DOUGHPRO®

STONE HEARTH OVENS & ACCESSORIES

INSTALLATION AND OPERATIONS MANUAL

"MAKING YOUR VISION A REALITY"

JULY 2009

"A New Approach To Traditional Cooking"

20281 Harvill Ave, Perris, CA 92570 Toll: 1(800) 624-6717 (951) 657-0379 Fax: (951) 657-4594

DOUGHPRO®
STEARNS PRODUCT DEVELOPMENT CORPORATION
20281 Harvill Ave, Perris, CA 92570 Tel: (800) 624-6717 - Fax: (951) 657-4594

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Installation and Operation Manual

DoughPro Ovens
DPO3.5 - DPO7 & RECT

Installation and Operating Instructions
DO NOT THROW THIS MANUAL AWAY

WARNING: Improper installation, adjustment, alteration, service or maintenance can result in property damage, injury or death. Read the installation, operation and maintenance instructions thoroughly before installing or servicing this equipment

It is recommended that this oven be installed by professional personnel as specified here

RETAIN THIS MANUAL FOR FUTURE REFERENCE.
Additional copies of this manual are available from DoughPro Ovens; Phone (951) 657-0379
Or your local representative.

For 24 hour assistance please call (951) 236-7092

IMPORTANT: Consult your local gas supplier for a statement outlining a procedure to be followed in the event you smell gas.
Post the statement in a prominent location.

FOR YOUR SAFETY

"Never use gasoline, gasoline-type lantern fuel, kerosene, charcoal lighter fluid, or similar liquids to start or `freshen up' a fire in this oven. Keep all such liquids well away from the oven when in use."

"A MAJOR CAUSE OF OVEN RELATED FIRES IS FAILURE TO MAINTAIN REQUIRED CLEARANCES (AIR SPACES) TO COMBUSTIBLE MATERIALS. IT IS OF UTMOST IMPORTANCE THAT THIS OVEN BE INSTALLED ONLY IN ACCORDANCE WITH THESE INSTRUCTIONS."

THIS APPLIANCE MUST BE ELECTRICALLY GROUNDED IN ACCORDANCE WITH LOCAL CODES OR IN THE ABSENCE OF LOCAL CODES, WITH THE NATIONAL ELECTRICAL CODE, ANSI/NFPA 70, OR THE 'CANADIAN ELECTRICAL CODE, CSA C22.2, AS APPLICABLE.

THE INSTALLATION OF THIS APPLIANCE MUST CONFORM TO LOCAL CODES, OR IN THE ABSENCE OF LOCAL CODES, WITH THE 'NATIONAL FUEL GAS CODE, ANSI Z223.1, NATURAL GAS INSTALLATION CODE, CAN/CGA-B149.1, OR THE PROPANE INSTALLATION CODE, CAN/CGA-B149.2 AS APPLICABLE.

Installation of the exhaust hood should be in accordance with the "Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations, NFPA 96."

Note: Always follow hood manufacture cleaning and maintence procedures

The minimum hearth extension areas to be covered with relationship to the door opening of the oven for combustible floors. At least the following areas shall be specified:

1) 30 inches (762 mm) to each side of the door opening.
2) 36 inches (914 mm) in front of the door opening.

"WARNING"

1) "Do not pack required air spaces with insulation or other materials."

2) "Never store combustible material beneath the oven, keep this are clear at all times."

3) "If this oven is not properly installed, a fire may result. To reduce the risk of fire, follow the installation instructions."

4)"Please read this entire manual before you install the oven. Failure to follow instructions may result in property damage, bodily injury, or even death."

"Improper installation, adjustment, alteration, service or maintenance can cause property damage, injury or death. Read the installation, operation and maintenance instruction thoroughly before installing or servicing this equipment."

5) Duct: As with all commercial cooking equipment, Doughpro recommends cleaning the oven duct regularly to prevent any hood or duct fires.

"For your safety, individual shut off valve must be disconnected from gas supply when pressure testing is equal or less than 1/2 PSI."

Warning: Always disconnect power cord from electrical outlet before servicing any electrical component in this oven.

"This oven has not been tested for use with doors. To reduce the risk of fire or injury, never run the oven with doors in place.

The oven flue should be inspected at least *six* ***times a year to determine If creosote buildup has occurred.*** *This happens with wood burning ovens.* ***If creosote has accumulated, it should be removed to reduce risk of fire."***

"Do not use products not specified for use with this oven."

"Do not over fire-.
If flame spills out of the oven opening, you are over firing."

Direct inquiries to **DoughPro Ovens; Phone (951) 657-0379**
Or your local representative.

"Disposal of ashes. **"WARNING"**

Ashes should be placed in a metal container with a tight-fitting lid. The closed container of ashes should be placed on a non-combustible floor or on the ground, well away from all combustible materials, pending final disposal. If the ashes are disposed by burial in soil or otherwise locally dispersed, they should be retained in the closed container until all cinders have thoroughly cooled."

DoughPro Ovens; Phone (951) 657-0379

"CAUTION"

DISCONNECT ALL POWER SUPPLIES BEFORE SERVICING

WARNING

Improper installation, adjustment, alteration, service or maintenance can property damage injury or death. read the installation , operation and maintenance instructions before installing or servicing this equipment.

WARNING

This appliance is equipped with a three prong plug for voiur protection against shock hazard and should be plugged into a properly grounded receptacle. Do not cut or remove the grounding prong from this plug.

LIGHTING INSTRUCTIONS

To light char grill turn knob till red lines lined up. Push knob in and hold in to release gas. press Ignitor button to ignite flame. once lit, hold knob for 30 sec to light the pilot. Once pilot is lit, turn the knob to the on position and the char grill is ready for

DOUGHPRO

20281 Harvill Ave. Perris CA 92570
www.doughpro.com

NY MEA# 114-08-E
MODEL DP07 S/N 165897
VOLTS 120 60 HZ 1AMP Single Phase

Temperature Controller: Red Lion Model T1624 VAC UL#E166876
Gas Type: Natural Gas High Pressure 4" WC Low Pressure Min.
Burner Capacity. Main 79,000 BTU
Display 67,000 BTU
Food Service Equipment MFG: 0712

Intertek 4001284

Intertek 4001284

Minimum clearance from combustible materials: top 15 inches, sides and back of the oven 1 inch.
For installation on non-combustible floors only. Extend non-combustible flooring to 30" each side of oven door opening and 36" in front of door opening.
This cooking equipment is to be provided with an exhaust hood tested for compliance with the Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations, NFPA 96, or with the requirements in the Standard for Exhaust Hoods for Commercial Cooking Equipment, UL 710. Alternatively it may be connected via a UL listed transition to a Class A grease duct constructed to 1994 Uniform Mechanical Code.
Refer to manufactures installation instruction for precautions, clearances and minimum required air flows required for installation of the exhaust hood. Ensure compliance with local building codes. Inspect and clean the oven and flue frequently under certain conditions of use, creosote buildup may occur rapidly.
Install and use only in accordance with installation and operating instructions provided with the unit.
Contact local building officials or fire officials about restrictions, installation and inspection in your area.

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Oven Installation and Operation Manual

Section One:

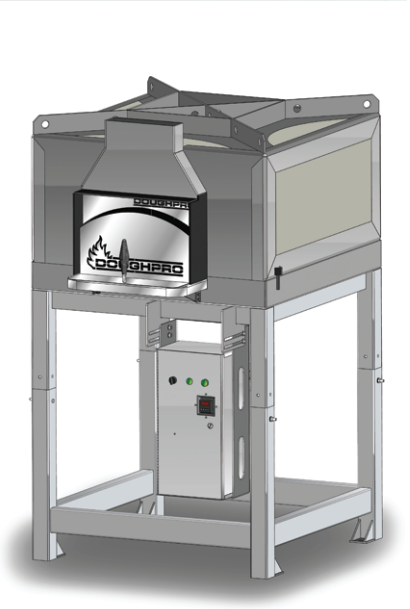
Oven Installation and Operation Manual

DESCRIPTION OF DOUGHPRO OVEN

The DoughPro Oven utilizes wood,coal or gas or a combination of both to perform regular baking of foods in particular pizza. The basic oven is available in various different sizes.

The oven comprises a ¼"(6mm) mild steel outer skin of two sections, top and base.

The base includes four SHS legs supporting the floor of the pizza oven. The refractory lining of the base utilizes 'High Alumina' bricks as the hot face. The floor is insulated by a layer of vacuum form board sheet.



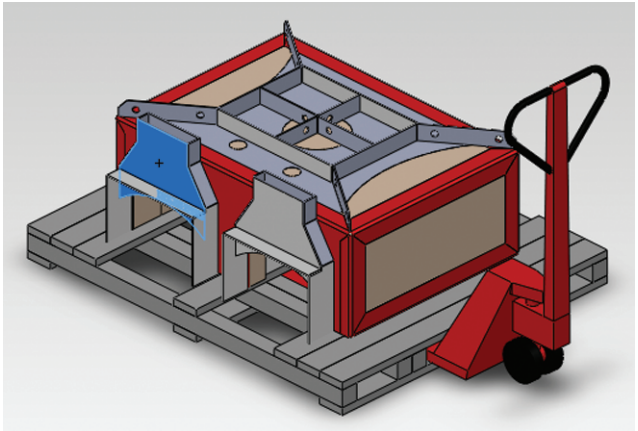
The top section of the pizza oven has a steel outer frame as mentioned. The inside hot face cavity is made up of hot face castable. The castable used is rated by a factor of two to withstand the hottest possible burning in a naturally aspirated timber or LPG environment.

Externally the oven is to be covered in a further 2"(50mm) of ceramic wool to act as a further insulating barrier. Typical cold face temperature is 110°F (45°C) with a typical internal temperature of 850°F (450°C).

Typically the oven is then "built in" using an architectural wall such as brick or firecheck plasterboard. (refer to the installation instructions in this manual.) The oven has been designed to operate reliably and safely in all environments. DoughPro Ovens have a standard training course for oven operators available on request.

OVEN BASE

OVEN TOP (as shipped.)



IDENTIFICATION OF PARTS

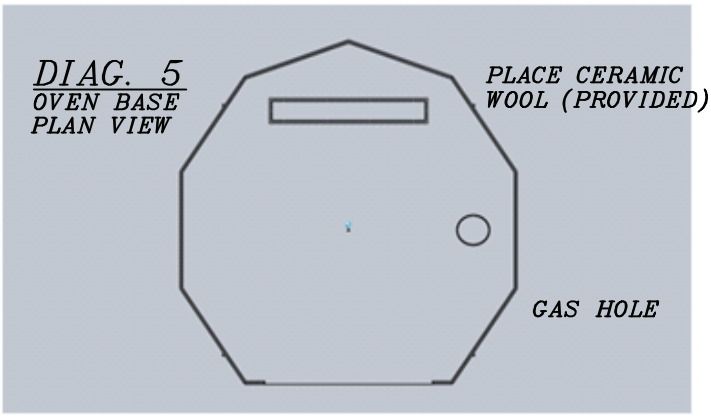
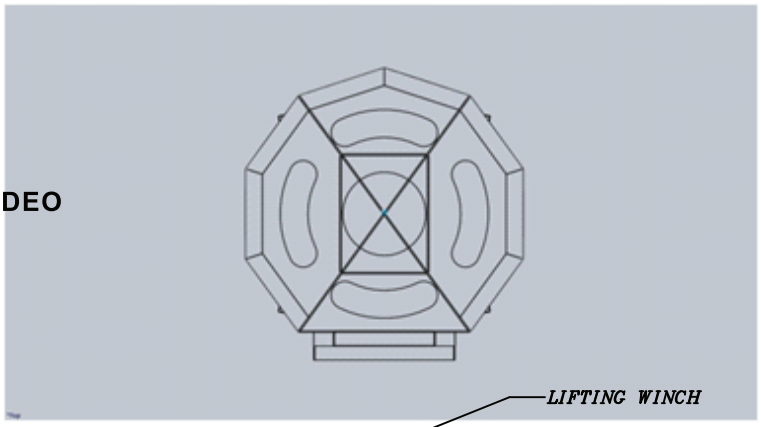


diagram 5 - Oven Base (Pic.2)
diagram 6 - Oven Top (Pic.1)

FRONT

DIAG 6
OVEN TOP
PLAN VIEW

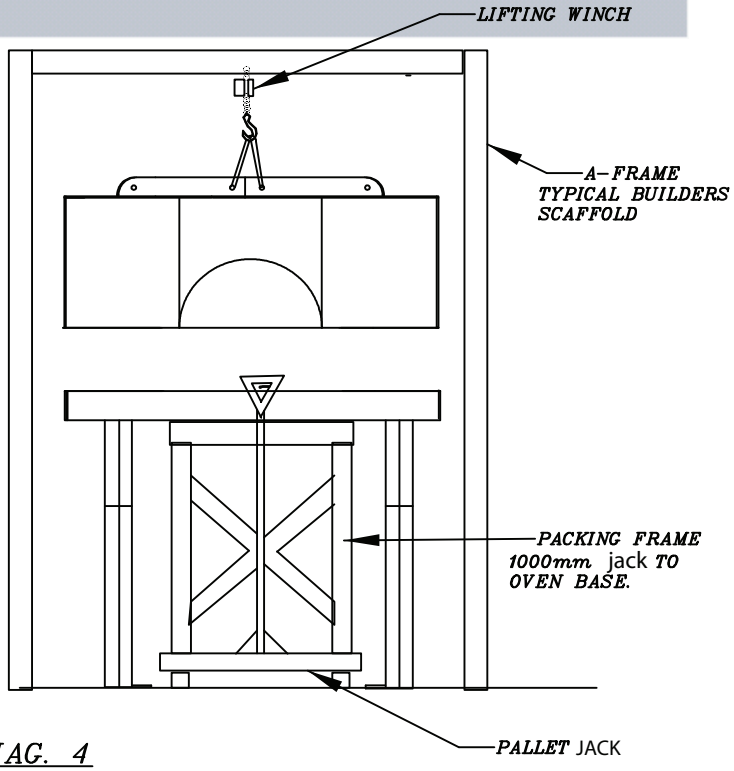


Equipment Required

NOTE: SEE INSTALLATION VIDEO

Pallet jack as per diag 4.
Lifting frame as per diag 4.
Chain block/winch 2 ton
D shackles 75mm / 3inch, 2 off.
Wire Sling 2 ton
2 x 2200 lbs chains or wire
Sling 10 feet long.
Long blade knife
Glue pot and brush

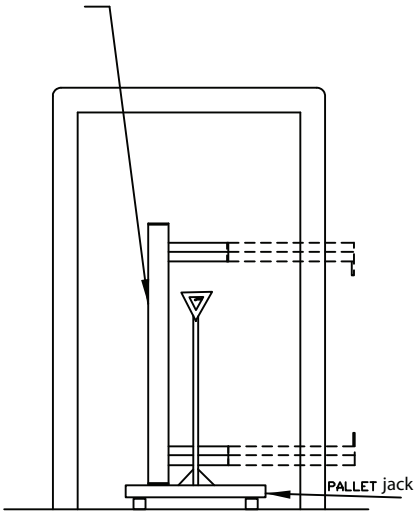
Spare timber for packing



DIAG. 4
FRONT ELEVATION OF OVEN
AND LIFTING ASSEMBLY.

PRELIMINARY CHECKS

The oven is transported by truck, ship or plane to its destination. The oven comes in two halves, top and bottom weighing 2500 - 4000lbs. (1100 - 1800kg) or shipped in one piece respectively. (The consignment document is a good check to establish oven weight.) Once on the ground, the method of installation is dependent on the difficulties of access. If there is sufficient width eg. 5' (1600mm) (in the case of the 5 ft. model) and no stairs, the oven can be moved by pallet jack to its desired location. A mobile 'A' frame or scaffold is then assembled to lift the top section. The base is then wheeled in on the pallet jack and placed underneath. (Diagram 4)



DIAG. (1)
TYPICAL ELEVATION FOR DOORWAYS AND ELEVATORS.

In the cases where there are narrow corridors and stairs, both halves of the oven must be individually placed on their edge on a pallet jack and moved through the narrow passages. The oven half will fit into a standard elevator. (Diagram 1) (Check elevator load capacity) If there are stairs, there must be sufficient width to install the 'A' frame to move the halves up the stairs. If there are too many stairs or the corridor has corners that are too sharp, or the opening is narrower than 2'6" (700mm), the oven cannot be installed without modifications to the building. If there is a timber floor, investigation must be made to ensure it will support the oven. For installation purposes, we utilize thick sheets of ply to spread the weight of the oven when we transport it over any surface, which may be damaged by the wheels of the pallet trolley.

The minimum mantle extension areas to be covered with relationship to the door opening of the oven for combustible floors. At least the following areas shall be specified:

1) 30 inches (762 mm) to each side of the door opening.

2) 36 inches (914 mm) in front of the door opening.

CONTRACTORS RESPONSIBILITY

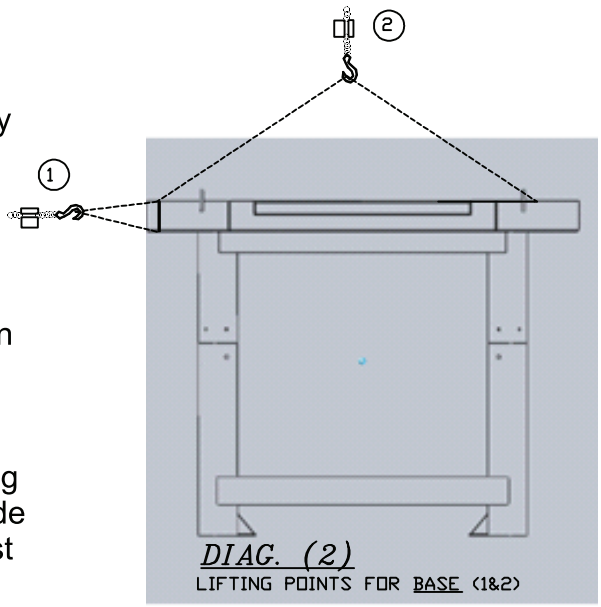
All equipment comes ready to operate. **Always check for correct set up for local gas supply.** The only requirement is mains electricity 110-120V and a ¾ inch (19mm) supply gas line for final connection. Please ensure gas supply line is sufficently sized to handle the gas load (See supplement Doughpro Sit 826 Supp2.) and correct pressure is available to the gas box.

Installer is responsible to make sure oven is level to the floor

All work required for installation must be carried out by approved persons and comply with all local codes and Regulations in force at time of installation.

INSTALLATION PROCEDURE

Prior to installing oven, visit installation area and determine if there are doorways narrower than the oven in an upright position (normal).
If there is no narrow doorways, the oven can be kept in the horizontal plane i.e. not put in the vertical plane to go through doorways.
The oven has been designed to fit through any standard doorway on its side and to fit in any standard elevator.
Take the Oven to the site. Remove base from the pallets . DO NOT REMOVE PLYWOOD FROM TOP OF BASE.
Carefully remove and store in a secure location the equipment stored beneath base.
(Ready for later assembly.)

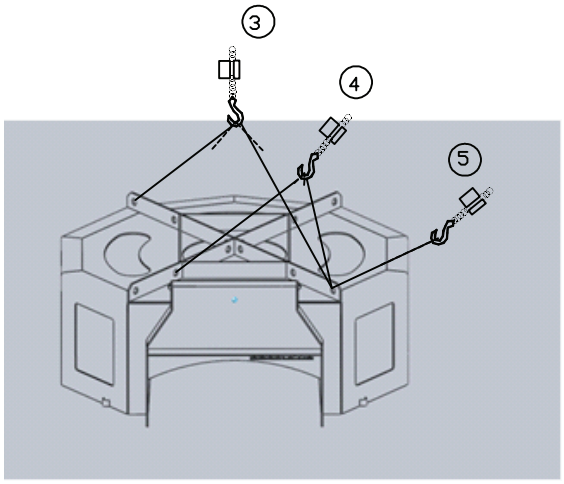


DIAG. (2)
LIFTING POINTS FOR BASE (1&2)

Lift TOP section from truck to pallet jack using forklift or mobile crane and place on its side on pallet jack as per diagram 1 (only if it must go through narrow doorways). When lifting the TOP, lift from position 5 of diagram 3 to enable this heavy item to be lifted onto its side.
Move TOP to kitchen.
Now lift base using Lifting Point 1onto its side on the pallet jack

(Do not remove plywood from top of base.)

Remove legs from oven base to reduce its horizontal width (if necessary).
Carefully move this section of oven to location.



DIAG.(3)
LIFTING POINTS FOR TOP (3-5)

IN KITCHEN

Assemble lifting frame in kitchen where space permits.
(The WHOLE oven can be moved in the kitchen area later on the pallet jack .)
Utilizing lifting point 4 on diagram 3 lift the top to the horizontal plane. Place on the ground. Re-lift oven utilizing lifting points.
Lift oven to maximum height leaving a clear space underneath of 4' (1150mm) to enable base of oven to fit beneath.
Lift the base of the oven to a horizontal position and place on pallet trolley as per diagram 4. Remove plywood from top. Move base under elevated top section as per diagram 4&6.

Place strips of ceramic wool (supplied) as per diagram 5
beneath the top of the oven wherever the top touches the base. Position wool strips so that they remain hidden when the two halves of the oven are together. The seam inside the oven is to be filled later with "moral-cast 35" (supplied).

The oven is then covered externally in ceramic wool (2" (50mm) superwool), using the wool and glue provided.

.NOTE: ALWAYS FOLLOW HOOD MANUFACTURES CLEANING PROCEDURES

Installation of the exhaust hood in should be in accordance with the Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations, NFPA 96, or other regulatory body. We recommend "**Captive Air...**."

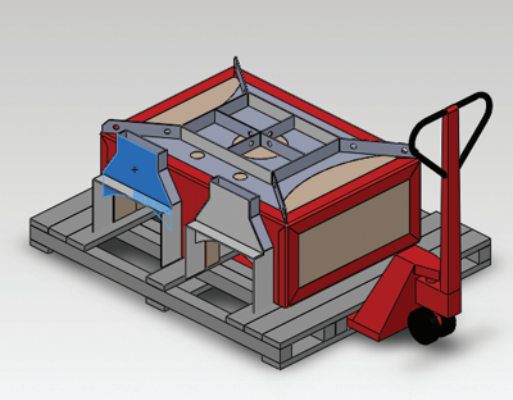
National Accounts
Captive-Aire Systems Inc.
4641 Paragon Park
Raleigh NC 27616
800/334-9256
919/882-5204 fax#

Transportation

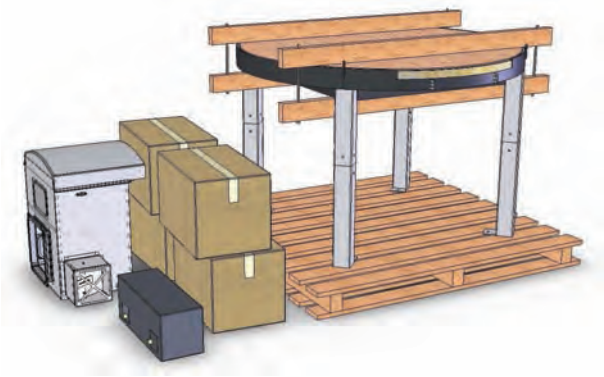
Take the Oven to the site.

Lift the Upper section from truck using a mobile crane of sufficient capacity.

Move the Upper section to kitchen. *(Remove from pallet and place on it's side on pallet jack if it must go through narrow doorways - See previous section - **Lifting Positions**)*

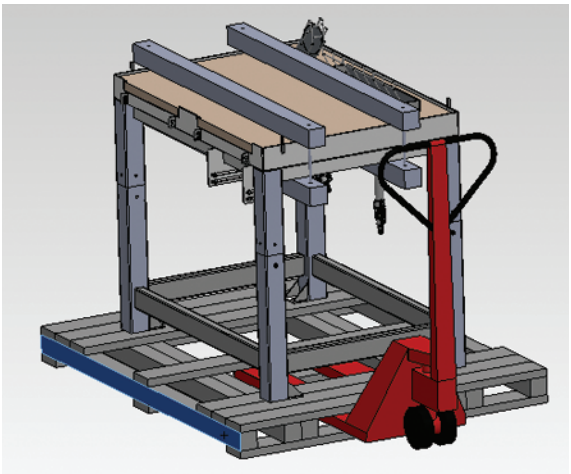


Lift the Base section from truck using a mobile crane of sufficient capacity.
*(Remove from pallet and place on its side on pallet jack if it must go through narrow doorways - See previous section - **Lifting Positions**)*
Do NOT remove plywood from top of Base.



Carefully remove the equipment stored beneath the Base and store in a secure location (ready for later assembly).

Now lift the Base onto pallet jack. *(On it's side if it must go through narrow doorways: See previous section - **Lifting Positions**) Remove legs from oven base to reduce its width if necessary.*

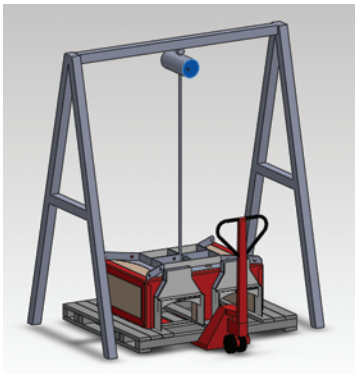


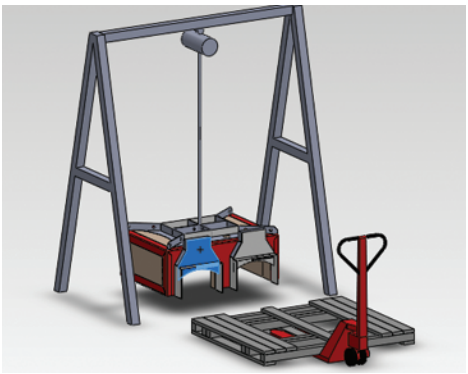
Carefully move this section of oven to location (re-attach legs firmly with supplied *bolts if transported on its side).*

Assembly

The procedure mentioned below uses an "A-Frame" lifting method for assembling the oven. Other lifting methods may be used e.g. a fork truck or crane, however the following principals still apply.

Assemble lifting frame in kitchen where space permits. (The assembled oven must be able to be moved within the kitchen area without obstruction later on the pallet jack.)

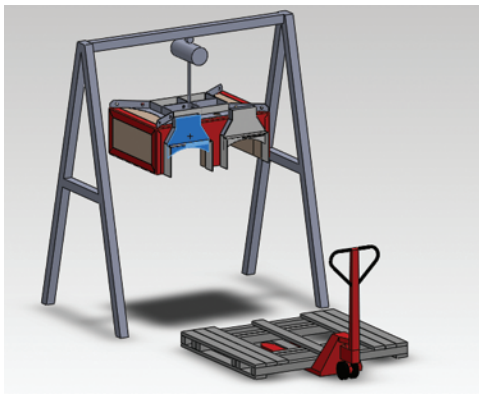


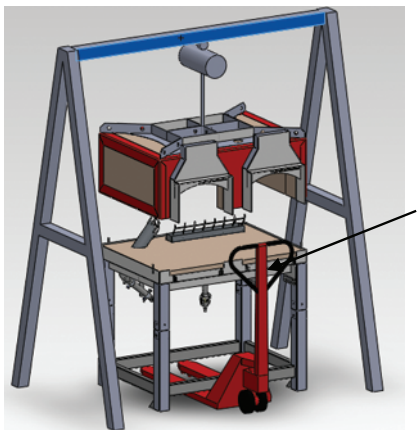


Utilizing lifting point 3 on previous diagram, lift the top free of the pallet and place on the ground, while moving the base into position.

Lift the oven top to such a height to leave a clear space underneath of minimum 46 inches to enable the base of the oven to fit under oven top.

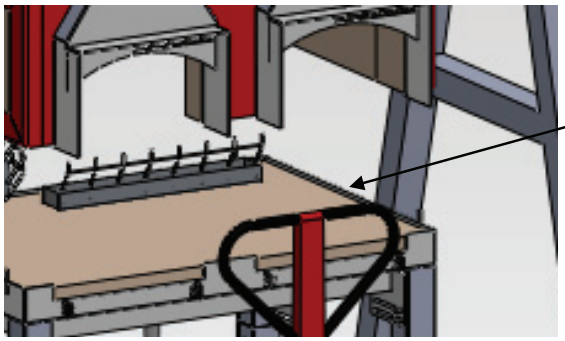
(Lift the base of the oven to a horizontal position and fit legs if previously removed.)





Move base under elevated top section using a lifting frame or a stack of narrow pallets, **being careful not to damage any equipment under the oven; e.g. burners, sensors, etc.**

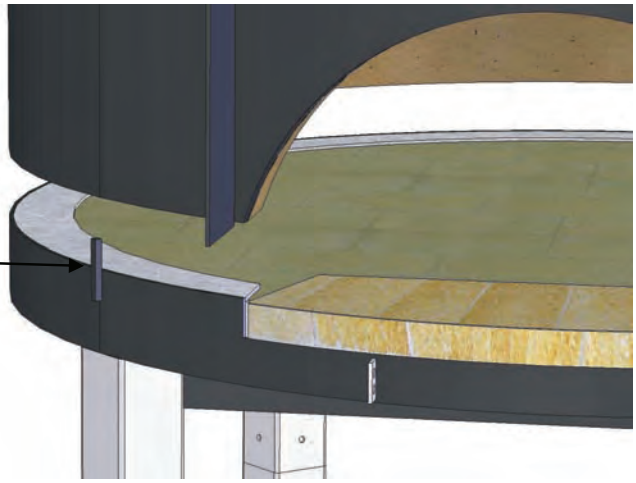
You may now remove the protective plywood from the top of the base.

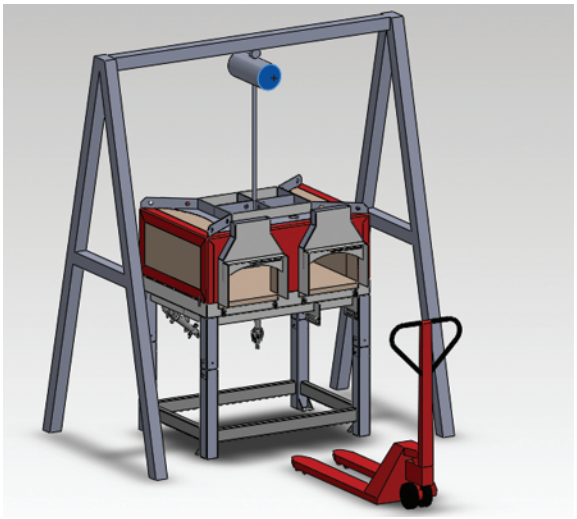


Place strips of 2 inch x 1/2 inch ceramic insulation wool *(supplied)* beneath the top of the oven where the top section touches the base.
NOTE: No wool should come between the steel of the top and base.

Position wool strips so that they remain hidden when the two halves of the oven are assembled together.

