



# INSTALLATION MANUAL

## BROASTER® 1600 AND 1800

### PRESSURE FRYER w/SMART TOUCH CONTROL

Be sure ALL installers read, understand, and have access to this manual at all times.



1600

1800

Genuine Broaster Chicken®, Broasted®, Broaster Chicken®, Broaster Foods®, and Broasterie® are registered trademarks. Usage is available only to licensed operators with written authorization from the Broaster Company.

Broaster Company  
2855 Cranston Road, Beloit, WI 53511-3991  
608/365-0193 [broaster.com](http://broaster.com)

Design Certified By:

1600: CSA, NSF and UL

1800: CSA (AGA & CGA), NSF and UL

Manual #17268 8/13 Rev 11/22

© 2013 Broaster Company  
Printed In U.S.A.



## FOR YOUR SAFETY

Do not use or store gasoline or other flammable vapors or liquids in the vicinity of this or any other appliance.

**⚠ WARNING** Improper installation, adjustments, 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.

For the sake of safety and clarity, the following words used in this manual are defined as follows:

**⚠ DANGER** Indicates an imminently hazardous situation which, if not avoided, could result in serious injury or death.

**⚠ WARNING** Indicates a potentially hazardous situation which, if not avoided, could result in serious injury or death.

**⚠ CAUTION** Indicates a potentially hazardous situation which, if not avoided, could result in minor injury, property damage or both.

All adjustments and repairs shall be made by an authorized Broaster Company representative.

If there is a power failure, turn cook/filter switch OFF. On the Model 2400GH, also slide switch on gas valve OFF. DO NOT attempt to operate unit during a power failure.

**⚠ WARNING** Failure to read and understand this manual completely could result in serious injury or death. Be sure ALL operators read, understand and have access to this manual at all times.

**⚠ WARNING** Rags or paper containing cooking oil can catch fire if exposed to heat. Laundering will not remove the oil. Dispose of all oil-soiled papers and rags in a trash container that is in a ventilated area away from all cooking equipment or other heat sources such as direct sunlight.

**⚠ WARNING** If at any time the **POWER ON** light does not turn off when the cook/filter switch is moved to the OFF position, disconnect the power to the fryer and contact your local Broaster Company representative for service immediately.

**⚠ WARNING** DO NOT operate unit without filter pan and filter pan cover in its proper position. Filter pan cover must be wiped clean after each filtering cycle.

**⚠ WARNING** Make sure Pressure Relief Valve and Pressure Gauge ports on bottom of cover are clear of any oil or grease buildup.

cont'd on next page

### **1800GH:**

Post, in prominent locations, instructions to be followed in the event that the user smells gas. This information can be obtained from your local gas supplier.



**WARNING** Make sure a restraining device is used that complies with the Standard for *Commercial Gas Ranges*, ANSI Z83.11/ CSA 1.8 to guard against transmission of strain to the gas connectors.



**DANGER** Failure to restrain the fryer could allow it to move, causing hot shortening to spill out, or a possible break in the gas line causing an explosive condition.

# TABLE OF CONTENTS

<b>1 - PRE-INSTALLATION .....</b>	<b>1 - 1</b>
LOCATION.....	1 - 1
CLEARANCE .....	1 - 1
LEVELING .....	1 - 1
RECOMMENDED VENTILATION REQUIREMENTS.....	1 - 2
General Requirements .....	1 - 2
1600 Hood Dimensions In Inches .....	1 - 3
1800 Hood Dimensions In Inches .....	1 - 4
1600/1800 Hood Dimensions In Millimeters.....	1 - 5
<b>2 - FILTER PAN ASSEMBLY .....</b>	<b>2 - 1</b>
HARDWARE LIST .....	2 - 1
ASSEMBLY .....	2 - 1
ADDITIONAL ADJUSTMENTS IF NEEDED .....	2 - 3
<b>3 - 1600/1800E INSTALLATION.....</b>	<b>3 - 1</b>
ELECTRICAL CHARACTERISTICS .....	3 - 1
ELECTRICAL CONNECTIONS.....	3 - 1
1600 Suggested Wiring Capacity Table.....	3 - 1
1800 Suggested Wiring Capacity Table.....	3 - 1
ELECTRICAL HOOK-UP .....	3 - 2
Access For Hook-Up .....	3 - 2
Phase Wiring .....	3 - 2
Unit Dimensions For Electrical Hook-Up .....	3 - 3
Wiring Diagrams	
DOMESTIC:	
1600/1800E Smart Touch.....	3 - 4
EXPORT:	
1600XP Smart Touch .....	3 - 5
1800EXP Smart Touch .....	3 - 6

<b>4 - 1800GH INSTALLATION.....</b>	<b>4 - 1</b>
GENERAL REQUIREMENTS.....	4 - 1
USA & Canada .....	4 - 1
ELECTRICAL CHARACTERISTICS .....	4 - 2
ELECTRICAL CONNECTIONS.....	4 - 2
Wiring Diagrams	
DOMESTIC: 1800GH .....	4 - 2
EXPORT: 1800GHXP .....	4 - 3
GAS CHARACTERISTICS .....	4 - 4
BTU/HR Ratings.....	4 - 4
Gas Pressure And Orifices.....	4 - 4
Gas Conversion .....	4 - 4
High Altitude .....	4 - 4
GAS PIPING .....	4 - 5
Unit Dimensions For Gas Hook-Up .....	4 - 5
Example Of Piping System Design .....	4 - 6
 <b>5 - OPERATIONAL CHECK-OUT .....</b>	 <b>5 - 1</b>
COVER ASSEMBLY .....	5 - 1
INITIAL STARTUP	
Electric .....	5 - 1
Gas .....	5 - 2
1800GH LIGHTING INSTRUCTIONS .....	5 - 2
Start-Up .....	5 - 2
Shut Down .....	5 - 3
AIR SHUTTER ADJUSTMENT .....	5 - 3

# 1 - PRE-INSTALLATION

## LOCATION

For convenience and speed, location of the unit should be given careful consideration. If possible, locate the unit so the flow of cooked product is in a straight line from storage, in and out of the unit and to the customer. Landing tables should be provided on at least one side of the unit.

- To avoid splashing of hot liquid, unit must be restrained to prevent tipping. This can be done by installing the unit in a battery of appliances, in an alcove or with adequate ties
- Provision must be made to eliminate movement of the unit which might cause strain on electrical and gas connections.
- DO NOT install unit where traffic areas are on either side or in back of unit.

## CLEARANCE

### USA & EU:

Gas units are to be installed only in non-combustible locations. Minimum clearances for non-combustible construction is 0 inches from sides and 6 inches from back.

### CANADA:

Gas units are certified for installation on a combustible floor. Minimum clearances for combustible construction is 1 inch from sides and 6 inches from back.


## LEVELING

Adjust front feet to level entire unit. Add additional blocking if necessary on a sloping floor.

## RECOMMENDED VENTILATION REQUIREMENTS

---

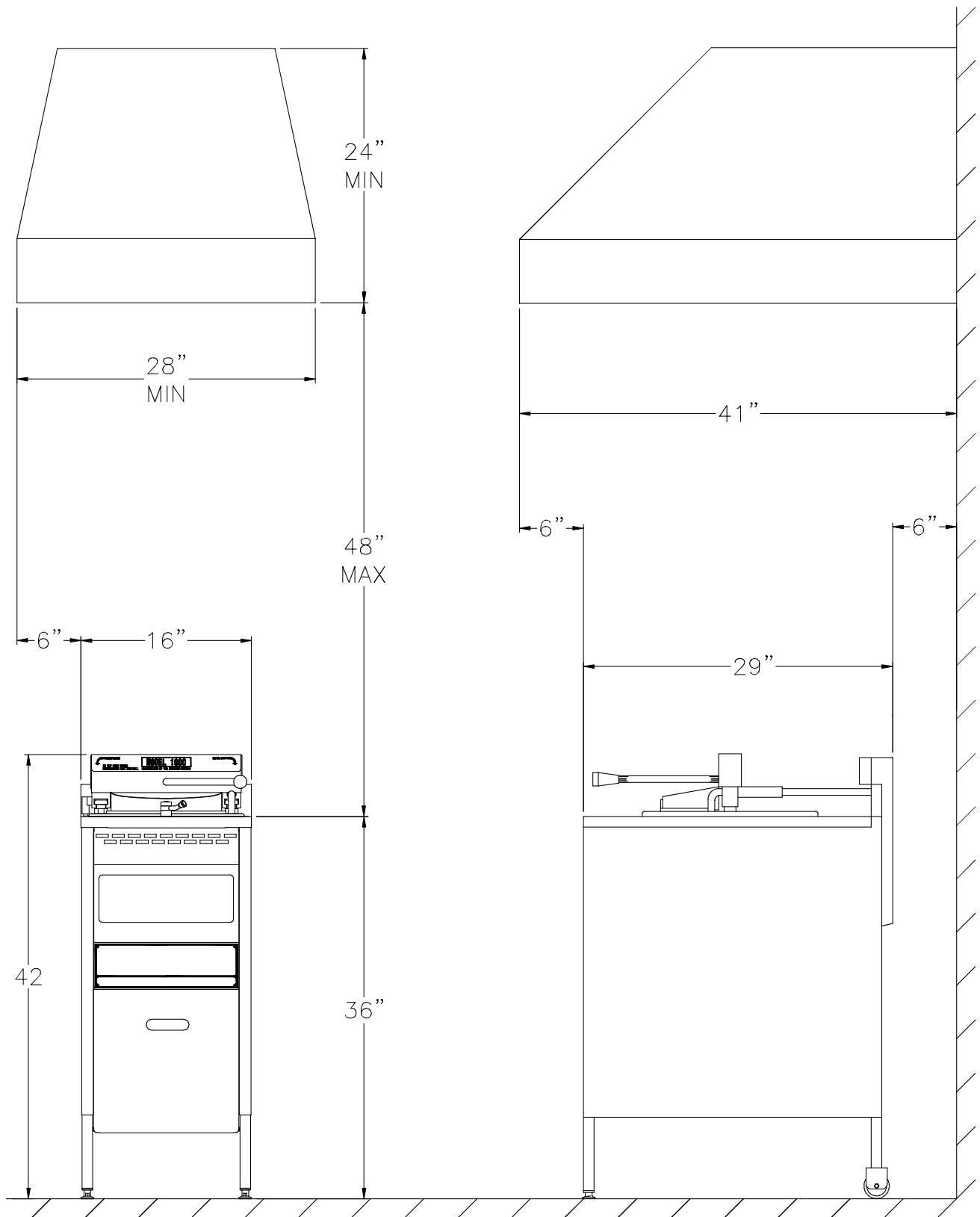
Exhaust hood should comply with ANSI/NFPA #96 or national, state and local codes. All units must be under an adequate power exhaust hood for ventilation of cooking vapors and products of combustion. Precautions should be taken in the design of the exhaust hood to avoid interference with operation of the unit. Consult a local ventilation company for fire suppression, design and installation of a hood.

