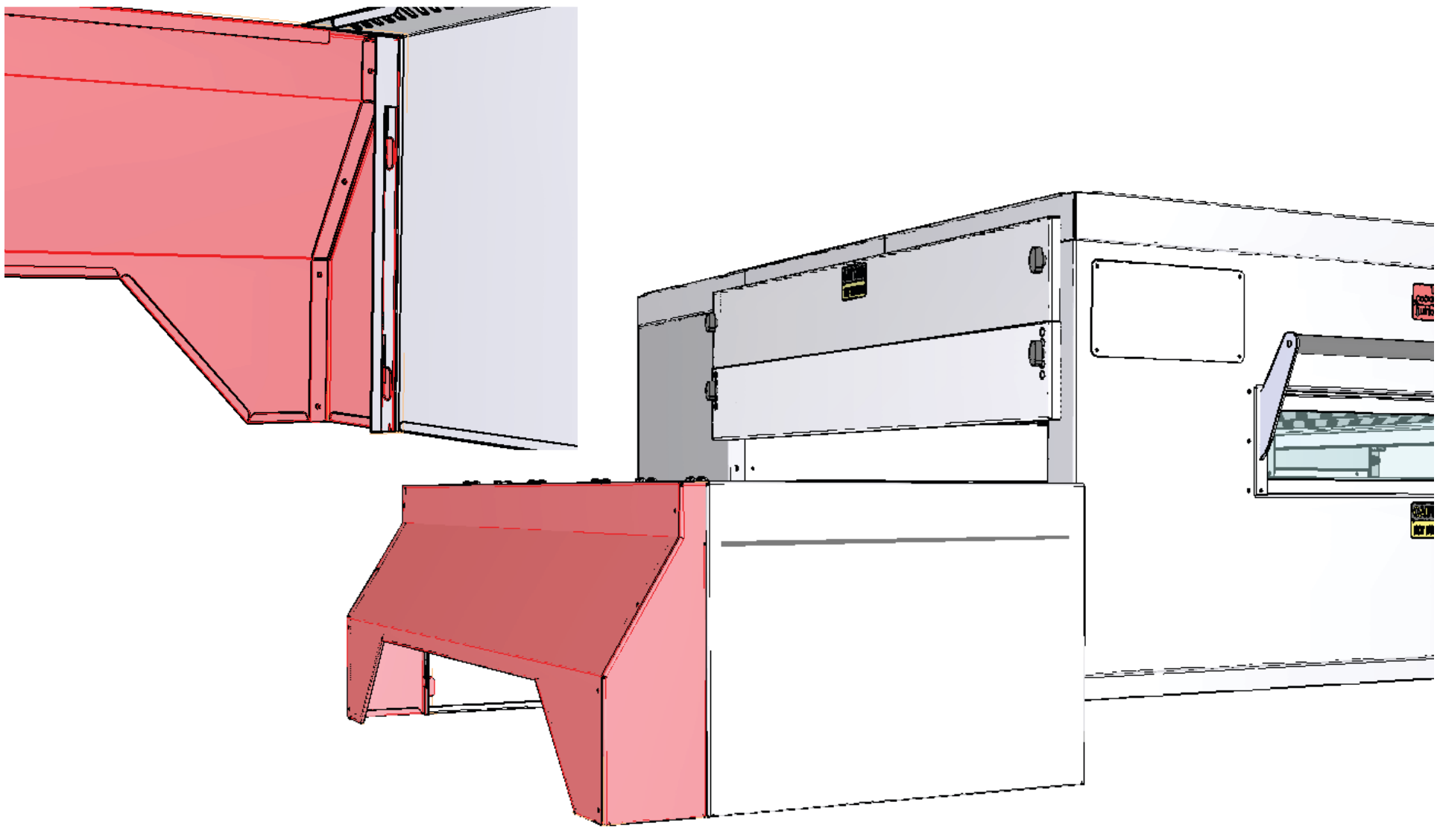
LEFT HAND SIDE BELT SKIRTS (NON CONTROL CABINET SIDE)

As with the hood skirts, the EDGE belt skirting system is designed to interlock using tabs and slots, in addition to securing wingnuts. Belt skirting only needs to be installed on the upper oven decks, it is NOT required on the lowest oven deck, i.e. the bottom deck of a triple or double oven configuration.

1. Remove the four (4) wingnuts from the lower end panel (beneath the oven belt).
2. Hang the belt side skirts over each side of the oven belt frame, ensuring they interlock with the end panel wingnut threaded stubs.
   NOTE: Ensure that belt side skirts with the crumb tray cut out are positioned towards the oven front.
3. Secure the belt side skirts to the oven by reapplying the four (4) previously removed wingnuts.



4. Install the belt end skirt by aligning and inserting the belt end skirt tabs into the side skirt slots. Allow the end skirt to rest over the belt end.



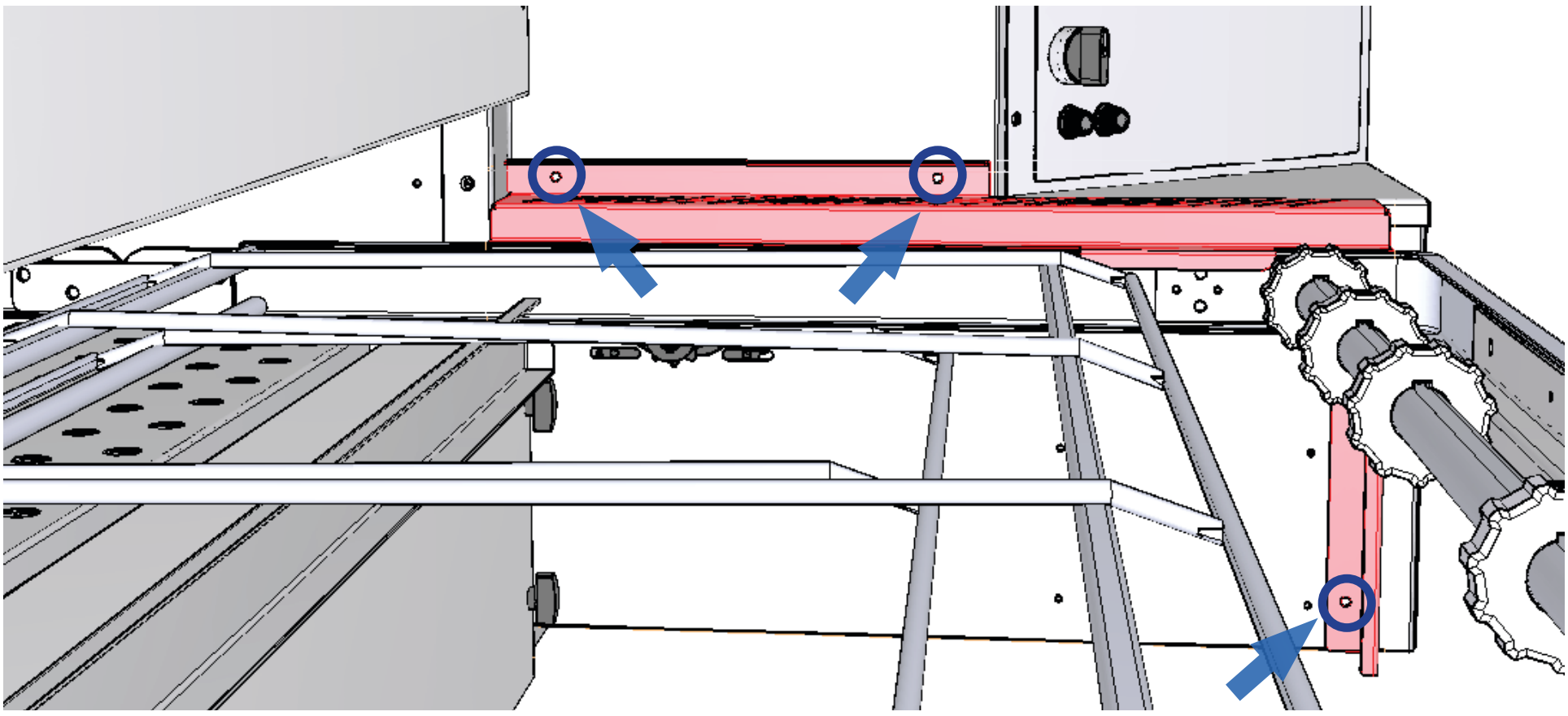
HOOD FINAL ASSEMBLY (CONT.)

BELT SKIRTS & HEAT SHIELD (CONTINUED)

RIGHT HAND SIDE SKIRT BRACKET (CONTROL CABINET SIDE)

NOTE: If already fitted, remove the standard chain guard from all upper decks (middle and top).

1. Begin by removing the three (3) pre-fitted securing screws as shown (and circled in blue) from the control cabinet front.
2. Install the skirting bracket to the control cabinet using the previously removed securing Philips screws.



HEAT SHIELD

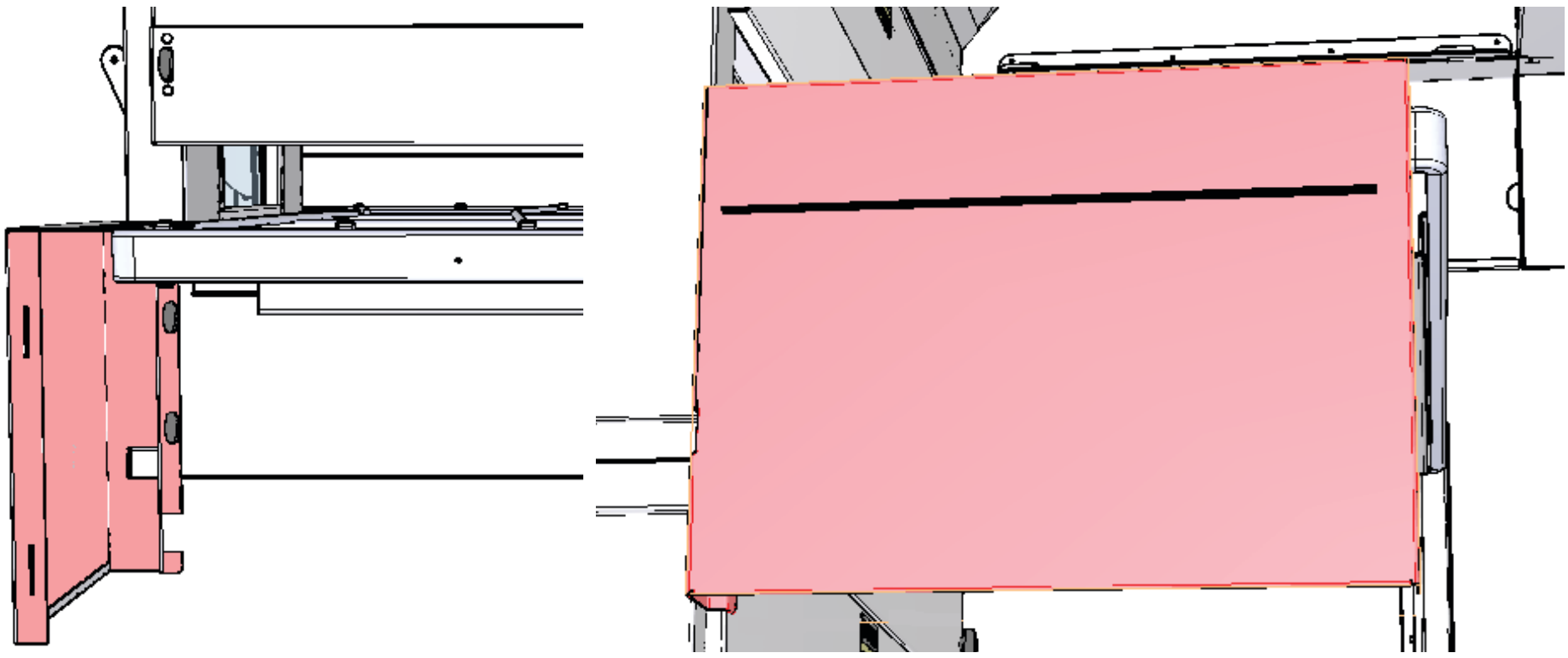
The heat shield, provides heat protection to the oven control cabinets, by deflecting heat away from the oven control cabinet. It is imperative that the heat shield is installed between all oven decks.

1. Begin by removing the two (2) securing Philips screws from the front of the control cabinet lid (circled in pink) on all lower decks (not required on the top deck).
2. Attach the heat shield using the two (2) previously removed Philips screws and secure to the control cabinet lid through the preformed screw holes.

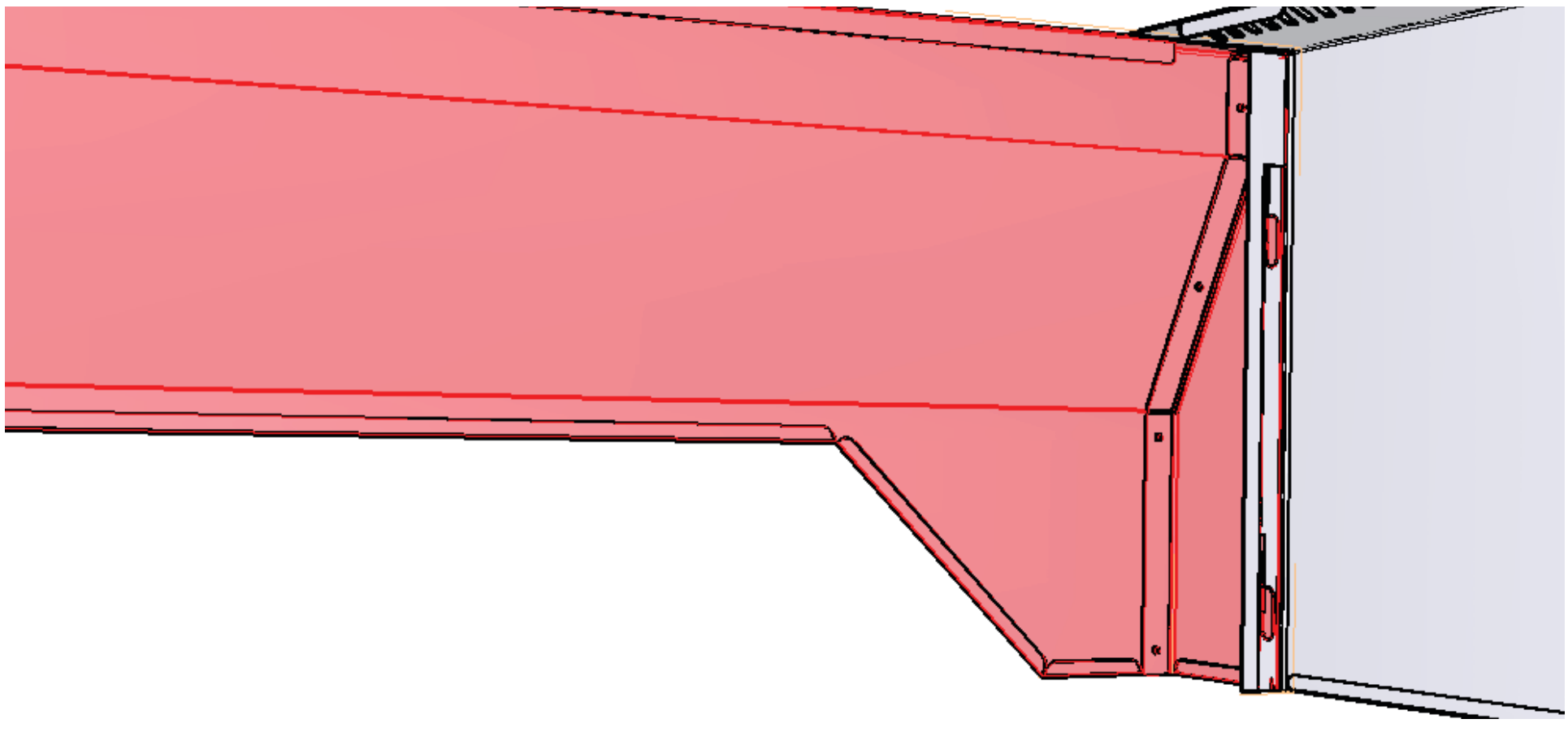
BELT SKIRTS & HEAT SHIELD (CONTINUED)

RIGHT HAND SIDE BELT SKIRTS (CONTROL CABINET SIDE) (CONTINUED)

1. As before, but focusing only on the front side of the oven, begin by removing the two (2) wingnuts from the lower end panel (beneath the oven belt) and the highest positioned wingnut of the upper end panel on the oven deck below.
2. Hang the belt side skirt over front side of the oven belt frame, ensuring they interlock with the end panel wingnut threaded stubs.
   NOTE: Ensure that belt side skirts with the crumb tray cut out are positioned towards the oven front.
3. Secure the belt side skirt to the oven by reapplying the two (2) previously removed wingnuts.



