

The CU Alarm is an audible alarm that sounds in the event the steam room maximum set temperature is exceeded or if the CU-SteamStop button has been pressed.

The CU Alarm may be mounted outside the steam room in a location that will alert an attendant and/or user to an over-temperature condition.

Review local codes for mounting location as required.



⚠ WARNING The CU Alarm shall not be mounted inside the steam room.

⚠ WARNING Please Read These Instructions Carefully Before Using this Product. The 115VAC CU Alarm must be field set to the desired dBA sound output level and alarm tone before installation. This is done by adjusting a four position switch in accordance with these instructions. Incorrect settings will result in improper performance.

dBA RATINGS		
Tone	dBA Reverberant at 10 feet	
	High	Standard
Horn	88	82
Bell	82	75
March Time Horn	85	79
*Code-3 Horn	85	75
*Code-3 Tone	79	75
Slow Whoop	88	82
Siren	85	82
Hi/Lo	82	79

*See note on Page 3

IMPORTANT NOTE: As you follow these instructions, you will notice warning and caution symbols. This information is important for the safe and efficient installation and operation of this generator. These are types of potential hazards that may occur during this installation and operation:

⚠ CAUTION states a hazard may cause serious injury or death if precautions are not followed.

⚠ WARNING signals a situation where minor injury or product damage may occur if you do not follow instructions.

! WARNING MAKE SURE THAT ALL FUSES USED ON SIGNALING CIRCUITS ARE RATED TO HANDLE THE MAXIMUM INRUSH OR PEAK CURRENT FROM ALL APPLIANCES ON THOSE CIRCUITS. FAILURE TO DO THIS MAY RESULT IN LOSS OF POWER TO THE SIGNALING CIRCUIT AND THE FAILURE OF ALL APPLIANCES ON THAT CIRCUIT TO OPERATE.

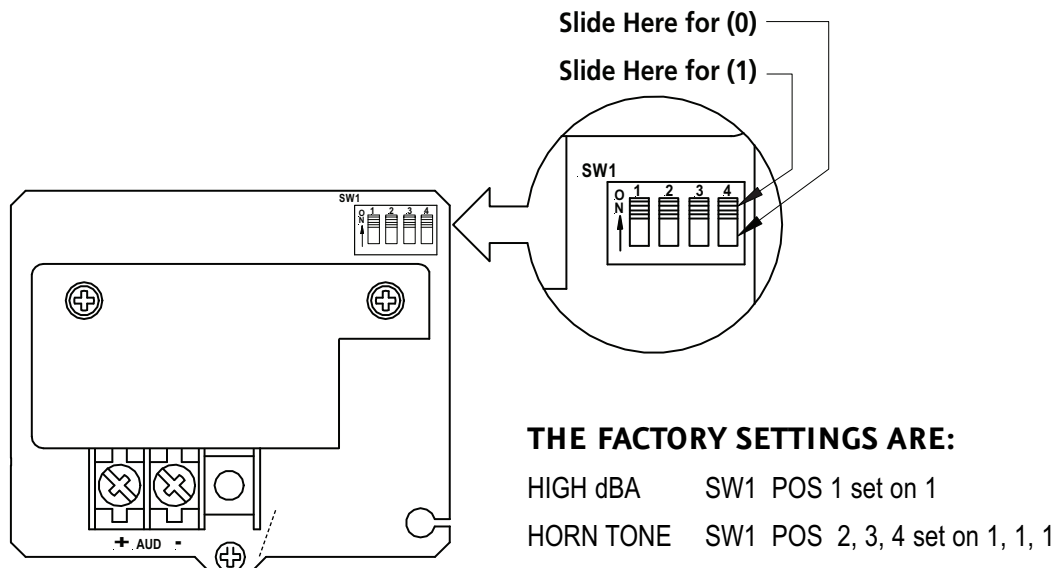
The CU Alarm produce a brief inrush current that lasts for just 50 microseconds at a peak value of 5.0 Amps.

! WARNING IF 115VAC CU ALARMS ARE OPERATED WITHIN 15 INCHES OF A PERSON, THEY CAN PRODUCE A SOUND PRESSURE LEVEL THAT EXCEEDS THE MAXIMUM 120 dBA PERMITTED BY ADA AND OSHA RULES. EXPOSURE TO SUCH SOUND LEVELS CAN RESULT IN HEARING DAMAGE.

