7.5 HP Pump Stations featuring General Pumps

DU PS1701C-PG & DU PS1701CPG2
DU PS1703C-PG & DU PS1703CPG2

Owner's Manual #0787 V2 02.08.24	
Serial Number:	**Installation Date:**

IMPORTANT

Please read and understand this manual. Store in safe location for future reference.

Everyone who operates this unit should understand basic operations and safety precautions! The time you take to fully understand the proper installation, maintenance and use of the machine will prolong its service life, and assure you of trouble free operation.

When unpacking, check to make sure all the parts shown on the Parts Breakdown near the end of this manual are included. If any parts are missing or broken, please call Dultmeier Sales as soon as possible.

Consumers should notice that this manual may differ slightly from the actual product as more improvements are made to our products. Some of the pictures in this manual may differ slightly from the actual product as well. Dultmeier Sales reserves the right to update designs and / or change the specifications at any time without incurring any obligation to install them on units previously sold.

If you have any questions or suggestions about this manual, please contact us at:

1-888-677-5054
dultmeier@dultmeier.com
www.dultmeier.com

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To avoid serious or fatal personal injury or major property damage, read and follow all safety and operation instructions in the manual.

This is a **Safety Alert Symbol** -
When you see this symbol in the manual, look for the following signal words & be alert to the potential for personal injury or property damage.

DANGER Warns of potential hazards that **WILL** cause serious personal injury, death or property damage.

WARNING Warns of potential hazards that **CAN** cause serious personal injury, death or property damage.

CAUTION Warns of potential hazards that **WILL** or **CAN** cause minor personal injury, death or property damage.

IMPORTANT Indicates special instructions that **MUST** be followed but not related to hazards.

This manual is intended to assist in the installation and operation of this unit.
Do not attempt to operate this unit without reading and understanding this manual.

General Safety

To avoid the risk of serious bodily injury and property damage, read safety instructions carefully before installing this system. Follow all local and/or national plumbing and electrical codes when installing.

IMPORTANT

Do Not Allow System or Components to Freeze.
To do so may damage the system and will void the warranty.

WARNING

Never Run the System Dry.
Running the unit dry (without fluid) can damage internal parts, overheat pump (which can cause burns to people handling or servicing the pump), and will void the warranty.

WARNING

Hazardous voltage can shock, burn or cause death.

Risk of Electric Shock.
Keep the unit dry at all times -
Do not wash the motor or electrical panel or allow the unit to sit in standing water.

Use only Ground Fault Circuit Interrupter (GFCI) protected grounded outlet for the cord plug.
If you must use an extension cord, use only UL approved indoor/outdoor, 3-wire, grounding type cords. The cord must be rated to support amp draw. Do not allow any part of cord or receptacle ends to sit in water.

To avoid fatal shocks, proceed as follows if service is needed:

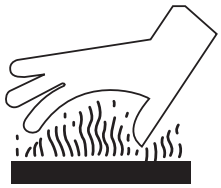
A. Turn off water to the system.
B. Disconnect the power at main electrical service before unplugging the unit.
C. Ground the electrical outlet box.
D. Take extreme care when changing fuses.

IMPORTANT

Check for Proper Rotation

Pump was designed for forward rotation to allow optimum lubrication of the crosshead area. Reverse rotation is acceptable if the crankcase oil level is increased slightly above center dot to assure adequate lubrication.

CAUTION



Burn Hazard
Do Not Touch An Operating Motor

Modern motors can operate at high temperatures. To avoid burns when servicing pump, allow it to cool for 20 minutes after shutdown before handling.

Truck Wash Pump Station Specifications

Model(s) ..... **DU PS1701C-PG** (Single Pump Station)

DU PS1701CPG2 (Double Pump Station)

Style..... Bench Style Pump Station

Capacity..... 4.83 GPM

PSI..... 2300

Maximum Inlet Pressure..... 125 PSI

Maximum Inlet Temperature ..... 145° F

Motor .....

CEL3710T	7.5 HP, 1 PH
Volts:	230
Amps:	33.6

Pump IPHTS2215S-L

Crankcase Capacity ..... 40.6 oz.

Pump Drive..... Belt

Pump Inlet ..... 1/2”

Pump Discharge..... 3/8”

Dimensions..... Approx. 62”H x 29”D x 22”W (DU PS1701C-PG)

Approx. 62”H x 29”D x 44”W (DU PS1701CPG2)

Shipping Weight ..... Varies by Model, Approx. 550-775 lbs.