 **WARNING** **DO NOT** extend the exhaust stack or exhaust flue of any unit. Doing so may cause a negative back draft causing malfunction and interference with burner operation on the 1800GH and improper exhausting of cooking vapors on all units.

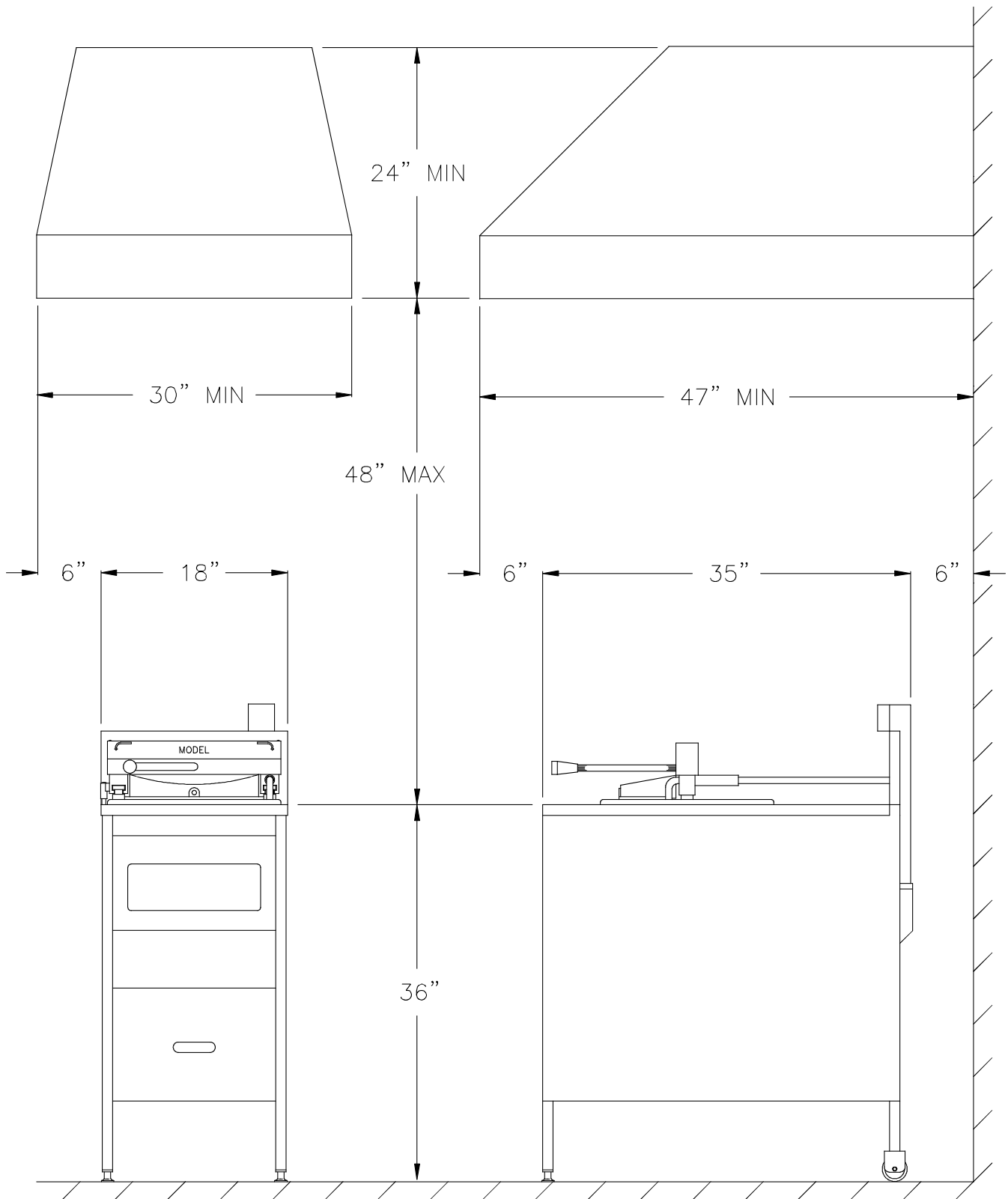
### General Requirements:

1. Exhaust hood must conform to applicable national, state and local codes.
2. It is recommended that requirements of the National Fire Protection Association (NFPA), Standard No. 96 be followed for the design, installation and use of exhaust system components. This includes hoods, grease removal devices, exhaust ducts, dampers, air moving devices, auxiliary equipment and fire extinguishing equipment for the exhaust system and the cooking equipment used therewith in commercial, industrial, institutional and similar cooking applications.
3. **Hood Size:** The overhead canopy type hood should be sized to completely cover the equipment it is designed to ventilate plus an overhang of at least 6 inches on all sides of equipment not immediately adjacent to walls or other construction extending above the cooking surface. Non-canopy, prefabricated “backshelf” type hoods should be sized according to the manufacturers specifications.
4. **Exhaust Air Volume (minimum):** Canopy hood open on all four sides: 1800 cu. ft./minute. Canopy hood open on three sides or less: 1200 cu. ft./minute.
5. **Exhaust Air Velocity:** All exhaust ducts should be sized to provide an air velocity in the ducts of at least 1500 ft./minute.

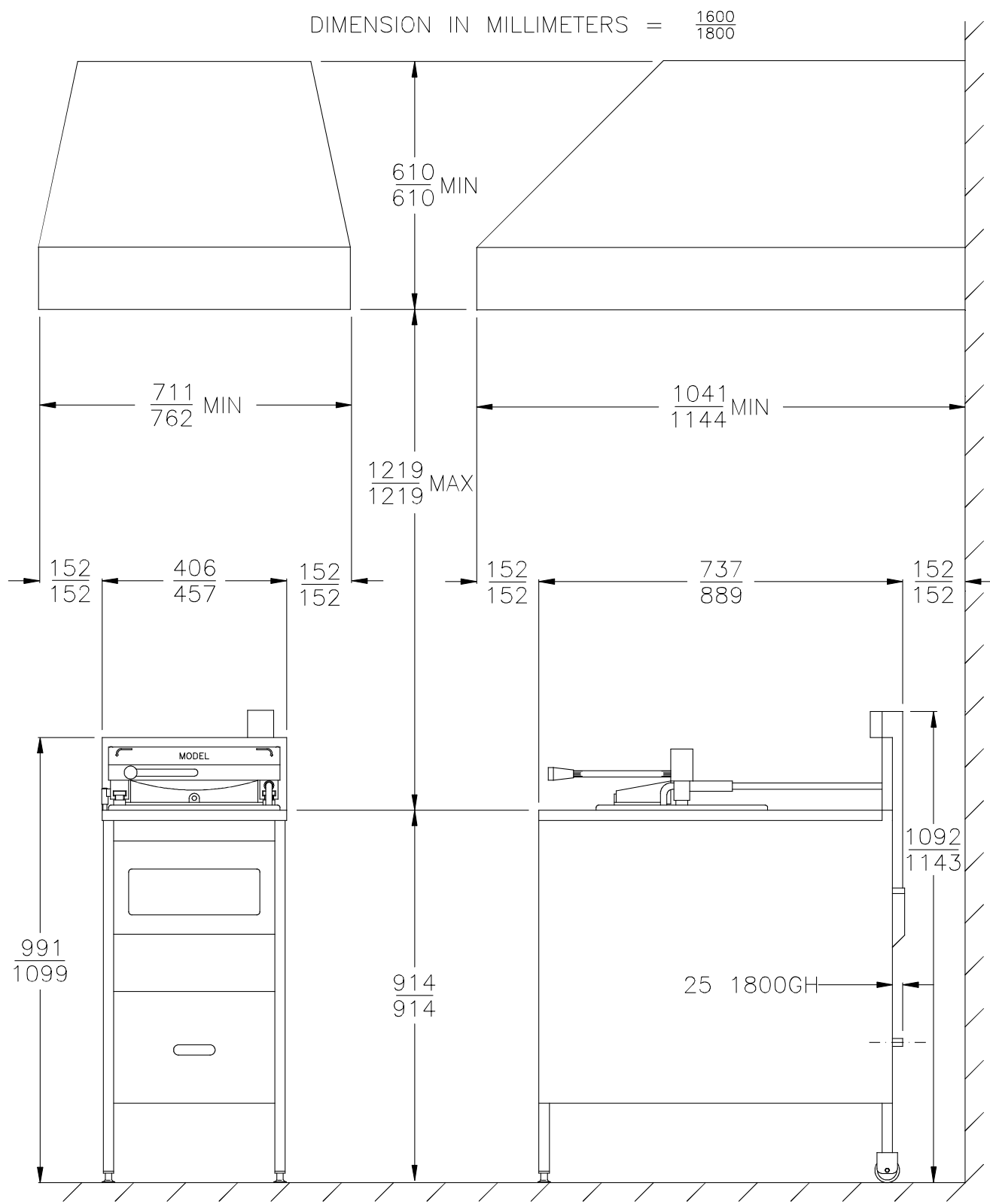
## 1600 Hood Dimensions In Inches:



## 1800 Hood Dimensions In Inches:



**1600/1800 Hood Dimension In  
Millimeters:**





## 2 - FILTER PAN ASSEMBLY

### LOOSE PARTS LIST

#### 1600:

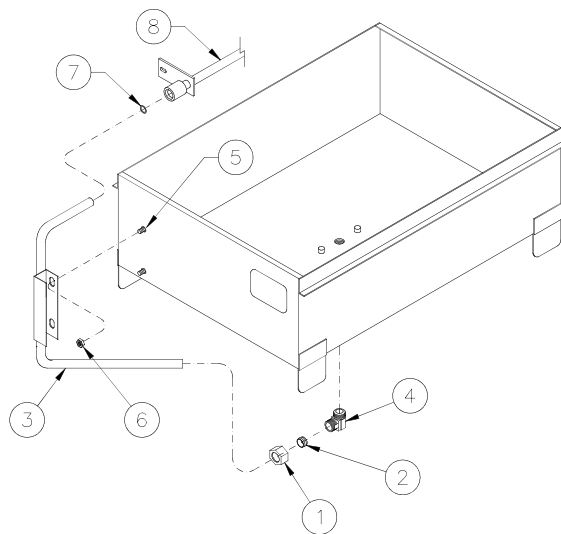
1 - Compression Nut	#02536	(1)
2 - Brass Ferrule	#02537	(1)
3 - Riser Line	#11314	(1)
6 - Keps Nut	#00522	(2)
7 - O-ring	#09883	(3)
9 - Nipple	#08696	(1)

#### 1800:

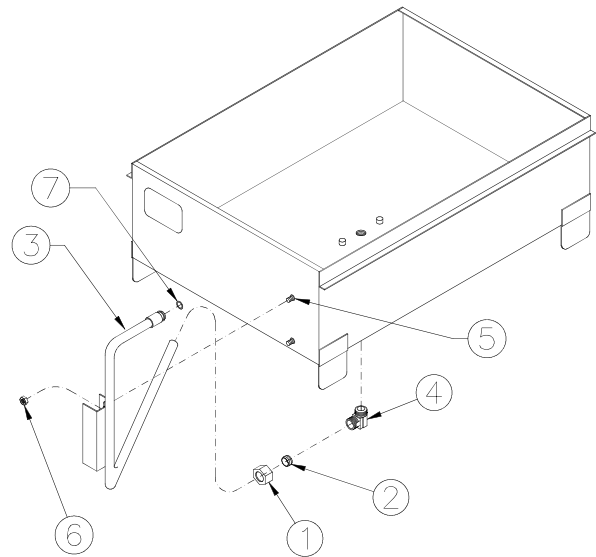
1 - Compression Nut	#02536	(1)
2 - Brass Ferrule	#02537	(1)
3 - Riser Line	#11308	(1)
6 - Keps Nut	#00522	(2)
7 - O-ring	#09883	(3)

### ASSEMBLY

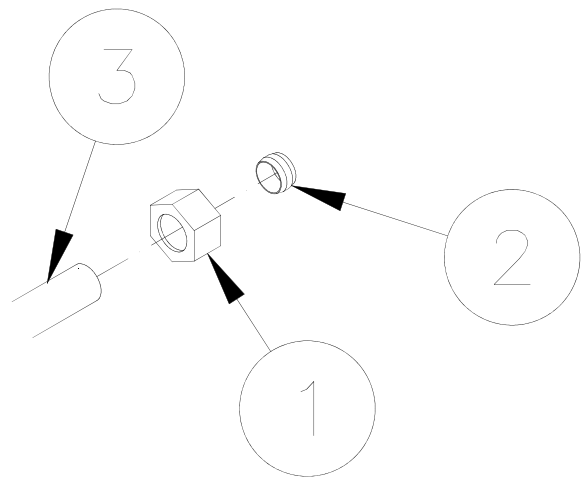
#### 1600:



#### 1800:



1. From bag of hardware, install compression nut (1), ferrule (2) [see picture below], onto riser line (3).



2. Install riser line (3) onto pan. First install line into elbow (4) on bottom center of pan while handle fits over studs (5) on front of pan.
3. Install keps nuts (6) onto studs (5) but do not tighten.
4. Tighten nut onto elbow (4).

**NOTICE**

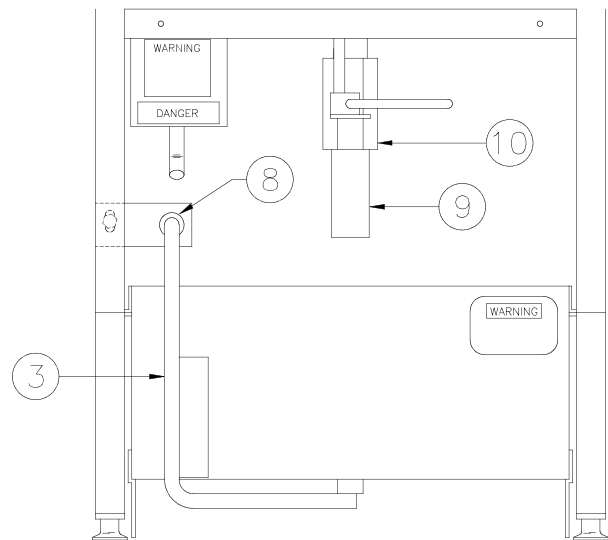
Elbow may have to be turned with a wrench if nut will not start onto elbow.

5. Lubricate O-ring (7) with cooking oil.

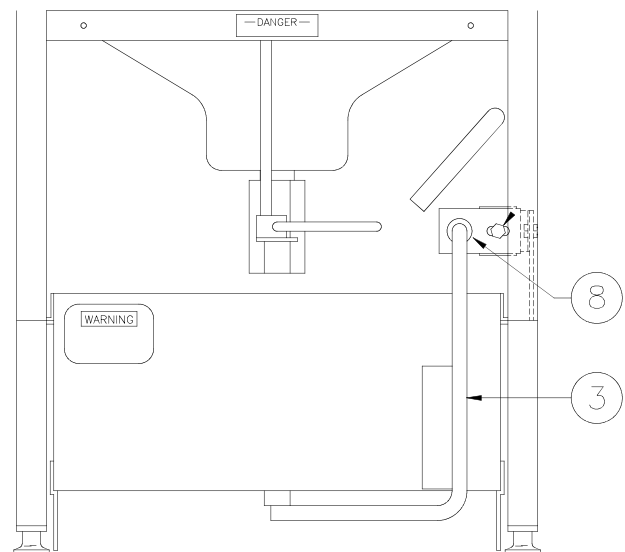
**1600:** Install O-ring (7) into inner groove in suction line (6). Screw nipple (9) into drain valve (10).

**1800:** Install O-ring (7) into groove on riser line (3).

6. Install filter pan under unit and align riser line (3) with suction line (8).
7. Tighten keps nuts (6) mounting riser line (3) to filter pan.
8. See Operation Manual for additional assembly.



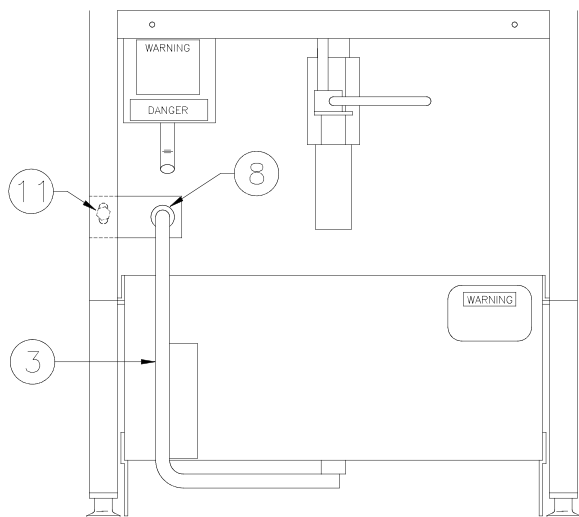
MODEL 1600



MODEL 1800

## ADDITIONAL ADJUSTMENTS IF NEEDED

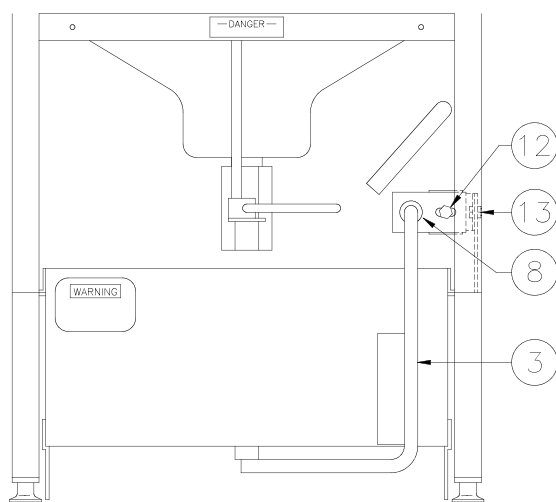
### 1600:



MODEL 1600

1. Loosen nut and bolt (11).
2. Push pan under unit. By hand, move suction line (8) until riser line (3) is fully inserted into suction line.
3. Tighten all nuts and bolts.

