GENERAL MAINTENANCE

General maintenance depends upon the feed water quality and use of the machine. To build a proper maintenance schedule, a log sheet, as shown in the rear of this manual, should be prepared for each machine. The log sheet will contain information about feedwater and product (permeate) water quality. Periodic analysis of water quality and system parameters; flow rate and pressure readings, will help track the performance of the machine and indicate if any replacement parts are needed. Additionally, the log sheet will track replacement dates of any components, system repairs, or comments concerning operation.

The following schedule is a "Rule-of-Thumb" guide to performing general maintenance and service on the unit. For additional maintenance information addressed in the schedule below, please refer to the appropriate sections in the manual.

MAINTENANCE SCHEDULE

Daily

- Check the machine for proper working order. Fix any leaks immediately.

- Maintain unit cleanliness.

  IMPORTANT: To reduce rust, Do Not use Carbon Steel Wire Brushes or devices to clean stainless frame or vessels. Clean with soap and water and plastic (non-metallic) abrasives and brushes. After cleaning lightly coat entire stainless surface of frame vessel and cover with WD-40 spray lubricant (or equal). Wipe off excess lubricant with a soft clean cloth.

Weekly

- Test and record the chlorine level after the precarbon filter. Use the test cock on prefilters to collect the sample. The carbon filter must be replaced when the residual free chlorine approaches 0.1 ppm maximum. Free chlorine will destroy the membrane (See Filter Maintenance and Measuring Chlorine Section).

- Log sheet readings on a weekly basis are completed for more critical operations. Frequency to be determined by customer/owner.

Weekly Or Bimonthly

- Check the 10" sediment filter, replace if dirty.

- Check the 20" carbon filter, replace if dirty.

- Check machine for leaks or damage.

- Check salt tank level (where applicable).

90 Days

- Coliform test.

  NOTE: Must conform to all state and local regulations regarding frequency.

6 Months

- Test UV light (If equipped).

Periodic (As Required)

- Sterilization as required.

  NOTE: Must conform to all state and local regulations.

- Clean exterior of unit.

IMPORTANT: Your actual maintenance schedule may vary according to water quality, machine usage, and must conform to all federal, state and local requirements. Please adjust the maintenance schedule as required. However, for any filter replacement please do not exceed the maximum period of time or volume of water recommended for their respective replacement.

FILTER MAINTENANCE

NOTE: Coster Engineering recommends frequent replacement of the prefilters in order to minimize any possible fouling of the reverse osmosis element. It is Coster Engineering's belief that such replacements will save you money in membrane replacement in the long run.

General

The following points should be observed when changing filters.

1. Filter housings are to be screwed on only hand tight.

2. Relieve line pressure before attempting to unscrew filter housing. Close inlet valve. Relieve line pressure by opening sample port.

3. Unscrew filter cartridge housing (counter clockwise) by hand.

4. Discard old filter.

5. Clean filter housing and rinse with clean water.

NOTE: If the interior of the filter housing gets slimy, a cleaning and disinfection will be required. (See Sterilization Section).

6. Insert new cartridge.

   Make sure cartridge filter is lined up on top and bottom posts before screwing cartridge housing tight.

7. Replace cartridge housing.

   Check to make sure o-ring is clean, properly seated and lubricated before assembling filter housing.

NOTE: Use only food grade grease for lubrication.

IMPORTANT: Always flush carbon fines from a new filter using sample port until water runs clear. Carbon fines can damage the RO membrane.

Sediment Filter

This filter catches any of the sediment in the feed water. It also prevents any carbon fines from getting through to the membrane. It should be inspected and changed according to the maintenance schedule. The frequency of changes can be adjusted according to the appearance of the interior of the sediment filter.

Pre-Carbon Filter

This filter removes chlorine and other volatile organics before the feed water is fed to the membrane. With sediment filter installed, always flush a new filter using sample port until water runs clear with no visible trace of carbon fines.

NOTE: Chlorine will attack the membrane, destroying the membrane and it's ability to reject contaminants. Filters must be replaced when the residual free chlorine approaches 0.1 ppm maximum. Test for free chlorine using "low range" 0-.7 mg/1 test kit instructions.

Change Schedule

Pre Carbon

- Checked or Replaced: Daily/Weekly
- Replacement: As required/0 to .1 ppm max free chlorine
- Max: As required

Sediment

- Checked or Replaced: 1-2 weeks
- Replacement: As required
- Max: 90 days

NOTE: Filter replacement listed is maximum amount of time period and volume. Actual replacement must be tailored to specific feed water quality.

R.O. MAINTENANCE

Reverse Osmosis Membrane Performance

1. Collect a sample of product water.

2. Take a TDS (product water) reading with your TDS meter.

3. Collect a sample of the feed water through the sample port located on prefilter.

4 Take a TDS (feed water) reading.

IMPORTANT: If feedwater quality changes, check pretreatment devices for proper function.

5. Calculate rejection of the minerals with the following formula:

$$\text{Rejection \%} = \frac{\text{TDS (Feed Water)} - \text{TDS (Product Water)}}{\text{TDS (Feed Water)}} \times 100$$

6. Compare current rejection reading with the first entry on the log sheet.

IMPORTANT: If product flows and/or system rejection decreases, reduce recovery of system by increasing concentrate flow to drain.

Short Term Shut Down

Run the unit for 10-15 minutes daily to flush water through the system. Variables which may affect this schedule are ambient temperature and feedwater quality.

Long Term Storage

Remove membrane and immerse in a storage solution of 1.0% by weight sodium bisulfite. For freeze protection add 20% by weight propylene glycol to the storage solution.

Mixing ratio for storage/shipping solution:

1 U.S. gallon (3.79 liters) potable water
(plus)
1.3 oz (38 grams) sodium bisulfite (food grade) (biological growth reduction)
(plus)
27 fluid oz. (760 grams) Propglene Glycol (freeze protection)

UV LIGHT MAINTENANCE

WARNING: Ultraviolet light given off by the UV lamp can cause serious burns to unprotected eyes. Never operate ultra violet unit with the end cap covers removed and never look directly into the cell's ports while the unit is in operation.

WARNING: When testing UV intensity, always wear UV safety goggles (available from Coster Engineering). Exposure may result in irreversible eye damage.

WARNING: Cover all exposed skin surfaces or skin damage may result. Perform test during closed or quiet times. Keep all unprotected persons away from direct view of the UV lamp.

IMPORTANT: A dirty quartz sleeve will reduce UV light transmission to the water and reduce disinfection performance of the UV light. When feeding a UV light with water containing higher mineral content than RO water, such as alkaline water, the Quartz Sleeve coating buildup is accelerated and requires more frequent cleaning. Initially, check sleeve monthly or bimonthly and adjust cleaning procedure to suit the type of water that you are vending. Refer to vending machine operators manual and UV light manufacturer operators manual quartz sleeve cleaning instructions.

TESTING LAMP INTENSITY/REPLACEMENT

Option 1. Replace UV Lamp every 6 months of use.

Option 2. Test at 6 months and replace every 12 months of use. A minimum intensity level of 16,000 UWs/cm2 at 254 nm wave length shall be maintained for the life of the lamp.

Readings are obtained with a commercially available portable UV intensity meter. Consult Coster Engineering for recommended meter type. Follow all instructions and safety procedures included with meter.

An LED monitor located on the side of the UV assembly will indicate whether the UV bulb is lit. If this monitor light is not on, it will prevent the machine from dispensing water.

If the LED monitor goes out, shut off water supply to sterilizer immediately and disconnect power supply. Replace UV lamp with a new one by following installation directions. Regularly inspect the unit to ensure that the monitor light is still glowing.

QUARTZ JACKET CLEANING/ REPLACEMENT

1. Disconnect power.

2. Shut off the water supply.

3. Remove UV chamber from mounting clamps.

4. Disconnect the lamp connector at the end of the UV chamber and remove lamp from chamber.

5. Remove Quartz Sleeve as follows:

a. Unscrew retaining nuts, remove floating spring, and carefully slide sleeve out of UV chamber.

b. Clean sleeve with vinegar or some other mild acidic solution, then rinse with water.

c. Clean and lubricate O-rings with food grade lubricant or replace with new O-rings.

6. Reinstall Quartz Sleeve in UV chamber as follows. **NOTE:** Be sure no marks or fingerprints are on sleeve or lamp.

a. Position sleeve in chamber allowing sleeve to protrude an equal distance at both ends of chamber.

b. Slide O-rings onto each end of sleeve.

c. Reinstall retaining nuts and floating spring.

IMPORTANT: Glass Quartz Sleeve is fragile, hand tighten nuts only.

7. Install UV lamp, lamp connector, and secure UV chamber in mounting clamps.

8. Test the unit by plugging it into the electrical outlet. The indicator light on the side of the housing should glow steadily within a few seconds. If the light does not come on or continue to glow steadily, check lamp electrical connection. Replace lamp if necessary

9. Turn on water supply and check all connections for leaks. Allow the water to run for a few minutes to clear out any air or dust that may be in the cell.

CLEANING - STERILIZATION CUSTOMER CONTACT SURFACES

Cleaning and disinfecting of the customer contact surfaces must conform to state and local codes. However, it is recommended that daily cleaning and disinfecting of the customer contact surfaces be performed.

