

Dynablast[®]

OPERATOR'S MANUAL HOT WATER PRESSURE WASHERS



MAN-BEE

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BEE SERIES

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1. Read all safety and operating instructions before using the unit.
2. Read all electrical hook up instructions.
3. Read warnings on additive containers.
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. Be careful of slippery floors. Some additives make a normally safe area extremely slippery and dangerous.
7. Keep children away from the machine and wash area.
8. Do not change nozzle size. Each machine is designed to operate with a specific size nozzle. An incorrect nozzle could cause excessive pressure resulting in pump damage and possible personal injury. Refer to parts list for correct nozzle size.
9. Do not point the nozzle where damage or injury could result (eg. eyes, skin). The water discharge from this unit is under extremely high pressure.
10. Do not point the nozzle toward an electrical outlet as you risk severe shock and personal injury.

When unpacking the unit, if you find damage due to shipping, contact your dealer immediately,

ELECTRICAL SUPPLY

Arrange with an electrician to install a properly grounded, three phase service. To protect the receptacle from splashes, the recommended height above the ground level is a minimum of four feet. A ground fault interrupter (GFI) should be used. Make sure the supply voltage is correct. The voltage is shown on the rating plate of the unit, or see "Specifications, Features and Options" sheet in this manual.

IMPORTANT!

DO NOT CHANGE THE AC PLUG ON THE UNIT TO A DIFFERENT TYPE DO NOT CUT OFF THE GROUND PIN OR THE OPERATOR WILL BE EXPOSED TO SEVERE SHOCK. KEEP ELECTRICAL CORDS AND CONNECTIONS DRY AT ALL TIMES.

INCOMING WATER SUPPLY

Connect a garden hose to the water inlet of the unit. The water supply must be able to deliver 5-8 gallons per minute at a minimum pressure of 5 psi. See "Specifications, Features and Options" sheet in this manual.

HIGH PRESSURE NOZZLE

Attach the high pressure nozzle (sent with operator's manual), to the trigger gun extension.

PUMP - OIL

Before operating the pump, check to see that the oil is level with the dot on the sight gauge which is located at the rear of the pump. The oil level can also be checked using the dipstick which is attached to the oil filler cap. Ensure that the vent hole in the cap/dipstick is clear of dirt. When oil is required, use #20 or #30 non-detergent heavy duty oil.

DETERGENT SUPPLY

Only use chemicals with a PH between 7.0 and 10.0. For stronger chemicals, use a Down Stream Injection system. Contact your dealer for additional information.

Minimum Supply Cable Sizes and Circuit Ratings

as per Canadian Electric Code (local requirements may differ)

Model	Voltage	Circuit Rating	60 C Supply Cable (Flex Conduit)
H4030BEE3C	460	125 AMPS	#0
H4030BEE3D	575	80 AMPS	#2

When unpacking the unit, if you find damage due to shipping, contact your dealer immediately,

HOT PRESSURE WASHER MODE

SET-UP PROCEDURE:

1. Connect water supply to inlet on back of unit (minimum pressure 15 psi and maximum inlet pressure 60 psi) (maximum temperature 55° F or 13° C).
2. Connect high pressure hose and trigger gun to outlet on lower front of unit.
3. Connect electrical supply (fused disconnect)

OPERATING PROCEDURE:

Control (see 'Electrical Control Panel')