Align the top and base using the positioning tabs welded to the base, locating the rear tab first. **Ensure that the oven mouth aligns with the cut-outs in the base.**

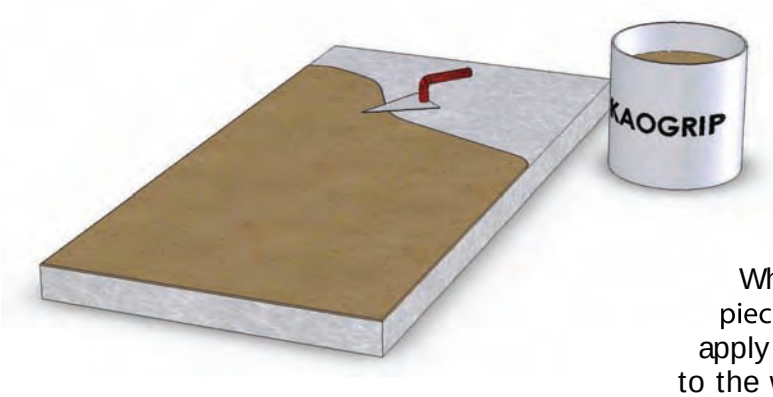




With the two halves together the oven is now ready to have the supplied 2 inch ceramic insulation wool fitted to the external surfaces.

The “A-frame” can now be dismantled and removed.

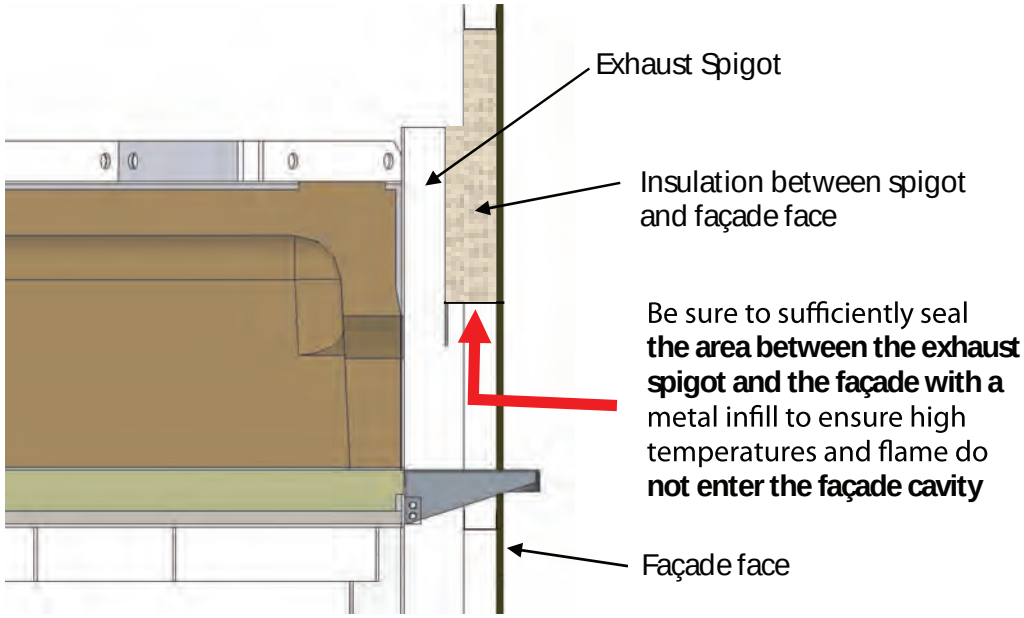
The external surfaces (sides and top) of the oven are then completely covered with ceramic insulation wool (*2 inch Superwool*) using the high temperature Blox Stix glue provided.



First cut all pieces required to cover the sides and top using a sharp knife. These should fit closely up to each other with no visible gaps to allow heat to escape.

When all pieces are cut, place each piece on the floor and, one at a time, apply a generous coat of Blox Stix glue to the wool as shown using a trowel or similar application tool.

An important area to be aware of is directly in front of the exhaust spigot of the oven. If the façade protrudes from the spigot there may be an area between the spigot and the façade which is left uncovered and vulnerable to soot and grease build up. This area is commonly overlooked when constructing the oven façade and if not sufficiently sealed creates a fire hazard .



When fitting the ceramic insulation wool to the oven, be sure that the wool is firmly in place and that all air pockets are removed. The glue will dry in approximately one (1) hour depending on ambient conditions.

The oven is now ready to be moved carefully and exactly into its final position, using the lifting frame and a pallet jack *(or similar).*

1 inch Air Circulation Gap

If required, fasten the legs to the floor using approved fasteners for the specific type of floor material.

NOTE: Fully assembled the oven can be extremely heavy. Be sure to use suitable lifting equipment when moving to final position.

NOTE: INSTALLER IS RESPONSIBLE TO MAKE SURE OVEN IS PROPERLY LEVEL

NOTE: A 1 inch Air Circulation Gap is to be left between the ceramic wool and any surface surrounding the oven after final installation. Failure to leave *this air gap will result in above normal temperatures being transferred to exterior surfaces, causing a* fire hazard .

BUILDING IN

The oven can be surrounded in any form of fire resistant building material including Brick, stainless steel, colorbond (sheetmetal) corrugated iron, Plasterboard or Fibro-Cement.

External temperature would normally be 80-100°F(30-40°C).

The minimum mantle extension areas to be covered with relationship to the door opening of the oven for combustible floors. At least the following areas shall be included:

30 inches (762 mm) to each side of the door opening.
36 inches (914 mm) in front of the door opening .

An air gap of **one inch (25mm)** is to be provided external of the oven and 2 inches (50mm) of "superwool "insulation.

The air gap above the oven should be **15" (381mm)** clearance to combustibles from the top.

Where the façade meets the oven at the door way, non combustible material should be used.

INSTALLATION SUMMARY & BRICK SURROUND DETAILS. (Next page)
(REFER ALSO TO EXPLANATORY PHOTOS AND INSTALLATION VIDEO)

Surrounding the oven in Brick

Photograph 4 is of a standard 5 ft. model in location ready for the ductwork to be connected. (Our quoted price, does not include canopy or ductwork.) It comes in two parts, the base and top section. Once the oven is located in the specified position, the brick wall can be built. We have found the best result (the smoothest finish after rendering) is achieved by the use of half bricks. Commons can be used. Full bricks would have to be used if the bricks were to be exposed. Local health authority regulations should be considered for these requirements.

Most of our installations have room for firewood beneath the oven as can be seen in figure 1. It is highly recommended that a wood box be purchased with the oven; Doughpro heavy duty stainless steel wood box can help you storing the wood that is going to be used throughout the day.

Figure 1

Wood box

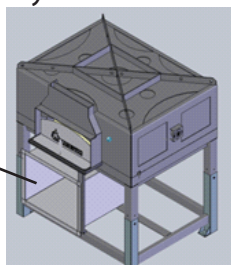


Figure 2

Access panel

Gas box

Ten courses of bricks can be laid to approximately 3' (900mm) in height. A timber pattern above the lintel, will enable the bricklayer to keep a good circle.

In photograph 5 you can see where the lintel is placed above the timber storage enclosure. Above this is laid two and one-half courses of bricks. This brings up to the level of the s/steel mantle attached to the oven. Care should be given to access the mounting bolts through the brickwork for future maintenance. Black granite can be seen in photograph 5.

NOTE: All canopy and ductwork should be completed before bricklaying can commence.

Once all these items are complete, the bricks can be rendered and painted in any color with normal paint. Externally, the brick wall will not feel noticeably warmer than ambient

If the oven installed is gas fired, an access area must be left for access to the gas equipment and to enable the ingress of air to the burners. A mesh panel of 16"x16" minimum can be incorporated for this ventilation.

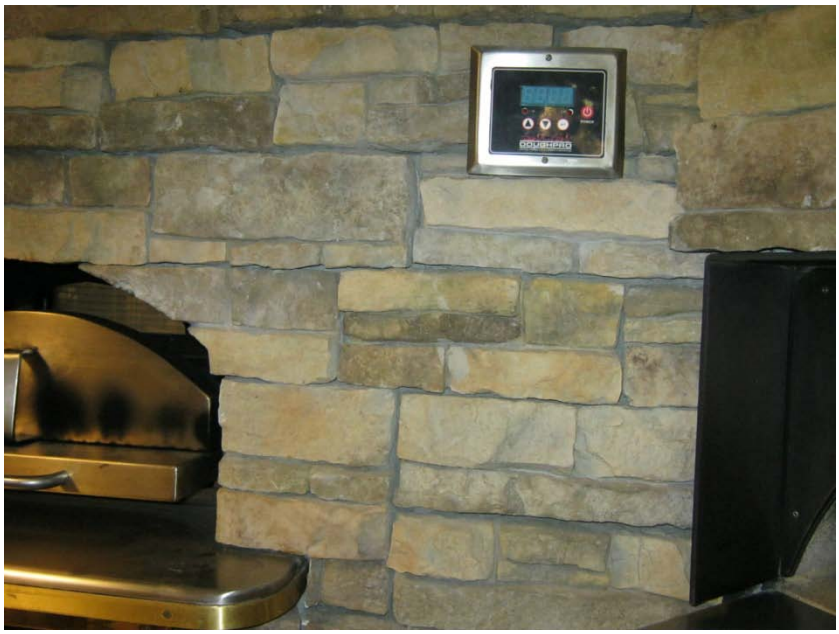
Access to the gas control box can be located in the brickwork on those models with gas backup. This stainless steel box is bolted to the oven leg. There is a key supplied to access the gas control box and this should be kept in a safe location away from the appliance.

The built in design should be made to restrict access to unauthorized personal.

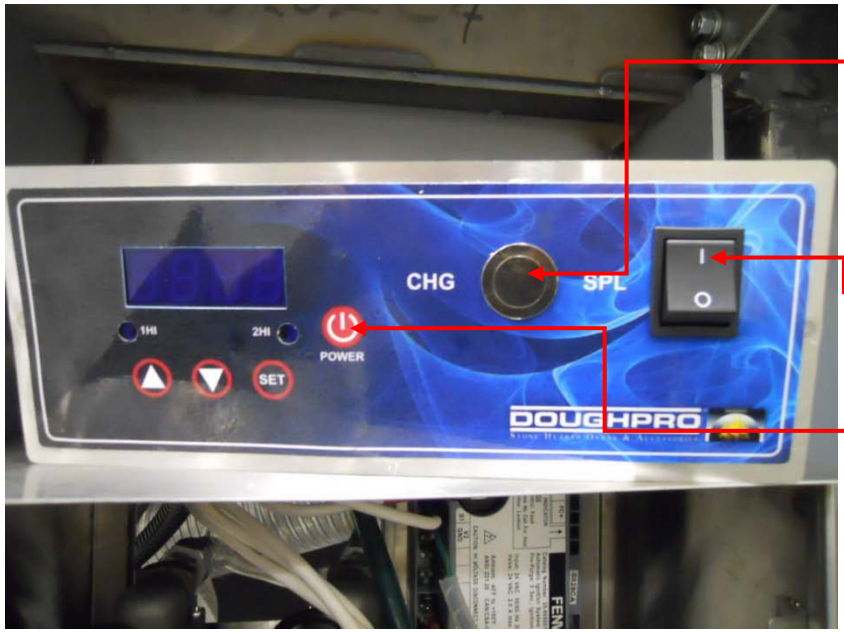
OTHER BUILDING MATERIALS If you require more detailed advise for construction using any other building materials, please contact this office.

Oven controls Installation

Install remote controller in a location no further the 6ft it is up to the customer's discretion to install where they want
Depending on the oven configuration the control might a little bit different than the control shown below.
It is up to the installer to make sure digital control is properly secure when installing the oven.
If digital control needs to be replace or service contact Doughpro



Install digital controller no further than 6ft from the center of the oven



Controller with char grill and spot light configuration

GAS SYSTEM FOR DOUGHPRO OVENS

(USA MODELS: UL RATED)
DoughPro Ovens - gas-fired ovens were tested and approved by Underwriter's Laboratories Inc., as specified by ANSI Z83.12-1994,

GAS BACKUP (GB) (Single Burner) assistance with solid fuel.
FULL GAS OPERATION (FG) (Double Burners)
GAS CHAR-grill. (CG)

SYSTEM OVERVIEW

There are three types of gas systems supplied to the USA markets. A single burner system, a double burner system and a gas char-grill option. The "double burner system" (full gas) system is simply two single systems together with a shared thermocouple and controller. Therefore all thermal inputs mentioned below are simply doubled for "FULL GAS OPERATION".

The 'Char-grill' option gives the added convenience of a slide out grill drawer with a separate gas system of burners and radiants for grill cooking inside the oven.

SYSTEM SPECIFICATIONS

The thermal input of the gas backup system is 57,000 BTU's (60 Mega Joules') for Propane and 76,000BTU's (80 Mega Joules') for Natural Gas. These inputs are dependent upon the gas pressure, as detailed in the specification sheet. The gas system utilizes a single burner of 1½" (40mm) for Natural Gas applications and 2"(50mm) diameter for Propane, The flame from the burner head penetrates up from beneath the oven floor. The burner is controlled by a system that monitors the oven temperature by a sensor (thermocouple) located in the oven floor, which is connected to a digital temperature controller which in turn controls a Flame Pack and a Combination Gas Valve.

It utilizes secondary air from below the oven floor. **An open vent must always be made available to the underside of the oven for this reason.**

NOTE: GAS TECH SHOULD BRING IN A SINGLE INLET TO SUPPLY GAS SYSTEM AND CHARGRILL

A high voltage spark energized from the Flame Pack, (which also controls the Flame Failure System), ignites the burner. This Flame Pack will also immediately close the main valve (Combination Gas Valve.) in the event of a fault causing flame failure. The igniter assembly includes 3 probes. 1 for flame ignition, 1 for flame sensing and 1 for earthing. It is imperative that the probes are correctly connected. As reversal of the wiring will cause damage to the Flame Pack, When the pre-determined temperature "set point"(SV) is reached, the gas supply to the burner is reduced to 'low flame' until the oven temperature drops below the 'set point'(SV). It will then go to 'hi flame' keeping the oven at the desired temperature.

The equipment is fully adjustable for use with Natural gas or Propane Gas. Conversion between the 2 gases is achieved by changing the combination valve and changing jet sizes. See more information on the specification sheet supplied in this manual. Refer to page 21, 22 **All work required for conversion must be carried out by approved persons and comply with all local codes and regulations.**

CONNECTION OF GAS SYSTEM

UL RATED

This work should be carried out by an approved Gas Technician.

For the gas system of this oven, air must be able to enter beneath the oven for satisfactory combustion. Ensure secondary air is available from beneath the oven. Greater than 16"x16"(400 x 400mm) square of venting or opening MUST be provided beneath the oven for air to the burner as well as granting access to the gas system.

Confirm with DoughPro Ovens or their distributor that the gas equipment set-up supplied is correct for the type of gas being used. See Technical Details chart (p16) of this manual for Gas jet sizes and pressures required. (Refer to 'SIT' supplement at rear of this manual).

Mount the stainless steel gas control box to the brackets (usually on the front leg of the oven) supplied. There is a key supplied to open the control box door. Don't loose this.

Connect the ½" pipe supplied from Solenoid valve to burner/ venturi. No sealant is required on this type of connection.

Connect high-tension leads from the "Fenwell" spark pack to the "PSE" igniter at the burner head. There are color-coded and specifically sized plugs to ensure connection cannot be mixed up.

The Stainless Steel burner shroud should be fitted inside oven.
See DWG 220 at the rear of this manual.

Mount the ¼" (6mm) diameter thermocouple probe into hole next to burner hole. The thermocouple should be flush or no more than $^{1}/_{50}$" (0.5mm) above the oven floor. Do not over tighten clamping nut. Just enough pressure to hold position. See DWG 220 at the rear of this manual.

Connect to reticulated gas supply at the ¾" (19mm) flare fitting at base of the gas box.

Check all gas / mechanical and electrical connections to all equipment. Ensure burner is located firmly.

Check gas flow logic - opening all relevant manual valves.

The gas control system comes fitted with a standard plug for a wall socket. (Always unplug the system while any work or inspection is carried out.)

Proceed with start up procedure outlined in 'Commissioning'.

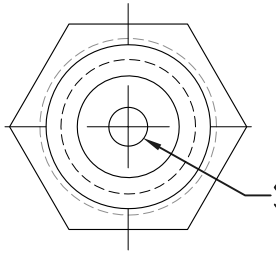
If a char-grill is installed, connect 3/4″ gas line to manifold and tap assembly.
Include the manual shut off valve to isolate this system also.

DOUGHPRO OVENS

GENERAL TECHNICAL DETAILS - PIZZA OVENS.
CHECK OVEN'S DATA PLATE FOR SPECIFIC INFORMATION

ALL MODELS			
GAS TYPE	NATURAL	PROPANE	CHAR-grill
Thermal Input	76,000 BTU's 80 MJ/HR	57,000BTU's 60 MJ/HR	47,000 BTUs 50 MJ/Hr
Gas Supply Line	3/4" 19MM	3/4" 19MM	3/4" 19MM
Power Supply	110 v 10A	110 v 10A	
Burner Jet Size	4.10MM DIA 0.16î DIA	2.30MM DIA 0.9îDIA	Contact DoughPro For details.
Gas Pressure At **High** Burner Injector **Minimum Low**	4" WC (1kPa) 1.5" WC (0.375 kPa)	11" WC (2.75KPa) 3" WC (0.75 kPa)	
Gas Supply Pressure to Inlet at Oven Isolating	24" (6.0 KPa) MAX 8" (2.0 KPa) MIN	24" (6.0 KPa) MAX 12" (3.0 KPa) MIN	
Gas Consumption per Hour (Approx)	72 ft3 / Hr (2.0 M3/HR)	22 ft3/ hr (0.6 M3/HR)	36-108 ft3 / Hr (1.0-3.0 M3/HR)
Timber Consumption Hard Wood /No Gas/ Lunch & Dinner	0.1 ton. 0.1 M3 Per Day	0.1 ton. 0.1 M3 Per Day	Not applicable to GAS ONLY ovens
Secondary Air for Gas Burner	12^3 ft/min(6.0 litres per second) (Approx)		
Air Conditioning Heat Load	< 2 kW Heat Load		

CHAR GRILL ORIFICES SIZE

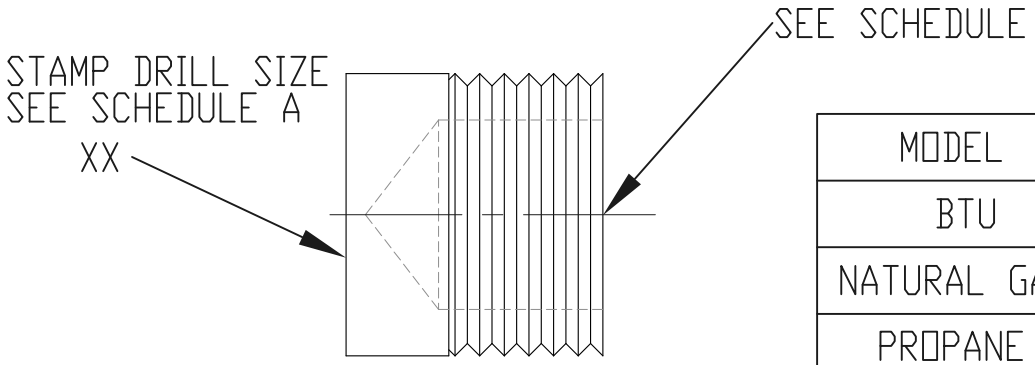


STAMP DRILL SIZE SCHEDULE A

SCHEDULE A

MODEL	CHAR GRILL
BTU	47,000
NATURAL GAS	No. 42 DRILL
PROPANE	No. 54 DRILL

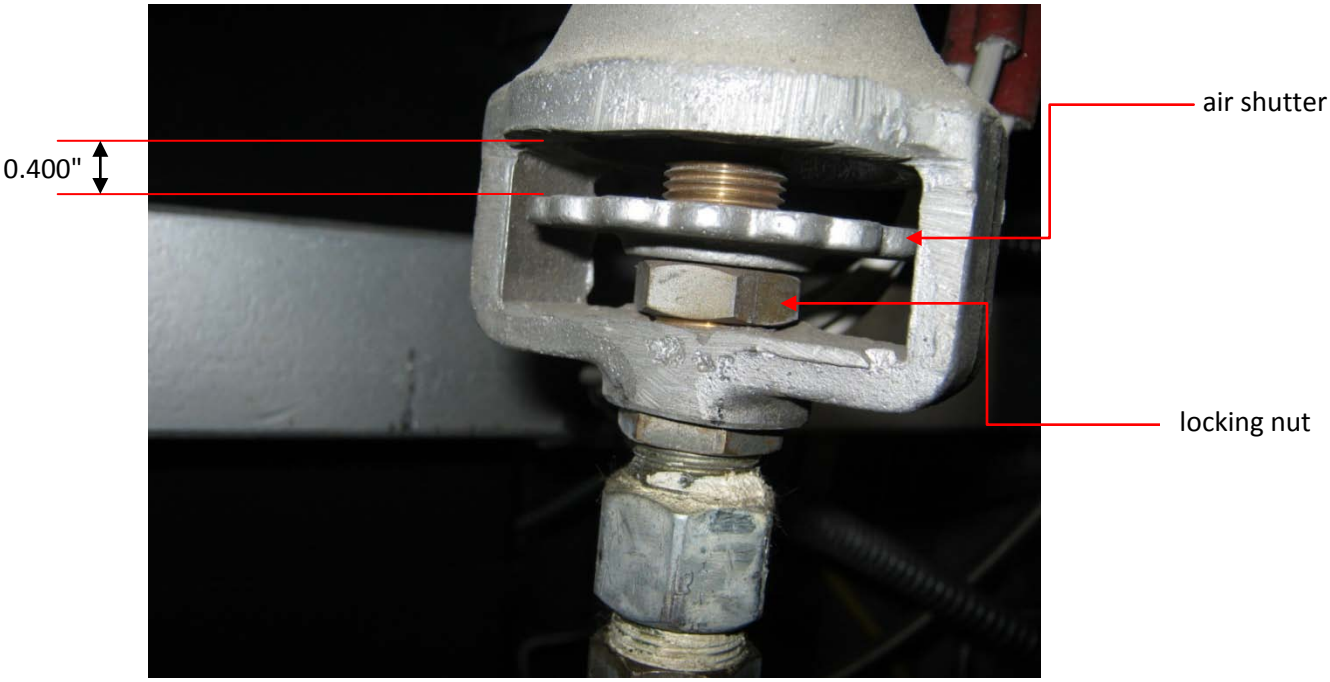
DISPLAY AND TORCH BURNER ORFICES SIZE



SCHEDULE A

MODEL	500 DISPLAY	700 DISPLAY	TORCH
BTU	57,000	67,000	76,000
NATURAL GAS	NO. 26 DRILL	NO. 23 DRILL	NO. 20 DRILL
PROPANE	NO. 43 DRILL	NO. 40 DRILL	NO. 37 DRILL

RIGHT FLAME COLOR



In order to have a good combustion for your oven, the mixture of air and gas has to be right, the flame on either torch or display burner can tell you if the mixture of these two elements is been achieved.

A yellow flame means that there is not enough air mixing with the gas causing a poor combustion on either burner.

A blue flame means that there is too much air in gas mixture.

Blue color and ½ inch of yellow on the tip means that there is enough air and gas mix together to obtain a good combustion.

All ovens are calibrated to make sure there is a good combustion of oxygen and gas, a gap of .400" is set between the venturi and the flat washer and it is properly lock by a hex nut. In cases where the amount of air is not enough or is too much, the air shutter and hex nut have to be move up or down; by moving the air shutter down the amount of air going through the venturi will increase, by moving the air shutter up the amount of air will decrease, make sure locking nut is also adjusted.

COMMISSIONING

SYSTEM OPERATION & DESIGN

Pre-heating the oven.
TURN SWITCH TO "CONTROL"

TEMPERATURE CONTROLLER WILL SELF CHECK THEN DISPLAY "SV". SET "SV" (SET TEMPERATURE) TO 200 °F

TURN SWITCH TO "BURNER ON"

jack
BURNER SHOULD IGNITE. (LISTEN FOR THE SPARK) IF BURNER DOES NOT LIGHT, THE WHITE FAULT LIGHT TURNS ON .
RESET THE MAIN SWITCH ON THE GAS CONTROL CABINET.
(ON TO OFF AND BACK TO ON.)

WITH NEW INSTALLATIONS THIS MAY NEED TO BE DONE 3 OR 4 TIMES TO PURGE THE GAS LINES.

The gas system is fully automatic and when switched on automatically sends a high voltage spark to the gas burner head. It continues to spark for 6 - 10 seconds. The flame will light automatically and drop to 'low flame situation' once 'set point' ('SV') temperature is reached.

If the burner does not ignite in 6 - 10 seconds, the system stops sparking for flame failure protection.

In the event of the burner failing to light, the burner will go into 'LOCK-OUT MODE'. In this mode, the oven is 100% safe. No gas can flow. To restart the burner from 'lock-out mode' Restart the system from the main control switch. (Turn off Then turn switch back to the "ON" position. If the burner fails to light after four (4) attempts, turn the control switch off and **call in a service professional.**

Or contact the DoughPro Ovens head office or authorized dealer.

Please refer to the pre-heating instructions in the operating instructions following in this manual. After the two (3) days pre-heating are completed adjust the gas / air nozzle to achieve the following characteristics. The flame should reach the roof of the oven.

On NG it should be blue at the base with light yellow tails,

On Propane, the flame will be mostly light yellow.

Deep yellow to orange is NOT correct and will deposit soot on the roof of the oven. The air adjuster, on the Venturi (Burner) will need to be almost to fully open for Propane.

There must be adequate ventilation beneath the oven to feed air to the gas flame.

You may direct gas technical questions to the 'DoughPro Ovens' head office. Or your local representative.

PREHEAT FIRE

The purpose of this fire is to dry out the oven mortar slowly which will prolong its life. It also brings the oven mass to cooking temperature at a rate that will settle the materials evenly. Once this preheat has been carried out, you can operate the oven with just timber, just gas or a mixture of both. With daily use of the oven the warm up period is usually around two (2) hours.

USING WOOD

The oven must be preheated to thoroughly warm the oven **without** the purpose of cooking. This is best done by making a fire just as you would build any fire for a bar-b-queue. **"Do not over fire. If flame spills out of the oven opening, you are over firing**." A small fire is ideal for slow preheating. Normally 2 or 3 logs of timber are sufficient. It is recommended not to exceed 8 logs at one time.

Ie. "Do not over fire. If flame spills out of the oven opening, you are over firing."

The best wood to use is anything **HARD, DRY AND DENSE, WITHOUT PAINT AND UNTREATED.**

To start the fire (SEE VIDEO SUPPLIED), find a flattened cardboard box. Place your larger pieces of hardwood on the outer extremities of the box and place kindling and softwood on the inside with newspaper under the kindling. Light the kindling. Once the kindling is satisfactorily alight, push the whole lot to the position in the oven (either the side or the back) where you normally locate the fire. This fire of approximately 16" (400mm) diameter should be kept going for 3 Days to thoroughly pre-heat the oven prior to use.

USING GAS

During the warm up stage it is best to use the gas backup set at 200 °F with the main valve throttled down to allow only a small (6" (150mm) soft flame). You will find the digital temperature controller in the stainless steel box below the oven. SEE ATTACHED INSTRUCTIONS FOR THE GAS SYSTEM (Section one).. When the **3 day preheat** is complete the flame should be adjusted to its most aggressive and it should reach the roof of the oven. On NG it should be blue at the base with light yellow tails. We suggest you have the gas fitter there when doing this to fine tune the gas/air mixture.

On Propane, the flame will be mostly light yellow. Deep yellow to orange is NOT correct and will deposit soot on the roof of the oven. The air adjuster, on the Venturi (Burner) will need to be close to fully open for Propane.

There must be adequate ventilation beneath the oven to feed air to the gas flame.

At least a 16"x16" ventilation panel under the oven is required for air to the burner.

If you are having any problems, please to call the DoughPro office or the local representative.

Stone Hearth Oven Spare Parts List

The following is a condensed list of suggested spare parts.

We strongly recommend you carry spare parts: The following list is in order of priority . Items 1-4 being the most vulnerable.

All these parts are crucial to the ovens operations, electronic parts are particularly vulnerable to electrical surges. Your decision to carry spare parts should be based upon the cost and inconvenience of the down time.