The customer contact surfaces of the machine are the dispenser housing and nozzle. The following steps outline their cleaning and disinfection procedure.

1. Wash off any dirt or debris in or around the dispenser housing and dispensing nozzle with a mild detergent solution. Rinse with clean water.

2. Spray a chlorine based disinfecting solution at 100 ppm onto the dispenser housing and nozzle. Allow to air dry.

NOTE: Prepare 100 ppm chlorine based cleaning solution as follows:

- **Mix one (1) Tablespoon standard household bleach containing 5.25% sodium hypochlorite with one (1) gallon clean R.O. water (or other low TDS water).**

NOTE: Stronger more concentrated solutions of chlorine may cause rusting and damage to stainless steel and other components.

PLUMBING

This procedure should be used if a bacterial contamination is suspected in the machine. Bacteria may grow in the machine if it is taken out of service and stored. This growth can sometimes occur in a one to two week period depending upon the conditions. No matter the cause, if you suspect bacterial contamination of a vending machine, this contamination should be eliminated through the following sanitization procedure.

1. The following materials will be needed for the disinfection of the plumbing system.

   - Two (2) 5 gallon pails.

   - 6 to 9 pints of 3% hydrogen peroxide.

2. Obtain potable drinking water in two (2) five gallon pails.

3. Add 3 pints of a 3% hydrogen peroxide solution to the water in each pail.

4. Discard all filters.

5. Disconnect water inlet on rear of unit.

6. Fill all plumbing, filter housings and UV light with disinfection solution by use of gravity or a portable feed pump.

7. Allow the sterilization solution to set for 3 to 12 hours. The longer the time, the greater the killing effectiveness of the sterilization solution.

8. Flush all sterilization solution from machine by reconnecting inlet and holding vend button.

CAUTION: Run sufficient water to ensure total flushing of unit.

9. Install new filters.

ELECTRICAL SECTION

WARNING: Unplug this machine prior to making any repairs. Failure to take proper precautions may result in electrical shock and death.

WARNING: Be sure power has been disconnected when electrical box cover has been removed. A qualified electrician should be called in to complete any repairs.

A. COMPONENT FUNCTION (Figures 10, 11)

T-1 On/Off Power Switch

PS-2 Storage Tank Pressure Switch. Shuts R.O. down when storage tank is full and storage tank solenoid valve closes. Preset at 40 psi “On” 60 psi “Off”.

PS-1 Feed Pressure Switch. Provides pump protection from low feed water pressure. Preset at 5 psi “Off”, 10 psi “On”.

S-1 Feed Solenoid Valve closed when pump is off.

M-1 Pressure Pump Motor. Controlled by T-1, PS-2 and PS-1

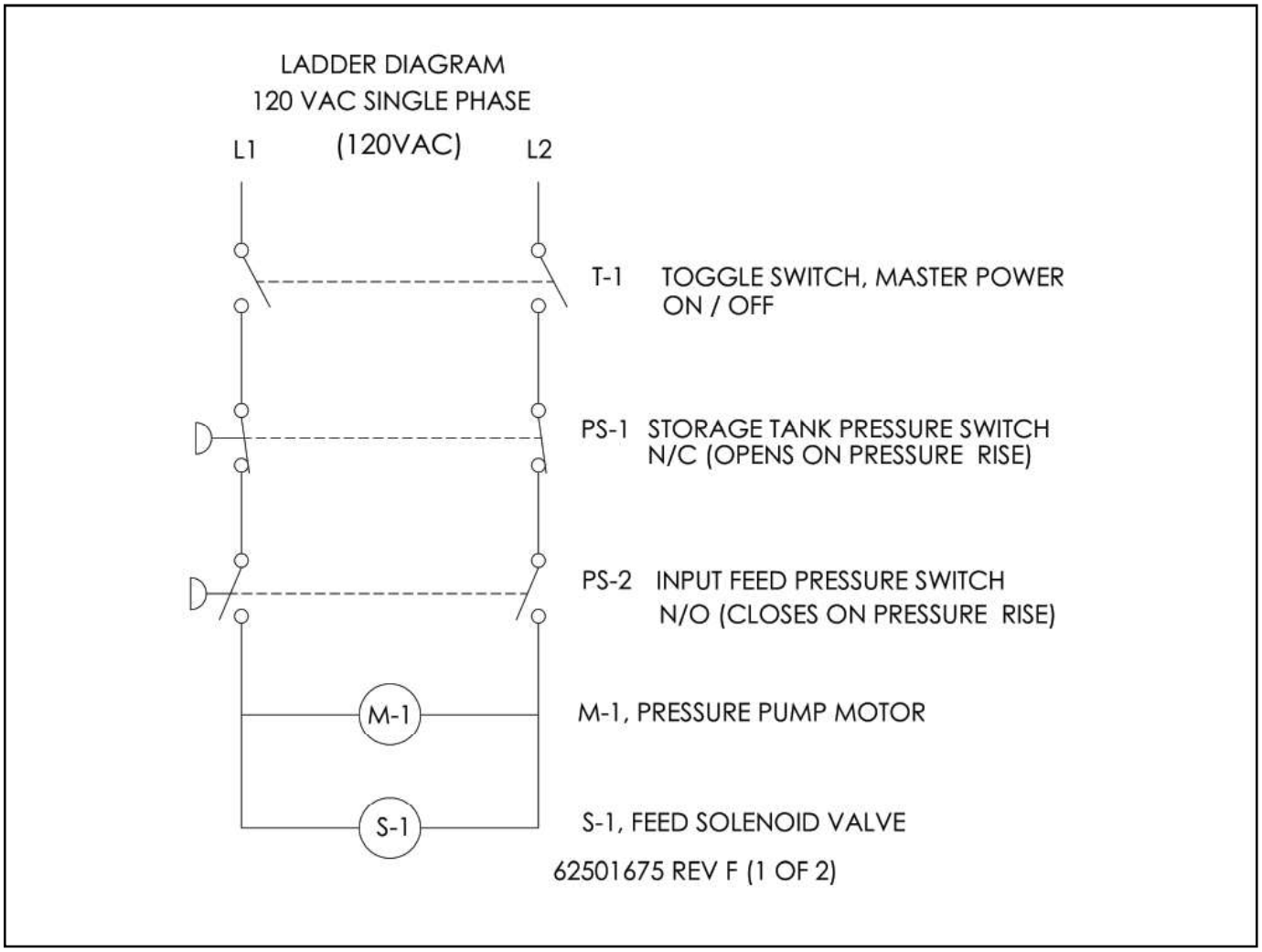


FIGURE 9

WIRING DIAGRAM
120 VAC SINGLE PHASE

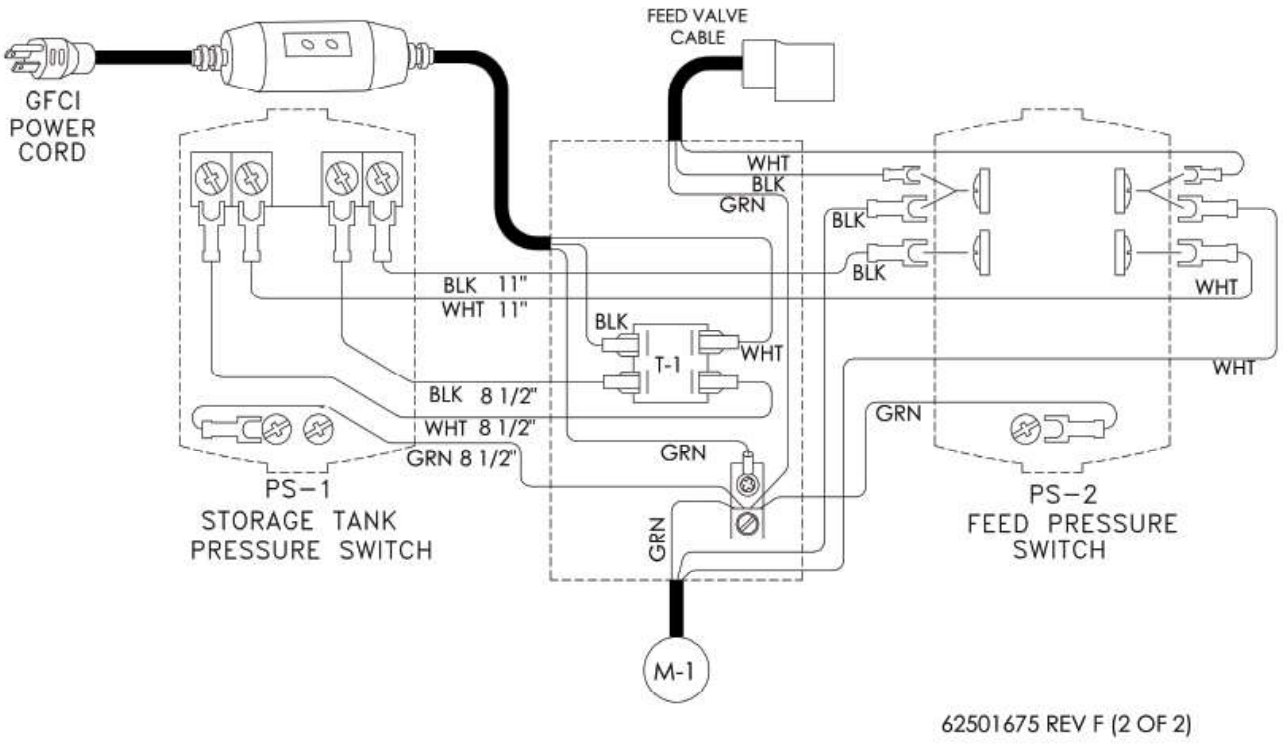


FIGURE 10

TDS-METER (Optional Equipment)

TDS METER OPERATION

The TDS meter reading is only valid when the unit is producing water. When the unit is sitting osmosis occurs in the membrane and the reading will rise. The amount of the rise depends on the TDS of the raw feed water.

