OPERATOR'S MANUAL

C UL US LISTED

HEATER MODULE

(MHG700/900)

Propane & Natural Gas

DYNABLAST
2625 MEADOWPINE BLVD
Mississauga, Ontario, Canada L5N 7K5
Tel: (888) 881-6667 Fax: (800) 350-5666

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WARNING: If the information in these instructions is not followed exactly, a fire or explosion may result causing property damage, personal injury or death.

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

— WHAT TO DO IF YOU SMELL GAS

- Do not try to light any appliance.
- Do not touch any electrical switch; do not use any phone in your building.
- Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
- If you cannot reach your gas supplier, call the fire department.

— Installation and service must be performed by a qualified installer, service agency or the gas supplier.

IMPORTANT SAFETY INSTRUCTIONS

WARNING – When using this product basic precautions should always be followed, including the following.

1. Read all safety and operating instructions before using the unit.
2. To reduce the risk of injury, close supervision is necessary when a product is used near children.
3. Read warnings on additive containers and review MSDS on any mandatory protective equipment that must be worn when using the additive.
4. Ventilate work area when using toxic or pungent additives to reduce your exposure to toxic fumes.
5. Use protective wear, especially for the eyes and skin.
6. Know how to stop the product and bleed pressures quickly. Be thoroughly familiar with the controls.
7. Do not operate the product when fatigued or under the influence of alcohol or drugs.
8. Be careful of slippery floors. Some additives make a normally safe area extremely slippery and dangerous.
9. Keep operating area clear of all persons.
10. Stay alert – watch what you are doing.
11. Do not point the nozzle where damage or injury could result. The water discharge from this unit is under extremely high pressure.
12. Do not point nozzle towards an electrical outlet as you risk fire, severe shock and personal injury.
13. Never run the unit in an enclosed area. Exhaust fumes are poisonous.
14. When you stop spraying, always engage the safety latch on trigger gun.
15. When changing nozzles, always turn the pump off and always relieve the pressure by triggering the gun. Always engage the safety latch on the trigger gun. Always change the nozzle with the gun and wand pointed away from you.
    Never point nozzle at any person or animal.
16. Do not smoke when handling fuel/gas.
17. Do not abuse the high pressure hose by driving over it. The hose may rupture and injure an unsuspecting passer-by.
18. Do not overreach or stand on unstable support. Keep good footing and balance at all times.
19. Follow the maintenance instructions specified in the manual. Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation. Verify proper operation after servicing.
20. Should overheating occur or the gas supply fails to shut off, turn off the manual gas control valve to the appliance.
21. Do not use this appliance if any part was been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control which has been under water.

WARNING – IMPROPER USE CAN RESULT IN FIRE, SEVERE SHOCK OR INJURY TO PERSONS.

SAVE THESE INSTRUCTIONS

PRE-OPERATING AND INSTALLATION INSTRUCTIONS

When unpacking the unit, if you find damage due to shipping, contact your dealer or Dynablast Immediately.

FUEL SUPPLY

For Stationary installations, have the gas piping installed by a licensed gas fitter. This must be done in accordance with ANSI Z223.1/NFPA 54, CSA B149.1 or local codes. The appliance and its individual shutoff valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures more than ½ psi (3.5kPa). The appliance must be isolated from the gas supply piping system by closing its individual manual shutoff valve during any pressure testing of the gas supply piping system at test pressures equal to or less than ½ psi (3.5kPa). The appliance and its gas connection must be leak tested before placing the appliance in operation. Supply pressure is not to exceed ½ psi (3.5kPa).

CAUTION: Propane gas is heavier than air and can collect in low hollow areas in an explosive mixture. Ensure that the areas where you are operating the machines are ventilated, etc.

PROTECT FROM FREEZING – MOVING AND STORAGE

When Transporting or storing your module at temperatures below freezing, ensure the module has been properly winterized (see winterizing your pressure washer).
Even an overnight frost can split a coil or crack a pump.
When lifting the heater use lifting hook welded to the top of heater coil. Before lifting the heater, make sure heater coil is properly and securely bolted to heater frame assembly.

INDOOR INSTALLATION:

Machines to be used indoors MUST be in accordance with ANSI Z223.1/NFPA 54, CSA B149.1 or local codes. This unit is a category I appliance with natural draft. Exhaust gases should not be vented into a wall, ceiling, or confined space of a building. This unit is NOT intended for installation on combustible flooring or adjacent to combustible construction. It is advised to keep the front of the machine unobstructed for ease of operation and servicing. The unit must be located as close as practicable to a chimney or gas vent.

LEAKS

The unit should be in an area where leakage will not result in damage to the area or to lower floors of the structure. If this cannot be avoided, an adequately drained drain pan should be installed under the unit, without restricting combustion air flow.

CHIMNEY SIZE

Venting must be installed in accordance with ANSI Z223.1/NFPA 54 and/or CSA B149.1, local codes, and vent manufacturer's instructions. All venting shall be the same size or larger than the stack opening when a power venter is not used (10" for MHG700N/P and 12" for MHG900N/P). Never use a vent pipe smaller than the stack opening, as condensate formation, leakage, spillage, etc could occur. For use with a power venter, never use vent pipe smaller than the power venter openings. If total run is more than 25', use larger size chimney.

If a horizontal run is used, make sure the flow rises at least 1/4" per foot. Do not connect to a chimney flue serving a separate appliance, designed to burn solid fuel. Be sure to protect against a down draft in below freezing weather. A DOWN DRAFT CAN CAUSE THE COIL TO FREEZE, RESULTING IN EXPENSIVE DAMAGE!

AIR SUPPLY

The heater is constructed with an Atmospheric burner and requires air for combustion and ventilation. Combustion and ventilation air supply must be in accordance with ANSI Z223.1/NFPA 54, CSA B149.1 or local codes. Make sure that there is enough air for combustion accessible to the burner ring at the bottom of the machine (135 sq.in for MHG700N/P and 165 sq.in for MHG900N/P).

The appliance installer will know how and where to place a supply air duct. Take care that this opening will not promote drafts which could blow out the pilot light.

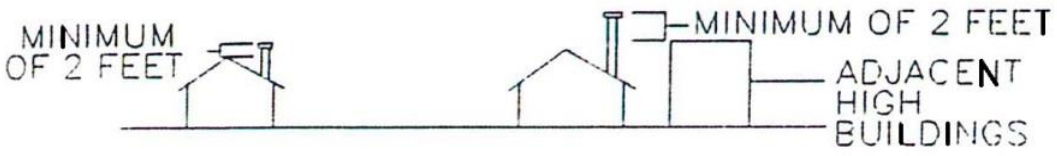
Keep the area around the machine clear so this air can get to the burner.

APPLIANCE IN CONFINED SPACE

The confined space shall have two permanent openings: one near the top of the enclosure and one near the bottom of the enclosure. Each opening shall have a free area of not less than one (1) square inch per 4000 BTU's per hour of the total input of all appliances within the enclosure. The openings shall have free access to the room interior which should have adequate infiltration from the outside.

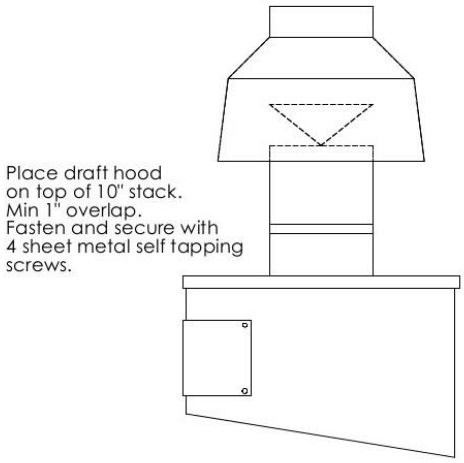
OUTDOOR ROOF STACK SPACING REQUIREMENTS

Must Conform to local standards. Below drawing is a Guide.