SETTINGS:

The Switch (SW1) of the CU Alarm, shown in Figure 1, is used to set the desired dBA sound output level and alarm tone. The factory settings are shown below. Read these instructions carefully before changing any of these factory settings.

**Figure 1: PC Board Layout Showing Location of Switch
(Labeled SW1 on circuit board as shown)**



STEP 1:

Set desired dBA sound output by setting POS 1 of the four position switch (SW1). (refer to Figure 2 and Table 2).

STEP 2:

Set desired alarm tone by setting the four-position switch (SW1). Use POS 2, 3, 4 to select the desired alarm tone (refer to Table 3 below).

Figure 2: SW1 Switch

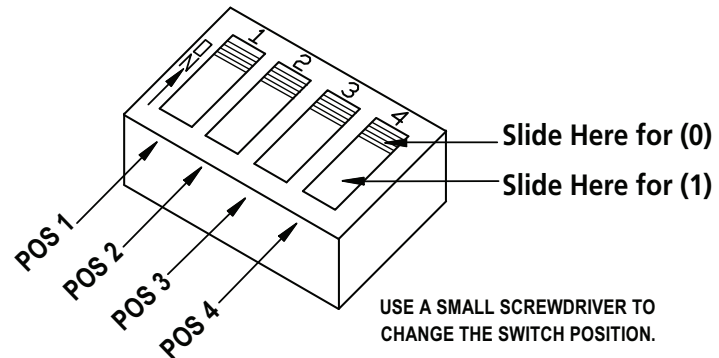


TABLE 2
dBA Sound Output Level Settings

Decibel Level (dBA)	POS 1
High dBA	1 (Factory Setting)
Standard dBA	0

TABLE 3 Alarm Tones

Tone	Pattern Description	SWI Switch Settings		
		POS 2	POS 3	POS 4
Horn	Broadband Horn (Continuous) (Factory Setting)	1	1	1
Bell	1560 Hz Modulated (0.07 Sec. ON/Repeat)	1	0	1
March Time Horn	Horn (0.25 Sec.ON/ 0.25 Sec. OFF/Repeat)	0	0	1
* Code-3 Horn	Horn (ANSI S3.41 Temporal Pattern)	1	1	0
* Code-3 Tone	500 Hz (ANSI S3.41 Temporal Pattern)	0	1	1
Slow Whoop	500-1200 Hz Sweep (4.0 Sec. ON/ 0.5 Sec. OFF/Repeat)	0	1	0
Siren	600-1200 Hz Sweep (1.0 Sec. ON/Repeat)	1	0	0
HI/LO	1000/800 Hz (0.25 Sec. ON/Alternate)	0	0	0