UL Oven Gas Components

Part	Model No.	Setting/Rating	UL Approval
Thermocouple	1101169110	Shielded	
Digital Controller	110116997	24V AC	UL File No E156876
Gas Valve Hi/Lo NG	110116910	1/2" NPT Inlet/Outlet	AGA Ref No 112669-0000-000008
Gas Valve Hi/Lo LPG	110116911	1/2" NPT Inlet/Outlet	AGA Ref No 112-669-0000-000008
Ignition Gas Control	110116909	24V AC	ANSI 221,20
Tri-Electrode 180° (Torch)	110116907		
Tri-Electrode 90° (Display)	1101169226		
Transformer	1101169194	115V AC Input 24V Output 75V A	UL 1585 File E33334
On/Off Selector Switch	110116926		Nema 4x Nema 13
On/Off Mounting Collar	110116927		Nema 4x Nema 13
Pilot Light	110116928	24V/120V Max	Nema 4x Nema 13
Screw Clamp Terminal	110116930		
Light Bulb	110116930		
Gas Valve Brass Ball	110116991	1/2" NPT - 600psi	
Nozzle Burner (Torch)	110116992		
Burner 700cm Display	1101196700		
Burner 500cm Display	1101196500		
Venturi Burner (Long)	110116974		
Chargrill			
Gas Valve	110120515		
Pilot Assembly	110120536		
Thermocouplers	110120510	24" Universal	
Burner Assembly	110120506		
Grill Burner MTG	110120505		
Gas Coupling Bracket	110120509		

**Less Essential Parts are listed on an Exploded View accompanied by part No.*

OVERVIEW OF OVEN CONTROL COMPONENTS & FUNCTIONS:

The control cabinet door contains four components: (VISIBLE EXTERNALLY)

1.0 CONTROL SWITCH
2.0 BURNER INDICATION LIGHT

1.0 CONTROL SWITCH::
This switch has three positions.

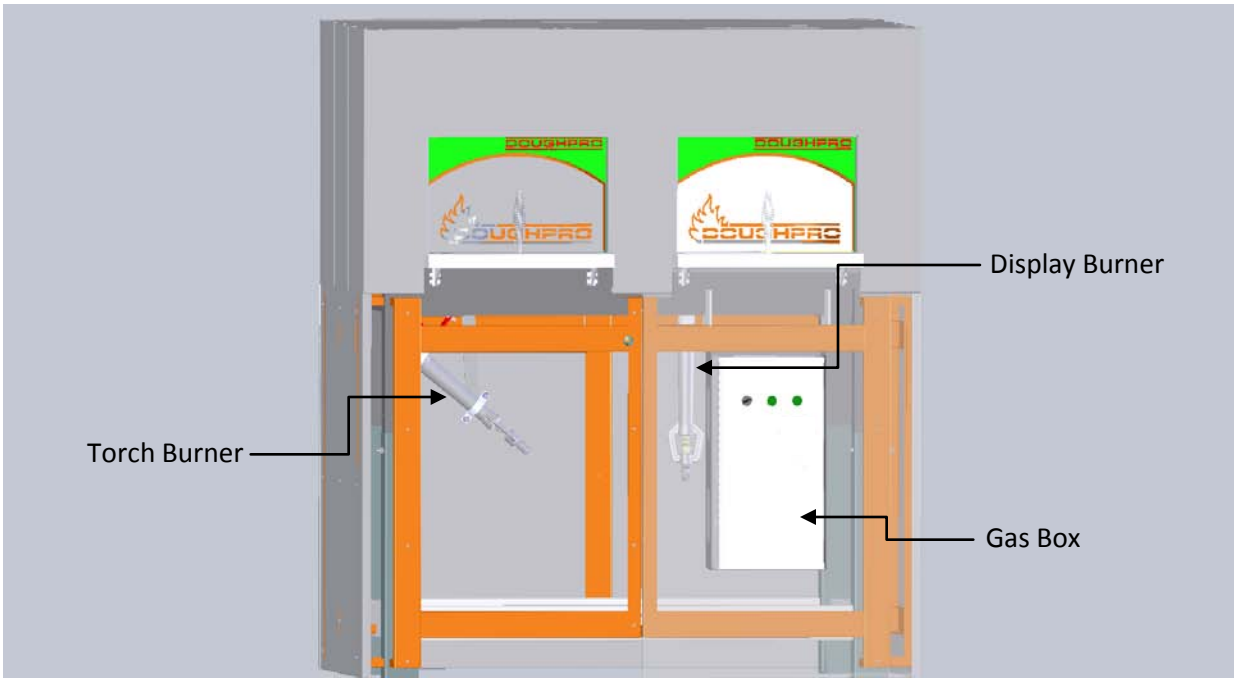
1.1 OFF :
Both Temperature controller & burner are off in this position

1.2 CONTROL :
The temperature controller only is energized. In this position, the temperature controller will read the **floor temperature** of the oven, useful if firing on timber to easily see the cooking ability of the oven. *This is a read out only, & can have no control over the temperature.*

1.3 BURNER ON :
In this position the oven will operate automatically, keeping the oven at the 'set point' temperature by cycling the gas back-up to maintain the temperature of the oven.
The operation of the gas flame will cycle automatically from 'low flame' to 'high flame' or ‘off’ as required to maintain the 'set point temperature'

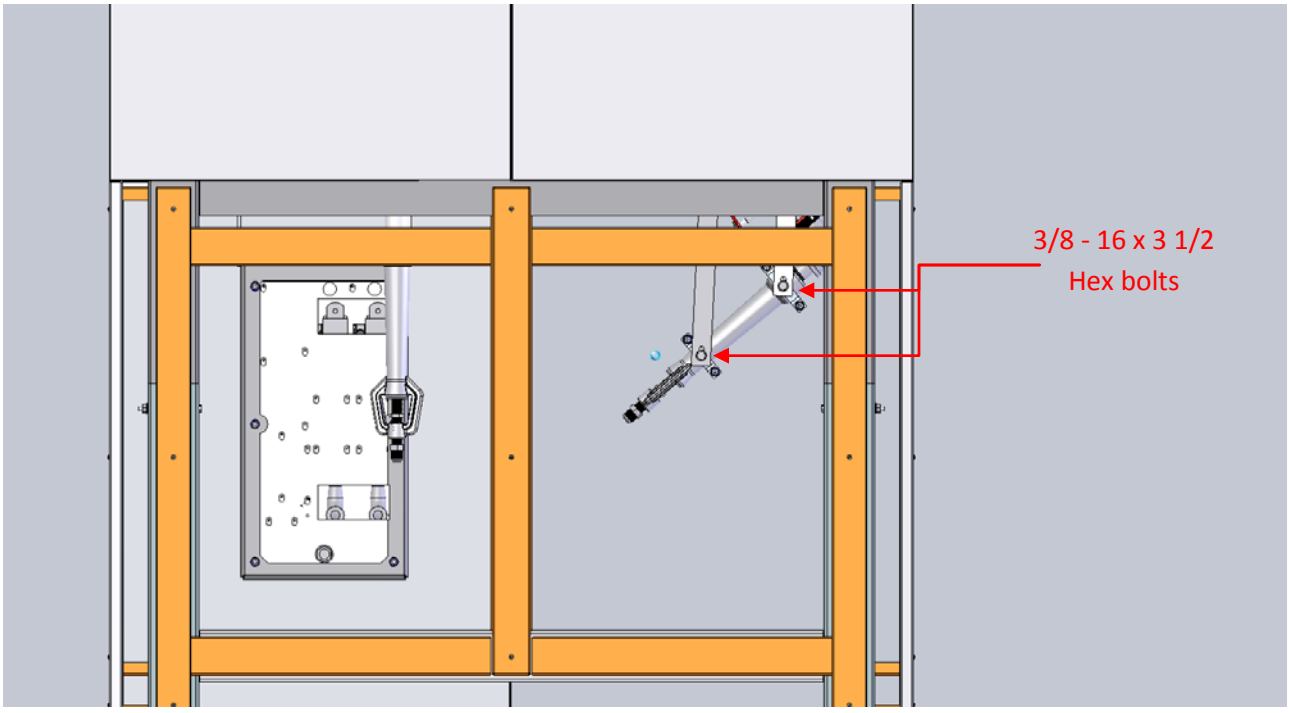
2.0 BURNER INDICATION LIGHT

This light is lit when the "BURNER ON" position is selected, indicating the burner is able to start automatically when required, by the temperature controller. **This should always be off when any service work or inspections occur.**

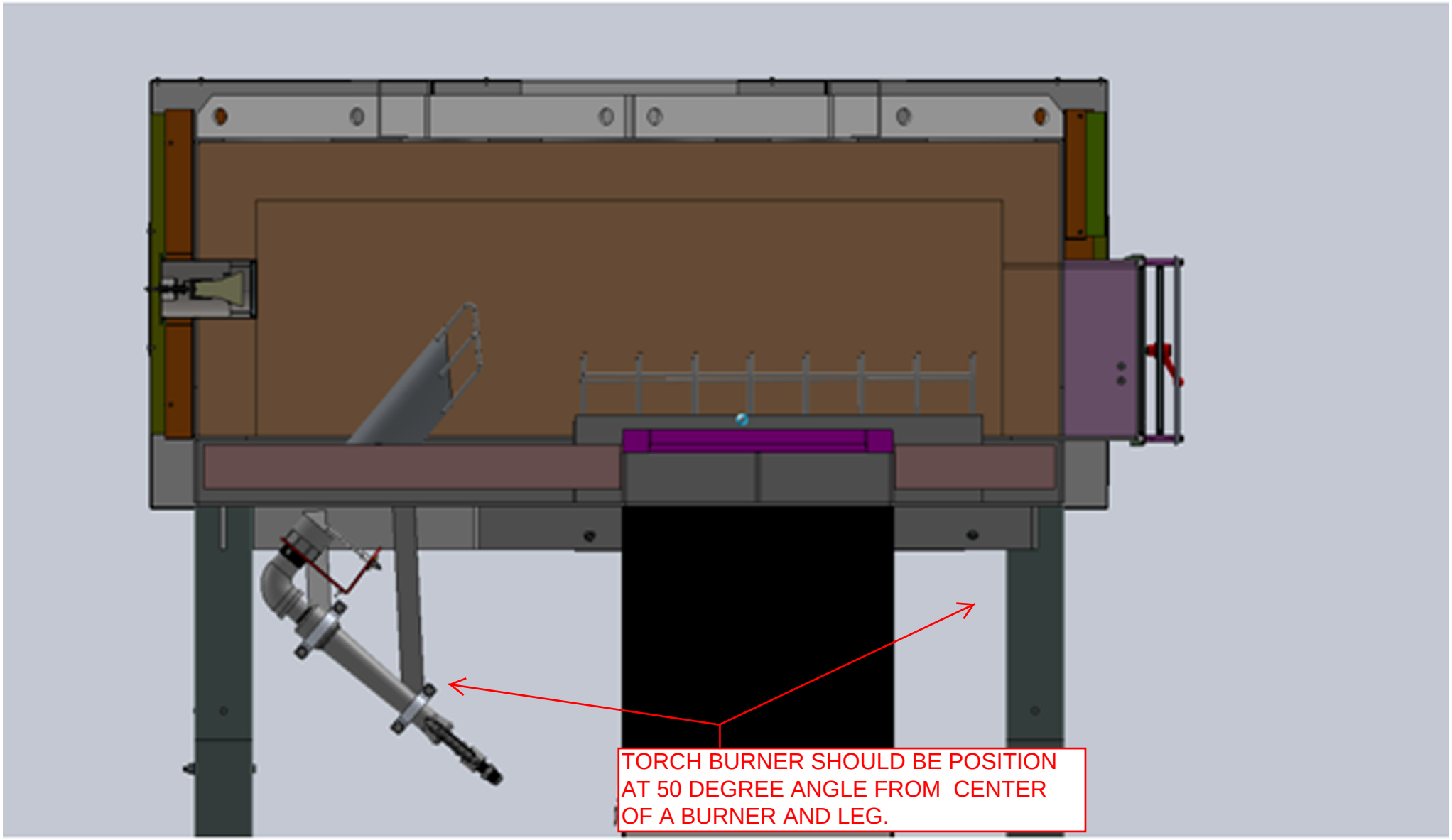


BURNERS REMOVING INSTRUCTIONS

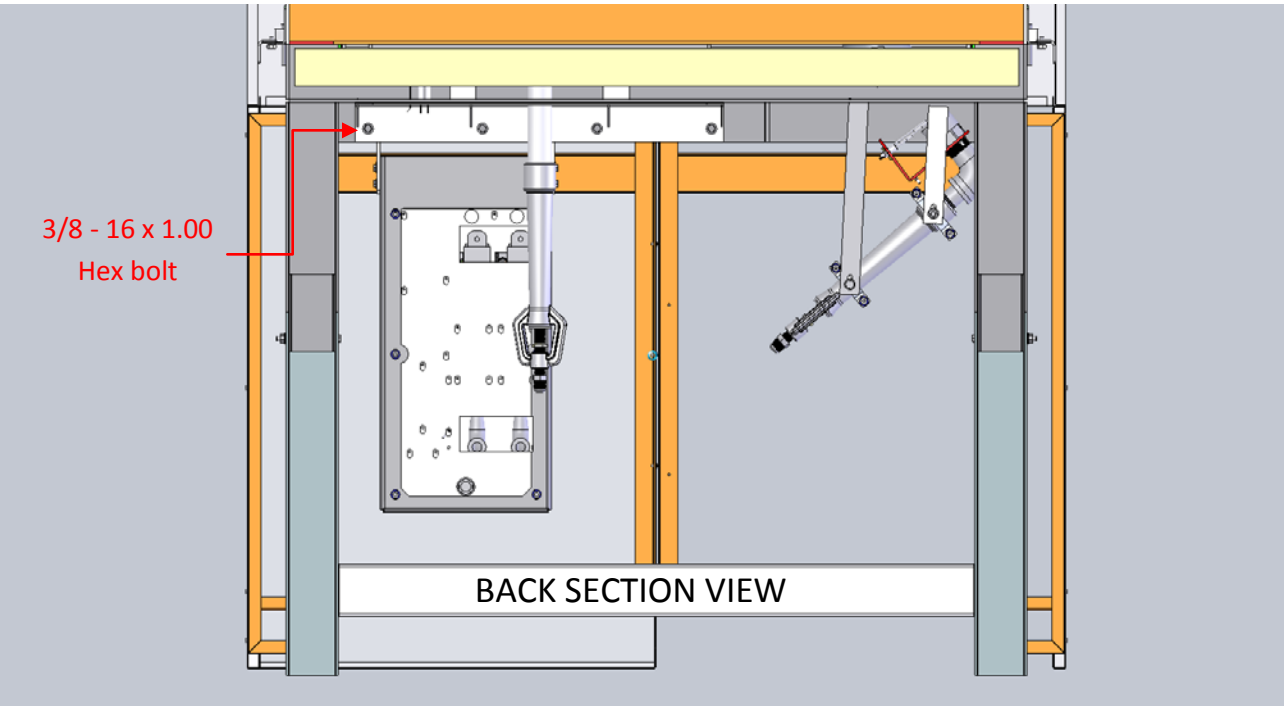
To remove the torch burner or display burner, the access panel and screws have to be remove, this is the only access point to get under the oven.



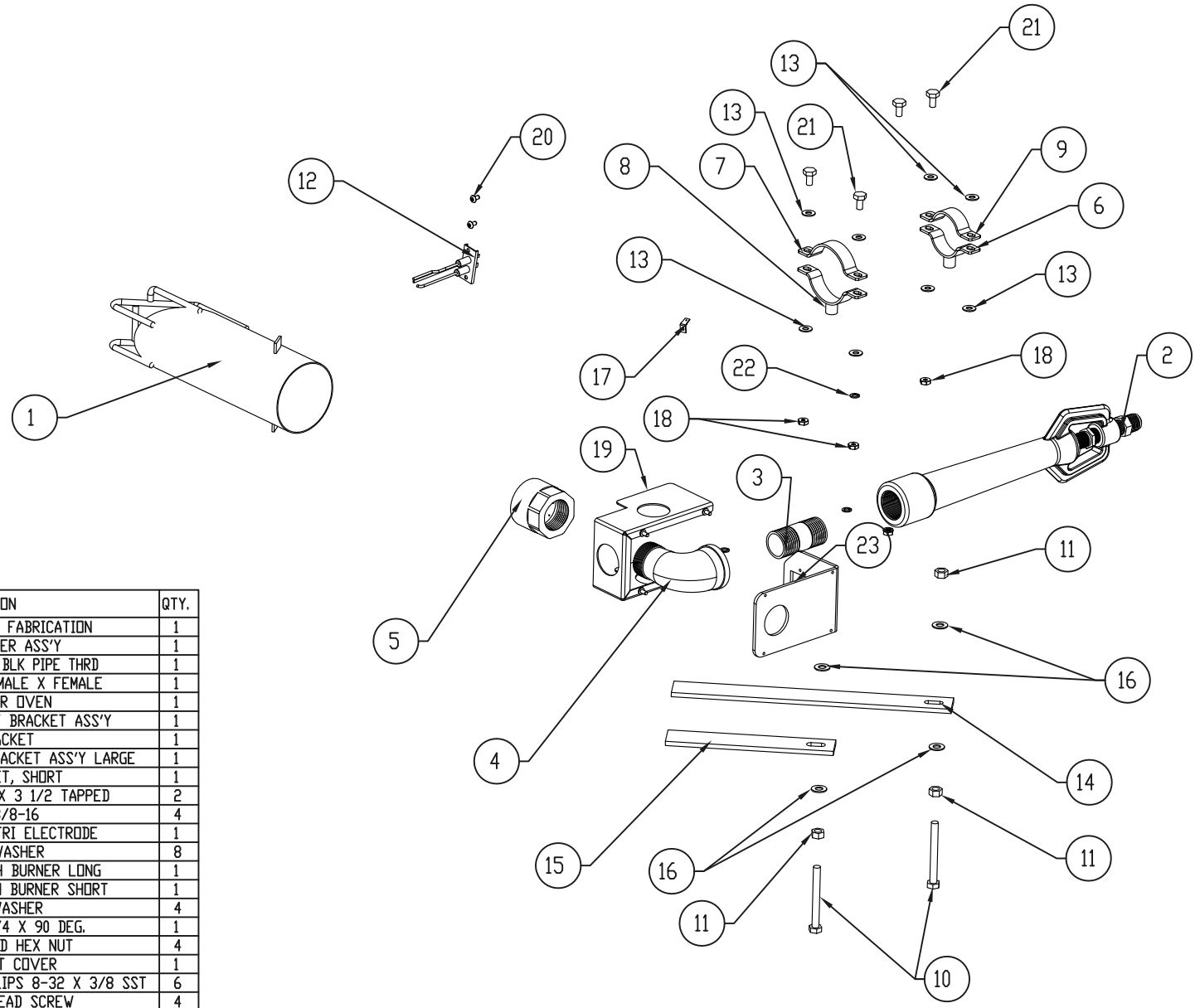
REMOVING THE TORCH BURNER: Before removing the torch burner, the power cord from the gas box has to be unplug and main gas valve has to be closed, proceed to remove ignition wires from the torch burner then loose the two 3/8-16 x 3 1/12 hex bolts one at the time.



Burner must be positioned at a 50 degree angle to ensure that the flame travels properly up the tube burner. Inaccurate mouting will cause the flame to blow back and burn under the oven or not ignite at all.



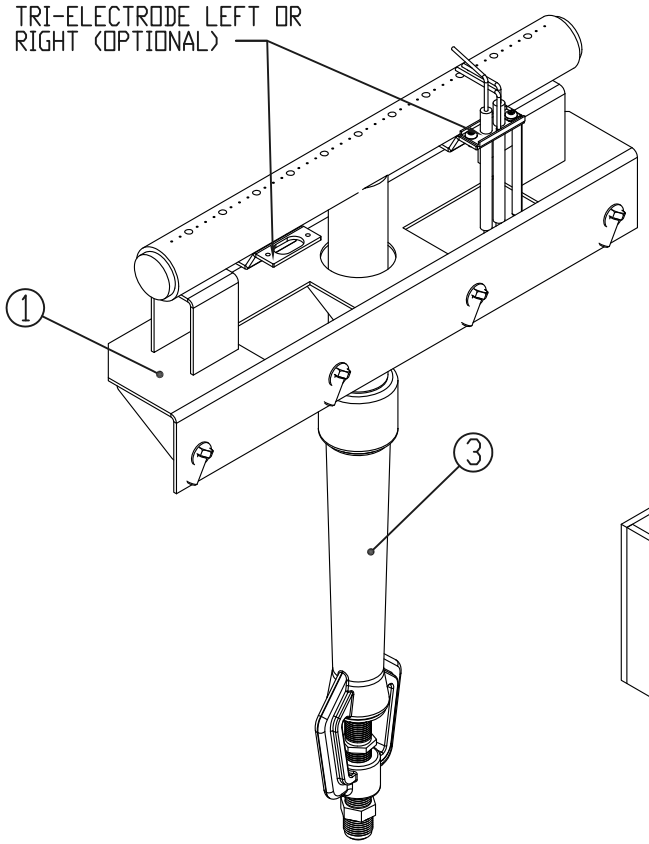
REMOVING THE DISPLAY BURNER: Before removing the display burner, the power cord from the gas box has to be unplug and main gas valve has to be closed, proceed to remove ignition wires from the display burner then remove all four 3/8-16 x 1.00 hex bolts.

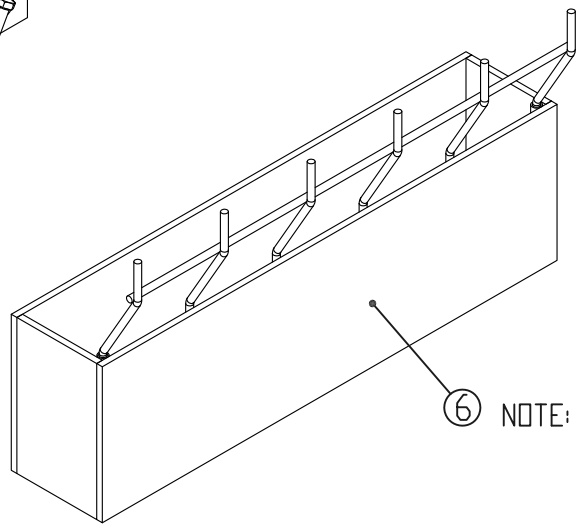


TORCH BURNER ASSY

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	1101169123	TUBE BURNER SHROUD FABRICATION	1
2	1101169145	VENTURI, BURNER ASS'Y	1
3	110116989	NIPPLE, 1 1/2" X 3" BLK PIPE THRD	1
4	110116990	ELBOW, BLACK PIPE MALE X FEMALE	1
5	110116992	NOZZLE, BURNER OVEN	1
6	1101169129	TORCH BURNER SUPPORT BRACKET ASS'Y	1
7	1101169207C1	SUPPORT BRACKET	1
8	1101169207	TORCH BURNER SUPPORT BRACKET ASS'Y LARGE	1
9	1101169129C1	SUPPORT BRACKET, SHORT	1
10	BH3816312	BOLT, HEX 3/8-16 X 3 1/2 TAPPED	2
11	NH3816	NUT, HEX 3/8-16	4
12	110116907	IGNITORS STRAIGHT TRI ELECTRODE	1
13	WSAE516	5/16 FLAT WASHER	8
14	110116967	MOUNTING BRACKET TORCH BURNER LONG	1
15	110116968	MOUNTING BRACKET TORCH BURNER SHORT	1
16	WSAE38	3/8 FLAT WASHER	4
17	KT81	TERMINAL CLIP, 1/4 X 90 DEG.	1
18	NH51618	1/4-20 SERRATED HEX NUT	4
19	1101169122C3	IGNITOR BRACKET COVER	1
20	SP83212S	SCREW, PAN HEAD PHILLIPS 8-32 X 3/8 SST	6
21	BH51658	5/16-18X1.0 HEX HEAD SCREW	4
22	WL516	LOCK WASHER	4
23	1101169122C2rC	BRACKET MTG. IGNITOR STRAIGHT	1

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	1101169500	500 DISPLAY BURNER WELDING ASS'Y	1
2	SP83212S	SCREW, PAN HEAD PHILLIPS 8-32 X 3/8 SST	2
3	1101169145	VENTURI, BURNER ASS'Y	1
4	WL38	WASHER 3/8 SPLIT LOCK	4
5	WSAE38	3/8 FLAT WASHER	4
6	110116981	FRAME, DISPLAY BURNER WELDING ASSEMBLY	1
7	1101169226	TRI-ELECTRODE - 90 DEGREEE LONG	1
8	1101169100C1	BRACKET TERMINAL CLIP	1
9	BH38161	3/8-16 x 1.0 HEX HEAD	4
10	NH3816	3/8-16 HEX NUT	4

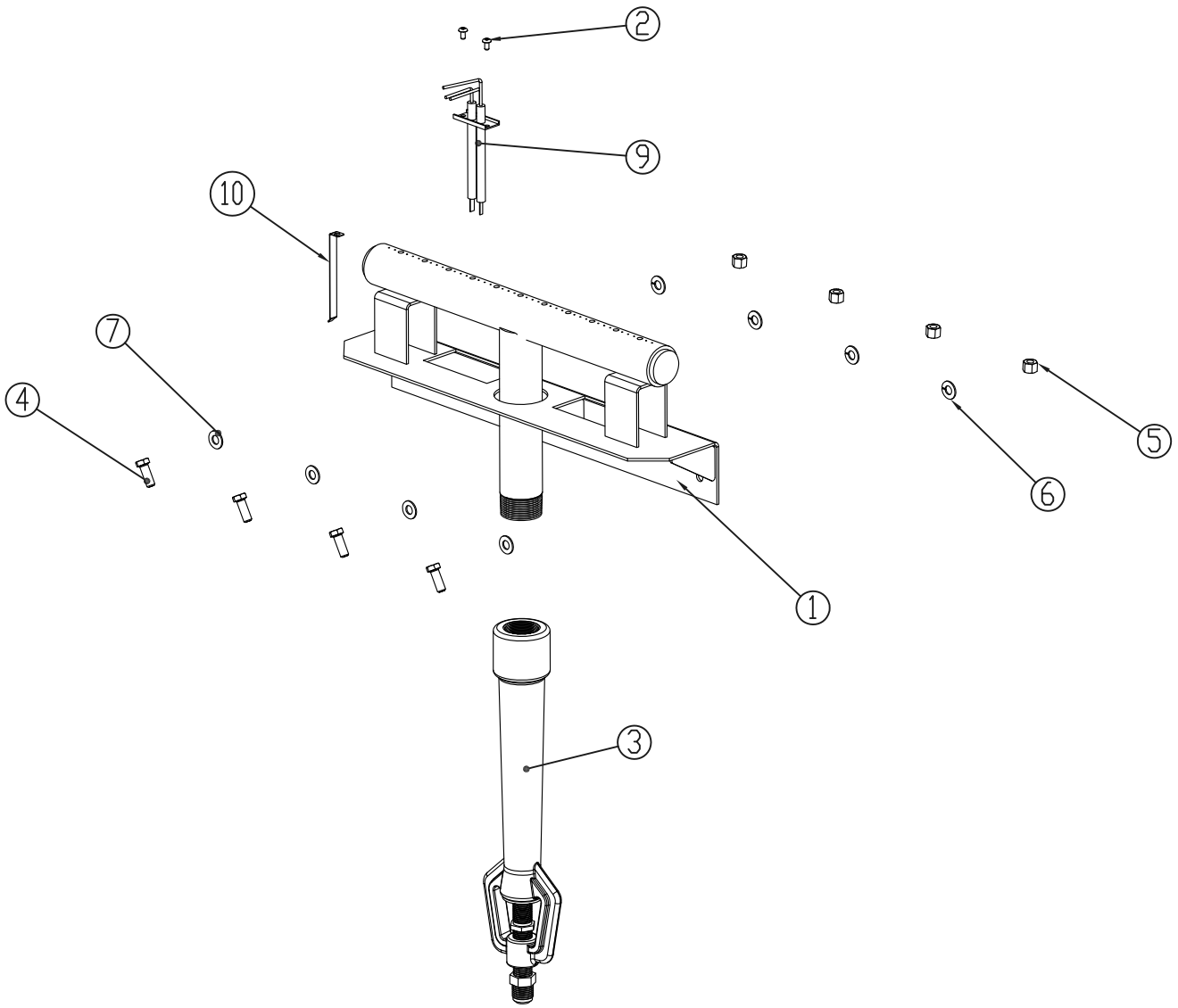




NOTE: ASSEMBLY TO BE WELDED ON BASE WELDMENT ASSEMBLY.

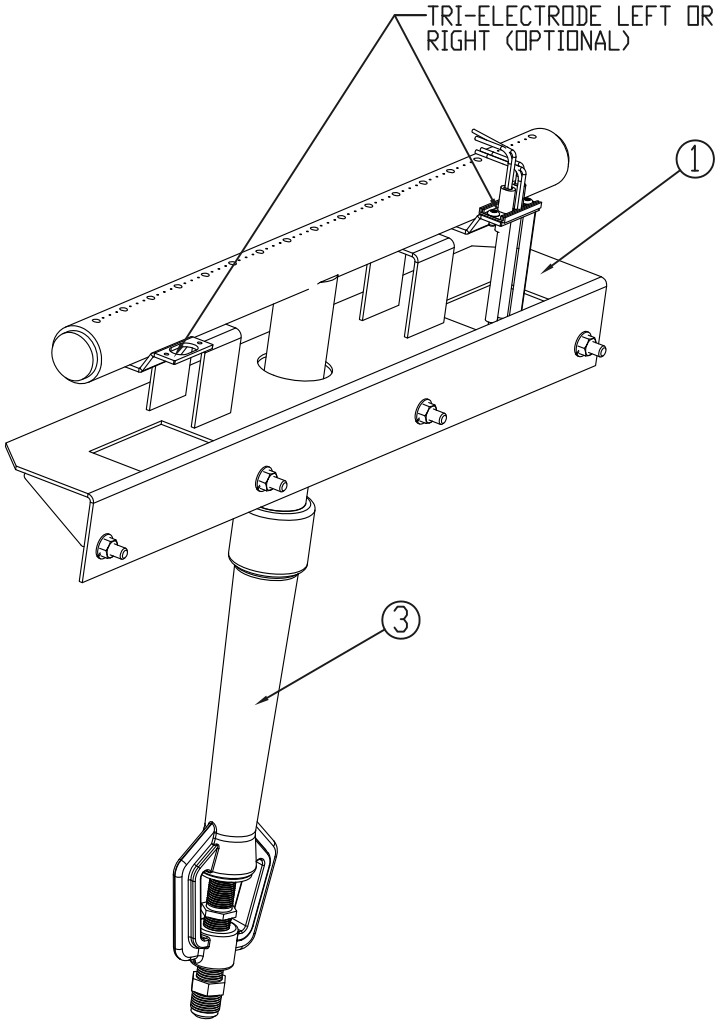
DOUGHPRO
20281 Harvill Ave
Perris, CA 92570
Tel (951)657-0379
Fax (951)657-4594

TITLE:
500 DISPLAY BURNER ASSEMBLY



DOUGHPRO
20281 Harvill Ave
Perris, CA 92570
Tel (951)657-6379
Fax (951)657-4594

TITLE:
500 DISPLAY BURNER ASSEMBLY

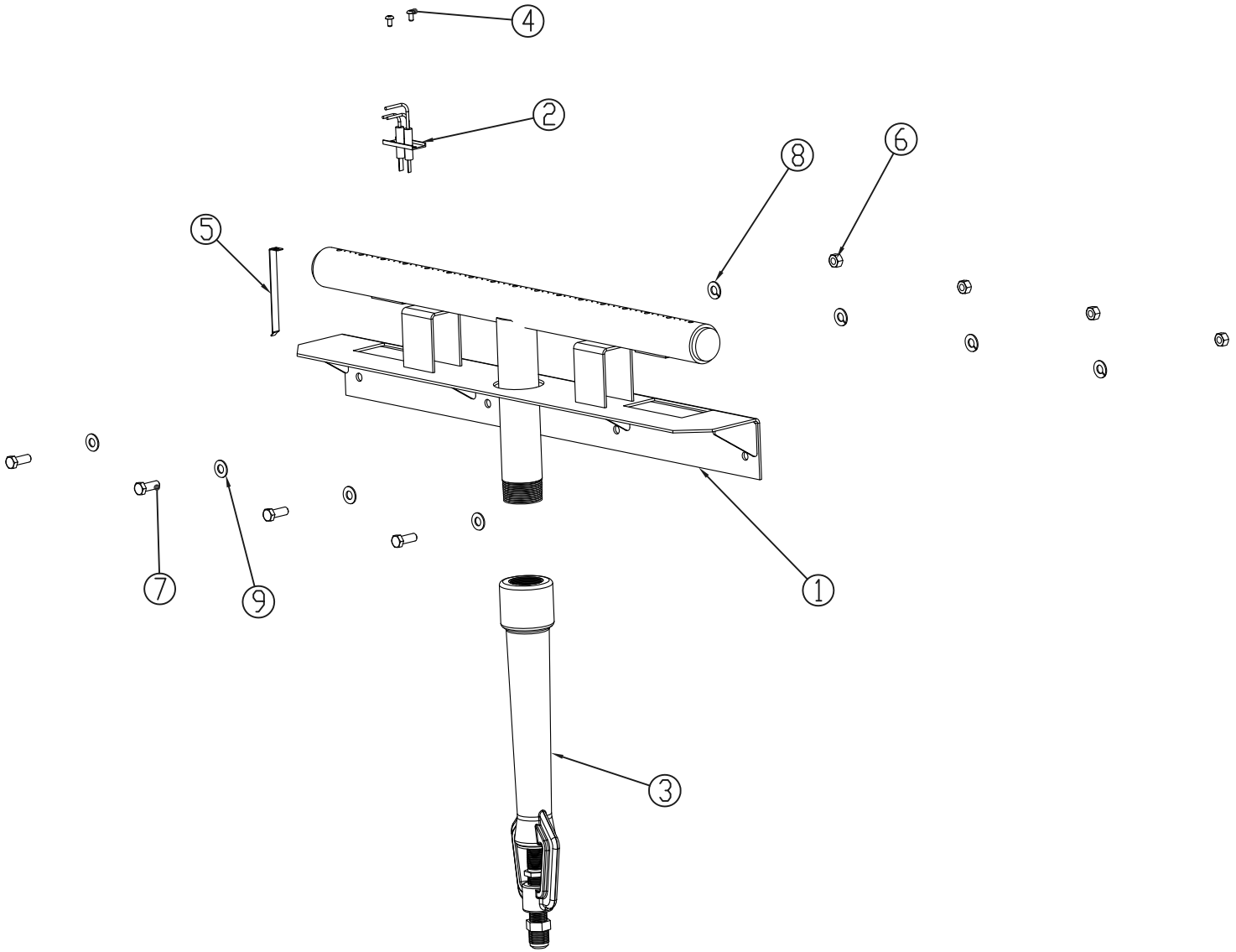


ITEM NO.	PART NUMBER	DESCRIPTION	Default/ QTY.
1	1101169700	700 DISPLAY BURNER WELDING ASSY	1
2	1101169226	TRI ELECTRODE - 90 DEGREE LONG	1
3	1101169145	VENTURI, BURNER ASS'Y	1
4	SP83212S	SCREW, PAN HEAD PHILLIPS 8-32 X 3/8 SST	2
5	BH3161	3/8-16 x 1.0 HEX HEAD	4
6	110116940	FRAME, DISPLAY BURNER WELDING ASS'Y	1
7	NH3816	NUT, HEX 3/8-16	4
8	BH38161	BOLT, HEX HEAD 3/8-16 x 1.0	1
9	WL38	WASHER, 3/8 SPLIT LOCK	4
10	WSAE38	WASHER, SAE 3/8"	4