To read the TDS of the product water press the power switch. The display turns off automatically after reading the TDS to conserve batteries.

The unit requires two (2) AAA 1.5V batteries. Remove screws on the back cover to replace batteries. Battery life is approximately 800 hours.

CALIBRATION

Periodically verify proper calibration.

1. Remove probe.

2. Clean probe with vinegar or very fine sand paper. (#400/#600 grit)

3. Rinse probe with calibration solution three times.

4. Immerse probe in calibration solution.

5. Calibrate if required, with a small screw driver in access hole on back of unit.

NOTE:

1. When re-inserting product probe, line up black “dot” on probe with black “dot” on John Guest tee.

2. When re-inserting feed probe, black dot on probe must face straight up or straight down.

CLEANING - STERILIZATION

CUSTOMER CONTACT SURFACES

Cleaning and disinfecting of the customer contact surfaces must conform to state and local codes. However, it is recommended that daily cleaning and disinfecting of the customer contact surfaces be performed.

STERILIZATION OF COMPONENTS AND PLUMBING

Purpose

This procedure should be used if a bacterial contamination is suspected in the vending machine. This contamination may occur when poorly treated water containing a coliform count is fed into the machine. Bacteria may also grow in the machine if it is taken out of service and stored without sodium metabisulfite membrane preservative. This growth can sometimes occur in a one to two day period depending upon the conditions. No matter the cause, if you suspect bacterial contamination of a machine, this contamination should be eliminated by filling the plumbing with a Hydrogen Peroxide Solution. Allow to set 2-12 hours in the unit.

Hydrogen Peroxide Sterilization Solution Mixing Instructions

1. Fill two (2) five gallon pails with 4 1/2 gallons of potable or Reverse Osmoisis water.

2. Add three (3) pints of a 3% hydrogen peroxide solution to the water in each pail.

3. Manually open the input feed solenoid and pump solution into the unit with a small separate pump.

4. Allow to set 2-12 hours.

   Chlorine, as an alternative cleaner may be used on plumbing, but should NEVER BE USED ON THE RO ELEMENT.

WARNING:

a. **The temperature of your hydrogen peroxide sterilization solution should not exceed 75° fahrenheit (24° centigrade) or damage to the membrane may occur.**

b. **Use only drinking (reverse osmosis) water to mix the .2% (by volume) sterilization solution.**

c. **The maximum concentration of hydrogen peroxide (H_20_2) that should come in contact with a RO membrane is .25% (by volume).**

d. **If a RO membrane has been in operation for several months, it should be cleaned with an acid and/or alkaline cleaner before the sterilization procedures are completed.**

TROUBLE SHOOTING

PROBLEM	CAUSE	CORRECTION
1. Machine will not charge/ pressure pump will not start	Feed line shut off valve closed	Open valve
	Float switch in storage tank defective	Replace float switch
	Low feed pressure	Check water supply
	Inlet solenoid valve closed	Dissassemble and clean and/or check for power to coil
		Replace valve
	Low input voltage	Check external supply circuit
	Pretreatment device in regen-eration mode	Wait for cylce to finish
	Defective inlet pressure switch	Replace
	Defective product pressure switch	Replace
2. Machine will not shut down when storage tank is full	Float switch in storage tank	Check switch for snags/replace switch
3. Product water TDS too high	Membrane fouled, leaking inter-nal O-Ring	Clean/replace membrane (See RO Element Section)
4. Chlorine detected after pre-carbon filter	Pre-carbon filter exhausted	Replace carbon filter
5. Optional UV light will not light	Defective UV lamp or balast	Replace
Or	Slow unit	Wait 3-5 minutes
Low UV output reading	Old or defective lamp	Replace

SERVICE PARTS

It is the policy of Coster Engineering to constantly improve its products whenever it is practical to do so.

Coster Engineering must therefore reserve the right to redesign or change its equipment or component parts thereof without incurring the obligation to install or furnish such changes on equipment previously delivered.

INSTRUCTIONS FOR ORDERING PARTS

1. The reference numbers in the illustrations correspond to the numbers shown in the "Reference Number" column in the parts listing. The quantity in the "number required" column is the number of parts used in the accompanying illustration. The term "A/R" for number required indicates "as required" where the quantity may vary. Order all parts by their part number and description.

2. Always mention the identification number of the code and serial numbers found on the name plate of the unit on which the part is to be used. Much delay and confusion can be avoided when correct numbers are specified on parts order and correspondence.

3. Owner, order all parts through your local dealer.

4. Dealers must indicate how to ship; whether by truck, rail freight, express, or parcel post.

5. Collect phone calls are not accepted.

6. Address all orders for parts as follows:

COSTER ENGINEERING
58766 240th St.
P.O. BOX 3407
MANKATO, MN 56002-3407
PH (507) 625-6621
FAX (507) 625-9124

IINSTRUCTIONS FOR RETURNING PARTS FOR ADJUSTMENT

1. To assure prompt handling of claims, your dealers should follow standard claim and forward claim procedures within thirty (30) days, of any part failure or malfunction believed to be a warranty claim.

2. No returned part will be accepted unless they are transportation prepaid and accompanied by the packing list, copy of the returned goods authorization form, or the packing list copy of the warranty claim form.

3. Parts returned should have a tag attached with sender's name and address clearly printed.

DISCLAIMER

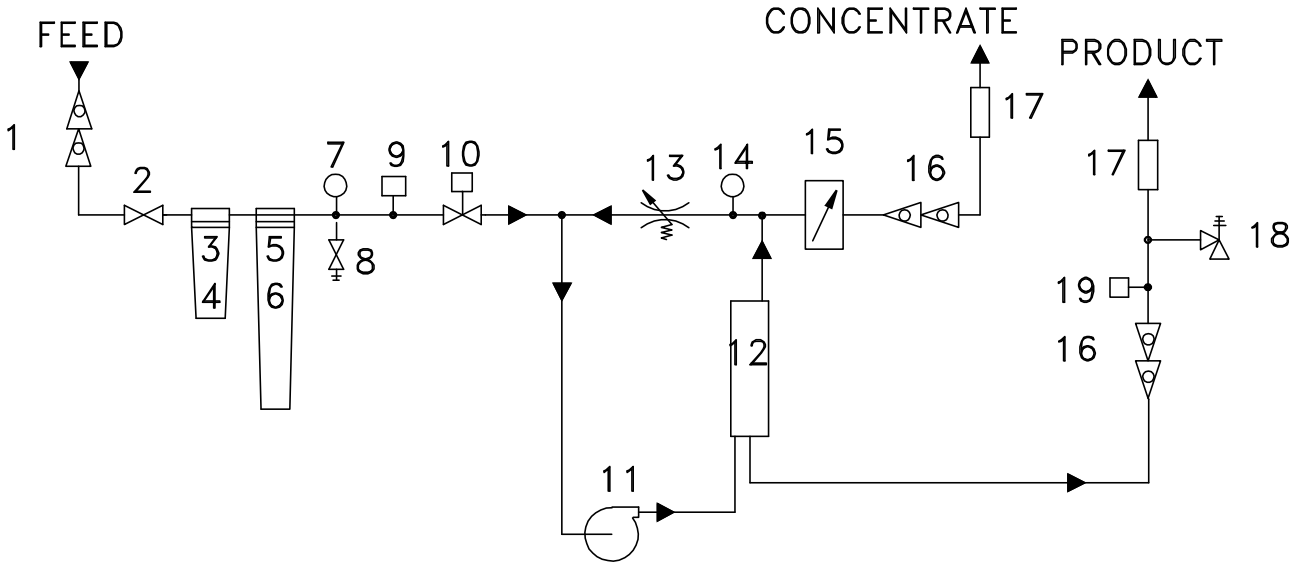
This supplement contains additional information that is specific to units. It is used in conjuction with the basic machine operator's manual which includes safety and operational information.

Retain all manuals for future reference. Read all and understand all manuals in their entirety before operation or service.

The information contained in this manual is subject to change without notice.