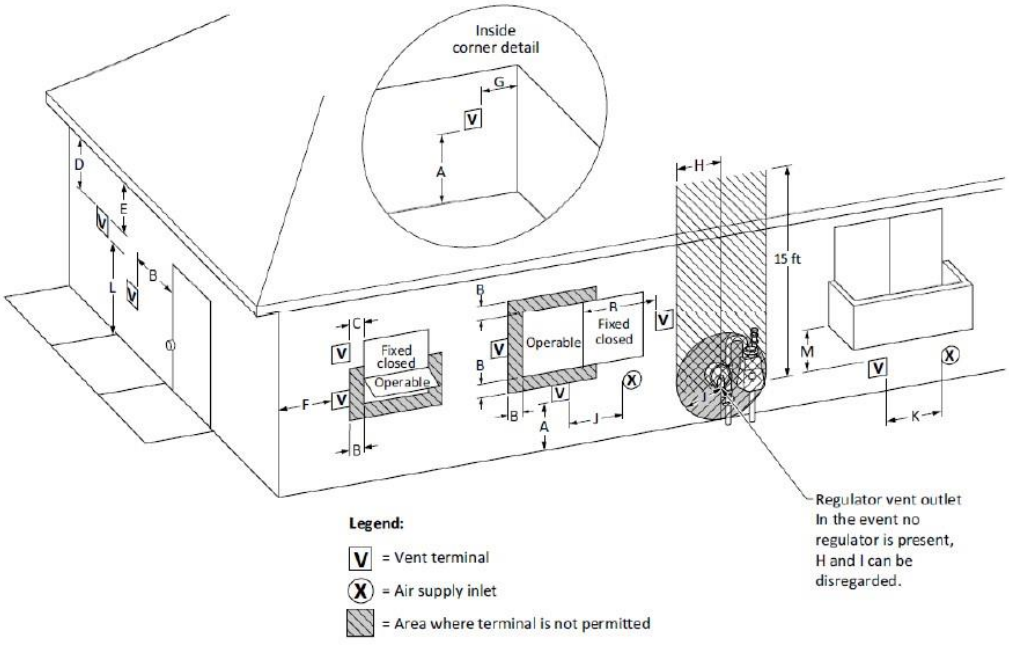
INSTALLING SUPPLIED DRAFT HOOD

Make sure the draft hood size matches the exhaust size of the heater (10” for MHG700N/P and 12” for MHG900N/P). The 10” draft hood is to be attached to the stack extension of he MHG700N/P, shown in the diagram below. The 12” draft hood attaches directly to the exhaust lip of the heater.



VENT TERMINATION

The following shows vent terminal clearances for horizontal venting. When local installation codes specify clearances different than those illustrated, the most stringent clearance shall prevail.



		Canadian Installations[1]	US Installations[2]
A	Clearance above grade, veranda, porch, deck, or balcony	12 in (30 cm)	12 in (30 cm)
B	Clearance to window or door that may be opened	36 in (91 cm)	4 ft (1.2m) below or to side of opening; 1 ft (300 mm) above opening
C	Clearance to permanently closed window	*	*
D	Vertical clearance to ventilated soffit located above the terminal within a horizontal distance of 2 ft (61 cm) from the center line of the terminal	*	*
E	Clearance to unventilated soffit	*	*
F	Clearance to outside corner	*	*
G	Clearance to inside corner	*	*
H	Clearance to each side of center line extended above meter/regulator assembly	3 ft (91 cm) within a height 15 ft (4.6 m)	*
I	Clearance to service regulator vent outlet	3 ft (91 cm)	*
J	Clearance to nonmechanical air supply inlet to building or the combustion air inlet to any other appliance	36 in (91 cm)	4 ft (1.2 m) below or to side of opening; 1 ft (300 mm) above opening
K	Clearance to a mechanical air supply inlet	6 ft (1.83 m)	3 ft (91 cm) above if within 10 ft (3 m) horizontally
L	Clearance above paved sidewalk or paved driveway located on public property	7 ft (2.13 m)†	7 ft (2.13 m)
M	Clearance under veranda, porch, deck, or balcony	12 in (30 cm)‡	*

In accordance with the current CSA B149.1, Natural Gas and Propane Installation Code.

In accordance with the current ANSI Z223.1/NFPA 54, National Fuel Gas Code.

A vent shall not terminate directly above a sidewalk or paved driveway that is located between two single family dwellings and serves both dwellings.

Permitted only if veranda, porch, deck, or balcony is fully open on a minimum of two sides beneath the floor.

*Clearance in accordance with local installation codes and the requirements of the gas supplier.

i) The minimum distance from adjacent public walkways, adjacent buildings, openable windows, and building openings shall not be less than those values specified in the National Fuel Gas Code, ANSI Z223.1/NFPA 54, and/or the Natural Gas and Propane Installation Code, CSA B149.1

ii) The vent shall terminate a minimum of 12” (30.5 cm) above expected snowfall levels.

iii) Do not terminate vent where flue gases could degrade building materials.

CAUTIONS AND WARNINGS

WARNING: IF YOU SMELL GAS, SHUT OFF THE GAS SUPPY TO THE APPLIANCE. EXTINGUISH ANY OPEN FLAME AND TEST ALL JOINTS WITH A SOAP SOLUTION. IF THE ODOUR PERSISTS, CALL YOUR GAS SUPPLIER IMMEDIATELY

AVERTISSEMENT: SI UNE ODEUR DE GAZ EST DÉCELÉE, COUPER L'ALIMENTATION EN GAZ DE L'APPARIEL, ÉTEINDRE TOUTES LES FLAMMES ET VÉRIFIER TOUS LES RACCORDS À L'AIDE D'UNE SOLUTION SAVONNEUSE. SI L'PDEUR PERSISTE, AVERTIR IMMÉDIATEMENT LE FOURNISSEUR DE GAZ.

WARNING: RISK OF INJECTION OR SEVERE INJURY. KEEP CLEAR OF NOZZLE. DO NOT DIRECT DISCHARGE STREAM AT PERSONS. THIS EQUIPMENT IS TO BE USED ONLY BY TRAINED OPERATORS.

AVERTISSEMENT: RISQUE D'INJECTION ET DE BLESSURES GRAVES. SE TENIR À L'ÉCART DU JET. NE PAS DIRIGER LE JET DE SORTIE VERS D'AUTRES PERSONNES. CONFIER L'UTILISATION DE CE MATÉRIEL À UN OPÉRATEUR QUALIFIÉ.

CAUTION: THE MACHINE MUST BE ELECTRICALLY GROUNDED

ATTENTION: LA MACHINE DOIT ÈTRE MISE À LA TERRE

THIS MACHINE MUST BE ATTENDED DURING OPERATION

NE PAS FAIRE FONCTIONNER CETTE MACHINE SANS SURVEILLANCE

SUITABLE FOR CONNECTION TO TYPE A GAS VENT WHEN USED WITH THE PROVIDED DRAFT HOOD

S'ADAPTE À UN TUYAU D'ÉVACUATION DE GAZ DU TYPE B LORSQUE LA HOTTE DE TIRAGE FOURNIE EST UTILISÉE

A DRAFT HOOD SHALL BE INSTALLED

INSTALLER UNE HOTTE DE TIRAGE

CONNECTING AND OPERATING INSTRUCTIONS

1. Make sure all switches are in the “OFF” Position.

2. Connect installed transformer to its rated power supply. The primary side of the control transformer must be fused in accordance with the Canadian Electrical code. The unit must be electrically grounded in accordance with ANSI/NFPA 70, CSA C22.1 or local codes. For power cord use rigid metal cable or armoured cable.