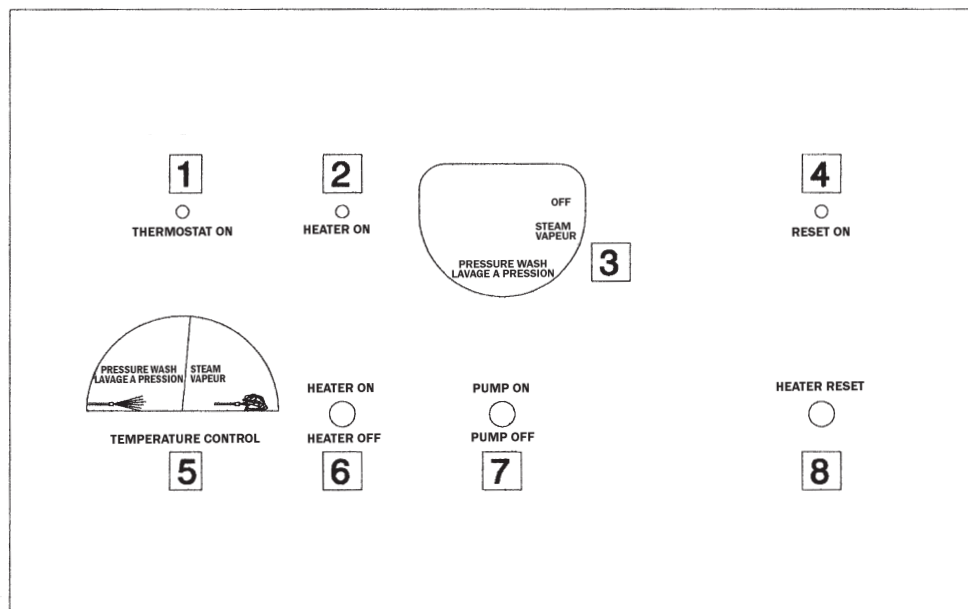
Number

- 8 1. Push "Heater Reset" button - green light comes on
- 7 2. Move toggle switch to "Pump On" position
- 5 3. Turn temperature control to desired temperature (see 'Specifications' for maximum temps.)
- 6 4. Move toggle switch to "Heater On" position
- 1&2 5. When cleaning gun trigger is squeezed, the red indicator lights for thermostat and heater will go on.
- 2 6. When water reaches desired temperature, the "Heater On" light will shut off as the unit maintains the desired temperature.
- 1&2 7. At maximum temperature, both red lights remain on continuously. Both lights shut off when trigger is released.

SHUT DOWN PROCEDURE:

- 6 1. Move heater switch to "OFF".
2. Keep trigger depressed until discharge water is cold.
- 7 3. If unit will be subjected to temperatures below freezing, antifreeze protection must be applied.

ELECTRICAL CONTROL PANEL



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, causing the reed contact to close. This contact is interlocked with the main heater contactor.

UNLOADER VALVE

The Unloader allows all of the water delivered by the pump to return to the pump suction side. If the trigger gun is closed (shut) the valve goes into the “bypass mode”. The pump runs without pressure. However, the pump may be SEVERELY DAMAGED, due to excessive overheating, if left running in the “bypass mode” or “Gun-Off” situation for more than 6 minutes.

SAFETY RELIEF VALVE

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.

THERMOSTAT

The built-in thermostat stops the unit from overheating. Maximum temperature of the unit is 300° F. (150° C) Above this temperature, the thermostat contactor turns off the third set of heaters.

LOW PRESSURE SWITCH

The Pressure Switch ensures that there is pressure, and therefore there is water flow at the head of the pump. This control does not operate at less than 3 psi. Therefore if the water is turned off, the machine will not operate.

HIGH LIMIT SWITCH

The high limit switch is a thermostat which operates at a higher temperature than the thermostat, about 305° F (150° C). This switch is not adjustable and will only operate when the other controls fail to keep the water temperature within the normal operating range. This switch cuts the power to all of the heaters.

FUSIBLE PLUG

The fusible plug is a safety relief device designed to operate at about 380° F. At this temperature it should only blow off if all of the other safety devices have failed. This is a one time device and must be replaced if it releases. More importantly, the cause of this blow off must be determined before refitting the machine.

1. Check for SYSTEMS LEAKS. Leaks in the pressure side of the system can cause premature wear (or even failure) of the pump. The WARNING signal for this kind of leak is "frequent" cycling of the Unloader. ("FREQUENT" means more than once every 2 minutes in the "Gun-Off" position.) Check the gun and swivel joints for leaks.
2. Check the OIL LEVEL at least once a week. Add ONLY the type and grade of oil specified for this pump. (See Parts List.)
3. CHANGE OIL as recommended.
4. After you use chemical additives, thoroughly FLUSH the system with clean water.
5. Inspect the POWER CORD regularly. Also check the POWER OUTLET SOCKET. For safety, replace worn or damaged parts immediately.
6. Never run the washer without water. TURN WATER ON FIRST.
7. PROTECT FROM FREEZING! When transporting your washer in temperatures below 32°F (0°C), WINTERIZE the pump, hoses and gun.