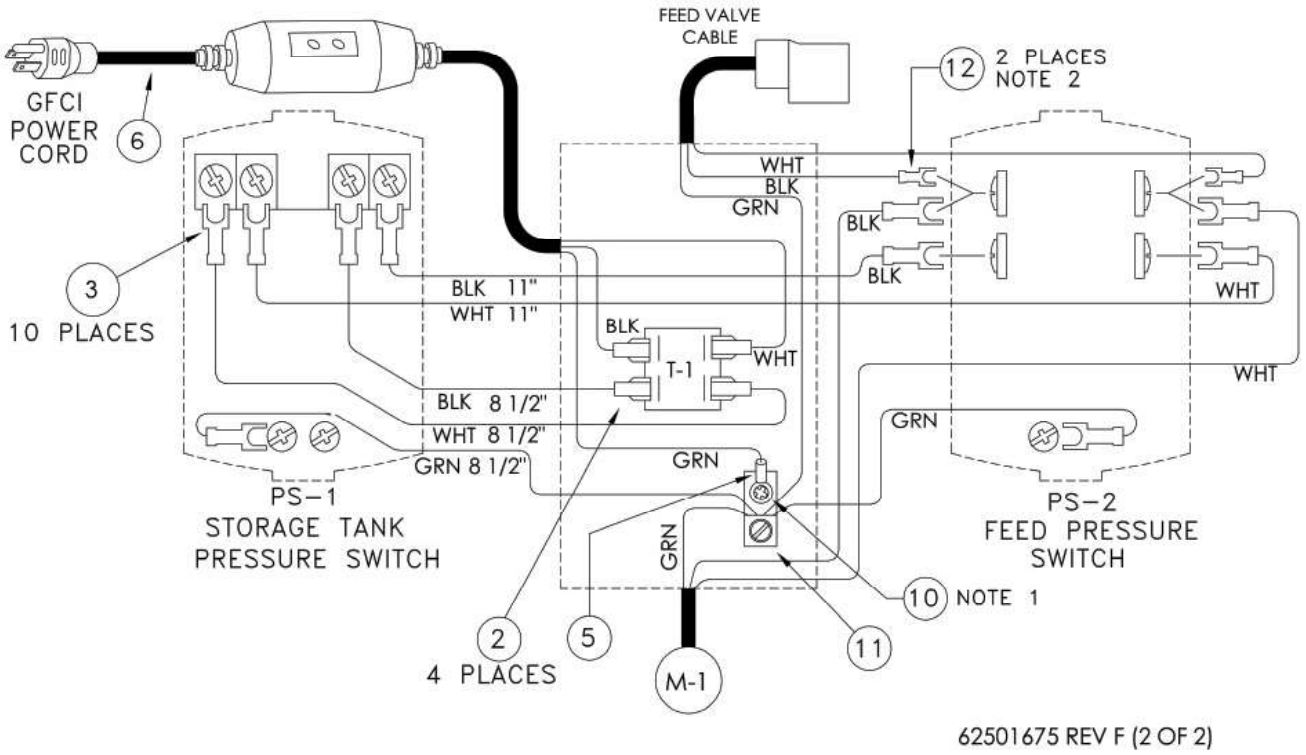
Coster Engineering shall not be liable for technical or editorial omissions made herein; nor for incidental or consequential damages resulting form the furnishing, performance, or use of this material.

FLOW DIAGRAM



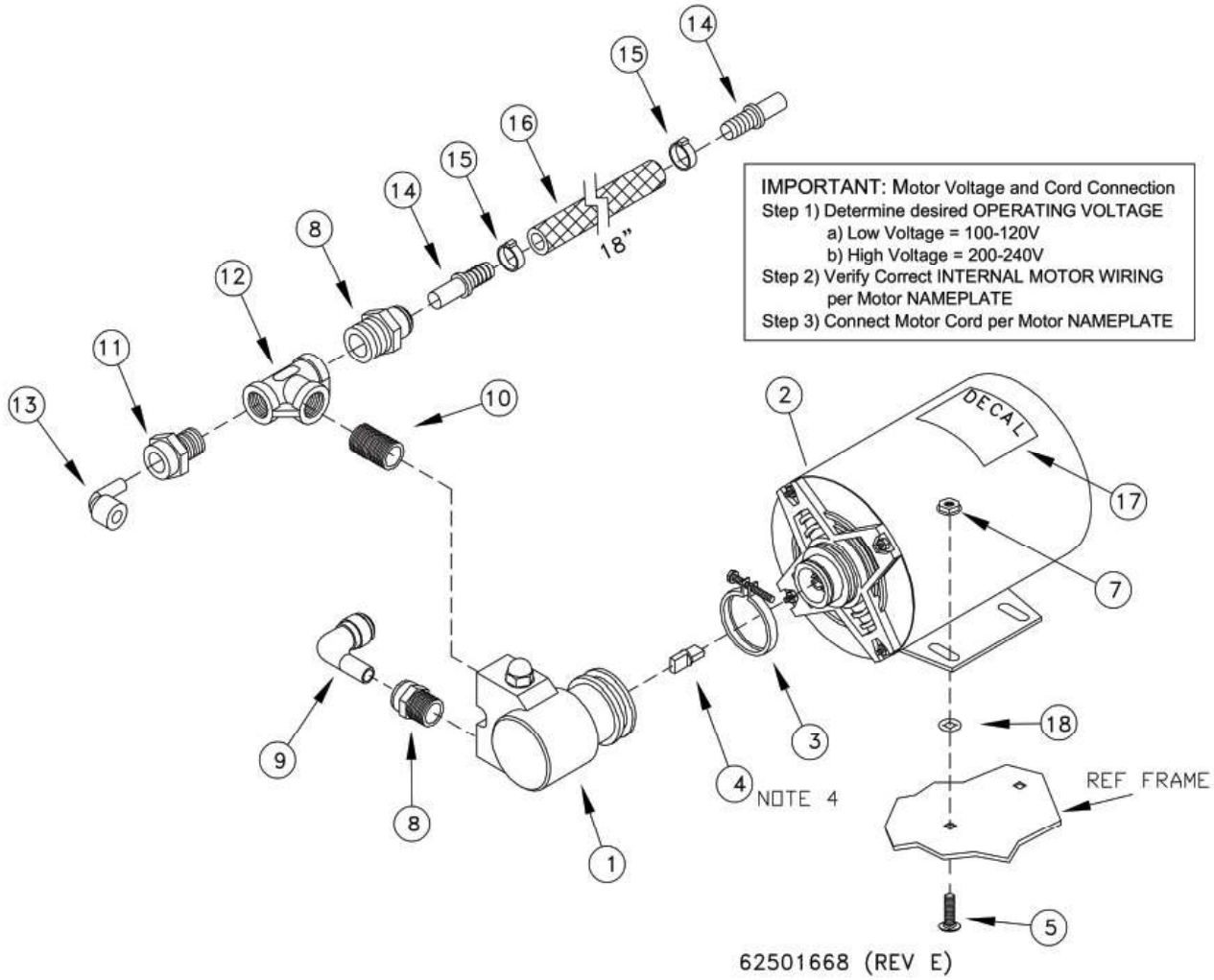
REF. NO.	PART NUMBER	DESCRIPTION	QTY.	REF. NO.	PART NUMBER	DESCRIPTION	QTY.
1	625-004-329	Valve, 1/2” Double Check (Optional)	1	12	62501669	Formed Vessel Assembly, 4” EWM-4	1
2	62501652	Valve, 1/2” Ball, PVC	1	13	62502632	Needle Valve 1/4M x 3/8 Comp LF	1
3	625-001-560	10” Filter Housing	1	14	62502622	Presure Gauge, 0-300 PSI Liquid Fill LF	1
4	625-002-392	10” Sediment Filter Cartridge	1	15	62501142	Orfice Plate, #75 EWM-4	1
5	625-004-588	20” Filter Housing	1	16	62501657	Valve, Double Check, 1/4”	1
6	625-005-822	20” Carbon Filter Cartridge	1	17	62501676	Flow Meter, .2-2 GPM (Optional)	2
7	62502627	Pressure Gauge, 0-100 PSI LF	1	18	62501090	Valve, Pressure Relief, 100 PSI	1
8	625-004-206	Valve, Sample Port 1/4”	1	19	62501594	Press Switch, 40-60 PSI	1
9	62501593	Press Switch, 5-10 PSI	1				
10	62501674	Valve, Solenoid 1/2”, 120 VAC	1				
11	62502600	Pump Procon, 240 GPH (4” RO)	1				
	62500484	Motor, 1/2 HP	1				