3. Join the inlet of the heater module to the high pressure outlet of the cold water pressure washer or pumping system.

4. Connect high pressure hot water hose to the outlet of the heater module.

OUTLET

½” QC (FP)

(HOT WATER)

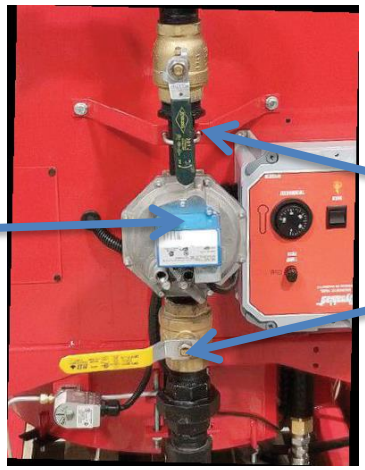
INLET

½” QC (MP)

(COLD WATER)

NOTE: Prior to turning on Heater Module; spray a soap solution on all fittings and check for leaks. Ball valves must be in an open position in order to check for leaks.

5. PILOT IGNITION SEQUENCE (GAS IS FIRST CONNECTED OR INTERRUPTED):
    1. Open ball valve supplying Gas Valve and close the ball valve after the gas valve.



    2. Open ball valve supplying gas to Pilot Valve.

    3. Turn on the Pilot valve switch to ignite the Pilot.
    The ignition sequence times out after 15 to 90 seconds (depending on BTU rating). It is possible that the Pilot switch will have to be turned "ON" and "OFF" several times before enough gas flows to ignite the pilot. Once Pilot is ignited leave the Pilot switch in the "ON" position.

6. FIRING SEQUENCE (LOW AND HIGH)
   1. Open ball valve after Gas Valve.

   2. Turn on Switch labeled “LOW” to initiate the LOW FIRING RATE.

   3. When additional heat is required turn on Switch labeled “HIGH”.

   4. To initiate the “HIGH” firing rate turn the thermostat to the desired temperature.

   5. To cycle Heater “OFF”, turn thermostat to off position and then turn off “HIGH” firing switch. Then Turn off “LOW” firing switch to completely cycle off. After above stage Pilot will only be on. To turn off Pilot, switch off Pilot Valve Switch. When Heater Module is not in operation, close all ball valves.

SAFETY CONTROLS

FLOW SWITCH

The flow switch prevents the burner from being turned on if there is insufficient water. Proper water flow causes the magnetic core to be pushed up, closing the reed contact. This contact is interlocked with the fuel control.

SAFETY RELIEF VALVES

The Relief Valve prevents the machine from being subjected to abnormally high pressures. If this situation occurs, the valve will blow off relieving the pressure in the coil. This valve may also operate if the unloader is adjusted too high.

HOT WATER SETTING (3800-4200psi)

THERMOSTAT

The built-in thermostat stops the unit from overheating. Maximum temperature of the unit is 305°F (150°C) for steam and 220°F (105°C) for hot water. Above this temperature, the burner stops automatically.

HIGH LIMIT SWITCH (HOT WATER)

The High Limit Switch is a thermostat which operates at a higher temperature than the built-in thermostat, about 230°F (110°C). This switch is not adjustable and will only operate when other controls fail to keep the water temperature within the normal operating range. This switch cuts the power to the burner.