WINTERIZING YOUR PRESSURE WASHER

1. Shut off the water supply and disconnect the hose at the water source.
2. Put the end of the water hose into a 4 litre jug of windshield washer anti-freeze.
3. Turn on Cleaner and open gun until liquid comes out of nozzle "foamy" or "soapy". CAUTION: If your high pressure hose is longer than 26 feet, the 4 litre bottle of anti-freeze may empty before liquid from the nozzle gets foamy.
4. Put gun in "OFF" position for 5 seconds to get anti-freeze into bypass line. Shut off motor.
5. Disconnect the water hose at the machine.
6. The unit, pressure hose and gun are now winterized.

Before carrying out maintenance work or repairs, disconnect the plug from the power supply.

MAINTENANCE SCHEDULE:

WEEKLY:

Check the oil level of the high pressure pump. If the oil is milky or the oil level is below the minimum mark, change or fill with SAE 20W or 30W oil.

YEARLY:

Oil Change: Remove the drain plug of the water pump, drain the oil, and clean and replace the drain plug. Fill oil up to the red dot inside the oil glass (Use SAE 20W or 30W oil).

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. It is recommended that the local service person is contacted if problems arise.

Checking For Scale or Liming in Coil

1. Remove outlet orifice and check for liming. Clean orifice if needed.
2. Remove outlet gun.
3. Install a pressure gauge between the water pump and coil inlet.
4. Check condition of your water pump and unloader valve. Water pump and unloader valve failure will cause low pressure readings.
5. Turn on pump without water outlet gun or outlet orifice. If pressure reading is above 50 psi, have your machine descaled.
6. If your machine is satisfactory, reassemble.

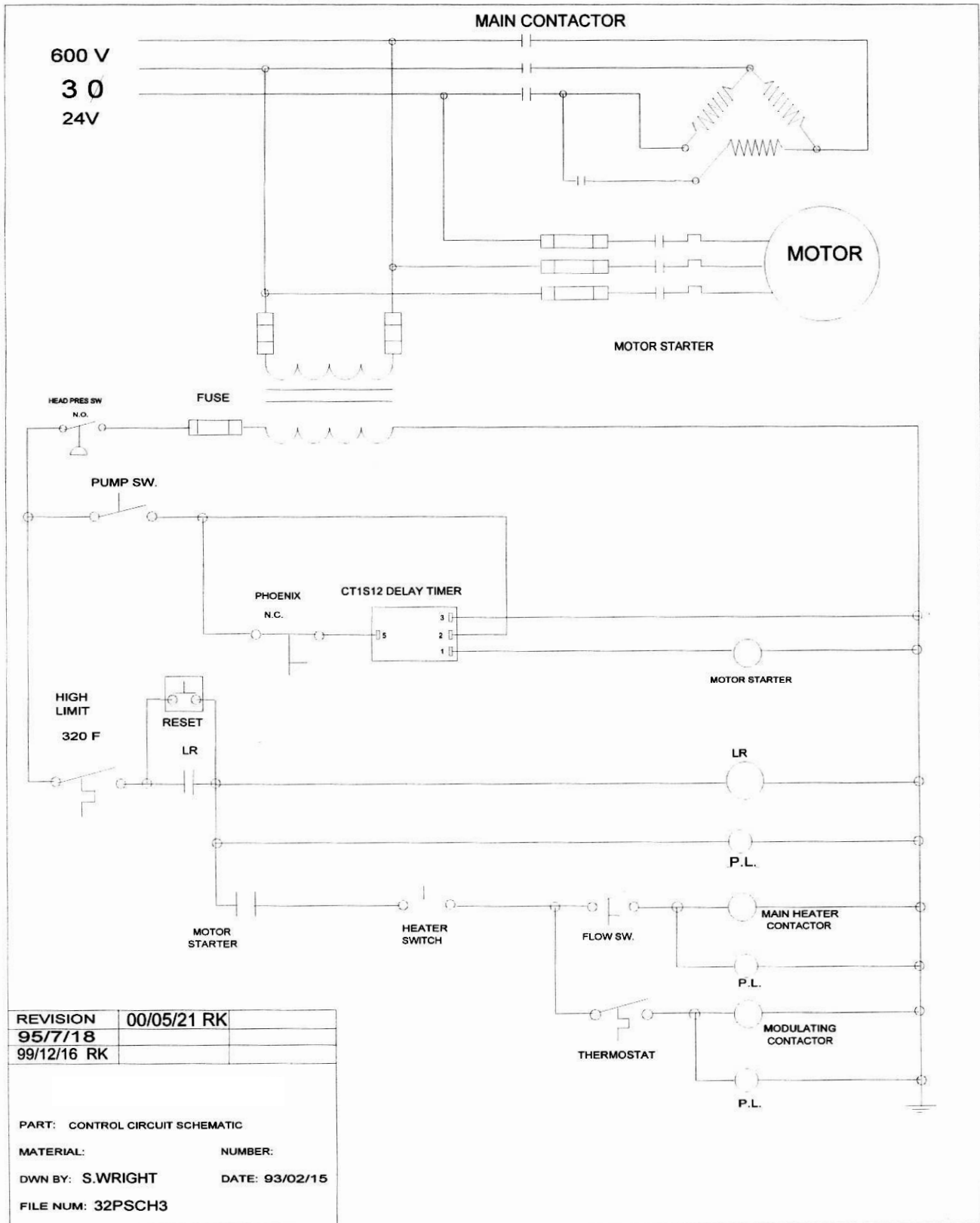
Descaling: If pressure drop of over 50 psi is experienced in the coil, descaling is recommended.