DOUGHPRO
20281 Harvill Ave
Perris, CA 92570
Tel (951)657-0379
Fax (951)657-4594

TITLE:

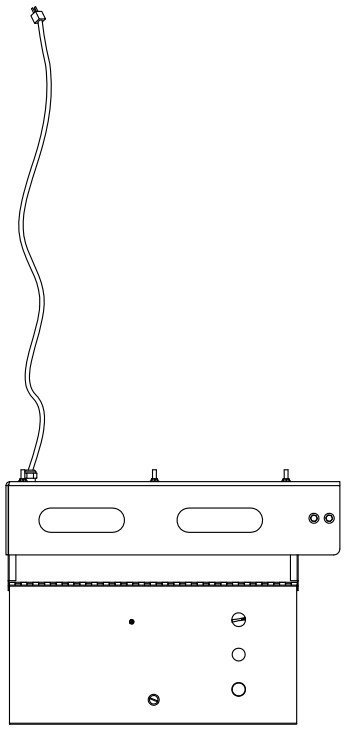
700 DISPLAY BURNER ASSEMBLY

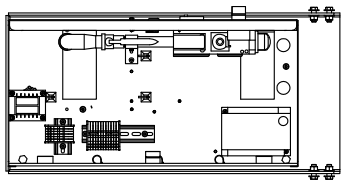


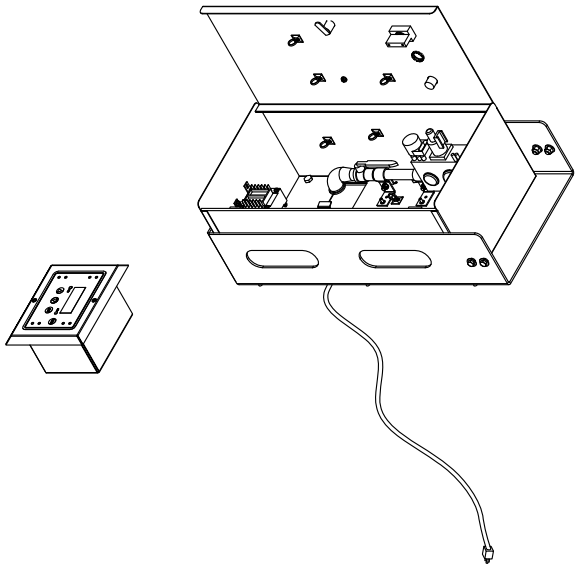
DOUGHPRO
20281 Harvill Ave
Perris, CA 92570
Tel (951)657-6379
Fax (951)657-4594

TITLE:

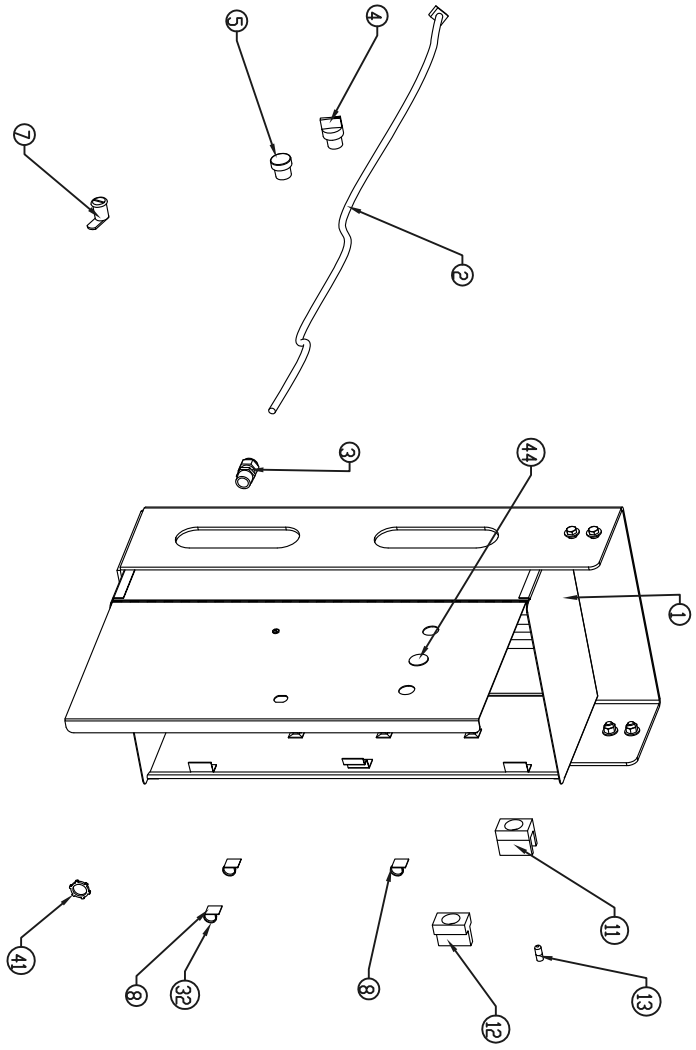
700 DISPLAY BURNER ASSEMBLY







GS100
PAGE 1 OF 4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2
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44
1
41
8
32
8
11
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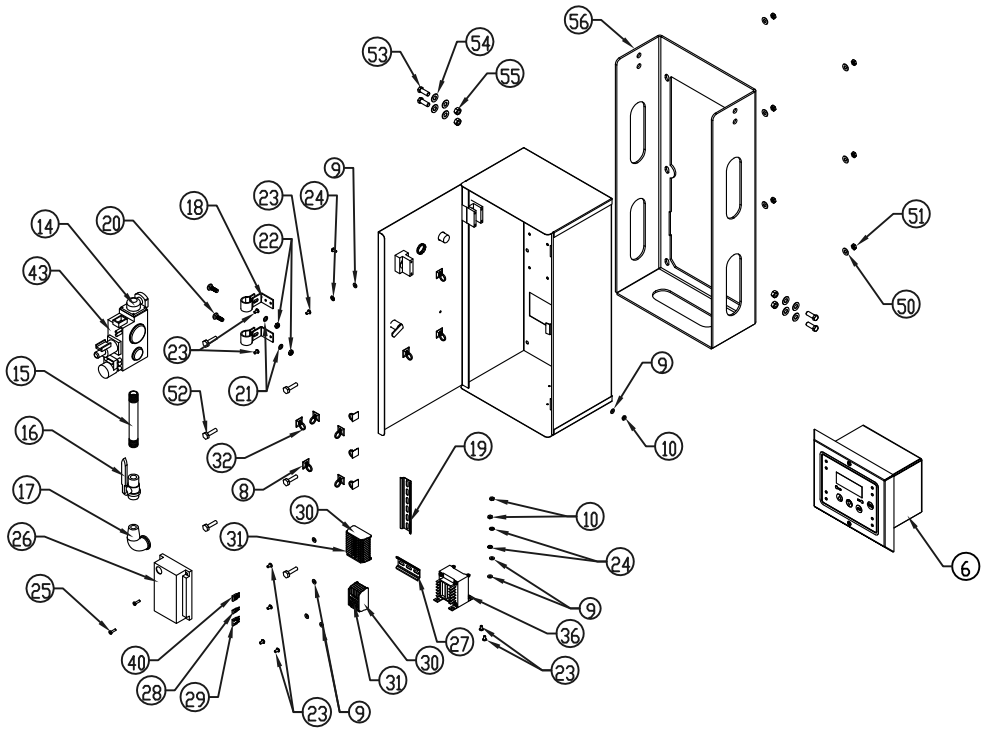
6



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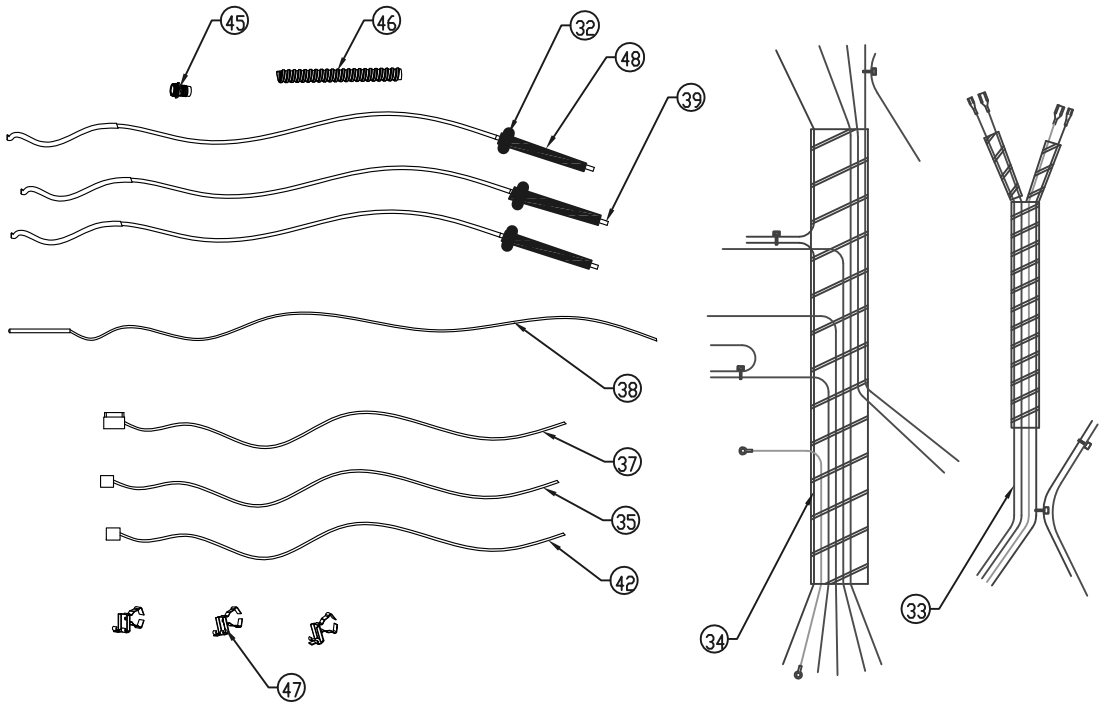
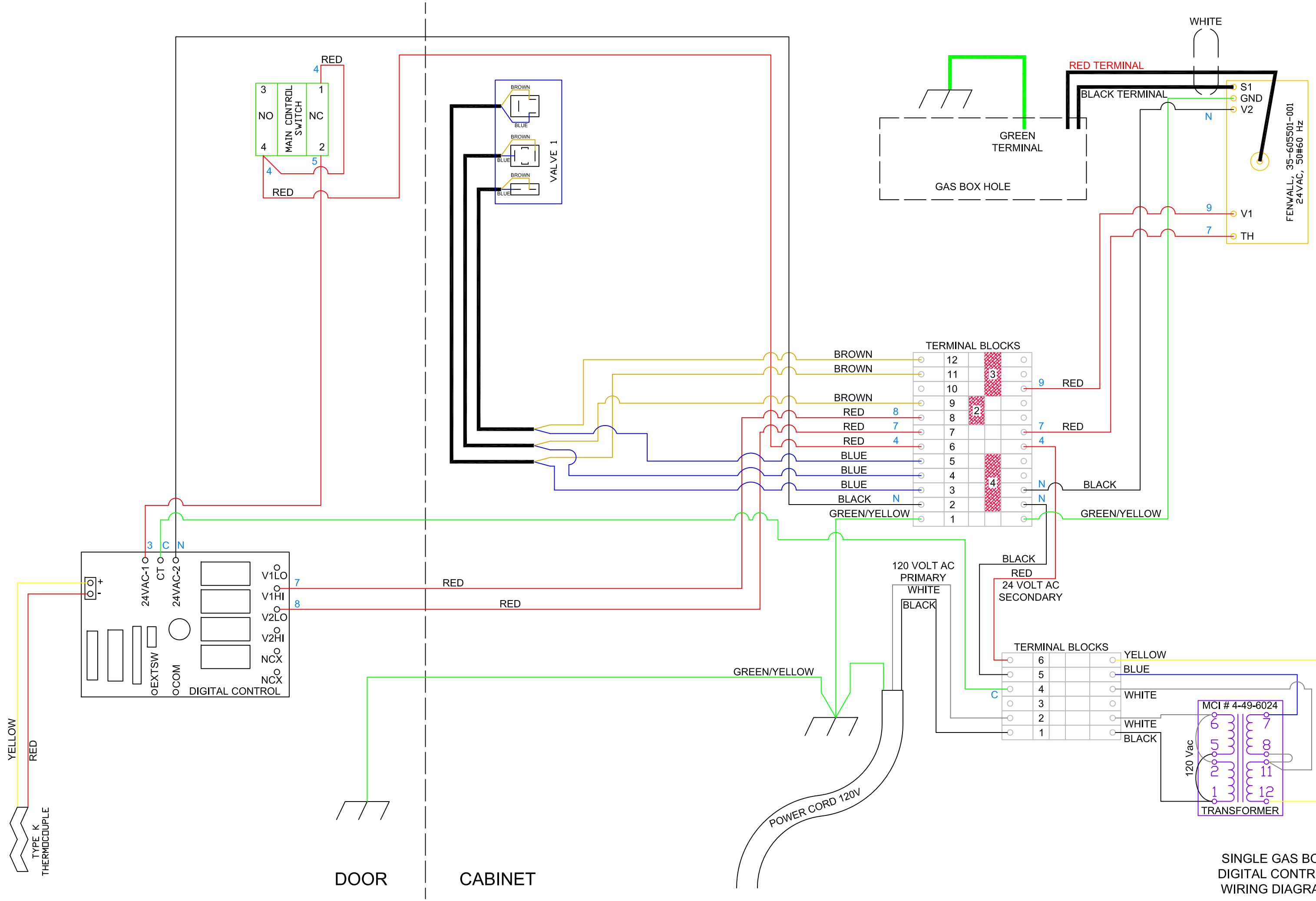


GS100
PAGE 4 OF 4

SINGLE GAS BOX

ITEM #	DESCRIPTION	NATURAL GAS PART NO.	PROPANE GAS PART NO.	QTY.
	SINGLE GAS BOX (GS100rB)	**120 VOLT**	**120 VOLT**	
1	GAS BOX WELDING ASSEMBLY	110120301	110120301	1
2	CORD POWER 120 VOLTS	110969174	110969174	1
3	HEYCO STRAIN RELIEF #LFT 1/2”	3231	3231	1
4	SELECTOR SWITCH	110116926	110116926	1
5	PILOT LIGHT COLOR OF LENS GREEN	110116928	110116928	1
6	CONTROL DIGITAL	T1611110	1101169191	1
7	LOCK CAM Ø3/4” STRAIGHT STYLE CAM	110116913	110116913	1
8	BASE MOUNTING, PRESSURE SENSITIVE ADHESIVE BACKED	1101169113	1101169113	7
9	WASHER #8	WSAE8	WSAE8	13
10	NUT HEX 8-32	NH832	NH832	4
11	SCREW CLAMP TERMINAL CONTECTION	110116929	110116929	1
12	MOUNTING COLLARS WITH CONTACT BLOCK	110116927	110116927	1
13	LIGHT BULB, 24V, 2W TYPE BAGES	110116930	110116930	1
14	FLANGE ELBOW 1/2” W/SCREW & O-RING	110116995	110116995	1
15	NIPPLE, 1/2” x 6.0” BLACK PIPE THREAD	110116987	110116987	1
16	BRASS BALL VALVE, 1/2” THREAD FEMALE x FEMALE 2 21/64 600 PSI	110116991	110116991	1
17	ELBOW, 1/2” 90 DEGREE BLACK PIPE MALE x FEMALE	110116988	110116988	1
18	GAS VALVE HOLDER	110120323	110120323	2
19	DIN RAIL, LONG	110120321	110120321	1
20	CARRIAGE BOLT, 1/4-20 x ¾	BC142034	BC142034	2
21	WASHER, SAE 1/4”	WSAE14	WSAE14	2
22	NUT, HEX 1/4-20	NH1420	NH1420	2
23	SCREW, PHIL. PAN HEAD 8-32 x 3/8 STAINLESS STEEL	SP83238S	SP83238S	9
24	WASHER, #8 INTERNAL TOOTH LOCK	WLIT8	WLIT8	6
25	SCREW, PHIL. PAN HEAD 8-32 x 5/8 STAINLESS STEEL	SP83258S	SP83258S	4
26	IGNITION GAS CONTROL, 24 VAC	110116909	110116909	1
27	DIN RAIL, SHORT	110120322	110120322	1
28	BRIDGE, PLUG 2 RED	110116920	110116920	1
29	BRIDGE, PLUG 3 RED	110116922	110116922	1
30	END COVER	110116924	110116924	4
31	TERMINAL BLOCK	110116919	110116919	18
32	WIRE TIE .190W X 4.0" LONG	1101169114	1101169114	11
33	WIRE HARNESS SINGLE GAS BOX RIGHT SIDE	110120331	110120331	1
34	WIRE HARNESS SINGLE GAS BOX LEFT SIDE	110120333	110120333	1
35	EV2 CABLE	110116916	110116916	1
36	TRANSFORMER, 24V DUAL INPUT	1101169194	1101169194	1
37	MD CABLE W/SCREW AND GASKET	110116918	110116918	1
38	THERMOCOUPLE	1101169110	1101169110	1
39	WIRE 3239-16-26-40KV WHITE – 4 FEET	110116999	110116999	3
40	BRIDGE, PLUG 3 RED	110116921	110116921	1
41	NUT, CONDUIT 1/2”	NC12	NC12	1
42	EV1 CABLE	110116914	110116914	1
43	VALVE GAS COMB HI/LO	110116910	110116911	1
44	PLUG, BUTTON 7/8 IN.	MPP90006	MPP90006	1
45	FLEX CONNECTOR	1101169234	1101169234	1
46	CONDUIT 1/2 LIQUID TIGHT	CWT12	CWT12	1
47	CONDUIT CLIP	1101169235	1101169235	3
48	SLEEVE HIGH TEMPERATURE	110116931	110116931	3
49	SCREW, PHIL. PAN HEAD 10-32 x 5/8	SP103258	SP103258	2
50	5/16 FLAT WASHER	WSAE516	WSAE516	6
51	1/4-20 SERRATED HEX NUT	NH51618	NH51618	6
52	5/16-18X1.0 HEX HEAD SCREW	BH516181	BH516181	6
53	3/8-16 X 1, BOLT HEX	BH38161	BH38161	4
54	3/8 FLAT WASHER	WSAE38	WSAE38	4
55	3/8-16 HEX NUT	NH3816	NH3816	4
56	GAS BOX MTG. CHASSIS	1101169251	1101169251	1


RED
4
3
NO
MAIN CONTROL SWITCH
1
NC
4
2
5
4
RED
BROWN
BLUE
BROWN
BLUE
BROWN
BLUE
VALVE 1
WHITE
RED TERMINAL
BLACK TERMINAL
S1
GND
V2
N
GREEN TERMINAL
GAS BOX HOLE
FENWALL, 35-605501-001
24VAC, 50#60 Hz
9
V1
7
TH
TERMINAL BLOCKS
BROWN
BROWN
BROWN
RED
RED
RED
BLUE
BLUE
BLUE
BLACK
GREEN/YELLOW
12
11
10
9
8
7
6
5
4
3
2
1
3
2
4
8
7
4
N
N
9
RED
7
RED
4
N
BLACK
N
GREEN/YELLOW
3
C
N
24VAC-1
CT
24VAC-2
V1LO
V1HI
V2LO
V2HI
NCX
NCX
EXTSW
COM
DIGITAL CONTROL
7
8
RED
RED
BLACK
RED
24 VOLT AC
SECONDARY
120 VOLT AC
PRIMARY
WHITE
BLACK
GREEN/YELLOW
TERMINAL BLOCKS
6
5
4
3
2
1
C
YELLOW
BLUE
WHITE
WHITE
BLACK
MCI # 4-49-6024
120 Vac
6
5
2
1
7
8
11
12
TRANSFORMER
YELLOW
RED
TYPE K
THERMOCOUPLE
POWER CORD 120V
DOOR
CABINET
SINGLE GAS BOX
DIGITAL CONTROL
WIRING DIAGRAM

Oven Electrical Info

Diagrams are located on the oven and are also available in your oven's installation and operation manual.

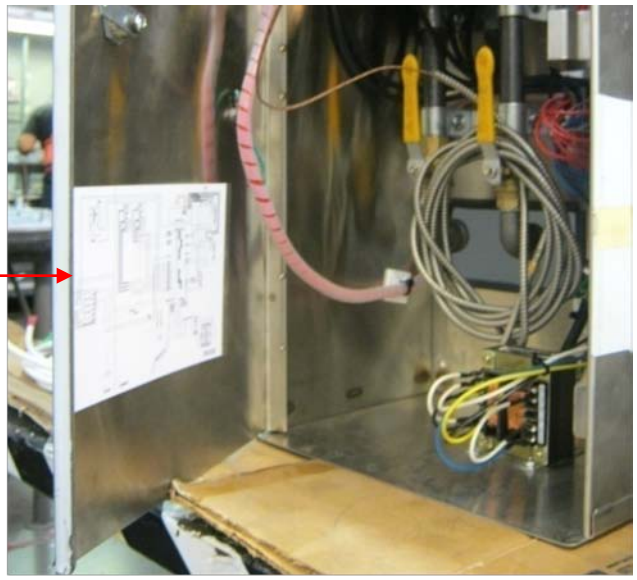
Electrical Code Limitations

ELECTRICAL GROUNDING: This appliance must be electrically grounded in accordance with local codes, or in the absence of local codes, with the National Electrical code, ANSI/ NFPA 70 or the Canadian Electrical Code, CSA C22.1 as applicable.

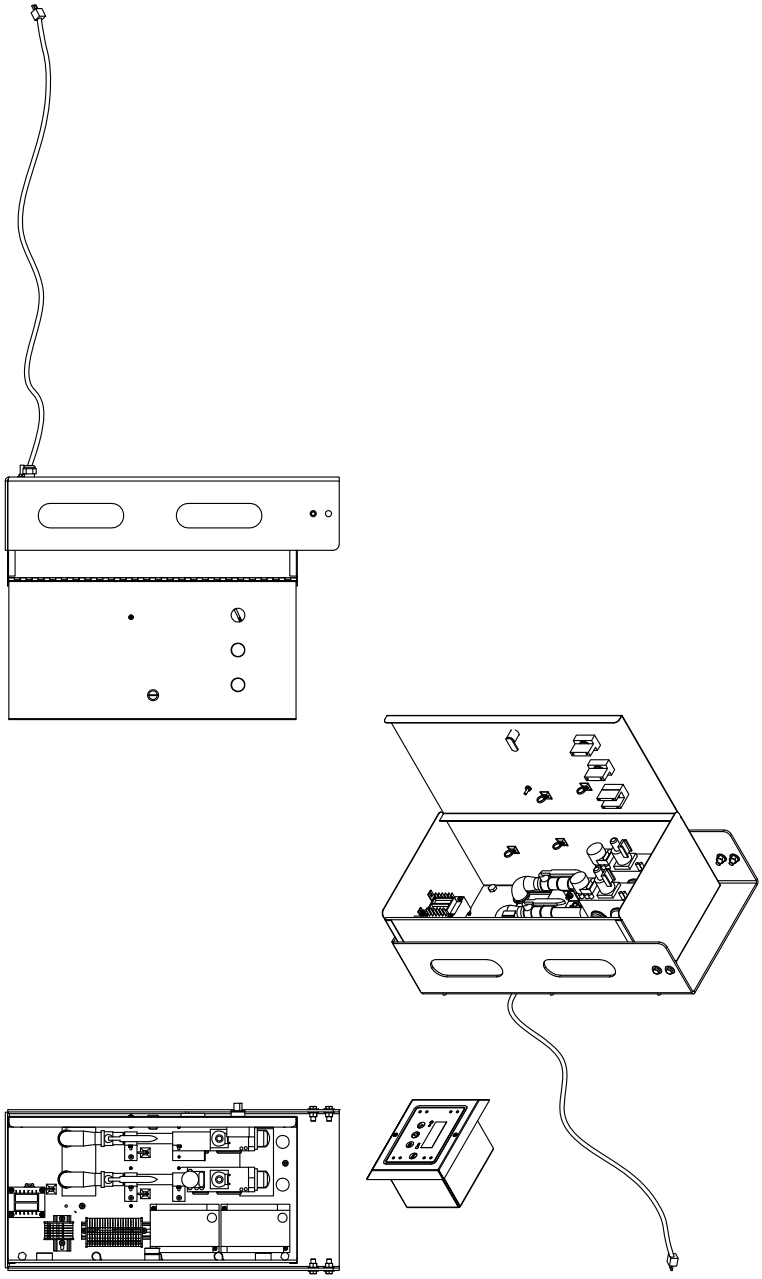
WARNING Electrical Grounding Instructions: This appliance is equipped with a three prong (grounding) plug for your protection against shock hazard and should be plugged directly into a properly grounded three-prong receptacle. DO NOT cut or remove the grounding prong from this plug.

Warning: Always disconnect power cord from electrical outlet before servicing any electrical component in this oven.

Wire diagram



Warning: Improper installation, adjustment, alteration, service or maintenance can cause property damage, injury or death. Read the installation, operating and maintenance instructions thoroughly before installing or servicing this equipment.