FUSES

1 AMP fuse protecting the 24VAC Secondary side of Transformer (safety controls side).

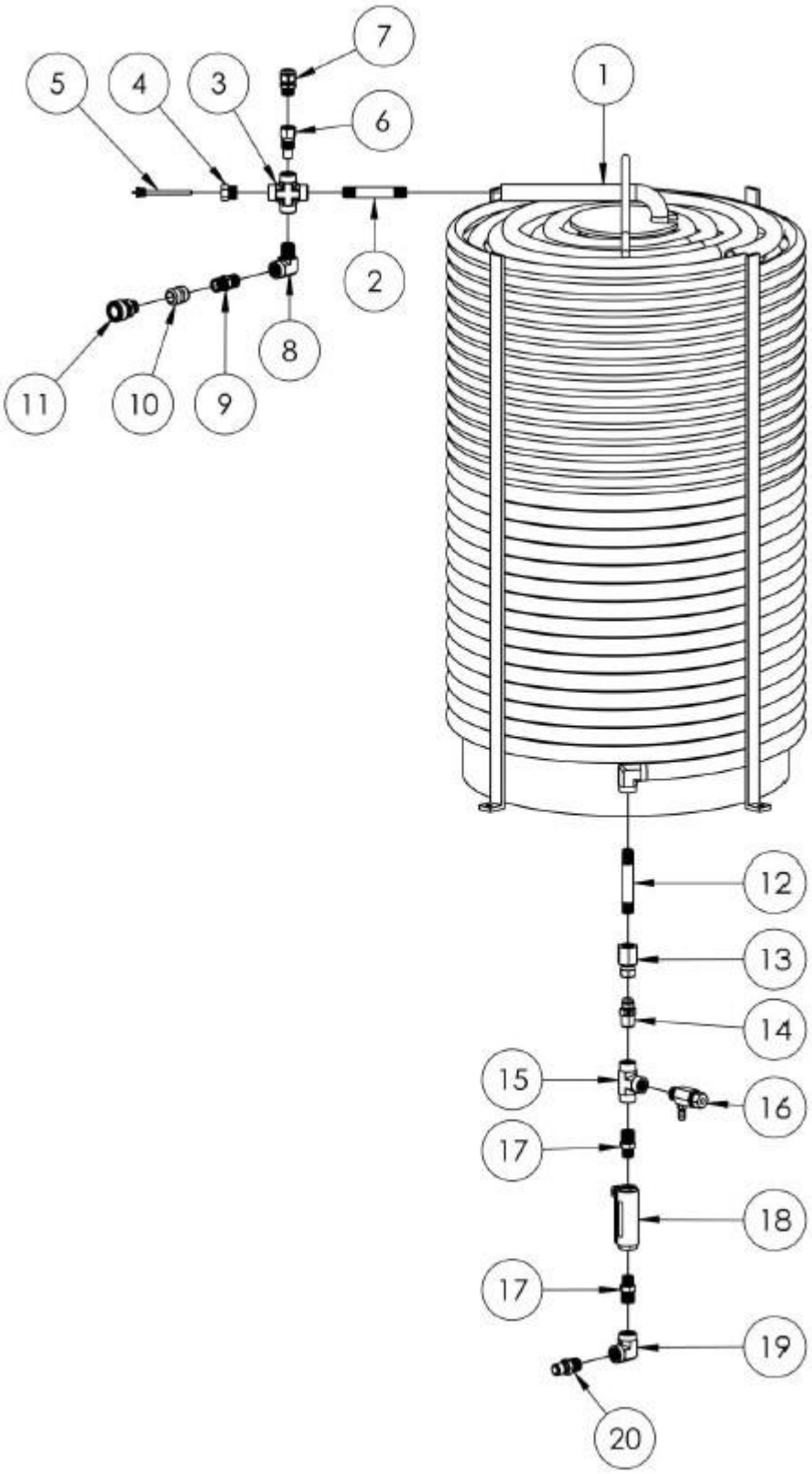
WARNING – DO NOT TAMPER WITH THESE DEVICES

SPECIFICATIONS, FEATURES AND OPTIONS

MODEL		**MHG700N/P**	**MHG700N/P - 160**	MHG900N/P	**MHG900N/P - 160**
HEATER MODULE	Pressure PSI	3500	5000	3500	5000
	BTU's: High altitude – Sea level	525,000	525,000	650,000	650,000
	GAS	PROPANE/ NATURAL GAS	PROPANE/ NATURAL GAS	PROPANE/ NATURAL GAS	PROPANE/ NATURAL GAS
	Power Supply Voltage	120V/230V 50/60Hz	120V/230V 50/60Hz	120V/230V 50/60Hz	120V/230V 50/60Hz
SPECIFICATIONS	INPUT PRESSURE	7 / 14 in WC	7 / 14 in WC	7 / 14 in WC	7 / 14 in WC
	MANIFOLD PRESSURE (WC-INCHES)	3.2 / 7 in WC	3.2 / 7 in WC	3.3 / 9 in WC	3.3 / 9 in WC
	ORIFICE SIZE	#55/67	#55/67	#55/62	#55/62
SAFETY COMPONENTS	Thermostat	YES	YES	YES	YES
	Flow Switch	YES	YES	YES	YES
	High Temp Limit Protector	YES	YES	YES	YES
	High Pressure Relief Valve	YES	YES	YES	YES
	Finish	Polyester Powder			
	Dimensions (LxWxH) in.	39X27X60		39X27X64	
	DRAFT HOOD SIZE (diameter)	10"	10"	12"	12"
	Weight (pounds)	800	950	900	1050
PIPE	Coil -Pipe Schedule	SCH 80 ¾"	SCH 160 ¾"	SCH 80 ¾"	SCH 160 ¾"

PARTS BREAKDOWN

COIL ASSEMBLY BREAKDOWN



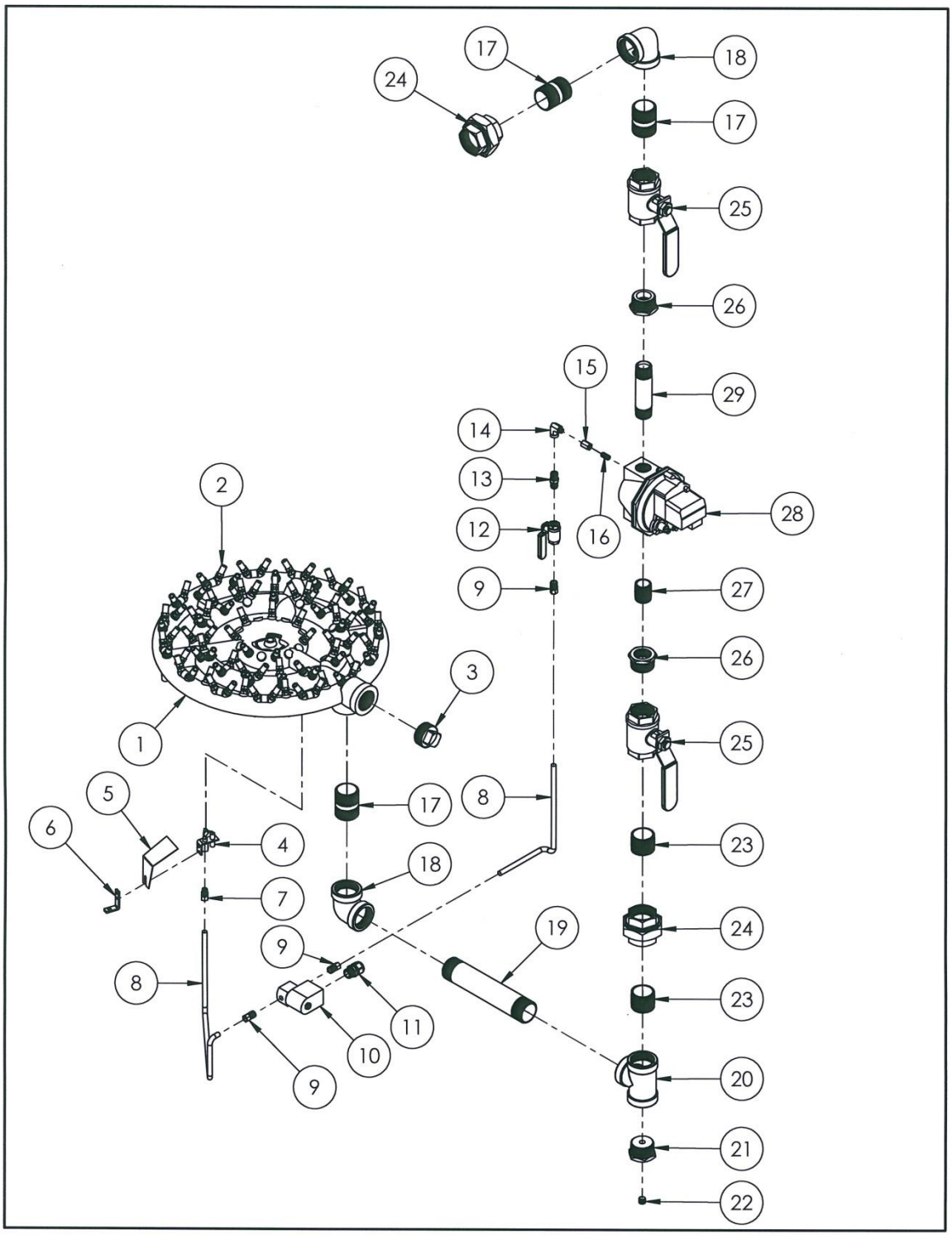
COIL ASSEMBLY BREAKDOWN LIST

NOTE: 160 REFERENCES PARTS FOR HIGH PRESSURE HEATER MODULE.

Number	Part Number	Description	Quantity
1	HWEP40209N HWEP40209NH HWEP40210N HWEP40210NH	MHG700 COIL MHG700 160 COIL MHG900 COIL MHG900 160 COIL	1
2	HWFIMP113-D4 1/2H HWFIMP113-D4 1/2XH	MHG700/900 COIL NIPPLE MHG700/900 160 COIL NIPPLE (LENGTH MAY VARY)	1
3	HWFIS1002D	½" ST CROSS	1
4	HWEP40096	THERMOSTAT WELL BUSHING	1
5	HWTR86 HWTR90	MHG700/900 THERMOSTAT MHG700/900–160 THERMOSTAT	1
6	HWT44110NL	HIGH LIMIT SWITCH (110C)	1
7	HWEL3200	½" STRAIN RELIEF	1
8	HWFIS1015D	1/2" ELBOW	1
9	HWFIS1022-D	½" HEX NIPPLE	1
10	HWFIS1003-D	½" ST COUPLER	1
11	HWEP22218 26095070P	MHG700/900 SNAP COUPLER MHG700/900–160 SNAP COUPLER	1
12	HWFIMP113-D4H HWFIMP113-D4XH	SCH 80 NIPPLE SCH 160 NIPPLE	1
13	HWFIS35268D	JIC FEMALE	1
14	HWFIS37488D	JIC MALE	1
15	HWFIS1001-D	½" ST TEE	1
16	GP100984 VS500	RELIEF VALVE 160 RELIEF VALVE	1
17	HWFIS1022-DC	HEX NIPPLE	2
18	HWST5 FL7SS	FLOW SWITCH 160 FLOW SWITCH	1
19	HWFIS1000-D	ELBOW	1
20	HWEP22217 26094070P	SNAP COUPLER 160 TWIST COUPLER	1