### 1800:



MODEL 1800

1. Remove side panel.

2. Loosen bolt (12) and nut and bolt (13).
3. Push pan under unit. By hand, move suction line (8) until riser line (3) is fully inserted into suction line.
4. Tighten all nuts and bolts.
5. Replace side panel



## 3 - 1600/1800E INSTALLATION

### ELECTRICAL CHARACTERISTICS

These models are available for either 208, 240 or 480 applied voltage, 60Hz, 3 phase electrical connection in the USA and several voltages for export applications.

Be sure to check the wiring diagram located inside the front panel. It shows electrical circuits and connections. See Access For Hook-Up under ELECTRICAL HOOK-UP.

- All electrical work must conform with the requirements of national, state and local electrical codes.
- When installing or servicing the unit, always check the data plate located on the front panel (1600) or toward the rear of the counter top (1800) to make certain proper parts are used and the correct service rendered. **DO NOT** apply a voltage to any unit other than that shown on the data plate. If in doubt, consult your local power company.

### ELECTRICAL CONNECTIONS

- A remote circuit breaker or fuse should be installed in main power supply located in a path of exit and clearly identified.
- When installed, the unit 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 for Canada, the Canadian Electrical Code, CSA C22.2, as applicable.
- Use copper wire only for connections.
- If power run is over 50 feet, use next larger size wire.

### 1600 Suggested Wiring Capacity Table:

Phase	Volts	Amps	Wire	Breaker or Fuse
1	208	29	#8	40
1	220	28	#8	40
1	230	26	#8	40
1	240	25	#8	40
3	208	17	#10	25
3	240	15	#10	20
3	220/380	10.2	#10	15
3	230/400	8.7	#10	15
3	240/415	9.1	#10	15

### 1800E Suggested Wiring Capacity Table:

Phase	Volts	Amps	Wire	Breaker or Fuse
1	208	48	#8	60
1	220	50	#8	60
1	230	43	#8	60
1	240	45	#8	60
3	208	28	#8	40
3	240	26	#8	40
3	220/380	16.8	#10	20
3	230/400	14.3	#10	20
3	240/415	15	#10	20

## ELECTRICAL HOOK-UP



**WARNING** Disconnect main power supply and turn unit OFF before installing power supply to the unit. **HIGH VOLTAGE** may be encountered. Only persons trained and equipped for checking high voltage shall perform electrical connections.

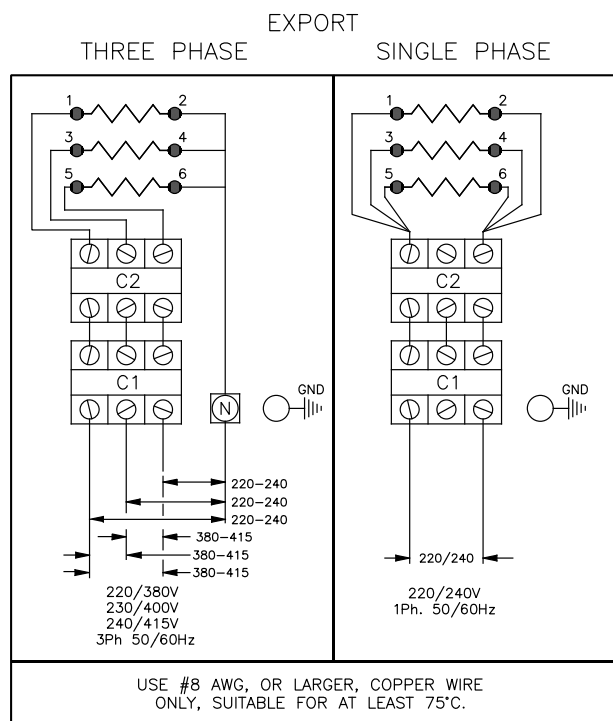
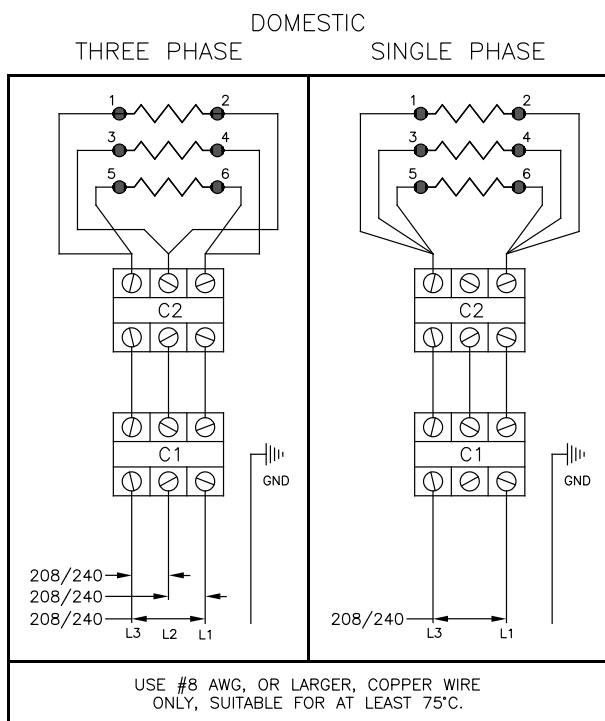
### Access For Hook-Up:

1. Disconnect main power supply.
2. Remove condensate pan and one screw (1600) or two screws (1800) from bottom of front panel. Pull out and down on bottom to remove.

### Phase Wiring:

Phase wiring diagram is located inside the front panel. See Access For Hook-Up under ELECTRICAL HOOK-UP. Electric units are shipped from the factory wired for 3 phase. In this case, applied voltage must be connected to bottom lugs of contactor C1 and a ground wire to the GND connector.

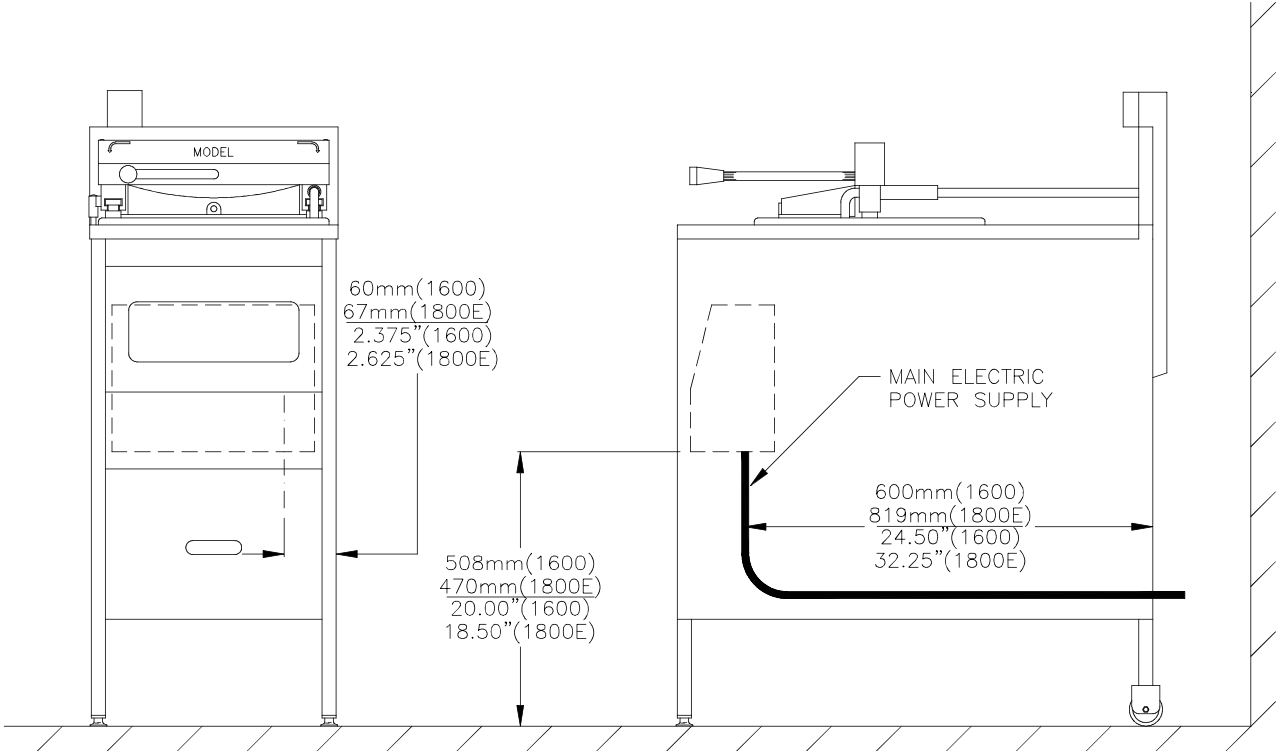
For single phase operation, remove both element wires from the center connector of contactor C2. Install wire #3 with wires #1 and #5 and install wire #2 with wires #4 and #6. In this case, applied voltage must be connected to L1 and L3 of contactor C1 and a ground wire to the GND connector.



### NOTICE

Check all contactor screw connections to be sure they are fully tightened for proper electrical continuity.