4. Install the belt end skirt by aligning and inserting the belt end skirt tabs into the side skirt slots. Allow the end skirt to rest over the belt end.



HOOD EXHAUST DUCT CONNECTION

DUCT CONNECTION

A single, 12 inch, round discharge outlet is provided. EDGE recommends is the CaptiveAire DW Series, 12” Non-Welded Grease Duct System. This system does not require specific certifications to be installed. As the duct system in ‘non-welded’, fittings shall be sealed using the ‘3M Fire Barrier 2000 Plus Silicone’ product, as designed.

Consult with your CaptiveAire sales representative for specific order requirements and details.

To learn more, view the CaptiveAire video by scanning this QR link:

HOOD EXHAUST FAN & CURB

EXHAUST FAN SELECTION

EDGE recommends the CaptiveAire **DU85HFA (ODP-ECM)** Exhaust Fan unit. The EEC-23 control has been designed to operate the 0-10V feature of this ECM motor driven fan unit.

This unit is available in either the **-WALL** or the **-ROOF** variants with the **KEF-1** Option package.

Consult with EDGE or your CaptiveAire sales representative for specific order requirements and details.

EXHAUST CURB ASSEMBLY SELECTION

EDGE recommends the CaptiveAire DU85HFA (ODP-ECM) Exhaust Fan unit. The DU85HFA shall be installed on the CaptiveAire CRB23X20E curb. This curb is available in (2) fixed styles, **-FLAT** and **-WALL**. An additional style for sloped rooftops is also available, **-PITCH** (roof pitch must be specified).

Consult with EDGE or your CaptiveAire sales representative for specific order requirements and details.

HOOD FIRE SUPPRESSION CONNECTION

AGENT & CABLE CONNECTION

When requested at time of purchase, the EEH-23 hood is pre-plumbed with (1) agent nozzle in each canopy for protection and (1) agent nozzle is installed for each entrance to the discharge plenum. This is a total of (4) agent nozzles. In addition, (1) Fusible-Link is installed within the discharge plenum.

Details regarding the cable connection point, the agent connection point, and the agent dispersement directions may be found in the SPECIFICATIONS section of this manual.

Installed Discharge Nozzles (4): Buckeye Fire Equipment, PN: N-1HP, 1 Flow Point, Blue Band

Installed Fusible Link (1): Buckeye Fire Equipment, 300°F (149°C)

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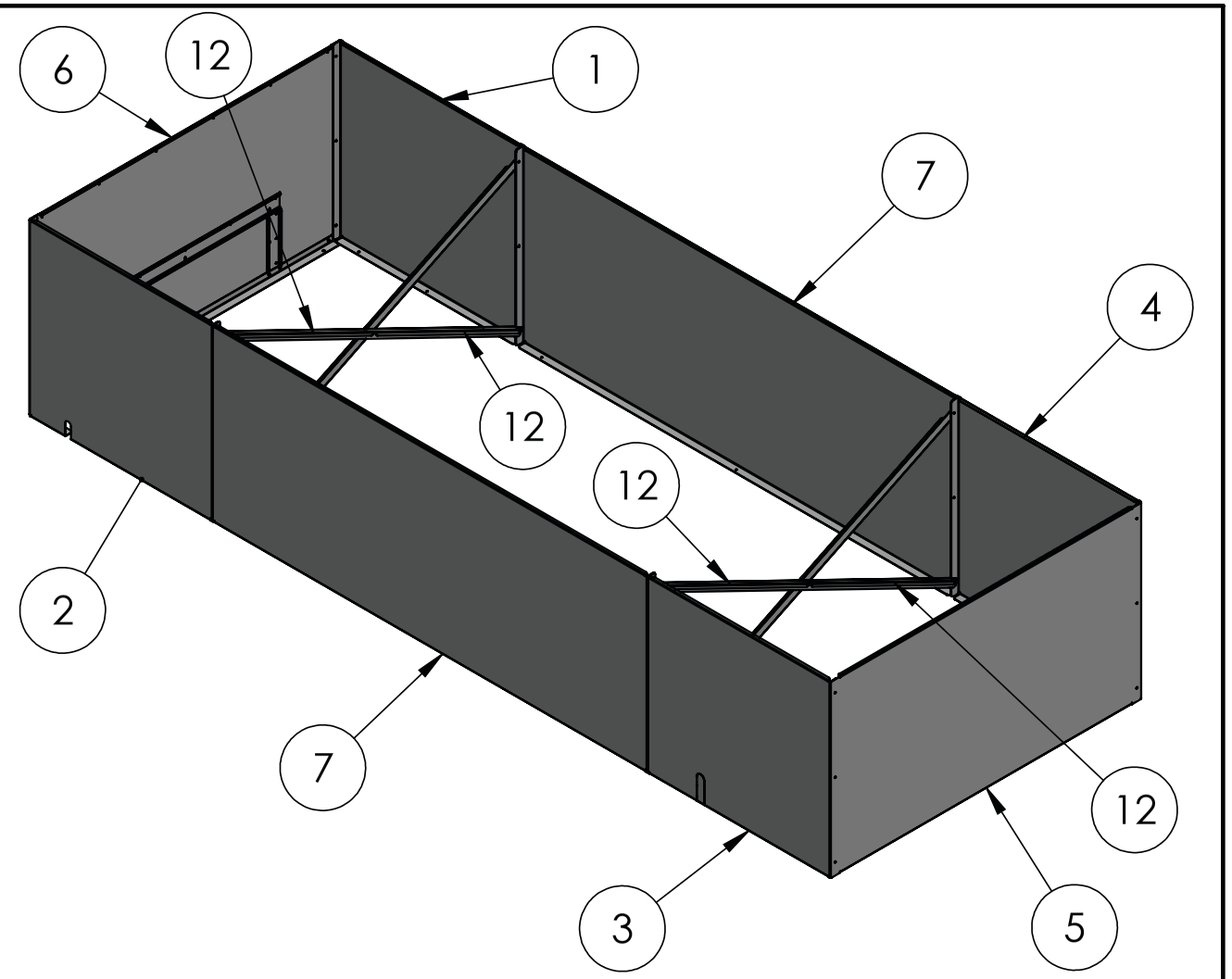
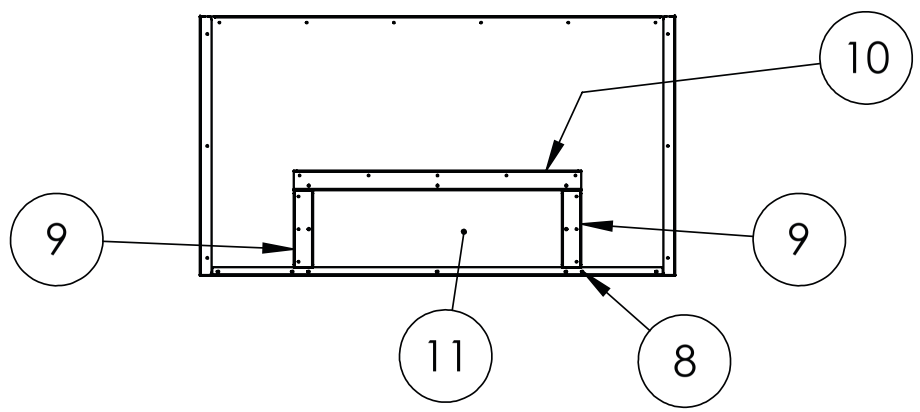
HOOD VALANCE

ITEM NO.	DESCRIPTION	QTY.
1	Hood Valance A	1
2	Hood Valance A1	1
3	Hood Valance A FS	1
4	Hood Valance A Flip	1
5	Hood Valance B	1
6	Hood Valance B Access Door	1
7	Hood Valance C Oven	2
8	Hood Valance Mounting Bracket	1
9	Hood Valance Access Panel Mount A	2
10	Hood Valance Access Panel Mount B	1
11	Hood Valance Access Panel	1
12	Hood Valence X Brace	4



INSIDE VIEW OF ACCESS DOOR END



REV.		DATE	APPROVED
B	GENERAL RELEASE	4/24/2025	
REV.	EDGE HOOD VALANCE: DIAGRAM	DATE	APPROVED
REVISION B			

MF&B Restaurant Systems Inc.
119 ICMI Rd, STE 300 Dunbar, PA 15431

MATERIAL:

FINISH:

DRAWN BY:

DATE CREATED: 2/29/2024

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THIRD ANGLE PROJECTION

UNITS: INCHES

UNLESS OTHERWISE SPECIFIED
TOLERANCES:
ANGLES: ±0.5°
ALL DIMENSIONS: ±0.005

Hood Valance Parts List

SHEET 1 OF 1 | SCALE: 1:20 | PART NUMBER: 505[100,101,102] | REV: B

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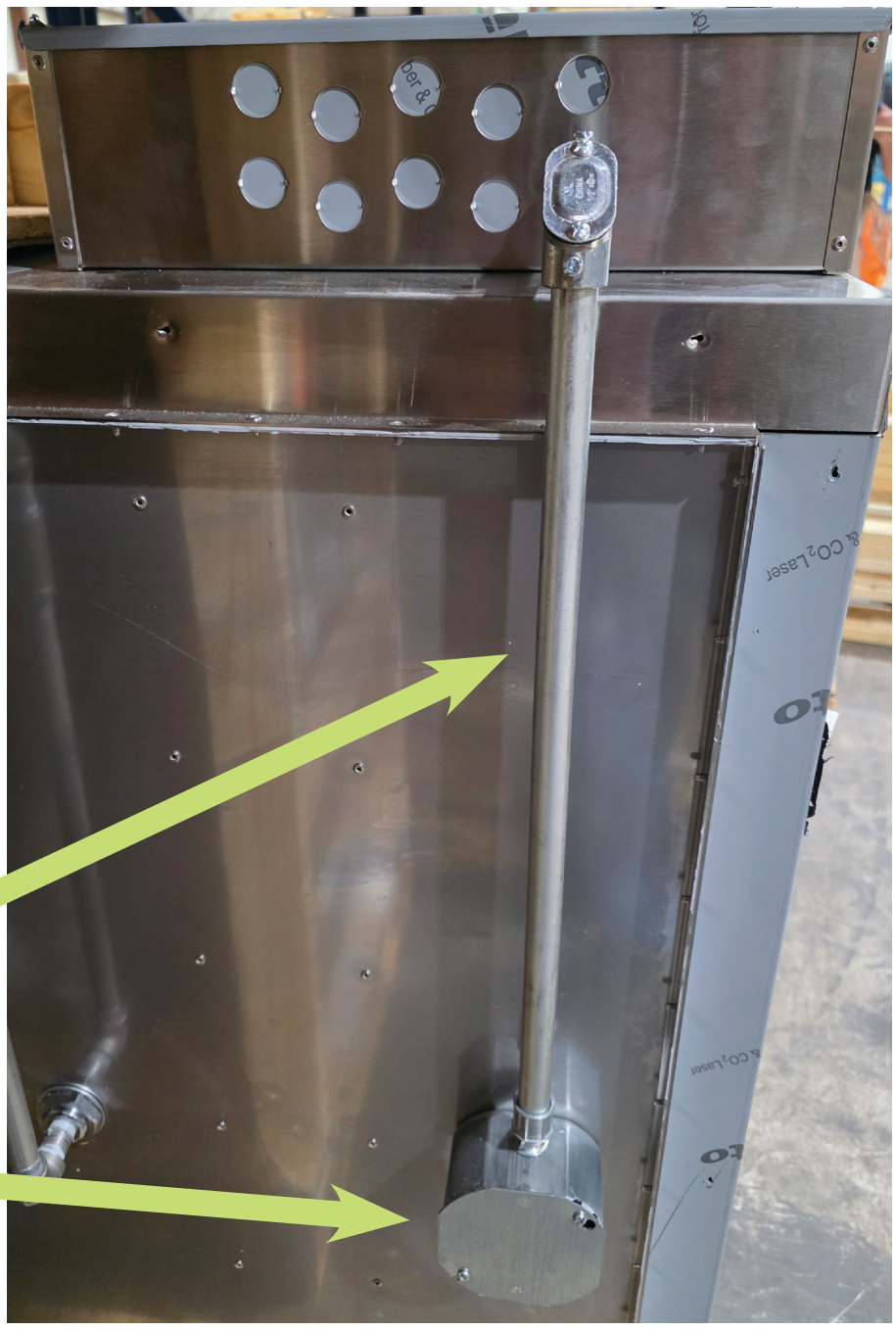
support@edgeovens.com

HOOD CONTROL LOCATION

As shipped, the EEC-23 Hood Control will be attached to the EEH-23 hood. This configuration is ideal for most users and suitable for most island oven installations. As with all equipment installations, LOCAL CODE PREVAILS. As needed, the EEC-23 Hood Control may be easily removed from the EEH-23 Hood and wall mounted to satisfy requirements.

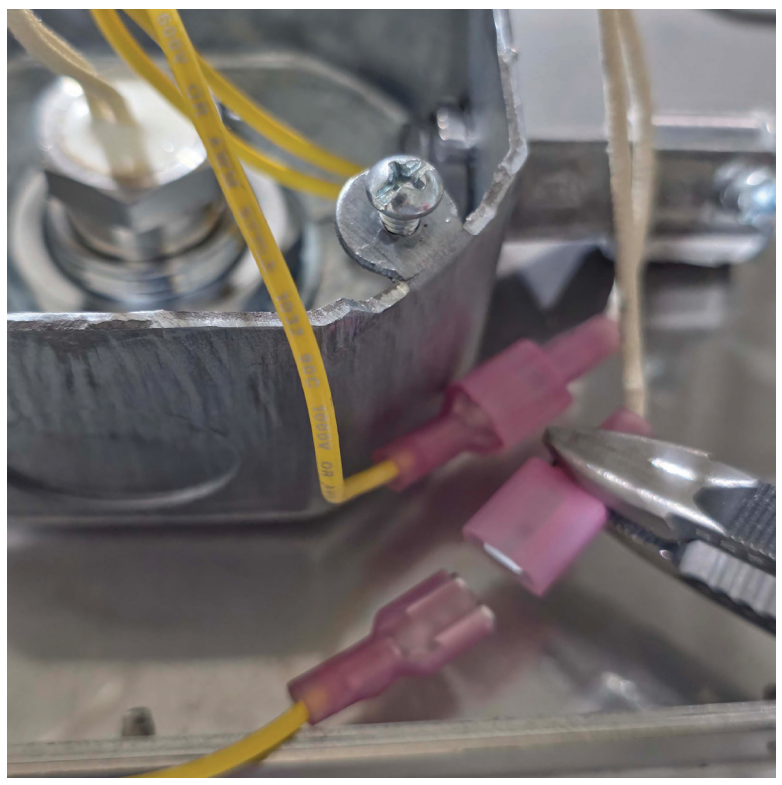
The Hood Control is mounted to the Hood by just (4) fasteners. Additionally, a single run of conduit is connected to convey the wires from the Thermal Switch (TS1) mounting in the Hood canopy to the Hood Control.