PARTS BREAKDOWN

(GAS ASSEMBLY)



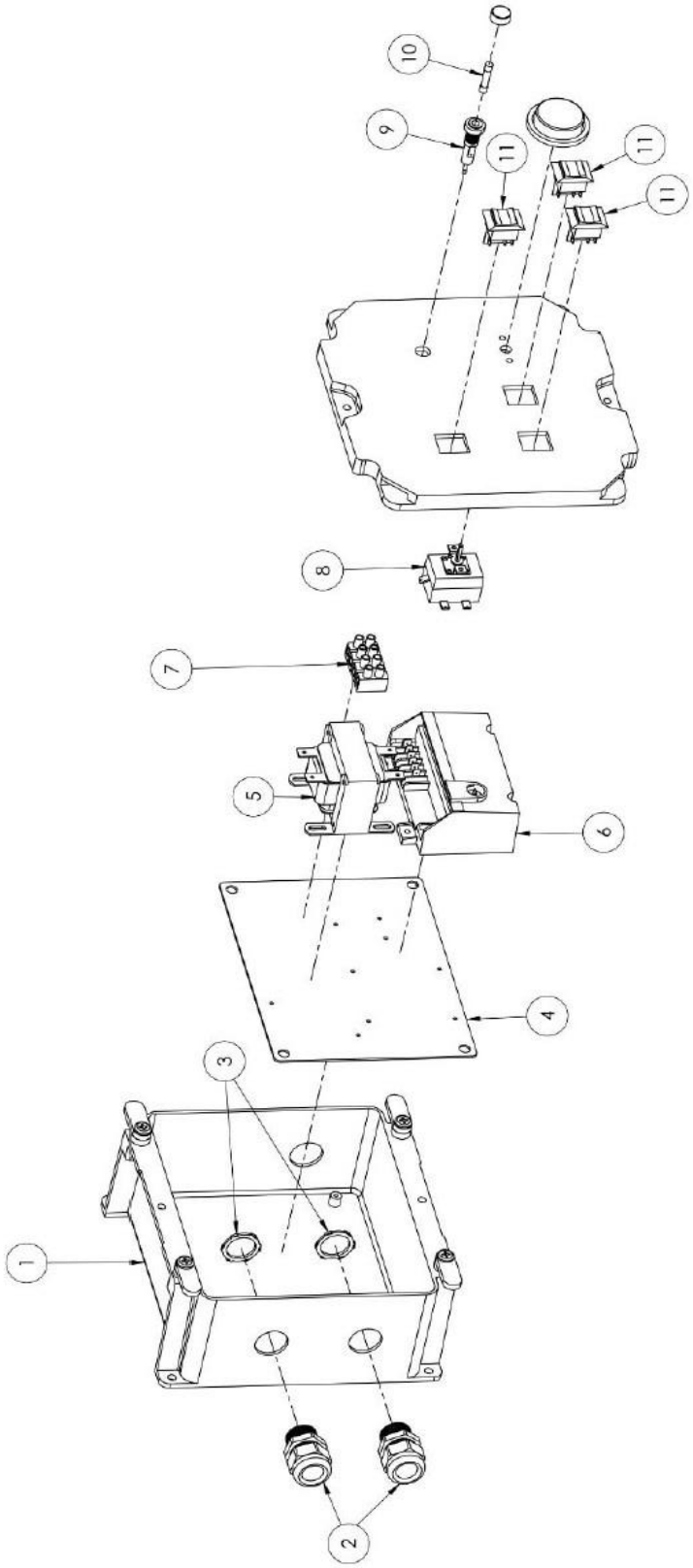
PARTS BREAKDOWN

(GAS ASSEMBLY)

Gas Assembly			
Number	Part Number	Description	Quantity
1	HWHEX88-55 HWHEX88-67 HWHEX88-62	MHG700/900N MHG700P MHG900P	1
2	PART OF BURNER RING	Burner Spud	88
3	PART OF BURNER RING	1 1/2" MP Square Plug	1
4	HWHEQ3451	Standing Pilot	1
5	HWEP24617	Stainless Steel Shield	1
6	HWEP24831L-1	Standing Pilot Bracket	1
7	PART OF PILOT BURNER	1/4" Tube adapter	1
8	HWFIALT-4X50	1/4" OD Aluminum tubing	2
9	HWEP332 68-4A	1/4" Tube x 1/8" MP Compression Fitting	2
10	HWHEV8046C	Solenoid Pilot Valve	1
11	HWEL3200	1/2" MP Strain Relief	1
12	HWEP33268-4B	1/4" Tube x 1/4" MP Compression Fitting	1
13	HWFIBV2103-B-CGA	1/4" Brass Ball Valve	1
14	HWFIS1022-B	1/4" Hex Nipple	1
15	HWFIS1015-BA	1/8" MP x 1/4" FP Elbow	1
16	HWEP332 120AA	1/8” x 1/8” Adapter	1
17	HWFIMP113-H3	1 1/2" MP x 3" Pipe	3
18	HWFIMP100-H	1 1/2" Elbow	2
19	HWFIMP113-H9	1 1/2" MP x 9" Pipe	1
20	HWFIMP101-H	1 1/2" FP Tee	1
21	HWFIMP110-HB	1 1/2" x 1/4" Hex Bushing	1
22	HWFI118-B	1/4" MP Brass Plug	1
23	HWFIMP113-H13/4	1 1/2" MP x 13/4" Nipple	2
24	HWFIMP104-H	1 1/2" Union Joint	2
25	HWFIBV2103-K-CGA	1 1/2" FP Brass Ball Valve	2
26	HWFIMP110-HF	1 1/2" x 1" Hex Bushing	2
27	HWFIMP113-F2	1" x 2" Nipple	1
28	HWHEV8944B1019 HWHEV8944C1017	Gas Control Valve Natural Gas Gas Control Valve Propane	1
29	HWFIMP113-F5	1" x 5" Nipple	1

PARTS BREAKDOWN

(ELECTRICAL BOX ASSEMBLY)



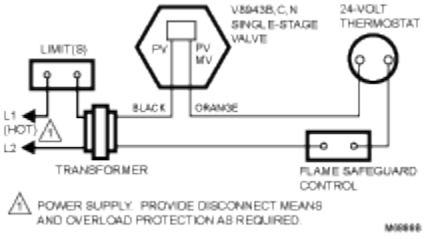
PARTS BREAKDOWN

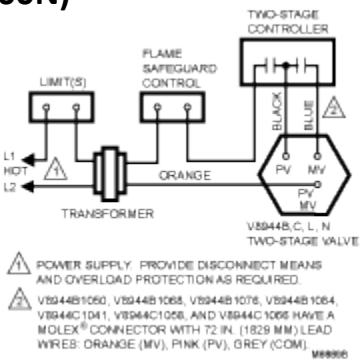
(ELECTRICAL BOX ASSEMBLY)

ELECTRICAL BOX ASSEMBLY			
Number	Part Number	Description	Quantity
1	HWELJB884IPE	8" X 8" Electrical Box With swing tabs	1
2	HWEL3234	3/4" Strain Relief	2
3	HWEL1706	3/4" Conduit Locknut	2
4	HWELVJ1008SWPL	7” x 9” electrical panel insert	1
5	HWELMH50MG HWELMH50WR HWEP38505	240V/24V transformer 208V/24V transformer 120V/24V transformer	1
6	HWHES8610H3018 HWHES8610H3015-50	60Hz Electronic Ignition 50/60Hz Electronic Ignition	1
7	HWELUNPA44-12	Terminal Strip	4
8	HWTR86 HWTR90	Thermostat 160 Thermostat	1
9	HWEL345603	Fuse Holder	1
10	HWELGGC1	1 Amp Glass Fuse	1
11	HWEL2600-11E	DPST Rocker Switch	3