System Features

General Pumps Emperor Plunger Pump

UL Listed Automatic On/Off Electrical Panel with Overload Protection

Timer Shut Down

Blown Circuit Indicator Lights

Multi-Voltage Transformer

6000# Glycerin filled Pressure Gauge

Safety Pop Off Valve

Unloader Valve with Switch

Heavy Duty Stainless Steel Frame

All units are Pre-Plumbed, Pre-Wired and Tested Prior to Shipment

Truck Wash Pump Station Specifications

Model(s) ..... **DU PS1703C-PG** (Single Pump Station)

DU PS1703CPG2 (Double Pump Station)

Style..... Bench Style Pump Station

Capacity..... 4.83 GPM

PSI..... 2300

Maximum Inlet Pressure..... 145 PSI

Maximum Inlet Temperature ..... 185° F

Motor .....

CEEM3710T	7.5 HP, 3 PH	
Volts:	230	460
Amps:	18.8	9.4

Pump ..... IP HTS2215S-L

Crankcase Capacity ..... 40.6 oz.

Pump Drive..... Belt

Pump Inlet ..... 1/2”

Pump Discharge..... 3/8”

Dimensions..... Approx. 62”H x 29”D x 22”W (DU PS1703C-PG)

Approx. 62”H x 29”D x 44”W (DU PS1703CPG2)

Shipping Weight ..... Varies by Model, Approx. 550-775 lbs.

System Features

General Pumps Emperor Plunger Pump

UL Listed Automatic On/Off Electrical Panel with Overload Protection

Timer Shut Down

Blown Circuit Indicator Lights

Multi-Voltage Transformer

6000# Glycerin filled Pressure Gauge

Safety Pop Off Valve

Unloader Valve with Switch

Heavy Duty Stainless Steel Frame

All units are Pre-Plumbed, Pre-Wired and Tested Prior to Shipment

Placement

1. Place Pump Station on a level surface, against a wall with a 4” to 6” clearance from the back of the unit. Locate near a water source, electrical supply, and floor drain. Make sure the front of the station is accessible for service.

2. Use the rubber mounting feet provided to level your station. **(Fig. 1)**

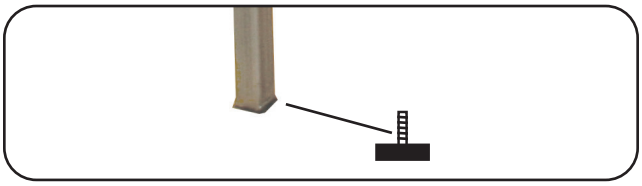


figure 1

Electrical

1. Electrician to run power from main power line to disconnect at bottom of Pump Station Panel. For single phase use L1 and L2. For three phase use L1, L2 and L3. Place knockouts wherever convenient. **(Fig. 2)**

IMPORTANT **Follow all local codes for proper fittings, conduit, and wire sizing.**

IMPORTANT **Low voltage connections on the Pump Station are Pre-Wired.**

2. Run a cable from the Coin Meter or Rotary Switch Box to Pump Station Electrical Panel for each bay. Consult the **main electrical drawing** for color scheme and termination. Use molex connectors and fittings provided at Coin Meter and open side of terminal block in Electrical Panel.

3. Run 2 wire conductor from Secondary Systems (Spot Free Rinse, Foam Brush, PreSoak, etc.) to Pump Station Electrical Panel for each bay. Consult individual manuals for these systems for further information.

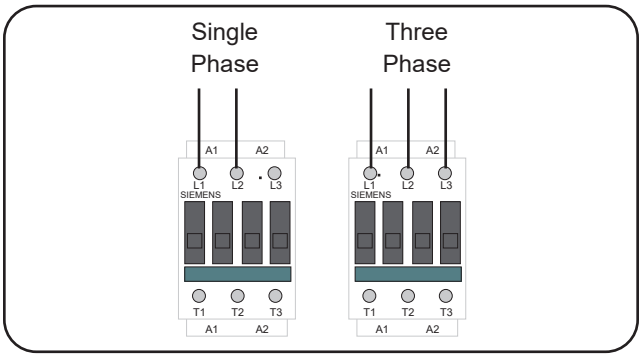


figure 2

IMPORTANT

Pump station is set up for trigger gun on/off operation utlizing flow switch on unloader valve, and off delay timer. Timer for off delay is set at factory and should not need adjusting.