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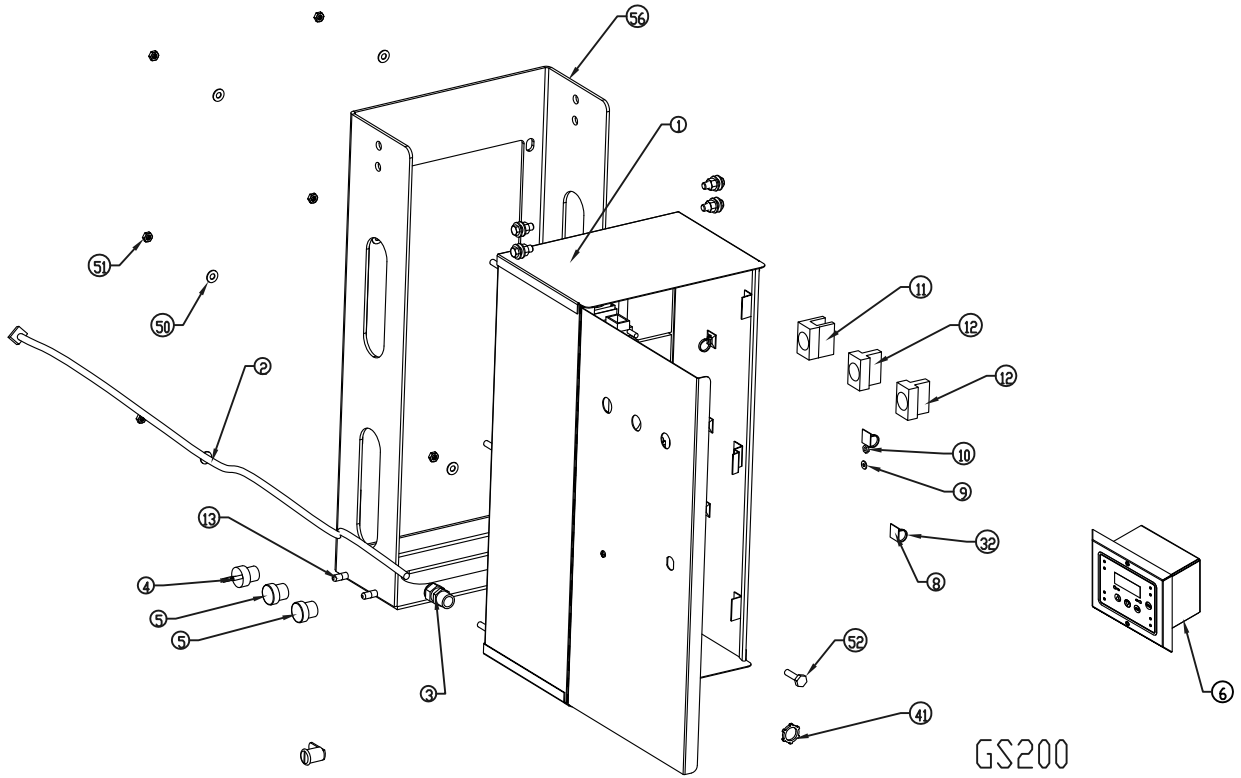

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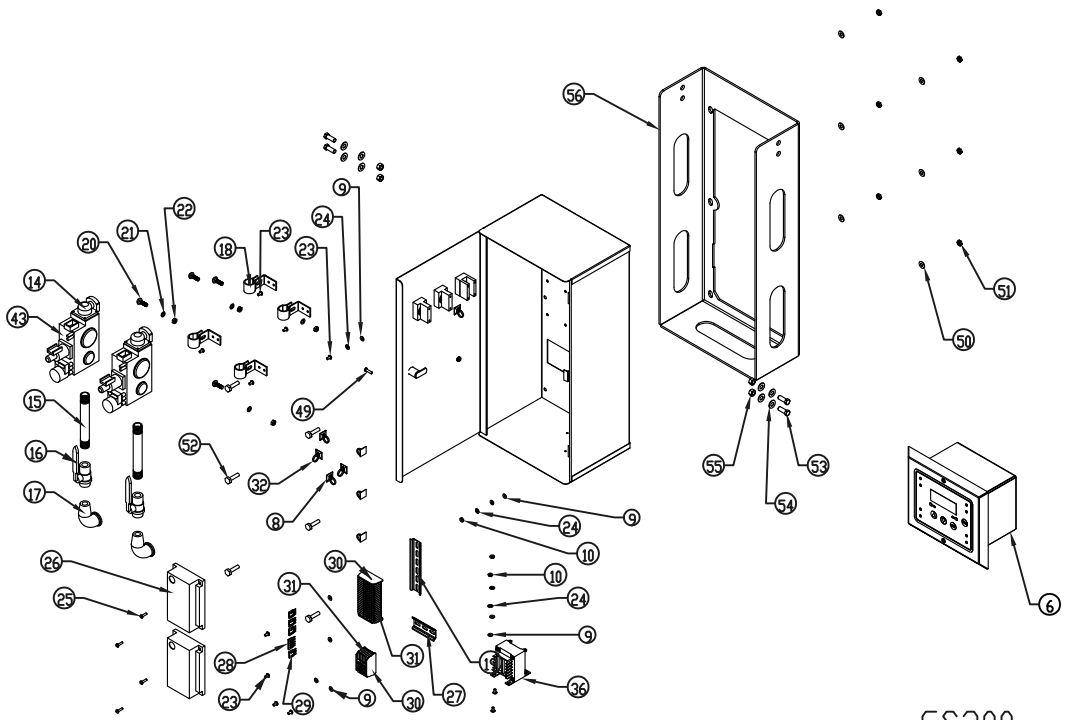

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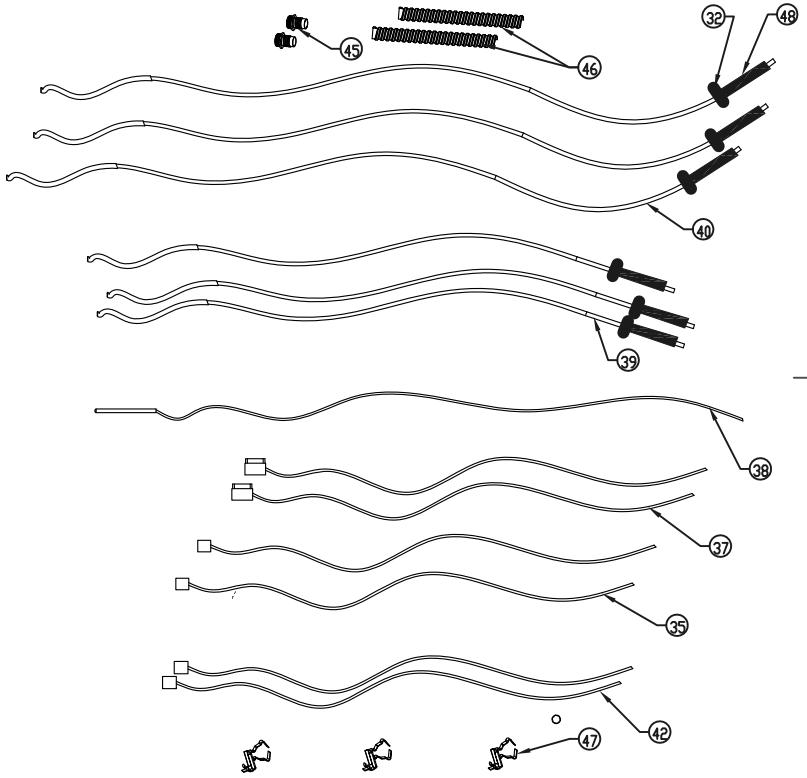

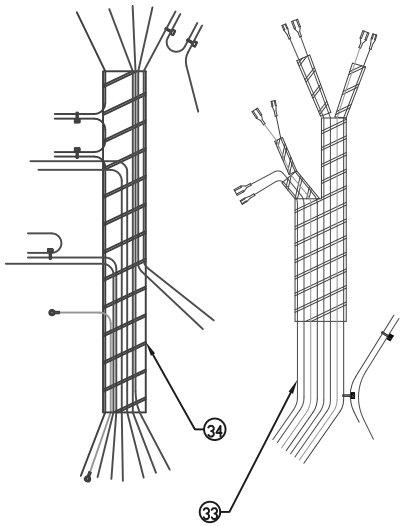

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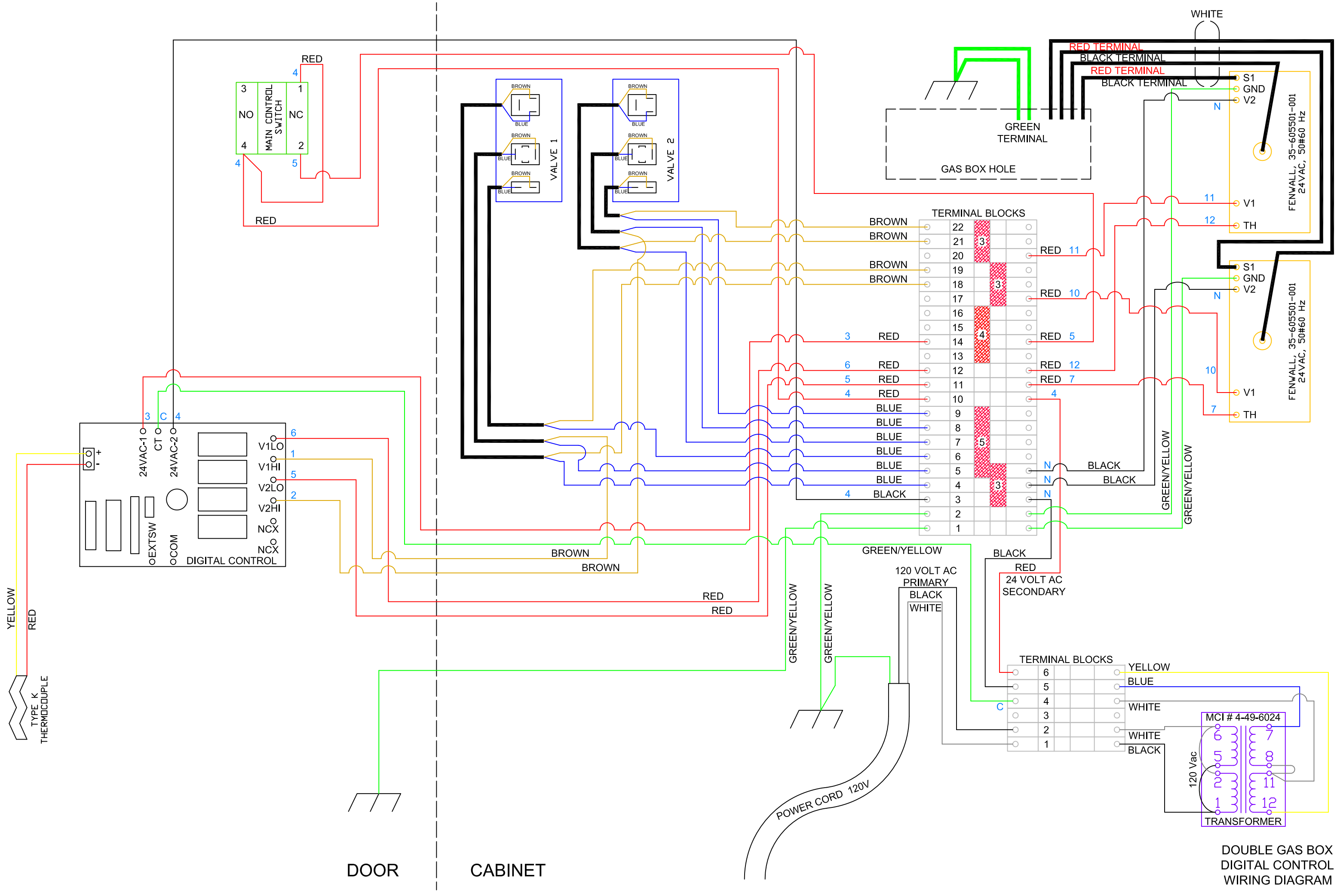
DOUBLE GAS BOX

		NATURAL GAS	PROPANE GAS	
ITEM #	**DESCRIPTION**	**PART NO.**	**PART NO.**	**QTY.**
	DOUBLE GAS BOX	**120 VOLT**	**120 VOLT**	
1	GAS BOX WELDING ASSEMBLY	110120301	110120301	1
2	CORD POWER 120 VOLTS	110969174	110969174	1
3	HEYCO STRAIN RELIEF #LFT 1/2”	3231	3231	1
4	SELECTOR SWITCH	110116926	110116926	1
5	PILOT LIGHT COLOR OF LENS GREEN	110116928	110116928	2
6	CONTROL DIGITAL	T1611110	1101169191	1
7	LOCK CAM Ø3/4” STRAIGHT STYLE CAM	110116913	110116913	1
8	BASE MOUNTING	1101169113	1101169113	11
9	WASHER #8	WSAE8	WSAE8	11
10	NUT HEX 8-32	NH832	NH832	5
11	SCREW CLAMP TERMINAL CONTECTION	110116929	110116929	1
12	MOUNTING COLLARS WITH CONTACT BLOCK	110116927	110116927	2
13	LIGHT BULB, 24V, 2W TYPE BAGES	110116930	110116930	2
14	FLANGE ELBOW 1/2” W/SCREW & O-RING	110116995	110116995	2
15	NIPPLE, 1/2” x 6.0” BLACK PIPE THREAD	110116987	110116987	2
16	BRASS BALL VALVE, 1/2” THREAD FEMALE x FEMALE 2 21/64 600 PSI	110116991	110116991	2
17	ELBOW, 1/2” 90 DEGREE BLACK PIPE MALE x FEMALE	110116988	110116988	2
18	GAS VALVE HOLDER	110120323	110120323	4
19	DIN RAIL, LONG	110120321	110120321	1
20	CARRIAGE BOLT, 1/4-20 x ¾	BC142034	BC142034	4
21	WASHER, SAE 1/4”	WSAE14	WSAE14	4
22	NUT, HEX 1/4-20	NH1420	NH1420	4
23	SCREW, PHIL. PAN HEAD 8-32 x 3/8 STAINLESS STEEL	SP83238S	SP83238S	11
24	WASHER, #8 INTERNAL TOOTH LOCK	WLIT8	WLIT8	4
25	SCREW, PHIL. PAN HEAD 8-32 x 5/8 STAINLESS STEEL	SP83258S	SP83258S	4
26	IGNITION GAS CONTROL, 24 VAC	110116909	110116909	2
27	DIN RAIL, SHORT	110120322	110120322	1
28	BRIDGE, PLUG 5 RED	110116923	110116923	1
29	BRIDGE, PLUG 3 RED	110116922	110116922	4
30	END COVER	110116924	110116924	4
31	TERMINAL BLOCK	110116919	110116919	25
32	WIRE TIE .190W x 4.0” LONG	1101169114	1101169114	11
33	WIRE HARNESS DOUBLE GAS BOX RIGHT SIDE	110120332	110120332	1
34	WIRE HARNESS DOUBLE GAS BOX LEFT SIDE	110120334	110120334	1
35	EV2 CABLE	110116916	110116916	2
36	TRANSFORMER, 24V DUAL INPUT	1101169194	1101169194	1
37	MD CABLE W/SCREW AND GASKET	110116918	110116918	2
38	THERMOCOUPLE, STONE HEARTH OVENS	1101169110	1101169110	1
39	WIRE 3239-16-26-40KV WHITE – 4 FEET	110116999	110116999	3
40	WIRE 3239-16-26-40KV WHITE – 6 FEET	110116999	110116999	3
41	NUT, CONDUIT 1/2”	NC12	NC12	1
42	EV1 CABLE	110116914	110116914	2
43	VALVE GAS COMB HI/LO	110116910	110116911	2
45	FLEX CONNECTOR	1101169234	1101169234	1
46	CONDUIT 1/2 LIQUID TIGHT	CWT12	CWT12	1
47	CONDUIT CLIP	1101169235	1101169235	3
48	SLEEVE HIGH TEMPERATURE	110116931	110116931	6
49	SCREW, PHIL. PAN HEAD 10-32 x 5/8	SP103258	SP103258	2
50	5/16 FLAT WASHER	WSAE516	WSAE516	6
51	1/4-20 SERRATED HEX NUT	NH51618	NH51618	6
52	5/16-18X1.0 HEX HEAD SCREW	BH516181	BH516181	6
53	3/8-16 X 1, BOLT HEX	BH38161	BH38161	4
54	3/8 FLAT WASHER	WSAE38	WSAE38	4
55	3/8-16 HEX NUT	NH3816	NH3816	4
56	GAS BOX MTG. CHASSIS	1101169251	1101169251	1


RED
4
3
NO
MAIN CONTRDL SWITCH
NC
1
4
2
4
5
RED
BROWN
BLUE
VALVE 1
VALVE 2
WHITE
RED TERMINAL
BLACK TERMINAL
RED TERMINAL
BLACK TERMINAL
GREEN TERMINAL
GAS BOX HOLE
S1
GND
V2
N
V1
TH
FENWALL, 35-605501-001
24VAC, 50#60 Hz
TERMINAL BLOCKS
22
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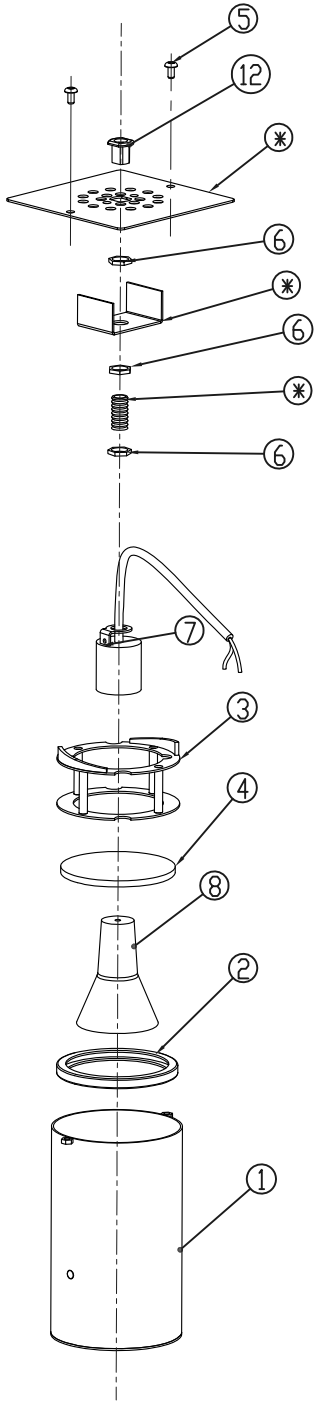
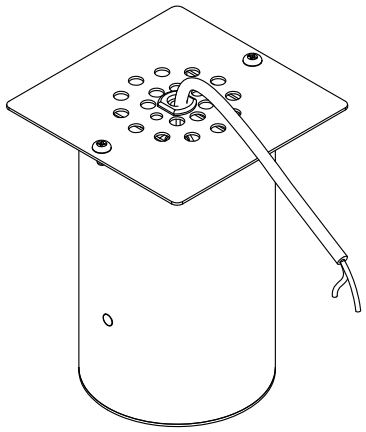
9
8
7
6
5
4
3
2
1
RED 11
RED 10
RED 5
RED 12
RED 7
BLUE
BLACK
GREEN/YELLOW
3
C
4
6
1
5
2
24VAC-1
CT
24VAC-2
V1LO
V1HI
V2LO
V2HI
NCX
NCX
EXTSW
COM
DIGITAL CONTROL
YELLOW
RED
TYPE K THERMOCOUPLE
BROWN
RED
120 VOLT AC PRIMARY
BLACK
WHITE
24 VOLT AC SECONDARY
POWER CORD 120V
MCI # 4-49-6024
120 Vac
TRANSFORMER
DOOR
CABINET
DOUBLE GAS BOX
DIGITAL CONTROL
WIRING DIAGRAM





ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	1101169131	SPOTLIGHT HOUSING WELDMENT ASS'Y	1
2	1101169130C3	BLACK WOVEN GASKET	1
3	1101169132	GLASS MOUNTING PRESSURE BRACKET WELDMENT ASS'Y	1
4	1101169130C4	SPOTLIGHT GLASS	1
5	SP103212S	SCREW PAN HEAD PHILLIPS 10-32 X 1/2 STAINLESS	2
6	NH14IP	1/4 IP NUT	3
7	1101169130C6	FIXTURE SOCKET	1
8	1101169130C7	PAR20 SPOT LIGHT	1
9	110103424C3	SPOTLIGHT COVER PLATE	1
10	110103424C2	1/4-IP THREAD, STEEL NIPPLES	1
11	110103424C1	MTG. BRACKET	1
12	6N-4	STRAIN RELIEF BUSHINGS	1

SPOTLIGHT ASSY

DOUGHPRO®
STEARNS PRODUCT DEVELOPMENT CORPORATION
20281 Harvill Ave, Perris, CA 92570 Tel: (800) 624-6717 - Fax: (951) 657-4594

Phone (951) 657-0379
Toll Free (800) 624-6717
Fax (951) 657-4594

SECTION TWO: OPERATION OF OVEN

Controller Configuration
Gas Oven details
Wood Oven Details
Coal Oven Details
Char-grill Details

OPERATIONS MANUAL

TECHNICAL DETAILS - WOOD & GAS MODELS

3.5 ft / 4 ft. / 4.5 ft. / 5 ft. / 6 ft. / 7 ft. / RECT. MODELS

(Please read in conjunction with supplied video)

"Oven is restricted to cooking pizza and bread products only."

The **DOUGHPRO OVEN** , only requires wood for satisfactory operation. Some models have the extra facility of gas backup for those clients that are looking for a more automated cooking system. However, we recommend that wood is continually burning in the oven during cooking to impart the special smoked flavor attainable with this oven design. Normally 2 or 3 logs of timber are sufficient. It is recommended not to exceed 8 logs at one time.

Ie. "Do not over fire. If flame spills out of the oven opening, you are over firing."

In all circumstances it is recommended that cooking is not attempted until the oven has reached a temperature of 350°F (175°C).

The oven cavity is basically self-cleaning. A slightly damp mop is handy to wipe the oven floor area to clear ash debris. **Do Not** use a very wet mop as this will wear and/or damage the mantle surface. The roof and wall area of the oven is self-cleaning by the oven temperature which should exceed 790°F (420°C) from time to time during warm-up periods. If discoloration or contamination should appear, firing the oven to a **high** temperature for a couple of hours should restore these areas to a clean finish.

DOUGHPRO®
STEARNS PRODUCT DEVELOPMENT CORPORATION
20281 Harvill Ave, Perris, CA 92570 Tel: (800) 624-6717 - Fax: (951) 657-4594

20281 Harvill Avenue
Perris, CA 92570
(800) 624 - 6717
Fax (951) 657 - 4594

Controller Configuration Instructions

1. Press **POWER** to turn on the controller.

2. While holding **SET** press the **ARROW ▲** or **ARROW ▼** to reach desired temperature.

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Perris, CA 92570
(800) 624 - 6717
Fax (951) 657 - 4594

3. Holding **ARROW ▲** and **ARROW ▼** simultaneously for 5 seconds allows you to access the main menu, 10 seconds of idle time will exit this menu.

4. To Browse the menu, Press **ARROW ▼**

- 1. Off Set
- 2. Alarm
- 3. Mode 1 = Gas Oven
  Mode2 = Solid Fuel
- 4. Degree F ° or C °

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Perris, CA 92570
(800) 624 - 6717
Fax (951) 657 - 4594

-1u:L1 = Burner 1, Under set point, Lo output, 1=on shows: Torch burner on HI below set point, totally off above set point point.

-1u:H1 = Burner 1, Under set point, Hi output, 1 = on

-1o:L0 = Burner 1, Over set point, Lo output, 0 = off

-1o:H0 = Burner 1, Over set point, Hi output, 0 = off

-2uL1 = Burner 2, Under set point, Lo output 1= on shows: Display burner on HI below set point, on LO above set point.

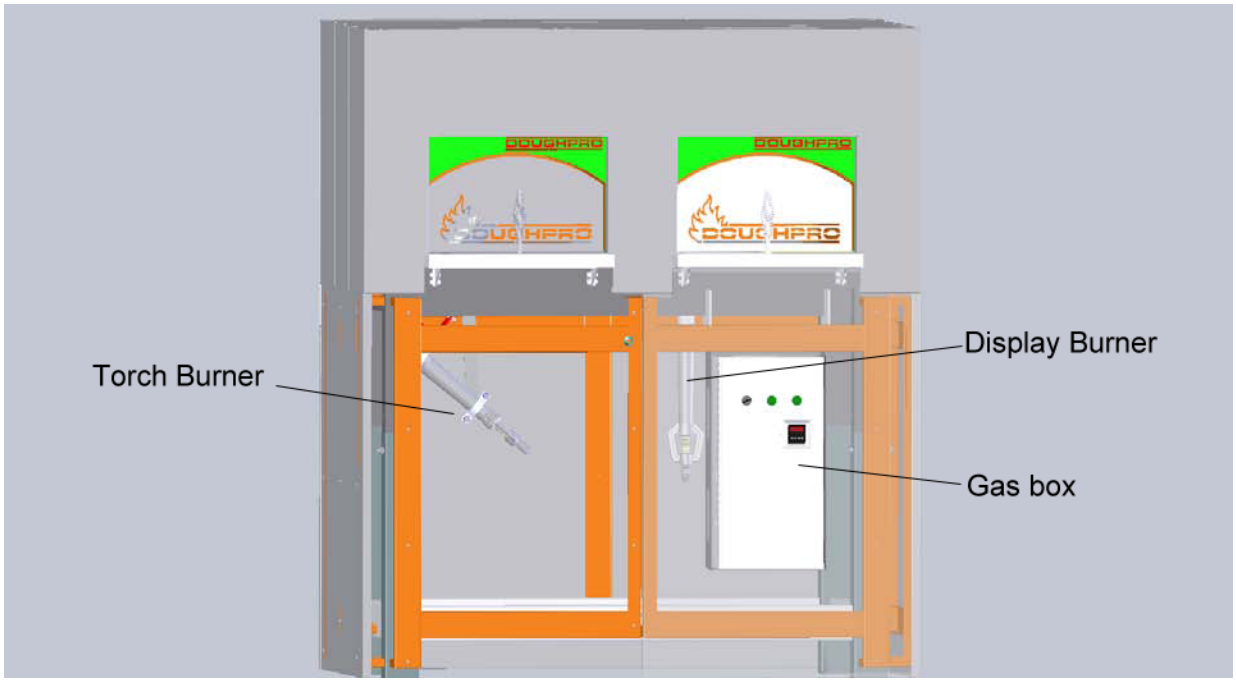
-2u:H1 = Burner 2, Under set point, Hi output, 1 = on

-2o:L1 = Burner 2 , Over set point, Lo output, 1 = on

-2o:H0 = Burner 2, Over set point, Hi output, 0 = off

TO REPLACE OR SERVICE CONTACT DOUGHPRO 1-800-624-6717

Gas Ovens



The following explains the temperature control procedure for the three heating methods.

USING GAS ONLY

In this situation, the burner will start and heat the oven to the preset 'SV' temperature on the temperature controller. Once the oven has reached this temperature, the burner will automatically turn to 'LOW FIRE'. This flame will maintain the oven temperature until the temperature starts to fall below the 'set point' (SV) at which the 'HIGH FIRE' will cut in & heat the oven back to "set point"(SV).

This cycle will continue as long as the oven is switched to this position, maintaining the temperature within a few of degrees either side of set point.

USING GAS AND WOOD

The above mentioned cycle is the same if using both fuels. Although, once the oven has reached set point and turned to 'LOW FIRE', should the temperature continue to rise, (due to the timber) the gas burner will turn 'OFF' approximately 60°F (20°C) above set point and wait for the temperature to fall below the "Set Point" (SV) Temperature. The burner will only operate within the range of, "Set Point" (SV) plus 60°F(20°C), it will automatically start again once the temperature falls below this preset range.

USING WOOD ONLY

Using 'wood only' in an oven that has a gas back up system is quite an acceptable practice and quite a common practice. The digital temperature controller can tell you the present oven temperature ('PV') when the operating switch is set in the control position.

This is very useful for gauging the fuel requirements of the oven.

Or contact the DoughPro Ovens head office or authorized dealer.

GENERAL GAS DETAILS

The models with gas attached provide 57,000 - 152,000 BTU's heat input. (Depending on gas type as previously mentioned and model purchased.

Within the oven space is a temperature probe (thermo-couple), which signals the digital controller to cycle the burner between 'off', and 'low flame' and 'high flame'. The burner is ignited by switching the main switch, located on the front of the control box. Setting the switch to 'burner on' position, energizes the gas control system, ignites the main gas flame, (which is automatically ignited by a sparking device) Within 6-10 seconds the main gas burner will be ignited automatically. If for whatever reason the burner fails to ignite reset the main control switch and the system will repeat the process. If after three attempts it does not light reference should be made to DoughPro Ovens or their authorized agent to arrange for service to the equipment. On the front panel of the control box is a digital temperature gauge that shows the internal oven temperature 'PV' and also displays (must press 'MODE' button) the preset 'set point' 'SV' temperature. When the oven temperature reaches the 'set point' temperature the gas system goes to 'low flame' operation. If the oven temperature rises 60°F (20°C) above the 'set point' (due to the wood fire), there is no more heat required from the gas system and the flame will turn off. It will automatically turn on when the oven temperature drops below the 'set point' temperature.

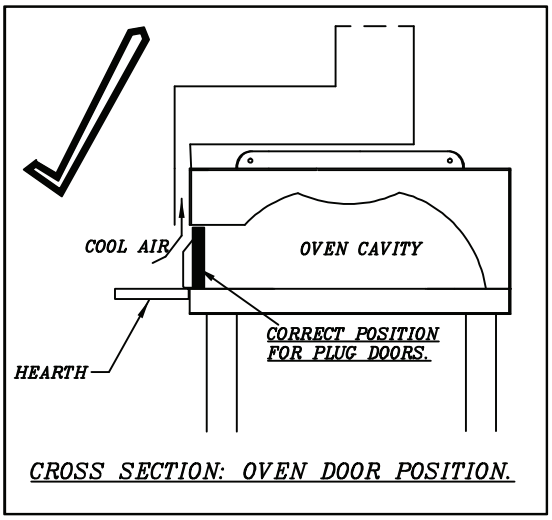
The preferred temperature 'set point' we have found to be quite varied, subject to different clients' tastes and cooking styles. The light above the burner control illuminates when the burner is ignited raising the temperature of the oven to 'set point'.

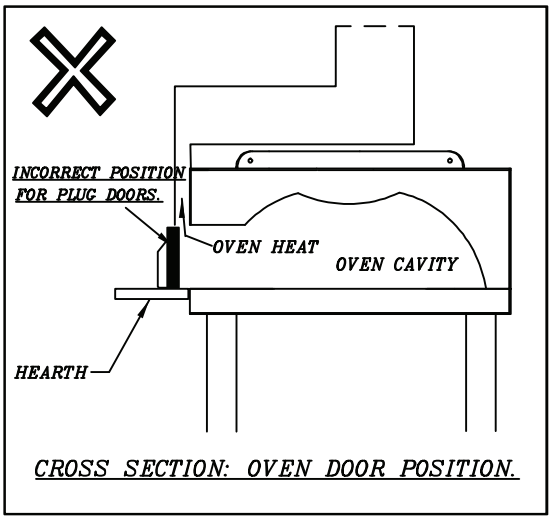
Due to the density of the high temperature castable ceramic used in the construction of the oven, it retains heat very well and the operator is advised that the most successful flame for pizza cooking is with a pile of smoldering embers from timber. It is possible for the pizza oven to be too hot using timber. In this instance the oven should be left to cool down a little before an attempt is made to cook in it. The oven can be run on timber or gas alone.

PREHEATING / COOKING

1. Turn exhaust fan on at switch.
2. Turn the gas on (burner on) at the switch under the oven. Temperature should be set to 600-750°F(350-400°C) or as instructed by Chef.
3. Light the fire in the mouth of the oven then push it into the middle for at least half an hour before pushing it to one side. As described in the operation section of this manual and as can be seen on the instruction video. The longer the fire is kept in the middle of the oven floor (not at the front) the greater the floor temperature will be, which helps to cook the bases of the pizzas better. Therefore, keep the fire in the middle of the oven till a short time before the meal session begins.
4. Clean the floor prior to cooking. Remove fire ashes from the floor centre using a moist (damp not dripping wet) rag on a broom.
5. Place the plug door in oven mouth outside core cooking times to enable the oven to keep the heat in. **The position of this door in the opening IS CRITICAL.** The door must be sitting in past the flue area. This way, the exhaust gas is sucking cool air instead of heat from the oven.

OVEN DIAGRAM





Note: Door should be located as per this diagram to ensure maximum efficiency of the oven.

Experiment leaving exhaust fan off overnight - the purpose of this is to try using less timber and more heat in the oven in the morning - less start up energy required. Place the front door in the mouth of the oven outside cooking times to keep the heat in.

Another hint is to leave some timber in the oven over night away from the fire area to dry out. This makes for easier start up the next morning with very low smoke production.

NOTE: PLEASE NOTE EXHAUST FLUE NEEDS TO BE CLEANED AT THREE MONTHLY INTERVALS

FIRING UP TO COOK (See Video)

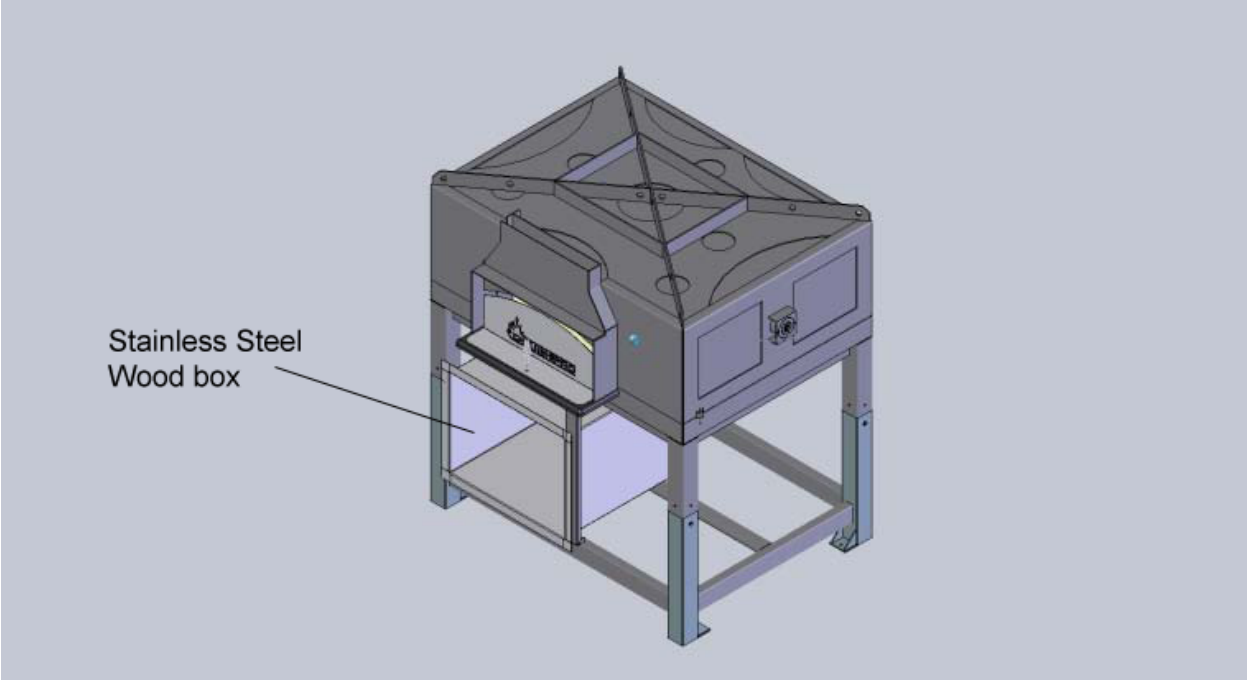
As per the preheat, start a small fire in the mouth of the oven with kindling (placed on folded cardboard) and proceed making the fire with larger timbers. Once you have the large timber eg. 4-5"(100-125mm) diameters, burning, push the fire to the back or side. From cold, allow the oven approximately 3 hours to heat up initially. Thereafter, warm up should take about 90 minutes. Using gas can reduce this time. (Once the oven has been operated daily, the oven will be hot on arrival in the morning and may take as little as one hour to reheat.) The oven temperature is basically controlled by the size of the fire or the 'set point' of the gas system and the draft up into the flue system.