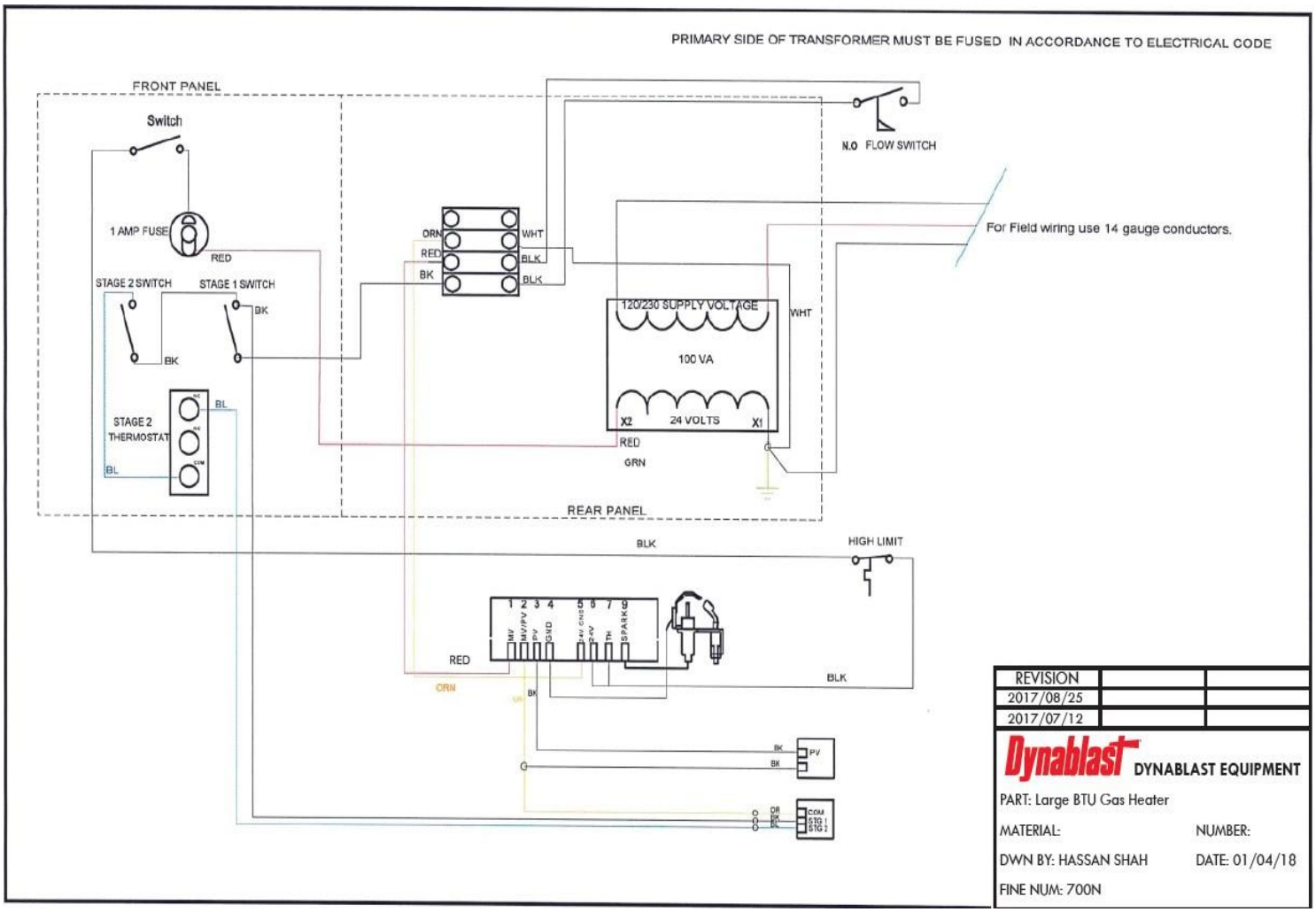
WIRING DIAGRAMS

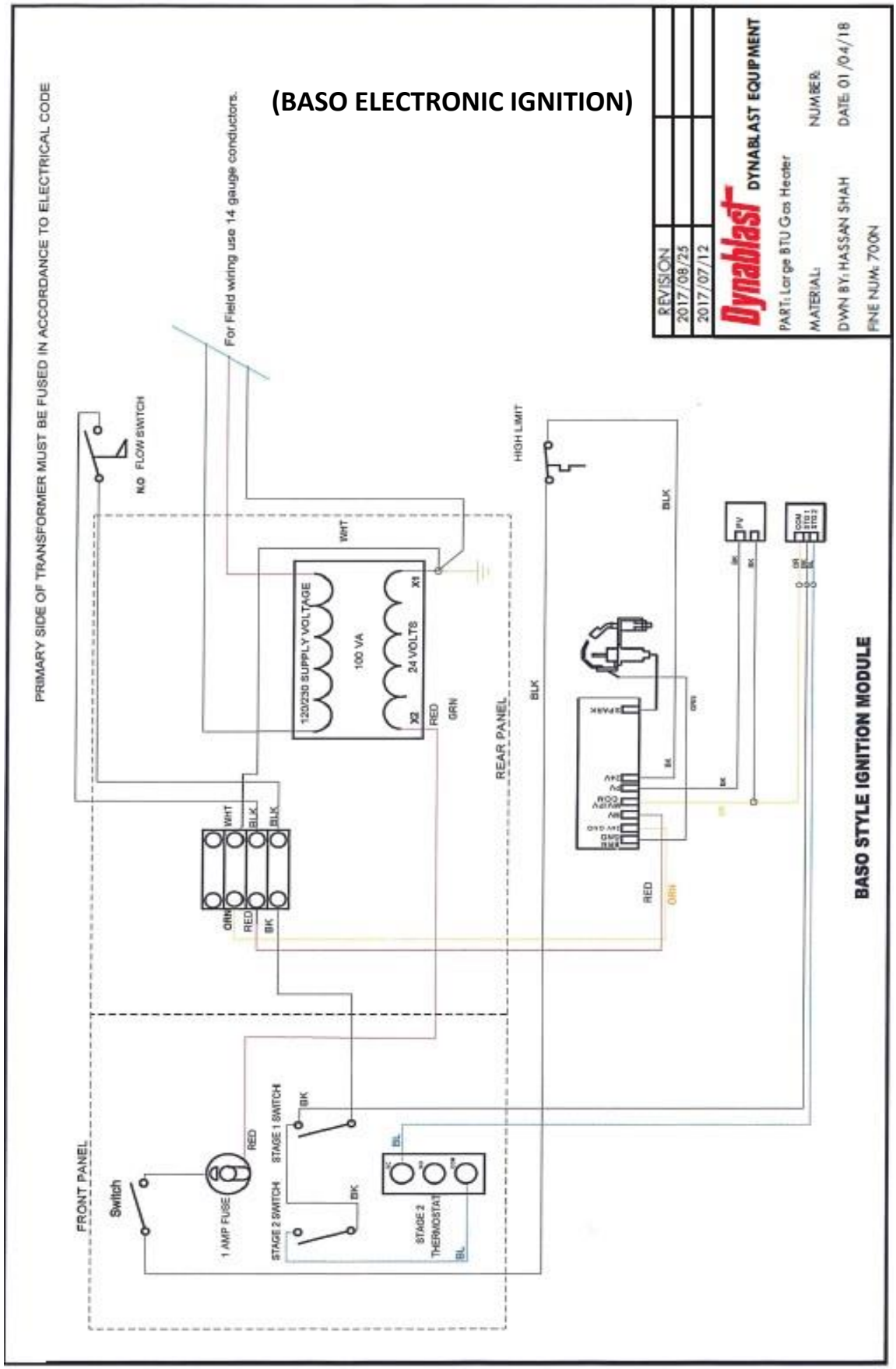
GAS VALVE WIRING (700N)