Consult timer manual if needed.

Plumbing

1. Plumber to run soft hot or cold water city pressure line to 1/2” FPT inlet of solenoid on water supply tank. **(Fig. 3)**

IMPORTANT **Water temperature should not exceed 145°**

IMPORTANT **Water supply pressure should not exceed 60 PSI. Plumber to supply pressure regulator if required.**

2. Measure hose run lines from Pump Station to bay booms and assemble hoses with reusable fittings. Connect one end of high pressure run hose in bay. Connect the other end of run hose to swivel union on discharge of pump. **(Fig. 4)**

IMPORTANT **Make sure hose is protected from wearing against rough surfaces due to vibrations.**

3. Install boom (if required) and trigger gun package in bay.

4. Install manifolds for and secondary systems as required.

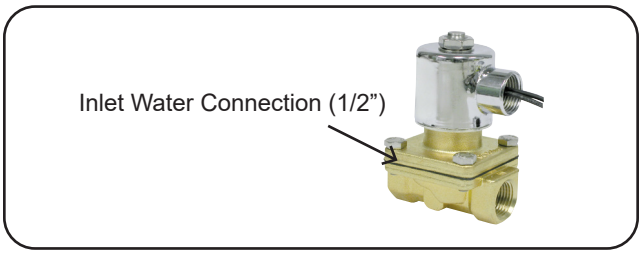


figure 3

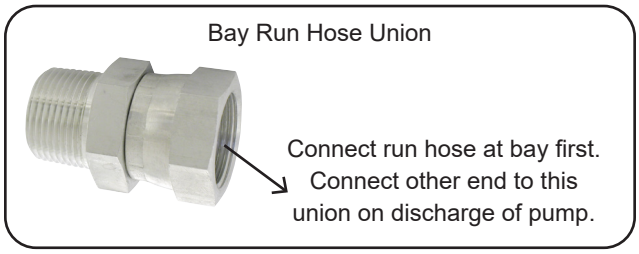


figure 4

Chemical Setup (Optional)

1. Set or mount soap tank in place near Pump Station and run city pressure soft water line to inlet of tank. Select proper mix tip for soap and screw into chemical inlet port on Hydrominder eductor. **(Fig. 5)**

   Consult Hydrominder instructions and chemical product label for further dilution information.

2. Attach chemical pickup tubing to chemical inlet port on eductor and place other end with foot valve strainer and weight into bulk soap container.

3. Repeat these steps if needed for any additional chemicals.

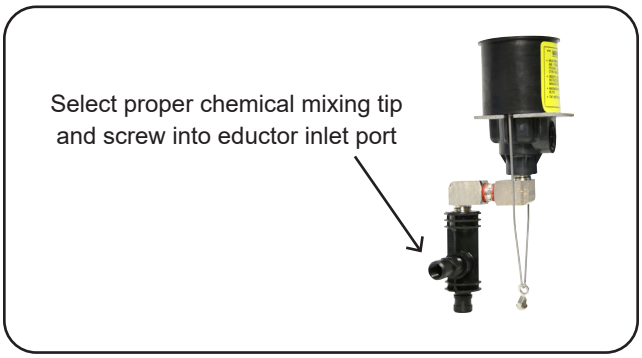


figure 5

Chemical Testing (Optional)

1. Remove nozzle from gun assembly in bay. Place rotary switch in bay on rinse position. Pull trigger gun to activate system and run for one minute to purge any foreign materials or air from the line. Shut trigger gun and system should shut down after 10 seconds.

WARNING **Hazardous Pressure**
Do Not discharge toward body.

2. Replace nozzle and restart system. Pressure is set at factory. Make adjustments at handle on regulating unloader valve if needed. **(Fig. 6)**

   Consult Unloader manual for more information.

3. Place bay switch on soap position. Pump suction for soap and wax is set at factory with inlet line gate valve. Inlet flow to pump is restricted with the gate valve to create .5 inches of vacuum at the pump. There should be no need to change this setting. **(Fig. 7)**

4. Adjust metering screw on soap solenoid until desired strength of soap appears in bay. With screw fully open chemical draw is 25 oz. per minute. You may have to experiment with concentration in soap pre-mix tank. **(Fig. 8)**

5. Repeat these steps if needed for any additional chemicals.

6. Test secondary systems as necessary. Consult instruction manual supplied with each system.

Turn handle clockwise to increase pressure and counter-clockwise to decrease pressure

figure 6

Turn handle clockwise until pump starts to chatter due to flow loss. Turn counter-clockwise to point where pump chattering smooths out.