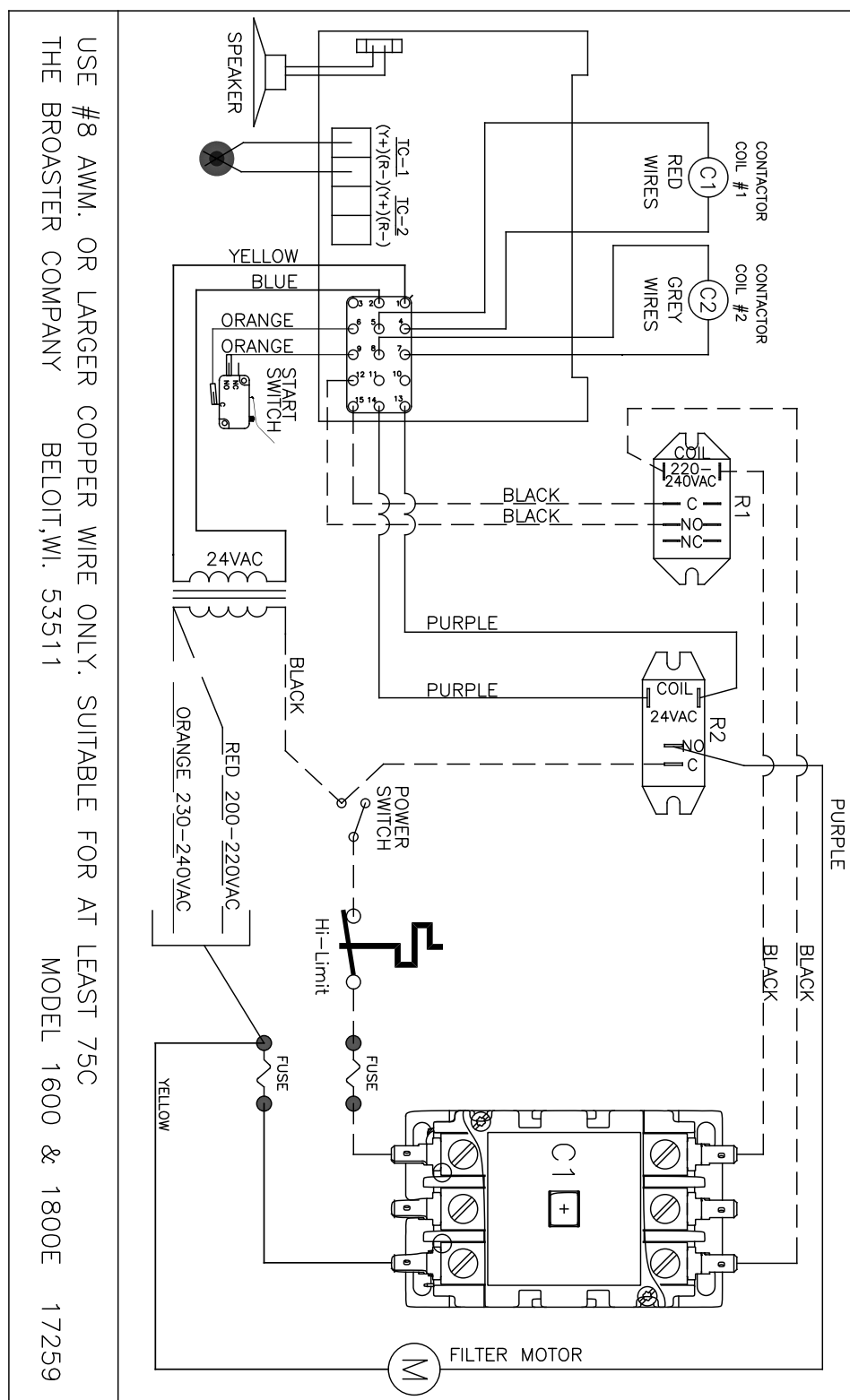
Unit Dimensions For Electrical Hook-Up:



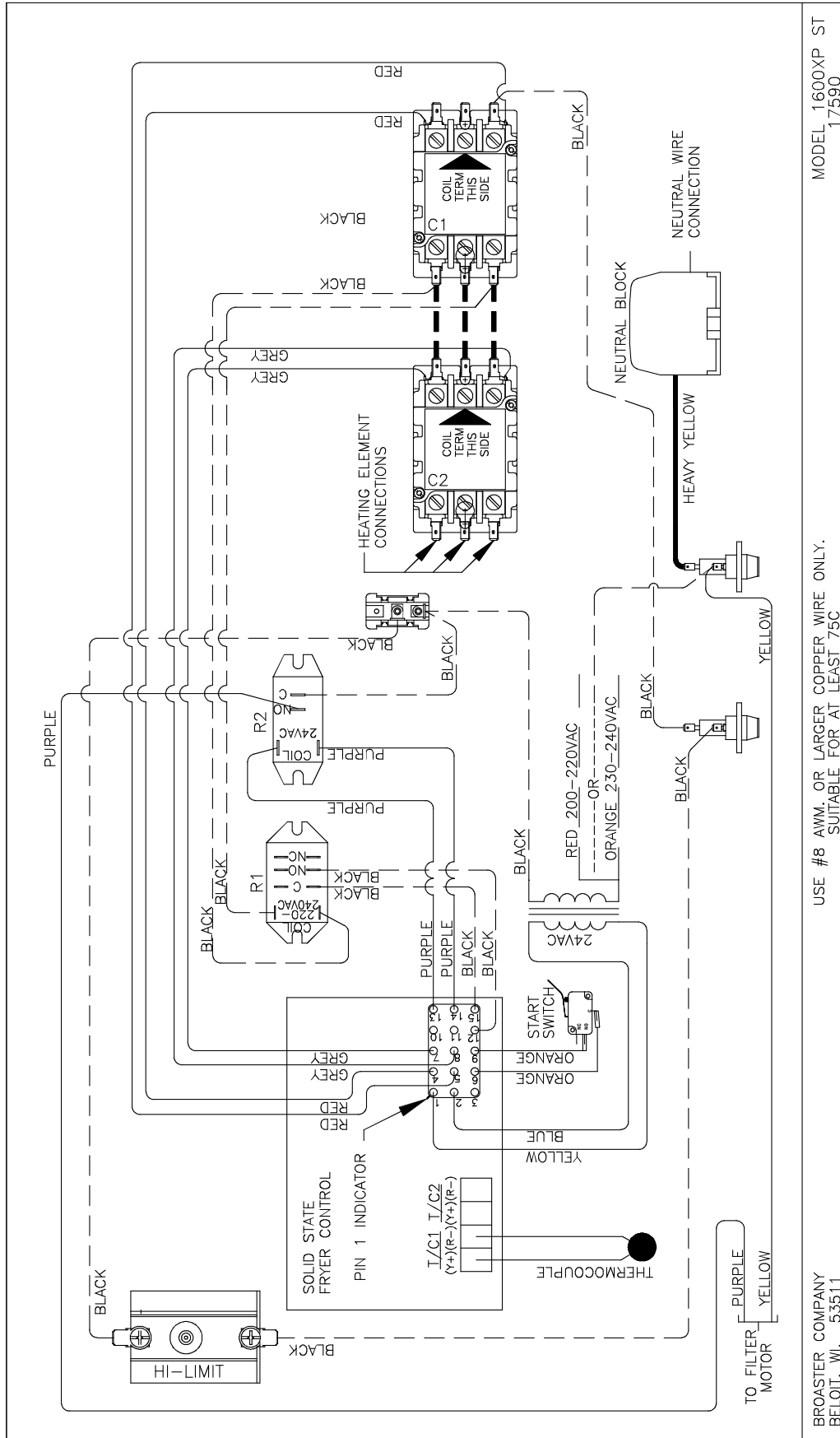
## WIRING DIAGRAMS

Wiring diagrams are located inside front panel. See Access For Hook-up under ELECTRICAL HOOK-UP.

