# INSTALLATION INSTRUCTIONS 133-766
# TERMINAL BLOCK WIRING BASE FOR
# BURNERPRO FLAME SAFEGUARD and BOILER CONTROL

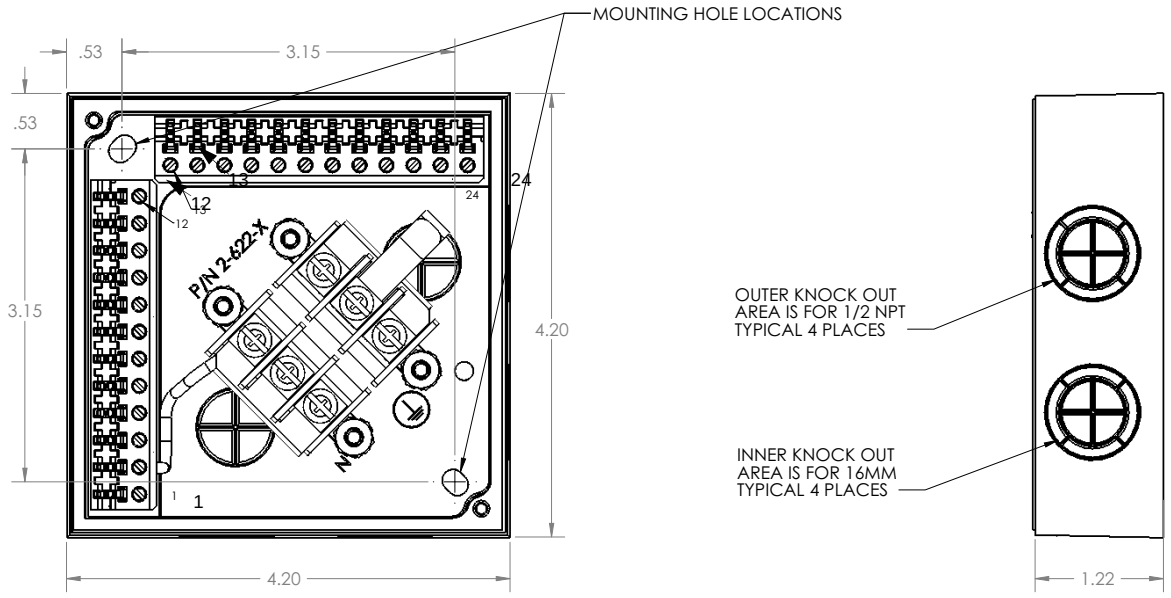
Wiring base part number 60-2944-1 offers a closed wiring compartment suitable for mounting inside or outside of a cabinet. Knockouts are located along the bottom and side of the wiring base. The terminal block contact positions are appropriately numbered to correspond to the pinout of the BurnerPRO control. Torque rating on terminal block screw is 4.4 in/lbs to 5.3 in/lbs. As shipped, all knockouts on the wiring base are in place and can be easily removed with knockout tool (i.e., screw driver).

Mounting of the base can be accomplished with 2 screws. The recommended screw sizes are #10 PAN HD x 5/8inch (5mm PAN HD x 16mm) and #10 PAN HD x 3/8 inch (5mm PAN HD x 10mm). Refer to Figure 1 below for mounting dimensions.

**Grounding Wire**

Each BurnerPRO control is fitted with a grounding wire. Attach the open end of the grounding wire to a ground terminal on the wiring base (see figure 1). Undo the screw terminal with a screwdriver and place the ground lug over the terminal. Re-install the screw over the ground lug. Do not attach the grounding wire to a Neutral (N) terminal.

**FIGURE 1.**




**CAUTION: Ensure that electric power is turned off. Refer to SN-100 for recommended grounding techniques.**

**Be aware that power to some interlocks (operating controls, air flow switches, modulating circuits, etc.) may be derived from sources other than what is controlling the BurnerPRO.**

**WARNING: Controls require safety limits utilizing isolated mechanical contacts. Electronic limit switches may cause erratic operation and should be avoided.**
**Proper grounding is necessary. Ensure that wiring base ground terminal is connected to protective earth.**

## Table 1: TERMINAL WIRING

| Terminal No. | Type | Description | Rating |
|---|---|---|---|
| 1 | Power | Line voltage supply | 110VAC (+10%, -15%), 50/60Hz<br>230VAC (+10%, -15%), 50/60Hz<br>single phase |
| 2 | Power | Line voltage common | |
| 3 | Output | Alarm | See Load Ratings |
| 4 | Output | Lockout Limits | 110/230 VAC, 1mA |
| 5 | Input | Recycle Limits | 110/230 VAC, 1mA |
| 6 | Output | Combustion Air Blower | See Load Ratings |
| 7 | Output | Combustion Air Blower | |
| 8 | Input | Actuator Feedback | 110/230 VAC, 1mA |
| 9 | Output | High Fire Purge | See Load Ratings |
| 10 | Output | Low Fire Purge | See Load Ratings |
| 11 | Output | Economy | See Load Ratings |
| 12 | Input | Proof of Closure (FVES) | 110/230 VAC, 1mA |
| 13 | Input | Combustion Air Switch Test | 110/230 VAC, 1mA |
| 14 | Input | Combustion Air Prove | 110/230 VAC, 1mA |
| 15 | N/A | Unused | |
| 16 | Output | Ignition | See Load Ratings |
| 17 | Output | Pilot | See Load Ratings |
| 18 | Output | Main Fuel Valve (Direct) | See Load Ratings |
| 19 | Output | Main Fuel Valve (Piloted) | See Load Ratings |
| 20 | Output | Release to Modulate (AUTO) | See Load Ratings |
| 21 | Input | Remote Reset | 110/230 VAC, 3mA |
| 22 | Output | Flame Sensor (UVS1) | 300 VDC, 3mA |
| 23 | Input | Flame Sensor Return (S2) | Sensor Common/return |
| 24 | N/A | Unused | |
| N | Power | Line Voltage Common | |
| ⏚ | | Protective Earth | |

**LOAD RATINGS:**

| Terminal | Typical Load | Maximum Rating @120V-50/60 Hz | Maximum Rating @230V-50/60 Hz | Alternate Rating |
|---|---|---|---|---|
| 6-7 | Burner/Blower Motor | 4 F.L.A. *<br>24 L.R.A. | 4 F.L.A. *<br>24 L.R.A. | 480 VA Pilot Duty<br>(Motor Starter Coil) |
| 9-10-11-20 | Modulator | 240 VA Pilot Duty | | |
| 16-17-18-19 | Fuel/Igniton | 240 VA Pilot Duty | | |
| 3 | Alarm | 125 VA Pilot Duty | | |
| * F.L.A. = full load amps; L.R.A = locked rotor amps | | | | |

Maximum connected load must not exceed 2000VA.