1/2” conduit is used to protect the connection wires of the canopy Temperature Switch. When relocating the Hood Control, additional 1/2” conduit will be required. For electrical safety, the conduit installation should be a continuously, connected metallic run to ensure adequate electrical bonding. The temperature switch wires may carry as much as 120Vac (model dependent). **Local electrical codes and / or NEC electrical practices must be followed.**



DISCONNECTION, REMOVAL AND RELOCATION OF HOOD CONTROL

1. Remove the (2) screws which secure the cover of the TS1 Junction Box. Using pliers for a secure grip, carefully unplug both spade terminals.
2. Remove the (4) screws which secure the cover of the Hood Control.
3. Gently pull the disconnected TS1 wire harness through the conduit and into your workspace.
4. This wire harness may be coiled and tied.



Connections made later to this harness during the relocation may be made using Male spade terminals or by removing the spade terminals and applying electrically approved connections, such are wire nuts or snap nuts.

Fitted electrical connections must not be within the conduit.

Remove the 1/2” conduit between the Hood Control and the TS1 Junction Box.

DISCONNECTION, REMOVAL AND RELOCATION OF HOOD CONTROL, (CONT.)

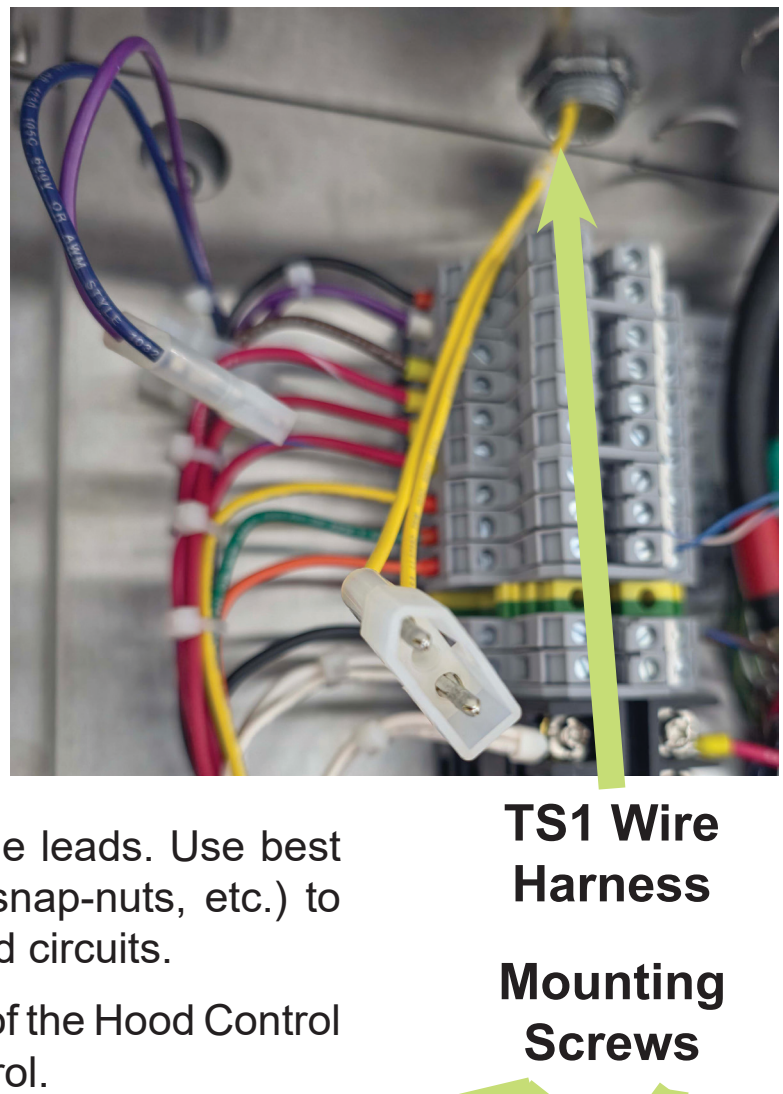
Locate the (4) mounting screws within the Hood Control. These screws must be removed to allow the Hood Control to be detached from the Hood. Use care to firmly support the Hood Control as the fasteners are removed.

Once removed, the Hood Control may now be fitted to the desired and structurally sound location.

Plumb 1/2” conduit appropriately for the canopy TS1 wiring. Using (2) conductors of at least 18AWG rated for 120VAC, connect the TS1 to the previously removed TS1 wire harness using electrically appropriate termination (wire nuts, snap-nuts, spade terminals, etc.).

The oven receptacles provided on the Hood Control may or may not be suitable, depending on the target installation area. In the event remote receptacles are needed, the remote receptacles shall be electrically connected and powered from the Hood Control receptacle leads. Use best practices and approved connection devices (wire nuts, snap-nuts, etc.) to connect the receptacle wires to the remote receptacle feed circuits.

Additional electrical knockouts are provided on the bottom of the Hood Control to allow a flexible wiring solution when relocating the control.



ELECTRICAL OVERVIEW, EEC-23-B

GENERAL ELECTRICAL TERMINALS

The EEC-23-B Hood Control is a single speed unit. The internal layout of the control box has (2) connection areas. There are low current and signal level connections on the left and high current connections on the right.

The left terminals are marked A ~ F and represent the following low current / signal levels:

A - *FIRE SIGNAL IN*: lands on the fire control unit, dry relay, COM. This 120V fire signal will be returned from the fire control relay when activated. No more than 2A of additional load (strobe / horn) shall be connected. **This terminal will be HOT (120VAC) during a fire event.**

B - *FIRE SIGNAL OUT*: a 120VAC feed from the EEC-23 control which shall land on fire control unit, dry relay, N.O. **No other source or device shall be connected in conjunction with the dry relay N.O. or with terminal B**. This terminal will be HOT at all times.

**The fire control, dry relay N.C. connection shall not to be used.*

C - *MUA CONTROL IN*: a signal or control voltage (typically 24VAC) from a MUA or HVAC system. This terminal will be HOT (? As wired ?) at all times.

D - *MUA SWITCHED OUT*: the switched voltage supplied by terminal C. This voltage shall land at the MUA or HVAC unit to initiate the operation of the MUA. Operation may be 'FAN', 'DAMPER' or otherwise.

E - *EXHAUST FAN 0-10v +*: a control voltage used to remotely adjust the speed of the exhaust fan, thereby increasing or decreasing the exhaust flow of the hood. This is the POSITIVE or V+ signal. During a fire event, this terminal will output 10V +.

F - *EXHAUST FAN 0-10v -*: the NEGATIVE or V- portion of the signal delivered by terminal E. When remote, exhaust fan, speed control is utilized, terminals E and F both shall land on the appropriate terminals within the exhaust fan local control unit.

The right terminals are marked 1 ~ 10 and represent the following high current voltages:

1 - *SYSTEM LINE*: a 20A, dedicated, 120VAC branch feed. This feed will power all nested functions of the EEC-23 control .

2 - *SYSTEM NEUTRAL*: a 20A, dedicated, neutral branch feed.

3 - *TOP RECEPTACLE LINE*: a 20A, dedicated, 120VAC branch feed. This feed will power the top receptacle of the EEC-23 control.

4 - *TOP RECEPTACLE NEUTRAL*: a 20A, dedicated, neutral branch feed.

5 - *MIDDLE RECEPTACLE LINE*: a 20A, dedicated, 120VAC branch feed. This feed will power the middle receptacle of the EEC-23 control.

6 - *MIDDLE RECEPTACLE NEUTRAL*: a 20A, dedicated, neutral branch feed.

7 - *BOTTOM RECEPTACLE LINE*: a 20A, dedicated, 120VAC branch feed. This feed will power the bottom receptacle of the EEC-23 control.

8 - *BOTTOM RECEPTACLE NEUTRAL*: a 20A, dedicated, neutral branch feed.

9 - *EXHAUST FAN LINE OUT*: a 12A, dedicated, 120VAC switched OUTPUT. This output shall be the sole LINE supply to the exhaust fan. **THIS IS NOT A BRANCH INPUT.** This terminal shall be used to land the 120VAC LINE wire of the exhaust fan. NO OTHER SOURCE OR DEVICE SHALL BE CONNECTED.

10 - *EXHAUST FAN NEUTRAL OUT*: a 12A, dedicated, neutral OUTPUT. This output shall be the sole NEUTRAL supply to the exhaust fan. **THIS IS NOT A BRANCH INPUT.** This terminal shall be used to land the AC NEUTRAL wire of the exhaust fan. NO OTHER SOURCE OR DEVICE SHALL BE CONNECTED.

ELECTRICAL OVERVIEW, EEC-23-B (CONT.)

GENERAL ELECTRICAL TERMINALS

**The LINE and NEUTRAL of a branch circuit BOTH carry the full current of the connected load. Please follow best practices as determined by the NEC or local codes.*

**NEITHER THE CONTROL, NOR THE RECEPTACLES SHALL SHARE A NEUTRAL FEED. EACH MUST BE DEDICATED.*

SPECIAL ELECTRICAL, FIRE MODE - FAN OFF, EEC-23-B (Basic)

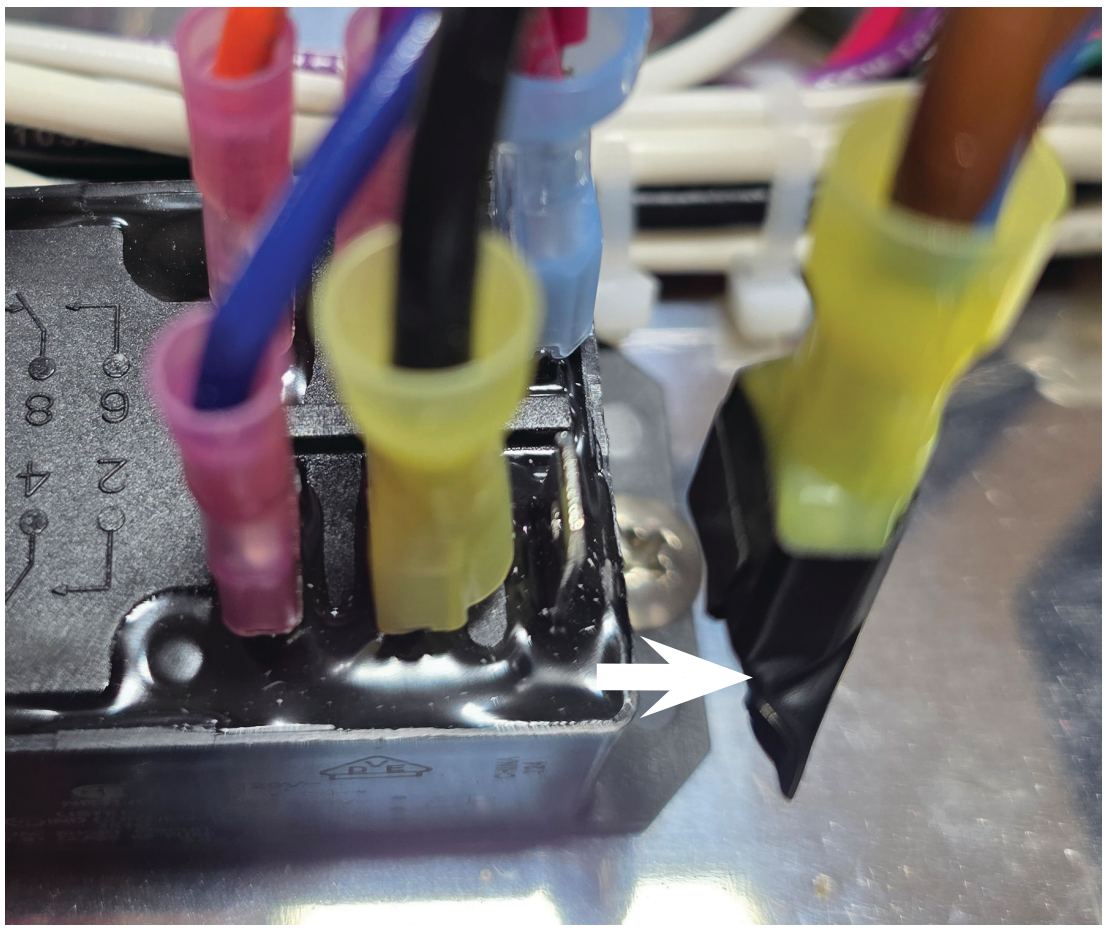
By default, an active fire response signal, on terminal A, will activate the exhaust fan (100%), deactivate the MUA, and de-energize the oven receptacles.

IF LOCAL CODE REQUIRES 0% EXHAUST (FAN OFF) during a fire event, you may satisfy this installation requirement as follows:

Locate R2 (reference the wiring diagram or simple diagram on the following page)

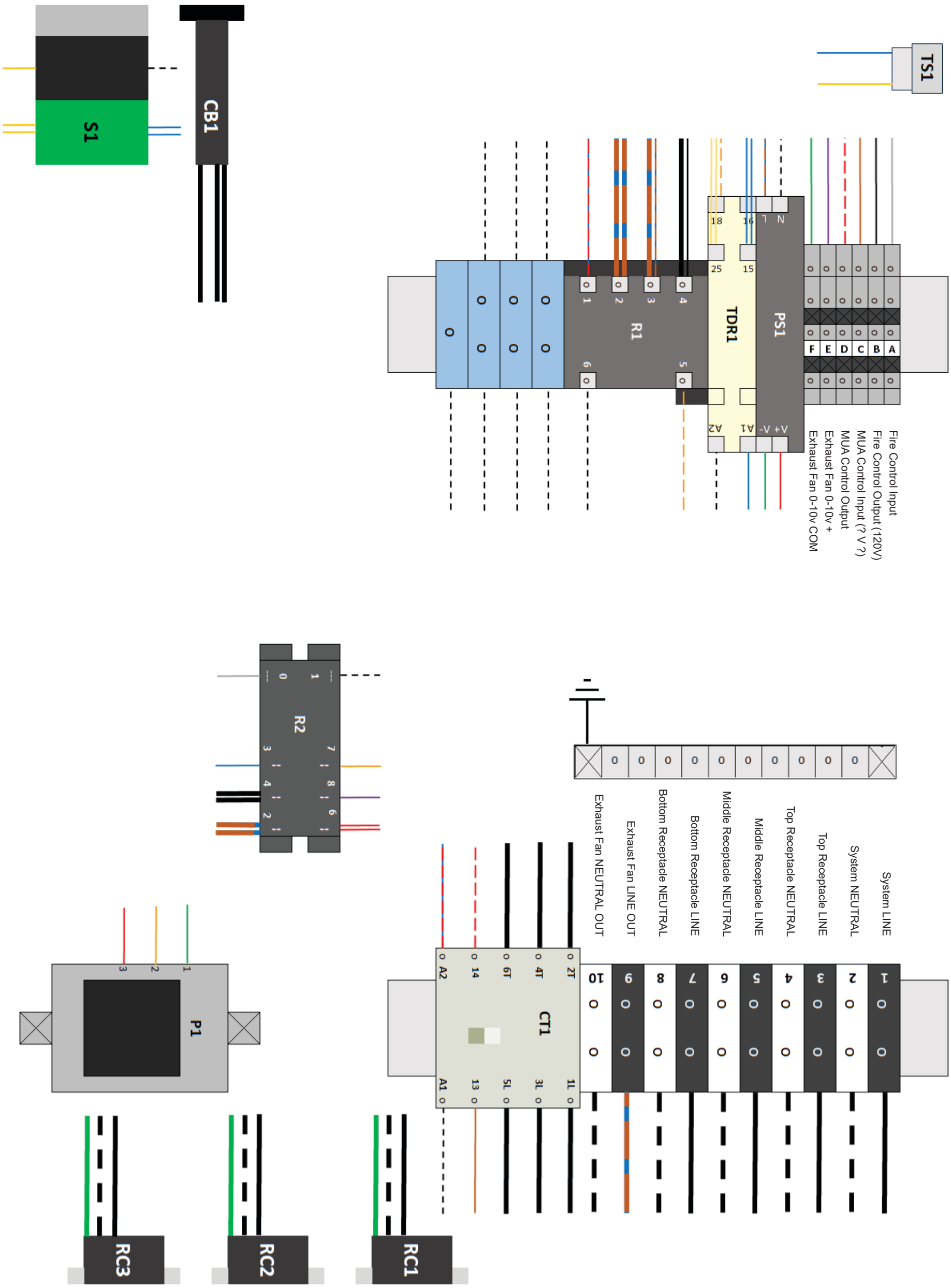
Remove and secure the spade terminal on R2, terminal 2 (BROWN / BLUE wires).