**1600/1800E 208 or 240VAC:**



**1600XP 208 or 240VAC:**

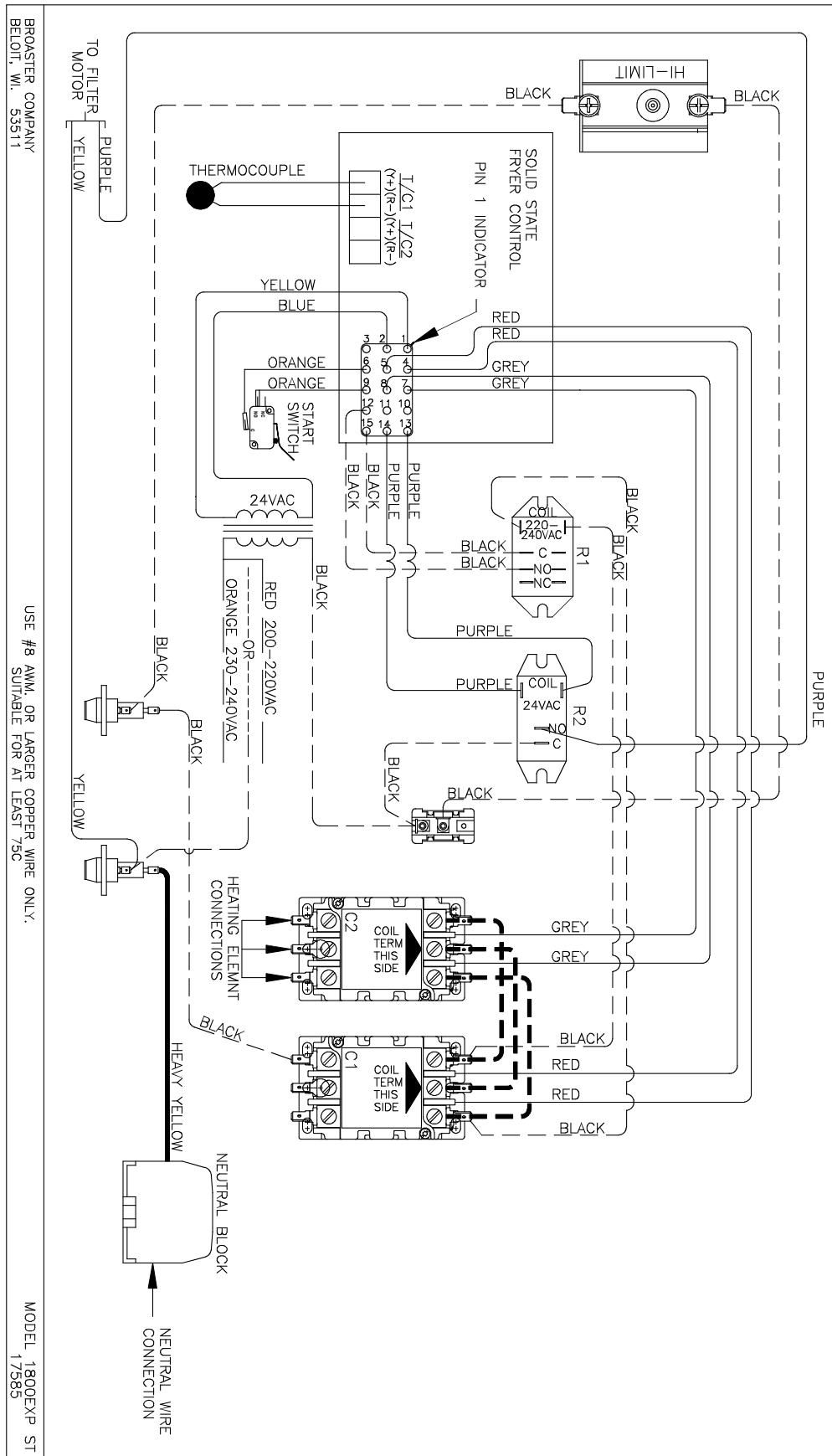


MODEL 1600XP ST  
17590

USE #8 AWM, OR LARGER COPPER WIRE ONLY.  
SUITABLE FOR AT LEAST 75C

BROASTER COMPANY  
BELOIT, WI. 53511

# 1800EXP 208 or 240VAC:



## 4 - 1800GH INSTALLATION

### GENERAL REQUIREMENTS

- When installing or servicing the unit, always check the dataplates, one located toward the rear of the counter-top and one located on the front panel. This will make certain proper parts are used and the correct service rendered. DO NOT apply a voltage to this unit other than that shown on the dataplate. If in doubt, consult your local power company.
- A remote circuit breaker or fuse should be installed in main power supply located in a path of exit and clearly identified.
- A gas shutoff valve, installed in gas supply line, should be located in a path of exit and clearly identified.
- Keep burner area free and clear of all combustible materials.
- DO NOT obstruct exhaust flue or open area around bottom of unit at the front, back and sides which would restrict the flow of combustion and ventilation air.
- Consult a local ventilation company to insure an adequate air supply for all gas fired equipment.
- EU: Installation must conform with national & local codes of the country in which installation is made.
- US & CANADA: Installation must conform with 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.
- The unit and its individual shut-off valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in excess of 1/2psi(3.45kPa).
- The unit must be isolated from the gas supply piping system by closing its individual manual shut-off valve during any pressure testing of the gas supply piping system at test pressures equal to or less than 1/2psi(3.45kPa).

## ELECTRICAL CHARACTERISTICS

The Model 1800GH is available for 120VAC applied voltage, 15 amp, 60Hz, 1 phase electrical connection in the USA and 120VAC or 220VAC applied voltage, 15 amp, 50/60Hz, 1 phase electrical connection for export applications.

- When installed, the unit 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.

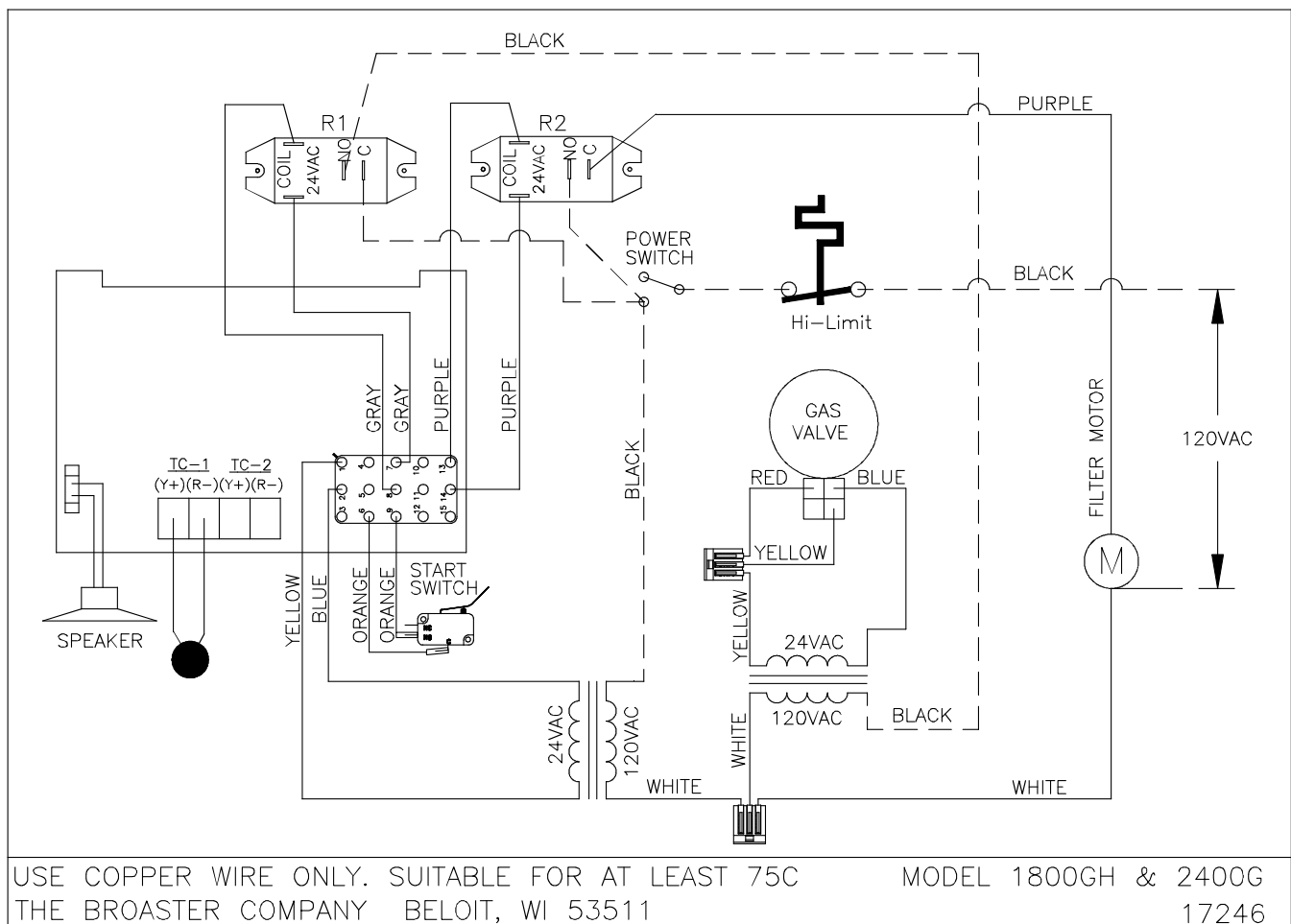
## ELECTRICAL CONNECTIONS

- Applied voltage should match dataplate listed voltage.