In all circumstances it is recommended that cooking is not attempted until the oven has reached a temperature of 350°F (175°C).

Gas Ovens, the gas flame modulates 'off', 'low flame' and 'hi flame' keeping the oven at the desired temperature 500-750°F (250-400°C).

Once the oven reaches cooking temperature the pizzas can be placed in the oven with or without trays within 12" (300mm) of the fire and in layers out. If the gas backup jet does not appear to be firing much, it may just mean there is sufficient heat from the fire to satisfy the thermostat not to fire the burner.

Wood Ovens



Wood Fired Ovens. (WO) Optimum temperature for pizzas is approx. 660°F (350°C). If there is no temp gauge installed, however, once the oven has been preheated and has been heated to cooking temperature once, the oven will reheat in about one hour. If pizzas do not cook in around five minutes, either the oven is too cool (a larger fire required) or there is too much draft in the flue.

The pizzas should be rotated about to suit their cooked condition. The chef soon becomes familiar with the radiated and reflected heat conditions in the oven and moves his pizzas around to suit this.

Most restaurants place the dough directly on the brick although they can be placed on trays for time enough to toast the base a little before placing directly onto the brick. Others leave the pizzas on trays for the whole process. This is a decision for the Executive chef.

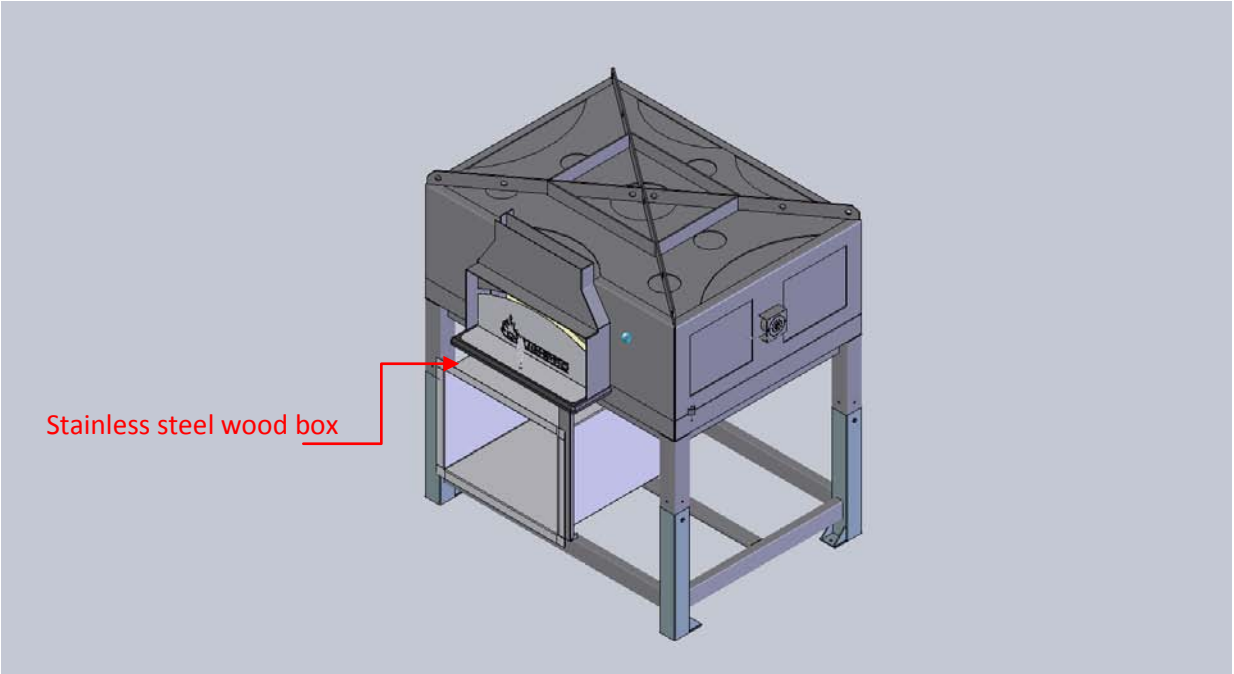
As the timber embers reduce, more timber should be placed on the fire. When there appears to be too much ash, simply drag this out and place in your ash receptacle. **Removing ash should always be done with great care as hot embers may be hidden in the ash.** There is, however, surprisingly little amount of ash compared to the timber entered and most restaurants only clean out once a day, before start-up. The gas flame will modulate automatically all day. Note the quantity of ash reduces with the better quality of hard wood used.

TYPES OF WOOD RECOMMENDED TO USE ON A WOOD FIRE OVEN

Wood Type	Heat	Lbs/Cord	Lighting	Coaling	Sparks	Fragrance
Alder	Med-Low	2500	Fair	Good	Moderate	Slight
Apple	High-Med	4400	Fair	Excellent	Few	Excellent
Ash	High	3500	Fairly Difficult	Good-Excellent	Few	Slight
Beech	High	3800	Difficult	Excellent	Few	Good
Birch (white)	Medium	3000	Easy	Good	Moderate	Slight
Cherry	Medium	2000	Fair	Excellent	Few	Excellent
Elm	High	2300	Very Difficult	Good	Very Few	Fair
Hickory	Very High	4200	Fairly Difficult	Excellent	Moderate	Excellent
Maple (red)	High-Med	3200	Fairly Difficult	Excellent	Few	Good
Maple (sugar)	High	3700	Difficult	Excellent	Few	Good
Mesquite	Very High		Very Difficult	Excellent	Many	Excellent
Oak (live)	Very High	4600	Very Difficult	Excellent	Few	Fair
Oak (red)	High	3700	Difficult	Excellent	Few	Fair
Oak (white)	Very High	4200	Fairly Difficult	Excellent	Few	Fair
Pecan	High		Fair	Good	Few	Good

Used solid wood fuel only DO NOT USE products not specified for use with this oven

Wood only



Wood storage and ash disposal: It is highly recommended that a wood box be purchased with the oven; Doughpro heavy duty stainless steel wood box can help you storing the wood that is going to be use throughout the day, the majority of the wood should be store outside the main building; it needs to be covered to stay dry. After burning the wood, the ash has to be dispose properly, clean the oven with a long handled brush and retrieve the ashes from the oven with long handled shovel, it is highly recommended that an ash dolly be purchase with the oven to avoid dumpster fires.

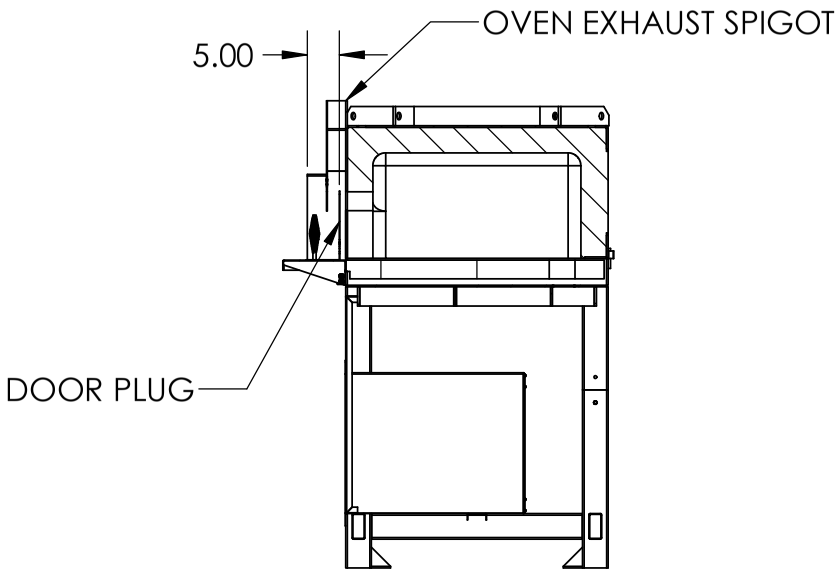
Ventilation: Doughpro recommends that wood ovens, or any using solid fuel including coal, need to be vented independently of other pieces of cooking equipment.

Note: Always follow hood manufactures cleaning and maintenance procedures.

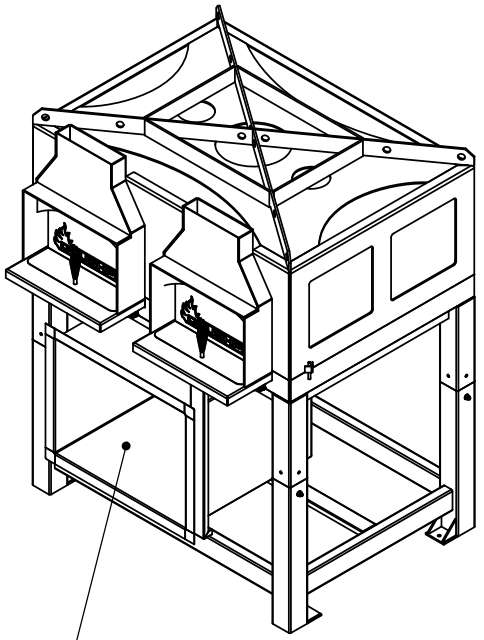
Cleaning: Doughpro recommends cleaning the oven duct regularity to prevent any hood or duct fire.

Operation:

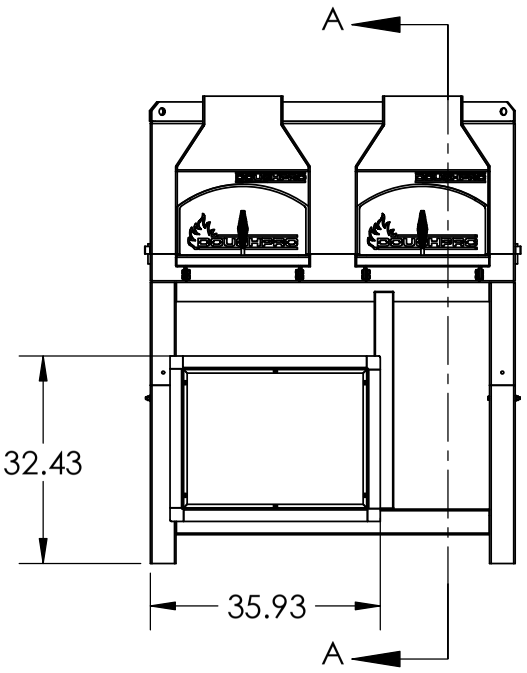
CAUTION: Never use gasoline, kerosene, charcoal lighter fluid, or similar liquids to start or freshen a fire in this oven.

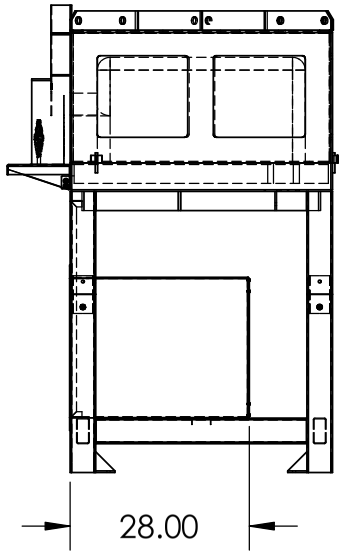


SECTION A-A



WOOD BOX REQUIRE

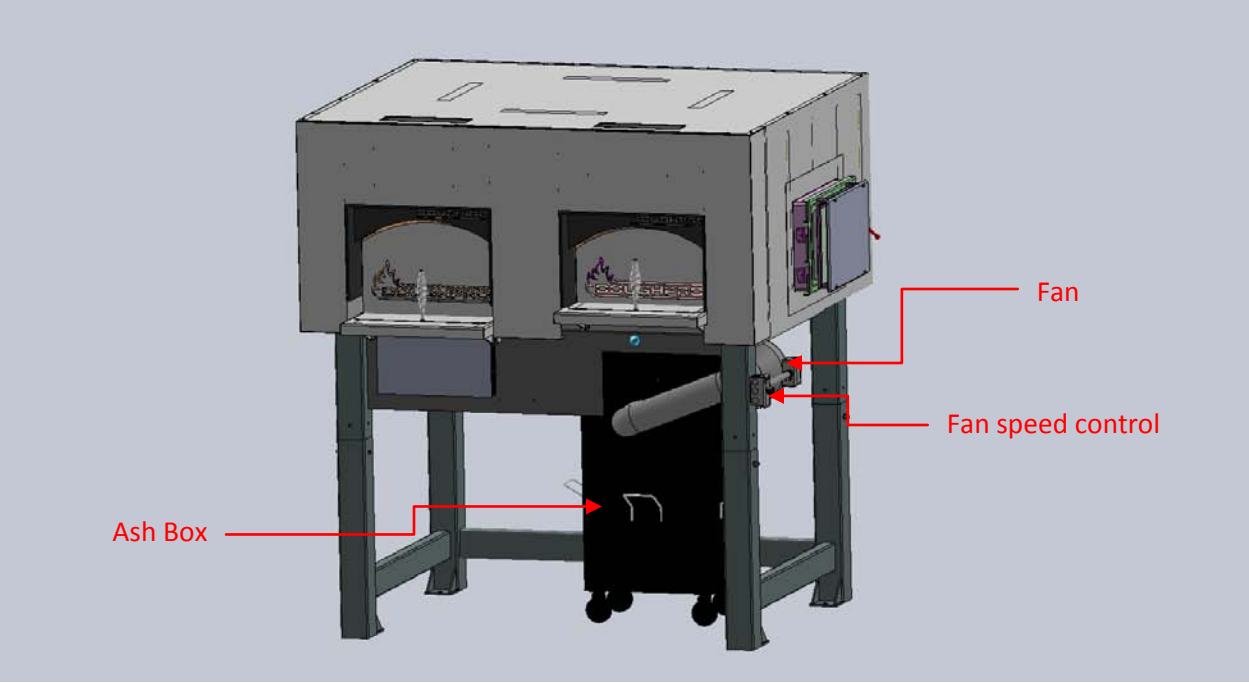




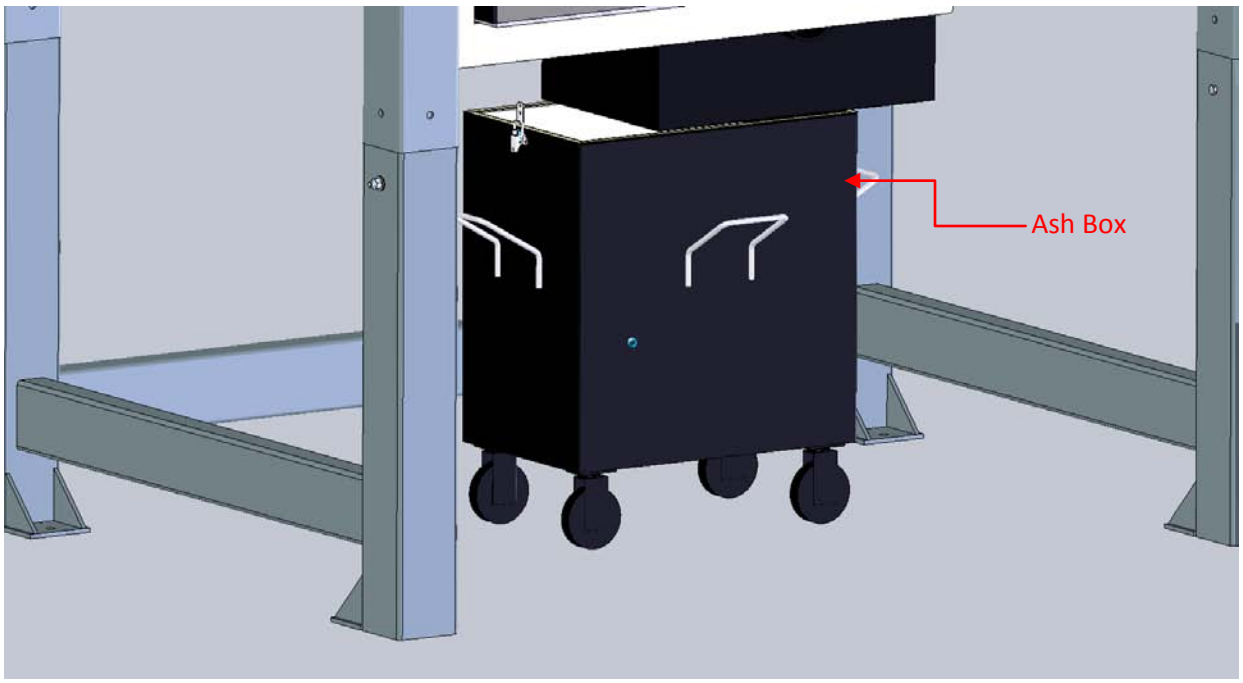
TITLE:

WOOD OVEN

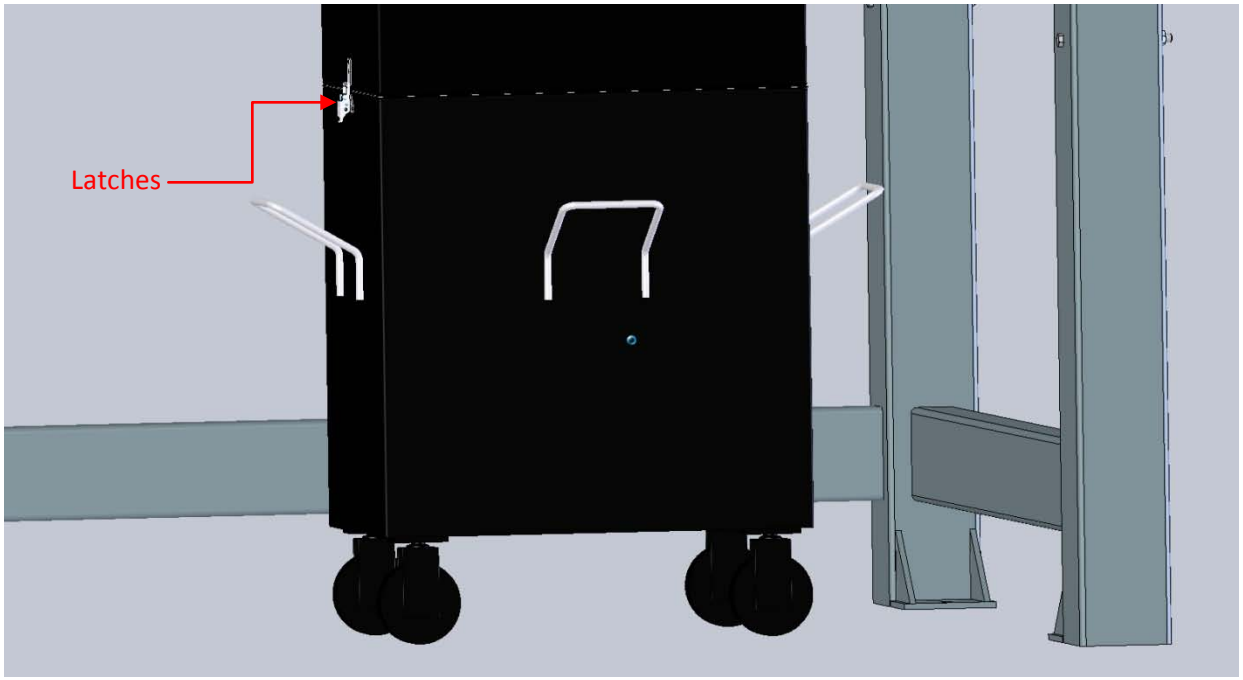
COAL OVENS



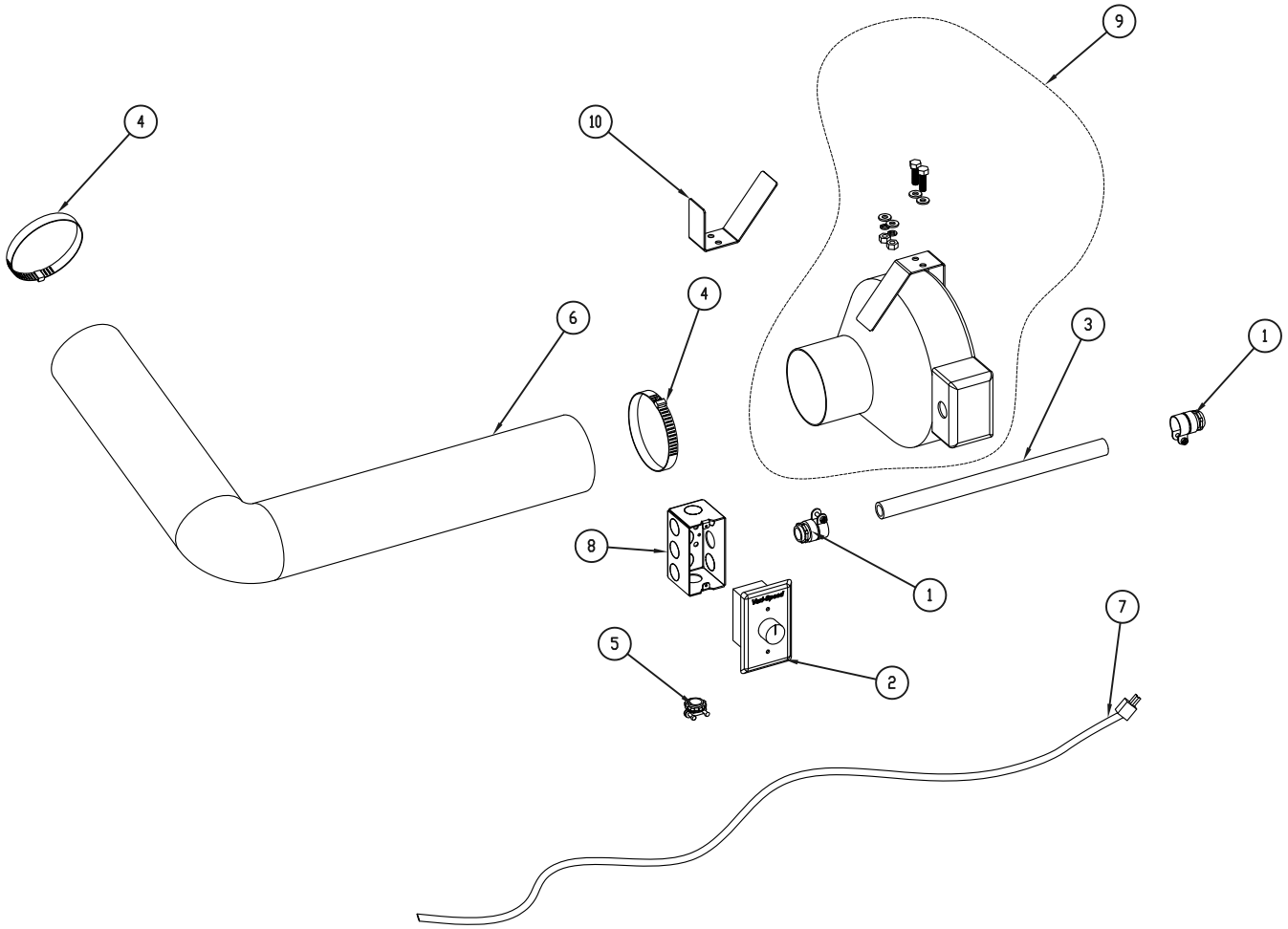
REMOVING ASH BOX



It is recommended to empty the ash box at the start of the following work day once that all the ambers and cinder have thoroughly cooled. Unlatch ash box from upper section and roll out ash box away from the oven to properly dispose ashes.



When installing the ash box back to the oven, it is very important to latch the bottom section of the box with the upper section, so there is not gap in between.



ITEM NO.	PART NUMBER	DESCRIPTION	Default /QTY.
1	110108652	3/8" CONNECTOR W/T	2
2	110116970	SPEED CONTROL FAN	1
3	110108650	3/8" DIA. LIQUID TIGHT CONDUIT	1
4	1101169204C3	4" DIA. METAL CLAMPS	2
5	100455167	3/8" SCREW CONNECTOR	1
6	1101169204C4	4" X 8', UNIVERSAL SEMI-RIGID DRYER DUCT	1
7	110969174	POWER CORD 120V	1
8	1101169204C6	ELECTRICAL BUX, 2 1/8 X 4 X 2 3/16	1
9	1101169161	FAN WELDMENT ASS'Y	1
10	1101169161C1	BRACKET FAN	1

FAN ASS'Y

Char-grill

Char-grill Option. If your oven is equipped with a Char-grill option the operating procedure for this unit is independent of all other oven operation. To use the Char-grill the gas pilot light is to be lit by turning and depressing the control knob to the pilot position, pressing the ignitor button.

Once the pilot flame is ignited the control knob can be released after 30 seconds and the pilot should remain on. (if it doesn't, repeat the procedure). The char-grill control tap can then be set to the desired setting to cook on the grill plates. The control knob has positions for 'high flame', 'low flame', and in between settings. There is also position for 'pilot only' and 'fully off'. Any problem with the operation of the char-grill should be reported to 'DoughPro Ovens' head office. Or your local representative. Service work should only be performed by authorized personal.

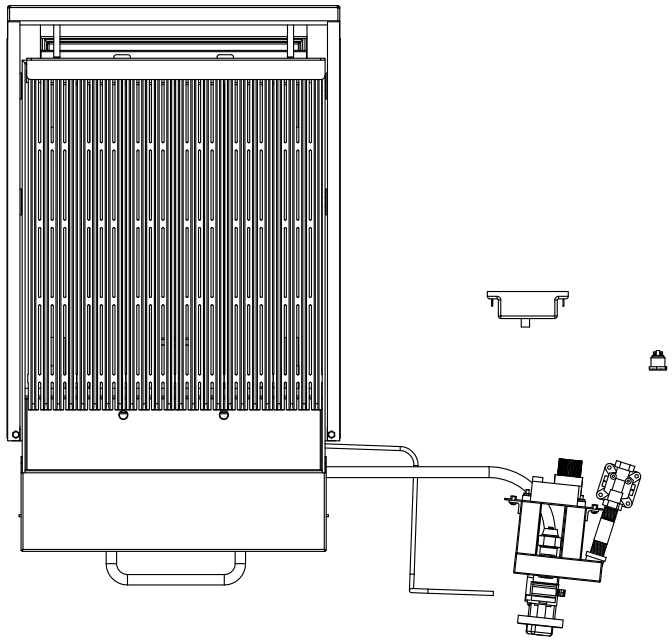
Char-grill Operation

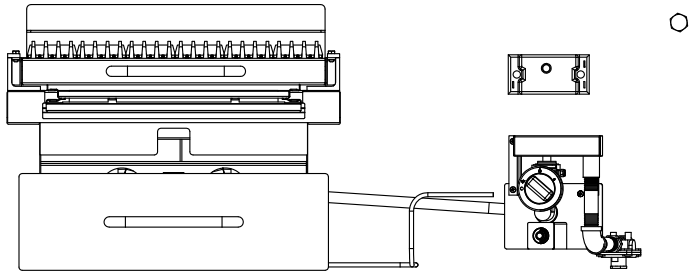
It is necessary to develop a consistent and simple temperature management plan for cooking on your char-grill. This plan should be based on the most appropriate grill temperatures for your products. We have outlined the basic steps below to begin operating your char-grill.

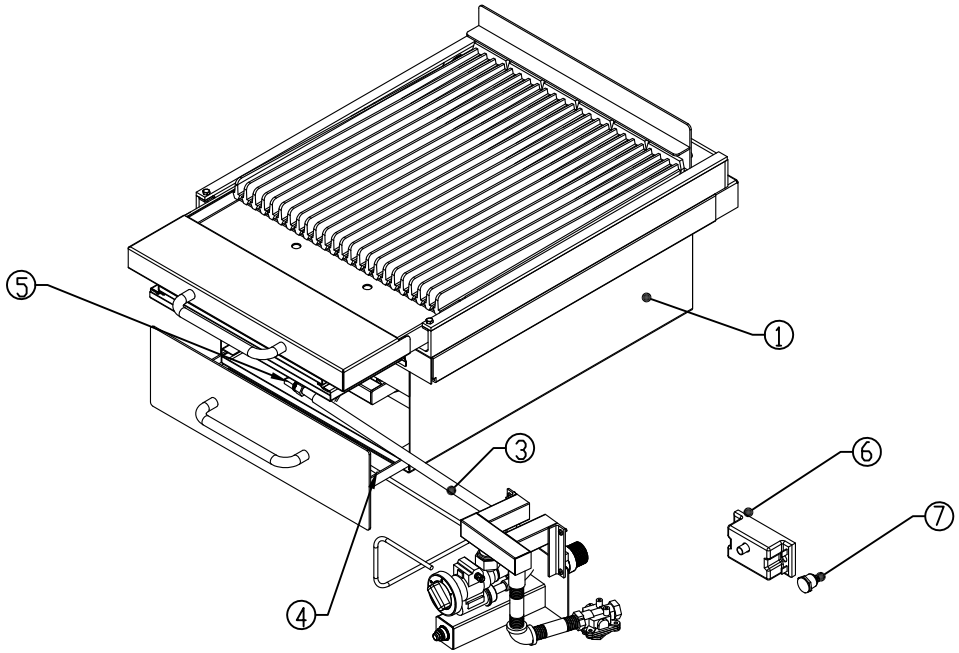
- To light char-grill turn knob till both red lines line up.
- push knob in and hold in to release gas, press ignitor button to ignite the flame
- once lit hold knob in for 30 seconds to lit the pilot
- once pilot is lit turn the knob to the on position.

OVEN GRATES: Doughpro recommends cleaning the grates before the oven is going to be use on the next day, this way the grates have completely cool down during the night when the oven is not in use. Remove grates from char grill and clean using a sharp wire brush.