Place electrical tape over the end of the spade terminal to ensure safety.



ELECTRICAL COMPONENT LAYOUT, EEC-23-B

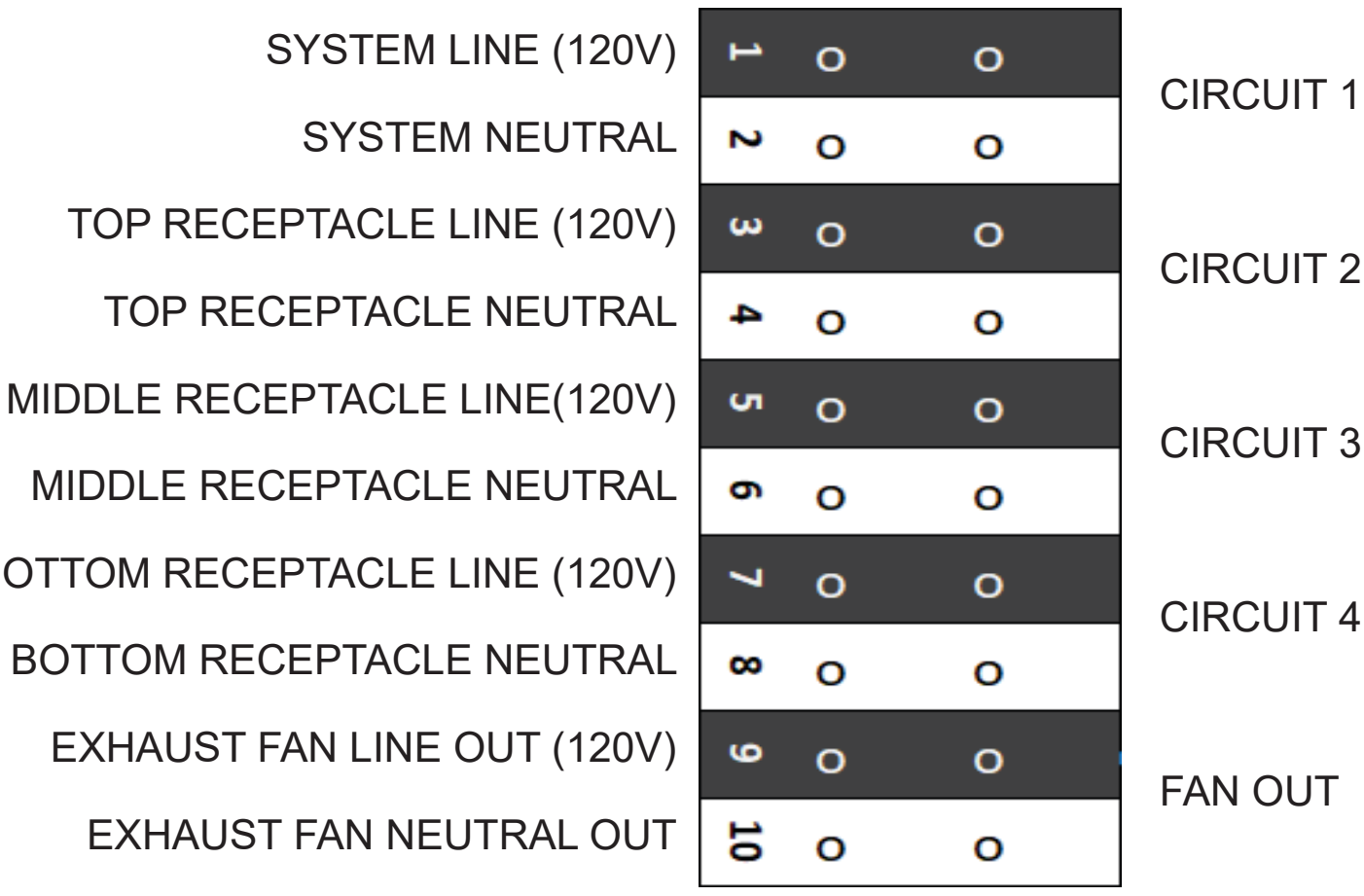
Simple Diagram



WIRING INSTRUCTIONS, EEC-23-B

Apply 1/2” box connectors to each used knockout. Install caps on any unused, removed knockouts. Refer to the Electrical Specification for details of wire AWG and the torque specifications of the terminals. Appropriate bonding, electrical and termination practices are required. LOCAL CODE PREVAILS over general provisions.

MAINS / FAN CONNECTIONS

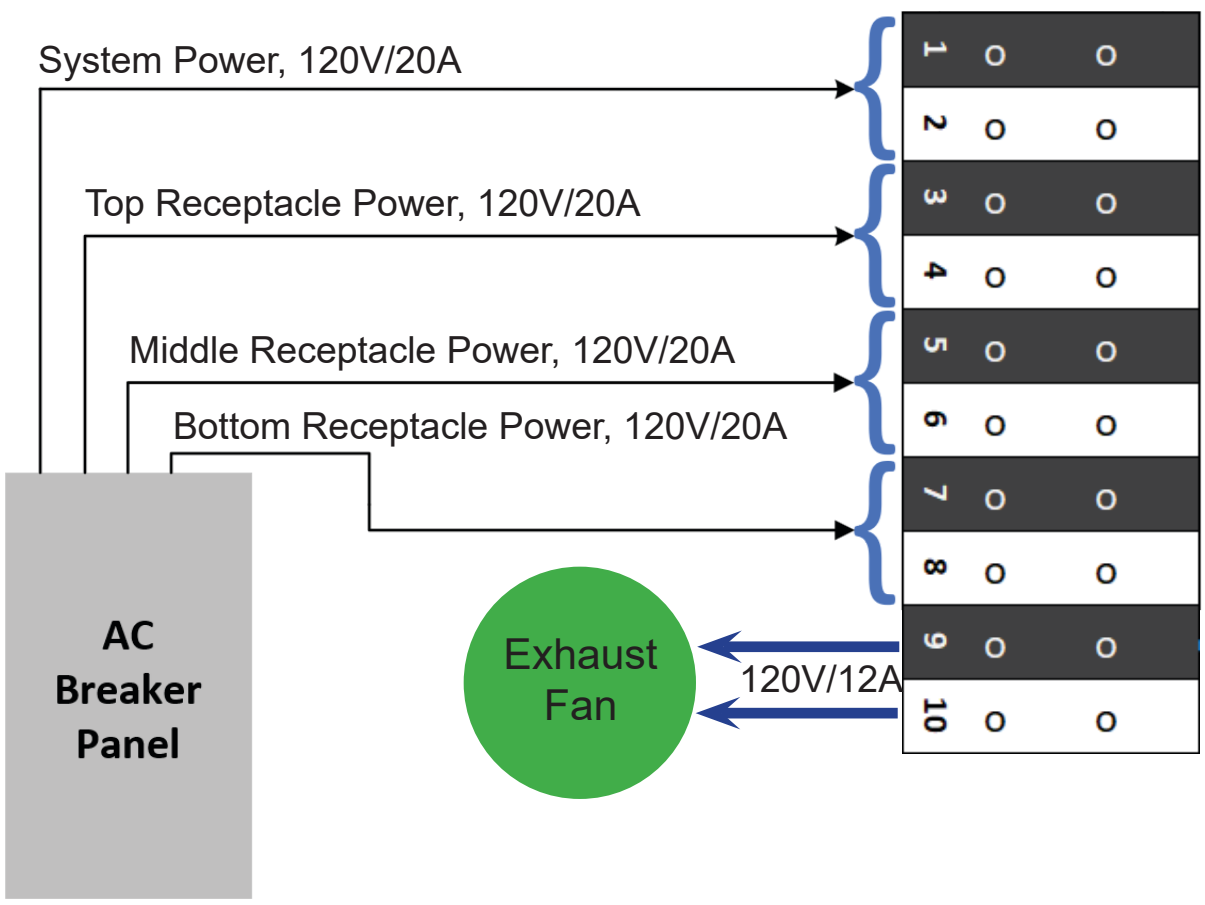


All 120V circuits connected to the EEC-23 system must be protected by discrete, dedicated 20A breakers and must have a dedicated neutral. ***All*** *GROUND termination should be made to the GROUND BAR.*

120VAC shall be supplied by a dedicated 20A branch circuit and land on terminals **1** and **2**. This branch circuit supplies MAINS power to the EEC-23 control, the Exhaust Fan, and Fire Relay circuit.

120VAC shall be supplied by a dedicated 20A branch circuit for EACH OVEN RECEPTACLE CIRCUIT. Landing for these branch circuits shall be terminals **3** and **4**, **5** and **6**, **7** and **8**, respectively.

Exhaust Fan, MAINS OUT, shall land on terminals **9** and **10**. These electrical connections shall be the sole 120VAC operating supply to the Extraction Fan. ***OVERLOAD DAMAGE IS NOT WARRANTIED***



WIRING INSTRUCTIONS, EEC-23-B (CONT.)

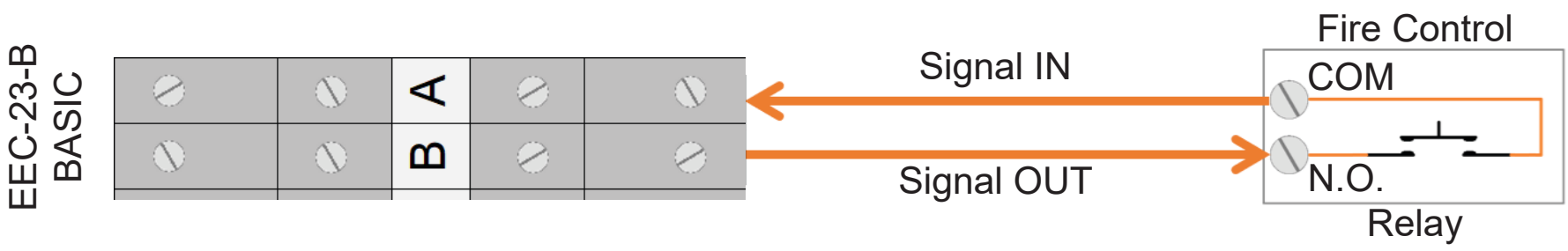
FIRE SUPPRESSION, MUA, AND EXHAUST FAN CONTROL

FIRE MODE IN, FROM F.S. RELAY (COM)
FIRE MODE OUT, 120V TO F.S. RELAY (N.O.)
MUA CONTROL IN
MUA CONTROL OUT
EXHAUST FAN CONTROL 0-10V+ OUT
EXHAUST FAN CONTROL 0-10V - OUT

The EEC-23 control provides a 120VAC source signal from terminal B and is only intended for use with a N.O. (dry contact) relay within the fire system. The returned “active” signal is received on terminal A, activating the extraction fan (default), drives the exhaust fan control signal to 100%, deactivates the MUA switching on C / D, and de-energizes the oven receptacles.

The total load on terminal A shall not exceed 2A or the rating of the N.O. fire relay, whichever is the lesser. **The fire relay, N.C. lead shall remain unused**.

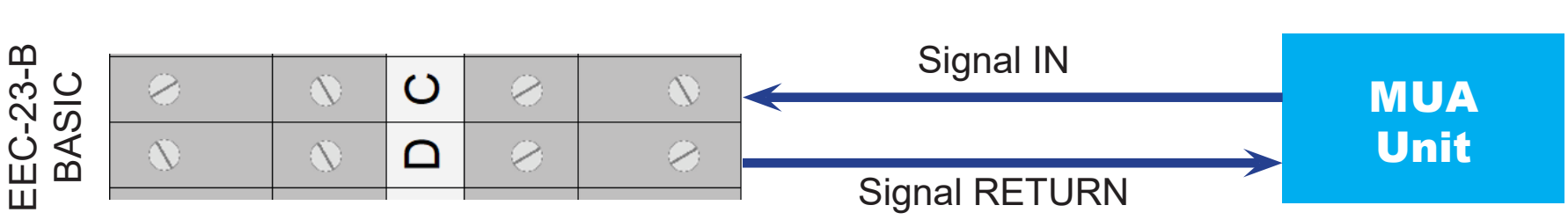
Do NOT connect terminals A or B to any powered, live source.



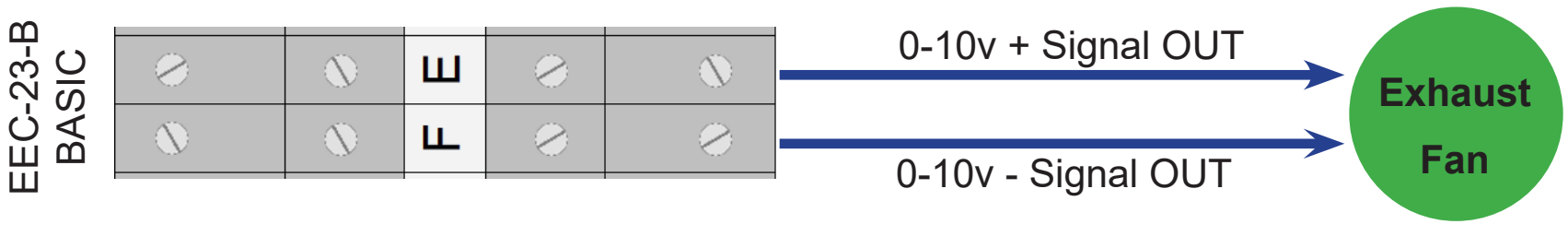
MUA switching is provided by the C & D terminals. A control voltage is applied to terminal C and will be returned on terminal D when the system is normally activated. The switching load shall not exceed 5A.

The approach used to meet MUA requirements varies greatly with each customer installation. In the basic form, a 24V signal is switched back to a MUA unit which will respond with an ON state.

Other installations may draw additional outside air into an HVAC system. This installation may utilize a 24V signal (Red Wire) and return the signal to the HVAC fan circuit (Green Wire). Additional wiring considerations may be required. **Consult a qualified HVAC specialist for specific requirements related to your MUA system.**



Remote adjustment of the exhaust fan is possible using the adjustable potentiometer “00” - “99”. To include this feature in your installation, the compatible exhaust fan control signal must be connected to the E and F terminals. This feature also provides a 100% ON rate during a fire event. Terminal E is the POSITIVE or +, Terminal F is the NEGATIVE or -. These terminals must ONLY be connected to a 0-10v exhaust fan motor INPUT.