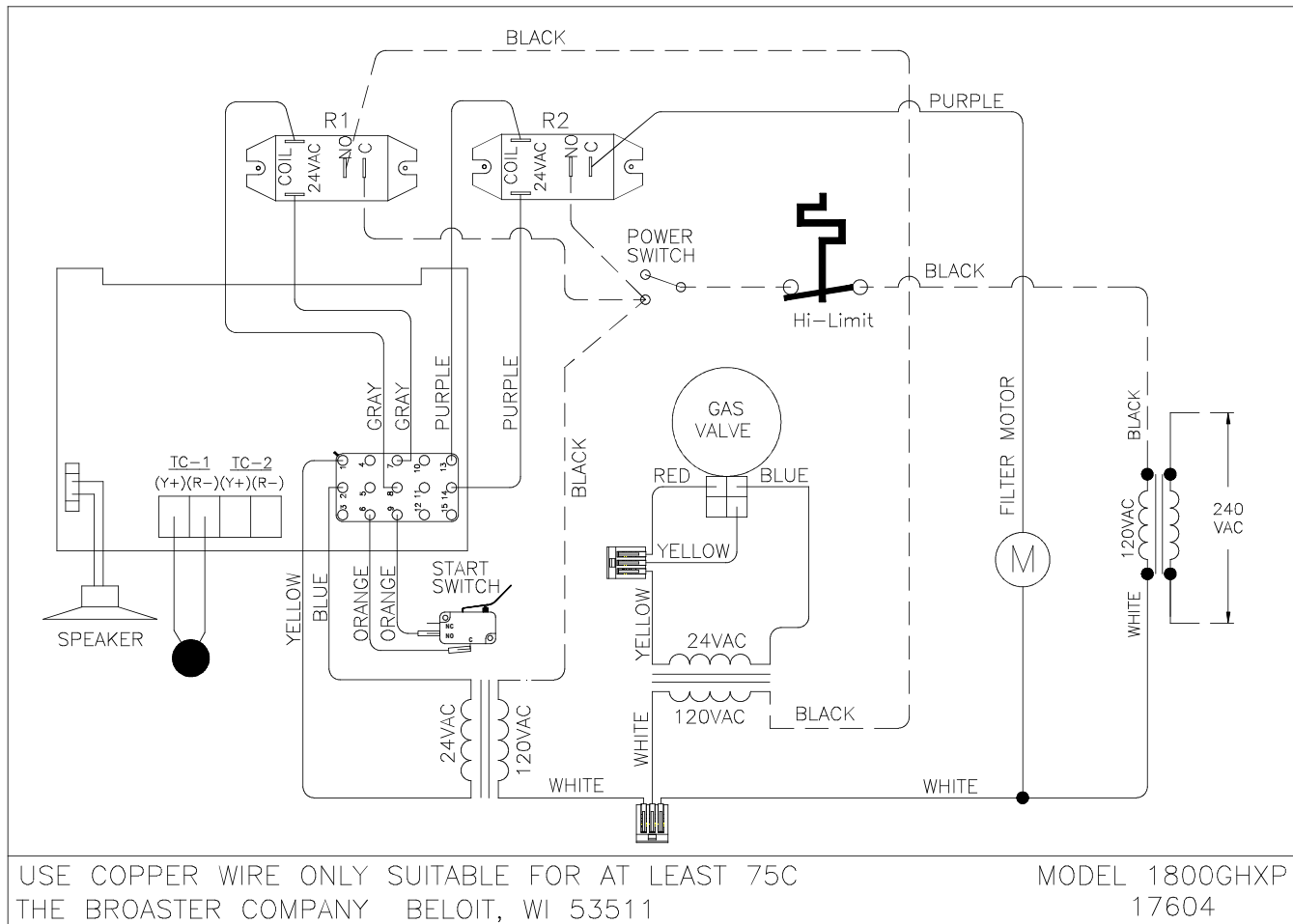


**⚠ WARNING** Electrical Grounding Instructions - The Model 1800GH is equipped with a three-prong (grounding) plug for your protection against shock hazard and should be plugged directly into a properly grounded three-prong receptacle. **DO NOT** cut or remove grounding prong from this plug.

### 1800GH Wiring Diagram:



## 1800GHXP Wiring Diagram



## **GAS CHARACTERISTICS**

All gas units are tested using local gas supply. Your unit may or may not operate correctly on your type of gas. Therefore, the unit should be checked and corrected if necessary. See service manual.



**DO NOT** attempt to use any other gas than that specified on dataplate located on the front panel.

### **BTU/HR Ratings:**

#### US & CANADA

Natural Gas: 65,000

Propane: 65,000

#### EU

G20: 19.2 KW gross

G31: 19.2 KW gross

### **Gas Pressure and Orifices:**

- If adjustment of the regulator does not deliver the correct BTU per hour or if another type of gas is to be used, contact your local gas supply company for correct gas pressure and orifice sizing.

Maximum gas supply line pressure:

Natural (G20) Gas: 7" wc (20 mbar)

Propane (G31) Gas: 14" wc (37 mbar)

High pressure at test fitting:

Natural (G20) Gas: 3.5" wc (8.7 mbar)

Propane (G31) Gas: 10.0" wc (25 mbar)

Main burner orifice size:

Natural (G20) Gas: #24 (3.9mm)

Propane (G31) Gas: #41 (2.4mm)

Pilot burner orifice size:

Natural (G21) Gas: .018 (.46mm)

Propane (G31) Gas: .011 (.27mm)

## **Gas Conversion:**

### US & CANADA

- Contact your local Broaster Company representative for converting from one type of gas to another.

### EU

- Units manufactured for use in the EU are not convertible from one type of gas to another.

### **High Altitude:**

- For operation at elevations above 2,000 feet above sea level, gas input must be reduced 4% for each 1,000 feet. Contact your local Broaster Company representative for correct orifice sizing.

## GAS PIPING

- The Model 1800GH is equipped with a 1/2" pipe for gas connection. Shipped with each unit, for 3/4" gas connection, is one each of the following:

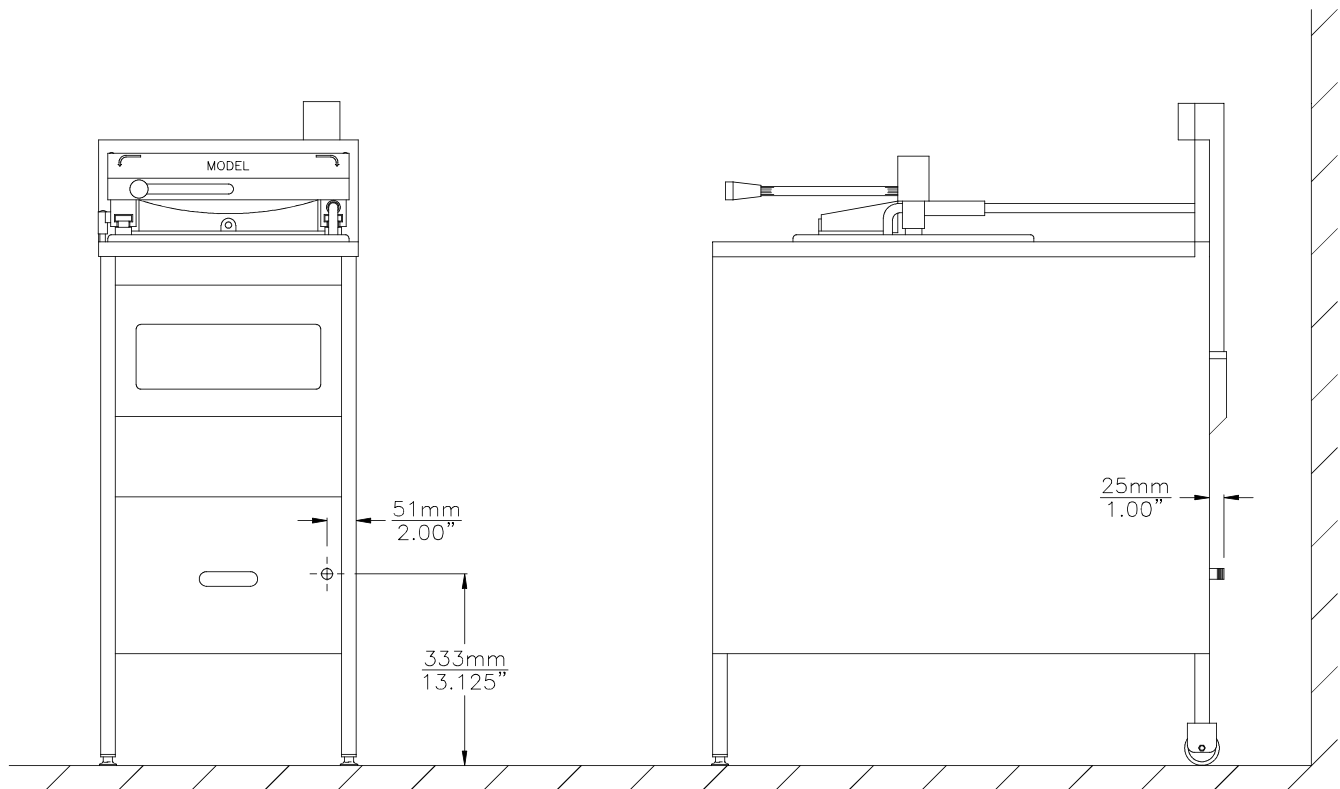
P/N 00743 - Bushing Hex Reducer  
3/4 to 1/2

P/N 01319 - Coupling 3/4 Pipe

- Use only black steel pipe and malleable fittings for gas connections.
- Pressure loss in the piping must not exceed 0.3" W.C.

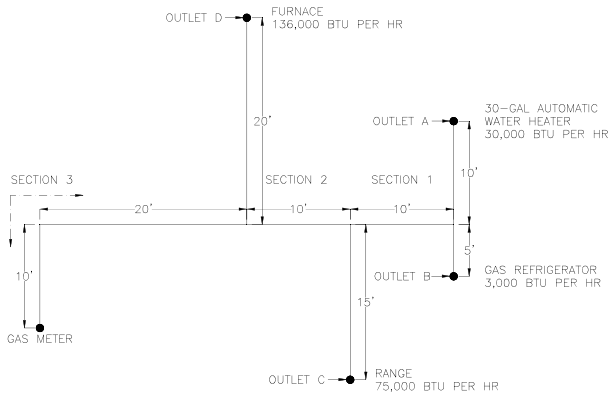
- Be sure gas supply piping is of the proper size for the BTU input. Take into consideration all other gas appliances which must operate from the same gas supply. Be sure piping will not interfere with drain pans or valves.
- A compound resistant to the action of liquified petroleum gas should be used on the threads of gas supply piping joints. Check all connections and pipes with a soap and water solution. bubbles indicate a gas leak. DO NOT use an open flame to check for gas leaks.

## Unit Dimensions For Gas Hook-Up:



## Example of Piping System Design:

Determine the required pipe size of each section and outlet of the piping system shown in Solution, with a designated pressure drop of 0.50 inch water column. Gas to be used has 0.65 specific gravity and a heating value of 1,000 BTU per cubic foot.