Never take a hot grate and put it in water, this will degrade the life of the grate.



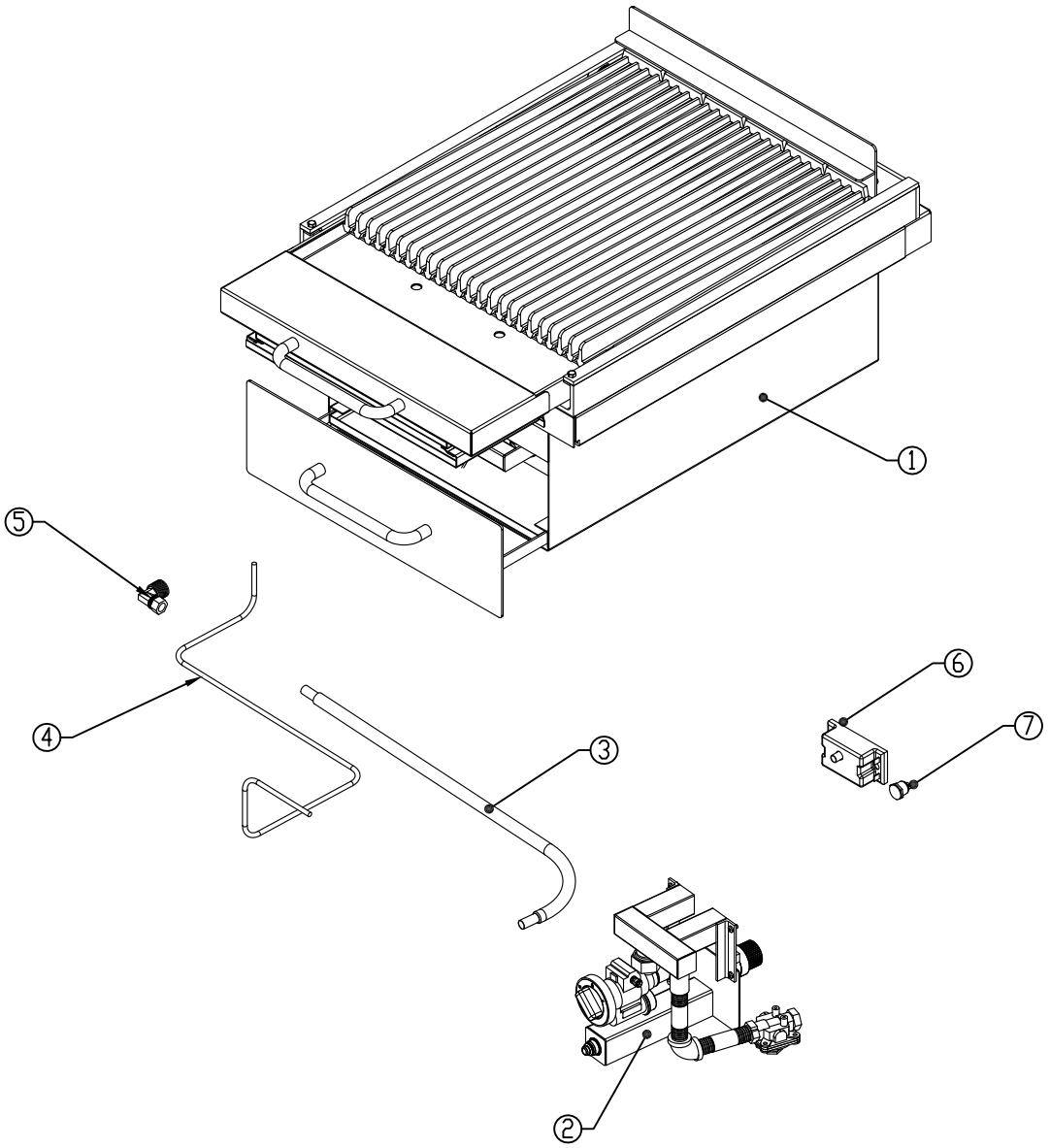




DOUGHPRO
20281 Harvill Ave
Perris, CA 92570
Tel (951)657-9379
Fax (951)657-4594

TITLE:

CHAR GRILL
FINAL ASS'Y



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	110120500	CHAR GRILL ASSY STANDARD	1
2	110120545	SWITCH ASS'Y CHAR GRILL	1
3	110120514	1/2 X 24 SST HOSE	1
4	110120513	1/4 X 36 SST HOSE	1
5	110120512	ELBOW 90 DEGREES	1
6	1101169252	IGNITION PACK	1
7	11020552	PUSH BOTTON SWITCH	1

DOUGHPRO
2828 Harvill Ave
Perris, CA 92570
Tel (951)657-0379
Fax (951)657-4594

TITLE:

CHAR GRILL ASSY
EXPLODE

Finishing for the Day When you have finished for the day, simply turn off the gas at the switch and if you wish, spread the coals. This is not always necessary. Any size fire can be left burning safely. Some owners put another log on to keep the oven hot. It is safe to leave the fire burning and the gas switched on or off.

The oven is maintenance free and comes with a 10 year guarantee on the body of the oven. The gas equipment, where installed, comes with a twelve month guarantee. A stainless steel plug door is available and recommended for the oven to keep the heat in overnight.

REGULAR FLUE MAINTENANCE

IT IS CRITICAL THAT THE FLUE BE CLEANED OUT ON A BI-MONTHLY BASIS TO REDUCE THE DANGER OF FLUE FIRE CAUSED BY THE BUILD UP OF SOOT AND FAT IN THE FLUE.

WITH EXPERIENCE YOU WILL BE ABLE TO CUSTOMIZE A SCHEDULE TO SUIT YOUR PARTICULAR REQUIREMENTS.

INITIALLY BI-MONTHLY INSPECTIONS ARE RECOMMENDED.

CONTACT THIS OFFICE IF YOU REQUIRE MORE INFORMATION ON THIS MATTER.

CARE AND CLEANING

OVEN FLOOR: Doughpro recommends brushing food particles and fire debris from the oven floor using Doughpro long handled floor brush or any other wire brush with a long handle. Never scrape oven floor with metal tools having sharp edges and corners. If necessary use a wet rag around the brush head and use it to wipe the floor.

OVEN COAL GRATES: Doughpro recommends cleaning the coal great at least once a month or as necessary. Never use water inside the oven to put out the coal. Before removing the coal grate make sure all the coal have completely burned out, use Doughpro long handled coal shovel to remove all the ashes from the oven. Ashes must not be poured into buckets made from combustible material. Remove coal grate from the oven and clean using a sharp wire brush.

STAINLESS STEEL SURFACES: Clean stainless steel faces with soapy water using a soft, clean cloth, other parts such as door plugs, oven tools and door extensions must be clean the same way. Never use harsh abrasive metal scouring pads, use only non-abrasive scouring pads when required.

DUCT: As with all commercial cooking equipment Doughpro recommends cleaning the oven duct regularity to prevent any hood or duct fire.

DOOR PLUG(S): The door plugs are used to retain the heat while the oven is not in use, door plug(s) can be installing during the night to retain the heat.

OVEN VENTING RECOMMENDATIONS

When installing a Doughpro oven there are some basic guidelines to follow with regards to oven venting that will help ensure proper operation and performance of the gas burners on the oven. These guidelines will also help prevent damage to the oven gas and electrical components due to improper venting and installation.

Note: Damage caused by improper venting and installation is not covered by the oven Warranty

Most Doughpro ovens are built in to some sort of wall structure or enclosure.
This creates the potential for different venting scenarios that can be detrimental to the operation and performance of the oven burners. Here are some basic rules that to follow that will ensure a properly functioning oven installation. Illustrated examples are included below

Guide line 1: The only pathway for air to enter the space beneath the oven should be at the front of the oven through the louvered access panel

The only pathway for air to enter the space beneath the oven should be at the front of the oven at the perforated opening in the oven service panel provided with the oven, or on ovens equipped with an optional storage box, through the perforations provided on the oven storage box. This will eliminate the chance of air movement or cross drafts beneath the oven that can disrupt the oven burners.

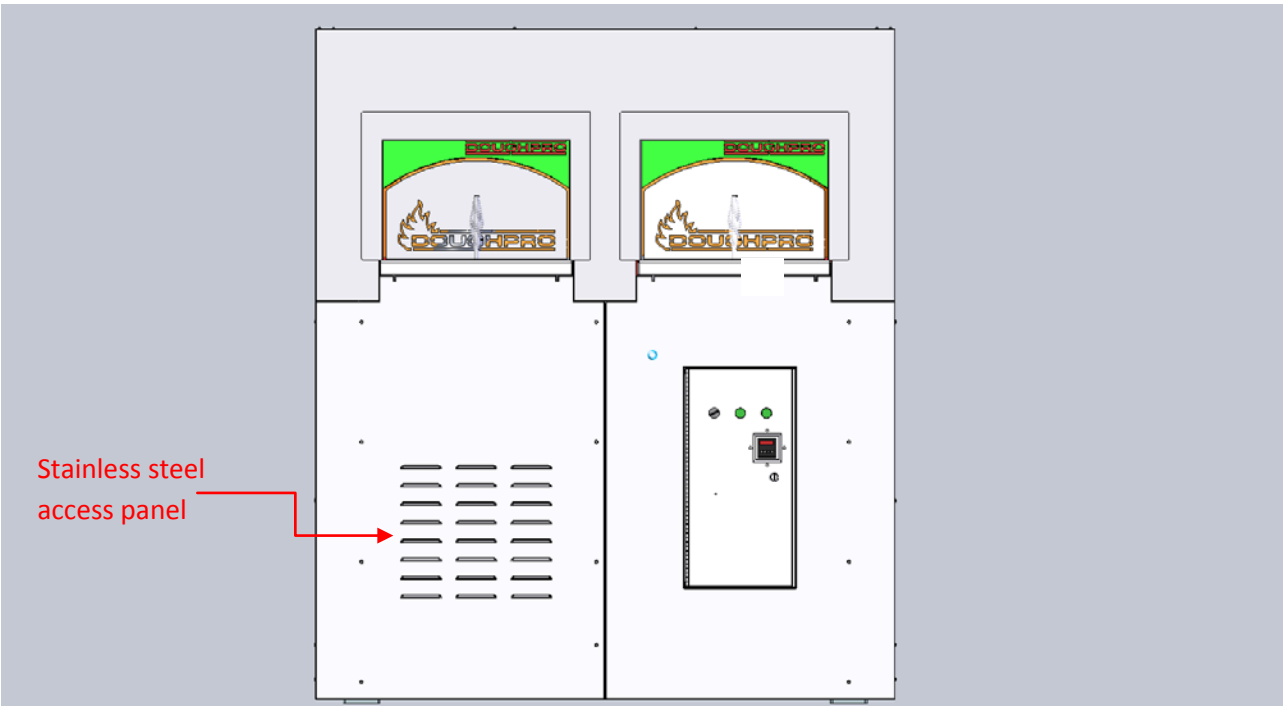
Guide line 2: Never block the flow of air through the front access panel, a good airflow is necessary for a good combustion to help ensure proper operation and performance of the gas burners on the oven.

Do Not block the flow of air through the front service panel. It is required to provide necessary combustion air to the oven burners. Airflow and service access must be provided from the front of the oven only at this service panel. Do not relocate the oven air intake. See guide line1.

Guide line 3:

To ensure proper venting of the oven, you must use an appropriate exhaust fan as described in this manual. There must also be an adequate source of make-up air provided to your kitchen space, (room that the oven opens to). The make-up air supply should not point directly at the oven. Other than the oven service panel, do not provide make-up air or other ventilation into an enclosure that surrounds the oven. See Rule 1. Without proper make-up air the oven, (or any gas equipment) will not vent and operate correctly.

ACCESS PANELS:



Care must be taken to avoid covering any of the critical access or service points. Access service panels are offered in all Doughpro ovens and are easily removable by removing eight Phillips screws.

Burners can be access by removing the access panel and screws in the front of the oven

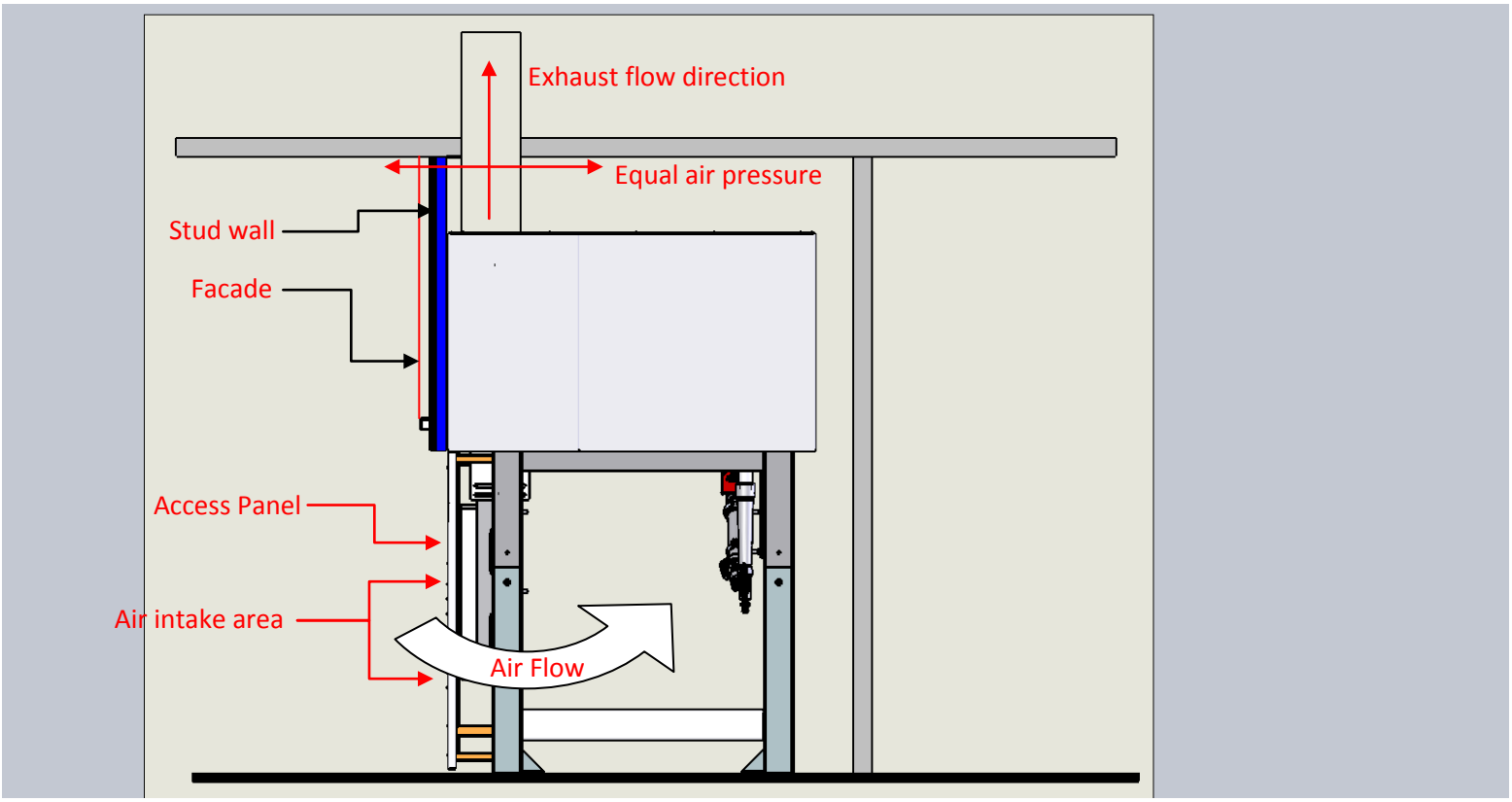
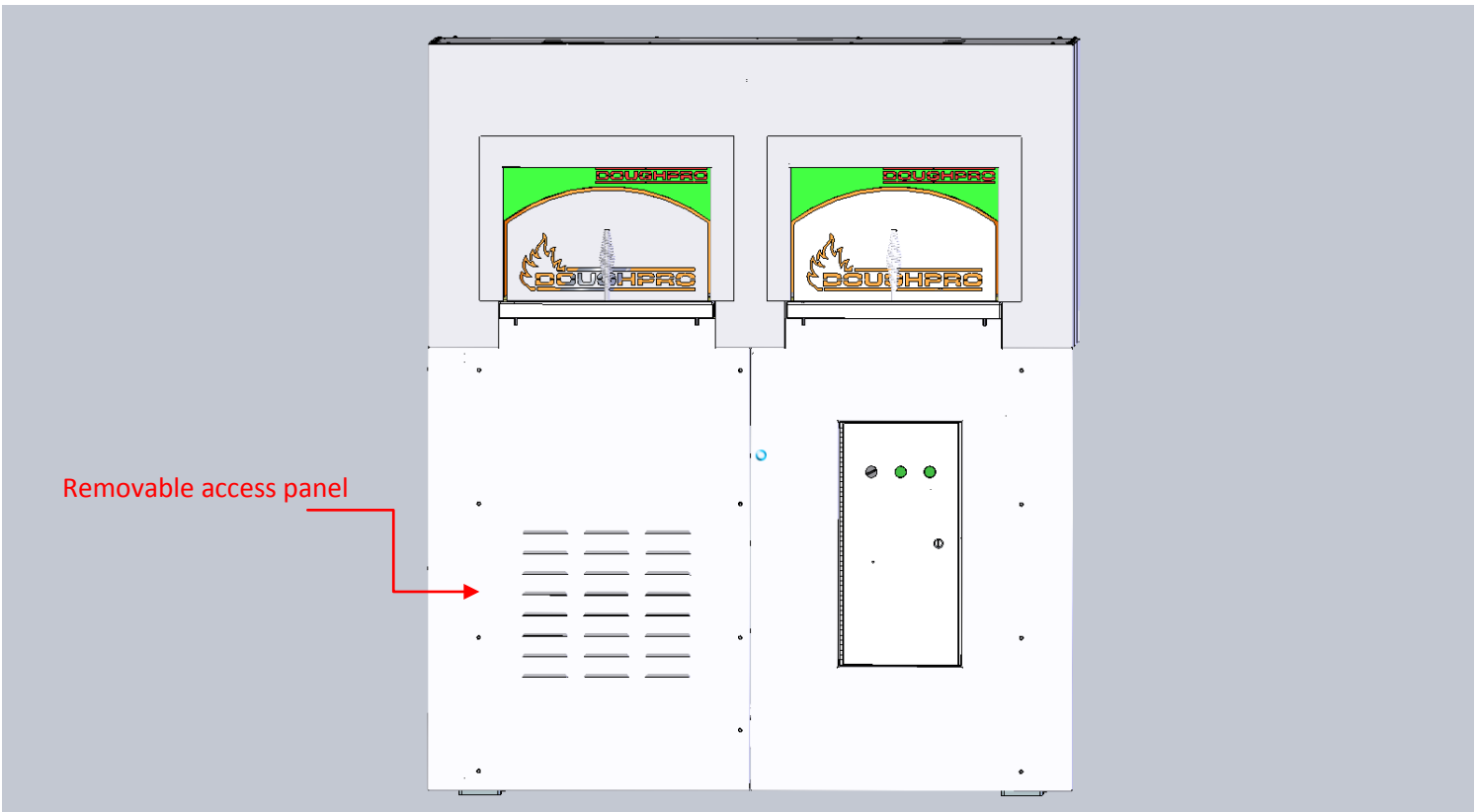
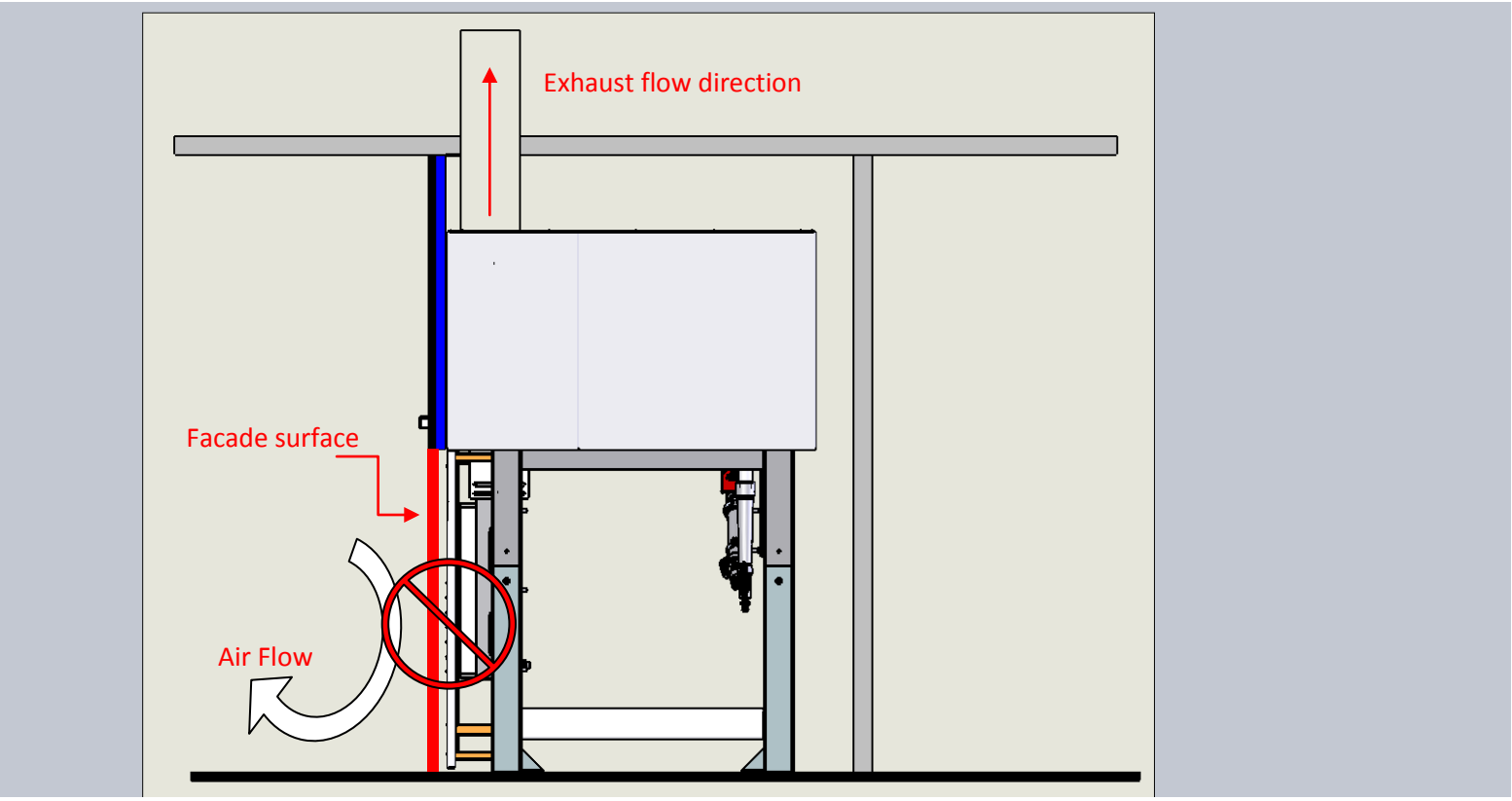


Figure 1 and 2 show adequate venting; the oven is completely sealed so the only airs entering the space beneath the oven come through the louvered access panel.

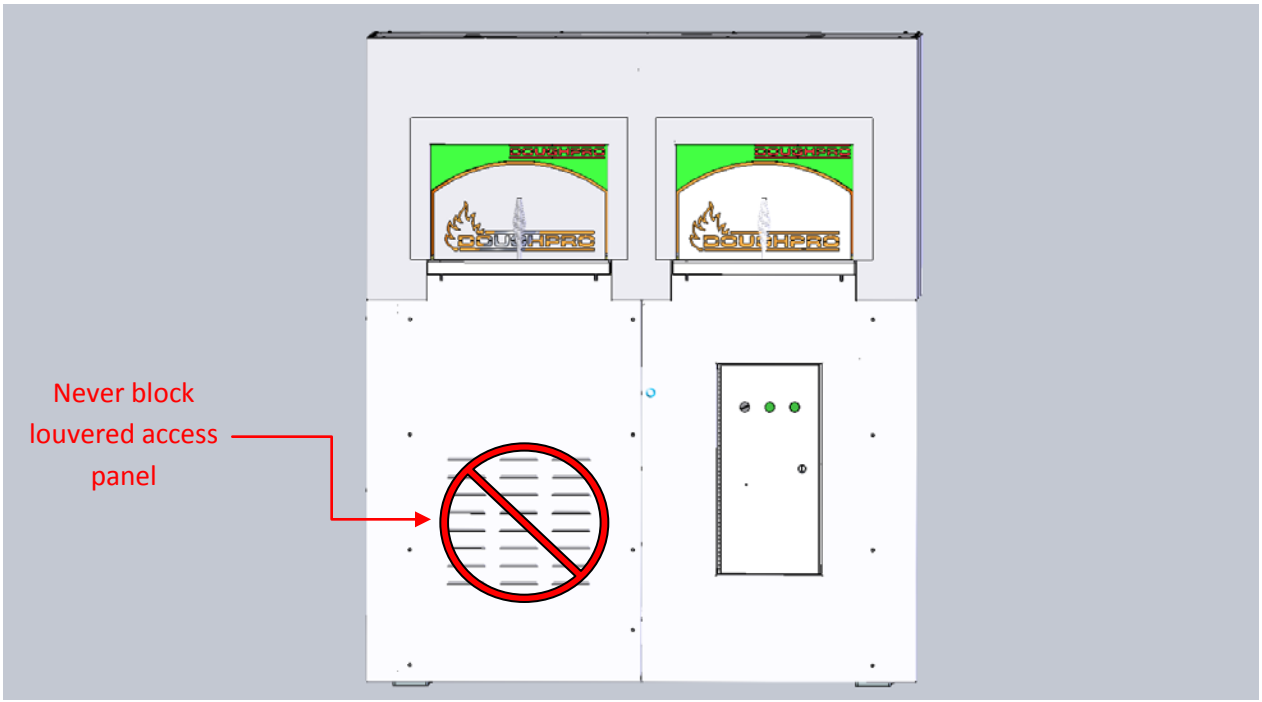


ADEQUATE VENTING (FIGURE 2 FRONT VIEW)

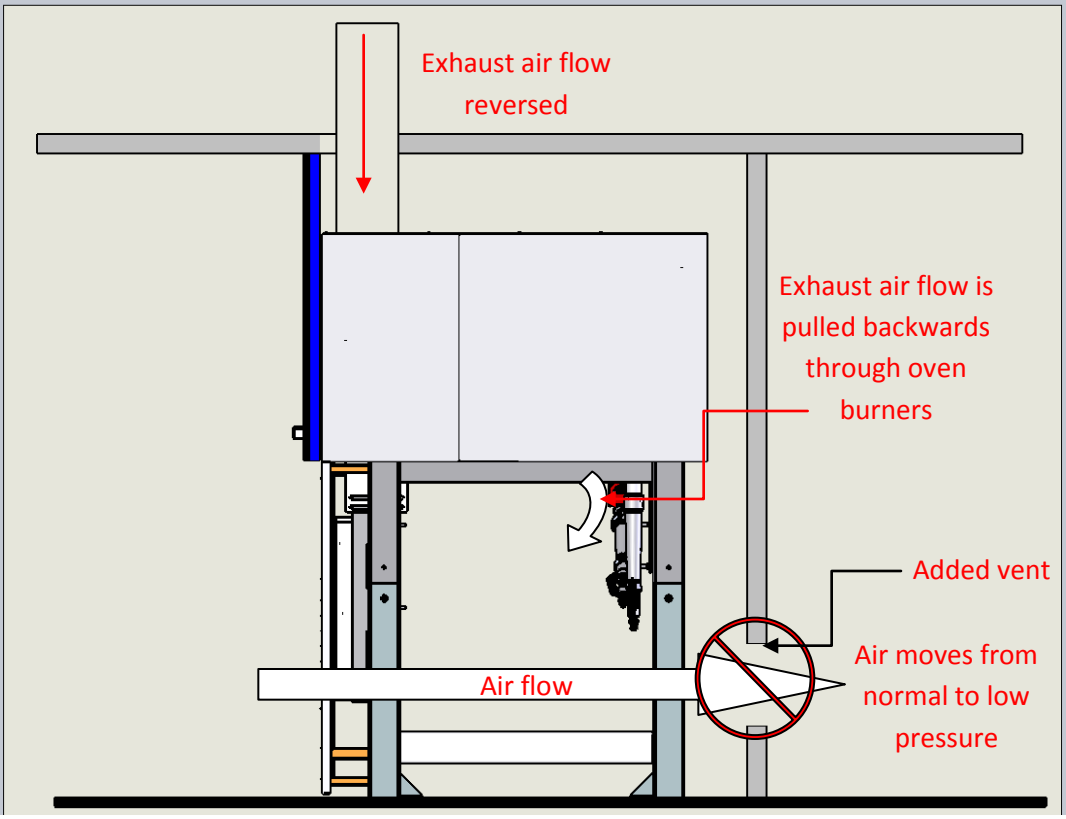


UNADEQUATE VENTING (FIGURE 3 SIDE VIEW)

Figure 3 and 4 Shows access panel being blocked, this will result in a poor combustion since air is not reaching the oven burners. The burners will not function properly and electrical components could be damaged due to improper venting.