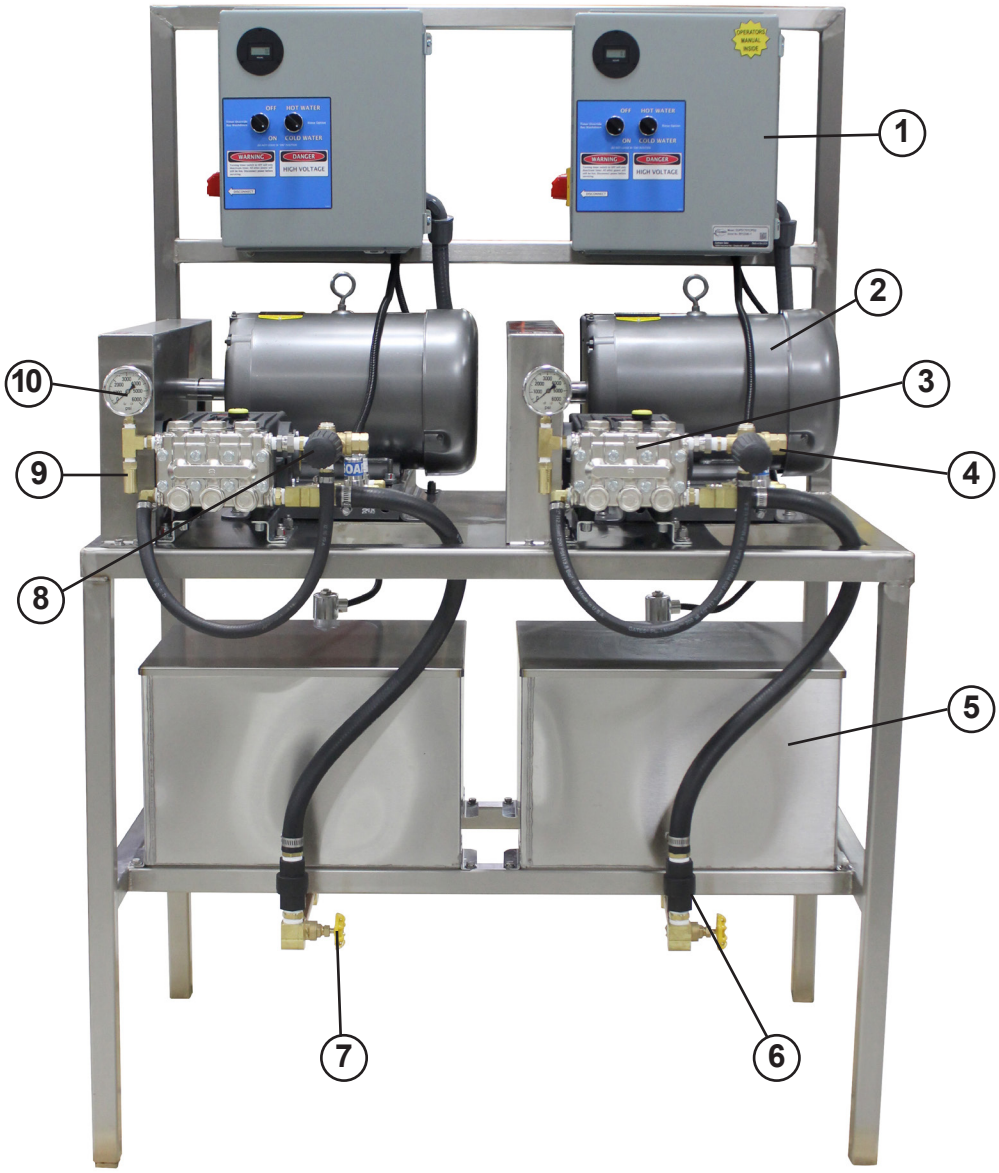
Do NOT
allow pump to run for long amount of time without proper flow

figure 7

Metering Screw.
Turn clockwise for decrease in flow and counter-clockwise for increase in flow