Descaling requires the use of highly corrosive chemicals as well as the use of special protective clothing.

1. Have a 20L pail of descaling chemical available.
2. Plumb the pump section 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 into 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.

	H4030BEE3C	H4030BEE3D
Pressures PSI - Press	3000	3000
Volume GPM - Press	3.9	3.9
Water Flow Supply Rate @ 5 psi	8	8
Nozzle Size	4.5	4.5
*Temperature Press °C	82	82
*Temperature Press °F	180	180
Electric Motor - HP	7.5	7.5
POWER REQUIREMENTS		
Volts (3 Phase)	460 V	575 V
Amps	125 A	80 A
KW	72	72
DIMENSIONS		
Length	38"	38"
Width	21"	21"
Height	30 "	30"
Weight	TBA	TBA

*Output temperatures are based on an input temperature of 55 deg. F



TROUBLE	POSSIBLE CAUSE	REMEDY
Low Pressure	Loose belt on pump	Tighten pump
	Leaks in water system	Tighten all fittings
	Insufficient water supply	Fill tank or increase line size to machine
	Outlet orifice worn or wrong size	Replace with correct orifice. CAUTION: Do not use smaller than recommended. Excessive pressure will damage pump.
	Gun control unloader valve	Repair or replace unloader valve bypass leak
	Dirty or worn check valves	Replace or clean. Refer to high in pump pressure pump manual.
	Cylinder cups leaking and/or	Replace. Refer to high pressure pump manual. worn cylinder sleeves
Excessive Pressure	Outlet orifice restricted	Remove orifice at tip of gun and clean. Flush coil with water before replacing.
	Scale or dirt in coils	De-scale coils
	Pump speed too high	Check water output GPM
Relief Valve Operates	Relief valve set at low pressure	Re-adjust relief valve
	Relief valve dripping after	Replace valve adjustment
	Unloader valve stuck	Repair unloader valve
Weak or no chemical at nozzle	Clogged soap screens	Clean or replace
	Air leak around soap siphon and/or valve leaking	Tighten all fittings and tubing check valve metering
Pump motor heating or overloading	Motor wet	Allow to dry. Have motor checked by qualified repair station.
Pump motor heating or overloading	Outlet orifice restricted	Remove orifice at tip of gun and clean.
	Undersize outlet orifice	Replace with correct size
	Coil scaling up	De-scale coil
	Water pump out of oil	Fill to correct level. Check for leaks.
	Overload switch operated	Allow motor to cool. CAUTION: Switch may automatically reset.
	Faulty motor	Repair or replace
Water temperature too low	Thermostat adjustment	Adjust the thermostat to desired temperature
	Coils liming up	De-scale

Effective May 1, 2002

This product is warranted to be free from defects in materials and workmanship under normal use and service, for a period of 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 and other accessories are warranted for 30 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 INC. 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 INC. liability under warranty is limited to repair of the product and/or replacement of parts and is given to the purchaser in lieu of all other remedies including incidental and consequential charges. There are no expressed warranties other than those specified herein.