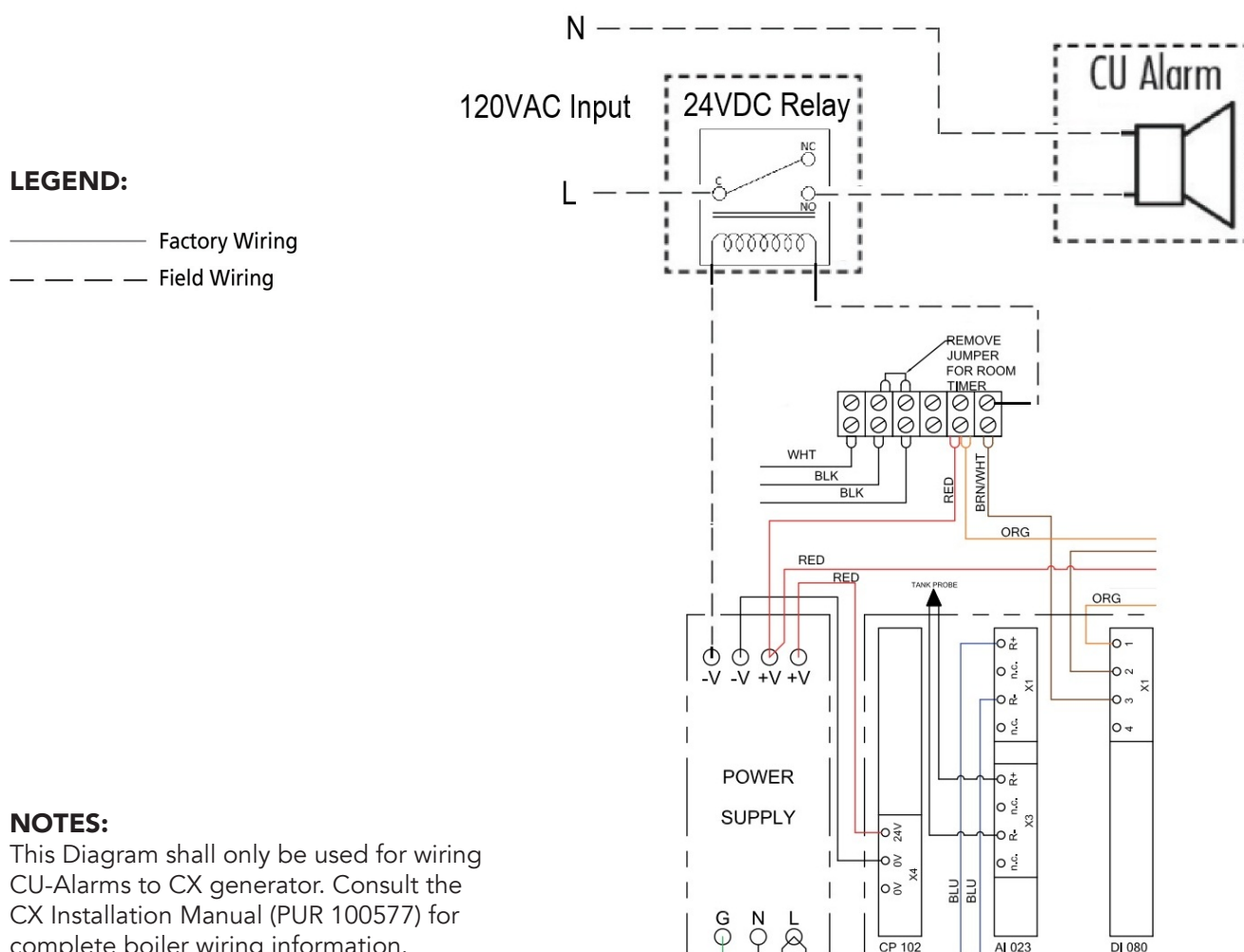
* **NOTES:** The Code-3 Horn and Code-3 Tone (set on HIGH dBA) incorporate the temporal pattern specified by ANSI/NFPA for standard emergency evacuation signaling. They should be used only for fire evacuation signaling and not for any other purpose.

(Without High Limit Control CU-HTC):

IMPORTANT NOTE: All electrical wiring is to be installed by a qualified, licensed electrician in accordance with National and local electrical codes.

- 1.Strip leads 3/8 inches and connect to screw terminals. 115VAC CU Alarms have in-out wiring terminals that accepts two #12 to #18 American Wire Gauge (AWG) wires at each screw terminal.
- 2.A 24VDC NO (Normally Open) Relay (104741) is required. This relay is not supplied with CX generator nor CU Alarm but can be requested.
- 3.A **CU-STEAMSTOP** is required.

Diagram: CX generator with CU-STEAMSTOP:



WIRING THE ALARM TO A MR.STEAM CX COMMERCIAL STEAM GENERATOR

(With High Limit Control CU-HTC):

⚠ WARNING SHUT OFF ALL POWER AT BREAKER BEFORE STARTING THE INSTALLATION. ELECTRIC SHOCK CAN CAUSE DEATH OR SERIOUS INJURY.