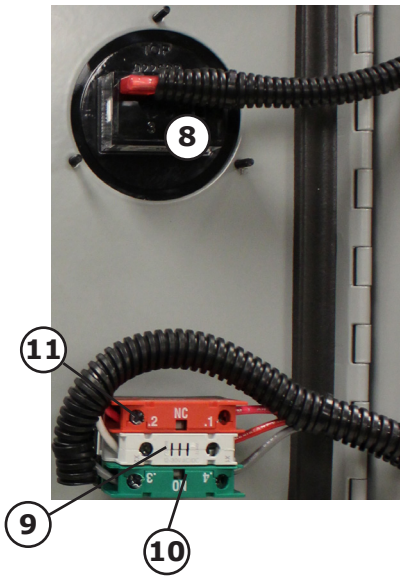
figure 8

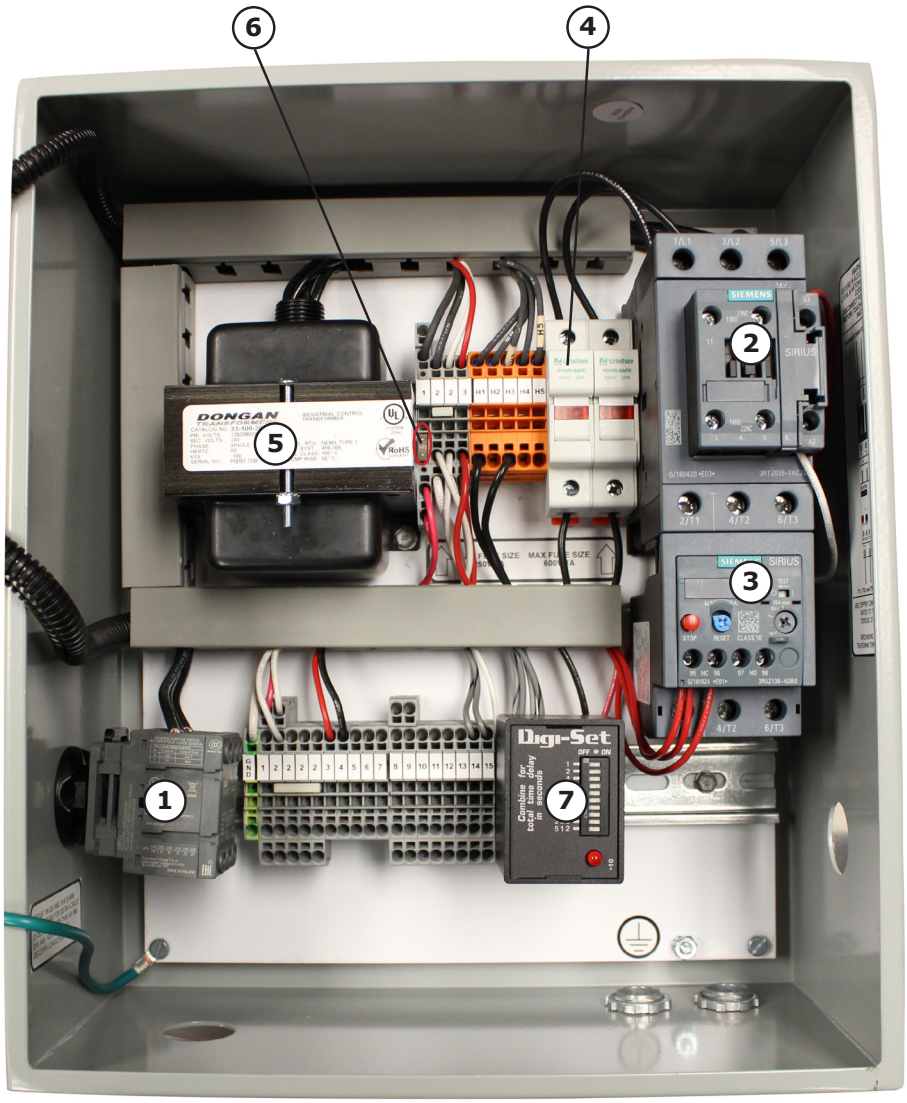
Parts Breakdown: DU PS1703CPG2



Item	Part Number	Description
1	DU EP50A-73	Electrical Panel with Delay Shutoff
2	CE EM3710T	7.5 HP 3 PH Motor (Three Phase Models Only)
	CE L3710T	*7.5 HP 1 PH Motor (Single Phase Models Only - Not Shown)*
3	IP HTS2215S-L	Emperor Plunger Pump
4	HH 1404-66SS	Stainless Steel Swivel
5	DU WT5B	Stainless Steel Supply Tank
6	SM 687-12E	EPDM Check Valve, 3/4”
7	TW GV-3/4	Bronze Gate Valve, 3/4”
8	IP YVB8KMS	Unloader Valve with Switch
9	GU 22568	Safety Pop Off Valve, 1/4”
10	AH 2750-5	6000# Glycerin Filled Pressure Gauge
	DE S6B-40	*Bronze Strainer, 3/4” (Not Visible)*
	GA B42	*V-Belts (Not Visible, Located inside Belt Guards)*
	GC S203-24	*Brass Solenoid,1/2” (Not Visible)*
	RB PF5	*Poly Float for 3/4” Valve (Not Visible, Located inside Tank)*
	RB R400-3/4	*Float Valve, 3/4” (Not Visible, Located inside Tank)*
	RB R450-6	*Brass Float Rod, 6” (Not Visible, Located inside Tank)*

Parts Breakdown: DU EP50A-73





Item	Part Number	Description	Quantity
1	GOOT40FT3-A	Abb Disconnect Switch, Rotary Style, 40 Amp	1