SPECIAL WARRANTIES

WARRANTY PERIOD

Honda Engine (warranted by Honda) please refer to your engine owners manual.	2 year parts and labour
Interpump / General Pump Limited Warranty (see attached for details)	5 years non-wear parts
Fabricated Components (frame, coil skin, coil cap, handle, belt guard)	1 year parts, 1 year labour
Burner, Transformer, Control Switch, Safety Switch	1 year parts and labour
Schedule 80 Heating Coil Limited Warranty *(see below)	5 year parts, 1 year labour
Schedule 40 Heating Coil	2 year parts, 1 year labour

- * **Limited Coil Warranty (Schedule 80 only)**
100% cost of coil replacement, for up to 3 years, including 1 year labour.
50% cost of coil replacement, for up to 4 years, not including labour.
25% cost of coil replacement, for up to 5 years, not including labour.

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

We will not replace coils under warranty if the coils have been subjected to misuse such as:

1. Freezing 2. Lime Deposit 3. Other foreign material deposit 4. Shock or Vibration

Any replacement during the warranty period will have a warranty of one (1) year, or the balance of the original warranty, whichever is greater.

Contact your dealer for sales and service support. For your nearest dealer, contact Dynablast Inc. Mississauga, Ontario, Canada at 1-877-52BLAST.

Warranty for Pumps on Dynablast Pressure Washers

January 1, 2002

The following statement is intended to assist our customers in understanding the terms of our warranty, the circumstances under which we will honour claims and the procedure for making such claims.

Dynablast Inc. warrants each pump manufactured by Interpump and General Pump to be free of defects in material and workmanship for a period of (5) five years from the date of shipment. In addition, Dynablast Inc. warrants all forged brass manifolds to be free of defects in material and workmanship and from damage resulting from freezing for the life of the pump. Liability under this warranty is on all non-wear parts and limited to the repair and replacement of any pump returned to Dynablast Inc. which upon inspection, is judged to be defective due to workmanship or material failure. Any product returned to Dynablast Inc. should be shipped freight prepaid to:

Dynablast Inc.
2625 Meadowpine Blvd.
Mississauga, Ontario, Canada
L5N 7K5

and must display a Return Goods Authorization number obtained from Dynablast Inc. Inside Sales Department 1-877-522 5278, Fax (905) 567-9222.

In the course of marketing or servicing the customer or potential customer's needs, Dynablast Inc. will use its best judgement in its recommendations. However, the ultimate responsibility for product application decisions shall rest with the customer. The sole and only warranty made by Dynablast Inc. is the limited warranty described above. Dynablast Inc. makes no other warranty of any kind, expressed or implied, including any implied warranty or merchantability or of fitness for a particular use or purpose. Dynablast Inc. disclaims and denies any liability for any direct, indirect, special incidental or consequential damages which may be suffered as a result of sale, delivery, servicing, use, loss of any product, downtime, labour, freight or other charges not expressly included herein. The only liability and the total liability of Dynablast Inc. under this warranty or in any claim involving Dynablast Inc. is expressly limited to the replacement or purchase price of the product.

The following items are not warranted due to matters beyond Dynablast Inc.'s control.

1. Normal wear and tear on parts that are considered standard wear parts;
2. Defects caused by the fault or negligence of the buyer or third buyer;
3. Use of unauthorized repair parts;
4. Modifications made by the customer;

This warranty statement supercedes and replaces non-dated warranties or previously dated warranties and applies to pressure washers shipped after January 1, 2002. The Interpump and General Pump pumps included on pressure washers from Dynablast Inc. will be eligible for warranty consideration as outlined above.