ELECTRICAL BOX



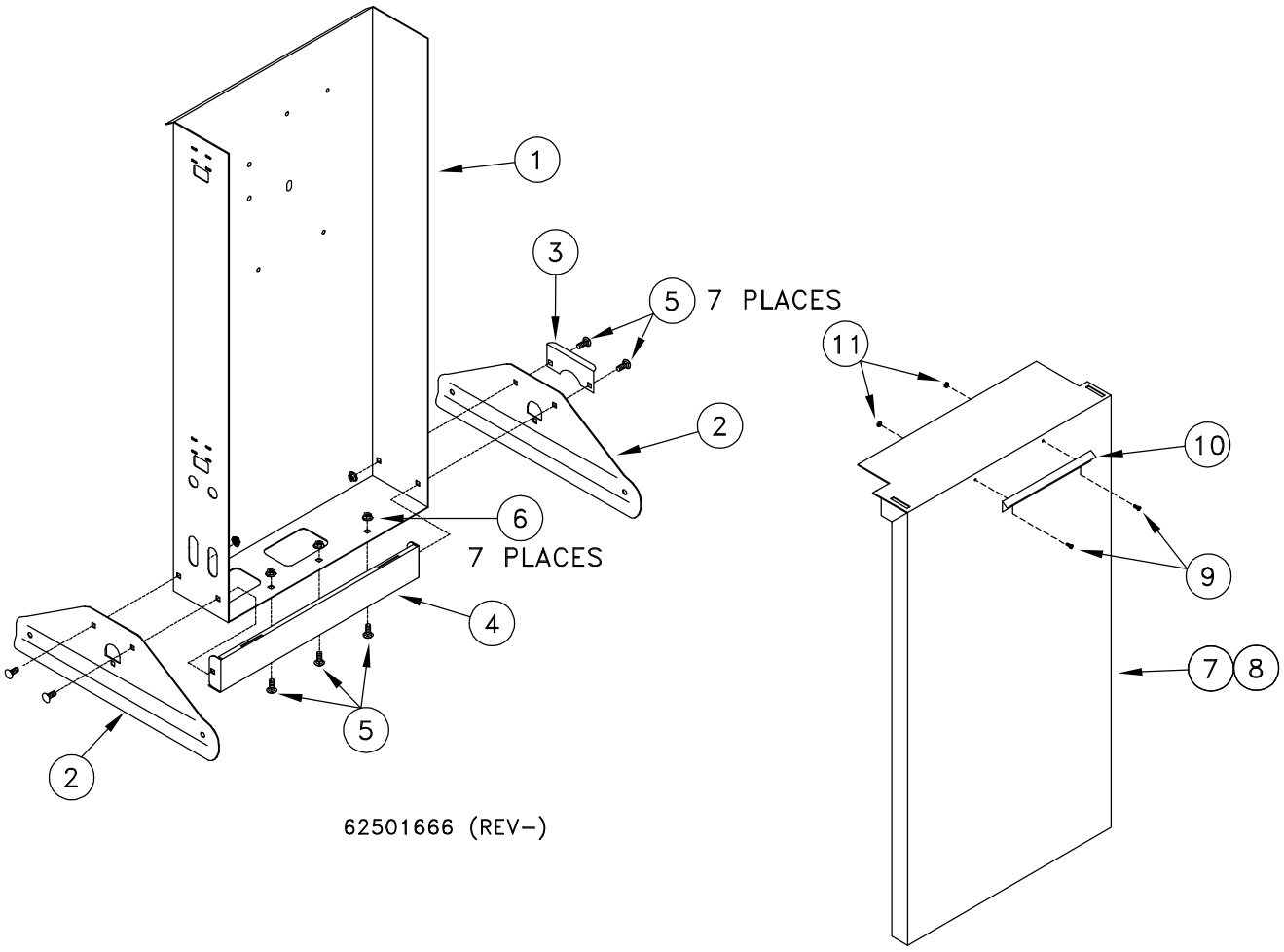
REF. NO.	PART NUMBER	DESCRIPTION	QTY.	REF. NO.	PART NUMBER	DESCRIPTION	QTY.
1	N/A	N/A	N/A	5	625-004-162	Terminal 1/4 Ring	1
2	625-002-278	Terminal, 1/4 F 16-14 AWG	4	6	62502175	GFCI In-line Power Cord	1
3	625-001-264	Spade 16-14 GA INSUL #10 Stud	13	10	950-004-097	Screw, 10-32 x 1/2	1
4	N/A	N/A	N/A	11	625-001-266	Ground Lug	1
				12	62502706	Terminal, Spade 18-22 GA	2

PUMP, EWM-4



REF. NO.	PART NUMBER	DESCRIPTION	QTY.	REF. NO.	PART NUMBER	DESCRIPTION	QTY.
1	62502600	Pump, Procon 240 GPH Lead Free	1	10	62502603	FTG, Nipple 1/2 SS	1
2	62500484	Motor, 1/2 HP	1	11	62500555	FTG, 3/8 T x 1/2 MNPT, JG	1
3	625-001-585	Pump, Coupling, V-Band Clamp 1500	1	12	62502606	FTG, 1/2 Tee SS	1
4	62500488	Pump, Shaft Coupling	1	13	62500496	FTG, 3/8 Plug In Elbow, JG	1
5	950-003-002	5/16-18 x 1/2 Carriage Bolt	4	14	62500522	FTG, 1/2 Stem x 1/2 Barb	2
6	NA	NA	NA	15	625-002-881	Hose Clamp, Stepless .76-.89	2
7	951-002-011	Nut-FL WZLK 5/16-18 SS	4	16	625-001-929	Hose, PVC Braided, 1/2 ID	1.5
8	625-001-672	FTG, 1/2 T x 1/2 MNPT	2	17	62500527	Decal, 125 PSI	1
9	62500556	FTG, 1/2 Plug In Elbow, JG	1	18	62502066	Fastener, Bolt Retainer	4

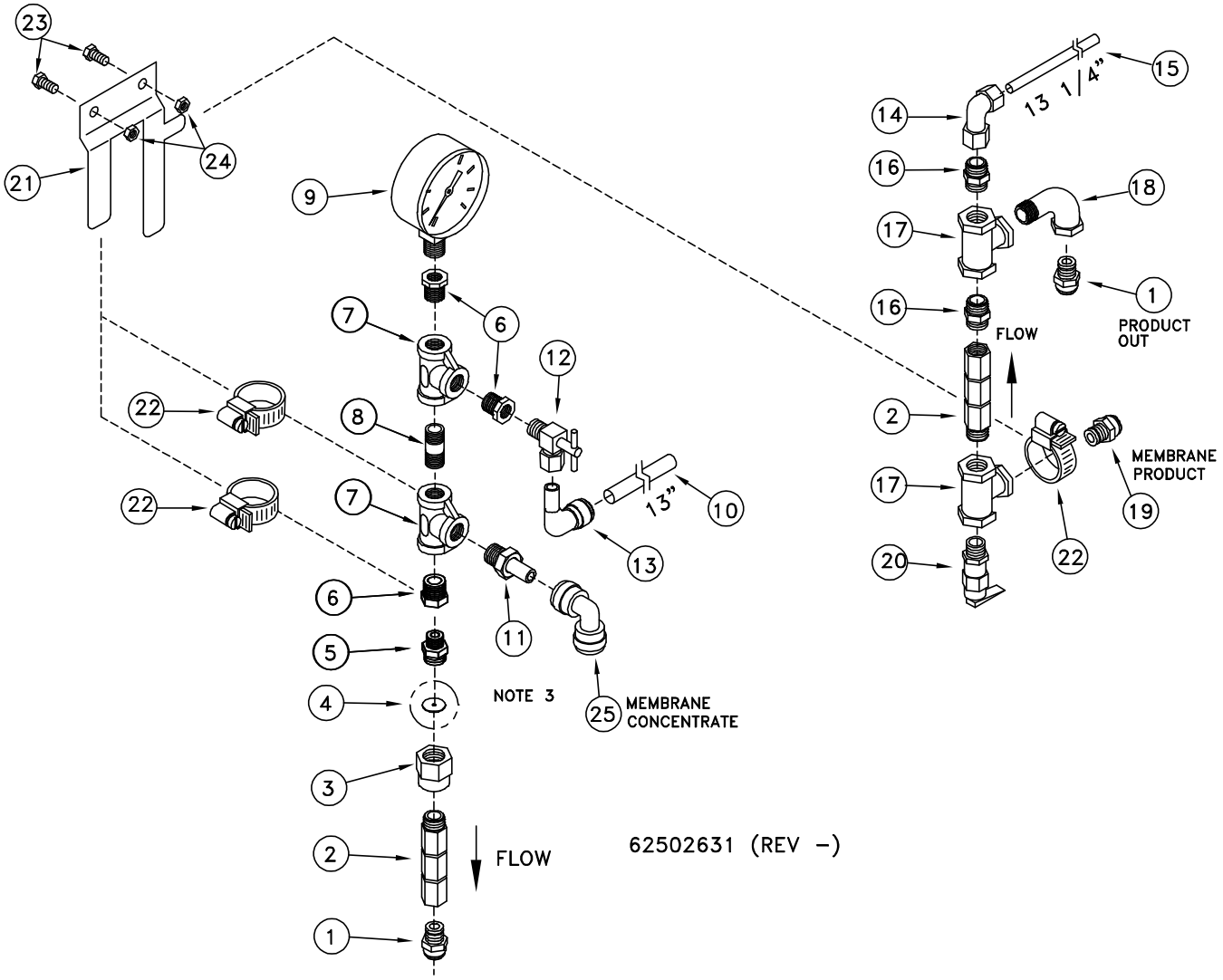
MAIN FRAME



62501666 (REV–)