Maximum capacity of pipe in cubic feet of gas per hour (based upon a pressure drop of 0.3 inch water column and 0.6 specific gravity gas):

Solution:

Maximum gas demand for outlet A:

$$\frac{\text{consumption (rating plate input or pipe cap. if necessary)}}{\text{BTU of gas}} =$$

$$\frac{30,000 \text{ BTU per hour rating}}{1,000 \text{ BTU per cubic foot}} = 30 \text{ cubic feet per hour (30cfh)}$$

Maximum gas demand for outlet B:

$$\frac{\text{consumption}}{\text{BTU of gas}} = \frac{3,000}{1,000} = 3\text{cfh}$$

Maximum gas demand for outlet C:

$$\frac{\text{consumption}}{\text{BTU of gas}} = \frac{75,000}{1,000} = 75\text{cfh}$$

Maximum gas demand for outlet D:

$$\frac{\text{consumption}}{\text{BTU of gas}} = \frac{136,000}{1,000} = 136\text{cfh}$$

Length in Feet	Nominal Iron Pipe Size, Inches								
	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4
10	132	278	520	1,050	1,600	3,050	4,800	8,500	17,500
20	92	190	350	730	1,100	2,100	3,300	5,900	12,000
30	73	152	285	590	890	1,650	2,700	4,700	9,700
40	63	130	245	500	760	1,450	2,300	4,100	8,300
50	56	115	215	440	670	1,270	2,000	3,600	7,400
60	50	105	195	400	610	1,150	1,850	3,250	6,800
70	46	96	180	370	560	1,050	1,700	3,000	6,200
80	43	90	170	350	530	990	1,600	2,800	5,800
90	40	84	160	320	490	930	1,500	2,600	5,400
100	38	79	150	305	460	870	1,400	2,500	5,100
125	34	72	130	275	410	780	1,250	2,200	4,500
150	31	64	120	250	380	710	1,130	2,000	4,100
175	28	59	110	225	350	650	1,050	1,850	3,800
200	26	55	100	210	320	610	980	1,700	3,500

## 5 - OPERATIONAL CHECK-OUT

See operation manual for more detailed instructions.

### COVER ASSEMBLY

**CAUTION** **DO NOT** force cover open or closed when pressure regulating valve is closed. Damage to the unit may occur.

1. OPEN pressure regulating valve. Be sure pressure gauge indicates no pressure in cooking well.
2. To OPEN cover, push down on cover handle then rotate handle clockwise. Slide assembly to the rear of the unit.
3. Remove basket lifter, envelope and all other items packed in the food basket.
4. Remove food basket and packing in bottom of cooking well.
5. To CLOSE cover, pull assembly toward the front and rotate handle counter-clockwise.

Cover should slide easily front to back and cover should lower and raise easily within the cooking well.

6. CLOSE pressure regulating valve handle.

Handle should slide easily from side to side and locking pin should move in and out over the cover.

### INITIAL START UP

#### ELECTRIC:



**DO NOT** operate unit without filter pan and filter pan cover in its proper position. Filter pan cover must be completely cleaned after each filtering cycle.

1. Clean unit as outlined in the operation manual.
2. Make sure all controls are OFF.
3. Install cover O-ring as outlined under COVER in CLEANING section of operation manual.
4. Fill cooking well with cooking oil. See PRE-COOKING PREPARATIONS in operation manual.
5. Turn circuit breaker ON or install fuse.
6. Turn power switch on. The control will initiate. When the controller screen illuminates you will be asked to set the time and date. When they are entered tap the green OK button in the bottom right corner.
6. The next screen will confirm that the date you entered in the previous screen should be the date to start the warranty period. Press the green OK button.
7. The next screen will require the serial number of the fryer. You can toggle between the number keys and letter keys by pressing the symbols key on the keyboard. Enter the serial number shown on the specification plate.

**NOTICE**

**Steps 6 & 7 only appear on initial startup. After that, the “Check Oil Level” display will appear whenever the power switch is turned on.**

8. The next screen is a caution to make sure the oil is at the oil level mark on the capillary guard. If it is at the mark tap the green OK button in the bottom right corner.
9. Set the cook cycle time by tapping the time box twice. When the keypad appears set the cook time. The time you set will appear above the keypad. If it is correct, tap the enter key at the bottom right corner.
10. Set the cook temperature by tapping the temperature box twice. When the keypad appears set the cook temperature. The temperature you set will appear above the keypad. If it is correct, tap the enter key at the bottom right corner.
11. Turn pressure regulating valve handle to CLOSED. The timer will start counting down. At the end of a cook cycle, an audible alarm will sound until the pressure regulating valve handle is turned to OPEN.
12. If CHEC appears in display, turn unit off and back on. Skip past the caution screen by tapping green OK button in the bottom right corner.

**GAS:**

**DO NOT operate unit without filter pan and filter pan cover in its proper position. Filter pan cover must be completely cleaned after each filtering cycle.**

1. Clean unit as outlined in the operation manual.

2. Make sure all controls are OFF.
3. Install cover O-ring as outlined under COVER in CLEANING section of operation manual.
4. Fill cooking well with cooking oil. See PRE-COOKING PREPARATIONS in operation manual.
5. Turn circuit breaker ON or install fuse.
6. Turn power switch to ON. The “Check Oil Level” display will appear. Press the green OK button then the temperature display will appear and have a yellow background. Also “HEAT ON” will be displayed indicating the cooking oil is being heated.

**NOTICE**

**Check to make sure burner is actually lit. If not see LIGHTING INSTRUCTIONS**

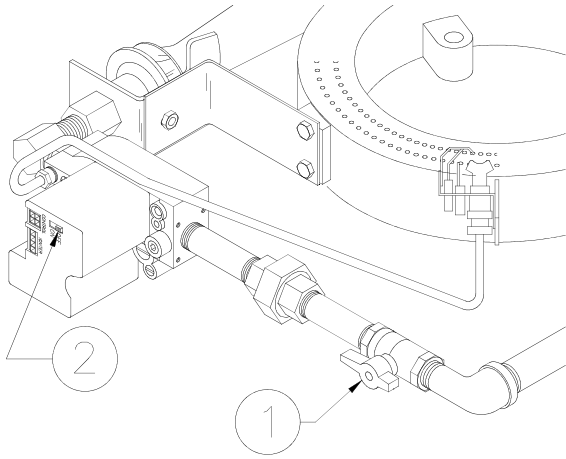
7. Check flame on top of burner. It should be all blue and settled on the face of the burner. If it is not check to make sure the air shutter is locked in place.

**NOTICE**

**If it is loose see the AIR SHUTTER ADJUSTMENT procedure.**

8. If CHEC appears in display, turn unit off and back to COOK.
9. Set timer and temperature controls.
10. Turn pressure regulating valve handle to CLOSED. The timer will start counting down. At the end of a cook cycle, an audible alarm will sound until pressure regulating valve handle is turned to OPEN.

## 1800GH LIGHTING INSTRUCTIONS



### Start-Up:

1. Turn cook/filter switch OFF.
2. See OIL LEVEL in the operation manual.
3. Turn gas shut-off valve (1) ON. Wait five minutes before turning gas control ON.
4. Slide switch (2) on top of gas control to ON.

**NOTICE** The model 1800GH has an intermittent pilot burner. This type of pilot lights when the controller calls for heat and goes out when the controller isn't calling for heat.

5. To light pilot and main burners, turn cook/filter switch to COOK.

### Shut Down:

1. Turn cook/filter switch OFF.
2. Turn gas control switch (2) OFF.
3. Turn gas shut-off (1) valve OFF.

### AIR SHUTTER ADJUSTMENT:

Maintains air/gas mixture for good combustion. Start with a 1/4" gap after installing a new gas valve or piping.

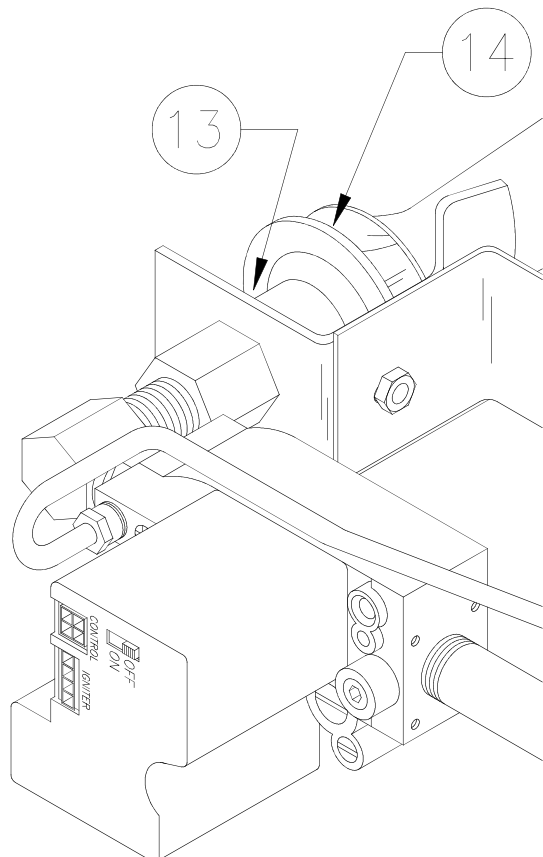
Adjustment will be necessary if main burner flame is mostly orange or yellow. If flame is out of adjustment, check combustion chamber and flue for soot build-up.



**If soot is present, DO NOT operate unit. Soot is black and powdery to the touch. See COMBUSTION CHAMBER. Call SERVICE TECHNICIAN for service.**

### Adjustment:

1. Loosen locknut (13) which locks air shutter.
2. Screw shutter (14) in or out to obtain a blue flame. Flame should start burning slightly above main burner.
3. Tighten locknut.









**Broaster Company**  
2855 Cranston Road, Beloit, WI 53511-3991  
608/365-0193  
**broaster.com**