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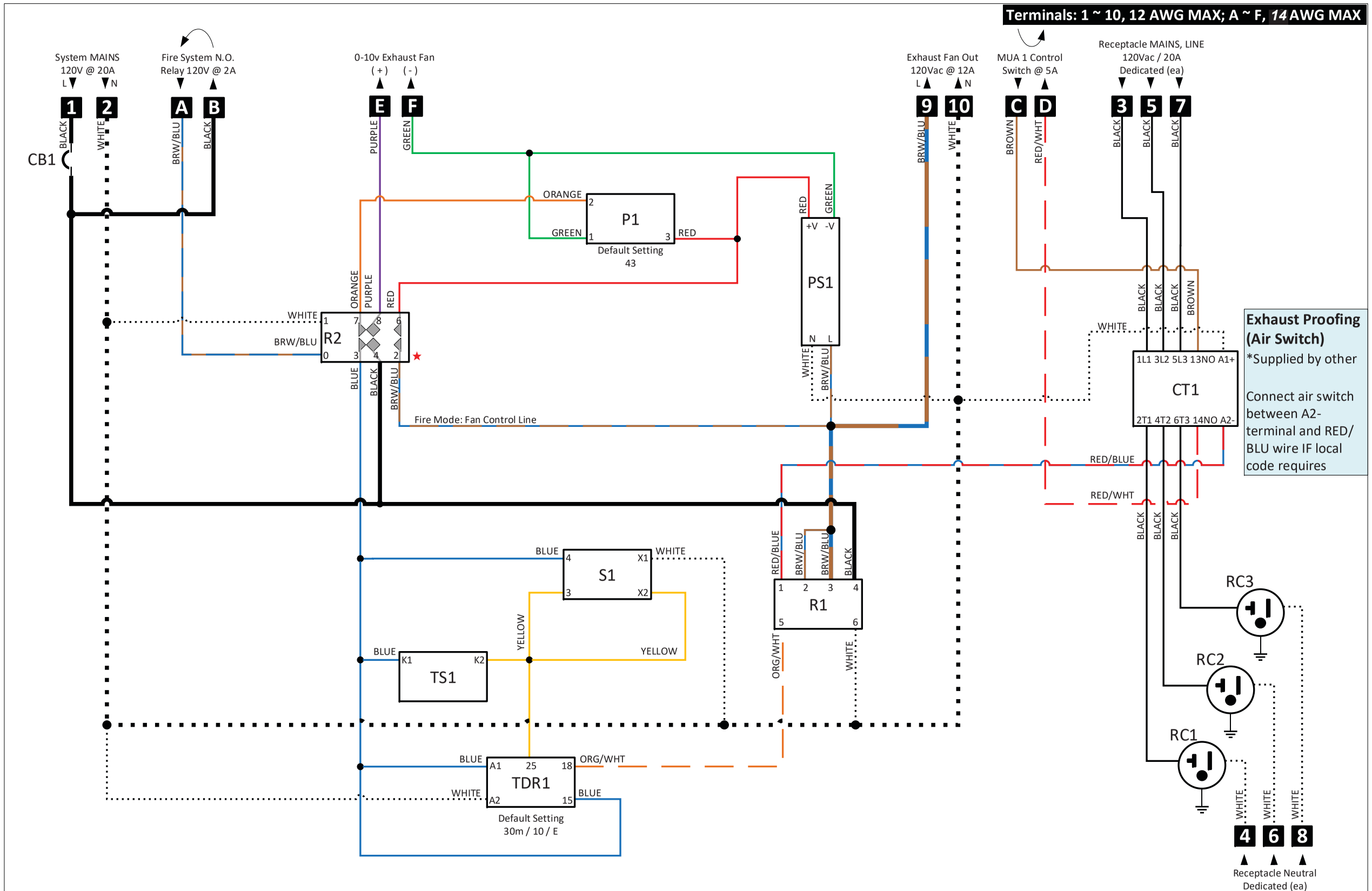
WIRING DIAGRAM, EEC-23-B



EDGE OVENS

EDGE Extraction Control
Model: EEC-23-B
120V/60/1
01/02/2025, rev 1.6
CD-942-201-6

MF&B RESTAURANT SYSTEMS, INC. | DBA: EDGE Ovens
119 ICMI RD STE 300, DUNBAR PA 15431 USA | 888-480-EDGE
www.edgeovens.com

ID	*Description*					★ **R2, Terminal 2**
CB1	Circuit Breaker, 15A	R1	Normal Mode Relay	S1	Main Switch: 120Vac	Connected **Fire Mode, Fan ON**
CT1	Normal Mode Contactor	R2	Fire Mode Relay	TDR1	Time Delay Relay: 30m,10,E	
P1	Fan Setpoint Potentiometer	RC1	Receptacle 1, Bottom	TS1	Temperature Switch: 110F	Disconnected **Fire Mode, Fan OFF**
PS1	Power Supply @ 10vdc	RC2	Receptacle 2, Bottom			
		RC3	Receptacle 3, Bottom			

ELECTRICAL OVERVIEW, EEC-23-A

GENERAL ELECTRICAL TERMINALS, EEC-23-A (ADVANCED)

The EEC-23-A Hood Control is a multi-speed unit. The internal layout of the control box has (2) connection areas. There are low current and signal level connections on the left and high current connections on the right.

The left terminals are marked A ~ L and represent the following low current / signal levels:

A - *FIRE SIGNAL IN*: lands on the fire control unit, dry relay, COM. This 120V fire signal will be returned from the fire control relay when activated. No more than 2A of additional load (strobe / horn) shall be connected. **This terminal will be HOT (120VAC) during a fire event.**

B - *FIRE SIGNAL OUT*: a 120VAC feed from the EEC-23 control which shall land on fire control unit, dry relay, N.O. **No other source or device shall be connected in conjunction with the dry relay N.O. or with terminal B**. This terminal will be HOT at all times.

**The fire control, dry relay N.C. connection shall not to be used.*

C - *MUA 1 CONTROL IN*: a signal or control voltage (typically 24VAC) from a MUA or HVAC system. This terminal will be HOT (? As wired ?) at all times.

D - *MUA 1 SWITCHED OUT*: the switched voltage supplied by terminal C. This voltage shall land at the MUA or HVAC unit to initiate the operation of the MUA. Operation may be 'FAN', 'DAMPER' or otherwise. Correlates to TOP receptacle use.

E - *MUA 2 CONTROL IN*: a signal or control voltage (typically 24VAC) from a MUA or HVAC system. This terminal will be HOT (? As wired ?) at all times.

F - *MUA 2 SWITCHED OUT*: the switched voltage supplied by terminal E. This voltage shall land at the MUA or HVAC unit to initiate the operation of the MUA. Operation may be 'FAN', 'DAMPER' or otherwise. Correlates to MIDDLE receptacle use. *Activation of MUA2 will activate MUA 1

G - *MUA 3 CONTROL IN*: a signal or control voltage (typically 24VAC) from a MUA or HVAC system. This terminal will be HOT (? As wired ?) at all times.

H - *MUA 3 SWITCHED OUT*: the switched voltage supplied by terminal G. This voltage shall land at the MUA or HVAC unit to initiate the operation of the MUA. Operation may be 'FAN', 'DAMPER' or otherwise. Correlates to BOTTOM receptacle use. *Activation of MUA3 will activate MUA 1 & MUA 2

I - *MUA 0-10v +*: a control voltage used to remotely adjust the MUA level, thereby increasing or decreasing the make-up-air provided. This is the POSITIVE or V+ signal.

J - *MUA 0-10v -*: the NEGATIVE or V- portion of the signal delivered by terminal I. When remote, MUA level control is utilized, terminals I and J shall both land on the appropriate terminals within the MUA control unit.

K - *EXHAUST FAN 0-10v +*: a control voltage used to remotely adjust the speed of the exhaust fan, thereby increasing or decreasing the exhaust flow of the hood. This is the POSITIVE or V+ signal. During a fire event, this terminal will output 10V +.

L - *EXHAUST FAN 0-10v -*: the NEGATIVE or V- portion of the signal delivered by terminal K. When remote, exhaust fan, speed control is utilized, terminals K and L shall both land on the appropriate terminals within the exhaust fan local control unit.

The right terminals are marked 1 ~ 10 and represent the following high current voltages:

1 - *SYSTEM LINE*: a 20A, dedicated, 120VAC branch feed. This feed will power all nested functions of the EEC-23 control .

2 - *SYSTEM NEUTRAL*: a 20A, dedicated, neutral branch feed.

3 - *TOP RECEPTACLE LINE*: a 20A, dedicated, 120VAC branch feed. This feed will power the top receptacle of the EEC-23 control.

GENERAL ELECTRICAL TERMINALS, EEC-23-A (ADVANCED) (CONT.)

4 - *TOP RECEPTACLE NEUTRAL*: a 20A, dedicated, neutral branch feed.

5 - *MIDDLE RECEPTACLE LINE*: a 20A, dedicated, 120VAC branch feed. This feed will power the middle receptacle of the EEC-23 control.

6 - *MIDDLE RECEPTACLE NEUTRAL*: a 20A, dedicated, neutral branch feed.

7 - *BOTTOM RECEPTACLE LINE*: a 20A, dedicated, 120VAC branch feed. This feed will power the bottom receptacle of the EEC-23 control.

8 - *BOTTOM RECEPTACLE NEUTRAL*: a 20A, dedicated, neutral branch feed.

9 - *EXHAUST FAN LINE*: a 12A, dedicated, 120VAC switched OUTPUT. This output shall be the sole LINE supply to the exhaust fan. **THIS IS NOT A BRANCH INPUT.** This terminal shall be used to land the 120VAC LINE wire of the exhaust fan. NO OTHER SOURCE OR DEVICE SHALL BE CONNECTED.

10 - *EXHAUST FAN NEUTRAL*: a 12A, dedicated, neutral OUTPUT. This output shall be the sole NEUTRAL supply to the exhaust fan. **THIS IS NOT A BRANCH INPUT.** This terminal shall be used to land the AC NEUTRAL wire of the exhaust fan. NO OTHER SOURCE OR DEVICE SHALL BE CONNECTED.

**The LINE and NEUTRAL of a branch circuit BOTH carry the full current of the connected load. Please follow best practices as determined by the NEC or local codes.*

**NEITHER THE CONTROL, NOR THE RECEPTACLES SHALL SHARE A NEUTRAL FEED. EACH MUST BE DEDICATED.*

SPECIAL ELECTRICAL, FIRE MODE - FAN OFF, EEC-23-A (Advanced)

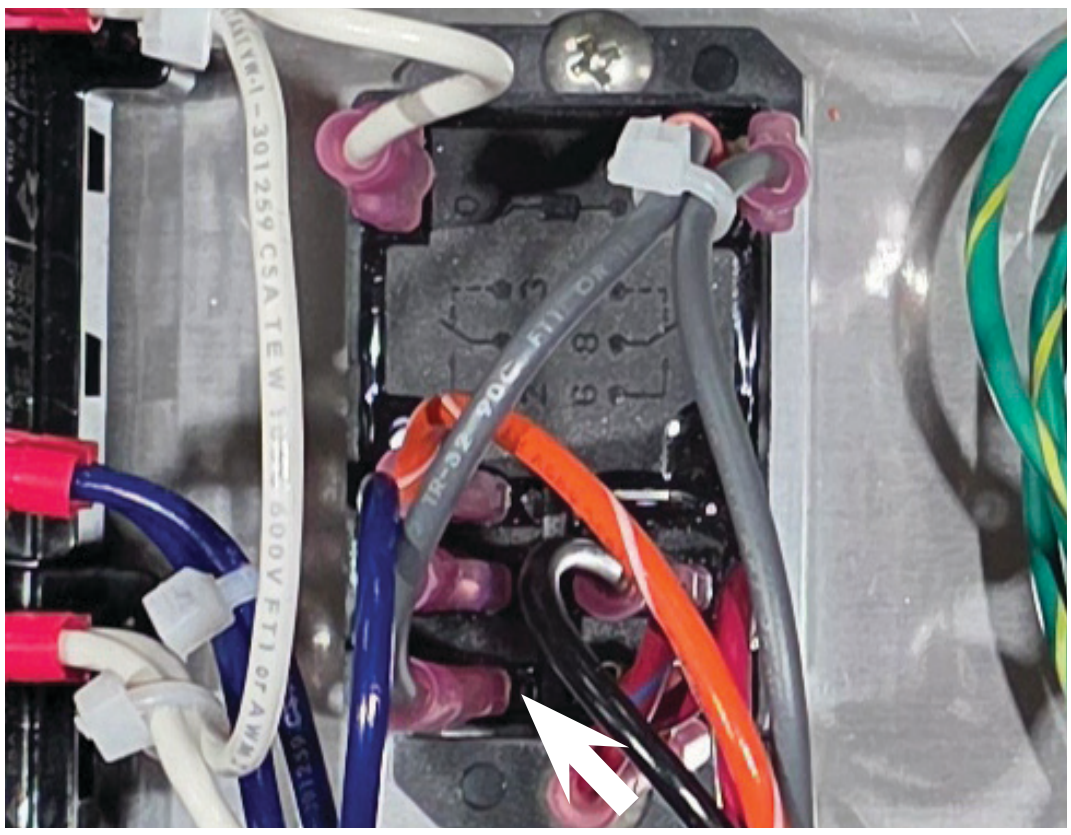
By default, an active fire response signal on terminal A will activate the exhaust fan (100%), deactivate the MUA, and de-energize the oven receptacles.

IF LOCAL CODE REQUIRES 0% EXHAUST (FAN OFF) during a fire event, you may satisfy this installation requirement as follows:

Locate R2 (reference the wiring diagram or simple diagram on the following page)

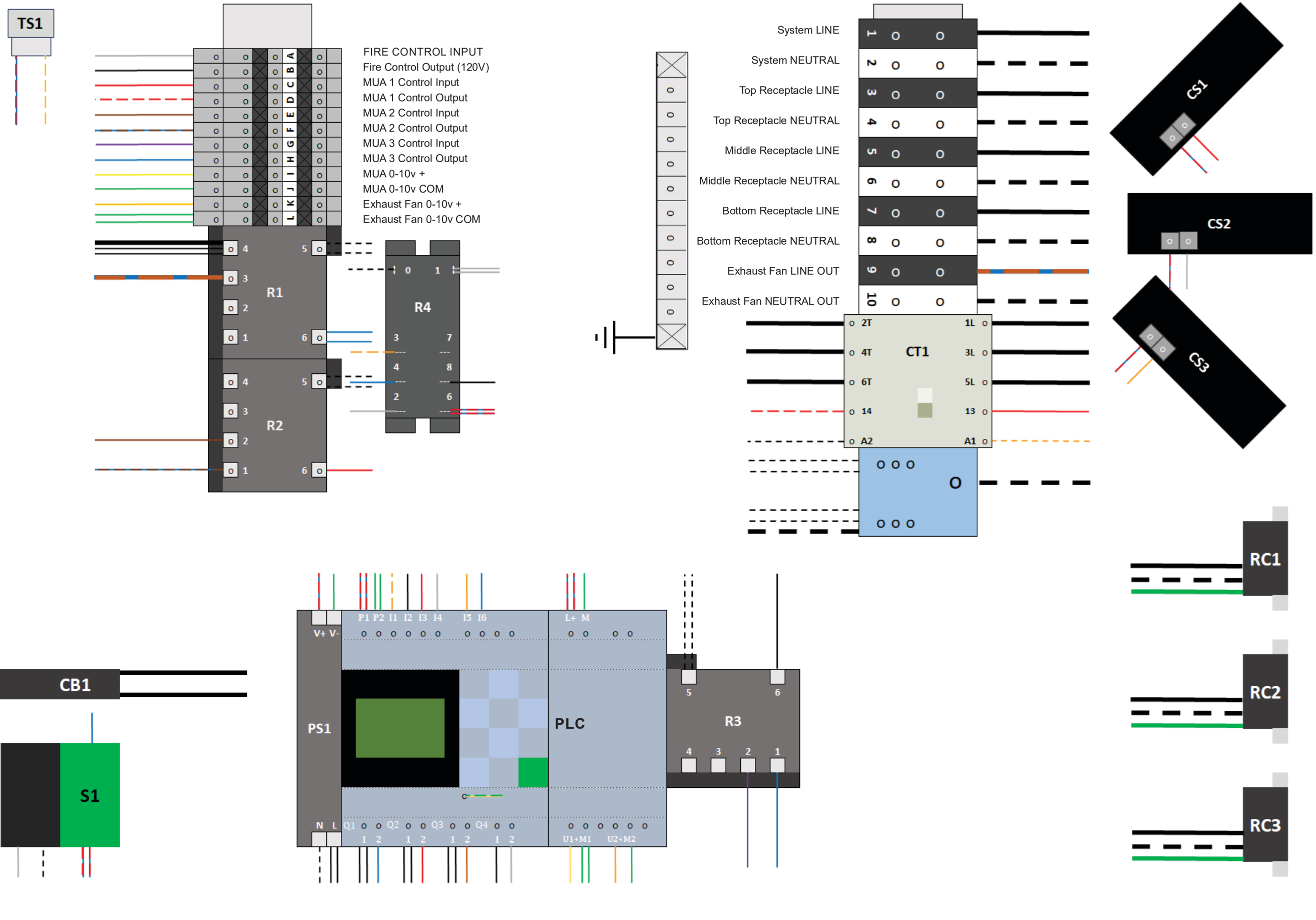
Remove and secure the spade terminal on R2, terminal 2 (GRAY ‘jumper’ wire).

*Note: As terminated, the GRAY jumper may be completely removed if desired.



GENERAL ELECTRICAL LAYOUT, EEC-23-A (Advanced) Cont.