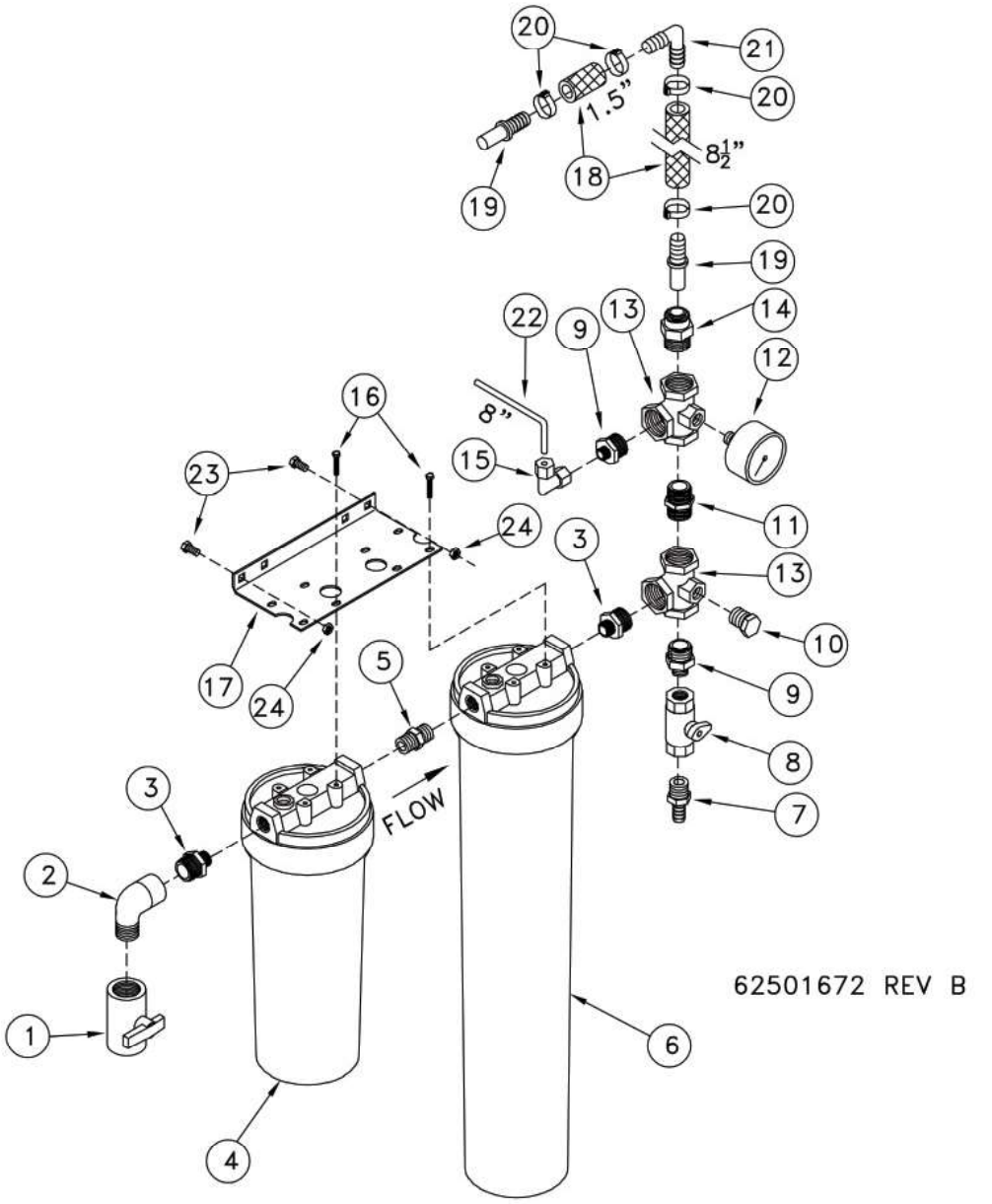
REF. NO.	PART NUMBER	DESCRIPTION	QTY.	REF. NO.	PART NUMBER	DESCRIPTION	QTY.
1	62501658	Frame, EWM	1	7	62501685	Cover Assembly, With Handle	1
2	62501661	Leg, EWM	2	8	62501670	Cover, Without Handle	1
3	62501662	Bracket, Vessel Support	1	9	950-005-031	6-32 x 1/4 Mach Screw, SS	2
4	62501671	Plate, Front EWM	1	10	62501678	Bracket, Handle EWM	1
5	950-003-077	5/16 Carriage Bolt, SS	7	11	951-001-001	Hex Nut, 6-32	2
6	951-002-011	5/16 Whiz Nut SS	7				

PRODUCT/CONCENTRATE MANIFOLD



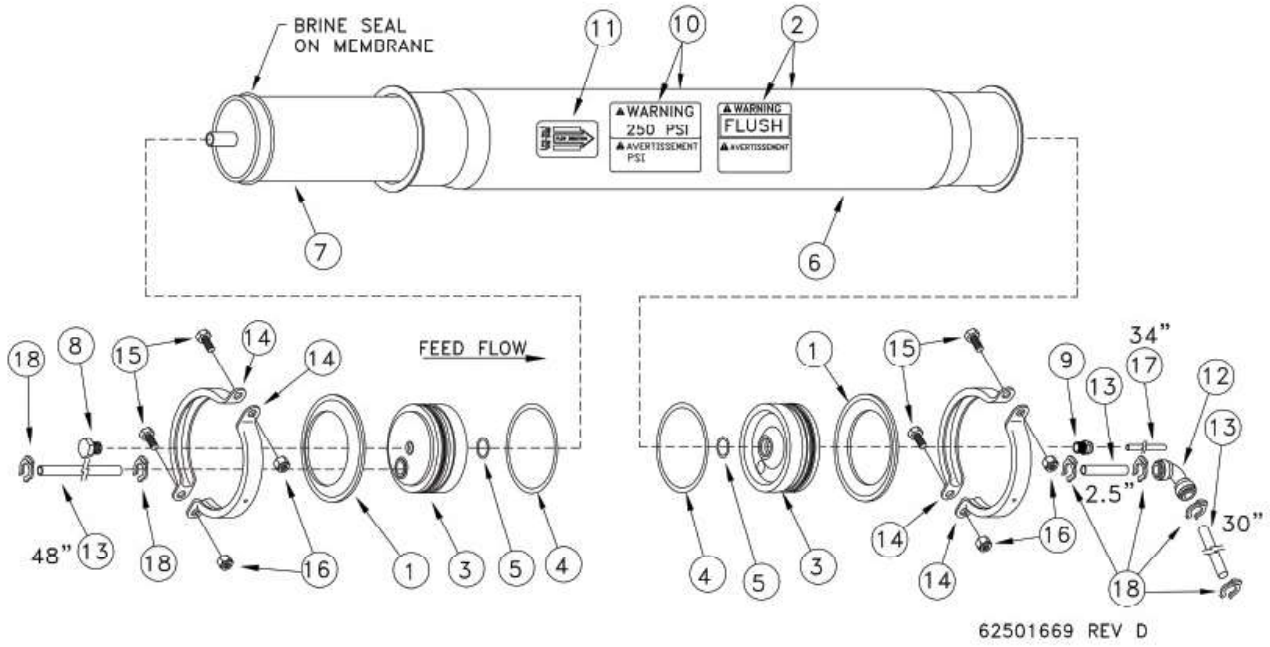
REF. NO.	PART NUMBER	DESCRIPTION	QTY.	REF. NO.	PART NUMBER	DESCRIPTION	QTY.
1	62500493	Ftg, 3/8T x 1/4 MNPT. JG	2	13	62500496	Ftg, 3/8 T x 3/8 Stem Elbow JG	1
2	62501657	Valve, Check Dbl SS, 1/4	2	14	625-001-690	Ftg, 1/8 T x 1/4 FNPT Elbow	1
3	62502617	Adapter, 1/4 FNPT SS	1	15	625-004-583	Tubing, Nylon 1/8 OD, Black	1.2
4	62501142	Orfice Plate #75 (4” Ro)	1	16	625-002-953	Ftg, Nylon Nipple 1/4 x 1/4 MNPT	2
4	625-004-270	Orfice Plate #55 (2.5” Ro)	1	17	625-002-956	Ftg, Nylon Tee 1/4 FNPT	2
5	62502616	Body, 1/4 SS	1	18	625-002-950	Ftg, Nylon Street Elbow 1/4	1
6	62502633	Fitting, 3/8 x 1/4 RB SS	3	19	625-004-944	Ftg, 1/4T x 1/4 MNPT, JG	1
7	62500544	Ftg,Tee, 3/8 SS	2	20	62501090	Valve, Press Relief, 100 PSI	1
8	62502634	Ftg, Nipple 3/8 x 1 1/2 SS	1	21	62501654	Brk, Manifold, CWM SS	1
9	62502622	Pressure Gauge, 0-300 PSI LF	1	22	958-025-010	5/16 Hose Clamp	3
10	625-001-901	Tubing, PE 3/8 OD	1.1	23	950-001-319	1/4-20 x 1/2 HHCS, SS	2
11	62500731	Ftg, 1/2 Stem x 3/8 NPT (4”RO)	1	24	061605	1/4-20 Lock Nut, SS	2
11	625-001-715	Ftg, 3/8 Stem x 3/8 NPT (2.5”RO)	1	25	62500524	Ftg, 1/2 T x 1/2 T Union (4”RO)	1
12	62502632	Valve, 1/4 Needle LF	1	25	625-005-999	Ftg, 3/8 T x 3/8 T Union (2.5”RO)	1