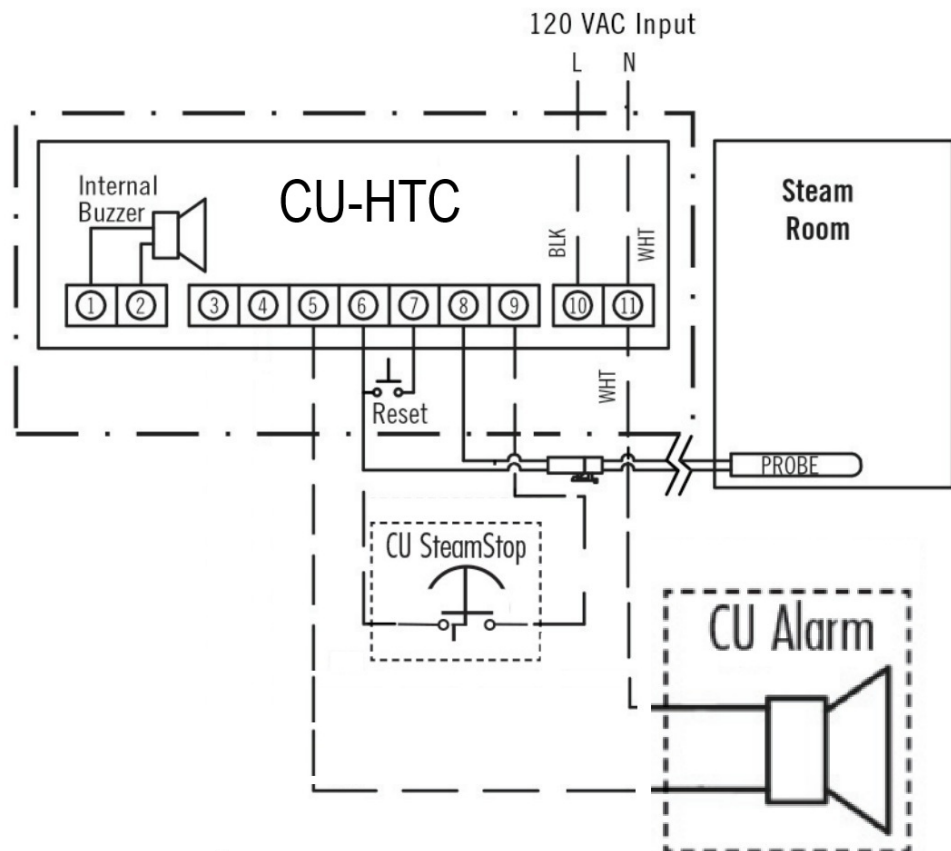
IMPORTANT NOTE: All electrical wiring is to be installed by a qualified, licensed electrician in accordance with National and local electrical codes.

1. Strip leads 3/8 inches and connect to screw terminals. 115VAC CU Alarms have in-out wiring terminals that accepts two #12 to #18 American Wire Gauge (AWG) wires at each screw terminal.

Diagram: CX with High Limit Control (CU-HTC):

LEGEND:

———— Factory Wiring
 - - - - - Field Wiring



NOTES:

1. This Diagram shall only be used for wiring CU-Alarms to CX generator with High Limit Control. Consult the CU-HTC Installation Manual (PUR 100562) for complete High Limit Control wiring information.
2. Consult the CX Installation Manual (PUR 100577) for complete boiler wiring information.

WIRING THE ALARM TO A MR.STEAM CU COMMERCIAL STEAM GENERATOR:

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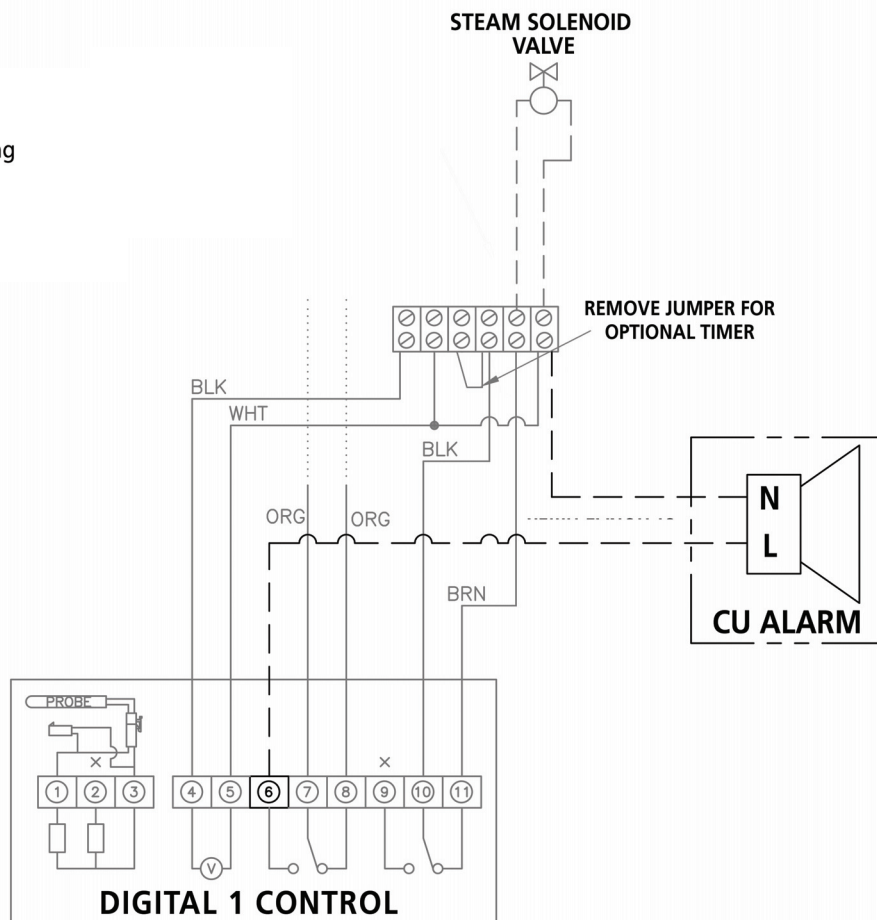
IMPORTANT NOTE: All electrical wiring is to be installed by a qualified, licensed electrician in accordance with National and local electrical codes.