Simple Diagram



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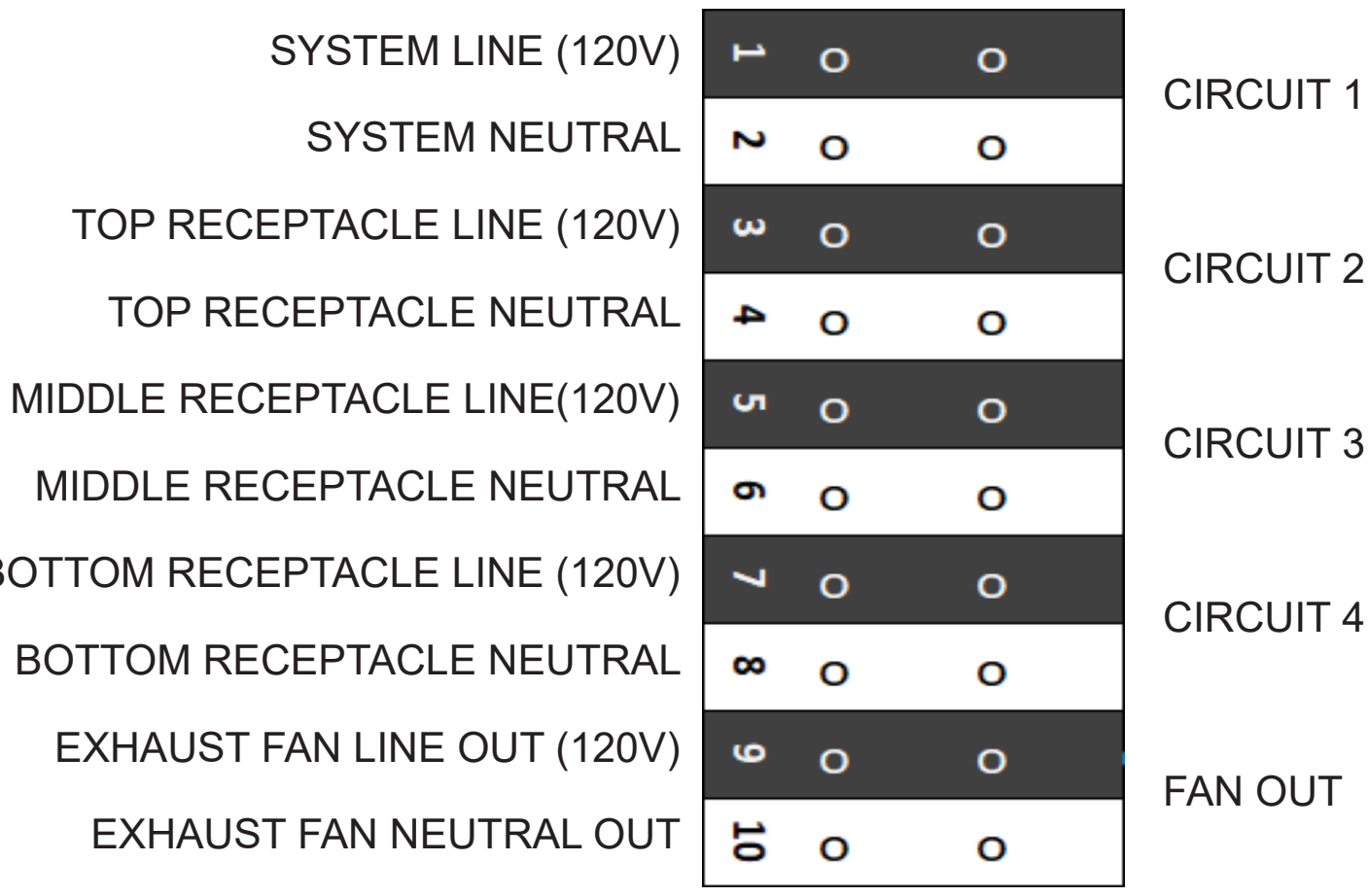
WIRING INSTRUCTIONS, EEC-23-A

Apply 1/2” box connectors to each used knockout. Install caps on any unused, removed knockouts. Refer to the Electrical Specification for details of wire AWG and the torque specifications of the terminals. Appropriate bonding, electrical and termination practices are required. LOCAL CODE PREVAILS over general provisions.

MAINS / FAN CONNECTIONS

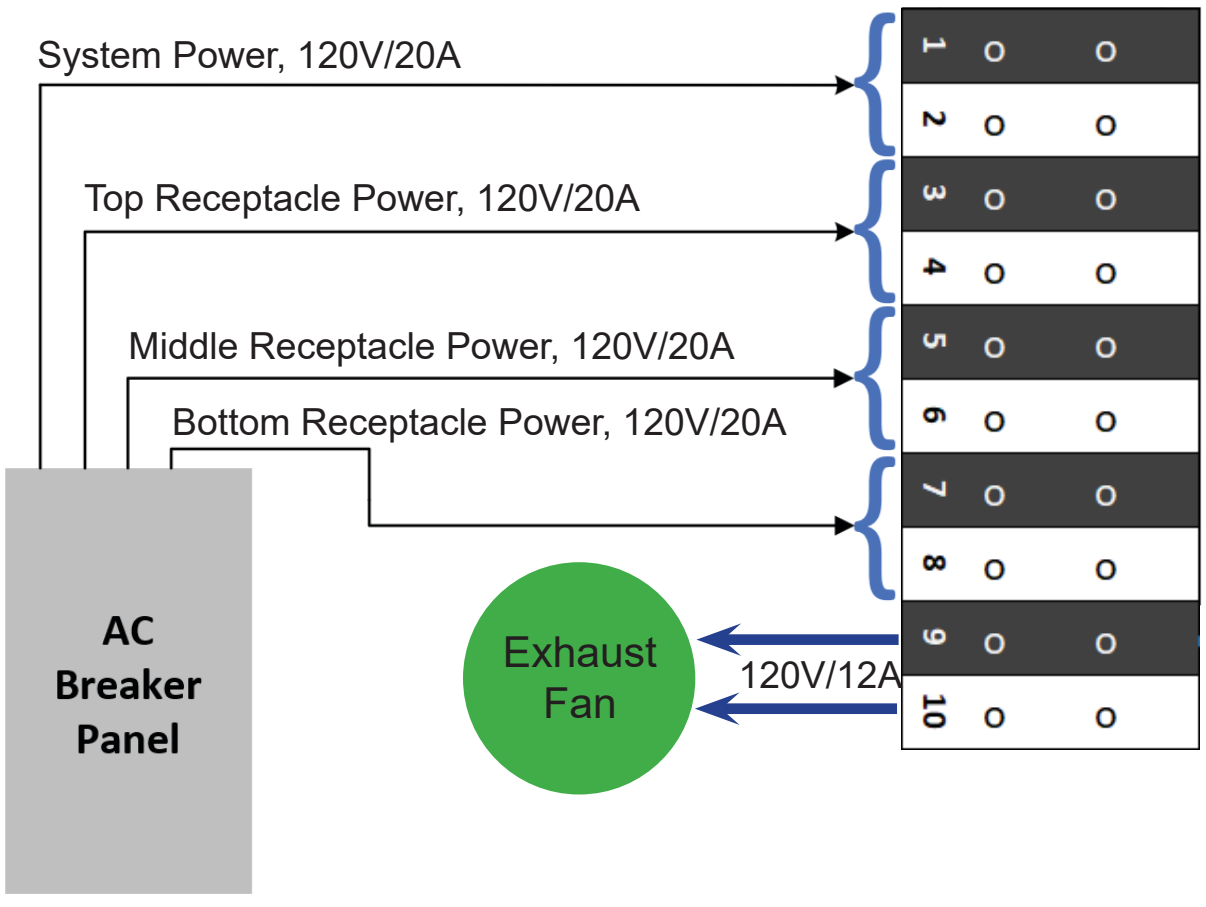


All 120V circuits connected to the EEC-23 system must be protected by discrete, dedicated 20A breakers and must have a dedicated neutral. ***All*** *GROUND termination should be made to the GROUND BAR.*

120VAC shall be supplied by a dedicated 20A branch circuit and land on terminals **1** and **2**. This branch circuit supplies MAINS power to the EEC-23 control, the Exhaust Fan, and Fire Relay circuit.

120VAC shall be supplied by a dedicated 20A branch circuit for EACH OVEN RECEPTACLE CIRCUIT. Landing for these branch circuits shall be terminals **3** and **4**, **5** and **6**, **7** and **8**, respectively.

Exhaust Fan, MAINS OUT, shall land on terminals **9** and **10**. These electrical connections shall be the sole 120VAC operating supply to the Extraction Fan. ***OVERLOAD DAMAGE IS NOT WARRANTIED***



WIRING INSTRUCTIONS, EEC-23-A (CONT.)

FIRE SUPPRESSION, MUA, AND EXHAUST FAN CONTROL

EEC-23-A ADVANCED

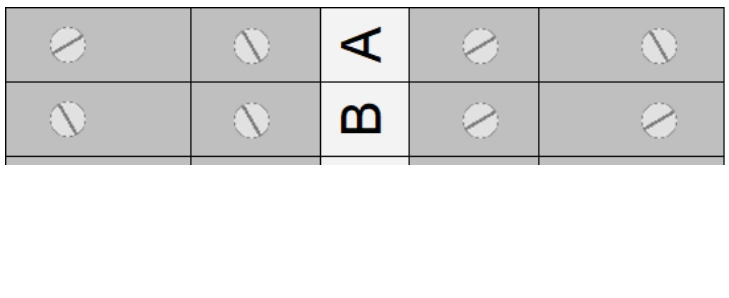
FIRE MODE IN, FROM F.S. RELAY (COM)
FIRE MODE OUT, 120V TO F.S. RELAY (N.O.)
MUA 1 CONTROL IN
MUA 1 CONTROL OUT
MUA 2 CONTROL IN
MUA 2 CONTROL OUT
MUA 3 CONTROL IN
MUA 3 CONTROL OUT
MUA 0-10v+ OUT
MUA 0-10v- OUT
EXHAUST FAN 0-10V+ OUT
EXHAUST FAN 0-10V - OUT

The EEC-23 control provides a 120VAC source signal from terminal B and is only intended for use with a N.O. (dry contact) relay within the fire system. The returned “active” signal is received on terminal A, activating the extraction fan (default), drives the exhaust fan control signal to 100%, deactivates the MUA switching on C / D, E / F, G / H and de-energizes the oven receptacles.

The total load on terminal A shall not exceed 2A or the rating of the N.O. fire relay, whichever is the lesser. **The fire relay, N.C. lead shall remain unused**.

Do NOT connect terminals A or B to any powered, live source.

EEC-23-A ADVANCED



MUA switching is provided by (3) sets of switching terminals: C & D terminals for MUA 1, E & F terminals for MUA 2, and G & H terminals for MUA 3. These switching terminals are additive and are applied depending on which receptacle(s) are in use. For simplicity, these terminals may be realized as (1)low, (2)medium, and (3)high. If MUA 2 is active, so shall MUA 1. If MUA 3 is active, so shall MUA 1 & MUA 2.

MUA may be a damper, MUA unit, or other adaption which may be commanded to an ON state.

The approach used to meet MUA requirements varies greatly with each customer installation. In the basic form, a 24V signal is switched back to a MUA unit which will respond with an ON state.

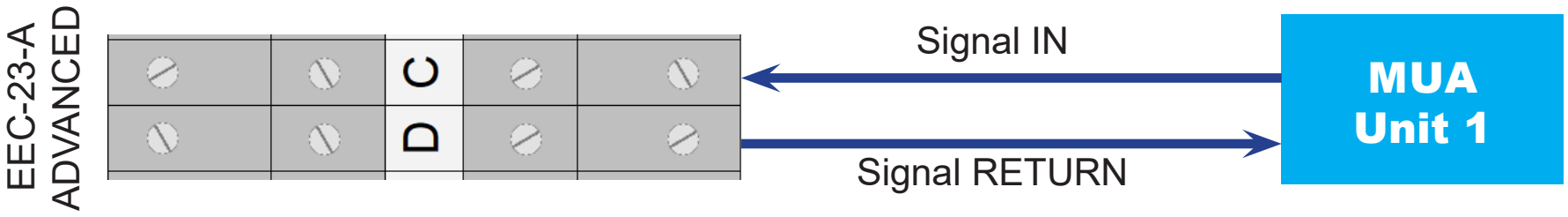
Other installations may draw additional outside air into an HVAC system. This installation may utilize a 24V signal (Red Wire) and return the signal to the HVAC fan circuit (Green Wire). Additional wiring considerations may be required. **Consult a qualified HVAC specialist for specific requirements related to your MUA system.**

In addition to standard MUA signal switching, the EEC-23-A also provides a dynamic analog output. This output is to be used with compatible MUA systems which accept 0-10v control signals.

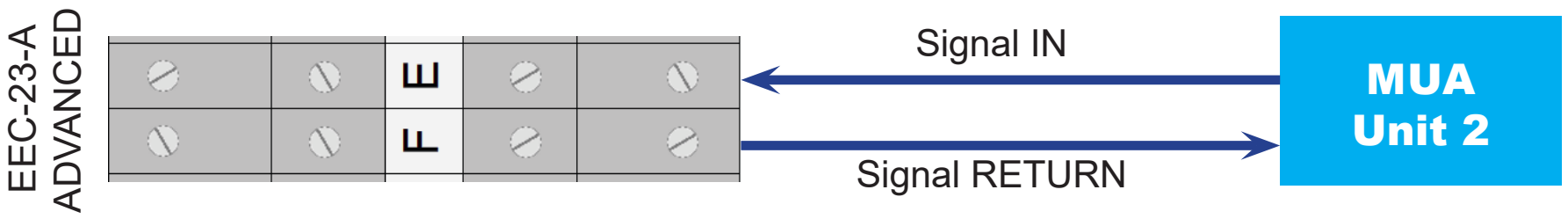
WIRING INSTRUCTIONS, EEC-23-A (CONT.)