FILTER ASSEMBLY



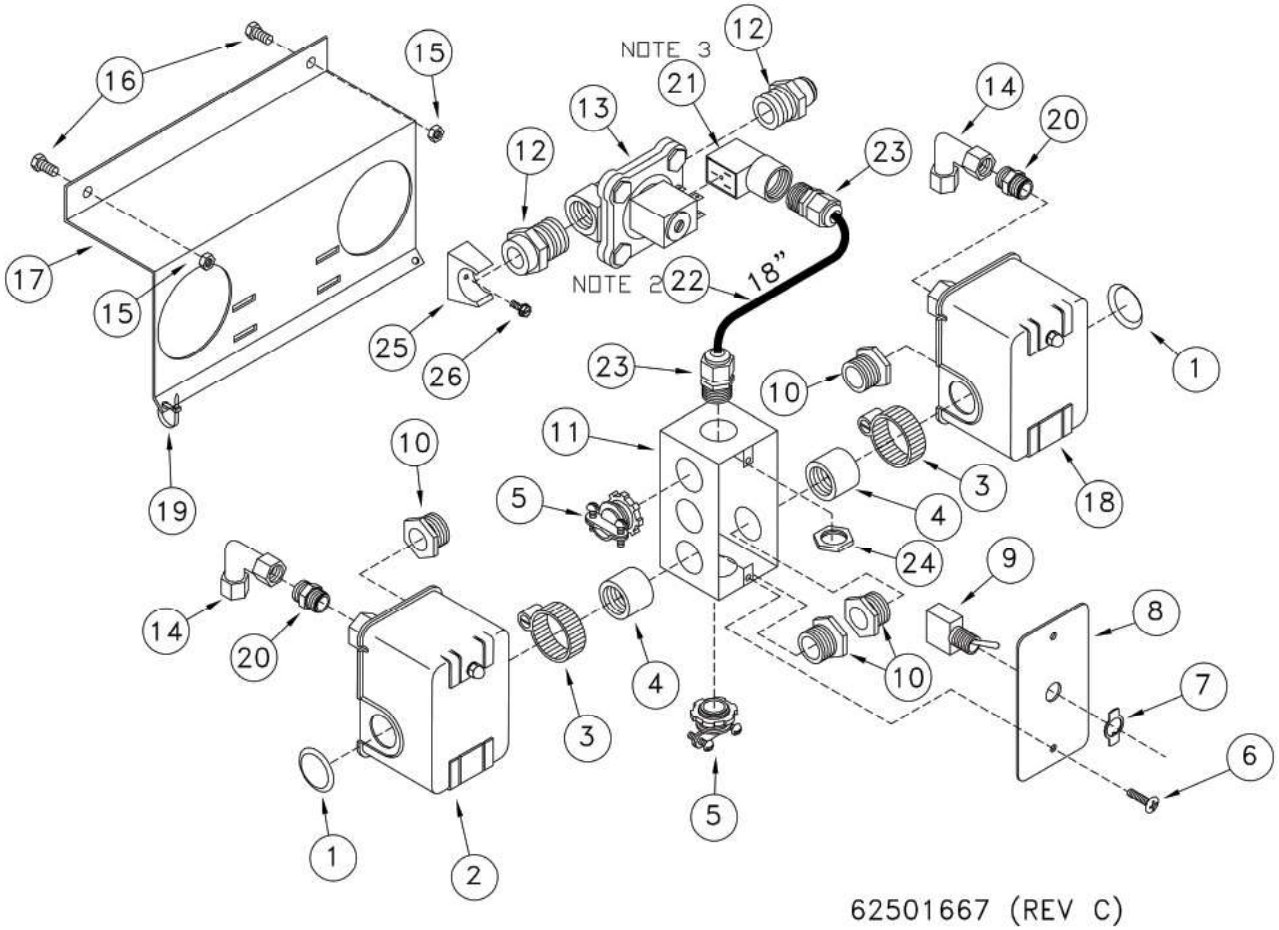
REF. NO.	PART NUMBER	DESCRIPTION	QTY.	REF. NO.	PART NUMBER	DESCRIPTION	QTY.
1	62501652	Ball Valve, 1/2 FNPT PVC	1	13	62501599	FTG, Nylon Gauge Tee, 1/2	1
2	62501655	FTG, Nylon Street Elbow 1/2	1	14	625-001-672	FTG, 1/2 M x 1/2 T, JG	1
3	62501020	FTG, Nylon Nipple, 1/2 x 3/8	2	15	625-001-690	FTG, 1/4 F x 1/8 Elbow Jaco	1
4	625-001-560	10" Filter Housing, Slimline	1	16	950-005-020	#10 x 3/4 Self Tapping	8
5	625-005-935	FTG, Nylon Nipple, 3/8 x 3/8	1	17	625-900-803	BRK, Filter	1
6	625-004-588	20" Filter Housing, Slimline	1	18	625-001-929	Hose, PVC 1/2 ID, Braided	0.9
7	62500412	FTG, Nylon 1/4 M x 3/8 Barb	1	19	62500522	FTG, 1/2 Stem x 1/2 Barb	2
8	625-004-206	Ball Valve, 1/4 FNPT, PVC	1	20	625-002-881	Hose Clamp, Stepless .76-.89	4
9	62501653	FTG, Nylon Nipple, 1/2 x 1/4	2	21	62500439	FTG, Nylon 1/2 x 1/2 Barb	1
10	625-003-236	FTG, 1/4 Plug PVC	1	22	625-004-583	Tubing, Nylon 1/8 O.D.	0.7
11	62501169	FTG, Nylon Nipple 1/2 x 1/2	1	23	950-001-319	1/4-20 x 1/2 Hex Head Cap Screw, SS	2
12	62502627	Pressure Gauge, 0-100 PSI LF	1	24	061605	1/4-20 Lock Nut, SS	2

VESSEL ASSEMBLY EWM-4



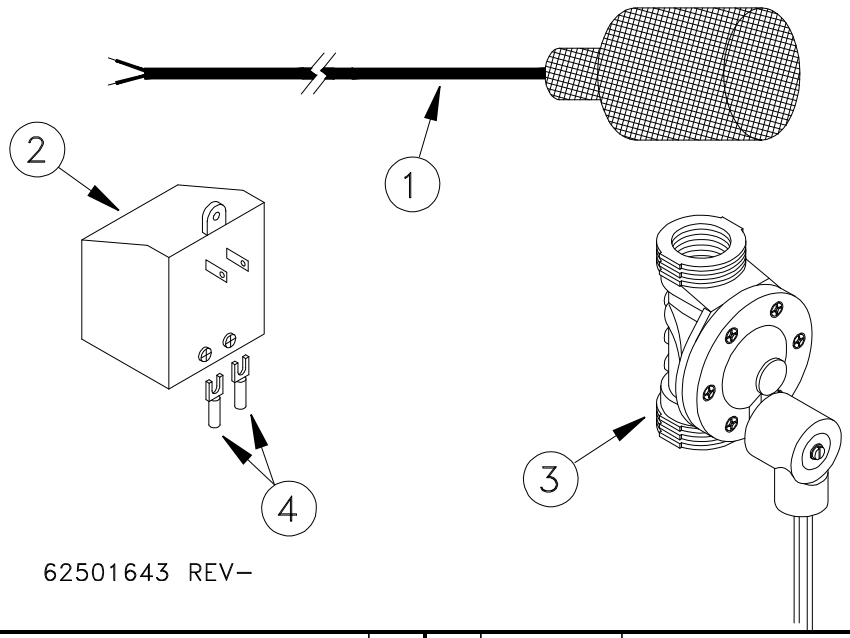
REF. NO.	PART NUMBER	DESCRIPTION	QTY.	REF. NO.	PART NUMBER	DESCRIPTION	QTY.
1	62501497	Ring, End Cap Retainer	2	10	62502956	Decal, Vessel Warning	2
2	62502958	Decal, SBS Flush	2	11	62501209	Decal, Brine Seal Flow Direct	1
3	62501645	Assy, End Cap 4 W/John Guest	2	12	62500524	FTG. 1/2", Union 90	1
4	625-001-506	O-Ring 342 Buna	2	13	62501570	Tubing, 1/2 OD x 3/8 ID BLK Poly.	6.8
5	625-001-502	O-Ring 116 Buna	2	14	62501496	Clamp, Formed Flange	4
6	62501493	Vessel, SS 4"(Includes (1) #10)	1	15	031-09103	Hex Head Cap Screw 3/8-16 x 3/4 SS	4
7	62501113	Membrane, Filmtec XLE 4040	1	16	951-003-013	Lock Nut 3/8-16 SS	4
8	625-003-230	FTG., PVC SCH 80 Plug 3/8	1	17	625-001-903	Tubing, PE 1/4 OD	2.9
9	625-005-940	FTG, CONN 3/8 MPT x 1/4 T	1	18	62501721	Clip 1/2 Lock	6