1. Strip leads 3/8 inches and connect to screw terminals. 115VAC CU Alarms have in-out wiring terminals that accepts two #12 to #18 American Wire Gauge (AWG) wires at each screw terminal.

Diagram: CU 360-4500 with 120 Volt Digital 1 Control:

LEGEND:

- Factory Wiring
- - - - - Field Wiring



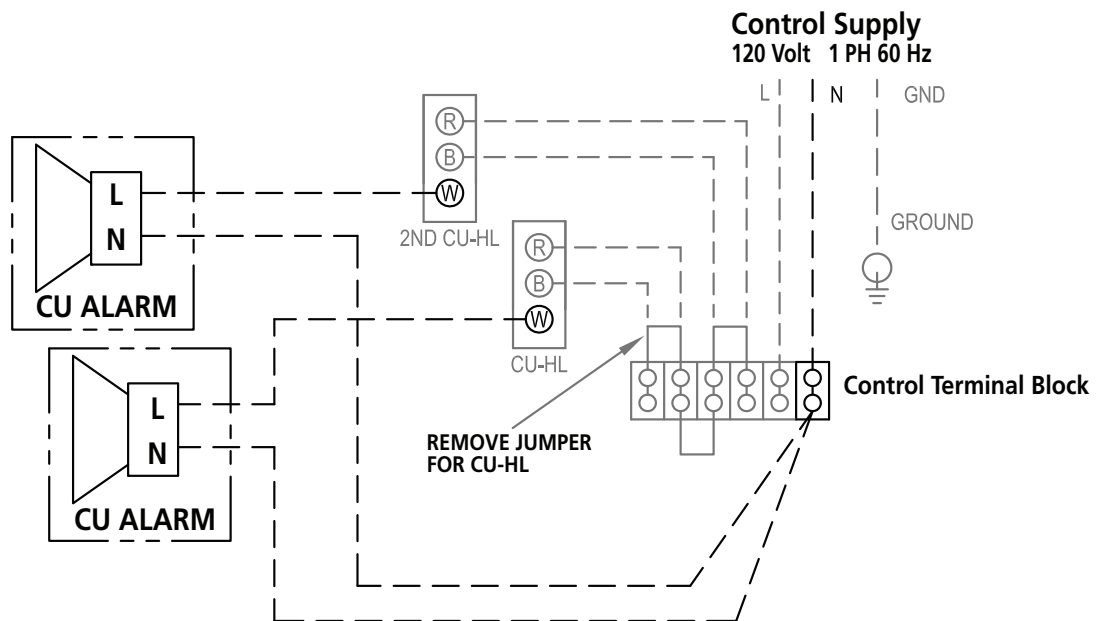
NOTES:

1. This Diagram shall only be used for wiring CU-Alarms. Consult the CU Installation Manual (PUR 100376) for complete boiler wiring information.
2. The Over Temperature Portion (Change Wires) of the D1 Temperature Controller must be connected for the CU-Alarm to operate correctly.
3. Older models may have slightly different wiring. Please confirm that it matches the diagram or update it upon installation.