2	GO3RT2035-1AC20	#2 Contactor, 24V Coil (DUEP50A-51, 71, 73, 93, 153)	1
3	GO3RU2136-4DB0	#2 Overload Relay, 18-25 Amp (DUEP50A-51, 73)	1
4	GOLPSC0001ID	Fuse Holder W/ Light, 1P, 600V, Class CC	2
5	GO33100208	Transformer, 100 VA, 120/208/240/480, 24V	1
6	BRW-51220029	Mini-Auto Fuse, 5 Amp, 32VDC	2
7	DUTDB24AL	Delay Timer	1
8	NP3410-1000	Hour Meter, 24V, Non-Resettable	1
9	CE8LM2TLB8	LED Lamp, White, 24VAC	1
10	CE8LM2TC10	Green Contact Element, Normally Open	1
11	CE8LM2TC01	Red Contact Element, Normally Closed	1

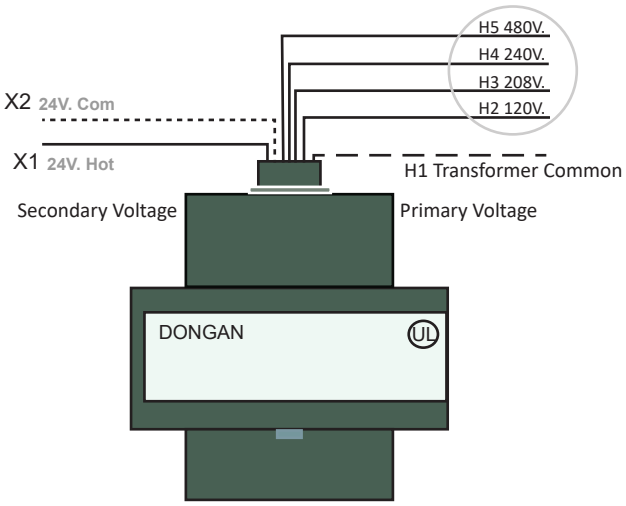
DULTMEIER SALES

DULTMEIER SALES, LLC OMAHA, NE 68137

MODEL: DUEP50A-73

SUPPLY		LOAD	
V	208 / 230 / 460	HP	7.5
FLA	24.7 / 22.4 / 11.2	V	208 / 230 / 460
PH	3	FLA	24.2 / 22 / 11
HZ	60	PH	3
		HZ	60
SHORT CIRCUIT 5KA,600V		SEE *FORM 791* FOR FIELD WIRING DIAGRAM	
TYPE :1 ENCLOSURE			

D-0023



THIS UNIT IS PRE-WIRED FOR 120 / 208 / 240 / 480 Volts.

FIELD SUPPLIED _____ AMPS BRANCH SERVICE PROTECTION REQUIRED

CLASS 1 CONTROL CIRCUIT. USE CLASS 1 CONDUCTORS FOR CONNECTIONS TO A CLASS1 REMOTE CONTROL CIRCUIT. USE A MINIMUM NO 18. AWG WIRE.