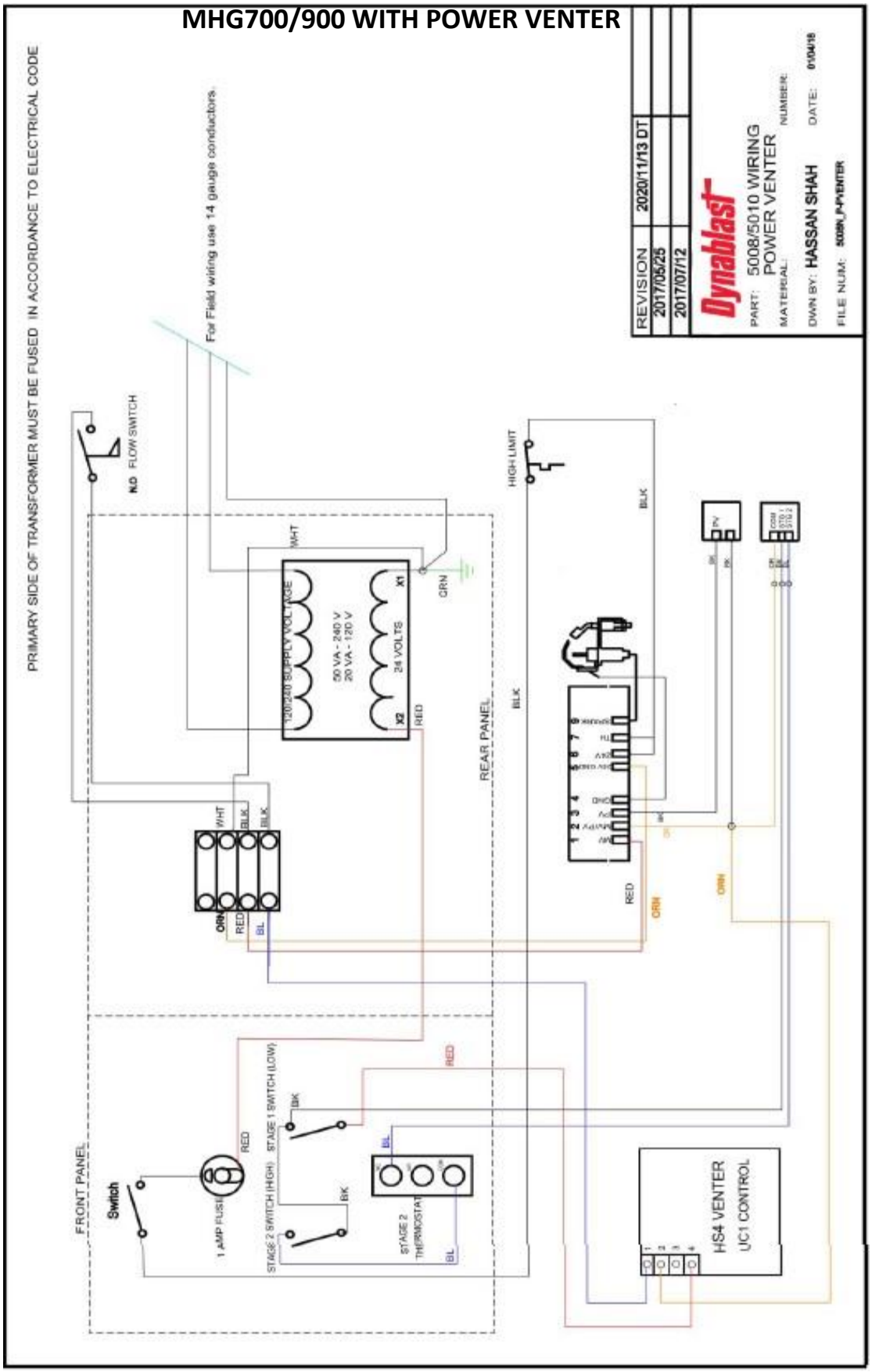


(HONEYWELL ELECTRONIC IGNITION)