Diagram:
CU 360-4500 with 120 Volt F1 Plus Control:

LEGEND:

————— Factory Wiring
 - - - - - Field Wiring



NOTES:

1. This Diagram shall only be used for wiring CU-Alarms. Consult the CU Installation Manual (PUR 100376) for complete boiler wiring information.
2. A CU-HL must be used in conjunction with each CU ALARM on boilers with F1 controls.

SURFACE MOUNTING:

IMPORTANT NOTE: All electrical wiring is to be installed by a qualified, licensed electrician in accordance with National and local electrical codes. Review local codes for mounting location as required.

! WARNING DO NOT mount the **CU ALARM** inside the steam room.

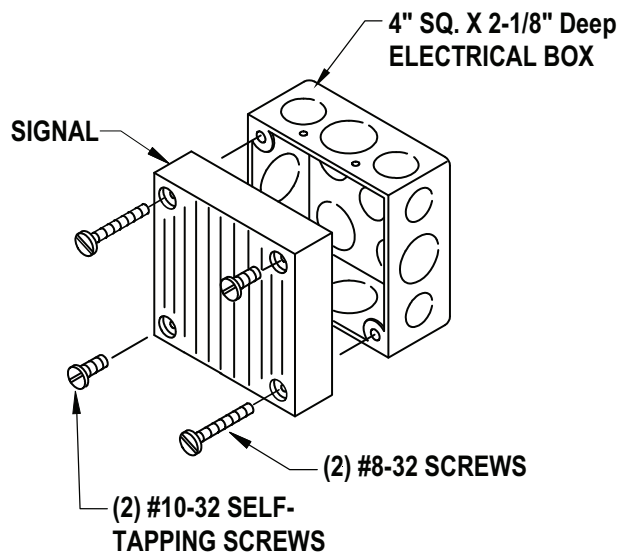
! CAUTION If sheathed multiconductor cable or 3/4" conduit fittings are used, check that installed **CU ALARM** has sufficient clearance and wiring room prior to installing electrical boxes and conduit.

1. 115 VAC **CU ALARM**s can be surface mounted to a standard 4 inch square by 2-1/8 inch deep electrical box (Figure A)
2. Select the largest electrical box possible (shown in Mounting Options) to provide the maximum wiring clearance for easy installation.
3. Conduit entrance to electrical boxes should be selected to insure sufficient wiring clearance for the CU Alarm. When extension rings are required, conduit should enter through electrical box, not extension ring.
4. Use care and proper techniques to position the field wires in the electrical box so that they use minimum space and produce minimum stress on the product. This is especially important for stiff, heavy gauge wires with thick insulation or sheathing.
5. **DO NOT** pass additional wires (used for other than signaling appliances) through the electrical box. Such additional wires could result in insufficient wiring space for the signaling appliance. The **CU ALARM** is designed to produce an audible alarm in the event the steam room maximum set temperature is exceeded.
6. Place the **CU-ALARM** identification label on or adjacent to the alarm.

STEAMROOM ALARM

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IMPORTANT NOTE: The Code-3 Horn and Code-3 Tone incorporate the temporal pattern specified by NSI/NFPA/ISO for standard emergency evacuation signaling. They should be used only for fire evacuation signaling and not for any other purpose.



OPERATIONAL CHECK:

WHEN USED WITH THE DIGITAL 1 CONTROL:

1. Disconnect the probe wire connection at the back of the Digital 1 Control.
2. The boiler will shut off and the alarm will sound (the Digital 1 will read o o o).
3. If the alarm does not sound, disconnect power and swap the orange wires at terminal 7 & 8 on the back of the control.
4. Reconnect power and follow the operational check instructions.

WHEN USING THE CU-STEAMSTOP:

1. Press the **CU-STEAMSTOP** (the Digital 1 will read - - -)
2. The boiler will shut off and the alarm will sound.
3. If the alarm does not sound, disconnect power and swap the orange wires at terminal 7 & 8 on the back of the control. If the Digital 1 control does not display - - -, refer to the **CU-STEAMSTOP** Installation operation & Maintenance Manual.
4. Reconnect power and follow the operational check instructions.

WHEN USED WITH THE F1 PLUS CONTROL & CU-HL:

1. Turn the **CU-HL** temperature dial down until the boiler turns off.
2. The alarm will sound. Reset the **CU-HL** set point.
3. If the alarm does not sound disconnect power and check wiring.