PRESSURE SWITCH ASSEMBLY



REF. NO.	PART NUMBER	DESCRIPTION	QTY.	REF. NO.	PART NUMBER	DESCRIPTION	QTY.
1	62501577	Plug, 7/8 Plastic CA Plug	2	14	625-001-690	FTG, 1/8T x 1/4 FNPT Elbow	2
2	62501594	Pressure Switch, 40-60 PSI	1	15	061605	Hex Nut, 1/4-20, SS	2
3	601638	Hose Clamp 1 1/2	2	16	950-001-319	Hex Bolt 1/4-20 x 1/2 SS	2
4	62501673	FTG, Conduit Half Coulping	3	17	62501660	Bracket, Press Switch , CWM SS	1
5	625-001-314	FTG, Elec Romex Conn 3/8	2	18	62501593	Press Switch, 5-10 PSI	1
6	031-17561	Mach Screw #6 x 3/4 Pan Head	2	19	625-001-469	Wire Tie	1
7	62501604	Switch Plate On/Off	1	20	625-002-953	FTG, Nylon 1/4 Nipple	2
8	62501600	Plate, Switch Cover	1	21	62502689	Connector, DIN Solenoid	1
9	62501603	Switch, DPST, Toggle 20 Amp	1	22	62502688	Wire, 18/3 Type SVT	1.5
10	62501589	FTG, Conduit Bushed Nipple	4	23	62501453	Strain Relief, 1/2 MNPT	2
11	62501576	Elec Box, Outlet Raco 670SM	1	24	62501454	Locknut, Nylon 1/2 NPT	1
12	625-001-672	FTG, 1/2T x 1/2 MNPT	2	25	62502840	Clamp, Plastic Snap 3/4	1
13	62502736	Valve, 1/2 Solenoid, 120 VAC	1	26	392-010-028	Self Tap 8-32 x 1/2	1

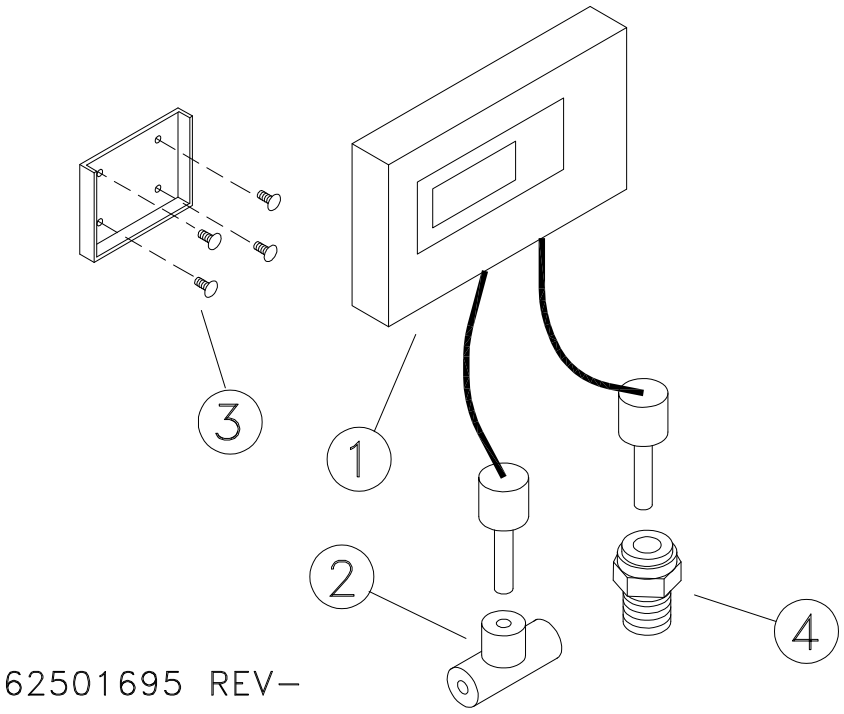
REMOTE PRODUCT SHUTOFF VALVE (OPTIONAL)



62501643 REV–

REF. NO.	PART NUMBER	DESCRIPTION	QTY.	REF. NO.	PART NUMBER	DESCRIPTION	QTY.
–	62501640	Kit, Remote Product Shutoff		3	62501163	Solenoid Valve, 24 VAC	1
1	62501633	Float Switch	1	4	625-001-264	Spade Terminal	2
2	62501636	Transformer, 120/24 VAC	1				

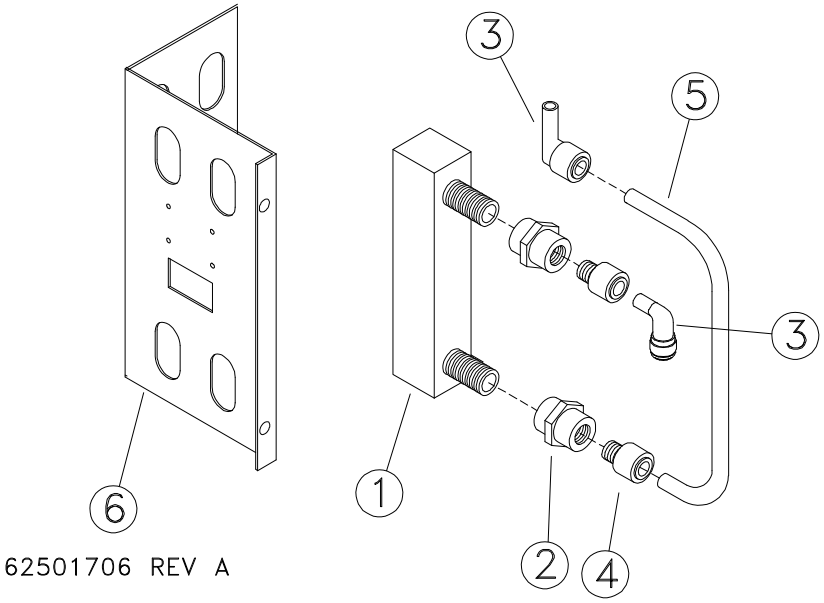
TDS METER (OPTIONAL)



62501695 REV–

REF. NO.	PART NUMBER	DESCRIPTION	QTY.	REF. NO.	PART NUMBER	DESCRIPTION	QTY.
1	62501635	TDS METER, DUAL PROBE	1	3	061025	#6-32 X 3/8 Self Tap Screw	4
2	625-004-942	UNION TEE, 1/4	2	4	62501709	FTG, Drilled 1/4T x 1/4M	4

FLOWMETER (OPTION)



62501706 REV A

REF. NO.	PART NUMBER	DESCRIPTION	QTY.	REF. NO.	PART NUMBER	DESCRIPTION	QTY.
1	62501676	Flowmeter, .2-2 gpm	2	4	625-005-949	FTG, 3/8T x 3/8 M	4
2	62501731	FTG, Nylon Reducer Coupling 1/2 x 3/8	4	5	625-001-901	Tubing, 3/8 OD PE	2.5
3	62500496	FTG, Plug in Elbow, 3/8	1	6	62501659	Mounting Bracket (Optional)	1

LOCATION: **LOG SHEET**

DATE					
HOUR METER (hrs)					
TDS FEED (ppm)					
TDS R/O (ppm)					
FILTER PRESSURE IN (PSI)					
FILTER PRESSURE OUT (PSI)					
MEMBRANE PRESSURE OUT (PSI)					
WATER METER READING					
UV INTENSITY					
CHLORINE LEVEL					
TEMPERATURE ^{O}F					
PRODUCT FLOW (GPM)					
CONCENTRATE FLOW (GPM)					

MACHINE MAINTENANCE (check when serviced)

SEDIMENT FILTER					
SALT TANK LEVEL (water softener pretreatment)					
EXTERNAL (Optinal) CARBON TANK CHANGED (gal.)					
UV LIGHT CHANGED (Optional)					
OPERATOR INITIALS					

COSTER ENGINEERING WARRANTY

The only warranty Coster Engineering gives is as follows:

Coster Engineering warrants each product it manufactures to be in accordance with our published specifications or those specifications agreed to by us in writing at time of sale. Our obligation and liability under this warranty is expressly limited to repairing or replacing, at our option, within one year from the date of shipment, to the original purchaser, any product not meeting the specification. **WE MAKE NO OTHER WARRANTY, EXPRESS OR IMPLIED AND MAKE NO WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR ANY PARTICULAR PURPOSE.** Our obligation under this warranty shall not include any costs or any liability for direct, indirect or consequential damage or delay. If requested by Coster Engineering, products or parts for which a warranty claim is made are to be returned freight prepaid to our factory. Any improper use, operation beyond rated capacity, substitution of parts not approved by Coster Engineering, or any alteration or repair by others in such manner as in our judgment affects the product materially and adversely shall void this warranty. **NO EMPLOYEE OR REPRESENTATIVE IS AUTHORIZED TO CHANGE THIS WARRANTY IN ANY WAY OR GRANT ANY OTHER WARRANTY.**

Coster Engineering reserves the right to make improvement changes, alter features, specifications, options and standard equipment on any of our products without notice and incurrence of obligation on prior manufactured machines.

WARRANTY DOES NOT APPLY to depreciation, parts replacement, maintenance, damage and service necessitated by **NORMAL WEAR**, misuse, lack of proper maintenance, accident, negligence or failure to follow specified operational instructions. Products not covered include, but are not limited to: filters, lamps, reverse osmosis membranes, and deionization resin which normally require perodic replacement or regeneration.

Products not manufactured by Coster Engineering may or may not be covered under warranties supplied by the original manufacture and shall be subject to their warranty limitations.

Repair or replacement of a product does not extend the original warranty.

No reimbursement will be made for labor for repair of any kind without prior authorization from Coster Engineering.

A DELIVERY REPORT FORM must be completed and received by Coster Engineering to initiate the warranty coverage.

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