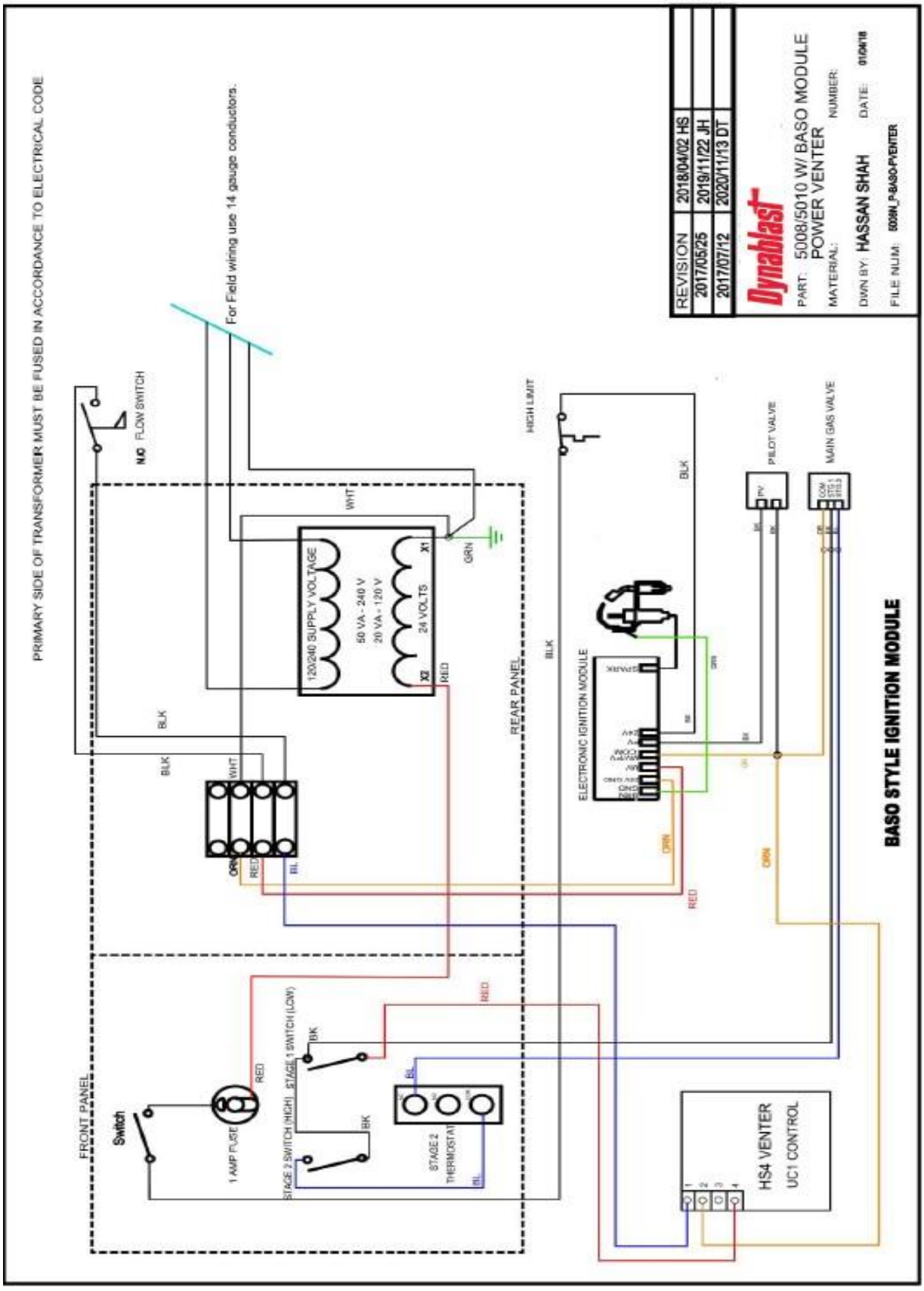



(BASO ELECTRONIC IGNITION)
PRIMARY SIDE OF TRANSFORMER MUST BE FUSED IN ACCORDANCE TO ELECTRICAL CODE
For Field wiring use 14 gauge conductors.
REVISION
2017/08/25
2017/07/12
Dynablast
DYNABLAST EQUIPMENT
PART: Large BTU Gas Heater
MATERIAL:
NUMBER
DWN BY: HASSAN SHAH
DATE: 01/04/18
FINE NUM: 700N
N.O FLOW SWITCH
HIGH LIMIT
120/230 SUPPLY VOLTAGE
100 VA
24 VOLTS
X1
X2
WHT
BLK
RED
GRN
ORN
BK
BL
REAR PANEL
FRONT PANEL
Switch
1 AMP FUSE
STAGE 1 SWITCH
STAGE 2 SWITCH
STAGE 2 THERMOSTAT
BASO STYLE IGNITION MODULE

MHG700/900 WITH POWER VENTER



MHG700/900 WITH BASO IGNITION AND POWER VENTER



WINTERIZING YOUR HEATER MODULE

(This is also good practice if the heater module is to remain unused for more than 3 - 4 weeks or transporting/storing in freezing temperatures.)

PUMPING SYSTEM WITH A FLOAT BOX

- Shut off the water supply, and disconnect hose.
- Remove cover from Float Box.
- Run the pressure cleaner until the level of the water in the Float Box is just above the outlet screen.
- Turn off the cleaner.
- Fill the Float Box to about 3/4 with windshield washer or antifreeze.
- Turn on the cleaner and open gun until liquid comes out of nozzle “foamy” or “soapy”.

CAUTION: If your hose is longer than 35 feet, the float box may empty before the liquid from the nozzle gets foamy. If this happens, refill the float box with antifreeze and continue.

- Put gun in OFF position for five seconds to allow antifreeze into bypass line.
- Shut off pump

PUMPING SYSTEM WITHOUT A FLOAT BOX

- Shut off the water supply and disconnect hose.
- You need a short (’) length of hose with a male garden hose fitting on one end.
- Connect the short hose to the inlet of the machine.
- Put the other end of the hose into a container of windshield washer or antifreeze.
- Turn on cleaner and open gun until liquid comes out of nozzle “foamy’ or “soapy”.
- Put gun in OFF position for 5 seconds to get antifreeze into bypass line. Shut off motor

Unit is now winterized.

THINGS TO CHECK REGULARLY

1. Check for System leaks. Leaks in the pressure side of the system can cause premature wear (even failure) of the pump. The warning signals for these kinds of leaks are frequent cycling of the unloader at least more than once in 2 minutes.
2. After you use chemical additives thoroughly FLUSH the system with clean water.
3. Inspect the POWER CORD regularly. Also check for POWER OUTLET SOCKET. For safety, replace worn or damaged parts immediately.
4. Never run the heater module without water. TURN WATER ON FIRST.
5. PROTECT FROM FREEZING! When transporting your heater module in temperatures below 2°F/0°C WINTERIZE the heater coil, pump, hose and gun.
8. Check gas fittings for leaks.
9. Inspect all hoses for leaks and cracks, replace when hoses are damaged or worn.
10. Inspect venting system.

COIL SERVICE

CLEAN HEATING COIL

Remove burner from coil by removing the four flange mount nuts. Inspect inside of combustion chamber and if it is heavily sooted so that air passage could be a serious problem, clean the air passage with a heavy duty vacuum. Run machine at full pressure and check the inside coil for leaks.

COIL MAINTENANCE

Liming of the coils is caused by mineral deposits from the water and occurs in hard water areas. The deliming procedure requires special caution and tools to perform. We recommend that you call your local service person if problems arise.

CHECKING FOR SCALE OR LIMING IN THE COIL:

(1) Remove outlet orifice and check for any liming. Clean the orifice if needed.
(2) Remove outlet gun and hose.
(3) Install a pressure gauge between the unloader and coil inlet.
(4) Turn on the pump without the water outlet gun or outlet orifice. If the pressure reading is above 50 psi, have your machine descaled. Else, reassemble the machine.

DESCALING

If pressure drop in the coil is over 50 psi - descaling is recommended. Descaling requires that use of highly corrosive chemicals. It also requires the use of goggles and special protective clothing.

(1) This procedure requires a 20L pail of descaling chemical.
(2) Plumb the pump suction into the pail of descaling compound with a screen on the end of the suction line.
(3) Plumb a hose from the machine outlet back in the pail of descaling compound.
(4) Turn the pump on and circulate the compound through the machine for about 20 minutes.
(5) After that time the chemical being pumped out of the coil should be running thin and dirty rather than foaming heavily.
(6) Remove the extra plumbing and reconnect machine together and run clean cold water through the machine for five minutes.

DYNABLAST **WARRANTY**

HOT WATER HEATER MODULE

This product is warranted to be free from defects in materials and workmanship under normal use and service, for a period of (1) one year from the date of purchase, unless stated otherwise below, when operated and maintained in accordance with the Maintenance and Operation Instructions supplied with the unit. The warranty does not cover misuse or negligence.

This warranty is extended only to the original purchaser. Hoses, spray guns, wands, nozzles and other accessories are warranted for 90 days. Warranty is void if repairs are attempted by anyone other than an Authorized Service Centre.

If a difficulty develops with the product, you should contact the nearest Authorized Repair Centre or Dynablast office. Only these locations are authorized to make repairs to the product or replacement of defective parts, which will be done at no charge within a reasonable time after receipt of the product. Units or parts should be returned at the customer's expense to the nearest Dynablast location or Authorized Service Centre. Pack unit in a strong carton and pad tightly to avoid damage. Damage in transit is not covered by warranty. Include original purchase receipt with any claim (but keep a copy for your files).

Dynablast's liability for special, incidental or consequential damage is expressly disclaimed. In no event shall Dynablast's liability exceed the purchase price of the product in question. Warranty is limited to repair of the product and/or replacement and is the discretion of Dynablast. There are no expressed warranties other than those specified herein.

SPECIAL WARRANTIES	WARRANTY PERIOD
Fabricated Components (Frame, Coil Skin, Coil Cap)	1 Year Parts | 1 Year Labour
Burner, Transformer, Control Switch, Safety Switch Pressure	1 Year Parts | 1 Year Labour
Schedule 80, 160 Heating Coil Limited Warranty *(See Below)*	3 Year Parts | 1 Year Labour

We must receive the coil serial number section of the coil to substantiate the warranty claim

We will not replace coil under warranty if the coild have been subjected to misuse such as:
1. Freezing | 2. Lime Deposit | 3. Other Foreign Material Deposit | 4. Shock or Vibration

Dynablast