D-0023

DULTMEIER SALES

www.dultmeier.com

13808 Industrial Rd | Omaha, NE 68137
800.228.9666

Termination Point	Description	Color Scheme
H1	Transformer Common	Black H1
H2	120 V	Black H2
H3	208 V	Black H3
H4	240 V	Black H4
H5	480 V	Black H5
1	24 Volts AC	Pink X1
2	AC Common	White X2
3	Motor Starter Coil	Red
4	Timer Load	Black
5	Soap Solenoid Coil	Brown
6	Wax Solenoid Coil	Orange
7	Hot/Cold Rinse Option	Light Blue
8	Cold Water Solenoid Coil	Dark Blue
9	Hot Water Solenoid Coil	Green
10	Foam Brush	Grey
11	Spot Free Rinse	Tan
12	Pre-Soak	Yellow
13	Tire/Engine	Purple
F14	Flow Switch	Grey/Black
F15	Flow Switch	Grey/Black

D-0004

Notice Regarding Manufacturer's Limited Warranty

Dultmeier Sales Limited Liability Company (hereinafter Dultmeier), notifies you that component part(s) carry a manufacturer's limited warranty provided by the manufacturer of said component part(s). These warranties do not pertain to normal wear of component part(s) that may occur within any specified period. While Dultmeier is not the manufacturer of any of the component part(s), Dultmeier will assist you in processing any and all manufacturer's warranty claim if applicable and available. Any and all manufacturer's claims must be submitted in writing to the manufacturer within the warranty periods provided by the manufacturer.

Defective component part(s) that are to be considered for manufacturer's limited warranty must be returned to the manufacturer by prepaid shipment with the applicable manufacturer's limited warranty period. If the component part(s) are deemed to be defective under the manufacturer's warranty, Dultmeier will assist in obtaining a replacement or repair of the component part(s). Said component part(s) will be returned F.O.B. Omaha, Nebraska. Replacement or repair shall be the exclusive remedy for any breach of warranty. Labor for installation, either with respect to original or replacement part or components, is not covered under the manufacturer's limited warranty.

Neither the manufacturer nor Dultmeier warrants loss of income or consequential damages for injury or commercial loss resulting from any breach of warranty or warranties stated above.

The manufacturer's limited warranty as stated does not apply to component part(s) which have been improperly installed, misused, altered, neglected, abused or not installed, adjusted, maintained, or used in accordance with applicable codes and ordinances and in accordance with the manufacturer's specifications as to such factors.

Notwithstanding Dultmeier's willingness to assist in the processing of the manufacturer's limited warranty, Dultmeier makes no warranty against infringement of the like, makes no warranty of merchantability, makes no warranty of fitness for a particular purpose, and makes no other warranty, express or implied, including implied warranty arising from the course of dealing or usage of trade.

Compliance with all local, state and federal codes regarding the installation and operation of said equipment, parts and components shall be the responsibility of the purchaser. The rights and obligations of the parties shall be governed by the laws of the State of Nebraska.

Dultmeier Sales • 1-800-228-9666 Omaha, NE • 1-800-553-6975 Davenport, IA

Production Checklist

- OK NA Oil Level
- OK NA Clamps Tight
- OK NA Bolts Tight & Anti-Seized
- OK NA Belts Tight
- OK NA Pulleys Aligned & Torqued to Specifications
- OK NA Fittings Straight
- OK NA Check Valves
  - ☐ Weep
  - ☐ Soap
- OK NA Solenoids
  - ☐ Soap
  - ☐ Wax
  - ☐ Hot Water
  - ☐ Cold Water
- OK NA Tested
- OK NA Winterized
- OK NA _____
- OK NA _____
- OK NA _____
- OK NA _____

- OK NA Pop-Off Valve Set _____PSI
- OK NA Unloader Valve Locked
- OK NA PSI _____
- OK NA Pump RPM _____
- OK NA Motor Amps _____
- OK NA Motor Wired For _____

Accessories

- OK NA Electrical Drawing
- OK NA UL Inspected & Tagged
- OK NA EP1 Selector Switch
- OK NA TF 1 Chemical Hose
- OK NA Weights & Strainers
- OK NA Trigger Gun 1 2
- OK NA Leveling Bolts

Additional Parts Shipped in Container

- OK NA _____
- OK NA _____
- OK NA _____

Built By _____ Checked By _____

Customer Checklist

- OK NA Oil Level To Manufacturer's Specifications
- OK NA Accessories Included
- OK NA Shipping Container Was In Good Shape
- OK NA Overall Condition

If you have any questions or concerns about condition of this unit, please contact us before operating.