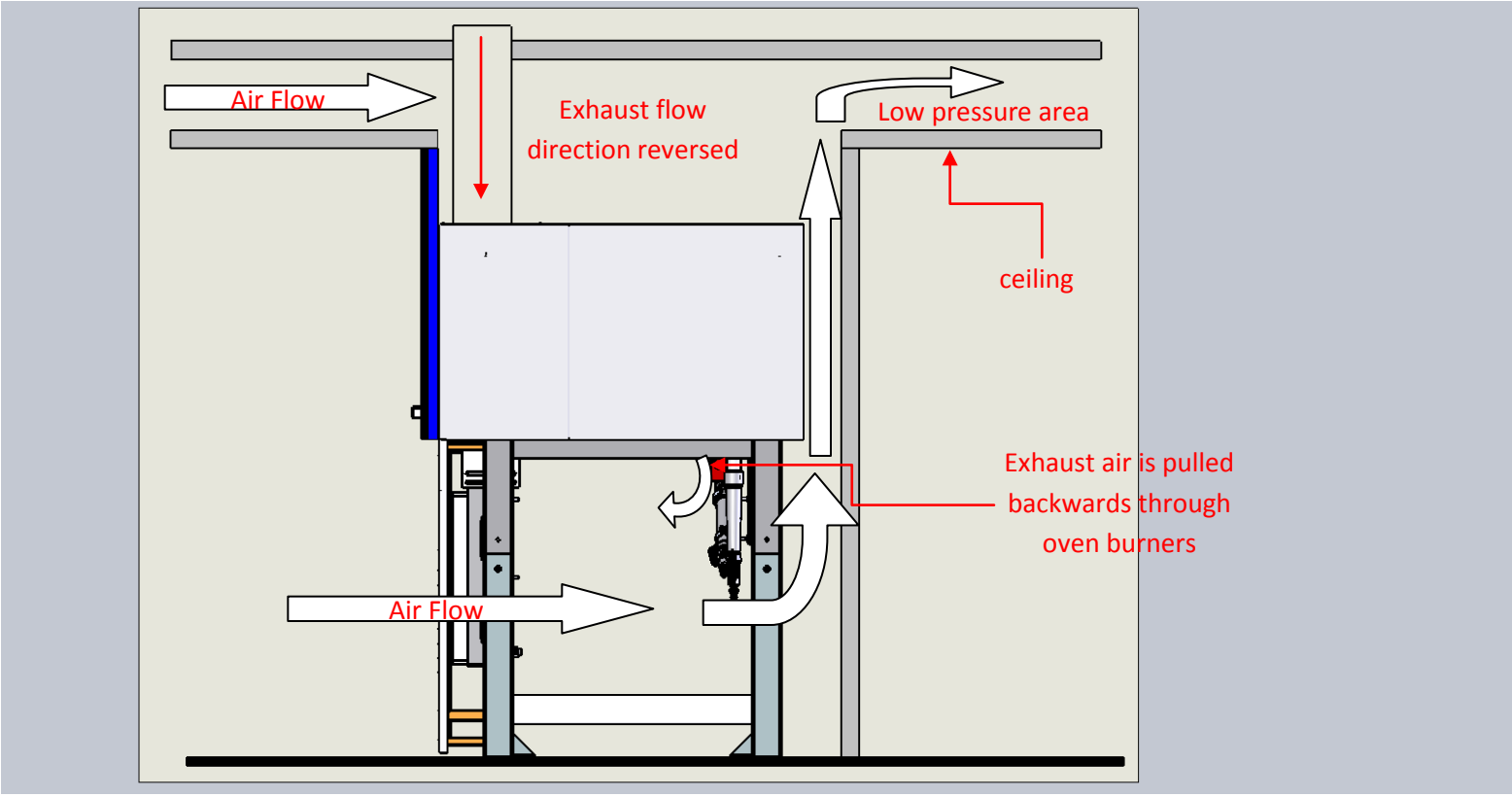


UNADEQUTE VENTING (FIGURE 4 FRONT VIEW)



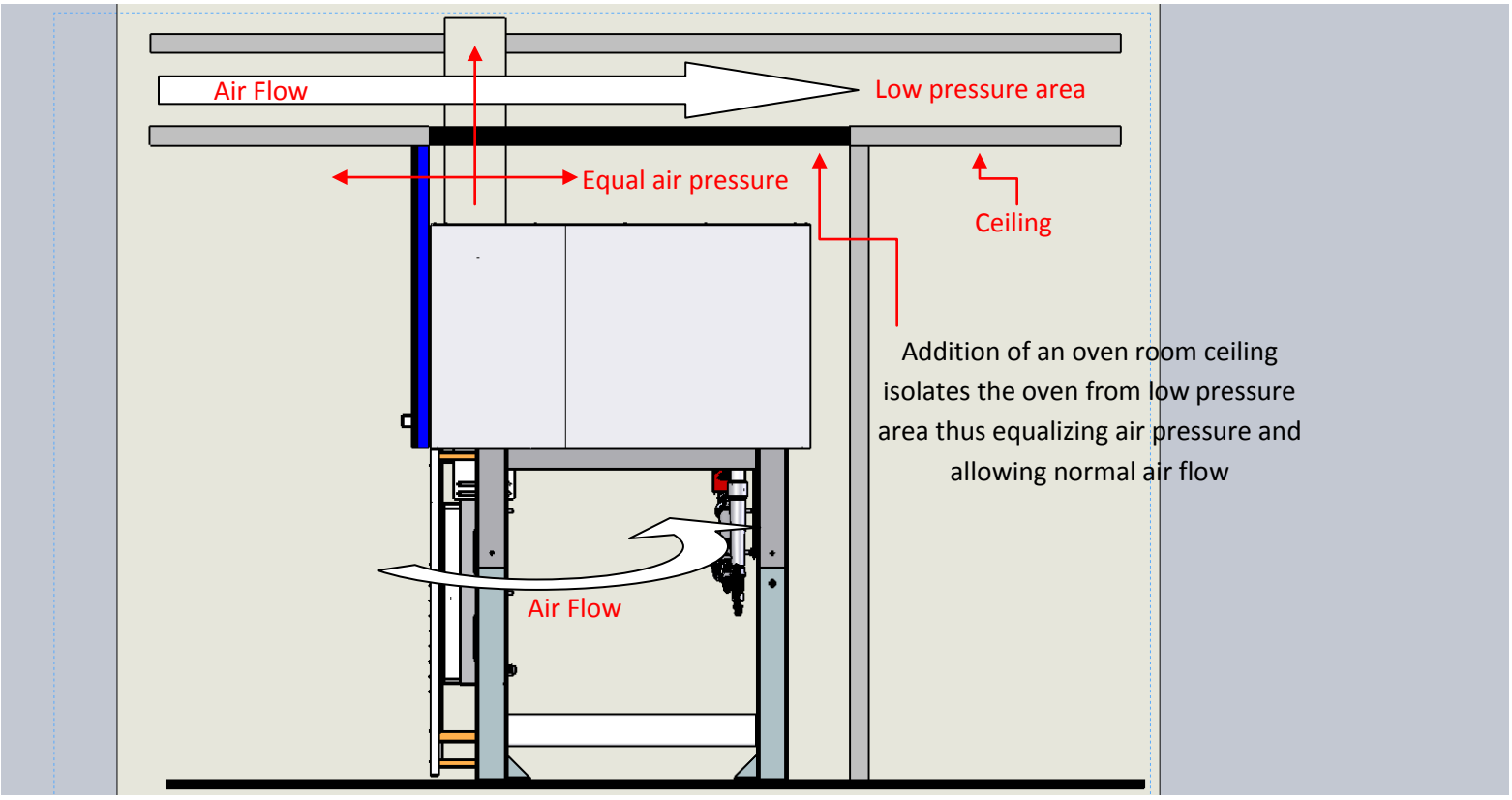
UNADEQUATE VENTING (FIGURE 5 SIDE VIEW)

FIGURE 5 shows an added vent added to the wall behind the oven intended to increase air supply; this extra vent will create air movement beneath the oven and disrupt the operation of the oven burners. The airflow beneath the oven is altered as air moves from normal to low pressure. This air movement can be so severe as to cause the exhaust air to be pulled backwards through oven burners, leading to heat damage of oven electrical components.



UNADEQUATE VENTING (FIGURE 6 SIDE VIEW)

Figure 6 show the enclosure surrounding the oven is open to the attic space above the ceiling. Combustion air is diverted from oven burners because room is open to a low pressure area. This can cause a downdraft situation beneath the oven as the exhaust air is pulled backwards through oven burners, leading to damage of oven electrical components.



ADEQUATE VENTING (FIGURE 7 SIDE VIEW)

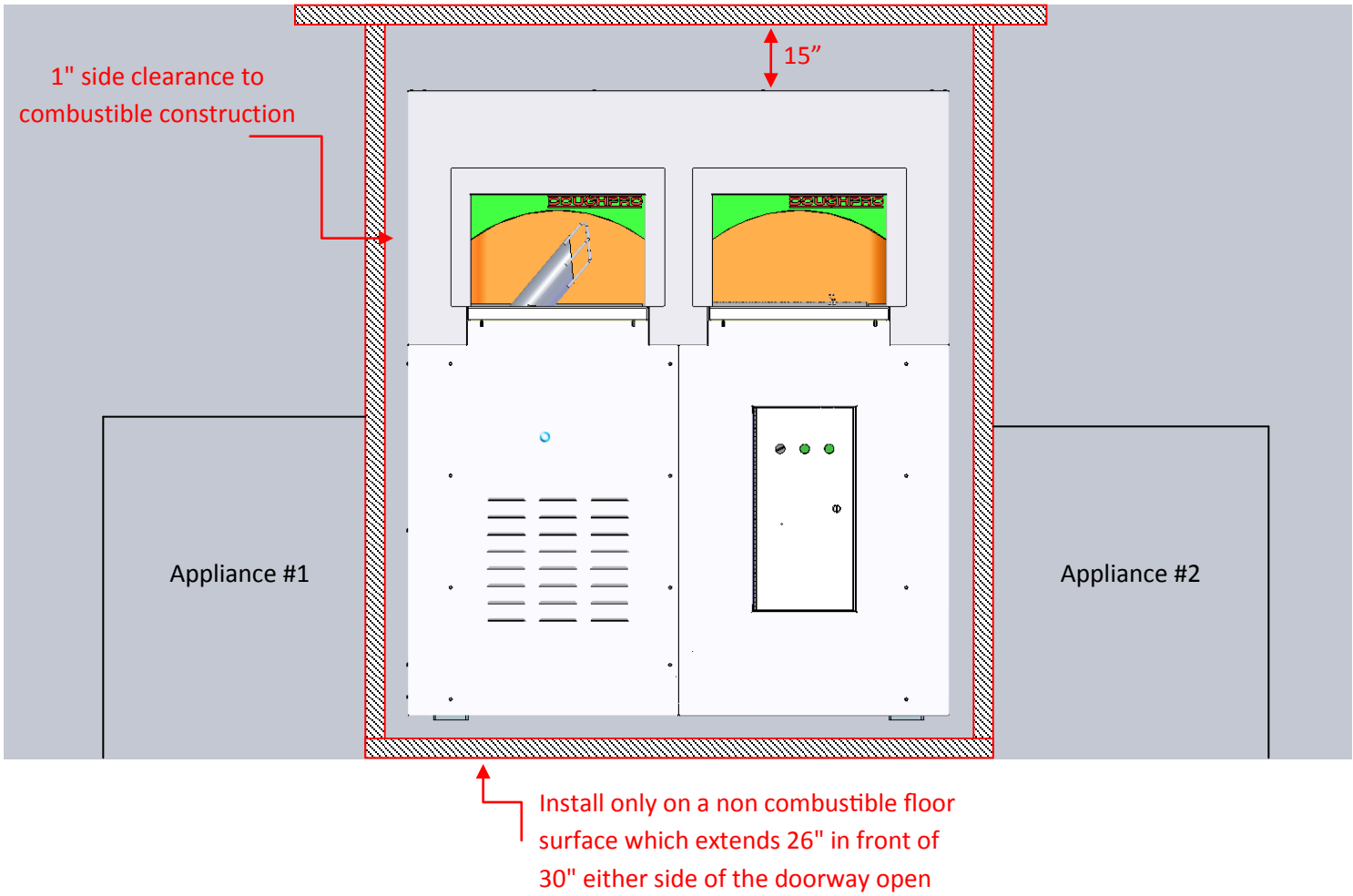
Figure 7 shows the addition of an oven room ceiling isolates the oven from low pressure areas thus equalizing air pressure and allowing normal airflow to the oven burners.

Oven Installation Clearance

WARNING: DO NOT PACK THE REQUIRED AIR SPACE WITH INSULATION OR OTHER COMBUSTIBLE MATERIALS.

- Doughpro ovens must have a minimum 1''clearance to combustibles from all sides, and 14" clearance to combustibles from the top (see figures below). Any construction above and/or 6” to either side of the door must be non-combustible. If building a facade that will contact the oven, use completely non-combustible materials. **Please note that standard dry-wall (or sheet rock) is considered a combustible**. Any openings between the enclosure and the oven should be sealed using non-combustible building materials.
- Install this oven on a non-combustible floor surface which extends at least 36 inches in front of, and 30 inches to either side of the doorway opening.

- Any combustibles within 3 feet of the oven doorway should be protected in a manner acceptable to the authority having jurisdiction.



DOUGHPRO®
STEARNS PRODUCT DEVELOPMENT CORPORATION
20281 Harvill Ave, Perris, CA 92570 Tel: (800) 624-6717 - Fax: (951) 657-4594

Phone (951) 657-0379
Toll Free (800) 624-6717
Fax (951) 657-4594

SECTION THREE: OVEN MATERIALS.

The oven casing is mild steel with some stainless steel anchors.

The oven legs are mild steel.

The oven mantle is typically stainless steel.

The Gas box is stainless steel.

The gas box components standard industrial components (various non-ferrous metals) and standard electrical components.

The upper oven cavity is "high temperature castable"

The outer shell of the oven is covered with 2" of ceramic wool insulation.
Including covering spigot (exhuast) with 1" insulation.

The oven base is high alumina clay brick with ceramic board insulation to the steel housing.

Any glass item that might be incorporated is ceramic glass

All of the oven materials are safe to handle providing they are not hot.

Disposal of any materials should be confirmed with a local authority as to type of disposal method suitable. Debris in the flue is soot. (Creosote, carbon and ash from the cooking oven.)
The remains of the wood fire should be handled with care. The ash left in the oven **may be hot** and it will be dusty. **Handle with care.**

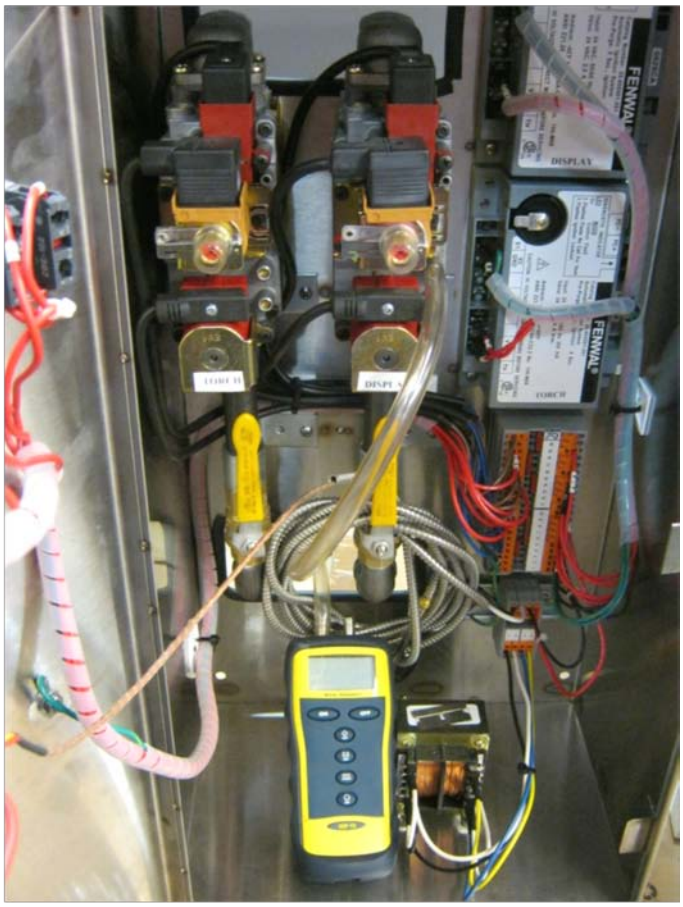
It is recommended to store ash in a sealed container where the ash can be dampened and stored until final disposal is arranged.

Gas valves pressure adjustment.

Gas valves are located inside the gas box system, use the key provided with the gas box to open the front panel to gain access to the gas valves.

Any pressure adjustment to the gas valves has to be performed by a experience or certified gas technician.

NOTE: For your safety individual shut off valve must be disconnected from gas supply when pressure testing is equal or less than ½ PSI.



DOUGHPRO OVENS.

Sit Nova 826-501 (for Natural Gas): **Sit Nova 826-500** (for Propane Gas)

Adjustment supplement.

Instructions to set up the Sit Nova 826 -501 combination Hi/Lo gas valve for **natural gas**. The procedure is identical f or propane systems althou gh the reader must refer to the Technical Details Chart for adjusted pressure requirements. **Never attempt to convert gas types without first changing the combination valve model.**

This setup procedure should be carried out by an experienced gas technician and is performed in situ with the system fully operational. This document is a supplement to the SIT Group 826-827 NOVA sheets (PIN63AP7060/2) and the DoughPro installation & Operation manuals.

The Sit Nova 826-501 combination gas valve incorporates a gas pressure regulator which must be adjusted when the oven system is first commissioned or installed. The regulator controls the amount of gas that is supplied to the burner(s). The regulator has 2 settings, one for when the valve is set to **Lo fire** and the other to control the **Hi fire** setting.

The SIT Nova combination gas valve is located in the oven system control cabinet, to the bottom left of the cabinet.

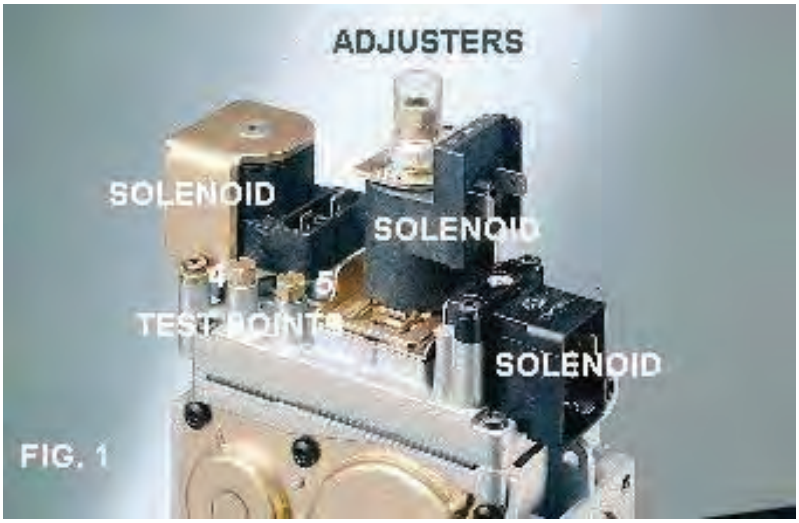


FIG. 1

Looking at the Sit Nova 826 you will clearly see 3 solenoids. Two of thes e solenoids are to turn the gas on and off. The centre solenoid switches the flame from Hi fire to Lo fire. To achieve this the gas is supplied through two different pressure regulator circuits which gives the 2 flame settings, Hi & Lo. It is very importance to follow these instructions to set up the gas pressure regulator on the Doughpro oven to achieve maximum performance. Each installation will vary and although the factory setting will produce a flame, it is necessary to fine tune the regulator setting to obtain maximum performance. This is standard practice for most gas appliances on installation.

For **Doughpro Ovens** using Natural Gas , the burner will (in most cases) have been jetted at the factory to produce 76,000BTU (80M J) with a supply pressure (reg ulator outlet) of 4”WC (1kPa) . This is the **Hi fire** setting. The Lo fire setting is set to a lower pressure after the Hi fire setting has been adjusted. When this has been done it is necessary to recheck the Hi fire setting.

Before you go further you shoul d familiarize yourself with the S IT combination gas valve to be aware of the location of the **test** and **adjustment** points. Refer to the following “Description page”.

DESCRIPTION

1 On-off solenoid valve EV1
2 Gas pressure modulating device
3 Adjustment screw for gas flow to the pilot
4 Inlet pressure test point
5 Outlet pressure test point
6 On-off solenoid valve EV2
7 Pilot outlet
8 Main gas outlet
9 Holes (M5) for fixing flanges
10 Supplementary valve body fixing points
11 Connection for pressure regulator / combustion chamber compensation

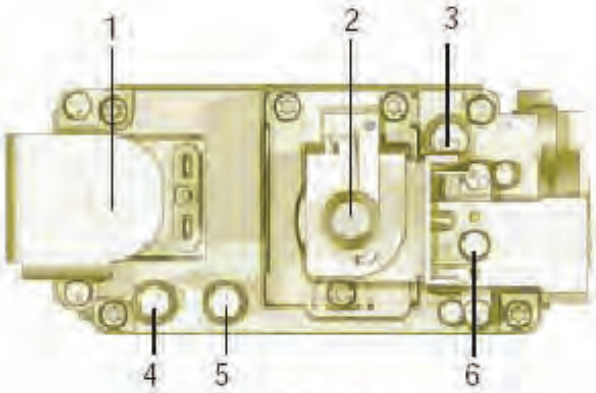


FIG. 2

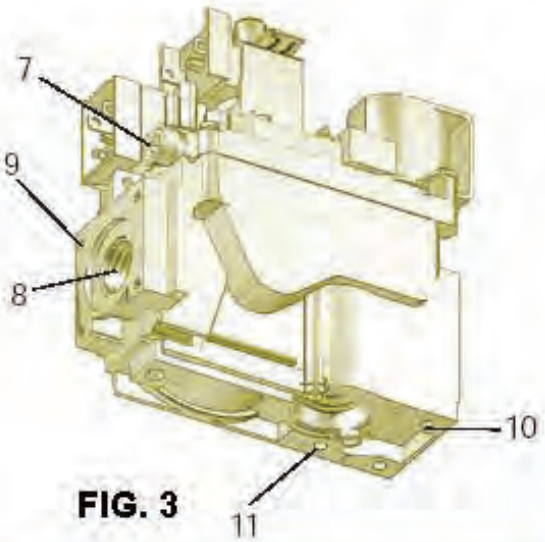


FIG. 3

TECHNICAL DATA

- Gas connections: Rp 1/2 ISO 7
- Installation position: any position
- Gas families: I, II and III
- Maximum gas inlet pressure: 60 mbar
- Working temperature range: 0...60 °C
- Pressure regulator: Class B
- Automatic solenoid valve EV1 Class B (Class A or request)
- Automatic solenoid valve EV2 Class D (Class C or request)

- 826 NOVA
stepped modulating device - outlet gas pressure setting range:
  - max. pressure 7...50 mbar
  - min. pressure 2...45 mbar

- 827 NOVA
stepped modulating device - outlet gas pressure setting range:
2...20 mbar (white screw)
3...37 mbar (red screw)
7...50 mbar (black screw)

Data refer to EN126

POWER SUPPLY			
STEPPED MODULATING DEVICE (826)		CONTINUOUS MODULATING DEVICE (827)	
Voltage (rectified AC)	Consumption (mA)	Voltage (DC)	Consumption (mA)
24 V	270	16 max	310 max

AUTOMATIC VALVES	EV1 (class A or B)	EV2 (class D or C)
Voltage (AC)	Consumption (mA)	Consumption (mA)
24 V 50 Hz	450	210
24 V 60 Hz	450	220

REFER TO Fig. 5; Red Lion T16 temperature controller on page 4 for locations of controls referred to in the following procedure.

1. To begin adjustment, the gas main supply pressure should first be checked on the inlet side of the regulator to confirm that sufficient pressure is being supplied. The screw for the supply pressure test point (labelled “4” in Fig 2.) can be removed and an appropriate fitting or hose used to connect to the test gauge. This should confirm pressure in excess of the required pressure of 8”WC. (2kPa). **Pressure above 24”WC (6.0kPa) will damage the valve**.

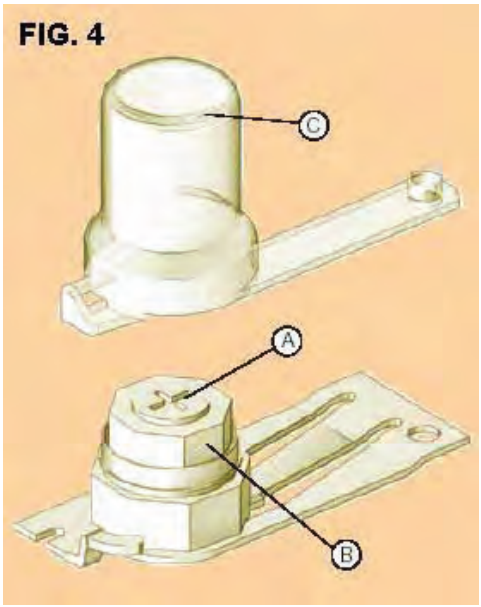
2. You should now fo llow the instructions in the oven operation manual to ignite and run the gas system. If this is the first time the system is ignited, it may take several attempts before the system is purged of air (refer to the manual for full instructions).

3. With the bur ner running you should confirm that the temperature controller on the front of the control cabinet door is set so that the SV (bottom display; “Set point Value”) reading is at least 212°F (100°C) greater than the PV (top display; “Process Value”) reading. Refer to figure 5 for the front panel layout of the temperature controller and the Installation manual for adjustment procedure. This procedure will ensure that the valve remain s on Hi fire while the adjustments are made.

4. **Repeat step 1 with all other gas appliances in the kitchen also running at maximum. capacity** to ensure the gas main is capable of the required flow . The screw for the supply pressure test point (labeled “4” in Fig 2) can be removed and the appropriate fitting or hose used to connect to t he test gauge. This should confirm pressure in excess of the required pressure of 8”WC (2kPa). **Pressure above 24”WC (6.0kPa will damage the valve** . If this reading is now below 8”WC (2kPa), the gas supply to the kitchen will need to be improved.

5. The next step is to replace the test point screw (labeled “4” in Fig 2).
   Re-tighten screws with 22 lb/in (2.5Nm) torque and remove the outlet pressure test screw (5 in Fig 2). Connect to the test gauge and check the pressure. This time you require a pressure of 4”WC. (1kPa). If this is not the case you will need to remove the plastic cap (C in fig. 4; twist anti-clockwise and pull up) over the adjustment screws and use a 10mm spanner to adjust the large nut. (B in fig. 4; clockwise for more pressure and vise-versa).

6. When the correct pressure is achieved the digital temperature controller should be adjusted so that the “SV” reading is 20°F (12°C) below the “PV” reading. This will cause the Sit Nova unit to switch to the Lo fire mode.



7. The Lo fire pressure setting can be set to a recommended pressure of 1.5”WC (0.375KPA). It can also be adjusted with the help of an observer to regulate the flame to a satisfactory size if it is found that the recommended setting is not functioning as desired (thi s may be the case with multi-burner ovens where a pressure of 1.6”WC (0.4kPa) is the recommended minimum). With a screwdriver adjust the Philips head screw (A in fig. 4: clockwise for more pressure and vise-versa). Hold the position of nut (B in fig. 4) in place with the 10mm spanner. (For propane gas “Lo” pressure settings contact DoughPro Ovens with full details of your oven.)

8. If this is the first set of pressure readings return to step 3 and repeat this procedure.

9. When the settings are correct replace the plastic cover (A in fig. 4) and the test point screw (5 in fig. 2).

10. Reset the Digital temperature controller to the required temperature. For new ovens be aware of initial firing instructions in the installation manual. (Commissioning section).

DOUGHPRO®

STEARNS PRODUCT DEVELOPMENT CORPORATION

Warranty & Return Policy

STEARNS PRODUCT DEVELOPMENT CORPORATION warrants all products manufactured by it against defects in workmanship or materials from the date of purchase for a period of (1) year on parts and labor. **This warranty applies to only equipment purchased and used in the United States.** Warranty period shall begin when equipment ships and will not exceed 90 days past the original shipment date. Warranty travel shall only be covered for 60 miles.

ALL WARRANTY SERVICE CALLS MUST BE APPROVED BY DOUGHPRO. IF THIS PROCEDURE IS NOT FOLLOWED, WARRANTY SERVICE WILL NOT BE COVERED.

Exclusions:

1. **WOOD / GAS FIRED OVENS: STEARNS PRODUCT DEVELOPMENT CORPORATION** warranty applies to the main body of the oven being steel / refractory and insulation shall be free from defects in materials and workmanship for a period of four years from the date of purchase. The gas equipment shall be free from defects in materials and workmanship for a period of one (1) year from the date of purchase. This warranty excludes the tandoori and home oven. Lifetime warranty against cracks on oven floor.
2. **TANDOORI & HOME OVENS: STEARNS PRODUCT DEVELOPMENT CORPORATION** warrants the Tandoori & Home Oven including gas equipment shall be free from defects in materials and workmanship for a period of one (1) year from the date of purchase.
3. **Air compressors are excluded from this warranty**, but **STEARNS PRODUCT DEVELOPMENT CORPORATION** may act as a warranty expeditor in certain instances regarding these compressors. The air compressor manufacturer provides a limited warranty and a copy of this warranty is furnished with all compressors sold by **STEARNS PRODUCT DEVELOPMENT CORPORATION**. For prompt handling of compressor warranty claims the instructions of the compressor manufacturer must be adhered to.
4. **Equipment built to special order as well as accessories** are not returnable unless defective within the terms of this warranty.
5. **In no event shall STEARNS PRODUCT DEVELOPMENT CORPORATION be liable for consequential damages arising out of the failure of any of its products if operated improperly or caused by normal wear or damage by operator abuse**.
6. **BC2325 pedestal warranty disclaimer:** Pedestals shall only be covered under warranty if they have been cleaned using the factory approved cleaning method. cracked or damaged pedestals must be inspected by the factory before warranty is authorized.

Returned Merchandise Policy:

Should it become necessary to return any of the company's products, the following instructions must be adhered to: First, contact our customer service department for approval and a return authorization number. *Please have the serial number of your item available at that time.* All merchandise must be shipped *freight prepaid* by customer or service agency. Subject to the inspection of the product by the company, a restocking charge of 20% of the Net purchased price paid to **STEARNS PRODUCT DEVELOPMENT CORPORATION** will be assessed. Merchandise may not be returned for credit without *prior written approval* of **STEARNS PRODUCT DEVELOPMENT CORPORATION**. Collect shipments *will not* be accepted. No returns after 60 days of original shipment date on machines. Purchased parts may not be returned after 30 days.
If upon inspection by **STEARNS PRODUCT DEVELOPMENT CORPORATION** or its authorized agent it is determined the equipment has not been used in an appropriate manner, has been modified, or has not been properly maintained, or has been subject to misuse, misapplication, neglect, abuse, accident, unauthorized modification, damage during transit, delivery, fire, flood, act or war, riot or act of God, then this warranty shall be deemed null and void.

Terms & Conditions:

1. Prices indicated in the PRICE LIST are suggested retail prices and are shown in U.S. DOLLARS.
2. Terms of Payment: 1% 10 days, NET 30 days.
3. **NEW ACCOUNTS:** Satisfactory credit information must be provided before open account status can be extended. Unless agreed otherwise, all shipments will be made C.O.D., CASH IN ADVANCE.
4. **PRICING:** Prices, specifications, model numbers, capacities and accessories are subject to change without notice.
5. **FREIGHT / ROUTING:** Method of shipment will be determined by **STEARNS PRODUCT DEVELOPMENT CORPORATION** unless otherwise advised by PURCHASER.
6. **DAMAGED CLAIMS:** All merchandise shipped at purchaser's risk. Inspection must be made by purchaser at time goods are received. If goods are damaged, the PURCHASER shall request that the agent of the transportation company make a written notation on the proper shipping documents immediately and then file a claim for damage. GOODS DAMAGED IN SHIPMENT ARE NOT RETURNABLE.
7. **RETURNS:** Machines may not be returned after 60 days. Purchased parts may not be returned after 30 days. A restocking fee of 20% will be assessed on non-warranty returns.
8. **TAXES:** Prices indicated herein DO NOT include State, Federal, Local or foreign taxes or duties, nor do they include fees, permits, insurance or other levies, all of which are the responsibility of the purchaser.
9. All orders are subject to acceptance by **STEARNS PRODUCT DEVELOPMENT CORPORATION**.
10. Possession of this price list shall not be considered an offer to sell.