FIRE SUPPRESSION, MUA, AND EXHAUST FAN CONTROL

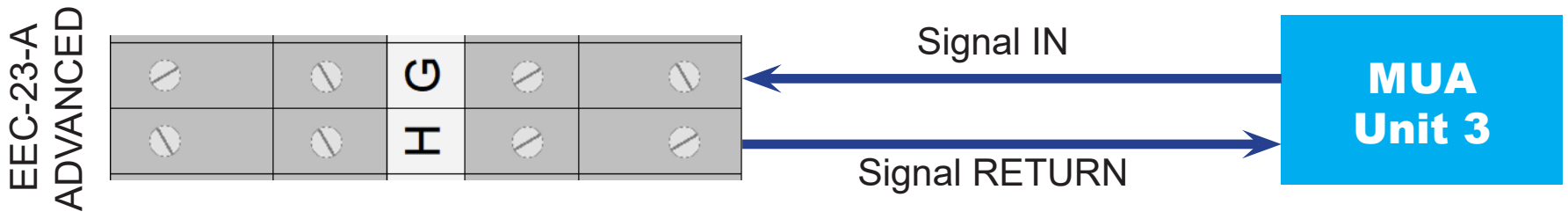
ACTIVE WHEN ANY RECEPTACLE IS IN USE



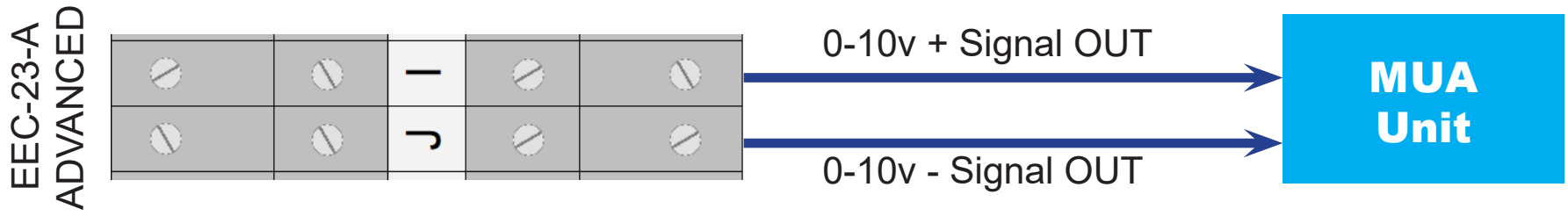
ACTIVE WHEN MIDDLE OR BOTTOM RECEPTACLE IS IN USE



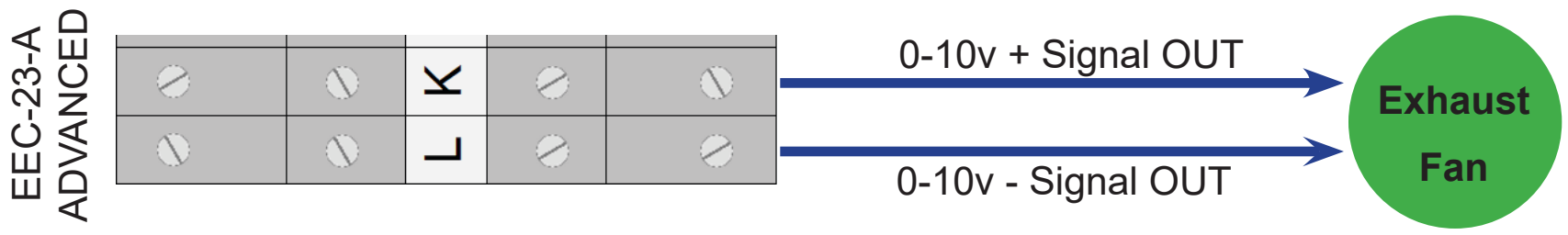
ACTIVE WHEN BOTTOM RECEPTACLE IS IN USE



ACTIVE WHEN ANY RECEPTACLE IS IN USE

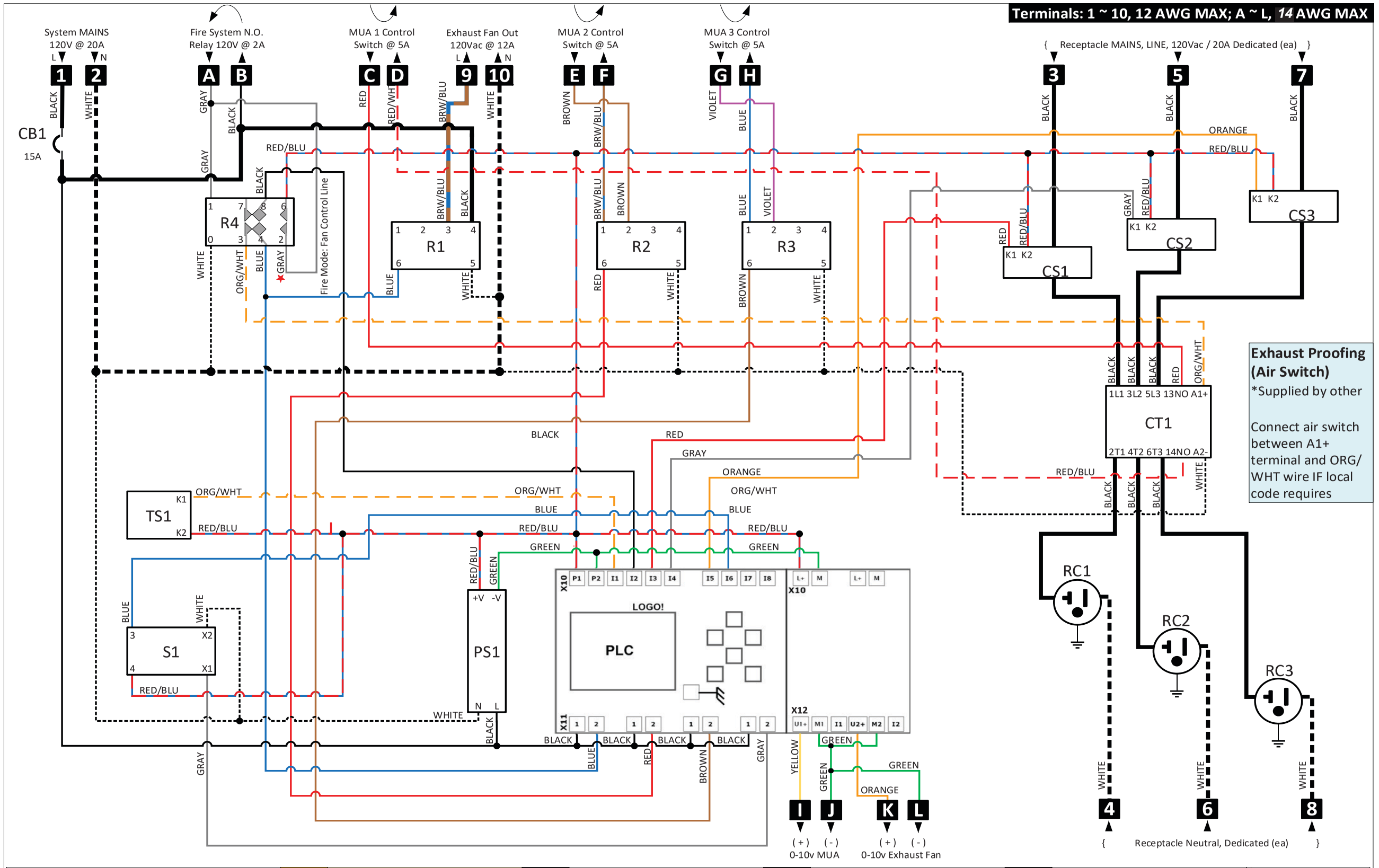


Remote adjustment of the exhaust fan REQUIRES terminals L & K be connected to a compatible exhaust fan motor. The 0-10v signal supplied from these terminals will cause the exhaust fan motor to increase or decrease speed, as commanded by the receptacle usage. These terminals will also provide a 100% ON rate during a fire event. Terminal K is the POSITIVE or +, Terminal L is the NEGATIVE or -. These terminals must ONLY be connected to a 0-10v exhaust fan motor INPUT.



WIRING DIAGRAM (CONT.)

EEC-23-A (Diagram is attached to the control lid)

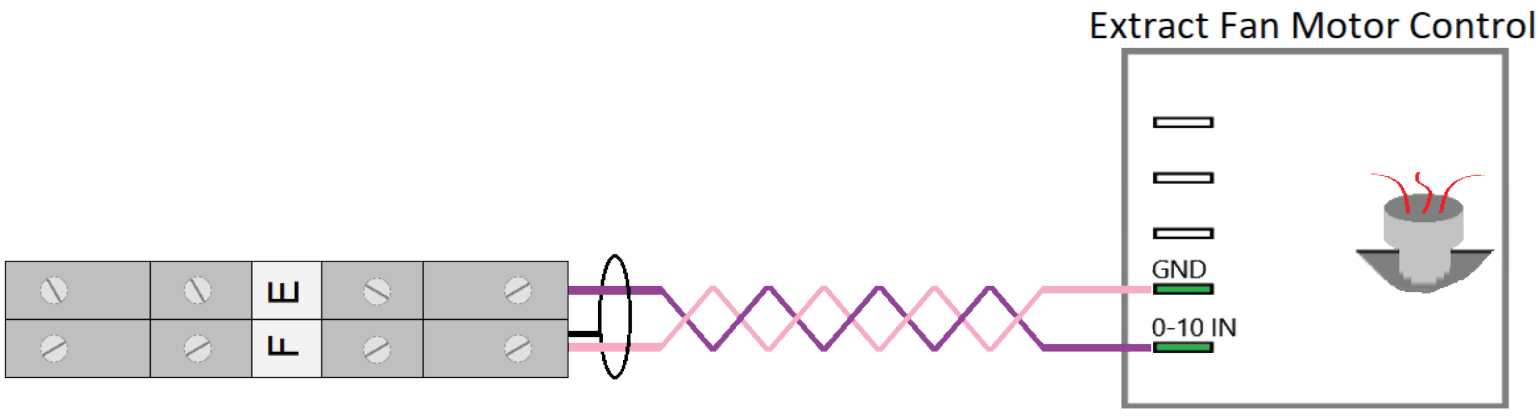


EDGE OVENS	ID	Description	CT1	Oven / MUA1 Contactor	R3	MUA 3 Relay	S1	Main Switch, Momentary	★ R4, Terminal 2
EDGE Extraction Control Model: EEC-23-A 120V/60/1 03/10/2025, rev 1.6 *CD-942-301-6*	CB1	Circuit Breaker, 15A	PLC	Logic Controller	R4	Fire Mode Relay	TS1	Temperature Switch, 110F	Connected Fire Mode, Fan ON
MF&B RESTAURANT SYSTEMS, INC. DBA: EDGE Ovens 119 ICMI RD STE 300, DUNBAR PA 15431 USA | 888-480-EDGE www.edgeovens.com	CS1	Current Switch, RC1	PS1	24Vdc, Power Supply	RC1	Receptacle 1, Top			Disconnected Fire Mode, Fan OFF
	CS2	Current Switch, RC2	R1	FAN Relay	RC2	Receptacle 2, Middle			
	CS3	Current Switch, RC3	R2	MUA 2 Relay	RC3	Receptacle 3, Bottom			

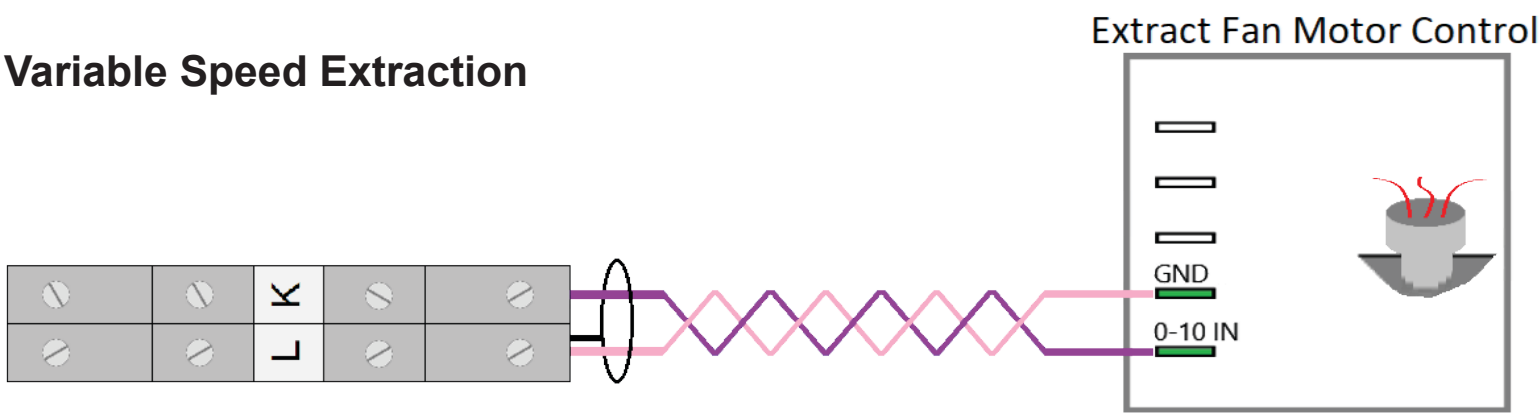
Technical Support: +1 (724) 628 3050
support@edgeovens.com

EXHAUST FAN CONNECTION & CONFIGURATION

REMOTE WIRING, EEC-23-B Control (OPTIONAL)

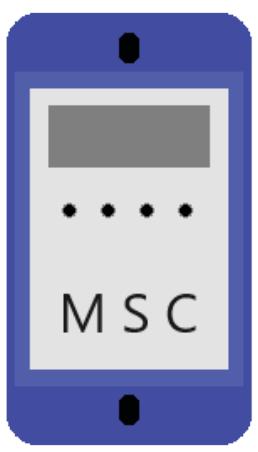


REMOTE WIRING, EEC-23-A Control (REQUIRED)

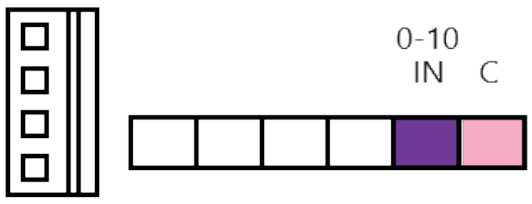


CAPTIVEAIRE VENTILATOR CONTROL CONFIGURATION

CaptiveAire Ventilator MSC Control (BLUE)



1. Press MENU
2. Press ENTER at “Board Config”
3. Use ENTER & UP to set password to 0225
4. Press UP to select CONTROL TYPE
5. Press ENTER
6. Change LOCAL to REMOTE 0-10V
7. Press ENTER
8. Press MENU until SAVE CHANGES is visible on the controller
9. Press ENTER

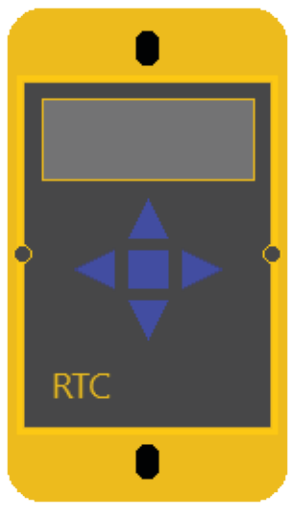


A variable speed extraction fan system which utilizes a 0-10v, remote control is required for the remote function of the EEC-23 control. The signal wire from the EEC-23 control, to the extraction fan motor should be made using shielded thermostat wire, bonded to the EEC-23 COM(-) terminal of the EEC-23 control. Further configuration of the extraction fan system may be required. Please reference the documentation supplied with your extraction unit for compatibility and configuration details.

EXHAUST FAN CONNECTION & CONFIGURATION (CONT.)

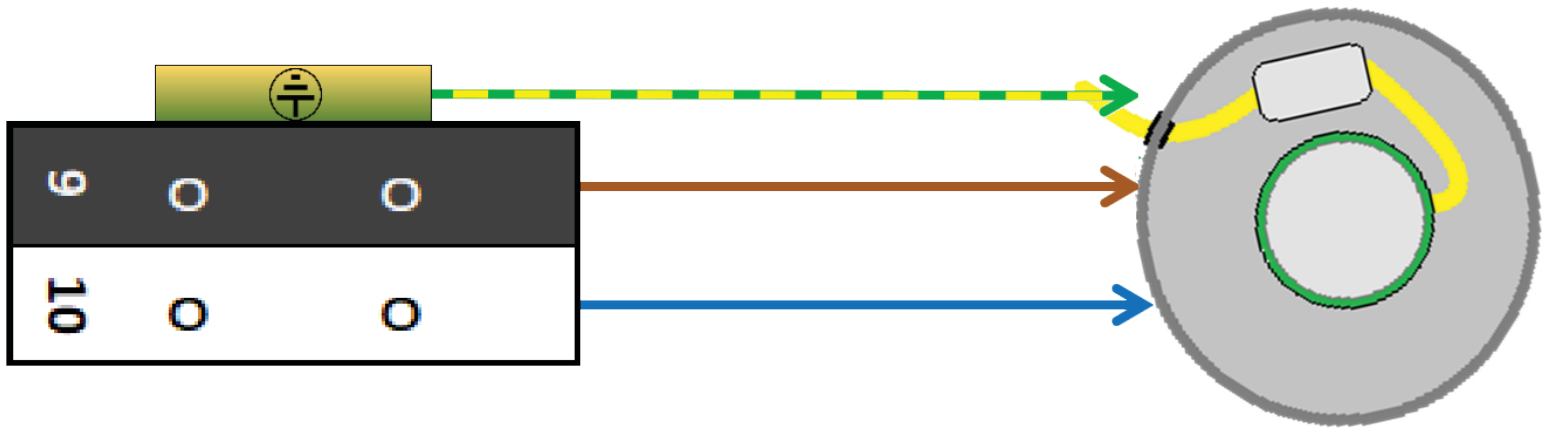
CaptiveAire Ventilator RTC Control (YELLOW)

1. Press and Hold the middle ENTER button until APPS appears on the display.
2. Repeatedly press DOWN until rE appears on the display.
3. Press the RIGHT button once.
4. Press UP or DOWN until 0-10 is shown.
5. Press ENTER.
6. Press and Hold ENTER until the display returns to the operation screen.



A variable speed extraction fan system which utilizes a 0-10v, remote control is required for the remote function of the EEC-23 control. The signal wire from the EEC-23 control, to the extraction fan motor should be made using shielded thermostat wire, bonded to the EEC-23 COM(-) terminal of the EEC-23 control. Further configuration of the extraction fan system may be required. Please reference the documentation supplied with your extraction unit for compatibility and configuration details.

EXHAUST FAN POWER, CONNECTION

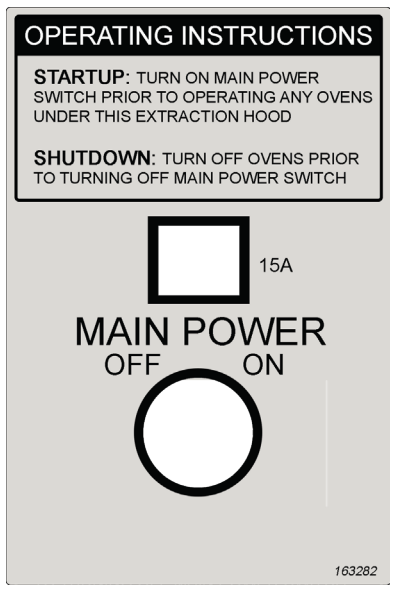


Exhaust units are equipped with a manual disconnect switch. The disconnect switch must be installed and connected to provide for safety during regular service intervals. Follow local codes and / or NEC standards.

OPERATION

EEC-23-B

The EEC-23-B control system is designed to be manually turned ON and OFF via the MAIN POWER switch located on the hood control box. Ovens fitted beneath the extraction hood are intended to be powered by the receptacles supplied on the control box.



STARTUP: TURN ON MAIN POWER SWITCH PRIOR TO OPERATING ANY OVENS UNDER THE EXTRACTION HOOD

SHUTDOWN: TURN OFF OVENS PRIOR TO TURNING OFF MAIN POWER SWITCH

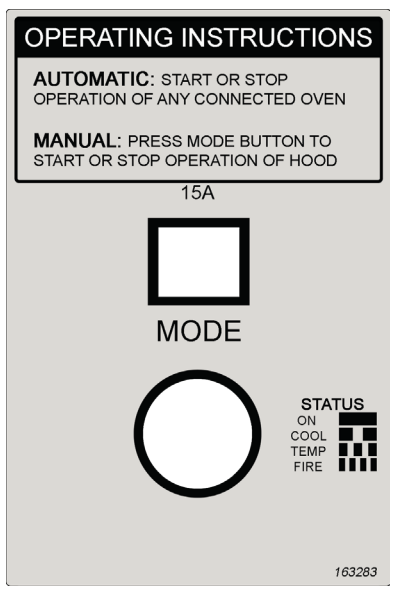
The illumination of the MAIN POWER switch will indicate the state of the switch. The control system will operate the extraction fan and MUA for 30 minutes after turning the power switch to OFF AND after the hood temperature switch opens, this is normal system operation. Additionally, if the temperature switch closes at any point, the 30 minute timer with be again activated and the system will begin or continue to operate.

In the event the connected Fire Suppression system is activated, the extraction fan / MUA relay will be held in the ON state until the Fire System system is reset or power is removed. It is critical that the connected MUA system utilizes a Fire System micro-switch!

EEC-23-A

The EEC-23-A control system has a MODE button, which is used to initiate operation. Operation will begin with the LOW setting. Once a connected oven is turned on, the operating state will adjust in correlation to the oven position. The oven power cords must be connected to the control correctly or mis-operation will occur. Automatic operation will result if the hood canopy temperature achieves 110F or if a connected Fire system enters an alarm state. Fire Mode, once triggered, may only be reset by a system power cycle.

The EEC-23-A control system is also designed to be manually activated via the MODE button located on the hood control box.



AUTOMATIC: START OR STOP OPERATION OF ANY CONNECTED OVEN

MANUAL: PRESS MODE BUTTON TO START OR STOP OPERATION OF HOOD

From the Normal operating state, the control will transition to Cooldown mode once the Mode button is pressed -OR- after all connected ovens complete the cooldown cycle and turns off, the EEC-23-A will respond, eventually entering a Standby state FOLLOWING A TIMED DELAY. The Mode button will blink, indicating the status of the control.

During operation, as connected ovens are turned on the hood control will respond, driving the exhaust fan and MUA units accordingly. The hood and MUA system will continue to operate until all ovens are off, the canopy temperature switch has opened and a defined delay period (up to 15 minutes) has passed.

The mode (or STATUS) is indicated by the illuminated button: Steady ON = ON, Slow flashing = COOL, Fast flashing = TEMP (temperature switch is closed), Rapid flash = FIRE mode has been triggered.

During FIRE mode, the extraction fan will operate at 100% ON, all MUA will be inactive, and the oven receptacles will be inactive. Provisions are provided previously in the ‘Electrical Overview, EEC-23-A’ section regarding Exhaust Fan OFF during Fire Mode, if this is required by local code.

CLEANING

The cleaning of the hood should adhere to the guidelines set forth in NFPA-96 sec.11.6.2 or comply with local regulations governing hood maintenance.

Filters can be cleaned by hand washing, steaming, or using other appropriate methods. Take care to avoid causing any damage to the filters during the cleaning process.
Avoid using abrasive or harsh, caustic cleaners on the hood or any of its components. These types of cleaners can potentially cause damage.

Under no circumstances should the hood, hood skirting, or belt skirting be disassembled or cleaned while the ovens are in operation or the hood system is hot. Please exercise caution and wait until the system has cooled down and power removed before performing any cleaning or maintenance tasks.

SYSTEM BALANCING

Make Up Air is important! Hood systems which are not balanced with adequate MUA will not preform properly. As air is removed from the kitchen, an imbalance of air pressure will result. The MUA corrects this condition. When doors are difficult to open or are pulled open by drafts, when stiff drafts are noticed through open windows, or when water perks in drainage traps, these are potential symptoms of an imbalanced extraction systems.

The correct balance of extraction and make-up air will result in a static pressure within the kitchen of no more than -0.2 inwc.

MUA vents which diffuse a full 360° should be at least 10 feet from the oven stack. MUA may be positioned to within 2 feet of the hood, provided that the diffused air is blowing away from the oven stack. MUA and uncontrolled drafts which blow towards the oven stack will disrupt extraction, will reduce oven efficiency and will create imbalance of the bake chambers.

EXTRACTION BALANCING, EEC-23-B

Power on the exhaust system and, if installed, the Make Up Air (MUA) system.

Balance the extraction and MUA according to the minimum extraction requirements outlined on the hood rating tag or within this manual. Please note that this is merely a minimum starting point. Minimum extraction rates are measured and achieved in laboratory test conditions. The primary goal of any Type 1 extraction hood is to remove the gaseous byproducts of the equipment and baking process from the kitchen. Your extraction rates may be higher, but are never to be lower than the rating of the hood.

*The baseline information below may not be suitable for your installation. This information is provided as an example of an installation:

(1) CaptiveAire Ventilator extraction systems

(1) EDGE EEH-23-4460 Hood

(3) EDGE-4460 stacked EDGE ovens

960CFM has been achieved at 41% extraction fan speed
800CFM has been achieved at 33% extraction fan speed
400CFM has been achieved at 20% extraction fan speed

Your actual extraction rates may be higher.

Adjust the extraction as necessary to achieve the level of extraction required to capture escaping gaseous byproducts.

TO ADJUST THE EXTRACTION FAN SPEED REMOTELY:

Adjust the speed dial located in the hood control panel. Steps are in 1% increments.

00 OFF

99 = MAX

SYSTEM BALANCING (CONT.)

Please note: CaptiveAire Ventilator controls have a defined minimum set-point of 20%. Please consult the CaptiveAire Installation and Operation manual for additional information.

TO ADJUST THE EXTRACTION FAN SPEED LOCALLY (at the motor):

Use the UP/DOWN buttons on the local Extraction motor control.

EXTRACTION / MUA BALANCING, EEC-23-A

MUA rates should be between 80% and 100% of the extraction rate. *Local code prevails.* Balance the extraction and MUA according to the minimum extraction requirements outlined on the hood rating tag or within this manual. Please note that this is merely a minimum starting point. Minimum extraction rates are measured and achieved in laboratory test conditions. The primary goal of any Type 1 extraction hood is to remove the gaseous byproducts for the equipment and baking process from the kitchen. Your extraction rates may be higher, but are never to be lower than the rating of the hood.

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(1) CaptiveAire Ventilator extraction systems

(1) EDGE EEH-23-4460 Hood

(3) EDGE-4460 stacked EDGE ovens

960CFM has been achieved at 41% extraction fan speed

800CFM has been achieved at 33% extraction fan speed

400CFM has been achieved at 20% extraction fan speed

Your actual extraction rates may be higher.

CONFIGURING THE VARIABLE EXTRACTION FAN / MUA SPEEDS (LOW / MEDIUM / HIGH):

The system controller (PLC) is within the hood control panel. CONFIG mode is only accessible from a STANDBY mode, which will be displayed on the top of the LCD panel.

ENTER CONFIGURATION:
Press and hold the ESC button and then press the UP button

NAVIGATION BETWEEN TOP / MIDDLE / BOTTOM SCREENS:
Press and hold the ESC button and then press the RIGHT button

ADJUST SET POINTS:
Press and hold the ESC button for 2 seconds
Use the UP and DOWN button to change between selections
Press the OK button to edit the selection value
Use the UP and DOWN button to adjust the selected value
Use the OK button to store the adjustment
Use the ESC button to discard the adjustment
Values displayed are Set point X10 ex: 900 = 90.0% = 9.0v

EXIT CONFIGURATION:
Press and hold the ESC button and then press the DOWN button

DEFAULT SETPOINTS:	EXT SP	MUA SP
TOP	200	300
MIDDLE	330	600
BOTTOM	410	900

ACTIVE MUA UNITS
MUA1
MUA1 & MUA2
MUA1 & MUA2 & MUA3

Do NOT adjust set points below 20% without verifying correct operation of the Extraction and MUA units.

DISPOSAL

The packaging should be properly disposed of in accordance with local regulations governing waste management. When disposing of the hood system, whether in its entirety or specific components, it is essential to comply with the relevant local regulations for proper disposal methods.

AGENCY APPROVAL

The EDGE TYPE 1 hood has undergone thorough testing in accordance with UL710 and ULC S646 standards and has successfully met all the requirements. Additionally, it also complies with NSF 2/ANSI 51 standards, ensuring its adherence to the necessary food safety and sanitation regulations.

COMPANY INFORMATION

MANUFACTURED BY:

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Dunbar, PA 15431, USA

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Uniontown, PA 15401, USA

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15431, USA

CONTACT:

sales@edgeovens.com

support@edgeovens.com

888-480-EDGE or 724-628-3050

ELECTRICAL PART LIST

EEC-23-A	EEC-23-B	PART NUMBER	PART DESCRIPTION
CB1	CB1	135005-BK	CIR BRKR THRM 15 A
CS1/2/3		135019	AC CURRENT SWITCH
	TDR1	135032-240VDS	ELECTRONIC TIMING RELAY
	PS1	135140-C	12V, 15W POWERS UPPLY, DIN
PS1		135140-D	24V, 15W POWERS UPPLY, DIN
S1	S1	135145-C	110V ILLUMINATED (GREEN) SWITCH BODY
S1		135145-D	KNOB (GREEN) MOMENTARY BUTTON
	S1	135145-E	KNOB (GREEN) MECHANICAL SWITCH
TB(LP)	TB(LP)	135184-A	SMALL 4-P TERMINAL BLOCK
R1/2/3	R1	135185-D	DPST RELAY, DIN
CT1	CT1	135185-E	CONTACTOR, 16A, 3 POLE + N.O. AUX
	P1	135186	POTENTIOMETER 1K
PLC		135187	LOGO! PLC
PLC		135188	LOGO! PLC EXPANDER
R4	R2	135189	DPDT RELAY, 30A/3A, 120VAC
TB(LP)		151460	TB END COVER
TS1	TS1	151477	360F FUSIBLE LINK
TB(HP)	TB(HP)	151501-1-10	1-10 TERMINAL BLOCK MARKERS
TB(LP)	TB(LP)	151501-A-J	A-J TERMINAL BLOCK MARKERS
TB(LP)		151501-K-T	K-T TERMINAL BLOCK MARKERS
TB	TB	176199	TB CLAMP END STOP
TB(N)	TB(N)	176254	NEUTRAL TERMINAL BLOCK
TB(HP)	TB(HP)	176256	TB BLACK POWER, DIN MOUNT ED
TB(HP)	TB(HP)	176257	TB WHITE POWER, DIN MOUNT ED
GND	GND	176258	EARTHING BUSBAR
RC1/2/3	RC1/2/3	176260	20A RECEPTACLE, SHORT STRAP
		163281	DECAL, RECEPTACLES
		163282	DECAL, EEC-23-B, ON-OFF
		163283	DECAL, EEC-23-A, MODE
		163284	DECAL, LANGUAGE

REVISION HISTORY

CONTROL NUMBER	COMMENTS	DATE
CD-941-XXXX-XX	PRE-RELEASE REVIEW	06/08/2023
CD-941-470-1	REV 1, PROTO	06/27/2023
CD-941-470-2	REV 2, DIMENSIONAL CORRECTION, BALANCING INFORMATION	08/29/2023
CD-941-470-3	REV 3, DIMENSIONAL CORRECTION, UPDATED WIRING DIAGRAM & HOOD CONTROL INCLUSION	11/16/2023
CD-941-470-4	REV 4, CONFIGURATION UPDATE, WIRING EXAMPLES, ADVANCED CONTROL INCLUSION	12/01/2023
CD-941-470-5	REV 5, ADDITION OF LOGO! ADVANCED CONTROLLER	03/12/2024
CD-941-470-6	REV 6, ADDITION OF POWER CONTACTOR WIRING FOR ADVANCED CONTROL PLATFORM	06/04/2024
CD-941-470-7	REV 7, ADDITION OF MUA WIRING THROUGH CONTACTOR	06/14/2024
CD-941-470-8	REV 8, ADDITION OF CLEARANCE SPECIFICATIONS, ADDITION OF EEC-23-B CT1 CIRCUIT AND INSTRUCTIONS	07/24/2024
CD-941-470-9	REV 9, ADDITION OF HOOD VALANCE DRAWING	08/14/2024
CD-941-470-10	REV 10, ADDITION OF CONTROL RELOCATION DETAILS, ADDITION OF FIRE RELAY, ADDITION OF ALL OFF FIRE MODE INSTRUCTIONS	03/10/2025
CD-941-470-11	REV 11, GENERAL ART CORRECTIONS	04/24/2025

THIS DOCUMENT MUST REMAIN ON-SITE FOR THE REFERENCE OF ALL INSTALLATION BODIES

PLACE THIS DOCUMENT WITH THE HOOD CONTROL OR IN THE CUSTODY OF THE SITE REPRESENTATIVE

** DO NOT REMOVE FROM INSTALLATION SITE **

THIS MANUAL CONTAINS IMPORTANT INSTALLATION INFORMATION REQUIRED FOR PHYSICALLY INSTALLATION OF THE HOOD AND THE MECHANICALLY ATTACHED COMPONENTS.

THIS MANUAL CONTAINS IMPORTANT INSTALLATION INFORMATION REQUIRED FOR CONNECTING MAINS POWER.

THIS MANUAL CONTAINS IMPORTANT INSTALLATION INFORMATION REQUIRED FOR INTER-CONNECTING FIRE SUPPRESSION CONTROLS.

THIS MANUAL CONTAINS IMPORTANT INSTALLATION INFORMATION REQUIRED FOR CONNECTING THE EXHAUST FAN SYSTEM.

THIS MANUAL CONTAINS IMPORTANT INSTALLATION INFORMATION REQUIRED FOR INTER-CONNECTING MAKE-UP AIR SYSTEMS.

THIS MANUAL CONTAINS IMPORTANT OPERATION AND MAINTENANCE INFORMATION REQUIRED BY THE OWNER / OPERATOR.

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